

National Aeronautics and
Space Administration



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TO: Elizabeth Robinson
Chief Financial Officer
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Julie Pollitt
Recovery Act Implementation Executive

FROM: Paul K. Martin /signed/
Inspector General

SUBJECT: Final Memorandum on Review of Open Audit Recommendations Affecting
Recovery Act Activities (Report No. IG-10-014; Assignment
No. A-09-009-01)

The American Recovery and Reinvestment Act (Recovery Act) provided funding to the NASA Office of Inspector General (OIG) for oversight of programs, grants, and projects funded under the Recovery Act. This includes assessing NASA's compliance with Recovery Act mandates and with Office of Management and Budget (OMB) Memorandum M-09-15, "Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009," April 3, 2009 (OMB Guidance). The OMB Guidance suggests that agencies develop a risk mitigation plan to identify, prioritize, and mitigate implementation risks associated with use of Recovery Act funds. As part of this plan, agencies should determine whether final action has been taken regarding weaknesses or deficiencies disclosed by prior audits and investigations in program areas under which Recovery Act funds are authorized.

NASA officials considered risks specific to each program and project during preparation of the plans that provide descriptions of how they will use Recovery Act funds. To ensure NASA properly considered previously identified weaknesses and deficiencies in the programs receiving Recovery Act funds, we reviewed all open recommendations¹ from prior audit reports issued by the NASA OIG, the Government Accountability Office (GAO), and independent auditors to identify those recommendations that could potentially affect NASA's Recovery Act activities. (See the Enclosure for details on our review's scope and methodology.)

¹ A recommendation remains open until NASA completes agreed-upon corrective actions and the audit authority verifies the sufficiency of the actions in meeting the intent of the recommendation.

Executive Summary

Our review identified 13 open audit recommendations in program areas under which Recovery Act funds are authorized. NASA had taken steps to implement corrective actions for the recommendations that could potentially affect programs and projects receiving Recovery Act funds. However, NASA needs to finalize the remaining steps in order for the recommendations to be closed. In accordance with the OMB Guidance: “If final action has not been completed, agencies should: (1) expedite such action to preclude the continuance of such weaknesses or deficiencies in the administration of Recovery Act funded programs; or (2) provide an explanation of why such corrective actions cannot or should not be taken in the administration of Recovery Act funded programs.”

According to NASA officials, the Agency had fully implemented corrective actions in response to 6 of the 13 open recommendations and was awaiting verification and closure by the appropriate audit agency.

As of April 2010, corrective actions for another three recommendations were partially complete, and NASA officials said that all actions needed to close the recommendations were expected to be implemented by September 2010. NASA needs to remain on track and ensure the timely implementation of these actions.

For the remaining four recommendations, NASA officials were still determining whether corrective actions needed to be implemented. We recommend that NASA reach a decision quickly on these recommendations to ensure that the identified weaknesses they address do not affect the use of Recovery Act funds.

This review describes the 13 open Recovery Act-related recommendations, grouped into the following three categories: financial issues, procurement issues, and programmatic issues.

Financial Issues. We identified 10 open recommendations that, left unaddressed, could have an adverse effect on NASA’s Recovery Act activities: 4 in a GAO report² on improper payments and 6 from a Defense Contract Audit Agency (DCAA) report³ examining weaknesses with financial management and reporting by the Jet Propulsion Laboratory (JPL). Accurate financial management is essential to meet the high level of accountability required when reporting on use of Recovery Act funds.

In its November 2007 report, GAO made four recommendations to improve NASA’s processes for identifying improper payments. The recommendations were for NASA to

² “Improper Payments: Weaknesses in USAID’s [U.S. Agency for International Development’s] and NASA’s Implementation of the Improper Payments Information Act and Recovery Auditing” (GAO-08-77, November 9, 2007).

³ “Report on Jet Propulsion Laboratory Compliance with Requirements Applicable to its Major Program and on Internal Control Over Compliance in Accordance with OMB Circular A-133, FY 2008 A-133 Audit” (Audit Report No. 4911-2008J10110001, June 29, 2009).

implement Improper Payment Information Act (IPIA) guidance, incorporate risk assessments as part of that guidance, maintain documentation of work performed to address IPIA requirements, and adhere to OMB's guidance for reporting in the annual Performance and Accountability Report. NASA officials said they had taken corrective actions in response to all four recommendations to mitigate the risk of improper payments using Recovery Act funds but the recommendations remained open as of April 2010, pending verification and closure by GAO.

