

**IG-02-017**

**AUDIT  
REPORT**

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**MANAGEMENT OF RESEARCH GRANTS AND  
COOPERATIVE AGREEMENTS**

**June 4, 2002**

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National Aeronautics and  
Space Administration

**OFFICE OF INSPECTOR GENERAL**

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## **Acronyms**

CFO	Chief Financial Officer
FMM	Financial Management Manual
NPG	NASA Procedures and Guidelines
SF	Standard Form

June 4, 2002

W

TO: Distribution

FROM: HQ/W/Assistant Inspector General for Audits

SUBJECT: Final Report on Management of Research Grants and  
Cooperative Agreements  
Assignment Number A-00-042-00  
Report Number IG-02-017

Enclosed please find the subject final report. Please refer to the Executive Summary for the overall audit results. Our evaluation of your response has been incorporated into the body of the report. We consider management's proposed, corrective actions responsive for all the recommendations. The recommendations will remain open for reporting purposes until corrective actions are completed. Please notify us when actions have been completed on the recommendations, including the extent of testing performed to ensure corrective actions are effective. The final report distribution is in Appendix E.

We appreciate the courtesies extended to the audit staff. If you have questions concerning the report, please contact Mr. Chester A. Sipsock, Program Director, Financial Audits, Management and Oversight, at (216) 433-8960, or Lynette A. Westfall, Audit-in-Charge, at (216) 433-8964.

Alan J. Lamoreaux

Enclosure

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# NASA Office of Inspector General

IG-02-017  
A-00-042-00

June 4, 2002

## Management of Research Grants and Cooperative Agreements

### Executive Summary

**Background.** In carrying out its scientific mission, NASA awards grants<sup>1</sup> and cooperative agreements,<sup>2</sup> hereafter collectively referred to as grants, to universities and non-profit entities for funding basic and applied research.<sup>3</sup> One of NASA's goals is to select and award research in a manner that ensures both broad participation and a high degree of quality.<sup>4</sup> NASA promotes this goal primarily through a process that combines full and open competition<sup>5</sup> and peer reviews.<sup>6</sup>

Under the auspices of a university or a non-profit entity, researchers submit solicited proposals<sup>7</sup> to NASA in response to the broad announcements for research proposals. NASA is required to perform peer reviews for the solicited proposals and competitively awards grants for those proposals.<sup>8</sup> In some cases, researchers submit unsolicited

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<sup>1</sup>NASA Procedures and Guidelines (NPG) 5800.1, "Grant and Cooperative Agreement Handbook," (hereafter referred to as the Grant Handbook) states that a research grant shall be used to accomplish a NASA objective through stimulating the acquisition of knowledge of the subject under study or attempting to determine the potential of scientific discoveries or improvements in technology, materials, processes, methods, devices, or techniques and advance the state of the art. The grantee will generally conduct the research without assistance from NASA and will provide a final product, usually a report.

<sup>2</sup>The Grant Handbook states that a cooperative agreement shall be used when the principal purpose is to transfer something of value to the grantee to accomplish a public purpose of support or stimulation authorized by Federal statute, where substantial involvement is anticipated between NASA and the grantee.

<sup>3</sup>NASA conducts research in Earth science, space science, life and microgravity sciences and applications, and aeronautics and space transportation technology.

<sup>4</sup>The results of this research can become the impetus for change in Federal policies, regulations, and programs. Thus, the Congress and the public rely on Federal agencies to fund and conduct research that produces high-quality results.

<sup>5</sup>Federal Acquisition Regulation, Subchapter B, Part 6, states that under full and open competition all responsible sources are permitted to compete.

<sup>6</sup>One or more qualified members of the scientific and technical community, who are independent from the research proposal, objectively reviews the proposals to ensure the merit, quality, and integrity of proposed research.

<sup>7</sup>A solicited proposal is a written proposal submitted by researchers in response to NASA's formal or informal announcement or solicitation for research.

<sup>8</sup>The NASA Office of Inspector General is conducting an inspection, G-02-010, entitled, "Review of JPL [Jet Propulsion Laboratory] Peer Review Evaluation Process." The objective of this inspection is to determine whether the JPL peer review process is consistent with NASA and other Government peer review standards for scientific research and development programs.

proposals<sup>9</sup> for research that is not in response to a specific announcement. A grant resulting from an unsolicited proposal is not competitively awarded. NASA evaluates unsolicited proposals by performing either a peer review or a technical/merit review.<sup>10</sup> A technical/merit review, however, may lack the objectivity and fairness that are the trademarks of the peer review process<sup>11</sup> and may not provide the same level of assurance that the research is the highest quality and best choice compared to other research being considered.

At the end of fiscal year 2000, NASA had 7,961 active grants valued at about \$4.8 billion. The three Centers<sup>12</sup> included in our audit accounted for 76 percent or 6,065 of the active grants and 73 percent or about \$3.5 billion (as of September 30, 2000) of the total dollar value.

**Objectives.** The audit objectives were to determine whether NASA appropriately performed peer reviews before awarding research grants and cooperative agreements and complied with key requirements for the solicitation, award, and financial management of research grants and cooperative agreements. Appendix A contains the details on the audit objectives, scope, and methodology.

**Results of Audit.** NASA appropriately performed peer reviews on 100 percent of the solicited proposals for the sampled grants prior to award as required by NASA policy.<sup>13</sup> However, NASA does not similarly require a peer review for unsolicited proposals for grants prior to award. Thus, while 25 (61 percent) of the 41 unsolicited proposals that we sampled were peer reviewed before being awarded, the remaining 16 (39 percent) received only technical/merit reviews. Using peer reviews Agencywide for all research proposals would help ensure that unsolicited research proposals are awarded objectively and fairly (see Finding A).

Generally, NASA complied with the key requirements for the solicitation and award of grants. However, NASA should improve controls for documenting (1) in the grant files that a peer review was performed and (2) that the grantees were in compliance with civil rights requirements.<sup>14</sup> Without proper documentation, the grant files do not provide a

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<sup>9</sup>An unsolicited proposal is a written proposal submitted by researchers to NASA for the purpose of supporting research and is not in response to a formal Agency announcement to solicit research proposals.

<sup>10</sup>Usually one person within the program office that has the most knowledge of the proposed research performs a review of the feasibility of the proposed work and the applicability to Agency goals and costs. The reviewer usually serves as the technical monitor if the proposal is awarded.

<sup>11</sup>The goals of a peer review are to: determine the quality, relevance, and value of the proposed work; identify research work most likely to succeed; investigate relative merits of similar work proposed by competing groups; and demonstrate that the Agency achieves balance and fairness in making its scientific and technical decisions by involving the scientific community in the selection process.

<sup>12</sup>We performed work at three NASA Centers – the John H. Glenn Research Center at Lewis Field (Glenn), Goddard Space Flight Center (Goddard), and George C. Marshall Space Flight Center (Marshall).

<sup>13</sup>NASA performed peer reviews on 83 solicited and 25 unsolicited proposals we sampled.

<sup>14</sup>Grantees are required to annually certify that they are in compliance with Federal civil rights statutes. The civil rights requirements protect constitutional rights in public facilities and public education and

reasonable justification for the grant award and NASA cannot ensure that awards are in compliance with Federal civil rights requirements (see Finding B).

In the past, NASA had experienced problems in receiving grantee financial reports in a timely manner.<sup>15</sup> This problem continues; 79 (89 percent) of 89 sampled grantees<sup>16</sup> that were required to submit financial reports experienced some type of reporting problem. NASA should have suspended advance funding for 52 (58 percent) sampled grantees in accordance with Agency policy; however, NASA suspended advance funding for only 5 of the grantees. Without timely financial information from the grantee, NASA does not have reliable information for decisionmaking and cannot accurately record financial data in a timely manner (see Finding C).

