

September 1992

NASA

Large Programs May Consume Increasing Share of Limited Future Budgets



147504

■



United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-247693

September 4, 1992

The Honorable Albert Gore, Jr.
Chairman, Subcommittee on Science,
Technology, and Space
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Richard J. Durbin
Chairman, Task Force on Defense,
Foreign Policy, and Space
Committee on the Budget
House of Representatives

You requested that we review the National Aeronautics and Space Administration's (NASA) 5-year program plan to (1) determine whether it was consistent with potential budget resources and (2) identify major programs that would require the greatest share of NASA's limited future budgets. On March 17, 1992, we testified on the first part of your request and concluded that there was a serious mismatch between NASA's 5-year plan and the budget resources that were likely to be available to support it.¹ We stated that NASA was overcommitted by \$13 billion to \$21 billion and that without a meaningful strategic plan, NASA would be forced to make significant program adjustments each year to make up for lower-than-estimated funding levels.

This report responds to the second part of your request and also provides information on whether

- NASA's first agencywide strategic plan addresses the mismatch we identified in our testimony and
- NASA Project Status Reports to Congress can be improved.

Background

Since 1986, NASA's annual budget has increased from less than \$8 billion to over \$14 billion in fiscal year 1992. There was optimism during this period that NASA would continue to grow at this rate. Some large programs were beginning to expand, and new programs were being initiated. In the summer of 1990, NASA proposed a 5-year program in which the agency's annual appropriation would reach nearly \$25 billion by fiscal year 1995.

¹NASA Budget: Potential Shortfalls in Funding NASA's 5-Year Plan (GAO/T-NSIAD-92-18, Mar. 17, 1992).

The Budget Enforcement Act of 1990 set limits on discretionary spending that have severely constrained the funding allocations for discretionary programs, including those conducted by NASA. Thus, for fiscal year 1992, the overall appropriations for NASA, considering inflation, represented a slight decrease in real terms. The near-term funding outlook is also pessimistic.

Despite repeated warnings that the agency was oversubscribed, NASA has been slow to bring its program planning and budget projections in line with more modest future appropriations. This year, however, a new Administrator was appointed to head the agency. Under the new Administrator's leadership, NASA officials told us they are moving aggressively to reshape current programs in recognition of a more constrained future funding environment.

The House report on NASA's fiscal year 1992 authorizations stated that over the next several years the agency should expect only inflation-adjusted increases. If NASA were to realize such increases for fiscal years 1993-97, its 5-year funding total would be about \$80 billion. Currently, the President's fiscal year 1993 budget submission projects flat funding levels of about \$15 billion annually for NASA through 1997, or a 5-year total of about \$75 billion.

These estimates do not reflect final budget decisions for NASA but rather the administration's plan to freeze overall domestic discretionary spending at the fiscal year 1993 level. Reallocations within the total for domestic discretionary programs can be made, but NASA will continue to compete for available resources in future budgets with other discretionary programs. In deciding any reallocations, Congress will be faced with difficult choices between reducing the deficit and helping to meet a wide variety of other important national needs.

There are over 20,000 individually identified activities that make up NASA. These activities include over 500 separate project elements, many of which combine to make up dozens of larger programs in research and development, space flight, control and data communications, and facilities construction. NASA's long-range strategic plan and fiscal year 1993 budget submission retain virtually all of these programs, estimated to require about \$90 billion in funding through 1997. Some scientists are worried that if funding for the largest of NASA's programs continues as planned, there may be additional delays or cancellations of other space science missions.

Results in Brief

NASA's largest programs may require an increasing share of its limited future budgets. If NASA receives funding averaging about \$15 billion annually for the next 5 years (a total of about \$75 billion), as reflected in the executive branch's fiscal year 1993 budget submission, its largest programs may consume increasing shares of the agency's annual appropriations. Additional unplanned cost growth typical of NASA research and development programs may push funding requirements for these programs even higher. Under this scenario, NASA would have to reduce funds originally intended for other programs. NASA is in the process of reviewing the costs of all its major programs and plans to make appropriate adjustments to ensure a balanced overall space and aeronautics program within budget realities. The results of this effort, however, may not be known until NASA submits its fiscal year 1994 budget proposal.

