



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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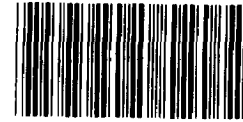
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MISSION ANALYSIS AND  
SYSTEMS ACQUISITION DIVISION

B-203317

MAY 29, 1981

Dr. Alan M. Lovelace  
Acting Administrator, National  
Aeronautics and Space Administration



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Dear Dr. Lovelace:

Subject: [Implementing a Data Handling Policy for Space  
Science Flight Investigations] (MASAD-81-34)

We have completed our survey on the National Aeronautics and Space Administration's (NASA's) handling of scientific data. Our recommendations should result in more effective handling of data acquired from your space science projects.

This survey was a follow up to our June 27, 1977, report entitled "More Emphasis Needed on Data Analysis Phase of Space Science Programs" (PSAD-77-114). That report discussed the untimely submission of scientific data by NASA's principal investigators to the National Space Science Data Center--NASA's primary facility for acquiring and disseminating space science data to be analyzed by scientists other than the principal investigators and their coworkers. NASA agreed with our report and on May 2, 1978, issued a new policy (NMI 8030.3A) aimed at improving the data handling process by involving project and program scientists throughout the project.

The purpose of this survey was to evaluate the implementation and effectiveness of the new policy on handling data obtained from space science projects. We discussed NASA's data handling activities with your staff in the Office of Space Science and with the Director, National Space Science Data Center. We reviewed NMI 8030.3A and other NASA management instructions and handbooks related to the acquisition and management of space science data. We then tested the implementation of the new policy on four projects--the Gamma Ray Observatory, Galileo, Venus Orbiting Imaging Radar, and the International Solar Polar Mission.

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None of the projects being managed under the new policy has been launched. Therefore, we were not able to determine whether the policy is effective in enhancing the timely submission of data to the National Space Science Data Center. We were, however, able to address the issue of whether the new policy was being properly implemented. Our survey showed that the data handling policy is not being implemented in a consistent manner.

The data handling phase of NASA's space science flight investigations is described in detail in a Project Data Management Plan. The plan is designed to provide the milestones for data reduction, data interpretation, and resource requirements for these phases. Under the new policy, each program scientist is responsible for insuring that the letter notifying investigators that they have been selected to participate in a space science investigation stipulates that he/she will contribute to the writing of a Project Data Management Plan before receipt of flight data. The plan must document the plans for data analysis, dissemination of results, and making data records and supporting documentation available to the scientific community through the designated data dissemination facility. The notification letter should also stipulate that selection for further opportunities to participate in the space science program will be jeopardized by failing to meet the commitments of the plan.

These policy requirements are not being consistently implemented. Of the four projects included in our survey, only the notification letters for the Gamma Ray Observatory project contained the required language. In our opinion, specifying in the letter of notification the data handling obligations of all parties participating in a space science project is an essential first step in assuring effectiveness of NASA's May 2, 1978, data handling policy. Since our survey showed that this is not being consistently done, we found no need to develop our point further. Instead, we recommend that you instruct all the Office of Space Science program scientists that they must strictly adhere to the principles and responsibilities that are set forth in NMI 8030.3A to assure more effective handling of data acquired from your space science projects.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

The comments provided to us by your Office of Space Science were considered in preparing this report. We appreciate the cooperation extended us during this survey.

Sincerely yours,

A handwritten signature in black ink, appearing to read "W. H. Sheley, Jr.", written in a cursive style.

W. H. Sheley, Jr.  
Director