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Photographs:

Cover: Digital artist's concept shows the International Space Station after all assembly is completed.

Page iv, Kennedy Space Center, Florida, Endeavour is inching its way to Launch Pad 39B via the crawlerway that leads from the Vehicle Assembly Building.

Page vi, STS-92 Onboard View—Tethered to Unity on the International Space Station, astronaut Michael Lopez-Alegria prepares to snap a picture with a 35mm camera.

Page 14, Kennedy Space Center, Florida—This view of the shock wave condensation collars backlit by the sun occurred during the launch of Atlantis on STS-106.

Page 24, Onboard View—A crew member inside the Space Shuttle Discovery snapped this picture of astronaut Michael Lopez-Alegria during one of two of his space walks. Unity is pictured along with part of the pressurized mating adapter.

Page 36, Kennedy Space Center, Florida—At Launch Pad 39A, the payload canister with the Integrated Truss Structure Z1 inside arrives at the spot under the Rotating Service Structure where the canister can be lifted into the Space Shuttle Discovery's payload bay. Discovery is at right, sitting atop the Mobile Launcher Platform.

Page 50, Kennedy Space Center, Florida—In Orbiter Processing Facility Bay 3, STS-106 crew familiarize themselves with equipment in the payload bay of the Space Shuttle Atlantis with the help of Kennedy employees.

Page 58, Kennedy Space Center, Florida—Viewed from an upper level in the Vehicle Assembly Building, the orbiter Atlantis waits in the transfer aisle after its move from the Orbiter Processing Facility.

Page 60, STS-92 Onboard View—Astronaut Michael Lopez-Alegria, mission specialist, hangs onto a handrail on the U.S.-built Unity on the International Space Station.

Page 64, STS-106 Onboard View—This unique picture captures a number of elements illustrating the busy agenda of the STS-106 astronauts in Earth Orbit. The Space Shuttle Atlantis, its remote manipulator system arm in operational mode, as well as part of the International Space Station are included in the photo.

Page 72, STS-92 Onboard View—Anchored to a restraint device on the end of the remote manipulator system robot arm, astronaut Michael Lopez-Alegria uses a pistol grip tool.

Page 82, STS-101 EVA [Extravehicular Activity] View—Astronaut Jeffrey N. Williams, mission specialist, hangs onto one of the newly installed handrails on the International Space Station's pressurized mating adapter during a 6-hour, 44-minute space walk.

Page 96, STS-101 Liftoff—Partially obscured by clouds, which its own engines generated, the Space Shuttle Atlantis launches from Launch Pad 39A to begin the STS-101 mission. Liftoff occurred at 6:11:10 a.m. (EDT), May 19, 2000.

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Reporting Requirements

The Inspector General Act of 1978, as amended, specifies reporting requirements for semiannual reports. The requirements are listed below and cross-referenced to this report.

IG Act Citation	Requirement	Page(s)
Section 4(a)(2)	Review of Legislation and Regulations.....	45 and 73
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies.....	15-22
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Section 5(a)(11)	Significant Revised Management Decisions.....	23
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Debt Collection

The Senate Report accompanying the supplemental Appropriations and Rescissions Act of 1980 (P.L. [Public Law] 96-304) requires Inspectors General to report amounts due the agency, and amounts that are overdue and written off as uncollectible.

The Financial Management Division provides this data each November for the previous fiscal year. For the period ended September 30, 2000, the receivables due from the public totaled \$7,376,974, of which \$1,323,701 is delinquent. The amount written off as uncollectible for the period October 1, 1999, through September 30, 2000, was \$774,112.

The NASA Office of Inspector General prioritizes its planning and resources to reflect what we have identified as NASA's Top Ten Management Challenges.¹ We believe that the following areas present the greatest challenges to NASA: safety and mission assurance, the International Space Station Program, information technology, procurement, fiscal management, program and project management, launch vehicles (low cost space transportation), technology development, international agreements (international cooperative activities), and environmental management. Significant areas of concern reported during this period include safety and mission assurance, information technology security, and program and project management.

Safety is still NASA's number one core value. Accordingly, we reviewed the oversight of the Shuttle contractor's safety procedures at Johnson Space Center. Our first report on this assignment identified that the Johnson Safety Office was not providing the required support to the Space Shuttle Program Safety Manager for oversight of the contractor's safety activities. We also found that NASA's contractor surveillance plans did not address all contract safety requirements, key safety personnel changes were not updated by the contractor, and contractor reporting to NASA of close calls and mishaps needed improvement. Our administrative investigation team identified unsafe conditions at one NASA installation's airport. NASA management quickly responded to our report and is taking steps to correct the problems.

Information systems are essential in the support of NASA's mission-critical activities including Shuttle launch processing, mission control, and satellite operations. During this period, our work in this area focused on security and integrity controls to help protect NASA systems, data, and information from unauthorized access within NASA and from outsiders. We found that NASA's methodology for searching computer systems IT vulnerabilities did not result in an adequate assessment of system vulnerabilities. Also, we found opportunities for NASA to improve its privacy policies to better protect the privacy rights of its Web site visitors, and we recommended that the Chief Information Officer conduct an Agencywide assessment of disaster recovery and contingency planning for mission-related systems. We addressed improvements to operational effectiveness and management controls during a review of a NASA Center's firewall and made recommendations to improve internal controls over laptop computer hard drives used in a loaner pool.

In cooperation with NASA officials and other law enforcement agencies, investigators from our Computer Crimes Division continue to apprehend those who illegally access NASA's computer

¹ The Honorable Fred Thompson, Chairman, Senate Committee on Governmental Affairs; Pete V. Domenici, Chairman, Senate Committee on the Budget; Richard K. Armey, House Majority Leader; Dan Burton, Chairman, House Committee on Government Reform; and John R. Kasich, Chairman, House Committee on Budget requested the OIG to identify and provide to Congress a list of those areas considered by the OIG to be the most serious management challenges facing the Agency. In addition to Congress, this information is also provided to NASA management and receives wide distribution throughout the community and to other interested parties.

systems. For example, cyber criminals who illegally accessed NASA computer systems at Stanford University, Goddard Space Flight Center, and Johnson Space Center were apprehended.

Program and project management issues increasingly require NASA management's attention. During this period, we reported that the "faster, better, cheaper" initiative had not been adequately defined in policies and strategic planning processes. The Advanced Aeronautics Program did not adequately address schedule, technical risks, and risk management; moreover, NASA controls over resources were not adequate and did not ensure compliance with the Federal Acquisition Regulation. We also reported inconsistent use of the metric system and significant problems with NASA's oversight of NASA-funded Russian research in the mid-1990's.

My office also testified before the House Subcommittee on National Security, Veterans Affairs and International Relations on key management issues at NASA, and before the House Committee on Science on NASA's Management of the International Space Station Program. Both hearings provided my office the opportunity to share numerous recommendations to improve economy, efficiency, and cost effectiveness on NASA's programs and projects.

My office will continue to focus its resources on those areas identified as management challenges for the Agency as we look to the second 6 months of this fiscal year. I look forward to working with the Administrator and the Agency to assure successful and cost effective aerospace, aeronautics-space technology, earth science, and space science programs.

Roberta L. Gross
Inspector General

The Agency

The National Aeronautics and Space Administration (NASA) is a Federal research and engineering agency with a stated mission to:

- Advance and communicate scientific knowledge and understanding of the Earth, the solar system, and the universe and use the environment of space for research.
- Explore, use, and enable the development of space for human enterprise.
- Research, develop, verify, and transfer advanced aeronautics, space, and related technologies.

NASA's budget authority for fiscal year (FY) 2001 is \$14.1 billion.

NASA accomplishes its space, aeronautics, science, and technology programs through its nine Centers, the Jet Propulsion Laboratory (JPL), NASA Headquarters, and contractors located throughout the country. NASA also relies on large and small off-site contractors and other partners; members of the academic community; other Federal, State, and local agencies; and space agencies throughout the world. Approximately 19,000 NASA employees are dispersed among Headquarters and NASA's field locations. The management of NASA programs is organized around five Strategic Enterprises:

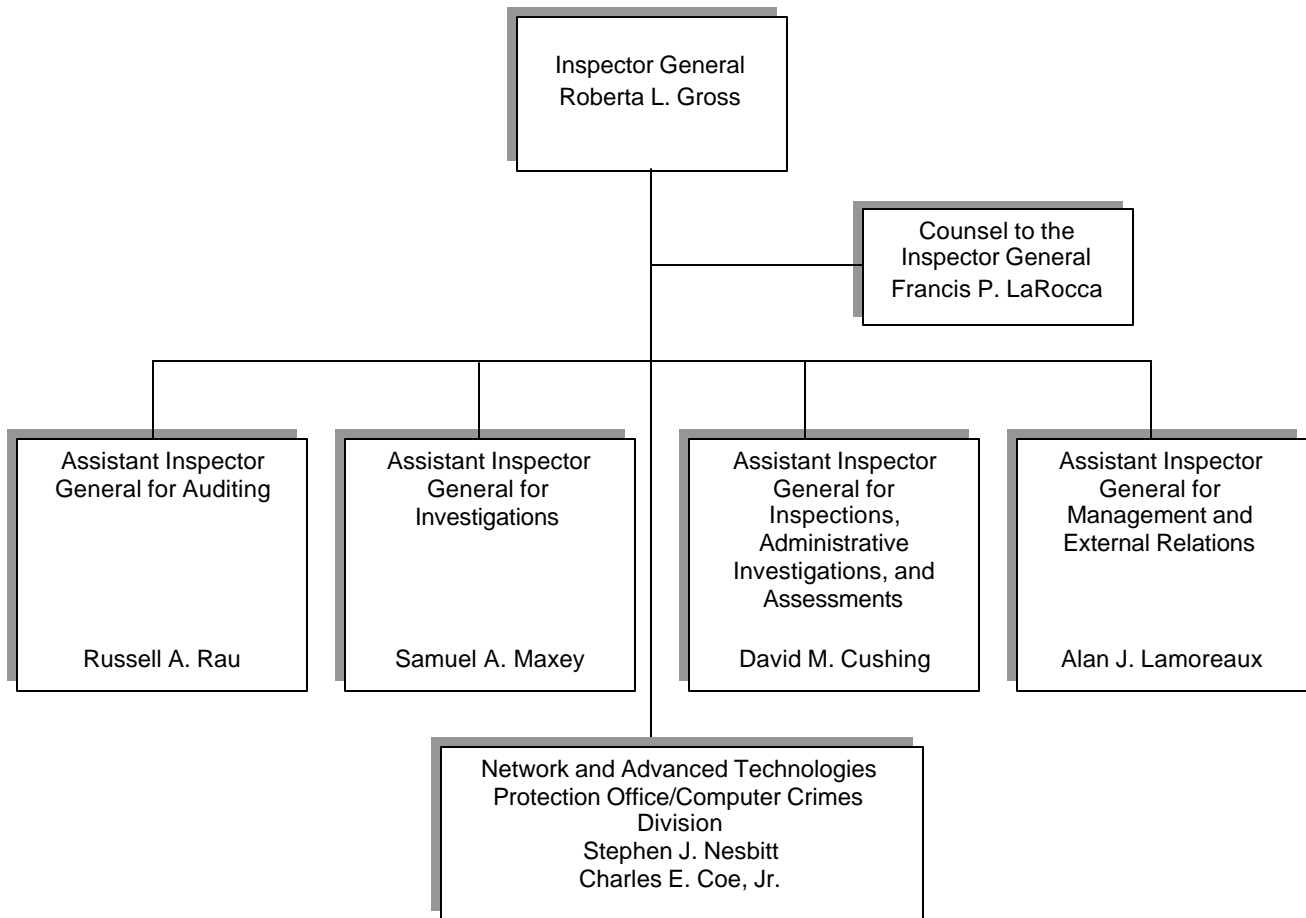
- Space Science
- Earth Science
- Human Exploration and Development of Space
- Biological and Physical Research
- Aerospace Technology

The Office of Inspector General

The Office of Inspector General is a diverse, multidiscipline workforce located at Headquarters and in offices at all NASA Centers, NASA Headquarters, JPL, and other sites throughout the country. The organizational structure focuses resources on those areas representing the Agency's highest vulnerabilities, especially safety, procurement, information technology (IT) security, and export of sensitive technology controls and processes. Under the general direction of the Inspector General, the Assistant Inspectors General (AIG's) for the OIG's three major program offices (Office of Audits; Office of Criminal Investigations; Office of Inspections, Administrative Investigations, and Assessments); as well as the Network and Advanced Technologies Protection Office/Computer Crimes Division develop, implement, and manage their respective programs. The Counsel to the Inspector General and the OIG legal staff provide advice and assistance on a variety of legal issues and matters relating to the OIG's reviews of Agency programs and operations.

The AIG for Management and External Relations (AIGMER) serves as congressional liaison and coordinates outreach activities. The AIGMER also advises the Inspector General and OIG managers and staff on administrative, budget, and personnel matters, and oversees OIG adherence to management policies. Under the AIGMER's guidance, the OIG exercises autonomous personnel and budget authority (Reference Sections 6(a)(6), (7), and (8) of the Inspector General Act, 5 U.S.C. [United States Code] Appendix III).

OIG Organization



Office of Audits

The Office of Audits provides a broad range of professional audit and advisory services of NASA and contractor activities that focus on key issues impacting the NASA mission, and are responsive to congressional and administration leadership. During this period, the OIG Office of Audits issued 23 audit reports that addressed program and operational areas with a high vulnerability of risk and impact on NASA operations, internal control weaknesses, and other management concerns. Appendix II lists these reports. Because many of NASA's major contractors are also Department of Defense (DoD) contractors, the services of the Defense Contract Audit Agency (DCAA) are relied upon for some audits. Information on all DCAA reports issued and action taken by NASA management during the 6-month period is contained in Appendix III. In addition, we continue to fulfill our statutory oversight responsibilities related to contract audits and audits of NASA grants and contracts at educational and nonprofit institutions that are performed by public or state auditors, and assure that those auditors meet government auditing standards. Our goal is to enhance the protection of NASA personnel and resources through published reports; consulting engagements; commentary on NASA policies; and deterrence of crime, fraud, waste, and abuse.

Office of Inspections, Administrative Investigations, and Assessments

The Office of Inspections, Administrative Investigations, and Assessments (IAIA) staff provides constructive evaluations of Agency programs, projects, and organizations. The IAIA staff conducts evaluations and reviews of policies, processes, programs, and operations to determine whether resources are effectively managed and applied toward accomplishing NASA's missions. Other IAIA projects include special assessments of specific management issues and plans. The IAIA staff also conducts administrative investigations. These investigations include misuse of Government equipment and other resources, violations of the Standards of Conduct, and other forms of misconduct.

The IAIA staff provides technical expertise in various specialties such as procurement, information technology security, personnel, and aerospace technology to OIG auditors, attorneys, and other staff. For instance, IAIA staff continued its support of the Office of Criminal Investigations by partnering with special agents in conducting cases.

The IAIA office also continued its focus on outreach and education activities by managing the OIG Web site, overseeing production and distribution of the *NASA OIG Review* newsletter, and contributing to OIG outreach initiatives. The IAIA staff actively participated in the OIG contract fraud awareness program and a program to alert NASA employees and the public to computer security and identity theft threats.

Office of
Criminal
Investigations

Although OIG investigations originate from many sources, a majority of investigations are predicated on information provided by NASA employees, contractor employees, or other Federal agencies. The OIG continues to focus investigative resources on preventing and detecting fraud, criminal activity, and waste in NASA's procurement activities and has expanded its capability to investigate statutory violations in the Agency's electronic data processing and advanced technology programs, as part of the Network and Advanced Technologies Office (NATPO), Computer Crimes Division (CCD).

Network and
Advanced
Technologies
Office

The NATPO provides real-time investigative response capability to NASA's communications infrastructure to protect NASA's flight operations, research, spacecraft support, telecommunications, and aeronautics missions. NATPO assists the Agency in detecting and identifying the extent of damage or mitigating damage to NASA's information infrastructure and helps to enhance NASA's IT security posture. NATPO, working in cooperation with NASA's Office of Security Management and Safeguards, is also the responsible entity for developing and implementing the Agency's cyber counter-intelligence response.

Office of
Management
and External
Relations

The Office of Management and External Relations is comprised of a customer service-oriented staff that provides administrative, financial, and budget, and personnel services support to OIG personnel at all locations. Administrative services consist of procurements, travel and training management, relocation, facilities management, and preparation of OIG Semiannual Reports to Congress, and annual plans. Financial and budget services include budget planning, programming, execution, and control as well as ad hoc analyses of OIG expenditures and related policies. Personnel functions consist of employee staffing, position classification, performance and pay management, and employee relations. External relations functions are managed directly by the AIGMER and include liaison with Congressional members and staffs, colleges and universities, and other Federal agencies and organizations.

Counsel to the
Inspector
General

The Counsel to the Inspector General is the central official for reviewing and coordinating all legislation, regulations, Freedom of Information Act (FOIA) requests, and legal matters requiring OIG attention. The OIG legal staff provides advice and assistance to senior OIG management, staff auditors, inspectors, and investigators, and serves as counsel in administrative litigation in which the OIG is a party.

Safety and Mission Assurance

Safety remains the Agency's number one core value. The Administrator has stated that the Agency Safety Initiative (ASI) is aimed at strengthening NASA's capabilities so that safety permeates every aspect of NASA work, and that promoting and maintaining safety for the public, the astronauts, employees, and high-value assets is a prerequisite for NASA's success as an Agency. The Administrator requested every NASA organization to review NASA's safety policy with all personnel and commit individuals and organizations anew to a heightened awareness and constant vigilance for health and safety.

Our work during this semiannual period reflects this NASA core value. The NASA OIG has several safety and mission assurance audits and reviews, both ongoing and completed. During this period, we performed an audit of the United Space Alliance's (USA's) safety procedures under NASA's Space Flight Operations Contract (SFOC). As part of the audit, we reviewed the oversight of USA's safety procedures for the Space Shuttle Program at the Lyndon B. Johnson Space Center (Johnson). Our first report on this assignment identified that the Johnson Safety, Reliability, and Quality Assurance Office (Johnson Safety Office) is not providing the required support to the Manager, Space Shuttle Program Safety and Mission Assurance (Space Shuttle Program Safety Manager), for oversight of USA's safety activities. We also found that: (1) NASA's contractor surveillance plans did not address all SFOC requirements for safety; (2) USA did not update its Management Plan to reflect organizational and personnel changes to the SFOC, including changes in key safety personnel from NASA and USA; and (3) USA's reporting to NASA of close calls and mishaps needs improvement. As a result, NASA did not have adequate management controls in place to ensure: (1) effective oversight of USA's safety operations under the SFOC, (2) better control over \$13 million in annual Space Shuttle Program funds provided to the Johnson Safety Office, and (3) that adequate corrective actions are taken on all safety mishaps and close calls.

While management did not agree with all of the findings, Johnson concurred with the recommendations and has planned or taken responsive corrective actions. Johnson will establish procedures to clarify the responsibilities of the Johnson Safety Office to ensure that it provides the necessary support to the Space Shuttle Program Safety Manager. Johnson also plans to update the various SFOC surveillance plans to adequately address safety, revise the SFOC Management Plan to reflect current operations, and ensure that the Agency's automated mishap tracking system accurately reflects current USA mishap and close call information.

The actions initiated in response to this audit demonstrate NASA management's commitment to ensuring that the Space Shuttle Program is conducted safely. Our work is continuing on this assignment in the area of USA's control over the use of plastics, foams, and adhesive tapes in Space Shuttle processing facilities and with regard to NASA's oversight of the USA's safety activities.

One of our administrative investigation teams reviewed possible safety deficiencies at one NASA installation's airport. Our team found several unsafe conditions, promptly reported them to management, and followed up to ensure that corrective actions were underway. NASA management quickly responded to our report and is taking steps to correct the problems.

Information Security

NASA relies heavily on information systems to support its mission-critical activities including Shuttle launch processing, mission control, and satellite operations. NASA's systems present an attractive target for computer hackers and other intruders desiring to access or damage NASA information. Accordingly, maintaining a secure computing environment is essential to the accomplishment of NASA's critical missions.