NASA's strategic plan (called Vision 21), prepared last year before the appointment of the current Administrator, did not address the mismatch between the agency's 5-year program plan and potential budgetary resources. The new Administrator said that he is going to give top priority to the creation of a new strategic plan. NASA wrote Vision 21 because the Senate Committee on Appropriations had directed that the agency complete an agencywide strategic plan by the time the President submitted his fiscal year 1993 budget. The Committee set forth eight criteria on which it expected NASA to base its plan. These criteria focus on setting priorities, coming to grips more honestly with accurate cost estimates, and anticipating more modest future budget growth. However, NASA did not fully respond to these issues.

Information provided to Congress on NASA's future program cost estimates could be improved. Although program plans cover 5 years, NASA's biannual Project Status Reports, the agency's principal mechanism for reporting program costs to Congress, provide funding estimates for only 1 year beyond the current budget request. This time frame is too short to provide Congress with the broad view necessary to anticipate program funding needs and make forward-looking decisions.

NASA's Largest Programs May Require an Increasing Share of NASA's Annual Budgets

NASA's largest programs are contributing to an increasing bow wave of future funding requirements that may require nearly all of NASA's potential appropriation by fiscal year 1997. These programs include the space shuttle; Space Station Freedom; space and ground network, communications and data systems; Earth Observing System; projects directly supporting the space station; New Launch System; Advanced X-Ray Astrophysics Facility; Cassini Saturn probe; Expendable Launch Vehicle fleet; the National Aero-Space Plane; and the Space Exploration Initiative. NASA's 5-year cost estimates for each of these programs is shown in table 1.

Table 1: NASA's Estimates for Major Programs—Fiscal Years 1993 Through 1997

Then-year dollars in millions

Program	Fiscal year					Total 1993-97
	1993	1994	1995	1996	1997	
Space shuttle production and operations	4,128	4,324	4,394	4,415	4,750	22,011
Space station development and operations	2,235	2,487	2,743	2,773	2,683	12,921
Space and ground network, communications, and data systems	921	1,178	1,272	1,319	1,418	6,108
Earth Observing System	413	695	1,299	1,461	1,530	5,398
Projects directly supporting the space station	409	475	600	631	633	2,748
New Launch System	125	175	324	865	1,178	2,667
Advanced X-Ray Astrophysics Facility	189	350	404	435	329	1,707
Cassini Saturn Probe	210	422	372	245	133	1,382
Expendable Launch Vehicle fleet	218	337	394	378	310	1,637
National Aerospace Plane	80	120	150	175	175	700
Space Exploration Initiative	32	63	88	88	88	359
Total	8,960	10,626	12,040	12,785	13,227	57,638

The space shuttle estimates shown in table 1 are contingent on NASA's realizing \$1.8 billion in savings in shuttle operations from fiscal year 1992 through fiscal year 1996. NASA expects these savings to come from personnel reductions and other economy and efficiency initiatives. Annual savings against prior estimates would be \$93 million, \$225 million, \$300 million, \$480 million, and \$650 million, respectively. Costs of projects supporting the space station include estimates to outfit the station for conducting science experiments, providing a centrifuge facility, construction of facilities, shuttle capability development, and civil service personnel. These funding requirements, however, do not include estimates

for producing an assured crew return vehicle for the space station. NASA estimates development of this capability by fiscal year 1999 to be about \$1.7 billion.

In commenting on a draft of this report, NASA requested that the costs of developing an assured crew return vehicle not be included in table 1, given that a number of less costly alternatives are being considered. These alternatives range from the development of a new vehicle to the use of Russian hardware. NASA officials also took exception to the inclusion of the centrifuge facility and other scientific hardware planned for the space station as "projects directly supporting the space station." NASA officials stated that they considered these science experiments analogous to cargo being flown on a cargo plane. We disagree with this analogy. The scientific hardware, including the centrifuge facility, are being designed to meet the unique engineering requirements of the space station, and we believe they should be included as part of the space station's life-cycle cost estimate.

