

Ronald Reagan Presidential Library

Digital Library Collections

This is a PDF of a folder from our textual collections.

Collection: Stucky, Edward Files
Folder Title: Space Station 1987
Box: 10

To see more digitized collections visit:

<https://www.reaganlibrary.gov/archives/digitized-textual-material>

To see all Ronald Reagan Presidential Library Inventories, visit:

<https://www.reaganlibrary.gov/archives/white-house-inventories>

Contact a reference archivist at: **reagan.library@nara.gov**

Citation Guidelines: <https://reaganlibrary.gov/archives/research-support/citation-guide>

National Archives Catalogue: <https://catalog.archives.gov/>

Last Updated: 12/16/2024

WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name Stucky, Edward: Files

Withdrawer

DLB 2/1/2012

File Folder SPACE STATION - 1987

FOIA

S11-463-3

Box Number 10

SYSTEMATIC

87

ID	Doc Type	Document Description	No of Pages	Doc Date	Restrictions
129958	NSDD	NSDD - GUIDANCE ON NEGOTIATIONS RE: SPACE STATION, PAGE 4 ONLY, PARTIAL	1	2/3/1987	B1

The above documents were not referred for declassification review at time of processing

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]

B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]

B-3 Release would violate a Federal statute [(b)(3) of the FOIA]

B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]

B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]

B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]

B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]

B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

NATIONAL SECURITY COUNCIL
DISTRIBUTION RECORD

Log Number 90096

Date February 3, 1987

Subject: NSDD 257

dl
11/31/12

DOCUMENT CLASSIFICATION:

☐ TOP SECRET

☐ SECRET

☒ CONFIDENTIAL

☐ UNCLASSIFIED

EXTERNAL DISTRIBUTION:

	#CYS	Date	Time	Received/Signed for By:
MARITIME ADMINISTRATOR (% DOT) 400 7th Street, SW, Room 7206				
MR. PAT BUCHANAN 1st Floor, West Wing				
MR. DON REGAN 1st Floor, West Wing				
LARRY SPEAKES 1st Floor, West Wing				
OFFICE OF POLICY DEVELOPMENT 2nd Floor, West Wing	#10			
MR. WILLIAM BALL 2nd Floor, West Wing				
MR. ALFRED KINGON Ground Floor, West Wing	#11			
MR. DAVID CHEW Ground Floor, West Wing				
MR. JOHNATHAN MILLER Ground Floor, West Wing				
MR. RICHARD RILEY Room 206, East Wing				

ADDITIONAL ADDRESSEES SHOULD INCLUDE ADDRESS AND ROOM NUMBER TO INSURE PROMPT/APPROPRIATE DELIVERY

DATE, TIME & SIGN THIS RECEIPT & RETURN TO: SITUATION ROOM, WHITE HOUSE

Page 3 of Pages

~~CONFIDENTIAL~~

No. NSDD 257

COPY #11 (CA)

NATIONAL SECURITY COUNCIL INFORMATION

Notice

The attached document contains classified National Security Council Information. It is to be read and discussed only by persons authorized by law.

Your signature acknowledges you are such a person and you promise you will show or discuss information contained in the document only with persons who are authorized by law to have access to this document.

Persons handling this document acknowledge he or she knows and understands the security law relating thereto and will cooperate fully with any lawful investigation by the United States Government into any unauthorized disclosure of classified information contained herein.

Access List

DATE	NAME	DATE	NAME
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

db 11/31/12

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

SYSTEM II
90096

THE WHITE HOUSE
WASHINGTON

February 3, 1987

~~UNCLASSIFIED~~
~~CONFIDENTIAL ATTACHMENT~~

MEMORANDUM FOR THE VICE PRESIDENT
THE SECRETARY OF STATE
THE SECRETARY OF THE TREASURY
THE SECRETARY OF DEFENSE
THE ATTORNEY GENERAL
THE SECRETARY OF COMMERCE
THE SECRETARY OF TRANSPORTATION
THE DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET
THE DIRECTOR OF CENTRAL INTELLIGENCE
THE ACTING ASSISTANT TO THE PRESIDENT FOR
POLICY DEVELOPMENT
THE ASSISTANT TO THE PRESIDENT AND CABINET SECRETARY
THE CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS
THE CHAIRMAN, JOINT CHIEFS OF STAFF
THE DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY POLICY
THE ADMINISTRATOR, NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

SUBJECT: NSDD on Guidance to the U.S. Delegation for
Negotiations with Western Europe, Japan and Canada
on the Space Station

The President has signed the attached National Security Decision
Directive.



Frank C. Carlucci

Attachment
NSDD 257

~~UNCLASSIFIED~~
~~CONFIDENTIAL ATTACHMENT~~

ab 1/31/12

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

SYSTEM II
90096

THE WHITE HOUSE

WASHINGTON

February 3, 1987

~~CONFIDENTIAL~~

NATIONAL SECURITY DECISION
DIRECTIVE NUMBER 257

Guidance to the U.S. Delegation for
Negotiations with Western Europe, Japan and Canada
on the Space Station (U)

The U.S. Delegation to the Negotiations on development and deployment of the U.S. Space Station should be guided by the attached Principles and Guidelines during the next and all subsequent rounds of talks with Canada, the European Space Agency, and Japan. (U)

Attachment
Principles & Guidelines

~~CONFIDENTIAL~~

Declassify on: OADR

~~CONFIDENTIAL~~

DECLASSIFIED in part
S. Tilley, NSC 2012356
11/27/12

BY dh NARA DATE 11/31/12

Guidance to the U.S. Delegation
for Negotiations with Western Europe, Japan, and Canada
on their Participation in a Permanently Manned Space Station (U)

General Policies

1. Build a permanently manned space station consisting of a core U.S. Space Station, which, with the Canadian-provided Mobile Servicing Center, is capable of reliable autonomous operation by the U.S. and capable of allowing for manned and unmanned elements provided by cooperating countries taking part in the program. (U)
2. Attempt to secure the participation of U.S. friends and allies in the Space Station program. (U)
3. Demonstrate U.S. world leadership in space science and technology. Promote world recognition of the Space Station as a national achievement of the United States. (U)
4. Ensure that agreements concerning international participation in the Space Station promote U.S. national interests. (U)
5. Promote U.S. economic interests and enhance the overall U.S. competitive position in space technology. (U)
6. Foster international cooperation in basic scientific research. (U)
7. Ensure a reasonable return on the U.S. government investment in space technology and seek to create an appropriate opportunity for U.S. private sector investment in space. (U)
8. Ensure consistency with U.S. policy objectives regarding U.S. Government launch programs and U.S. private sector commercialization of space transportation services. (U)
9. Ensure that the United States can achieve autonomous, reliable operation of the Space Station within approved funding levels even if any or all foreign participants withdraw from the program. (U)
10. A special Working Group has been convened to resolve Space Station legal issues and draft proposed language that will be used in these Principles and Guidelines. Results of their findings are required as soon as practical to meet negotiation milestones. The Department of State will chair this effort and provide their findings to the Interagency Group (Space) within 60 days of the date of this NSDD. (U)

Guidance

1. Maintain the initiative in the negotiations and seek to focus discussions on U.S. draft texts consistent with policy guidance. (U)
2. Seek mutually beneficial agreements on participation in the detailed design, development, operation, and utilization of the civil Space Station by friends and allies of the U.S., specifically Western Europe, Japan, and Canada. (U)
3. Ensure consistency throughout the agreement with the following definitions: The U.S. has a Space Station program which will produce the core U.S. Space Station. The international participants each have programs to produce hardware elements which will add to the capabilities of the core U.S. Space Station. Together, the core U.S. Space Station and the international hardware elements will be referred to as "the Space Station Complex." The term partners in resulting international agreements will refer to the Republic of Austria, the Kingdom of Belgium, the Government of Canada, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Republic of Ireland, the Italian Republic, the Government of Japan, the Kingdom of the Netherlands, the Kingdom of Norway, the Kingdom of Spain, the Kingdom of Sweden, the Swiss Confederation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. Collectively, the agreements will define the relationship between and among, and the respective obligations of, the partners. (U)
4. Ensure that the framework for international participation in the Space Station program demonstrates the benefits of working with the U.S. in space, so that cooperation with our friends and allies will continue in the future and these countries will associate their programs with ours. (U)
5. Ensure that any international participation strengthens the ability of the United States to operate a Space Station with enhanced capabilities in the mid-1990s for U.S. users, including government, scientific, and commercial users. (U)
6. Ensure that any foreign participants recognize and agree that the United States may use the U.S. elements of the Space Station and the Canadian-provided Mobile Servicing Center for national security purposes, consistent with U.S. Law and U.S. international obligations, without their consent or necessarily their review. (U)
7. Ensure that the U.S. scientific community and U.S. private sector entities will have appropriate opportunities to use U.S. elements of the Space Station and the U.S. share of other elements, within the U.S. allocation of utilization resources. (U)

