National Aeronautics and
Space Administration

Office of Inspector General
Washington, DC 20546-0001

NOV 15 2007

TO: Administrator
Chief Financial Officer

FROM: Inspector General

SUBJECT: Audit of the National Aeronautics and Space Administration's Fiscal Year 2007 Financial Statements (Report No. IG-08-001)

Under the Chief Financial Officers Act of 1990, NASA's financial statements are to be audited in accordance with generally accepted government auditing standards. The Office of Inspector General contracted with the independent certified public accounting firm Ernst & Young LLP (E&Y) to audit NASA's financial statements in accordance with *Government Auditing Standards* and Office of Management and Budget's Bulletin No. 07-04*, Audit Requirements for Federal Financial Statements.*

In the *Report of Independent Auditors* (Enclosure 1), E&Y disclaimed an opinion on NASA's financial statements for the fiscal years ended September 30, 2007 and 2006. The disclaimer resulted from NASA's inability to provide E&Y auditable financial statements and sufficient evidence to support the financial statements throughout the fiscal year and at year-end.

The E&Y *Report on Internal Control* (Enclosure 2) includes two significant deficiencies, which are considered to be material weaknesses. Material weaknesses were found in NASA's controls for (1) financial systems, analyses, and oversight used to prepare the financial statements, and (2) assuring that property, plant, and equipment and materials are presented fairly in the financial statements. These material weaknesses have been reported for several years.

The E&Y *Report on Compliance with Laws and Regulations* (Enclosure 3) identifies several instances in which NASA's financial management systems did not substantially comply with the requirements of the Federal Financial Management Improvement Act of 1996 (FFMIA). For example, the report notes that certain subsidiary systems, including property, are not integrated with the Core Financial module and are not complemented by sufficient manual preventative and detect type controls.

NASA made progress in improving its internal controls, including resolving its fund balance with Treasury imbalances; redesigning its approach and supporting processes for implementing the requirements of the Improper Payments Information Act of 2002; developing interim tools and reports for analyzing financial statement accounts, to include aging reports; and implementing requirements for analysis of monthly comparative financial statements by NASA Centers. However, NASA management and E&Y continued to identify weaknesses in Agency-wide internal controls, which impaired NASA's ability to report accurate financial information on a timely basis.

In FY 2007, NASA prepared a corrective action plan to address the material weaknesses and recommendations noted in the FY 2006 financial statement audit report. NASA should update that corrective action plan to address the findings detailed in the enclosed reports and to address material weaknesses identified in the Administrator's Statement of Assurance. That plan must be detailed enough to ensure successful implementation with desired results. In addition, NASA must continue to

- ensure that the Office of the Chief Financial Officer is staffed with properly trained personnel who can address the Agency's financial management and accountability challenges;

- ensure that accounting practices are consistent with applicable standards and are consistently applied;

- establish internal controls that provide reasonable assurance that the financial statements are supported, complete, and accurate; and

- implement recommendations made in E&Y's *Report on Internal Control*, as well as those made by our office and the Government Accountability Office.

E&Y is responsible for each of the enclosed reports and the conclusions expressed therein. Accordingly, we do not express an opinion on NASA's financial statements, internal controls over financial reporting, or compliance with certain laws and regulations, including, but not limited to, FFMIA.

In fulfilling our responsibilities under the Chief Financial Officers Act of 1990, we provided oversight and technical support. We monitored the progress of E&Y's audit, reviewed reports submitted by E&Y, and ensured that E&Y met contractual requirements.

signed

Robert W. Cobb

3 Enclosures

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Report of Independent Auditors

To the Administrator and the Office of Inspector General
of the National Aeronautics and Space Administration

We were engaged to audit the accompanying consolidated balance sheets of the National Aeronautics and Space Administration (NASA) as of September 30, 2007 and 2006, and the related consolidated statements of net cost, and changes in net position and combined statements of budgetary resources for the fiscal years then ended. These financial statements are the responsibility of NASA's management.

During fiscal year (FY) 2003, NASA implemented an Integrated Financial Management Program (IFMP) system (now referred to as the Integrated Enterprise Management Program [IEMP] system), specifically the Core Financial Module. NASA's management identified significant errors beginning with its September 30, 2003 financial statements resulting from the implementation of IEMP. During FY 2004 through FY 2007, NASA's management continued to make progress in overcoming certain weaknesses it had identified in its financial management processes and systems. In FY 2007, NASA implemented a system upgrade to resolve certain system configuration issues, updated and implemented new policies and procedures in its financial management processes, and performed research and resolved certain data issues that had plagued the integrity of the financial management system since 2003. Although significant progress had been made, many improvements were either completed during the final quarter of FY 2007 or are ongoing. Additionally, NASA management and our work continue to identify issues related to internal control and retention of documentation related to its property accounting. As a result of these limitations, we were unable to obtain sufficient evidential support for the amounts presented in the consolidated balance sheets as of September 30, 2007 and 2006, and the related consolidated statements of net costs, and changes in net position and combined statements of budgetary resources for the fiscal years then ended.

Because of the matters discussed in the preceding paragraph, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the consolidated balance sheets as of September 30, 2007 and 2006, and the related consolidated statements of net cost, statements of changes in net position, and combined statements of budgetary resources for the fiscal years then ended.

In its preparation and analysis of its September 30, 2007 and 2006 financial statements, NASA identified certain configuration and data integrity issues and errors in balances reported on its financial statements. The notes to the financial statements describe certain potential departures from accounting principles generally accepted in the United States of America in NASA's FY 2007 and FY 2006 financial statements.

As further discussed in the notes to the financial statements, pursuant to guidance issued by the Office of Management and Budget (OMB), certain information reconciling the net costs of operations to budgetary obligations, which was previously reported in a consolidated statement of financing for the fiscal year ended September 30, 2006, has been presented in the notes to the financial statements, along with the corresponding amounts for the fiscal year ended September 30, 2007. Additionally, as discussed in Note 1 to the financial statements, in FY 2007 NASA changed its accounting policy for Property, Plant, and Equipment (PP&E) to reclassify $12.7 billion of general PP&E to research and development expenses.

The information presented in the Management's Discussion and Analysis (MD&A)—the Required Supplementary Stewardship Information and the Required Supplementary Information—is not a required part of the NASA's financial statements, but is considered supplementary information required by OMB Circular A-136, *Financial Reporting Requirements*. Such information has not been subjected to auditing procedures, and accordingly, we express no opinion on it. We were unable to apply to the information certain procedures prescribed by professional standards within the time frames established by OMB because of the limitations on the scope of our audit of the financial statements discussed above.

In accordance with *Government Auditing Standards* and OMB Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*, we have also issued our reports dated November 13, 2007, on our consideration of NASA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, and other matters. The purpose of those reports is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. Those reports are an integral part of an audit performed in accordance with *Government Auditing Standards* and OMB Bulletin No. 07-04 and should be considered in assessing the results of our work.

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November 13, 2007
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Report on Internal Control

To the Administrator and the Office of Inspector General
of the National Aeronautics and Space Administration

We were engaged to audit the financial statements of the National Aeronautics and Space Administration (NASA or the Agency) as of and for the year ended September 30, 2007, and have issued our report thereon dated November 13, 2007. The report states that because of the matters discussed therein, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the consolidated balance sheet as of September 30, 2007, and the related consolidated statements of net costs and changes in net position and combined statement of budgetary resources for the fiscal year then ended.

In planning and performing our audit, we considered NASA's internal control over financial reporting as a basis for developing our auditing procedures for the purpose of expressing our opinion on the financial statements, which we were ultimately not able to do, and not for the purpose of expressing an opinion on the effectiveness of NASA's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of NASA's internal control over financial reporting. We limited our internal control testing to those controls necessary to achieve the objectives described in Office of Management and Budget (OMB) Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*. We did not test all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act of 1982 (FMFIA), such as those controls relevant to ensuring efficient operations.

In addition, with respect to NASA's internal control over Required Supplementary Stewardship Information and performance measures reported in the Management Discussion and Analysis (MD&A), we were unable to apply certain procedures prescribed by OMB Bulletin No. 07-04 because of the limitations on the scope of the audit of the financial statements, as discussed in our Report of Independent Auditors, dated November 13, 2007. Further, we did not audit and do not express an opinion on such controls.

Our consideration of internal control over financial reporting was for the limited purposes described in the preceding paragraphs and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles (GAAP) such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control. We consider the deficiencies described below to be significant deficiencies in internal control over financial reporting.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control. Our consideration of the internal control over financial reporting was for the limited purpose described above and would not necessarily identify all deficiencies in the internal control that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, we consider both matters noted—Financial Systems, Analyses, and Oversight; and Enhancements Needed for Controls over Property, Plant, and Equipment (PP&E) and Materials—to be material weaknesses.

