EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

SEP 25 1969

MEMORANDUM FOR MR. FLANIGAN

Subject: Space Task Group Report

This is in response to your September 22 request for my comments on Tom Paine's recommendation to the President that Option II of the Space Task Group report be selected as the announced space program for the future.

My views are set forth in a separate memorandum to the President (copy attached).

Our preliminary analysis of the funding levels set forth in the Space Task Group report leads us to believe that they are underestimated (in addition to the fact that 1969 dollars are used). If this is in fact the case, then if the President chooses Option II he will be faced with even greater annual budget increases for NASA than forecast in the report.

We have attempted to modify the program content of Option II, maintaining the goal of a manned Mars expedition in 1986. By reducing the Lunar Exploration program to two flights a year, by eliminating the manned activities not directly related to the Mars mission (i.e., Space Bases and Lunar Surface Bases), and by developing the space transportation system and the space station in series rather than in parallel, we estimate that the 1971-1973 annual budgets for NASA can be kept below $4.0 B. By 1980, however, a budget approaching $7.0 B can be anticipated.

These estimates are below those shown for Option II in the Space Task Group report and admittedly are not precise. However, it is my belief that in order for this Administration to make a credible start to meet the goals and objectives set forth in any of the options, we cannot go much below these funding levels. That is why I am against endorsement of any option until after the 1971 budget review process.

The Bureau of the Budget needs the opportunity to conduct a full scale analysis and review of the documentation supporting the estimates in the report.

Should the President feel that announcement of a decision is required now, I would recommend that he specifically avoid endorsing any option defined in the report. These options were composed of illustrative programs and gross estimates of ultimate costs. If he endorses the manned Mars goal, I would hope that the timing would be left at "sometime in this century" until much more review of the requirements for meeting that goal can be completed. We are prepared to supply you with a list of the programmatic and fiscal constraints which should be communicated to NASA along with the final decision made by the President.

Robert P. Mayo
Director

Attachment

Spore Task
Strong

November 17, 1969

To: Jim Schlesinger

From: Tom Whitehead

cc: Don Derman

November 17, 1969

To: Dr. Russell Drew

From: Tom Whitehead

For your comments.

DRAFT OUTLINE 11/17/69

President's Statement on Our Next Decade in Space

Here we are: (A) Two successful visits to the Moon
~~(B) One success in two attempts~~

Where are we going in space?

Three goals: Exploration -- man's quest; worthwhile in and of itself.
Science -- extending our knowledge of the universe, matter and nature.
~~Earth~~ applications -- turning space science and technology to economics and social benefit here on earth.

Space as both: an adventure for the present
an investment in the future

The manned lunar landing goal was a challenge to the Nation and an adventure for all mankind.
But it was also a vehicle for developing a space exploration capability.

We now have that capability -- both manned and unmanned -- and must now shift our focus to a continuing program of exploration and application; space exploration will be a part of our lives for the rest of time; we must now make it a continuing process rather than a series of crash timetables.

Based on a careful review of the possibilities developed by the Space Task Group, I have decided on the following major program goals and initiatives for the next decade in space:

1. Explore the moon

The Apollo manned landings should be ~~continued and~~ paced at a rate to maximize scientific return, consistent with the minimum launch rate for safety & reliability.

2. Explore the planets and the solar system

During the next decade, we will launch scientific spacecraft to observe every planet and to explore the vast space between. New scientific satellites also will be launched to explore space near the earth.

We will attempt to land an unmanned spacecraft on Mars in 1973.

3. Develop an extended earth orbit capability for man

An ~~newly designed~~ Experimental Space Station will begin operational missions in the next few years. By the middle of the next decade, men will be working in space for months at a time.

4. Extend man's capability in space

In the next decade we will begin to design an even longer-lived Space Station Module that will serve both as a near-earth space station and a building block for manned interplanetary travel. We will land men on the planet Mars as a part of this program, ~~perhaps as early as 1986.~~

5. Expand earth applications

Beginning with early development of an Earth Resources Technology Satellite, we will pursue over the next decade a vigorous program to emphasize new applications of space technology.

6. Lower the costs of space launches

Our recently developed rocket technology will provide a reliable launch capability through the next decade. We will continue our research to make possible even lower costs for launching space payloads in the future.

7. Expand international cooperation

Space exploration and its benefits here on earth should be a venture for all mankind. We do not seek to exploit space for national purposes, but to share it. Our progress will be faster if all nations work together, both in contributing resources and in sharing results.

This is a far-reaching and comprehensive program to extend our space capability and to put it to work for us here on earth. The resources required will be great, and so will the benefits. We will seek to provide a stable level of expenditures to enable steady progress consistent with other pressing national priorities. In addition, we hope to be able to expand our effort in some years and move some accomplishments nearer in time.

The important thing is to recognize that man has begun to explore new worlds. For the rest of history, we will be men from the planet Earth. Let us conduct ourselves accordingly.

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safety + reliability

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built from Apollo hardware.

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5. Expand ~~earth~~ applications

downplay ERTS

~~Beginning with early development of an Earth Resources Technology Satellite,~~ we will pursue over the next decade a vigorous program to emphasize new applications of space technology. Ex. dominate meteorology ERTS potential/practical

6. Lower the costs of space launches

Our recently developed rocket technology will provide a reliable launch capability through the next decade. We will continue our research to make possible even lower costs for launching space payloads in the future.

more specific words

7. Expand international cooperation

Space exploration and its benefits here on earth should be a venture for all mankind. We do not seek to exploit space for national purposes, but to share it. Our progress will be faster if all nations work together, both in contributing resources and in sharing results.

to accomplish more faster

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Space Message

November 17, 1969

TO: Mr. Flanigan

FROM: Tom Whitehead

The attached outline of a Presidential statement on space is a compromise between strong positive words and the restraint necessary to maintain the President's flexibility in budgeting.

You will note that I have not specifically referred to Option II of the STG; to do so would have the effect of locking us into the spending stream projected for that option as a floor on NASA expectations. (Cost estimates are already climbing and in some cases by several hundred percent; NASA now wants $4.5 billion for FY 71 to carry out Option II rather than the $3.7 billion reflected in the STG report.)

I think a draft outline should be sent to the President along with a memo showing what we are and are not letting Paine commit us now to begin spending on. I am working on this with BOB and OST. He should also be made aware of the latest public opinion reaction on space accomplishments and space spending, along with the costs and accomplishments of a higher funding level.

I hope to have a draft memo this week and assume an early or middle December release is about what we are aiming for.

Clay T. Whitehead
Staff Assistant

Attachment

cc: Mr. Whitehead
Central Files
Mr. Kriegsman

CTWhitehead:ed

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NASA

November 10, 1969

MEMORANDUM FOR

Mr. Willis Shapley
Associate Deputy Administrator
National Aeronautics and Space Administration

The White House has requested Assistant Secretary of Commerce for Science and Technology, Myron Tribus, to chair an interdepartmental study of Alaska's telecommunications problems. This will be a short-term effort over the next few months to assist the officials of that State with policy-level decisions regarding the opportunities and costs for telecommunications in Alaska.

NASA's participation in this study is particularly important because of its unique familiarity with certain aspects of this problem. Dr. Tribus has already been in preliminary contact with people from your agency regarding availability of staff and budget resources for this inter-departmental effort. Should the issue come to your attention, I would like to emphasize that the White House regards this as an important study and hopes that you will be able to contribute resources, primarily in the form of staff participation, not to exceed $100,000.

Clay T. Whitehead
Staff Assistant

cc: Mr. Flanigan
Mr. Whitehead
Central Files

CTWhitehead:ed

THE ASSISTANT SECRETARY OF COMMERCE
WASHINGTON, D.C. 20230

NOV 6 1969

alaska
Defense

MEMORANDUM TO DR. CLAY T. WHITEHEAD

Subject: Alaska Project

Attached is the information about the policy level persons you promised to contact to help assure firm supporting services for the Alaska communications project. In addition to these Federal agencies, you were to urge funding from Alaska through Governor Boe's office.

I appreciate very much your helping in this way to assure adequate resources for the project. I do feel, as I expressed in your office, that various deadlines are putting us under pressure to begin work as quickly as possible.

Myron Tribus

Myron Tribus

Attachments

FUNDS DESIRED

Commerce	$100K
Defense	100K
NASA	100K
Alaska	100K

Department of Defense

Staff already contacted:

Mr. T. J. O'Brien
Deputy Director
Office of Telecommunications Policy

together with

Mr. William Ellis

Current Status:

Mr. Ellis has indicated that DoD will supply "some" money and staff. The amount is not yet determined.

Policy level contact:

Honorable Barry J. Shillito
Assistant Secretary
Installations and Logistics
11-55254

Request:

Resources not to exceed $100K. These may be contributed in the form of staff or money. If the contribution is in the form of staff, that support should be appropriate to the needs of the project.

National Aeronautics and
Space Administration

Staff already contacted:

Dr. Walter Radius
Communications Program Office

together with

Mr. Russ Burke
Mr. Jerry Rosenberg

Current status:

Dr. Radius offers NASA support in identifying sub-problems which should be given to private contractors and in setting up the contracts. He suggested going to Administrator Paine for money support.

Policy level contact:

Dr. Thomas O. Paine
Administrator, NASA
13-36931

Request:

Resources not to exceed $100K. These may be contributed in the form of NASA staff, NASA contractor staff, or money. If the contribution is in the form of staff, that support should be appropriate to the needs of the project.

NASA

Thursday 11/6/69

6:00 Called Marge to let her know that this was one of the letters the BOB had requested; therefore, we would not be preparing an acknowledgment and would send the original to BOB for inclusion with letters from the other agencies.

She agreed that PMF should not acknowledge it in that case.

NASA

11/6/69

To: Clyde

From: Eva Daughtrey

Attached is the letter I discussed with you on the phone. Thanks for your help in getting it to the right person.

Letter of 10/22/69 to the President from T. Paine.

Wednesday11/5/69

11:15 You had sent a copy of the attached to BOB for draft reply.

Dwight Ink's office advises that each year at this time BOB requests the agencies to make a submission in accordance with Circular A-44. It is not their procedure to acknowledge any of those submissions. BOB has received a copy of NASA's submission; therefore, they have what they need. Under Circular A-44, the agencies are supposed to submit their letters to the President (through the Budget Bureau); however, some of the agencies send their replies direct to the President, with a copy to BOB -- which is what they did in this case. Therefore, they would suggest no reply be made to this.

Clyde Byer - Dwight Ink's secretary

10/31/69

To: Robert Mayo

From: Tom Whitehead

Could you please have a
draft reply prepared.

THE WHITE HOUSE
WASHINGTON

Date 10/24

TO: Tom Whitehead

FROM: Peter Flanigan

FYI_____

Draft reply_____

Please Handle_____

File_____

Other remarks

Please prepare reply for PMF's signature.

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

OFFICE OF THE ADMINISTRATOR

OCT 22 1969

The President
The White House

Dear Mr. President:

The National Aeronautics and Space Administration has exceeded its cost reduction goal of $125,000,000 for Fiscal Year 1969. Acceptable savings reported for the year amounted to $155,547,280, or $30,547,280 over the goal. The enclosed report summarizes these savings by major category and provides examples of the numerous individual actions, both large and small, which were taken by NASA personnel to improve efficiency and economy.

We will continue to emphasize the importance of reducing cost and improving efficiency and economy. NASA has consistently followed the policy of setting what we consider to be realistic goals and striving to reach or exceed them, if at all possible. We prefer this policy to one of setting a goal each year somewhat higher than that for the previous year, without regard to the facts and circumstances of the current situation. For this reason, we have set a NASA-wide goal of $120,000,000 for Fiscal Year 1970. We believe we can reach this goal and we will try to exceed it.

A separate report on savings which were made by our principal contractors during the second half of Fiscal Year 1969 will be forwarded at an early date.

Respectfully yours,

T. O. Paine
Administrator

Enclosure

NASA

Meeting
11/7/69
11:30 a.m.

Tuesday 11/4/69

11:15 Marge had called earlier to say that Bill Patterson would be calling later today concerning an appointment with for Friday. He has been highly recommended by Cong. Bob Wilson. Mr. Flanigan would like to have you talk with him concerning either the management job at NASA or the DTM -- and then give him a rundown on Mr. Patterson.

I have scheduled the meeting for 11:30 Friday morning.

THE WHITE HOUSE
WASHINGTON

11/4

Eva -
Here is the back-up info on Bill Patterson. Please return it to Harry Flemming's office, Att: Sue McMartin, when Tom is through.
Many thanks
Marge

THE WHITE HOUSE
WASHINGTON

Bill Patterson (215-962-4937) called to see if you could see him tomorrow, 11/4 or Friday, 11/7. Bob Wilson suggested he call you for an appointment - see attached. Patterson is interested in a position with the Administration.

Yes_____ No_____

4th, 7th

Refer to Mr. Whitehead -

Suggest Tom look at him for management job at DASA or DTM

Listed

Send to HF

October 21, 1969

Dear Bob:

Many thanks for your letter of October 14 and the resume on Bill Patterson.

When Bill was in town last week he called my office but unfortunately, we were not able to get together. He has said that he will let me know in advance of his next trip and hopefully we can arrange something.

With best regards,

Sincerely,

Peter M. Flanigan
Assistant to the President

Honorable Bob Wilson
House of Representatives
Washington, D. C.

cc: Lamar Alexander
cc: Harry Flemming w/incoming
cc: Darrell Trent w/incoming

BOB WILSON
36TH DISTRICT OF CALIFORNIA
(SAN DIEGO COUNTY)

PAUL L. TSOMPANAS
ADMINISTRATIVE ASSISTANT

ARMED SERVICES COMMITTEE
SUBCOMMITTEES:
RETIREMENT
TACTICAL AIR SUPPORT
C
CHAIRMAN, NATIONAL REPUBLICAN
CONGRESSIONAL COMMITTEE

Congress of the United States
House of Representatives
Washington, D.C. 20515

October 14, 1969

Have spoken to Wm. Patterson who will be in town.

Dear Pete:

Enclosed is a resume on William H. Patterson, a long-time friend and supporter of the President. He was in Whittier College with him, and later worked very effectively in his Senate campaign.

With Bill's background it would seem to me he should be valuable in the Administration. I have suggested to Bill that he give you a call and set up a mutually agreeable time to meet. I certainly hope you can meet him and evaluate his ability. He's a really solid individual who has an outstanding record and reputation.

Sincerely,

Bob Wilson
Member of Congress

Mr. Peter Flanigan
The White House
Washington, D. C.

PATTERSON , WILLIAM H.
919 GREAT SPRINGS RD.
ROSEMONT, PENN. 19010

OFFICE TEL: 215-962-4937
HOME TEL. : 215-LA5-8337

FAMILY: WIFE-ALMA
FIVE CHILDREN- GAIL----22
VAUDENE-21
EVELYN--18
CAROLYN-17
BILLY-----4

BIRTHDAY: 11 NOV. 1918
FT. BENTON, MONT.

EDUCATION: BS DEGREE IN MATHEMATICS-WHITTIER COLLEGE
MS DEGREE IN PHYSICS -WHITTIER COLLEGE
OTHER GRADUATE WORK AT -UCLA
-UNIV.OF CALIF. EXTENSION
-HARVARD & MIT (RADAR SCHOOL)

PROFESSIONAL WORK

1968 to PRESENT-MANAGER OF RESEARCH AND ENGINEERING FOR GENERAL ELECTRICS SPACE SYSTEMS.

In this position he has responsibility for all of the research and engineering for all manned and unmanned space systems. This includes such programs as Nimbus, ATS F/G, Orbiting Astronomical Observatory, Manned Orbital Laboratory, Manned Space Station for NASA, Earth Resourses Satellite, Data Relay Satellite, Direct Broadcast Satellite, and Several Classified Satellites. This work encompasses a broad spectrum of technology disciplines. In addition his people are responsible for the design of several space experiments, solar power arrays, ground transmitting systems etc. He supervises approximately 2,000 technical people in the Valley Forge area and approximately 500 at off-site locations.

1966-1967 --DEPUTY GENERAL MANAGER OF GENERAL ELECTRICS MANNED SPACE DEPARTMENT

In this position he was responible for all of the program management and development subcontracts for all programs in the department. This included several NASA and Air Force manned space systems and technology contracts of which the Manned Orbital Laboratory and the IMBLMS programs were the key ones. This work included the total direction of the programs including systems engineering, scheduling, program control, cost control, configuration control, design reviews, customer interface, development subcontract selection and management, etc. In addition acted as a deputy for all other functions such as engineering design, manufacturing, personnel, finance, etc., and acted for the department general manager in his absense. This department had approximately 1500 personnel, and about $150 million in development subcontracts. When this department was combined with three other departments and the Space Systems organization was formed he was promoted to General Manager and put in charge of the total combined research and engineering department.

1962-1965---Vice President of General Dynamics-Astronautics

In this role he was in charge of all advanced systems. This included advanced versions of Atlas and Centaur space boosters, advanced ICBM's, precision tracking systems and manned and unmanned space systems. The work included direct responsibility for all the engineering, planning and marketing for these systems.He was also responsible for administering the independent research and development budget as well as certain technology contracts. Approximately 700 people.

