

# Message from the Administrator



In tribute to the NASA family, past, present, and future, I am pleased to submit the *FY 2004 NASA Performance and Accountability Report*.

NASA began FY 2004 energetically engaged in fulfilling our promise to honor the fallen crew of *Columbia* by: complying with all of the recommendations of the *Columbia* Accident Investigation Board; raising the safety bar higher than ever for all NASA missions, operations, and ground activities; and returning the Space Shuttle to flight as soon as humanly and safely possible. Then, just three months into the new fiscal year, our present and future changed dramatically.

## A Renewed Spirit of Discovery: The President's Vision for U.S. Space Exploration

On January 14, 2004, during a visit to NASA Headquarters in Washington, D.C., President George W. Bush announced a new vision for the Nation's space exploration program. In his remarks, the President stated:

*Inspired by all that has come before, and guided by clear objectives, today we set a new course for America's space program. We will give NASA a new focus and vision for future exploration. We will build new ships to carry man forward into the universe, to gain a new foothold on the moon, and to prepare for new journeys to worlds beyond our own.*

At the same time, President Bush established the President's Commission on Implementation of the U.S. Space Exploration Policy, chaired by former Under Secretary of Defense and Secretary of the Air Force Edward C. "Pete" Aldridge, Jr. In June 2004, the Aldridge Commission presented its findings and recommendations to the President. Previous plans for FY 2004 were melded into

new plans for FY 2004 and beyond, and the entire Agency set out on a bold new path to the future.

The fundamental goal of this vision is to advance U.S. scientific, security, and economic interests through a robust space exploration program. In support of this goal, the United States will:

- Implement a sustained and affordable human and robotic program to explore the solar system and beyond;
- Extend human presence across the solar system, starting with a human return to the Moon by the year 2020, in preparation for human exploration of Mars and other destinations;
- Develop the innovative technologies, knowledge, and infrastructures both to explore and to support decisions about the destinations for human exploration; and
- Promote international and commercial participation in exploration to further U.S. scientific, security, and economic interests.

President George W. Bush

*A Renewed Spirit of Discovery:*

*The President's Vision for U.S. Space Exploration*

## NASA'S Transformation: Moving Toward "One NASA"

In June 2004, the Aldridge Commission gave NASA recommendations to help the Agency implement the goals of the new Vision for Space Exploration. In its report, the Aldridge Commission recommended that NASA "...be transformed to become more focused and effectively integrated to implement the national space exploration vision, with a structure that affixes clear authority and accountability." The Commission asserted that a transformed NASA should do the following:

- Create positive organizational and cultural change within NASA so the Agency can focus work on effectively carrying out long-term exploration goals;

- Replenish our talent and technology base with a new generation of scientists, engineers, and explorers; and
- Leverage our capabilities with the support of partner organizations and private sector innovation.

NASA's transformation is off to a strong start. We have established four Mission Directorates (Exploration Systems, Space Operations, Science, and Aeronautics Research) and restructured our 13 functional offices into eight Mission Support Offices, elevating the Office of Education and the Office of Safety and Mission Assurance to reflect Agency priorities and values. We defined NASA's strategic requirements, developed a means to identify core competencies, and adjusted the FY 2006 budget process to stress collaboration across Mission Directorates, programs, and Centers. We established the Strategic Planning Council and the Operations Council to improve our decision-making processes, and we added an Associate Deputy Administrator for System Integration and a Director of Advanced Planning to improve strategic and systems integration across NASA.

In response to one of the key recommendations in the Aldridge Commission report, an internal NASA team also began considering reconfiguration models for our Centers. The team is reviewing the Federally Funded Research and Development Center model, the Federal Government Corporation model, the University Affiliated Research Center model, and various institute and hybrid organizational models. Full consideration and implementation of possible changes will take place over the next several years since reconfiguring the Centers is a complex process.