MATERIAL WEAKNESSES

Financial Systems, Analyses, and Oversight (Modified Repeat Condition)

<u>Overview</u>

In fiscal year (FY) 2002, NASA initiated an agency-wide effort to improve its financial management by providing a single integrated suite of financial, project, contract, and human capital tools and by implementing improved internal control processes to help manage NASA's programs and prepare financial information on a timely basis consistent with evolving OMB guidance. As part of that process, in FY 2003, NASA implemented its Integrated Enterprise Management Program (IEMP) system, specifically the Core Financial Module. This conversion effort necessitated complex data cleanup and reprogramming due to system configuration anomalies.

Beginning with its September 30, 2003, financial statements, NASA's management identified significant issues resulting from the implementation of the IEMP system. In the years that followed, NASA has reorganized its financial management structure, implemented new processes, upgraded its system, developed new guidance, and provided training to its personnel to address these issues. For example, in FY 2007, NASA management indicated that progress had been made in several areas, including:

- <u>Core Financial Systems Improvements</u>—NASA implemented a major system update release with the start of the fiscal year to overcome certain issues identified with the Core Financial Module. The Agency is currently preparing for an additional system update planned for the end of the fiscal year.

- Fund Balance with Treasury—NASA completed its efforts in resolving its fund balance with Treasury imbalance. Our review of the fund balance with Treasury reconciliations noted that reconciliations were performed effectively with timely resolution of current differences.

- Data Integrity Resolution Efforts—During FY 2007, NASA continued to research and resolve certain data integrity issues dating back to 2003. These "clean-up" efforts occurred throughout the year, and included adjustments to data from prior periods.

- Implementation of Improper Payments Information Act Requirements—NASA has redesigned its approach and supporting processes for implementing the requirements of the Improper Payments Information Act to more fully comply with all elements of the Act. The changes included a risk assessment that calls for reviewing payments by project rather than by contract and clarifying the criteria that constitute an improper payment.

- New Tools and Reports—NASA developed interim tools and reports for Aging and Monitoring Analysis of Undelivered Orders, Accounts Receivable, Accounts Payable, and Intra-NASA Trading Partner reconciliations. Specifically, NASA expanded the financial management metric set to include the additional reports, developed in-depth trend data to support analysis, performed in-depth metrics analysis and communicated anomalies or issues to NASA Centers (Centers) for correction, automated 16 standard reports, and updated performance metric definitions to reflect changes and updates.

- Implemented Monthly Financial Statements and Analysis—NASA implemented comparative financial reporting and analysis for all NASA Centers. The NASA Centers review their financial statements and provide explanations for variances from prior periods.

- Enhanced Monitoring and Controls—NASA enhanced monthly monitoring and control procedures by establishing and implementing enhanced reconciliation and monitoring procedures for the Centers. These include redefining the Center Chief Financial Officer (CFO) signature certification and adding a Center Deputy CFO signature review of the financial results, an explanation of impacts and the anticipated date of corrective action. Although still noting issues, we found that progress had been made in its entity-wide monitoring controls.

- Accelerated Review of Monthly Financial Data—NASA implemented the critical path for accelerated reporting of specific monitoring review areas by the 12th workday of the following month. These review areas include: fund balance with Treasury, budget, property, financial analysis, accounts receivables, accounts payables, intra-governmental, and flux analysis.

- Improved Center-to-Center Reconciliations—NASA instituted a process to reconcile and resolve differences with transactions between NASA Centers.

- Completed Employee Receivables Review—NASA completed a review of employee receivables to determine the root causes and potential solutions to reducing outstanding employee receivables and minimizing creation of new employee receivables. Based on the results of NASA's corrective actions, we noted progress in the accounting for and reporting of accounts receivable.

- Updated Financial Management Policies—NASA published updated guidance in its Financial Management Requirements (FMR) in the following areas: Accounts Receivable, Environmental Liabilities, PP&E, Labor Distribution, Budgeting, Travel, and Journal Voucher Preparation and Approval.
- Completed Reorganization Plan for Headquarters Office of the Chief Financial Officer (OCFO)—The plan identifies staffing shortages (within headcount guidelines) and provides NASA with the information needed to continue the Headquarters' hiring strategy.
- Established Budget Execution Performance Goals and Analysis—NASA developed goals for monthly obligations and costs that permit Agency leadership to evaluate how well the Agency is executing its budget throughout the fiscal year. Additionally, NASA developed and implemented monthly analyses to determine how well NASA is executing against its established budgets.

However, through the end of FY 2007, NASA management's review and the results of our audit procedures continued to identify weaknesses in entity-wide internal control, which impaired NASA's ability to report accurate financial information on a timely basis. In many cases the progress noted above and related processes continued to be developed in FY 2007 and will require additional refinements in FY 2008.

Routine Reconciliation, Analyses, and Oversight Processes

During FY 2007, NASA implemented significant improvements in its reconciliation, analyses, and oversight processes. We noted that many of the improvements were not implemented until late in the year and management has indicated that other actions will not be completed until FY 2008. As this progress is institutionalized and the functioning of these processes mature, the effects of these improvements hold promise in helping provide NASA the ability to report accurate financial information in a timely fashion.

Financial Statement Preparation Processes

Our review of NASA's financial statement preparation process identified certain issues impacting NASA's ability to effectively accumulate, assemble, and analyze information to timely develop its financial statements on a routine and recurring basis. Currently, although processes continue to be improved, data integrity issues and evolving account reconciliation, periodic analysis, and financial statement closing processes continue to provide challenges in the timely development of auditable financial statements. The following represent issues identified during the financial statement preparation process:

- Accelerated Financial Reporting—The requirement that each agency submit its Agency Financial Report (AFR) by November 15 has created challenges for all agencies. The completed AFR for NASA was not available until October 30, 2007, which did not provide sufficient time to meet deadlines for completion of the audit, review, and submission processes. Many agencies have accelerated their AFR process by providing data to be included in the MD&A and other information as of an earlier date, and holding only very limited sections open for updates of information. Further, for both interim and year-end financial statements, certain analyses were not performed by Headquarters OCFO until after the financial statements were submitted for audit purposes, suggesting that review processes may not be fully effective.

- Accounting For Intra-governmental Reporting—For the third quarter financial statements, NASA had attempted to confirm but was unable to reconcile all of its intra-governmental balances with its trading partners. Our review of the Treasury difference report identified over $700 million for which NASA could not substantiate the reasons for differences with its trading partners.

- Quarterly Fluctuation Analyses—Although NASA had indicated that it performed, and upper management had reviewed, its quarterly fluctuation analyses of its financial information to identify unusual balances, our review of NASA's analysis of its September 30, 2007 financial statements identified inconsistencies, which required further explanation.

- Financial Statement Accrual Processes—We noted that adequate documentation to support certain transactions or disclosures were not readily available. Our testing of transactions and disclosures identified several items where we did not receive sufficient information to determine if the transaction was valid or the disclosure was appropriately supported. For example, NASA could not provide documentation to support its assertion that certain accruals were either not necessary to be recorded in its financial statements or accruals that were recorded as of September 30, 2007, could be substantiated. For example, during the fourth quarter, NASA management asserted that a grant accrual was unnecessary due to immateriality even though conflicting information from its grant processor indicated that the amount could be material. Management developed a paper explaining its view; however, it had not resolved issues with its grant processor as of October 30, 2007. Additionally, as part of the explanation, management indicated that grantees had accelerated their billings, drawing down funds for the month of September no later than September 15, 2007; however, we were unable to assess the effectiveness of this process, and whether grantees and contractors accelerated all billings for services rendered through September 30. To the extent such processes are not consistent with Federal Acquisition Regulations (FAR) or cost principles associated with execution of grants, it is possible that grantees and contractors would not have advance billed NASA for services that they would normally have drawn down funds for, or invoiced for in late October or November. Depending on the results seen by NASA in the beginning of FY 2008 through a review of subsequent grantee reports of expenditures, it may be possible to modify this approach to incorporate an estimate for any remaining necessary accrual.