8. Ensure that the U.S. can at all times select the Commander and can control and exercise authority over all Space Station activities including access, necessary to ensure safety and to enforce physical and information security procedures. (U)

9. Establish management arrangements that ensure necessary U.S. control of Space Station detailed design, development, operation, and utilization. These arrangements should ensure that foreign partners participate in deliberations and decisions affecting their interests, but should explicitly provide for U.S. ability to make unilateral decisions where necessary. These arrangements should enhance safe and effective development, operation, and utilization of the Space Station under U.S. control. (U)

10. Provide that the U.S. will select specific crew complements for specific crew rotation cycles from U.S. and partner country crew corps, and retain the flexibility to man the Station with an all U.S. crew if necessary. (U)

11. Seek the agreement of the international partners to principles for sharing utilization of Space Station resources and for sharing operational costs. (U)

12. Ensure that agreements contain provisions which govern the transfer of technology on board the Space Station or among Space Station participants. These provisions shall take into account the protection of U.S. national security interests and the fostering of U.S. economic interests in appropriate cases in accordance with U.S. laws, regulations, and policy. (U)

13. Promote, encourage and facilitate commercial launches by the U.S. private sector in support of the Space Station program. (U)

14. Seek inclusion in the agreements of language stating that the commitments undertaken will be subject to the availability of funds and to the funding procedures of each participating government and the European Space Agency. (U)

15. Without prejudice to the potential need for a multi-lateral intergovernmental agreement, negotiate both a government-level and an agency-level agreement with each of the partners. In the case of Europe, the agency-level agreement should be signed by NASA and the European Space Agency (ESA), whereas the government-level agreement should be signed by the United States and all participating ESA member governments. The U.S. side should ensure that all matters requiring commitments by governments are dealt with in the government-level agreement or agreements, but that, to the extent possible, matters primarily of a programmatic or technical nature are dealt with in the agency-level agreement or agreements. (U)

WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name

Stucky, Edward: Files

Withdrawer

DLB 2/1/2012

File Folder

SPACE STATION - 1987

FOIA

S11-463-3

SYSTEMATIC

Box Number

10

87

ID	Document Type	No of pages	Doc Date	Restric- tions
	Document Description			

129958 NSDD

1 2/3/1987 B1

NSDD - GUIDANCE ON NEGOTIATIONS RE:
SPACE STATION, PAGE 4 ONLY, PARTIAL

The above documents were not referred for declassification review at time of processing

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]

B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]

B-3 Release would violate a Federal statute [(b)(3) of the FOIA]

B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]

B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]

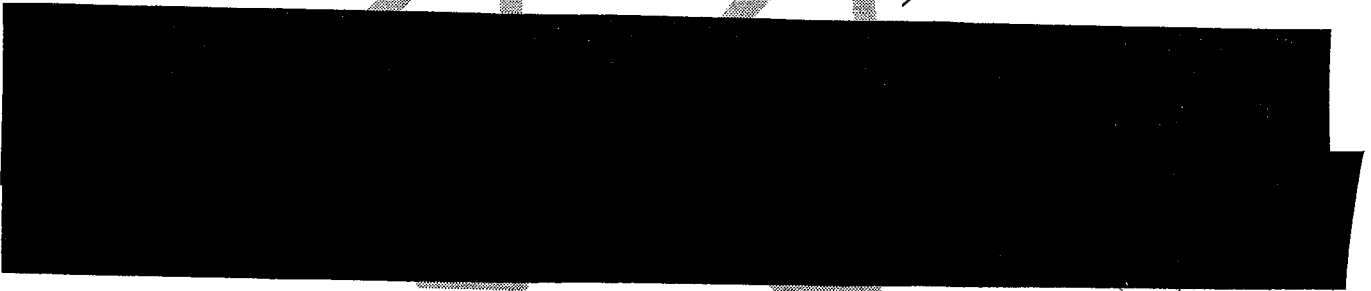
B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]

B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]

B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

16. The U.S. side should seek explicit agreement to a process for making any necessary amendments to the agreements over the life of the Space Station program. (U)



b1

Ronald Reagan

11

11

THE WHITE HOUSE
WASHINGTON

MILLET-CARLUCCI →

DAVIS, Randy ← NASA →

REGAN →

Tommy NEWMAN-CONTROLLER.

Dave MYERS - DEPT.

FLETCHER & WIENBERGER

Jerry Newsom

Shirley Green

osted: Mon Feb 9, 1987 2:41 PM EST
2485-7741

Msg: HGIH-

From: MHESS
To: MLPETERSON
CC: SMGREEN, KPEDERSEN, MHESS
Subj: FINAL VERSION OF RTQ FOR OMB

RTQ for OMB use:

Q. Has NASA gone over the results of the cost review with OMB?

A. There was a meeting on the results of an extensive review of the baseline Space Station and projected development costs held with the OMB last week.

Q. Would you term the meeting "confrontational?"

A. No. It was an informational meeting. NASA wanted to brief us on the results of their cost review of the baseline program and we were there to listen. We anticipate more discussions with NASA in the coming weeks.

Q. What is the cost of the Space Station?

A. A definitive estimate for the cost of the Space Station program as currently envisioned has not been approved.

NASA has had separate cost assessments, one by the program office and the other by the Comptroller's office, underway since September and those assessments were completed last month.

The cost review was undertaken to give the Administration and Congress, prior to the initiation of development activities, an updated assessment of the probable cost to develop a permanently manned Space Station. The configuration, based on several years of definition and preliminary design activities, includes the manned base, two free-flying platforms and ground equipment such as facilities, trainers and control centers.

NASA's proposed plan for the Space Station was presented to the Office of Management and Budget last week. Subsequent to OMB's approval, NASA will present the material to the Congress.

Q. How does recent testimony by Dr. Fletcher that the Space Station will cost "in the ballpark" of \$13 billion square with the \$8 billion price tag originally attached to the Space Station and widely publicized?

A. The \$8 billion estimate (expressed in constant 1984 dollars) was made in mid-1983, about two years before NASA began definition and preliminary design studies to define more clearly the characteristics of the Space Station.

NASA has always stated that a more precise estimate would be made at the end of the 18-month definition and preliminary design studies which concluded last month.

The revised estimate (which will also be in constant '84 dollars) reflects not only a much greater understanding of the technical requirements for the development and operation of the Space Station, but also reflects significant changes in the way NASA proposes to manage the Space Station program. Lessons learned from the Challenger accident, from both a management and a technical standpoint, have had a significant impact on the development of the revised cost estimate.

Q. Were the requests for industry bids for construction contracts delayed?

A. Yes. The RFP's for detailed design and development of Space Station hardware components and systems were deferred beyond Feb. 3 pending appropriate clearances within the Administration and Congress.

WHITE HOUSE STAFFING MEMORANDUMDATE: 2/10/87 ACTION/CONCURRENCE/COMMENT DUE BY: 2/11/87SUBJECT: REVISED COST ESTIMATES FOR THE SPACE STATION

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input type="checkbox"/>	KING	<input type="checkbox"/>	<input type="checkbox"/>
REGAN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KINGON	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MILLER - OMB	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MASENG	<input type="checkbox"/>	<input type="checkbox"/>
BALL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MILLER - ADMIN.	<input type="checkbox"/>	<input type="checkbox"/>
BAUER	<input type="checkbox"/>	<input type="checkbox"/>	RYAN	<input type="checkbox"/>	<input type="checkbox"/>
BUCHANAN	<input type="checkbox"/>	<input type="checkbox"/>	SPRINKEL	<input type="checkbox"/>	<input type="checkbox"/>
CARLUCCI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	THOMAS	<input type="checkbox"/>	<input type="checkbox"/>
CHEW	<input type="checkbox"/> P	<input checked="" type="checkbox"/> SS	TUTTLE	<input type="checkbox"/>	<input type="checkbox"/>
DANIELS	<input type="checkbox"/>	<input type="checkbox"/>	WALLISON	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
HENKEL	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
HOBBS	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: Please provide any comments/recommendations directly to Steve Tupper, with an info copy to my office, by close of business Wednesday, February 11th. Thank you.