In its June 2009 report, DCAA identified two material weaknesses in JPL's internal controls. The first material weakness related to a lack of consistency in the allocation of costs, and the two recommendations associated with this material weakness were for JPL to ensure proper accumulation and recording of costs. Accurate accumulation and recording of costs is imperative in order to ensure that Recovery Act-related costs are reported accurately, allowing the full transparency required by the Act. Although NASA officials stated that JPL had implemented corrective actions, the recommendations will remain open until DCAA verifies that the actions taken were sufficient.

The second material weakness identified by DCAA related to internal controls over cash management. The material weakness was discussed in three audit findings and was addressed by four recommendations, which called for JPL to (1) ensure its cash management system was adequate, (2) perform periodic reviews to ensure that draws on the letter of credit are authorized, (3) revise the practice of biweekly cash draws on retirement plan contributions, and (4) establish a process to ensure that only authorized payments are drawn against the letter of credit. An effective cash management system is crucial to ensure that JPL is properly managing and recording its use of Recovery Act funds. However, JPL did not concur with these four DCAA recommendations. JPL, a federally funded research and development center, is operated under contract by the California Institute of Technology. The NASA Management Office (NMO), which is responsible for overseeing the JPL contract, has final authority to determine whether JPL must implement corrective actions in response to the recommendations. As of April 2010, NMO officials had made a determination on two of the three audit findings, JPL had taken action, and the NMO had resolved the issues with JPL. However, to date, they have not made a determination on the third finding; therefore, the four recommendations will remain open until they make a determination on whether they agree with DCAA.

Procurement Issues. A September 2009 OIG report⁴ examining NASA's management of the JPL contract made two recommendations that could affect use of Recovery Act funding. The recommendations focused on NASA's processes for evaluating JPL's annual performance and for documenting the evaluation of that performance. Since evaluating contractor performance is an important part of Recovery Act oversight, and JPL is scheduled to receive approximately \$110 million in Recovery Act funds, both of

⁴ "NASA Should Reconsider the Award Evaluation Process and Contract Type for the Operation of the Jet Propulsion Laboratory" (IG-09-022, September 25, 2009).

these recommendations could affect NASA's use of Recovery Act funds. Timely implementation of these recommendations will help to ensure that NASA is appropriately monitoring the JPL contract. NASA officials expected to complete actions to implement the recommendations by September 2010. When completed, the OIG will verify the sufficiency of these actions.

Programmatic Issues. We identified one open recommendation in a September 2009 OIG report⁵ on a project that received Recovery Act funding – the Landsat Data Continuity Mission (LDCM). The OIG report found that NASA's efforts to comply with the Land Remote Sensing Policy Act of 1992 needed improvement. The report recommended that NASA develop a plan for the continuous provision of Landsat-type data should Landsat 7 and Landsat 5 become inoperable before LDCM is operational. Without this plan, NASA runs the risk of having no alternative source to provide annual global satellite coverage. The LDCM Project is using Recovery Act funds to lower risk in achieving a launch date that will minimize such a potential data gap. In a joint effort with the U.S. Geological Survey, NASA was in the process of addressing the recommendation as of April 2010, and officials said they expected to provide the OIG with a corrective action plan by the end of fiscal year (FY) 2010.

In order to ensure that Recovery Act funds are accurately reported, adequately monitored, and properly used in accordance with the requirements of the Recovery Act, NASA needs to remain on track and ensure the timely implementation of corrective actions in response to the open recommendations involving financial, procurement, and programmatic issues discussed in this report.

Background

On February 17, 2009, the President signed the American Recovery and Reinvestment Act of 2009 (Recovery Act). The Recovery Act seeks to strengthen the U.S. economy through the creation of new jobs, spur technological advances in science and health, and invest in infrastructure that will provide long-term benefits.

NASA received \$1 billion under the Recovery Act in the following mission areas:

- Science: \$400 million:
 - Astrophysics: \$75 million to the James Webb Space Telescope to conduct observations, research, and development in support of the goals of discovering the origin, structure, evolution, and destiny of the universe and searching for Earth-like planets.