Recommendation

We recommend that NASA continue to develop and refine its financial management systems and processes to improve its financial statement preparation process. Specifically, we recommend that NASA:

1. Continue to improve its financial reporting and internal quality review procedures to reasonably assure that information presented in the interim financial statements and Agency Financial Report are accurate, fully supported, and completed timely and consistent with the requirements of OMB Circular A-136, *Financial Reporting Requirements*, including rigorous use of checklists and enhanced supervisory review processes. Additionally, data analysis efforts should be completed earlier in the year to ensure year-end financial statement processes are expedited allowing sufficient time for reviews by upper management of the financial statements and supporting documentation. Mock runs of the complete year end financial statement preparation process during the third quarter are suggested to ensure processes, including the development and a historical "look-back" of accruals, are in place, documentation is available, and personnel are aware of their responsibilities to meet OMB deadlines.

2. Continue to enhance its procedures related to confirming intra-governmental balances with its trading partners so that significant differences identified through the Treasury quarterly process do not exist. NASA should be proactive when confirming transactions and balances with non-responsive trading partners. Working with OMB is necessary to get differences resolved timely.

3. Strive to stabilize data in its Core Financial Module, making sure that significant non-routine adjustments, related to data integrity, are not required especially during the last two quarters of FY 2008 and going forward. Additionally, NASA should continue to validate its data; and when issues are identified, complete service requests related to data integrity and configuration and design issues timely.

4. Continue to devise short-term and long-term resolutions to systematic and integration issues that complicate use of the IEMP. NASA should continue to assess whether systems used to prepare the financial statements have been sufficiently tested prior to year-end reporting dates.

5. Continue to focus on filling vacancies within the financial management organization to enhance overall performance and develop a core team of highly qualified individuals with experience in NASA's financial management processes.

6. Continue to offer updated guidance and training to personnel to ensure specific guidelines are documented as to the source of data to support the periodic monitoring submissions and the financial statements, required follow-up with timetables, and documentation retention policies. Further, training should be provided to Center and Headquarters personnel to ensure a complete understanding of the financial management system and reports that are available to perform certain tasks.

Periodic Monitoring Package Submission

As reported in FY 2006, NASA management has developed an entity-wide structure for routine reconciliation, analyses, and oversight processes. The periodic monitoring package, a monthly process performed at the Centers and forwarded to Headquarters, is designed to identify issues impacting the integrity of the Centers' financial management information and provides a means for communication and tracking of the issues centrally within the Headquarters OCFO. Each analysis is required to include a coversheet depicting the preparer's and reviewer's sign off, whether exceptions exist, and what the exceptions are.

Throughout FY 2007, NASA management continued to refine its process by accelerating certain steps to support its financial statement preparation process, issuing more detailed guidance and providing more training to personnel in the Centers to ensure consistency within NASA. Our review of these submissions and the related support maintained at the Centers identified progress at the Centers in identifying issues, including system configuration concerns, continuing data integrity issues—dating back prior to the system conversion in 2003, and other issues requiring immediate attention by NASA management. However, our review of these packages also identified certain weaknesses in processes that could impair NASA's ability to correct material errors in a timely fashion and report reliable information in its financial statements. Specific concerns are as follows:

- Inconsistency in Summaries and Supporting Documentation—During our review of the high level summaries attached to each monitoring package, we noted that in certain cases, although the summary would indicate no exceptions, the supporting documentation would either identify exceptions that were not reported to Headquarters or the Center had not completed the step by the time the submission was forwarded to Headquarters. For example, we noted one Center had not completed its fund balance with Treasury reconciliation, but still reported no exceptions.
- Untimely Resolution of Issues—We noted certain issues within the Centers' submissions that had been identified for several months but had not been resolved in a timely fashion. Per discussions with Center management, in most cases, the issues had been forwarded to Headquarters either with a service request or the need for Headquarters guidance, but the Center was awaiting guidance. NASA Headquarters management indicated that many of the issues are currently being tracked through service requests and expected resolution to occur in the coming months.
- Lack of Approval Sign-Off—In certain cases, we noted that appropriate reviewer sign off was not included in the documentation provided by the Center.
- Insufficient Quality Control Procedures—During FY 2007, we noted that although updated guidance was issued and training had taken place for Center personnel, Headquarters management had not implemented a routine process to perform a quality review of the procedures performed. Management has indicated that this process supports many of the adjustments recorded during the financial statement preparation process; therefore, the quality of the process is critically important.

- <u>Lack of Noted Corrective Actions for Issues Noted</u>—In many cases, we noted that a corrective action to resolve exceptions was not included on the summary. These corrective actions should include the name of the individual who would be responsible for ensuring resolution, the actions to be taken, and an estimate of time expected in resolving the issue. During FY 2007, NASA management implemented enhanced procedures to include corrective actions on its summaries.
- <u>Further Guidance Needed</u>—During our review of the June and September 2007 periodic monitoring packages submitted by the Centers, we noted continued confusion on how certain procedures should be performed. For example, we noted a Center had not performed a step and indicated that the step should be performed by Headquarters. Another Center indicated that it either could not perform certain steps due to lack of access to needed reports or lack of guidance by Headquarters. A third Center indicated that a report required by guidance from Headquarters could not be used due to data integrity issues.

Recommendation

We recommend that NASA Headquarters and Center OCFOs:

1. Continue to strengthen controls related to its entity-wide structure for account reconciliation, analyses, and oversight by providing more in-depth, on-site quality reviews of Center and Headquarters financial functions, provide further guidance and training of new policies and procedures, periodically requesting the supporting documentation to compare to the results communicated, and improve communication so that issues may be resolved in a more timely manner.
2. Continue to offer updated guidance and training to personnel to ensure specific guidelines are documented as to the source of data to support the periodic monitoring submissions and the financial statements, required follow-up with timetables, and documentation retention policies. Further, training should be provided to Center and Headquarters personnel to ensure a complete understanding of the financial management system and reports that are available to perform certain tasks.

<u>Efforts Needed to Resolve Data Integrity Concerns</u>

During FY 2007, NASA continued to address its data integrity issues through “cleanup efforts” that took place throughout the year and as part of the FY 2007 financial statement closing process. Many of these efforts related to issues dating back as early as 2002. Although much progress was seen during FY 2007, our testing and NASA management continues to identify similar issues. Specific concerns noted include the following:

- <u>Ongoing Data Integrity Efforts</u>—NASA management was unable to complete its efforts to resolve certain data integrity efforts and stabilize its systems prior to the fourth quarter. For example, we were informed on October 25, 2007, that an additional prior period adjustment was identified and required a restatement of $139 million related to property balances. Throughout FY 2007 and as part of its annual financial statement process, NASA management recorded thousands of entries to resolve data integrity issues within its financial statements. We were unable to gain sufficient assurance through our testing that controls were in place throughout the year, that "cleanup" of significant data issues was completed, and that balances at September 30, 2007 were fairly stated.

- <u>Enhanced Internal Control Needed for Non-routine Journal Entries</u>—During FY 2007, NASA management recorded thousands of non-routine entries totaling more than several hundred billion dollars at the Centers, the Competency Center, and at the Headquarters OCFO. Many of these entries related to efforts to resolve data integrity issues—some required entries between proprietary, budgetary, and memorandum accounts; correction of errors and mistakes of previously posted entries; or performance of adjusting entries related to the financial statement preparation process. During our review of the non-routine entries, we noted no formal policies and procedures were available. Additionally, we noted that documentation was not always available to support the purpose of the entries, the cause, and at what level the entry was approved. Finally, we noted that enhanced monitoring by the Headquarters OCFO is needed to ensure that journal entry activity is properly approved and appropriate. For example:

  - We noted several instances where entries were being performed at the Center level, and Headquarters OCFO subsequently noted errors in the entries requiring adjusting entries during the quarterly close process. In one case, we noted one Center had recorded an entry that posted the debit to the budgetary trial balance and the credit to the proprietary trial balance. Headquarters OCFO identified the mistake through its quarterly analytical tools and corrected it. The entry should have been disapproved at the approval point or through a system edit, since split entries between budgetary and proprietary are not proper.

  - Another example related to postings of thousands of entries to resolve issues related to closed appropriations that were recorded as part of management's data integrity cleanup efforts. NASA management was unable to readily provide documentation to support the journal entries, as it was not compiled until after we had asked for it.

  - Additionally, when we inquired about certain non-routine entries identified in NASA's financial system, Headquarters OCFO could not locate the entries within the system nor provide documentation to support the purpose of the entries. Headquarters OCFO was unable to locate the entries within the system that were identified as part of our journal entry analysis, but NASA's Competency Center was able to access the entries.

  - Finally, we noted that certain entries recorded through the quarterly financial statement preparation process were not fully supported by the Centers' periodic monitoring controls process. Although the Center performs research to identify issues during the monthly periodic monitoring process and reports it to Headquarters, the summation of the Centers' identified weaknesses from the periodic monitoring controls did not agree to the adjustment posted by Headquarters OCFO.