RESPONSE:

Davis



EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

February 10, 1987

87 JAN 10 AIO: 15

MEMORANDUM FOR THE PRESIDENT

FROM: James C. Miller III
Director

SUBJECT: Revised Cost Estimates for the Space Station

Summary

NASA has informed us that the cost to complete the Space Station program will be sharply higher than the figures presented to you by NASA when you approved the program in your FY 1985 budget. NASA now estimates that the cost to construct the Station will be \$14.5 billion in 1984 dollars (approximately \$21 billion in current year dollars), compared to the original NASA estimate of \$8.0 billion in 1984 dollars.

These changes in funding projections are expected to affect only FY 1989 and beyond, with no change in funding requirements for FY 1988. However, outlays for the program are scheduled to build-up rapidly in the FY 1987-FY 1988 period as construction gets fully underway. Hence, a lengthy debate of your civil space program and priorities is likely to ensue once the revised cost estimates are released to the Congress. NASA is pressing to release quickly their estimates to Congress and to solicit contractor bids for Station construction that are consistent with the agency's revised plans and estimates.

Background

In your 1984 State of the Union Address, you directed NASA to develop a permanently manned Space Station within a decade and invited participation in the program by other nations. The \$8.0 billion Space Station program you approved was envisioned by NASA to be a permanently manned U.S. presence in space, consisting of a large, habitable core structure and two unmanned platforms. The program was designed to satisfy a broad spectrum of needs for scientific research, technology development, and commercial activities. However, the Station was also envisioned to be an evolving facility. Future elements were expected to be added, such as the capability to be used as a stepping stone for a manned lunar base or a manned mission to Mars. NASA estimated that the costs of such additional capabilities could range up to approximately \$20 billion by the end of the century.

The original cost estimates were very tentative and based upon rough estimates of the size of the Station and preliminary comparisons to the costs of previous major NASA programs. The uncertainty of costs for the Station was a key concern in considering approval of the program. Recognizing the cost growth

and program delays that had occurred in the development of the Space Shuttle, some \$0.6 billion was earmarked just to define and plan the Space Station before the outlay build-up for construction. This extraordinary level of definition and planning funding was approved in your FY 1985 and subsequent budgets and supported fully by the Congress. These funds will have been spent by the end of FY 1987.

New NASA Cost Estimates

NASA is now nearing the completion of its planning effort and has completed a lengthy series of reviews of every aspect of the planned program. Included in these recently completed reviews were the first thorough, detailed, "bottoms-up" estimates of Space Station costs by the agency and its contractors for the entire program. The agency continues to believe firmly that the Station should include all of the features originally envisioned for it. The agency now estimates that the first elements of the Station can be launched in FY 1994, with the facility permanently manned in FY 1995. This schedule remains roughly consistent with that envisioned in FY 1985. However, NASA now estimates that a total funding increase of 81% will be required to preserve the originally planned capabilities and schedule, as shown in the following table:

Total Estimated Space Station Costs
(FY 1984 dollars in billions)

	Original Estimate January 1984	Change	New NASA Estimate January 1987
Development	\$6.1	+\$4.6	\$10.7
Reserve	1.3	+2.5	3.8
Definition <u>1/</u>	0.6	-0.6	--
	<u>\$8.0</u>	<u>+\$6.5</u>	<u>\$14.5</u>

1/ NASA deletes the planning funding from its new estimate. Since the planning phase was fully funded as planned, the new total estimate on a strictly comparable basis would be \$15.1 billion, 89% above the \$8.0 billion estimate.

The attached chart compares the new year to year Space Station funding projections in real year dollars with those in the FY 1985 budget and the FY 1988 budget. Note that, although the new estimates require no change in funding for FY 1988, outyear increases of 23% and 44% for FY 1989 and FY 1990 would be required over current FY 1988 budget projections.

The new NASA estimates reflect the judgment of Administrator Fletcher as to what constitutes an appropriate target cost at the start of construction and reserve for future problems. These cost increases result from the following (1984\$):

- o \$+1.0 billion -- differences in the approach to design and assembly of the Station to achieve the capabilities originally envisioned.
- o \$+3.6 billion -- more comprehensive and detailed assessment of required ground-based support infrastructure (e.g., test and operating facilities, simulators, overhead).
- o \$+2.5 billion -- increased reserves for cost growth and uncertainties.

Many NASA programs which were in the middle of costly construction efforts suffered serious cost increases from the ensuing delays and rescheduling due to the Challenger accident. However, the large new Space Station cost increases do not result from the Challenger accident, since the high cost construction phase of the program has not yet begun.

The new Space Station cost estimates recommended by Administrator Fletcher are not the highest of those produced in the NASA internal reviews. The NASA Comptroller has estimated the cost to construct the Station may be as high as \$16.6 billion in 1984 dollars. In any event, the above costs do not include:

- o The cost of operating the facility once completed, estimated to total at least \$1 billion per year in 1984 dollars.
- o The \$1-2 billion estimated cost of a "lifeboat" that may be needed to safely return astronauts from the Station to the Earth in an emergency.
- o The costs of transportation to assemble the Station and to carry cargo and passengers to and from the Station.
- o The cost of science and technology experiments on the Station.
- o The cost of possible future elements, such as the ability to use the Station to assemble and launch manned missions to the moon or Mars.
- o The cost of program delays and inefficiencies that are likely to result if the Congress is unable to provide the sharp increases in annual funding in the next several years required to maintain the planned schedule.

