



SEP - 7 2004

**TO:** Assistant Administrator for Human Capital Management

**FROM:** Assistant Inspector General for Auditing

**SUBJECT:** Audit of NASA's Actions to Improve Leadership and Managerial Training  
Assignment Number A-04-012-00  
Report Number IG-04-022

The Office of Inspector General audited NASA's progress in responding to Columbia Accident Investigation Board (CAIB) Observation 10.12 regarding the Agency's leadership and managerial training activities. See the enclosure for details on the objectives, scope, and methodology of the audit.

In its report, the CAIB stated that managers at many levels in NASA had taken their positions without following a recommended standard of training and education that would prepare them for roles of increased responsibility. The CAIB also concluded that while NASA had a number of in-house academic training and career development opportunities, the timing and strategy for management and leadership development differed across organizations. The CAIB reported that NASA should implement an Agency strategy for leadership and management training that would provide a more consistent and integrated approach to career development while continuing to expand its leadership development partnerships with the Department of Defense and other organizations outside of NASA. The objectives of the audit were to follow up on the CAIB observation and determine whether the Agency's efforts to improve its leadership development program were on track. The program is important because of its long-term impact on the Space Shuttle Program and the future of human space flight.

The Headquarters Office of Human Capital Management (formerly the Office of Human Resources) initiated an ambitious effort to develop an Agency strategy for leadership development in response to CAIB Observation 10.12. Human Resource personnel from Headquarters and each Center participated in the initiative, and numerous Federal agencies were queried regarding their best practices for leadership development. On July 20, 2004, the Office of Human Capital Management requested that management comment on the draft of the strategic plan, "One NASA Strategy for Leadership and Career Development." The Agency expects to issue the final version of the plan in

September 2004 and prepare a detailed strategy implementation plan for leadership development in Fiscal Year 2005.

### ***NASA's Draft Leadership Development Strategy***

We found that the draft strategy for the Agency's leadership development, if implemented as planned, will adequately address CAIB Observation 10.12 by providing a consistent and integrated approach to career development. The strategy encompasses the following topics:

- Core experiences and broadening opportunities including mobility—intellectual mobility such as rotations to other offices or external organizations, geographical mobility to other Centers, and permanent change of station moves; participation in and leadership of teams, or both; and assessment of leadership skills
- Core and optional courses relevant to both achieving mastery in the leadership role as well as preparing for the next step (for example, personal effectiveness, business skills, leading people)
- Required courses on safety and diversity
- Assessments—analysis of feedback from subordinates, supervisors, customers, peers, and stakeholders
- Continuing education
- Individual development plans
- Coaching and mentoring

According to the draft plan, a Tiger Team—chartered by the Institutions and Management Office—will prepare the detailed plan for implementing the strategy. The team will comprise representatives from the mission directorates, mission support offices, and Centers. Office of Human Capital Management officials stated that the implementation plan will identify core and optional curricula and experiences for five leadership roles: New Hire/Individual Contributor, Influence Leader, First Line Supervisor, Manager, and Senior Leader.

### ***Staffing and Funding of Agency Training Activities***

NASA did not determine the cost of implementing the draft leadership development strategy or the size of the training staff required for supporting the strategy. For example, as of July 2004, the Agency had not determined the costs of any potential required temporary duty and other travel when reassigning employees to other geographical locations under the strategy's mobility provision. The draft of the Agency's leadership development strategy calls for the Tiger Team to determine the resource requirements. As for staffing, neither the Office of Personnel Management nor NASA had developed criteria for use in determining the appropriate size of the required staff to support the strategy. (For fiscal years 1999 through 2002, NASA's average ratio was 116 employees to each training staff member; during the same period, the average ratio for the private sector and other Government agencies was 383 to 1.)

### ***NASA Has Identified Best Practices***

The draft strategy for leadership development incorporates selected best practices that the Agency identified during its survey of programs at 20 Government and non-Government organizations. Examples of best practices incorporated into the strategy are using non-Government leadership development programs and rotational assignments with industry and requiring new employees to begin the leadership development process upon their arrival to the Agency. According to officials in the Office of Human Capital Management, NASA plans to expand its leadership development partnerships, with the goal of some NASA employees attending leadership development courses at Department of Defense educational facilities.

### ***Implementation of Leadership Development Strategy***

NASA's policy on employee and organizational development is NASA Policy Directive (NPD) 3410.2E, "Employee and Organizational Development." The policy, which states that each manager and supervisor shall jointly share the responsibility and accountability for development and training with subordinates, should help ensure compliance with the new leadership development strategy. The Directive requires that the Headquarters Office of Human Capital Management monitor metrics on training and development activities throughout NASA—activities that will contribute to the achievement of Agency human capital goals.