On October 24, 2007, NASA management issued guidance—Financial Management Requirements, Volume 6, Chapter 11, *Journal Voucher Preparation and Approval*, dated October 2007—related to the preparation and execution of journal vouchers. Management indicated that this should enhance internal controls related to non-routine journal entries.

- Delayed Grant and Contract Close-outs—As reported in the past, we noted numerous grants and contracts, that had periods of performance ending prior to FY 2007, which had not officially been closed due to limited resources available for follow-up of missing or incomplete documentation from the vendor/grantee and a significant backlog of amounts awaiting de-obligation. For several years, NASA has utilized an outside contractor to resolve the large backlog. For grants, because of the delay of close-out within the grant system and anomalies in how grant drawdowns are distributed, activity costs of current grants were being posted as current expense against the expired grant obligation. As of September 30, 2007, we noted over 4,000 grants with outstanding undelivered orders of approximately $140 million, and over 4,000 contracts with outstanding undelivered orders of approximately $365 million that were past their period of performance and still awaiting closeout and de-obligation. Further, we noted several grant and contract sample items where requested supporting documentation was not available or not part of the official file.

- Limited Monitoring of Undelivered Orders and Accounts Payable—Although the periodic monitoring package includes a quarterly step to review unliquidated obligations and accounts payable, and management developed an aging report in FY 2007 to ensure balances recorded in NASA's financial system are valid and supportable, we continue to note numerous unliquidated obligations and accounts payable that were greater than one year old. Many of these items relate to travel where travelers have not submitted their vouchers in a timely fashion or residual balances exist from vouchers that have been filed.

- Periodic Monitoring Packages Identify Continued Issues—During our reviews of the Centers' periodic monitoring packages throughout the year, we noted numerous entries from the Centers where data integrity issues still required assistance from Headquarters or the Competency Center to resolve identified issues. For example, certain Center personnel continue to identify abnormal balances within the financial accounting system. As of September 30, 2007, 37 service requests existed to resolve issues identified through the periodic monitoring package submissions.

Recommendation

We recommend that NASA continue to develop and refine its financial management systems and processes to improve its accounting, analysis, and oversight of financial management activity. Specifically, we recommend that NASA:

1. Continue to strengthen controls related to its entity-wide structure for account reconciliation, analyses, and oversight (periodic monitoring package) by providing more

in-depth on-site quality reviews of Center and Headquarters financial functions, providing further guidance and training of new policies and procedures, periodically requesting the supporting documentation to compare to the results communicated, and improving communication so that issues may be resolved in a more timely manner.

2. Enhance internal control surrounding manual non-routine entries, including requiring a log of all manual entries and preparing documentation that is readily available to support the entry and the approval by upper management.

3. Strive to stabilize data in its Core Financial Module, making sure that significant non-routine adjustments, related to data integrity, are not required especially during the last two quarters of FY 2008 and going forward. Additionally, NASA should continue to validate its data, and when issues are identified, complete service requests related to data integrity and configuration and design issues timely.

4. Continue to improve its process to more timely close expired travel, grants, and contracts. Determine if accruals are necessary for potential disallowed costs and final invoices once close-out has occurred. For ongoing contracts and grants, more completely assess the need for an accrual at each reporting period.

5. Continue to devise short-term and long-term resolutions to systematic and integration issues that complicate use of the IEMP.

6. Continue to focus on filling vacancies within the financial management organization to enhance overall performance and develop a core team of highly qualified individuals with experience in NASA's financial management processes.

7. Continue to offer updated guidance and training to personnel to ensure specific guidelines are documented as to the source of data to support the periodic monitoring submissions and the financial statements, required follow-up with timetables, and documentation retention policies. Further, training should be provided to Center and Headquarters personnel to ensure a complete understanding of the financial management system and reports that are available to perform certain tasks.

Processes in Estimating NASA's Environmental Liability Continue to Require Enhancement

During our review of NASA's environmental liability estimated at $907 million as of September 30, 2007, and related disclosures to the financial statements, we noted continued weaknesses in NASA's ability to generate an auditable estimate of its environmental cleanup costs, including its unfunded environmental liability (UEL) estimate. Specifically,

- No formalized process is in place to ensure federal accounting requirements are reviewed for environmental matters so that NASA's own policies, procedures, guidance, and training are updated in a timely manner. During our FY 2007 audit we continued to note that NASA does not have a process and controls surrounding how it identifies and estimates environmental cleanup costs in accordance with Statement of Federal Financial Accounting Standards (SFFAS) No. 6, *Accounting for Property, Plant, and Equipment.*

- NASA management's review of the UEL estimate is not functioning adequately to identify inconsistencies or mistakes.
- NASA does not have a documented software assurance program or software verification and validation (V&V) for the Integrated Data Evaluation & Analysis Library (IDEAL) software it uses to estimate its environmental cleanup costs. In addition, NASA has not established formal controls and documented audit trails between itself and its third-party service provider or with its internal users who have the ability to modify key parameters within the IDEAL.

The following sections describe each bullet in more detail.

Weaknesses Noted in NASA's Process for Assessing Financial Requirements for Environmental Cleanup Matters and Providing Adequate and Timely Guidance to its Centers/Facilities

During the audit, we noted PP&E did not have environmental cleanup costs or decommissioning costs estimated in accordance with SFFAS No. 6. For example, there are no costs estimated for the cleanup of treatment systems and oxidizers, building components that will require cleanup upon closure (e.g., non-friable asbestos), and laboratories. While NASA has begun reviewing some of the specific examples provided in previous audits (e.g., storage tanks), the agency needs to identify and address all PP&E that could potentially be impacted by this standard (e.g., buildings, equipment, regulated units).

As this requirement affects a large percentage of NASA's PP&E (including the Space Shuttle program), it is unknown as to the potential cost impact to the agency. While NASA indicated that some of these costs are likely to be immaterial, it did not provide any documentation to support its position.

NASA has indicated that it will assess this issue by September 30, 2008, and make the appropriate changes. While this is intended to address the specific issue with SFFAS No. 6, we are concerned that NASA's lack of process for identifying the appropriate accounting regulations as they apply to environmental matters may allow additional omissions.

Issues Continue to be Identified in the Design and Implementation of Internal Controls Surrounding Environmental Cleanup Costs

During our FY 2007 audit we noted continued weaknesses in NASA's controls in developing UEL estimates. For example:

- *Continued confusion over the definition and classification of contingent liabilities*: We noted continued confusion over the definition and classification of contingent liabilities. For example, during its annual Remedial Project Managers (RPM) training, NASA indicated that "probable" and "estimable" liabilities are not contingent liabilities when in fact under the federal accounting standards, the entire UEL is a contingent liability.

During our fieldwork, we noted documentation that indicated that since portions of an estimate were “contingent liabilities,” they should be removed from the UEL estimate. In addition, at three Center/facilities we noted that the “reasonably possible” liabilities were listed as the only contingent liabilities at that location.

- *Limited quality reviews by Center CFOs of RPM estimates*: Historically, the Headquarters OCFO indicated that it lacked sufficient environmental skills to review the UEL estimates. While we agree with OCFO with respect to the environmental technical review, we would anticipate that they would review the estimates for appropriateness with GAAP and with its own “Review and Verification” checklist. During our fieldwork, we noted that the OCFO selected a statistical sample of UEL estimates to review and it developed a checklist to standardize its review. The checklist primarily focused on the adequacy of documentation and did not include questions that would help the Center and Headquarters OCFO assess the appropriateness of the estimate with GAAP (e.g., explanation of changes, probable versus reasonably possible, full-cost accounting, the use of better information when available). In addition, while the OCFO checklist focused on documentation, we noted that documentation was not always readily available to support the estimate and that some documentation was inconsistent with GAAP (e.g., notations that an item was a “contingent liability” and that it should be removed from the UEL). In addition, as NASA indicated that the printed IDEAL reports should not be relied upon for audit testing, and the Center OCFOs do not have access to IDEAL, it is unclear as to how the Center OCFOs can conduct an effective review.

- *Inadequate financial guidance:* During our review we noted that NASA’s financial guidance to its field personnel required enhancements. For example, for NASA’s full cost accounting: we were informed that NASA’s Financial Management Requirements (FMRs), as they apply to full cost accounting, are out of date. The current guidance is in a Microsoft PowerPoint presentation that has not been translated to a volume of the FMR.