Host-Based Security — The OIG Information Assurance Directorate within the Office of Audits continued to conduct audits of host operating system and data base security in selected NASA mission-related systems. These audits focus on security and integrity controls to help protect NASA systems, data, and information from unauthorized access from within NASA as well as from outside intruders who may be successful in circumventing network and perimeter controls.

We continued to identify vulnerabilities that increase the probability that NASA system and application software, data, and information could be successfully circumvented. Examples of such vulnerabilities include inadequate:

- Password management.
- Management of system accounts.
- Protection of critical system directories and files.
- Control over powerful system capabilities that could allow a user to bypass security and auditing controls.
- System auditing to detect possible security intrusions and technical problems.
- System backup and recovery.

Vulnerabilities to Hostile Attacks — A Senate Report (S.R. 106-161) that accompanied NASA's FY 2000 Appropriation Act directed NASA, in conjunction with the Inspector General, to report on an annual basis any vulnerabilities within the Agency to hostile attacks. We responded to the Senate's direction with a synopsis of NASA activities related to IT security as well as a summary of IT security vulnerabilities that the OIG identified throughout FY 2000. Weaknesses and vulnerabilities we identified included the following areas: host-based security, security planning, continuity of operations, physical security, personnel security, software change controls, network-based security, communications security, and incident response capabilities.

Information Security Planning — We continued our audit coverage of NASA’s information technology security planning. Specifically, we evaluated whether IT security planning policies and procedures have been implemented in accordance with Office of Management and Budget (OMB) Circular A-130, “Management of Federal Information Resources.” We determined that NASA had established an effective IT security planning process as an integral part of its strategic information resources management program. However, it has not developed adequate IT system vulnerability metrics for reporting under the Government Performance and Results Act (GPRA). We found that current policies for searching computer systems for a limited number of IT vulnerabilities do not result in an adequate assessment of NASA’s IT system vulnerabilities. As a result, the IT security risks and metrics that NASA reports to the Congress may understate vulnerabilities and provide undue assurance on the integrity, availability, and confidentiality of information.

Online Privacy – Online privacy has emerged as one of the key and most contentious issues surrounding the evolution of the Internet. The World Wide Web requires the collection of certain data from individuals who visit Web sites in order for the site to operate properly. However, collection of even the most basic data can be controversial because of the public’s apprehension about the type of information collected and how it could be used. Federal agency Web sites are governed by specific laws designed to protect an individual’s privacy when agencies collect personal information. P.L. 106-554, enacted December 16, 2000, required Inspectors General to report any activity related to the collection of personal information on agencies’ publicly accessible Internet Web sites. In response to the legislation, we conducted an audit to determine whether NASA was collecting any personally identifiable information about individuals who access Agency Internet sites, or whether NASA had entered into agreements with third parties, including other Government agencies, to obtain information about its Internet site visitors. Our audit found no Web sites that collected personally identifiable information without the user’s permission. Furthermore, we found no case where NASA had entered into a third party agreement to collect, review, or obtain personally identifiable information relating to an individual’s access or viewing habits for Internet sites. However, we did find opportunities for NASA to improve its privacy policies and practices to better protect the privacy rights of its Web site visitors. Certain NASA Web sites did not fully comply with OMB policy on Web site privacy because the Web site did not provide clear and conspicuous message warnings to users when leaving the NASA Web site and entering another Web site. NASA also needs to establish requirements to monitor the use of techniques that gather Web site user information to ensure compliance with OMB policy. Also, NASA needs to strengthen its Web site privacy statement and its procedures to establish and maintain publicly accessible Web sites

Continuity of Operations — We recommended that the NASA Chief Information Officer (CIO) conduct an Agencywide assessment of disaster recovery and contingency planning for mission-related systems. Previous OIG audits concluded that such systems did not have sufficient plans or capabilities to resume operations in the event of a disaster. The CIO concurred and directed the Centers to perform self-assessments of their special management attention IT systems by December 31, 2000. The CIO also agreed to ensure that corrective actions were taken for any significant deficiencies identified. The CIO has notified us that these self-assessments have been completed. We plan to initiate follow-up efforts in the near future.

Information Technology Security Training and Development and Other Human Resources

Considerations — We reviewed NASA’s IT security training and the Agency’s use of other human resource tools to attract and retain IT security workers to determine whether policies and procedures are in place and comply with existing laws and regulations. NASA concurred with five of the report’s seven recommendations that addressed improvements in security training and awareness and encouraged greater use of current authority to recruit, deploy, and retain IT professionals. We asked that management reconsider its nonconcurrence with two recommendations. NASA management believed that full compliance with two recommendations, which related to accelerating the IT training schedule, would not be the best use of resources.

Center Network Firewall — The OIG completed a review of a NASA Center’s information network firewall to determine whether the firewall was correctly configured and provides appropriate protection from hackers and other unauthorized users. Center management concurred with the report’s two recommendations, which addressed improved operational effectiveness and management controls.

Laptop Loaner Program Computer Hard Drives — As part of our ongoing focus on computer hard drive security, we completed a review of laptop computer hard drives used in a loaner pool at a NASA Center. Our objective was to determine whether these computers, loaned on a short-term basis to employees, were adequately cleared of user information when returned to the loaner pool. Management concurred with the report’s three recommendations that addressed improved internal controls. As a result of our experience, we also alerted all Centers to the possible vulnerabilities of loaned computers.

Program and Project Management

In April 1998, NASA issued NASA Procedures and Guidelines (NPG) 7120.5A, “Program and Project Management Processes and Requirements,” to improve program and project management. Over the past 3 years the Agency has been transitioning to full implementation of the NPG. During this time we have evaluated and reported on various program and project management issues on NASA contracts being managed under this new NPG. The following program and project management issues were highlighted in previous semiannual reports.

- NPG 7120.5 should be revised to emphasize contractor performance monitoring and technology transfers, and include specific requirements related to technical monitoring, communications, and contractor performance and the requirements and responsibilities of program and project managers regarding new technology reporting.
- NPG 7120.5 should be revised to effectively use earned value management (EVM) as a management tool. It should be an integrated part of program and project management to provide valid, timely, and auditable contract performance information on which to base management decisions.

- The NPG for Implementation of National Environmental Protection Act (NEPA) and Executive Order 12114 will establish standard procedures for implementing NEPA and the Agency's overall environmental planning process. These processes and procedures are important for program and project management issued.
- On November 22, 2000, the Agency issued a revised NASA Federal Acquisition Regulation Supplement (NFS) to include various risk management considerations and encompass safety, security (including IT security), health, export control, and environmental protection, within the acquisition process. These are important program and project management considerations that will require time for NASA to fully implement.
- We continue to have concerns regarding NASA's ability to provide accurate cost estimates for projects. NASA continues to have cost estimating activities that are not independent in funding and reporting and has not provided consistent cost analysis support at each Center.

During this semiannual period we identified additional program and project management issues that need to be addressed by Agency management:

- **Faster, Better, Cheaper Policy (FBC) Strategic Planning and Human Resource Alignment.** The FBC initiative has changed the way NASA does business, but it has not been adequately defined in NASA's policies and guidance or strategic planning process. In addition, the Agency has not established a clear linkage between mission staffing and accomplishing strategic goals.
- **X-37 Technology Demonstrator Project Management.** The X-37 Project Office did not adequately plan or fund its launch requirements or establish appropriate risk management. In addition, the contractor was using an unvalidated and untested EVM system.
- **Advanced Aeronautics Program.** The Advanced Aeronautics Program did not develop a project plan to address schedule, technical risk, and risk management. Also, the controls over project resources were not adequate, and the contract administration did not ensure compliance with Federal law, the Federal Acquisition Regulation (FAR) and NFS.
- **NASA's Use of the Metric System.** Following the loss of the Mars Climate Orbiter, we initiated a review of the Agency's use of the metric system. Our review found that use of the metric system is inconsistent across the Agency. In addition, NASA employees are given little guidance on the Agency's policy and procedures regarding the use of the metric system. Management concurred with all of our report's recommendations, except the recommendation that NASA use the metric system for interactions with the public. In responding to this recommendation, management agreed to use metric units in all education programs and only when communicating with the public about programs that use metric or hybrid metric/English units.

- **NASA Oversight of Russian Biotechnology Research.** We conducted an in-depth assessment that uncovered a significant problem with the Agency's oversight of NASA-funded Russian research in the mid-1990's. Our review found that NASA's funding of Russian biotechnology research (as part of a larger program to sustain Russian space researchers) was successful in some regards. However, NASA did not follow State Department guidance on how to safely collaborate with Russia. Management agreed with our recommendation that NASA carefully coordinate with the State Department on any future program that funds foreign researchers, particularly in nations not traditionally allied with the United States.

Over the next 3 to 5 years, we will continue to evaluate the effectiveness and efficiencies of the NPG and its revisions. We will assess whether the new management system improves overall cost and schedule performance for the Agency's major programs/acquisitions. In addition, we will continue to recommend process improvements as necessary.

An audit sample of NASA's publicly accessible Internet Web sites noted several issues related to NASA's privacy policies that require management's attention.

NASA Should Strengthen Privacy Policies and Management of Its Publicly Accessible Web Sites

(See Page 16)

NASA Has Not Benefited from Boeing's Corporate Restructuring

(See Page 16)

An OIG audit to determine whether Boeing's restructuring was executed in accordance with Federal guidance and was beneficial to NASA identified that NASA had (1) received an inequitable share of the projected restructuring savings and (2) little assurance that it will realize any actual savings from Boeing's restructuring. In addition, NASA could incur increased costs of as much as \$115 million due to changes in accounting procedures and cost allocation methods related to Boeing's restructuring, of which NASA has the opportunity to recover as much as \$64.7 million.

An audit disclosed that although NASA has been using the Faster, Better, Cheaper approach to manage projects since 1992, NASA had neither defined FBC nor implemented policies and guidance for FBC. Without a common understanding of FBC, NASA cannot effectively communicate its principles to program/project managers or contractor employees.

NASA's Needs to Incorporate Faster, Better, Cheaper Guidance into Its Strategic Management Process

(See Page 18)

Improvements Are Needed in X-37 Project Management

(See Page 20)

An OIG audit found that the X-37 Project had not adequately planned or funded its launch requirements. The audit identified \$115 million in funds that could potentially be put to better use, by revising launch requirements.

At least 44 contaminated sites require completion of certain types of environmental analyses before NASA can determine the extent to which it should be seeking cost sharing or cost recovery arrangements with potentially responsible parties (PRP's). Of the \$140.7 million that will be required to clean up these 44 sites, NASA may be able to avoid up to \$37.9 million in cleanup costs through cost sharing agreements once the required analyses have been completed.

NASA Should Complete Potentially Responsible Party Analyses for All Sites Expected to Cost \$500,000 or More to Cleanup

(See Page 22)

NASA Use of Support Service Contractors

(See Page 35)

Management at the John H. Glenn Research Center (Glenn) and the NASA Office of Procurement concurred with our recommendations aimed at improving NASA compliance with applicable Federal regulations and sound internal controls related to the use of support service contractors, including increasing manager and employee awareness, and improving contract administration oversight.

NASA's use of the metric system is inconsistent across the Agency. A waiver system, which was required by law and put into effect to track metric usage and encourage conversion, is no longer in use; and, NASA employees are given little guidance on the Agency's policy and procedures regarding the use of the metric system.

Assessment of NASA's Use of the Metric System

(See Page 34)

\$2 Million Civil Settlement Reached with NASA Contractors

(See Page 39)

To settle allegations relating to false claims, two NASA contractors reached an agreement with the Department of Justice (DoJ). The contractors agreed to pay \$825,000 and to give up their rights to \$1.2 million in unpaid invoices.

An investigation resulted in a NASA contractor entering into a \$500,000 civil settlement with the California Attorney General's Office for violations of the California Health and Safety Code. The contractor knowingly burned hazardous waste.

Civil Settlement Reached in Burning of Hazardous Waste

(See Page 39)

A 17-year old juvenile pled guilty to one count of a state computer crime statute and was sentenced to 2 years probation and ordered to pay restitution to his victims in the amount of \$24,000. The juvenile admitted to compromising and defacing numerous Internet Web sites, including NASA sites at Johnson and the Goddard Space Flight Center (Goddard).

**Juvenile Ordered to Pay
\$24,000 in Restitution for
Defacing Web Sites**

(See Page 41)

**Computer Hacker
Pleads Guilty**

(See Page 42)

An individual pled guilty to recklessly causing damage to a protected system, unauthorized access of a nonpublic computer, and unauthorized use of an access device (credit cards). A criminal information alleged that the individual used credit cards to make over \$6,000 in unauthorized purchases, and caused over \$17,000 in damages to NASA computer systems at Stanford University.

SAFETY AND MISSION ASSURANCE

NASA Safety Oversight of Space Flight Operations Contract with the United Space Alliance Can Be Improved Report No. IG-01-017

Under NASA's Space Flight Operations Contract, the United Space Alliance is responsible for Space Shuttle modification, testing, checkout, and launch and landing activities at the John F. Kennedy Space Center (Kennedy) and flight operations at Johnson. USA's work affects the safety of NASA's astronauts, the Space Shuttle, and other space hardware, personnel, and equipment. As part of an audit of USA's safety procedures under the SFOC, we reviewed NASA's oversight of USA's safety procedures for the Space Shuttle Program. The audit showed that NASA did not have adequate management controls in place to ensure: (1) effective oversight of USA's safety operations under the SFOC, (2) better control over \$13 million in annual Space Shuttle Program funds provided to the Johnson Safety Office, and (3) that adequate corrective actions are taken on all safety mishaps and close calls. We recommended that NASA ensure that: (1) the Johnson Safety Office provide the Space Shuttle Program Safety Manager with the necessary support, (2) surveillance plans address all contract requirements for safety, (2) USA's SFOC Management Plan is kept current, and (3) USA promptly and accurately reports all required close call and mishap information to NASA's reporting system. Management did not agree with all of the findings but did concur with the recommendations and has planned or taken responsive corrective actions.

INFORMATION TECHNOLOGY

NASA's Information System Vulnerability Metric Can Be Improved Report No. IG-01-022

NASA's mission success depends on automated information resources. As technology evolves, these resources are increasingly vulnerable to external and internal attacks. Under the Government Performance and Results Act of 1993, Federal agencies must set goals, targets, and indicators to gauge performance, and report annually to the Congress on agency success in meeting those goals. One of NASA's targets for FY 2001 is to enhance IT security through a reduction of system vulnerabilities at all NASA Centers. The OIG conducted an audit to determine whether NASA had established and implemented effective policies and procedures for IT security planning, and whether the Agency developed adequate IT system vulnerability metrics for reporting under GPRA. We found that NASA has processes to ensure that IT security is considered as a part of the Agency's strategic information resource program planning. However, NASA's current policies for scanning its computer systems for only 47 software vulnerabilities that had been identified before June 1999 do not provide an adequate assessment of the Agency's IT system vulnerabilities. The software used to conduct the scans is capable of detecting more than 800 vulnerabilities, including 75 new ones that were added (through vendor upgrades) to the software from August 2000 through December 2000.

As a result, the IT security risks and metrics NASA reports to the Congress may understate NASA's IT vulnerabilities and provide undue assurance on the integrity, availability, and confidentiality of information. We recommended that the NASA Chief Information Officer: (1) include a description of the time periods and resources that are necessary to implement the Agency's information security program in the Agency annual performance plans, (2) develop additional GPRA IT security metrics, (3) increase the number of vulnerabilities tested to more accurately reflect the IT security risk, and (4) describe the extent of IT security vulnerability testing in the GPRA report. Management concurred with three of the recommendations and partially concurred with the recommendation to increase the number of vulnerabilities tested so as to more accurately reflect the IT security risk. Management did not fully concur due primarily to concerns about the amount of additional testing for vulnerabilities that might be required. Nonetheless, NASA requested that Centers change the metric to scan for an updated list of vulnerabilities. In addition, the NASA CIO agreed to work collaboratively with the OIG on the amount of testing required. The proposed management actions were responsive to all of our recommendations.

NASA Should Strengthen Privacy Policies and Management of Its Publicly Accessible Web Sites
Report No. IG-01-008

P.L. 106-554, enacted December 16, 2000, requires the NASA OIG to report any activity related to the collection of personal information on NASA's publicly accessible Internet Web sites. In response to P.L. 106-554, we sampled NASA public Web sites and reviewed the collection of personally identifiable information on those sites. In our limited testing, we found no evidence that NASA has engaged in the specific activities addressed by P.L. 106-554. However, we noted several issues that required management's attention and made five recommendations addressing NASA's Privacy Policies and the management of publicly accessible Web sites. Management did not concur with all the recommendations. Therefore, we have requested additional information and have asked management to reconsider its stated position. We will continue to work with management in resolving the reported privacy issues.

PROCUREMENT

NASA Has Not Benefited from Boeing's Corporate Restructuring
Report No. IG-01-006

Following its 1996 acquisition of the Aerospace and Defense Units of the Rockwell International Corporation (Rockwell) and its 1997 merger with the McDonnell Douglas Corporation (McDonnell Douglas), Boeing asked for and was granted an advance agreement by the Defense Contract Management Agency (DCMA). Under the agreement Boeing could charge the costs of its reorganizing and restructuring to Government contracts with the expectation

that future Government savings would be at least twice the amount of incurred restructuring costs. An OIG audit to determine whether Boeing's restructuring was executed in accordance with Federal guidance and was beneficial to NASA identified that NASA had (1) received an inequitable share of the projected restructuring savings and (2) little assurance that it will realize any actual savings from Boeing's restructuring. In addition, NASA could incur increased costs of as much as \$115 million due to changes in accounting procedures and cost allocation methods related to Boeing's restructuring. NASA has an opportunity to recover as much as \$64.7 million in contract offsets as a result of DCMA's efforts to mitigate some of the increased costs. We recommended that NASA pursue legislation similar to that provided the DoD regarding business restructurings and monitor any future restructurings to ensure that the 2-to-1 savings-to-cost ratio is realized. We also recommended that NASA coordinate with the DCAA to determine whether actual savings are accruing from the advance agreement and to ensure that DCAA segregate any NASA savings in its planned audit of Boeing's DoD business segments. We further recommended that NASA participate in the negotiations between the DCMA and Boeing to mitigate the adverse effects of the accounting and cost allocation changes resulting from the agreement. Management concurred with each recommendation and/or planned responsive corrective actions.

Contractor to Strengthen Controls Over the Award and Administration of Professional and Consultant Service Subcontracts
Report No. IG-01-012

The OIG conducted an audit to evaluate NASA's controls over United Space Alliance's use of professional and consultant services. The audit disclosed that USA officials did not maintain evidence on the nature and scope of the services being furnished, had inadequate documentation for decisions made to noncompetitively award consultant subcontracts, and had not prepared written justifications for the noncompetitive awards prior to starting work. As a result, costs charged to NASA by USA for these services might include unallowable costs. Also, the Agency has reduced assurance that USA obtained the best available source or price for these services. We recommended that: (1) NASA management direct USA to maintain complete documentation on furnished consultant services and on decisions to award these service contracts noncompetitively, and (2) NASA request DCAA to include reviews of professional and consultant services in future incurred cost audits and that the DCMA incorporate such service subcontracts into its reviews of USA's purchasing system. NASA concurred and took the recommended actions.

FISCAL MANAGEMENT

Process for Validating NASA's Performance Data Under GPRA Can Be Improved
Report No. IG-01-020

The OIG performed an audit to evaluate the accuracy and reliability of performance data for selected GPRA performance targets that will be in the Agency's FY 2000 Performance Report. The audit is a continuation of our oversight of NASA's implementation of GPRA as described in our Results Act Review Plan (See Appendix VI, page 75). Of the 23 performance targets we reviewed, 4 (17 percent) had written assessments of performance that did not accurately reflect supporting data and actual results. Factors contributing to this condition included: (1) failure to consistently follow procedures to verify and validate supporting data and results and (2) poor phrasing of some targets. Therefore, the planned reported performance on these four targets might not be fully reliable, which in turn may limit the usefulness of the information to NASA, OMB, and the Congress for decisionmaking. We recommended that NASA management review and correct information on the four targets we reviewed and verify and validate the supporting data for the other 188 FY 2000 targets not audited to ensure that all reported results in the Performance Report are accurate and reliable. We also recommended NASA develop future GPRA targets that are clear and represent desired performance. Management concurred with all recommendations, and management's proposed actions were considered responsive.

