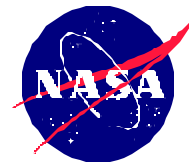


National Aeronautics and
Space Administration

Office of Inspector General
Headquarters
Washington, D.C. 20546-0001



Reply to Attn of: **W**

TO: A/Administrator

FROM: W/Inspector General

SUBJECT: Follow Up Review of the Independent Program Assessment Office, G-01-019

In 1996, the Office of Inspector General (OIG) reviewed NASA's relocation of the Independent Program Assessment Office (IPAO) to Langley Research Center (Langley). We recently conducted a follow-up review of the IPAO to determine whether policies and procedures are in place and are followed to ensure the independence and effectiveness of the IPAO. We found that IPAO reviews of NASA programs and projects have provided a valuable service to the Agency Program Management Council (PMC). We also identified several areas where the effectiveness of the IPAO can be enhanced. These include:

- Ensuring that IPAO reviews are conducted at key points in programs and projects.
- Clarifying the criteria for declaring a NASA program/project operational and the impact that decision has on the IPAO review process.¹
- Increasing the cost estimating and analysis capability of the IPAO.
- Making the IPAO a Headquarters component to ensure its independence and objectivity in fact as well as in appearance.

In May 2001, the PMC approved a one-year pilot of a new Independent Review Team (IRT) concept. Under this concept, teams would be established reporting to the cognizant Enterprise Associate Administrators (EAA) and the newly established Enterprise PMC's (EPMC). This concept would result in the IPAO being a participant in the IRT process. We are concerned that the IRT concept results in a lessening of the independent review process and a reduction in the flow of information to key NASA decision-makers.

We made nine recommendations to strengthen the independence and effectiveness of the IPAO and to improve the program/project review process. We evaluated NASA's responses to our recommendations and conducted follow-up discussions to clarify several key points.

¹ The need for clear criteria is obvious. When the Associate Deputy Administrator, as Chair of the PMC, declared the International Space Station (ISS) "operational" in mid-2000, NASA management decided to cancel an Independent Annual Review (IAR) for the International Space Station scheduled for July/August 2000. Therefore, NASA management lost the potential value of an IAR which could have provided needed independent perspective of potential cost and schedule threats to the program. See the report discussion on pages 5 and 6.

Our evaluation indicated that recommendations 2, 4, 5, and 7 remain open. We have asked management to reconsider its response to these four recommendations.

Recommendation 2 addressed the establishment of clearly defined criteria for conducting independent reviews throughout the various phases of a program/project. Once these criteria are established, we recommended that NASA Procedures and Guidelines (NPG), *Program and Project Management Processes and Requirements*, (NPG 7120.5A) be modified to address how independent annual reviews (IARs) should differ when conducted during the implementation phase versus the operational phase of a program/project. Management's response indicated that such criteria exist informally. Management, however, indicated that the differences between reviews should be documented in internal procedures as opposed to the NPG 7120.5A. Management also indicated that operations activity is part of the implementation process. We believe that there are unique differences between a program/project in the implementation phase versus one in operation. These differences need to be clearly delineated in NPG 7120.5A to ensure that the proper IAR is conducted.

Recommendation 4 indicated that the Associate Deputy Administrator should reassign both administrative and organizational responsibility for the IPAO to Headquarters. NASA disagreed with the need to reassign the IPAO function to Headquarters and indicated that the new Integrated Review Process lessened the Langley Center Director's responsibilities for the IPAO. NASA management did indicate, however, that the Langley Center Director remains responsible for providing the requisite capability to get the IPAO job done. We believe that true independence and impartiality require the IPAO report operationally and administratively to officials who have no stake in the competition for program funding. Reassigning the IPAO organizationally at Headquarters would allow Headquarters officials to determine resource needs for the IPAO without coordinating these needs with Langley.

Recommendation 5 addressed the need to modify the review process to designate the IPAO as the Co-Chair instead of Deputy Chair of each IRT. NASA management nonconcurred to this recommendation and indicated that, while the role of the IPAO has changed, it has not been lessened. We believe that the Integrated Review Process reduces the independence of the IPAO by putting it in a subordinate role to the IRT Chairs. Designating the IPAO as the Co-Chair of each IRT would enhance the stature and independence of the IPAO within each IRT and give the Chief Engineer increased insight into and assurance of the independence of the IRT's.

Recommendation 7 indicated that the Chair and Co-Chair of the IRT's should participate in the quarterly presentations to the PMC. Management responded that the Chair and Deputy Chair would be available if requested by the Associate Deputy Administrator. The response further indicated that non-EPMC members would have the opportunity to request the presence of the IRT Chair and Deputy Chair through the Associate Deputy Administrator. We continue to believe that the Chair and Deputy Chair (or Co-Chair) should be present at the quarterly PMC presentations. This would ensure that the results of the IRT reviews are fully and

objectively presented to the PMC and that the Chair and Co-Chair would be available to answer any questions or to elaborate on any issues.

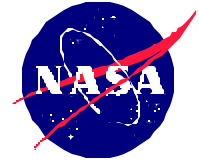
Roberta L. Gross

Enclosure

Follow Up Review of the Independent Program Assessment Office, G-01-019

National Aeronautics and
Space Administration

Office of Inspector General
Headquarters
Washington, D.C. 20546-0001



Reply to Attn of: **W**

TO: AI/Associate Deputy Administrator

FROM: W/Assistant Inspector General for Inspections, Administrative
Investigations, and Assessments

SUBJECT: Follow Up Review of the Independent Program Assessment Office, G-01-019

In 1996, the Office of Inspector General reviewed NASA's relocation of the Independent Program Assessment Office (IPAO) to Langley Research Center (Langley). We recently conducted a follow-up review of the IPAO to determine whether policies and procedures are in place and are followed to ensure the independence and effectiveness of the IPAO.

We found that IPAO reviews of NASA programs and projects have provided a valuable service to the Agency Program Management Council (PMC).¹ We also identified several areas where the effectiveness of the IPAO can be enhanced. These include:

- Ensuring that IPAO reviews are conducted at key points in programs and projects.
- Clarifying the criteria for declaring a NASA program/project operational and the impact that decision has on the IPAO review process.
- Increasing the cost estimating and analysis capability of the IPAO.
- Making the IPAO a Headquarters component to ensure its independence and objectivity in fact as well as in appearance.

In May 2001, the PMC approved a one-year pilot of an Independent Review Team (IRT) concept. Under this concept, a team would be established reporting to the cognizant Enterprise Associate Administrator and to a newly established Enterprise PMC.² The concept,

¹ The PMC is responsible for reviewing new programs proposed by the Enterprise Associate Administrators as part of the annual budget cycle and making recommendations to the Administrator. In addition, the PMC reviews the performance of existing programs and projects. Every NASA program must go through a PMC review on a periodic basis. This formal review process evaluates cost, schedule, and technical content.

