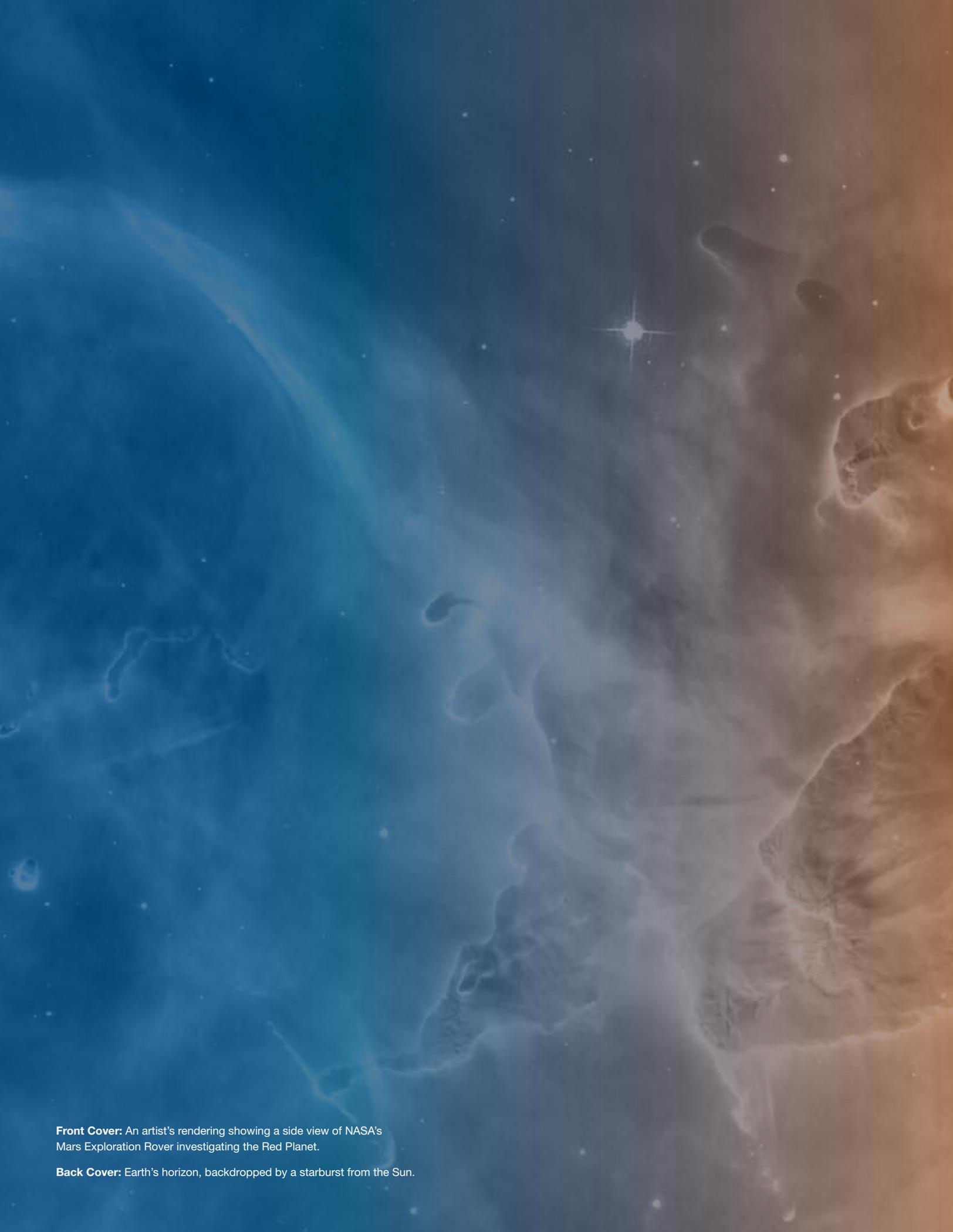


NASA OFFICE OF Inspector General



SEMIANNUAL REPORT

OCTOBER 1, 2011–MARCH 31, 2012



Front Cover: An artist's rendering showing a side view of NASA's Mars Exploration Rover investigating the Red Planet.

Back Cover: Earth's horizon, backdropped by a starburst from the Sun.



FROM THE INSPECTOR GENERAL

During this reporting period, the NASA Office of Inspector General (OIG) was asked to testify on three occasions before congressional committees about a wide range of issues related to our Nation's space program. In each of these appearances, the OIG relied on its extensive body of audit and investigative work to assess Agency activities and provide recommendations for improvement.

Specifically, I testified before a House Subcommittee in February about NASA's efforts to protect its information technology (IT) resources. NASA is a regular target of cyber attacks both because of the large size of its networks and because those networks contain highly sought after information. At the same time, NASA's statutory mission to widely share scientific information presents heightened IT security challenges.

Deputy Inspector General Gail Robinson joined three Inspectors General and officials from the Recovery Board and the Government Accountability Office in November to testify about our office's oversight of Recovery Act spending. And in late October, I testified before a House Committee along with a senior NASA official and industry representatives about the status of NASA's efforts to nurture a commercial space transportation industry that could ferry astronauts to the International Space Station.

In other congressional action, the Agency's fiscal year (FY) 2012 appropriations directed NASA to transfer \$1 million to the OIG to "commission a comprehensive independent assessment of NASA's strategic direction and agency management." We subsequently entered into an agreement with the National Research Council to conduct this assessment.

During this reporting period NASA received its first "clean" audit opinion on its financial statements since 2002 – a major accomplishment for the Agency that reflects years of sustained effort to address long-standing problems. Moving forward, NASA must continue to successfully implement its internal controls while addressing weaknesses in its environmental liability estimation process to maintain this momentum.

Finally, we mark the retirement of Alan Lamoreaux, long-time Assistant Inspector General for our Office of Management and Planning. Alan retires with our deep gratitude for his significant contributions to the OIG and his 33 years' service to the Federal Government.

This Semiannual Report summarizes the OIG's activities and accomplishments from October 1, 2011, through March 31, 2012. We hope that you find it informative.

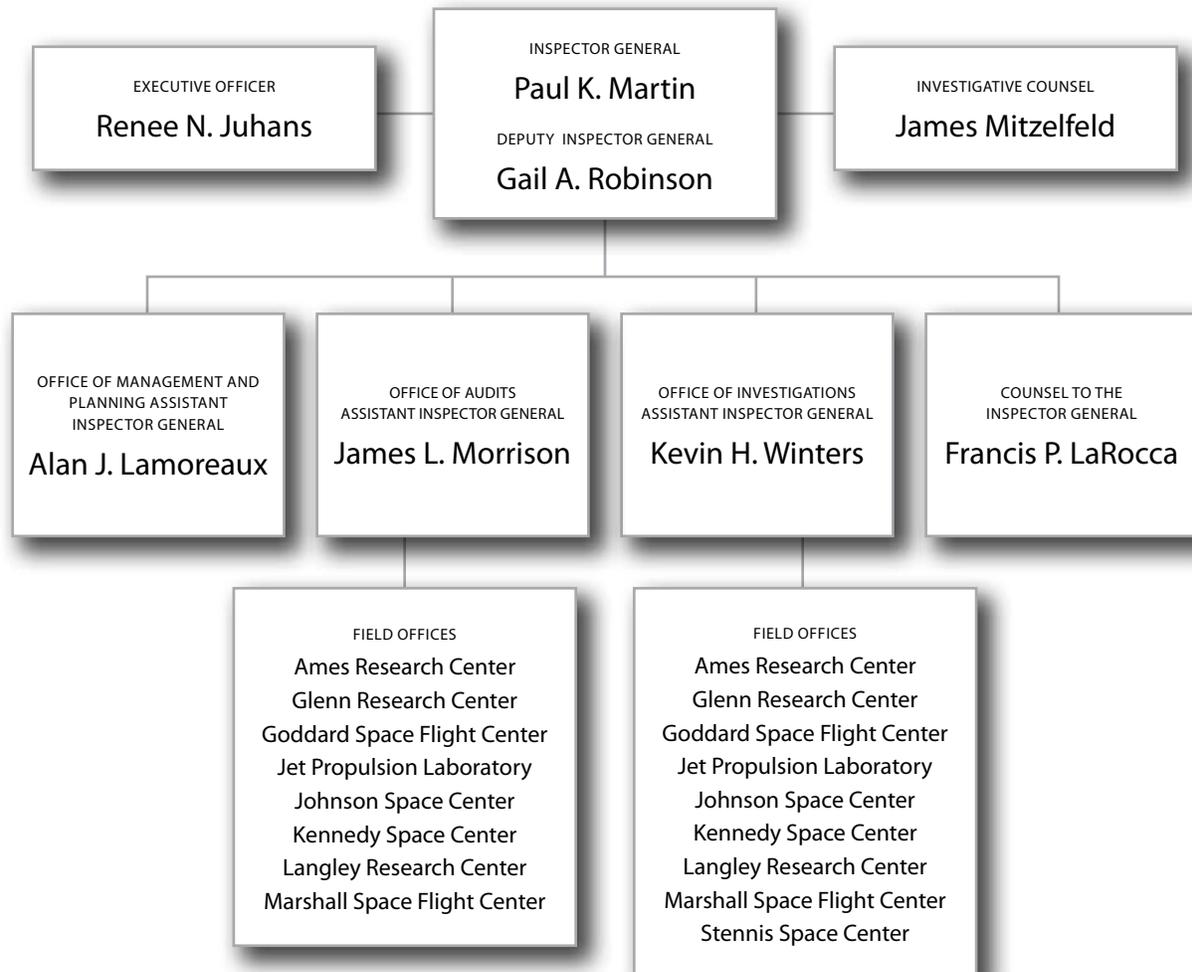
A handwritten signature in black ink that reads "PKM/A". The letters are stylized and cursive.

Paul K. Martin
Inspector General
April 30, 2012

Contents

Organization	1
Audits and Investigations	
Space Operations and Exploration	3
Acquisition and Project Management	7
Infrastructure and Facilities Management	17
Information Technology Security and Governance	20
Financial Management	25
Other Matters	28
NASA's Top Management and Performance Challenges	32
Congressional Testimony	36
Regulatory Review	38
Legal Issues	39
Outreach Activities	39
Awards	41
Appendixes	43
A. Inspector General Act Reporting Requirements	45
B. Statistical Information	46
C. Peer Reviews	55
D. Glossary and Acronyms	56
E. NASA OIG Offices of Audits and Investigations	60

ORGANIZATION



THE NASA OFFICE OF INSPECTOR GENERAL (OIG) conducts audits, reviews, and investigations of NASA programs and operations to prevent and detect fraud, waste, abuse, and mismanagement and to assist NASA management in promoting economy, efficiency, and effectiveness. The OIG's FY 2012 budget of \$38.3 million includes \$37.3 million to support the work of 202 employees in their audit, investigative, and administrative activities and a \$1 million one-time transfer from NASA to the OIG to enable us to commission an independent assessment of the Agency's strategic direction and management in response to a congressional directive.

THE INSPECTOR GENERAL (IG) provides policy direction and leadership for the NASA OIG and serves as an independent voice to the Administrator and Congress by identifying opportunities and promoting solutions for improving the Agency's performance. The Deputy Inspector General (DIG) assists the IG in managing the full range of the OIG's programs and activities and provides supervision to the Assistant Inspectors General and Counsel in the development and implementation of the OIG's diverse audit, investigative, legal, and support operations. The Executive Officer serves as the OIG liaison to Congress and other Government entities, conducts

OIG outreach both within and outside of NASA, and manages special projects. The Investigative Counsel serves as a senior advisor for OIG investigative activities and conducts special reviews of NASA programs and personnel.

THE OFFICE OF MANAGEMENT AND PLANNING (OMP) provides financial, procurement, human resources, administrative, and IT services and support to OIG staff.

THE OFFICE OF AUDITS (OA) conducts independent and objective audits and reviews of NASA programs, projects, operations, and contractor activities. In addition, OA oversees the work of the independent public accounting firm in its annual audit of NASA's financial statements.

THE OFFICE OF INVESTIGATIONS (OI) investigates allegations of cybercrime, fraud, waste, abuse, and misconduct that may affect NASA programs, projects, operations, and resources. OI refers its findings either to the Department of Justice (DOJ) for criminal prosecution and civil litigation or to NASA management for administrative action. Through its investigations, OI develops recommendations for NASA management to reduce NASA's vulnerability to criminal activity.

THE OFFICE OF COUNSEL TO THE INSPECTOR GENERAL provides legal advice and assistance to OIG managers, auditors, and investigators. The Office serves as OIG counsel in administrative litigation and assists the DOJ when the OIG participates as part of the prosecution team or when the OIG is a witness or defendant.

AUDITS AND INVESTIGATIONS

Space Operations and Exploration

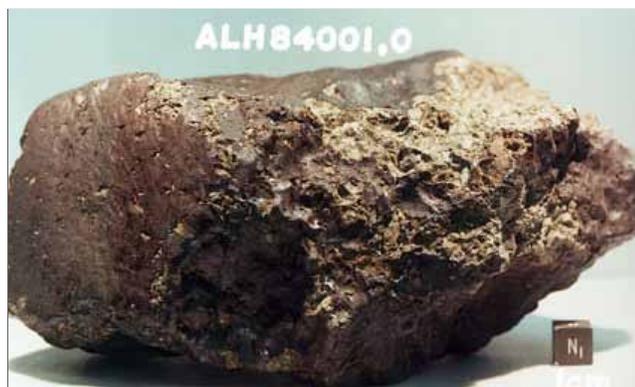
Space operations and exploration is one of NASA's most highly visible missions. Since NASA's establishment over 50 years ago, human space flight has evolved from the Apollo era to the Space Shuttle era and beyond. With the retirement of the Space Shuttle in July 2011, the emergence of commercial companies seeking to provide access to the International Space Station (ISS) and low Earth orbit, and development of new technologies for future long-term exploration, NASA's space exploration challenges have become increasingly complex. During this reporting period, the OIG examined a number of important issues in this mission area.

NASA's Controls over Moon Rocks and Other Astromaterials

Materials originating from extraterrestrial environments, commonly referred to as astromaterials, are a rare and limited resource that serve as a legacy for future generations and as important research and education tools. NASA's collection of astromaterials includes approximately 140,000 lunar rock and soil samples; 18,000 meteorite samples from asteroids, Mars, and the Moon; and about 5,000 samples of ions from the outer layers of the Sun (Genesis), dust from comets and interstellar space (Stardust), and cosmic dust from Earth's stratosphere.

