

March 6, 1970

MEMORANDUM FOR MR. EHRLICHMAN

I have prepared the attached brief for the meeting of Dr. Paine with the President in case it is decided that Paine will meet with the President prior to his press briefing on the space statement.

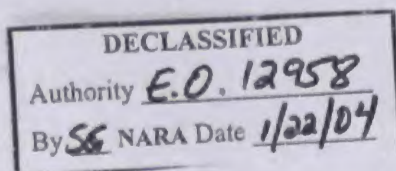
I think it would be desirable for the President to meet with Paine for a short time. However, I would urge that this not be an occasion for Paine to attempt to talk the President into re-interpretations of the Message, since we are not yet ready to make any further commitments on NASA programs.

Peter M. Flanigan  
Assistant to the President

Attachments

cc: Mr. Flanigan ✓  
Mr. Whitehead  
Central Files  
Mr. Kriegsman

CTWhitehead:ed





73 Statement About the Future of the United States  
Space Program. *March 7, 1970*

OVER the last decade, the principal goal of our Nation's space program has been the moon. By the end of that decade men from our planet had traveled to the moon on four occasions and twice they had walked on its surface. With these unforgettable experiences, we have gained a new perspective of ourselves and our world.

I believe these accomplishments should help us gain a new perspective of our space program as well. Having completed that long stride into the future which has been our objective for the past decade, we must now define new goals which make sense for the seventies. We must build on the successes of the past, always reaching out for new achievements. But we must also recognize that many critical problems here on this planet make high priority demands on our attention and our resources. By no means should we allow our space program to stagnate. But—with the entire future and the entire universe before us—we should not try to do everything at once. Our approach to space must continue to be bold—but it must also be balanced.

When this administration came into office, there were no clear, comprehensive plans for our space program after the first Apollo landing. To help remedy this situation, I established in February of 1969 a space task group, headed by the Vice President, to study possibilities for the future of that program. Their report was presented to me in September. After reviewing that report and considering our national priorities, I have reached a number of conclusions concerning the future pace and direction of the Nation's space

efforts. The budget recommendations which I have sent to the Congress for fiscal year 1971 are based on these conclusions.

#### THREE GENERAL PURPOSES

In my judgment, three general purposes should guide our space program.

One purpose is exploration. From time immemorial, man has insisted on venturing into the unknown despite his inability to predict precisely the value of any given exploration. He has been willing to take risks, willing to be surprised, willing to adapt to new experiences. Man has come to feel that such quests are worthwhile in and of themselves—for they represent one way in which he expands his vision and expresses the human spirit. A great nation must always be an exploring nation if it wishes to remain great.

A second purpose of our space program is scientific knowledge—a greater systematic understanding about ourselves and our universe. With each of our space ventures, man's total information about nature has been dramatically expanded; the human race was able to learn more about the Moon and Mars in a few hours last summer than had been learned in all the centuries that had gone before. The people who perform this important work are not only those who walk in spacesuits while millions watch or those who launch powerful rockets in a burst of flame. Much of our scientific progress comes in laboratories and offices, where dedicated, inquiring men and women decipher new facts and add them to old ones in ways which reveal new truths. The abilities of



these scientists constitute one of our most valuable national resources. I believe that our space program should help these people in their work and should be attentive to their suggestions.

A third purpose of the United States space effort is that of practical application—turning the lessons we learn in space to the early benefit of life on earth. Examples of such lessons are manifold; they range from new medical insights to new methods of communication, from better weather forecasts to new management techniques and new ways of providing energy. But these lessons will not apply themselves; we must make a concerted effort to see that the results of our space research are used to the maximum advantage of the human community.

#### A CONTINUING PROCESS

We must see our space effort, then, not only as an adventure of today but also as an investment in tomorrow. We did not go to the moon merely for the sport of it. To be sure, those undertakings have provided an exciting adventure for all mankind and we are proud that it was our Nation that met this challenge. But the most important thing about man's first footsteps on the moon is what they promise for the future.

We must realize that space activities will be a part of our lives for the rest of time. We must think of them as part of a continuing process—one which will go on day in and day out, year in and year out—and not as a series of separate leaps, each requiring a massive concentration of energy and will and accomplished on a crash timetable. Our space program should not be planned in a rigid manner,

decade by decade, but on a continuing flexible basis, one which takes into account our changing needs and our expanding knowledge.

We must also realize that space expenditures must take their proper place within a rigorous system of national priorities. What we do in space from here on in must become a normal and regular part of our national life and must therefore be planned in conjunction with all of the other undertakings which are also important to us. The space budget which I have sent to Congress for fiscal year 1971 is lower than the budget for fiscal year 1970, a condition which reflects the fiscal constraints under which we presently operate and the competing demands of other programs. I am confident, however, that the funding I have proposed will allow our space program to make steady and impressive progress.

#### SIX SPECIFIC OBJECTIVES

With these general considerations in mind, I have concluded that our space program should work toward the following specific objectives:

1. We should continue to *explore the moon*. Future Apollo manned lunar landings will be spaced so as to maximize our scientific return from each mission, always providing, of course, for the safety of those who undertake these ventures. Our decisions about manned and unmanned lunar voyages beyond the Apollo program will be based on the results of these missions.

2. We should move ahead with bold *exploration of the planets and the universe*. In the next few years, scientific satellites of many types will be launched into earth orbit to bring us new information



about the universe, the solar system, and even our own planet. During the next decade, we will also launch unmanned spacecraft to all the planets of our solar system, including an unmanned vehicle which will be sent to land on Mars and to investigate its surface. In the late 1970's, the "Grand Tour" missions will study the mysterious outer planets of the solar system—Jupiter, Saturn, Uranus, Neptune, and Pluto. The positions of the planets at that time will give us a unique opportunity to launch missions which can visit several of them on a single flight of over 3 billion miles. Preparations for this program will begin in 1972.

There is one major but longer-range goal we should keep in mind as we proceed with our exploration of the planets. As a part of this program we will eventually send men to explore the planet Mars.

3. We should work to *reduce substantially the cost of space operations*. Our present rocket technology will provide a reliable launch capability for some time. But as we build for the longer-range future, we must devise less costly and less complicated ways of transporting payloads into space. Such a capability—designed so that it will be suitable for a wide range of scientific, defense, and commercial uses—can help us realize important economies in all aspects of our space program. We are currently examining in greater detail the feasibility of reusable space shuttles as one way of achieving this objective.

4. We should seek to *extend man's capability to live and work in space*. The Experimental Space Station (XSS)—a large orbiting workshop—will be an important part of this effort. We are now building such a station—using systems originally developed for the Apollo pro-

gram—and plan to begin using it for operational missions in the next few years. We expect that men will be working in space for months at a time during the coming decade.

We have much to learn about what man can and cannot do in space. On the basis of our experience with the XSS, we will decide when and how to develop longer-lived space stations. Flexible, long-lived space station modules could provide a multipurpose space platform for the longer-range future and ultimately become a building block for manned interplanetary travel.

5. We should *hasten and expand the practical applications of space technology*. The development of earth resources satellites—platforms which can help in such varied tasks as surveying crops, locating mineral deposits, and measuring water resources—will enable us to assess our environment and use our resources more effectively. We should continue to pursue other applications of space-related technology in a wide variety of fields, including meteorology, communications, navigation, air traffic control, education, and national defense. The very act of reaching into space can help man improve the quality of life on earth.

6. We should *encourage greater international cooperation in space*. In my address to the United Nations last September, I indicated that the United States will take positive, concrete steps "toward internationalizing man's epic venture into space—an adventure that belongs not to one nation but to all mankind. I believe that both the adventures and the applications of space missions should be shared by all peoples. Our progress will be faster and our accomplishments will be greater if nations will join together in this effort.



both in contributing the resources and in enjoying the benefits. Unmanned scientific payloads from other nations already make use of our space launch capability on a cost-shared basis; we look forward to the day when these arrangements can be extended to larger applications satellites and astronaut crews. The Administrator of NASA recently met with the space authorities of Western Europe, Canada, Japan, and Australia in an effort to find ways in which we can cooperate more effectively in space.

It is important, I believe, that the space program of the United States meet these six objectives. A program which achieves these goals will be a balanced space program, one which will extend our capabilities and knowledge and one which will put our new learning to work for the immediate benefit of all people.

As we enter a new decade, we are conscious of the fact that man is also entering

a new historic era. For the first time, he has reached beyond his planet; for the rest of time, we will think of ourselves as men from the planet earth. It is my hope that as we go forward with our space program, we can plan and work in a way which makes us proud *both* of the planet from which we come *and* of our ability to travel beyond it.