NASA's transformation goes beyond an internal reorganization. "Reorganization" implies restructuring to perform the same operations more efficiently and effectively. While transforming NASA's organizational structure streamlines the Agency and positions us better to implement our Vision for Space Exploration, NASA's culture also plays a role in our transformation. Therefore, we are complying with the recommendations of the *Columbia* Accident Investigation Board and the Aldridge Commission to effect a positive, values-driven culture. To ensure our success in this aspect of NASA's transformation, the Agency's senior leaders revalidated NASA's core values: Safety; the NASA Family; Excellence; and Integrity. And, to foster a climate of openness and free-flowing communication, we are assessing our leadership practices and developing comprehensive individual leader action plans to improve our effectiveness at all levels of the organization.

By transforming NASA, we are promoting synergies across the Agency to support our new Vision for Space Exploration. We are streamlining our organization to clarify lines of authority and

accountability. And, we are making good on our promise to the American people to understand and protect our home planet, to explore the universe and search for life, and to inspire the next generation of explorers as only NASA can.

## FY 2004 Performance Highlights

NASA's performance goals for FY 2004 were ambitious. In support of our ten strategic goals, we focused on 42 long-term performance objectives and 132 performance outcomes while measuring our progress in 233 short-term Annual Performance Goals (APGs). By the end of the fiscal year, we had exceeded or fully achieved 85 percent of our APGs and made substantial progress in another six percent. We failed to make significant progress in only two percent of our APGs, and seven percent of our APGs were postponed or cancelled by management directive.

### EXPLORATION

NASA ushered in the second century of flight by making outstanding strides in exploration. Among our achievements, we successfully landed the twin Mars Exploration Rovers, *Spirit* and *Opportunity*, on the Martian terrain and watched as they sent back wondrous images of the Red Planet. We partnered with the European Space Agency in a joint venture that led to the start of the Cassini-Huygens four-year exploration of Saturn and its moons. We launched NASA's MESSENGER spacecraft on its mission to explore and map the surface of Mercury. And, we launched Aura into the heavens to look back at Earth and give us a better picture of our atmosphere and changing climate.

Exploration of the heavens is a challenging and difficult task. We celebrate our successes, and we learn much from our failures. For example, the Genesis mission traveled far from Earth to gather clues to the origins of the universe, but its return to Earth was marred by a faulty landing. However, NASA scientists salvaged nearly all of the valuable science payload and we have learned from the landing mishap.



**Figure 1: Dr. Don Burnett sorts through Genesis sample return material in a clean room at the Jet Propulsion Laboratory**

## RETURN TO FLIGHT

The new Vision for Space Exploration begins with safely returning the Space Shuttle to flight. Preparations for NASA's return to flight are proceeding well, and numerous system and vehicle enhancements will ensure that NASA has unprecedented safety inspection and detection capabilities when Space Shuttle *Discovery* lifts off in 2005.

With NASA's Space Flight Leadership Council overseeing return to flight activities, and the Stafford-Covey Return to Flight Task Group providing external oversight, we reached several key milestones in



**Figure 2: Crews install an orbiter Boom Sensor System in *Discovery*'s bay on June 10, 2004. The OBSS, a new return to flight safety measure, includes cameras and laser systems attached to a long crane-like boom that can inspect the Shuttle's thermal Protection System during flight.**

FY 2004 that moved us closer to a launch in 2005. We made more than 100 major maintenance modifications and

upgrades to *Discovery* and its supporting systems, including new cabling and wiring that will support leading edge sensors, a digital camera, and a boom extension for the Shuttle's robotic arm that will enable us to inspect nearly all the outside areas of the orbiter's Thermal Protection System during missions. Technicians installed the Forward Reaction Control System and the Reinforced Carbon-Carbon Nose Cap, and 88 sensors are being installed on each wing; 66 will measure acceleration and impact data, and 22 will take temperature data during *Discovery*'s journey. Overall, we are making substantial progress on the milestones toward a launch in 2005.

## The President's Management Agenda

In April 2004, Office of Personnel Management Director Kay Coles James and Office of Management and Budget Deputy Director Clay Johnson, III, honored NASA for being the first Federal agency to achieve the highest standards (a "green" rating) in two of the President's Management Agenda (PMA) initiatives: Strategic Management of Human Capital and Budget and Performance

Integration. As a result, a number of other Federal agencies benchmarked NASA's programs and initiatives, and Office of Personnel Management included a number of NASA activities in the June 2004 Office of Personnel Management Best Practices Showcase.