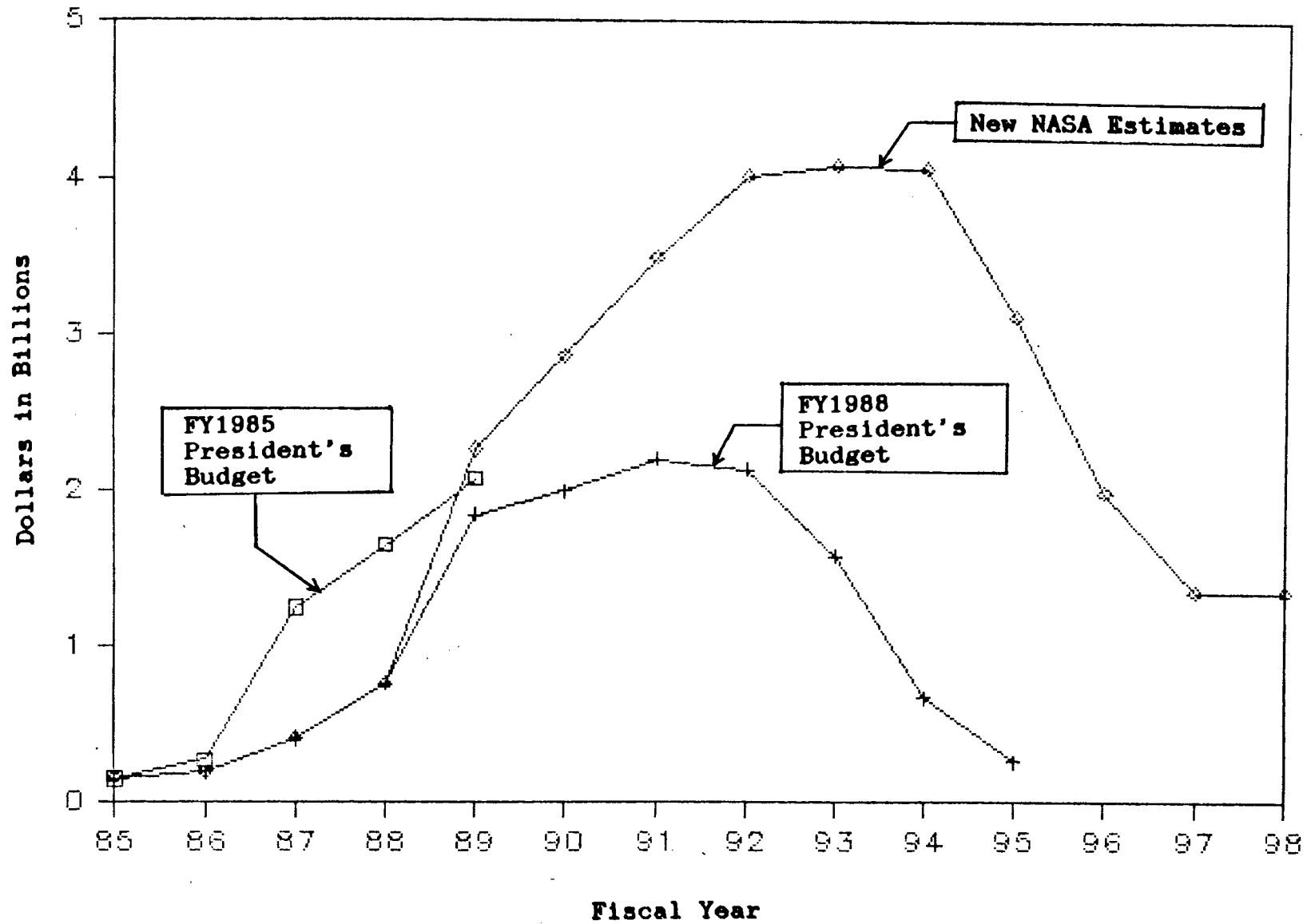
Conclusions

Since you approved the Space Station program, serious cost increases have occurred for NASA programs. The Challenger accident has to-date increased costs above pre-accident projections by over \$7 billion. The new NASA Space Station cost estimates will add another \$2.5 billion in current dollars above previous projections through 1991.

For the future, NASA last week indicated to the Congress that they will soon need additional funds for expendable launch vehicles. They also told Congress that they are preparing new space initiatives for consideration late this Spring as the first steps leading to a possible manned mission to Mars. Moreover, NASA is already projecting full use of funding reserves earmarked in your FY 1988 budget to handle future "surprises" in completing Space Shuttle recovery. Thus, in addition to the Space Station and other recent cost increases, it seems clear that more cost increases are coming for NASA programs.

Attachment

TOTAL SPACE STATION COSTS BY YEAR
(Budget Authority in Billions)



4?
President Reagan in 1985 approved development by NASA with international participation of a permanent civil space station as the nation's next fundamental expansion of space-faring capability.

NASA'S
1 Preliminary public cost estimates of \$8 billion through 1994 have proven to be optimistic and incomplete; today, after a very detailed engineering review including significant redesign effort, NASA believes the proper planning estimate should be \$16 billion including reserves.

The next step NASA must take is to release its requests for proposals to industry so that the procurement process can proceed expeditiously. However, the Congress is not willing to permit this procurement step without a full discussion of the overall cost estimate, a discussion in which NASA cannot engage without White House approval.

NASA had presented its current estimates at an exhaustive level of detail to all interested parties -- notably OMB, NSC, Staff, Cabinet Secretary, and OSTP -- except the President. NASA feels it is urgent to proceed now for policy and program reasons:

- o Further delays risk political and budget challenges to the President's program

- o Industry and government momentum cannot be maintained

if the Administration commitment is in doubt

- o Program participation by Canada, Japan, and Europe is currently under intense negotiation in which the U.S. position should be clear and firm

NASA feels that any independent cost reviews under White House auspices that may be deemed necessary should be carried on in parallel, not in series, with NASA's Congressional briefings and subsequent procurement actions. NASA believes that the industry responses to the competition for space station development will provide the most meaningful baseline for any final Administration cost estimate, and that this procurement step is therefore an integral part of establishing the cost framework.

NASA urges that it be permitted to proceed with the next immediate phases of the station program pending the outcome of any further White House cost and policy reviews found necessary.

March 2, 1987

SPACE STATION TALKING POINTS

- O THE BASELINE SPACE STATION PROGRAM IS WELL DEFINED BASED ON FOUR YEARS OF INTENSIVE STUDIES WITHIN NASA AND IN COOPERATION WITH INDUSTRY, USERS (SCIENCE, TECHNOLOGY, AND COMMERCIAL), AND INTERNATIONAL PARTNERS.
- O A THOROUGH COST ASSESSMENT OVER THE PAST FOUR MONTHS BY NASA IS THE BASIS FOR THE COST ESTIMATE OF \$14.5 BILLION (1984 DOLLARS) FOR THE BASELINE PROGRAM WHICH PROVIDES FOR PERMANENTLY MANNED CAPABILITY IN THE MID 1990'S.
- ★
14.5 O NASA'S RECOMMENDATION IS THAT THE ADMINISTRATION COMMIT TO THIS BASELINE PROGRAM NOW AND ALLOW NASA TO SEEK THE APPROVAL FROM CONGRESS FOR RELEASE OF THE REQUEST FOR PROPOSALS (RFP'S) SO AS TO BEGIN DEVELOPMENT LATE THIS SUMMER.
- O AN INDEPENDENT COST STUDY WILL BE UNDERTAKEN IN PARALLEL WITH PREPARATION OF THE PROPOSALS. NASA IS PREPARED TO COMMIT NOW TO THE \$14.5 BILLION FIGURE EVEN THOUGH THE INDEPENDENT COST ESTIMATE MAY INDICATE A HIGHER AMOUNT FOR THE TOTAL PROGRAM.
- O IF NECESSARY, TO REDUCE FUNDING REQUIREMENTS IN THE NEAR TERM, THE PROGRAM CAN BE PHASED TO REMAIN WITHIN THE CURRENT PRESIDENT'S BUDGET PROJECTION FOR FY 1988 AND 1989 WITH AN INCREASE OF LESS THAN \$.5 BILLION IN FY 1990. THIS PHASING WOULD DELAY THE PROGRAM 6-9 MONTHS AND INCREASE THE TOTAL COST TO \$15 BILLION (1984 DOLLARS).

NOTE: THE ABOVE FIGURES DO NOT INCLUDE PROVISION FOR A CREW EMERGENCE RETURN VEHICLE

March 2, 1987
OMG Letter.

March 2, 1987

MEMORANDUM FOR THE PRESIDENT

FROM:

ISSUE: How should our commitment to the Space Station be defined in the light of increasing program costs?

Summary and Recommendations.

The recent NASA estimates of sharp cost increases for the Station have raised serious concerns about the feasibility of committing now to the full program recommended by NASA. Decisions are needed now on how the Administration should define its commitment to the program in the light of the new cost estimates.

EXOP staff have met with NASA officials to better understand the basis for the new NASA cost estimates. They also explored possible lower cost approaches for achieving the Station capabilities originally envisioned. As a result of these reviews, we believe that specific management actions are required now to:

- o Establish budget projections for the program that hold as closely as possible to current projections, especially in the near years.
- o Propose specific legislative measures now to assure the stability of these new budget commitments, and,
- o Establish a process for considering in future years those activities which cannot be fully and fairly considered now.

The recommended EXOP staff option would result in funding commitments now totaling about \$9.4 billion for the Station development effort, compared to the new agency estimate of \$14.5 billion (all estimates in 1984 dollars). The commitment to the Station would be reaffirmed, with first benefits expected in the mid-1990's as currently planned. However, consideration of funding for some ground support infrastructure (presently estimated by NASA at \$2.9 billion) would be delayed until such needs can be better defined as the program matures.

The Original Program.

In your 1984 State of the Union Address, you directed NASA to develop a permanently manned Space Station within a decade and invited participation in the program with other nations. The \$8.0 billion Space Station program you approved was envisioned by NASA to establish a permanently manned U.S. presence in space,

and to feature a large, habitable core structure and two smaller unmanned space platforms to base scientific payloads and experiments.

The \$8.0 billion program was expected to satisfy a broad spectrum of needs for scientific research, technology development, and commercial activities. However, the Station was also envisioned to be an evolving facility and a continuing long-term program. Future elements were expected to be proposed, such as the capability to use the Station as a stepping stone for a manned lunar base or a manned mission to Mars.

The \$8.0 billion estimate included \$0.6 billion for definition and \$7.4 billion for development. As the definition funds have now been spent, new NASA estimates should be compared to the \$7.4 billion development portion only.

Increased Agency Cost Estimates.

The recently completed NASA cost estimates for Space Station development priced the agency's preferred configuration at \$14.5 billion in 1984 dollars (about \$21 billion in current year dollars), compared to the original development estimate of \$7.4 billion in 1984 dollars. As reported to you earlier, the cost growth estimated for the Station by NASA reflects differences in the design and assembly of the Station from what was envisioned originally and greatly increased provisions for ground-based supporting infrastructure and funding reserves. Figure 1 provides a constant dollar comparison of the new agency estimate with the original estimate and with the estimates included in your FY 1988 budget.