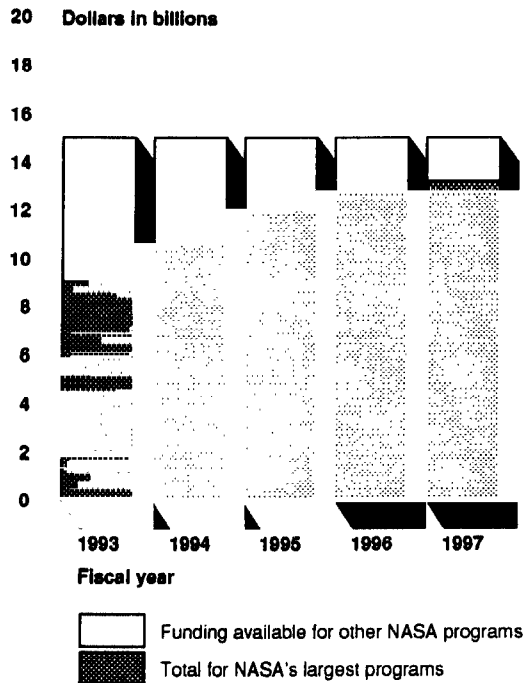
There are several other areas where large future funding demands may emerge that are not addressed in this report. For example, Congress has not reached a final decision on NASA's proposal to cancel the development of new Advanced Solid Rocket Motors for the space shuttles. If this program continues on its current schedule, NASA estimates a funding requirement of about \$1.6 billion over the next 5 years. Other areas include, but are not limited to, hazardous waste cleanup, facilities maintenance, operations costs for existing and new space systems, and unplanned maintenance of spacecraft.

NASA officials told us that the agency does not intend to pursue major programs as currently planned at the expense of other essential activities if budget constraints should require appropriate adjustments. NASA is in the process of conducting an agencywide review of all its major programs. NASA officials told us that the overall goals of this effort are to reduce the cost of its major programs and make appropriate adjustments to maintain a balanced overall space and aeronautics program within budget realities. This process may not be completed until NASA submits its fiscal year 1994 budget proposal. If the reviews do not effectively reduce the number of programs consistent with potential future funding constraints, NASA risks perpetuating a resource dilemma in which all programs become subject to an annual cycle of cutbacks, restructuring, stretch-outs, and potential termination as costs are pushed into the future.

NASA's 5-Year Planning Estimates May Be Too Optimistic

Given the potential for limited or no growth in NASA budgets over the next several years, not all NASA programs will be able to proceed as scheduled. As we stated in our testimony, NASA's funding requirements assume a total funding level of about \$90 billion for fiscal years 1993-97 (about \$92 billion if the Advanced Solid Rocket Motor program is retained). Based on optimistic funding levels totaling \$90 billion over 5 years, the programs shown in table 1 would require about \$58 billion, or 64 percent of that amount.² If NASA's annual funding averages closer to about \$15 billion, or about \$75 billion over the next 5 years, its largest programs would absorb approximately 77 percent of the agency's total funding. Figure 1 shows the increasing share of NASA's potential future budget resources that would be required to continue its largest programs as currently planned through fiscal year 1997.

Figure 1: Increased Funding for NASA's Largest Programs May Reduce Budget Resources for Other Programs



²This assumes that \$1.8 billion in planned shuttle program operations savings will be realized from fiscal year 1992 through fiscal year 1996.

When too many programs are underway—more than can be funded at proposed future funding levels—increases for large programs may be met at the expense of other NASA missions. For example, in fiscal year 1992, NASA requested \$15.7 billion and received \$14.4 billion. Under this lesser amount, the space station program was fully funded, but virtually every other NASA activity was cut. Space science, technology, the Space Exploration Initiative, and the space shuttle programs all had to absorb a portion of the \$1.3 billion shortfall. For example, two planetary missions—the Cassini probe to study Saturn and the Comet Rendezvous/Asteroid Flyby mission—and the third of four “Great Observatories” (the Advanced X-Ray Astrophysics Facility) were all delayed by one year, and other space science projects were essentially canceled, including the fourth Great Observatory (Space Infrared Telescope Facility). Ultimately, citing a constrained budget, NASA decided to cancel the Comet Rendezvous/Asteroid Flyby mission and the Shuttle Test of Relativity Experiment in its fiscal year 1993 budget request.

Program Cost Growth Could Exacerbate Shortfall

The programs shown in table 1 may require an even greater share of limited future funding when the potential for unplanned cost growth is considered. These programs are large, complex efforts that involve considerable technological risks. Such programs have historically taken longer than planned and cost more than originally estimated. Repeated program restructuring, stretch-outs, significant cost growth, and even eventual program termination are not uncommon in these types of programs. One recent example is the President’s proposed termination of NASA’s new Advanced Solid Rocket Motor program for the space shuttles. This proposal to cancel the program was made, in part, because its total estimated development cost had increased from about \$1.9 billion to about \$3.4 billion and the first scheduled launch had slipped by more than 2-1/2 years. At this writing, Congress had not completed action on NASA’s fiscal year 1993 budget, and therefore the future of this program is still uncertain.