In FY 2004, NASA's human capital management accomplishments included:

- Passage of the *NASA Flexibility Act of 2004* which provides NASA with new flexibilities to recruit and sustain a world-class workforce while adhering to merit principles, veterans' preference requirements, equal opportunity guidelines, and the rights of labor organizations. NASA began using the flexibilities after developing and implementing a workforce plan with valuable union and other stakeholder input and after disseminating information to our human resources professionals and managers on the appropriate uses of the flexibilities.
- Refinement of NASA's Competency Management System, a tool to assist us in identifying the competencies necessary for mission success, assessing competency strengths and weaknesses, and identifying "at risk" competencies. NASA used information from this system during FY 2004 campus recruiting events to make on-the-spot offers to highly qualified candidates.
- Initiation of activities to enhance NASA's culture change goals and change leadership behaviors in ways that reinforce NASA's commitment to safety and organizational excellence.
- Creation of a more integrated leadership development strategy. For example, we completed benchmarking activities in leadership development with other government, academic, and industry organizations, and we piloted several activities to expand mobility and rotational assignments.

NASA also was the first agency in the Federal government to receive a "green" rating in the PMA area of Budget and Performance Integration. We achieved this rating by fully integrating our budget, performance, and strategic planning processes and documents ensuring that all levels of the Agency are guided by a single strategic plan.

NASA's achievements in this PMA initiative included:

- Creating an Integrated Budget and Performance Document that ties the annual budget request to the annual Performance Plan. These are no longer two separate documents; performance commitments now appear alongside their related budget requests.
- Implementing full-cost budgeting. In previous budget requests, program budgets primarily contained contract funds while civil service salaries and overhead were held in a separate appropriation. Now, the budget request for each program includes its share of all costs so we know the full cost of programs and can manage accordingly.

In FY 2004, NASA also implemented Erasmus, a new management information system. Erasmus provides easy access to information on budget and performance to enhance informed decision-making.

Like the original PMA mascot, Kermit the Frog, NASA knows that it is “not easy being green,” so getting a “green” rating in two PMA initiatives was a great achievement for the Agency. However, we also made excellent progress in two other PMA initiatives



Credit: NASA/R. Bouchard

**Figure 3: In a ceremony held in April 13, 2004, Kay Coles James, Director of the Office of Personnel Management, presented NASA Administrator Sean O'Keefe with a Kermit the Frog doll (shown left) in recognition of NASA achieving a “green” rating for their progress in the PMA area of Human Capital. In turn, O'Keefe presented James with a plaque of appreciation from NASA.**

(E-Government and Competitive Sourcing), and we anticipate getting “green” ratings in both by 2005. We also made progress in the remaining PMA initiative, Improved Financial Management.

- In the area of E-Government (E-Gov), we produced our first set of integrated plans for Information Technology (IT) management. The Agency improved management of IT investments by instituting a new IT Capital Planning and Investment Control process and by developing the Agency's first integrated Office Automation, Infrastructure, and Telecommunications case that analyzes general purpose IT investments needed to support NASA's missions. We are redesigning our IT security management approach and participating in government-wide E-Gov initiatives. For example, we are migrating our personnel and payroll systems to the Department of Interior.
- In the area of Competitive Sourcing, we created a dedicated Agency Competitive Sourcing Team to oversee competitive sourcing initiatives and a Competitive Sourcing Review Board and network to facilitate internal communication. NASA initiated two standard competitions, and we conducted nearly continuous public-private competitions to fund world-class, cost-effective scientific research. Pursuant to the *Federal Activities Inventory*

*Reform Act*, NASA's 2004 inventory identifies 445 scientists and engineers engaged in NASA science projects as a result of winning competitions under NASA Research Announcements and Announcements of Opportunity.

- In the area of Improved Financial Management, we continue to fine-tune and benefit from NASA's newly implemented Integrated Financial Management System Core Financial Module (IFMS-CFM). This program standardizes financial data and processes across the Agency and replaces the 140 disparate financial systems previously in place. However, we also must resolve continuing problems related to the transition to our new system as described in detail below.