NASA loans samples of these materials to researchers for scientific study and to exhibitors, educators, and institutions of higher learning for educational purposes and public display. As of March 2011, over 26,000 of NASA's astromaterial samples were on loan.

ALH84001 weighs 4 pounds and at 4.1 billion years is NASA's oldest Martian meteorite.



Source: NASA

NASA has been experiencing loss of astromaterials since Apollo missions first returned lunar samples to Earth. According to the Agency, more than 516 loaned samples were lost or stolen between 1970 and June 2010, including 18 lunar samples reported lost by a researcher in 2010 and 218 lunar and meteorite samples stolen from a researcher at Johnson Space Center in 2002 (the latter samples were recovered). Moreover, the number of astromaterial samples NASA has loaned to researchers has increased by more than 60 percent over the last decade, and NASA is planning new missions to collect samples from across the solar system. Accordingly, NASA's control of and accountability for these rare and valuable materials must be reliable.

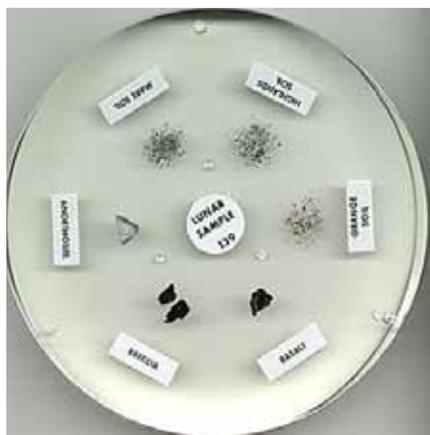
We found that NASA lacks sufficient controls over its loans of astromaterials, which increases the risk that these unique resources may be lost. Specifically, we found that the Curation Office records were inaccurate, researchers could not account for all samples loaned to them, and researchers held samples for extended periods without performing research or returning the samples to NASA. For example, one researcher had in his possession for 35 years nine lunar samples borrowed from NASA on which he had never conducted research.

These conditions occurred for several reasons. First, the Curation Office requires loan agreements for lunar, Genesis, and Stardust samples but does not require similar agreements for meteorites or cosmic dust samples. Loan agreements specify the conditions for the loan and include security plans prescribing precautions for guarding against theft or unauthorized use of samples. In addition, the Curation Office maintains guidebooks and internal procedures to help ensure lunar, Genesis, and Stardust samples are adequately controlled and properly accounted for but has never established similar controls over meteorites and cosmic dust samples.

Second, the Curation Office did not consistently follow its inventory procedures for astromaterial samples. For example, while the Office's policy required an annual inventory from recipients of loaned materials, it did not consistently request these inventories. In fact, the Office had never requested inventories of Stardust samples and, prior to our audit, had not requested inventories of lunar samples held at locations other than Johnson since 2008.

Third, the Curation Office's annual inventory procedures were inadequate. Specifically, the Office provided researchers with a list based on its records and requested that the researchers confirm the list's accuracy. We believe a more reliable inventory method is to ask researchers to provide the Office with a list of the samples in their possession and then reconcile the researchers' lists with Agency records. In addition, Curation Office officials told us that due to funding constraints the Office had not performed a complete physical inventory of all lunar samples loaned to researchers since the 1980s.

Example of a lunar sample disk. The 6-inch diameter disk contains three soil and three rock samples encased in clear acrylic.



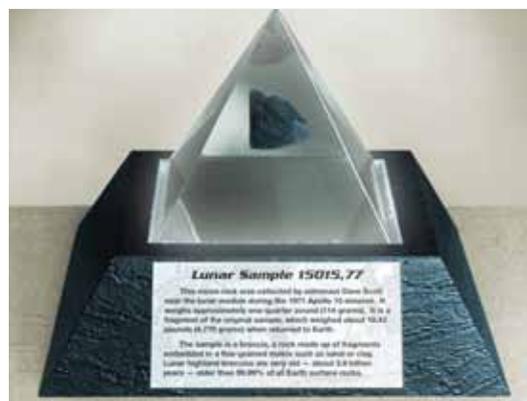
Source: NASA

We also found that NASA's controls over educator and public display loans needed strengthening. Although NASA had recently improved controls over loans to educators, we identified additional opportunities for the Agency to strengthen its practices and update its policies. At the time of our fieldwork, NASA had 94 lunar exhibits on long-term (more than 1 year) public display.

However, the Johnson Exhibits Manager who tracks long-term loans of lunar material did not have an adequate system to track loaned exhibits and ensure loan agreements are up-to-date. Moreover, NASA's policies did not require, and the Exhibits Manager did not conduct, an annual inventory of these exhibits.

To strengthen internal controls and ensure efficient use and proper protection of loaned astromaterials, we recommended that NASA: (1) establish detailed procedures for safeguarding loaned materials; (2) require loan agreements for all types of materials and strengthen the agreements currently in use; (3) establish procedures for tracking retention periods and ensure that researchers timely use and, when required, promptly return loaned samples; (4) evaluate practices for ensuring inventory procedures are effectively implemented and consistently followed; and (5) strengthen the inventory verification process. To further improve controls over astromaterials loaned for education and public display purposes, we recommended that NASA establish an effective tracking system and annual inventory requirements for long-term loans; review all long-term loan agreements to identify expired agreements and either renew the agreements or recall the exhibits; and review and update all relevant policies. NASA concurred with all of our recommendations and is in the process of implementing corrective actions.

Apollo 15 lunar sample exhibit.



Source: NASA

NASA's Management of Moon Rocks and Other Astromaterials Loaned for Research, Education, and Public Display (IG-12-007, December 8, 2011)

<http://oig.nasa.gov/audits/reports/FY12/IG-12-007.pdf>

United States and Apollo Astronaut Reach Settlement

Following a settlement with the Department of Justice, Apollo Astronaut Edgar Mitchell returned to NASA a data acquisition camera that traveled to the Moon aboard Apollo 14. Mitchell, who had the artifact in his possession since returning from the mission, had made the camera available for sale with a New York auction house. OIG investigators helped coordinate the return of the camera to NASA. In February 2012, NASA transferred the camera to the Smithsonian's National Air and Space Museum.

Ongoing Audit Work

NASA's Efforts to Fully Utilize the U.S. Segment of the International Space Station

Completed in 2011, the International Space Station (ISS) – a nearly \$100 billion asset – will be the centerpiece of NASA's low Earth orbit activities through at least 2020. In 2005, Congress designated the U.S. segment of the ISS as a national laboratory. Our audit will examine NASA's progress in maximizing both NASA and non-NASA use of this laboratory.

NASA's Plans for the Mobile Launcher

NASA's mobile launcher, completed in January 2010, was designed and built to support assembly, testing, transportation, and launch of the Ares I launch vehicle, part of the canceled Constellation Program. In October 2011, NASA announced that it planned to adapt the mobile launcher for the Agency's new Space Launch System. In this audit, we are examining whether NASA sufficiently evaluated all possible alternatives to ensure that modifying the mobile launcher in support of the Space Launch System is in the best interests of the Government. We are also assessing whether NASA properly tracked and accounted for American Recovery and Reinvestment Act (Recovery Act) funds used in this project.

NASA's Development of the Multi-Purpose Crew Vehicle

NASA's 2010 Authorization Act led to changes in national space exploration priorities, program focus, and funding profiles. Our audit will evaluate how NASA is managing development of the multi-purpose crew vehicle in response to the Act. We will also examine whether NASA has properly tracked and accounted for its use of Recovery Act funds on the program.

Acquisition and Project Management

As leaders across Government seek ways to reduce Federal spending and lower the country's budget deficit, effective contract and project management at NASA is more critical than ever. The OIG has continued to focus its resources to help ensure that NASA engages in sound management practices that provide the Agency and the taxpayer with the best value. In addition, OIG investigators continue to examine allegations of fraud and other misconduct related to NASA contracts.

NASA's Technology Transfer Efforts

Creating new technologies is fundamental to NASA's mission, and facilitating the transfer of these technologies to other Government agencies, industry, and international entities is one of the Agency's strategic goals. Technology transfer promotes commerce, encourages economic growth, stimulates innovation, and offers benefits to the public and industry. Federal law requires that NASA and other Federal agencies make every effort to ensure the commercialization of Federally owned or originated technology. In October 2011, the President re-emphasized the importance of technology transfer when he directed Federal agencies to accelerate technology transfer efforts and support private sector commercialization of new technologies resulting from Federally funded research.

The Office of the Chief Technologist is responsible for managing technology investments across NASA and for developing and executing innovative technology partnerships, technology transfer, and commercialization. Since FY 2004, funding for NASA's technology transfer efforts has decreased by 68 percent, from \$60 million in 2004 to \$19.2 million in FY 2012. In addition, personnel resources dedicated to the technology transfer effort have similarly declined. For example, since FY 2003 the number of patent attorneys at the Centers has dropped from 29 to 19 and Headquarters Innovative Partnerships Office staff has decreased from 13 staff members in FY 2010 to just 2 in FY 2012.

Because technology transfer is fundamental to NASA's mission and strategic goals, we examined whether NASA was effectively identifying and planning for the transfer of technology developed within its programs to outside entities.

We found that project managers and other personnel responsible for executing NASA's technology transfer processes could improve their effectiveness in identifying and planning for the transfer and commercialization of NASA technologies. Specifically, NASA personnel did not realize the transfer potential of some technological assets and project managers did not develop Technology Commercialization Plans that provide a methodology for identifying potential commercial partners. In addition, we found that the Agency had not effectively implemented technology commercialization policy requirements and needs to conduct more outreach to NASA project managers regarding the process. Consequently, NASA has missed opportunities to transfer technologies

from its research and development efforts and maximize partnerships that could provide additional resources. In addition, industry and the public have not fully benefitted from NASA-developed technologies. For example, the project team for a precision landing and hazard avoidance project was not aware of NASA's technology commercialization policy and had not conducted a commercial assessment or developed a Commercialization Plan for the project.

Artist's rendition of precision landing technology for lunar surface descent.



Source: Autonomous Landing Hazardous Avoidance Technology Management Overview Presentation, November 9, 2010

NASA generally concurred with our six recommendations to improve its technology transfer efforts, agreeing to revise the applicable policies and include procedures to ensure that all personnel are held accountable to NASA policy requirements, provide periodic training to NASA personnel regarding the technology transfer process, and reassess the allocation of resources for technology transfer. In addition, the Chief Technologist concurred with our recommendation to coordinate with the General Counsel to expedite the

review all New Technology Reports so that those that are suitable for release are made accessible to appropriate parties, including NASA project managers and innovators.

Audit of NASA's Process for Transferring Technology to the Government and Private Sector (IG-12-013, March 1, 2012)

<http://oig.nasa.gov/audits/reports/FY12/IG-12-013.pdf>

NASA's Knowledge Management and Strategy for Sharing Lessons Learned

Successful organizations develop systems to share information from past successes and failures as part of their knowledge management practices. Since 1994, NASA's principal mechanism for collecting and sharing such "lessons learned" has been an online, automated database called the Lessons Learned Information System (LLIS). LLIS is one component of NASA's knowledge management and sharing system, which includes the online NASA Engineering Network, NASA's Academy of Program/Project and Engineering Leadership training, ASK Magazine, the Masters Forum, and the annual Project Management Challenge seminar. The Office of the Chief Engineer has primary responsibility for oversight of NASA's knowledge management and sharing system.

NASA policy requires the collection, validation, assessment, and codification of lessons learned submitted by individuals, NASA directorates, programs and projects, and any supporting organizations and personnel. To this end, LLIS is designed to be searchable

and available across the Agency to the broadest extent possible. However, the usefulness and value of LLIS is contingent on managers and engineers routinely consulting and submitting new information to the system.

We examined the extent to which Agency managers use LLIS and how the system fits within NASA's overall knowledge management strategy. We found that NASA's project managers do not routinely use LLIS to search for lessons identified by other projects or routinely contribute new information to LLIS. We also found that NASA's policies regarding the input of information into LLIS have weakened over time, there was inconsistent policy direction and implementation, funding support for LLIS activities was disparate across NASA Centers, and monitoring of critical Center-level LLIS activities was deficient. In addition, we found that the Chief Engineer's overall strategy for knowledge management is not well defined. Consequently, LLIS has been marginalized in favor of other NASA knowledge sharing system components and is of diminishing and questionable value.

The Chief Engineer concurred with our recommendations to develop and implement a cohesive strategic plan for knowledge management and sharing, particularly with respect to lessons learned; determine if or how LLIS fits into this plan; and revise the applicable Agency policies to align with NASA's strategic vision for institutional knowledge management and improve the collection and dissemination of lessons learned Agency-wide.

Review of NASA's Lessons Learned Information System (IG-12-012, March 6, 2012)
<http://oig.nasa.gov/audits/reports/FY12/IG-12-012.pdf>

NASA's Internal Controls over Recovery Act–Funded SBIR and STTR Contracts

In 2009, NASA allocated \$24.4 million of the funding it received from the Recovery Act to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) contracts. In this audit, we examined whether NASA effectively managed these contracts. We also reviewed the status of NASA's implementation of enhanced internal controls to help prevent and detect fraud and abuse in the Agency's overall SBIR Program that we had recommended in an earlier audit.

To ensure proper use of Recovery Act funds, the Agency developed 13 internal controls specifically for Recovery Act–funded contracts. These controls included requiring contractors to certify quarterly that their contracts were free of fraud, waste, and abuse; conducting cost price analysis training for all technical personnel; requiring NASA technical personnel to obtain contracting officer technical representative (COTR) certification; and requiring contractors to participate in virtual site visits that allow NASA officials to view the contractors' research facilities, confirm key contractor personnel, and assess the contractors' progress through the Internet.

We found NASA's Recovery Act internal controls generally effective in ensuring proper oversight, management, and transparency of Recovery Act-funded SBIR/STTR contracts. The contracts we reviewed largely met cost, schedule, and performance milestones. In addition, 76 percent of contract deliverables were submitted within the agreed-upon timeframes, and NASA implemented controls to further reduce the occurrence of late deliverables. However, we also found that due to resource limitations NASA did not implement three Recovery Act internal controls, including two controls relating to COTR certification and training. As a result, we noted seven instances where NASA employees designated as COTRs did not have the proper certification or training required by Office of Management and Budget (OMB) guidance. In addition, we identified four contracts that contained unallowable equipment costs totaling \$115,297. Lastly, we determined that NASA is making progress implementing the 14 internal controls identified in our January 2011 audit report as necessary to prevent and detect fraud in the SBIR Program.