This situation is not unique. Over the last several years, we have issued a number of reports concerning cost growth and schedule delays in NASA programs.³ Coupled with NASA’s constrained funding outlook, further cost growth among current programs could also erode financial reserves and force the agency to defer or eliminate more program activities than anticipated. For example, we recently reported that the financial reserve margin in the space station program was limited—only 1 percent to

³A listing of related GAO reports is provided at the end of this report.

4 percent over the next 2 fiscal years.⁴ When reserves prove inadequate, program officials are forced to reduce a program's content, extend schedules, and/or increase costs.

Strategic Plan Does Not Address the Mismatch Between 5-Year Plan and Budget Resources

NASA's strategic plan (entitled Vision 21) neither accurately reflects the resources that would be required to support current programs nor considers the funding likely to be available to NASA in the future. The strategic plan is structured on the premise that the overall out-year budget trend for NASA will be between 5 percent and 8 percent nominal growth. However, NASA's actual estimates for fiscal years 1994 and 1995 for programs proposed this year is between 10 percent and 15 percent. Vision 21 is also inconsistent with the executive branch's fiscal year 1993 budget submission, which anticipates NASA may receive no budget increases through 1997.

NASA wrote Vision 21 in response to a congressional mandate. Specifically, the Senate Appropriations Committee directed that NASA formulate its first agencywide strategic plan on the basis of eight criteria. (See app. I.) The Committee specified these criteria in the fiscal year 1992 appropriation report. Most of the eight criteria were concerned with the importance of developing a strategic plan that prioritizes NASA's programs, comes to grips more honestly with the issue of accurate costs estimates, and addresses the likelihood of more modest budgets in the future. The Committee required NASA to submit the strategic plan concurrently with the executive branch's fiscal year 1993 budget.

NASA submitted Vision 21 in January 1992, but the plan was not responsive to several of the eight criteria. For example, the plan failed to indicate the relative priority of the various large missions or large programs. Vision 21 also did not specify how NASA planned to improve the integrity and credibility of its program cost estimates. Failure to strike a balance between strategic planning and budgeting is a serious concern because NASA is currently oversubscribed by up to \$21 billion through fiscal year 1997.

NASA has recognized that its strategic plan did not fully respond to the congressional criteria. The new Administrator has stated that the development of a new NASA strategic plan that matches specific program goals with realistic budgets is one of his highest priorities. The Administrator acknowledged that the successful management of any

⁴Space Station: Status of Financial Reserves (GAO/NSIAD-92-279, July 20, 1992).

program requires that its managers have an accurate understanding of the program's resource requirements. An especially useful management tool, according to the Administrator, is the requirement to revalidate cost, risk, and schedule in response to program growth as a prerequisite to permitting continuation of the program.

In recognition of these issues, NASA initiated a 6-month to 8-month review of all major programs to produce a more balanced and integrated plan based on budget realities. Senior managers at NASA have also agreed to establish a clear set of priorities for inclusion in its fiscal year 1994 budget proposal.

Project Status Reports to Congress Can Be Improved

Developing an ideal format that fully reports the costs of NASA projects has been a long-standing challenge. NASA's most comprehensive mechanism for reporting costs on individual development programs to Congress has been its Project Status Reports. These reports are submitted biannually in March and July. Improving these reports to better meet the information needs of Congress has been an evolving process that we have reported on since the late 1970s.

NASA's Project Status Reports to Congress provide information on funding, schedule, project goals and objectives, and the project's relationship to NASA's strategic plan.⁵ The quality and content of these reports have improved over time to better serve the information needs of NASA's oversight committees.

Some congressional members continue to express concerns, however, that they do not always receive clear and complete cost estimates for NASA programs. This past year, for example, they expressed frustration and skepticism over the integrity and completeness of the space station program estimates. We had testified in May 1991 on several unanswered questions on the costs, uses, and risks associated with this program.⁶

NASA has reported most of its projected program funding requirements for fiscal year 1994 to Congress because its current Project Status Reports

⁵NASA's Program Status Reports consist of six parts. Part I is a narrative status report highlighting the project's current progress and problems. Parts II through V track the costs, funding, schedule, and project goals and objectives. Part VI provides information on the project's relationship to NASA's strategic plan, general background of the project, and the various participants and their responsibilities.