² Enterprises are the primary business areas for implementing NASA's mission and serving its customers. These Strategic Enterprises are Earth Science, Space Science, Human Exploration and Development of Space, Aerospace Technology, and Biological and Physical Research.

which will be evaluated during the pilot period, would result in the IPAO being a participant in the Independent Review Team. We are concerned that the Independent Review Team concept results in a lessening of the independent review process and a reduction in the flow of information to key NASA decision-makers. NASA needs to ensure that the IPAO maintains its independence in the IRT process and preserves its responsibilities for reporting review results to the PMC.

BACKGROUND

As part of the mandate to downsize Headquarters' Full Time Equivalent positions from about 1400 to approximately 700, in 1996 the Agency's independent program evaluation and assessment function was physically transferred to Langley. Prior to that transfer, the function was located in the Office of the Comptroller. In our July 1996 report, *Assessment of the Relocation of NASA Independent Program Evaluation & Assessment Activities to LaRC*, we found that NASA had not fully established an independent program assessment function in accord with the recommendations of the Augustine Report³ and a 1992 General Accounting Office (GAO) review.⁴ Specifically, NASA did not implement the Augustine Report recommendation to establish an adequately staffed Systems Concept and Analysis Group at NASA Headquarters to serve the Administrator. NASA also did not follow GAO's recommendations that the Agency direct the independent cost analysis group to review program estimates at all major milestones, decision points, or other significant events; strengthen the independent cost analysis staff with sufficient personnel to generate independent estimates; ensure that the cost analysis group operated with the independence that the Augustine Report intended with results of cost reviews being reported directly to the Administrator; and require that the advice on cost estimates provided to the Administrator by the cost analysis group be formally documented.⁵

In our 1996 report, we had recommended that the IPAO function be assigned organizationally to Headquarters to ensure its independence and impartiality, even if physically located at a

³ *Report of the Advisory Committee on the Future of the U.S. Space Program*, December 1990 (Augustine Report).

⁴ General Accounting Office, *SPACE PROGRAMS: NASA's Independent Cost Estimating Capability Needs Improvement*, November 1992 (GAO/NSIAD-93-73).

⁵ GAO did not obtain official Agency comments on their report. However, in a September 1992 speech, the Administrator acknowledged that NASA had not acted on the Augustine Report and announced a new initiative to establish an independent group, staffed with sufficient resources and modern cost estimating tools, to help ensure cost estimates are as accurate as possible. Specifically, the Administrator stated: "Another tool I would like to talk about is cost estimating. A recent GAO report took us to task for not acting on a recommendation made by the Augustine Committee. We agree with GAO. Augustine recommended that NASA establish a viable, independent cost estimating group. The Senate echoed that recommendation in 1991. I am announcing today, my intent to take that advice. We will establish an independent group, staffed with sufficient resources and modern cost estimating tools, to help ensure our cost estimates are as accurate as possible."

NASA Center.⁶ NASA did not agree with our recommendation. Instead, the Agency assigned administrative responsibility for the IPAO to the Langley Center Director and operational responsibility to the Agency PMC and the Chief Engineer. The Langley Center Director's administrative responsibility includes the preparation of the IPAO Director's performance evaluation (with input from the Chief Engineer) as well as the distribution of awards to the IPAO staff.

In our September 2000 audit report, *NASA's Independent Cost Estimating Capability*, we found that NASA was taking steps to improve the Agency's independent cost estimating capability by establishing a System's Management Office⁷ at each Center and adding cost estimators to the IPAO. However, we found that NASA still did not have a requirement to develop independent cost estimates at all major reviews. Also, NASA needed to take steps to increase the number and qualifications of cost estimators throughout NASA. We also questioned whether the Agency's reporting and funding structures provided assurance that the cost estimates were independent in fact and appearance. In its response, NASA management agreed to institute a requirement for an independent cost estimate after a program's Critical Design Review. NASA also agreed to enhance its training program for cost estimators. NASA management, however, did not agree to establish an independent funding source for either the IPAO or the System's Management Offices.⁸

NASA Procedures and Guidelines (NPG), *Program and Project Management Processes and Requirements*, (NPG 7120.5A), effective April 3, 1998, identifies four management subprocesses for programs and projects.⁹ These subprocesses are formulation, approval, implementation, and evaluation. The IPAO plays a key role in the evaluation subprocess. The evaluation subprocess provides an independent assessment of the continuing ability of the

⁶ There are existing precedents for this type of structure. The entire staff of the Office of Inspector General is assigned to NASA Headquarters but has employees located at and supported by all NASA Centers and field locations. The Office of Space Science has the NASA Management Office (NMO) located at and supported by the Jet Propulsion Laboratory but all NMO civil servants are assigned to NASA Headquarters.

⁷ The System's Management Office provides support to NASA Centers through (1) independent evaluations of projects and programs for compliance with and implementation of NASA guidelines; (2) leadership, consultation services, and technical expertise on system engineering processes; and (3) forecasts of costs for advanced program/project planning initiatives.

⁸ Appendix A includes a summary of prior OIG reviews of NASA's independent assessment process.

⁹ These subprocesses will become even more critical in light of the Administration's initiative to develop the President's Management Plan. As part of that Plan, the Office of Management and Budget (OMB) requires that NASA develop a program approval document that will define a process and delineate information required for future budget submissions to OMB, starting with the Fiscal Year 2003 budget. The goal of this new document will be to expedite approval of new projects and strengthen support of on-going activities. The information to be provided will include capital budgeting information, independent cost and technical reviews, and will explicitly address risk and uncertainty.

program or project to meet its technical and programmatic commitments and to provide value added assistance to the program/project managers.¹⁰

The IPAO has a core staff that draws on the resources of other NASA components to supplement its expertise during reviews. Assessments and reviews are scheduled and performed on all major NASA programs and projects for which the PMC has oversight responsibility. The IPAO conducts Independent Assessments, Non-Advocate Reviews (NAR's), and Independent Annual Reviews (IAR's) of NASA programs as determined by the PMC.¹¹

The IPAO is also responsible for providing leadership and strategic planning for the cost estimation core competency across the Agency.¹² This consists of providing instruction on the use of cost estimation tools; developing specialized cost estimation tools; ensuring consistent, high-quality cost estimates; fostering a pipeline of competent NASA cost analysts; and providing independent, non-advocate cost estimates and cost-benefit analyses.