⁵ “The Landsat Program Is Not Meeting the Goals and Intent of the Land Remote Sensing Policy Act of 1992” (IG-09-021, September 2, 2009).

- Earth Science: \$325 million to accelerate the development of Earth science climate research missions and supercomputing capabilities.
- Aeronautics: \$150 million for system-level research, development, and demonstration activities related to aviation, safety, environmental impact mitigation, and the Next Generation Air Transportation System.
- Exploration: \$400 million to develop safe and robust capabilities for human space exploration and to stimulate efforts within the private sector to develop and demonstrate technologies that enable commercial human spaceflight capabilities.
- Cross-Agency Support: \$50 million to restore NASA-owned facilities damaged by natural disasters in 2008.

The OIG has independent oversight responsibility for NASA and its related Recovery Act activities. As part of our efforts to oversee the use of NASA's Recovery Act funds, we reviewed prior audits issued by the NASA OIG, GAO, and other independent auditors to determine whether those reports contained recommendations that involved the use of Recovery Act funding.

When an audit authority issues a report with recommendations, Agency officials must decide whether to concur with the recommendations. Once concurrence is reached, NASA develops a corrective action plan to implement the recommendations. The auditors subsequently review the adequacy of the corrective actions once implemented and, upon the auditors' verification, the recommendation is closed. Open recommendations are those for which concurrence has not been reached, NASA has not completed corrective action, or the corrective action taken by NASA is pending review from the audit authority.

Our review found 13 open recommendations that could affect programs and projects receiving Recovery Act funds. In accordance with the OMB Guidance: "If final action has not been completed, agencies should: (1) expedite such action to preclude the continuance of such weaknesses or deficiencies in the administration of Recovery Act funded programs; or (2) provide an explanation of why such corrective actions cannot or should not be taken in the administration of Recovery Act funded programs."

NASA had taken steps to implement corrective actions for the open recommendations we identified, but had completed actions for only six and had not reached concurrence on the other four. NASA should remain on track and ensure the timely completion of corrective actions for the three recommendations that have not been fully implemented and make a decision concerning the other four in order to ensure that Recovery Act funds are accurately reported, adequately monitored, and properly used.

Following are details of the 13 open audit recommendations that we identified, grouped into the following three categories: financial issues, procurement issues, and programmatic issues.

Financial Issues

The Recovery Act requires an unprecedented level of transparency and accuracy in financial reporting. We reviewed reports issued on NASA's financial management to determine whether any open recommendations would have an impact on Recovery Act funds. During our review, we identified recommendations in one GAO report concerning the Improper Payments Information Act of 2002 (IPIA) and one independent auditors' report (DCAA) concerning JPL that we believe could affect NASA's Recovery Act activities.

“Improper Payments: Weaknesses in USAID’s and NASA’s Implementation of the Improper Payments Information Act and Recovery Auditing” (GAO-08-77, November 9, 2007)

NASA needs to maintain awareness of the risk of improper payments as Recovery Act funds are expended. In November 2009, the President signed Executive Order 13520, “Reducing Improper Payments and Eliminating Waste in Federal Programs.” The purpose of the Executive Order is to reduce improper payments by intensifying efforts to eliminate payment error, waste, fraud, and abuse in the major programs administered by the Federal Government. The order adopts a comprehensive set of policies, including transparency and public scrutiny of significant payment errors. The 2007 GAO report recommended that NASA implement corrective action regarding identifying improper payment information. NASA has since completed its corrective action and now awaits GAO's acceptance and closure of the recommendations. If the actions taken by NASA are deemed sufficient and the recommendations are closed, NASA will need to ensure that programs and projects receiving Recovery Act funds are included in the new process.

Beginning in FY 2003, Federal agencies were required to report improper payment information under the Improper Payments Information Act (IPIA) and information about their efforts to recover improper payments made to contractors under Section 831 of the National Defense Authorization Act, commonly known as the Recovery Auditing Act. GAO reviewed the U.S. Agency for International Development (USAID) and NASA's implementation processes for improper payments and found that both agencies needed to improve their identification of improper payment information. As of April 2010, the following recommendations remained open because, even though NASA completed the recommended corrective action, the action had not yet been verified and accepted by GAO.