**NOTE:** The statement was released at Key Biscayne, Fla.

On the same day, the White House released the transcript of a news briefing about the United States space program by Dr. Thomas O. Paine, Administrator, National Aeronautics and Space Administration.

On March 15, 1970, the Office of Science and Technology released a report by the Space Science and Technology Panel of the President's Science Advisory Committee entitled "The Next Decade in Space" (Government Printing Office, 63 pp.). The report set out in detail the administration's space program as outlined in the President's statement.



DECLASSIFIED  
 Authority EO 12958  
 By NARA Date 11/14/09

DOCUMENT WITHDRAWAL RECORD [NIXON PROJECT]

DOCUMENT NUMBER	DOCUMENT TYPE	SUBJECT/TITLE OR CORRESPONDENTS	DATE	RESTRICTION
1	Carbon memo/attach	From Whitehead to Harlow, et al. - 3 pgs.	4/11/70	D
2	Carbon/attach	From Whitehead to Lincoln - 12 pgs	4/11/70	D
3	Memo	From Whitehead to Timmons - 2 pgs	4/24/70	D

FILE GROUP TITLE

WHCF: Subject Files FG 6-14

BOX NUMBER

1

FOLDER TITLE

Exec FG 6-14 Office of Telecommunications Policy

Begin - 4/30/70

RESTRICTION CODES

- A. Release would violate a Federal statute or Agency Policy.
- B. National security classified information.
- C. Pending or approved claim that release would violate an individual's rights.
- D. Release would constitute a clearly unwarranted invasion of privacy or a libel of a living person.

- E. Release would disclose trade secrets or confidential commercial or financial information.
- F. Release would disclose investigatory enforcement purposes.
- G. Withdrawn and return private information.
- H. Withdrawn and returned non-harmful information.



January 6, 1970

FI 4/FG 164 ✓  
 FG 6-1  
 OSB  
 FG 6-11-1/Flanigan, Peter  
 FG 164

## MEMORANDUM FOR

Honorable Thomas O. Paine  
 Administrator  
 National Aeronautics and  
 Space Administration

Honorable Robert P. Mayo  
 Director of the  
 Bureau of the Budget

It was agreed with Dr. Payne that NASA's FY 1971 budget will be \$3,530 million in budget authority and \$3,600 million in budget outlays. These goals will be met subject to the following Presidential objectives.

1. The Manned Space Flight Program is to be carried out on the previously agreed-upon schedule (there is to be no cancellation of any Apollo flight, the report to the contrary in the newspapers having been a misquote of Dr. Lowe).
2. HEAD and NTC satellites will not be started in Fiscal Year 71.
3. There is no commitment, implied or otherwise, for development starts for either the space station or the shuttle in FY 72. That is a matter to be discussed when the FY 72 budget is developed.
4. The President's option with regard to final Saturn 5 launch, as to whether it be a lunar mission or a second Experimental Space Station is still open.

Within the above objectives, NASA is to have full flexibility in planning and carrying out the reduction of its FY 71 budget from the original mark of \$3,825 million to the new mark of \$3,600 million in budget outlays.

Peter M. Flanigan  
 Assistant to the President

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Authority	E012958	man
By	NARA Date 2/11/89	ead



January 5, 1970

MEMORANDUM FOR MR. FLANIGAN

The current NASA budget situation is as follows:

BOB		NASA	
BA	BO	BA	BO
3,410	3,600	3,609	3,600

The major differences are:

- (a) BOB has reduced advanced research and technology by \$53 million BA below the NASA position.
- (b) BOB has reduced Viking by \$10 million BA lower than NASA.
- (c) BOB has reduced space station and shuttle by \$30 million BA below NASA.
- (d) NASA wants \$107 million BA for new starts (list attached) and prefers \$25 million across-the-board cuts in outlays rather than detailed BOB cuts.

NASA and BOB agree on FY 72 impact of Viking and other major programs. The total outlays estimated for the two proposals are:

	71	72	
		Run-out	BOB est. min.
BOB	3,600	3,450	3,650
NASA	3,600	3,600	3,900

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Our major problem appears to be preserving the President's program and desired budget restraint while not "nickel and diming" Paine to death. I recommend the following compromise position be sent to Paine by you or John Ehrlichman:

The NASA FY 71 budget will be \$3,500 BA and \$3,600 outlays, subject to the following Presidential objectives:

1. The manned space flight program is to be carried out on the agreed schedule.
2. HEAD and NTC satellites are not to be started.
3. There is to be no contractual or implied commitment to FY 72 development starts for either the space station or the shuttle. Technology studies should give priority to the shuttle over the space station.
4. The option should be maintained for the President to decide on a lunar mission or a second Experimental Space Station launch for the last Saturn V of the current production run.
5. Within the above constraints, NASA is to have full flexibility in planning and carrying out the program.

Clay T. Whitehead  
Staff Assistant

Attachment

cc: Mr. Kriegsman  
Mr. Whitehead  
Central Files

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Authority	E012958
By	NARA Date 2/1/89



**FY 71 Budget Authority for New Starts  
Requested by NASA  
(No FY 71 Outlays)**

Lunar science	5
Bioscience	5
GSO	4
Nimbus	6
Physic Explorer's	4
ATS	10
Launch Vehicle Improvements	6
OTDA	6
Aeronautics	10
HEAO	4
NIC Saturn	4
Apollo	<u>40</u>
Total	107

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Authority

E012958

By

NARA Date

2/1/89



THE WHITE HOUSE  
WASHINGTON

January 5, 1970

MEMORANDUM FOR MR. FLANIGAN

The current NASA budget situation is as follows:

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BA	BO	BA	BO
3,410	3,600	3,609	3,600

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- (d) NASA wants \$107 million BA for new starts (list attached) and prefers \$25 million across-the-board cuts in outlays rather than detailed BOB cuts.

NASA and BOB agree on FY 72 impact of Viking and other major programs. The total outlays estimated for the two proposals are:

	71	72	
		Run-out	BOB est. min.
BOB	3,600	3,450	3,650
NASA	3,600	3,600	3,900

3,825

4,121

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By at NARA Date 2/11/89



Our major problem appears to be preserving the President's program and desired budget restraint while not "nickel and diming" Paine to death. I recommend the following compromise position be sent to Paine by you or John Ehrlichman:

The NASA FY 71 budget will be \$3,500 BA and \$3,600 outlays, subject to the following Presidential objectives:

ll

1. The manned space flight program is to be carried out on the agreed schedule - *no cancellation as announced in paper.*

2. HEAD and NTC satellites are not to be started.

3. There is to be no contractual or implied commitment to FY 72 development starts for either the space station or the shuttle. Technology studies should give priority to the shuttle over the space station.

*Open*

4. The option should be maintained for the President to decide on a lunar mission or a second Experimental Space Station launch for the last Saturn V of the current production run - *no cancellation allowed.*

5. Within the above constraints, NASA is to have full flexibility in planning and carrying out the program.

*# 20 Day Work Shop  
# 19 Open*

Clay T. Whitehead  
Staff Assistant

Attachment

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By mt NARA Date 2/1/89



# NASA Budget - Current Status

NASA  
*[Signature]*

Developed with Earl Rhoody

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 Authority: EOI 12951  
 By: [Signature]  
 NASA Date: 2/11/89

	DOE Reductions		NASA Position	
	BA	EO	BA	EO
al Mark	3735	3825	3735	(3825)
Reductions:	(-326)	(-225)	(-233)	(-225)
Airing	-242	-180	-233	-200
Space Shuttle	-20	-12	0	0
Space Station	-10	-6	0	0
Other	-53	-27	0	0
Unallocated	-	-	0	-25
Additions:	(0)	(0)	(+107)	(0)
1. Human science	0	0	+5	0
2. Bioscience	0	0	+5	0
O 50	0	0	+4	0
3. Nimbus	0	0	+6	0
4. Pioneer Explorer	0	0	+4	0
5. ATS	0	0	+10	0
6. Launch Vehicle development	0	0	+6	0
OTDA	0	0	+6	0
7. Other activities	0	0	+10	0
8. MEAOs	0	0	+4	0
9. NASA Cent. Sect	0	0	+4	0
10. Apollo	0	0	+40	0
<b>Revised Totals</b>	<b>3530</b>	<b>3600</b>	<b>3609</b>	<b>(3600)</b>

OK Bob  
 Details to [Signature]  
 comment

10/23/56

2/56



FY 71 Budget Authority for New Starts  
 Requested by NASA  
 (No FY 71 Outlays)

Lunar science	5
Bioscience	5
OSO	4
Nimbus	6
Physic Explorer's	4
ATS	10
Launch Vehicle Improvements	6
OTDA	6
Aeronautics	10
HEAO	4
NTC Saturn	4
Apollo	<u>40</u>
Total	107

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 Authority E012958  
 By at NARA Date 2/11/89



December 29, 1969

FOR Peter Flanigan  
FROM Will Kriegsman

The following are suggested reductions from \$3.7 billion to the \$3.0 billion level for NASA (As a precautionary note, I understand that BOB gave NASA a mark of \$3.735 billion Friday night. I am not at all sure, however, the degree to which the BOB mark compares with the details of the \$3.7 billion figure which we gave the Staff Secretary).