I. NASA SHOULD ENSURE THAT IPAO REVIEWS ARE CONDUCTED AT KEY POINTS IN PROGRAMS/PROJECTS

We interviewed senior officials at NASA Headquarters and the staff of the IPAO at Langley. Those interviewed were generally positive about the quality and timeliness of the IPAO reviews. Although the Independent Program Assessment Office has generally provided valuable assistance to the PMC in its reviews of NASA programs and projects, we found an instance where a scheduled review of the International Space Station (ISS) Program was canceled. The cancellation of the IAR of the ISS Program scheduled for July/August 2000 left

¹⁰ The formulation subprocess defines a program or project concept and plan to meet mission objectives or technology goals. The approval subprocess determines a program or project's readiness to proceed from formulation to implementation. The implementation subprocess delivers the program and project products and capabilities specified in the program and project requirements and plans.

¹¹ Independent assessments are performed in support of the PMC oversight on approved programs/projects to validate an advanced concept. Independent assessments are typically conducted in the formulation phase of a program/project and include a life cycle cost estimate. NAR's provide an independent verification of a candidate program or project's plans, life cycle cost status, and readiness to proceed to the next phase of the program's life cycle. NAR's are typically done before a program/project moves from formulation to implementation. IAR's provide a validation of conformance to the Program Commitment Agreement. The Program Commitment Agreement is the contract between the Administrator and the cognizant Enterprise Associate Administrator for implementation of a program. IAR's (a) assess progress/milestone achievement against the program's original baseline; (b) review and evaluate the cost, schedule, and technical content of the program over its life cycle; (c) assess technical progress, risks remaining, and mitigation plans; and (d) determine whether any program deficiencies exist which result in revised projections exceeding predetermined thresholds.

¹² *Memorandum of Understanding between NASA Headquarters and the Independent Program Assessment Office at the Langley Research Center regarding the conduct of the Agency Lead Role for Cost Estimation and Analysis*, dated July 2000.

NASA management and the Congress without benefit of an independent cost analysis of the program during a time of unreported and alarming cost growth.¹³ NASA needs to ensure that IPAO reviews are conducted at key points in a program/project. These reviews should be scheduled and coordinated wherever possible to minimize disruptions to the programs/projects being reviewed.

NASA management gave three reasons for the cancellation of the IAR. First, the ISS Program was entering a phase when multiple Space Shuttle flights were being scheduled to deliver ISS components on-orbit. Consequently, ISS personnel were dedicated to preparing for the launches and to conducting the attendant internal reviews needed before the launches took place.¹⁴ Because ISS Program officials would have been heavily involved in providing input and resources to the IPAO during its conduct of the scheduled IAR, to avoid resource conflicts, the ISS Program Office and the Enterprise Associate Administrator requested that the PMC and the IPAO not conduct the IAR at the scheduled time. The NASA Comptroller stated that he supported rescheduling the original IAR for the fall of 2000, after the initial period of ISS construction was complete. However, the IAR was not rescheduled. By the fall of 2000, the ISS management team was in the process of re-estimating the program costs; therefore, management believed conducting an IAR at that point was not useful.

Second, NASA managers stated that they believed the IPAO lacked sufficient cost analysis capability to effectively evaluate large-scale complex programs such as the ISS. This belief was based, in part, on the 1999 IAR, which NASA managers believed was flawed. These managers told us that the cost analysis portion of the 1999 IAR was incorrect in asserting that the ISS program had overestimated costs and might be carrying excessive reserves.

Third, NASA management decided an IAR was no longer required, since the Associate Deputy Administrator as Chair of the PMC had declared the ISS operational in mid-2000. The basis for declaring the ISS operational was that all or most U.S. components were either in space or at the Kennedy Space Center being prepared for launch. When the ISS was declared operational, NASA management took the position that the implementation phase of the ISS program was complete for U.S. components/modules. Because the IPAO focuses on the evaluation and implementation subprocesses, NASA management canceled the IAR.

Although we understand the concerns expressed by NASA managers regarding the timing of the 2000 IAR in terms of the potential impacts on employees critical to the ISS Program, we do not agree that declaring the ISS operational negated the need for an IAR or that the IPAO did not have or could not have obtained the necessary cost analysis capability. At the time the

¹³ Based on a recent ongoing internal assessment of the ISS Program, NASA determined that significant revisions were required to continue the Program in accordance with the funding profile outlined in the President's fiscal year (FY) 2001 budget. In total, the assessment identified that \$11.2 billion was needed for the Program requirements of which more than \$4 billion was in excess of the FY 2001 budget funding profile for the outyears FY 2002 through 2006.

¹⁴ For example, Flight Readiness Reviews and Multi-Element Integrated Tests were being conducted at this time. Other reviews included technical, operational, and integrated readiness reviews.

ISS was declared operational, the ISS was uninhabited and few of the ISS components were on-orbit. In addition, several key components, such as the crew return vehicle and the propulsion module, were neither built nor included in the program baseline. We did not find any criteria in NPG 7120.5A that would preclude an IAR from being performed on any program/project after it becomes “operational”. Thus, declaring the ISS “operational” did not preclude the program from being subject to an independent annual review. This is evidenced by the full IAR of the ISS Program that was scheduled to start toward the end of July 2001.¹⁵ Fieldwork will take place in August 2001 following a series of launches in the June/July time period. Even though elements of the ISS are clearly more operational than they were in June/July 2000, the PMC has nonetheless scheduled an IAR of the entire ISS Program.

If NASA management believed that the IPAO lacked sufficient skills, the Agency could have supplemented the IPAO staffing rather than canceling the IAR. We address the need to enhance the IPAO cost analysis skills in the next section. While an IAR of the ISS Program in July/August 2000 might not have identified the magnitude of the cost overrun, the IAR could have provided a needed independent perspective of potential cost and schedule threats to the program. IPAO reviews are an important mechanism for getting information on program/project costs and schedule status to the PMC and other key decision-makers. Decisions to delay or cancel IAR’s should be well supported and be made in accordance with criteria that should be developed and implemented.

Recommendation 1: The Associate Deputy Administrator should establish a process that ensures that internal programmatic reviews are timed and coordinated with the Independent Program Assessment Office reviews so that there is an opportunity for independent insight into the cost and schedule aspects of the program/project.

Recommendation 2: The Associate Deputy Administrator should establish clearly defined criteria for conducting independent reviews throughout the various phases of a program/project. The criteria should include such factors as size of the program in relation to NASA’s budget (e.g., the ISS Program), Congressional interest, and technological risk. Once these criteria are established, NPG 7120.5A should be modified to address how independent annual reviews should differ when conducted during the implementation phase versus the operational phase of a program/project.

¹⁵ As discussed in more detail in a later section, NASA is piloting an Independent Review Team process. As a result, a few minor changes were made to the ISS Program review and it is now referred to as an Independent Implementation Review.