Recommendation: The NASA Administrator should develop IPIA guidance to include detailed procedures for addressing the four key steps – perform risk assessment, estimate improper payments, implement a corrective action plan, annually report – that OMB requires agencies to perform in meeting the improper payment reporting requirements.

Corrective Action: NASA follows detailed procedures as recommended for addressing the four key steps in the process. The detailed procedures are outlined in NASA’s “Improper Payments Information Act and OMB Circular A-123, Appendix C: Requirements for Effective Measurement and Remediation of Improper Payments.”

Recommendation: As part of that guidance, incorporate the risk assessment methodology developed by NASA’s consulting firm to determine whether risks exist, what those risks are, and the potential or actual impact of those risks on program operations.

Corrective Action: NASA follows the recommended risk assessment methodology as detailed in its IPIA procedural guidance.

Recommendation: Maintain documentation of actions performed to address IPIA and Recovery Auditing Act requirements.

Corrective Action: NASA maintains centralized documentation control of its activities in the Office of the Chief Financial Officer, Quality Assurance Division. All appropriate documentation is located at NASA Headquarters and is available for review upon request.

Recommendation: Adhere to OMB’s guidance for reporting recovery auditing information in NASA’s annual Performance and Accountability Report.

Corrective Action: NASA completed corrective actions to comply with the IPIA and the Recovery Auditing Act reporting requirements and adhere to the OMB guidance for reporting, as shown in NASA’s FY 2009 Performance and Accountability Report.

“Report on Jet Propulsion Laboratory Compliance with Requirements Applicable to its Major Program and on Internal Control Over Compliance in Accordance with OMB Circular A-133, FY 2008 A-133 Audit” (Defense Contract Audit Agency, Audit Report No. 4911-2008J10110001 dated June 29, 2009)

The DCAA report identified two material weaknesses in internal controls at JPL. Because JPL is receiving over \$110 million in Recovery Act funding, it is important that NASA take the necessary steps to ensure that JPL is correctly using and reporting on these funds. A discussion of the material weaknesses, recommendations, and corrective actions follows.

Noncompliance with Title 48, Code of Federal Regulations, Part 9904.402, “Cost accounting standard – consistency in allocating costs incurred for the same purpose,” and Contract Clause G-2, “Cost Segregation and Reporting”

This material weakness relates to JPL not properly recording absences of less than a full day of exempt employees. By not properly recording these absences, JPL was not in compliance with the contractual requirement for accurate reporting of cost by major elements. As noted below, JPL completed corrective actions for this material weakness and the recommendations will be closed upon verification by the Defense Contract Audit Agency.

Recommendation: JPL should ensure proper accumulation and recording of costs in accordance with the Federal Acquisition Regulation (FAR), NASA FAR Supplement (NFS), and Contract NAS7-03001, such that cost reports submitted to the Government are current, accurate, and complete.

Recommendation: JPL should revise its policies to require exempt employees to record both full-day and partial-day leave.

Corrective Action: As of October 1, 2008, JPL had revised timekeeping policies and changed procedures to ensure proper accumulation and recording of costs. The NMO reviewed JPL’s actions and agreed with the resolution. As of April 2010, the NMO was working with the Defense Contract Audit Agency in an effort to close the recommendations.

Internal Controls over Cash Management

This second material weakness relates to internal controls over cash management; it was discussed in three audit findings and addressed by four recommendations. Without an adequate cash management system, JPL may not be properly recording use of Recovery Act funds. The audit disclosed that during FY 2008 JPL did not have adequate controls in place to ensure that the letter of credit draws of Federal cash were only used for immediate needs. As a result, unauthorized or premature draws were made from the letter of credit in FY 2008. Specifically, the three audit findings were that JPL drew down Federal funds based on unauthorized costs for the Phaeton Project, Research Support Agreements, and the Teachers Insurance and Annuity Association-College Retirement Equities Fund (TIAA-CREF) Defined Contribution Retirement Plan. NMO officials said they issued a waiver to JPL for the unauthorized draw for the Phaeton Project, which resolved that finding. Additionally, for the Research Support Agreements, the NMO increased the threshold amount and authorized JPL to draw down on the increased amount, which resolved that finding.