Part of 1961-Special Assignment to the Chairman of the Board of Directors of General Dynamics Corp.-New York City

During this assignment he conducted a special study on the future direction of government business over the next ten years with special emphasis on how it would affect the direction of research and development in the company to meet the challenge. During this he visited many of the government laboratories, talked with many of the key scientist in both the universities and the government, reviewed many ideas with key decision makers at various levels of government.

1955-1960--Deputy General Manager of the Atlas Weapon System-General Dynamics Astronautics

He was responsible as the deputy for the total design, development and deployment of the Atlas weapon system. This included all aspects of program control, cost and schedule control, technical design, testing, test facilities, specifications for subcontractors as well as associate contractors, integration of the total Atlas system, specifications for the Corps of Engineers for preparing operational sites, installation and checkout of the operational systems, managing development subcontracts, coordinating between all associate contractors, etc.

During the period he also was given several special assignments. One was to pull a team together to establish Americas first Hydrogen-Oxygen space booster-Centaur. Another was to lay the technical groundwork for incorporating the all-inertial system in Atlas.

1951-1954--Overall Project Engineer on the Atlas ICBM-General Dynamics

He was responsible for all of the early research and development on the Atlas weapon system. This included vehicle design, structural and dynamic design analysis, thermal analysis, propulsion and propellant studies, stabilization and control, telemetering systems, electrical power and distribution, precision radio-inertial guidance system, auto-pilot design with cumputerize closed loop analyses, electronic subsystems, ground checkout and test equipment. Extensive systems analyses and trade off studies and designs were conducted through this period.

1946-1950--Aerophysics Research on Missiles-General Dynamics

During this period he was involved in the first ICBM research in the United States. The early work was devoted to the basic fundimentals analysis and designs merely to

1946-1950-(Cont.)

prove conceptually that it was feasible. During this process he and his colleagues established most of the basic pribciples now commonly used on all ICBM and space booster design. Such things as swiveling rocket control, separable reentry vehicles, vernier rockets for fine velocity control, radio-inertial guidance systems for precise accuracy, light weight structure etc,

Once the principles were theoretically established a test vehicle was designed and three were flown. He was responsible for the aerodynamic analysis and design, the stabilization fins, the dynamic and control analysis for which the autopilot and swiveling rocket motors were designed.

Later in this period he was put in charge of preliminary design of all missile systems including ground to ground, air to ground, ground to air and air to air. This effort included ramjets, rockets and turbojets.

1942-1945- United States Army

After being drafted into the Army he took basic training in the anti-aircraft. After basic traingng he set up and taught mathematics school for prospectime officer candidates.

He attended officer traingj school and was commissioned as a second lieutenent after finishing among the top five of his class, and was selected for radar school.

Then he served as a radar and communications officer in the USA and in the European theatre. He received the Bronze Star, Crois de Guerre, French Unit Citation and three battle stars. Separated as a Major.

1939-1941- Whittier College

Taught courses in Mathematics and physics while taking graduate work at the College. Also coached the Freshman football and baseball teams.

W.H.PATTERSON

Salary Data

At General Dynamics

Starting----------$2,500 per year-1946
Last----------$37,500 per year-1965
plus stock options & other benefits.

At General Electric

Starting----------$42,500 per year-1966
Current---------- 52,500 per year
plus stock options & other benefits.

Marge sent this over for your meeting Friday at 11:30 a.m. with Bill Patterson.

Returned

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DASA or for DTM

Liste?

Send to HF

October 21, 1969

Dear Bob:

Many thanks for your letter of October 14 and the resume on Bill Patterson.

When Bill was in town last week he called my office but unfortunately, we were not able to get together. He has said that he will let me know in advance of his next trip and hopefully we can arrange something.

With best regards,

Sincerely,

Peter M. Flanigan
Assistant to the President

Honorable Bob Wilson
House of Representatives
Washington, D. C.

cc: Lamar Alexander
cc: Harry Flemming w/incoming
cc: Darrell Trent w/incoming

BOB WILSON
36TH DISTRICT, OF CALIFORNIA
(SAN DIEGO COUNTY)

PAUL L. TSOMPANAS
ADMINISTRATIVE ASSISTANT

Congress of the United States
House of Representatives
Washington, D.C. 20515

ARMED SERVICES COMMITTEE
SUBCOMMITTEES:
RETIREMENT
TACTICAL AIR SUPPORT
C

CHAIRMAN, NATIONAL REPUBLICAN
CONGRESSIONAL COMMITTEE

October 14, 1969

Have spoken to Wm Patterson will when next in town.

Dear Pete:

Enclosed is a resume on William H. Patterson, a long-time friend and supporter of the President. He was in Whittier College with him, and later worked very effectively in his Senate campaign.

With Bill's background it would seem to me he should be valuable in the Administration. I have suggested to Bill that he give you a call and set up a mutually agreeable time to meet. I certainly hope you can meet him and evaluate his ability. He's a really solid individual who has an outstanding record and reputation.

Sincerely,

Bob

Bob Wilson
Member of Congress

Mr. Peter Flanigan
The White House
Washington, D. C.

PATTERSON , WILLIAM H.
919 GREAT SPRINGS RD.
ROSEMONT, PENN. 19010

OFFICE TEL: 215-962-4937
HOME TEL. : 215-LA5-8337

FAMILY: WIFE-ALMA
FIVE CHILDREN- GAIL-----22
VAUDENE-21
EVELYN--18
CAROLYN-17
BILLY-----4

BIRTHDAY: 11 NOV. 1918
FT. BENTON, MONT.

EDUCATION: BS DEGREE IN MATHEMATICS-WHITTIER COLLEGE
MS DEGREE IN PHYSICS -WHITTIER COLLEGE
OTHER GRADUATE WORK AT -UCLA
-UNIV.OF CALIF. EXTENSION
-HARVARD & MIT (RADAR SCHOOL)

PROFESSIONAL WORK

1968 to PRESENT-MANAGER OF RESEARCH AND ENGINEERING FOR GENERAL ELECTRICS SPACE SYSTEMS.

In this position he has responsibility for all of the research and engineering for all manned and unmanned space systems. This includes such programs as Nimbus, ATS F/G, Orbiting Astronomical Observatory, Manned Orbital Laboratory, Manned Space Station for NASA, Earth Resourses Satellite, Data Relay Satellite, Direct Broadcast Satellite, and Several Classified Satellites. This work encompasses a broad spectrum of technology disciplines. In addition his people are responsible for the design of several space experiments, solar power arrays, ground transmitting systems etc. He supervises approximately 2,000 technical people in the Valley Forge area and approximately 500 at off-site locations.

1966-1967 --DEPUTY GENERAL MANAGER OF GENERAL ELECTRICS MANNED SPACE DEPARTMENT

In this position he was responsible for all of the program management and development subcontracts for all programs in the department. This included several NASA and Air Force manned space systems and technology contracts of which the Manned Orbital Laboratory and the IMBLMS programs were the key ones. This work included the total direction of the programs including systems engineering, scheduling, program control, cost control, configuration control, design reviews, customer interface, development subcontract selection and management, etc. In addition acted as a deputy for all other functions such as engineering design, manufacturing, personnel, finance, etc., and acted for the department general manager in his absense. This department had approximately 1500 personnel, and about $150 million in development subcontracts. When this department was combined with three other departments and the Space Systems organization was formed he was promoted to General Manager and put in charge of the total combined research and engineering department.

1962-1965---Vice President of General Dynamics-Astronautics

In this role he was in charge of all advanced systems. This included advanced versions of Atlas and Centaur space boosters, advanced ICBM's, precision tracking systems and manned and unmanned space systems. The work included direct responsibility for all the engineering, planning and marketing for these systems. He was also responsible for administering the independent research and development budget as well as certain technology contracts. Approximately 700 people.

Part of 1961-Special Assignment to the Chairman of the Board of Directors of General Dynamics Corp.-New York City

During this assignment he conducted a special study on the future direction of government business over the next ten years with special emphasis on how it would affect the direction of research and development in the company to meet the challenge. During this he visited many of the government laboratories, talked with many of the key scientist in both the universities and the government, reviewed many ideas with key decision makers at various levels of government.

1955-1960--Deputy General Manager of the Atlas Weapon System-General Dynamics Astronautics

He was responsible as the deputy for the total design, development and deployment of the Atlas weapon system. This included all aspects of program control, cost and schedule control, technical design, testing, test facilities, specifications for subcontractors as well as associate contractors, integration of the total Atlas system, specifications for the Corps of Engineers for preparing operational sites, installation and checkout of the operational systems, managing development subcontracts, coordinating between all associate contractors, etc.

During the period he also was given several special assignments. One was to pull a team together to establish Americas first Hydrogen-Oxygen space booster-Centaur. Another was to lay the technical groundwork for incorporating the all-inertial system in Atlas.

1951-1954--Overall Project Engineer on the Atlas ICBM-General Dynamics

He was responsible for all of the early research and development on the Atlas weapon system. This included vehicle design, structural and dynamic design analysis, thermal analysis, propulsion and propellant studies, stabilization and control, telemetering systems, electrical power and distribution, precision radio-inertial guidance system, auto-pilot design with cumputerize closed loop analyses, electronic subsystems, ground checkout and test equipment. Extensive systems analyses and trade off studies and designs were conducted through this period.

1946-1950--Aerophysics Research on Missiles-General Dynamics

During this period he was involved in the first ICBM research in the United States. The early work was devoted to the basic fundimentals analysis and designs merely to

1946-1950-(Cont.)

prove conceptually that it was feasible. During this process he and his colleagues established most of the basic pribciples now commonly used on all ICBM and space booster design. Such things as swiveling rocket control, separable reentry vehicles, vernier rockets for fine velocity control, radio-inertial guidance systems for precise accuracy, light weight structure etc.

Once the principles were theoretically established a test vehicle was designed and three were flown. He was responsible for the aerodynamic analysis and design, the stabilization fins, the dynamic and control analysis for which the autopilot and swiveling rocket motors were designed.

Later in this period he was put in charge of preliminary design of all missile systems including ground to ground, air to ground, ground to air and air to air. This effort included ramjets, rockets and turbojets.

1942-1945- United States Army

After being drafted into the Army he took basic training in the anti-aircraft. After basic trainging he set up and taught mathematics school for prospective officer candidates.

He attended officer traing school and was commissioned as a second lieutenent after finishing among the top five of his class, and was selected for radar school.

Then he served as a radar and communications officer in the USA and in the European theatre. He received the Bronze Star, Crois de Guerre, French Unit Citation and three battle stars. Separated as a Major.

1939-1941- Whittier College

Taught courses in Mathematics and physics while taking graduate work at the College. Also coached the Freshman football and baseball teams.

W.H.PATTERSON

Salary Data

At General Dynamics

Starting----------$2,500 per year-1946
Last----------$37,500 per year-1965
plus stock options & other benefits.

At General Electric

Starting----------$42,500 per year-1966
Current---------- 52,500 per year
plus stock options & other benefits.

Tom

You had this once
but I may have lost it again
for D.T.M.

THE WHITE HOUSE
WASHINGTON

Will — 9-26-69

After you have had an opportunity to read the attached, you might want to discuss further.

Stan Blair's comments (attchd) are appropriate in view of problem we discussed

J.A. Wolff
4192

Mr. Wolfe Rm 2-90

Office Telephone (215) 962-4937
Home Telephone (215) LA 5-8337

WILLIAM H. PATTERSON

General Manager - Research & Engineering
General Electric Company
Missile and Space Division

Mr. Patterson currently is in charge of all research and engineering in General Electric's manned and unmanned space programs. This includes such unmanned systems as Nimbus B2 and D, OAO, ATS F/G, Nimbus E & F, and several military classified unmanned programs. He also has responsibility for such manned programs as IMBLMS for NASA and the Manned Orbital Laboratory for the United States Air Force.

Prior to joining General Electric, Mr. Patterson pioneered the development of America's first Intercontinental Ballistic Missile, the Atlas. He started out as a research physicist in 1946 on the forerunner to the Atlas, the MX774-ICBM Program. He was one of a handful of men at General Dynamics that kept alive the concepts and maintained the continuity for three and a half years to finally get the program going after funds had been cut off the original program in 1947. In fact, it was Mr. Patterson, teamed with his colleague K. J. Bossart, who briefed Trevor Gardner in July 1953 on a crash program for Atlas. Mr. Gardner was then Assistant Secretary of the Air Force for President Eisenhower. It was this four-hour review and follow-up analysis that sparked Trevor Gardner to push the United States development of the Atlas forward at a crash effort.

Mr. Patterson was Project Engineer for the overall Atlas Program in charge of all the early research and development. Later he became deputy General Manager of the Program, of which the General Dynamics' part alone increased to approximately 30,000 people. In this period Mr. Patterson had responsibilities for design, development, manufacturing, testing, field operations and coordination between all associate contractors as well as with the Air Force. He is often quoted that "it is unbelievable what the Air Force and American industry could accomplish in such a short time." This team from crash program go ahead in January 1955 built the test labs, designed and developed the world's most complex system (at that time), built the static and flight test sites, and the first operational site at Vandenberg in four years and nine months. A trained Air Force crew launched a missile on that date. In all that time they only missed their schedule by six weeks. Ultimately, they finished the complete program two months ahead of schedule. The Von Newman scientific advisory group estimated that it would take about two more years.

Mr. Patterson, in addition to working the problem closely in house at Astronautics, also was greatly responsible for the close integration of all the associate contractors and with the Air Force and Ramo Wooldridge (overall technical directors for all ballistic missile programs for the Air Force). As the Atlas phased down Mr. Patterson became Vice President for all advanced systems at General Dynamics Astronautics, and was deeply involved in the first United States manned orbital launches of John Glenn, Gordon Cooper, Wally Schirra and Scott Carpenter which used Atlas as a booster. He also was a guiding force in starting America's first Hydrogen-Oxygen space booster, the Centaur. At Astronautics Mr. Patterson worked on all advanced technology and systems of both manned and unmanned space systems and advanced weapons systems. It was from this position that General Electric hired Mr. Patterson in 1966 from General Dynamics.

Mr. Patterson is a graduate of Whittier College with a degree in Mathematics. He holds a Masters Degree in Physics. During two years of graduate work, Mr. Patterson taught mathematics and physics and coached the college freshman football team. Prior to joining General Dynamics in 1946, Mr. Patterson served in the European Theatre as a Radar Officer for the U. S. Army. Mr. Patterson, his wife Alma and their five children Gail, Vaudene, Evy, Carolyn and Billy live at 919 Great Springs Road, Bryn Mawr, Penna.

April 7 1961

TO: Jerry Wolff

Herb Klein advises that Bill Patterson should receive a good deal of consideration for Ex. Sec. & Space. He says that he not only has technical proficiency, space association but plenty of political savvy with a long record as a supporter and worker for RN. Further says that RN would confirm this to V.P. and would hope that he would be appted. How stands he?

RB

TO: Ferry Wolf
- see below - ???

THE WHITE HOUSE
WASHINGTON

April 14, 1969

MEMORANDUM TO: Stan Blair

FROM: Herbert G. Klein

Attached is an article regarding Bill Patterson, the man I recommend as outstanding for the space council post.

What is status?

Herb

NASA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON 25, D.C.

OFFICE OF THE ADMINISTRATOR

NOV 7 1969

MEMORANDUM FOR

Mr. Clay T. Whitehead
Staff Assistant
The White House

SUBJECT: ATS-I and III User Experiments

The summary status of our program to allow private use of the ATS-I and III satellites for private non-governmental experimental use is as follows:

A widely attended meeting with potential non-government experimenters was held on June 13, 1969. The agenda for that briefing, a list of the attendees, and the policy guidelines governing the availability of the ATS-I and III satellites is attached (Enclosure I). Subsequently, an inventory of satellite and ground facilities which might be available for user experimentation during 1969 and 1970 was developed jointly by the National Aeronautics and Space Administration (NASA) and the Communications Satellite Corporation (COMSAT) and was provided to the meeting attendees and to others who had expressed an interest in the program.

Since the status of development of experiment programs varies with the proposer, I will cover each proposal or inquiry separately.

Considerable discussion and correspondence with members of the Congressional delegation from Alaska, members of the Governor's staff and of the Federal Field Committee for Development Planning in Alaska, led to a large and widely attended meeting in Anchorage, Alaska on August 27 and 28, 1969. NASA made a presentation on the capabilities and limitations of the ATS satellites. On September 24, 1969, Dr. R. B. Marsten and his staff met with Mr. Charles Buck, Director of Communications of the State of Alaska to review with him a draft

experiment proposal that he was preparing. Improvements and additional information requirements were suggested to Mr. Buck. We understand that the proposal has been finalized and is being staffed through the Office of the Governor of Alaska.

The Corporation for Public Broadcasting (CPB) submitted a general proposal at the meeting on June 13, 1969. The proposal has been discussed with them and a letter requesting modifications to their proposal was sent to Mr. John W. Macy on October 1, 1969. A letter response has been submitted by the CPB which is now being evaluated. It is our intention to coordinate their proposal with those from the Governor of Alaska and the Broadcast Networks.

The American Broadcasting Corporation (ABC) delivered a proposal at the meeting on June 13, 1969. Discussions and correspondence have led to the identification of factors which will have to be resolved and conditions which will have to be met by ABC before we make a final commitment to their experiments. We are expecting an amended proposal from them in the near future.

We have received indications of interest directly from CBS, as well as from two CBS affiliated stations in Idaho. We received a telephone request from CBS asking for time on ATS I or III for limited TV broadcasting experiments. We have cooperated in a preliminary experiment from Rosman through ATS III to the Hughes Aircraft Company satellite ground stations. We expect a formal proposal from CBS on behalf of all the networks.