- *Informal EMD advocate reviews*: While the Environmental Management Division (EMD) advocates performing a 100% review of the UEL estimates for technical matters, this review is informal and does not include formal analysis of year-to-year changes and a review of the support for key inputs, an assessment of the reason for overriding errors and warnings in IDEAL, and a review of key input support. During our fieldwork we noted that:

    - The Kennedy Space Center identified and recorded a $55.9 million cost estimate for pumping and treating groundwater, when a better estimate of $112.4 million was supported by a study that NASA had submitted to the Florida Department of Environmental Protection. This was $56.5 million more than what NASA had estimated using its parametric estimating software. NASA recorded the adjustment once we brought the adjustment to Headquarters OCFO’s attention.

    - The White Sands facility could not readily reconcile the reasons for the changes in its current estimate compared to last year for all of its projects during our site visit.

- Warning and error messages in the estimating software (IDEAL) were overridden with no supporting documentation or notations as to the reason for approving the override.

IDEAL Software Assurance, Controls, and Audit Trails

NASA uses the IDEAL cost-estimating software to estimate its UEL and its related costs in its financial statements and disclosures. The IDEAL software provides NASA with several capabilities, including: (a) the ability to generate estimates using a parametric cost-estimating approach when better information is not available, (b) the ability to aggregate cost data, and (c) the ability to apply uniform markups and contingencies to UEL estimates.

IDEAL operates in a client/server environment. The server resides at a third-party service provider location where it is maintained and updated. NASA's users enter data in their local computers with the option to modify key parameters in the IDEAL host application through the "User Defined Interface," or UDI, prior to processing. After the data is processed by IDEAL, the system returns the results for viewing either electronically or through printed reports.

During our review of IDEAL, we noted the following:

- Software Assurance Program: There is no software assurance program, including a software V&V, for IDEAL. As such, there is no support for determining whether IDEAL is generating a reasonable estimate.
- Security Plan: NASA has not formalized its minimum-security plan for the application.
- Service Provider Controls: There are no formal, documented controls between NASA and its IDEAL service provider. Therefore, as the host application is updated based on improvements to the model, the estimates can change without documented audit trails.
- Software Controls: There are no controls associated with the UDI. Therefore, users can modify the parametric equations within IDEAL and the system's error and warning messages without detection, as there are no controls and the application does not generate an audit trail.
- Inadequate Audit Trails and Documentation: NASA has indicated that the printed reports generated by IDEAL should not be relied upon for audit testing. As NASA does not have formal controls over the host application and the printed reports are not to be relied upon, there are inadequate audit trails and documentation to support historic transactions.

Recommendation

As it relates to the estimation of environmental liabilities, we recommend that NASA:

1. Finalize work plans and implement internal control and monitoring processes to ensure compliance with requirements within SFFAS No. 6, *Accounting for Property, Plant, and Equipment,* related to decommissioning costs.
2. Designate a lead team, inclusive of members from the Centers, EMD, and OCFO, for performing self-assessments and monitoring of the implementation and adherence to financial policies and requirements as they relate to environmental activities. This should include self-assessments of the UEL estimation and aggregation process to identify and correct remaining weaknesses in the UEL process.
3. Consistent with NASA estimating its UEL liability at mid-year and then updating it at the end of the year for significant changes, we recommend that NASA perform the remainder of its environmental activities using the same timeline (e.g., estimate reasonably possible estimates and disclosures at mid-year and update at the end of year). This will allow adequate time for an effective review.
4. Complete verification and validation assessments of the IDEAL program including an assessment of security and controls over the application.
5. Develop a process to ensure consistent year-to-year audit trails and documentation supporting judgments made in calculating the UELs.
6. Continue to offer updated guidance and training to personnel involved in the estimation of environmental liabilities.

Financial Management Systems Not in Substantial Compliance with FFMIA

NASA's financial management systems are not substantially compliant with the Federal Financial Management Improvement Act (FFMIA) of 1996. During FY 2007, as discussed above, NASA management took steps to address its noncompliance with the FFMIA, including upgrading its Core Financial Module. Although these steps corrected certain weaknesses noted during the past four years, other weaknesses still exist. For example, NASA's Core Financial Module still lacks integration with certain subsidiary systems, including PP&E, has certain weaknesses within its general and application security controls, and contains configuration issues that result in inappropriate transactional postings. Additionally, the financial management system continues to impair NASA's and the Centers' abilities to adequately support and analyze account balances reported. Specific weaknesses noted include the following:

- Certain subsidiary systems, including all property systems (i.e., NEMS, NRPDB, and CHATS), are not integrated with the Core Financial Module and are not complemented by sufficient manual preventative and detective controls.
- NASA's management continued to identify certain transactions that are being posted incorrectly due to improper configuration or design within the Core Financial Module. As of September 30, 2007, NASA management identified 37 service requests awaiting completion to address certain issues within its Core Financial Module. Additionally, during our review of the Centers' periodic monitoring packages, the Centers identified

abnormal balances within the general ledger, including differences between the financial information (FI) module and the funds management (FM) module, both residing within the IEMP. These discrepancies existed due to journal entries not being properly mapped to both modules when posted. Finally, during our review of journal entries within the Core Financial Module, we noted certain data element fields were either missing information or the information was inaccurate. For example, in some cases, we noted that NASA had not included the fund type, business area, purchase order, or vendor within the system for certain entries.

- NASA was unable to meet certain requirements to ensure compliance with federal accounting standards, as discussed in various sections within this report.
- The Office of Inspector General of NASA (OIG) identified certain issues related to systems as part of its Federal Information Security Management Act (FISMA) and other OIG projects.

NASA has indicated in its assurance statement that it believes its systems are non-compliant with requirements of the FMFIA. NASA believes that planned corrective actions for FY 2008 will address many of the remaining issues.

Recommendation

We recommend that NASA:

1. Continue to resolve issues identified in the general and application controls surrounding its financial management systems. Additionally, we recommend that NASA continue to ensure that its compensating controls surrounding its integration of systems and segregation of duties issues are operating effectively to prevent, or detect and correct errors. NASA should monitor that its internal control activities, including periodic reconciliations and analysis, are performed to ensure that further data issues do not lead to difficulties in processing transactions and preparing accurate reports in the months and possibly the years to come.
2. Continue to devise short-term and long-term resolutions to systematic and integration issues that complicate use of the IEMP. NASA should continue to assess whether systems used to prepare the financial statements have been sufficiently tested prior to year-end reporting dates.
3. Continue to resolve issues, as discussed throughout this report, which impair NASA’s ability to meet the requirements of the FFMIA.

<u>Weaknesses in Information Technology General and Application Controls</u>

Issues related to access controls and segregation of duties were noted within the IEMP environment. The level of risk associated with these information technology issues depends in part upon the extent to which financial-related compensating controls (such as reconciliations and data integrity reviews of output) are in place and operating effectively throughout the audit period. Certain of these controls designed to detect errors or inappropriate processing may also not be executed in a manner that can be expected to identify errors, which, while perhaps not material to the financial statements as a whole, may subject NASA to risks regarding safeguarding of assets.

Within the context of the overall weaknesses identified in the control environment referenced in the accompanying comments and although NASA has made progress in addressing and resolving prior year information technology findings, these information technology-related issues, along with issues noted by Ernst & Young, Government Accountability Office (GAO) and NASA OIG in their review of the SAP Version Update (SVU) project merit continued management focus.

Recommendation

We recommend that NASA continue to resolve issues identified in the general and application controls surrounding its financial management systems. Additionally, we recommend that NASA continue to ensure that its compensating controls surrounding its integration of systems and segregation of duties issues are operating effectively to prevent, or detect and correct errors. NASA should monitor that its internal control activities, including periodic reconciliations and analysis, are performed to ensure that further data issues do not lead to difficulties in processing transactions and preparing accurate reports in the months and possibly the years to come.

Enhancements Needed for Controls over PP&E and Materials (Modified Repeat Condition)

Consistent with prior year audit reports, our review of PP&E identified serious weaknesses in internal control that, if not corrected, could prevent material misstatements from being detected and corrected in a timely manner. As stated in the prior years audit reports, NASA's process for recognizing and accounting for fixed assets relied primarily on a retrospective review of disbursements to determine amounts that should be capitalized and continues to be heavily dependent on activities at its contractors to recognize any assets created at its contractors. Also, NASA's lack of integrated and comprehensive property systems limits it ability to record, track, and monitor property and property-related transactions as they occur throughout the entire property transaction life cycle. Furthermore, NASA's monitoring and detect control procedures at the OCFO, the Center finance office, and beyond need further strengthening.

