SEPTEMBER 12, 2011

AUDIT REPORT

OFFICE OF AUDITS

NASA'S GRANT ADMINISTRATION AND MANAGEMENT

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

REPORT NO. IG-11-026 (ASSIGNMENT NO. A-10-009-00)

Final report released by:

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Acronyms

C.F.R.	Code of Federal Regulations
FY	Fiscal Year
GAO	Government Accountability Office
GIC	Grant Information Circular
NPR	NASA Procedural Requirements
NSSC	NASA Shared Services Center
OMB	Office of Management and Budget
SAP	Enterprise Resource Planning Software used by NASA
U.S.C.	United States Code

OVERVIEW

NASA'S GRANT ADMINISTRATION AND MANAGEMENT

The Issue

NASA makes significant and sustained investments each year to fund scientific research, scholarships, fellowships, and educational activities in support of its mission. For example, over the past 5 years NASA has awarded approximately $3 billion in grants. In fiscal year (FY) 2010 alone, NASA awarded $569.8 million in grants. Given these large sums of money, it is imperative that NASA ensure its grants are properly administered and managed.

NASA offices such as the Science Mission Directorate and Office of Education publicly issue announcements to solicit new research and development concepts in support of NASA's mission. NASA also receives unsolicited proposals that are independently developed without the Agency's assistance but that relate to NASA research objectives. Examples of solicited and unsolicited proposed activities submitted to NASA in the past include proposals for:

- developing tools to analyze data on the evolution of the planet Mercury;
- developing a telescope and data collection instruments for mapping and analyzing star formation in the Milky Way;
- developing programs and resources to educate the public on the atmosphere and climate change; and
- administering internship programs to engage students in science, technology, engineering, and mathematics.

According to NASA, it makes awards based on the best proposals given the funding available. The nature of the activities proposed dictates whether the Agency awards a grant or contract. Grants provide financial assistance to grantees to accomplish something that benefits the public and are used when the grantee independently performs the activities with minimal NASA involvement. In contrast, contracts are used to acquire specific property or services needed to accomplish a NASA mission or project for the direct benefit or use of NASA.

The Headquarters Office of Procurement is responsible for establishing overall grant policies and procedures, while the NASA Shared Services Center (NSSC) is primarily responsible for processing grant awards. NASA established the NSSC in 2006 to

consolidate selected business activities from the Centers, and processing grant awards was one of the activities transferred to the NSSC. Before 2006, grant administration was decentralized, with officials at Headquarters and each of the 10 Centers responsible for awarding and managing their respective grants. NASA officials told us that transferring grant administration responsibilities from the Centers to the NSSC allows for more consistency in the award process, tighter controls over the expenditure of funds, and an independent review of the reason for the award.

Even after the NSSC's inception, Center procurement offices retained responsibility for grants awarded prior to its establishment. This authority includes extending existing grants and managing ongoing multi-year grants, but excludes awarding grants that require a new proposal or new scope of work. Further, Centers retain the ability to award new grants to Science and Research Institutes, because these grants require close collaboration between the Institutes and the individual Centers.[1]

Our audit objectives were to determine whether NASA's grant funds are being used for their intended purposes and whether the Agency is compliant with laws, regulations, and NASA requirements in administering and managing its grant program. To accomplish our objectives, we identified the universe of grant actions NASA awarded between October 1, 2007, and March 31, 2010; the value of those grants totaled $2.4 billion. From this universe, we judgmentally selected for review eight grants with a combined value of $17.3 million (see Appendix B). Selecting a sample allowed us to examine these grants in-depth throughout the entire process: from the Agency's award, to the grantees' performance, to NASA's management of expenditures by grantees. As part of this examination, we interviewed grantees, staff at NASA Headquarters, the NSSC, Glenn Research Center (Glenn), and Goddard Space Flight Center (Goddard). In addition, we reviewed grant award documentation including technical and peer reviews, budget proposals, performance reports, and quarterly financial reporting documentation. We also visited grantees and performed substantive testing to validate whether grant funds were used for their intended purpose, to assess the sufficiency of grantee performance, and to examine NASA's management of the grants. We reviewed internal controls at all levels of the process. Details of the audit scope and methodology are in Appendix A.

Results

NASA does not have an adequate system of controls to ensure proper administration and management of its grant program. Specifically, we identified weaknesses in the announcement, administration, and oversight of Agency grants. For example, we found that NASA:

- awarded grants in lieu of contracts, contrary to Federal and NASA regulations and requirements;

[1] NASA established Science and Research Institutes in 1999 to foster greater involvement by the larger scientific community in the accomplishment of the Agency's overall science and research programs.

- awarded grants and grant supplements contrary to NASA requirements governing unsolicited proposals;
- did not provide adequate oversight of grantee performance and expenditures; and
- awarded unauthorized and unallowable grant supplements contrary to Federal and NASA regulations.

The nature of the control weaknesses identified lead us to believe our findings reflect systemic deficiencies in the administration and management of NASA's grant program (see Appendix C for a summary of the weaknesses by grant reviewed).

Oversight of the Grant Award Process. We found that grants awarded by the Centers do not receive independent oversight from the NSSC and are not otherwise subject to controls sufficient to validate the accuracy of the award instrument or appropriateness of the award. Specifically, we identified three grant supplements totaling $410,191 for which a contract would have been the more appropriate procurement instrument. Grants provide financial assistance to grantees for the independent completion of agreed-upon activities. In contrast, contracts are used to acquire property or services for the direct benefit or use of the Federal Government. For the three supplements we identified, contracts should have been used because the grantee performed personal services that otherwise would have been performed by NASA employees or contractors for the direct benefit of NASA. Because procurement contracts are subject to statutory and regulatory requirements that generally do not apply to grants, use of an incorrect procurement instrument could intentionally or inadvertently bypass competition and other legal requirements.

We also found that NASA grant officers at two Centers awarded $7.3 million in grants and grant supplements (43 percent of our sample) contrary to NASA requirements regarding unsolicited proposals. Specifically, grant officers at Goddard improperly awarded 12 grant supplements totaling $1.3 million to one grantee and a grant officer at Glenn improperly awarded $6 million for two education grants and 19 supplements to another grantee when, in both cases, proposals for the work should have been solicited from the public.

In the 20 years since the original grants were awarded to these two grantees, grant officers at Goddard and Glenn have routinely awarded related grants and grant supplements worth several million dollars to these two grantees for unsolicited proposals for work that was not new, unique, or innovative. We found that Center officials had direct involvement with the grantees prior to submission of the proposals, awarded grant supplements that were outside the scope of the original grant, and awarded grant supplements when a new grant should have been awarded. Because the two Centers did not follow NASA requirements governing unsolicited grant proposals they circumvented the competitive process and cannot be sure that they received the best value for NASA's money.