In order to achieve the \$700 million reduction, I suggest the following:

- a. A \$219 million reduction in the Apollo/Apollo Applications program from \$1593.2 to \$1335.2 million. This requires a stretch-out of launches to 9 month intervals and other measures necessary to conserve the available funds.
- b. A reduction of \$200 million for Viking. This reduces the program to \$50 million and will defer the Mars unmanned landing until 1975.
- c. Miscellaneous reductions in the Space Science Program totalling \$66 million (Details are available).
- d. Termination of the Nerva Program and elimination of the space station and space shuttle technology efforts in the ART Program, resulting in a reduction of \$110 million.
- e. Reduce aviation technology from \$120 million to \$100 million.
- f. Reduce the Tracking and Data Acquisition Program by \$26 million to a new total of \$282 million.
- g. A reduction in construction of facilities of \$20 million.

Some of the foregoing have been arbitrary cuts, but they are consistent with the objectives stated in our memorandum to the Staff Secretary.

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By	NARA Date 2/11/89	

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## THE WHITE HOUSE

WASHINGTON

December 19, 1969

~~ADMINISTRATIVELY CONFIDENTIAL~~

## MEMORANDUM FOR THE STAFF SECRETARY

RE: Log No. 2518 (NASA Budget)

I submit the following recommendations with respect to Dr. Paine's letter of December 17, 1969, appealing the reduction in NASA's 1971 budget.

- A. The Saturn V production should be suspended.
- B. Effort on the space shuttle and space station should be reduced by \$150 million of MSF funds.
- C. The frequency of Saturn V launches should be reduced, within the limits of safety, to extend the period of manned space flight. (I have asked Dr. Paine to comment directly to me on this point. Dr. Paine has suggested that a six month interval is the maximum permitted for safety reasons, while Dr. Low has said that a nine month interval is acceptable.)
- D. The university research funds should be eliminated as requested by the President.
- E. HEAO should be deferred.
- F. Program management costs should be reduced from \$707 to \$637 million.

The net result of these changes will reduce the NASA budget to \$3,700 million. We believe that this level will provide a satisfactory space program consistent with the proposed Presidential statement on space.

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By

NARA Date

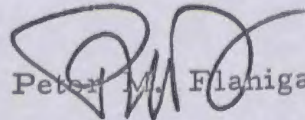
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~~ADMINISTRATIVELY CONFIDENTIAL~~



Dr. Paine's program changes to achieve a \$3,700 million budget are unacceptable to the Administration. They result in a termination of the manned space program in 1972, the onus of which would be on the President. Dr. Paine's program begins development and creates commitments for very expensive programs that will require substantially increased outlays in the next few years.

I believe we should not only reaffirm the President's \$3,700 million decision, but specify to NASA the above indicated broad outlines as to how it is to be spent.

  
Peter M. Flanigan

Enclosure

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By <i>alt</i>	NARA Date 2/1/89

ADMINISTRATIVELY CONFIDENTIAL



December 19, 1969

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- C. The frequency of Saturn V launches should be reduced, within the limits of safety, to extend the period of manned space flight ~~beyond the presently planned date of 1974~~. (I have asked Dr. Paine to comment directly to me on this point. Dr. Paine has suggested that a six month interval is the maximum permitted for safety reasons, while Dr. Low has said that a nine month interval is acceptable.
- D. The university research funds should be eliminated as requested by the President.
- E. HEAO should be deferred.
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The net result of these changes will reduce the NASA budget to \$3,790 million. We believe that this level will provide a satisfactory space program consistent with the proposed Presidential statement on space.

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Authority E012958  
By mt NARA Date 2/1/89

ADMINISTRATIVE



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Enclosure

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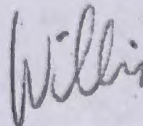
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON

March 6, 1970

TO: Mr. Tom Whitehead

FROM: Willis H. Shapley

These are the changes George Low and I recommended to you on  
the phone at Dr. Paine's request.



Willis H. Shapley

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Authority E.O. 12958  
By SG NARA Date 1/22/04



NASA Change in

p. 4, p. 5, p. 7, 4 a. b. c. d. Whitehead copy

(Huebner) JK

March 4, 1970

Proposed Statement on the Future Of  
the U. S. Space Program

Over the last decade, the principal goal of our nation's space program has been the Moon. By the end of that decade men from our planet had traveled to the Moon on four occasions and twice they had walked on its surface. With these unforgettable experiences, we have gained a new perspective on ourselves and our world.

I believe these accomplishments should help us gain a new perspective on our space program as well. Having completed that long stride into the future which has been our objective for the past decade, we must now define new goals which make sense for the Seventies. We must build on the successes of the past, always reaching out for new achievements. But we must also recognize that many critical problems here on this planet make higher priority demands on our attention and our resources. By no means should we allow our space program to stagnate. But -- with the entire future and the entire universe before us -- we should not try to do everything at once. Our approach to space must continue to be bold -- but it must also be balanced.

When this Administration came into office, there were no clear, comprehensive plans for our space program after the first Apollo landing. To help remedy this situation, I established in February of 1969 a Space Task Group, headed by the Vice President, to study

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Authority E.O. 12958

By SG NARA Date 1/22/04



-2-

possibilities for the future of that program. Their report was presented to me in September. After reviewing that report and considering our national priorities, I have reached a number of conclusions concerning the future pace and direction of the nation's space efforts. The budget recommendations which I have sent to the Congress for Fiscal Year 1971 are based on these conclusions.

Three General Purposes

In my judgment, three general purposes should guide our space program.

One purpose is exploration. From time immemorial, man has insisted on venturing into the unknown despite his inability to predict precisely the value of any given exploration. He has been willing to take risks, willing to be surprised, willing to adapt to new experiences. Man has come to feel that such quests are worthwhile in and of themselves -- for they represent one way in which he expands his vision and expresses the human spirit. A great nation must always be an exploring nation if it wishes to remain great.

A second purpose of our space program is scientific knowledge -- a greater systematic understanding about ourselves and our universe. With each of our space ventures, man's total information about nature has been dramatically expanded; the human race was able

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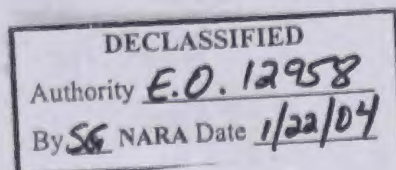
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The abilities of these scientists constitute one of our most valuable national resources. I believe that our space program should help these people in their work and should be attentive to their suggestions.

A third purpose of the United States space effort is that of practical application -- turning the lessons we learn in space to the early benefit of life on Earth. Examples of such lessons are manifold; they range from new medical insights to new methods of communication, from better weather forecasts to new management techniques and new ways of providing energy. But these lessons will not apply themselves; we must make a concerted effort to see that the results of our space research are used to the maximum advantage of the human community:

#### A Continuing Process

We must see our space effort, then, not only as an adventure





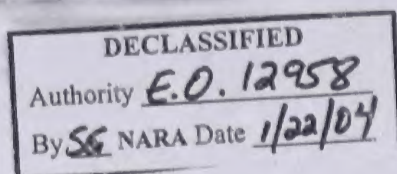
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of today but also as an investment in tomorrow. We did not go to the Moon merely for the sport of it. To be sure, those undertakings have provided an exciting adventure for all mankind and we are proud that it was our nation that met this challenge. But the most important thing about man's first footsteps on the Moon is what they promise for the future.

We must realize that space activities will be a part of our lives for the rest of time. We must think of them as part of a continuing process -- one which will go on day in and day out, year in and year out -- and not as a series of separate leaps, each requiring a massive concentration of energy and will and accomplished on a crash timetable. Our space program should not be planned in a rigid manner, decade by decade, but on a continuing flexible basis, one which takes into account our changing needs and our expanding knowledge.

We must also realize that space expenditures must take their proper place within a rigorous system of national priorities. What we do in space from here on in must become a normal and regular part of our national life and must therefore be planned in conjunction with all of the other undertakings which are also important to us.

The space budget which I have sent to Congress for Fiscal Year 1971 is lower than the budget for Fiscal Year 1970, a condition which



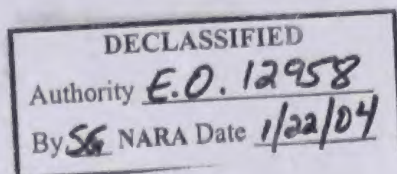


reflects the fiscal constraints under which we presently operate and the competing demands of other programs. I am confident, however, that the funding I have proposed will allow our space program to make steady and impressive progress.