During fiscal year 2007, we noted that NASA continues to work toward resolving issues identified in the past related to PP&E. Highlights of those improvements from NASA management's perspective include:

- The development of a new capitalization policy for PP&E to recognize the research and development nature of NASA's projects. This new policy that will be implemented in FY 2008 is planned to allow NASA to assess which projects will result in capitalized items.

- Revisions to business processes to identify capital acquisitions at the beginning of the acquisitions life cycle through disposition by the use of a unique work-breakdown-structure (WBS) element. The revised business processes to be implemented in FY 2008 is scheduled to allow NASA to identify and track capital acquisitions from requisition through costing process.
- The development of a mechanism to identify capital acquisitions at project inception through the use of *NASA Form (NF) 1739, Alternative Future Use Questionnaire*, to be implemented as part of the new PP&E capitalization policy. The NF 1739 is intended to facilitate the identification of capital assets at the inception of a project.
- Revisions to contractor cost reporting requirements (i.e., NF 533) to establish a one-to-one relationship for reporting costs of capital assets. The revised NF 533 reporting is planned to facilitate recording costs for capital asset acquisitions on a unique WBS element and will be implemented in FY 2008.
- Coordination with the Integrated Asset Management (IAM) Development Team to ensure all business process changes were integrated in the development of asset management functionality in the core financial system to be released sometime in FY 2008. IAM is scheduled to automate real time asset accounting and is planned to enable tracking asset values at the individual asset level. IAM is also intended to provide a linkage between equipment master records with the financial asset master record.
- Extensive training provided to NASA communities and contractors impacted by new PP&E policy and process changes during the third quarter of FY 2007.
- Revisions were made in November 2006 to the FMR PP&E Chapter to establish the requirement for supervisory review and sign-off of journal vouchers prior to their posting in the Core Financial Module, and revisions to the Property Checklist to include the communication requirement and due dates for Headquarters OCFO to provide correspondence to the Centers.

Pending completion of draft policies, procedure changes and the implementation and acceptance of these, as well as property-system enhancements (i.e., IAM), further emphasis on internal and external control processes at Headquarters, the Centers, and the contractor locations is needed to ensure that property-related amounts reported in its financial statements are reliable and complete.

While NASA has undertaken efforts to improve its accountability of property, we continued to note evidence of significant weaknesses in the property area. The weaknesses we noted during FY 2007, most of which are consistent with last year's audit report, fundamentally flow from not previously determining at the point of budget formulation, obligation recognition, contract development, accounts payable recognition, or disbursement the amounts of property NASA expects to buy, has contracted for, or has purchased. Rather, NASA, throughout 2007, waited until the entire transaction cycle was complete to obtain disbursement data for capitalization or, in the case of contractors, relied on them to do so. Also NASA's property systems are not integrated with the Core Financial Module. Furthermore, NASA has not demonstrated how it will ensure the completeness and accuracy of its property balances recorded prior to the implementation of its new policies and procedures. Insufficient internal controls and other matters surrounding (1) Space Exploration Equipment, specifically related to Contractor-Held PP&E; (2) Space Exploration Equipment, including the International Space Station and Shuttle (*formerly NASA-Held Theme Assets*); and (3) General PP&E (*formerly NASA-Held Real and Personal Property*) are addressed in more detail below:

(1) <u>Space Exploration Equipment related to Contractor-Held PP&E *(formerly Contractor-Held PP&E)*</u>

The reliance upon NASA's contractors to report property values at periodic intervals during the year without robust agency-wide detect controls to ensure the reliability and validity of those property values may increase the probability of errors and deficiencies not being detected by NASA or reported by contractors. Throughout the year, the Headquarters OCFO's Property Branch personnel and Centers' Property Accountants perform certain high-level analytical analyses and monitoring procedures of property balances and transactions reported by NASA's largest contractors that report monthly in the Contractor-Held Asset Tracking System (CHATS). This monitoring process, however, still lacks a full integration of NASA's procurement and scientific community, with whom contractor accountability primarily resides, and does not include reconciliations to the costs being incurred by these contractors via the monthly NF 533 reporting process to the property balances reported monthly in CHATS and annually via the NF 1018. The subsequent review and dependence on contractor reporting increases the risk that related costs will not be properly captured and capitalized. Furthermore, since CHATS is not integrated with NASA Core Financial Module, each month management records the property-related activity reported by the contractors via a manual journal voucher process.

For the past several years, the Headquarters OCFO has utilized the Defense Contract Audit Agency (DCAA) as its primary quality assurance mechanism over NASA's contractors by performing agreed-upon procedures on a sample of the June 30, 2007 property balances and a sample of FY 2007 transactions. The most significant finding reported by DCAA this fiscal year was that the value of one contractor's Work in Process (WIP) balances as of June 30, 2007, was understated by $928 million due to several factors, including the incorrect use of unit costs, finished goods and materials not including a 15% fee, and incorrect unit costs reported on property transferred to another contractor. There were also other nominal dollar errors reported by DCAA, as well as differences noted between CHATS and the contractors' property systems and evidence of failures to adhere to required policies and procedures to report corrections timely to NASA personnel. Although the Headquarters OCFO utilizes the DCAA as its primary quality assurance mechanism over NASA's contractors, the procedures that DCAA performed cannot be relied upon by NASA management alone to ensure the reliability and validity of contractor-held property values.

Consistent with prior year audit reports, NASA has not performed reconciliations to the costs being incurred by its contractors via the NF 533 reporting process to the property balances reported monthly in CHATS and annually via the NF 1018 in the current fiscal year. The NF

533 cost reports and/or invoices submitted by contractors do not require the portion of the costs that relate to the purchase of an asset and operating materials and supplies to be specifically identified. NASA has revised, but not yet implemented, new contractor cost reporting requirements to establish a one-to-one relationship for reporting costs of capitalized property in order to facilitate the recording of costs for capitalized property acquisitions on a unique WBS element level within SAP. Also, as previously mentioned elsewhere in this report, management has revised its PP&E capitalization policy for new acquisitions to identify costs that need to be capitalized starting at the budget/procurement cycle through to the processing and disbursing of funds as the transaction is processed. However, it is unclear as of yet how the alignment and the specificity of the WBS elements will correlate to the accounting for the contractor's costs under the authoritative literature on property-related transactions. Also, NASA management has not yet demonstrated how the new contractor cost reporting requirements and PP&E capitalization policy, when fully operational, will provide sufficient specificity in NASA's purchasing activity to facilitate tracking and reporting of all types of property-related transactions as projects are initiated and disbursements are made. Until NASA successfully implements these new policies and procedures, NASA will continue to experience difficulties in recording property-related balances and transactions and ensuring their completeness. Furthermore, NASA has not demonstrated how it will ensure the completeness and accuracy of its property balances recorded prior to the implementation of its new policies and procedures.

Management's processes at NASA Headquarters to accumulate, calculate, and record transactions related to the depreciation on Space Exploration Equipment maintained by contractors are heavily reliant upon Excel spreadsheets, which can be subject to input or formulaic errors and are not complemented with robust controls to prevent and detect such errors from occurring. We again noted errors during our review of these schedules during the current fiscal year, which management subsequently corrected. Although NASA management is currently developing an automated depreciation tool, additional controls are needed immediately to prevent these errors from recurring, with a longer-term goal to develop more comprehensive oversight controls once the tool is implemented.

Recommendation

We recommend that NASA:

1. Develop more robust detect and monitoring controls beyond the high-level monthly validation procedures performed by NASA Center personnel and the annual DCAA agreed upon procedures and to compensate for the lack of CHATS integration with the Core Financial Module to ensure timely detection and correction of errors as well as completeness of property-related balances and transactions reported by NASA's contractors.
2. Continue to review, monitor, and refine the implementation of its new PP&E capitalization policy to ensure its effectiveness in capturing, recording, and reporting acquisitions of new property throughout the entire transaction life cycle. Periodic reporting of NASA's progress on this matter to key stakeholders is recommended.

NASA must also clearly demonstrate that the obligation documents and expenditures are coded to identify whether they relate to a property acquisition to create a record for comparison to recorded property transactions and the CHATS subsidiary ledger. Furthermore, NASA Headquarters OCFO must involve the procurement and scientific community as a part of the post-implementation process.