**Recommendations.** NASA should obtain peer reviews for all unsolicited proposals prior to award, unless the Chief Scientist approves a written waiver in advance of award. NASA should also make its existing policies on documentation of the grant files more specific and consistent with Federal and NASA requirements on maintaining peer review documentation in the grant file. Marshall and Glenn should establish a process to ensure compliance with civil rights requirements. Lastly, NASA should improve the timeliness of the grantees' financial reporting and revise the Grant Handbook to reflect the Financial Management Manual (FMM) requirements.

**Management's Response.** NASA concurred with the recommendations to implement and document a process at Marshall and Glenn for ensuring civil rights compliance and improve the timely receipt of grantee's financial reporting. Although NASA agreed to revise NASA policy to require that all solicited and unsolicited proposals be peer reviewed, management reserved the right to coordinate its actions with the newly appointed Chief Scientist, who has not yet reviewed the issues. NASA agreed that the grant file should clearly show that a peer review was performed and agreed to review and revise applicable guidance to ensure a common policy throughout NASA. Finally, NASA concurred with the recommendation that the Grant Handbook and the FMM should be consistent in addressing the remedial actions for late grantee reporting. However, rather than revise the Grant Handbook to reflect the existing FMM policy, management agreed instead to conduct a detailed review of the Grant Handbook and the FMM policy to determine how these two documents should best be made consistent.

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prohibit discrimination in the private and Federal workplace on the basis of race, color, national origin, age, sex, religion, or handicap.

<sup>15</sup>Appendix C provides details of prior reports on this problem area.

<sup>16</sup>NASA requires that a grantee submit only one financial report for all active grants. Within our sample, NASA awarded 124 grants to 89 different grantees.



**Evaluation of Management's Response.** We consider NASA's comments and planned actions responsive to resolve each recommendation. If the peer review documentation will be maintained outside the grant file, the grant file should clearly indicate whether a peer review was performed and provide a cross-reference to where that documentation can be located within the Agency. In relation to late grantee financial reporting, we request that management provide the Office of Inspector General with the results of its analysis of the Grant Handbook and the FMM policy in making a final determination on the consistency issue related to these two documents.

## **Introduction**

To help ensure the quality and integrity of research, the science community traditionally has relied on independent reviews of research proposals by peers. Peer reviews consist of an evaluation by one or more persons who are members of the scientific and technical community and are considered qualified to provide an independent, objective assessment of the merits of the proposed work. Peer reviewers provide their individual evaluations and comments to NASA, which develops an overall rating that it uses in determining which research will be funded. The goals of a peer review are to: determine the quality, relevance, and value of the proposed work; identify research work most likely to succeed; investigate relative merits of similar work proposed by competing groups; and demonstrate that the Agency achieves balance and fairness in making its scientific and technical decisions by involving the scientific community in the selection process.

Unsolicited proposals are subject to either a peer review or a technical/merit review. An individual within the technical office responsible for the work performs the technical/merit review. The technical/merit review usually assesses the feasibility of the proposed work and the applicability to Agency goals and costs. Such reviews, however, may lack the objectivity and fairness that are the trademark of the peer review process and may not provide the same level of assurance that the research is the highest quality and best choice compared to other research being considered.

After the NASA technical or program office selects the grantee, the Center's grants office, within the procurement office, awards and administers the grant and maintains the grant file, and the technical office monitors progress. The Agency requires grantees to submit financial reports to the Center's Financial Management Office, which uses the data to monitor the grantee's financial transactions, process payments, and update NASA accounting and financial records.

## Findings and Recommendations

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### **Finding A. Use of Peer Reviews in Awarding Unsolicited Research Grants**

NASA did not always perform peer reviews on unsolicited proposals for research grants because NASA did not have a requirement that all unsolicited proposals be peer reviewed prior to awarding grants. For example, 16 (39 percent) of the 41 unsolicited proposals we reviewed had not been peer reviewed. By formalizing the peer review requirement for unsolicited proposals Agencywide, NASA would help ensure the objectivity and fairness associated with the peer review process when evaluating unsolicited research proposals.

#### *Peer Reviews of Research Proposals*

NASA policy on peer review is in the “Science in Air and Space: NASA’s Science Policy Guide.”<sup>17</sup> The NASA Science Policy Guide defines a peer review as an evaluation by persons independent from the work, within and outside NASA, who are members of the scientific and technical community and are considered qualified to provide an independent, objective assessment of the merits of the research being proposed. NASA’s “Guidance for the Preparation and Submission of Unsolicited Proposals” states that some proposals are reviewed entirely in-house, others are evaluated by a combination of in-house personnel and selected external reviewers, while still others are subject to a full external peer review either by mail or through assembled panels. In addition, the Grant Handbook, section 1260.11, states that technical evaluation of proposals will be conducted by the technical/program office and may be based on peer reviews.<sup>18</sup>

The importance that NASA places on competitively awarding and peer reviewing grants is emphasized by the performance target<sup>19</sup> that NASA has included in its annual Performance Plan to the Congress for 1999, 2000, and 2001. The target requires the Office of Space Science, Office of Biological and Physical Research, and Office of Earth Science, three of the Agency’s five Enterprises,<sup>20</sup> to competitively award 80 percent or

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<sup>17</sup>NASA’s Chief Scientist issued the Guide in July 1996.

<sup>18</sup>The White House Office of Science and Technology Policy has directed agencies to “. . . Significantly enhance the utilization of merit review with peer evaluation and competitive selection in Federal R&D [Research and Development] projects.”

<sup>19</sup>Performance target is the term NASA uses in the Performance Plan for those measures or metrics that were established to accomplish (and measure) the individual goals and objectives. Target, as used in this report, generally equates to the terms “measure” or “indicator” as used in the Government Performance and Results Act.

<sup>20</sup>NASA established five strategic Enterprises to function as primary business areas for implementing NASA’s mission and serving its customers. The other two Enterprises are the Office of Space Flight and Office of Aerospace Technology.

more of the research dollars based on peer reviews.<sup>21</sup> However, the target does not include other offices such as the Office of Space Flight and the Office of Aerospace Technology, which also award research grants.

NASA does not have Agencywide requirements that address the peer review of unsolicited proposals. However, at least three Enterprises have recognized the importance of performing peer reviews for unsolicited research proposals. For example, the Office of Earth Science has a written policy that requires a peer review of all proposed research, solicited and unsolicited. Also, the NASA Chief Scientist stated that the Office of Biological and Physical Research and the Office of Space Science have adopted informal policies requiring that all research proposals, both solicited and unsolicited, be subjected to a peer review.

### ***Status of Peer Reviews***

To evaluate the extent to which peer reviews were performed, we reviewed 124 research grants from the 4,970<sup>22</sup> total active grants categorized as research at Goddard, Marshall, and Glenn (see Appendix A). Our analysis showed that 83 (67 percent) of the 124 research grants were based on solicited proposals and were peer reviewed as required by NASA policy. Of the 41 unsolicited proposals awarded, 16 (39 percent) were not peer reviewed (see Appendix B). Further, 7 (44 percent) of the 16 grants were awarded by 2 Enterprises that had internal requirements to peer review all unsolicited proposals.

All 16 unsolicited proposals received a technical/merit review by internal NASA personnel within the responsible program office. In most cases, someone within the selecting office who worked with the subject matter covered by the proposal performed the technical/merit reviews. While this familiarity with the subject matter is beneficial, the fact that the reviewer can also serve as the technical monitor<sup>23</sup> or be involved in the grant work can create the appearance of an organizational conflict of interest or can create an appearance of preferential treatment in awarding the grant. To improve the selection process for unsolicited proposals, we believe that peer reviews should be performed whenever possible.