II. INDEPENDENT PROGRAM ASSESSMENT OFFICE'S COST ANALYSIS AND ESTIMATING CAPABILITY NEEDS TO BE ENHANCED

The IPAO has possessed little in-house cost analysis/estimating capability since it was moved to Langley in 1996.¹⁶ Although the IPAO was given responsibility for performing life cycle cost analyses of major programs and projects, the Headquarters Comptroller's Office maintained responsibility for the initial program cost estimation function. In part because the cost estimation function remained at Headquarters, many of the cost analysts did not transfer to Langley. Without benefit of having in-house expertise, the IPAO supplemented its staff with contractors and cost analysts from other NASA Centers to perform some of the life cycle and other cost analyses.

In July 2000, NASA Headquarters managers and the Langley Center Director negotiated a Memorandum of Understanding (MOU) on cost estimating and analysis. This MOU created a lead role for cost estimating and analysis at NASA and assigned that role to the IPAO. The MOU also provided the IPAO with eight additional positions to be filled with cost estimators/analysts. The IPAO plans to assign the cost estimating/analysis function to its currently vacant Deputy Director position. Of the eight additional staff positions given to the IPAO, four have been filled. The recruitment of the other four positions was delayed due to the recent Government-wide hiring freeze. The hiring freeze for these positions has now been lifted and vacancy announcements have been issued for the four positions.

The NASA Comptroller told us that NASA recognizes that the IPAO, and the Agency as a whole, lacks sufficient cost estimating and analysis capability. The Comptroller further indicated that NASA plans to use contractors to provide increased cost analysis capability to the ISS program. These contractors would work directly with the ISS Program Manager in an effort to better quantify and analyze ISS cost issues. In response to our September 2000 report, *NASA's Independent Cost Estimating Capability*, NASA management also agreed to identify and develop core training requirements consisting of all the skills and training required for cost estimators Agency-wide.

The IPAO cannot provide the maximum service to the PMC and other key decision-makers unless it can perform adequate cost estimates and other life cycle cost analyses. To perform that work, the IPAO must be adequately staffed with competent personnel or have its workforce augmented with contractor expertise with proper oversight and direction from core civil service employees.

Recommendation 3: NASA should evaluate the proper mix of contractors versus civil servants to provide cost analysis expertise to the Agency, including the expertise needed by the IPAO.

¹⁶ In its 1992 report, GAO found that, even before the transfer to Langley, the cost analysis/estimating function was understaffed. The Augustine Report had indicated that as many as 20 highly qualified personnel would be needed to carry out the independent cost estimating function. At the time GAO completed its review, the Cost and Economic Analysis Branch within the Office of the Comptroller had only two of the eight allocated slots filled.

III. THE INDEPENDENT PROGRAM ASSESSMENT OFFICE SHOULD BE A HEADQUARTERS ORGANIZATION

As stated previously, the IPAO reports functionally to the Chief Engineer and the Chair of the PMC. The Chief Engineer provides operational guidance and direction to the IPAO. The IPAO reports the results of its reviews to the Chief Engineer and the PMC. Organizationally, the IPAO reports to the Langley Center Director. The Langley Center Director provides the IPAO with administrative support and, with input from the Chief Engineer, prepares the IPAO Director's performance evaluation. The Center Director also reviews the composition of IPAO review teams and makes recommendations to ensure the independence of the team members.

As we detailed in our 1996 report on the relocation of the IPAO function to Langley, every NASA Center is funded by one or more Enterprises. Therefore, true independence and impartiality require the IPAO report operationally and administratively to officials who have no stake in the competition for program funding. Reassigning the IPAO organizationally at Headquarters reporting to the Associate Deputy Administrator as Chair of the PMC would enable the PMC to determine the resource needs of the IPAO without coordinating these needs with or through a NASA Center.

In an October 1996 memorandum to the Acting Deputy Administrator, we reiterated our position that the IPAO report directly to the PMC (and to the Chief Engineer). Making the IPAO a Headquarters component would provide increased flexibility in the location of IPAO staff. Staff could be located at Langley, Headquarters, or wherever the need existed. Indeed, flexibility in the hiring location might enhance the IPAO's ability to hire qualified cost and program analysts in a timely manner. We also recommended that the PMC maintain a small cadre of program evaluation and cost estimation professionals at Headquarters. This arrangement would enhance the IPAO's assistance to the PMC and the Administrator in managing systems and programs from the fiscal, technical, and political perspectives of the Washington, DC environment. A cadre of staff located in Washington, DC, would also give the IPAO greater access to, and awareness of the concerns of, the Congress, the Office of Management and Budget, the GAO, and other groups.

Recommendation 4: To maximize the effectiveness and independence of the IPAO, the Associate Deputy Administrator should reassign both administrative and organizational responsibility for the IPAO to Headquarters.

IV. CHANGES ARE NEEDED TO THE INDEPENDENT REVIEW TEAM CONCEPT

The IRT concept was approved at the PMC meeting of May 17, 2001. The PMC approved a one-year pilot of the Integrated Review Process for all programs/projects under Headquarters

oversight. The plan is to evaluate the Integrated Review Process for one year and then to either incorporate the Process into policy or to discontinue the Process.¹⁷

Under the pilot, the Chief Engineer, in coordination with the cognizant Enterprise Associate Administrator, will establish an Independent Review Team. The IRT will be assembled early in the formulation phase and will follow the program/project throughout its life cycle. The IRT's will participate in normally scheduled programmatic reviews such as Critical Design Reviews and Preliminary Design Reviews.¹⁸ The Enterprise Associate Administrator will recommend the IRT Chair and team members subject to the approval of the Chief Engineer. The Enterprise Associate Administrator, IPAO, Chief Financial Officer, and the Chair are responsible for ensuring that the IRT incorporates knowledgeable and independent experts, both from within and external to NASA, as appropriate. The IRT is to be comprised of specialists outside the program/project advocacy chain. The IPAO provides the Deputy Chair of the IRT. The IPAO will also be responsible for ensuring a quality evaluation and report consistent with Agency practices. The IPAO Deputy Director in consultation with the Chair will recommend the Independent Cost Estimate (ICE) subteam for approval by the Chief Financial Officer.¹⁹ Independent Cost Estimates are conducted for every Non-Advocate Review and updated when appropriate.

During the formulation phase of a program/project, the IRT reports to the Enterprise Associate Administrator for special assessments and Independent Assessments. The IRT reports directly to the Agency PMC for the Non-Advocate Review.