3. Implement, review, monitor, and refine the revised contractor cost reporting requirements to ensure its effectiveness in capturing and reconciling all costs for capitalized property from the NF 533 reports to the monthly CHATS and annual NF 1018 property reports. NASA Headquarters OCFO must also involve the procurement and scientific community as a part of the post-implementation process.
4. Clearly demonstrate how it has ensured the completeness and accuracy of its contractor-held property balances recorded prior to the implementation of its new PP&E capitalization policy and revised contractor cost reporting requirements.
5. Illustrate how the alignment and the specificity of the WBS elements recorded in SAP will correlate to the accounting for the contractors' capitalizable costs under the authoritative accounting literature on property-related transactions, including assessing whether specific disbursements related to Research and Development (R&D) projects acquire assets that will meet the definition of general PP&E (i.e., because they can be reused).
6. Develop additional controls over the depreciation expense calculations and processes at NASA Headquarters prior to the implementation of an automated solution, with a longer-term goal to develop more comprehensive oversight controls once that automated platform is implemented.

(2) <u>Space Exploration Equipment, including the International Space Station and Shuttle *(formerly NASA-Held Theme Assets Operational and WIP)*</u>

As noted in prior year reports, NASA began revisiting its accounting policy for Theme Assets (now known as Space Exploration Equipment) in FY 2004 as to whether these project costs met the characteristics of general PP&E as defined in the Federal Accounting Standards Advisory Board (FASAB) Statements of Federal Financial Accounting Standards (SFFAS) No. 6, *Accounting for Property, Plant, and Equipment* or were more akin to R&D as defined in Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards (SFAS) No. 2, *Accounting for Research and Development Costs*. During FY 2006, NASA management finalized its position and sought interpretation from the Accounting and Audit Policy Committee (AAPC) of FASAB as the due course in resolving technical federal accounting matters where existing guidance was not clear. In response to NASA's request for interpretation, the AAPC issued Technical Release No. 7, *Clarification of Standards Relating to the National Aeronautics and Space Administration's Space Exploration Equipment*, on June 1, 2007. Accordingly, management acted upon the final technical ruling and recorded a $12.7 billion adjustment to write off the net book value of prior period capitalized assets that in management's belief were more properly classified as R&D and had no alternative future use.

Management concluded that this change in accounting policy was justified as *preferable* under SFFAS No. 21, *Reporting Corrections of Errors and Changes in Accounting Principles,* because the AAPC provided clarification with respect to SFAS No. 2, and thus was not required to restate prior period financial statements. In addition, management recorded an additional $1.8 billion adjustment during the fourth quarter of FY 2007 in applying this same change in accounting policy to FY 2007 activity on those theme projects designated as R&D.

After applying the change in accounting policy, management has effectively concluded that only two theme projects still met the definition of general PP&E: the International Space Station (ISS) and the Space Shuttles (Shuttle), including their ancillary equipment. As of September 30, 2007, Space Exploration Equipment, net of accumulated depreciation, is $18.5 billion. The ISS and Shuttle will continue to be operational and depreciated through FY 2016 and 2010, respectively, based upon management's estimated useful lives for these assets. However, as noted in the Space Exploration Equipment related to Contractor-Held Property, Plant & Equipment section above and as reported by the GAO over the past several years, management will continue to be challenged to appropriately capture and record related capitalizable costs to account for and reconcile NF 533 cost reports to the capitalized asset values and to ensure the completeness of the ISS and Shuttle asset balances for the foreseeable future. Management's approach to assessing which portions of the theme projects will meet the definition of general PP&E is evolving. The process used to assess the amount initially classified as R&D in connection with the change in accounting policy lacked rigor in definitively assessing whether certain equipment could be used in future R&D projects.

From an OCFO Headquarters accounting process standpoint, the manner in which NASA accumulates related costs to track and record the International Space Station and Space Shuttles is based upon Excel spreadsheets that are not integrated with NASA Core Financial Module. In addition, the OCFO Headquarters' processes to accumulate, calculate, and record transactions related to the depreciation on Space Exploration Equipment are also heavily reliant upon Excel spreadsheets, which can be subject to input or formulaic errors and are not complemented with robust controls to prevent and detect such errors from occurring. We again noted errors during our review of these schedules during the current fiscal year, which management subsequently corrected. The automated depreciation tool that NASA management is currently developing will not include the calculation of depreciation expense on the International Space Station and Shuttle. Accordingly, more comprehensive controls are needed immediately to prevent these errors from recurring.

Recommendation

We recommend that NASA:

1. Specifically cross-reference the observations and recommendations noted above for Space Exploration Equipment related to Contractor-Held Property, Plant & Equipment to the International Space Station, Shuttle, and other Space Exploration Equipment that remains in the custody of NASA's contractors. In addition to responding to the

recommendations noted in the section above, management needs to develop a detailed action plan for each type of Space Exploration Equipment, by separately addressing the ISS challenges from the Shuttle and from the other Space Exploration Equipment. NASA also needs to clearly demonstrate how it has ensured the completeness and accuracy of the ISS and Shuttle balances recorded prior to the implementation of any of its new PP&E policies, procedures, and cost reporting requirements.

2. Develop more comprehensive controls over the accounting processes and depreciation expense calculations at NASA Headquarters. The automated depreciation tool that NASA management is currently developing will not include the calculation of depreciation expense on the International Space Station and Shuttle.

(3) <u>General PP&E *(formerly NASA-Held Real and Personal Property)*</u>

General PP&E, net, is approximately $2.2 billion at September 30, 2007, and consists of land, structures, facilities, leasehold improvements, institutional equipment, construction-in-progress, and internal use software and development that are all NASA-held. For the current fiscal year, NASA expensed all costs (except for certain construction of NASA-held real property) and then performed a review of the transactions to determine which costs should be capitalized, similar to prior years. During our FY 2007 testing, we again noted certain property-related transactions that were not recorded at the appropriate value based upon the final amount paid to the vendor/contractor (i.e., a “three-way match” between the purchase order, shipping document, and invoice was not performed by NASA personnel), the initiation of transactions lacked evidence of written authorization or lacked required supporting third party evidence (i.e., invoices, contracts), and loaned-out equipment was inappropriately removed from NASA’s general ledger. In addition, NASA management is reliant upon a monthly evaluation by Center personnel to determine which assets should be capitalized for recording these property-related transactions and also maintains separate subsidiary ledgers (NASA Equipment Management System [NEMS] and NASA Real Property Inventory [NRPI]) that are not interfaced directly with the Core Financial Module. Furthermore the current oversight procedures by Headquarters OCFO of these Center processes are not sufficient to detect and correct errors in a timely manner.

Also, as part of our FY 2007 testing, we attempted to substantiate $3.0 billion or approximately 80% of the General PP&E asset cost balances as of June 30, 2007, by vouching to third-party evidential documentation. Our sample included land, real property, work-in-process for real property, and internal use software. We found that in many instances, NASA Centers did not maintain key third-party financial records (such as invoices, contracts, and NF 533 cost reports) that could be tied directly to capitalized assets that were acquired beyond the federal general records retention policy of six years and three months, which was cited by NASA personnel. We note that the federal property record retention policy goes beyond this time frame. NASA also could not locate external evidential documentation supporting assets acquired within the general document retention period totaling $531.5 million or 72% of assets acquired by NASA in this time frame that were included in our sample. It is uncertain whether NASA Center personnel maintain any of these key financial records for this subset of assets. The result of the lack of evidential supporting documentation are further examples of management’s need to place additional emphasis on strengthening and enforcing Center-related manual prevent and detect controls that extend beyond the Headquarters OCFO and Center finance departments, as these are the baseline controls upon which NASA is reliant.

During our testing, we also identified inconsistencies, out-of-date or incomplete policies, and procedures related to PP&E in NASA's FMR. It appears that NASA management is not reviewing and updating its policies and procedures on a regular basis. The lack of accurate guidance limits NASA's ability to perform financial management processes consistently and adequately, and to identify potential misstatements in a timely fashion. In addition, during the latter part of the current fiscal year, the NASA OIG issued two memorandums related to NASA's inappropriate accounting for property leased to other non-NASA entities and property designated as "inactive." One of these issues resulted in management recording a $67 million prior period adjustment for NASA-owned real properties that had been inappropriately removed from NASA's accounting records for lease transactions with other non-NASA entities.

Also, as previously mentioned elsewhere in this report, management has revised its PP&E capitalization policy that is effective in October 2007 for new acquisitions to identify costs that need to be capitalized starting at the budget/procurement cycle through to the processing and disbursing of funds as the transaction is processed. However, it is unclear as of yet how NASA's obligation documents and expenditures will be coded to identify whether they relate to a property acquisition to compare to amounts recorded in NEMS and NRPI. Furthermore, NASA has not demonstrated how it will ensure the completeness of its property balances recorded prior to the implementation of its new PP&E capitalization policy or retain records to support its property.