In addition to our cooperative effort with COMSAT Corporation in developing the facility inventory, they have provided consultant services and support to the Alaskan study group and to the networks. We have formally agreed in principle to the participation of the Lister Hill National Center for Biomedical Communications of the National Institutes of Health National Library of Medicine and are awaiting specific experiment proposals from them.

We have received expressions of interest from other potential experimenters and have entered into discussions with them. The Canadian Broadcasting Corporation has indicated that they are coordinating their interests through the CPB and the three U.S. networks. We met with representatives of the NAVSAT Corporation on July 30, 1969, and left the action with them to prepare and submit more detailed proposals and test plans to which we could react. We have also received letters of interest from Western Union International and Governor Kirk of Florida indicating that additional proposals for "user" experiments may be forthcoming.

As an indication of the type of detailed interchange we have had with the proposer's experiments, I have included copies of our recent correspondence with the CPB (Enclosure 2), and with ABC (Enclosure 3).

Willis Shapley
Associate Deputy Administrator
National Aeronautics and Space Administration

Enclosures: 3 A/S

Enclosure I

On June 13, 1969, NASA presented to interested parties the capabilities and availability of its Applications Technology Satellites for experimentation. Because of your interest in communications, I wish to bring to your attention the possibility of experimenting with available satellite and ground facilities.

NASA has established a policy of making the ATS satellites available for worthwhile experimentation by other organizations after the initial technical experiments on the satellites have been completed and for as long as the satellites remain operative. Such organizations can include other government agencies, educational institutions, or private concerns which are potential users of future operational satellite systems and are willing to invest in the necessary ground facilities, provide message content, and cover other ground costs.

To assist those who attended the meeting at NASA on June 13 and others who may be interested in proposing experiments in the use of communications satellites, the enclosed inventory of satellite and ground facilities that might be made available during 1969 and 1970 for user experimentation has been compiled.

In order to provide prospective user-experimenters with the broadest range of possibilities on which to base their plans, the inventory includes available facilities of the Communications Satellite Corporation (Comsat) as well as those of NASA. At the June 13 meeting, the Communications Satellite Corporation representative offered to make Comsat's facilities available for user-experimenters who wish to use them, subject to

FCC approval. It is our hope that this information will assist interested user-experimenters to formulate specific proposals for experimental use of available facilities, in any mix of NASA or Comsat facilities the user considers appropriate.

Should you wish to submit a proposal, emphasis should be placed on unique applications or approaches. The proposal should be detailed and include the objectives, methodology, expected results of the experiments and procedures by which the results of the experiments would be disseminated, the value of each experiment in terms of local, national, or international interest, and transmission time requirements and degree of schedule flexibility. For your convenience we have included in the inventory a form entitled "Proposed Transmission Schedule."

NASA will review the technical and other aspects of these plans and determine whether the proposed use of the NASA satellites and ground facilities would be consistent with NASA's mission and the existing commitments and priorities for the use of the satellites. Comsat will participate in the discussion of proposals involving the use of its facilities.

In view of the limited availability of the satellites, proposals should be submitted as soon as possible. We will be pleased to meet with you at any time to clarify any questions you may have on this matter. Proposals and inquiries should be addressed to:

Dr. Richard B. Marsten
Director, Communications Programs
Office of Space Science and Applications
National Aeronautics and Space Administration
Washington, D. C. 20546

Telephone No. AC 202 962-0888

Sincerely yours,

R. B. Marsten
Director, Communications Programs

Enclosures

DRAFT
(Checked by Roth)

Participants:

Mr. Everett H. Erlick
Group Vice President and
General Counsel
American Broadcasting Companies, Inc.
1330 Avenue of the Americas
New York, New York 10019

Mr. Spencer Moore
International Liaison Officer
Canadian Broadcasting Corporation
Societe Radio-Canada
1500 Bronson Avenue
Ottawa, Ontario Canada

Mr. William B. Lodge
Vice President, Affiliate
Relations and Networking
CBS Television Network
51 West 52 Street
New York, New York 10019

Mr. A. James Ebel
Chairman of the Satellite
Communications Committee
CBS Television Network Affiliates Assoc.
KOLN-TV/KGIN-TV
40th and W Streets
Lincoln, Nebraska

Mr. John W. Macy, Jr.
President
Corporation for Public Broadcasting
1250 Connecticut Ave., N.W.
Washington, D. C. 20036

Mr. Fred W. Friendly
The Ford Foundation
320 East 43rd Street
New York, New York 10017

Mr. Robert Hudson
Vice President
National Educational Television
10 Columbus Circle
New York, New York 10019

Mr. D. K. Atkinson
General Electric Company
777 14th St., N.W. Rm: 1000
Washington, D. C. 20005

Mr. Frank W. Norwood
Joint Council on Educational
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Washington, D. C. 20036

Mr. Edward E. Fitzgerald
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New York, New York 10017

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National Association of
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Mr. Donald Kivell
Manager, Communications
National Broadcasting Company, Inc.
Thirty Rockefeller Plaza
New York, New York 10020

Mr. Josef C. Nichols
Chief, International & Satellite
Communications Unit
Radio & Visual Services Division
United Nations
New York, New York

updated 9/10/69

Mr. H. E. Bradley
AT&T
Room 415
195 Broadway
New York, New York 10007

Dr. Joseph V. Charyk
President
Communication Satellite Corporation
950 L'Enfant Plaza South, S.W.
Washington, D. C. 20036

Mr. W. R. Jarmon
Vice President
General Telephone & Electronics Corp.
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Manager, Special Services
ITT World Communications Inc.
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Dr. David S. Pollen
Deputy Associate Commissioner for
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Mr. Asher Ende
Deputy Chief
Common Carrier Bureau
Federal Communications Commission
Washington, D. C. 20554

Mr. Ralph L. Clark
Special Assistant to the
Director of Telecommunications
Executive Office of the President
Washington, D. C. 20504

Mr. Davis B. McCarn
Deputy Director
Lister Hill National Center for
Biomedical Communications
National Library of Medicine
8600 Rockville Pike
Bethesda, Maryland 20014

Mr. Edgar T. Martin
U.S. Information Agency (IBS/E)
25 M St., S.W.
Washington, D. C. 20547

Mr. Phillip Rubin
North American Rockwell Corporation
Downey, California 90241

Mr. Charles L. Buck
Director of Communication
State Department of Public Works
Juneau, Alaska

Mr. Robert P. Thomspon
Director of Engineering
Operation Division
3700 Newport Boulevard #307
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Dr. Clay T. Whitehead
Staff Assistant
The White House
Washington, D. C. 20500

Mr. Beardsley Graham
Consultant
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Noroton, Connecticut 06820

Mr. Claude R. Kirk, Jr
Governor of Florida
Tallahassee, Florida

Mr. Earl Abrams
Broadcasting Magazine
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Mr. John C. Broger
Office of Information for the Armed Forces
Department of Defense
Washington, D. C. 20305

Col. A. C. Jensen
Office of the Deputy Assistant
Secretary for Education,
Department of Defense
Washington, D. C. 20305

Admiral L. R. Daspit
National Academy of Sciences
2100 Pennsylvania Avenue, NW
(Joseph Henry Building)
Room 700
Washington, D. C.

Mr. Walter Hinchman
Environmental Science Services
Administration
Institute for Telecommunications Sciences
Boulder, Colorado 80302

Mr. John Bystrom
Department of Speech
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Dr. Richard Lawson
University of Wisconsin
606 State Street
Room 1001
Madison, Wisconsin 53706

Enclosure 2

SCS/JRB/aml

OCT 1 1969

Mr. John W. Macy, Jr.
President
Corporation for Public Broadcasting
Suite 630
1250 Connecticut Avenue, N. W.
Washington, D. C. 20036

Dear Mr. Macy:

The National Aeronautics and Space Administration (NASA) would be happy to participate with you in the transcontinental interconnection portion of the experiment outlined in your "Proposal for Experimental Use of ATS" presented at the ATS users meeting held at NASA Headquarters on June 13, 1969, and further expanded in your letter of September 9, 1969. Unfortunately, the malfunction in ATS-III described during the June 13th meeting still exists. As a consequence it would not be possible to conduct the experiment via ATS-III, the satellite specified in your proposal. ATS-I continues to operate satisfactorily. Should you wish to use ATS-I instead of ATS-III in your experiment we would be pleased to receive an appropriate amendment to your proposal. The malfunction of ATS-III has caused a serious satellite loading problem. For this reason we request modifications in the proposed schedule for the transcontinental interconnection portion of your experiment as follows:

Initiation of link no earlier than October 27, 1969.

West-to-east transmissions only, 0100-0230 GMT (8 PM to 9:30 PM EST) because of a conflict with ESSA use of the satellite, resulting in lack of available power for transmission to Mojave. The time of ESSA use is 1430-0230 GMT.

Either east-to-west or west-to-east transmissions 0230-0400 GMT (9:30 PM to 11 PM EST).

The American Broadcasting Company (ABC) has proposed an Alaska transmission at 0000-0030 GMT Monday through Friday. Further, ABC wishes to transmit at 0400-0415 GMT on Sundays. The period 0230-0400 GMT includes the earliest practicable time which could be made available to ABC because of the ESSA conflict previously mentioned.

We would expect the proposed schedule in any amendment to your proposal to reflect appropriate coordination with ABC; they have been requested to coordinate with you. We would be willing to add appropriately to the time available to the Corporation for Public Broadcasting (CPB) to cover any ABC news transmissions.

While we would make every effort to provide time as scheduled, events may cause occasional cancellation of scheduled transmissions.

It should be understood that no terrestrial microwave links are in service to our Rosman, N. C. and Mojave, California, ground terminals; it would be necessary for the CPB to order these links into service from the local telephone companies and to meet the cost of this installation and operation.

We would require data verifying satisfactory link performance between ATS-I and the Hughes station before that link is employed in the trans-continental interconnection portion of the experiment.

We would expect CPB to coordinate with and obtain necessary approvals from the Federal Communications Commission for operation of any ground station (other than the NASA stations at Rosman and Mojave).

The schedule which you have specified will require overtime operation at Rosman and at Mojave. Overtime charges which must be met by the CPB will be $3,250 per week.

You will have received by now a letter containing information expanding on our June 13th material, including an inventory of satellite communications facilities which was sent to the organizations represented at the June meeting and others. When we have received responses to this letter we may reassess priorities among the participants and at that time select a new group of experimenters. Adequate notice of changes will be provided to participants.

With regard to the other portions of your proposal, that is Radio Network, Satellite Cities Demonstration, and Remote Production Capability, we would want more detailed information demonstrating the technical soundness such as, for example, the link performance in the six cities case using ATS-I instead of ATS-III. We would also need an outline of your scheduling requirements before making any commitment to them.

We certainly appreciate your interest in NASA's program, and hope to hear from you soon.

Sincerely yours,

Dr. Richard B. Marsten

cc: S/Naugle
SC/Naraten
w/Kapiloff

R. B. Naraten
Director
Communications Programs
Office of Space Science and Applications

SCS/JADurke/aml/9/29/69

W/Radius

Corporation for Public Broadcasting
Suite 630
1250 Connecticut Avenue, N. W.
Washington, D. C. 20036
(202) 224-2228/9

September 9, 1969

John W. Macy, Jr.
President

Macy

Dr. Richard Marsten
Director, Communications Programs
O. S. S. A.
National Aeronautics and Space Administration
Washington, D. C. 20546

Dear Dr. Marsten:

At your June 13, 1969 meeting at NASA, I presented a proposal for the use of ATS satellites for four experiments. The proposal - made on behalf of the Corporation for Public Broadcasting, National Educational Television, National Association of Educational Broadcasters, the Joint Council on Educational Telecommunications, and the Ford Foundation - was described in a document entitled "Proposal for Experimental Use of ATS" and left with you.

Since the June 13 meeting, we have continued to refine the proposed experiments and to determine in further detail the technical, financial, and programming parameters. We have also talked informally with representatives of commercial networks, and the Federal Communications Commission, and members of your staff. These efforts have reinforced our conviction that the ATS satellite can properly and effectively be used for public broadcasting experiments.

The Corporation for Public Broadcasting hereby requests that ATS satellite capacity be furnished to it for the Transcontinental Interconnection outlined in our June 13 proposal. That demonstration called for the early use of an ATS satellite to establish both an East to West and reverse relay link. If you approve this request, we would propose to initiate the link on October 1, 1969 and to experiment with it, as part of a distribution mechanism, for a period of ~~up to one year.~~ We would seek access to the ATS satellite from 8 o'clock to 11 o'clock p.m., New York time, Sundays through Thursdays during the period of the experiment.

We would propose to provide television programs through terrestrial microwave links to NASA ground terminals at Rosman, North Carolina and Mojave, California, and relay the programs by satellite to the companion terminal at the opposite coast for distribution.

In addition to the Rosman and Mojave terminals, Hughes Aircraft has agreed to permit public broadcasting to use its ground terminal in Los Angeles for the experiment. This is all the equipment we would require at the moment.

As a condition to receiving access to ATS for experimentation, we understand the burden of demonstrating the practicality and feasibility of our proposals rests with us. While economy and flexibility are two benefits we confidently expect to receive from the use of satellites, the public broadcasting community contends that where so much remains to be known about domestic communications, satellites "use" in itself is experimental.

Questions have been raised, however, which concern us. You will recall the Canadian representative attending the NASA June 13 meeting stated emphatically that present day claims of substantial economies accruing from the use of domestic satellites are very much exagggerated.

We seek, therefore, a practical opportunity to use satellites to determine if, in fact, economies will accrue to public television which will enable it to program nationally on a greater scale than is presently possible. Moreover, we request an opportunity to test under normal conditions just how flexible satellite technology is in integrating and switching a widely diversified transcontinental network of public television stations.

We seek practical experience to determine the audio and visual quality and the reliability of domestic satellites under actual day to day networking operations.

Special television programs are now in formative stages. We are very interested in acquiring new information on how public television can respond to our national needs more effectively by using the high speed technology of satellites.

This is a beginning. The experience gained in our Transcontinental Interconnection, phase one of our proposed experiments, will provide information and insight which will be invaluable in the planning and implementation of our more ambitious experiments.

In sum, what we need is practical experience under normal operating conditions to test many theories about domestic satellite communications for television and radio.

We are continuing to study other experiments outlined in the document left with you on June 13. Further proposals with respect to these experiments will be submitted to NASA in the very near future.

Sincerely yours,

John W. Macy, Jr.

John W. Macy, Jr.
President

SPACE SCIENCE AND APPLICATION DIVISION,
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

PROPOSAL FOR EXPERIMENTAL USE OF ATS

CORPORATION FOR PUBLIC BROADCASTING
FORD FOUNDATION
NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS
NATIONAL EDUCATIONAL TELEVISION
JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS

I. INTRODUCTION

The Corporation for Public Broadcasting appreciates the opportunity provided by the National Aeronautics and Space Administration to comment on the possible experimental use of the ATS I and III satellites now in synchronous orbit and the ATS E satellite which is scheduled to be launched in August of this year.

We appear today representing a wide range of views in the public and educational broadcasting community whose interest in the use of satellites dates back to 1962 and the subsequent Ford Foundation proposal of August, 1966. The proposals advanced represent a consensus of views of the Corporation for Public Broadcasting, the Ford Foundation, National Association of Educational Broadcasters, National Educational Television, and Joint Council on Educational Telecommunications. These groups all share a joint resolve and a common excitement about the unique opportunity offered by the potential use of these satellites.

While public broadcasting is aware of the significance of this meeting for itself, the use of satellites for broadcasting in general and educational communication has a much wider impact. The ultimate beneficiaries will be all the broadcasters and the American public.

The ATS experiments will enable the broadcasting industry and the public to become familiar with this aspect of the satellite technology. At present, neither the national viewing and listening audience nor the multitude of communities of interest in the public and commercial broadcasting endeavors has accumulated any experience with domestic satellite relaying.

The experiments proposed by the Corporation will establish a body of knowledge relating to the operation and control of a domestic satellite system complementary to the technical information that has been gathered by NASA over the past several years. In addition, the Corporation hopes to provide a vehicle through which the inventive capacities of others can explore and evaluate the particular capabilities of satellite relaying in domestic applications.

The use of ATS satellites as set forth herein will provide the American public with a daily demonstration of the application of space technology. While there is nothing more dramatic than placing a man on the moon or taking pictures

of Mars, it is through the ability to demonstrate that this technology will affect everyday life that we can assure those who question the direction and expense of the space program. The fact that unused technical capacity of an already existing satellite that has outlived its original purpose can be utilized for broader public interests is visible proof of the daily application of space technology and to what extent space dollars can be applied for the general benefit of society.

Public broadcasting has well defined needs and interests that form the basis of this proposal. But the horizons and objectives of the NASA experiment should be expansive in nature and we hope for the fullest cooperation amongst all the interested parties. The Corporation and the public broadcasting community hope that any experiment will encompass the broad needs of our industry and we call upon fellow broadcasters to join with us to explore the ultimate potential of this technological advancement.

This is a unique and troublesome time in this country's history. The decay of some of our most basic social institutions seems to be developing as fast as scientific and educational attainment. We feel that the proposals set forth herein afford the scientific and educational communities the unusual opportunity to join together in a dramatic demonstration of technical and social progress that could afford new hope to a troubled society.