Monitoring Grantees' Performance. During the audit, we found internal control weaknesses in NASA's monitoring of grantee performance. NASA Office of Procurement officials have issued minimal requirements to ensure that once grant funds are awarded, grant officers, technical officers, and finance officials perform appropriate oversight of the grantee's financial and programmatic performance.[2] While the Science Mission Directorate and the Headquarters Office of Education have established or are in the process of establishing internal controls to monitor grantee performance, they have no requirements to perform such common grant monitoring actions as desk reviews or site visits. Further, while NASA complies with Office of Management and Budget (OMB) Circular A-133, which requires that grantees have annual audits conducted when expenditures exceed $500,000, we believe it is unwise for NASA to rely on these audits as the sole means of monitoring grantee performance or identifying unallowable costs. In addition, we found NASA's requirements concerning review of financial and program reports to be minimal at best. We believe the limited oversight currently provided by NASA officials is the reason we identified $7,031 in unauthorized or unallowable expenditures in the eight grants we reviewed (see Appendix D for details).

We also found that the NASA Grant and Cooperative Agreement Handbook (Handbook) issued by the Headquarters Office of Procurement provides that grantees may deviate from their proposed budgets without approval from NASA except when the change involves property, construction, or subcontract-related costs. In our view, this broad discretion to deviate from proposed budgets increases the risk that grantees will incur unauthorized or unallowable costs or expenditures unrelated to the purpose of the grant. For example, we found that one grantee paid employee tuition costs totaling $7,388 even though the tuition costs were not included in the budget approved by NASA.

During the course of our interviews, NASA technical officers said their reviews of grantee annual programmatic performance reports were necessarily cursory given their workload. Further, one Center grant officer equated grant funding with giving a "gift" to the grantee, which in our view means that once the funding is awarded the Agency's oversight responsibilities are minimal. Based on such comments and the minimal internal controls, policies, and procedures in place for oversight of grantees, we conclude that NASA's monitoring of grantee performance is inadequate.

Moreover, NASA's limited efforts to monitor its grant awards differs markedly from that of other Federal granting agencies. For example, the Department of Justice's Office of Justice Programs, which in FY 2010 awarded $3 billion in grants, requires annual grantee desk reviews and recommends that such reviews be conducted semiannually.[3] The Government Accountability Office (GAO) stated that Federal grant-making agencies in general need to exercise effective oversight and implement internal controls to ensure that

[2] Technical officers have experience in the proposed areas of work and evaluate the merits of the proposal.

[3] Department of Justice, Office of Inspector General, "Office of Justice Programs' Management of Its Offender Reentry Initiatives" (Audit Report 10-34, July 2010).

the goals of the grant are achieved and that funds are used for their intended purposes.[4] Specifically, in June 2011 testimony before Congress, GAO testified that grant-making agencies need effective processes for, among other things, monitoring the financial management of grants and ensuring results through performance monitoring. In our view, conducting periodic, comprehensive reviews of information reported by grantees using desk reviews or site visits could reduce the level of noncompliance with grant requirements, thereby reducing the risk of fraud, waste, or abuse in NASA's grant program.

Management Action

NASA needs to strengthen its policies, procedures, and internal controls to ensure that proper award instruments are used consistently; grants are solicited and awarded in an open and transparent fashion; supplements are not used when new grants should be awarded; and grantees do not incur unauthorized or unallowable costs. During our review, we found that Agency officials are taking steps to enhance management of NASA's grant program, as evidenced by the Headquarters Office of Procurement holding its first "Grant Boot Camp" training session in March 2011. The primary objective of this training was to discuss with NASA grant-making officials the solicitation, award, and administration of grants, including how they differ from contracts.

In keeping with our normal practice, the OIG provided a draft of this report to NASA management for review and comment. However, as of September 12, 2011, NASA had not provided an official response and therefore we are issuing the report without a management response. Technical comments received earlier from NASA have been incorporated as appropriate.

[4] GAO, "Federal Grants – Improvements Needed in Oversight and Accountability Processes" (GAO-11-773T, June 23, 2011).

CONTENTS

INTRODUCTION

Background

NASA makes significant and sustained investments each year to fund scientific research, scholarships, fellowships, and educational activities in support of its mission, often in the form of grant awards. NASA offices such as the Science Mission Directorate and Office of Education issue announcements to solicit new research and development concepts and provide opportunities for the public to contribute to NASA's mission. NASA also receives unsolicited proposals independently developed and submitted from prospective grantees for activities that NASA did not originate. Examples of solicited and unsolicited proposals previously submitted to NASA include proposals for:

- developing tools to analyze data on the evolution of the planet Mercury;
- developing a telescope and data collection instruments for mapping and analyzing star formation in the Milky Way;
- developing programs and resources to educate the public on the atmosphere and climate change; and
- administering internship programs to engage students in science, technology, engineering, and mathematics.

NASA makes awards based on the best proposals given the funding available. The type of activities to be accomplished dictates whether the Agency awards a grant or contract. Grants provide financial assistance to grantees for accomplishing tasks that benefit the public and are used when the grantee independently performs the activities with minimal NASA involvement. In contrast, contracts are used to acquire specific property or services for accomplishing a NASA mission or project for the direct benefit or use of NASA. Unlike contracts, grants are generally not subject to Federal Acquisition Regulation requirements such as specific competition requirements, the ability to submit bid protests, and a specific jurisdiction for resolving disputes.

Under the National Aeronautics and Space Act of 1958, NASA funds three types of grants:

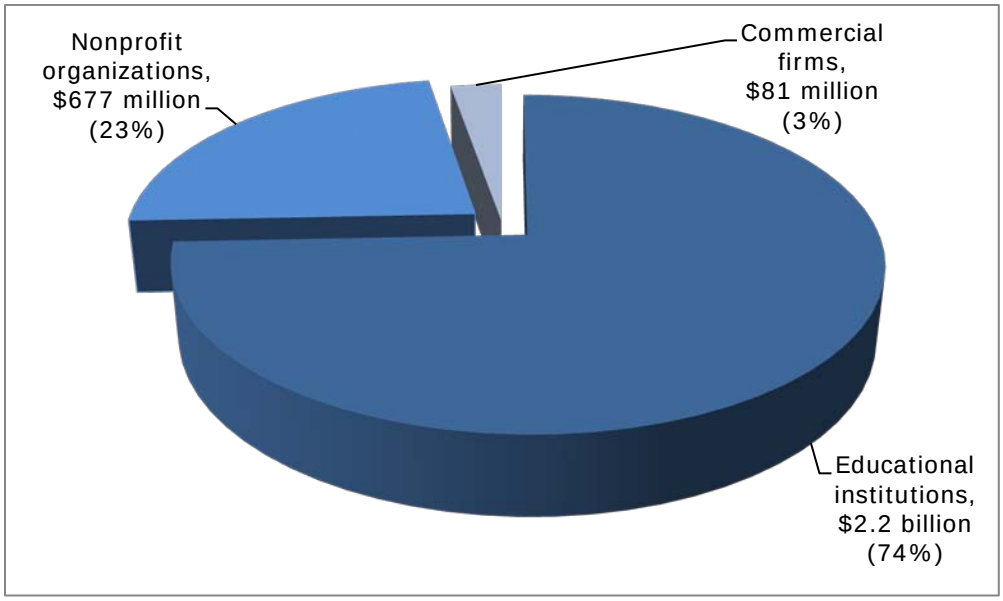
1. Research grants to facilitate research and development projects that will stimulate or support the acquisition of knowledge or understanding.

2. Education grants to fund educational activities and research performed by educational institutions or other nonprofit organizations.