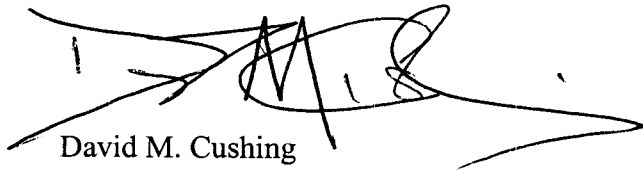
### ***Compliance with Senior Executive Service (SES) Promotion Criteria***

As part of our overall review of Observation 10.12, we also looked at whether the Agency had complied with Senior Executive Service (SES) promotion criteria in the Deputy Administrator memorandums dated February 21, 2003, and August 21, 2003. The promotion criteria require that candidates for SES positions at NASA satisfy leadership preparation requirements in areas that include supervisory and managerial experience, leadership training, and multi-organizational experience. NASA organizations have generally complied with those criteria. Of the 30 SES candidate nominations reviewed, we found 1 minor deficiency: that 1 deficiency was missing documentation relative to one of the SES promotion criteria. In response to our observation, the Executive Personnel Branch revised the SES Processing Checklist to include steps for verifying that candidates meet the selection criteria. On June 23, 2004, the OIG issued a memorandum report to the Deputy Administrator that summarizes the results of our review.

While considerable progress has been made, the Agency has much to accomplish before fully implementing a leadership development program. For example, the Agency's training and development community is in the process of developing the framework of the strategy. In addition, the Agency is considering expanding or developing partnerships with other agencies and external organizations. The draft strategy also recognizes several keys to successful implementation including top-level support and allocation of sufficient resources.

While NASA's strategy is in the process of being developed, we believe that the Agency is effectively working to improve leadership and managerial development in response to the CAIB Observation. As a result, we are terminating audit activities on this assignment. However, we will continue to monitor NASA's progress in developing its strategy and may initiate a follow-on audit at a later date to review the implementation plan.

We appreciate the courtesies and cooperation provided to the staff during this audit. If you have questions or need to discuss this matter further, please contact Mr. Robert Wesolowski, Director, Financial and Institutional Management Directorate, at (202) 358-2567, or me at (202) 358-2572.



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Enclosure

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## **Objectives, Scope, and Methodology**

### **Objectives**

Our objectives were to determine whether:

- The Agency established a realistic plan and schedule for implementing the CAIB's suggested action and whether NASA is adhering to that plan and schedule;
- The plan for implementing the training suggestions of the CAIB includes steps that will ensure all NASA organizations are complying with established leadership and managerial training policies and procedures;
- The leadership and managerial training activities are adequately staffed and funded;
- Recent changes to SES promotion criteria are being followed; and
- Best or promising practices exist within NASA or in other organizations regarding leadership and managerial training that NASA can apply or adapt.

### **Scope and Methodology**

To accomplish our objectives, we performed the following:

- Attended NASA's leadership development conference held from February 23 through February 27, 2004, to obtain an understanding of the Agency's leadership development activities.
- Reviewed draft versions of NASA's new leadership development strategy to determine whether the draft strategy adequately addresses the CAIB's concerns.
- Reviewed data at the Ames Research Center, John H. Glenn Research Center at Lewis Field, Johnson Space Center, Kennedy Space Center, and Marshall Space Flight Center to determine the adequacy of staffing and funding for NASA's training activities.
- Reviewed nomination files pertaining to candidates selected for SES positions to determine whether the Agency had complied with the SES promotion criteria that the Deputy Administrator issued in February and August 2003.
- Interviewed the Program Manager, Defense Leadership and Management Program and the Director, Space Professional Task Force, Air Force Space Command to identify training-related best practices for possible use in NASA's leadership development program.
- Interviewed officials in the Headquarters Office of Human Capital Management regarding NASA's efforts to identify best practices in the leadership development area.
- Reviewed the Handbook of Leadership Development published by the Center for Creative Leadership—a research and education institution—to identify possible additional best practices for leadership development.

## **Management Controls Reviewed**

An assessment of management controls was not part of the audit objectives; however, we observed that NASA had established a plan with milestones for developing and implementing a leadership development strategy in response to CAIB Observation 10.12.

## **Audit Work**

We performed this audit at the Ames Research Center, John H. Glenn Research Center at Lewis Field, Johnson Space Center, Kennedy Space Center, Marshall Space Flight Center, NASA Headquarters, and the Defense Leadership and Management Program Office at Rosslyn, Virginia, during December 2003 through July 2004 in accordance with generally accepted government auditing standards.