PROGRAM AND PROJECT MANAGEMENT

NASA's Needs to Improve Faster, Better, Cheaper Policies and Guidance and Incorporate Them into Its Strategic Management Process
Report No. IG-01-009

We consider NASA's Faster, Better, Cheaper approach to managing programs and projects to be a policy that should be defined, documented in policy documents, and incorporated into the strategic planning process. An audit disclosed that although NASA has been using the FBC approach to manage projects since 1992, NASA has neither defined FBC nor implemented policies and guidance for FBC. Without a common understanding of FBC, NASA cannot effectively communicate its principles to program/project managers or contractor employees. In addition, the Agency has not incorporated sufficient FBC goals, objectives, and metrics into NASA's strategic management process. Therefore, missions completed using FBC are outside the strategic management and planning process, and progress toward achieving FBC cannot be measured or reported. Finally, NASA has not adequately aligned its human resources with its strategic goals. As a result, the Agency cannot determine the appropriate number of staff and competencies needed to effectively carry out strategic goals and objectives for its programs. We recommended NASA define FBC, develop policies and guidance to describe its implementation, and

fully incorporate FBC into the strategic management process. In addition, we recommended that NASA align its staffing with strategic goals.

Although management partially concurred with developing policies and guidance to define FBC, describe its implementation, and to align staffing with strategic goals, we considered management's planned actions sufficient to meet the intent of our recommendations. However, management nonconcurred with the recommendation to fully incorporate FBC into the strategic management process. We reaffirmed our position and requested management to provide additional comments.

**Advanced
Aeronautics
Program's
Management
Controls Can Be
Improved
Report No.
IG-01-018**

An OIG audit found that management of the Advanced Aeronautics Program needs improvement. Because of security concerns and the need to restrict access, NASA has a very limited number of technical personnel involved with the daily management of the projects under the overall program. There is also a lack of program management involvement by financial and procurement management personnel. As a result, internal controls are not in place to protect resources and assess performance. We also found that project planning did not address cost, schedule, technical risks, and risk management. This lack of project planning has resulted in cost overruns, schedule slippages, and technical risks that are not necessarily being mitigated. In addition, program resources are not adequately controlled and financial and progress reports are not accurate. This results in NASA lacking complete assurance that its resources are being effectively used to advance the Agency's mission. Finally, NASA has not provided adequate contract administration over the project's contract to ensure compliance with the FAR, and NASA FAR Supplement requirements. We recommended that NASA implement management controls to ensure compliance with established policies and procedures such as those outlined in NPG 7120.5A, "NASA Program and Project Management Processes and Requirements." Specifically, processes should be in place to: (1) capture project history for future project planning, (2) keep NASA management informed of cost and schedule overruns, and (3) forward all issues requiring contracting officer input to the cognizant contracting officer. NASA should also conduct internal program reviews to account for all program funds, reevaluate all future planned costs, and formally update the project's memorandum of agreement. Management concurred with the recommendations and has planned or taken responsive corrective actions.

Improvements Are Needed in X-37 Project Management
Report No. IG-01-021

An OIG audit found that the X-37 Project had not adequately planned or funded its launch requirements. In addition, Boeing's use of an unvalidated and untested Earned Value Project Management system may adversely affect NASA's ability to establish and maintain effective insight into the status of X-37 Project cost and schedule performance. Also, the Marshall X-37 Project Office had not established appropriate risk management for the X-37 Project, which could leave the Agency vulnerable to the effects of significant risks.

The audit identified \$115 million in funds that could potentially be put to better use. We made recommendations related to selection of a launch vehicle and to improve planning for launch requirements. Management has delayed response to these recommendations until procurement activities related to the Space Launch Initiative are completed. We also recommended that NASA clarify the use of earned value management on cooperative agreements and ensure the validity and effective surveillance of the Boeing EVM system. In addition, NASA should improve risk management on the X-37 Project.

Management concurred with six of our recommendations on EVM and risk management. However, management nonconcurred with the recommendation to revise Agency directives to broaden the scope of applicability of Agency EVM requirements, stating they do not believe it is in the Government's best interest to unilaterally impose an EVM reporting requirement. We believe that when program/project costs reach the \$60 million threshold specified in Agency directives, the cost of EVM is warranted to ensure accurate data is available to NASA and its partners. Management also nonconcurred with the recommendation to revise Agency directives to address NASA-unique risks, stating Agency directives already provide the appropriate high-level of guidance for managing program risks. However, we believe that NASA managers should manage the NASA-unique risks and not rely on the contractors to manage such risks. We asked management to reconsider its position on these issues.

LAUNCH VEHICLES

NASA Should Establish a Pricing System for the Space Shuttle
Report No. IG-01-003

An OIG audit disclosed that NASA had not established a pricing system as required by 42 U.S.C. § 2466 and had not established a methodology for determining additive cost in accordance with that statute. Also, for a Space Shuttle flight offered to the Air Force for \$200 million, NASA had not established a definition for the "fair value" that must be charged to DoD customers in accordance with 42 U.S.C. § 2464, and had not considered the value of the service to the recipient (the cost to deploy the payload by

means other than the Space Shuttle) in determining the price, as required by 31 U.S.C. § 9701. NASA believes that it is charging the Air Force fair value and that, due to considerations such as commercialization and national security, the Agency has broad statutory authority to set prices on a case-by-case basis. Also, without a definition for fair value, interested third parties, such as OMB and the Congress, cannot make their own determination as to whether the definition and price are fair and reasonable. Further, NASA may be greatly subsidizing an Air Force mission for which Congress has fully appropriated funds. We recommended that NASA analyze the statutes and directives that address user charges, establish a pricing system with structured user charges, establish a definition for fair value, modify the authorization to United Space Alliance to seek only reimbursable commercial customers, accept only those offers for Space Shuttle commercial use that meet the user fee requirements, and include in the pricing system its methodology for determining additive cost as defined by 42 U.S.C. § 2466b. Management nonconcurred with all recommendations. We will request a management decision from the Audit Follow-up Official.

INTERNATIONAL AGREEMENTS

OIG Provides Congress with an Overall Assessment of NASA's Export Activities Report No. IG-01-001

Language in Senate Report 106-161, which accompanied P.L. 106-74 (FY 2000 Departments of Veteran Affairs and Housing and Urban Development, Independent Agencies Appropriations Act), directed NASA, in conjunction with the OIG to conduct an annual assessment and report to the Congress on all procedures, protocols, and policies governing the export or transfer of NASA-related technologies and to determine the extent to which NASA and its contractors are carrying out activities in compliance with Federal export control laws. In response to Congress, the OIG completed two audits during FY 2000 addressing issues pertaining to contractor exports of controlled technologies and NASA's oversight of those activities. The audits identified that improvements can be made in (1) NASA's oversight of contractors' export activities, as well as (2) Boeing's export control program related to exports effected on NASA's behalf. Recommendations were made to improve NASA oversight and the contractor's export control program. NASA management, which recognizes the importance of having an effective export control program, concurred with the recommendation and has initiated responsive corrective actions.

ENVIRONMENTAL MANAGEMENT

NASA Should Complete Potentially Responsible Party Analyses for All Sites Expected to Cost \$500,000 or More to Cleanup
Report No. IG-01-007

Although NASA has made progress in sharing site cleanup costs with potentially responsible parties, NASA has not fully implemented the requirements of Agency environmental guidance. Specifically, at least 44 contaminated sites require completion of certain types of environmental analyses before NASA can determine the extent to which it should be seeking cost sharing or cost recovery arrangements with potentially responsible parties. Of the \$140.7 million that will be required to clean up these 44 sites, NASA may be able to avoid up to \$37.9 million in cleanup costs through cost sharing agreements once the required analyses have been completed. We also concluded that NASA Centers and component facilities must do a better job of coordinating the analyses and cost sharing activities that they perform with the program offices responsible for reviewing and approving them.

We recommended that management ensure full implementation of NASA environmental policies by: (1) expediting the completion of the required PRP analyses; (2) providing supplemental guidance to better define the types of projects subject to NPG requirements and to identify the program offices that each NASA Center/facility must coordinate with; and (3) emphasizing to the program offices the Agency's policy regarding their responsibilities to ensure completion of the PRP analyses for their Centers, review the PRP analyses, approve the proposed agreements, and coordinate review of proposed agreements with the appropriate Headquarters offices. Management did not concur with our recommendations, but agreed to send a letter to the affected NASA Centers/facilities clarifying existing guidance and requesting them to submit preliminary PRP analyses within 6 months. The planned actions are responsive to the recommendations and show a strong management commitment toward arriving at a final determination for many sites still requiring a completed preliminary or full PRP analysis. However, management did not concur with our estimated \$37.9 million potential cost avoidance by having NASA agree to cost sharing or cost recovery arrangements with other PRP's for those sites still needing to be cleaned up. We will continue to work with management to resolve this amount.

Status of Management Decisions

In accordance with the requirements of Section 5(a)(8) and (9), Inspector General Act, as amended, the following two tables summarize the status of management decisions as of March 31, 2001.

Audits with Questioned Costs

	Number of Audit Reports	Total Costs Questioned
No management decision made by beginning of period	4	\$17,264,734
Issued during period	3	\$ 600,173
Needing management decision during period	7	\$17,864,907
Management decision made during period:	2	
Amounts disallowed	—	\$ 1,048,578
Amounts not disallowed	—	\$ 5,201,422
No management decision at end of period:	5	\$11,614,907
Less than 6 months old	3	\$ 600,173
More than 6 months old	2	\$11,014,734

Audits with Recommendations Funds Be Put to Better Use

	Number of Audit Reports	Total Costs Questioned
No management decision made by beginning of period	3	\$ 76,250,000
Issued during period	4	\$217,604,000
Needing management decision during period	7	\$293,854,000
Management decision made during period:	2	
Amounts management agreed be put to better use:		
Based upon proposed management action	—	\$ 14,250,000
Based upon proposed legislative action	—	0
Amounts which management disagreed be put to better use	—	\$ 28,400,000
No management decision at end of period:	5	\$251,204,000
Less than 6 months old	4	\$217,604,000
More than 6 months old	1	\$ 33,600,000

Revised Decisions

Section 5 (a)(11) of the Inspector General Act, as amended, requires a description and explanation of the reasons for any significant revised management decision made during the reporting period.

During this period there were no such instances.

Disagreement on Proposed Actions

Section 5(a)(12) of the Inspector General Act, as amended requires reporting of any significant management decisions with which the Inspector General disagrees.

During this period there were no such instances.

Status of Management Decisions

In accordance with the requirements of Section 5(a)(10), Inspector General Act, as amended, the following tables summarize the status of audit reports for which no management decision has been made by March 31, 2001.

Report Number/ Date Issued	Report Title	Number of Recommendations	
		Resolved	Unresolved
New Since Last Reporting Period			
Information Technology			
IG-00-055 9/28/00	NASA's System Information Technology Security Planning Can Be Improved	7	3
<i>Status: NASA management is preparing a response to our request to provide additional information on the three unresolved recommendations.</i>			
Procurement			
IG-00-043 9/20/00	Cost Benefit Analysis and Award Fee Structure Improvements Needed for Consolidated Space Operations Contract	6	1
<i>Status: We are working with management to resolve the remaining nonconformance.</i>			
Fiscal Management			
IG-00-044 9/14/00	Transfer of External Tank Display to Kennedy Space Center Visitor Complex	0	3
<i>Status: We requested a final management decision from the Audit Follow-up Official on January 29, 2001.</i>			
Program and Project Management			
IG-00-045 9/20/00	Status of NASA's Independent Cost Estimating Capability	2	3
<i>Status: We are awaiting a response from NASA on our restatement of the three unresolved recommendations.</i>			
Reported in Previous Semiannual Reports			
Information Technology			
IG-00-017 3/21/00	Opportunities to Improve Disaster Recovery Plan and Physical and Environmental Controls Identified at Johnson Space Center	12	2
<i>Status: We are working with management to resolve the nonconcurrences.</i>			
Procurement			
IG-98-041 9/30/98	Consolidated Network Mission Operations Support Contract, Transition and Implementation	0	1
<i>Status: The recommendation remains unresolved pending actions by the OIG and management to reach agreement concerning the amount of questioned costs to be recovered.</i>			
IG-99-053 9/27/99	Marshall's Management of Facility Leasing Can be Improved	3	2
<i>Status: Recommendations remain unresolved pending management action to recover questioned costs.</i>			

(continued)

<i>Report Number/ Date Issued</i>	<i>Report Title</i>	<i>Number of Recommendations</i>	
		<i>Resolved</i>	<i>Unresolved</i>
Fiscal Management			
IG-99-001 11/03/98	X-33 Funding Issues	0	2
<i>Status: We have requested a decision from the Audit Follow-up Official for the two open issues. The open issues are (1) to review payment practices used on the X-33 to determine whether the use of funds to pay for milestone work completed and accepted in prior fiscal years constitutes a violation of the Antideficiency Act, determine the amount of funds available to cover the obligations, ensure the prompt recording of obligations; and (2) adjust Marshall and Agency year end financial reports, as appropriate, to reflect previously unrecorded obligations, accrued cost, and unrecorded liabilities for the Program.</i>			
Environmental Management			
IG-00-030 3/31/00	Compliance with the National Environmental Policy Act	8	1
<i>Status: There are 13 separate actions requiring management's attention in the remaining unresolved recommendation. Management has addressed 5 of the 13 actions and plans to address 2 other actions by September 2001. We are working with management to resolve the other 6 actions.</i>			

Audits with Recommendations
Pending Corrective Actions

Section 5(a)(3) of the Inspector General Act, as amended, requires an identification of each significant recommendation described in previous semiannual reports on which corrective action has not been completed.

<i>Report Number/ Date Issued</i>	<i>Report Title</i>	<i>Date Resolved</i>	<i>Total Monetary Findings</i>	<i>Number of Recommendations</i>		<i>Latest Target/ Closure Date</i>
				<i>Open</i>	<i>Closed</i>	
New Since Last Reporting Period						
Safety and Mission Assurance						
IG-00-035 6/05/00	NASA to Improve Its Application of Basic Safety Provisions to Existing Contracts	6/5/00	*	3	0	6/30/01
IG-00-053 9/26/00	Agency Needs to Clarify Goals and Measurement Baselines for Aviation Safety Initiative	9/26/00	*	2	2	9/30/01
Information Technology						
IG-00-057 9/28/00	NASA Can Improve Its Planning for Presidential Decision Directive 63	9/28/00	*	3	0	See Note 1
IG-00-060 9/29/00	NASA Can Expand and Improve Use of the Outsourcing Desktop Initiative	9/29/00	\$33,600,000	2	0	5/31/01
Procurement						
IG-00-054 9/27/00	Property Administration Delegations Should Be Resolved	3/12/01	*	1	3	5/31/01
Fiscal Management						
IG-00-061 9/29/00	Insufficient Supporting Documentation for Deobligations	11/1/00	*	2	2	6/29/01
Program Project Management						
IG-00-037 7/17/00	Research Flight Operations Terminated Prematurely	7/17/00	*	4	0	4/30/01
Launch Vehicles						
IG-00-039 8/04/00	1998 Shuttle Flight Rate Credit Analysis Not Fully Documented	8/4/00	*	1	3	9/30/01 (continued)

Note 1. We are awaiting notification from management that the agreed-to actions have been completed.

*Non-monetary finding(s)

<i>Report Number/ Date Issued</i>	<i>Report Title</i>	<i>Date Resolved</i>	<i>Total Monetary Findings</i>	<i>Number of Recommendations</i>		<i>Latest Target/ Closure Date</i>
				<i>Open</i>	<i>Closed</i>	
International Agreements						
IG-00-034 5/12/00	Controls Over Access to NASA Centers by Foreign Visitors Needs to Be Strengthened	5/12/00	*	4	0	12/31/01
IG-00-048 9/19/00	Exports on Behalf of Space Station Program May Not Be in Compliance with Applicable Laws and Regulations	9/19/00	*	2	0	12/31/01
Reported in Previous Semiannual Reports						
Safety and Mission Assurance						
IG-99-036 9/20/99	Agency Needs to Provide for Contingency of Crew Return Vehicle Operational Testing	9/20/99	*	1	1	5/31/05
IG-99-047 9/22/99	Several Safety Concerns Exist at the Goddard Space Flight Center	9/22/99	*	4	1	9/30/01
IG-00-028 3/30/00	Potentially Hazardous Materials Used in Kennedy Payload Processing Facilities	3/30/00	*	4	1	9/30/01
International Space Station						
IG-99-007 1/28/99	Boeing Can Improve Space Station Performance Measurement Reports	3/17/99	*	2	1	See Note 2
IG-99-009 3/9/99	Contingency Plans for Space Station Assembly Need Attention	4/21/99	*	2	0	See Note 2
IG-00-007 2/16/00	Performance Management of the International Space Station Prime Contract Needs Improvement	2/16/00	*	2	12	See Note 3
Information Technology						
IG-00-014 3/15/00	UNIX Security Controls Need Improvement	3/15/00	*	10	4	6/15/01

(continued)

Note 2. We plan to discuss with the Associate Administrator for Space Flight actions necessary to close the recommendations.
Note 3. Recommendations 2 and 13 remain open. Closure of the recommendation depends on NASA obtaining an independent cost estimate for the International Space Station Program. Closure of Recommendation 13 depends on a determination by the DCAA that NASA is receiving a 2:1 savings-to-cost ratio on a corporate restructuring by The Boeing Company.
*Non-monetary finding.

Audits with Recommendations
Pending Corrective Actions

<i>Report Number/ Date Issued</i>	<i>Report Title</i>	<i>Date Resolved</i>	<i>Total Monetary Findings</i>	<i>Number of Recommendations</i> <i>Open Closed</i>		<i>Latest Target/ Closure Date</i>
Procurement						
IG-98-028 9/08/98	Costs Not Recovered for Commercial Payloads Flown on the SPACEHAB Module	9/08/98	*	1	0	See Note 4
IG-98-030 9/14/98	NASA Needs Adequate Analyses of Critical Single-Source Suppliers for Space Shuttle Projects	3/17/99	*	1	2	See Note 5
Fiscal Management						
IG-99-026 4/27/99	NASA Is Experiencing Material Delays and Cost Increases in Implementing the Integrated Financial Management Project	4/27/99	*	1	2	9/29/01
IG-99-059 9/30/99	Disbursements are not Properly Matched to Obligations	10/31/00	*	1	2	5/30/01
Program and Project Management						
IG-99-016 3/24/99	Software Problems Cause Launch Delay of Chandra X-Ray Observatory	3/24/99	*	2	0	9/30/01
IG-99-019 3/29/99	Use of Cooperative Agreement on X-33 Program Has Limited Success	3/30/00	*	1	8	4/15/01
IG-99-058 9/30/99	Earned Value Management at NASA	11/08/00	*	3	0	See Note 6
IG-00-005 2/09/00	X-38/CRV Project Needs Greater Emphasis on Risk and Performance Management	2/09/00	*	1	0	See Note 4
IG-00-029 3/30/00	Improvements Are Needed in Space Transportation Strategic Management and X-34 Program/Project Management	3/30/00	\$7,000,000	8	8	9/30/01
Launch Vehicles						
IG-00-009 2/23/00	Staffing Not Aligned with Goals of the Expendable Launch Vehicle Program Office	2/23/00	*	1	2	See Note 5

(continued)

Note 4. We plan to discuss actions necessary to close the recommendations with the Associate Administrator for Space Flight.

Note 5. Closure of the recommendation depends on NASA's issuance of NPG 7120.5B.

Note 6. We are awaiting notification from management that the agreed-to actions have been completed.