## **FY 2004 Financial Statements Summary**

NASA's financial statements were prepared to report the financial position and results of the Agency's operations in accordance with generally accepted accounting principles as defined by *The Chief Financial Officer's Act* of 1990. These financial statements were prepared from NASA's IFMS-CFM and other Treasury reports in accordance with formats prescribed by the Office of Management and Budget. They are in addition to financial reports prepared from the same books and records used to monitor and control budgetary resources. The statements should be read with the realization that NASA is a component of the U.S. Government, a sovereign entity.

### **ASSETS, LIABILITIES, AND CUMULATIVE RESULTS OF OPERATIONS**

The Consolidated Balance Sheet reflects total assets of \$45.4 billion and liabilities of \$3.7 billion for FY 2004. Unfunded liabilities reported in the statements cannot be liquidated without legislation that provides resources to do so. About 76 percent of the assets are property, plant, and equipment (PP&E), with a book value of \$34.6 billion. PP&E is property located at NASA's Centers, in space, and in the custody of contractors.

Almost 75 percent of PP&E consists of assets held by NASA, while the remaining 25 percent is property in the custody of contractors. The book value of assets in space (i.e., various spacecraft operating above the atmosphere for exploration purposes), constitutes \$18 billion, or 69 percent, of NASA-owned and -held PP&E.

Cumulative Results of Operations represents the public's investment in NASA, akin to stockholder's equity in private industry. The public's investment in NASA is valued at \$36.9 billion. The Agency's \$41.7 billion net position includes \$4.8 billion of unexpended appropriations (undelivered orders and unobligated amounts or funds provided, but

not yet spent). Net position is presented on both the Consolidated Balance Sheet and the Consolidated Statement of Changes in Net Position.

### **NET COST OF OPERATIONS**

The Statement of Net Cost shows the net cost of NASA's operations for FY 2004 (i.e., the amount of money NASA spent to carry out programs funded by Congressional appropriations). As noted, in August 2004, NASA restructured and streamlined the organization by moving to four Mission Directorates. The statement of net cost is organized by each of the new Mission Directorates separately and presents the Space Flight Capabilities (Net Costs of \$6.4 billion), and Science, Aeronautics, and Exploration (Net Costs of \$8.6 billion) separately with all remaining items reported as costs not assigned (Net Costs of \$1.5 billion).

### **IMPROPER PAYMENTS**

In compliance with the *Improper Payments Information Act* of 2002 and specific guidance from the Office of Management and Budget, NASA developed a systematic process for reviewing all programs that are susceptible to significant improper payments. All NASA Centers were tasked to perform a statistical sampling of payments to determine the rate, volume, and amount of payments that were made improperly. Based on the review, 759 payments representing \$14,655,922 were examined. The results of the examination indicated that fifteen payments were made improperly. Those payments amounted to \$70,599 and an error rate of 2.0 percent.

Since NASA's FY 2004 performance was better than the Office of Management and Budget error rate threshold of 2.5 percent or greater and total improper payments of \$10,000,000 or more, NASA is not at risk for significant improper payments. Our low rate of improper payments is due in large part to improved internal controls. We are in the process of awarding a recovery audit contract to assist us in identifying and recouping erroneous payments.

## **Management and Financial Systems, Controls, and Legal Compliance**

This report satisfies the legislative requirements that NASA address the systems and internal controls in place to ensure management excellence, accountability, and Agency compliance with applicable laws, statutes, and regulations. NASA identifies issues of concern through a strong network of oversight councils and internal and external auditors including NASA's Operations Council, the Office of Inspector General, the General Accountability Office, the Office of Management and Budget, and a number of special external advisory bodies. In addition, NASA utilizes various systems to ensure effective management, including NASA's Online Directives Information System (used to communicate applicable policy and procedural requirements

Agency-wide), NASA's Corrective Action Tracking System (used to track audit follow-up actions), and Erasmus (used by executive management to review program and project performance).

NASA is in compliance with all relevant laws, statutes, and legislation, unless otherwise noted and explained.

### **STATEMENT OF RELIABILITY AND COMPLETENESS OF FINANCIAL AND PERFORMANCE DATA: AUDIT RESULTS**

NASA accepts the responsibility of reporting performance and financial data accurately and reliably with the same vigor as we accept and conduct our scientific research.