### ***Factors Limiting Peer Reviews***

The primary reason for the lack of peer reviews for the 16 unsolicited proposals was that NASA has no Agencywide requirement that such proposals receive peer reviews prior to award. Lacking this requirement, some NASA Enterprises chose not to perform peer reviews. For example, eight proposals not peer reviewed involved the Office of Aerospace Technology, and one proposal involved the Office of Space Flight. Neither

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<sup>21</sup>Under the Government Performance and Results Act, NASA must have an annual performance plan containing planned performance objectives and targets to achieve its strategic goals and mission. NASA's Performance Report for 1999 and 2000 showed that this target was met. However, we did not evaluate the target or the reported performance for those fiscal years to validate that NASA met the target.

<sup>22</sup>This was the number of active grants as of March 30, 2000.

<sup>23</sup>A technical monitor reviews the technical requirements and progress of the grant.

Enterprise had a formal policy to peer review unsolicited research proposals. Six proposals involved the Office of Earth Science, which had a written policy requiring that peer reviews be performed for all unsolicited proposals. However, the required peer reviews were not performed because the Goddard program personnel administering the grants either were not aware of the Enterprise's internal requirement or decided that a peer review did not apply to the particular proposal. Finally, one proposal not peer reviewed involved the Office of Space Science, which had an informal policy to peer review all unsolicited proposals.

NASA's Chief Scientist stated that peer reviews should be more broadly applied throughout NASA, not only to science areas but also to technology and applications research. The Chief Scientist plans to revise the Science Policy to more broadly implement peer reviews. We support and encourage such action because it is in NASA's best interests to peer review all solicited and unsolicited proposals.

### ***Conclusion***

Although NASA appropriately peer reviewed all solicited grant proposals, it did not require that all unsolicited proposals be peer reviewed. To help ensure objectivity and fairness in the grants process, NASA should revise its current policy to require peer reviews of all grant proposals, both solicited and unsolicited.

### **Recommendation for Corrective Action**

- 1. The NASA Chief Scientist should revise the NASA Science Policy Guide to require that all solicited and unsolicited research proposals be peer reviewed prior to award, unless a written justification or waiver is approved by the Chief Scientist.**

**Management's Response.** Partially concur. The NASA Chief Scientist will revise the NASA Science Policy Guide in regard to the use of peer reviews for both solicited and unsolicited research proposals. It is anticipated that the revision to the Guide will reference potential exceptions, such as the types of proposals for which peer review is generally not considered appropriate. The revision will also delineate a waiver process, including delegation of waiver responsibilities. The estimated date for completion of this revision is March 31, 2003. In light of NASA's recent appointment for the position of Chief Scientist, NASA's response is conditional upon the new Chief Scientist's review of the issues.

**Evaluation of Management's Response.** Management's planned actions are responsive to the recommendation. An Agencywide policy should mandate peer reviews to evaluate all grant proposals, no matter which NASA office or Center awards the grant. Additionally, the policy should clearly state the criteria for a waiver accomplished in advance and ensure that waivers are the limited exception to the policy. The recommendation is resolved but will remain undispositioned and open until the corrective actions are completed.

## **Finding B. Documenting Peer Review and Civil Rights Requirements**

Grant files did not contain sufficient information necessary to independently verify that grants were peer reviewed. For example, none of the grant files for 108 sampled grants that were peer reviewed had adequate documentation to describe the peer review process used and the results. Although we selectively verified that the program office files contained peer review documentation, this documentation was not included in the grant files. In addition, the Glenn and Marshall financial management offices have no documented assurance of civil rights compliance<sup>24</sup> for 13 (37 percent) of 35 grants sampled. These conditions occurred because the Grant Handbook did not specify peer review documentation required by the grant officer, and the Centers did not have a process to ensure implementation of Grant Handbook requirements. Without proper documentation, the grant files do not justify the grant awards and do not ensure that awards are in compliance with Federal civil rights requirements.

### **Peer Review Documentation**

***Documentation Requirements.*** Two NASA policies address documenting peer reviews, the Grant Handbook and NASA Procedures and Guidelines (NPG) 1441.1C, “NASA Records Retention Schedule 7, Program Formulation Records.” Grant officers follow policy in the Grant Handbook to process grants. Section 1260.11 of the Handbook requires the program office’s selecting official to furnish any peer review information requested by the grant officer for grants that are competitively selected and awarded. The Handbook, however, does not specify the documentation that should be obtained for the grant file. For grants that are noncompetitively selected, the Handbook also requires the selecting official to provide a written “Justification for Acceptance of an Unsolicited Proposal” for the grant officer’s review and approval. However, the Handbook does not address how the completed peer review should be described in the written justification or the specific peer review documentation that should support the grant selection.

NPG 1441.1C describes maintaining records for storage. The NPG specifies the documents and records that should be maintained, by whom, and where, and the retention period. Section 7 of the NPG covers research and peer review records and requires that internal and external peer review reports and accepted proposal evaluations be filed in the related grant file. However, the policy does not describe a peer review report, and we did not find such a report in the program office’s peer review files or in the grant office files that we reviewed.

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<sup>24</sup>The grantees can submit NASA Form 1206, “Assurance of Compliance with the National Aeronautics and Space Administration Regulations Pursuant to Nondiscrimination in Federally Assisted Programs,” as documentation of compliance with the civil rights requirements.

Because NASA's guidance was not specific, we established the following as criteria in performing our review to represent the types of documentation needed, at a minimum, to adequately describe the peer review process:

- Information (such as names, titles, and organizations and signed statements of non-conflict of interest) to show that the peer review panel was qualified and independent.
- Information on each reviewer's rating/evaluation of the proposal's technical merit and potential to succeed. Individual ratings should support that the overall rating/evaluation was reasonable and consistent.
- A copy of the final, overall rating/evaluation supporting the selection including a statement that justifies the rating.

***Status of Grant File Documentation.*** None of the grant files for the 108 sampled grants that were peer reviewed contained the peer review documentation required by NPG 1441.1C or the type of documentation we considered adequate support for the award. Some grant files for grants that were peer reviewed did not contain any documentation of the review. Other grant files contained documentation that only referenced that peer reviews were accomplished. For example, we found award letters to the grantees stating that the proposal was peer reviewed and selected to be funded by NASA. Still other files contained a brief peer review summary that indicated the overall peer review numerical rating and concluded that the proposal should be funded. This information and other documentation in the grant file did not provide enough detail to provide an understanding of how the peer review was done and to verify that it was an adequate basis for selecting and funding the grant. We selectively verified that the program office files contained peer review documentation; however, this documentation was not included in the grant files.

***Reasons for Documentation Problems.*** The primary reason the grant files did not have adequate peer review documentation is that the Grant Handbook does not contain clear guidance on the specific peer review documentation that should be in the grant file. Also, the Handbook does not explain why it is important to have peer review documentation in the grant file and how it should be used. Finally, the Handbook does not reference NPG 1441.1C requirements related to retention of grant files and peer review documentation.

***Need for Good Documentation.*** The lack of clear guidance in the Grant Handbook and the incomplete peer review documentation in the grant files prevent them from being used and relied on as the official source of support and justification for the award. Reviewers of the grant files cannot reasonably determine whether peer reviews were performed or the adequacy of the review and the award decision. We believe the grant file should serve not only as the source of information for administering the grant but also as the official source of information relating to proposal review and grant selection.