II. PROPOSAL

We propose to use satellites to accomplish four related experiments and demonstrations:

A. Transcontinental Interconnection
B. Radio Network
C. Satellite Cities Demonstration
D. Remote Production Capability

Transcontinental Interconnection

Our initial priority is to demonstrate that transcontinental distribution is feasible and a major step forward in the growth of non-commercial broadcasting. We propose that a relay link be inaugurated between the east and west coast using ATS III as the distribution mechanism. Television programs would be delivered through conventional terrestrial microwave links to either the NASA earth terminal at Rosman, North Carolina, or Mojave,

California, depending on the point of origination, and then relayed by the satellite to the companion terminal at the opposite coast for distribution or other use.

Since January 1969, public broadcasting has been utilizing for two hours a day, five days a week an interconnected distribution system for national programming through traditional terrestrial facilities. This system is expensive in the context of the resources available and extensive new facilities will be required to make it function effectively. Efforts to establish a more permanent system are underway at present, but the current estimates of the cost of such a system are still far beyond the means of the public broadcasting community.

Distribution of programs by satellite has been part of the public broadcasting community orientation since the first Ford Foundation proposal in 1966. The use of a satellite distribution system may prove to be the only practical method available to public broadcasting for programs to be made available to the public on the same basis as commercial television. The use of the ATS satellite for the transcontinental demonstration will provide the data to determine that this is a practical and efficient distribution system and would facilitate and encourage the flow of programs between the east and west coasts. It will give public broadcasting a unique opportunity to analyze the daily operational and technical problems that are involved with satellite distribution. Such an experiment will provide the data upon which the distribution options available to public broadcasting can be analyzed in terms of our financial and technical planning.

Since virtually all of the requisite technical facilities are already in existence, this experiment can be operational as soon as NASA approves the use of the satellites and the ground stations.

Radio Network

One of the most dramatic and promising proposed experiments is to give non-commercial radio the opportunity of establishing a national interconnected network.

At present, non-commercial radio does not have access to a national network because of a lack of funds. However, the potential of existing satellite communication facilities suggests that such interconnection could be accomplished

rapidly and without excessive capital or operating costs. By utlizing the VHF capability of the ATS satellite, we can establish an inexpensive receiving facility at individual non-commercial radio stations throughout the United States. In addition, at selected points transmitting stations could be constructed and then utilized to transmit radio programs throughout the non-commercial radio system to demonstrate the need and the practicality of a non-commercial radio network in the United States as outlined in the Public Broadcasting Act of 1967.

As an adjunct to the radio network, we plan to explore the possibility of utilizing the satellite to provide non-commercial educational radio programs to Alaska, Hawaii and Puerto Rico. If this proves feasible and as technology develops, we hope to expand this demonstration to include the transmission of television programs to these areas.

Satellite Cities Demonstration

As a natural extension of the transcontinental experiment, the Corporation proposes a demonstration of both the distribution and programming capabilities of satellite technology.

We propose to designate a group of cities within the United States as satellite demonstration cities. These cities would receive programs directly from the satellite either as part of a network origination or a delay pattern to demonstrate the ultimate distribution capability of a satellite system. Furthermore, some of the cities will be utilized as production centers with the capability of transmitting by satellite directly to the other satellite cities. In this way, program material produced by the local production centers will be made available to all satellite cities. While whole programs produced at the various centers will be distributed in this fashion, it is also possible to piece portions of programs together by utilizing the satellite as a switching center.

We contemplate that six cities will participate in this demonstration. The exact number of cities that will have transmitting capability will be based on funds available and estimates by manufacturers as to the construction costs of transmitting and receiving terminals. We hope that the test could be operational as soon as construction of the ground facilities are completed.

In our view, a meaningful test of this nature should also address the needs of the academic, educational and disadvantaged communities in the various cities.

While the selection of the satellite cities will primarily be based upon geographic location and production capability, we would actively seek the participation of universities, public educational authorities, and organizations concerned with the problems of disadvantaged communities in the planning and selecting process.

For example, the possibility of establishing receiving capacity on an Indian reservation as suggested by the Report of the President's Interdepartmental Task Force on Communications Policy would be explored. In essence, the opportunity to use the ground facilities for the distribution of instructional and cultural programs for specialized audiences could offer dramatic evidence that satellites have the potential to make a profound impact on the educational and social problems of the nation.

Remote Production Capability

This demonstration would explore and evaluate the use of mobile transmitting stations which can be transported to remote and relatively inaccessible areas on short notice to pickup and relay events which are not now available to the national audience.

Present national communication facilities cannot transmit from remote areas efficiently and at low cost. In order to broadcast events that occur in such areas, significant lead time is required to construct new transmission facilities at a cost that often makes it unreasonable to cover the event.

Existing technology would enable us to place a portable transmitter on a vehicle accompanied by a television mobile unit and then transmit to the satellite. In this way, the capacity of all broadcasters to react to dynamic and unpredictable situations would be significantly enhanced.

We recognize that use of mobile transmitting facilities must include careful consideration of the potential for interference to existing terrestrial microwave systems. However, the Corporation believes the need for this type of service is sufficiently urgent and the promise sufficiently bright that the experiment must be undertaken. Since the problem has been most identified in the urban areas of the country, we propose to initially conduct the experiment in distant areas that normally are not heavily penetrated by conventional microwave facilities

and, therefore, less likely to raise the interference issue. It is precisely these areas that broadcasters have difficulty reaching with television facilities. Such a test will contribute a great deal toward determining the technical limits of the use of mobile transmitters.

III. CONCLUSION

The availability of the ATS satellite for experimental purposes affords broadcasting, and in particular public broadcasting, a unique opportunity to expand the horizons of the medium. In addition, it provides a dramatic demonstration of new scientific and social progress.

The parties to this submission, and in particular the Corporation and the Ford Foundation, are prepared to offer manpower, technical and financial aid to support the experiments outlined in this proposal.

We suggest the following course of action:

1. The Corporation for Public Broadcasting and NASA enter into an agreement which would allow the use of the ATS III satellite for the transcontinental demonstration set forth in (I). We propose September 1, 1969 as the operational date for this demonstration.

2. That the Corporation, NASA and the FCC enter into an agreement which would allow the use of remote equipment as soon as such equipment could be made available.

3. A task force composed of the interested parties be formed by July 1, 1969 for the purpose of exploring the specific requirements for the regional remote and radio network demonstrations. The task force should report within 60 days and set forth a timetable for the implementation of the experiments.

CORPORATION FOR PUBLIC BROADCASTING

888 16th Street, N.W., Washington, D.C. 20006. Phone: 202/293-6160

1345 Avenue of the Americas, New York, N.Y. 10019. Phone: 212/582-2020

JOHN W. MACY, JR.,
President

Reply to Washington

October 27, 1969

Dr. R. B. Marsten
Director
Communications Programs
Office of Space Science and Applications
SC-NASA Headquarters
Washington, D. C. 20546

Dear Dr. Marsten:

Thank you for your letter of October 1, 1969, in which you request further information and modifications in the proposed schedule for the transcontinental interconnection portion of our experiment.

The Satellite Task Force is very pleased to learn that the malfunction in ATS III has been corrected and the satellite is now operating and available for experimental use.

With reference to the matter of west-to-east and east-to-west transmission time, we confirm our willingness to adapt our transmission schedule, and so amend our original proposal, to meet the requirements of NASA. The transmission periods referred to in your letter of October 1, 1969 are acceptable. We assume, however, you will wish to reassign transmission periods now that ATS III is available for experimental use.

Similarly, we confirm our interest in coordinating our proposed experiments with the American Broadcasting Company (ABC) and its Alaskan transmissions. We understand NASA will shortly receive from Alaskan authorities a more broadly based proposal for ATS experimentation. We have assured the American Broadcasting Company (ABC) and the Alaskan interests of our willingness to cooperate with them fully. As soon as we receive specific information concerning these proposals we will amend

our original proposal to reflect the appropriate coordination. In the interim, however, we would appreciate the processing of our application as soon as possible. We are prepared to undertake our experiment in transcontinental interconnection with the understanding an adjustment to schedule will be required later.

In the matter of terrestrial microwave links: We recognize it will be necessary for the Satellite Task Force to order links in service to the NASA ground terminal at Rosman, North Carolina, and if necessary, to the ground terminal at Mojave, California.

Hughes Aircraft Company has given verbal assurances its 30-foot Cassegrain transportable antenna (reference your June 13, 1969 inventory) will be made available for experimentation with ATS. It is expected this equipment will be used for direct two-way contact with either ATS I or ATS III. This should eliminate the need for a microwave link between the NASA terminal at Mojave and the Hughes antenna.

In response to our recent request for technical assistance from the Office of Telecommunications Management, Mr. William E. Plummer, Acting Director of OTM, assigned Messrs. R. G. Gould and J. Cole to assist us in the preparation of our proposals to NASA.

To respond to your request for data verifying satisfactory link performance between ATS I and the Hughes station, we submit the following:

Coverage

Both the Los Angeles and Rosman, North Carolina stations are within the coverage zones of both ATS I and ATS III.

Frequency Considerations

Regular up-link transmissions in the 6 GHz band, have taken place at Rosman, North Carolina with no reported interference to terrestrial users of the same frequencies (common carrier microwave). No up-link transmissions in the GHz band have taken place in the Los Angeles area. Coordination procedures would have to be undertaken to insure that there would be no harmful interference to terrestrial users.

Regular down-link transmissions in the 4 GHz band have been satisfactorily received at Rosman, North Carolina, with no reported interference from terrestrial users of the same band.

Occasional down-link transmissions at selected frequencies in the 4 GHz band have been satisfactorily received in the Los Angeles area with no reported interference from terrestrial users of the same band. Further study would be required to insure interference-free reception on a given frequency at a given location in the Los Angeles area.

Link Performance

ATS-I

Measured performance at the 40' - 70°K Mojave, California station receiving TV from ATS I (using both its 4 watt tubes) was a carrier to noise (C/N) ratio of 8.7 db. This value is about 1 db below threshold for that receiver.

This C/N ratio resulted in a video peak-to-peak signal-to-weighted RMS noise ($\frac{Sp\text{-}p}{Nrms}$) ratio of 42.5 db.

This $\frac{Sp\text{-}p}{Nrms}$ ratio falls between TASO grades 2.5 and 3.0 ("Passable, (noise perceptible, not objectionable)").

TASO Grade 2.5 has also been described as "barely noticeable (noise)" under the NTSC color TV subjective noise objective, 1958. It is also the 1958 Bell System "commercial" performance ("worst picture to customer").

TASO Grade 3 is also equivalent to the FCC Class "B" (Rural) Broadcast standard for UHF TV, 1960.

If it were desired to receive TV at a 30' station having the same noise temperature, the 3 db decrease in earth station figure-of-merit, G/T, would have to be made up, to bring the C/N ratio to the same value as before (close to threshold).

This could only be accomplished by decreasing the noise bandwidth which necessitates a reduction in the frequency deviation (all other factors not being subject to change). The resulting decrease in FM improvement factor would reduce the $\frac{Sp\text{-}p}{Nrms}$ ratio by about 12 db to a value of 30.5 db.

This value is 1.5 db worse than TASO Grade 5.0, "inferior (noise definitely objectionable)."

Reception of TV at the 85' - 60°K Rosman station would be about

about 48.5 db. This is 1.5 db better than either TASO grade 2.0, "fine (noise just perceptible)." or the FCC Class "A", urban broadcast standard for UHF-TV 1960.

With respect to similar data required concerning ATS III, we submit the following:

ATS III

Measured performance at the Mojave station receiving TV from ATS III (using its 12 watt tube) was a C/N ratio of 12.7 db. This C/N ratio resulted in a $\frac{Sp\text{-}p}{Nrms}$ ratio of 47 db.

This ratio is equivalent to TASO Grade 210, "Fine (noise just perceptible,") which is also equivalent to the FCC Class "A: (urban) standard.

If it were desired to receive TV at a 30' station having the same noise temperature, the 3 db decrease in G/T would result in a C/N of about 9.7 db (a value at, or slightly above threshold). This would result in a $\frac{Sp\text{-}p}{Nrms}$ ratio of about 44 db.

This ratio is equivalent to TASO Grade 2.5 (half way between "fine" and "passable" a value which has also been described by the RCA TVMIA Manual, 1958, as being "noise not noticeable to the average viewer."

When received at the Rosman station through ATS III, the C/N would be at least 18.7 db resulting in a $\frac{Sp\text{-}p}{Nrms}$ ratio of at least 53 db.

This value is 1 db less than either TASO Grade 1.0, "Excellent, (noise imperceptible)," or CCIR Recommendation 421 (1963), transposed for a 4000 mile link.

Concerning beam edge effects:

For a station located close to the edge of the coverage zone of a satellite, such as the proposed Los Angeles station, the C/N values given must be reduced by from 1 to 2 db to take the satellite antenna beam pattern into account. For receivers operating above threshold, this would result in an equivalent reduction in the Sp-p/Nrms ratio. For receivers at threshold, however, the decrease would have to be made up by a decrease in frequency deviation which would result in about twice the decrease in Sp-p/Nrms ratio of from 2 to 4 db.

Informal conversations have been held with Mr. W. Watkins, Chief engineer of the Federal Communications Commission and his Deputy, Mr. R. Spence. An application for experimental use of the Hughes Aircraft Company 30-foot Cassegrain transportable antenna will be submitted to the FCC during the week beginning October 26, 1969. Mr. R. Kennedy, of the consulting engineering firm, Kear and Kennedy, Washington, D. C., has been retained to accomplish this. All matters relating to use of frequencies will be closely coordinated with the FCC.

We understand the overtime charges of $3,250 per week are based on a high estimate. We further understand that these charges will be pro-rated to the accounts of all users of the facilities requiring overtime operation.

An informational copy of this letter is being forwarded to Mr. W. Watkins, of the FCC, Mr. R. Gould at OTM, and Mr. R. Kennedy of Kear and Kennedy.

Within the next few days, more detailed information concerning our Radio Network proposal shall be submitted to NASA. Research into our Satellite Cities Demonstration and Remote Production Capability continues and we confidently expect to submit additional data on these in the near future.

The Satellite Task Force appreciates very much your interest in our various proposals as well as the splendid spirit of cooperation we continually receive from NASA personnel.

Sincerely yours,

John W. Macy, Jr.

John W. Macy, Jr.
Chairman
Satellite Task Force

Enclosure 3

OCT 1 1969

SCS/JRB/aml

Mr. Everett H. Erlick
Group Vice President and General Counsel
American Broadcasting Companies, Incorporated
1330 Avenue of the Americas
New York, N.Y. 10019

Dear Mr. Erlick:

We have reviewed the American Broadcasting Companies (ABC proposal presented at the National Aeronautics and Space Administration (NASA) ATS users meeting on June 13, 1969, as clarified in your letter of August 26, 1969. NASA would be happy to participate with you in such an experiment. However, there are certain factors which will have to be resolved or conditions which will have to be met before we make a final commitment. We would need an amendment of your proposal indicating your reaction to these factors and conditions, as discussed below:

The satellite transmissions should not include advertising or other commercial material.

The proposed experiment should be coordinated with and have the concurrence of the Alaskan authorities now specifically considering the applications of satellites to Alaskan communications.

You will have received by now a letter expanding further the information presented at the NASA ATS users meeting, including an inventory of satellite communications facilities which was sent to the organizations represented at the June meeting and others. When we have received responses to these letters we may reassess priorities among the participants and at that time select a new group of experimenters. Adequate notice of change will be provided to participants.

Because of scheduling problems it would be impossible to start an experiment with ABC before October 27, 1969.

The ATS-I schedule will not support a transmission at 7:00-7:30 P.M. New York time (0000-0030 GMT assuming EST in New York) because of a conflict with ESSA use of the satellite resulting in lack of available power for transmission to Alaska. The earliest evening

period in New York time when sufficient power would be available would be 0230 GMT (9:30 PM EST). This is a part of the time which has also been requested by the Corporation for Public Broadcasting (CPB). We have indicated to them that we would add appropriate time to that which they have requested to cover any ABC news transmission. This situation also applies to your 0400 GMT transmission on Sunday. We would expect the proposed schedule in any amendment to your proposal to reflect appropriate coordination with the CPB; they have been requested to coordinate with you.

There is a conflict with ESSA transmissions during some part of the requested time for all of the proposed football game transmissions. There would be insufficient power for Alaska transmissions during this conflict period (14300-0230 GMT).

While we would make every effort to provide time as scheduled, events may cause occasional cancellation of scheduled transmissions.

We would expect ABC to coordinate with and obtain necessary approvals from The Federal Communications Commission for operation of any ground station (other than the NASA stations at Rosman and Mojave).

Overtime costs at the NASA ground stations would be about $2,400 per week for the news broadcasts. There would be no overtime involved in the football game transmissions except for the night games.

It should be understood that no terrestrial microwave links are in service to our Rosman, N. C. and Mojave, California, ground terminals; it would be necessary for the American Broadcasting Company to order these links into service from the local telephone companies and to meet the cost of this installation and operation.

Thank you for your interest in NASA's programs. I hope to hear from you soon.