We recommended that NASA's Recovery Act Implementation Executive work with the SBIR Program Executive and the Assistant Administrator for Procurement to:

- Revise program policy to require the application of the appropriate Recovery Act controls across the SBIR and STTR Programs.
- Provide biweekly late deliverables report to the SBIR Program Manager and Business Manager at key decision points in program implementation so they are aware of any problem contractors and can take actions as necessary.
- Evaluate the feasibility of utilizing the virtual site visit technology for other NASA awards where funds for on-site surveillance are limited.
- Issue a written policy reminder to all contracting officers to follow existing policy on the appointment and removal of COTRs who fail to meet training, certification, and educational requirements.
- Strengthen controls to ensure contracting officers and evaluators maintain proper documentation in the SBIR contract files to justify and validate equipment purchases.

NASA concurred or partially concurred with all of our recommendations and proposed a series of responsive corrective actions.

NASA's Management of Small Business Innovation Research and Small Business Technology Transfer Contracts Funded by the Recovery Act (IG-12-009-R, February 2, 2012)

<http://oig.nasa.gov/audits/reports/FY12/IG-12-009-R.pdf>

Congressional Inquiry Regarding Contract Awarded to an Alaska Native Corporation

In response to a congressional request, we reviewed NASA's award of a contract to ASRC Research and Technical Solutions (ARTS), a subsidiary of Arctic Slope Regional Corporation (ASRC), an Alaska Native Corporation. Specifically, we examined NASA's award of a noncompetitive letter contract; NASA's use of a cost-plus-fixed-fee contract rather than a fixed-price contract; NASA's consideration of the past performance of the previous contractor and related company, ASRC Management Services (AMS); and the commitment by Arctic Slope that incumbent AMS personnel would perform the work under the ARTS contract. As part of this review, we also considered whether a March 2011 change to the Federal Acquisition Regulation (FAR) pertaining to sole source contracts to 8(a) small businesses in excess of \$20 million was applicable to this contract.

We found that in awarding the ARTS contract NASA complied with the applicable rules and regulations in place at the time. Specifically, (1) the contract was awarded noncompetitively as part of NASA's required 8(a) set-aside program; (2) using a letter contract allowed NASA to avoid a disruption in services; (3) a fixed-price contract would not have been suitable given the type and nature of the work involved; (4) it was appropriate for NASA to consider the past performance of AMS when contracting with ARTS; and (5) there was nothing improper about Arctic Slope's commitment to transition incumbent personnel to the ARTS contract. We also found that the March 2011 change to the FAR involving 8(a) small businesses was not applicable to the ARTS contract.

Review of Congressional Concerns Regarding the Noncompetitive Letter Contract (Contract #NNH11CC35B) to Arctic Slope Regional Corporation Research and Technical Solutions (S-12-001-00, January 12, 2012)

[http://oig.nasa.gov/readingRoom/Letter to Congress - NASA's Award of a Contract to Arctic Slope Regional Corporation Research and Technical Solutions.pdf](http://oig.nasa.gov/readingRoom/Letter%20to%20Congress%20-%20NASA's%20Award%20of%20a%20Contract%20to%20Arctic%20Slope%20Regional%20Corporation%20Research%20and%20Technical%20Solutions.pdf)

NASA's Compliance with Provisions of the Duncan Hunter Act

The Duncan Hunter National Defense Authorization Act of 2009 requires that the FAR be revised to include guidance regarding when and under what circumstances cost-reimbursement contracts are appropriate and the documentation and workforce resources necessary to support the award and management of such contracts. Section 864 of the Act requires Inspectors General to report on their agencies use of cost-reimbursement contracts and level of compliance with the related FAR rules.

We examined 39 contracts and 1 task order for facility management services, engineering services, aeronautics research and development, and components for NASA's space vehicles with a combined value of approximately \$2.5 billion. We found that NASA generally complied with the Duncan Hunter Act and related FAR guidelines by properly documenting during acquisition planning the rationale, risks, and resources for the use of other than firm-fixed-price contracts; assigning COTRs prior to contract award; and

validating the adequacy of contractors' accounting systems. However, we found several instances of noncompliance, including four contract files that did not contain written acquisition plans or documentation of all required acquisition planning elements; two files that did not contain documentation of the rationale for the type of contract selected; five instances in which COTRs were not appointed until after contract award; and one case in which we were unable to determine when the COTR had been appointed. We also noted five cases where NASA had not validated the adequacy of the contractor's accounting system.

We recommended that the Agency issue a Procurement Information Circular to all procurement personnel to disseminate the new requirements for using cost-reimbursement contracts; revise the NASA FAR Supplement to address inconsistencies between NASA's guidance and the new requirements for using cost-reimbursement contracts; and update the current training curriculum to include the new requirements for the use of cost-reimbursement contracts. The Assistant Administrator for Procurement partially concurred with our recommendation to issue a new Procurement Information Circular, stating that he would notify personnel of the new requirements through alternative means. He concurred with our other two recommendations. We found the Agency's proposed actions to our recommendations to be responsive and therefore consider the recommendations resolved.

Final Memorandum on NASA's Compliance with Provisions of the Duncan Hunter National Defense Authorization Act of 2009 – Management of Cost-Reimbursement Contracts (IG-12-014, March 14, 2012)

<http://oig.nasa.gov/audits/reports/FY12/IG-12-014.pdf>

Former Government Scientist Sentenced

On March 21, 2012, Stewart Nozette, a former NASA scientist, was sentenced in U.S. District Court for the District of Columbia to 13 years in prison for attempted espionage, conspiracy to defraud the United States, and tax evasion. The sentence addressed charges in two separate cases. In September 2011, Nozette pleaded guilty to attempted espionage for providing classified information to a person he believed to be an Israeli intelligence officer. He previously pleaded guilty in January 2009 to fraud and tax charges stemming from more than \$265,000 in false claims he submitted to the Government. Nozette was the president, treasurer, and director of the Alliance for Competitive Technology (ACT), a non-profit organization he organized in March 1990. Between January 2000 and February 2006, Nozette, through ACT, entered into agreements with several Government agencies to develop highly advanced technology. Nozette performed some of this research and development at the U.S. Naval Research Laboratory (NRL) in Washington, D.C., the Defense Advanced Research Projects Agency (DARPA) in Arlington, Virginia, and NASA Goddard Space Flight Center in Greenbelt, Maryland. Nozette admitted that from 2000 through 2006 he used ACT to defraud NRL, DARPA, and NASA by making more than \$265,000 in fraudulent

reimbursement claims, most of which were paid. He also admitted that from 2001 through 2005 he willfully evaded more than \$200,000 in Federal taxes. In addition, he admitted using ACT, an entity exempt from taxation because of its nonprofit status, to receive income and to pay personal expenses such as mortgages, automobile loans, and sedan services.

Nozette was sentenced to 3 years in prison on each count of conspiracy and tax evasion, to be served concurrently. After release, Nozette will serve 3 years of supervised probation on each count, to run concurrently. He also was ordered to pay \$217,795 in restitution to the agencies he defrauded.

On the attempted espionage charges, Nozette was sentenced to 13 years in prison for one count of gathering or delivering defense information to aid a foreign government.

Civil Complaint Filed Against NASA Grant Recipient

In March 2012, the Department of Justice filed a complaint under the False Claims Act against a NASA grant recipient. The complaint alleges that the recipient knowingly spent over \$3.75 million in NASA research grants on construction and renovation activities not permitted under the terms of the grants. The complaint also alleges that the recipient made false statements to obtain a \$1 million construction grant from the Department of Commerce. The complaint was filed in the Southern District of Mississippi.

NASA SBIR Contractors Sentenced in Fraud Case

In November 2011, Samim and Sousan Anghaie, husband and wife owners of a company that received contracts from NASA and the Air Force under the SBIR Program, were sentenced in U.S. District Court for the Northern District of Florida. Earlier in 2011, the Anghaies were convicted of multiple counts of wire fraud and other charges for submitting fraudulent contract proposals to obtain more than \$3 million in SBIR contracts. Samim – a former nuclear engineering professor at the University of Florida – received a sentence of 6 months in prison, 6 months of home confinement, and 3 years of probation and was fined \$100,000 and ordered to pay a \$2,900 special assessment. Sousan received 6 months of home confinement and 5 years of probation, was fined \$100,000, and was ordered to pay a \$2,700 special assessment. In addition, the couple was ordered to forfeit \$391,252 in assets obtained as a result of their unlawful acts.

Government Contractor Enters Civil Settlement

In November 2011, Aerojet-General Corporation, a Government contractor, and its parent company, GenCorp Inc., agreed to pay \$3.3 million to settle allegations that they included unallowable costs in calculating overhead rates for NASA and national defense-related contracts. The settlement will resolve allegations that the company included costs associated with a 2004 takeover bid in calculating its indirect overhead

rate proposals. The settlement will also resolve allegations that the company included unallowable costs associated with a 2006 proxy contest in calculating overhead rates. The NASA OIG participated in the investigation along with the Defense Criminal Investigative Service and the Naval Criminal Investigative Service.

Small Business Owner Sentenced for SBIR Contract Fraud

In November 2011, a small business owner was sentenced to serve 3 years of probation and ordered to pay restitution of \$133,333 following an August 2011 guilty plea to one count of wire fraud in the Southern District of Mississippi. The plea stemmed from a June 2011 indictment for making false statements and submitting false claims to NASA and other agencies in connection with SBIR contracts. A joint investigation by the NASA and National Science Foundation OIGs determined that the owner's SBIR proposal contained false statements about the principal investigator's primary employment as well as whether the research had been previously submitted for Federal funding. The owner, who was also the principal investigator, was employed full time by a university and had submitted the same or very similar research proposals multiple times to various Federal agencies, receiving over \$373,000 in SBIR contract awards.

Texas Businessman Sentenced for False Statements Concerning Space Vehicle Parts

In November 2011, a League City, Texas, business owner pleaded guilty to making a false statement concerning space vehicle parts his business supplied to NASA for use on the International Space Station. Our investigation found that the business owner had certified that the ratchets his company produced met contract specifications when he knew they did not. The business owner was sentenced to serve 3 years of probation.

Former Employee Pleads No Contest to Theft

In December 2011, a former Jet Propulsion Laboratory (JPL) employee pleaded no contest to one count of grand theft in the Los Angeles County District Court in connection with the theft of JPL camera equipment. The former employee was placed on probation for 18 months and ordered to pay \$3,277 in restitution. He was also ordered to serve 160 hours of community service. The plea and sentencing resulted from a joint investigation with the JPL Office of Protective Services.

Ongoing Audit Work

NASA's Project Management Practices

Historically, NASA has had difficulty meeting cost, schedule, and performance objectives for many of its projects. The need for NASA to manage its wide-ranging portfolio effectively will only increase in importance as the Agency operates in an increasingly constrained fiscal environment. This audit will examine the management practices and challenges that lead to cost overruns, schedule delays, and performance shortfalls in NASA projects.

Use of NASA Research Announcements in the Aerospace Research Mission Directorate

To help meet its research goals, the Aerospace Research Mission Directorate (ARMD) supplements research performed by civil service personnel with research performed by outside individuals. To obtain such research, NASA issues NASA Research Announcements (NRAs). Between 2007 and 2010, ARMD issued NRA awards valued at \$382 million. Our audit will examine whether NRA-funded research advanced NASA's aeronautics research goals and whether award costs were allowable and properly supported.

Audit of NASA's Mars Atmosphere and Volatile Evolution Project

The Mars Atmosphere and Volatile Evolution (MAVEN) mission is the second mission of NASA's Mars Scout Program and the first devoted to understanding the Martian upper atmosphere. The project, which has a life-cycle cost estimate of \$671.2 million, recently completed a major milestone to validate design plans and authorize continuation into the manufacturing of hardware. MAVEN is relying on seven heritage technologies, all of which are required to meet the mission's science goals and need modifications to their form, fit, and function. In addition, the project has schedule constraints due to a launch window that is reliant on the optimal alignment of Earth and Mars that occurs only once every 26 months. Our review will evaluate whether NASA is effectively managing the MAVEN Project.

Audit of NASA's Orbiting Carbon Observatory-2 Project

The Orbiting Carbon Observatory-2 (OCO-2) is NASA's second iteration of an Earth-orbiting satellite designed to make precise, time-dependent global measurements of atmospheric carbon dioxide and improve predictions of future atmospheric carbon dioxide increases and the impact on Earth's climate. After both the first OCO satellite and Glory, a second climate-observing satellite, failed on launch due to problems with the Taurus XL launch vehicle, NASA decided to consider alternate launch vehicles for OCO-2 and other pending missions. This decision altered the cost, schedule, and performance metrics for OCO-2, and our audit will examine the Agency's efforts to meet these revised metrics. We will also examine whether NASA has properly tracked and accounted for Recovery Act funds associated with the Project.

Audit of NASA's Awards to Small and Disadvantaged Businesses

The Small Business Act seeks to help small and disadvantaged businesses compete for Federal contracts. In FY 2011, NASA awarded about 3,000 contracts valued at \$2 billion to firms designated as small or disadvantaged businesses. This audit will evaluate NASA's oversight of its awards to small and disadvantaged businesses, including examining whether those awards contain unallowable or unsupported costs; whether contractors met the Agency's technical, cost, and schedule requirements; and whether NASA has adequate and effective controls to manage the risk of fraud and abuse.

Audits of NASA Grant Awards

NASA faces the ongoing challenge of ensuring that the approximately \$550 million in grants it awards annually are appropriately administered and accomplish their intended goals. We have several ongoing audits that will examine whether particular NASA grants are being used for their intended purpose and whether associated costs are allowable, reasonable, and in accordance with applicable laws, regulations, guidelines, and terms of the grants. Currently, we are auditing grants to the Alabama Space Science Exhibit Commission's U.S. Space and Rocket Center, the Philadelphia College Opportunity Resources for Education, and the HudsonAlpha Institute for Biotechnology.

Infrastructure and Facilities Management

Infrastructure and facilities management is a long-standing concern likely to remain a top challenge for NASA for the foreseeable future. The NASA Authorization Act of 2010 directed the Administrator to undertake a comprehensive study examining NASA's institutional assets, paying particular attention to identifying and removing unneeded or duplicative infrastructure. NASA completed the study in February 2012 and issued a report that provides a framework for how the Agency plans to address its infrastructure challenges in the future. In light of the enormity of this challenge, the OIG is focusing significant resources on this topic.