*Non-monetary finding(s)

<i>Report Number/ Date Issued</i>	<i>Report Title</i>	<i>Date Resolved</i>	<i>Total Monetary Findings</i>	<i>Number of Recommendations</i> <i>Open Closed</i>		<i>Latest Target/ Closure Date</i>
Technology Development						
IG-99-052 9/24/99	Cost Reasonableness of the X-33 Program	9/24/99	*	1	3	See Note 7
International Agreements						
IG-99-020 3/31/99	Program Offices to Tighten Management Controls Over Export-Controlled Technologies	3/31/1999	*	6	0	See Note 8
IG-00-004 1/14/00	NASA's Information on International Agreements Is Incomplete and Inaccurate	1/14/00	*	1	2	6/30/01
IG-00-018 3/23/00	NASA Lacks Assurance That Contractors Are Exporting Controlled Technologies in Accordance with Applicable Export Laws and Regulations	3/23/00	*	2	0	12/31/01
Environmental Management						
IG-98-024 8/18/98	Cost Sharing for Santa Susana Field Laboratory Cleanup Activities	10/5/00	\$31,698,578	2	2	9/30/01

Note 7. Closure of the recommendation depends on NASA's issuance of NPG 7120.5B.

Note 8. Closure of the recommendations depends on NASA's issuance of NPG 2190.

*Non-monetary finding(s)

Significant Inspections, Assessments, and Administrative Investigations

SAFETY AND MISSION ASSURANCE

**Review of Airport
Safety Problems at
a NASA Installation
Report No.
S-01-043**

Based on allegations of possible safety deficiencies involving physical conditions of the air traffic control tower and air to ground communications problems at one NASA installation's airport, we conducted an administrative investigation. We found several unsafe conditions, promptly reported them to management, and followed up to ensure that corrective actions were underway. NASA management quickly responded to our report and is taking steps to correct the problems.

**NASA's Badging
Program and
Physical Access
Controls at NASA
Centers
Report Nos.
G-99-001,
G-99-014, and
G-00-004**

We are reviewing NASA Center badging programs and physical access controls to Center facilities. The focus of the reviews is to determine whether the policies and procedures in place to control access to mission critical locations and facilities containing sensitive or controlled information or materials are adequate and whether Centers are implementing those policies and procedures. We have completed reviews and issued reports on three Centers. At each Center reviewed, we found weaknesses in physical security and promptly notified NASA management to ensure swift corrective action. We are currently reviewing the fourth NASA installation and planning additional reviews.

**Review of the
Designated
Approving
Authority at NASA
Report No.
G-00-022**

We reviewed the role of the Designated Approving Authority (DAA) for national security automated information systems (systems) containing classified information. The DAA is responsible for documenting the security posture of these systems, certifying the accuracy of supporting documentation, reviewing systems' security controls, testing those security controls, and granting accreditation to the process. The DAA is to approve that systems meet established security criteria and the systems have been certified before they are permitted to operate. Our review disclosed that NASA installations differ in their interpretation of what procedures must be followed, and that the Agency lacks suitable policy in this area. The Agency concurred with our seven recommendations intended to improve the safeguards on national security automated information systems in accordance with national policy.

INTERNATIONAL SPACE STATION

**Assessment of the
Crew Medical
Transport Barter
Agreement
Report No.
G-00-015**

In response to a request by the Chairman of the House Committee on Science, we conducted an assessment of a barter arrangement between NASA and Japan and its National Space Development Agency (NASDA). We reviewed (1) NASA's requirements and justification for the use of a Boeing Business Jet for a dedicated crew medical transport, (2) the nature of the negotiations with the Japanese Government and NASDA for the acquisition of the aircraft, and (3) the cost effectiveness of the bartering arrangement and the planned use of the aircraft. We found that NASA already had operational contingency plans and partnership agreements in place to meet current emergency crew medical transport requirements. Also, the Agency's decision to proceed to acquire an aircraft through a barter arrangement was based on an incomplete analysis, did not consider all reasonable alternatives, and cannot be clearly traced back to overall crew medical requirements. NASA management disagreed with our recommendation to conduct an independent analysis of the most appropriate approach to providing astronauts with emergency and post-mission medical support.

INFORMATION TECHNOLOGY

**Assessment of
Information
Technology
Security Training
and Development
and Other Human
Resources
Considerations
Report No.
G-00-019**

We reviewed NASA's IT security training and the Agency's use of other human resource tools to attract and retain IT security workers. Our objective was to determine whether policies and procedures are in place and comply with existing laws and regulations. NASA concurred with five of the report's seven recommendations that addressed improvements in security training and awareness and encouraged greater use of current mechanisms to recruit, deploy, and retain IT professionals. We asked that management reconsider its nonconcurrence with the recommendations to expedite completion of General Awareness Training and to revise the Manager and System Administrator Training metrics to reach full compliance within a shorter timeframe. NASA management believed that accelerating the training schedules would not be the best use of available resources.

Significant Inspections, Assessments, and Administrative Investigations

**Assessment of a
NASA Center
Network Firewall
Report No.
G-01-003**

In the first of a series of Center evaluations, the OIG completed a review of a NASA Center's information network firewall. Our objective was to determine whether the firewall was correctly configured and provides appropriate protection from potential hackers and other unauthorized users. Center management concurred with the report's two recommendations, which addressed improved operational effectiveness and management controls.

**Inspection of a
NASA Center's
Laptop Loaner
Program Computer
Hard Drives
Report No.
G-00-008**

As part of our ongoing focus on computer hard drive security, we completed a review of laptop computer hard drives used in a loaner pool at a NASA Center. Our objective was to determine whether these computers, loaned on a short-term basis to employees, were adequately cleared of user information when returned to the loaner pool. We found that not all laptop computers were being thoroughly cleared of data upon their return to the loaner pool. In addition, users were generally unaware of the attendant security vulnerabilities that arise when using shared laptop computers. Management concurred with the report's three recommendations that addressed improved internal controls. As a result of our experience, we also alerted all other Centers to the possible vulnerabilities of loaned computers.

FISCAL MANAGEMENT

**Special Review of a
NASA Center-Local
Jurisdiction
Agreement Leads
to Collection of
\$43,000
Report No.
S-00-094**

An administrative investigation disclosed that a NASA Center had not collected payments from a local municipal government for use of a recreational facility. Our report resulted in the Center collecting over \$43,000 owed for the use of the facility and helped renegotiate a lease agreement which would resolve outstanding issues and ambiguities, and provide for future prompt billing and payment.

**Accounts
Receivable Inquiry
Leads to Improved
Bill Collection
Processes for
Special Event
Activities
Report No.
S-00-051**

An administrative investigation into a NASA Center's failure to record and collect money owed by a vendor for fuel resulted in improved financial management processes. Management took action to improve accounting and internal controls to ensure that money owed NASA is promptly collected. Additionally, the Center issued a notice to its workforce to identify, record, and collect debts owed the Government.

PROGRAM PROJECT MANAGEMENT

**Assessment of
NASA's Use of the
Metric System
Report No.
G-00-021**

Following the loss of the Mars Climate Orbiter, we initiated a review of the Agency's use of the metric system. By law and policy, the metric system is the preferred system of measurement in NASA. However, we found that use of the metric system is inconsistent across the Agency. A waiver system, which was required by law and put into effect to track metric usage and encourage conversion, is no longer in use. In addition, NASA employees are given little guidance on the Agency's policy and procedures regarding the use of the metric system. Management concurred with all of our report's recommendations, except the recommendation that NASA use the metric system for interactions with the public. In responding to this recommendation, management agreed to use metric units in all education programs and when communicating with the public about programs that use metric or hybrid metric/English units. However, the Public Affairs Office plans to use English measurement units when communicating about programs that exclusively use English units.

**NASA Oversight of
Russian
Biotechnology
Research,
1994-1997
Report No.
G-00-007**

An assessment of the Agency's oversight of NASA-funded Russian research in the mid-1990's disclosed that NASA's funding of Russian biotechnology research (as part of a larger program to sustain Russian space researchers) was successful in some regards. However, NASA made a serious misstep. After learning that it was funding biotechnology research at institutes that had been part of the Soviet biological warfare program, and after being provided guidance by State Department on how to collaborate safely with such institutes, NASA did not follow the State Department guidance. Management agreed with our recommendation that NASA carefully coordinate with the State Department on any future program that funds foreign researchers, particularly in nations not traditionally allied with the United States.

OTHER

**Langley Research
Center Exchange
Activities
Report No.
G-00-001**

The Langley Research Center Exchange (Exchange), an instrumentality of the Government, is responsible for operating activities that contribute to the efficiency, welfare, and morale of Langley Research Center (Langley) employees. The Exchange's activities and operations are primarily funded with nonappropriated funds. The Exchange operates a cafeteria, diner, vending machines, gift shop, lounge, gym, childcare center, an activities association,

Significant Inspections, Assessments, and Administrative Investigations

and business office. We found, in general, that the Exchange offered many and varied programs and activities benefiting the Langley workforce. Our recommendations, all of which were concurred in by management, were aimed at improving compliance with governing laws and guidelines, improving business practices, and improving internal controls. This is the second in our series of reports on NASA Exchange operations.

**NASA Use of
Support Service
Contractors
Report Nos.
G-00-016 (Agency)
G-99-017 (Glenn)**

We reviewed NASA's overall use of support service contractors and compliance with governing policy and guidelines. We also reviewed the specific use of such contractors at Glenn. The Glenn review was conducted to determine whether organizations were maintaining adequate separation of the functions performed by civil servants and contractors. Performance by contractors of personal services and/or inherently governmental functions is prohibited by regulation to prevent Federal agencies from circumventing civil service hiring ceilings and to prevent an unacceptable transfer of official responsibility from Executive Branch Officers and employees to contractors. Both Glenn management and the NASA Office of Procurement concurred with all our recommendations aimed at improving NASA compliance with applicable Federal regulations and sound internal controls, including increasing manager and employee awareness, and improving contract administration oversight.

**Review of Jet
Propulsion
Laboratory Ethics
and Self-
Governance
Processes and
Referrals of
Possible Criminal
Activity
Report No.
G-00-009**

We initiated our review of the JPL operating contractor's (California Institute of Technology) ethics and self-governance processes to determine whether cases with potential criminal implications were timely referred to the OIG or other law enforcement organizations. Our inspection disclosed that the related processes were, with only a few exceptions, in good order and functioning effectively. We offered and management concurred in recommendations aimed at hastening referrals to appropriate functional (e.g., safety, employee relations) and law enforcement units, and improving related tracking and reporting requirements.

Ongoing Inspections/Assessments

<i>Assignment Number</i>	<i>Activity Title</i>	<i>Focus</i>	<i>Status</i>
New Since Last Reporting Period			
Information Technology			
G-01-008	Assessment of NASA Information System Penetration Testing Activities	A review of NASA's penetration planning, test techniques and methodologies, the adequacy of contractor provided support and performance, and adequacy of subsequent corrective actions.	Responses from some NASA Centers are being analyzed.
G-01-010	Assessment of NASA Information Technology Security Vulnerabilities and Safeguards at NASA Headquarters.	Using a variety of methods, determine whether NASA is taking necessary steps to protect its information technology.	Field inspection work in progress.
G-01-011	Assessment of NASA Information Technology Security Vulnerabilities and Safeguards at the Goddard Space Flight Center	Using a variety of methods, determine whether NASA is taking necessary steps to protect its information technology.	Field inspection work in progress.
G-01-015	NASA's Badging Program and Physical Access Controls at the Jet Propulsion Laboratory	Fourth in a series of NASA installation reviews to determine whether NASA Centers are compliant with applicable guidelines and sound security practices.	Field inspection work announced and will commence in the near future.
G-01-018	NASA Special Aeronautics Program Location 4	A physical and IT security review of the Advanced Aeronautics Program conducted in partnership with the Office of Audits to determine whether NASA is appropriately protecting program information.	Field inspection work in progress.
Other			
G-01-013	Inspection of Marshall Space Flight Center (Marshall) Exchange Activities	Fifth in a series of NASA Exchange reviews to determine whether the Marshall Exchange is meeting employee needs and conducting operations in a manner consistent with Agency guidelines and other statutory and regulatory controls.	Field inspection work in progress.
G-01-016	Assessment of Dreamtime Holding, Inc. Activities at the Johnson Space Center	Determine whether the operation of the partner, Dreamtime, is compliant with the agreement with NASA.	Draft report has been submitted to management.

(continued)

<i>Assignment Number</i>	<i>Activity Title</i>	<i>Focus</i>	<i>Status</i>
Program Project Management			
G-01-002	Inspection of NASA's Institutional Review Boards for Human Subject Protection	Determine whether the Johnson review boards are in compliance with governing Federal and Agency guidelines for the health and safety of human subjects.	Field inspection work complete—a draft report is being prepared.
Reported in Previous Semiannual Reports			
Information Technology			
G-99-019	NASA Special Aeronautics Program Location 1	A physical and IT security review of the Advanced Aeronautics Program conducted in partnership with the Office of Audits to determine whether NASA is appropriately protecting program information.	Field inspection work is complete at three locations. One draft report has been submitted to and commented on by management. A rapid action notice has been issued concerning one location and draft reports are under preparation for the other locations.
G-01-004	Location 2		
G-01-017	Location 3		
G-01-006 (Previously G-99-006)	Follow-Up Review of NASA's Implementation of a Public Key Infrastructure	This followup to a previous review of NASA's selection of a public key infrastructure will evaluate the implementation in terms of cost and operational effectiveness.	Field inspection work is complete. A draft report is being prepared.
G-01-012 (Previously G-99-015)	Information System Warning Banner Activity	Ensuring that all NASA information systems contain an approved warning banner.	During this period, we issued four notices to Center IT Security Managers that their systems failed to display an approved banner.
G-01-014	Assessment of a NASA Center Firewall	This is the second in a series of inspections evaluating the security of NASA Center information network security firewalls.	Field inspection work announced and will commence in the near future.
G-00-0017	Internet-Based Spacecraft Commanding	Determine whether information security is adequately addressed as part of this initiative and whether NASA's IT security infrastructure can provide the security solutions to support this technology.	Field inspection work is complete. A draft report is being prepared.
Other			
G-00-003	Inspection of Center Exchange Activities Ames Research Center	Determine whether NASA Exchanges are meeting employee needs and conducting operations in a manner consistent with Agency guidelines and other statutory and regulatory controls.	A final report on the Langley Exchange (G-00-01) was issued. Field inspection work on the Ames and Headquarters Exchanges is complete and draft reports are being prepared. Fieldwork for Goddard will commence in the near future.
G-00-005	Goddard Space Flight Center		
G-00-006	Headquarters		

PROCUREMENT

\$2 Million Civil Settlement Reached with NASA Contractors

To settle allegations relating to false claims submitted to the Government on two NASA contracts between 1986 and 1992, two NASA contractors reached an agreement with the DoJ. The contractors agreed to pay \$825,000 and to give up their rights to \$1.2 million in unpaid invoices. This civil lawsuit alleged that the two contractors, as successors on the NASA contracts, knowingly passed fraudulent subcontractor costs to NASA. The fraudulent costs included inflated building and equipment lease costs, as well as large expenses for personal homes, and numerous vacations. Special Agents from the NASA OIG, with assistance from the DCAA, the Small Business Administration OIG, and the U.S. Postal Inspection Service conducted this investigation.

\$60,000 Restitution Ordered in Labor Mischarging

A research contractor that worked for NASA and other Government agencies was sentenced to 1-year probation and ordered to pay restitution in the amount of \$60,000. This sentencing resulted from an investigation disclosing that between 1994 and 1996 the contractor defrauded NASA and the DoD by mischarging contractual labor hours. The company received contracts principally through the Small Business Innovative Research Program. Special Agents of the NASA OIG, the Defense Criminal Investigative Service (DCIS), and the Federal Bureau of Investigation (FBI) conducted this investigation.

ENVIRONMENT

Civil Settlement Reached in Burning of Hazardous Waste

An investigation conducted by Special Agents of the NASA OIG along with other Federal and local law enforcement and environmental officers resulted in a NASA contractor entering into a civil settlement with the California Attorney General's Office for violations of the California Health and Safety Code. The contractor knowingly burned hazardous waste, generated as a result of its manufacturing processes, on a weekly, and sometimes daily, basis without obtaining proper permits from the California Department of Toxic Substances Control (DTSC). As a result of this civil settlement, the contractor agreed to pay \$500,000 to DTSC for these violations and was required to reimburse DTSC \$40,500 for investigative costs.

BRIBERY/KICKBACKS

Three Plead Guilty in Government Kickback Scheme

Two former Government contractor employees and their accountant pled guilty to violations of the Anti-Kickback Act, conspiracy, and subscribing to a false tax return. A manager of a large Government contractor received approximately \$817,000 in kickback monies associated with Government contracts from various vendors in return for awarding them subcontracts for printing and moving services. The manager was charged with receiving over \$2.6 million in kickbacks on both Government and commercial contracts. This investigation was conducted by Special Agents from the NASA OIG and DCIS.

CHILD PORNOGRAPHY

Former NASA Contractor Employee Pleads to Child Pornography Charge

A former NASA contractor computer administrator pled guilty to four counts of producing and distributing child pornography, receiving child pornography by computer, and possession of child pornography. As a result of this guilty plea, the former employee faces up to 14 years in prison. Special Agents from the NASA OIG and the U.S. Customs Service conducted this investigation.

PRODUCT SUBSTITUTION

Subcontractor Pleads Guilty to Providing False Statements

A NASA subcontractor pled guilty to two counts of making false statements on documentation related to work completed for the International Space Station and a DoD unmanned reconnaissance aircraft. The subcontractor produced parts for the Space Station and the DoD that contained unauthorized weld repairs. These repairs were not disclosed to NASA or the DoD. Special Agents from the NASA OIG and the DCIS conducted this investigation.

OTHER

Former Employee Charged with Embezzlement

A former NASA employee was indicted and charged with theft of public money for prompting and receiving unauthorized NASA funds via Electronic Funds Transfer into her personal bank account. These unauthorized transfers from the NASA accounting system totaled \$148,321.

Significant Computer Crimes Investigations

Computer Hacker Sentenced for Breach of Computer Security

An investigation conducted by Special Agents of the OIG CCD, DCIS, and the FBI resulted in the conviction and sentencing of a computer hacker. The individual illegally gained access to a U.S. Army procurement system computer and copied and transferred a highly sensitive password file. The system subsequently underwent a costly maintenance shut down. The individual was sentenced and received 3 years deferred adjudication, 150 hours of community service, and must pay \$20,000 in restitution for violating Texas State Penal Code Section 33.02, Breach of Computer Security.

Juvenile Ordered to Pay \$24,000 in Restitution for Defacing Web Sites

A 17-year old juvenile pled guilty to one count of a state computer crime statute (Colorado Title 18, Article 5.5, Section 102), was sentenced to 2 years probation, and ordered to pay restitution to his victims in the amount of \$24,000. The juvenile admitted to compromising and defacing numerous Internet Web sites, including NASA sites at Johnson and Goddard. More than 40 web sites were defaced, including Web servers maintained by the U.S. Departments of Defense, Interior, and Transportation, and several state, local, commercial, and educational sites.

This investigation was conducted by the Special Agents of the OIG CCD, DCIS, and FBI; and members of the Colorado Springs Police Department and the Texas Department of Public Safety.

Computer Hacker Ordered to Pay \$5,000 in Restitution

An individual was sentenced to 2 years probation, the first 6 months of which is to be house detention. The individual was also ordered to pay \$5,000 in restitution to an online marketing service and to forfeit all computer equipment used to obtain unauthorized access to Government computers, including a computer located at NASA Goddard. The judge further banned this individual from using computers for any other purpose than work or school.

The investigation was conducted by Special Agents of the OIG CCD; DCIS; FBI; Department of the Interior OIG; and the Immigration and Naturalization Service, Office of Investigations.

**Computer Hacker
Pleads Guilty**

Following an investigation conducted by Special Agents of the OIG CCD and the FBI, an individual pled guilty to recklessly causing damage to a protected system, unauthorized access of a nonpublic computer, and unauthorized use of an access device. A criminal information alleged that the individual used credit cards to make over \$6,000 in unauthorized purchases, and caused over \$17,000 in damages to NASA computer systems at Stanford University. As a result of the plea, he faces a maximum sentence of 16 years imprisonment, a fine of \$600,000, and a 3-year term of supervised release.

**Computer Hacker
Pleads No Contest
to Charge of
Defacing NASA
Web Page**

As the result of an investigation conducted by Special Agents of the OIG CCD and a local police department, an individual pled no contest to violating Connecticut Public Act 99-160, Unauthorized Use of a Computer. The individual hacked into a NASA computer and defaced a Web page, which resulted in labor costs to rebuild the computer system and kept the Web server out of service for approximately 1 month. The individual was ordered to perform 100 hours of community service and was placed on probation for 2 years.