Sincerely yours,

Dr. Richard B. Marsten

R. B. Marsten
Director
Communications Programs
Office of Space Science and Applications

cc: S/Naugle
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W/Radius

AMERICAN BROADCASTING COMPANIES, INC.
1330 AVENUE OF THE AMERICAS · NEW YORK, N.Y. 10019 · LT 1-7777

EVERETT H. ERLICK
Senior Vice President and General Counsel

August 26, 1969

Dr. Richard B. Marsten
National Aeronautics & Space Administration
Washington, D.C. 20546

Dear Dr. Marsten:

In connection with your recent request for the specific programs which we will be in a position to make available for experimental transmission for direct reception to Alaska utilizing an ATS satellite, I am pleased to furnish the following information; assuming we will be using the Rosman, North Carolina ground station:

(a) ABC Evening News - 7:00-7:30 PM, N.Y.Time, Mondays through Fridays. (We assume this would be rotated with the news programs of the other networks.)

ABC Weekend News - 11:00-11:15 PM, N.Y. Time, Saturday 11:00-11:15 PM (approximately) after the ABC Sunday Movie

(b) Sports Programs - As you may know, we will be telecasting the NCAA Football Games on Saturday afternoons in the Fall starting on September 13. A schedule of these games is attached. In addition, we would be in a position to furnish the Jimmy Ellis-Henry Cooper heavyweight boxing match on September 27 and the US-USSR Boxing Matches on October 25. These events are included in the attached list.

(c) Special Events would be available as they may occur, such as an Apollo Moon Shot.

As discussed in our conversation, it is unfortunate NASA has been unable to reply to our proposal for such a long period of time. For this reason, when you are in a position to reach a conclusion, we will have to reconfirm equipment availability from Hughes at that time. As I indicated, we might be able to be more definitive in our plans if we knew specifically what the ATS satellite availability will be for this purpose.

As you will recall, we made our initial proposal at the June meeting on the premise that this would be a project in which all three networks would participate and CPB. Since your recent call we have again urged CBS and NBC to do so. Since we cannot speak for them in this matter, we assume you will get similar information directly from the CBS and NBC Networks, and from CPB.

Kindest regards.

Sincerely,

Everett H. Erlick

Att:

1969 NCAA SCHEDULE

DATE	GAME	SITE	AIR TIME
9/13	Air Force @ SMU (Night)	Dallas, Texas	9:30 PM - 12:30 AM EDT
9/20	Indiana @ Kentucky	Lexington, Ky.	1:30 PM - 5:00 PM EDT
9/27	Auburn @ Tennessee	Knoxville, Tenn.	1:30 PM - 5:00 PM EDT
10/4	Mississippi @ Alabama (Night)	Birmingham, Ala.	9:30 PM - 12:30 AM EDT
10/11	Oklahoma @ Texas	Dallas, Texas	4:00 PM - 7:30 PM EDT
10/18	California @ UCLA	Los Angeles, Cal.	1:30 PM - 5:00 PM EDT
10/25	Auburn @ LSU	Baton Rouge, La.	4:00 PM - 7:30 PM EDT
11/1	LSU @ Mississippi	Jackson, Miss.	2:30 PM - 6:00 PM EDT
11/8	Georgia @ Florida	Jacksonville, Fla.	2:00 PM - 5:30 PM EST
11/15	Afternoon Game - To be announced		1:30 PM - 5:00 PM EST
	Notre Dame @ Georgia Tech (Night)	Atlanta, Ga.	9:30 PM - 12:30 AM EST
11/22	Afternoon Game - To be announced		
	USC @ UCLA (Night)	Los Angeles, Cal.	6:00 PM - 9:00 PM EST
11/27	Texas Tech @ Arkansas	Little Rock, Ark.	2:30 PM - 6:00 PM EST
11/29	Army-Navy	Philadelphia, Pa.	1:00 PM - 4:15 PM EST
	Penn State @ North Carolina State (Doubleheader)	Raleigh, N.C.	4:15 PM - 7:30 PM EST
12/6	Texas @ Arkansas	Fayetteville, Ark.	1:00 PM - 4:30 PM EST
12/13	Afternoon Game - To be announced		

WIDE WORLD OF SPORTS

9/27/69	Jimmy Ellis-Henry Cooper Fight	(LIVE)	London, England	5:00 PM - 6:30 PM EDT
10/25/69	US-USSR Boxing		Las Vegas, Nevada	6:00 PM - 7:30 PM EDT

Ending Times are Approximate

AMERICAN BROADCASTING COMPANIES, INC.
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PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE, ALASKA

In its initial satellite filing in September of 1965, and in each of its subsequent submissions in Docket 16495, American Broadcasting Company has urged the Federal Communications Commission to approve the positioning of a synchronous satellite to be used for radio and television program distribution purposes. Like NBC, CBS, and the Ford Foundation, ABC has argued that a dedicated television distribution system has numerous advantages over a multipurpose system.

To demonstrate that a satellite system for program distribution purposes is entirely feasible and reliable and that it could be placed in operation almost immediately, ABC herewith proposes that ATS-1 be utilized, under NASA's auspices, for a period of three to six months to provide instantaneous news and public affairs programming to the three television stations in Anchorage, Alaska, an area entirely dependent at present on delayed telecasts for national and international news developments. To that end ABC would welcome the cooperation and participation of the other television networks, commercial and educational, in the experimental program here envisaged.

ABC's technical advisers (Hughes Aircraft Company) are confident that such a test program, over a period of three to six months, would fully demonstrate the feasibility and reliability

of synchronous satellites for program distribution purposes -- without elaborate and costly ground receiving terminals. In addition to test data thus obtainable from the experimental transmissions here proposed, there would be substantial public interest benefits in thereby providing direct reception (news and public affairs) to the people of Alaska, an area wholly dependent on delayed video broadcasts for news happenings elsewhere.

The technical details for the test system, utilizing ATS-1, which is here being proposed for NASA's consideration, is outlined in essential respects in the engineering statement attached hereto. It will be noted that the required equipment is now in use at the Island of Barbados and that it can be moved to Alaska and be ready for operation by September 1969. To meet the September date, a go-ahead is needed by about July 1.

The costs for the experimental program would be between $125,000 and $250,000 for the three to six months period. If the necessary authorizations are obtained, ABC proposes to share these costs with other networks who desire to participate.

TECHNICAL DETAILS OF
PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE, ALASKA

I. INTRODUCTION

This document describes a television receiving station for use at Anchorage, Alaska, using the ATS-1 satellite. A system is described which will receive an FM-modulated carrier at a low level, amplify it to a suitable level, and demodulate it to produce video and sound baseband signals. Equipment for this station can be installed and operating by September, 1969. The system includes a 30-foot diameter parabolic antenna with linearly polarized feed, a cooled parametric amplifier, a downconverter and demodulators.

The following discussion includes brief system, hardware, and implementation descriptions.

II. SYSTEM DESIGN

Figure 2.1 is a system block diagram of the receiving station. Pertinent information relating to the blocks of this diagram are given both on the diagram and in the following paragraphs.

Station characteristics are listed in Table 2.1. Table 2.2 gives receiving performance. ATS-1 characteristics are tabulated on Table 2.3. Required transmitter performance is given in Table 2.4, while power and weight estimates are on Tables 2.5 and 2.6.

Table 2.1

Station Characteristics

Antenna and Feed - 30-foot diameter parabolic dish with hour angle mount. Electrical drive with position readout. Linearly polarized, adjustable feed. 49.8 dB gain. 0.57 degree beam width. 65 percent efficiency. 21 degree elevation angle at Anchorage.

Parametric Amplifier - 35 degrees Kelvin helium-cooled unit. 35 dB gain.

Down Converter - Single conversion.

Video Demodulator - Wideband threshold extension demodulator. 5 dB improvement over conventional demodulator.

Audio Demodulator - Subcarrier demodulator operating at 8 MHZ in video baseband.

Station Location - Anchorage, Alaska, 61° 12' N and 148° 48' W.

Table 2.2

Receiving Performance

Satellite EIRP (2 TWT's)	22.5 dBW
Space Loss	-196.5 dB
Satellite Beam Shape Loss	-3 dB
Receive Antenna Gain	49.8 dB
Carrier Level at Feed Output	-127.2 dB
System Noise Temperature	
$= \frac{TA}{LF} + \frac{LF - 1}{LF} TL + Tp$	
$= \frac{18}{1.037} + \frac{1.037 - 1}{1.037} \times 290 + 35$	
$= 17.3 + 10.35 + 35 =$	62.65° K
Noise = KTB	-136.7 dBW
K = 228.6 dBW/° K/ Hz	
T = 18 dB (62.65° K)	
B = 74 dB (25 MHZ)	
C/N at Feed Output (= 127.2 - (-136.7))	9.5 dB
Threshold Extension Improvement Over Conventional Demodulator	5 dB
Margin Over 10 dB Threshold Level (Knee of S/N vs C/N Curves)	4.5 dB

Table 2.3

ATS-1 Satellite Characteristics

Position (May 30, 1969)		149.948° W
Drift Rate		0.017°/day E
Inclination		1.572°
Orbit Eccentricity (Apogee/Perigee)		0.0003
Squint Angle to Anchorage		8° 5'
Side Angle to Anchorage	≈	0°
EIRP (1 TWT)		19.5 dBW
EIRP (2 TWT's)		22.5 dBW
Beam Width (3 dB)		20°
Noise Figure (Repeater 1)		5.8 dB
Noise Figure (Repeater 2)		5.9 dB
Expected EIRP Reduction due to Satellite Beam Width and Station Position		2.5 to 3 dB
Repeater Gain (exclusive of antennas)	≈	120 dB
Antenna Gain (Transmit)		13.5 dB
Antenna Gain (Receive)		6 dB
Repeater Input Level, 3 dB Above Noise		
TWT 1		-113 dBm
TWT 2		-111.7 dBm
TWT 3		-110 dBm
TWT 4		112.9 dBm

Table 2.4

Required Transmitter Performance

Satellite Input for Saturated Output		- 83.7 dBm
Antenna Gain		6 dB
Space Loss at 6 GHZ		- 199.1 dB
EIRP Required to Saturate Satellite		+ 109.4 dBm
	or	+ 79.4 dBW

Table 2.5

Power Estimate

(120/208, 3 phase, 60 Hz)

	Current (Amps per phase
Cryogenic Equipment	2
Servo Motors, both axes	10
Electronics	5
	17

120 V X 17 A = 2,040 Watts per Phase

Total Power Estimated - 6,120 Watts

Table 2.6

Weight and Volume Estimate

	Weight (Pounds)	Volume (Cubic Feet
Antenna	2,500	2,250 *
Mount (including rings, motors, and counter weights)	14,000	750 **
Subreflector	250	150
Electronic Racks (2)	600	56
Compressed Gas (6 Bottles)	1,800	90
	19,150	3,296

* - Antenna is shipped in 4 crates, 3½ X 15 X 15 feet.

** - Mount gross dimensions are 30 X 5 X 5 feet.

III. EQUIPMENT

A. Antenna and Feed

The antenna is a 30-foot diameter parabolic dish with a 3-foot subreflector and a linearly polarized, adjustable feed. Gain at 4 GHZ is 49.8 dB, with the expected efficiency of 65 percent. The 3 dB beam width is 0.57 degrees and the 1 dB beam width is 0.33 degrees. Aluminum is used for the reflector and steel is used for the backup structure, and the mount. The mount is a polar mount having limited motion of about $\pm$ 2.5 degrees in each direction, which is accomplished by means of electric motor drives. Installed on a concrete pad, the antenna is initially positioned to point at the satellite. Fine positioning to follow satellite movement is accomplished manually with the above-mentioned motor drives and digital voltmeter readout of position potentiometers. Antenna position readouts can be initially calibrated for a given satellite location by peaking the IF AGC meter on the received signal, while adjusting the antenna. Following the satellite can be done by moving the antenna to peak the AGC voltage or by adjusting the antenna position to pre-computed values of antenna position. This antenna has been used for several space system tests by Hughes.

B. Parametric Amplifier

A 35-degree Kelvin, helium-cooled parametric amplifier is expected to be used. This three-stage unit was designed and built by Hughes and has been used for receiving signals from ATS and other satellites. It will be mounted directly behind the antenna feed to reduce losses at its input, thus keeping the system noise temperature at a minimum.

C. Receiver

A tunnel diode amplifier and a down converter comprise the receiver. The tunnel diode amplifier has a gain of 12 dB and a noise figure of about 6 to 7 dB. Down conversion is accomplished by a mixer with a signal generator as a local oscillator. Image response and reduction of out-of-band signals is accomplished by a 25 MHZ bandpass filter on the input of the receiver. A 130 MHZ IF amplifier is utilized, having a gain of about 70 dB.

D. Demodulators

To achieve demodulation of low carrier-to-noise signals, a special wideband threshold extension demodulator designed by Hughes will be utilized. This demodulator is also being used in the Barbados cloud picture experiments, using ATS-3. A threshold extension of 5 dB is expected to be achieved.

IV. IMPLEMENTATION AND OPERATIONS

Since it is expected that much of the required equipment will be in use at the island of Barbados until the end of July, 1969, upon its arrival by airplane in California, the equipment will be checked for possible physical damage and for proper operation. It can then be loaded on an Alaska-bound ship. It is estimated that it can be ready to operate by September, 1969. A go-ahead is needed, however, by about July 1st, so that preparations can be started for the site and so that all arrangements are completed in time for all interfaces.

Interfaces to be defined include:

Power connectors

Power forms

Video and audio levels, impedances and connectors

Building or shelter space available

Site for antenna.

Operations are expected to include several hours of television transmission per day. A three man crew is expected to be required the first month, with a one or two man crew for following months.

V.

From an operational point of view, the system would follow the block diagram of Chart I. The Television Network feeds would be available at the AT&T Test Room in Asheville, North Carolina. From that point to the Rosman Ground Station, we would utilize temporary facilities, also provided by AT&T. The Rosman station would feed the ATS-1 satellite with the programs being received at the Hughes Transportable Ground Station in Anchorage, Alaska. From the ground station to the participating Anchorage stations, temporary microwave links might have to be provided, if the ground station is located beyond the normal run for coaxial cable interconnection.

It is intended that the program material fed to the Anchorage stations would be primarily live News and Sports, as well as some recorded News and Public Affairs items of prime importance. The balance of the programming fed would be determined by the Anchorage stations, based on the Network program availability at the transmission site. The consideration being given here is the affect that the programming available at the transmission site has on the actual air schedule of the programs, as they are normally telecast in Anchorage.

It is hoped that an additional voice channel can be made available from the Control Studio in New York, via the satellite, for guideline or cue purposes. This circuit will be uni-directional from New York to Anchorage. It is not contemplated that a two-way capability will be needed for the purpose of this test.

It is intended that the system provide optimum NTSC color programming to the station. It is recognized that since certain aspects of the system may be marginal, that an optimum color signal may not be obtainable. We hope, however, to deliver no worse than a Grade II signal at the receiving end.

Items To Be Provided By:

NETWORKS

(1) Video and Audio Signal to the Ground Station.

(2) Two-way communication to and between the Ground Stations.

(3) Networks will arrange for delivery of the signal from the Ground Station to Anchorage Affiliates

(4) Assist Hughes in getting the necessary site and building facilities.

HUGHES

(1) The entire Ground Station hardware and all necessary test and monitor equipment, as well as the signals at base band.

(2) Supervise the signal transmissions at Rosman.

(3) Provide power to run the station either Diesel or Commercial

(4) Provide all necessary manpower to set-up, run, maintain and knock-down the ground station.

(5) Preferable start of the test is prior to the Apollo #11 liftoff scheduled for July 16th.

(6) If not item #5, no later than September 1, 1969.

(7) All necessary site survey and preparation.

(8) Provide a second (2nd) ground station in the U.S.A., at a mutuall agreeable site for environmental tests.