As another element of the new Integrated Review Process, the NASA Enterprises will establish Enterprise Program Management Councils (EPMC). The Enterprise Associate Administrator will serve as the Chair of the EPMC. The Chief Engineer, the Chief Financial Officer, and the Associate Administrator for Safety and Mission Assurance will be members of each EPMC. Other Headquarters' organizations may be represented on the EPMC as requested by the Chair. During the implementation phase of a program/project, the IRT will report to the EPMC. Documented minutes of the IRT presentations (including decisions, actions and recommendations) are concurred to by the EPMC members and distributed to the Agency PMC members and the Administrator, and EPMC actions are tracked in the Headquarters Action Tracking System. The results and status of the IRT reviews are reported by the Enterprise Associate Administrator at the quarterly PMC status reviews. The quarterly status

¹⁷ NASA management does not intend to change NPG 7120.5A, *NASA Program and Project Management Processes and Requirements*, during the pilot program.

¹⁸ The IRT will also incorporate the technical depth provided by the External Independent Readiness Review team members. This is an Enterprise-requested review of a program or project near product delivery. Personnel independent of the program or project staff the review.

¹⁹ *The National Aeronautics and Space Administration Authorization Act of 2000* requires that before any funds may be obligated for Phase B (latter stages of project formulation) of a project that is projected to cost more than \$150,000,000 in total project costs, the Chief Financial Officer is to conduct an independent life-cycle cost analysis of such project and report the results to Congress.

reviews will be scheduled each month with Enterprises presenting the results of IRT reviews and status of the programs on a quarterly rotating basis. These PMC reviews would be scheduled for four hours to give the Enterprises time to cover their programs/projects. This contrasts with the short blocks of time each Enterprise had at previous PMC meetings. (Appendix B is a flowchart of the Independent Review Team process).

The IRT pilot generally applies to all programs/projects with Headquarters oversight regardless of phase. There are several programs, however, that may not fall under the pilot. These include the Space Operations Management Office (SOMO) program, the Integrated Financial Management Project (IFMP), and the International Space Station (ISS) program. The Chief Engineer's Office believes that the SOMO and IFMP programs will not be part of the pilot. The ISS program may or may not be part of the pilot.

The IRT concept may result in some improvements in Enterprise oversight of programs/projects and in the coordination of the multiple required reviews. Nevertheless, we are concerned that the Chairs of the IRT's may not be totally independent because the cognizant Enterprise Associate Administrators recommend their selection. Also, the Integrated Review Process reduces the independence of the IPAO by putting it in a subordinate role to the IRT Chairs. Currently, the IPAO serves as the Co-Chair for each of the reviews. Additionally, the results of all reviews in the implementation phase of a program/project will be reported to the EPMC instead of to the PMC. The Enterprise Associate Administrator will present a synopsis of the review findings to the PMC on a quarterly basis. Therefore, neither the PMC nor the NASA Administrator will receive the full text of the IRT report nor will the IPAO or other members of the IRT participate in the PMC presentations. The December 1990 Augustine Report recommended: "...an independent cost analysis group be formed to serve the Administrator and the Administrator's staff. This group would be responsible for advising the Administrator on all significant cost estimates provided to Congress or the Office of Management and Budget." The November 1992 General Accounting Office report (see footnote #4) recommended that the NASA Administrator: "...ensure that the cost analysis group operates with the independence that the Advisory Committee intended, with results of cost reviews being reported **directly** (emphasis added) to the Administrator." The IRT process, as proposed, does not comply with the recommendation of either the Augustine Report or the General Accounting Office report.

We are also concerned about the composition of the EPMC. While the Integrated Review Process allows other Headquarters organizations to be represented at the discretion of the Enterprise Associate Administrator, we believe that the participation of other organizations should be required. These would include the Chief Information Officer, the General Counsel, the Office of Procurement, the Office of Management Systems, and the Chief Scientist. These organizations have information technology/assurance, legal, acquisition, administrative and technical/scientific interests in many of the programs/projects being developed by NASA and can bring valuable insight to the EPMC process.

The NASA Comptroller indicated that he believes including the Office of the Chief Financial Officer, the Chief Engineer, the Associate Administrator for Safety and Mission Assurance,

and others within the EPMC's has enhanced the independence of the IRT process. We continue to be concerned, however, that the independence of the review process is impacted by the increasing role of the Enterprise Associate Administrators in recommending the review teams and in reporting the teams' results, and the reduced role of the IPAO in coordinating and conducting the reviews.

NASA plans to use Agency as well as non-Agency experts within its IRT's. The Chief Engineer's office has indicated that the non-NASA experts could include non-Federal team members. NASA needs to take steps to ensure that the Agency complies with the Federal Advisory Committee Act²⁰ if it uses non-Federal team members. We understand that the Office of the Chief Engineer has discussed the implications of the Federal Advisory Committee Act with the Office of General Counsel. While this is a positive step, constant attention needs to be given to ensuring that the requirements of the Act are adhered to whenever an Independent Review Team is originally staffed or when staffing changes are subsequently made.

The following recommendations will improve the independence and effectiveness of the Independent Review Team process. We will continue to monitor and review the process during the pilot program.

Recommendation 5: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to designate the IPAO as the Co-Chair of each IRT.

Recommendation 6: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the PMC receive the full text of IRT reports in advance of the PMC meetings to allow participants opportunity to adequately prepare for the meetings.

Recommendation 7: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the Chair and Co-Chair of the IRT's participate in the quarterly presentations to the PMC.

Recommendation 8: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the membership of the EPMC's include all NASA organizations having an information technology/assurance, legal, acquisition, administrative and technical/scientific interest in the programs/projects being reviewed.

²⁰ The Federal Advisory Committee Act was enacted to address concerns over the existence of numerous entities established to advise officers and agencies of the executive branch. Advisory committees that include non-Federal representation need to file a charter with the head of the Agency that specifies: the committee's official designation; objectives and scope of activity; period of time necessary to carry out its purposes; the agency official to whom it reports; the agency responsible for providing the necessary support; a description of duties; an estimated annual operating cost; estimated number and frequency of meetings; and the committee's termination date. In addition, each meeting shall be open to the public and timely notice of each meeting must be published in the Federal Register. Minutes of each meeting must be kept, including a record of the persons present.

Recommendation 9: The Associate Deputy Administrator, in conjunction with the PMC, should develop a clear and documented process to ensure that NASA adheres to the provisions of the Federal Advisory Committee Act in the staffing of the Independent Review Teams.

SUMMARY AND EVALUATION OF NASA MANAGEMENT RESPONSE

We received and evaluated NASA management's response to the draft report (See Appendix C). NASA management fully concurred with three (Recommendations 1, 3, and 9) of the nine recommendations; concurred with the intent of two recommendations (Recommendations 2 and 6); partially concurred with two recommendations (Recommendations 7 and 8); and non-concurred with two recommendations (Recommendations 4 and 5). We also conducted follow-up discussions with the Chief Engineer's office to clarify several questions generated during our evaluation of the management response. Management also provided suggested changes to the text of the report that are reflected, where appropriate, in the body of the report.