BRIBERY/KICKBACKS

Contractor Employees Sentenced in Kickback and Theft Schemes

Previously Reported: September 2000

A joint investigation by the OIG and the FBI resulted in the indictment of seven former NASA subcontractor employees and suppliers at the Stennis Space Center (Stennis), Mississippi. The employees, who worked for the prime maintenance contractor at Stennis, ordered substantial quantities of building supplies for their personal use and were paid kickbacks by the supplier in return for their orders. The charges included Conspiracy to Violate the Anti-Kickback Act and Theft of Government Property. One individual was also charged with Making False Statements to Federal Agents.

Update: The seven individuals have been sentenced for their part in this scheme. Sentencing totals are 53 months prison, 19 years probation, fines \$26,000, restitution \$429,229, 4 months of home detention with a monitoring device, and \$700 in court costs.

OTHER

Fraudulent Moon Rock Sentencing

Previously Reported: September 2000

An individual entered a plea of guilty to six counts of mail and wire fraud in connection with a scheme to sell alleged "moon rocks" to interested buyers in the United States, Canada, and Australia. The seller of the alleged lunar material misrepresented to prospective buyers that the materials he was selling were collected from the surface of the moon during the July 1969 Apollo 11 lunar landing. The alleged lunar material was scientifically tested and found not to be of lunar origin.

Update: This individual was sentenced to 21 months in prison, 3 years probation, 300 hours of community service, ordered to pay \$98,750 restitution, and pay a \$600 special assessment fee.

Inmate Sentenced in Bomb Threat

Previously Reported: September 2000

A prison inmate in Boise, Idaho, was charged in a one-count indictment with communicating a bomb threat to the Kennedy Space Center. A local law enforcement official overheard the inmate telephoning bomb threats and threatening to kill people at Kennedy. No bomb was located at the Center.

Update: Following conviction on the charge, the inmate was sentenced to 21 months in prison, 3 years supervised release, and 150 hours community service.

**New York Man
Pleads Guilty to
Hacking into NASA
Computers in
California**

**Previously Reported:
September 2000**

A New York man, who headed up a hacker group identified as “#conflict,” was charged with five counts of illegally accessing NASA computers located at NASA's Jet Propulsion Laboratory in Pasadena, California. After gaining access to the system, the man installed a program allowing him to engage in chat-room discussions with other group members. The subject was also alleged to have gained unauthorized access to college computer systems. This investigation was conducted by Special Agents of the OIG CCD and the FBI.

Update: The individual pled guilty to five counts of a criminal information charging him with gaining unauthorized access to nonpublic computers, unauthorized interception of communications, and unauthorized possession of access devices (credit card numbers and usernames/passwords). As a result of his guilty plea, he faces a maximum sentence of 27 years in prison and fines totaling \$950,000.

LEGISLATION

Inspector General Core Mission and the FAIR Act

Pursuant to the Federal Activities Inventory Reform (FAIR) Act, the NASA OIG reviewed the functions that have not been contracted out within the OIG, and concluded that they are inherently governmental. During the consultative process with OMB, OMB examiners asked for support for our position. We examined the legislative history of the Inspector General Act and concluded that it would adversely impact the independence of Inspectors General if they were directed in how to accomplish their core missions. Specifically, while the Congress ultimately permitted the use of auditors outside the agency, the use of non-Federal auditors is clearly an act left to the discretion of the Inspector General to determine when appropriate. How Inspectors General accomplish their mission, whether by appointment or by contract, is inextricably entwined with the independence of the Inspectors General. The Inspectors General have express statutory authority to appoint and employ personnel. They also have the power to contract, and the authority to determine when it is appropriate to use non-Federal auditors. Moreover, the NASA Inspector General's integration of its oversight and continual improvement activities into performance auditing makes contracting out this function problematic. Because of the way in which performance audits and inspections are performed within the NASA OIG, there is a danger that contracting out these services may run afoul of the personal services contract prohibition.

LEGAL MATTERS

NASA Wins Lawsuit Against Sverdrup Technology, Inc.

On January 24, 2001, U.S. District Court Judge Walter J. Gex III issued a ruling that Sverdrup Technology, Inc., a former technical support contractor at NASA's John C. Stennis Space Center, in Bay St. Louis, Mississippi, violated the False Claims Act. The Government contended that Sverdrup submitted false claims to NASA to get indirect and material costs paid that exceeded the budgeted ceilings for those costs. The Court ruled that after the Government warned Sverdrup about charging these costs, Sverdrup conspired to hide the true nature of the costs by developing a complex benchstock accounting scheme that disguised the costs and left them unauditible, in reckless disregard of the contract terms and NASA's repeated protestations. The Court specifically found that Sverdrup employees, the former Director of the Engineering and Sciences Division, the then leader of the Gas and Materials Analysis Laboratory, and the former manager of the Sciences Laboratory, coordinated and launched the benchstock scheme to avoid charging restrictions imposed by NASA.

The Court also found that Sverdrup made misrepresentations to NASA regarding labor costs, which inflated Sverdrup's staffing at Stennis. The Court found that Sverdrup engaged in a pattern of deception that indicated a guilty state of mind. Sverdrup employees were nonresponsive to demands for records, and attempted to alter or destroy records, including the erasure of a computer hard drive.

The Court awarded the Government \$54,464 in False Claims Act damages. The Government asserted that it mistakenly paid Sverdrup \$107,227 in legal fees, to which Sverdrup was not entitled, and suffered \$1,221,350 in other damages. The Court directed the Government to submit a detailed accounting of legal fees and its other damages.

The NASA OIG and the FBI investigated this case. DoJ Commercial Litigation Branch attorneys Diana Younts, Michael Granston, John Henebery, and Assistant U.S. Attorney Stephen R. Graben of the Southern District of Mississippi handled the civil prosecution.

Program Fraud Civil Remedies Act Referral

The OIG legal unit drafted a complaint for use by the Agency in considering whether to institute an action under the Program Fraud Civil Remedies Act (PFCRA). The case involves alleged misuse of NASA grant funds intended for an aerospace education center. The DoJ declined the case criminally and civilly. This PFCRA initiative is part of our expanding efforts to assure that all remedies are considered in resolving liability to the Agency. The PFCRA enables the Agency to administratively seek double damages and penalties for false claims submitted to the Government. The statute is intended for false claims of less than \$150,000 in which DoJ resources are not needed to resolve the issues.

Legal Support to Auditors on Space Shuttle/Space Station Programs

OIG attorneys provided support to auditors on issues involving pricing of Space Shuttle payloads, the use of award fees in procurement, the cost of spare parts for the International Space Station, and the acquisition of the Space Station propulsion module.

REGULATIONS

During this period, the OIG reviewed 36 Federal regulations; some are highlighted below.

Inspector General Hotline Poster Clause

NASA forwarded our clause to require contractors to display NASA OIG Hotline posters to OMB for clearance to publish as a final rule in the Federal Register. The clearance request was put on hold as a result of the President's moratorium on regulations. We are working with the Agency to have the rule published under an exemption to the freeze for rules impacting critical health and safety functions of the Agency.

NPD 1400.1G, NASA Directives System

NPG 1400.1C, NASA Directives Systems Procedures and Guidelines

NASA Policy Directive (NPD) 1400.1F, issued on July 19, 1999, changed the Inspector General status from “concurring official” to “review and comment.” We have not concurred with the latest revision because it maintains the review and comment status of the OIG. The OIG has a broad oversight role in the Agency and, therefore, brings a unique perspective to the process. We have proposed language requiring that all directives be coordinated with the Inspector General. We await the Agency’s position on our proposal.

NPD 2190, NASA Export Control Program

OIG audit IG-99-020, *NASA Control of Export-Controlled Technologies*, highlighted the need for clear direction to NASA personnel who work with export-controlled technology. NASA’s Office of External Relations has drafted an NPD on export control. We worked with that office to improve the draft NPD by including therein a straightforward definition of “export.”

Creation of New Office of Security Management and Safeguards

NASA established a new Office of Security Management and Safeguards—Code X—to be the focal point for policy formulation, oversight, coordination, and management of the Agency security and counterintelligence functions. The Inspector General conferred with the Acting Associate Administrator to ensure that the mission statement of Code X properly reflects that the OIG is responsible for law enforcement investigations of cyber counterintelligence and cyber espionage relating to NASA programs and operations. Further, the Director of Code X will coordinate, as appropriate, with the OIG regarding referrals to Federal law enforcement agencies on matters of mutual interest. The new organization is consistent with the agreement and understanding reached by the Offices of General Counsel and Inspector General on issues regarding the scope of the respective authorities of the Agency and the OIG, which agreement was discussed on page 76 of our *Semiannual Report to Congress* for the period ending September 30, 2000.

NPD 7100.8D, Protection of Human Research Subjects

We provided several comments on this policy proposal. Specifically, the NPD should specify that the informed consent process include an explanation of all medical risks associated with the research protocol, and that all information conveyed to potential subjects in the informed consent process shall be provided in language that is readily understandable by the potential subject. We also recommended that the NPD include a requirement that all instances of noncompliance with the NPD be reported, through channels, to the authorized NASA official for the protection of human subjects and that the NPD include a definition of human research.

Revalidation of NPD 1880.1, Tobacco Products Vending In NASA Facilities

NASA requested concurrence in revalidating Agency policy on tobacco vending. We nonconcurred. While the NPD prohibits sales from vending machines and distribution of free samples, it does not address tobacco product sales in NASA Exchange stores.

NPG 7120.5B, Management Processes and Requirements

NPG 7120.5 provides guidance to NASA program and project managers on the formulation, approval, implementation, and evaluation of all Agency programs and projects. NASA is in the process of redrafting this important NPG. We submitted several comments related to risk management, environmental management, information technology security, and earned value management.

OTHER

Freedom of Information Act Matters

During this reporting period we received 24 FOIA requests for records.

Subpoenas

During this reporting period we processed 7 Inspector General subpoenas.

Legal Training

During this reporting period OIG attorneys provided training in the following areas: white collar crime, fraud awareness, procurement law issues, debarment and suspension, "blue book" citations, and Government ethics laws.

Special Thanks

*At U.S. Department of Justice, Washington, DC, from left to right:
Michael Granston, Diana Younts, and John Henebery*

We appreciate the hard work of DoJ's Diana Younts, Michael Granston, John Henebery and Assistant U.S. Attorney Stephen R. Graben, which culminated in a favorable judgment in January in the case of United States v. Sverdrup Technology Inc., Civil Action No. 1:94cv68GR, United States District Court for the Southern District of Mississippi, Southern Division. The judgment in favor of the Government is the result of tremendous efforts by these attorneys, who tried the case in a 2-week trial, after years of hard fought discovery disputes. (See page 45)

We salute these attorneys for their perseverance throughout this hard-fought litigation. The leadership of Director Michael Hertz and all the personnel in the Commercial Litigation Branch, whose work with the civil False Claims Act is so important to the mission of the NASA OIG in its fight against fraud, waste and abuse in NASA programs and operations, is greatly appreciated.

*Assistant U.S. Attorney Stephen R. Graben,
Southern District of Mississippi*

Our cooperative activities advise NASA management of areas that, if not addressed, could become problematical. These activities also provide an opportunity to work proactively with management to resolve these issues. Through our outreach program, the OIG disseminates information about our programs to enhance the public knowledge of our mission and our commitment to improving the effectiveness of Government programs.

Audits

OIG Participates in Computer Forensic Laboratory

The Inspector General community established a task force of auditors and investigators to explore the need for a computer forensic laboratory that will be available to the Inspector General community. The purpose of the laboratory will be to assist auditors and investigators to perform penetration testing procedures and computer intrusion testing, respectively.

OIG Participates in CFO Fellows Association

The Chief Financial Officers (CFO) Council Fellows Association is a professional organization whose members are graduates of and current participants in the CFO Fellows Program. The Association's purpose is to advance the leadership and financial management skills of Federal managers to improve and strengthen public sector financial and resources management throughout the Federal Government.

OIG Participates in Federal Financial Audit Manual Working Group

The NASA OIG Office of Audits is a member of the Federal Financial Audit Manual Working Group. The working group was established to develop a single manual that can be used as a primary guide for Federal financial statement audits conducted by the President's Council on Integrity and Efficiency (PCIE) community and the General Accounting Office (GAO), beginning with the FY 2001 statements.

OIG Hosts Government Information Security Reform Conference

On October 30, 2000, the President signed into law the FY 2001 Defense Authorization Act (P.L. 106-398), including Title X, subtitle G, "Government Information Security Reform" (GISR), which amends the Paperwork Reduction Act of 1995 by enacting a new subchapter on "Information Security." The GISR primarily addresses the program management and evaluation aspects of security, and covers unclassified and national security systems and creates the same management framework for each. To assist the Inspectors General in meeting their responsibilities under GISR, the PCIE established a working group on Government Information Security Reform Initiative. The NASA Inspector General chairs the working group.

The NASA OIG sponsored a 2-day conference on GISR for the Inspector General and CFO communities to provide training on the GISR and what is required of the Inspectors General. Guest speakers from OMB, GAO, CIO Council, DoJ, and National Institute of Standards and Technology discussed implementation of GISR.

OIG Participates in Financial Statement Audit Network

The Financial Statement Audit Network was established by the Federal Audit Executive Council (FAEC) to provide a forum for discussion of proposed, recent, or needed changes in laws, regulations, and requirements, and issues affecting financial statement audits. Meetings generally include representatives from all PCIE OIG's and key organizations, such as, GAO and OMB.

Continuing Activities

- **OIG Continues in its Leadership Role in the Federal Audit Community**

The FAEC, chartered to discuss and coordinate issues relating to audit policy and operations affecting the Federal audit community, includes as its members the Assistant Inspectors General for Auditing from Federal agencies; the Director, DCAA; and the Auditors General of the military services. The NASA OIG Assistant Inspector General for Auditing remains the chair during this semiannual period.

- **OIG Chairs PCIE Peer Review Working Group**

The NASA OIG chairs the PCIE peer review working group, the purpose of which is to determine whether current guidance for the peer review needs revision. Generally accepted government auditing standards require the peer review.

- **OIG Participates in Federal Audit Clearinghouse Users Group**

The NASA OIG Office of Audits is a member of the Federal Audit Clearinghouse (FAC) User Group, whose purpose is to address OMB Circular A-133 Data Collection Form and the FAC database. The form summarizes the significant information in the audit report for dissemination to the public through the Internet. Responsible officials from the audited entity and the audit organization sign the form certifying to the information presented. The information (in a database) identifies the OMB Circular A-133 audit reports that were received by the FAC. The database also contains information about the results of audits, such as the type of opinions expressed, findings, questioned costs, and major programs audited. The User Group has formed a task force to address needed changes to the Data Collection Form.

- **NASA OIG Leads PCIE/ECIE (Executive Council on Integrity and Efficiency) Review of the Nation's Critical Infrastructure Assurance Program Based on PDD-63.**

Twenty-one OIG's participated in Phase I of the four-phase review. Phase I relates to planning and assessment activities for cyber-based infrastructures, Phase II relates to implementation activities for cyber-based infrastructures, Phase III relates to planning and assessment activities for physical minimum

essential infrastructure, and Phase IV relates to implementation activities for physical minimum essential infrastructure. On March 21, 2001, the PCIE and ECIE Vice Chairs issued the Phase I report to the Director, OMB, and the National Coordinator for Security, Infrastructure Protection and Counter-Terrorism. The NASA OIG and the other participating OIG's previously issued individual reports on the results of their Phase I reviews and made a total of about 100 recommendations to improve their respective agencies' critical infrastructure protection programs. Work on Phase II has been postponed. Sixteen OIG's are participating in the Phase III review.

Oversight of Audit Services

Some of NASA's investment in audit services goes to audit organizations that are external to NASA and the OIG. The Inspector General Act requires the OIG to ensure that any work performed by non-Federal auditors complies with government auditing standards. To ensure compliance with these standards, gain insight into the quality of the audit services provided, and to ensure that the OIG achieves the maximum benefits from these audits, the OIG conducts quality control reviews of external auditors' (Federal and non-Federal) work.

Financial Statement Audits

The Chief Financial Officer Act of 1990 requires NASA's financial statements to be audited according to generally accepted government auditing standards. The Act also requires reports on NASA's system of internal controls and compliance with laws and regulations. The OIG contracted with Arthur Andersen LLP, an independent public accounting firm to conduct the audit of NASA's FY 2000 financial statements and is actively monitoring its work. In addition, the OIG is monitoring NASA's progress toward implementing recommendations made by Arthur Andersen during previous years' audits.

Oversight of DCAA Work Performed for NASA

We are developing a plan to oversee all phases of DCAA work performed for NASA. Our goals are to identify more efficient uses of DCAA contract audit services, timely resolve audit findings and recommendations resulting from DCAA audits, further improve sustention rates on questioned costs, and reduce external audit costs.

We have already reviewed and provided comments to DCAA recommending changes to its contract audit policy manual regarding work performed for NASA. We are currently monitoring DCAA questioned cost sustention rates on NASA work. We are also planning an audit of NASA's contract audit follow-up procedures on DCAA reported audit findings. Prior audits of these procedures disclosed that the system did not include complete records of actions taken on DCAA reported findings and recommendations and that resolution of audit findings and recommendations were not closed out timely.

Educational and Non-Profit Organization Audits

Quality Control Reviews

The OIG performed quality control reviews of the audit reports and working papers that support the OMB Circular A-133 audits of: (1) Baylor College of Medicine (IG-01-010, FY 1999), (2) Jet Propulsion Laboratory Managed by the California Institute of Technology (IG-01-016, FY 1998 and 1999), (3) Old Dominion University Research Foundation (IG-01-005, FY 1998 and 1999), (4) Smithsonian Institution (IG-01-004, FY 1999), and (5) William Marsh Rice University (IG-01-011, FY 1999). We identified problems mostly related to internal control working paper documentation and testing.

Nonappropriated Fund Activities Audits

NASA policy requires annual audits of the financial statements of Exchanges operated by NASA Headquarters and field Centers. The OIG established a quality control program to ensure the audits comply with applicable standards. We plan to review the Exchange audits on a 3-year cycle. This program includes: (1) desk reviews of audit reports and supporting documentation, (2) periodic quality control reviews of auditor working papers and Exchange books and records, and (3) monitoring corrective actions taken in response to selected recommendations resulting from the audits. During this period, we completed a quality control review at Goddard (IG-01-014, FY's 1998 and 1999).

The Audit Program will continue to coordinate these reviews with the Exchange inspections being conducted by OIG inspections staff.

Inspections, Administrative Investigations, and Assessments

Identity Theft and Personal Computer Security

We initiated a new outreach campaign to heighten the awareness of NASA employees to the dangers of identity theft and protection of their home computer security and privacy. At a time when NASA is permitting more telecommuting and with many employees often using their own home computers for NASA work assignments, it makes good sense for employees to protect their own privacy and the security of NASA information. Our first public service notice was jointly sponsored by the Office of Headquarters Operations, distributed to NASA Headquarters employees, and placed on the NASA OIG Web site. Future notices will highlight protections for home computing privacy.

Continuing Activities

- **Webmasters Working Group**

In conjunction with the PCIE and the Inspections and Evaluations Roundtable, the NASA OIG staff continued its leadership role with the OIG Webmasters Working Group. The group represents curators and other staff involved in maintaining OIG Web sites throughout the Federal Government. The group periodically meets to discuss Web site design and operation, legal requirements, and best practices.

- **Monthly Meetings With Agency's Management Assessment Division**

We conducted monthly meetings with the staff of the Agency's Management Assessment Division and other OIG liaisons to share the status of inspection reports and recommendations, and Agency responses and follow-up actions. During this reporting period, the IAIA management team visited and briefed NASA managers and OIG liaisons on IAIA activities at five NASA installations.

- **Misconduct in Research Working Group**

We continued to represent the OIG as a member of the PCIE/ECIE Misconduct in Research working group—our staff regularly attended the group's meetings and have participated in the development of draft guidelines. We, along with our OIG Counsel, are also coordinating our efforts with the Agency staff responsible for NASA's implementing guidelines.