3. Training grants to fund scholarships, fellowships, or stipends to teachers and/or faculty.[5]

According to NASA's Annual Procurement Report, in fiscal year (FY) 2010 NASA awarded $569.8 million in grants: $417.9 million to educational organizations; $138.7 million to nonprofit entities; and $13.2 million to commercial firms. As illustrated in the following figure, over the past 5 years NASA has awarded approximately $3 billion in grants: $2.2 billion to educational institutions; $677 million to nonprofit organizations; and $81 million to commercial firms.

NASA Grants Awarded between 2006 and 2010



Source: NASA Annual Procurement Reports

Grant Award and Management Responsibilities. The NASA Grant and Cooperative Agreement Handbook (Handbook) is the central source for all grant-related requirements.[6] The Handbook provides the policies and procedures that NASA procurement officers, technical officers, and grantees should follow in the pre-award, award, post-award, and closeout phases of grant management.[7] In addition, NASA issues Grant Information Circulars and Grant Notices to publicize regulatory changes not yet incorporated in the current version of the Handbook.

[5] NASA may also fund facility grants for the acquisition, construction, use, maintenance, and disposition of facilities but, as of May 31, 2011, had not awarded any such grants.

[6] Cooperative agreements provide financial assistance to recipients for accomplishing something that benefits the public but, unlike grants, are awarded when NASA has a substantial role in the completion of the funded activity. Cooperative agreements were not reviewed during the course of this audit.

[7] NASA Procedural Requirements (NPR) 5800.1, "Grant and Cooperative Agreement Handbook," is codified in the Code of Federal Regulations (C.F.R.) at Part 1260.

The Office of Procurement is responsible for establishing grant policies and procedures, while the NASA Shared Services Center (NSSC) is primarily responsible for processing grant awards. NASA established the NSSC in 2006 to consolidate selected business activities from the Centers and to reduce duplication of effort and overhead. The processing of grant awards was one of the procurement activities transferred to the NSSC. Before 2006, the grant-making process was decentralized, and officials at NASA Headquarters and each of the 10 Centers were responsible for awarding and managing their respective grants. NASA officials told us that transferring grant administration responsibilities from the Centers to the NSSC allows for more consistency in the award process, tighter controls over the expenditure of funds, and an independent review of the reason for the award.

However, even after the creation of the NSSC, Center procurement offices retained responsibility for grants awarded prior to its establishment. This authority includes extending existing grants and managing ongoing multi-year grants, but excludes Science and Research Institutes grants, and awarding grants that require a new proposal or involve a new scope of work.

Phases of Grant Administration. The NASA grant cycle can be categorized into four phases: pre-award, award, post-award, and closeout. Responsibility for carrying out each phase differs depending on circumstances such as whether the grant was awarded by a Center or the NSSC or whether the grantee is a Science and Research Institute (in which case the award is made by a Center and not through the NSSC). According to the NSSC Grant and Cooperative Agreement Service Delivery Guide dated January 2007, seven Centers were managing grants to 16 Science and Research Institutes.

Pre-Award. NASA may award grants based on solicited or unsolicited proposals. NASA uses Broad Agency Announcements to solicit proposals to conduct research activities related to NASA's mission or to perform a specific function, such as administering an internship or fellowship program. Educational institutions, nonprofit organizations, and private industry respond by submitting proposals describing how they will conduct the proposed activities, their competencies, and the funding that will be required to complete the proposed activities. Solicitation announcements are accessible to the public and offer the greatest opportunity for competition. Examples of Broad Agency Announcements NASA commonly issues include NASA Research Announcements or Announcements of Opportunity that result in the award of a contract, grant, or cooperative agreement. NASA also uses Graduate Student Research Program Announcements that result in training grants for graduate-level students.

NASA also receives unsolicited proposals from grantees; these proposals are independently developed and submitted for activities that NASA did not solicit. These activities are based on an individual or organization's ideas for conducting work related to NASA's mission. NASA regulations state that unsolicited proposals must be for new, unique, or innovative ideas that the proposer independently originated with limited NASA involvement.

For all solicited and unsolicited proposals, a technical officer with expertise in the proposed area of work reviews the proposal. This review evaluates the merit of the proposal in relation to NASA's mission and assesses the reasonableness of the proposal's costs. Documentation of the technical officer's review and approval of the proposal is submitted to the grant officer. The grant officer reviews the project's proposed budget for compliance with Federal and NASA requirements and uses the technical officer's recommendation to determine whether an award should be made and the appropriate type of procurement instrument to use.

Award. As noted earlier, since May 2006 the NSSC has been responsible for awarding new grants except for grants to Science and Research Institutes, which remain the responsibility of the Centers. According to the Office of Procurement, authority over these grants was not transferred to the NSSC because these types of grants require close collaboration between the Institutes and the Centers and the NSSC business model was not set up to handle this type of interaction. Center officials may request a waiver from the Office of Procurement to award other types of new grants that normally would be administered by the NSSC. However, Office of Procurement officials stated that as of April 2011 no such waivers had been approved.

Before awarding a grant, grant officers at the Centers and the NSSC ensure that all required documentation, such as the procurement, property, technical, and budgetary reviews, are contained in the grant package. Once a grant is approved, the grant officer requests the appropriate financial official to obligate either the total grant amount or an incremental amount to the grantee.

Post-Award. After a grant is awarded, the grantee is responsible for performing the agreed-upon activities and for meeting reporting requirements, including submission of quarterly and final financial reports, annual and final performance reports, annual and final inventory reports, and interim and final patent and invention reports. Technical officers monitor the grantee's performance through review of performance reports. The grantee requests funding, scope of work, and period of performance changes to the original grant by submitting a supplemental proposal. The supplemental proposal goes through the same review and approval process as outlined in the pre-award phase. Grant officers are responsible for administering additional procurement activities such as awarding supplemental grants based on the technical officer's recommendation.

For all NSSC-awarded grants, the NSSC sends grantees notice of performance report due dates, as well as notice of any late performance reports. The Centers are responsible for sending these notifications for Center-awarded grants. NASA finance officials monitor grantees' use of grant funds. NASA uses the Payment Management System maintained by the Department of Health and Human Services under which grantees draw down grant funds and submit required financial activity reports. Although NASA relies on this system to identify late financial reporting, the system does not notify grantees when their financial reports are late. NASA finance officials receive a report showing the amount of funds the grantee received and the status of the associated financial reports and, if warranted, can freeze grant funds. Centers retain responsibility for restricting access to

funds on the grants they monitor when grantees do not file required financial or performance reports in a timely manner.

NASA also requires grantee compliance with Office of Management and Budget (OMB) Circular A-133, which requires that grantees have annual audits conducted when Federal expenditures exceed $500,000. In addition, the Handbook notes that Agency officials should monitor grantee performance; however, neither the Handbook nor any other NASA guidance sets forth specific requirements for how or when grant, technical, or finance officials should conduct such monitoring. Similarly, a Grant Information Circular issued in February 2008 states that officials should exercise due diligence when reviewing grant packages during pre-award and post-award phases to ensure costs are allowable, reasonable, and necessary; however, the Circular does not provide specifics about how to accomplish this "due diligence" or who is responsible for ensuring compliance. Further, we found no NASA requirements specifically addressing oversight of grantee performance during the grant performance period.