NASA management fully concurred with recommendations 1, 3, and 9. The actions planned or taken are fully responsive to the recommendations and we consider these recommendations closed pending verification of corrective actions.

Recommendation 2 addressed the establishment of clearly defined criteria for conducting independent reviews throughout the various phases of a program/project. We recommended that once these criteria are established, NPG 7120.5A should be modified to address how independent annual reviews should differ when conducted during the implementation phase versus the operational phase of a program/project. Management's response stated that criteria do exist informally and have been used in the past. Regarding the modification of 7120.5A, NASA management agreed that the difference in Independent Annual Review (IAR) procedures for a program/project under development versus one in operations should be documented. NASA management indicated, however, that the correct place to document this is in the internal procedures for conducting the reviews. Management also indicated that operations activity is part of the implementation phase.

The internal procedures referenced in the response were clarified during our follow-up discussions with the Chief Engineer's office. We were told that, in each review, there is a Terms of Reference document generated that essentially outlines exactly how the review will be conducted, the data requirements and when the data will be needed during the review, presentation schedules, and the expectations of the review. The Terms of Reference document is the roadmap for conducting the review. The Chief Engineer's office believes the Terms of Reference rather than the formal NPG should contain the procedures differentiating a program under development versus one in operations since each review has specific requirements depending upon the review subject.

We continue to believe that reviews conducted during the "operational" phase of a program/project are different from those conducted during the implementation phase. The implementation phase is where the design and development efforts are brought to fruition with the end product of this phase being the operational system. Once the system is operational, there are sustaining engineering and other maintenance aspects that only occur during the operational phase of a program/project. Independent reviews of a program/project that has transitioned into an operational stage must address a different set of cost and technical issues than occurred in prior phases. While it is valuable to include the provisions for a review of an operational program in the Terms of Reference, we believe that these differences should be formalized and stated in NPG 7120.5A. The response indicates that NASA considers the operational phase to be a part of the implementation phase. We disagree with this view and remain concerned that the obvious differences between implementation and operational phases have not been properly addressed in NPG 7120.5A. This recommendation remains open.

Recommendation 4 addressed reassigning both administrative and organizational responsibility for the IPAO to a Headquarters organizational element. NASA management non-concurred with this recommendation. Management's response stated that the role of the IPAO would be to support the team Chair. Because team selection, approval, and the review scope (terms of reference) are no longer the responsibility of the Langley Center Director, there is no need for the IPAO staff to be administratively reassigned to NASA Headquarters. Management further indicated that the advantage of the organizational and administrative responsibility remaining at Langley is that the Langley Center Director is responsible for maintaining requisite capability to get the IPAO job done.

We continue to believe that true independence and impartiality require the IPAO report operationally and administratively to officials who have no stake in the competition for program funding. Locating the IPAO organizationally at Headquarters would allow the Associate Deputy Administrator and the Chief Engineer to determine resource needs of the IPAO without coordinating or negotiating these needs with the Langley Center Director. This recommendation remains open.

Recommendation 5 addressed modifying the Integrated Review Process to designate the IPAO as the Co-Chair of each IRT. NASA management non-concurred with this recommendation. Management's response indicated that, while the role of the IPAO has changed, it has not been lessened. Management stated that the IRT Chairs are planned to be recognized experts primarily from outside the Agency. The response indicated that the integration of team chairs, as well as key "core" team members from the private sector, provides a higher degree of independence than previously experienced under IPAO leadership. While the selection of IRT Chairs from outside the Agency may have a positive affect on the overall composition of the IRT's, we continue to believe that the Integrated Review Process reduces the independence of the IPAO by putting it in a subordinate role to the IRT Chairs. The IPAO reports operationally to the Chief Engineer. Designating the IPAO as the Co-Chair of each IRT would enhance the independence of the IPAO within each IRT and give the Chief Engineer increased insight into, and assurance of the independence of, the IRT's. This recommendation remains open.

Recommendation 6 addressed modifying the Integrated Review Process to require that the Agency PMC receive the full text of the IRT reports in advance of the PMC meetings. NASA management concurred with the intent of this recommendation. Management indicated that the full presentation of the IRT to the EPMC would be posted on a "secure web page" (called Live Link) to which all members of the PMC would have access. Management's position was further clarified during our follow-up discussions with the Chief Engineer's office. We believe management's response to this recommendation is fully responsive and we consider the recommendation closed pending verification of corrective action.

Recommendation 7 addressed modifying the Integrated Review Process to require that the Chair and Co-Chair of the IRT's participate in the quarterly presentations to the PMC. Management's response indicated that the Chair and Deputy Chair will be available if requested by the Associate Deputy Administrator. The response further indicated that Non-EPMC members will have the opportunity to request the presence of the IRT Chair and Deputy Chair through the Associate Deputy Administrator. We continue to believe that the Chair and Deputy Chair (or Co-Chair) should be present at the quarterly PMC presentations. They would ensure that the results of the IRT reviews are fully and objectively presented to the PMC and would be available to answer any questions raised by the PMC and to elaborate on key issues. This recommendation remains open.

Recommendation 8 addressed the modification of the IRT process to require an expanded membership on the EPMC's to include representatives from all NASA organizations having an information technology, information assurance, legal, acquisition, administrative and technical/scientific interest in the program/project being reviewed. The response indicated that those with regular interest (The Offices of the Chief Financial Officer, Safety and Mission Assurance, and Chief Engineer) are part of the EPMC. Management further indicated that the Enterprise Associate Administrator would invite others when appropriate. In response to Recommendation 6, management also indicated that each PMC member would receive the full text of the IRT presentations to the EPMC's. During our follow-up discussions with the Chief Engineer's Office, we were told that the PMC members would then have the option of requesting to be present at EPMC meetings of interest to them. We believe management's response to this recommendation, together with the information provided during follow-up discussions, is fully responsive and we consider the recommendation closed pending verification of corrective action.

CONCLUSION

The effectiveness of the IPAO can be improved by increasing the organization's independence and enhancing its capabilities. In addition, criteria for delaying or canceling an independent annual review must be clarified to ensure that projects needing an independent review receive such a review. NASA could strengthen the capability of the IPAO by immediately taking steps to recruit experienced cost analysts and estimators. In addition, relocating the IPAO organizationally to NASA Headquarters could improve its effectiveness and independence.

NASA also needs to modify the recently approved Integrated Review Process to ensure that the independence and effectiveness of the program/project reviews is maintained. Procedures also need to be developed to ensure that NASA uses non-Federal Independent Review Team members in accordance with the provisions of the Federal Advisory Committee Act. We believe the recommendations contained in this report will improve the quality of the services the IPAO provides to NASA.