NETWORKS

HUGHES

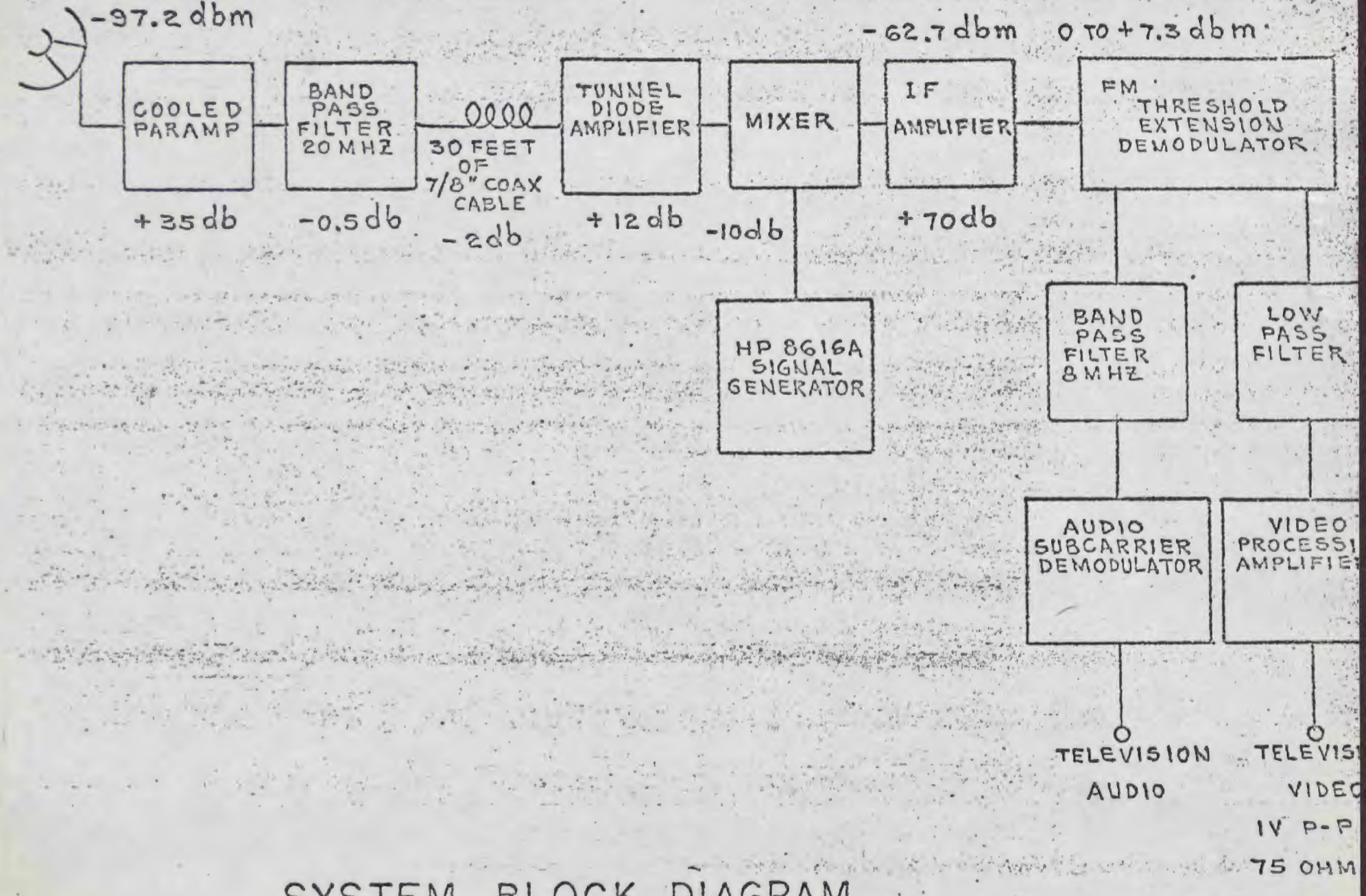
The responsibilities and equipment are the same as those above for the Anchorage station.

(9) The estimated costs are as follow

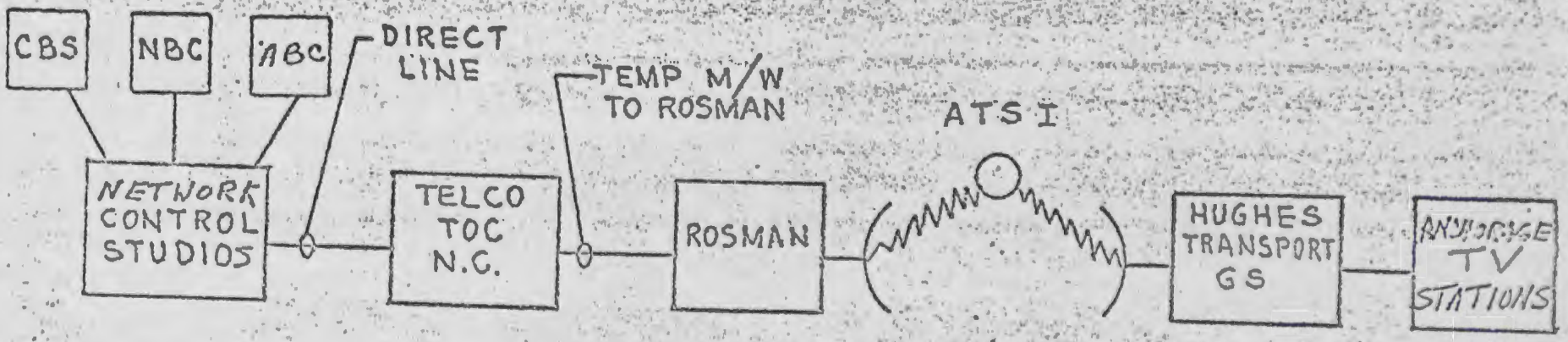
Items 1-7, $50,000 for the first (1st) month, less the cost of space and building rental; $10,000 for each month thereafter.

Item 8, $40,000 for the first (1st) month, less cost of space and building rental; $10,000 for each month thereafter.

(10) Video objectives in terms of specifications are those outlined in the document entitled "Television Initial Line-Up Performance Guide." Audio objectives are 600 ohms balanced audio at +8 dBm, signal to noise ratio 46 dB or better. Harmonic distortion less than 3 percent.



SYSTEM BLOCK DIAGRAM



Note: ETV transmission can also be accommodated.

Thursday 10/30/69

4:45 Dr. Pesner of NASA headquarters called to say you had sent a memo to Mr. Shapley asking for a summery of the status of the program to allow private use of the ATS 1 and 3 satellites for private nongovernmental experimental use. (13) 24540

Their problem is that all the people who would normally respond to this inquiry are away on field trips. Wondered if it would be O.K. to submit it by early next week or mid-week.

5:35 TW said O.K. advised Dr. Posner's secretary.

Received 11/7/69

NASA

October 27, 1969

MEMORANDUM FOR

Mr. Willis Shapley
Associate Deputy Administrator
National Aeronautics and Space Administration

Will you please send me a summary of the status of our program to allow private use of the ATS 1 and 3 satellites for private non-governmental experimental use.

Clay T. Whitehead
Staff Assistant

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

CTWhitehead:jm

NASA

October 23, 1969

MEMORANDUM FOR THE RECORD

Conversation with Lee DuBridge:

(1) The Corporation for Public Broadcasting is intensely interested in getting free channels on the new domestic satellite system. I invited DuBridge to participate in our Public Broadcasting Working Group and he agreed.

(2) We discussed the possibility of setting up a position for Deputy Administrator for Science and Applications in NASA and agreed that this would be a useful thing to do, particularly if it could be done at the same time as George Lowe's appointment as Deputy Administrator is announced. I agreed I would talk to Tom Paine.

(3) I suggested that the High Energy Physics Program be transferred to NSF and that the political winds were right in the Joint Committee. DuBridge agreed that this was well worth considering and would talk to his staff about it.

Clay T. Whitehead
Staff Assistant

cc: Mr. Kriegsman
Mr. Whitehead
Central Files

CTWhitehead:jm/ed

November 13, 1969

To: James Schlesinger

From: Tom Whitehead

FYI, as discussed. Where do we stand on the NASA budget?

Copy of draft outline of President's Message on the Space Program (11/13/69)

Space

11/13/69

DRAFT OUTLINE: President's Message on the Space Program

Here we are: (A) two successful visits to the Moon
(B) one success in two attempts

Where are we going in space?

Four goals: Exploration
Earth applications
Science
Maintain a manned spaceflight capability

Space as both: an investment in the future
an adventure for the present

The manned lunar landing goal was a challenge to the Nation and an adventure for all mankind
But it was also a vehicle for developing a space exploration capability.

We now have that capability -- both manned and unmanned -- must now shift our focus to a continuing program of exploration and application; a continuing process rather than a series of crash timetables.

Based on a careful review of options developed by the Space Task Group, I have decided on the following major program goals and initiatives:

1. Explore the moon
The Apollo manned landings should be continued and paced at a rate of about one per year to maximize scientific return.

2. Explore the planets and the solar system
During the next decade, we will launch scientific spacecraft to observe every planet and to explore the vast space between.

3. Develop a prolonged earth orbit capability for man
A newly designed experimental space station will begin operational missions in the next two to three years.

4. Expand earth applications

Beginning with early development of an Earth Resources Technology Satellite, we will pursue over the next decade a vigorous program to emphasize new applications of space technology.

5. Lower the costs of space launches

Our current rocket technology will provide a reliable launch capability through the next decade. We will continue our research and development to develop even lower costs for launching space payloads in the future.

6. Extend man's capability in space

In the next decade we will begin to develop a larger and longer-lived space station module that will serve both as a near-earth space station and a building block for manned interplanetary travel. We will plan to land men on the planet Mars as a part of this program, perhaps as early as the late 1980's.

7. Expand international cooperation

Space exploration and its benefits here on earth should be a venture for all mankind. We do not seek to exploit space for national purposes, but to share it. Our progress will be faster if all nations work together, both in resources and in results.

This is a far-reaching and comprehensive program to extend our space capability and to put it to work for us here on earth. The resources required will be great, and so will the benefits. We will seek to provide a stable level of expenditures to enable steady progress consistent with other pressing national priorities. In some years, we hope to be able to expand our effort and move some accomplishments nearer in time, but we know that in other years that will not be so.

The important thing is to recognize that man has begun to explore new worlds. The universe lies before us. For the rest of time we will be men from the planet Earth. Let us conduct ourselves accordingly.

October 13, 1969

Dear Mr. Gell-Mann:

Thank you for your letter of October 7th specifying two alternatives for the space program omitted from the Space Task Group report.

I have forwarded your proposals to Peter Flanigan, Assistant to the President, who has responsibility for this matter, for his attention.

Yours sincerely,

John D. Ehrlichman
Counsel to the President

Mr. Murray Gell-Mann
California Institute of Technology
Charles S. Lauritsen Laboratory
of High Energy Physics
Pasadena, California 91109

bcc: Peter Flanigan (with copy of incoming)

Tom - F 41 + keep

CALIFORNIA INSTITUTE OF TECHNOLOGY

CHARLES C. LAURITSEN LABORATORY OF HIGH ENERGY PHYSICS
PASADENA, CALIFORNIA 91109

October 7, 1969

Mr. John Ehrlichman
Counsel to the President
The White House
Washington, D.C.

Dear Mr. Ehrlichman:

I am writing, as you requested, to specify two alternatives for the space program that were omitted from the report of the Space Task Group. It is possible that a detailed memo along these lines is being prepared in OST, but I thought I should write you anyway.

The report listed, as you know, a "maximum pace bound" (MPB), an Option I, an Option II, an Option III, and a "low level bound" (LLB). The funding for each was projected in Fig. 1 on page 19 of the report. If we look at Table 1 on page 20, we discover that, with respect to scientific projects (other than the large orbiting observatory) and applications of the space program, LLB agrees with MPB and with Option I, while the compromise options II and III have much later target dates for most of them!

We could, therefore, consider two more options, called IIa and IIIa for example, which are like II and III except that the funding of these applications and scientific projects is as in Option I (or as in LLB, which comes to the same thing).

The extra cost of such a change (from II to IIa or III to IIIa) would come to a little more than two hundred million dollars per year over the next few years. If it is desired to keep the total NASA budget the same as in II or III, the money can be recouped approximately by stretching out the moon landings from three per year to two per year (which would give more opportunity for asking the right scientific questions between landings) and by stretching out slightly the schedule of the big space station (which would allow more opportunity to learn from the experience in earth orbit under the Apollo Applications Program).

If such an alternative IIa or IIIa is to be adopted, it would be advisable to support it with a policy statement at the Presidential level; otherwise it might be possible for NASA to use the money for

applications and for scientific projects as a contingency fund, cancelling some of these projects whenever extra money is needed for the bigger items in the budget.

I hope this brief note may be of some use to you. It was nice talking with you in Aspen.

Sincerely yours,

Murray Gell-Mann

MGM:jc

Enclosure: Space Task Group Report of September 1969

MEMORANDUM

NASA

THE WHITE HOUSE

WASHINGTON

October 7, 1969

MEMORANDUM TO: Bryce Harlow
John Ehrlichman
Bob Haldeman
Darrell Trent
Harry Flemming
Herb Klein

FROM: Peter M. Flanigan

I had a long discussion with Dr. Paine regarding the hiring of Republicans for NASA. I pointed out that the President recognized the technical requirements for most of the people in NASA. I further pointed out that the President was insistent on having his appointees fill the position of Counsel, Public Affairs, Congressional Liaison and Administration. In addition, he wishes them strongly represented in the leadership of the Agency.

Paine responded by saying that he was most sympathetic with the President's program. He said he had agreed:

1. For General Counsel, to appoint our candidate Beresford. In addition he had appointed a Republican, Harnett, for industry contact. The Assistant Counsel for Procurement is currently being chosen by Beresford.

2. Re Public Affairs, while he felt it would have been a mistake to replace Julian Scheer prior to the Apollo XI shot, he is entirely willing to do so at this time. While Julian Scheer is a Democrat and has held the position for a long time, in justice it should be pointed out that the rumors that he had not been cooperative with the Vice President and the Vice President's staff are false.

3. With regard to Congressional Liaison, Paine is entirely willing to replace Allnut now. If the White House insists he will hire McKenzie and train him hard hoping that McKenzie will be able to take over within between six and twelve months. However, Paine frankly feels that McKenzie does not have the scope for the job.

cf With regard to administration, this function is exercised by the Deputy Administrator for Operations and Management. This is the job Finger had. This job is still open and

Paine would be very happy to receive recommendations. Because of the lack of Republican recommendations with the qualifications to hold the job, he has had before the Flemming office for clearance (but is not pushing) a Democrat by the name of Asher who has been with GE and was Deputy Assistant Secretary of Defense under McNamara. The type of man needed here is one who has had experience either in Bureau of the Budget or Defense Department or in managing a major industrial enterprise.

5. With regard to top management, the position of Deputy is currently open. The White House had recommended a Gordon McDonald for this position. While Paine feels McDonald is intelligent he feels he is a "scitterer" in that he tries to do too many things at one time. He suggests instead a Mr. Low who ran the Apollo program in Houston. Dr. Low is 42, has been with NASA since college, and Paine feels is one of the most competent people in government. He feels that Low can move on in the Administration from this point. Low apparently is non-political having been "latched" most of his life. He also feels that by appointing Low the President protects himself at the time of the inevitable disasters that will occur. Paine is considering offering McDonald a job.

6. In the post of Technology Utilization we have recommended a Mr. Steg. Paine is moving on this recommendation and believes he will act favorably.

The office of Assistant Administrator for Advance Research and Technology is being held open (this is a position Beggs had). Paine is considering reorganization of NASA and wants to have one free spot for this purpose.

I believe Paine is entirely understanding and cooperative. The problem to date has been finding people that he thinks are sufficiently qualified to do the jobs. I am satisfied he will seriously consider anyone we send over, so the monkey is on our back to find the right candidates.

Monday 10/27/69

2149

~~2384~~

3:45 Bobbie Greene in Cole's office was checking to see if a draft statement had been prepared (page 2 of Mr. Flanigan's memo to the Staff Secy.).

Not yet

advised 10/28

Oct. 27, 1969

TO: EVA

FROM: BOBBIE GREENE

As per our conversation.

Bobbie Greene in Cole's office called

October 6 memo

Flanigan sent staff secy. memo which was in answer to a memo from Mayo to President on Task Group Report.

I have asked my staff to draft the essential elements that would be used in the

will send cy.

Space Task Group report.

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

October 6, 1969

TO: THE STAFF SECRETARY

FROM: PETER FLANIGAN

RE: Log 1491

For your information, I am attaching hereto as Exhibit A a letter from Dr. Paine to the President recommending that he support Option 2. As Exhibit B, I am attaching a copy of a letter from Mr. Mayo to me which was sent to me with a copy of his letter to the President. Both these expand on problems set forth in Director Mayo's memorandum to the President of September 25.

I agree with Director Mayo that it would be a mistake for the President to adopt now a fixed set of actions which would have serious budgetary implications over the next year. However, I do not believe that the President can delay until the budget review to respond to the Space Task Group report to him. I believe there is a middle ground which can meet the political requirements of an affirmative response from the President and at the same time meet the fiscal requirements so persuasively stated by Bob Mayo. In this middle ground the President should say that after a review of the Space Task Group's report, he believes that we should plan on a Mars landing in the mid-1980s. (This is essentially Option 2. However, by limiting it to the Mars landing, he does not approve all the other items of Option 2.) The President's statement should go on to say that obviously a program extending over the next 17 years cannot be fixed as of this time; that in moving toward this goal we must recognize that in certain years actions might be taken which temporarily delay certain activities, whereas in other times when budgetary conditions permit we can increase our effort and hopefully advance the date of the Mars landing.

I believe a program developed along these lines will result in retaining the needed fiscal flexibility, yet keeping for the President the enthusiasm generated by the current space program. At the time the President releases this memorandum, he can also direct NASA to prepare a 1971 budget at the "below 4.0B" level referred to in Mayo's memorandum to me of September 25.

I have asked my staff to draft the essential elements that would be used in a statement by the President along the lines suggested above.

Enclosures

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

OFFICE OF THE ADMINISTRATOR

September 19, 1969

The President
The White House
Washington, D. C. 20500

Dear Mr. President:

This letter provides my recommendations for further actions you may wish to take on the report of the Space Task Group.

The report and your initial reaction to it are receiving positive and widespread public support. Representative editorials are enclosed. Particularly noteworthy are the favorable comments of the New York Times and Washington Post, papers which are often critical. This favorable environment suggests the desirability of an appropriate follow-up.

In considering which of the STG Report's three options you may wish to select, other problems currently facing the nation must obviously be taken into account. Option 1, the most vigorous of the proposed programs, clearly offers this nation the greatest opportunities and greatest challenge in the long run. However, it is the most expensive in the near term when resources are most constrained. Option 3, which defers for at least 20 years the challenge of a manned mission to Mars, lacks vigor and fails to seize fully the opportunities available.