Closeout. After the grantee completes all required activities, the NSSC and Center administratively end the grant through a formal closeout process that involves the grantee submitting final financial, performance, property, and patent and invention reports within 90 days after the period of performance has expired. NSSC and Center officials review the reports, de-obligate any unused funds, and archive the grant file documentation. According to the Handbook, the closeout process should be completed within 6 months after receipt of the grantee's final reports.

Objectives

The objectives of the audit were to determine whether NASA's grant funds are being used for their intended purpose and whether the Agency is compliant with established laws, regulations, and NASA-specific requirements when administering and managing grants. To accomplish our audit, we conducted interviews with representatives from the NASA Office of Procurement, grant officers, technical officers, and grantees. We visited NASA Headquarters, the NSSC, and two Centers to observe and document activities, processes, and internal controls related to grant solicitation, award, and closeout. We also reviewed laws, regulations, and documentation pertinent to our detailed review of eight grants with a combined value of $17.3 million. Additional details of the audit scope and methodology, internal controls, and prior audit coverage are in Appendix A; Appendix B lists the eight grants that we reviewed.

NASA'S GRANT OVERSIGHT NEEDS IMPROVEMENT

NASA does not have an adequate system of controls in place to ensure proper administration and management of its grant program. As a result, some grant funds are not being used for their intended purposes. In addition, NASA has not established adequate policy or internal controls to effectively administer and manage the grant award process, review grant expenditures, or assess grantee performance. As a result, NASA awarded $7.3 million in grants and grant supplements that did not comply with NASA requirements for unsolicited proposals. Further, we found $299,599 in unauthorized or unallowable expenditures associated with two Office of Education grants and one Science Mission Directorate grant. The nature of the control weaknesses identified lead us to believe our findings reflect systemic deficiencies in the administration and management of NASA's grant program.

Inadequate Administration and Management of NASA Grants

NASA does not have an adequate system of controls to ensure proper administration and management of its grant program. Specifically, we identified weaknesses in NASA's oversight of awards and monitoring of grantee performance and financial expenditures. See Appendix C for a summary of the weaknesses by grant reviewed.

NASA's Grant Award Process. NASA established the NSSC in 2006 to consolidate certain business activities from NASA Headquarters and the 10 Centers, including the award and administration of new grants. By transferring these responsibilities to the NSSC, NASA processes most of its grant awards from a central location to facilitate greater consistency in the award process, tighter controls over the expenditure of funds, and an independent review of the basis for awards. However, the Centers still manage grants awarded prior to establishment of the NSSC, including supplemental funding to such grants.

Of the grants reviewed during the course of our audit, we found that grants awarded by the Centers are not subject to sufficient controls to ensure use of the proper award instrument or the appropriateness of the underlying award. Specifically, we identified instances in which Center personnel awarded grants when contracts were the appropriate procurement instrument and awarded supplements as if they were based on unsolicited proposals even though the proposals were for such routine activities as administering student internships and online coursework and were not submitted independent of involvement from Center personnel. We believe that NASA needs to issue clear requirements to ensure that all grants are subject to a consistent level of review and to ensure the correct award instrument is used.

In an effort to enhance NASA's management of its grant program, in March 2011 the Office of Procurement held the first "Grant Boot Camp" training. The primary objective of this training is to review with NASA grant officers the solicitation, award, and administration of grants and discuss how grants differ from contracts. In addition, NASA issued a Grant Information Circular in May 2011 that requires all unsolicited proposals be reviewed by the NSSC. We believe this training, in conjunction with strengthened policies and procedures, will help improve the Agency's efforts to administer grant awards.

Appropriateness of Award Instrument. We identified three instances of one Center awarding a combined total of $410,191 in grant supplements when contracts would have been the proper award instrument. Because Center grant officials were able to award these grant supplements without oversight from NASA Headquarters or the NSSC, no controls were in place to independently validate their choice of award instrument.

We found that grant officers at Goddard Space Flight Center (Goddard) awarded $410,191 in three grant supplements under an existing, appropriately awarded Space Grant when, according to the Handbook, they should have issued contracts to acquire these services.[8] Specifically, for two supplements, $292,568 was funded by the Space Grant Program for the grantee to hire an individual to perform duties in NASA's Headquarters Office of Education associated with administering the National Space Grant Program – duties that typically would be performed by civil servant or contractor staff. This individual assisted NASA's Space Grant Program Office in reviewing and tracking state program budgets, proposals, and reports and provided support for selection and review panels. The third supplement totaling $117,623 was funded by Langley Research Center (Langley) under the Global Climate Change Education Program (Program) for the grantee to hire an individual to perform duties associated with administering the Program and other duties as assigned in NASA's Headquarters Office of Education – duties that typically would be performed by civil servant or contractor staff. This individual assisted in the transition of the Program's management to Langley and served as the NASA Headquarters liaison for the Program. This individual was also tasked to contribute to the development of the Office of Education Employee Handbook, including chapters on the budget cycle and releasing of Office of Education competitive solicitations.

As noted earlier, grants are supposed to provide financial assistance to grantees for the independent completion of agreed-upon grant activities, whereas contracts are the appropriate instrument to acquire property or services for the direct benefit of the Federal

[8] The congressionally mandated National Space Grant Program is intended to (1) promote science, mathematics, and technology education; (2) recruit and train underrepresented minorities and persons with disabilities; (3) encourage interdisciplinary education, research, and public service programs related to aerospace; and (4) encourage joint programs among universities, aerospace industry, and Federal, state, and local governments. The Space Grant national network includes over 850 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies organized into 52 consortia in all 50 states, the District of Columbia, and the Commonwealth of Puerto Rico. A lead institution represents each consortium. NASA announces funding opportunities within the National Space Grant Program, although only proposals from the lead institution for each consortium are accepted for consideration.

Government. Indeed, the Handbook states that a procurement contract is to be used to acquire goods or services related to a NASA mission or project for NASA's benefit while grants provide financial assistance to grantees for accomplishing a public purpose that benefits the public. Procurement contracts are subject to a variety of statutory and regulatory requirements that generally do not apply to grants, such as specific competition requirements, the ability to submit bid protests, and a different jurisdiction to resolve contract disputes. Therefore, to comply with Federal and NASA requirements, grant officials should use the appropriate funding instrument in these matters.

During our audit, representatives from the Headquarters Office of Education informed us that they were aware of the issue we identified with this grant and had worked with the Office of Procurement and the Office of General Counsel to resolve this matter. To this end, the Office of Education provided documentation supporting the resignation of the grant coordinator in May 2007 and the subsequent modification of an ongoing support services contract to provide the resources needed for the administration of the Space Grant Program. The documentation also included support to show that the grant fellow resigned in March 2010 and was hired by the support services contractor in March 2010. On May 24, 2011, NASA issued a Grant Information Circular that requires the NSSC to independently review and approve unsolicited proposals that do not exceed $550,000 prior to award.[9]

With regard to the use of Space Grant funds for the two supplements, the Space Grant Program Manager stated that using the funds to administer the Program was allowable. However, legislative history accompanying Appropriations Acts for FY 2005 and FY 2009 specifically identified that for NASA Space Grants, not more than $1,000,000 shall be retained for program administration.[10], [11] Further, the 2006 conference report set forth specific grant funding amounts, leaving $650,000 for other expenses.[12] Because the $292,568 was used for the purpose of program administration under the guise of a grantee award, we have cause for concern that the Agency may have circumvented the congressional intent for administrative costs and used grantee funds to supplement its administrative budget. We made numerous requests for supporting documentation to verify the Space Grant Program administration costs incurred by the Agency in an effort to assess this position. However, we did not receive the requested documentation.