Although the NMO and JPL resolved the specific issues related to two of the three audit findings, the following four recommendations relating to internal controls over cash management remained open as of April 2010. NMO officials said they were in the

process of evaluating the validity of the third finding. Once they make a determination on the final finding, they will issue a memorandum as to whether they intend to implement the recommendations and, if so, will direct JPL to develop corrective actions. Because the four recommendations overlap all three findings, they will remain open until NMO makes the final determination on the final finding.

Recommendation: JPL should enhance its cash management system to ensure that cash draw requests for reimbursement of costs from the NASA letter of credit are prepared in accordance with contract terms.

Recommendation: JPL should perform periodic reviews to ensure that the letter of credit draws are for immediate needs, authorized, and allowable under the terms of the contract.

Recommendation: JPL should revise its practice of making biweekly cash draws on retirement plan contributions to the TIAA-CREF to ensure the cash draws on the letter of credit are only for immediate needs.

Recommendation: JPL should establish a process to ensure compliance with the terms of the contract so that only authorized payments are drawn down against the letter of credit.

Procurement Issues

NASA faces longstanding management challenges related to systemic weaknesses in its acquisition and contracting processes.⁶ During this review, we identified one OIG report with open recommendations related to procurement issues that could potentially affect use of Recovery Act funding.

“NASA Should Reconsider the Award Evaluation Process and Contract Type for the Operation of the Jet Propulsion Laboratory” (IG-09-022, September 25, 2009)

Since 1993, NASA has awarded three cost-plus-award-fee contracts to the California Institute of Technology for the operation of JPL. The latest award was a 5-year base contract valued at approximately \$7.5 billion, awarded in November 2002. The OIG examined this contract and concluded that NASA could improve its overall management of the JPL contract, including its processes for evaluating and documenting contractor performance.

JPL is scheduled to receive approximately \$110 million in Recovery Act funds from NASA’s Science Mission Directorate to accelerate the development of its projects. Of

⁶ In addition to this report, we are examining a series of procurement issues that may potentially affect use of Recovery Act acquisitions and expect to issue a memorandum later this fiscal year with the results of that review.

this amount, approximately \$78 million has been awarded to date. The timely completion of the corrective actions described below will reduce the risk that the weaknesses identified previously will affect the use of Recovery Act funds. NASA officials said they expected to complete corrective actions by September 2010, at which time the OIG will review the corrective actions and determine whether they are sufficient to close the recommendations.

Recommendation: The NMO Procurement Officer should provide in the Performance Evaluation Plan, or other applicable documents, specific, explicit direction to the Contract Performance Monitors to evaluate and document the contractor's annual performance for all of the criteria's metrics under the evaluation factors.

Corrective Action: The Performance Evaluation Plan was updated with clarifying language, and the NMO conducted a briefing with both the Contract Performance Monitors and Primary Performance Evaluators to emphasize the importance of documenting the evaluation process. The NMO intends to provide further direction in September 2010, after which the OIG will review the corrective action and determine whether the recommendation can be closed.

Recommendation: The NMO Procurement Officer should monitor Contract Performance Monitors' input for accuracy and completeness.

Corrective Action: The NMO completed a briefing to emphasize the importance of documenting the evaluation process. Further, the NMO is working with the NASA Directorates and offices providing evaluation input to ensure completeness of the process. The NMO provided detailed direction for the award fee FY 2009 Final Evaluation call and will provide further direction in September 2010. When these steps are complete, the OIG will review these actions and determine whether the recommendation can be closed.

Programmatic Issues

A 2009 OIG report contains one recommendation that remained open as of April 2010 related to programmatic issues that could potentially affect the use of Recovery Act funds.

"The Landsat Program Is Not Meeting the Goals and Intent of the Land Remote Sensing Policy Act of 1992" (IG-09-021, September 2, 2009)

The Landsat data series, begun in 1972, is the longest continuous record of changes in the Earth's surface as seen from space and is the only satellite system designed and operated to repeatedly observe the global land surface at moderate resolution. Landsat data are available at an affordable cost, providing a unique resource for people who work in agriculture, geology, forestry, regional planning, education, mapping, and global change research. The Landsat Data Continuity Mission (LDCM) is the next satellite mission

under development by NASA for the U.S. Geological Survey's Land Remote Sensing Program.