Since Station construction has not begun, the Station program did not suffer the high cost of being disrupted in mid course by the Challenger accident, as many other NASA programs did. However, the new Station estimates do reflect indirect effects of the accident, primarily:

- o Greater precautions (e.g., parallel development efforts, extra testing and oversight) being taken in the conduct of all agency manned flight programs.
- o The diminished capacity of the Shuttle, both in the number of available flights and the performance of the Shuttle (e.g., lift capacity).

For the original \$7.4 billion development program, NASA envisioned streamlined management and engineering procedures different from those used by the agency for the Apollo program, especially in the scope and extent of design, test and check-out efforts. The Rogers Commission recommended additional measures to assure the safety, quality, and reliability of NASA manned flight programs. The recent Phillips Study made further recommendations to improve overall NASA management. Based on information presented by NASA,

these extra precautions would add about \$0.7 billion in 1984 dollars to the original \$7.4 billion development estimate.

The new NASA estimates reflect a more capable program, and the requirements are better understood, than the original concept. Proposed new features promise to lower the life cycle costs of the Station and improve its utility to prospective users. For example:

- o Higher capacity, new power source technology and user facilities to reduce the cost of maintaining the orbit of the Station and improve the productivity of experiments,
- o A high technology water and oxygen recycling system to reduce the long term operating costs of the Station,
- o A "garage" on the Station to improve its productivity for repairing and servicing satellites and experiments on orbit.

The best understood aspect of the Station is the flight hardware, where most of the planning definition efforts, before and after the program was approved, have focused. The total cost for the flight hardware portion of the program would increase in 1984 dollars by \$1.0 billion, from \$5.8 to \$6.8 billion. The cost increase for these elements reflected in the new agency estimates includes both the new features and all other changes incorporated through the \$0.6 billion, three year planning and definition effort. These elements also represent the smallest portion of the cost increases recommended by NASA. EXOP staff believe that if a commitment is approved to the new NASA approach, this estimate for the hardware elements should constitute a firm cost ceiling on the flight hardware elements. As part of its estimating for the program, the agency should specifically task contractors to explore lower cost approaches.

Beyond these management and hardware changes, the largest increases proposed by NASA above the original estimates (1984\$) would be for:

- o Greatly increased ground-based supporting infrastructure of test and training facilities and support staff (+\$2.9B), and,
- o Additional funding reserves to meet possible further cost growth and contingencies (+\$2.5B).

NASA believes the original \$7.4 billion development estimate focused heavily on flight hardware and greatly under-estimated the need for additional ground-based support staff and equipment. The agency also believes that higher funding reserves would be more consistent with actual agency experience on other programs.

EXOP staff have discussed the information provided by NASA supporting these estimates but are not convinced that the program is sufficiently mature to allow an accurate evaluation now of funding needs for these items. We note, for example, the level of support infrastructure should depend upon the level of operating activity planned for the Station, the approach finally selected for launch, assembly and check-out, and the availability of staff from the Shuttle program once Shuttle recovery is completed. Moreover, Station assembly risk and cost might be reduced if the Station employed the new Heavy Lift Launch Vehicle proposed in the President's FY 1987 and FY 1988 budgets for DOD. Thus, these needs cannot be confidently estimated now.

In addition, it would appear reasonable that with the planned increase in management oversight, the need for funding reserves should be reduced, not increased. Therefore, we believe that no additional amounts for ground support infrastructure or for funding reserves should be included now in a revised funding commitment for the Station until these needs can be more fully developed and assessed in future years as the program matures.

EXOP staff specifically considered options to restrain the total cost of the development program to the original \$7.4 billion estimate. While we believe the agency should specifically be tasked to continue to seek opportunities for major cost savings, the original cost target does not appear feasible based on developments to-date.

Required Changes in the Management of Space Station Funding.

We note that cost volatility was a key issue when the Space Station program was approved and are greatly distressed with the extraordinary cost growth reflected in the new NASA estimates. The sharp cost increase will be cause for much debate in the Congress and concern among our international partners. As a result, we believe strongly that additional management measures are necessary to assure the credibility and stability of the new budget commitments. At the same time, we remain concerned that it is clearly not possible to precisely estimate now the costs for all elements of the Station. Therefore, to address these concerns, we propose three further actions:

- o Initiate immediately an independent examination of Space Station costs by senior outside reviewers.
- o Propose legislation within 30 days requesting a rolling three year Congressional commitment of appropriations and a legislative cost ceiling on the flight hardware elements of the program (\$6.8 billion) to firmly assure necessary fiscal stability and restraint and a stable planning environment.
- o Direct NASA to modify the request for contractor bids to explicitly encourage and consider options for reducing the cost of the Station while maintaining early benefits.

The three year rolling commitment would permit Space Station funding to be projected for five years as with our current budget procedure. However, advance appropriations would be requested for the budget year and the following two years. Each year, the budget process would make adjustments according to the long term needs beginning in the budget year plus two. For example, the FY 1989 budget process, only Space Station adjustments beginning in FY 1991 would be considered. Once new budget projections for the program are established, we believe it is critical to hold to these outlay estimates for the next three years, through FY 1990. This rolling three year commitment, coupled with a legislated ceiling on the total flight hardware costs, would:

- o Indicate to the Congress and the public that the Administration is dealing decisively with this issue, without committing prematurely to funding increases which cannot be prudently assessed now,
- o Propose specific legislative measures to assure sound program management, program stability and fiscal restraint,
- o Preserve the momentum on this presidential initiative and take full advantage of investments made to date, and
- o Provide a stable planning environment and assure international participants that the U.S. will remain a reliable partner.

Under this approach, long term commitments to additional program capabilities would continue to be considered annually. In this process, possible options for further savings offered by the contractors could be considered, along with possible additional needs, such as further justifications of ground support equipment or a possible "lifeboat" to return astronauts from the Station in an emergency.

NASA estimates that this three year outlay constraint would delay the full achievement of program capabilities by at least 6 to 12 months from the NASA preferred schedule. NASA continues to believe that the Space Station program should hold the full capabilities of the Station as nearly as possible to the original schedule. The agency notes that its preferred approach would not require adjustment to the President's budget for FY 1988, although it would require significant outlays increases for subsequent years.

All agree that the commitment to a permanently manned Station with international participation should be reaffirmed now. At issue is the approach to achieving the full planned capabilities of the Station by the mid-1990's versus achieving a significant capability in the time period with additional capabilities to be phased in consistent with need for program stability and fiscal restraint.

Options.

- 1) Pursue the full program as redefined by NASA. No outlay increase for FY 1988, but sharp increases in later years. Supported by NASA.
- 2) Allow a more gradual program that holds to FY 1988 budget projections through FY 1990. Achieve initial capabilities in about the same time period as option #1, with full capabilities phased to stay within the new budget commitments (consider additional ground support beginning in FY1991). Implement the additional management measures recommended by EXOP staff. Supported by OSTP, NSC, and OMB.
- 3) Re-design the program to remain within the original \$7.4 billion development estimate and the current FY 1988 budget projections.

Figure 2 illustrates the outlay impacts of options #1 and #2 in current dollars for the development program. No funding estimates by year can be made for option #3 at this time. These figures do not include the cost of Station operations or experiments, or allowance for any further program additions once the initial development is complete. Figure 3 provides a comparison between options #1 and #2 by program element in 1984 dollars.

Option 1. Pursue the full program as redefined by NASA. No outlay increase for FY 1988, but sharp increases in later years. Supported by NASA.

Pro:

- o Would result in earliest practicable achievement of the full capabilities.
- o Would reaffirm Presidential support for continued U.S. leadership program in space.
- o Would likely be acceptable to prospective foreign partners.

Con:

- o Would require an estimated increase of 19% above FY 1988 budget outlay projections for FY 1989 and 38% for FY 1990, with much larger increases in subsequent years.
- o May encounter serious resistance in the Congress because of the sharp increase and the lack of measures to guard against further budget instability for the program, especially in the light of other possible near term funding needs for NASA (e.g., Shuttle recovery costs, NASA use of expendable launch vehicles).