Appropriateness of Award. We found that grant officials at Goddard and Glenn Research Center (Glenn) awarded $7.3 million in grants and grant supplements to Old

[9] NASA Grant Information Circular (GIC) 11-02, "Requirements for Non-Competitive Agency Grant and Cooperative Agreement Actions, Exclusive of those actions prescribed by 14 CFR 1260.17, Evaluation and Selection of Unsolicited Proposals," May 24, 2011.

[10] House Appropriations Committee Print for "Omnibus Appropriations Act, 2009" (Public Law 111-8), March 11, 2009.

[11] Conference Report, H. Report 108-792 for "Consolidated Appropriations Act, 2005" (Public Law 108-447), December 8, 2004.

[12] Conference Report, H. Report 109-272 for "Science, Justice, Commerce, and Related Agencies Appropriations Act, 2006" (Public Law 109-108), November 22, 2005.

Dominion University Research Foundation (Old Dominion) and the Ohio Aerospace Institute (Ohio Aerospace), respectively, based on proposals that were not in compliance with the Handbook and Guidance for the Preparation and Submission of Unsolicited Proposals (Guidance for Unsolicited Proposals).

Specifically, according to the Handbook and the Guidance for Unsolicited Proposals, such unsolicited proposals should:

- be for new, unique, or innovative ideas;
- be independently originated and developed by the proposer without significant Government supervision, endorsement, direction, or direct involvement; and
- not be an advance proposal for a known agency requirement that can be acquired by competitive methods.

Space Grant Program. We found that Goddard grant officers improperly awarded 12 supplements totaling $1.3 million to Old Dominion based on proposals that were not in compliance with this guidance. Nine of these supplements were for routine activities that were not new, unique, or innovative, and NASA representatives from Langley and Wallops Flight Facility were actively involved in developing proposals for five of the supplements. Moreover, a Goddard grant officer awarded one supplement to Old Dominion for research activities that were specifically for the benefit of the U.S. Navy; as such, these activities fell outside the scope of the original training grant so NASA should not have been involved in funding them. Finally, we found that the Goddard grant officer awarded two supplements unrelated to the original grant that should have been awarded as a new grant. Together, the supplements Goddard awarded to Old Dominion were as follows:

- Three supplements totaling $550,000 were awarded to administer the Virginia Aerospace Science and Technology Scholars program at Langley. The interns funded under these supplements worked with the state government to create awareness of the program and coordinated with the state Department of Education in recruitment and selection of students. We found an e-mail in the grant file that showed a Langley training specialist requested Old Dominion submit this proposal. NASA was actively involved with the submission of what was ostensibly a proposal, which does not comply with NASA regulations for unsolicited proposals. Additionally, we found that the administration of the Scholarship Program involved the selection of interns for an online course and summer scholarship program. Administration of a scholarship program is a routine activity and not new, unique, or innovative; therefore, awarding these grant supplements as if they were based on unsolicited proposals was inappropriate.

- Two supplements totaling $8,500 were awarded for administering an internship program at Wallops to recruit and select students to work in the Exploration

Systems Mission Directorate in areas such as spacecraft, propulsion, lunar and planetary surface systems, and ground operations. Documentation showed that the proposal was submitted in December 2008. However, e-mail correspondence between a Wallops public affairs specialist and the grantee 5 months earlier discussed the funding available as well as the terms for this award. Based on this e-mail correspondence, we determined that prior to the submission of the proposal, Wallops had already identified the two individuals who would be selected for the program. This level of involvement by NASA prior to submission of the proposal does not comply with NASA requirements for unsolicited proposals. In addition, administration of a scholarship program is a routine activity and not new, unique, or innovative; therefore, awarding these grant supplements as if they were based on unsolicited proposals was inappropriate.

- Four supplements totaling $514,000 were awarded to administer Langley's Geospatial Informational Systems internship program. The tasks involved identifying students for the internship program, providing staff to assist with research and development, working with NASA to develop and distribute a marketing and recruiting plan, and developing a website to advertise the program. Again, because management of an internship program is a routine activity and not new, unique, or innovative, awarding these grant supplements as if they were based on unsolicited proposals was inappropriate.

- The supplement involving the Navy totaled $175,000 awarded for students to determine the effects of design modifications on the airworthiness and reliability of a small, unmanned flight vehicle under development. The U.S. Navy's Naval Air Systems Command requested and funded this research activity through NASA. The Navy should have independently awarded a grant to Old Dominion for this research. Instead, the Goddard grant officer used Navy funding to award this supplement. The Space Grant should not have been used as a vehicle to transfer funds between the Navy and Old Dominion since the research activity did not involve NASA.

- Finally, we found that the Goddard grant officer awarded two supplements to the Space Grant with Old Dominion totaling $51,280 for routine travel. The supplements funded student travel to a Fundamental Aerospace Annual Meeting in Atlanta, Georgia, in 2008 and 2009. A letter in the grant file from Langley to the NASA Space Grant Program Manager showed that each year Langley requested and funded the supplements from an existing project and that the supplements were only awarded for "running project funding through" the Space Grant award. Funding travel in this manner is inappropriate. Instead, Goddard's grant officer should have competed this travel as separate procurement actions and should not have funded them as supplements to the Space Grant award with Old Dominion.

In the 20 years since the original grant award, grant officers at Goddard have awarded hundreds of thousands of dollars to Old Dominion. The technical officer used the longevity of Old Dominion's relationship with NASA as justification for awarding the supplements that were not in compliance with the requirements for unsolicited proposals. Specifically, the technical officer cited Old Dominion's 15 years of experience in the design, development, implementation, and coordination of student research programs. However, awarding these supplements as if they were based on unsolicited proposals was not consistent with NASA policy and circumvented the competitive process. Further, since NASA did not solicit competitive bids for these awards, the Agency cannot be sure that it received the best value for the money.

Internship Program. Similar to the issues we identified for the Space Grant Program, we found that since 1991 a grant officer at Glenn awarded grants annually to the Ohio Aerospace Institute (Ohio Aerospace) for administration of the Lewis Education and Research Collaborative Internship Program (Lewis Internship Program) for high school and college students. The Lewis Internship Program allows students to work with Glenn employees in fields related to their academic education. The students also attend symposiums and workshops to aid in the students' technical, professional, and academic development.

We found that contrary to requirements in the Handbook and Guidance on Unsolicited Proposals:

- Glenn officials improperly awarded $6 million for 2 education grants and 19 supplements to Ohio Aerospace. Since Glenn had a yearly need for an organization to manage its internship program, a Broad Agency Announcement should have been issued to the public to solicit applications for administration of the program. During the "Grant Boot Camp" training, NASA Headquarters Office of Procurement officials confirmed this by stating that grants can only be awarded based on unsolicited proposals for new, unique, or innovative ideas. However, once a grant is awarded for an unsolicited proposal, the idea is no longer new, unique, or innovative since it was done previously and subsequent awards must be made based on proposals solicited via a Broad Agency Announcement. Because these grants and supplements funded a long-standing Glenn internship program and were not for new, unique, or innovative ideas, we believe funding the proposals as if they were unsolicited proposals was inappropriate.