Management's processes at NASA Headquarters to accumulate, calculate, and record transactions related to the depreciation on general PP&E are heavily reliant upon Excel spreadsheets, which can be subject to input or formulaic errors and are not complemented with robust controls to prevent and detect such errors from occurring. We again noted errors during our review of these schedules during the current fiscal year, which management subsequently corrected. Although NASA management is currently developing an automated depreciation tool, additional controls are needed immediately to prevent these errors from recurring, with a longer-term goal to develop more comprehensive oversight controls once the automated tool is implemented.

Recommendation

We recommend that NASA:

1. Develop more robust detect and monitoring controls beyond the high-level monthly validation procedures performed by NASA Headquarters' OCFO on the monthly property-related schedules prepared by NASA Center personnel and to compensate for the lack of NEMS and NRPI systems being integrated with the Core Financial Module to ensure timely detection and correction of errors, adherence to accounting policies and procedures, as well as the completeness of property-related balances and transactions.

Regardless of the NASA's future implementation of the Integrated Asset Management Module, management needs to layer in detect and monitoring controls on top of its routine processing and recordation of property-related transactions and also extend these control requirements to the facilities and logistics departments.

2. Continue to review, monitor, and refine the implementation of its new PP&E capitalization policy to ensure its effectiveness in capturing, recording and reporting acquisitions of new property throughout the entire transaction life cycle. Periodic reporting of NASA's progress on this matter to key stakeholders is recommended. NASA must also clearly demonstrate that the obligation documents and expenditures are coded to identify whether they relate to a property acquisition to create a record for comparison to recorded property transactions and the NEMS and NRPI subsidiary ledgers. Furthermore, NASA Headquarters OCFO must involve the procurement and scientific community as a part of the post-implementation process.
3. Clearly demonstrate how it has ensured the completeness and accuracy of its General PP&E (formerly government-held property) balances recorded prior to the implementation of its new PP&E capitalization policy.
4. Review, revise, and clarify the PP&E sections of the FMR for outdated and incomplete sections, as well as for unique and non-routine property transactions entered into by NASA, including leases to other non-NASA entities and designation of inactive properties, to ensure the appropriate application of the property-related authoritative accounting standards is incorporated and communicated to all related personnel.
5. Adopt a specific property-related retention policy to specify the types of evidential documentation (NASA Forms, Invoices, Contracts, NF 533 cost reports, supporting spreadsheets, etc.) and related time periods that such documentation should remain in the possession of NASA. Further articulation of where that documentation is retained is also paramount. Lastly, NASA should publish the property-specific retention policy and communicate it throughout the agency to ensure its consistent application.
6. Develop additional controls over the depreciation expense calculations and processes at NASA Headquarters prior to the implementation of an automated depreciation tool, with a longer-term goal to develop more comprehensive oversight controls once that automated tool is implemented.

OTHER MATTERS

Summary of FY 2006 Material Weaknesses

Issue Area	Summary Control Issue	FY 2007 Status
Material Weaknesses		
Financial Systems, Analyses, and Oversight	Internal control related to routine reconciliation, analyses, and oversight processes must be strengthened. Processes to prepare financial statements need improvement. Processes in estimating NASA's Environmental Liabilities require enhancements. Financial management systems not in substantial compliance with FFMIA. Efforts needed to resolve data integrity concerns. Certain weaknesses noted relating to general and application controls.	Modified Repeat Condition.
Enhancements Needed for Controls over Property, Plant, and Equipment and Materials	Controls relating principally to contractor-held PP&E and materials and NASA-held assets in space and WIP need improvement; Headquarters oversight needs improvement.	Modified Repeat Condition.

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We also noted certain other matters involving internal control that we will report to NASA management in a separate letter dated November 13, 2007.

This report is intended solely for the information and use of the management and the OIG of NASA, OMB, GAO and Congress and is not intended to be and should not be used by anyone other than these specified parties.

Ernst + Young LLP

November 13, 2007
Washington, D.C.

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Report on Compliance with Laws and Regulations

To the Administrator and the Office of Inspector General
of the National Aeronautics and Space Administration

We were engaged to audit the financial statements of the National Aeronautics and Space Administration (NASA) as of and for the year ended September 30, 2007, and have issued our report thereon dated November 13, 2007. The report states that because of the matters discussed therein, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the consolidated balance sheet as of September 30, 2007, and the related consolidated statements of net cost and changes in net position and combined statement of budgetary resources for the fiscal year then ended.

The management of NASA is responsible for complying with laws and regulations applicable to NASA. We performed tests of its compliance with certain provisions of laws and regulations, noncompliance with which could have a direct and material effect on the determination of financial statement amounts, and certain other laws and regulations specified in Office of Management and Budget (OMB) Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*, including the requirements referred to in the Federal Financial Management Improvement Act of 1996 (FFMIA). We limited our tests of compliance to these provisions, and we did not test compliance with all laws and regulations applicable to NASA.

The results of our tests disclosed no instances of noncompliance with the laws and regulations discussed in the preceding paragraph, exclusive of FFMIA, that are required to be reported under *Government Auditing Standards* and OMB Bulletin No. 07-04.

Under FFMIA, we are required to report whether NASA's financial management systems substantially comply with federal financial management systems requirements, applicable federal accounting standards, and the United States Standard General Ledger (SGL) at the transaction level. To meet this requirement, we performed tests of compliance with FFMIA Section 803(a) requirements. However, as noted above, we were unable to complete our audit. Based upon the results of the tests we were able to complete, we noted certain instances, described below, in which NASA's financial management systems did not substantially comply with certain federal system and federal accounting standard requirements:

- The NASA accounting system does not conform to certain federal requirements. Certain subsidiary systems, including property, are not integrated with the Core Financial Module and are not complemented by sufficient manual preventative and detective controls.

- NASA's management continued to identify certain transactions that are being posted incorrectly due to improper configuration or design within the Core Financial Module. As of September 30, 2007, NASA management identified 37 service requests awaiting completion to address certain issues within its Core Financial Module. Additionally, during our review of the NASA (Centers) periodic monitoring packages, the Centers identified abnormal balances within the general ledger, including differences between the financial information (FI) module and the funds management (FM) module, both residing within the Integrated Enterprise Management Program (IEMP) system. These discrepancies existed due to journal entries not being properly mapped to both modules when posted. Finally, during our review of journal entries within the Core Financial Module, we noted certain data element fields were either missing information or the information was inaccurate. For example, in some cases, we noted that NASA had not included the fund type, business area, purchase order, or vendor number within the system for certain entries.

- Data within NASA's financial system continues to be validated and may not be reliable to support NASA's financial statements. Several prior-period adjustments were recorded in FY 2007. Additionally, data was not sufficient to support certain journal vouchers recorded within the system. Finally, certain processes, including reconciliations and monitoring activities, were not performed in a manner to address identified issues timely.

- Reviews of general and application controls over financial management systems identified certain departures from requirements specified in OMB Circular A-127, *Financial Management Systems*, and OMB Circular A-130, *Management of Federal Information Resources*. Additionally, the Office of Inspector General of NASA (OIG) identified certain issues related to systems as part of its Federal Information Security Management Act (FISMA) and other OIG projects. As part of its Federal Managers' Financial Integrity Act of 1982 (FMFIA) self-assessment, NASA management has identified its financial management system as a material weakness.

- NASA was unable to meet certain requirements to ensure compliance with federal accounting standards. For example, NASA does not have a process and controls surrounding how it identifies and estimates environmental cleanup costs in accordance with Statement of Federal Financial Accounting Standards (SFFAS) No. 6, *Accounting for Property, Plant, and Equipment.*

The Report on Internal Control and management letter include information related to the financial management systems that were found not to comply with the requirements, relevant facts pertaining to the noncompliance, and our recommendations related to the specific issues presented. It is our understanding that NASA's management generally agrees with the facts as presented and that relevant comments from NASA's management responsible for addressing the noncompliance are provided as an attachment to this report. We did not audit management's comments and accordingly, we express no opinion on it.

Because we could not complete our audit, we were unable to determine whether there were other instances of noncompliance with laws and regulations that are required to be reported.

Providing an opinion on compliance with certain provisions of laws and regulations was not an objective of our audit, and accordingly, we do not express such an opinion.

This report is intended solely for the information and use of management and the Office of Inspector General of NASA, OMB, Government Accountability Office, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

Ernst + Young LLP

November 13, 2007
Washington, D.C.