NASA's Real Property Master Planning

NASA's real property includes more than 5,400 buildings and other structures such as wind tunnels, laboratories, launch pads, and test stands that occupy 44 million square feet and are valued at more than \$29 billion. However, over 80 percent of NASA's facilities are more than 40 years old and reaching the end of their design life spans. At the same time, the Agency is undergoing considerable changes in mission focus with the conclusion of the Space Shuttle Program and uncertainty about the facilities needed for the new space launch program. Moreover, NASA is dealing with these challenges at a time when growing budget deficits are straining the resources of all Federal agencies.

To help address its infrastructure challenges, NASA is undertaking several efforts including developing its first integrated Agency-wide real property master plan intended to help officials to better coordinate facilities resource needs across the Agency and link those needs with projected funding. Agency officials expect that the master plan will also provide a baseline to guide planning for the infrastructure needed to meet mission requirements.

Although NASA's development of its first integrated master plan is a positive step toward better managing its diverse real property assets, we found deficiencies in the individual Center master plans the Agency is using to develop the integrated plan that may limit the integrated plan's usefulness for making strategic real property decisions. Specifically, we found that the Center plans were developed using funding assumptions that are no longer realistic and are missing some of the essential information needed to make objective Agency-wide real property decisions. In addition, because of changing mission requirements, officials at 5 of the 10 Centers did not develop master plans to reduce their real property footprint in accordance with Agency goals. Moreover, the restrictive criteria and competitive nature of the prioritization process the Agency used for construction projects – an integral part of implementing the Center master plans – discouraged some Centers from submitting their top priorities for funding.

Developing an integrated Agency-wide master plan in an uncertain budget environment is a significant challenge for NASA and its Centers. However, we believe that with improved guidance regarding the Center master plans and the prioritization process for construction projects, NASA will be better able to make informed strategic decisions regarding its real property assets.

To improve NASA's ability to make effective strategic management decisions regarding real property, we recommended NASA: (1) provide clear guidance to the Centers about the information that should be included in their master plans to ensure that similar information is captured for all Centers; (2) ensure plans to reduce the Agency's real property footprint more fully consider the specific missions of the individual Centers when setting real property reduction requirements; and (3) update its policy to better reflect the current risk-based process for prioritizing construction projects.

The Associate Administrator for the Mission Support Directorate concurred with our recommendations, and the Agency is taking corrective action.

NASA's Infrastructure and Facilities: An Assessment of the Agency's Real Property Master Planning (IG-12-008, December 19, 2011)
<http://oig.nasa.gov/audits/reports/FY12/IG-12-008.pdf>

Ongoing Audit Work

NASA's Efforts to Reduce Unneeded and Duplicative Infrastructure

NASA's costs to maintain its infrastructure are significant and continue to grow: for example, annual operations and maintenance costs have increased 44 percent (\$173 million) since 2005. Numerous studies have noted the need for NASA to reduce its infrastructure, from Government Accountability Office (GAO) testimony in the 1990s that noted major duplication of capabilities to our report released during this semiannual reporting period assessing the quality of the data used to manage the Agency's real property assets.¹ This audit will evaluate NASA's efforts to identify and reduce unneeded and duplicative test stands and wind tunnels.

Leased Space at NASA Centers

One approach to help NASA reduce its \$2.6 billion in annual deferred maintenance costs is for the Agency to lease underused real property to other entities. NASA uses a variety of agreements in its leasing program, including reimbursable and non-reimbursable Space Act Agreements, use permits, and concessionaire agreements. Additionally, since 2003 NASA has had the authority to enter into Enhanced Use Leases, which allow the Agency to retain proceeds in excess of its cost and use those proceeds to defray the cost of other facilities projects. Our audit will evaluate NASA's use and management of lease agreements.

¹ "NASA Infrastructure and Facilities: Assessment of Data Used to Manage Real Property Assets" (IG-11-024, August 4, 2011).

NASA's Environmental Remediation Efforts

NASA's plan to gain efficiencies by disposing of unneeded or underused facilities must also address the associated costs of environmental remediation, including the costs of cleaning up chemicals released to the environment as a result of past activities. Between 2011 and 2015, NASA has more than 140 demolition projects planned, and Agency officials estimate environmental costs associated with those projects and six other demolition projects currently underway at approximately \$1 billion. As part of this overarching audit focusing on the effectiveness of the Agency's processes for identifying, prioritizing, and implementing environmental remediation projects, we plan to conduct separate audits on discrete issues such as NASA's asbestos abatement efforts and the Agency's cleanup efforts at the Santa Susana Field Laboratory in Ventura County, California.

Information Technology Security and Governance

NASA faces significant challenges in addressing the information technology (IT) security and internal control deficiencies the OIG has found in past audits and reviews. During this semiannual reporting period, we continued to work with NASA to improve IT security and management controls on its critical systems.

NASA Faces Significant Challenges in Transitioning to a Continuous Monitoring Approach for Its Information Technology Systems

The Federal Information Security Management Act of 2002 requires NASA and other Federal agencies to annually report on the security posture of their information systems. Prior to May 2010, NASA assessed the security posture of its systems using a “snapshot” certification and accreditation process in which the Agency assessed security on a periodic schedule and at a fixed point in time. In May 2010, NASA announced that it would pursue a new approach that emphasizes the need to continuously monitor components connected to NASA’s systems and focuses on critical controls that protect against the most common IT security incidents NASA has experienced.

In this audit, the OIG examined whether NASA had established a solid foundation for a continuous monitoring program. We found that the Agency faces significant challenges as it transitions from periodic static assessments to ongoing and continuous monitoring of Agency systems. Specifically, we found that NASA needs to: (1) create and maintain a complete, up-to-date record of IT components connected to Agency networks; (2) define the security configuration baselines that are required for its system components and develop an effective means of assessing compliance with those baselines; and (3) use best practices for vulnerability management on all its IT systems. We reported that failure to make improvements in each of these areas will limit NASA’s ability to accurately assess the security of its IT systems under this new continuous monitoring approach.

To strengthen existing policies, procedures, and continuous monitoring controls, we recommended that the Chief Information Officer (CIO) expedite development of content and metrics for applying secure baseline configuration settings to applicable NASA IT components. In addition, we believe the CIO should institute credentialed vulnerability scanning Agency-wide as part of its continuous monitoring program. We also recommended that Associate Administrators for Mission Directorates and Center Chief Information Security Officers take an active role to ensure that baseline security configurations are applied to their respective systems; appropriate personnel establish accounts within the IT Security – Enterprise Data Warehouse (ITSEC-EDW); appropriate system data are included in ITSEC-EDW and validated; and systems are routinely undergoing credentialed vulnerability scanning.

NASA generally concurred with our recommendations and is currently taking actions to address these issues.

NASA Faces Significant Challenges in Transitioning to a Continuous Monitoring Approach for Its Information Technology Systems (IG-12-006, December 5, 2011)
<http://oig.nasa.gov/audits/reports/FY12/IG-12-006.pdf>

Fiscal Year 2011 Audit of NASA's Compliance with the Federal Information Security Management Act

This annual report, submitted as a memorandum from the IG to the NASA Administrator, provides OMB with our independent assessment of NASA's IT security posture. For the FY 2011 audit, we adopted a risk-based approach in which we selected 25 high- and moderate-impact non-national security systems for review, including systems from all 10 NASA Centers, NASA Headquarters, and the NASA Shared Services Center.

Our report to OMB addressed the 11 required areas of review for Federal Information Security Management Act (FISMA) reporting:

- Risk Management
- Configuration Management
- Incident Response and Reporting
- Security Training
- Plan of Action and Milestones (POA&M)
- Remote Access Management
- Identity and Access Management
- Continuous Monitoring Management
- Contingency Planning
- Contractor Systems
- Security Capital Planning

We identified challenges to and weaknesses in NASA's IT security program, but believe that the Agency is steadily working to improve its overall IT security posture. Specifically, we found that the Agency established and is maintaining a program for each of the 11 areas we examined. However, we also found the Agency's risk management, configuration monitoring management, and POA&M programs need improvement to ensure they cover all required attributes identified by the Department of Homeland Security in its FISMA guidance.

Federal Information Security Management Act: Fiscal Year 2011 Evaluation (IG-12-002, October 17, 2011)
<http://oig.nasa.gov/audits/reports/FY12/IG-12-002.pdf>

Joint Operation Shuts Down International Computer Crime Network

In November 2011, six Estonian nationals and one Russian national were indicted in the Southern District of New York on 27 counts each – including wire fraud, computer intrusion, and conspiracy – for their part in an international computer crime network that hijacked Internet Domain Name System (DNS) servers and manipulated Internet advertising to generate at least \$14 million in illicit fees. The network is suspected of producing malware that redirected the domain name requests of infected computers to servers it controlled for the purposes of injecting fraudulent advertising banners or malware into the viewer's browser, thereby stealing revenue from legitimate Web advertisers. The joint investigation of the NASA OIG, the Federal Bureau of Investigation (FBI), and the Estonian Police and Border Guard Board, with support from numerous private sector and academic partners, resulted in the arrest of the six Estonian suspects and the seizure and dismantling of an extensive criminal enterprise that controlled over 4 million compromised systems worldwide.

Former NASA Contractor Employees Sentenced for Child Pornography

In three separate matters, former employees of NASA contractors were sentenced for their involvement in child pornography.

A former NASA contractor employee was sentenced in January 2012 in the U.S. District Court of Maryland to 97 months in prison, followed by a lifetime of supervised release, after pleading guilty to one count each of conspiracy to transport child pornography and destruction of records in a Federal investigation. As part of his plea, he admitted that after being instructed by Federal agents not to remove anything from his residence he disposed of four hard drives believed to contain child pornography. Upon his release from prison, the former contractor will be required to register as a sex offender. The investigation was a joint effort of the NASA OIG, U.S. Immigration and Customs Enforcement, the U.S. Postal Inspection Service, and the Allegany County (Maryland) Combined Criminal Investigations Unit.

In March 2012, a former NASA contractor employee who had worked at Wallops Flight Facility in Virginia was sentenced in the U.S. District Court of Maryland to 5½ years of imprisonment and 10 years of supervised release with mandatory registration as a sexual offender. The former contractor employee pleaded guilty in November 2011 to the felony charge of transportation of child pornography.

Also in March 2012, a former NASA contractor employee was sentenced in U.S. District Court in the Northern District of Alabama to 60 months in prison, followed by a lifetime of supervised release. This sentencing came as a result of his pleading guilty to one count each of receipt and possession of child pornography. In addition to the sentence, the former contractor employee must register as a sexual offender upon release, must not have unsupervised contact with anyone under the age of 18, and must participate in a mental health program and a computer restriction monitoring program.

Romanian Arrested for Hacking JPL Computers

In November 2011, a Romanian national was arrested in his native country for illegally accessing more than 20 IT systems at NASA's Jet Propulsion Laboratory (JPL). An investigation by the NASA OIG, in coordination with the Romanian Directorate for Investigating Organized Crime and Terrorism, resulted in the identification of the subject, who admitted to hacking the JPL systems in December 2010. He was charged with accessing a computer without authorization; modifying, damaging, and restricting access to data without authorization; and possessing hacking programs. This is the third Romanian arrested since 2005 as a result of the investigative efforts of the NASA OIG.

Romanian Arrested for Hacking Romanian, NASA, Pentagon, and Other Computer Systems

On January 31, 2012, a Romanian national known as "Tinkode" was arrested by members of the Romanian Directorate for Investigating Organized Crime and Terrorism for illegally accessing numerous systems belonging to NASA, the Pentagon, the Romanian government, and commercial U.S. entities. Tinkode claimed to have hacked web servers belonging to NASA and the U.S. Army, posting "proof" of his activities to his blog and YouTube. Prior to his arrest in January, Tinkode had eluded law enforcement authorities for years. In 2010, Tinkode hacked into the websites of the British Royal Navy and the European Space Agency by exploiting a variety of IT security vulnerabilities. The investigation was conducted by the NASA OIG, the Romanian authorities, the FBI, and the U.S. Army Criminal Investigation Division and prosecuted by the U.S. Attorney's Office for the District of Maryland.

Ongoing Audit Work

NASA's Agency-Wide Computer Incident Detection and Response Capability

In FYs 2009 and 2010, NASA reported 5,621 cybersecurity incidents that resulted in the installation of malicious software on its systems and/or unauthorized access to sensitive information. To address these incidents, NASA established a Security Operations Center (SOC) in November 2008. This audit will examine whether the SOC is effectively providing incident detection, response, and reporting on cyber attacks against NASA networks and computer systems.

NASA's Information Technology Security Assessment and Monitoring Tools

NASA has 570 information systems with more than 120,000 devices that connect to NASA's networks. To reduce the risk of unauthorized access, these devices must be regularly monitored and assessed. Because NASA's management of IT security is decentralized, IT security tools are not standard across the Agency and NASA may be missing opportunities to improve efficiency through consolidation of purchases and the identification of redundant investments. This audit will examine whether NASA could improve its IT security processes by standardizing the use of IT security tools across the Centers and Mission Directorates.

NASA's IT Governance Structure

NASA needs to improve oversight of the full range of its IT assets. Federal law and NASA policy designate the Headquarters-based CIO as the official responsible for developing IT security policies and direct the CIO to implement an Agency-wide IT security program. However, our past audit work has identified that the CIO has limited ability to direct NASA's Mission Directorates to fully implement CIO-recommended or mandated IT security programs. This audit will examine NASA's IT governance practices and develop recommendations for improvement.

NASA's Compliance with FISMA Requirements for FY 2012

NASA IT systems contain sensitive information that, if improperly released or stolen, could result in significant financial loss or adversely affect national security. This audit will assess NASA's compliance with FISMA requirements for FY 2012. FISMA requires the OIG to conduct annual evaluations of NASA's information security program and report the results to OMB.

Financial Management

During this semiannual reporting period, the OIG and the independent external auditor continued to assess NASA's efforts to improve its financial management and make recommendations to assist NASA in addressing weaknesses.

NASA Receives Clean Opinion on FY 2011 Financial Statements

The Chief Financial Officers Act of 1990 requires the IG, or an independent external auditor chosen by the IG, to audit NASA's financial statements annually. The FY 2011 consolidated financial statement audit was performed by the independent public accounting firm PricewaterhouseCoopers (PwC), which issued an unqualified or "clean" opinion in its November 2011 report (IG-12-004).

