



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

National Security and
International Affairs Division

B-277239

September 30, 1997

Congressional Committees

Subject: 1998 NASA Budget: Review of Selected Activities

We examined the National Aeronautics and Space Administration's (NASA) fiscal year 1998 budget request and prior years' appropriations for selected programs. Our objective was to identify potential reductions in the fiscal year 1998 budget request and potential rescissions in prior years' appropriations.

This letter summarizes and updates information provided to your staffs in May and July 1997. It does not reflect any adjustments that may have been taken by the Senate and House Authorization and Appropriations Committees during their review of the fiscal year 1998 NASA budget request. We have not acknowledged the Committees' actions because final action is still pending.

We identified opportunities to reduce NASA's fiscal year 1998 budget request by about \$108 million. These opportunities are primarily in the human space flight (\$54.4 million) and mission support (\$53 million) areas. We also identified another \$24 million in potential excess funding in the science, aeronautics, and technology area, which could be restricted, but the exact amount available for reprogramming or rescission will not be known until the Cassini mission to Saturn is launched in fiscal year 1998. Table 1 and the following sections provide details on each of the potential reductions and restrictions.

Table 1: Potential Reductions and Restrictions to Selected NASA Programs

Dollars in millions

	Fiscal year 1998		
	Request	Potential reduction	Potential restriction
HUMAN SPACE FLIGHT			
Space Shuttle	\$2,977.8	\$54.4	0
SCIENCE, AERONAUTICS AND TECHNOLOGY			
Space Science			
Cassini development	9.0	0	\$9.0
Launch services	236.3	0	15.0
Life and Microgravity Sciences and Applications			
Aerospace medicine	7.5	0.5	0
MISSION SUPPORT			
Research and Program Management			
Research operations support	412.0	23.0	0
Space Communications Services	245.7	10.0	0
Construction of Facilities	159.4	20.0	0
Total	\$4,047.7	\$107.9	\$24.0

SPACE SHUTTLE

The Space Shuttle fiscal year 1998 budget request can be reduced by \$54.4 million because an equivalent amount of excess fiscal year 1997 funds can be used to meet projected program requirements.

In April 1997, the shuttle program manager estimated that the program needed to carry over \$345 million into fiscal year 1998—\$200 million for forward funding, \$95 million for the continuation of upgrades begun in fiscal year 1997, and \$50 million in program reserves to cover uncertainties with estimating actual program costs. At that time, the program manager stated that carryover in excess of \$345 million was available for redistribution and that the redistribution of funds would not affect shuttle safety. After the House and Senate Appropriations Committees approved the transfer of \$190 million for space station contingencies in May 1997, NASA estimated that the shuttle program would have a carryover balance of \$399.4 million at the end of fiscal year 1997. More recently, NASA officials stated that the shuttle program needs

to maintain a carryover balance of \$395 million, including \$100 million in program reserves.

Our review indicated that the \$50 million increase in carryover was not justified because NASA's fiscal year 1998 budget request already included funding for program reserves. Therefore, the carryover amount above \$345 million—\$54.4 million—is excess to program needs and can be used to reduce NASA's fiscal year 1998 budget request. NASA program officials continue to believe that \$395 million is the appropriate carryover balance.

SPACE SCIENCE: CASSINI DEVELOPMENT

Congress can restrict the obligation of \$9 million of funds for the Cassini development program until NASA determines whether excess fiscal year 1997 funds will be available to meet fiscal year 1998 requirements. If the \$9 million is not needed for its original purpose, the funds can be rescinded or reprogrammed.

For fiscal year 1998, NASA requested \$9 million for the Cassini development program for work through the planned spacecraft launch on October 6, 1997, plus the first 30 days of flight. NASA projected that it would carry over into fiscal year 1998 approximately \$52.6 million of uncosted Cassini development program funds from fiscal year 1997. NASA also projected that up to \$20 million of the carryover would be budget reserves that had not been obligated by the California Institute of Technology, which is responsible for developing the Cassini spacecraft. Although sufficient funds likely will be carried over to meet fiscal year 1998 development requirements, the actual amount of carryover and unobligated funding will not be known until the end of fiscal year 1997.