My recommendation, therefore, is that you select Option 2, a balanced and challenging program which includes as major objectives the earth-orbiting space station, space shuttle and nuclear stage in the 1970's, leading to a manned mission to Mars in the 1980's. As the nation progresses toward meeting its other needs during the next few years, I would hope that we may be able to reexamine this and move closer to Option 1.

In the near future I believe it would be advantageous for you to make a public statement of your view of the nation's future in space. As I mentioned at our meeting last week, the dedication of the new Lunar Science Institute at Houston might afford an appropriate occasion. We could arrange the dedication for any date convenient to you in the next month.

I would be happy to discuss these matters further with you at any time.

Sincerely yours,

T. O. Paine
Administrator

Enclosures

NEWS MEDIA REACTION TO SPACE TASK GROUP REPORT

The news media reaction to the Space Task Group report has been good. The story broke in two parts. The first followed the briefing for you at the White House and the press reported that both a "crash" program and a "going-out-of-business" program had been rejected by the President. The immediate reaction was favorable. The second wave of reaction, which is still current, followed the press briefing by the Vice President this week.

Today's Washington Post took a reasoned approach and is typical of the kind of reaction we are hearing from individual members of the press and what we can anticipate from editorial comment in the near future. It is interesting that there has been no "selection" by the news media of a favorite option--all seem to be judged as reasonable and rational.

The Post said, "Acceptance by the President of the basic recommendation would eliminate talk of abandoning manned space flight, which would be a foolish course of action, or of proceeding toward Mars in a crash effort to get there as quickly as possible.

"It is difficult for anyone to reach any other conclusion except those who blindly opposed manned space travel or those who, equally blindly, favor giving it the nation's top priority."

The Evening Star said the decision not to engage in a crash program is a "sensible, realistic view."

The New York Times said, "If the President made a commitment to a manned landing on Mars, as his press secretary suggested, it was of a very different character

from the commitment with regard to the moon that President Kennedy made in 1961. Mr. Nixon indulged in no dramatics; he did not appear before Congress; and he set no inflexible timetable to be achieved at almost any cost.....
The extreme options Mr. Nixon is said to have rejected were always unreal. There was never any prospect that this country would abandon manned space flight entirely, or, conversely, that the United States would give a manned flight to Mars first priority over its many pressing domestic problems."

The Washington Post

AN INDEPENDENT NEWSPAPER ★ FRIDAY, SEPTEMBER 19, 1969 PAGE A26

A Spaceman's Sense of Balance

The report of President Nixon's Task Group on Space and, indeed, even the speeches to Congress of the three men who rode in Apollo 11 have brought some rationality back to the discussion of whither the space program. That report recommends that the President commit the nation to a "long-range goal of manned planetary exploration" aimed at a landing on Mars in the early 1980s, the mid-1980s, or the 1990s. Acceptance by the President of the basic recommendation would eliminate talk of abandoning manned space flight, which would be a foolish course of action, or of proceeding toward Mars in a crash effort to get there as quickly as possible.

It is difficult for anyone to reach any other conclusion except those who blindly opposed manned space travel or those who, equally blindly, favor giving it the nation's top priority. Space exploration ought to proceed in an orderly way, maximizing at every step the advance of knowledge and the utilization of it here on earth. In fact, it is not at all clear that the President should set a "goal" of a Mars landing in any particular year.

What is important is for the nation to push ahead on the immediate recommendations of the Task Group—exploring the moon, developing the tools that are needed for systematic exploitation of our space travel capability, and extracting from the space program more benefits for those of us who are earthbound. This means that NASA would continue its moon flights, perhaps reaching the day in the 1970s when semi-permanent colonies would be established on the moon's surface. At the same time, it would push development of a nuclear rocket engine, which would make long-range space travel more feasible, a space vehicle that could be landed on earth and used over and over again, which would reduce the costs of each mission sharply, and a space station to hold a dozen or so men that could be flown in orbit around the earth or the moon or, when the time comes, Mars.

This kind of program would keep NASA operating for a while on about the budget it now has. It would have the advantage of allowing the agency to keep together the remarkable team of scientists and engineers it has created by giving them new and interesting problems to solve. At the same time, it would encourage those in NASA who want to tailor the space program to produce more information directly useful in the solution of earthly problems—surveys of natural resources, weather prediction and control, and so on.

Although parts of the speeches the three astronauts of Apollo 11 delivered to Congress Tuesday were open pleas for money for future space flights, they were carefully balanced by the recognition each man gave to the needs of domestic programs for the funds that might otherwise be spent in space. The words of Neil Armstrong, the first man to walk on the moon, are worth repeating because they catch the spirit of the delicate balance that must be made between the dreams for adventure and the practical realities of life:

> Several weeks ago, I enjoyed the warmth of reflection on the true meaning of the spirit of Apollo. I stood in the highlands of this nation, near the continental divide, introducing to my sons the wonders of nature and pleasures of looking for deer and elk. In their enthusiasm for the view, they frequently stumbled on the rocky trails, but when they looked only to their footing, they did not see the elk.
>
> To those of you have advocated looking high we owe our sincere gratitude, for you have granted us the opportunity to see some of the grandest views of the Creator. To those of you who have been our honest critics, we also thank, for you have reminded us that we dare not forget to watch the trail.

The Evening Star
With Sunday Morning Edition
Published by THE EVENING STAR NEWSPAPER CO., Washington, D. C.
CROSBY N. BOYD, Chairman of the Board
JOHN H. KAUFFMANN, President
NEWBOLD NOYES, Editor

Slow Trip to Mars

Although President Nixon supports an American commitment to land a man on Mars, he has made clear through Press Secretary Ziegler that the undertaking will not involve a high-speed, extra-costly crash program that would ignore "budgetary considerations."

This is a sensible, realistic view. It is in keeping, in fact, with the balanced space program that has been recommended by a special panel of advisers in the report just accepted and endorsed by Mr. Nixon. The panel, headed by Vice President Agnew, includes NASA Administrator Thomas O. Paine, Air Force Secretary Robert C. Seamans and White House Science Adviser Lee E. du Bridge — all well-qualified to offer sound counsel on the subject.

These and other distinguished members of the study group have given the President three options as to the timing of a landing on Mars—in 1983, no sooner than 1986, or around the year 2000. With the President's concurrence, the panel has rejected two alternatives as extreme. One would have the country go all-out—more or less in the manner of the Apollo moon landing — to put an American on Mars in the shortest possible time, regardless of cost. The other, on completion of the Apollo program, would put an end to all manned space projects.

What seems predictable is that when he makes his decision on the timetable for Mars, Mr. Nixon will be governed by what its effects may be not only on other space ventures, but also on down-to-earth human requirements and the amount of money available to meet them. Meanwhile, he has indicated that he fully agrees with the panel's recommendation that the space program, wholly apart from the Apollo landings still to come, should be pressed forward with vigor through the 1970s. The program would include unmanned probes of the Martian surface and a "grand tour" of the environs of the outer planets. Also, strenuous efforts would be made to develop a re-usable shuttle vehicle that would be capable of remaining in orbit, with large crews, for months at a time.

One of the important aspects of such a program is that it would provide for projects numerous enough and significant enough to insure against a grave weakening or withering away of the great and vital complex of scientists, technicians, administrators and technological plants now engaged in space work. It is work full of immense actual and potential value. And it will lead, among other things, to the day when man will almost certainly set foot on Mars and go on from there to explore deeper and deeper in the firmament.

The WASHINGTON DAILY News

A SCRIPPS-HOWARD NEWSPAPER
"Give light and the people will find their own way."

Richard Hollander, Editor
Ray F. Mack, Business Manager

THURSDAY, SEPTEMBER 18, 1969

1013 13th ST. N.W. (20005) DI. 7-7777

In Metropolitan Washington: By carrier, 37c per week; $1.60 per month. By mail: 3 months, $5.25

A cool trip to Mars

THE special space Task Group headed by Vice President Spiro T. Agnew has soundly advised the President to adopt a slow-but-sure approach to a manned landing on Mars.

Their report, submitted yesterday, proposes landing a man on Mars no sooner than the early 1980's, perhaps not before 1986 and possibly not until the 1990's.

Mr. Agnew says he favors the 1986 target date as a reasonable compromise that would muster "broad scientific and political support."

This would mean a National Aeronautics and Space Administration (NASA) budget of around $4 billion for each of the next three fiscal years, rising gradually to a peak of $8 billion in the 1980's.

Thus, the nation would ease into its Mars commitment instead of adopting the expensive race-ahead tactics of the $24 billion Apollo moon program.

But even a cool trip to Mars will cost plenty — and the space scientists hope to get the most for their money.

For instance, the Task Group members — Mr. Agnew, Thomas O. Paine of NASA, Air Force Secretary Robert C. Seamans and Lee A. DuBridge, the President's science adviser — proposed reusable space ships instead of present craft, which shed their multi-million-dollar parts like throw-away beer cans.

And they offered their alternative timetables so that the pace of the Mars project could be tailored to the availability of funds.

In short, the President's advisers are saying it would be a mistake to get out of space — but a mistake to plunge ahead regardless of cost.

They recognize the Mars mission must take its place alongside the other national needs — some of them very pressing indeed.

The economic spin-off benefits of space technology, the challenge of new worlds beyond our own and the potential military significance of space ventures amply justify the kind of Mars program the Task Group proposes.

(11)

Slow Boat to Mars

The Apollo 11 astronauts were low-pressure advocates of the space program in their Congressional appearance yesterday. No one listening to them could doubt that they would like to see Americans walk on Mars as soon as possible. But they made it plain that they knew there are many problems on earth that cannot be ignored. The result was a modest plea for a continuing space program having an appreciable but hardly an overriding priority.

That same reasonable spirit seems to have animated President Nixon's reaction to the report of a study group on space exploration. If the President made a commitment to a manned landing on Mars, as his press secretary suggested, it was of a very different character from the commitment with regard to the moon that President Kennedy made in 1961. Mr. Nixon indulged in no dramatics; he did not appear before Congress; and he set no inflexible timetable to be achieved at almost any cost. About all he seems to have done is to indicate that it would be a good idea to land Americans on Mars well within the next half century and to promise that he'd try to help the project along within the limits of available resources.

The extreme options Mr. Nixon is said to have rejected were always unreal. There was never any prospect that this country would abandon manned space flight entirely, or, conversely, that the United States would give a manned flight to Mars first priority over its many pressing domestic problems.

The intermediate path that will be followed in the years ahead will depend upon the most varied factors from the progress made in curing the ills of the cities to the new challenges in space that the Russians and others are likely to pose. The space age is here to stay, but the precise contours of how far and how fast this nation will go in the decades ahead will have to be determined on a pragmatic basis, almost year by year and Administration by Administration.

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The Space Task Group's recommendation against making an early, hard-and-fast decision on scheduling a manned expedition to Mars was sensibly made and has been sensibly accepted. The project is much too ambitious and will be much too costly to be fitted headlong to a timetable. Mr. Nixon has approved a "balanced" space program which contemplates the possibility of a Martian landing perhaps in the mid or late 1980's, perhaps before the end of the century, perhaps not until sometime after the year 2000.

So far as can be seen now the "balance" is the strongest point of the endeavor to formulate plans for the future space exploration. The task group proposes that in the next decade the United States undertake instrumental tours and probes of the planets (including Mars of course), further manned study of the moon, development of a reusable space shuttle which could serve as a large space laboratory and of a nuclear-powered rocket. Much of this would be essential to an attempt to put men on Mars in any case, and all of it promises to advance knowledge of the solar system.

As for Mars, the eagerness to reach it has to be tempered by a very sober, prudent consideration of all the pressing needs of the country and the earth. It is not something to which we can, or should, commit ourselves and the future in a fit of adventurous and extremely expensive impatience. Fortunately, it seems that scientists and Washington are now wisely agreed on that.

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President Nixon's task force on space offers useful guidance for the American space program over the next decade. A manned orbiting station, a space shuttle, a nuclear-powered rocket, unmanned probes, and satellites for communication, meteorology, and navigation — these set the tone and pace for the postmoon phase.

The United States needs a vigorous space drive. This is a vast, productive, challenging frontier. There must be, of course, a thoughtful sharing of funds with the more urgent and immediate programs here on earth. A proposed $4 billion budget for each of 10 years may be overly ambitious. But even the eventual manned landing on Mars should not be jettisoned.

An orbiting space station would be a gate-opener for further explorations, besides affording essential experience in space living. The space shuttle would, economically, get men to the orbiting station, bring intelligence data back to earth, launch unmanned vehicles. The nuclear rocket would power, someday, the great ship for Mars.

The essential aerospace companies need a continuity if they are to maintain their talent assemblages and financial stability. Someday, the American space program may become a worldwide project, including the Soviets. But as of now it is up to President Nixon to assure that the United States carries on adequately with its well-begun space odyssey.

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

SEP 25 1969

MEMORANDUM FOR MR. FLANIGAN

Subject: Space Task Group Report

This is in response to your September 22 request for my comments on Tom Paine's recommendation to the President that Option II of the Space Task Group report be selected as the announced space program for the future.

My views are set forth in a separate memorandum to the President (copy attached).

Our preliminary analysis of the funding levels set forth in the Space Task Group report leads us to believe that they are underestimated (in addition to the fact that 1969 dollars are used). If this is in fact the case, then if the President chooses Option II he will be faced with even greater annual budget increases for NASA than forecast in the report.

We have attempted to modify the program content of Option II, maintaining the goal of a manned Mars expedition in 1986. By reducing the Lunar Exploration program to two flights a year, by eliminating the manned activities not directly related to the Mars mission (i.e., Space Bases and Lunar Surface Bases), and by developing the space transportation system and the space station in series rather than in parallel, we estimate that the 1971-1973 annual budgets for NASA can be kept below $4.0 B. By 1980, however, a budget approaching $7.0 B can be anticipated.

These estimates are below those shown for Option II in the Space Task Group report and admittedly are not precise. However, it is my belief that in order for this Administration to make a credible start to meet the goals and objectives set forth in any of the options, we cannot go much below these funding levels. That is why I am against endorsement of any option until after the 1971 budget review process.

The Bureau of the Budget needs the opportunity to conduct a full scale analysis and review of the documentation supporting the estimates in the report.

Should the President feel that announcement of a decision is required now, I would recommend that he specifically avoid endorsing any option defined in the report. These options were composed of illustrative programs and gross estimates of ultimate costs. If he endorses the manned Mars goal, I would hope that the timing would be left at "sometime in this century" until much more review of the requirements for meeting that goal can be completed. We are prepared to supply you with a list of the programmatic and fiscal constraints which should be communicated to NASA along with the final decision made by the President.

Robert P. Mayo
Director

Attachment

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

October 6, 1969

TO: TOM WHITEHEAD

FROM: PETER FLANIGAN

After reviewing all the attached memoranda, will you please draft a statement that the President might use, picking Option 2 but providing his flexibility along the lines suggested in my memorandum of October 4.

Enclosures

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

October 6, 1969

TO: THE STAFF SECRETARY

FROM: PETER FLANIGAN

RE: Log 1491

For your information, I am attaching hereto as Exhibit A a letter from Dr. Paine to the President recommending that he support Option 2. As Exhibit B, I am attaching a copy of a letter from Mr. Mayo to me which was sent to me with a copy of his letter to the President. Both these expand on problems set forth in Director Mayo's memorandum to the President of September 25.

I agree with Director Mayo that it would be a mistake for the President to adopt now a fixed set of actions which would have serious budgetary implications over the next year. However, I do not believe that the President can delay until the budget review to respond to the Space Task Group letter to him. I believe there is a middle ground which can meet the political requirements of an affirmative response from the President and at the same time meet the fiscal requirements so persuasively stated by Bob Mayo. In this middle ground the President should say that after a review of the Space Task Group's report, he believes that we should plan on a Mars landing in the mid-1980s. (This is essentially Option 2. However, by limiting it to the Mars landing, he does not approve all the other items of Option 2.) The President's statement should go on to say that obviously a program extending over the next 17 years cannot be fixed as of this time; that in moving toward this goal we must recognize that in certain years actions might be taken which temporarily delay certain activities, whereas in other times when budgetary conditions permit we can increase our effort and hopefully advance the date of the Mars landing.

I believe a program developed along these lines will result in retaining the needed fiscal flexibility, yet keeping for the President the enthusiasm generated by the current space program. At the time the President releases this memorandum, he can also direct NASA to prepare a 1971 budget at the "below 4.0B" level referred to in Mayo's memorandum to me of September 25.

I have asked my staff to draft the essential elements that would be used in a statement by the President along the lines suggested above.

Enclosures

☆ U. S. GOVERNMENT PRINTING OFFICE: 1969—339-156

THE WHITE HOUSE

ACTION MEMORANDUM WASHINGTON LOG NO.: 1491

Date: September 30, 1969 Time: 10:48 A.M.

FOR ACTION: J. Ehrlichman
H. Kissinger
L. DuBridge
B. Harlow
P. Flanigan
FROM THE STAFF SECRETARY

cc (for information): R. Mayo

DUE: Date: Monday, October 6, 1969 Time: 2:00 P.M.