After receiving a qualified opinion on its financial statements last year and disclaimers of opinion for the previous 7 years, NASA was able to develop sufficient financial evidence and documentation to allow auditors to issue an unqualified audit opinion for FY 2011. An unqualified opinion means that the financial statements present fairly, in all material respects, the financial position and the results of the entity's operations in conformity with generally accepted accounting principles. The results of the FY 2011 audit were a notable improvement over the previous year when the Agency received a qualified opinion due to its valuation of property, plant, equipment, and materials in prior years and the possible effects to the 2010 statements of net cost and changes in net position.

PwC also provided NASA with a report on internal control and compliance with laws and regulations. For FY 2011, PwC identified two significant deficiencies related to the environmental liability estimation process and privileged user access controls and monitoring of the financial management system environment. PwC also identified deficiencies of a lesser magnitude and reported them separately to the Chief Financial Officer and Chief Information Officer (IG-12-003). Finally, PwC provided an unqualified opinion on NASA's special-purpose financial statements (IG-12-005).

NASA will need to remain focused on successfully executing its system of internal control over financial reporting, as well as address the weaknesses identified in its environmental liability estimation process to maintain a clean opinion into the future.

See the Financials section of NASA's FY 2011 Performance and Accountability Report for the Inspector General's transmittal letter and PwC's audit reports.

http://www.nasa.gov/pdf/607657main_NASA-FY2011-PAR-508.pdf

Controls over NASA Travel and Purchase Credit Cards

Like other Federal Government agencies, NASA uses purchase cards to reduce the administrative cost of processing small dollar purchases and travel cards to reduce the cost of official travel and for the convenience of the traveler. NASA's approximately 15,500 travel and 2,200 purchase cardholders incurred \$79 million and \$82 million in charges, respectively, during fiscal year 2010. NASA receives rebates from the credit card issuer based on the volume of activity and timeliness of payments.

We examined transactions charged to NASA purchase and travel cards between October 1, 2009, and December 31, 2010, and found that NASA's purchase and travel card programs were operating efficiently overall and that internal controls appeared effective in detecting misuse, fraud, waste, and abuse. However, we also found that NASA could further strengthen controls over its purchase and travel card programs.

Most significantly, we found that 45 NASA employees had authority to "self-approve" travel authorizations and travel claims, meaning their authorizations and claims did not have to be reviewed and approved by a supervisor. The number of self-approvers at NASA was exorbitant when compared with other Federal agencies – for example, at the Department of Justice only 2 positions out of more than 116,000 employees have this authority. During our 15-month audit period, NASA self-approvers incurred \$552,000 in travel expenses charged to their individual credit cards. In addition, we found that NASA should evaluate card usage and close or restrict accounts that are underutilized, as well as clarify its policy regarding the allowability of certain types of charges on travel cards and improve the support for purchases made with purchase cards.

Finally, we found that NASA was not in compliance with Office of Management and Budget (OMB) policy regarding the application of \$1.8 million in card rebates received during our audit period. OMB guidance requires that rebates be returned to the appropriation or account from which the funds for the purchases were expended. However, NASA applied all rebates to its working capital fund, resulting in possible misapplication and augmentation of appropriated funds.

The OIG made 15 recommendations to NASA to strengthen and implement policies, procedures, and internal controls to detect, prevent, and reduce the risk of misuse, fraud, waste, and abuse of its purchase and travel cards. NASA management agreed to take corrective actions for 14 recommendations. The Assistant Administrator for Procurement did not concur with our recommendation to develop policies requiring a demonstrated necessity before issuance or re-issuance of a purchase card, stating that current policy adequately addressed the issue. We disagree and are working with the Office of Procurement to resolve the recommendation.

Audit of NASA's Purchase and Travel Card Programs (IG-12-010, February 16, 2011)
<http://oig.nasa.gov/audits/reports/FY12/IG-12-010.pdf>

Ongoing Audit Work

NASA's Improper Payment Identification and Reporting

The Federal Government annually wastes billions of taxpayer dollars on improper payments due to payments made in the wrong amount, to the wrong entity, or for the wrong reason. This audit will examine whether NASA is identifying, reporting on, and reducing improper payments in accordance with Federal law.

Audit of Fiscal Years 2011 and 2012 NASA-Sponsored Conferences

Senate Report 112-78, adopted as part of the Conference Report to the Consolidated and Further Continuing Appropriations Act, 2012 (Public Law 112-55), requires OIGs to audit expenses incurred for agency-sponsored conferences with costs exceeding \$20,000. Our review will assess NASA's compliance with Federal and Agency requirements for planning and conducting NASA-sponsored conferences as well as reporting the costs and contracting procedures.

Audit of NASA's FY 2012 Financial Statements

The OIG is overseeing NASA's FY 2012 consolidated financial statement audit, which is being performed by the independent public accounting firm PricewaterhouseCoopers.

Other Matters

Independent Assessment of NASA's Strategic Direction and Management

NASA's FY 2012 appropriations (Public Law 112-55) directs the OIG to "commission a comprehensive independent assessment of NASA's strategic direction and agency management." In January 2012, the OIG signed a contract with the National Research Council (NRC) – part of the National Academy of Sciences – to conduct this assessment. As of mid-March, the NRC was in the process of appointing an ad-hoc committee that will gather relevant data, hold a series of public meetings, and produce a report of its findings by late summer.

According to the "Statement of Task" from the OIG to the NRC, the committee will assess whether NASA's strategic direction remains viable and whether the Agency's activities and organization efficiently and effectively support that direction in light of the potential for constrained budgets for the foreseeable future.

In particular, the NRC committee plans to:

1. Consider the strategic direction of the Agency as set forth in NASA's 2011 Strategic Plan and other statements of space policy issued by the President.
2. Consider the goals set forth in the National Aeronautics and Space Act of 1958 (as amended) and the National Aeronautics and Space Administration Authorization Acts of 2005, 2008, and 2010.
3. Consider relevant previous studies and reports.
4. Assess the relevance of NASA's strategic direction and goals to achieving national priorities.
5. Assess the viability of NASA's strategic direction and goals in the context of current budget expectations and stated programmatic priorities for the Agency.
6. Discuss the appropriateness of the budgetary balance between NASA's various programs.
7. Examine NASA's organizational structure and identify changes that could improve the efficiency and effectiveness of the Agency's mission activities.
8. Recommend how NASA could establish and effectively communicate a common, unifying vision that encompasses the Agency's varied missions.

In keeping with specific direction in the appropriations law, any recommendations made by the NRC committee will be predicated on the assumption that NASA's out-year budget profile will be constrained due to continuing deficit reduction efforts.

A detailed description of the commissioned assessment can be found at http://oig.nasa.gov/IG_Review_proposal_text_Final.pdf.

Additional information about the progress of the assessment can be found on the NRC's website at: http://sites.nationalacademies.org/DEPS/ASEB/DEPS_067029.

NASA's Compliance with Federal Export Controls

In a January 25, 2012, letter to Congress, we summarized our work over the past year relating to NASA's compliance with Federal export control laws. Among the products discussed was our audit examining NASA's controls over the disposition of Space Shuttle Program property, particularly vulnerabilities created when Space Shuttle property is sold to the public. In addition, we discussed a series of audits examining the Agency's security controls for its IT systems, many of which contain data subject to export control laws. Finally, we described several investigations involving the potentially unlawful disclosure of sensitive information. In all of these audits and investigations, we continue to work closely with NASA managers to reduce the risks associated with the illegal transfer of sensitive technologies and to ensure compliance with Federal export control laws.

The Inspector General's Annual Federal Export Control Compliance Letter to Congress (January 25, 2012)

[http://oig.nasa.gov/audits/reports/FY12/Export_Control_Letter\(1-25-12\).pdf](http://oig.nasa.gov/audits/reports/FY12/Export_Control_Letter(1-25-12).pdf)

Former Exchange Employee Charged with Theft of Funds

In January 2012, the former finance and accounting officer for the NASA Langley Research Center Exchange was charged with theft of Government funds. An investigation by the OIG revealed that from 2007 to 2011 the individual embezzled funds from the Exchange checking account by writing and negotiating checks payable to herself and manipulated the Exchange payroll to increase her annual salary, resulting in total losses to the Government of nearly \$200,000.

Financial Advisor Found Guilty of Theft

In November 2011, a financial advisor was found guilty of theft of Social Security benefits in the amount of \$31,694 and Federal retirement annuity benefits in the amount of \$57,619. A joint investigation by the NASA and the Social Security Administration OIGs revealed that the individual had been the financial advisor for a NASA employee who died in April 2006. The employee's U.S. Government benefits were electronically deposited in a joint account held by the employee and the financial advisor. Upon the death of the NASA employee, the financial advisor failed to notify the U.S. Government and continued to receive the benefit payments, which she then converted for her own personal use. Sentencing is scheduled for April 2012.

NASA Employee Fined for Firearm Possession

In October 2011, a Marshall Space Flight Center employee pleaded guilty to misdemeanor possession of a firearm on Federal property. The employee was fined \$400 and received a 4-day suspension without pay.

Copper Thefts by Three Former NASA Contractor Employees

In three separate matters, former employees of NASA contractors were prosecuted for their involvement in the theft of valuable metals from Johnson Space Center.

In October 2011, a contractor employee pleaded guilty to theft of copper and was sentenced to serve 2 years of probation and ordered to pay restitution of \$7,792. The investigation, conducted by the NASA OIG in cooperation with NASA's Office of Protective Services, led to admissions by the employee of multiple instances of stealing copper from the Center and selling it at scrapyards in the area.

In October 2011, a contractor employee was charged in State court with stealing copper lightning rods. Our investigation revealed that the employee sold the rods to a local metal recycling dealer.

A contractor employee was charged in Federal court in January 2012 with stealing copper cable and in February pleaded guilty to felony theft. The investigation, also conducted in cooperation with NASA's Office of Protective Services, led to admissions by the employee that he began stealing metals from the Center as early as 2010. The replacement value for the stolen metal exceeds \$150,000.

Former NASA Contractor Employee Charged for Aluminum Theft

In January 2012, a former NASA contractor employee was charged in State court with felony theft for stealing aluminum boards from Kennedy Space Center. The boards, valued at \$2,000, were found in the employee's personal storage unit.

Former NASA Contractor Employee Pleads Guilty

In December 2011, a former NASA contractor employee at Goddard Space Flight Center pleaded guilty to the theft of copper and heat-resistant nylon wire from a storage lot at Goddard. The contractor was sentenced to 1 year of supervised probation, ordered to perform 100 hours of community service, and ordered to pay restitution of \$673.

Ongoing Audit Work*Review of NASA's Internal Controls for the Safe Accounting, Storage, and Use of Explosives, Pyrotechnics, and Propellants*

To support NASA missions, NASA Centers and test facilities procure, store, transport, and handle explosive materials, pyrotechnics, and propellants. Such materials, referred to as “energetic materials,” are extremely hazardous and include any chemical compound or mixture that when subjected to heat, impact, friction, or electrical initiation can result in detonation. This audit will examine NASA’s internal controls for the procurement, transportation, storage, and handling of energetic materials.

NASA'S TOP MANAGEMENT AND PERFORMANCE CHALLENGES

As required by the Reports Consolidation Act of 2000, the NASA OIG annually develops a report identifying the most serious management and performance challenges facing NASA. In deciding whether to identify an issue as a top challenge, we considered its significance in relation to the Agency's mission; its susceptibility to fraud, waste, and abuse; whether the underlying problems are systemic; and the Agency's progress in addressing the issue. In our 2011 report, we identified the following issues as the top management and performance challenges facing NASA:

1. Future of U.S. Human Space Flight

In July 2011, NASA's 30-year Space Shuttle Program ended, leaving the Agency dependent on Russia's Soyuz to transport astronauts and on Russia and other international partners to transport cargo to the International Space Station (ISS) until commercial companies are capable of providing this transportation. With respect to cargo, NASA has been working to develop commercial providers' capabilities for the past several years, and since 2005 has spent \$500 million on such efforts through its Commercial Orbital Transportation Services (COTS) Program. With respect to commercial crew transportation services, in April 2011 NASA announced a second round of Commercial Crew Development (CCDev) awards totaling \$269.3 million to four companies – Blue Origin, Boeing, Sierra Nevada Corporation, and Space Exploration Technologies Corporation (SpaceX) – and subsequently reported that these companies have successfully met all their initial milestones.

In a June 2011 report, we identified a series of challenges NASA faces in certifying and acquiring commercial crew transportation services: (1) modifying NASA's existing safety and human-rating requirements for commercially developed systems; (2) managing the recently announced acquisition strategy for commercial crew transportation services; (3) implementing the appropriate insight/oversight model for commercial partner vehicle development; (4) relying on an emerging industry and uncertain market conditions to achieve cost savings; and (5) managing the relationship between commercial partners, the Federal Aviation Administration, and NASA. Given the magnitude of this endeavor, it is expected that it will be several years before commercial space flight is a viable option for NASA. In the meantime, the Agency, as directed by Congress, is also developing its next generation Space Launch System (SLS) to carry astronauts beyond Earth's orbit. Developing a launch system and crew vehicle, modifying the necessary supporting ground systems, and meeting the NASA Administrator's mandate that future exploration systems be affordable, sustainable, and realistic are significant management challenges for NASA leadership.

In addition, NASA must ensure that it maximizes the productivity and use of the portion of the ISS that operates as a U.S. National laboratory. To that end, NASA has entered into a cooperative agreement – valued initially at \$15 million per year – with the Center for the Advancement of Science in Space (CASIS) to manage the National laboratory’s capabilities and ensure they are available to the broadest possible cross-section of U.S. scientific, technological, and industrial communities. In the years ahead, NASA must ensure that CASIS develops a varied research and development portfolio based on U.S. national needs for basic and applied research; establishes a marketplace to facilitate matching research pathways with qualified funding sources; and stimulates interest in using the national laboratory for research and technology demonstrations and as a platform for science, technology, engineering, and mathematics education. In addition, NASA needs to continue encouraging use of the ISS by other U.S. Government agencies, other nations, and the commercial sector, while seeking partnerships, cost sharing, and other arrangements to supplement NASA funding of ISS research and operations.