#### Six Specific Objectives

With these general considerations in mind, I have concluded that our space program should work toward the following specific objectives:

1. We should continue to explore the Moon. Future Apollo manned lunar landings will be spaced so as to maximize our scientific return from each mission, always providing, of course, for the safety of those who undertake these ventures. Our decisions about manned and unmanned lunar voyages beyond the Apollo program will be based on the results of these missions.
2. We should move ahead with bold exploration of the planets and the universe. In the next few years, scientific satellites of many types will be launched into Earth orbit to bring us new information about the universe, the solar system, and even our own planet. During the next decade, we will also launch unmanned spacecraft to all the planets of our solar system, including an unmanned vehicle which will be sent to land on Mars and to investigate its surface. In the late





-6-

1970s, the "Grand Tour" missions will study the mysterious outer planets of the solar system -- Jupiter, Saturn, Uranus, Neptune, and Pluto. The positions of the planets at that time will give us a unique opportunity to launch missions which can visit several of them on a single flight of over three billion miles. Preparations for this program will begin in 1972.

There is one <sup>major but</sup> longer range goal we should keep in mind as we proceed with our exploration of the planets. As a part of this program <sup>will</sup> we should eventually send men to explore the planet Mars.

3. We should work to reduce substantially the cost of space operations. Our present rocket technology will provide a reliable launch capability for some time. But as we build for the longer-range future, we must devise less costly and less complicated ways of transporting payloads into space. Such a capability -- designed so that it will be suitable for a wide range of scientific, defense and commercial uses -- can help us realize important economies in all aspects of our space program. We are currently examining in greater detail the feasibility of re-usable space shuttles as one way of achieving this objective.

4. We should seek to extend man's capability to live and work in space. The Experimental Space Station (XSS) -- a large orbiting

\* Review with [unclear] [unclear]

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 Authority E.O. 12958  
 By SG NARA Date 1/22/04



Insert 1 to replace last sentence of par. 3 on page 6

We are currently examining the design of a reusable space shuttle that could evolve into a new space capability. With this capability, we could fully exploit and use space for the benefit of all mankind and at the same time substantially reduce the cost of space operations.

(Wording adapted from Page 99 of the FY 71 Budget.)

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By SS NARA Date 1/22/04



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workshop -- will be an important part of this effort. We are now building such a station -- using systems originally developed for the Apollo program -- and plan to begin using it for operational missions in the next few years. We expect that men will be working in space for months at a time during the coming decade.

We have much to learn about what man can and cannot do in space. On the basis of our experience with the XSS, we will decide when and how to develop longer-lived space stations. Flexible, long-lived space station modules could provide a multi-purpose space platform for the longer-range future and ultimately become a building block for manned interplanetary travel.

5. We should hasten and expand the practical applications of space technology. The development of earth resources satellites -- platforms which can help in such varied tasks as surveying crops, locating mineral deposits and measuring water resources -- will enable us to assess our environment and use our resources more effectively. We should continue to pursue other applications of space-related technology in a wide variety of fields, including meteorology, communications, navigation, air traffic control, education and national defense. The very act of reaching into space can help man improve the quality of life on Earth.

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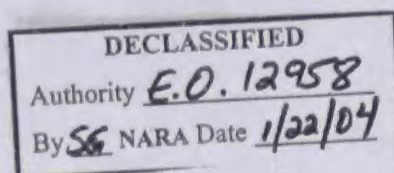
6. We should encourage greater international cooperation in space. In my address to the United Nations last September, I indicated that the United States will take positive, concrete steps "toward internationalizing man's epic venture into space -- an adventure that belongs not to one nation but to all mankind." I believe that both the adventures and the applications of space missions should be shared by all peoples. Our progress will be faster and our accomplishments will be greater if nations will join together in this effort, both in contributing the resources and in enjoying the benefits. <sup>(insert attached)</sup> The Administrator of NASA recently met with the space authorities of Western Europe, Canada, Japan and Australia in an effort to find ways in which we can cooperate more effectively in space.

\* \* \*

It is important, I believe, that the space program of the United States meet these six objectives. A program which achieves these goals will be a balanced space program, one which will extend our capabilities and knowledge and one which will put our new learning to work for the immediate benefit of all people.

As we enter a new decade, we are conscious of the fact that man is also entering a new historic era. For the first time, he has reached beyond his planet; for the rest of time, we will think of ourselves as

(\*declosure)





INSERT ON PAGE 8

Unmanned scientific payloads from other nations already  
make use of our space launch capability on a cost-shared  
basis; we look forward to the day when these arrangements can  
be extended to larger <sup>space programs</sup> applications satellites and astronaut crews.

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By SG NARA Date 1/22/04



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men from the planet Earth. It is my hope that as we go forward with our space program, we can plan and work in a way which makes us proud both of the planet from which we come and of our ability to travel beyond it.

# # # # #

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By SG NARA Date 1/22/04



March 6, 1970

MEMORANDUM FOR

THE PRESIDENT

SUBJECT: Meeting with Dr. Thomas O. Paine  
March 7, 1969

I. PURPOSE

To discuss your statement on the future of the space program prior to its release and Dr. Paine's press briefing.

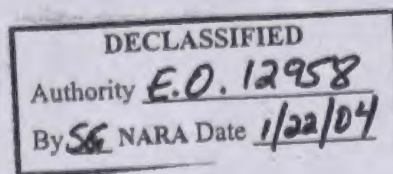
II. BACKGROUND

This statement has been under discussion with NASA, OST, BOB, and the Vice President's office for the past three months. It is designed primarily to put space in perspective vis-a-vis our other priorities and to set forth a rationale for planning the future direction of the space program. The statement complements the specific program information presented in the FY 1971 budget submission. Many of NASA's suggestions have been incorporated, but not all.

III. POINTS OF DISCUSSION

There is no need for you to raise any of the following issues at this time. They are presented for your information in case Dr. Paine raises them.

- A. Dr. Paine may discuss his trips abroad to explore opportunities for more international cooperation in space. Both Mr. Flanigan and Mr. Kissinger's staffs have been working with NASA, and this area turns out to be more difficult than might be expected.





-2-

**RECOMMENDATION**

That you encourage Dr. Paine to continue his efforts, but stress the need for a firm economic and technical foundation to be laid before too many expectations are raised publicly.

- B. He may also raise the extent of your commitment to the future development of the re-usable space shuttle. The development cost estimates for this program are very high and quite uncertain.

**RECOMMENDATION**

That you stress the need to consider a full range of options and make design and development decisions only after more technological and cost unknowns are resolved.

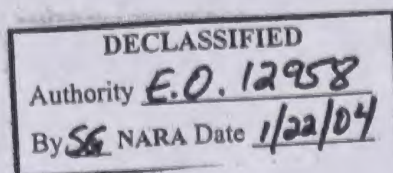
**IV. POINTS YOU MAY WISH TO RAISE**

The tone of the space statement is important. While it includes a number of specific program initiatives, the thrust is more explanatory of a rationale than a listing of major initiatives.

**RECOMMENDATION**

That you emphasize this point to Dr. Paine and suggest he address the rationale as well as program initiatives in his press briefing.

Peter M. Flanigan





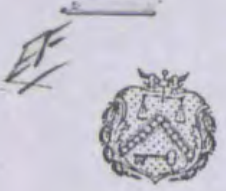
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By mt NARA Date 2/14/98

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THE SECRETARY OF THE TREASURY  
WASHINGTON

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FI1-2  
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MAY 4 1970  
FG6-1  
FG6-3  
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MEMORANDUM FOR THE PRESIDENT

One by-product of the necessary action with respect to Cambodia is to increase the prevailing nervousness and uncertainty in financial markets. A developing view that Federal spending is "out of control" has been reinforced, and renewed expectations of chronic inflation have depressed the bond market.

In this situation, it seems to us imperative that we reach a prompt decision as to our immediate budgetary strategy. Budget uncertainties have been a major source of weakening market confidence, and it is the one matter we must deal with in a frank and authoritative manner.

The immediate situation is that the combination of expenditure overruns and revenue shortfalls from the January estimates indicates that the FY 1970 budget cannot be balanced without drastic action. Measures which are being contemplated to bring about an apparent surplus for FY 1970 amount to drawing certain receipts into this year from FY 1971 and pushing certain disbursements out of this year into next.

By such means, it might be possible to show a small prospective surplus of, say, \$0.2 billion. But, given the inevitable uncertainties in budget forecasts, that result could not be assured. Moreover, this approach would not dispose of the uncertainties with respect to fiscal 1971, which are inevitably aggravated by the Cambodian situation.