⁶Questions Remain on the Costs, Uses, and Risks of the Redesignated Space Station (GAO/T-NSIAD-91-26, May 1, 1991).

format provides projected estimates for 1 year beyond the fiscal year 1993 budget request. However, the reports do not show that some of these programs will require even greater increases in annual appropriations through fiscal year 1997. For example, funding for space and ground network, communications, and data systems is planned to rise from \$921 million in fiscal year 1993 to nearly \$1.2 billion in fiscal year 1994 (a 28-percent increase). Thereafter, funding requirements are estimated to continue to rise steadily to over \$1.4 billion by fiscal year 1997. Appropriations for the Earth Observing System would have to more than double from \$695 million in fiscal year 1994 to over \$1.5 billion by fiscal year 1997. Appropriations for the New Launch System would have to increase by 573 percent between fiscal year 1994 and fiscal year 1997. NASA's Project Status Reports could provide a broader view of each program's future funding requirements. Collectively, the costs of the programs as shown in table 1 (assuming no unplanned cost growth), would increase about 48 percent for fiscal years 1993-97.

By expanding the funding section of the Program Status Report to include anticipated 5-year funding projections (and a life-cycle cost estimate), NASA would be routinely informing Congress on the changing out-year funding requirements associated with major programs. Funding profiles such as those shown in table 1 provide important insight concerning the amount of appropriations that will be required in future years if a project is to meet its goals, objectives, and schedule.

Providing 5-year funding estimates (and life-cycle cost estimates) to Congress would not be a new requirement for NASA. Last year, Congress directed NASA to submit 5-year estimates and an estimate of the life-cycle costs for all major development programs. Section 11 of the fiscal year 1992 NASA Authorization Act (P.L. 102-195) requires that the NASA Administrator submit (1) 5-year budget estimates for all development programs expected to exceed \$200 million and (2) an estimate of the life-cycle costs associated with each such program. This information is required to be submitted at the time of the executive branch's budget submission. However, under Public Law 102-195, Congress receives only the raw estimates associated with each program without any perspective on the interrelationship between programs, their missions, schedules, objectives, or progress toward their goals.

If NASA included 5-year funding requirements (and a life-cycle cost estimate) in the Project Status Reports, its funding projections would be consistent with the cost estimate format required under Public Law

102-195. By virtue of being embodied in the Program Status Reports, the estimates would be presented in the full context of each program's goals, objectives, schedule, performance, and relationship to the overall strategic plan. An expanded Project Status Report such as this would contribute to a more integrated strategic planning and budgeting approach and would facilitate better understanding of the implications that changes in major programs may have on one another and future appropriations. Also, the availability of an expanded Project Status Report in March would be less cumbersome for congressional staff. Currently, the staff must combine the longer range estimates provided under Public Law 102-195 and the narrative sections of the Program Status Reports to obtain a comprehensive understanding of each project's 5-year funding plan.

An improved Program Status Report may also reduce the frequency and volume of ad hoc information requests to NASA's project managers. For example, before the annual budget hearings, one of NASA's oversight subcommittees in the past typically requested projected total cost estimates for all major projects, information that another subcommittee also requested in reviewing project status. These types of requests in the future might be satisfied by an improved Project Status Report.

Matters for Congressional Consideration

To improve the content and usefulness of NASA reports, Congress may wish to consider directing the NASA Administrator to incorporate 5-year program estimates and life-cycle costs currently required by Public Law 102-195 into the funding section in NASA's biannual Project Status Reports. Congress may also wish to consider directing the NASA Administrator to submit a revised strategic plan that closely integrates NASA's program planning with realistic future budgets for the agency.

Agency Comments and Our Evaluation

In commenting on a draft of this report, NASA agreed with many of the observations cited and stated that initiatives were underway to avoid many of the potential problems cited by us. Regarding improvements to the Program Status Reports' format, NASA did not take exception to improving the reports' content and usefulness but stated that providing an updated report at the time of the annual budget submission would constitute an undue burden on its staff.

On the basis of these concerns, we modified our report to focus on the importance of improving the quality and usefulness of the content of the Program Status Reports. We agree with NASA officials that if these

improvements are adopted, the March Program Status Report would ensure congressional committees had complete information in time for the authorization and appropriations deliberations. We have incorporated these and other NASA comments in this report where appropriate. The comments are presented in their entirety in appendix II.