Finally, NASA faces challenges relating to the cost and availability of certain classes of launch vehicles needed to support NASA missions. The end of both the Space Shuttle and the Constellation Programs removed a considerable portion of the customer base for the launch vehicle manufacturers, resulting in higher costs for component suppliers and presenting NASA with a near-term challenge of finding suitable, cost-effective launch service providers for a number of its science missions. Although new launch vehicles in this class are under development, they are unlikely to be ready to launch NASA’s science missions until late 2013 or early 2014. Moreover, retirement of the Space Shuttle, cancellation of the Constellation Program, and the debates over development of a new space transportation system and the amount of funding that should be dedicated to commercial partner activities could negatively impact the Agency’s ability to retain the manufacturing and technological capabilities, skilled workforce, and supply chains necessary to meet NASA’s missions. These multiple, competing, and intertwined issues present significant challenges NASA must overcome as it seeks to build new space capabilities to ensure the future of U.S. human space flight.

2. Project Management

Historically, NASA has struggled with establishing realistic cost and schedule estimates for the projects in its portfolio. Both the OIG and GAO have repeatedly cited cost growth and schedule slippage in the Agency’s major projects. Such slippage is often due to the Agency’s failure to address systemic project management challenges related to requirements growth, cost estimating, technology development, and partner performance. Perhaps no project is more emblematic of the scope of the Agency’s project management challenges than the James Webb Space Telescope (JWST) – NASA’s most expensive and technologically complex science project. JWST is now projected to cost \$8.8 billion and to launch in October 2018, significantly above its original baseline life-cycle cost estimate of \$5 billion and launch date of June 2014.

To execute projects within established cost and schedule estimates, NASA needs to maximize the use of sound project management principles in projects both large and small. These principles are codified in Agency-wide policies that establish the requirements by which NASA should formulate and implement spaceflight programs and projects. Going forward, NASA's challenge will be to employ these tools consistently to improve cost estimating and adherence to schedule on all Agency projects.

3. Infrastructure and Facilities Management

NASA controls a network of approximately 5,400 buildings and structures that support Agency research, development, and flight activities. NASA's ability to manage the necessary maintenance and renovation of this large and aging portfolio of facilities effectively is a critical and ongoing challenge. While NASA is making a concerted effort to address its real property issues, it is addressing this challenge at a time when growing budget deficits are straining the resources of all Federal agencies. As NASA's funding declines, the Agency will be required to make even more difficult decisions regarding its infrastructure. Among the challenges will be reducing the backlog of essential maintenance projects and identifying and reducing unneeded and duplicative property in light of the costs associated with facility disposal or consolidation, the varying mission requirements of each Center, and the political pressures to retain or build the mission capabilities of specific Centers. Failure to reduce the maintenance backlog will further increase the risk that Agency facilities will not be available for future use or may create additional risks to the safety of personnel and equipment and the accomplishment of NASA's missions. Similarly, given the likelihood of constrained budgets, it is imperative that NASA take action to evolve toward the most efficient facility structure for its future.

4. Acquisition and Contract Management

Approximately 83 percent of NASA's \$18.7 billion FY 2010 budget was spent on contracts to procure goods and services and provide funding to grant and award recipients. Accordingly, NASA must use the most advantageous acquisition and award strategies to promote competition and ensure the billions of dollars of taxpayer funds entrusted to it are spent wisely. However, systemic weaknesses in NASA's internal controls related to acquisition and contracting continue to create challenges for the Agency. The OIG will continue to focus resources on this issue to identify instances of fraud, waste, and abuse by contractors and awardees as well as weaknesses in the Agency's system of internal controls.

5. Information Technology Security and Governance

NASA IT systems and networks control spacecraft, collect and process scientific data, and enable NASA personnel to collaborate with their colleagues around the world. Over the past decade, NASA has become dependent on computerized information systems to carry out daily operations and to process, maintain, and report essential information. Although most NASA IT systems contain data that may be widely shared, some contain sensitive information that, if released or stolen, could result in significant financial loss or adversely affect national security. Accordingly, it is imperative that NASA properly protect its IT systems and networks.

Over the past several years, OIG reviews have identified a recurring theme of poor management processes and inadequate operational and technical controls that affect NASA's ability to protect the information and information systems vital to its mission. Until NASA incorporates IT security policy into its IT governance model and fully implements related IT security programs, the Agency will continue to be at risk for security incidents that can have a severe adverse effect on Agency operations and assets.

2011 Report on NASA's Top Management and Performance Challenges
(November 15, 2011)

<http://oig.nasa.gov/NASA2011ManagementChallenges.pdf>

CONGRESSIONAL TESTIMONY

NASA's IT Security Efforts

On February 29, 2012, IG Paul Martin testified before the House Committee on Science, Space, and Technology's Subcommittee on Investigations and Oversight about NASA's efforts to protect its information technology resources.

NASA is a regular target of cyber attacks both because of the large size of its networks and because those networks contain highly sought after information. In 2010 and 2011, NASA reported 5,408 computer security incidents that resulted in the installation of malicious software on or unauthorized access to its systems. Moreover, some NASA systems house sensitive information that, if lost or stolen, could result in significant financial loss, adversely affect national security, or significantly impair our Nation's technological advantage. At the same time, NASA's statutory mission to share scientific information presents heightened IT security challenges because the Agency's connectivity with outside organizations – most notably educational institutions and research facilities – presents cybercriminals with a larger target compared to many other Government agencies.

In his testimony, the IG identified five issues the OIG believes constitute NASA's most serious challenges to protecting the Agency's information and systems from inadvertent loss or malicious theft: lack of full awareness of Agency-wide IT security posture; shortcomings in implementing a continuous monitoring approach; the slow pace of encryption for NASA laptop computers and other mobile devices; ability to combat sophisticated cyber attacks; and transition to cloud computing. He also discussed the OIG's audit and investigative work relating to IT security. Over the past 5 years, the OIG has issued 21 audit reports containing 69 IT-related recommendations and conducted investigations resulting in the arrests and convictions of individuals in the United States, China, Great Britain, Italy, Nigeria, Portugal, Romania, Turkey, and Estonia.

IG Statement: NASA Cybersecurity: An Examination of the Agency's Information Security

http://oig.nasa.gov/congressional/FINAL_written_statement_for_IT_hearing_February_26_edit_v2.pdf

Stimulus Oversight: An Update on Science Funding Accountability and Transparency

On November 30, 2011, DIG Gail Robinson testified before the House Committee on Science, Space, and Technology's Subcommittee on Investigations and Oversight concerning the OIG's oversight of NASA's use of Recovery Act funds.

During the hearing, Robinson discussed NASA's progress in obligating approximately 98 percent of its Recovery Act funds to augment ongoing research and development activities in several program areas, including science, exploration, and aeronautics research. Robinson noted that NASA took proactive steps early in the Recovery Act process to help ensure compliance with the Act's requirements. As a result, NASA has been generally successful in ensuring that its Recovery Act funds were used in accordance with the requirements and goals of the Act and OMB's implementing guidance.

DIG Statement: Stimulus Oversight: An Update on Science Funding Accountability and Transparency

http://oig.nasa.gov/Stimulus_Oversight-November_2011.pdf

NASA's Efforts to Develop Commercial Crew Launch Capabilities

On October 26, 2011, IG Martin testified before the House Committee on Science, Space, and Technology along with William H. Gerstenmaier, the Associate Administrator for Human Exploration and Operations, concerning the challenges related to NASA's efforts to develop privately owned, commercially operated crew launch capabilities. Martin and Gerstenmaier were the second of two witness panels at the hearing. Prior to their testimony, the Committee heard from representatives of the companies involved in NASA's commercial crew effort.

In his testimony, Martin discussed a June 2011 OIG audit report that concluded that NASA had made sustained progress in working with commercial providers to develop commercial transportation services for astronauts to low Earth orbit, but identified several challenges NASA faces as it expands its Commercial Crew Transportation program. Martin noted NASA must pay particular attention to these challenges as it continues to partner with commercial companies seeking to provide safe, reliable, and cost-effective access to the ISS.

IG Statement: NASA's Commercial Crew Development Program

http://oig.nasa.gov/IG_Statement_NASAs_CCDev_Program_10_26_2011.pdf

REGULATORY REVIEW

During this reporting period, the OIG reviewed and commented on 19 NASA directives and regulations. The following regulations were of particular interest to the OIG.

NASA Procedural Requirements (NPR) 8715.1A, "NASA Occupational Safety and Health Programs"

This NPR implements NASA's Federal civil service occupational safety and health programs as required by statute. The purpose of the NPR is to ensure that employees' place of employment is free from recognized hazards that cause or are likely to cause death or serious harm. The OIG recommended revising the NPR to make it expressly applicable at Government-owned, contractor-operated facilities when Federal employees are on site and hazards are present. The Agency adopted our recommendation.

NPR 3713 Draft 6, "Procedures for Discrimination Complaints Based on Sexual Orientation or Gender Identity"

The purpose of this new NPR is to implement Executive Order 13087 and NASA Policy Directive 3713.2, "Federal EEO [Equal Employment Opportunity] Programs of NASA," which prohibit discrimination based on sexual orientation or gender identity in the workplace. The new NPR provides an internal Agency administrative process for the adjudication of complaints by NASA employees or applicants for employment who allege discrimination based on sexual orientation or gender identity. The OIG recommended revisions intended to recognize the statutory independence and distinct personnel authority of the Inspector General with respect to the processing of discrimination complaints based on sexual orientation or gender identity. The Agency adopted our recommendations.

NPR 8810.1A, "Center Master Planning"

This NPR defines requirements for NASA's Center Master Plans and includes requirements for real property master planning. The OIG provided comments and recommendations intended to ensure that this new NPR adequately incorporates OIG recommendations from a recent audit report aimed at ensuring that plans to reduce the Agency's real property footprint more fully consider the specific missions of the individual NASA Centers when setting real property reduction requirements.²

² "NASA's Infrastructure and Facilities: An Assessment of the Agency's Real Property Master Planning" (IG-12-008, December 19, 2011).

LEGAL ISSUES

Whistleblower Legislation

In January 2012, the OIG resubmitted its request to include language in NASA's proposed Authorization bill that would provide protection from reprisal for contractor employees who provide information to the NASA OIG. The proposal would amend 10 U.S.C. §2409 and ensure NASA whistleblowers receive the same protection afforded to Department of Defense contractors.

Ethics

In October 2011, legal staff provided ethics training to all OIG employees who are required to file financial disclosure forms. Non-filers were also encouraged to attend the training. The session covered the General Ethics Principles as well as travel ethics, the Hatch Act, gratuities, and gifts.

OUTREACH ACTIVITIES

During this reporting period, the OIG engaged in a number of outreach activities that involved coordination with the Agency and other OIGs and Federal agencies.

- The Deputy Assistant IG for Audits (DAIGA) and the Director of OA's Mission Support Directorate (MSD) participated in the Federal Recovery Accountability and Transparency Board Working Group meetings, during which agency representatives discussed activities including the deployment of a new grant fraud guide, legislative matters, and reporting requirements. The NASA OIG continues to host the quarterly meetings during 2012.
- OA's Financial Management Directorate participated in monthly meetings of the Financial Statement Audit Network. Representatives from the Federal Accounting Standards Advisory Board, GAO, OMB, and other Federal OIGs met to discuss current issues in financial management, including impacts of accounting and auditing standards, as well as reporting requirements affecting Federal agency and Government-wide financial statements.
- In February 2012, OA's Science and Aeronautics Research (S&AR) Director and a member of OIG Legal Counsel participated in the Small Business Innovation Research (SBIR) Working Group meeting hosted by the National Science Foundation. Topics discussed at the meeting included Congress's reauthorization of the Act governing the Federal SBIR Program and continuing efforts to standardize contractor certification requirements across all participating Federal agencies.

- The OIG participated in NASA's Project Management Challenge held in February 2012 in Orlando, Florida. The Assistant IG for Audits, the directors of OA's Infrastructure and Facilities Management Directorate and S&AR Directorate, and the Project Manager for the audit of NASA's project management practices and challenges presented the results of the audit to NASA managers in attendance. Approximately 20 percent of all NASA managers attend the annual seminar, which is designed to examine current management trends and provide a forum for knowledge sharing and exchanging lessons learned on project management issues.
- In February, the DAIGA, OA's IT Director, and an IT project manager presented at NASA's 4-day workshop, "Meeting IT Security Challenges in the 21st Century," for NASA Center Chief Information Security Officers in Huntsville, Alabama. Their presentation included updates on recent audits, areas and opportunities for program improvements, future strategies for OIG and CIO staff coordination, and how OIG IT audits add value to NASA's overall security posture.
- On February 15, OA's Statistician and Data Mining Expert discussed at a Federal Audit Executive Council meeting how a data mining tool the OIG developed can assist auditors and investigators to identify fraud in the SBIR and STTR programs. Sixty participants from 32 Federal agencies attended the meeting.
- OA's MSD Director and the MSD Kennedy Space Center audit team met with OIG representatives from three other Federal agencies in January to share best practices on how each agency is meeting the requirements of the Improper Payments Information Act and the Improper Payments Elimination and Recovery Act.
- On December 7, the IG provided an update on OIG activities to NASA's Strategic Management Council, an advisory group composed of Center Directors, Associate Administrators, and other senior NASA managers.

AWARDS

CIGIE Awards Ceremony

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) held its 14th Annual Awards Ceremony on October 18, 2011, to recognize the work of OIG employees across the Federal Government.



Wen Song with CIGIE Chair Phyllis K. Fong and Vice Chair Carl A. Clinefelter

Courtesy of Rob Cannon Photography

OA's IT Director, Wen Song, received the Barry R. Snyder Joint Award as a member of the Information Technology Auditors FISMA Team. The award recognized the 11-member team's "sweeping changes to the OIG FISMA review methodologies" to improve agencies' cybersecurity infrastructures and controls in furtherance of CIGIE's mission of collaboration across the OIG community.

Arnold Pettis, OA's statistician and data mining specialist, received a Special Act Award for Excellence in recognition of exceptional performance in developing a data mining tool for 11 Federal Government agencies to help identify fraud and abuse in the SBIR Program.

An OI team received an Investigations Award for Excellence in recognition of an outstanding contract fraud investigation that resulted in convictions of two individuals on more than 25 counts of fraud and led to improvements in the SBIR Program. In addition to the OI team – John Garris, Patty Searle, Phil Mazzella, Melody Coston, and Joseph Fasula – Assistant U.S. Attorneys Thomas Kirwin and Gregory McMahon from the Northern District of Florida were also recognized. The investigation involved false statements, conspiracy, and wire fraud related to SBIR contracts for nuclear space power propulsion research.