In quick summary, we now face a probable shortfall of \$3.0 billion in revenues from budgeted FY 1970 levels. With

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CP67 NARA, Date 2/15/98

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- 2 -

effort in delaying outpayments, expenditures might be held to within \$500 million of the budgeted level, absorbing over half of the effects of the pay raise and all of a \$500 million increase in interest on the debt. This produces an apparent deficit of about \$2 billion, instead of the \$1.5 billion surplus budgeted.

For fiscal 1971, a necessarily rough guess as to likely Congressional action indicates that expenditures could well run \$5 to \$8 billion over the budget, to the range of \$206 to \$209 billion. Even with receipts at budgeted levels, this would produce a \$4 to \$7 billion deficit, and the receipt figure must at this point be considered in jeopardy. Considerably higher deficit figures are being cited as possibilities in the market.

In this situation, two questions arise: Shall we still make every effort to show a balance in the FY 1970 budget? Should we announce new estimates for FY 1971 and prepare tax increases to cover the expenditure rise?

So far as the first question is concerned, we believe that unusual action at this stage to show a balance in the FY 1970 budget would yield few of the benefits to be expected from reporting a balanced budget and could have negative effects.

1. The direct economic consequences of our budget position would, of course, not be affected by whether certain payments or receipts occur on June 30 or July 1.

2. What has been done would be immediately obvious to top notch financial reporters and could not be hidden from the markets. In the present mood of doubt and skepticism, confidence in the Administration's fiscal responsibility might well be weakened rather than strengthened.

3. The Federal Reserve would not be impressed. They follow budget figures carefully.

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- 3 -

4. The probability of a substantial deficit in FY 1971 would then be a subject of wide discussion.

5. To explain what it is doing, the Administration would be forced into defending the position that a surplus, however small and however artificial, is absolutely essential. Yet the \$0.2 billion surplus, equal to about two hours tax collections, could easily vanish and leave the Administration still high and dry.

In considering possible courses of action, three possibilities suggest themselves:

1. We could theoretically try to balance the FY 1970 budget by real expenditure cuts. But, given the revenue picture and the sheer momentum of Government programs, where spending follows obligations incurred earlier, this target is impossible and impracticable in the remaining two months of the fiscal year. Although a start could be made which would help FY 1971, we cannot conceive of such a substantial cut in 1971 without it having some impact on defense and on your domestic initiatives.

At the same time, we believe that it is desirable to keep close to the 1970 expenditure level you budgeted in February, and we are close. This is the critical measure of fiscal responsibility.

2. We could ask for tax increases (beyond the estate tax acceleration). These could not be obtained in time to help FY 1970, if they can be obtained at all. On the other hand, they would help to avoid a FY 1971 deficit. The size of the increase would be measured against estimated expenditure increases since the budget, taking account of the estate tax acceleration.

3. We can explain the realities of the situation to the American people. The realities are not bad, and we don't have to be ashamed of them. We have done a great job of

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 By mt NARA Date 2/11/89

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- 4 -

holding down the rise of expenditures, and this is the most crucial measure of fiscal responsibility. We have held the budget in the near neighborhood of balance in the face of tax reductions that were previously scheduled or imposed by Congress. That is what counts in economic terms. We are not about to repeat the Johnson error of sliding from an approximately balanced budget to a \$25 billion deficit. Given our commitment and actions to try to attain a budget balance, the eventual occurrence of small variations below the zero point in a budget of \$200 billion and an economy of \$985 billion are neither a sign of fiscal responsibility nor a cause of economic difficulty, and we will not employ "cosmetic" devices to conceal them.

Because we feel that it is important for the Administration to handle this issue promptly and carefully, we would like to have a conference to discuss this matter with you.

*this is  
 found to come up  
 this now*

David M. Kennedy  
 David M. Kennedy  
 Secretary of the Treasury

James R. Schlesinger  
 for Robert P. Mayo  
 Director, Bureau of the Budget

Paul W. McCracken  
 Chairman, Council of Economic  
 Advisers

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THE WHITE HOUSE  
WASHINGTON

December 1, 1970

~~SECRET~~

MEMORANDUM FOR JOHN EHR LICHMAN

FROM: Ed Harper *Ed*

SUBJECT: NERVA

A couple of weeks ago you mentioned that the President was inclined to keep the NERVA program on the grounds that it had some national defense implications. I have checked with Will Kriegsman, OST, and OMB staff. They all agree that there is no foreseeable military application of the NERVA rocket. In fact, when the Defense Department made up its priority bands for alternative expenditure levels NERVA applications were in the lowest priority band.

OMB officials were also confident that the intelligence analysts of other nations would be fully aware of the fact that there are no significant national defense applications of the NERVA rocket.

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E.O. 12958, Sect. 3.6

By GAB NARA, Date 2/25/98

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## MEMORANDUM

THE WHITE HOUSE

WASHINGTON

MEMORANDUM FOR JOHN EHRLICHMAN

FROM

ED HARPER *EH*

DATE: 12-1-70

SUBJECT:

NASA BUDGET OPTIONS

I would suggest considering that the optimal budget decision on the NASA options is to (1) continue Skylab, (2) slip the Shuttle engine development, (3) continue with Apollo 17, and ~~(4)~~cancel NERVA.

Attached at TAB A is some additional clarifying information on the employment effects of these decisions.

At TAB B you will find a copy of the NASA options paper which I gave you earlier. It contains some additional detail information on the employment impact of the options.

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Authority EO 12958By at NARA Date 2/1/89



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URGENT BUDGET INFORMATION

## THE WHITE HOUSE

WASHINGTON

MEMORANDUM FOR JOHN EHRLICHMAN

Date: 12-1-70

FROM

ED HARPER *EH*

SUBJECT:

Employment Impact of NASA Budget Options.

12/1/70  
A

The employment factor in the NASA budget decisions is a significant but complicated phenomenon. The attached charts puts the options clearly in context of the overall problem of unemployed scientists and engineers.

The first chart shows decline in the employment of aerospace scientists and engineers. A relatively steep decline in employment will level out in the second half of calendar 1971 and reach its nadir in June, 1972 at which point employment will begin gradually to increase.

The OMB recommendation would accelerate the decline in employment during the first half of 1971. The NASA request would result in an employment level between 7,000 and 8,000 higher than the OMB proposal in June, 1971. The gap gradually widens to about 10,000 by the end of 1972.

The second chart shows the total employment including management and support personnel as well as scientists and engineers. For the Apollo 17, Skylab, Shuttle, and NERVA projects.

The OMB recommendation would result in a sharp decline continuing throughout calendar 1971 for a total cut of 20,000 aerospace employees. The NASA recommendation would result in a gradual increase in aerospace employment throughout 1971.

The OMB recommendation--cancelling Skylab and NERVA--would in summary be very depressing economic news during all of 1971--especially during the first six months of the year.