- Glenn officials also awarded seven supplements totaling $3.7 million to extend Ohio Aerospace involvement in the 2009 Lewis Internship Program through 2013. These supplements enabled Glenn to guarantee grant funds to Ohio Aerospace for an additional 4 years in a manner that denied other organizations in the area the opportunity to compete for the funding.

- Glenn officials awarded a $99,000 supplement to Ohio Aerospace to assist Kennedy Space Center with its FY 2011 internship program to fund a professor and an undergraduate student to complete a research project at Kennedy. This funding for Kennedy's internship program was outside the scope of work and period of performance of the original 2009 grant awarded to Ohio Aerospace. Therefore, the supplement was inappropriate and instead should have been awarded as a new grant.

Further, we found Glenn employees provided significant input to Ohio Aerospace prior to submission of its proposal, which is unallowable under NASA requirements for unsolicited proposals. Specifically, a Glenn Educational Programs Office employee and a grantee employee informed us that the Educational Programs Office provided Ohio Aerospace with the number of interns to include in its proposal, and Glenn developed the online internship application system. Moreover, we found that Glenn's internal request for funding was dated prior to receipt of Ohio Aerospace's proposal for the Lewis Internship Program. Glenn employees' failure to follow NASA requirements for unsolicited proposals resulted in circumvention of the competitive process. Finally, since NASA did not solicit competitive bids for these awards, the Agency cannot be sure that it received the best value for its money.

Ohio Aerospace is located directly outside one of Glenn's entrances. The Glenn Procurement Officer told us that Glenn awarded these grants and supplements to Ohio Aerospace because Glenn needed a facility in close proximity to the Center to host the workshops and symposiums that are part of the internship program. He said they hold the workshops and symposiums at the Ohio Aerospace's facilities because there is limited space available at Glenn. Additionally, he stated that Ohio Aerospace is the only organization that has an ongoing relationship with all Ohio universities, which enabled Ohio Aerospace to secure professional development workshops for program students. However, we found that other types of meetings, workshops, and symposiums are regularly held at Glenn using existing meeting and conference space. Moreover, there is no reason to believe that other organizations could not arrange for similar professional development workshops and symposiums.

Monitoring Grantee Performance and Expenditures. During our audit we identified internal control weaknesses in NASA's monitoring of grantee performance and financial expenditures. Specifically, NASA has minimal requirements in place to ensure that, once grant funds are awarded, grant officers perform adequate oversight of the grantee's financial and programmatic performance. We found that neither the Handbook nor related NASA requirements address whether the Agency should perform desk reviews or site visits to grantee locations. In fact, we found the requirements concerning review of grantee financial and programmatic performance reports minimal at best.

NASA policy does not require grant officers and technical officers to visit grantees to monitor grantee performance or expenditures. Further, Agency grant officers are not required to perform desk reviews of file documentation or grantee expenditures to

identify any negative indicators regarding a grantee's performance. Although NASA complies with OMB Circular A-133, which requires that grantees obtain annual audits when Federal expenditures exceed $500,000, we believe that NASA should not rely solely on these audits to monitor grant performance or identify unallowable costs. According to June 2011 Government Accountability Office (GAO) testimony concerning A-133 requirements, the single audit process does not facilitate the timely identification and correction of audit findings. GAO's testimony also noted that it could take years to correct significant deficiencies and material weaknesses that expose Federal funds to misuse or fraud.[13] While we see value in the single audit process, we believe that NASA policy needs to specify additional oversight requirements to assess grantee performance and expenditures of grant funds.

During the course of our review, we found examples of NASA managers who implemented mechanisms for monitoring grantee performance despite limited Agency requirements. Specifically, we found that the Science Mission Directorate maintains a tracking system to oversee the funding and performance of its grants. According to Directorate officials, this system is used to track the receipt and review of performance reports. For the Science Mission Directorate grants we reviewed, we found that this system was effective in ensuring that supplemental funding was not approved if reports were not received, but we did not find evidence that the technical officer had reviewed the grantees' performance reports. Further, a Headquarters Office of Education official informed us that a Performance Measurement System to track performance for education projects is currently under development. However, another technical officer we spoke with indicated that examination review of grantee annual performance reports essentially consisted of a cursory review. Further, a grant officer equated grant funding with giving a "gift" to the grantee, which in our view means that once the funding is awarded the Agency's oversight responsibilities are minimal. Based on such comments from Agency grant officers and the limited internal controls, policies, and oversight procedures in place, we have significant concerns about the adequacy of NASA's monitoring of grantee performance.

Although grantees submit quarterly financial and annual performance reports, we found minimal evidence that grant officers monitor the performance or expenditures of grantees. Specifically, we found little evidence that they use the reports to substantively assess grantee performance or test the validity of expenditures. We found no evidence that grant officers either perform desk reviews or conduct site visits of grantees, and officials at each of the eight grantees reviewed confirmed that NASA officials had not conducted site visits at their locations. As previously mentioned, NASA policy does not require this type of monitoring. However, we believe these oversight procedures are important to help ensure that NASA's grant funds are used judiciously and accomplish the grant's goals and objectives. Failure to adequately monitor grantee performance

[13] GAO, "Federal Grants – Improvements Needed in Oversight and Accountability Processes" (GAO-11-773T, June 23, 2011).

increases the risk that grant goals will not be met and also reduces the Agency's ability to identify fraud, waste, or abuse.

NASA's limited requirements regarding the monitoring of grant awards markedly differs from that of other Federal grant-making agencies. For example, the Department of Justice's Office of Justice Programs, which in FY 2010 awarded $3 billion in grants, requires annual desk reviews of grant awards and recommends such reviews be done semiannually.[14] A recent audit by the Department of Justice's Office of Inspector General found that grant monitoring should include communication with grantees through e-mail, mail, or by telephone to address specific grantee questions or program manager concerns regarding: (1) compliance or performance; (2) completion of desk reviews of the materials in a grantee file to determine administrative, financial, and programmatic compliance, as well as grantee performance; and (3) for selected grants, completion of site visits that include on-site monitoring at program facilities or events and in-person visits with grantees.[15] The report further identified improvements the Department of Justice had made in monitoring and oversight that included: (1) establishing a working group to review existing monitoring practices and develop standard monitoring approaches and procedures; (2) developing and enhancing grant tools such as the Grants Management System, Grant Monitoring Tool, and the Grant Assessment Tool; (3) updating oversight and monitoring procedures in the Grant Manager's Manual; and (4) making progress on revising the site visit report quality review process to improve site visit documentation and the quality of site visit reports.

Further, in congressional testimony in June 2011 regarding improvements needed for oversight of Federal grants, the GAO stressed the need for effective oversight and internal controls over the grant process to ensure that the goals of the grant are achieved and that funds are properly used for their intended purposes.[16] The GAO stated agency monitoring of grantee performance is important to ensure that grantees are meeting program and accountability requirements. The GAO testified that in its audit work, it found: (1) weaknesses in the control systems of Federal agencies awarding grants; (2) oversight issues such as improper payments to grantees; and (3) lack of documentation that limited the agency's ability to explain its decisions.