Arnold Pettis with NASA IG Paul Martin



Pictured left to right are Assistant IG for Investigations Kevin Winters, Melody Coston, Patty Searle, IG Martin, and John Garris

An OA audit team received an Information Technology Award for Excellence in recognition of exceptional performance in connection with an audit that made recommendations to strengthen NASA's IT security program ("Inadequate Security Practices Expose Key NASA Network to Cyber Attack," IG-11-017, March 28, 2011).



OA team (left to right): Morgan Reynolds, Jefferson Gilkeson, and Wen Song with IG Martin

Appendixes

A. Inspector General Act Reporting Requirements	45
B. Statistical Information	
Table 1: Audit Products and Impact	46
Table 2: Prior Audit Recommendations Yet to Be Implemented	48
Table 3: Audits with Questioned Costs	50
Table 4: Audits with Recommendations that Funds Be Put to Better Use.....	51
Table 5: Status of A-133 Findings and Questioned Costs Related to NASA Awards.....	51
Table 6: Legal Activities and Reviews	51
Table 7: Office of Investigations Activities.....	52
Table 8: DCAA Audit Reports with Questioned Costs and Recommendations that Funds Be Put to Better Use; Amounts Agreed To	54
C. Peer Reviews	55
D. Glossary and Acronyms	56
E. NASA OIG Offices of Audits and Investigations	60

Appendix A. Inspector General Act Reporting Requirements

INSPECTOR GENERAL ACT CITATION	REQUIREMENT DEFINITION	CROSS-REFERENCE PAGE NUMBER(S)
Section 4(a)(2)	Review of Legislation and Regulations	38
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	3–31
Section 5(a)(2)	Recommendations for Corrective Actions	3–31
Section 5(a)(3)	Prior Significant Audit Recommendations Yet to Be Implemented	48–50
Section 5(a)(4)	Matters Referred to Prosecutive Authorities	53
Sections 5(a)(5) and 6(b)(2)	Summary of Refusals to Provide Information	None
Section 5(a)(6)	OIG Audit Products Issued – Includes Total Dollar Values of Questioned Costs, Unsupported Costs, and Recommendations that Funds Be Put to Better Use	46–47
Section 5(a)(7)	Summary of Significant Audits and Investigations	3–31
Section 5(a)(8)	Total Number of Reports and Total Dollar Value for Audits with Questioned Costs	50, 51
Section 5(a)(9)	Total Number of Reports and Total Dollar Value for Audits with Recommendations that Funds Be Put to Better Use	51
Section 5(a)(10)	Summary of Prior Audit Products for which No Management Decision Has Been Made	50–51
Section 5(a)(11)	Description and Explanation of Significant Revised Management Decisions	None
Section 5(a)(12)	Significant Management Decisions with which the Inspector General Disagreed	None
Section 5(a)(13)	Reporting in Accordance with Section 5(b) of the Federal Financial Management Improvement Act of 1996 Remediation Plan	None
Section 5(a)(14)	Peer Review Conducted by Another OIG	55
Section 5(a)(15)	Outstanding Recommendations from Peer Reviews of the NASA OIG	None
Section 5(a)(16)	Outstanding Recommendations from Peer Reviews Conducted by the NASA OIG	None

Debt Collection

The Senate Report accompanying the supplemental Appropriations and Rescissions Act of 1980 (Public Law 96-304) requires Inspectors General to report amounts due to the agency as well as amounts that are overdue and written off as uncollectible. NASA's Financial Management Division provides this information each November for the previous fiscal year. For the period ending September 30, 2011, the receivables due from the public totaled \$894,000, of which \$134,000 is delinquent. The amount written off as uncollectible for the period October 1, 2010, through September 30, 2011, was \$603,000.

Appendix B. Statistical Information

Table 1: Audit Products and Impact

During the period October 1, 2011, through March 31, 2012, the Office of Audits issued 18 products.

REPORT NO./ DATE ISSUED	TITLE	IMPACT
Audit Area: Space Operations and Exploration		
IG-12-007 12/8/11	NASA's Management of Moon Rocks and Other Astromaterials Loaned for Research, Education, and Public Display	Improvements in NASA's control of astromaterials loaned for research, education, and public display will enable the Curation Office to manage these rare and limited resources more effectively.
Audit Area: Acquisition and Project Management		
— 1/12/12	Review of Congressional Concerns Regarding the Noncompetitive Letter Contract (Contract #NNH11CC35B) to Arctic Slope Regional Corporation Research and Technical Solutions	Alleviated concerns of Congress and notified the public of NASA's proper award of a contract to Arctic Slope Regional Corporation Research and Technical Solutions, an Alaska Native Corporation.
IG-12-009-R 2/2/12	NASA's Management of Small Business Innovation Research and Small Business Technology Transfer Contracts Funded by the Recovery Act (Redacted)	Found that extending appropriate Recovery Act controls to the SBIR/STTR Programs will enhance overall management of the SBIR/STTR contracts, thereby reducing instances of fraud, waste, and abuse. Also identified \$146,253 in questionable equipment costs.
IG-12-012 3/6/12	Review of NASA's Lessons Learned Information System	Provided specific areas of focus for addressing challenges related to NASA's use of L LIS, development of a knowledge management and sharing strategy, and consideration for the best use of the approximately \$750,000 spent on L LIS.
IG-12-013 3/1/12	Audit of NASA's Process for Transferring Technology to the Government and Private Sector	Provided specific areas of focus for improving the Agency's identification of and planning for the transfer of technologies developed within NASA's programs and projects.
IG-12-014 3/14/12	Final Memorandum on NASA's Compliance with Provisions of the Duncan Hunter National Defense Authorization Act of 2009 – Management of Cost-Reimbursement Contracts	Identified specific areas where NASA can improve its compliance with the newly revised Federal Acquisition Regulation to ensure all requirements are addressed when using cost reimbursement contracts for future acquisitions.
Audit Area: Infrastructure and Facilities Management		
IG-12-008 12/19/11	NASA's Infrastructure and Facilities: An Assessment of the Agency's Real Property Master Planning	Identified issues that NASA must address to manage its real property assets more effectively.
Audit Area: Information Technology Security and Governance		
IG-12-002 10/17/11	Federal Information Security Management Act: Fiscal Year 2011 Evaluation	Improvements in IT security internal controls through the establishment of management programs and processes.

Table 1: Audit Products and Impact (continued)

REPORT NO./ DATE ISSUED	TITLE	IMPACT
Audit Area: Information Technology Security and Governance (continued)		
IG-12-006 12/5/11	NASA Faces Significant Challenges in Transitioning to a Continuous Monitoring Approach for Its Information Technology Systems	Provided specific areas of focus for addressing challenges in NASA's transition to a continuous monitoring approach that should enhance the Agency's ability to assess its IT security more accurately.
Audit Area: Financial Management		
IG-12-001 10/12/11	Final Report, "FY11 Financial Statement Audit: Network Penetration Testing," Prepared by PricewaterhouseCoopers in Connection with the Audit of NASA's FY 2011 Financial Statements	Improvements in the security of the Agency's financial systems.
IG-12-003 11/23/11	Final Report, "FY 2011 NASA Financial Statement Audit Management Letter," Prepared by PricewaterhouseCoopers LLP in Connection with the Audit of NASA's FY 2011 Financial Statements	Improvements in the effectiveness of the controls over financial reporting and the information technology control environment.
IG-12-004 11/15/11	Audit of the National Aeronautics and Space Administration's Fiscal Year 2011 Financial Statements	Improvements in NASA's ability to provide auditable financial statements and sufficient evidence to support the financial statements throughout the fiscal year and at year end.
IG-12-005 11/15/11	Audit of NASA's FY 2011 Special-Purpose Financial Statements	Improvements in NASA's ability to provide auditable special-purpose financial statements and sufficient evidence to support the financial statements throughout the fiscal year and at year end.
IG-12-010 2/16/12	Audit of NASA's Purchase and Travel Card Programs	Identified opportunities for NASA to strengthen its controls over its purchase and travel card programs, including reducing the number of self-approvers and changes to the application of card rebates.
Audit Area: Initial Review		
ML-12-001 10/12/11	Initial Review of the Hall Albright Garrison & Associates, PC, Audit Report on the NASA Exchange at George C. Marshall Space Flight Center for the Fiscal Year Ended September 30, 2010	Ensured compliance with generally accepted government auditing standards.
ML-12-002 10/31/11	Initial Review of the TGM Group, LLC, Audit Report on the NASA Wallops Exchange and Morale Association for the Fiscal Year Ended September 30, 2010	Ensured compliance with generally accepted government auditing standards.
ML-12-003 11/22/11	Desk Review of the Berry, Dunn, McNeil & Parker Audit Report on the United States Foundation for Inspiration and Recognition of Science and Technology for the Fiscal Year Ended June 30, 2010	Ensured compliance with generally accepted government auditing standards and OMB Circular A-133 requirements.
ML-12-004 12/21/11	Desk Review of the R.J. Ricciardi, Inc., CPA Audit Report on the Bay Area Environmental Research Institute for the Fiscal Year Ended December 31, 2009	Ensured compliance with generally accepted government auditing standards and OMB Circular A-133 requirements.

Table 2: Prior Audit Recommendations Yet to Be Implemented

As shown in Table 2, 53 of 120 recommendations, from 23 audit reports, remain open. Of these open recommendations, 17 are from 5 reports issued during the last semiannual reporting period. The oldest open recommendation, related to IT security, is from FY 2005.

REPORT NO./ DATE ISSUED	TITLE	DATE RESOLVED	NUMBER OF RECOMMENDATIONS		LATEST TARGET CLOSURE DATE
			OPEN	CLOSED	
NEW SINCE LAST REPORTING PERIOD					
Audit Area: Infrastructure and Facilities Management					
IG-11-024 8/4/11	NASA Infrastructure and Facilities: Assessment of Data Used to Manage Real Property Assets	8/4/2011	1	2	12/31/2011 ¹
Audit Area: Other					
IG-11-026 9/12/11	NASA's Grant Administration and Management	3/8/2012	7	2	9/30/2012
IG-11-025 9/1/11	NASA's Use of Recovery Act Funds to Repair Hurricane Damage at Johnson Space Center	9/1/2011	2	1	4/13/2012
IG-11-023 8/10/11	NASA's Payments for Academic Training and Degrees	10/27/2011	6	0	8/31/2012
Audit Area: Initial Review					
ML-11-001 5/31/11	Final Memorandum on the Initial Review of the Brooks & Associates Audit Report of the Goddard Employee Welfare Association Financial Statements for the Fiscal Year Ended September 30, 2009	5/31/2011	1	9	6/30/2012
REPORTED IN PREVIOUS SEMIANNUAL REPORTS					
Audit Area: Safety (Managing Risk)					
IG-08-025 9/19/08	[A NASA] Center's Security Program Needed Improvement	9/19/2008	4	4	9/30/2012
Audit Area: Space Operations and Exploration					
IG-11-016 3/15/11	Preparing for the Space Shuttle Program's Retirement: Review of NASA's Controls over Public Sales of Space Shuttle Property	4/5/2011	4	3	9/14/2012
IG-10-016 7/6/10	NASA's Astronaut Corps: Status of Corrective Actions Related to Health Care Activities	7/6/2010	1	1	12/31/2012

¹The OIG is reviewing management's request for closure.

Table 2: Prior Audit Recommendations Yet to Be Implemented (continued)

REPORT NO./ DATE ISSUED	TITLE	DATE RESOLVED	NUMBER OF RECOMMENDATIONS		LATEST TARGET CLOSURE DATE
			OPEN	CLOSED	
REPORTED IN PREVIOUS SEMIANNUAL REPORTS (continued)					
Audit Area: Other					
IG-10-011 3/29/10	Review of the Constellation Program's Request to Discontinue Using the Metric System of Measurement	5/3/2010	2	1	6/30/2012
IG-10-011-a 5/3/10	Addendum				
Audit Area: Acquisition and Project Management					
IG-11-012 2/17/11	Review of NASA's Acquisition of Commercial Launch Services	2/17/2011	1	0	7/31/2012
IG-10-015 6/18/10	Review of NASA's Microgravity Flight Services	6/18/2010	1	2	12/31/2012
IG-09-017 7/27/09	Opportunities to Improve the Management of the Space Flight Awareness Honoree Launch Conference Event	7/27/2009	1	0	2/29/2012 ²
Audit Area: Information Technology Security and Governance					
IG-11-017 3/28/11	Inadequate Security Practices Expose Key NASA Network to Cyber Attack	3/28/2011	3	0	6/29/2012
IG-11-009 12/7/10	Preparing for the Space Shuttle Program's Retirement: A Review of NASA's Disposition of Information Technology Equipment	1/18/2011	1	3	6/30/2012
IG-10-024 9/16/10	Review of NASA's Management and Oversight of Its Information Technology Security Program	9/16/2010	2	1	4/30/2012
IG-10-019 9/14/10	Audit of NASA's Efforts to Continuously Monitor Critical Information Technology Security Controls	9/14/2010	2	0	6/29/2012
IG-10-018-R 8/5/10	Audit of Cybersecurity Oversight of [a NASA] System (Redacted)	9/14/2010	1	14	12/15/2011 ²
IG-10-013 5/13/10	Review of the Information Technology Security of [a NASA Computer Network]	5/13/2010	2	0	6/29/2012
IG-10-013-a 7/1/10	Addendum				
IG-07-014 6/19/07	Controls over the Detection, Response, and Reporting of Network Security Incidents Needed Improvement at Four NASA Centers Reviewed	8/13/2007	1	7	12/31/2011 ¹

¹ The OIG is reviewing management's request for closure.² The OIG is working with management to determine a revised target closure date.

Table 2: Prior Audit Recommendations Yet to Be Implemented (continued)

REPORT NO./ DATE ISSUED	TITLE	DATE RESOLVED	NUMBER OF RECOMMENDATIONS		LATEST TARGET CLOSURE DATE
			OPEN	CLOSED	
REPORTED IN PREVIOUS SEMIANNUAL REPORTS (continued)					
Audit Area: Information Technology Security and Governance (continued)					
IG-05-016 5/12/05	NASA's Information Technology Vulnerability Assessment Program	5/12/2005	1	3	2/29/2012 ²
Audit Area: Other					
IG-11-004 12/13/10	Review of the Jet Propulsion Laboratory's Occupational Safety Program	1/18/2011	7	8	9/30/2012
IG-10-021 8/23/10	Final Memorandum on the Office of Inspector General's Review of the Fleet Management Program at the Jet Propulsion Laboratory	8/23/2010	1	2	7/31/2012
IG-09-003 11/13/08	Final Memorandum on the Review of NASA Stolen Property at Goddard Space Flight Center and Marshall Space Flight Center	11/13/2008	1	4	9/30/2012

²The OIG is working with management to determine a revised target closure date.