Option 2. Allow a more gradual program that holds to FY 1988 budget projections through FY 1990. Achieve initial capabilities in about the same time period as option #1, with full capabilities phased to stay within the new budget commitments (consider additional ground support beginning in FY1991). Implement the additional management measures recommended by EXOP staff. Supported by OSTP, NSC, and OMB.

Pros:

- o Would allow the full capabilities originally envisioned to be achieved at nearly the same pace.
- o Would permit early benefit to be achieved in the mid-1990's, with completion of full benefits phased as necessary to assure essential fiscal restraint.
- o Would implement strong management actions to assure program stability and fiscal restraint, but allow NASA to proceed quickly with initial construction.
- o Would allow new capabilities to be considered in an orderly way over the next several years before committing to the sharp build-up in outlays in the early 1990's.
- o Would provide assurance to international participants of U.S. ability and intention to meet its program obligations.

Cons:

- o Could result in some delay in the achievement of full planned program capabilities.
- o May increase the total costs to complete the full complement of originally envisioned capabilities because of the costs of program deferrals.

Option 3. Re-design the program to remain with the original \$7.4 billion development estimate and the current FY 1988 budget projections.

Pros:

- o Would maintain the commitment to a Space Station within the original \$7.4 billion development estimate.

Cons:

- o NASA maintains that this would result in completion of a Station in the mid-1990's that NASA believes would be no better than the current Soviet Station, with no opportunity for future cost-effective growth or international participation.
- o Would not result in a permanently manned capability in space.
- o Would require a program hiatus while NASA attempts to redesign the program to achieve the original cost target.
- o May not result in a viable program. Developments to-date indicate the original cost target may not be feasible.
- o Would offer no participation by our international partners, encouraging them to develop competing capabilities or to work with Soviets.

