National Aeronautics and
Space Administration

Office of Inspector General
Washington, DC 20546-0001

SEP 2 8 2005

TO: Associate Administrator for Space Operations
Acting Program Manager, International Space Station Program Office

FROM: Assistant Inspector General for Auditing

SUBJECT: Audit of Management of International Space Station Risks
(Assignment No. A-04-037-00)

The NASA Office of Inspector General is closing the subject assignment because our audit work revealed no significant issues or concerns. We began the audit in July 2004 to determine whether the International Space Station (ISS) Program had adequately identified and mitigated program risks with safety and health implications. We extended the audit scope in June 2005 to include risks associated with waivers, deviations, and exceptions (WDEs) and noncompliance reports (NCRs). Specific objectives were to determine whether the ISS Program:

- properly identified, assessed, planned, tracked, controlled, documented, and communicated safety and health risks;
- adequately analyzed, documented, and communicated risks associated with WDEs and NCRs; and
- arranged for independent reviews of WDEs and NCRs.

To accomplish the audit objectives, we reviewed the ISS Risk Management Plan; conducted detailed reviews of selected program risks, WDEs, and NCRs; and confirmed that independent reviews were conducted of WDEs and NCRs. The scope of our audit was limited to safety and health-related risks in the ISS Program's risk database as of January 11, 2005, and risks associated with WDEs and NCRs as of June 2005. We randomly selected 11 of 114 ISS Program risks, 18 of 717 WDEs, and 10 of 333 NCRs for review. We also judgmentally selected two "Top Program Risks" and one risk pertaining to fiber optics. Our review of selected risks, WDEs, and NCRs included reviews of program records and interviews of program officials.

We found that the ISS Program properly identified, assessed, planned, tracked, controlled, documented, and communicated safety and health risks and adequately analyzed, documented, and communicated risks associated with WDEs and NCRs. In addition, we found that the ISS Program arranged for independent reviews of WDEs and NCRs by the Independent Technical Authority and the NASA Engineering Safety Center.

Initially, we found that the ISS Risk Management Plan did not comply with all content requirements stipulated by NASA Procedural Requirements (NPR) 8000.4, "Risk Management Procedural Requirements." We immediately informed ISS Program management of those issues and in August 2005, management revised its ISS Risk Management Plan to incorporate the content required by NPR 8000.4. According to Safety and Mission Assurance personnel, the revised plan is under review for final issuance and should be issued in October or November 2005. Management is also considering a suggestion we made concerning use of the "Supporting Rationale" field in the risk database. Currently, the risk database only includes a basic explanation of the cause for changes or updates to a particular ISS risk. The complete analysis is contained in supplemental hard copy documentation. We suggested that the Supporting Rationale field be used to input the complete analysis of the cause for change or update, which would ensure that the risk database is a comprehensive source of information concerning ISS risks.

Because the ISS Program properly identified and analyzed its risks, WDEs, and NCRs and also took or is considering taking corrective actions on issues we identified, we do not plan to perform further work under this assignment. We appreciate the courtesies and cooperation provided to the staff during this review. If you have questions, or would like to discuss this matter further, please contact Ms. Carol Gorman, Space Operations and Exploration Director, at (202) 358-2562.

Evelyn R. Klemstine

Evelyn R. Klemstine

cc:
Director, Johnson Space Center
Director, Kennedy Space Center
Director, Management Systems Division