Scope and Methodology

To meet the objective of this review, we examined a variety of internal NASA program planning documents in support of the fiscal year 1993 budget submission, NASA's Vision 21 strategic plan, Project Status Reports, and 5-year program budget estimates reported under Public Law 102-195. We also interviewed officials at NASA's Office of the Comptroller in Washington, D.C.

Our work was conducted from January to July 1992 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Administrator, NASA; appropriate congressional committees; and the Director, Office of Management and Budget. We will also make copies available to others upon request.

Please contact me on (202) 275-5140 if you or your staff have any questions concerning this report. Other major contributors to this report were George A. Jahnigen, Assistant Director; William W. Crocker, Evaluator-in-Charge; Sandra D. Gove, Evaluator; and Mae F. Jones, Editor.



Mark E. Gebicke
Director, NASA Issues

Congressional Criteria for NASA's Strategic Plan

The following criteria for NASA's strategic plan were reproduced from the Senate Appropriations Report on Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Senate Appropriation Bill, 1992, July 11, 1991:

—First, it should set its strategic priorities not only within disciplines and program offices, but among them. Future budgets should indicate the relative priority of large missions or large program increases within the overall budget request. These priorities should clearly elucidate what is less important to America's preeminence in space should sufficient funds for the entire request not be available.

—Second, the agency should assume no more than 5 percent actual growth in fiscal year 1993, particularly given the severe limit on outlays for fiscal year 1993 that are a direct result of the 1990 budget summit agreement.

—Third, the plan should assume the continued historical balance between manned and unmanned programs, wherein space science receives no less than 20 percent of the total amounts provided in NASA's "Research and development", and "Space flight" accounts. This balance, in the Committee's view, is at the core of a successful U.S. civilian space program.

—Fourth, the agency should not envision any new starts for projects or missions in any program office, unless it is prepared to outline how a project is sustainable within the agency's limited funding profile. In addition, the plan should clearly give higher priority to the successful funding and completion of existing missions, including the mission-to-planet-Earth, before undertaking extensive study for or work on new ones.

—Fifth, in the area of space science, the Committee's strategic plan should emphasize a mix of small-, medium-, and large-sized missions, consistent with principles like those outlined in the recent National Academy of Science Astronomy and Astrophysics Survey Committee.

—Sixth, the agency's plan should come to grips more honestly with the issue of accurate cost estimates for a mission before it is proposed as a new start. The agency's performance in this area has been seriously deficient at times, unfortunately too often fueled by a desire in both the Congress and the Office of Management and Budget to be willing to initiate new starts for all projects for which phase B studies are successfully completed, regardless of their cost. The Committee believes that fully implementing the Augustine Commission's recommendations in this area would be particularly beneficial.

—Seventh, the agency should revise its strategic plans for space and aeronautical technology to more carefully link investments to the Nation's economic competitiveness. The Committee expects NASA to integrate their plans more closely with the emerging list of

**Appendix I
Congressional Criteria for NASA's Strategic
Plan**

critical technologies as outlined in the recent reports released by the Council on Competitiveness and the Office of Science and Technology Policy.

—Eighth, and finally, any planning and funds for the mission from-planet-Earth should be provided only on a go-as-you-pay basis, an additional principle outlined in the Augustine Commission report. Given the very severe constraints on federal domestic spending in the next several years, the Committee believes that this area of civilian space investment should be given a lesser priority until the space station and the existing approved major space science missions are much closer to launch.

Comments From the National Aeronautics and Space Administration



National Aeronautics and
Space Administration

Washington, D.C.
20546

Office of the Administrator

AUG 31 1992

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and
International Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

We appreciate the opportunity to review and comment on the revised General Accounting Office draft report GAO/NSIAD-92-278, entitled, "NASA: Large Programs May Consume Increasing Share of Limited Future Budgets," dated August 1992.

In general, we agree with many of the observations cited and are currently engaged in aggressive initiatives to reshape current programs across the board in recognition of a more constrained future funding environment. These initiatives include the development of a new strategic plan and are focused on avoiding many of the potential problems cited in your report. For example, we are conducting an agencywide review of making appropriate adjustments to maintain a balanced overall space and aeronautics program within budget realities.