## **Civil Rights Certification**

Glenn and Marshall did not have documented assurance of civil rights compliance for the grants that we sampled. For example, neither the grant files nor the grants offices had a valid civil rights certification<sup>25</sup> for 9 (45 percent) of the 20 grants we reviewed at Glenn and for 4 (27 percent) of the 15<sup>26</sup> grants at Marshall. Because the two Centers did not have a process in place to ensure compliance with Federal and NASA civil rights requirements, Glenn and Marshall may not be in compliance with those requirements.

***Federal and Agency Requirements.*** As a condition of receiving NASA funding, grantees must certify in writing that they meet several Federal requirements, one of which is compliance with civil rights and related laws. Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975 require that grantees involved in Federal assistance programs should not discriminate. NASA implemented these Federal regulations in Title 14 of the Code of Federal Regulations, parts 1250 through 1253. Title 14 requires that (1) no person shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving NASA financial assistance; (2) NASA officials shall specify the form of assurances required; and (3) NASA officials shall specify and designate the type of civil rights information that the grantee is to maintain and submit to NASA. In addition, the Grant Handbook, section 1260.10, requires the grant officer to ensure that documentation on all necessary certifications has been obtained prior to awarding a grant and that the grantee submit an annual certification showing compliance with the civil rights regulations.

***Best Practice.*** Goddard grant files had civil rights certifications for all the grants we reviewed. The Goddard grants office implemented a process to obtain, review, verify, and centrally maintain the civil rights certifications.

The Goddard process requires the grant officer to:

- send notification letters to the grantees to submit the annual certification,
- file the annual certifications in a central location,
- verify that an updated civil rights certification is on file before awarding a grant, and
- complete and file a checklist that indicates the civil rights requirements were met.

***Effect on NASA.*** Without an adequate process to document that the civil rights requirements are met, Glenn and Marshall cannot ensure that they are in compliance with Federal and NASA requirements. Therefore, NASA may be unnecessarily at risk from potential noncompliance or adverse publicity.

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<sup>25</sup>See footnote 14.

<sup>26</sup>We sampled 16 grants at Marshall but found that 1 grant was not for research and omitted it from our review.



## **Recommendations for Corrective Action**

### **2. The Assistant Administrator for Procurement should revise the Grant Handbook to:**

- **provide clear guidance on the specific peer review documentation the grant officer should request from the program office for each grant,**
- **require that peer review documentation be filed in the respective grant file, and**
- **reference NPG 1441.1C as a related policy.**

**Management's Response.** Partially concur. The Assistant Administrator for Procurement agrees that the NASA Grant and Cooperative Agreement Handbook should provide clear guidance regarding documentation to be contained in each grant file with respect to peer review. NASA agrees that the Grant Handbook, NPG 1441.1C, and operational practices need to be consistent. The Office of Procurement will review these areas, develop a common policy and approach, and revise the applicable guidance. Appropriate guidance will also be issued to the Center grant offices and programmatic community. An estimated date for completion of these actions is January 31, 2003.

**Evaluation of Management's Response.** NASA's planned actions are responsive to the recommendation. We reaffirm that sufficient documentation needs to be contained in the grant file to adequately demonstrate that a peer review was performed and the overall peer review result. Corrective actions should include ensuring that the grant file clearly indicates whether a peer review was performed and provides a cross-reference to where that documentation can be located within the Agency. The recommendation is resolved but will remain undispositioned and open until corrective actions are completed.

### **3. The Director, Glenn Research Center should establish a process to ensure that the Centers properly document compliance with the Grant Handbook's civil rights requirements.**

### **4. The Director, Marshall Space Flight Center should establish a process to ensure that the Centers properly document compliance with the Grant Handbook's civil rights requirements.**

**Management's Response.** Concur. NASA Grant Notice 00-03, dated October 26, 2001, clarified and simplified the procedure for obtaining civil rights documentation. It requires that each funding application contain assurances on NASA Form 1206,<sup>27</sup> or specifically identify and make reference to an assurance that the recipient's programs and activities comply with civil rights and nondiscrimination statutes specified in the Federal

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<sup>27</sup>See footnote 24.

regulations. The assurances provided on NASA Form 1206 shall suffice for all proposals of an applicant, if they remain current and accurate. An applicant may incorporate these assurances by reference in subsequent applications to NASA.

The Centers have established processes to ensure compliance with this policy, as revised. No further action is required at this time.

**Evaluation of Management's Response.** Management's actions are responsive to the recommendations. We reviewed the Grant Notice and both Centers' written processes for ensuring compliance with civil right regulations and are satisfied that corrective actions are responsive to the recommendations. The recommendations are resolved and closed.

## **Finding C. Grantee Financial Reporting**

Grantees did not provide timely financial reporting, and NASA did not take appropriate action to suspend the grantee advanced funding. For example, for the fiscal year ended September 30, 2000, 52 (58 percent) of the 89 grantees included in our review at Goddard, Marshall, and Glenn submitted 2 or more late Standard Forms (SF's) 272, "Federal Cash Transactions Report,"<sup>28</sup> and as a result, should have had their advance financing temporarily suspended. However, NASA took remedial actions for only five grantees. Failure to actively enforce the reporting requirements and take effective remedial action has been a recurring problem since at least 1996 and is due to inadequate Agency controls and insufficient management of the financial reporting process. Consequently, NASA had not adequately monitored financial aspects of the grants or maintained Agency financial records in a timely and accurate manner.

### ***Agency Policies and Procedures***

The NASA Financial Management Manual (FMM) specifies the financial reporting requirements for the SF 272. Both the FMM, section 9280-2, and the NASA Grant Handbook, section 1260, require the grantee<sup>29</sup> to submit an SF 272 report to the Financial Management Office of the NASA Center that issued the grant. The grantee must submit the SF 272 report within 15 working days following the end of each Federal fiscal quarter. In addition, grantees are required to submit an SF 272 report as a condition of receiving advance payments.<sup>30</sup>

The Grant Handbook Section 1260 and the FMM provide guidance for addressing untimely SF 272 reports from grantees. Section 1260.76(e) states that NASA may suspend or terminate advance payments for grantees that do not comply with reporting requirements. Under section 1260.162(a), NASA may wholly or in part suspend or terminate the current award. Further, NASA may withhold future awards to the grantee pending correction of the reporting deficiency. FMM Section 9280-9 directs the applicable Financial Management Office to temporarily suspend advance financing when two successive quarterly reports are late or when two reports are late within a fiscal year.

Section 9011-6b of the FMM states that the Center's Deputy Chief Financial Officer for Finance is responsible for application of the provisions of the FMM, under the functional direction of the NASA Headquarters' Financial Management Division Director. In addition, FMM Section 9061-5A states that the Deputy Chief Financial Officer for Finance shall track the timeliness of receipt of SF 272 reports and should notify the grant

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<sup>28</sup>NASA requires the grantees to submit quarterly SF 272 reports to document the funds advanced by NASA to the grantee, actual grantee expenditures, and planned fund advances.

<sup>29</sup>Grants with commercial entities are based on incurred costs; therefore, a commercial entity is not required to submit an SF 272 report.

<sup>30</sup>This requirement is contained in Office of Management and Budget Circular A-110, "Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," and the Grant Handbook.

officer of habitual lateness or impending suspension. NASA uses the Department of Health and Human Services’<sup>31</sup> Payment Management System to suspend or terminate the advance payments.

***Timeliness of SF 272 Reports***

We evaluated reports that grantees submitted over a period of four consecutive quarters (reporting periods) in fiscal year 2000. Fifty-two (58 percent) of the 89 grantees submitted 2 or more SF 272 reports late, and NASA should have suspended their advanced financing. NASA took such action for only five grantees.<sup>32</sup> In addition, 79 (89 percent) of the grantees submitted untimely SF 272 reports during at least 1 of the 4 reporting periods. The table below shows the results of sampled SF 272 reports for the 89 grantees we examined at the 3 Centers.