In our view, conducting periodic, comprehensive reviews of grantee information would improve NASA's ability to respond to grantee noncompliance with grant requirements. For example, we believe the limited oversight currently provided by NASA officials is the reason we identified unauthorized and unallowable costs in two of the eight grants we reviewed (see Appendix D for a table of questioned costs). Specifically, under one

[14] Department of Justice, Office of Inspector General, "Office of Justice Programs' Management of Its Offender Reentry Initiatives" (Audit Report 10-34, July 2010).

[15] Department of Justice, Office of Inspector General, "Audit of the Office of Justice Programs' Monitoring and Oversight of Recovery Act and Non-Recovery Act Grants" (Audit Report 11-19, March 2011).

[16] GAO, "Federal Grants – Improvements Needed in Oversight and Accountability Processes" (GAO-11-773T, June 23, 2011).

Office of Education grant awarded by Glenn and one Science Mission Directorate grant awarded by the NSSC, we identified the following unauthorized and unallowable costs:

- **Unauthorized Costs.** The grantee purchased a Bio Safety Cabinet totaling $6,086, which was not an authorized expense in the grant budget. Although the grantee stated that they had verbally advised the NASA technical officer that the equipment needed to be replaced, they did not obtain written authorization to do so.

- **Unallowable Costs.** Another grantee paid $945 in travel expenses for a NASA civil servant to travel on "personal" business in conjunction with a recruiting event. The employee stated that her previous supervisor had verbally approved the recruiting trip to be paid for by the grantee. However, we found no documentation to substantiate this claim. After we alerted them to the issue, Glenn managers issued a letter of collection to the grantee for the reimbursement of these funds; the grantee made such reimbursement on July 26, 2011.[17]

We also found that a grantee paid employee tuition totaling $7,388; however, the tuition cost was not included in the budget approved by NASA. The Handbook provides that grantees may deviate from their proposed budgets without approval from NASA except when the change involves property, construction, or subcontract-related costs. In our view, this broad discretion to deviate from proposed budgets increases the risk that grantees will incur unallowable costs or expenditures unrelated to the purpose of the grant.

Recommendations

Recommendation 1. The Assistant Administrator for Procurement should revise grant requirements to clearly define the criteria for evaluating an unsolicited proposal, including the requirements related to justifications for making awards based on unsolicited proposals.

Recommendation 2. The Assistant Administrator for Procurement should strengthen the competitive requirements in the Handbook regarding competing grant awards, including clearly defining (a) the role of the grant officer and technical officer and (b) when unsolicited proposals should be awarded for research, education, and training activities.

Recommendation 3. The Assistant Administrator for Procurement should expand on the newly initiated "Grant Boot Camp" training and establish a formal, recurring training program for grant officers and technical officers that, among other topics, addresses the issue of choosing the appropriate type of award instrument.

[17] On July 26, 2011, the grantee reimbursed the funds identified in the letter of collection. However, as of August 8, 2011, the funds had not been credited to NASA because of processing delays at the Department of Health and Human Services, the agency responsible for the collection, receipt, and processing of payments collected from grantees on behalf of NASA.

Recommendation 4. The Assistant Administrator for Procurement should establish internal controls, policies, and procedures to require the independent review and approval of all grants and supplements for propriety of award competition, justification, and choice of instrument prior to award.

Recommendation 5. The Assistant Administrator for Procurement should improve internal controls, policies, and procedures for performing periodic examinations of grantee expenditures such as desk reviews and site visits in order to identify unallowable and unsupported expenditures and increase the oversight necessary to ensure that grant funds are used for their intended purpose.

Recommendation 6. The Assistant Administrator for Procurement should remedy the $6,086 in unauthorized costs for the purchase of unapproved equipment.

Recommendation 7. The Assistant Administrator for Procurement should return to the Space Grant Program the $292,568 in unallowable costs for funds used for other than Space Grant purposes.

Recommendation 8. The Assistant Administrator for Procurement should revise the Handbook to require a minimum threshold for all grantee budget deviations (excluding categories already requiring approval) and that technical officers approve budget deviations in excess of such threshold prior to the expenditure of grant funds.

Recommendation 9. The Glenn Research Center Director should develop and implement a plan to ensure that future awards for the Lewis Education and Research Collaborative Internship Program and other educational programs are competitively announced and proposals are independently reviewed and approved prior to award.

In keeping with our normal practice, the OIG provided a draft of this report to NASA management for review and comment. However, as of September 12, 2011, NASA had not provided an official response and therefore we are issuing the report without a management response. Technical comments received earlier from NASA have been incorporated as appropriate.

APPENDIX A

Scope and Methodology

We performed this audit from June 2010 through August 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our audit objectives were to determine whether NASA's grant funds are being used for their intended purpose and whether the Agency is compliant with established laws, regulations, and NASA-specific requirements in its administration and management of the grants. We interviewed key personnel at NASA Headquarters, NSSC, Goddard, and Glenn involved in grant administration, management, and award processes. We identified and reviewed relevant Federal laws and regulations, NASA policies, procedures, plans, and requirements, and other criteria (a detailed list of items reviewed is provided on the following pages). The methodology we used for the review is described below.

Grant Universe and Review Period. The NASA Office of Procurement provided us with the universe of grants with actions out of the Federal Procurement Data System, with the financial portion from the Office of the Chief Financial Officer out of SAP, NASA's accounting system, for the period of October 1, 2007, through March 31, 2010.

Grant Selection. During the audit, we judgmentally selected eight grants for substantive testing. We selected open and closed grants, awarded by both NASA Centers and the NSSC that were in excess of $450,000. Research, education, and training grants were selected for comparative purposes. In addition, no cooperative agreements were selected for substantive testing during the audit, nor were facility grants because as September 2010 when we selected the grants for review, NASA had not awarded any facility grants.

Grant Award File Documentation. We reviewed grant award documentation including technical and peer review reports, budget proposals, and quarterly financial reporting documentation. We interviewed NASA grant officers and technical officers responsible for the grants examined during the audit.

Grantee Site Visits. We also performed site visits at grantee locations for the eight grants examined during the audit to interview grantee officials, to perform substantive transaction testing necessary to validate whether NASA grant funds were used for their intended purpose, and to assess the sufficiency of grantee performance and the sufficiency of NASA oversight of awarded grants.