NASA officials agreed that, after the spacecraft is launched and checked out, the program's fiscal year 1998 budget could be reduced by an amount equal to the unused funds remaining in the program's development budget. However, the officials believe that the allocation and reallocation of Cassini development funds should be made through the process NASA has established with congressional committees for approving funding plans and changes rather than through specific legislative constraints such as funding restrictions. The process includes briefings prior to enactment of appropriations and correspondence and briefings after enactment on adjustments to NASA's funding plans.

SPACE SCIENCE: LAUNCH SERVICES

Congress can restrict the obligation of \$15 million of NASA's launch services budget until NASA determines that the funds will be needed for the Cassini launch or justifies an alternative use of the funds.

The NASA fiscal year 1998 budget request for space science launch services includes \$39.6 million for the Cassini spacecraft launch scheduled for October 1997. The \$39.6 million consists of \$24.6 million for the final payment for the Titan IV launch vehicle and \$15 million for potential engineering changes and risk associated with the Cassini launch. At the time of our field work, NASA officials did not believe that they would need the \$15 million to launch the Cassini spacecraft, although they could not be certain until Cassini is launched. According to NASA officials, the fiscal year 1998 budget request of \$236.3 million assumed that the likelihood of spending \$15 million for Cassini contingencies was low and that those savings could be applied to other launch requirements. NASA officials said that those funds would probably be used to support launch requirements for other NASA missions. If the funds are not needed for their original purpose and an alternative use is not justified, the \$15 million can be rescinded or reprogrammed for other purposes in fiscal year 1998.

LIFE AND MICROGRAVITY SCIENCES AND APPLICATIONS: AEROSPACE MEDICINE

The fiscal year 1998 appropriation for aerospace medicine can be reduced by \$0.5 million because the program has fiscal year 1997 funds available to cover fiscal year 1998 costs. The aerospace medicine program will have an uncosted carryover balance equal to over 8 months of funding. NASA has identified \$0.5 million of these funds as excess and plans to reprogram these funds for other programs. If these funds are not reprogrammed, they can be used to reduce NASA's fiscal year 1998 budget request.

RESEARCH AND PROGRAM MANAGEMENT: RESEARCH OPERATIONS SUPPORT

NASA has proposed reducing its fiscal year 1998 budget request for research operations support by \$23 million because it plans to add an equivalent amount of funding to that budget item in fiscal year 1997. In August 1997, NASA proposed transferring \$23 million of excess funds from its budget for personnel and related costs to the research operations support budget, both of which are in the Mission Support appropriation. According to NASA officials, they would like to reduce the fiscal year 1998 research operations budget to increase funding in the Human Space Flight appropriation for additional space station-related requirements.

SPACE COMMUNICATIONS SERVICES

NASA's fiscal year 1998 appropriation for Space Communication Services can be reduced by \$10 million because an equivalent amount of fiscal year 1997 funds is available to meet fiscal year 1998 requirements. NASA had requested authority to transfer these funds to the Human Space Flight appropriation for space station contingencies, but this transfer did not occur. A NASA official

stated that the funding identified was within the reserve account of the Tracking and Data Relay Satellite (TDRS) replenishment budget line item of the Mission Support appropriation. The official said that the TDRS program should not be affected by the removal of the \$10 million because few reserve funds have been used so far and the remaining reserve funds should be sufficient to cover contingencies for the rest of the program.

NASA's Office of Space Flight believes that TDRS funding should not be reduced by \$10 million at this time. NASA's strategy at the time of the proposed transfer of funds was that the loss of \$10 million in the replenishment line item would have been an acceptable risk only when measured against the more urgent funding demands of the space station program. Although NASA officials agree that the TDRS replenishment program is progressing very well, is within budget, and appears to be on schedule, they stated that several outstanding issues, such as development of a state-of-the-art antenna and the spacecraft integration and test schedule, could impact program reserves.

CONSTRUCTION OF FACILITIES

NASA's fiscal year 1998 request for Construction of Facilities can be reduced by \$20 million because an equivalent amount of fiscal year 1997 funds is available to meet fiscal year 1998 requirements. NASA had requested authority to transfer \$27 million from the Construction of Facilities budget line item to the Human Space Flight appropriation for space station contingencies, but this transfer did not occur. A NASA official stated that the funding is available due to deferral of projects to fiscal year 1998 (\$7 million) and unobligated carryover balances within the Environmental Compliance and Restoration program (\$20 million). The unobligated carryover balances are available due to delays in implementation of activities, resulting from longer-than-planned regulatory actions, decisions, and delays stemming from the coordination requirements among federal, state, and local agencies.