**Grantees’ Submission of SF 272 Reports\*  
for the Fiscal Year Ended September 30, 2000**

Center	Grantees Reporting	Timely All 4 Quarters	Late 1 of 4 Quarters	Late 2 or more Quarters	Suspended for Late Reporting
Glenn	9	1	4	4	0
Marshall	12	1	1	10	0
Goddard	68	8	22	38	5
<b>Total</b>	<b><u>89</u></b>	<b><u>10</u></b>	<b><u>27</u></b>	<b><u>52</u></b>	<b><u>5</u></b>

\*We reviewed a total of 336 SF 272 reports submitted during 4 consecutive reporting periods for the 89 grantees.

Financial management personnel initiated the remedial action for the five grants for which NASA suspended advance financing but did not notify the grant officer of the suspension. As a result of this lack of coordination, there was no documentation of the suspension in the official grant file that could have been used in decisionmaking on future awards.

Late receipt of the SF 272 reports has been a recurring problem within NASA since at least 1996, when an independent public accounting firm reported this problem during its audit of NASA’s financial statements (see Appendix C). Additionally, we determined

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<sup>31</sup>NASA uses the Department of Health and Human Services automated system for issuing and tracking advance payments.

<sup>32</sup>Once a decision to suspend or terminate advance financing is made, the grantee must use its own funds for its research and then submit to NASA for reimbursement.

during a 1998 audit<sup>33</sup> that 847 (49 percent)<sup>34</sup> of 1,724 quarterly SF 272 reports sent to 3 NASA Centers and NASA Headquarters were late. As a result of that audit, NASA amended its FMM in September 1998 to provide for mandatory suspension of advance funding when two successive quarterly SF 272 reports are late or when two reports are late within a fiscal year.

Our current audit demonstrated that NASA is not yet actively enforcing timely reporting and did not take effective remedial action to eliminate late reporting. The lack of remedial action can be attributed to inadequate controls and management of the payments. Neither the Centers' Deputy Chief Financial Officers for Finance nor the Financial Management Offices collected quarterly information on late submissions for use in monitoring the timeliness of SF 272 reports and did not notify the grant officers of untimely reporting so that additional corrective measures could be taken. One Center financial management official viewed the actions necessary to implement a suspension as an administrative burden because in many cases, the grantee would have to be reinstated shortly after suspension.

To facilitate the communication between the Financial Management Office and the grant officer, the language in the Grant Handbook should be consistent with the FMM requirements concerning the initiation or suspension of advance financing due to untimely SF 272 reporting. NASA changed the FMM in September 1998 to define what constituted untimely SF 272 reporting and clearly provided that the Financial Management Office was to initiate the suspension or termination of advance funding when SF 272 reporting problems occurred. The Grant Handbook, however, does not provide for mandatory suspension or termination of advance funding, leaves the decision of remedial action to the discretion of a grant officer, and does not specify which NASA office will take action against late financial reporting. Placing the responsibility for suspensions with the Financial Management Office (1) recognizes that the financial data contained in the SF 272 report affects not only the grant, but also NASA's financial accounts and financial statements and (2) follows the flow of financial information from the grantee to the Financial Management Office, which is best suited to identify serious and habitual reporting problems and to institute immediate remedial action. Therefore, the Grant Handbook should be revised to make the Financial Management Office responsible for suspension or termination of advance funding.

### **Importance of Timely Financial Reporting**

Without timely SF 272 reports, NASA is not in compliance with the FMM, cannot accurately and in a timely manner record financial data, and does not have reliable

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<sup>33</sup>On August 6, 1998, we issued audit report IG-98-019, "Aeronautics Program Grant Financial Transactions," which discussed late reporting at NASA Headquarters, Langley Research Center, Ames Research Center, and Glenn. See Appendix C for further details.

<sup>34</sup>The 1,724 SF 272 reports submitted by grantees were funded through letter of credit agreements from January 1996 to June 1997 at NASA Headquarters, Langley Research Center, Ames Research Center, and Glenn.

information for decisionmaking. Specifically, NASA is not following the FMM in relation to recording cost accruals<sup>35</sup> for advance-funded grants. Additionally, the late SF 272 reports negatively affect budgetary and accounting reports. Lastly, NASA's financial management and program offices did not properly manage noncompliant grantees or the program's budget. Management attention and corrective actions are needed to fully address and correct this problem area that has existed since at least 1996.

## **Recommendations for Corrective Action**

**5. The Acting Chief Financial Officer should implement the management controls needed to improve the timeliness of SF 272 reporting and follow-up at each Center. At a minimum, the controls should:**

- **Require the Center's Deputy Chief Financial Officer for Finance to collect and analyze quarterly information on late SF 272 financial report submissions and use this data to enforce the timeliness reporting requirements and penalties contained in the FMM.**
- **Require coordination between the Financial Management Office and the grant officer when remedial measures are taken against a grantee. The Financial Management Office should inform the grant officer in a timely manner of any suspension action so that the grant officer can act accordingly in administering the grant and in determining future grant awards.**
- **Emphasize and reinforce FMM policy and penalties related to untimely reporting.**
- **Evaluate the Center's corrective actions taken when reports are late, and follow up as appropriate.**

**Management's Response.** Concur. The Chief Financial Officer (CFO) agreed to implement management controls in order to improve the timeliness of SF 272 reporting and Center follow-up.

To ensure a more consistent and synergistic management approach in this area, the CFO intends to coordinate efforts with the Assistant Administrator for Procurement. The Office of the CFO and the Office of Procurement will work together to develop a measured and cooperative approach toward SF 272 delinquencies, including:

- organizing the process for identifying delinquencies;
- escalating noncompliance notices to responsible parties within the universities;
- coordinating administrative remedies within the Agency; and

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<sup>35</sup>The FMM Section 9020 defines accrual accounting as a method of accounting in which revenues and expenses are identified with specific periods of time and are recorded as incurred without regard to the date of receipt or payment of cash.

- communicating changes in Agency processes to the university community.

The FMM and the Grant Handbook will be revised to reflect this cooperative approach. The CFO and the Associate Administrator will also distribute a letter to the Centers emphasizing the importance of this area and communicating the revisions to the FMM and/or the Grant Handbook. An estimated date for completion of these actions is December 31, 2002.

One element of appropriate management controls for tracking of SF 272 reporting may prove to be the use of automated tools, such as the database recently developed and implemented by Goddard. The Goddard tool generates email notices to grant recipients, with a progressive series of follow-ups, leading to a suspension of advance payments. The series of email messages clearly state the importance of timely submission of the reports and the consequences of noncompliance. The Office of the CFO will monitor Goddard's use of this tool and, if this approach is determined to be effective, will ensure that the tool is shared with the other Centers. The Office of Procurement will participate in a review of such financial tools. Such tools could immediately email a copy of each SF 272 report delinquency notice to the grant officer, thus accomplishing coordination between the financial and procurement offices. An estimated date for assessing the Goddard tool and disseminating applicable guidance is December 31, 2002.

NASA currently uses the Department of Health and Human Services' Payment Management System to provide advance payments to recipients. This system provides NASA with a standard single payment process for all Centers and recipients. The Office of the CFO is working with the Department of Health and Human Services to expand and enhance application of the Payment Management System. Part of this effort involves utilizing the system's electronic SF 272 reporting capability. The system will provide real-time information for NASA and its recipients. When implemented, the system may not allow recipients to make a drawdown on their letter of credit until a current SF 272 report has been entered into the database. This may be the most effective solution to the matters raised by the audit report. Implementation of the electronic SF 272 reporting capability is estimated by December 31, 2003. In the meantime, the CFO will take the actions discussed above to effect improvement.