- **Provide Feedback to Exchange Councils**

We continued our practice of providing immediate and follow-up feedback to the NASA Exchange councils and their management. We provided briefing sessions for each of the Exchanges early in the draft report process.

- **Advanced Aeronautics Program**

The IAIA staff supported the Inspector General's presentation to a NASA oversight panel concerning the OIG's audit and inspections of an advanced aeronautics program. To ensure management's awareness, the Inspector General provided an overview of our findings, observations, and recommendations in advance of formal OIG draft reports.

Office of Criminal Investigations

U.S. Attorney Presents Executive Level Fraud Briefing

The OIG OCI staff was instrumental in arranging an executive level fraud briefing by the Honorable Brad Pigott, U.S. Attorney, Southern District of Mississippi, Jackson, Mississippi. Mr. Pigott spoke to NASA and NASA contractor senior and middle management at Stennis. Roy Estess, Stennis Center Director, who also attended the briefing, gave the introductory remarks. Topics covered by Mr. Pigott included an explanation of the role of the U.S. Attorney's Office, fraud awareness, employee responsibility and cooperation, with emphasis on tangible results that impact and benefit NASA people and resources.

Network and Advanced Technologies Protection Office Computer Crimes Division

OIG Hosts Representatives of the Bundeskriminalamt (BKA) German Federal Criminal Police Office

At the request of Dr. Ulrich Kersten, President of the BKA German Federal Criminal Police Office, the OIG NATPO, CCD, hosted eight high-level representatives of the BKA to discuss computer crime related issues and to formalize relationships between the OIG NATPO and BKA. NATPO provided a briefing on its primary responsibilities, authorities, and issues related to its computer crimes investigative mission.

OIG Participated as a Member of the U.S. Delegation to the 69th General Assembly Session of the International Criminal Police Organization (Interpol)

For the first time, NASA OIG served as a representative to the U.S. Delegation to the 69th General Assembly Session of Interpol held in Rhodes Island, Greece. As a representative the mission was to ensure and promote mutual assistance, especially in the area of network infrastructure attacks, among all criminal police authorities worldwide. Over 178 countries were represented as members of Interpol.

Training

- **OIG Visits George Mason University**

As part of the OIG's continuing outreach concerning cyber crime, the NATPO provided a presentation to the George Mason University masters level course, Information Systems Security. Through this type of presentation, the OIG continues to work to open channels of communication between Government and academia on the current state of infrastructure protection issues from a NASA perspective.

- **OIG Provides Instruction to Prince George's County Police Department**

The NATPO provided instruction about computer network investigative methodologies to a Prince George's County Police Department computer crimes class. The class on computer crimes is taught at Prince George's County Community College as part of its Criminal Justice Department.

- **OIG/NATPO Personnel Participate in Counterintelligence Training**

The NATPO personnel received counterintelligence awareness training to: (1) familiarize the staff with and provide a broad overview of current and past counterintelligence trends and issues, (2) familiarize the staff with the structure and function of the various counterintelligence organizations and how those organizations interact with members of the intelligence community, and (3) identify current technical and counterintelligence threats posed to OIG personnel while traveling aboard and how to minimize the threat.

Legal

NASA OIG Counsel Assumes Council Chair

Francis P. LaRocca, Counsel to the Inspector General, was elected Chair to the Council of Counsels (Council) to the Inspectors General in November 2000, and assumed the chair on January 17, 2001. In December 2000, Mr. LaRocca received the Council's Year 2000 Award for Training recognizing his role in organizing legal training for the OIG counsels nationwide. The Council is an informal group of OIG lawyers who meet periodically to discuss matters of mutual interest.

Appendices

Appendix I	Statistical Highlights
Appendix II	Audit Reports Issued
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Audit Activities	
OIG Audit Reports Issued	23

Audit Impact	
Questioned Costs	\$.6 million
Recommended Better Use of Funds	\$217.6 million
Audit Dollar Impact TOTAL	\$218.2 million

Status of A-133 ¹ Findings and Questioned Costs Related to NASA Awards ²	
Total Audits Reviewed	77
Audits with Recommendations	16
Audits Unresolved Over 6 Months Old	1
Total Disallowed/Questioned Costs ³	\$182,927
Total Disallowed/Questioned Costs Recovered/Sustained	\$ 27,395
Recommendations: Beginning	29
New Recommendations	8
Recommendations Dispositioned	19
Ending Balance	18
Average Age of Recommendations Not Completed	10.5 months

¹OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, requires Federal agencies to audit non-Federal entities expending Federal awards.

²Data prepared by NASA Office of Procurement for the financial reporting period ending March 31, 2001.

³Questioned Costs include \$12,864 of overpayments to Central State University employees. NASA requested and received a check for \$12,864 from the University; therefore, this action is closed.

Statistical Highlights

Administrative Investigations Activities

Cases Opened	68
Cases Closed	70
Cases Pending	152
Referred to Management	20
Closed	12
Pending	11
Referred to Criminal Investigations	4

Inspections/Assessments Activities¹

Activities Opened	19
Activities Closed	16
Activities Pending	19

¹ Includes inspection and assessment reports, special studies, responses to congressional inquiries, and management alerts.

Administrative Investigations Impact

Recoveries	\$ 43,000
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Criminal Investigations Activities

Cases Opened	127
Cases Closed	95
Cases Pending	328
Hotline Complaints Received	88
Referred to Audits or Investigations	26
Referred to Inspections and Assessments	40
Referred to NASA Management	1
Referred to Other Agencies	3
No Action Required	18

Criminal Investigations Impact¹

Indictments/ Informations	32
Convictions/Plea Bargains/ Pretrial Diversions	26
Cases Referred for Prosecution	36
Cases Declined	16
Cases Referred to NASA Management for Action	30
Cases Referred to Other Agencies for Action	16¹
Suspensions/Debarments	2
Individuals	1
Firms	1
Administrative Actions	14
NASA Employees	2
Contractor Employees	12
Recoveries	\$11,760,952²
Potential Impact	\$ 851,554³
Total Investigations Dollar Impact	\$12,612,506

¹Includes referrals to State, local and other Federal law enforcement agencies.

²Includes Administrative Recoveries, Fines and Penalties, Restitutions, Settlements and Judgements.

³Includes Funds Put to Better Use and Potential Cost Impact.

Appendix II
Audit Reports Issued

Section 5(a)(6) of the Inspector General Act, as amended, requires a listing of each OIG audit report issued during the reporting period. Where applicable, the total dollar values of questioned costs, including separate identification of unsupported costs, and recommendations that funds be put to better use is to be included.

For this reporting period, a total of 23 OIG audits identified \$.6 million in questioned costs and \$217.6 million in funds put to better use.

<i>Report</i>	<i>Date Issued</i>	<i>Report Title & Monetary Amount</i>
IG-01-001	10/31/00	Response to Senate Report 106-161 Fiscal Year 2000 Assessment of NASA's Export Activities
IG-01-002	10/31/00	Response to Senate Report 106-161 — NASA's Vulnerabilities to Hostile Attacks as of September 30, 2000
IG-01-003	12/21/00	Space Shuttle Payloads
IG-01-004	11/16/00	Quality Control Review of KPMG LLP and Defense Contract Audit Agency Audit of Smithsonian Institution for Fiscal Year Ended September 30, 1999
IG-01-005	11/20/00	Quality Control Review of Goodman & Company, LLP Audit of Old Dominion University Research Foundation for Fiscal Year Ended June 30, 1999, and Follow-up of Audit of the Foundation for Fiscal Year Ended June 30, 1998
IG-01-006	11/26/00	Impact of The Boeing Company's Restructuring on NASA (**\$64.7 million)
IG-01-007	12/08/00	Cost Sharing for Environmental Cleanup Efforts (**\$37.9 million)
IG-01-008	2/16/01	Review of the Collection of Personally Identifiable Information on NASA's Web Sites
IG-01-009	3/13/01	Faster, Better, Cheaper: Policy, Strategic Planning, and Human Resource Alignment
IG-01-010	3/14/01	Quality Control Review of the Arthur Andersen LLP Audit of the Baylor College of Medicine, Fiscal Year Ended June 30, 1999
IG-01-011	3/14/01	Quality Control Review of Arthur Andersen LLP Audit of William Marsh Rice University, Fiscal Year Ended June 30, 1999
IG-01-012	3/16/01	United Space Alliance's Use of Professional and Consultant Services (*\$468,673)
IG-01-013	3/22/01	Audit of Information Security at Kennedy Space Center's Shuttle Data Center

* Questioned Costs

**Funds Put to Better Use

(continued)

Audit Reports Issued

<i>Report</i>	<i>Date Issued</i>	<i>Report Title & Monetary Amount</i>
IG-01-014	3/20/01	Quality Control Review of the Audit and Review of the Goddard Employees Welfare Association Financial Statements for Fiscal Years Ended September 30, 1998 and 1999
IG-01-015	3/22/01	Billings for Desktop Computing and Telecommunications Outsourcing at Marshall Space Flight Center (*\$44,000 **\$4,000)
IG-01-016	3/21/01	Quality Control Review of the Price Waterhouse Coopers LLP and Defense Contract Audit Agency Audit of the Jet Propulsion Laboratory Managed by the California Institute of Technology, Fiscal Years Ended September 20, 1998, and September 26, 1999
IG-01-017	3/23/01	Space Shuttle Program Management Safety Observations
IG-01-018	3/28/01	Audit of Advanced Aeronautics Program
IG-01-019	3/30/01	Thiokol's Use of Professional and Consultant Service (*\$87,500)
IG-01-020	3/30/01	Validation and Verification of Selected NASA FY 2000 Performance Data Related to the Government Performance and Results Act
IG-01-021	3/30/01	X-37 Technology Demonstrator Project Management (**\$115 million)
IG-01-022	3/30/01	Information Technology Security Planning
IG-01-023	3/21/01	PCIE/ECIE Phase I Review of Agency Implementation of PDD-63 (Letter)

* Questioned Costs

**Funds Put to Better Use

The DCAA provides various audit services to NASA on a reimbursable basis. The audits performed include: proposal evaluations that are used to negotiate a contract price; incurred cost reviews which verify amounts billed to the Government; reviews of contractor estimating, accounting, and purchasing systems; defective pricing reviews; and reviews for compliance with cost accounting standards. The resulting audit reports are sent to the NASA or Government contracting official having cognizance over the contract or contractor involved. The following sections summarize information provided during this period by DCAA on reports involving NASA activities, results of NASA actions on those reports, and significant reports that have not been completely resolved.

DCAA Audit Reports Issued

During the period, DCAA issued 357 audit reports (excluding pre-award contractor proposal evaluations) on contractors who do business with NASA. DCAA also issued 191 reports on audits of NASA contractor proposals totaling \$2.4 billion, which identified cost exceptions totaling about \$30.1 million. These figures include proposals from several contractors bidding on the same contract; therefore, the total amount of exceptions is larger than the amount of potential savings to NASA.

NASA Actions

Corrective actions taken on DCAA audit report recommendations usually result from negotiations between the contractor and the Government contracting officer. The following tables show the number of DCAA audit reports and amounts of questioned costs and funds put to better use for the reporting period. During this period, NASA management resolved 95 reports with \$14,165,000 of questioned costs, and 25 reports with \$29,730,000 of funds put to better use. NASA management sustained 60.4 percent of DCAA's questioned costs and 69.1 percent of the funds put to better use.

DCAA Audits of NASA Contractors

DCAA Audits with Questioned Costs

	Number of Audit Reports	Total Costs Questioned (In Thousands)
No management decision made by beginning of period	390	\$206,220
Issued during period	56	\$ 4,217
Needing management decision during period	446	\$210,437
Management decision made during period:	95	\$ 14,165
amounts agreed to by management	—	\$ 8,551
amounts not agreed to by management	—	\$ 5,614
No management decision made by end of period:	351	\$196,272
No management decision prior to period and still unresolved at end of period	328	\$192,900
Reports issued during reporting period and unresolved at end of period	23	\$ 3,372

DCAA Audits with Recommendations Funds Be Put to Better Use

	Number of Audit Reports	Total Costs Questioned (In Thousands)
No management decision made by beginning of period	117	\$279,746
Issued during period	39	\$ 28,900
Needing management decision during period	156	\$308,646
Management decision made during period:	25	\$ 29,730
Amounts management agreed to by management	—	\$ 20,542
Amounts not agreed to by management	—	\$ 9,188
No management decision at end of period:	131	\$278,916
No management decision prior to period and still unresolved at end of period	92	\$250,017
Reports issued during reporting period and unresolved at end of period	39	\$ 28,899

Significant Contract Audits

**Incurring Cost/\$35
Million**

Action Office: NASA,
Lyndon B. Johnson
Space Center
Contractor: The
Boeing Company,
Houston, Texas
Office: Houston
Branch Office
DCAA Assignment
No.: 3521-
1999D1010001

The audit of interdivisional work authorizations applicable to The Boeing Company's International Space Station contract questioned \$35 million of unallowable fees billed as subcontract costs, plus an additional pyramiding of fees. The review focused on the interdivisional work authorizations for cost implications after Boeing's mergers with Rocketdyne and McDonnell Douglas (both former subcontractors to Boeing on the subject contract). The cost discrepancies resulted from Boeing's treatment of subcontract "fee" subsequent to a May 1996 revision of the contractual fee arrangement among the three merging contractors (i.e., one fee to be shared by all). Contrary to the revised contractual fee arrangement, Boeing included "fee" from McDonnell Douglas as cost and calculated its own contract fee in addition, thus duplicating the fee amount to the Government. The contractor agreed with DCAA's position and adjusted contract billings to reflect a credit for the \$35 million of unallowable cost.

**Incurring Cost/\$1.4
Million (\$290,000
NASA)**

Action Office: DCMA
Contractor: Computer
Science Corporation
DCAA Office: Santa
Ana Branch Office
DCAA Assignment
No.: 4181-
1999X1010047

The audit of Computer Science Corporation's corporate allocations resulted in savings to the Government of nearly \$1.4 million, of which \$290,000 related to NASA flexibly-priced contracts. (Flexibly-priced contracts, unlike firm-fixed price contracts, are contracts in which the total amount of the contract may vary.) The questioned costs consisted of \$1,351,000 in duplicated employee deferred compensation (employee retirement plan costs posted in both corporate and divisional indirect pools), \$23,000 of unallowable acquisition expenses, and \$12,000 of unallocable expenses. Of the \$1,386,000 questioned and sustained costs, \$1,359,000 was allocable to U.S. Government flexibly priced contracts.

DCAA Audits of NASA Contractors

Forward Pricing/ \$454,000

Action Office: Goddard
Space Flight Center
Contractor: McDonnell
Douglas Aerospace,
Space & Defense
Systems
DCAA Office: Boeing –
Huntington Beach
Resident Office
DCAA Assignment
No.: 4461-
1996A21000003

The audit and negotiation of a \$3.2 million firm-fixed-price proposal for the MARS Global/Pathfinder Program resulted in \$454,000 savings to the Government. The audit report and subsequent negotiation support provided the negotiator with detailed information that assisted in resolving several significant issues. The audit questioned 6,600 labor hours based on the contractor's improper application of labor cost estimating relationship factors. The negotiations, assisted by DCAA, resulted in the reduction of 5,300 labor hours. This, along with the associated reduction of overhead costs and general and administrative (G&A) expenses, resulted in of \$454,334 reduced cost of the program.

Incurred Cost Audit/\$1.5 million (\$982,000 NASA)

Action Office: DCMA
Baltimore, Maryland
Contractor: Honeywell
Technical Solutions,
Incorporated
DCAA Office:
Baltimore Branch
Office
DCAA Assignment
No.: 6141-
1998M10100059

The audit of Honeywell's incurred cost submission resulted in savings to the Government of \$1.5 million, of which \$982,000 related to NASA contracts. The audit revealed the contractor erroneously excluded \$3.4 million of direct-type charges by indirect employees from the G&A base. This exclusion overstated indirect expense pools and understated the allocation base resulting in increased G&A allocations to Government contracts. Corrections resulted in decreased G&A allocated to Government contracts. An additional \$434,000 of savings to Government contracts was attributable to excessive executive compensation and severance pay, unsupported legal costs, and unallowable lobbying and public relations costs.

Appendix IV Top Ten Management Challenges

Under the authority of the Inspector General Act, the NASA OIG conducts and supervises independent audits, investigations, inspections, and other reviews to promote economy, efficiency, and effectiveness and prevent and detect fraud, waste, and mismanagement. To fulfill that mission and help NASA achieve its scientific and technology goals we have aligned our programs to focus on those areas representing the Agency's highest vulnerabilities. We have identified those areas as NASA's Top Ten Management Challenges, to include:

1. Safety and Mission Assurance
2. International Space Station
3. Information Technology
4. Procurement
5. Fiscal Management
6. Program and Project Management
7. Launch Vehicles
8. Technology Development
9. International Agreements
10. Environmental Management

The NASA OIG has a positive role in helping the Agency meet its goals and address NASA's Top Ten Challenges. NASA management has worked cooperatively with the OIG in addressing many of the Top Ten Management Challenge issues. In addition, the Agency has made significant progress implementing Government Performance and Results Act requirements, which cut across all challenge areas.

Current information on prior work addressing NASA ten most serious management challenges can be found in our December 1, 2000, report to Congress. In addition, our planned work addressing these challenges is outlined in our Fiscal Year 2001 Annual Plan and detailed in the functional area version of the plan. These documents are available on the NASA OIG Homepage <<http://www.hq.nasa.gov/office/oig/hq/reports.html>>, or by contacting any of the persons listed as Points of Contact on page iii of this report.

Appendix V
Directives Reviewed by the OIG

<i>Directive</i>	<i>Directive Topic</i>
__CFR [Code of Federal Regulations] 164.512	Draft Final Rule, Standards for Privacy of Individually Identifiable Health Information
14 CFR Part 1253 App A	NASA Federal Assistance to Part Applies
HQPD [Headquarters Policy Directive] 1150.2	Executive Safety and Occupational Health Advisory Board
HQPD 1541.2I	Parking Regulations and Criteria for Assignment of Parking Permits
HQPG [Headquarters Policy Guidance] 9630.1C	NASA Headquarters Time, Attendance, and Leave Reporting Guide
NPD 1400.1G	NASA Directives System
NPD 1400.2A	Publication of NASA Documents in the Federal Register
NPD 1490.1F	NASA Printing, Duplicating, Copier, Forms, and Mail Management
NPD 1800.2A	NASA Occupational Health Program
NPD 1810.2A	NASA Occupational Medicine Program
NPD 1820.1A	NASA Environmental Health Program
NPD 1830.1A	NASA Employee Assistance Program
NPD 1840.1A	NASA Workers' Compensation Program
NPD 1880.1 (Revalidation)	Tobacco Products Vending in NASA Facilities
NPD 4200 1A	Equipment Management
NPD 7100.8D	Protection of Human Research Subjects
NPD 8730.1A	Metrology and Calibration
NPD 8900.1F	Medical Operations Responsibilities in Support of Human Space Flight Programs

(continued)

Directives Reviewed by the OIG

<i>Directive</i>	<i>Directive Topic</i>
NPD 8900.3F	Astronaut Medical and Dental Observation Study and Care Program
NPD 8910 1A	Care and Use of Animals
NPG 1000.3, Change 79	Change to NASA Medical Policy Board and Aerospace Medicine Board Charter
NPG 1000.3, Change 81	Creation of Aviation Safety Board Charter
NPG 1000.3, Change 75	John C. Stennis Space Center Organization Chart and Mission Statement
NPG 1000.3, Change 70	Changes to Engineering Management Council Charter
NPG 1000.3, Change 71 (Revised)	Change to Mission Statement and Organization Chart for Code M
NPG 1000.3, Change 74	Change to Mission Statement and Organization Chart for Code J
NPG 1000.3, Change 76	Change to Mission Statement and Organization Chart for Code U
NPG 1000.3, Change 77	Creation of New Organization—Code X (formerly Code D)—Office of Security Management and Safeguards
NPG 1000.3, Change 78	Change to JSC Organization Chart
NPG 1000.3, Change 80	Creation of NASA Security Council
NPG 1080, DRAFT 1	Guidelines for the Generate Knowledge Process for Programs and Projects
NPG 1200, DRAFT 2	Management Controls
NPG 1400.1C	NASA Directives System Procedures and Guidelines
NPG 7120.5B, DRAFT 2	Management Processes and Requirements
NPG 8705, DRAFT 1 (Revised)	Risk Management Procedures and Guidelines
NPG 9501.2D (Revalidation)	Procedures for Contractor Reporting of Correlated Cost

I. Introduction

The Government Performance and Results Act (Results Act), P.L. 103-62, was enacted in January 1993 to improve the Federal Government's responsiveness to the needs of the American public and to reduce waste and inefficiency in Federal programs.¹ The Results Act requires each executive agency to develop and prepare:

1. Multi-year strategic plans.
2. Annual performance plans.
3. Annual performance reports.

The Congress attaches great importance to effective implementation of the Results Act and, therefore, has requested Federal agency Inspectors General to develop and implement, in consultation with appropriate congressional committees and their agency heads, a Results Act review plan.²

The NASA OIG is committed to assisting Agency management in promoting the economy, efficiency, and effectiveness of its programs and operations. In keeping with our commitment, the OIG has used this Results Act review plan to establish the strategies and methods used to review the Agency's implementation of the Results Act over the past 2 years.