Figure 1

Growth in Station Development Costs

Outlays - Billions of 1984 Dollars

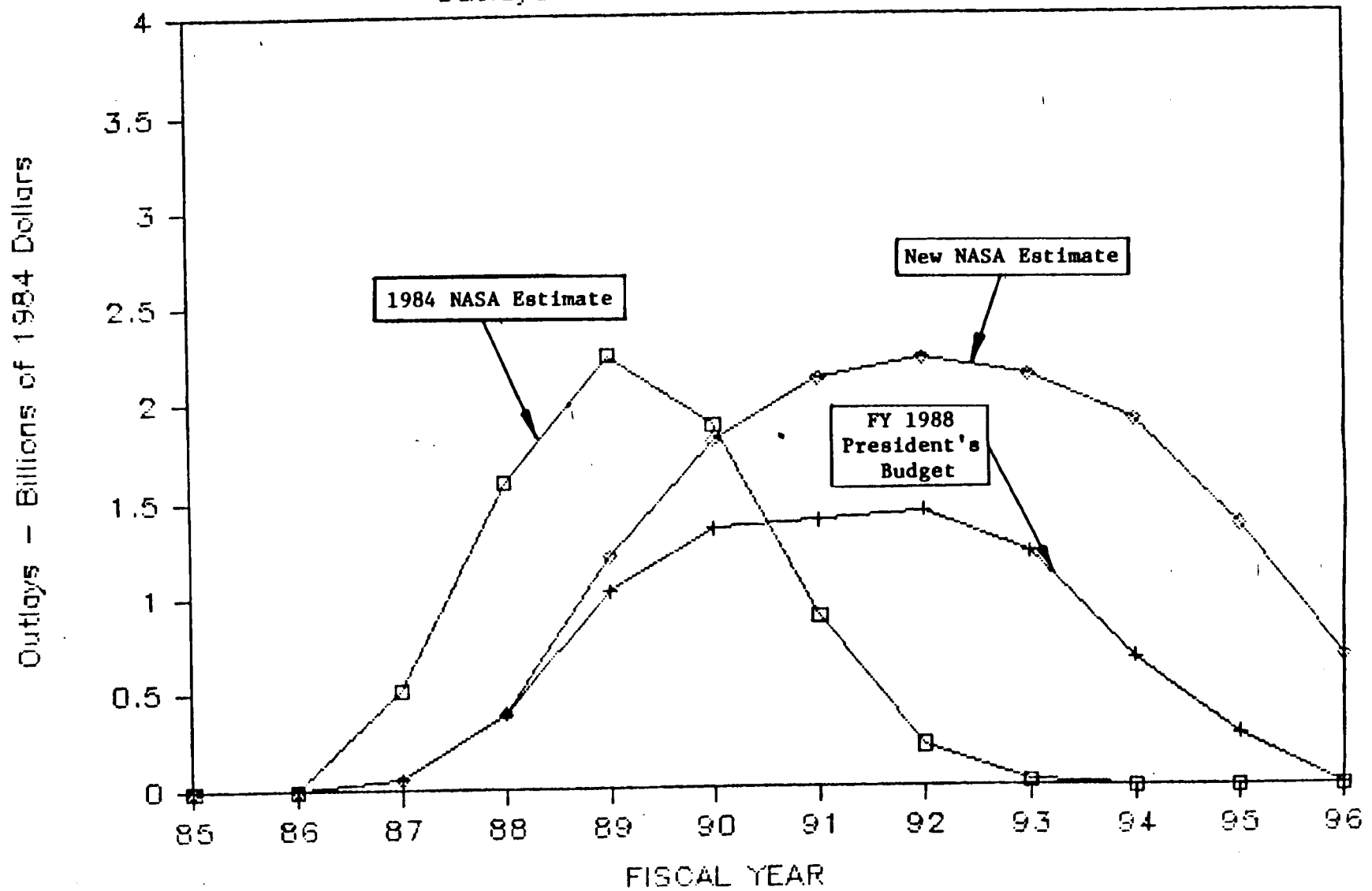


Figure 2

Space Station Development Options

Outlays - Billions of Real Year Dollars

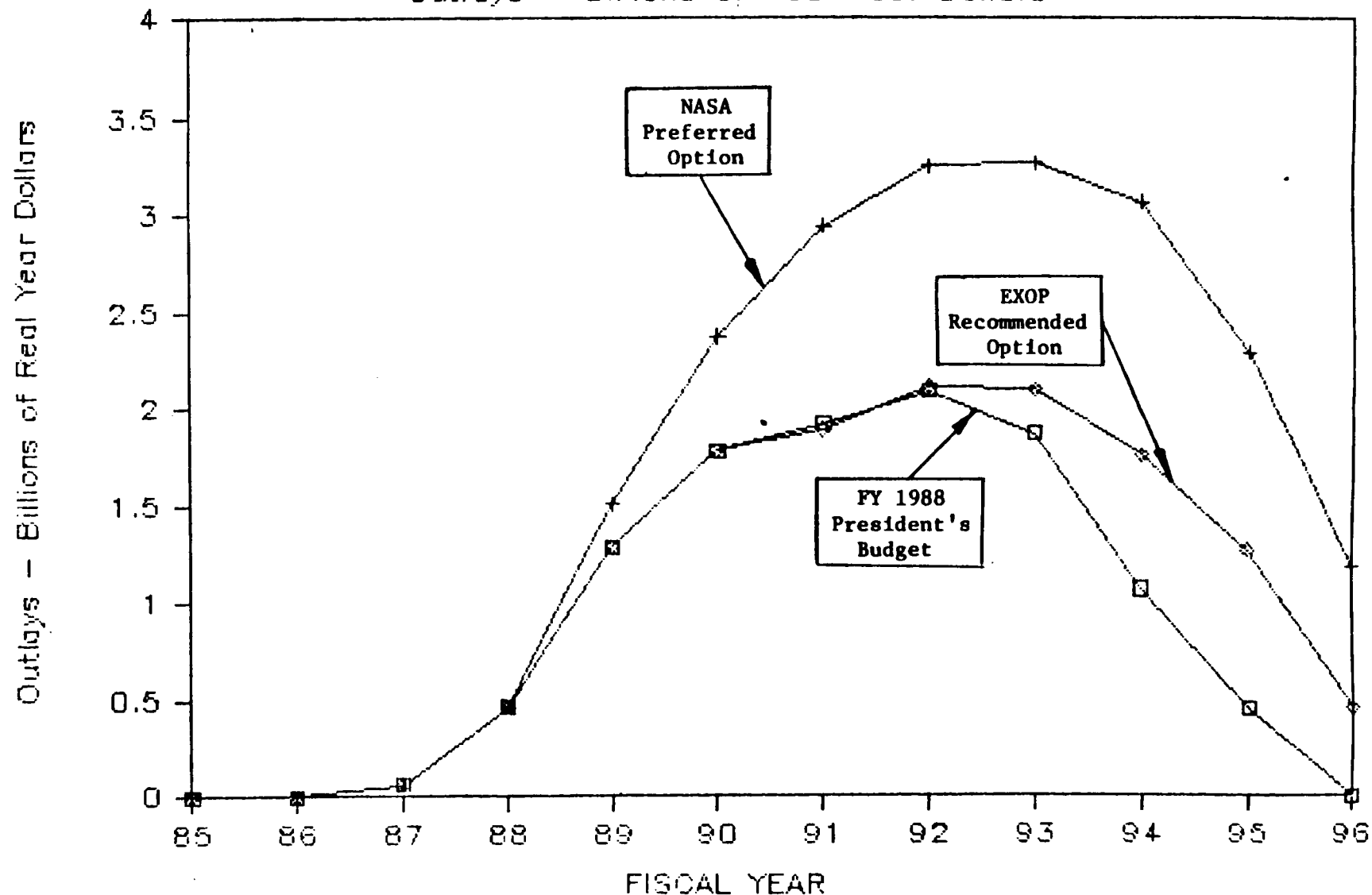


Figure 3.

COMPARISON OF OPTIONS #1 AND #2
FULL COMMITMENT NOW VERSUS GRADUAL APPROACH
(Development Cost in Billions of 1984 Dollars)

	<u>Original Estimate</u>	<u>Change Now</u>	<u>Total</u>
<u>Option #1</u>			
Flight Hardware	5.8	+1.0	6.8
Support Infrastructure	0.3	+3.6	3.9
Reserve	1.3	+2.5	3.8
	<hr/>	<hr/>	<hr/>
Total Development	7.4	+7.1	14.5
 <u>Option #2</u>			
Flight Hardware	5.8	+1.0	6.8
Support Infrastructure *	0.3	+0.7	1.0
Reserve **	1.3	+0.3	1.6
	<hr/>	<hr/>	<hr/>
Total Development	7.4	+2.0	9.4

* Provides only additional amounts now to address Rogers Commission and Phillips management study recommendations. Additional outyear amounts to addressed beginning in FY 1991.

** Allows for reserve of 20% of approved flight hardware and support infrastructure costs, as originally envisioned.

OSTP
NSC Views
CMB

independent review
substantive

DRAFT

As reported to you earlier, NASA Administrator Fletcher has indicated that he expects the cost of the Space Station program to be sharply higher than the estimates now included in your budget. Representatives of NSC, OSTP and OMB have met with NASA officials over the last month to understand the basis for the new cost estimates and to explore possible alternatives.

NASA would like to proceed with the detailed design and construction phase as soon as possible to preserve the momentum on the program, but is currently withholding the request for contractor bids pending your decision on the issues identified in this paper. In addition, FY 1987 Congressional action for NASA prohibits release of funds for the detailed design and construction phase until NASA provides the Administration and the Congress with an acceptable implementation plan. (Release of that plan is presently at OMB awaiting your decision.)

The Space Station is an important Administration priority for U.S. technological leadership in space, international cooperation, and national security. The Space Station is considered a centerpiece of future U.S. efforts in space, including scientific investigation, important areas of technology, space exploration and potential national security experimentation. It will also promote U.S. economic interests and enhance the U.S. overall competitive position in space technology by creating an appropriate opportunity for U.S. private sector investment in space and space transportation services. Also, negotiations are underway with our friends and allies to solicit their political, scientific, and financial cooperation. However, the sharp increase in the cost estimates requires that we carefully evaluate the reasons for the cost increase and explore potentially lower cost approaches to satisfying your commitment to a U.S. Space Station. This will assure domestic and international observers that the Space station is under firm management and oversight. (See Attachment A.)

The NASA preferred approach would achieve full planned capabilities by the Mid-1990's at an estimated cost of \$14.5 billion in 1984 dollars (approximately \$21 billion in inflated dollars), with outlay increases of 32% above your current budget estimates through 1992. Not included in any budget estimate to date, but probably required, is a billion dollar "life boat" to provide rapid emergency return to Earth for the Space Station crew. The Space Station will also add substantially to the requirements for future launch capacity. The budgets needed to fulfill these requirements are not included in the Space Station cost estimates. Such increases would require major offsets in defense, economic, and other high priority Administration programs. Although NASA has begun to investigate the budgetary effects of delaying its preferred program, it has not developed estimates for significantly different approaches that might achieve the highest priority capabilities in about the same time frame with lower outlays. Guidance was provided to NASA, as part of your 1988 budget, that an independent technical and cost review of the Space Station program would be undertaken.

Options for Decision

1. Terminate the program. Supported by none of your advisors.
2. Approve the NASA preferred program, estimated at \$14.5 billion in 1984 dollars (\$21 billion in inflated dollars), and find the offsets from other Federal programs. Supported by NASA.
3. Amend the request for bids to require contractors to also assess lower cost alternatives. Then proceed with the request for bids while independently reviewing Option 2 and, in addition, lower cost alternatives for achieving the highest priority benefits in about the same time period. Present the alternatives for your decision in the FY 89 budget process. Supported by NSC, OSTP, and OMB.

All of your advisors agree that it is important to reaffirm now your commitment to building a U.S. Space Station. NASA argues that this commitment should also reaffirm the full planned capabilities on the current schedule, Option #2, with acceptance of the agency's new cost estimates. NASA believes that any significant further delay will threaten international cooperation, increase program costs further, waste efforts to-date, and delay realization of the planned benefits.

We believe that the magnitude of the cost increases recommended by NASA would require unacceptably large offsets in other Administration priorities, and that requirements, capabilities, costs and schedules for the NASA preferred approach have not been independently reviewed and could change further. We also believe that steady progress towards establishing a U.S. Space Station should be maintained by releasing the request for contractor bids while undertaking a thorough and independent program review to explore alternative technical approaches that

3

might achieve the highest priority requirements in about the same time period with much lower outlay impacts. Moreover, we believe that the request for bids should be amended to require contractors to explore less costly alternatives consistent with Option #3, including alternatives suggested by NASA. These alternatives would specifically include an option within the originally approved cost estimate. The projections in your FY 1988 budget would remain unchanged until the results of this review could be presented for your decision in the context of the FY 1989 budget. FY 1988 funding would not be changed. (See Attachment B.)

Moreover, we believe that any option reaffirming the U.S. commitment to the Space Station program should be accompanied by firm budgetary controls to stabilize the program and ensure that it is carried out within whatever funding profile you approve. The independent review, reporting to the Executive Office of the President (OMB, OSTP, and NSC), would be asked to recommend specific measures to achieve this end.

Decision

1. Terminate the Space Station program.

Approve _____ Disapprove _____

2. Approve the NASA preferred program, estimated at \$14.5 billion in 1984 dollars (\$21 billion in inflated dollars), and find the offsets from other Federal programs. Supported by NASA.

Approve _____ Disapprove _____

3. Proceed with the request for bids while independently reviewing more affordable alternatives for achieving the highest priority benefits in about the same time period. Amend the request for bids to require contractors to also assess lower cost alternatives. Present the alternatives for your decision in the context of the FY 1989 budget. Supported by NSC, OSTP, and OMB.

Approve _____ Disapprove _____

IMPORTANT POLICY IMPLICATIONS

The program is considered sufficiently important from the standpoint of not only investment and science value, but from the standpoint of national U.S. security and foreign policy as well. Therefore, a commitment to the Space Station should be reaffirmed. The program is considered the centerpiece of the U.S. future in space, is the only permanent element of a manned U.S. space flight program, and is symbolic of leadership in technology as well as in space. It affords close cooperation with allies and is key to several areas of scientific investigation and space exploration. Negotiations are now ongoing with our friends and allies to solicit their political, scientific, and financial participation. Therefore, it is important that we fully understand the cost increases and the impact of the policy considerations.

Congressional Considerations

Members of Congressional committees which review and approve the NASA budget and specific programs have asked a number of detailed questions of NASA representatives during recent testimony. Their questions have addressed reasons for cost increases, requirements for capabilities, program development status, and results of international discussions. In summary, members of Congress are showing a deeper and broader interest in not only the programmatic aspects of the Space Station, but are delving into the management and strategy rationale that support Administration policy with regard to Station development. Therefore, the role of the Congress and the Administration's relationship to Congress must be carefully weighed within the decisions made for the Space Station. We must assure observers that the Space Station is under firm Administration management and oversight.