The audit report noted that NASA's efforts to comply with the Land Remote Sensing Policy (LRSP) Act of 1992 needed improvement. Specifically, the auditors found that NASA's efforts to develop, launch, and operate a land remote sensing system to maintain long-term continuity is in jeopardy because no one Federal agency has overall responsibility for the Program. Further, LDCM baseline requirements changed after contract award for the spacecraft, resulting in increased costs and possible launch schedule delays. Additionally, NASA removed and now must reinstate Landsat's legacy thermal imaging capability to satisfy the goals and intent of the LRSP Act. The reinstatement of the capability late in LDCM development will result in increased project costs if LDCM's launch is further delayed. In addition, LDCM launch delays increase the likelihood that both on-orbit Landsat satellites (Landsat 7 and Landsat 5) will become inoperable before LDCM reaches orbit, resulting in a period of time when no imaging would take place.

The LDCM Project is receiving approximately \$51.6 million in Recovery Act funds, which will help minimize a potential data gap due to the limited life of Landsat 7. Specifically, Recovery Act funds will be used to initiate development of a thermal infrared sensor (TIRS) and integrate the instrument onto the spacecraft. Thermal imaging will provide important data for surface and ground water information. Since Recovery Act funds are being used to initiate development of TIRS, actions to address the following open recommendation should be monitored to ensure that these funds are being used appropriately. As of April 2010, NASA officials said they expected to provide a corrective action plan for OIG review by the end of FY 2010.

Recommendation: The Associate Administrator for the Science Mission Directorate should develop a plan for continuous provision of Landsat-type data, should Landsat 7 and Landsat 5 become inoperable before LDCM is operational.

Corrective Action: As of April 2010, NASA was in the process of coordinating with the U.S. Geological Survey to develop a formal plan for the partial mitigation of the potential data gap by the end of FY 2010.

Management Action

NASA should ensure timely implementation of the open recommendations in this report. Failure to implement these recommendations timely could result in an increased risk of inaccurate reporting of Recovery Act financial data; improper payments for Recovery Act-funded activities; incomplete review of Recovery Act contractor performance; and inappropriate use of Recovery Act funds. Therefore, NASA should remain on track and ensure the timely completion of the corrective actions to address these open recommendations. In addition, NMO officials should make a final determination on whether to require JPL to implement DCAA's four recommendations relating to the

internal controls over the cash management system. If the officials agree with the DCAA recommendations, NMO should monitor JPL's progress in implementing them.

We provided a draft of this memorandum for review and comment on April 23, 2010. In NASA's e-mail response, received May 17, 2010, the Recovery Act Implementation Executive stated that the Agency concurred with the observations noted in this memorandum. The response also stated: "Based on the significant amount of work that NASA has completed surrounding corrective actions to address the recommendations, as already documented to GAO, DCAA and/or OIG, the weaknesses identified in the prior reports will soon have been remediated, such that they are no longer expected to have an impact on NASA's Recovery Act implementation." The OIG concurs with the Agency's response, and no further action is required.

We appreciate the courtesies extended during our review. If you have any questions or need additional information, please contact Laura B. Nicolosi, Director, Mission Support Directorate, at 202-358-2562.

Enclosure

Scope and Methodology

We performed this review from June 2009 through April 2010. We conducted our work in accordance with generally accepted government auditing standards, except as noted in the following paragraph. Those standards require that we plan and perform our work to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objective.

Our objective was to review open recommendations from prior audit reports issued by the NASA OIG, GAO, and other auditing organizations to identify open recommendations that could potentially affect NASA's Recovery Act activities. Based on this limited objective, we believe that the evidence obtained provides a reasonable basis for our findings and conclusions. Because the objective of our review is limited to the identification of relevant open recommendations, we did not perform testing of the design and operating effectiveness of NASA internal controls. In addition, we did not use computer-processed data to perform this review and, therefore, did not perform testing of the design and operating effectiveness of information system controls.

There were no reports or prior coverage relevant to our review other than those discussed in this report.