A NASA official stated that the \$7 million for facility revitalization was to fund urgently needed utility and antenna repairs, and NASA was in a position to obligate these funds in fiscal year 1997. These projects were being deferred to fiscal year 1998 solely to help fund space station contingencies. The official stated that, if fiscal year 1997 funding is reduced, funding available in fiscal year 1998 would most likely be used to fund the repairs, and other urgent fiscal year 1998 infrastructure revitalization projects of equal value would have to be deferred to fiscal year 1999. The remaining \$20 million can be used to offset fiscal year 1998 requirements.

AGENCY COMMENTS

In commenting on a draft of this letter, NASA agreed, with the exceptions of Cassini development and personnel and related costs, with the specific items identified in a draft of this letter as potential sources of offsets. However,

NASA believed that adjustments to its budget should be made through the process it has established with congressional committees.

NASA's specific comments on the Cassini development are discussed in the letter where appropriate. The draft section on personnel and related costs is not included in the final letter. NASA's comments are reprinted in their entirety in enclosure 1.

SCOPE AND METHODOLOGY

To identify potential reductions, restrictions, and rescissions, we reviewed selected parts of NASA's fiscal year 1998 budget request, fiscal year 1997 and prior years' operating plans, carryover balances, and cost and obligations plans. We interviewed program officials and budget analysts. We performed our work at NASA Headquarters, Washington, D.C.; the Johnson Space Center, Houston, Texas; and the Jet Propulsion Laboratory, Pasadena, California. We conducted our review from April to August 1997 in accordance with generally accepted government auditing standards.

We are sending copies of this letter to the Administrator of NASA and the Director of the Office of Management and Budget. We will also make copies available to others on request.

Please contact me at (202) 512-4841 if you or your staffs have any questions concerning this letter. Major contributors to this letter are listed in enclosure 2.



Allen Li
Associate Director, Defense
Acquisitions Issues

Enclosures - 2

List of Congressional Committees

The Honorable Christopher Bond
Chairman
The Honorable Barbara A. Mikulski
Ranking Minority Member
Subcommittee on VA, HUD, and Independent Agencies
Committee on Appropriations
United States Senate

The Honorable John McCain
Chairman
The Honorable Ernest F. Hollings
Ranking Minority Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Jerry Lewis
Chairman
The Honorable Louis Stokes
Ranking Minority Member
Subcommittee on VA, HUD, and Independent Agencies
Committee on Appropriations
House of Representatives

The Honorable F. James Sensenbrenner, Jr.
Chairman
The Honorable George E. Brown, Jr.
Ranking Minority Member
Committee on Science
House of Representatives

COMMENTS FROM THE
NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

National Aeronautics and
Space Administration

Headquarters

Washington, DC 20546-0001



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SEP 25 1997

Reply to Attn of

Mr. Allen Li
Associate Director
Defense Acquisitions Issues
National Security and International Affairs Division
United States General Accounting Office
Washington, DC 20548

Dear Mr. Li:

We appreciate the opportunity to comment on your draft report, NSIAD-97-252R, on NASA's FY 1998 budget. With only a few exceptions, we agree with the specific items identified in your report as potential sources of offsets. As you know, we have previously discussed these items with the Committees on Appropriations and our authorizing committees in both the House and Senate. This is consistent with our long-standing commitment to keep the Committees informed through a process which begins with detailed staff briefings prior to the enactment of appropriations and continues after enactment with the correspondence and briefings on the NASA Operating Plan.

The specific items of concern have to do with your statement regarding Cassini development and the Personnel and Related Costs budget elements. With regard to the FY 1997 funds for Personnel and Related Costs, NASA has already proposed through the Operating Plan process that these funds be reallocated to Research Operations Support, and that an offsetting reduction be made in our FY 1998 request. The report also stated that Congress "can restrict the obligation of \$9 million of funds for the Cassini Development program until NASA determines whether excess fiscal year 1997 funds will be available to meet fiscal year 1998 requirements." We believe that the proper allocation and reallocation of Cassini development funds should be made through the Operating Plan process, and not through specific legislative constraints. The uncertainties and dynamics of research and development programs are well-known, and they are clearly addressed through the interaction between the Congress and NASA in the established Operating Plan process.