We identified and reviewed the following criteria as applicable to our audit objectives:

Federal Laws, Regulations, Policies, and Requirements

Public Law 107-347, "Federal Information Security Management Act of 2002," December 17, 2002

2 C.F.R. Part 215, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations (OMB Circular A-110)," January 1, 2006

2 C.F.R. Part 220, "Cost Principles for Educational Institutions (OMB Circular A-21)," August 31, 2005

2 C.F.R. Part 225, "Cost Principles for State, Local and Indian Tribal Governments (OMB Circular A-87)," August 31, 2005

2 C.F.R. Part 230, "Cost Principles for Non-Profit Organizations (OMB Circular A-122)," August 31, 2005

14 C.F.R. Part 1260, "Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," January 1, 2009

31 United States Code (U.S.C.) § 6304, "Using Grant Agreements," January 5, 2009

31 U.S.C. § 6305, "Using Cooperative Agreements," January 5, 2009

OMB Circular A-133, "Audits of States, Local Governments and Non-Profit Organizations," June 27, 2003

OMB Memorandum M-10-15, "FY 2010 Reporting Instructions for the Federal Information Security Management Act and Agency Privacy Management," April 21, 2010

NASA Policies, Procedures and Circulars

NPR 2810.1A, "Chapter 4 - Contracts, Grants, and Agreements," May 16, 2006

NASA Policy Directive 5101.1E, "Requirements for Legal Review of Procurement Matters," September 15, 1997

NPR 5800.1, "Grant and Cooperative Agreement Handbook" (14 C.F.R. 1260), April 20, 2007

NPR 9680.1, "NASA's Management of Grants and Cooperative Agreements," October 31, 2008

Grant Information Circular (GIC) 01-01, "Guidance on Property Administration Requirements for Special Purpose and General Purpose Equipment," March 29, 2001

GIC 03-01, "Accelerated Schedule for Property Reporting," September 4, 2003

GIC 05-03, "Additional Guidance Related to the Processing of Unsolicited Proposals, Successor Proposals and Congressional Interest Items (Earmarks)," April 7, 2005

GIC 05-04, "Peer Review Documentation," October 17, 2005

GIC 06-02, "Personal Identity Verification of Grantees and Recipients," September 22, 2006

GIC 07-02, "Scientific and Technical Information," April 5, 2007

GIC 08-01, "Ensuring Only Allowable, Reasonable, and Necessary Costs in the Award of Grants and Cooperative Agreements," February 14, 2008

GIC 09-01, "Class Deviation to Remove the United States Citizenship Requirement for Students and Faculty Receiving Direct Support under Education and Training Grants," July 16, 2009

GIC 09-04, "Substitution of Standard Form (SF) 425 for Standard Form (SF) 272: Class Deviation from the Requirements at C.F.R. 1260.26 and Exhibits D & G of 14 C.F.R. Part 1260," October 27, 2009

GIC 11-02, "Requirements for Non-Competitive Agency Grant and Cooperative Agreement Actions, Exclusive of those actions prescribed by 14 CFR 1260.17, Evaluation and Selection of Unsolicited Proposals," May 24, 2011

"Guidance for the Preparation and Submission of Unsolicited Proposals," revised February 10, 2000

Use of Computer-Processed Data. We used computer-processed data to determine our NASA grants universe. However, we initially found discrepancies in the computer-processed data concerning the actual number of grants reported between Federal Procurement Data System and SAP, the information systems used to develop the NASA grants universe used in the audit. We brought the discrepancies to the Office of Procurement's attention and worked closely with Agency officials to identify and determine the cause of the discrepancies. As a result, we were able to identify and reconcile the discrepancies and identify a usable universe.

Review of Internal Controls

We reviewed internal controls for NASA's grant administration and management processes related to the solicitation, pre-award, award, and closeout of grants, including the oversight of NASA grantees and their progress in meeting established grant award requirements. The control weaknesses we identified are discussed in this report. Our recommendations, if implemented, will correct the identified control weaknesses.

Prior Coverage

During the last 5 years, NASA and the GAO have issued the following reports and testimony that are of particular relevance to the subject of this report. Unrestricted reports can be accessed over the Internet at http://oig.nasa.gov/audits/reports/FY11/ (NASA OIG) and http://www.gao.gov (GAO).

NASA Office of Inspector General

"Audit of NASA Education and Training Grants" (IG-07-029, September 18, 2007)

"Audit of NASA's Management and Funding of Fiscal Year 2006 Congressional Earmarks" (IG-07-028, August 9, 2007)

Government Accountability Office

"Federal Grants – Improvements Needed in Oversight and Accountability Processes" (GAO-11-773T, June 23, 2011)

"Grants Management – Grantees' Concerns with Efforts to Streamline and Simplify Processes" (GAO-06-566, July 2006)

GRANTS REVIEWED DURING THE AUDIT

Grant Number	Grantee	Grant Type	Responsible NASA Center	Total
NNC07ZA03G	Ohio Aerospace Institute	Education	Glenn	$984,807
NNC09ZA01G	Ohio Aerospace Institute	Education	Glenn	$4,966,377
NNG05GF89H	Old Dominion University Research Foundation	Training	Goddard	$5,451,164
NNX07AR77G	Case Western Reserve University	Research	NSSC	$560,009
NNX09AB74G	Carnegie Institution of Washington	Research	NSSC	$1,985,641
NNX08AJ82G	Johns Hopkins University-Applied Physics Laboratory	Research	NSSC	$1,709,893
NNX09AL39G	Science Museum of Minnesota	Education	NSSC	$758,686
NNX08AP05G	Adler Planetarium and Astronomy Museum	Education	NSSC	$903,879
Total				**$17,320,456**

GRANT OBJECTIVES AND ISSUES IDENTIFIED

Grant Number	Grantee	Grant Objectives	Issues Found
NNC07ZA03G	Ohio Aerospace Institute	Administer Glenn's summer internship program for college and high school students	Limited oversight after grant award
NNC09ZA01G	Ohio Aerospace Institute	Administer Glenn's summer internship program for college and high school students	Unallowable costs; circumvention of required grant award process; limited oversight after grant award
NNG05GF89H	Old Dominion University Research Foundation	Space Grant Program to broaden the base of aerospace research, enhancing aerospace education and conducting public service functions	Unallowable costs; circumvention of required grant award process; limited oversight after grant award
NNX07AR77G	Case Western Reserve University	Provide operational assistance and expertise in geophysical datasets	No issues identified
NNX09AB74G	Carnegie Institution of Washington	Accomplish science and technology activities to address questions about the Mars sample return	Unauthorized costs; limited oversight after grant award
NNX08AJ82G	Johns Hopkins University-Applied Physics Laboratory	Understand the life cycle of the Interstellar Medium	No issues reported
NNX09AL39G	Science Museum of Minnesota	Establish a program to educate the public on climate change issues	No issues reported
NNX08AP05G	Adler Planetarium and Astronomy Museum	Development of two exhibits (Planet Explorers and Deep Space Adventure)	No issues reported

TABLE OF QUESTIONED COSTS

Questioned Costs*	Amount	Page
Unauthorized Costs		
Unauthorized purchase of a Bio Safety Cabinet	$ 6,086	14
Unallowable Costs		
Grant fellows hired to perform daily administrative tasks	292,568	7
Travel expenses for NASA civil servant to travel on "personal" business in conjunction with a recruiting event**	945	14
Total	**$299,599**	

* Questioned Costs are expenditures that are questioned by the Office of Inspector General because of an alleged violation of legal, regulatory, or contractual requirements, are not supported by adequate documentation at the time of the audit, or are unauthorized or unallowable.

**The $945 in travel expenses associated with this issue was reimbursed by the grantee on July 26, 2011. However, as of August 8, 2011, the funds had not been credited to NASA because of processing delays at the Department of Health and Human Services, the agency responsible for the collection, receipt, and processing of payments collected from grantees on behalf of NASA.

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SEPTEMBER 12, 2011

REPORT No. IG-11-026

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