**Evaluation of Management's Response.** Management's planned actions are responsive to the recommendation. NASA's evaluation of the process Goddard implemented should include an assessment of the length of time Goddard's follow-up process takes and whether Goddard's process incorporates proactive notifications to the grantee. Additionally, coordination between the finance office and the grants office is essential to effectively monitor the grantee's financial status. Finally, changes to NASA policy are necessary because the guidance in the FMM and Grant handbook differs. The recommendation is resolved but will remain undispositioned and open until corrective actions are completed.

**6. The Assistant Administrator for Procurement should revise the Grant Handbook to reflect the requirements in the NASA FMM concerning the remedial measures for addressing untimely SF 272 financial reporting.**

**Management's Response.** Partially concur. The Assistant Administrator for Procurement agreed that the Grant Handbook and the FMM should be consistent in this area. However, the Assistant Administrator did not agree that the Grant Handbook should be revised to reflect the existing FMM policy. Instead, the Office of Procurement, in coordination with the CFO, will conduct a detailed review of the Grant Handbook and the FMM policy to determine what changes, if any, will be needed. As noted in the response to Recommendation 5, the Assistant Administrator for Procurement and the CFO will work together to develop a measured and cooperative approach toward SF 272 reporting delinquencies. The FMM and the Grant Handbook will be revised to reflect this cooperative approach. An estimated date for completion of these actions is December 31, 2002.

**Evaluation of Management's Response.** Management's planned actions are responsive to the recommendation. We continue to reaffirm that it is vital that NASA policy be clear and consistent in the area of late grantee financial reporting if this long-standing problem is to be corrected. The recommendation is resolved but will remain undispositioned and open until corrective actions are completed.



## Appendix A. Objectives, Scope, and Methodology

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### Objectives

The audit objectives were to determine whether NASA:

- appropriately performed peer reviews before awarding research grants and cooperative agreements.
- complied with key requirements for the solicitation, award, and financial management of research grants and cooperative agreements.

### Scope and Methodology

We initially performed survey work at the Glenn Research Center (Glenn) and NASA Headquarters, and as a result of our survey results, we expanded our audit work to include the Goddard Space Flight Center (Goddard) and the Marshall Space Flight Center (Marshall). We reviewed research grants and cooperative agreements, but did not include Space Act Agreements and awards involving international parties. Additionally, we focused on grant and cooperative agreement awards categorized as research in the NASA procurement system and did not include awards for training or construction.

To accomplish our objectives, we reviewed the Federal and NASA regulations, policies, and guidance relating to the solicitation, selection, award, and financial management of NASA-funded grants and cooperative agreements. We interviewed Headquarters and Center procurement, financial management, and program/project personnel, but we did not contact the grantees. Also, we reviewed the procurement and financial management files for the sampled grants and cooperative agreements. We worked closely with representatives of the Chief Scientist's office to verify whether the Agency performed peer reviews for the unsolicited proposals. We did not review the quality of the peer reviews performed.

We selected a random sample of grants and cooperative agreements at Goddard, Glenn, and Marshall to be tested. Our sample universe consisted of all on-site open and active research grants and cooperative agreements coded as being research grants in the NASA Procurement Management System as of March 30, 2000. Because a grant or cooperative agreement may cover several years, the population included some grants and cooperative agreements that had been awarded before 2000 but were still active. We selected 141 grants and cooperative agreements from a total population of 4,970 grants and

cooperative agreements. Of the 141 grants sampled (for discussion purposes in the findings section of the report, we collectively refer to the grants and agreements as grants), 124 were for research purposes.<sup>36</sup> Of the 124 grants, NASA awarded 83 in response to solicited proposals and 41 in response to unsolicited proposals. For the 124 grants, we reviewed the SF 272 reports that were submitted by 89 different grantees.<sup>37</sup> We relied on the NASA Procurement Management System (computer-generated) report to identify the grant and cooperative agreement population.

Using the sample, we conducted a multiple attribute sample to assess the two audit objectives. The following table summarizes the population and sample size by Center and by award type:

**Research Grants  
Population and Sample Selection  
As of March 30, 2000**

Center	Population Size	Sample Size	Population Value (thousands)	Sample Value (thousands)
<b>Goddard</b>				
Grants	3,648	56	\$1,027,385	\$ 10,269
Agreements	293	34	486,169	46,404
<b>Marshall</b>				
Grants	288	4	102,186	1,049
Agreements	79	11	1,336,297	38,353
<b>Glenn</b>				
Grants	405	10	119,469	4,022
Agreements	257	9	192,945	7,643
<b>Total</b>	<b><u>4,970</u></b>	<b><u>124</u></b>	<b><u>\$3,264,451</u></b>	<b><u>\$107,740</u></b>

**Audit Field Work**

We conducted detailed audit field work from November 2000 through October 2001. We performed the audit in accordance with generally accepted government auditing standards.

<sup>36</sup>We deleted 17 grants from the initial sample of 141 grants drawn from the NASA Procurement Management System because we determined that they were not for basic and applied research. Instead, these 17 grants were for purposes such as educational outreach, conference attendance, or miscellaneous services.

<sup>37</sup>The number of grantees submitting SF 272 reports is lower than the sample number because of the following: 5 grantees were with commercial entities and were not required to submit the financial reports; Goddard's Financial Management Office could not locate 2 grant files; we did not consider 9 grantee files from Glenn because the sampling criteria we used for the financial reports during the survey differed from our detailed audit sampling criteria; and 36 grantees had multiple grants within our sample and were required to submit only one report.

## **Appendix A**

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### **Management Controls Reviewed**

We reviewed the following policies and guidance, or portions thereof, related to the selection and administration of NASA research grants and cooperative agreements:

- Office of Management and Budget Circular A-110 “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations”;
- Federal Acquisition Regulation (FAR) and NASA FAR Supplement;
- NASA Science Policy Guide, dated July 1996;
- NASA Procedures and Guidelines (NPG) 5800.1, “Grant and Cooperative Agreement Handbook,” dated October 19, 2000;
- Draft NPG 1080, “Guidelines for the Generate Knowledge Process for Programs and Projects”;
- NPG 1441.1C, “NASA Records Retention Schedule 7, Program Formulation Records”; and
- NASA Financial Management Manual.

We identified management control weaknesses as identified in the findings in this report.

**Appendix B. Research Grants and Cooperative Agreements  
Not Peer Reviewed**

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	<b>Grant Number<sup>1</sup></b>	<b>Responsible Headquarters Office</b>	<b>Administering Center</b>	<b>Grant Value</b>
1	NAG 3 2005	Aerospace Technology	Glenn <sup>2</sup>	691,000
2	NAG 3 2207	Aerospace Technology	Glenn	53,000
3	NAG 3 2235	Aerospace Technology	Glenn	130,000
4	NAG 3 2236	Aerospace Technology	Glenn	90,000
5	NCC 3 742	Aerospace Technology	Glenn	107,000
6	NCC 3 750	Aerospace Technology	Glenn	40,000
7	NCC 3 756	Aerospace Technology	Glenn	235,000
8	NCC 3 788	Aerospace Technology	Glenn	48,000
9	NAG 5 6351	Earth Science	Goddard <sup>3</sup>	292,000
10	NAG 5 6388	Earth Science	Goddard	148,000
11	NAG 5 8802	Space Flight	Goddard	655,000
12	NCC 5 90	Earth Science	Goddard	1,245,000
13	NCC 5 128	Earth Science	Goddard	961,000
14	NCC 5 193	Earth Science	Goddard	1,360,000
15	NCC 5 326	Earth Science	Goddard	934,000
16	NCC 5 377	Space Science	Goddard	68,000
	<b>Total</b>			<b><u>\$7,057,000</u></b>

<sup>1</sup>The research grants are coded "NAG," and the cooperative agreements are coded "NCC."