All performance data for this report is gathered and reported through a system of rigorous controls and quality checks. Representatives from each Enterprise/Mission Directorate gather year-end performance data from their respective program and project officers. The Associate Administrators of each Enterprise/Mission Directorate review and validate the data. Analysts in the Office of the Chief Financial Officer also review the data before it is archived with all pertinent source information. In addition, NASA uses its new Erasmus management information system to track and report on performance, schedule, and financial data on a regular basis.

Fiscal year 2004 marked the first year that NASA conducted all financial operations using IFMS-CFM at all NASA Centers. The new system is certified by the Joint Financial Management Improvement Program and provides a consistent operating environment and improved internal controls.

Our financial statements are prepared from the Agency's accounting books and records, and the financial data contained in this report was subjected to a comprehensive review process to evaluate its accuracy and reliability. While the new IFMS-CFM improved NASA's financial management processes during this first full year of operations, we experienced significant challenges with system start-up and data conversion issues. As with the implementation of any new system, critical transactional data must be identified, validated, documented and converted—and conversion errors are likely to occur. NASA deployed dedicated resources throughout the Agency to analyze and reconcile data differences. As the fiscal year ended, we made significant corrective progress, but there remain some unresolved data issues. Consequently, we were unsuccessful in fully resolving the data issues that resulted from the system conversion, and the independent auditors were unable to render an opinion on our FY 2004 financial statements; they issued a disclaimer of opinion.

Therefore, for FY 2004, I can provide reasonable assurance that the performance data in this report is complete and reliable. Performance data limitations are documented explicitly. However, I cannot provide reasonable assurance that the financial data in this report is complete and reliable.

### **FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT (FFMIA)**

In accordance with the *Federal Financial Management Improvement Act* (FFMIA), our IFMS-CFM is able to produce financial and budget reports. However, because of unresolved data conversion issues, the system is unable to provide reliable and timely information for managing current operations and safeguarding assets. Although the IFMS-CFM is transactional based, it does not record all transactions properly, at the account detail level required in the U.S. Standard General Ledger.

Because of the above conditions and some residual system security concerns, NASA's IFMS-CFM does not comply with the requirements of the *Federal Financial Management Improvement Act*. Significant progress has been made toward resolving the issues that prevented the system from being FFMIA compliant in FY 2004. In FY 2005, NASA will focus on bringing the system into compliance.

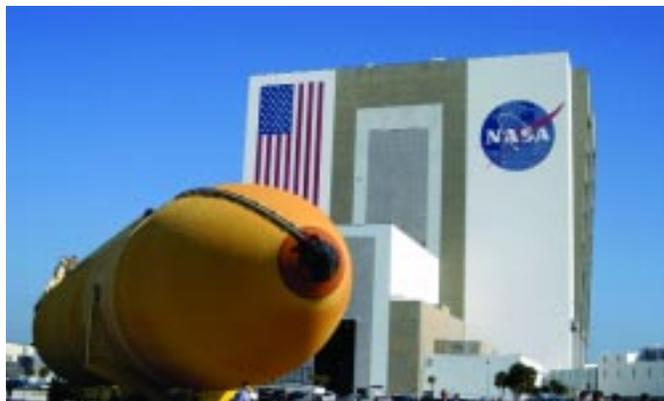
### **FEDERAL MANAGERS FINANCIAL INTEGRITY ACT (FMFIA) STATEMENT OF ASSURANCE**

NASA submits a qualified Statement of Assurance for FY 2004 because we are reporting three material weaknesses. In response to recommendations of the NASA Operations Council, I have decided that one material weakness reported in FY 2003, Space Shuttle, should remain open as we project full return to flight no sooner than 2005. After the Space Shuttle returns safely to flight and all recommendations of the *Columbia* Accident Investigation Board are closed, this material weakness will be downgraded in magnitude for external reporting, but it will be tracked internally for prudent oversight.

For FY 2004, I also am adding two new material weaknesses: Financial Management and Contractor-Held Property and Materials.