Table 3: Audits with Questioned Costs

	NUMBER OF AUDIT REPORTS	TOTAL QUESTIONED COSTS
No management decision made by beginning of period	3	\$4,816,615
Issued during period	1	\$146,253
Needing management decision during period	4	\$4,962,868
Management decision made during period		
Amounts agreed to by management	3	\$2,633,412
Amounts not agreed to by management	1	\$143,126
No management decision at end of period		
Less than 6 months old	0	0
More than 6 months old	1	\$2,186,330

Table 4: Audits with Recommendations that Funds Be Put to Better Use

	NUMBER OF AUDIT REPORTS	TOTAL FUNDS TO BE PUT TO BETTER USE
No management decision made by beginning of period	2	\$93,800,000
Issued during period	1	\$750,000
Needing management decision during period	3	\$94,550,000
Management decision made during period		
Amounts agreed to by management	1	\$32,800,000
Amounts not agreed to by management	0	n/a
No management decision at end of period		
Less than 6 months old	1	\$750,000
More than 6 months old	1	\$61,000,000

Table 5: Status of A-133* Findings and Questioned Costs Related to NASA Awards

Total audits reviewed		62
Audits with findings		43
Findings and Questioned Costs		
	NUMBER OF FINDINGS	QUESTIONED COSTS
Management decisions pending, beginning of reporting period	257	\$20,534,233
Findings added during the reporting period	39	\$4,539
Management decision made during reporting period		
Agreed to by management	(22)	(\$325,378)
Not agreed to by management	(16)	(\$1,832,669)
Management decisions pending, end of reporting period	258	\$18,380,725

* OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," requires Federal award recipients to obtain audits of their Federal awards.

Table 6: Legal Activities and Reviews

FOIA matters	21
Appeals	1
Inspector General subpoenas issued	80
Regulations reviewed	19

Table 7: Office of Investigations Activities**a. Complaint Intake Disposition**

SOURCE OF COMPLAINT	ZERO FILES ¹	ADMINISTRATIVE INVESTIGATIONS ²	MANAGEMENT REFERRALS ³	PRELIMINARY INVESTIGATIONS ⁴	TOTAL
Hotline	60	8	8	28	104
All others	54	24	3	61	142
Total	114	32	11	89	246

¹Zero files are complaints for which no action is required or that are referred to NASA management for information only or to another agency.

²Administrative investigations include non-criminal matters initiated by OI as well as hotline complaints referred to OA.

³Management referrals are complaints referred to NASA management for which a response is requested.

⁴Preliminary investigations are complaints where additional information must be obtained prior to initiating a full criminal or civil investigation.

b. Full Investigations Opened this Reporting Period

Full criminal/civil investigations [*]	16
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^{*}Full investigations evolve from preliminary investigations that result in a reasonable belief that a violation of law has taken place.

c. Cases Pending at End of Reporting Period

Preliminary investigations	93
Full criminal/civil investigations	87
Administrative investigations	38
Total	218

d. Qui Tam¹ Investigations²

Opened this reporting period	3
Pending at end of reporting period	9

¹A qui tam is a civil complaint filed by an individual on behalf of the U.S. Government under the civil False Claims Act.

²The number of qui tam investigations is a subset of the total number of investigations opened and pending.

Table 7: Office of Investigations Activities (continued)**e. Judicial Actions**

Cases referred		68
Indictments/criminal informations		20
Convictions/plea bargains		13
Sentencing		15
Civil settlements/judgments		2

f. Administrative Actions

Recommendations to NASA management for disciplinary action		22
Involving a NASA employee	12	
Involving a contractor firm	1	
Involving a contractor employee	8	
Other	1	
Administrative/disciplinary actions taken		23
Against a NASA employee	11	
Against a contractor firm	3	
Against a contractor employee	9	
Recommendations to NASA management on program improvements		4
Matters of procedure	3	
Safety issues or concerns	1	
Referrals to NASA management for review and response		9
Referrals to NASA management – information only		19
Referrals to the Office of Audits		10
Referrals to Security or other agencies		12
Suspensions or debarments from Government contracting		4
Involving an individual	2	
Involving a contractor firm	2	

g. Investigative Receivables and Recoveries

Judicial	\$4,436,219	
Administrative*	\$194,943	
Total	\$4,631,162	
Total to NASA		\$1,424,270

* Includes amounts for cost savings to NASA as a result of investigations.

Defense Contract Audit Agency Audits of NASA Contractors

The Defense Contract Audit Agency (DCAA) provides audit services to NASA on a reimbursable basis. DCAA provided the following information during this period on reports involving NASA contract activities.

DCAA Audit Reports Issued

During this period, DCAA issued 139 audit reports on contractors who do business with NASA. Corrective actions taken in response to DCAA audit report recommendations usually result from negotiations between the contractors doing business with NASA and the Government contracting officer with cognizant responsibility (e.g., the Defense Contract Management Agency and NASA). The cognizant agency responsible for administering the contract negotiates recoveries with the contractor after deciding whether to accept or reject the questioned costs and recommendations for funds to be put to better use. The following table shows the amounts of questioned costs and funds to be put to better use included in DCAA reports issued during this semiannual reporting period and the amounts that were agreed to during the reporting period.

Table 8: DCAA Audit Reports with Questioned Costs and Recommendations that Funds Be Put to Better Use; Amounts Agreed To^{1,2}

	AMOUNTS IN ISSUED REPORTS	AMOUNTS AGREED TO ³
Questioned costs	\$8,126,000	\$4,863,000
Funds to be put to better use	\$351,842,000	\$4,580,000

¹ This data is provided to the NASA OIG by DCAA and may include forward pricing proposals, operations, incurred costs, cost accounting standards, and defective pricing audits. Because of limited time between availability of management information system data and legislative reporting requirements, there is minimal opportunity for DCAA to verify the accuracy of reported data. Accordingly, submitted data is subject to change based on subsequent DCAA authentication.

² The data presented does not include statistics on audits that resulted in contracts not awarded or in which the contractor was not successful.

³ Amounts agreed to include amounts from reports issued in previous semiannual reporting periods.

Appendix C. Peer Reviews

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires OIGs to include in their semiannual reports any peer review results they provided or received during the relevant reporting period. Peer reviews are required every 3 years. In compliance with the Act, we provide the following information.

Quality Assessment Review of Investigative Operations by the Federal Deposit Insurance Corporation

During this semiannual reporting period, the Federal Deposit Insurance Corporation (FDIC) OIG conducted a review of the system of internal safeguards and management procedures for the Office of Investigations (OI). The system of internal safeguards encompasses the organizational structure and the policies and procedures established to provide an investigative organization with reasonable assurance of conformity to the Quality Standards for Investigations, September 2003, established by the Council of the Inspectors General on Integrity and Efficiency (CIGIE), and the Attorney General Guidelines for the Offices of Inspector General with Statutory Law Enforcement Authority. In performing the review, the FDIC OIG examined OI's compliance with its internal policies and procedures. The review included a sample of 62 closed investigative files for the period January 1, 2010, to December 31, 2010.

The opinion expressed by the FDIC OIG was that “the system of internal safeguards and management procedures for the investigative function of the NASA OIG in effect for the aforementioned period is in compliance with the quality standards established by the CIGIE and the Attorney General guidelines. These safeguards and procedures provided the NASA OIG reasonable assurance of conforming with the professional standards in the conduct of its investigations.”

NASA OIG has no outstanding recommendations related to this quality assessment review.

*Report on the Quality Assessment Review of the Investigative Operations of the Office of Inspector General for the National Aeronautics and Space Administration
(November 2011)*

Appendix D. Glossary and Acronyms

Glossary

Administrative Investigation. An administrative investigation is an inquiry into allegations of misconduct, wrongdoing, or administrative matters, the results of which could lead to disciplinary action.

Disallowed Cost (the IG Act of 1978 definition). A questioned cost that management, in a management decision, has sustained or agreed should not be charged to the Government.

Investigative Recoveries. Investigative recoveries are the total dollar value of (1) recoveries during the course of an investigation (before any criminal or civil prosecution); (2) court (criminal or civil) ordered fines, penalties, and restitutions; and (3) out-of-court settlements, including administrative actions resulting in non-court settlements.

Investigative Referrals. Investigative referrals are cases that require additional investigative work, civil or criminal prosecution, or disciplinary action. Those 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 to one or more of these categories.

Judicial Actions. Investigative cases referred for prosecution that are no longer under the jurisdiction of the OIG, except for cases on which further administrative investigation may be necessary. This category comprises 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. Indictments and convictions represent the number of individuals or organizations indicted or convicted (including pleas and civil judgments).

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 IG Act of 1978 definition). 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 that management concludes are necessary.

Questioned Cost (the IG Act of 1978 definition). 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.

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 Followup Official determines whether the recommended corrective action should be taken.

Recommendation that Funds Be Put to Better Use (the IG Act of 1978 definition).

A recommendation by the 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 pre-award reviews of contract or grant agreements; or (6) any other savings that 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 the accomplishment of program objectives.)

Qui Tam. Latin for “who as well.” A lawsuit brought by a whistleblower on behalf of the Government under the civil False Claims Act, where a share of recoveries can be awarded to the whistleblower.

Unsupported Cost (the IG Act of 1978 definition). An unsupported cost is a cost that is questioned by the OIG because the OIG found that, at the time of the audit, the cost was not supported by adequate documentation.

Acronyms

ACT	Alliance for Competitive Technology
AMS	Arctic Slope Regional Corporation (ASRC) Management Services
ARMD	Aerospace Research Mission Directorate
ARTS	ASRC Research and Technical Solutions
ASRC	Arctic Slope Regional Corporation
CASIS	Center for the Advancement of Science in Space
CCDev	Commercial Crew Development
CIGIE	Council of the Inspectors General on Integrity and Efficiency
CIO	Chief Information Officer
COTR	Contracting Officer Technical Representative
COTS	Commercial Orbital Transportation Services
DAIGA	Deputy Assistant Inspector General for Audits
DARPA	Defense Advanced Research Projects Agency
DCAA	Defense Contract Audit Agency
DIG	Deputy Inspector General
DNS	Domain Name System
DOJ	Department of Justice
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FDIC	Federal Deposit Insurance Corporation
FISMA	Federal Information Security Management Act
FOIA	Freedom of Information Act
FY	Fiscal Year
GAO	Government Accountability Office
IG	Inspector General
ISS	International Space Station
IT	Information Technology

ITSEC-EDW	IT Security – Enterprise Data Warehouse
JPL	Jet Propulsion Laboratory
JWST	James Webb Space Telescope
LLIS	Lessons Learned Information System
MSD	Mission Support Directorate
MAVEN	Mars Atmosphere and Volatile Evolution
NASA	National Aeronautics and Space Administration
NPR	NASA Procedural Requirements
NRA	NASA Research Announcement
NRC	National Research Council
NRL	Naval Research Laboratory
OA	Office of Audits
OCO-2	Orbiting Carbon Observatory-2
OI	Office of Investigations
OIG	Office of Inspector General
OMB	Office of Management and Budget
OMP	Office of Management and Planning
POA&M	Plan of Action and Milestones
PwC	PricewaterhouseCoopers
S&AR	Science and Aeronautics Research
SBIR	Small Business Innovation Research
SLS	Space Launch System
SOC	Security Operations Center
STTR	Small Business Technology Transfer
U.S.C.	United States Code

Appendix E. NASA OIG Offices of Audits and Investigations



NASA OIG Headquarters

300 E Street SW, Suite 8V39
Washington, DC 20546-0001
Tel: 202-358-1220

Ames Research Center

NASA Office of Inspector General
Ames Research Center
Mail Stop 11, Building N207
Moffett Field, CA 94035-1000
Tel: 650-604-2679 Audits
Tel: 650-604-3682 Investigations

Glenn Research Center

NASA Office of Inspector General
Mail Stop 14-9
Glenn Research Center
at Lewis Field
Cleveland, OH 44135-3191
Tel: 216-433-9714 Audits
Tel: 216-433-2364 Investigations

Goddard Space Flight Center

NASA Office of Inspector General
Code 190
Goddard Space Flight Center
Greenbelt, MD 20771-0001
Tel: 301-286-6443 Audits
Tel: 301-286-9316 Investigations

NASA Office of Inspector General
Office of Investigations
402 East State Street
Room 3036
Trenton, NJ 08608
Tel: 609-656-2543 or 609-656-2545

Jet Propulsion Laboratory

NASA Office of Inspector General
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109-8099

Office of Audits
Mail Stop 180-202
Tel: 818-354-3360

Office of Investigations
Mail Stop 180-203
Tel: 818-354-6630

NASA Office of Inspector General
Office of Investigations
Glenn Anderson Federal Building
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Suite 5120
Long Beach, CA 90802-4222
Tel: 562-951-5480

Johnson Space Center

NASA Office of Inspector General
Lyndon B. Johnson Space Center
2101 NASA Parkway
Houston, TX 77058-3696

Office of Audits
Mail Stop W-JS
Building 1, Room 161
Tel: 281-483-0483

Office of Investigations
Mail Stop W-JS2
Building 45, Room 514
Tel: 281-483-8427

Kennedy Space Center

NASA Office of Inspector General
Mail Stop KSC/OIG
Post Office Box 21066
Kennedy Space Center, FL 32815
Tel: 321-867-3153 Audits
Tel: 321-867-4714 Investigations

Langley Research Center

NASA Office of Inspector General
Langley Research Center
9 East Durand Street
Mail Stop 375
Hampton, VA 23681
Tel: 757-864-8562 Audits
Tel: 757-864-3263 Investigations

Marshall Space Flight Center

NASA Office of Inspector General
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35812-0001
Tel: 256-544-1149 Audits
Tel: 256-544-9188 Investigations

Stennis Space Center

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1-800-424-9183 or
TDD: 1-800-535-8134

A satellite map of Earth showing landmasses and oceans in shades of green, brown, and blue. The map is partially obscured by a dark blue gradient on the left side where the title is located.

NASA OFFICE OF Inspector General



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