<sup>2</sup>Glenn Research Center.

<sup>3</sup>Goddard Space Flight Center.

## Appendix C. Prior Audit Coverage

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**“Aeronautics Program Grant Financial Transactions,” NASA Office of Inspector General Report Number IG-98-019, August 6, 1998.** We reviewed the timeliness, accuracy, and completeness of the financial reports submitted by the grantees for research affiliated with the Office of Aeronautics and Space Transportation Technology. About 49 percent of the grantees’ quarterly financial (Standard Form 272) reports were late at Headquarters, Langley Research Center, Ames Research Center, and Glenn Research Center. This caused delays in recording costs and disbursements into NASA’s financial records that, in turn, caused costs and disbursements to be inaccurate and untimely, and thus negatively impacted budgetary and accounting reports. Management used the grant’s financial data to plan and fund programs and projects. If financial data are not accurate and current, management’s ability to make informed decisions is compromised. Operating effectiveness is also diminished by inaccurate and untimely data. In response to our recommendations, NASA management revised the Financial Management Manual to be more specific on suspending funding to grantees when the reports are repeatedly late and to establish a new process in which grantees incur consequences for submitting late reports.

**“Federal Research: Peer Review Practices at Federal Science Agencies Vary,” General Accounting Office Report Number RCED-99-99, March 17, 1999.** The General Accounting Office report defined a peer review, described the Federal Government’s peer review policy and the peer review practices of 12 Federal agencies that conduct scientific research, described other agencies’ quality assurance reviews, and identified which research is not subjected to review. The report states that NASA:

Defines peer review as scientific evaluation by an independent in-house specialist, a specialist outside NASA, or both, of proposals submitted in response to NASA research announcements, announcements of opportunity, and cooperative agreement notices. Peer review is also used to evaluate unsolicited proposals. Peer reviews evaluate relevance to NASA’s objectives, intrinsic merit that includes scientific or technical merit of research methods, the researcher’s capabilities and qualifications, and cost.

All NASA research, including research resulting from unsolicited proposals, is subject to peer review, and peer review is conducted primarily to award funds on the basis of scientific merit. NASA officials said that external peer review is essential for high-quality, relevant research. NASA’s Federal Acquisition Regulations Supplements dictate that peer review will be the method used to evaluate and select research for funding. NASA is developing a series of instruction on the implementation of peer review.

**Arthur Andersen LLP’s Management Letter to the Financial Statements for 1996.** Arthur Andersen LLP found that Headquarters and the Goddard Space Flight Center did not receive the SF 272 reports from the grantees on a timely basis. Specifically, Agency procedures were not operating effectively to identify and request overdue reports.

## **Appendix C**

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This affected NASA's ability to properly record grant expenses and to effectively monitor its grants. The report states that NASA should follow established procedures for tracking reports received from grantees and for follow-up on late reports.

## Appendix D. Management's Response

National Aeronautics and  
Space Administration  
**Headquarters**  
Washington, DC 20546-0001



April 12, 2002

HK

Reply to Atn of:

**TO:** W/Assistant Inspector General for Auditing  
**FROM:** HK/Director, Contract Management Division  
**SUBJECT:** Agencywide Response to OIG Draft Audit Report on Management of  
Research Grants and Cooperative Agreements, Assignment No. A-00-042-00

Enclosed is the Agency's response to the subject report dated February 22, 2002. This response has been coordinated with Code B, the NASA Chief Scientist, GRC and MSFC.

Please call Rita Svarcas at 202 358-0464 or Louis Becker at 202 358-4593 if you have any questions or need further coordination on this matter.

  
R. Scott Thompson

Enclosure

## Appendix D

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### **Recommendation 1:**

The NASA Chief Scientist should revise the NASA Science Policy Guide to require that all solicited and unsolicited research proposals be peer reviewed prior to award, unless a written justification or waiver is approved by the Chief Scientist.

### **Response:**

Partial concur. The NASA Chief Scientist will revise the NASA Science Policy Guide in regard to the use of peer review for both solicited and unsolicited research proposals. It is anticipated that the revision to the Guide will cite potential exceptions – that is, types of proposals for which peer review is generally not considered appropriate. The revision will also delineate a waiver process, including delegation of waiver responsibilities. The estimated date for completion of this revision is March 31, 2003.

In light of the recent appointment of Dr. Shannon Lucid to the position of NASA Chief Scientist, this response is conditioned upon Dr. Lucid's further review of the attendant issues.

### **Recommendation 2:**

The Assistant Administrator for Procurement should revise the Grant Handbook to:

- Provide clear guidance on the specific peer review documentation the grant officer should request from the program office for each grant,
- Require that peer review documentation be filed in the respective grant file, and
- Reference NPG 1441.1C as a related policy.

### **Response:**

Partial concur. The Assistant Administrator for Procurement agrees that the NASA Grant and Cooperative Agreement Handbook should provide clear guidance regarding documentation to be contained in each grant file with respect to peer review. Furthermore, there should be consistency between the Handbook, NPG 1441.1C, and operational practices. The Office of Procurement will review these areas, will develop a common policy and approach, and will revise the Handbook and the NPG accordingly. Appropriate guidance will also be issued to the Center Grant Offices and to the programmatic community. An estimated date for completion of these actions is January 31, 2003.

### **Recommendations 3 and 4:**

The Director, Glenn Research Center, and the Director, Marshall Space Flight Center, should establish processes to ensure that the Centers properly document compliance with the Grant Handbook's civil rights requirements.

### **Response:**

Concur. Grant Notice (GN) 00-03, dated October 26, 2001, clarified and simplified the procedure for obtaining civil rights documentation, as follows:

“Each application for funding must contain assurances on NASA Form 1206, or specifically identify and make reference to an assurance that the recipient's



programs and activities comply with civil rights and nondiscrimination statutes specified in 14 CFR Parts 1250 through 1253. The assurances provided on NASA Form 1206 shall suffice for all proposals of an applicant, if they remain current and accurate. An applicant may incorporate these assurances by reference in subsequent applications to NASA.”

The Centers have established processes to ensure compliance with this policy as revised. No further action is required at this time.

**Recommendation 5:**

The Acting Chief Financial Officer should implement the management controls needed to improve the timeliness of SF 272 reporting and Center follow-up. At a minimum, the controls should:

- Require the Center’s Deputy Chief Financial Officer for Finance to collect and analyze quarterly information on late SF 272 financial report submissions and use this data to enforce the timeliness reporting requirements and penalties contained in the FMM.
- Require coordination between the Financial Management Office and the grant officer when remedial measures are taken against a grantee. The Financial Management Office should inform the grant officer in a timely manner of any suspension action so that the grant officer can act accordingly in administering the grant and in determining future grant awards.
- Emphasize and reinforce FMM policy and penalties related to untimely reporting.
- Evaluate the Center’s corrective actions taken when reports are late, and follow up as appropriate.

**Response:**

Concur. The Chief Financial Officer (CFO) agrees to implement management controls in order to improve timeliness of SF272 reporting and Center follow-up. These controls will include the elements noted by the OIG in Recommendation 5 (above).

To ensure a more consistent and synergistic management approach in this area, the CFO intends to coordinate further efforts with the Assistant Administrator for Procurement. The Office of the CFO and the Office of Procurement will work together to develop a measured and cooperative approach toward SF272 delinquencies, including:

- Organizing the process for identifying delinquencies;
- Escalating noncompliance notices to responsible parties within the universities;
- Coordinating administrative remedies within the Agency; and
- Communicating changes in Agency processes to the university community.