International Considerations

Another important facet is discussion of foreign influence. A complete understanding is required of the implications of long delays in the program. Such long delays could result in a recess in future international discussions until solutions to programmatic problems are ironed out. As you recall, we had a stand-down in Space Station talks from mid-December last year until mid-February this year. We have not recovered from international suspicion that U.S. delays were due to changes in military requirements for the Space Station. Another extended recess could have a permanent adverse effect.

National Security Considerations

The national security aspects of the Space Station remain to be defined, as you know. After initially saying that it had no interest in the Station, several months ago DOD indicated that it wanted to reserve the right to use it "for national security purposes", while acknowledging that it did not have any specific purposes in mind at this time. The draft intergovernmental agreement proposed by the U.S. to our European, Canadian, and Japanese partners protects our right to use the Station for (otherwise undefined) national security purposes. Beyond that, NSC interest in the Station stems from its role in assuring continued U.S. leadership in space -- with reference to manned operations in particular. While this is an intangible asset, it contributes to U.S. prestige and authority, and has national security implications in that sense.

FISCAL MANAGEMENT MEASURES

Cost growth potential was a key concern when the Space Station program was approved. The sharp cost increase estimated by NASA for its preferred approach will be cause for much debate in the Congress and concern among our international partners. As a result, additional management measures are needed to assure the credibility and stability of the new budget commitments. Therefore, to address these concerns, the independent review group would specifically investigate possible measures to stabilize the program and its funding, once a firm programmatic alternative and funding profile is approved in the FY 1989 budget. At a minimum, legislation would be considered for submission with the FY 1989 budget that would request a rolling three year Congressional commitment of appropriations and a legislative cost ceiling on the flight hardware elements of the program to firmly assure necessary fiscal stability and restraint and a stable planning environment.

If approved, the three year rolling commitment would permit Space Station funding to be projected for five years as with our current budget procedure. However, advance appropriations would be requested for the budget year and the following two years. Each year, the budget process would make adjustments according to the long term needs beginning in the budget year plus two. For example, in the FY 1990 budget process, only Space Station adjustments beginning in FY 1992 would be considered. Once new budget projections for the program are established in the FY 1989 budget, this approach would hold to the new outlay estimates for three years through FY 1991. This rolling three year commitment, coupled with a legislated ceiling on the total flight hardware costs, would:

- Indicate to the Congress and the public that the Administration is dealing decisively with this issue, without committing prematurely to funding increases which cannot be prudently assessed now,
- Proposed specific legislative measures to assure sound program management, program stability and fiscal restraint,
- Preserve the momentum on this Presidential initiative and take full advantage of investments made to date, and
- Provide a stable planning environment and assure international participants that the U.S. will remain a reliable partner.

2

With the suggested measures or other similar measures that the review group might recommend, long term commitments to additional program capabilities would continue to be considered annually. In this process, options for further savings offered by the NASA, its contractors or the independent review, could be considered, along with possible additional needs, such as further justifications of ground support equipment or a possible "lifeboat" to return astronauts from the Station in an emergency.

This third provision is patterned on a Kemp-Hatch amendment proposed to the FY 1986 Continuing Resolution to limit Federal family planning funds under Title X of the Public Health Service Act to organizations supporting abortion. It is consistent with your view of the right to life as the basic civil right. By providing an exception for those programs which are directly administered by State or local governments, the bill accomodates those few states presently under court order to provide or finance the performance of abortions. Those States which are presently the sole Title X grantee and therefore directly administer Title X funds, would not be affected by the provision. The provision is limited only to Title X funds; it would not affect federal funds made available through other programs such as Medicaid, the National Institutes of Health research grants, or health or social services block grants.

Decision

RR

Submit legislation to the Congress that would prohibit Federal government funds from being used to: (1) perform abortions except where the life of the mother would be endangered if the unborn baby were carried to term; (2) support through Title X family planning grant or contract any organization (except a grant or contract directly administered by a State or local government) which provides abortion procedures or referral for abortion, unless the life of the mother would be endangered.

_____ Do not submit legislation.

_____ Other



THE SECRETARY OF COMMERCE
Washington, D.C. 20230

March 5, 1987

Honorable James A. Baker
Secretary of the Treasury
Washington, D.C. 20220

Dear Jim:

On August 15, 1986, the President announced his new policy defining NASA's role in providing launch services for commercial customers. NASA has responded to this policy by issuing a manifest which reflects the new payload priorities. Now that we have a general policy statement encouraging commercial launch services, it is important that government agencies support its smooth implementation. We will keep you informed of any issues that deserve your attention.

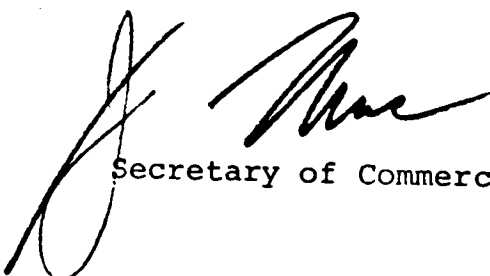
As Chairman and Vice Chairman of the Economic Policy Council's Commercial Space Working Group, we think it is time to direct our attention to another policy concern consistent with NSDD-144--defining the appropriate role of the government in encouraging private sector involvement in space. Therefore, if you agree, we intend to convene the Commercial Space Working Group to address two issues of great importance to the future role of the private sector in space. (A) What are the Administration's economic goals in space? (B) What is the scope and nature of the government's role in helping to achieve these goals?

We intend to have the Working Group complete its report on these issues for consideration by the Economic Policy Council by June 1, 1987. If approved, the report should be made available to the public. Our staff will keep Eugene McAllister informed as to the Working Group's progress.

Sincerely,


James C. Fletcher
Administrator

Sincerely,


Secretary of Commerce

THE WHITE HOUSE

WASHINGTON

March 10, 1987

MEMORANDUM FOR HOWARD H. BAKER, JR.

FROM: NANCY J. RISQUE

SUBJECT: Space Station

Issue
In his 1984 State of the Union Address, the President called for the construction of a space station to be completed in the early 1990s. NASA now estimates that the space station will cost \$14.5 billion (1984\$) substantially more than the original estimate of \$8 billion. This raises two issues, one short-term, the other longer-term.

1. NASA would like to solicit bids for construction of the station. OMB has put a hold on them pending resolution of the budget question. Can we move forward with these bids?
2. Do we go forward with a space station, what should we expect from it, and how much are we willing to spend for it?

Discussion

There is probably no one in the Administration who thinks we should cancel the space station. Likewise there is probably no one in the Administration who has a firm idea of what we would like to get out of the space station.

therefore
The original decision was a design to cost ~~decision~~: we decided to spend \$8 billion and we would design an station that cost \$8 billion. Unfortunately, that original estimate was overtaken by a number of factors, including increased costs for ground-based supporting infrastructure, funding reserves, and differences in ~~the~~ design and assembly costs.

IN hindsight,
The proper way to approach the station funding question is to look at it from cost to design approach: determining what we want from the station and estimating its cost.

Almost every agency in the Federal Government is interested in the design question: DoD from national security perspective; State from the perspective of foreign participation; the Departments of Transportation and Commerce, who are interested in commercializing space; and the Department of Treasury, OMB and CEA from a fiscal perspective, as well as an economic policy question.

Both the Economic Policy Council and the National Security Council have interagency working groups that have presented space

issues to the President for decision. The EPC working group on space commercialization is currently engaged in determining what are the Administration's economic goals in space; and what is the scope and nature of the government's role in helping achieve these goals *(see attached)*. Must

*cut
confuses the
topic*

Recommendation

I recommend that:

1. OMB and NASA agree on a short-term course of action regarding construction bids. ~~This should permit NASA to begin to solicit private sector proposals.~~ However, because the private sector expends a great deal of money in developing these proposals, we should be sure that these bids not be overturned by later decisions regarding the design of the space station.

*should be
revised*

will

2. I confer with Secretary Baker and Frank Carlucci to place the question of the design and uses of the space station in the appropriate interagency group: the EPS, NSC, or both. ~~The objective is to present to the President within four or five months a range of options covering both design and cost questions that reflect all the Cabinet agency positions.~~