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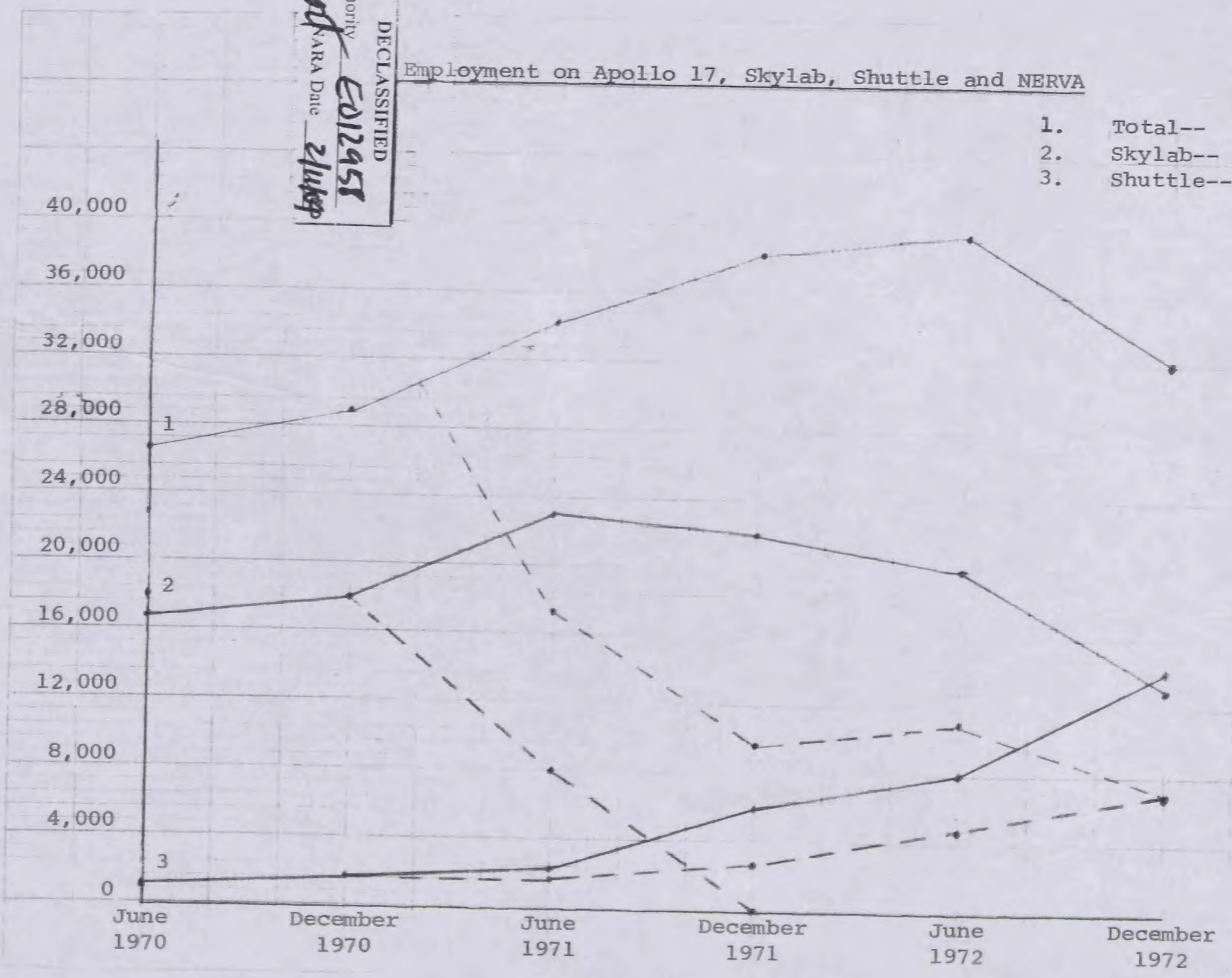
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By *AT* NARA Date *2/1/89*



Employment on Apollo 17, Skylab, Shuttle and NERVA

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By [Signature]  
NASA Date 2/11/79

- |              | NASA | OMB |
|--------------|------|-----|
| 1. Total--   | ---  | --- |
| 2. Skylab--  | ---  | --- |
| 3. Shuttle-- | ---  | --- |

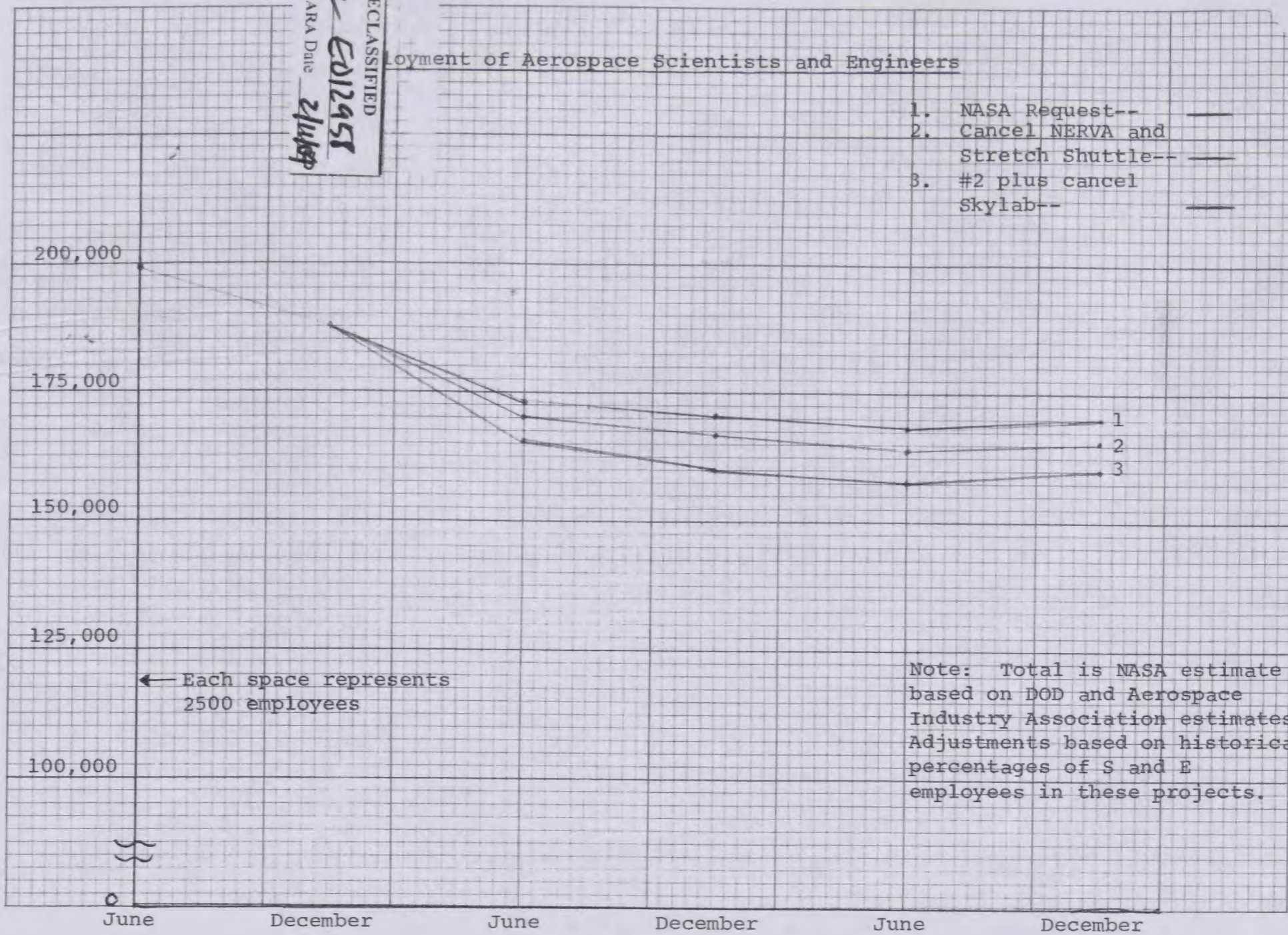




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By [Signature] NASA Date 2/11/89

### Employment of Aerospace Scientists and Engineers

- 1. NASA Request--
- 2. Cancel NERVA and Stretch Shuttle--
- 3. #2 plus cancel Skylab--



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MEMORANDUM

THE WHITE HOUSE

WASHINGTON

NASA

1. Reduction of NASA outlays--NASA is a completely controllable program and therefore a prime target for budget reductions even though those reductions might not be as warranted in some other less controllable program. Since the major opportunities for reductions are interrelated they should be considered as a package. The opportunities are:
  - a. Terminate Skylab--Skylab to be launched in November, 1972, will yield biomedical information useful for the manned Mars mission; other Skylab experiments could be duplicated in less costly ways. NASA regards this as its top priority on-going program. OMB recommends termination because of high cost and marginal scientific payoff. Termination would layoff about 20,000 aerospace workers and eliminate a fall-back option if the space shuttle is dropped in the future for orbital manned space experiments.
  - b. Slip development of the Space Shuttle--The shuttle is designed to substantially reduce the cost of putting a payload in earth orbit, but it may not prove possible economically--the current projected cost is \$10B during the next 10 years. NASA wants to begin both engine and airframe development at full speed. OMB recommends beginning only engine development because of the long lead times involved. NASA feasibility study ready next May.
  - c. Cancel Apollo 17 manned lunar mission--This last mission in the Apollo series accounts for a considerable portion of the scientific pay-off in the program--this one mission accounts for 25% of the whole Apollo program's time on the moon and 33% of the entire area covered. NASA would like to do Apollo 17 but would drop it if necessary to keep Skylab and the shuttle. OMB tentatively recommends keeping the mission; OST strongly supports Apollo 17 as does the scientific community.
  - d. Terminate the NERVA effort--The nuclear rocket offers a 100% increase in rocket efficiency and would be very useful in a manned Mars mission, very large unmanned payloads, and for some military missions. However, these missions will probably be scheduled until late in the 1980's or even the 1990's, or ten years of effort important technological problems to be solved. *NASA has not cut this out of their budget.*

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 By AK NARA Date 2/1/89

EFFECT OF CANCELLATIONS

	Prior Invst. (\$B)	NASA Regst. (Outlays in millions)	FY72 Redctn.	Future Savngs.	Employment Reduction
Skylab	1.2	552	-450	600	20,000
Apollo 17	25	756	-155	0	7,000
NERVA	1.2	104	-104	1,500	2,600
Shuttle*	-	133	-45	?	*

\* Shuttle would not be permanently cancelled as would others in table. Full scale development would create 2,000 jobs in southern states.