We do have some concerns relative to your recommendation that the Program Status Reports (PSRs) be revised and provided as budget support documents. As noted, we are complying with the requirements of P.L. 102-195 to provide life cycle cost estimates for all programs over \$200 million. We are also providing the PSRs, as recommended by the GAO, twice per year. These reports were designed as Status Reports on ongoing programs, not as budget support documents. The PSRs do provide the program financial requirements, but they also provide a substantial amount of additional status information. They are submitted in March and July, per agreements with the Committees' staff and the General Accounting Office. The reporting date for the March PSR submittal was planned to closely follow the initial budget hearings. In fact, the PSRs lagged the initial hearings by approximately 30 days in FY 1992, thus we believe

**Appendix II
Comments From the National Aeronautics
and Space Administration**

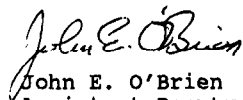
2

that we have provided the committees with complete information on our projects in time to inform their authorization and appropriations deliberations. Since both the budget submission and the PSRs are provided by the same personnel, it is our judgement that provision of these reports with the budget would constitute an undue burden on the staff that is providing the budget documents, hearing materials, and the PSRs.

I understand that our staffs have been communicating about the need to delete the estimates that you have included for an ACRV in the Projects directly supporting the Space Station entry in the table on page 7. It seems inappropriate to include an estimate that presumes a new development given the breadth of the alternatives that are currently under evaluation. These alternatives range from the development of a new vehicle to the use of Russian hardware. In addition, we would take issue with the inclusion of the Centrifuge and science experiments planned for the Space Station in that category. Such an approach is inconsistent with other life cycle cost attributions in that it suggests that the Space Station is driving our science requirements while the converse is true. The analogous situation would be to attribute the cost of all cargo flown in a C-5A to the cost of developing the C-5A.

We appreciate the cooperation and professional courtesies extended by your staff during the development of this report and the efforts made to solicit and consider NASA's views. The information in this report is useful as we prepare for an increasingly challenging future budget environment.

Sincerely,



John E. O'Brien
Assistant Deputy Administrator

Now on p. 4.

Related GAO Products

Space Station: Status of Financial Reserves (GAO/NSIAD-92-279, July 20, 1992).

Space Station: Delays in Dealing With Space Debris May Reduce Safety and Increase Costs (GAO/IMTEC-92-50, June 2, 1992).

National Aero-Space Plane: Key Issues Facing the Program (GAO/T-NSIAD-92-26, Mar. 31, 1992).

NASA Budget: Potential Shortfalls in Funding NASA's 5-Year Plan (GAO/T-NSIAD-92-18, Mar. 17, 1992).

Space Projects: Status and Remaining Challenges of the Advanced X-ray Astrophysics Facility (GAO/NSIAD-92-77, Feb. 28, 1992).

Weather Satellites: Action Needed to Resolve Status of the U.S. Geostationary Satellite Program (GAO/NSIAD-91-252, July 24, 1991).

Questions Remain on the Costs, Uses, and Risks of the Redesigned Space Station (GAO/T-NSIAD-91-26, May 1, 1991).

Space Station: NASA's Search for Design, Cost, and Schedule Stability Continues (GAO/NSIAD-91-125, Mar. 1, 1991).

NASA Project Status Reports: Congressional Requirements Can Be Met, but Reliability Must Be Ensured (GAO/NSIAD-90-40, Jan. 23, 1990).

Transition Series: NASA Issues (GAO/OCG-89-15TR, Nov. 1988).

Civil Space: NASA's Strategic Planning Process (GAO/NSIAD-89-30BR, Nov. 30, 1988).

Space Station: NASA Efforts to Establish a Design-to-Life-Cycle Cost Process (GAO/NSIAD-88-147, May 5, 1988).

Need for the National Aeronautics and Space Administration to Provide the Congress More Complete Cost Information on its Projects (PSAD-81-7, Nov. 26, 1980).

NASA Should Provide the Congress Complete Cost Information on the Space Telescope Program (PSAD-80-15, Jan. 3, 1980).

National Aeronautics and Space Administration Should Provide the Congress With More Information on the Pioneer Venus Project (PSAD-77-65, Nov. 7, 1977).

Improved Reporting Needed on National Aeronautics and Space Administration Projects (PSAD-77-54, Jan. 27, 1977).

Ordering Information

The first copy of each GAO report is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20877**

Orders may also be placed by calling (202) 275-6241.

**United States
General Accounting Office
Washington, D.C. 20548**

**Official Business
Penalty for Private Use \$300**

**First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100**