The corresponding sections of both the FMM and the Grant Handbook will be revised to reflect this cooperative approach. The CFO and the Associate Administrator will also distribute a letter to the Centers emphasizing the importance of this area, and communicating any related revisions to the FMM and/or the Grant Handbook. An estimated date for completion of these actions is December 31, 2002.

One element of appropriate management controls for tracking of SF272s may prove to be the use of automated tools, such as the database recently developed and implemented by

## Appendix D

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the Goddard Space Flight Center (GSFC). The GSFC tool generates email notices to grant recipients, with a progressively strong series of follow-ups, leading to a suspension of advance payments. The series of email messages clearly state the importance of timely submission of the reports and the consequences of non-compliance. The Office of the CFO will monitor GSFC's use of this tool and, if this approach is determined to be effective, will ensure that the tool is shared with the other Centers. In accordance with the coordinated strategy detailed above, the Office of Procurement will participate in review of such Financial Office tools. Such tools could immediately email a copy of each SF272 delinquency notice to the assigned grant officer, thus accomplishing coordination between the financial and procurement offices. An estimated date for completing assessment of the GSFC tool, and disseminating guidance regarding such a tool, is December 31, 2002.

It should be noted that NASA currently uses the Department of Health and Human Services' (DHHS) Payment Management System (PMS) to provide advance payments to recipients. A key benefit of this process and system provides NASA with a standard single payment process for all Centers and recipients. As an adjunct to the implementation of the IFM Project, the Office of the CFO is working with DHHS to expand and enhance application of the PMS. Part of this effort involves utilizing the electronic SF 272 capability of the PMS. The PMS will provide real time information for NASA and its recipients. When implemented, the system may not allow recipients to make a draw down on their letter of credit until a current SF272 has been entered into the database. This may be the most effective solution to the matters raised by the OIG report. Implementation of the electronic SF 272 capability of the PMS is estimated to take place by December 31, 2003. In the meantime, the CFO will take the actions discussed above to effect improvement.

### **Recommendation 6:**

The Assistant Administrator for Procurement should revise the Grant Handbook to reflect the requirements in the NASA FMM concerning the remedial measures for addressing untimely SF 272 financial reporting.

### **Response:**

Partial concur. The Assistant Administrator for Procurement agrees that the Grant Handbook and the FMM should be consistent in this area. However, the Assistant Administrator does not concur that the Grant Handbook should be revised to reflect the current FMM at this time. Instead, the Office of Procurement, in coordination with the CFO, will conduct a detailed review of the Grant Handbook and the FMM to determine what changes, if any, will be needed. As noted above in the response to Recommendation 5, the AA for Procurement and the CFO will work together to develop a measured and cooperative approach toward SF272 delinquencies, including:

- Organizing the process for identifying delinquencies;
- Escalating noncompliance notices to responsible parties within the universities;
- coordinating administrative remedies within the Agency; and
- Communicating changes in Agency processes to the university community.

The corresponding sections of both the FMM and the Grant Handbook will be revised to reflect this cooperative approach. An estimated date for completion of these actions is December 31, 2002.

## Appendix E. Report Distribution

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### NASA Headquarters

HQ/A/Administrator  
HQ/AI/Associate Deputy Administrator  
HQ/AA/Chief of Staff  
HQ/AB/Associate Deputy Administrator for Institutions  
HQ/AS/Chief Scientist  
HQ/B/Comptroller  
HQ/B/Acting Chief Financial Officer  
HQ/BF/Director, Financial Management Division  
HQ/G/General Counsel  
HQ/HK/Director, Contract Management Division  
HQ/HS/Director, Program Operations Division  
HQ/J/Assistant Administrator for Management Systems  
HQ/JM/Director, Management Assessment Division  
HQ/L/Assistant Administrator for Legislative Affairs  
HQ/M/Associate Administrator for Space Flight  
HQ/Q/Associate Administrator for Safety and Mission Assurance  
HQ/R/Associate Administrator for Aerospace Technology  
HQ/S/Associate Administrator for Space Science  
HQ/U/Associate Administrator for Biological and Physical Research  
HQ/X/Assistant Administrator for Security Management and Safeguards  
HQ/Y/Associate Administrator for Earth Science

### NASA Centers

ARC/D/Director, Ames Research Center  
DFRC/X/Director, Dryden Flight Research Center  
GRC/0100/Director, John H. Glenn Research Center at Lewis Field  
GSFC/100/Director, Goddard Space Flight Center  
JPL/1000/Director, Jet Propulsion Laboratory  
JSC/AA/Director, Lyndon B. Johnson Space Center  
KSC/AA/Director, John F. Kennedy Space Center  
KSC/CC/Chief Counsel, John F. Kennedy Space Center  
LaRC/106/Director, Langley Research Center  
MSFC/DA01/Director, George C. Marshall Space Flight Center  
SSC/AA00/Director, John C. Stennis Space Center

## **Appendix E**

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### **Non-NASA Federal Organizations and Individuals**

Assistant to the President for Science and Technology Policy  
Deputy Associate Director, Energy and Science Division, Office of Management and Budget  
Branch Chief, Science and Space Programs Branch, Energy and Science Division, Office of Management and Budget  
Managing Director, Acquisition and Sourcing Management Team, General Accounting Office  
Senior Professional Staff Member, Senate Subcommittee on Science, Technology, and Space

### **Chairman and Ranking Minority Member – Congressional Committees and Subcommittees**

Senate Committee on Appropriations  
Senate Subcommittee on VA, HUD, and Independent Agencies  
Senate Committee on Commerce, Science, and Transportation  
Senate Subcommittee on Science, Technology, and Space  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on VA, HUD, and Independent Agencies  
House Committee on Government Reform  
House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations  
House Subcommittee on Technology and Procurement Policy  
House Committee on Science  
House Subcommittee on Space and Aeronautics

### **Congressional Member**

Honorable Pete Sessions, U.S. House of Representatives

## NASA Assistant Inspector General for Audits Reader Survey

The NASA Office of Inspector General has a continuing interest in improving the usefulness of our reports. We wish to make our reports responsive to our customers' interests, consistent with our statutory responsibility. Could you help us by completing our reader survey? For your convenience, the questionnaire can be completed electronically through our homepage at <http://www.hq.nasa.gov/office/oig/hq/audits.html> or can be mailed to the Assistant Inspector General for Audits; NASA Headquarters, Code W, Washington, DC 20546-0001.

**Report Title:** Management of Research Grants and Cooperative Agreements

**Report Number:** \_\_\_\_\_ **Report Date:** \_\_\_\_\_

*Circle the appropriate rating for the following statements.*

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
1. The report was clear, readable, and logically organized.	5	4	3	2	1	N/A
2. The report was concise and to the point.	5	4	3	2	1	N/A
3. We effectively communicated the audit objectives, scope, and methodology.	5	4	3	2	1	N/A
4. The report contained sufficient information to support the finding(s) in a balanced and objective manner.	5	4	3	2	1	N/A

*Overall, how would you rate the report?*

- Excellent       Fair  
 Very Good       Poor  
 Good

*If you have any additional comments or wish to elaborate on any of the above responses, please write them here. Use additional paper if necessary.* \_\_\_\_\_

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**How did you use the report?** \_\_\_\_\_  
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**How could we improve our report?** \_\_\_\_\_  
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**How would you identify yourself? (Select one)**

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**May we contact you about your comments?**

**Yes:** \_\_\_\_\_ **No:** \_\_\_\_\_

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Thank you for your cooperation in completing this survey.

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