MEMORANDUM

THE WHITE HOUSE

WASHINGTON

The major areas of employment reduction associated with the terminations of on going programs would be as follows:

	Skylab	Apollo 17	NERVA	
Southern California.....	9,000	1,200		
Sacramento, California.....				12,500
Long Island, New York.....			900	
Denver, Colorado.....	2,000	1,300		
St. Louis, Missouri.....	3,000			
Huntsville, Alabama.....	2,500	500		
Cape Kennedy, Florida.....	2,000	900		
Houston, Texas.....	1,000	550		
Los Alamos, New Mexico.....				350
Nevada Test Site.....				450
Pittsburgh, Pennsylvania.....				900
<i>Scattered 10-2-68 - see memo 10-2-68</i>				
	<u>19,500</u>	<u>4,450</u>	<u>2,600</u>	

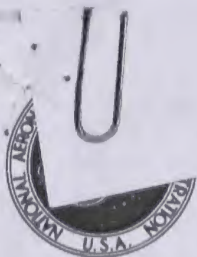
The four projects under discussion are ranked in the following priorities:

<u>NASA Priority List</u>	<u>OMB Priority List</u>	<u>OST Priority List</u>
1. Skylab	1. Apollo 17	1. Apollo 17 -
2. Shuttle	2. Shuttle	2. Shuttle /
3. Apollo 17	3. Skylab	3. NERVA
4. NERVA	4. NERVA	4. Skylab

These rankings were not explicitly assigned by the organizations; they represent my understandings of the organizations priorities from documents and conversations.

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 By mt NARA Date 2/14/89





NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON, D.C. 20546

*File*

OFFICE OF THE ADMINISTRATOR

December 12, 1970

Honorable Peter M. Flanigan  
Assistant to the President  
The White House  
Washington, D.C. 20500

Dear Peter:

There are two important points which bear on the President's posture on the NASA program, and which I had especially hoped to discuss with you: (1) the relationship of the NASA program and budget to the problem of unemployment in aerospace and related fields, and (2) the disturbing implications of current trends in Soviet space activity compared to the U.S. that have emerged during recent months.

Unemployment and the NASA Budget

The decline in the NASA budget in the past four years has been a major cause of the current unemployment in aerospace and related fields. From 1966 to 1968 the impact was largely offset by increases in Defense-related work. Since 1968 the impact has been strongly felt and today 97% of the people affected by a NASA cut are laid off by their companies. Charts 1 and 2 show NASA contractor manpower data.

NASA work is highly labor intensive by nature. In general, each \$100 million increment in the NASA annual budget results in the direct employment of about 4,500 people. (It is also generally accepted that there is a multiplying factor of four on employment, so that a \$100 million increment indirectly affects an additional 18,000 people.)

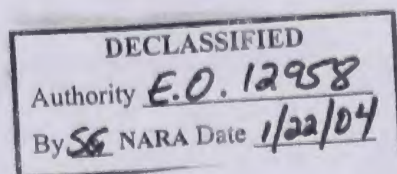
NASA money is quick in taking effect whether up or down. Because the facilities and management structure required to carry out programs are in existence, a small increment in the NASA budget can have a prompt and substantial impact to increase employment.

Trends in Soviet Space Activities

The Soviet Luna 16 and 17 flights and recent earth orbital missions have again pointed to the strong continuing Soviet effort in space.

When viewed as isolated events, Luna 16, with its automatic sample return, and Luna 17, with its self-propelled vehicle Lunokhod, are

*cc: Will Kriegeman - 12/14/70*





technically impressive; but their import to science and technology is relatively minor. We demonstrated United States leadership with Apollo 11, and that lead is still ours.

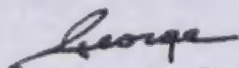
However, when viewed in the context of overall trends in the Soviet space program and in ours, there is every indication that we will not maintain this lead. They have launched 81 payloads into orbit to our 32 this year (see Chart 3). Their R&D effort is increasing, while ours is decreasing. They are competing in every area of space flight in a program that is more aggressive than ours.

The Soviet space program, like our own, recognizes that manned flights offer important advantages in exploration and in other complex missions. They have a continuing manned program, appear to be increasing their manned capabilities, and are supporting a total space program containing strong manned and unmanned components. A major Soviet earth orbital manned space station during the gap in U.S. manned space flight is a real possibility.

These trends in the USSR program strongly underline the importance for the President to take a positive position in the coming year on space as recommended in my memorandum of November 30, 1970.

I am still hoping that we will be able to discuss these and other matters.