We are requesting that NASA reconsider its response to recommendations 2,4,5, and 7. As mentioned in our evaluation of management response, we continue to believe that these recommendations would strengthen the independence and effectiveness of the IPAO and the Integrated Review Process.

David M. Cushing

5 Enclosures:

Appendix A: Prior NASA Office of Inspector General Reviews
of NASA's Independent Review Process

Appendix B: Independent Review Team Process

Appendix C: NASA Management Response

Appendix D: Report Distribution

NASA Office of Inspector General Reader survey

MAJOR CONTRIBUTORS TO THIS REPORT

Diane Frazier, Procurement Analyst
Charles Heaton, Management Analyst
Robert Wesolowski, Auditor (team leader)
Pamela Withrow, Management Analyst

Appendix A

Prior NASA Office of Inspector General Reviews of NASA's Independent Review Process

PRIOR NASA OFFICE OF INSPECTOR GENERAL REVIEWS OF NASA'S INDEPENDENT ASSESSMENT PROCESS

NASA's ability to provide accurate and credible cost assessments for its projects has been a concern for many years. The 1990 Report of the Advisory Committee on the future of the U.S. Space Program (Augustine Report) recommended NASA create an independent cost analysis group made up of about 20 "top-notch specialized personnel" to advise the Administrator on significant cost estimates provided to the OMB and Congress. In 1992, the GAO emphasized that "estimates and analysis provided to the Administrator by the cost analysis group need to be independent in fact and appearance."

In 1996, we reported on the organizational location of NASA's independent program evaluation and assessment function. At the time of our review, the Office of the Chief Financial Officer at NASA Headquarters performed the function. NASA planned to transfer the function from Headquarters to the Langley Research Center (Langley).

We concluded that locating the independent assessment and cost estimation function in a subordinate organization (that is, Langley) placed the function's independence and impartiality at risk. True independence and impartiality require that the function reside with officials without any stake in the competition for limited resources. Moreover, accessibility of the function's analysts to both top management officials and key program and project staff at Headquarters and in the field was a significant issue and was fundamental to the function's success. A staff at Headquarters would have ready access to key counterparts at GAO, the Department of Defense, and other Federal agencies. Staff at the Langley Research Center would not have this same access.

We recommended that NASA locate a core staff at Headquarters capable of managing and overseeing the independent assessment and cost estimation function. Assistance could be provided by personnel located at Langley but functionally assigned to Headquarters. Management established the Independent Program Assessment Office at Langley but did not locate a core staff at Headquarters.

In 2000, we conducted a review to assess NASA's current and planned ability to develop independent cost estimates in support of the Agency's program and project management processes. We found that NASA was taking positive steps to improve its cost estimating capability by establishing a System Management Office (SMO) at each Center and by adding cost estimators in the Independent Program Assessment Office at Langley. However, we found that the organizational structures for the independent cost estimating function at the Independent Program Assessment Office and SMO did not provide for independent reporting of findings directly to the approving official who is designated depending on the nature of the individual program or project. Also, the Independent Program Assessment Office and SMO are funded through the Centers — a process that may hinder their independence.

Consequently, NASA has less assurance that the opinions, conclusions, and recommendations made to the Administrator or other approval authority on acquisitions for Agency programs and projects are independent in fact and appearance.

We made recommendations to improve the independence of the cost estimating function and revise Agency policy to require an independent cost estimate at major milestone reviews. NASA agreed to make the policy changes. Management stated that the Agency conducts cost assessments annually as part of the IAR process. NASA policy also requires that an independent cost estimate be performed during a Non-Advocate Review. In response to our recommendation, management agreed to require another independent cost estimate after the Critical Design Review. However, NASA has not implemented our recommendations to enhance the independence of the cost estimating function.

Appendix B

Independent Review Team Process

Appendix C

NASA Management Response

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001



JUL 31 2001

TO: W/Assistant Inspector General for Inspections, Administrative
Investigations, and Assessments

FROM: AE/Chief Engineer

SUBJECT: Follow Up Review of the Independent Program Assessment Office,
(IPAO) G-01-019

Thank you for the opportunity to review the subject document. The following represents an integrated Agency response. We appreciate the effort that the Office of the Inspector General (IG) has expended to recommend improvements in this area.

Our review of your draft report has identified suggested changes and comments that are imbedded in the enclosed text of the draft document with change bars included for your convenience. We would be more than happy to meet with you to discuss our observations/comments. We will provide responses to the final draft upon receipt from your office.

We agree that IPAO-led reviews of NASA programs and projects have provided a valuable service to the Agency Program Management Council (PMC). However, we are concerned about the implication the report makes about the independent evaluation process only as it relates to IPAO, and not the overall process. Also, the Independent Review Team (IRT) process is currently a one-year pilot. Many of your concerns will undergo scrutiny, with enhancements where necessary, during the pilot period. At the end of the pilot period, we will then decide if and exactly how this approach would become part of the permanent Agency process.

We agree that the IRT process changes the role of the IPAO somewhat, but its role remains key and the overall independent review process is strengthened. The NASA Chief Engineer, not the Enterprise Associate Administrator, will select and approve the independent team. The IRT Chair, and key "core" team members, will likely be from outside the Agency, which is more in keeping with the recommendations of the Augustine Report. NASA needs to ensure that the IPAO maintain its independence in the IRT process and preserves the "minority opinion" reporting.

Regarding the cost estimating capability, NASA is beginning to improve its cost estimating workforce. The IPAO has initiated the process to hire four Civil Service cost estimators, and will continue to hire as appropriate to strengthen the quality of independent cost estimates. The IPAO is also providing leadership and strategic planning for the cost estimation core competency across the Agency through a cost steering group, which meets quarterly and includes senior cost analysts from all ten NASA centers.

At this time we provide the following response if the recommendations contained in the draft report, are retained in the final report.

IG Recommendation 1: The Associate Deputy Administrator should establish a process that ensures that internal programmatic reviews are timed and coordinated with the Independent Program Assessment Office reviews so that there is an opportunity for independent insight into the cost and schedule aspects of the program/project.

NASA response: Concur. The IRT will coordinate its review schedule with the program schedule to maximize insight and minimize impact to the program. The IRT process ensures that independent reviews, including Independent Assessments, Non-Advocate Reviews, and Independent Implementation Reviews, will be centered around major program milestones such as Systems Requirements Review, Preliminary Design Review, Critical Design Review, Integrated Baseline Review, etc. These will be documented in the Program Commitment Agreement, and/or the Program and/or the Project Plan.