### **CONTINUING MATERIAL WEAKNESSES Space Shuttle**

The Final Report of the *Columbia* Accident Investigation Board identified a number of systemic cultural, organizational, and managerial issues within the Space Shuttle program (and NASA as a whole) that contributed to the *Columbia* accident on February 1, 2003. The Board identified 15 "Return to Flight" and 14 long-term recommendations designed to address these issues. NASA's return to flight effort is guided by these recommendations, as well as by internal "raise the bar" actions identified by the Space Shuttle program.



**Figure 4: A Shuttle external tank was guided out of the Vehicle Assembly Building at Kennedy Space Center as it began its journey to the Michoud Space Systems Assembly Facility near New Orleans, Louisiana.**

NASA continues to embrace the Board's report, accept the findings, and comply with the Board's recommendations. NASA's *Implementation Plan for Space Shuttle Return to Flight and Beyond* outlines the path that NASA will take to respond to the recommendations and safely return to flight. We will continue to update this document periodically to reflect changes to the plan and the progress we make toward implementation of the recommendations, and the Stafford-Covey Return to Flight Task Group will continue to review our actions. NASA will not return the Space Shuttle to flight until this Task Group determines that all recommendations have been addressed adequately. To date, the Space Shuttle program has closed five of these recommendations conditionally with the Stafford-Covey Task Group. We continue to make progress towards closing the remaining recommendations to achieve our goal of returning the Space Shuttle to flight in 2005.

### **NEW MATERIAL WEAKNESSES Financial Management**

In FY 2004, NASA is reporting a material weakness in its Financial Management based on two consecutive years of disclaimer issued by external auditors on the Agency's annual financial statements. NASA has not reconciled its Fund Balance With Treasury account balance to amounts reported by the Department of the Treasury. While NASA made progress toward correcting transactions related to the FY 2003 Fund Balance With Treasury adjustments to the accounting system, many Fund Balance With Treasury transactions remain unresolved. In addition, NASA also has not resolved all issues related to the accounting system conversion that took place in FY 2003.

During FY 2004, we updated and published financial management policies and procedures to standardize financial operations and practices throughout the Agency. We also published our annual



financial statements from the IFMS-CFM one month before the required submission date of November 15, 2004.

During FY 2005, NASA will revise its long-range financial management improvement plan to reflect all critical tasks and to ensure financial data are accurate, timely, and reliable for Agency managers.

### **Contractor-Held Property and Materials**

NASA has elevated the significance level of a major deficiency in contractor-held property and materials that was identified as a material weakness in the *FY 2002 Performance and Accountability Report*. In FY 2003, NASA downgraded this material weakness to an internally tracked “other” weakness because many actions had been taken to correct accountability and reporting on this weakness. In FY 2004, NASA continued to implement corrective actions, and we made measurable progress to mitigate this weakness, including publication of definitive policies and procedures to account for property in the possession of contractors. The Office of the Chief Financial Officer implemented a quality control program to assess our largest contractors’ compliance with Agency policies and procedures for validating and reporting NASA property and materials in their possession. NASA also conducted training on the updated policies and procedures for NASA employees and contractor staffs.

In FY 2005, NASA will implement an automated asset tracking system for contractor-held property to facilitate accounting and reporting. We also will continue to make process improvements to ensure that internal control of property is established and maintained effectively.

## **Looking Forward**

The focus of NASA’s future is clear thanks to our new Vision for Space Exploration. Clear, too, are the current management and performance challenges we must confront and overcome to achieve this Vision as evidenced by the consistency in report findings and recommendations from the *Columbia* Accident Investigation Board, the Aldridge Commission, and our own Inspector General.

NASA is forging ahead to correct organizational and technical deficiencies that will enable us to function more efficiently and effectively as One NASA, return the Space Shuttle to flight, and continue assembly of the International Space Station. We are working to ensure that NASA’s Integrated Financial Management System improves the Agency’s ability to allocate costs to programs, provides reliable information to management, and supports NASA’s compliance with the *Chief Financial Officers Act* of 1990. And, we are continuing our efforts to enhance information technology

security throughout the Agency by strengthening our internal controls.

NASA’s transformation will continue in the months ahead as we make changes to enhance our ability to implement the Vision for Space Exploration. We embrace these opportunities as only NASA can!

Sean O’Keefe  
NASA Administrator