Sincerely yours,



George M. Low  
Acting Administrator

Enclosures

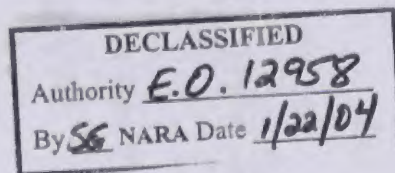




CHART 1

# NASA EMPLOYMENT AT SELECTED MAJOR CONTRACTORS

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By *SG* NARA Date 1/22/07

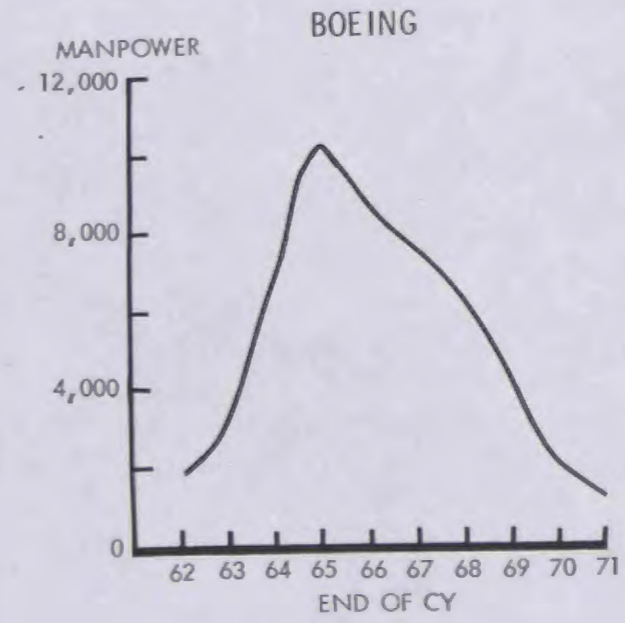
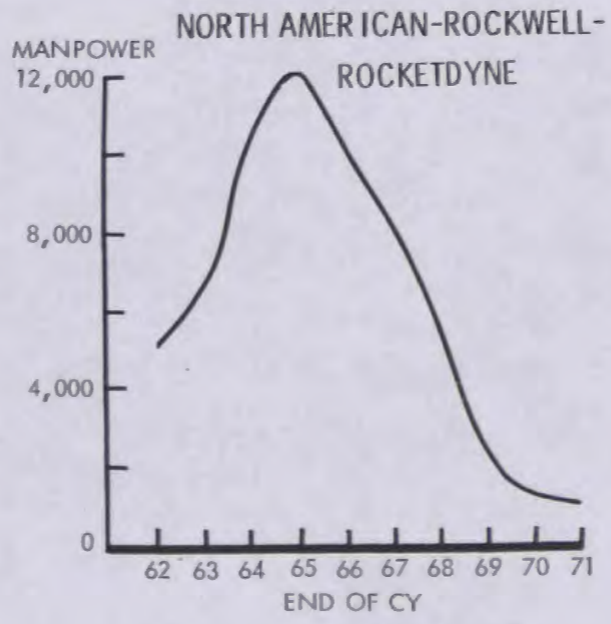
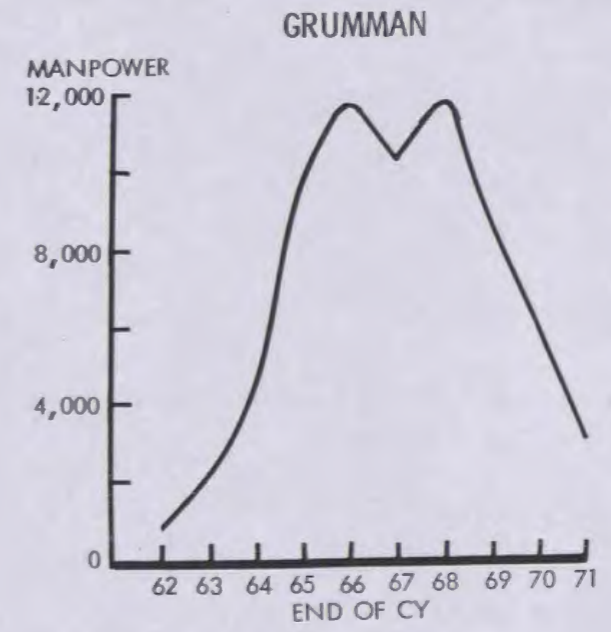
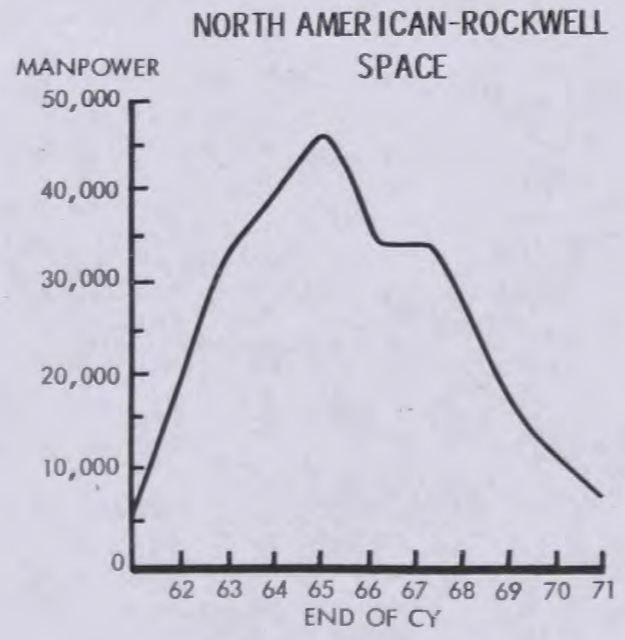
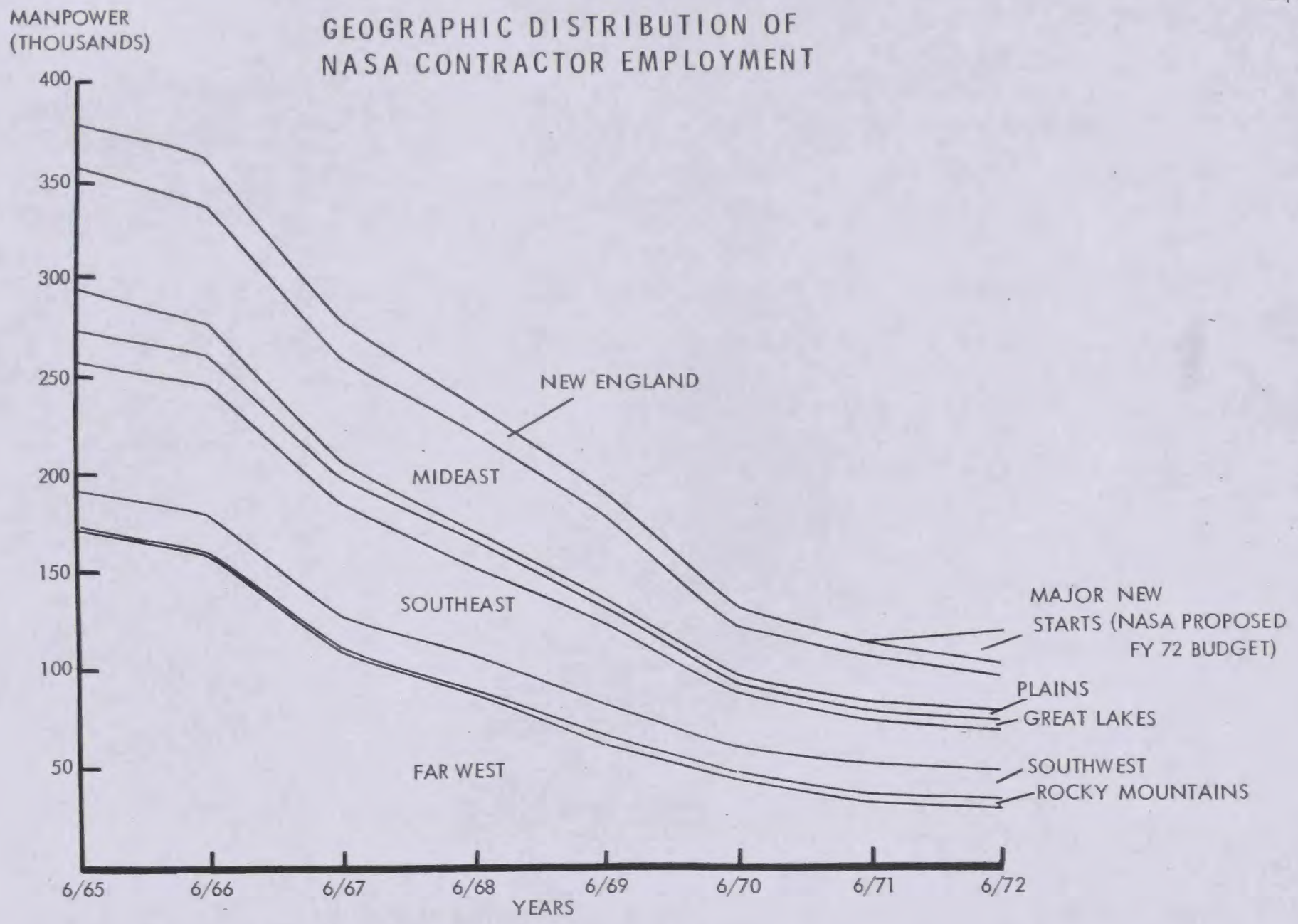




CHART 2



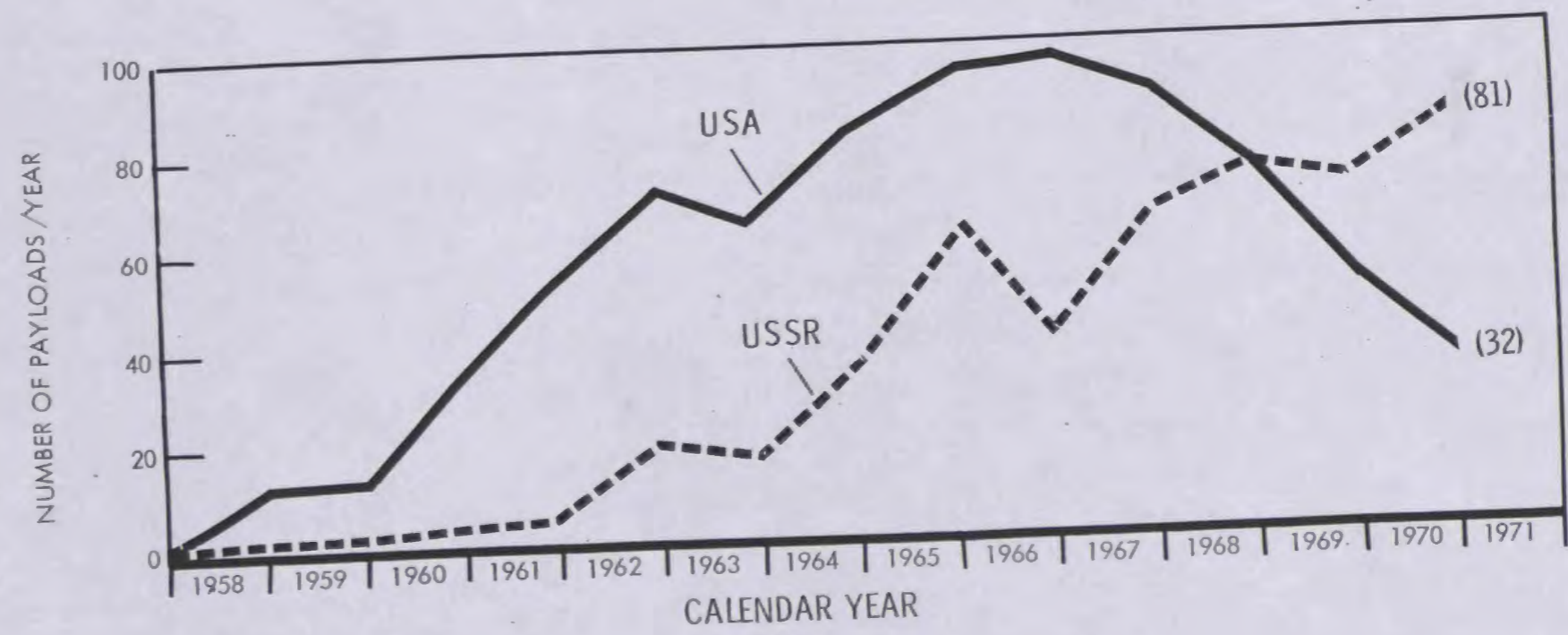
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 By SA NARA Date 1/22/04



CHART 3

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AS OF 5 DECEMBER 1970



SOURCE: SATELLITE SITUATION REPORT

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