II. Results Act Review Plan Requirements

The OIG Results Act Review Plan will examine:

1. NASA's efforts to develop and use performance measures for determining progress toward achieving the performance goals and program outcomes described in its annual performance plans and performance reports under the Results Act.
2. NASA's verification and validation of selected data sources and information collection and accounting systems that support NASA's strategic and performance plans and performance reports.

¹ NASA initiated key Agencywide initiatives and a Presidential Decision Directive that will foster efficient and effective operations. They are detailed in Appendix 1 of this plan.

² Congressional request made by the Honorable Richard Armey, Daniel Burton, Stephen Horn, and Peter Sessions.

Our reviews will emphasize examination of those performance measures associated with NASA's programs and activities that:

1. Are at high risk of waste, fraud, or mismanagement.
2. Require a review (as determined by the Inspector General) to assess the adequacy of Agency controls for ensuring that the underlying performance data are accurate and reliable.

We submitted our Results Act Review Plan in the semiannual report for the period ending March 31, 1999, and included an interim progress report of our accomplishments in the semiannual report for the period ending September 30, 1999. We provided a full first year report of our review plan accomplishments in our March 31, 2000, semiannual report. We continue to use our Results Act Review Plan to assess NASA's accomplishments. However, because NASA management has made a commitment to fully implementing the Results Act, and our work to date has shown significant progress toward achieving that commitment, we will report on Results Act review accomplishments for a final time in the semiannual report for the period ending March 31, 2001. We will continue to review NASA implementation and commitment to the Results Act and will report on management's performance through our audit reporting process. Following the issuance of our March 31, 2001, semiannual report, we will not include a separate Results Act Review Plan and list the review plan accomplishments as part of our overall input.

III. Results Act Review Plan Strategy, Goals, Methodology, and Accomplishments

Strategy

The OIG will examine the Agency's implementation of its established performance measures through individual audits and reviews and incorporating, as appropriate, information from the independent public accountant's audit of NASA's financial statements.

Goals

Our goals are to:

1. Encourage the effective use of performance measures by Agency managers as a means to achieve Agency goals and strengthen accountability to the taxpayer.
2. Emphasize needed corrective actions to improve program, project, and process performance and monitor implementation of those actions.
3. Enhance NASA's ability to perform in an increasingly complex environment that is subject to significant business and security challenges.

Government Performance and Results Act Review Plan

Methodology and Accomplishments

The following table details the activities, methodology, and accomplishments in conducting our Results Act Review.

Activities, Methodology, and Accomplishments

Activity	Methodology	Accomplishments April 1, 2000, through March 31, 2001
Include NASA's Results Act requirements in the OIG's annual work planning process	Assure that the OIG annual planning process is linked to the Agency's strategic plan and current annual performance plan giving emphasis to the ten most serious Agency management challenges identified annually by the OIG.	The OIG considers the Agency's strategic plan and annual performance plan in planning new assignments and in setting objectives for each review. For FY 2001, the OIG realigned the top ten areas to correspond to changing challenges facing NASA and organized the annual plan by the Agency's Top Ten Management Challenges to ensure coverage of each area. For FY 2002 and future years, we are instituting a "real time" planning process that will allow the OIG to assess Agency problems, performance, and results on a continuous basis as we select and plan the start of each new review.
Incorporate the review of the Agency's performance measures into work assignments	NASA's performance measures will be evaluated internally by management and externally by organizations such as the NASA Advisory Council and the National Academy of Sciences. Where appropriate, the OIG will include in the scope of work for audits and reviews requirements to assess those performance measures and goals relating to the particular Agency program, project, or crosscutting process emphasizing those performance measures associated with activities identified as high risk (e.g., safety, technology development, and security).	We consider the need for coverage of performance measures in each audit and have reviewed performance measures in selected assignments. For example, a recently completed audit in Information Technology Security Planning found that the limited IT security metrics in NASA's FY 2001 Performance Plan do not provide an adequate assessment of NASA's IT security program. As a result, the IT security risks and metrics that NASA reports to the Congress may understate NASA's IT vulnerabilities and provide undue assurance on the integrity, availability, and confidentiality of information. In another assignment, we reviewed the Agency's Aviation Safety Program. We found that NASA needed to make improvements in measuring the Agency's contributions toward meeting the National Aviation Safety goal in order to provide the Congress, the aviation community, and the public a more accurate portrayal of the efforts and the risks involved. We will continue to evaluate performance measures in other assignments and brief the results of our evaluations at the conclusion of each survey and audit.
Conduct review of data sources and information collection for performance reporting	For selected audits and reviews, we will assess controls over databases and associated performance measurement data relating to Agency programs.	In FY 2001, we validated NASA's FY 2000 performance data to be reported under the Results Act and found that the reported performance on 17 percent of the performance targets examined was not fully reliable because the data reviewed did not accurately support the results being described. We recommended that NASA (1) ensure that the results reported in the FY 2000 Performance Report are accurate and reliable; (2) develop clear future GPRA targets that represent the desired performance expected to be achieved; and (3) disclose fully all target data limitations in future performance reports when reporting actual performance.

(continued)

Activity	Methodology	Accomplishments April 1, 2000, through March 31, 2001
Use the OIG Issue Area Coordination Process to coordinate OIG research on Agency management priorities and develop and prioritize OIG work coverage applicable to specific work areas	OIG Issue Area Coordinators will review the Agency's planning and performance measures within their assigned areas, which include procurement, financial management, program/project management, safety, security programs, information technology, infrastructure, science and engineering, and international and interagency agreements.	We conducted special outreach initiatives with NASA management and the OIG community in order to address external reporting requirements regarding IT security. These reporting requirements include reporting NASA's vulnerabilities to hostile attacks as required by Senate Report 106-161; activities related to the collection of personal information on NASA's publicly accessible Internet Web sites, as required by Public Law 106-554; and compliance with the Government Information Security Reform Act. In response to the GISR and the Agency's stated concerns over safety and security, we are developing a capability within the OIG to conduct vulnerability assessments of NASA information systems and safeguards. In response to Senate Report 106-161, we issued our first annual report on NASA's vulnerabilities to hostile attacks. We also conducted outreach efforts to raise awareness both within and outside the Agency of potential security vulnerabilities relating to information remaining on computer hard drives and identify theft. In addition, we identified weaknesses in the physical security activities of a NASA space flight system and various other NASA systems that support the processing of mission, business, and restricted technology activities.
Coordinate OIG review of performance measures with independent public accountant's review of performance measures associated with the Agency financial statement audit	We will cover selected performance measures not reviewed by the independent public accountant in its financial statement audit of the Agency. The scope of work for the Agency's financial statement audit includes the independent public accountant's verification and validation of performance measures included in the NASA Accountability Report. We will coordinate our review with the independent public accountant, Arthur Andersen, to avoid duplication of effort.	We continued our oversight of NASA's efforts to develop and use performance measures for determining progress toward achieving the performance goals and program outcomes in the Agency's performance plans and reports. We recommended that NASA take corrective action to ensure that all reported results in the Performance Report are accurate and reliable, develop future GPRA targets that are clear and represent desired performance, and fully disclose data limitations in future performance reports. Management concurred with the recommendations. Arthur Andersen performed limited work to verify the performance measures included in NASA's FY 2000 Accountability Report and did not report any discrepancies based on its review.
Review NASA technology planning and performance measures	We will conduct an in-depth review of NASA's technology development and adoption processes (with a focus on effective use of performance measures) to determine whether the Results Act is being applied effectively at program levels.	We completed a review of Contractor Exports of Controlled Technologies (Report Number IG-00-048, September 19, 2000) and found that one of NASA's major contractors may not have complied with applicable export laws and regulations when exporting controlled items on behalf of the International Space Station (ISS) Program. We made recommendations to ensure that this contractor's export activities on behalf of the Agency for the ISS Program are being performed in full compliance with applicable export laws and regulations. We also provided the

(continued)

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Government Performance and Results Act Review Plan

Activity	Methodology	Accomplishments April 1, 2000, through March 31, 2001
		<p>Congress with a summary of the OIG's work (Report Number IG-01-001, October 31, 2000) in relation to NASA's export activities in response to language in the FY 2000 Departments of Veteran Affairs and Housing and Urban Development, Independent Agencies Appropriations Act (Public Law 106-74). This Act directed NASA, in conjunction with the OIG, to conduct an annual assessment and report to the Congress on all procedures, protocols, and policies governing the export or transfer of NASA-related technologies and to determine the extent to which NASA and its contractors are carrying out activities in compliance with Federal export control laws. We also conducted an audit to determine whether NASA has established an effective IT security planning process as an integral part of its strategic information resources management program. We also determined whether NASA had developed adequate IT system vulnerability metrics for reporting under GPRA. In addition, we assessed NASA's peer review of research grants and cooperative agreements and recommended that NASA establish an Agency-wide metric for the level of competition and peer review desired in awarding research grants and cooperative agreements, and to begin collecting and monitoring data on these areas to ensure the goal is met. Our review of NASA's Aviation Safety Program found that NASA needed to make improvements in measuring the Agency's contributions toward meeting the National Aviation Safety goal in order to provide the Congress, the aviation community, and the public a more accurate portrayal of the efforts and the risks involved.</p>
<p>Monitor the Integrated Financial Management Project and Full Cost Accounting</p>	<p>We will continue our coverage of these processes through various reviews and through participating with Agency management in the process-related working groups.</p>	<p>NASA issued a stop work order to the original (Integrated Financial Management Project (IFMP) contractor, KPMG, on March 10, 2000, and is in negotiation with KPMG on a settlement. However, NASA is still continuing on with IFMP. NASA has come up with a new management team and a new strategy for implementing an integrated financial management system. On September 20, 2000, NASA selected SAP Public Sector and Education, Inc. of Washington, D.C., to deliver a commercial off-the-shelf core accounting system to replace the ten different accounting systems now used by NASA field centers. A team of NASA employees from across the Agency in accounting, procurement and information technology has been brought together to implement the pilot program at the Marshall Space Flight Center, and to support implementation at other NASA locations. The pilot center implementation is scheduled to begin April 2001. The Agency's plan is that the core accounting software will run at Marshall with the rest of the Agency using the single instance of the application from all NASA Centers. Implementation of the complete Core Financial Module Project is scheduled for November 2003. In December we referred the open recommendations on our report on Full-Cost Implementation to the Audit Follow-up Official (AFO) for a decision. The AFO</p>

(continued)

Activity	Methodology	Accomplishments April 1, 2000, through March 31, 2001
		supported management's position that the Space Shuttle continues to have schedule and developmental issues that require it to be accounted for as a program and not as a service. However, the AFO agreed that full cost accounting for the Shuttle might be a viable option at some point in the future.
Include ISO 9001 certification Initiative in appropriate reviews	We will ensure that our reviews involving the Agency's quality assurance initiatives encompass the status of ISO 9001 certification.	Each Center plus Headquarters has an independent ISO focal point. We began contacting each focal point to obtain information related to ISO implementation status at each location. Each facility maintains all the ISO-related policies on the World Wide Web and some have a separate ISO Web page. In addition to ISO 9001, we are monitoring the pilot testing of ISO 14001 implementation related to Environmental Management Systems.
Monitor activities related to Presidential Decision Directive (PDD-63), which mandates the strengthening of the nation's defenses against emerging, unconventional threats to the United States	The OIG will participate as an active member of the Critical Infrastructure Protection Team (CIPT) to help the Agency to develop an effective Critical Infrastructure Protection Plan. We will also conduct subsequent reviews to determine whether NASA has implemented the critical steps it identifies as key to protecting its infrastructures.	The NASA OIG is leading a four-phase, PCIE/ECIE review to determine the adequacy of the Federal Government's critical infrastructure protection program in the context of PDD-63 requirements. Phases I and II relate to planning, assessment, and implementation activities for critical, cyber-based infrastructures; Phases III and IV relate to planning, assessment, and implementation activities for critical, physical infrastructures. The NASA OIG wrote a consolidated report based on work performed by the 21 OIG's that participated in the Phase I review. On March 21, 2001, the PCIE and ECIE Vice Chairs issued the Phase I report to the Director, OMB, and the National Coordinator for Security, Infrastructure Protection and Counter-Terrorism. In addition, in September 2000, we issued a report on NASA's planning and implementation for PDD-63. The other participating OIG's had also previously issued reports on the results of their Phase I reviews, to their respective agencies. Work on Phase II has been postponed. Sixteen OIG's are participating in the Phase III review.
Monitor the Agency's response to the OIG's annual Top Ten Management Challenges	We will incorporate follow-up activities into the annual planning process. We will organize the yearly OIG Federal Managers' Financial Integrity Act submission in terms of the Top Ten Management Challenges. We will request formal responses from the Agency on addressing these issues. We will provide Congress with periodic updates as to the status of NASA's Top Ten Management Challenges.	Our FY 2001 Annual Plan is organized by the Top Ten Management Challenges. In December 2000, we reported to the Congress on the current status of NASA's Top Ten Management Challenges areas. Also, in March 2001, the Inspector General briefed the Congress about progress and continuing concerns with NASA's Top Ten Management Challenges areas.

(Appendix 1)

Agency Performance Assessment Process

NASA carries out its space and aeronautics programs and activities through its Strategic Enterprises and crosscutting processes.³ Each Strategic Enterprise has identified a unique set of goals, objectives, and strategies to meet the requirements of its primary customers. The crosscutting processes support the goals of the Agency and the Enterprises.

The following documents assess Agency performance at all levels.

1. *NASA Strategic Plan*. The Strategic Plan articulates the Agency's vision, mission, goals and objectives, as well as Agencywide strategies for achieving them.
2. *Enterprise Strategic Plan*. The Enterprise Strategic Plans are an extension of the Agency's Strategic Plan and provide a more detailed description of each Enterprise's goals, objectives, and implementing strategies.
3. *NASA Performance Plan*. The Performance Plan outlines selected measurements to evaluate progress the Agency intends to make toward the achievement of its strategic goals.
4. *Functional Leadership Plan*. The Functional Leadership Plans contain the performance goals and measures for Agency functional offices.
5. *Center Director's Performance Plan*. The Center Director's Performance Plan contains performance goals and measures for each NASA Center.
6. *NASA Performance Report*. The NASA Performance Report is NASA's self-assessment of how the Agency met its performance goals and metrics.
7. *NASA Accountability Report*. The NASA Accountability Report summarizes the Agency's program accomplishments and stewardship over budget and financial resources. This report includes assessments of performance measures and the Agency's financial statements.

³ The crosscutting processes transform the Agency's inputs, such as policies and resources into outcomes. These processes are (1) Manage Strategically, (2) Provide Aerospace Products and Capabilities, (3) Generate Knowledge, and (4) Communicate Knowledge.

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Government Performance and Results Act Review Plan

(Appendix 2)

FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
1. Develop lower cost missions.	IG-01-001, Faster, Better, Cheaper: Policy, Strategic Planning, and Human Resource Alignment, March 13, 2001	We found that although NASA has been using the FBC approach to manage projects since 1992, NASA has neither defined FBC nor implemented policies and guidance for FBC. Without a common understanding of FBC, NASA cannot effectively communicate its principles to program/project managers or contractor employees. In addition, the Agency has not incorporated sufficient FBC goals, objectives, and metrics into NASA's strategic management process. Therefore, missions completed using FBC are outside the strategic management and planning process, and progress toward achieving FBC cannot be measured or reported. Finally, NASA has not adequately aligned its human resources with its strategic goals. As a result, the Agency cannot determine the appropriate number of staff and competencies needed to effectively carry out strategic goals and objectives for its programs. Management partially concurred with developing policies and guidance to define FBC and describe its implementation. Management plans to include the definition of FBC in NASA policy documents, as appropriate. NASA also only partially concurred with the recommendations to align staffing with strategic goals because management does not view FBC as the cause for the staffing issues identified. However, NASA plans to develop a workforce plan for each Center that will link staffing, funding resources, mission and activities and core competencies.
	G-01-007, Letters to Hon. Dana Rohrabacher and Hon. Jim Gibbons re: Helical Wire, Inc., February 22, 2001	We found that Goddard was improperly requiring a particular brand of products in its hardware drawings and designs. We recommended future requirements should allow for competition among acceptable product lines, as required in the FAR.
	G-00-020, Letter to Hon. F. James Sensenbrenner, Jr. re: OIG Review of Allegations of Misconduct During Testing of the Mars Polar Lander, June 5, 2000	We found that a press allegation of misconduct during the testing of the Mars Polar Lander's braking thrusters was unfounded.

(continued)

FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
1. Develop lower cost missions. (continuation)	G-00-014, Progress Payments under Fixed-Price Construction Contracts, May 5, 2000	We became aware that contracting activities at various NASA installations failed to follow proper procedures for processing contractor requests for progress payments under fixed-price construction contracts. The Office of Procurement concurred with our two recommendations intended to improve NASA contract oversight, and assist in the prevention and detection of fraud against the Government.
	G-00-013, Letter to Hon. F. James Sensenbrenner, Jr. re: OIG Review of NASA's Proposed Sole Source Procurement to the Johns Hopkins University Applied Physics Laboratory for Services in Support of NASA's Sun-Earth Connection Theme, June 23, 2000	We found that NASA did not have sufficient justification to award a \$600 million contract on a sole source basis to the Applied Physics Laboratory. Contrary to Agency policy, NASA did not perform a cost-benefit analysis of the proposed arrangement. After a continuing dialogue with the Agency, NASA prepared adequate justification for its action.
	G-00-012, Letter to Hon. George R. Nethercutt, Jr., re: NASA's Compliance With Language in Conference Report 106-379 Concerning the Triana Project, December 22, 1999	We found that NASA had generally complied with Conference Report language regarding the suspension of work on the Triana project. However, NASA interpreted the report language in such a way as to allow the Agency to continue to work on the Triana mission using civil servants and unused funds, albeit at a reduced pace.
2. Share new knowledge with our customers and contribute to educational excellence.	G-00-021, Assessment of NASA's Use of the Metric System, February 20, 2001	Our review found that use of the metric system is inconsistent across the Agency. NASA agreed with seven of our eight recommendations to bring NASA practice into alignment with Federal and Agency guidelines. However, the Agency did not concur with our recommendation that NASA's Public Affairs Office use the metric system in its communications with the public.
	G-00-007, NASA Oversight of Russian Biotechnology Research, 1994-1997, October 13, 2000	We reviewed NASA's support of Russian biotechnology research from 1994 to 1997 and found that the contract between NASA and Russian Space Agency was well designed in some aspects and efficient in transferring funding to Russian research institutes. However, when the State Department provided NASA with guidelines on working with potential dual-use biotechnology research, NASA did not follow these guidelines. The Agency concurred with our recommendation that any future funding of foreign researchers be carefully coordinated with the State Department to ensure that proper safeguards are in place.