IG Recommendation 2: The Associate Deputy Administrator should establish clearly defined criteria for conducting independent reviews throughout the various phases of a program/project. The criteria should include such factors as size of the program in relation to NASA's budget (e.g., the ISS Program), Congressional interest, and technological risk. Once these criteria are established, NPG 7120.5A should be modified to address how independent annual reviews should differ when conducted during the implementation phase versus the operational phase of a program/project.

NASA Response: Concur. We concur with the intent of this recommendation. Such criteria do exist informally and have been used in the past. They include:

- Programs/projects which require significant resources
- Programs/projects containing high risk
- Programs/projects with international participation
- Programs/projects with involvement of multiple NASA Field Centers
- Programs/projects with public visibility

It is recognized that these criteria are subjective. Experience has shown that it is difficult to use qualitative criteria consistently, since the application of such criteria depends on the context of the program.

Regarding the modification of NPG 7120.5A, we agree that the difference in Independent Annual Review (IAR) procedures for a program/project under development vs. one in operations should be documented, but we believe the correct place to document this is in our internal procedures for conducting the reviews. Also, operations activity is part of the implementation phase.

IG Recommendation 3: NASA should evaluate the proper mix of contractors versus civil servants to provide cost analysis expertise to the Agency, including the expertise needed by the IPAO.

NASA Response: Concur. We concur with this recommendation. Reliance on contractor support will be determined after consideration of a number of factors, including the scope of each cost estimate and the type of expertise required for each estimate. We will continue to evaluate the proper mix of civil service and contractor cost estimators.

IG Recommendation 4: To maximize the effectiveness and independence of the IPAO, the Associate Deputy Administrator should reassign both administrative and organizational responsibility for the IPAO to Headquarters.

NASA Response: Non Concur. Under the IRT process, the IPAO will act as an agent of the NASA Chief Engineer to support and facilitate Agency independent reviews. The Chief Engineer will be responsible for the operation of the IPAO. The NASA Chief Engineer will select and approve the team membership, including the Chair and IPAO Deputy Chair, and assumes responsibility for certifying the independence, objectivity, and qualifications of the review team. Leadership of the review team will rest primarily with the team Chairs that are planned to be recognized experts primarily from outside of the Agency. The integration of team chairs, as well as key "core" team members from the private sector provides a higher degree of independence than previously experienced under IPAO leadership. Likewise, the IRT process specifically provides an opportunity for each and every team member to present a minority report if a team member's findings and conclusions differ from the team majority. Since the role of the IPAO will be to support the team Chair, and since team selection, approval, and the review scope (terms of reference) are no longer the responsibility of the Langley Research Center (LaRC) Director, there is no need for the IPAO staff to be administratively reassigned to NASA Headquarters. The advantage of the organizational and administrative responsibility remaining at LaRC is that the LaRC Director is responsible for maintaining requisite capability to get the IPAO job done.

IG Recommendation 5: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to designate the IPAO as the Co-Chair of each IRT.

NASA Response: Non Concur. The role of the IPAO has been changed, but not lessened. It remains key. The NASA Chief Engineer will select and approve the team membership, including the Chair and IPAO Deputy Chair, and assumes responsibility for certifying the independence, objectivity, and qualifications of the review team. Leadership of the review team will rest primarily with the team Chairs that are planned to be recognized experts primarily from outside of the Agency. The integration of team chairs, as well as key “core” team members from the private sector provides a higher degree of independence than previously experienced under IPAO leadership. The IPAO is the Agency Center of Excellence on doing reviews. They will ensure reviews are compliant with Agency expectations, practices, and requirements. As such, the IPAO role as Deputy Chair under the IRT process is appropriate.

IG Recommendation 6: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the PMC receive the full text of IRT reports in advance of the PMC meetings to allow participants opportunity to adequately prepare for the meetings.

NASA Response: Concur. We concur with the intent of this recommendation. IRT presentations will be posted to a document-sharing server prior to the scheduled Enterprise PMC (EPMC) meetings and Agency Quarterly Status Review (QSR) meetings.

IG Recommendation 7: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the Chair and Co-Chair of the IRT’s participate in the quarterly presentations to the PMC.

NASA Response: Partially Concur. We concur with the intent. The Chair and Deputy-Chair will be available if requested by the Associate Deputy Administrator. Non-EPMC members will have an opportunity to request the presence of the IRT Chair and Deputy Chair through the Associate Deputy Administrator.

IG Recommendation 8: The Associate Deputy Administrator, in conjunction with the PMC, should modify the Integrated Review Process to require that the membership of the EPMC’s include all NASA organizations having an information technology/assurance, legal, acquisition, administrative and technical/scientific interest in the programs/projects being reviewed.

NASA Response: Partially Concur. We concur with the intent of the recommendation. IRT presentations will be available to all PMC members prior to

the scheduled PMC meetings. Those with regular interest (B, Q, and AE) are on the EPMC. The Enterprise Associate Administrator (EAA) will invite others when appropriate.

IG Recommendation 9: The Associate Deputy Administrator, in conjunction with the PMC, should develop a clear and documented process to ensure that NASA adheres to the provisions of the Federal Advisory Committee Act in the staffing of the Independent Review Teams.

NASA Response: Concur. We concur with this recommendation. The IRT process will be coordinated through the Office of General Counsel to ensure compliance with the Federal Advisory Committee Act.

Thank you again for the opportunity to review this draft audit report. We would like to discuss the draft report and our response at your convenience. The point of contact for this audit in the Office of the Chief Engineer is Mr. Gregory Robinson, he can be reached at (202) 358-2541.


W. Brian Keegan

cc:

AI/Dr. Mulville

AE/Mr. Robinson

B/Mr. Peterson

M/Mr. Rothenberg

R/Mr. Venneri

U/Dr. Olsen (Acting)

Y/Dr. Asrar

JM/Mr. Werner

JSC/AA/Mr. Estess (Acting)

LaRC/MS106/Dr. Creedon

LaRC/MS106/Mr. Freeman

Appendix D

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Deputy Associate Director, Energy and Science Division, Office of Management and Budget
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Report: Follow Up Review of the Independent Program Assessment Office, G-01-019

Please circle the appropriate rating for the following statements.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
1. The report was clear and readable	5	4	3	2	1	N/A
2. The report was logically organized	5	4	3	2	1	N/A
3. The report was concise and to the point	5	4	3	2	1	N/A
4. The facts were presented fairly and accurately	5	4	3	2	1	N/A
5. The report contained sufficient information to support the finding(s) in a balanced and objective manner	5	4	3	2	1	N/A
6. The recommendation(s) made sense and were relevant	5	4	3	2	1	N/A
7. The recommendation(s) were timely	5	4	3	2	1	N/A

Overall, how would you rate the report?

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|-----------|------|
| Excellent | Fair |
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How could we improve the report? _____

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V. Yes: _____ **No:** _____

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