Sincerely,

A handwritten signature in black ink, appearing to read "Malcolm L. Peterson".

Malcolm L. Peterson
Comptroller

MAJOR CONTRIBUTORS TO THIS LETTER

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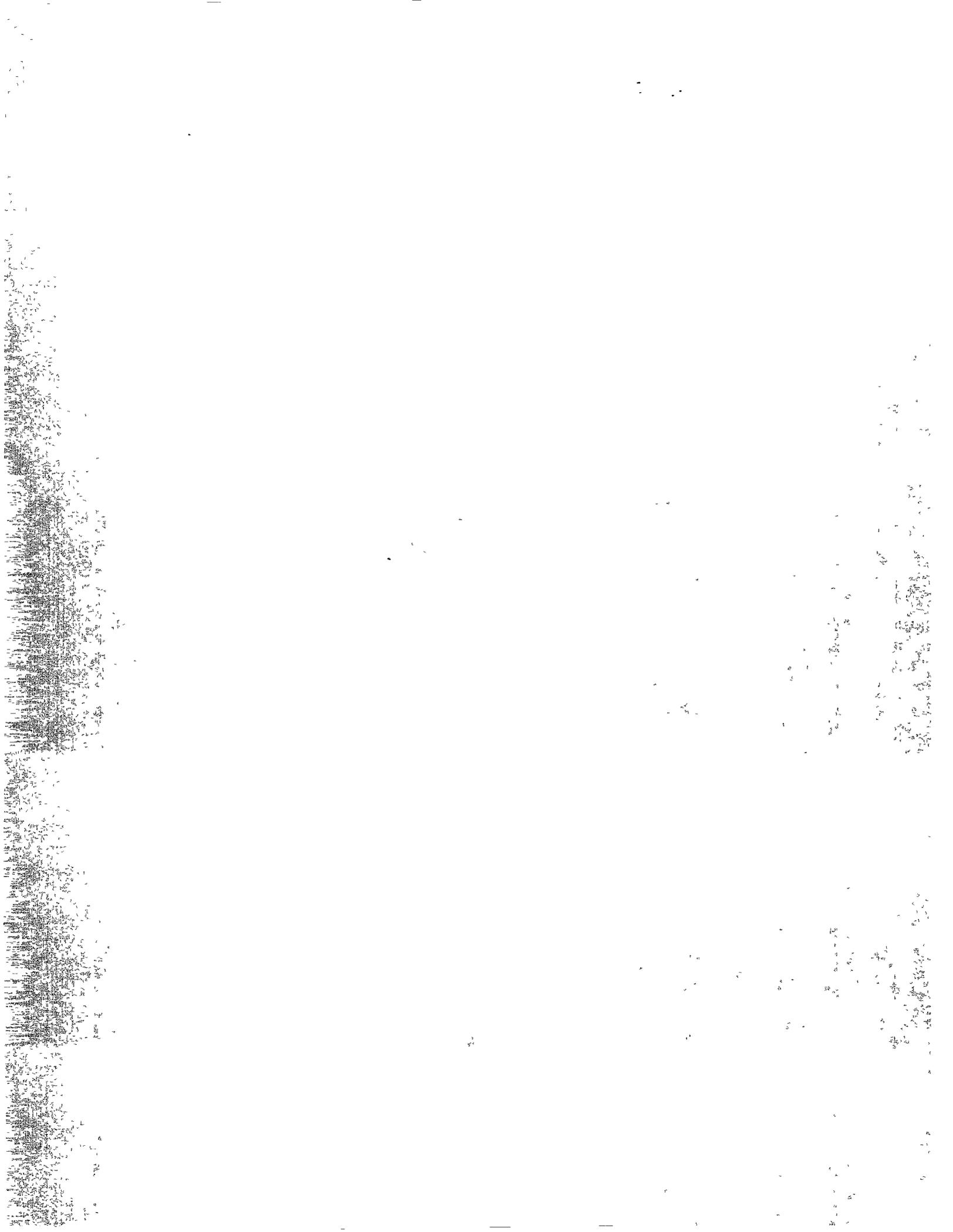
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