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FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
3. Advance human exploration of space.	IG-00-007, Performance Management of the International Space Station Contract, February 16, 2000	Between October 1998 and February 1999, Boeing reported to NASA management unrealistically low estimates of project cost overruns. Therefore, management of the ISS contract needed improvement. Management concurred or partially concurred with all 14 recommendations and the proposed corrective actions were responsive. Two recommendations remain open pending completion of corrective actions.
	IG-00-005, X-38/Crew Return Vehicle Project Management, February 9, 2000	We found that although the X-38/Crew Return Vehicle Project was generally effective, the Project's rapid prototyping strategy entailed significant risk in return for potentially high payoff as compared to the traditional approach of sequential design, development, test, and engineering/evaluation. As such, criteria should be developed to measure readiness to progress through major project phases. Management concurred with the recommendations. We are awaiting notification from management that the agreed-to actions are complete.
	G-00-015, Assessment of the Crew Medical Transport Barter Arrangement, October 6, 2000	We recommended that NASA conduct an independent analysis of the most appropriate approach to providing its astronauts with emergency, pre-launch, and post-mission medical support. We also recommended the Agency reconsider its current plan to acquire a dedicated crew medical transport through a barter arrangement to meet these needs. NASA generally disagreed with our recommendations. However, the barter agreement is currently on hold due to other programmatic priorities.
	G-99-010B, International Space Station Command and Control Communications Security, July 21, 2000	NASA has not fully considered all possible Space Station command and control upgrade options. As a result, the Agency may choose an upgrade option that is more costly and less secure than other possible solutions. We also found that the International Space Station Program needs a stronger base of expertise to address ISS communications security issues. NASA concurred with the report's five recommendations.
4. Improve Space Shuttle safety and efficiency and transition to private operations as appropriate.	IG-01-017, Space Shuttle Program Management Safety Observations, March 23, 2001	NASA's oversight of United Space Alliance's safety operations under the Space Flight Operations Contract needs improvement which would result in the following: better control over the \$13 million in Space Shuttle Program funds; more effective safety oversight of key components of the Space Shuttle Program; improved safety operations; and better monitoring, tracking, and reporting of mishaps. While management did not agree with all of the findings, Johnson concurred with the recommendations and has planned or taken responsive corrective actions.

(continued)

FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
4. Improve Space Shuttle safety and efficiency and transition to private operations as appropriate. (continuation)	IG-01-013, Information Security at Kennedy Space Center, March 22, 2001 and IG-00-014, UNIX Operating System Security and Integrity at Kennedy Space Center, March 15, 2000	Operating system controls and database controls needed improvement for certain processing systems associated with the Shuttle. Inadequate security could affect pre-launch processing for the Shuttle. Management either concurred or partially concurred with our recommendations. Some issues remain open pending completion of corrective actions.
	IG-01-003, Space Shuttle Payloads, December 21, 2000	NASA appropriately defined and assigned primary and secondary payloads for the four flights reviewed and adequately justified the Space Shuttle use for payload delivery or deployment. However, NASA had not established a pricing system or methodology for determining additive cost in accordance with certain statutes. As a result, NASA could not show that its pricing represents "reasonable customer incentives," and therefore may be offering Space Shuttle flights at prices less than those intended by 42 U.S.C., §2466. Management nonconcurred with all recommendations. We will request a management decision from the Audit Follow-up Official.
	IG-00-039, Space Flight Operations Contract Phase II, August 4, 2000	NASA management of Phase II of the Space Flight Operations Contract needs improvement. Specifically, NASA could not be assured that it received fair and reasonable pricing because the FY 1998 flight rate credit (\$33 million) analysis was not fully documented in the contract in accordance to FAR requirements. As such, NASA could not be assured that they were not overpaying the United Space Alliance for incentive fees. Management concurred with all recommendations. One recommendation remains open pending completion of agreed-to corrective action.
	IG-00-028, Safety Concerns with Kennedy Space Center's Payload Ground Operations, March 30, 2000	This audit disclosed that ground workers at Kennedy used materials consistently failing to meet required flammability resistance and electrostatic discharge tests. This occurred because Boeing's safety office did not perform adequate, contract-required inspections of the facilities to ensure that only approved materials were used. As a result, NASA had not identified, documented, and appropriately mitigated the risks of using potentially hazardous materials, thus exposing ground workers and flight hardware to increased risks. Management concurred with the recommendations. Kennedy has planned or implemented additional procedures to ensure the safe use of materials that do not meet standards for flammability and electrostatic discharge.
	IG-00-017, General Controls at Johnson Space Center, March 21, 2000	Disaster Recovery planning was inadequate for a computing environment associated with the ISS. Inability to recover from a disaster in a timely manner could impede Johnson's responsibilities associated with ISS operations.

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FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
4. Improve Space Shuttle safety and efficiency and transition to private operations as appropriate. (continuation)	IG-00-017, (continuation)	Two of the report's fourteen recommendations are unresolved. We are working with management to resolve the nonconcurrences.
	IG-00-015, Space Flight Operations Contract Phase II – Cost-Benefit Analysis, March 14, 2000	NASA had not performed a cost-benefit analysis to ensure that consolidation of Space Shuttle contracts is in the Government's best interest. Without this analysis, NASA could not be certain that further consolidation of about \$10 billion in Space Shuttle contracts would result in net Government savings. Management comments were responsive to the recommended corrective actions.
	IG-00-011, Spare Parts Quality Assurance for the Space Shuttle, March 8, 2000	We found that quality assurance processes for the orbiter vehicles were effective but not always efficient. As such, NASA has redundant Government quality assurance resources at some locations that could be used more efficiently to perform other quality assurance functions. Management provided additional information sufficient to close all recommendations.
	G-99-020, Follow-up Assessment on 1997 Inspection of the NASA Aerospace Safety Advisory Panel, November 24, 1999	Our review revealed that actions by NASA management and the Aerospace Safety Advisory Panel have resulted in improvements in the balance and diversity of Aerospace Safety Advisory Panel membership. We recommended that the Panel develop and implement a recruitment plan. NASA concurred with the recommendation.
	G-99-010A, Assessment of the Portable Computer System and the Data Display Process, August 11, 2000	The Portable Computer System is the crew's primary interface for command and control of the Space Station and provides the crew with caution and warning information. We found that the system's display development process has significant weaknesses that impact usability and reliability. NASA was not responsive to most of our recommendations for improvement.
5. Develop and transfer cutting edge technologies.	IG-00-018, NASA Oversight of Contractor Exports of Controlled Technologies, March 23, 2000	Our audit found that the NASA personnel responsible for managing oversight of contractor exports of controlled technologies were unable to readily identify the types and amounts of NASA-funded controlled technologies that contractors export. As a result, NASA lacked assurance that contractor export activities were performed in accordance with applicable laws and regulations. Management concurred with the recommendations and agreed to provide additional guidance to assure that appropriate contracts contain requirements related to export controls. The Agency also agreed to ensure that the forthcoming NPG on export control would include NASA officials' responsibilities related to the use of export licenses.

(continued)

FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
5. Develop and transfer cutting edge technologies. (continuation)	IG-00-029, X-34 Technology Demonstrator, March 30, 2000	Our audit examined the X-34 Project's contribution to next-generation Reusable Launch Vehicle (RLV) technology requirements, strategic planning for Space Transportation, and the role X-34 was to play in meeting Agency Space Transportation technology requirements. The audit found that NASA had not adequately performed strategic planning for the Space Transportation mission and needed to better state the next-generation RLV technology requirements. NASA cancelled the X-34 Project on March 1, 2001.
	IG-01-021, X-37 Technology Demonstrator Project Management, March 30, 2001	The X-37 Project was one of several existing and planned technology demonstrator programs being pursued to mature required technologies needed for the next-generation RLV. The audit showed that the X-37 Project had not adequately planned or funded its launch requirements. In addition, Boeing's use of an unvalidated and untested Earned Value Project Management system may adversely affect NASA's ability to establish and maintain effective insight into the status of X-37 Project cost and schedule performance. Also, the Marshall X-37 Project Office had not established appropriate risk management for the X-37 Project, which could leave the Agency vulnerable to the effects of significant risks. Management concurred with six of our recommendations on earned value management of projects and risk management. However, management nonconcurred with the recommendation to revise Agency directives to broaden the scope of applicability of Agency EVM requirements.
	IG-00-048, Contractor Exports of Controlled Technologies, ¹ September 19, 2000	Two of three major NASA contractors reviewed had adequate export control programs to ensure that exports of controlled technologies were affected in compliance with applicable laws and regulations. However, one contractor needed to improve its export control program in order to prevent potential unauthorized or unlicensed transfers of controlled technologies related to NASA's ISS Program. The one NASA contractor lacked assurance that export activities on behalf of the Agency for the ISS Program were being performed in full compliance with applicable export laws and regulations.
	IG-00-053, NASA's Aviation Safety Program, September 26, 2000	The Aviation Safety Program will provide research and technology needed to help the Federal Aviation Administration and the aerospace industry to achieve the national goal. An audit showed that NASA had not consistently portrayed its goals and identified all measurement baselines

(continued)

¹This report is the second and final report on the audit.

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Government Performance and Results Act Review Plan

FY 2000 GPRA Performance Plan Goal (Near Term)	Report Number, Title, Date Issued	Synopsis
5. Develop and transfer cutting edge technologies. (continuation)	IG-00-053, (continuation)	for its Aviation Safety Initiative; had not adequately emphasized the risks involved with developing and implementing various safety technologies and how those risks affect the achievement of program success; and had not been consistent in integrating its goal and baseline with Federal Aviation Administration. Management concurred with all recommendations. Two recommendations remain open pending completion of agreed-to corrective action.
	IG-01-001, Response to Senate Report 106-161 FY 2000 Assessment of NASA's Export Activities, ² October 31, 2000	Management agreed with the recommendations related to reports IG-00-018 and IG-00-048 (see previous related discussion in this table) to include guidance to require contractors to deliver (1) a plan for obtaining required export licenses to fulfill contract requirements, (2) a listing of the contractor licenses obtained, and (3) a periodic report of the exports affected against those licenses. In addition, NASA agreed to provide additional guidance to ensure that the contracts contained requirements related to export controls.
6. Audit reports which cover multiple FY 2000 GPRA performance plan (near term) goals	IG-00-020, Validating FY 1999 Performance Data to be Reported Under the Government Performance Results Act, March 28, 2000	This report determined that for 5 of 23 performance targets reviewed, further improvement is needed in the overall process for reviewing all GPRA performance data and reported results. These 5 performance targets relate to different GPRA performance plan goals. ³ Management concurred with all recommendations and the proposed corrective actions have been implemented.
	IG-01-020, Validation and Verification of Selected NASA FY 2000 Performance Data Related to the Government Performance and Results Act, March 28, 2001	This report determined that 4 of 23 performance targets reviewed were not fully reliable because the supporting data did not accurately support the results described. These 4 performance targets relate to different GPRA performance plan goals. ⁴ Management concurred with all recommendations and the proposed corrective actions have been implemented.

²This report provides a summary of the OIG's activities during FY 2000 with respect to NASA's export activities, and in particular, those related to contractors.

³Five targets needing further improvement are as follows:

- (1) "Achieve a 60 percent increase in the predicted reliability of the Space Shuttle over 1995." **This target relates to GPRA performance plan goal 4, above.** We were concerned about the accuracy and reliability of the reported results mainly due to questions about the quantitative models that generated the data on which reported results were based.
- (2) "Complete solicitation for at least seven cooperative agreements with state and local governments in land use planning, land capability analysis, critical areas management, and water resources management." **This target relates to GPRA performance plan goal 1, above.** In reviewing the target, we determined that the supporting data was not consistent with the reported results and that the information on this target in the FY 1999 Performance Report was not accurate and reliable.
- (3) "Improve information technology infrastructure service delivery to provide increased capability and efficiency while maintaining both customer rating of 'satisfactory' and costs per resource unit at the FY 1998 baseline." **This target relates to GPRA performance plan goals 1 and 2, above.** We identified an inconsistency between how this target was worded and how actual performance was being measured and reported.
- (4) "Increase obligated funds available for performance-based contracts to 80 percent." **This target relates to GPRA performance plan goal 1, above.** We concluded that the reported results were not fully reliable due to uncertainties about the accuracy of data contracts being coded as performance-based.
- (5) "Support an expanded research program of approximately 800 investigations, an increase of about 9 percent over FY 1998." **This target relates to GPRA performance plan goal 2, above.** We questioned the accuracy of the FY 1999 reported figure.

⁴Four targets needing further improvement are as follows:

- (1) “Achieve 85 percent on-time, successful launches, excluding weather risk.” **This target relates to GPRA performance plan goal 4, above.** Because NASA personnel believed that the wording of this target might be interpreted as compromising safety, they changed it to “Achieve 100 percent on-orbit mission success.” However, we feel that the replacement target is unclear.
- (2) “Ensure the availability of NASA’s spacecraft and ground facilities by decreasing the FY 1999 unscheduled downtime.” **This target relates to GPRA performance plan goal 4, above.** We do not consider the reported assessment to be complete and accurate due to the way the performance results were written.
- (3) “Complete NASA Solar Electrical Propulsion Technology Application Readiness mission profile (100 percent design life) ground **This target relates to GPRA performance plan goal 3, above.** In reviewing the performance results, we were concerned with the way the target was written. The target performance is unclear as to how NASA measured “design life” and documented the test results.
- (4) “Focus Earth Observing Commercialization Applications Program joint commercial applications research to develop 20 new market **This target relates to GPRA performance plan goals 2 and 3, above.** We determined that all of the 20 products reported as new were not. Therefore, we did not consider the reported assessment to be accurate.

Glossary

ADMINISTRATIVE INVESTIGATION	Inquiries involving non-criminal allegations of administrative wrongdoing.
DISALLOWED COST	A questioned cost that management, in a management decision, has sustained or agreed should not be charged to the Government.
EXCEPTIONS SUSTAINED	(DCAA Definition) Costs which were questioned by auditors and which agency management has agreed are ineligible for payment or reimbursement. Ineligibility may occur for any number of reasons such as: (1) a lack of satisfactory documentation to support claims, (2) contract provisions, (3) public law, and (4) Federal policies or regulations.
FINAL ACTION†	The completion of all actions management has concluded, in its decision, that are necessary with respect to the findings and recommendations included in an audit report; and in the event that management concludes no action is necessary, final action occurs when a management decision has been made.
INVESTIGATIVE RECOVERIES	Investigations by the OIG that may result in the recovery of money or property of the Federal Government. The amounts shown represent: (1) the recoveries which management has committed to achieve as the result of investigations during the reporting period; (2) recoveries where a contractor, during the reporting period, agrees to return funds as a result of investigations; and (3) actual recoveries during the reporting period not previously reported in this category. These recoveries are the direct result of investigative efforts of the OIG and are not included in the amounts reported as the result of audits or litigation.
INVESTIGATIVE REFERRALS	Cases that require additional investigative work, civil or criminal prosecution, or disciplinary action. These cases are referred by the OIG to investigative and prosecutive agencies at the Federal, state, or local level, or to agencies for management or administrative action. An individual case may be referred for disposition in one or more of these categories.

† These definitions are derived from P.L. 100-504, The Inspector General Act Amendments of 1988.

Glossary and Acronyms

Glossary

LATEST TARGET/CLOSURE DATE	Management's current estimate of the date it will complete the agreed upon corrective action(s) necessary to close the audit recommendation(s).
MANAGEMENT DECISION†	The evaluation by management of the findings and recommendations included in an audit report and the issuance of a final decision by management concerning its response to such findings and recommendations, including actions concluded to be necessary.
NET SAVINGS	(DCAA Definition) Costs determined by DCAA for which expenditures would have been made if the exceptions were not sustained. For incurred costs, this category represents the Government's participation in costs questioned sustained. For successful fixed-price contractor proposals, it represents costs questioned sustained plus applicable profit. For successful cost reimbursement contractor proposals, net savings represents only the applicable estimated fee associated with the costs questioned sustained.
PROSECUTIVE ACTIVITIES	Investigative cases referred for prosecutions that are no longer under the jurisdiction of the OIG, except for cases on which further administrative investigation may be necessary. This category represents cases investigated by the OIG and cases jointly investigated by the OIG and other law enforcement agencies. Prosecuting agencies will make decisions to decline prosecution, to refer for civil action, or to seek out-of-court settlements, indictments, or convictions. Cases declined represent the number of cases referred that are declined for prosecution (not including cases that are settled without prosecution). Indictments and convictions represent the number of individuals or organizations indicted or convicted (including pleas and civil judgments).
QUESTIONED COST†	A cost that is questioned by the OIG because of: (1) alleged violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the expenditure of funds; (2) a finding that, at the time of the audit, such cost is not supported by adequate documentation; or (3) a finding that the expenditure of funds for the intended purpose is unnecessary or unreasonable.

Glossary

QUESTIONED COSTS FOR WHICH A MANAGEMENT DECISION HAS NOT BEEN MADE

Costs questioned by the OIG on which management has not made a determination of eligibility for reimbursement, or on which there remains disagreement between OIG and management. All agencies have formally established procedures for determining the ineligibility of costs questioned. This process takes time; therefore, this category may include costs that were questioned in both this and prior reporting periods.

RECOMMENDATION RESOLVED

A recommendation is considered “resolved” when (1) management agrees to take the recommended corrective action, (2) the corrective action to be taken is resolved through agreement between management and the OIG, or (3) the Audit Follow-up Official determines whether the recommended corrective action should be taken.

RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE†

A recommendation by OIG that funds could be more efficiently used if management took actions to implement and complete the recommendation, including: (1) reductions in outlays; (2) deobligation of funds from programs or operations; (3) withdrawal of interest subsidy costs on loans or loan guarantees, insurance, or bonds; (4) costs not incurred by implementing recommended improvements related to the operations of the establishment, a contractor or grantee; (5) avoidance of unnecessary expenditures noted in preaward reviews of contract or grant agreements; or (6) any other savings which are specifically identified. (Note: Dollar amounts identified in this category may not always allow for direct budgetary actions, but generally allow the agency to use the amounts more effectively in accomplishment of program objectives.)

UNSUPPORTED COST†

A cost that is questioned by OIG because OIG found that, at the time of the audit, such cost is not supported by adequate documentation.

Glossary and Acronyms

Acronyms

AFO	Audit Follow-up Official
AIGMER	Assistant Inspector General for Management and External Relations
AIG	Assistant Inspectors General
ASI	Agency Safety Initiative
BKA	Bundeskriminalamt
CCD	Computer Crimes Division
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CIO	Chief Information Officer
CIPT	Critical Infrastructure Protection Team
DAA	Designated Approving Authority
DCAA	Defense Contract Audit Agency
DCIS	Defense Criminal Investigative Service
DCMA	Defense Contract Management Agency
DoD	Department of Defense
DoJ	Department of Justice
DTSC	Department of Toxic Substances Control
ECIE	Executive Council on Integrity and Efficiency
EVM	Earned Value Management
FAC	Federal Audit Clearinghouse
FAEC	Federal Audit Executive Council
FAIR	Federal Activities Inventory Reform
FAR	Federal Acquisition Regulation
FBC	Faster, Better, Cheaper
FBI	Federal Bureau of Investigation
FOIA	Freedom of Information Act
FY	Fiscal Year
G&A	General and Administrative
GAO	General Accounting Office
GISR	Government Information Security Reform
GPRA	Government Performance and Results Act
HQPD	Headquarters Policy Directive
HQPG	Headquarters Policy Guidance
IAIA	Inspections, Administrative Investigations, and Assessments
IFMP	Integrated Financial Management Project

Acronyms

ISS	International Space Station
IT	Information Technology
JPL	Jet Propulsion Laboratory
NASA	National Aeronautics and Space Administration
NASDA	National Space Development Agency (Japan)
NATPO	Network and Advanced Technologies Office
NEPA	National Environmental Protection Act
NFS	NASA Federal Acquisition Regulation Supplement
NPD	NASA Policy Directive
NPG	NASA Procedures and Guidelines
OIG	Office of Inspector General
OMB	Office of Management and Budget
PCIE	President's Council on Integrity and Efficiency
PDD	Presidential Decision Directive
PFCRA	Program Fraud Civil Remedies Act
P.L.	Public Law
PRP	Potentially Responsible Parties
RLV	Reusable Launch Vehicle
SFOC	Space Flight Operations Contract
U.S.	United States
USA	United Space Alliance
U.S.C.	United States Code