SUBJECT:

Dr. Mayo memorandum on Space Task Group Report

ACTION REQUESTED:

____ For Necessary Action
____ Prepare Agenda and Brief
____ For Your Comments
__X__ For Your Recommendations
____ Draft Reply
____ Draft Remarks

REMARKS:

Please review Dr. Mayo's memorandum and submit your recommendations to the Staff Secretary

PLEASE ADVISE STAFF SECRETARY IMMEDIATELY

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

SEP 2 5 1969

MEMORANDUM FOR THE PRESIDENT

Subject: Space Task Group Report

This memorandum presents a summary of my views on the Space Task Group Report and my recommendations as to the next steps in the decision process. I was an observer on the Space Task Group and, as such, participated in its discussions on the future of the space program, reserving the right to present to you my independent judgment as your Budget Director.

The report sets forth an excellent catalog of technical possibilities for the future. However, standing by itself, it has several shortcomings. In my view, these shortcomings impair its completeness as a vehicle for your final decision.

1. The report does not clearly differentiate between the values of the manned space flight program versus a much less costly unmanned program with its greater emphasis on scientific achievement and potential economic returns.

2. The Space Task Group could not, nor did it try to, assess the relative standing of the space program in our full range of national priorities. In order to do this, you might wish to have the report reviewed by the Cabinet--and perhaps the Security Council as well.

3. The Group could not address the future economic context within which the recommended space expenditure increases would have to be considered.

4. The report is written in such a way that your endorsement of any of the recommended program options implies endorsement of major new long-term development projects, which are included in all three of the program options. Therefore, in a practical sense, the report gives you little flexibility except as to timing (and therefore annual costs). The impact of this is only slightly softened by the assertion that the rate of progress toward the goals would be subject to annual budget decision. This reservation has very practical limits. All the defined options involve significant budget increases over current levels.

5. The Bureau of the Budget has not had the opportunity to review in detail the estimates set forth on page 22 of the report, but they vary sufficiently from other estimates which have been used recently so that we believe they are significantly underestimated. Furthermore, these figures are presented in terms of 1969 dollars and are therefore further underestimated by reason of the inflation that has already taken place.

Of course, there is no reflection of price increases that are almost certain to come in the years ahead.

The other decision factors that most concern me are related specifically to the 1971 budget, now under preparation, and to the budgets that you will be preparing during the remainder of your first term.

The 1971 problem is severe because of:

1. The inflation we are still trying to bring under control.

2. The need to assume continuation of the Vietnam conflict for budget preparation purposes.

3. The commitments we have already made in such areas as domestic welfare, manpower training, social security benefits, revenue sharing, airports/airways, mass transit, and supersonic transport development among others. Every one of these commitments requires outlay increases in 1971.

4. Uncontrollable items such as interest on the national debt.

5. Revenue losses associated with the tax bill--even with proposed Treasury amendments.

In light of these circumstances, I gave NASA an official budget planning target of $3.5 billion for 1971. ($350 million below 1970). This target was based on the assumption that after the manned lunar landing, some reduction in NASA's current budget levels could be made to ease our overall budget problem, without stopping the manned space program. All three options set forth in the report require 1971 budgets of at least $100 million plus price increases above the current NASA funding levels and further increases in following years. These increases will have to come from programs of other agencies.

Because the Space Task Group report has now been published, your endorsement now of any specific option will commit us to annual budget increases of at least the magnitudes specified in the report. Therefore, you could lose effective fiscal control of the program.

I am convinced that a forward-looking manned space program can be developed for you that does not involve commitments to significant near-term budget increases.

Such a program would involve a slower rate of manned Apollo flights than NASA now considers desirable. It would also involve consecutive rather than simultaneous development of a space transportation system and space station, which are necessary steps toward a manned Mars mission. I intend to explore such a program in some detail with Dr. Paine during the FY 1971 budget decision process. Such a program could be accelerated in the future if conditions permit.

I believe this course would be preferable to announcing ambitious long-range plans now and then having to cut back in the future due to economic constraints.

In this circumstance, I recommend:

1. That you withhold announcement of your space program decision until after you have reviewed the report recommendations specifically in the context of the total 1971 budget problem.

2. That you ask the Cabinet and perhaps the NSC to consider the Space Task Group report during October or November and advise you of their views on its recommendations, so that you will have those views in mind during your budget decisions.

3. That you consider meeting with Tom Paine and me after I have had an opportunity to discuss with him the lower cost program option I have described above. Your meeting could be planned for December, and could serve as the final step in your decision process on the NASA 1971 budget. At that time, it is essential that you specify program content as well as budget guidance in order to help maintain effective fiscal control of the program.

4. That your space program decisions be announced in the State of the Union address, the budget message, or a special message to the Congress in the spring of 1970.

Robert E Mayo

Robert P. Mayo
Director

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

OFFICE OF THE ADMINISTRATOR

September 19, 1969

The President
The White House
Washington, D. C. 20500

Dear Mr. President:

This letter provides my recommendations for further actions you may wish to take on the report of the Space Task Group.

The report and your initial reaction to it are receiving positive and widespread public support. Representative editorials are enclosed. Particularly noteworthy are the favorable comments of the New York Times and Washington Post, papers which are often critical. This favorable environment suggests the desirability of an appropriate follow-up.

In considering which of the STG Report's three options you may wish to select, other problems currently facing the nation must obviously be taken into account. Option 1, the most vigorous of the proposed programs, clearly offers this nation the greatest opportunities and greatest challenge in the long run. However, it is the most expensive in the near term when resources are most constrained. Option 3, which defers for at least 20 years the challenge of a manned mission to Mars, lacks vigor and fails to seize fully the opportunities available.

My recommendation, therefore, is that you select Option 2, a balanced and challenging program which includes as major objectives the earth-orbiting space station, space shuttle and nuclear stage in the 1970's, leading to a manned mission to Mars in the 1980's. As the nation progresses toward meeting its other needs during the next few years, I would hope that we may be able to reexamine this and move closer to Option 1.

In the near future I believe it would be advantageous for you to make a public statement of your view of the nation's future in space. As I mentioned at our meeting last week, the dedication of the new Lunar Science Institute at Houston might afford an appropriate occasion. We could arrange the dedication for any date convenient to you in the next month.

I would be happy to discuss these matters further with you at any time.

Sincerely yours,

T. O. Paine
Administrator

Enclosures

Exhibit A

NEWS MEDIA REACTION TO SPACE TASK GROUP REPORT

The news media reaction to the Space Task Group report has been good. The story broke in two parts. The first followed the briefing for you at the White House and the press reported that both a "crash" program and a "going-out-of-business" program had been rejected by the President. The immediate reaction was favorable. The second wave of reaction, which is still current, followed the press briefing by the Vice President this week.

Today's Washington Post took a reasoned approach and is typical of the kind of reaction we are hearing from individual members of the press and what we can anticipate from editorial comment in the near future. It is interesting that there has been no "selection" by the news media of a favorite option--all seem to be judged as reasonable and rational.

The Post said, "Acceptance by the President of the basic recommendation would eliminate talk of abandoning manned space flight, which would be a foolish course of action, or of proceeding toward Mars in a crash effort to get there as quickly as possible.

"It is difficult for anyone to reach any other conclusion except those who blindly opposed manned space travel or those who, equally blindly, favor giving it the nation's top priority."

The Evening Star said the decision not to engage in a crash program is a "sensible, realistic view."

The New York Times said, "If the President made a commitment to a manned landing on Mars, as his press secretary suggested, it was of a very different character

from the commitment with regard to the moon that President Kennedy made in 1961. Mr. Nixon indulged in no dramatics; he did not appear before Congress; and he set no inflexible timetable to be achieved at almost any cost.....
The extreme options Mr. Nixon is said to have rejected were always unreal. There was never any prospect that this country would abandon manned space flight entirely, or, conversely, that the United States would give a manned flight to Mars first priority over its many pressing domestic problems."

The Washington Post

AN INDEPENDENT NEWSPAPER ★ FRIDAY, SEPTEMBER 19, 1969 PAGE A26

A Spaceman's Sense of Balance

The report of President Nixon's Task Group on Space and, indeed, even the speeches to Congress of the three men who rode in Apollo 11 have brought some rationality back to the discussion of whither the space program. That report recommends that the President commit the nation to a "long-range goal of manned planetary exploration" aimed at a landing on Mars in the early 1980s, the mid-1980s, or the 1990s. Acceptance by the President of the basic recommendation would eliminate talk of abandoning manned space flight, which would be a foolish course of action, or of proceeding toward Mars in a crash effort to get there as quickly as possible.

It is difficult for anyone to reach any other conclusion except those who blindly opposed manned space travel or those who, equally blindly, favor giving it the nation's top priority. Space exploration ought to proceed in an orderly way, maximizing at every step the advance of knowledge and the utilization of it here on earth. In fact, it is not at all clear that the President should set a "goal" of a Mars landing in any particular year.

What is important is for the nation to push ahead on the immediate recommendations of the Task Group—exploring the moon, developing the tools that are needed for systematic exploitation of our space travel capability, and extracting from the space program more benefits for those of us who are earthbound. This means that NASA would continue its moon flights, perhaps reaching the day in the 1970s when semi-permanent colonies would be established on the moon's surface. At the same time, it would push development of a nuclear rocket engine, which would make long-range space travel more feasible, a space vehicle that could be landed on earth and used over and over again, which would reduce the costs of each mission sharply, and a space station to hold a dozen or so men that could be flown in orbit around the earth or the moon or, when the time comes, Mars.

This kind of program would keep NASA operating for a while on about the budget it now has. It would have the advantage of allowing the agency to keep together the remarkable team of scientists and engineers it has created by giving them new and interesting problems to solve. At the same time, it would encourage those in NASA who want to tailor the space program to produce more information directly useful in the solution of earthly problems—surveys of natural resources, weather prediction and control, and so on.

Although parts of the speeches the three astronauts of Apollo 11 delivered to Congress Tuesday were open pleas for money for future space flights, they were carefully balanced by the recognition each man gave to the needs of domestic programs for the funds that might otherwise be spent in space. The words of Neil Armstrong, the first man to walk on the moon, are worth repeating because they catch the spirit of the delicate balance that must be made between the dreams for adventure and the practical realities of life:

> Several weeks ago, I enjoyed the warmth of reflection on the true meaning of the spirit of Apollo. I stood in the highlands of this nation, near the continental divide, introducing to my sons the wonders of nature and pleasures of looking for deer and elk. In their enthusiasm for the view, they frequently stumbled on the rocky trails, but when they looked only to their footing, they did not see the elk.
>
> To those of you have advocated looking high we owe our sincere gratitude, for you have granted us the opportunity to see some of the grandest views of the Creator. To those of you who have been our honest critics, we also thank, for you have reminded us that we dare not forget to watch the trail.

The Evening Star
With Sunday Morning Edition
Published by THE EVENING STAR NEWSPAPER CO., Washington, D. C.
CROSBY N. BOYD, Chairman of the Board
JOHN H. KAUFFMANN, President NEWBOLD NOYES, Editor

Slow Trip to Mars

Although President Nixon supports an American commitment to land a man on Mars, he has made clear through Press Secretary Ziegler that the undertaking will not involve a high-speed, extra-costly crash program that would ignore "budgetary considerations."

This is a sensible, realistic view. It is in keeping, in fact, with the balanced space program that has been recommended by a special panel of advisers in the report just accepted and endorsed by Mr. Nixon. The panel, headed by Vice President Agnew, includes NASA Administrator Thomas O. Paine, Air Force Secretary Robert C. Seamans and White House Science Adviser Lee E. du Bridge — all well-qualified to offer sound counsel on the subject.

These and other distinguished members of the study group have given the President three options as to the timing of a landing on Mars—in 1983, no sooner than 1986, or around the year 2000. With the President's concurrence, the panel has rejected two alternatives as extreme. One would have the country go all-out—more or less in the manner of the Apollo moon landing — to put an American on Mars in the shortest possible time, regardless of cost. The other, on completion of the Apollo program, would put an end to all manned space projects.

What seems predictable is that when he makes his decision on the timetable for Mars, Mr. Nixon will be governed by what its effects may be not only on other space ventures, but also on down-to-earth human requirements and the amount of money available to meet them. Meanwhile, he has indicated that he fully agrees with the panel's recommendation that the space program, wholly apart from the Apollo landings still to come, should be pressed forward with vigor through the 1970s. The program would include unmanned probes of the Martian surface and a "grand tour" of the environs of the outer planets. Also, strenuous efforts would be made to develop a re-usable shuttle vehicle that would be capable of remaining in orbit, with large crews, for months at a time.

One of the important aspects of such a program is that it would provide for projects numerous enough and significant enough to insure against a grave weakening or withering away of the great and vital complex of scientists, technicians, administrators and technological plants now engaged in space work. It is work full of immense actual and potential value. And it will lead, among other things, to the day when man will almost certainly set foot on Mars and go on from there to explore deeper and deeper in the firmament.

The Washington Daily News

A SCRIPPS HOWARD NEWSPAPER
"Give light and the people will find their own way."

Richard Hollander, Editor
Ray F. Mack, Business Manager

THURSDAY, SEPTEMBER 18, 1969

1013 13th ST. N.W. (20005) DI. 7-7777

In Metropolitan Washington: By carrier, 37c per week; $1.60 per month. By mail: 3 months, $5.25

A cool trip to Mars

THE special space Task Group headed by Vice President Spiro T. Agnew has soundly advised the President to adopt a slow-but-sure approach to a manned landing on Mars.

Their report, submitted yesterday, proposes landing a man on Mars no sooner than the early 1980's, perhaps not before 1986 and possibly not until the 1990's.

Mr. Agnew says he favors the 1986 target date as a reasonable compromise that would muster "broad scientific and political support."

This would mean a National Aeronautics and Space Administration (NASA) budget of around $4 billion for each of the next three fiscal years, rising gradually to a peak of $8 billion in the 1980's.

Thus, the nation would ease into its Mars commitment instead of adopting the expensive race-ahead tactics of the $24 billion Apollo moon program.

But even a cool trip to Mars will cost plenty — and the space scientists hope to get the most for their money.

For instance, the Task Group members — Mr. Agnew, Thomas O. Paine of NASA, Air Force Secretary Robert C. Seamans and Lee A. DuBridge, the President's science adviser — proposed reusable space ships instead of present craft, which shed their multi-million-dollar parts like throw-away beer cans.

And they offered their alternative timetables so that the pace of the Mars project could be tailored to the availability of funds.

In short, the President's advisers are saying it would be a mistake to get out of space — but a mistake to plunge ahead regardless of cost.

They recognize the Mars mission must take its place alongside the other national needs — some of them very pressing indeed.

The economic spin-off benefits of space technology, the challenge of new worlds beyond our own and the potential military significance of space ventures amply justify the kind of Mars program the Task Group proposes.

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That same reasonable spirit seems to have animated President Nixon's reaction to the report of a study group on space exploration. If the President made a commitment to a manned landing on Mars, as his press secretary suggested, it was of a very different character from the commitment with regard to the moon that President Kennedy made in 1961. Mr. Nixon indulged in no dramatics; he did not appear before Congress; and he set no inflexible timetable to be achieved at almost any cost. About all he seems to have done is to indicate that it would be a good idea to land Americans on Mars well within the next half century and to promise that he'd try to help the project along within the limits of available resources.

The extreme options Mr. Nixon is said to have rejected were always unreal. There was never any prospect that this country would abandon manned space flight entirely, or, conversely, that the United States would give a manned flight to Mars first priority over its many pressing domestic problems.

The intermediate path that will be followed in the years ahead will depend upon the most varied factors from the progress made in curing the ills of the cities to the new challenges in space that the Russians and others are likely to pose. The space age is here to stay, but the precise contours of how far and how fast this nation will go in the decades ahead will have to be determined on a pragmatic basis, almost year by year and Administration by Administration.

THE SUN, BALTIMORE, WEDNESDAY MORNING, SEPTEMBER 17, 1969

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So far as can be seen now the "balance" is the strongest point of the endeavor to formulate plans for the future space exploration. The task group proposes that in the next decade the United States undertake instrumental tours and probes of the planets (including Mars of course), further manned study of the moon, development of a reusable space shuttle which could serve as a large space laboratory and of a nuclear-powered rocket. Much of this would be essential to an attempt to put men on Mars in any case, and all of it promises to advance knowledge of the solar system.

As for Mars, the eagerness to reach it has to be tempered by a very sober, prudent consideration of all the pressing needs of the country and the earth. It is not something to which we can, or should, commit ourselves and the future in a fit of adventurous and extremely expensive impatience. Fortunately, it seems that scientists and Washington are now wisely agreed on that.

THE CHRISTIAN SCIENCE MONITOR Wednesday, September 17, 1969

Pace for space

President Nixon's task force on space offers useful guidance for the American space program over the next decade. A manned orbiting station, a space shuttle, a nuclear-powered rocket, unmanned probes, and satellites for communication, meteorology, and navigation — these set the tone and pace for the postmoon phase.

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The essential aerospace companies need a continuity if they are to maintain their talent assemblages and financial stability. Someday, the American space program may become a worldwide project, including the Soviets. But as of now it is up to President Nixon to assure that the United States carries on adequately with its well-begun space odyssey.

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

SEP 2 5 1969

MEMORANDUM FOR MR. FLANIGAN

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My views are set forth in a separate memorandum to the President (copy attached).

Our preliminary analysis of the funding levels set forth in the Space Task Group report leads us to believe that they are underestimated (in addition to the fact that 1969 dollars are used). If this is in fact the case, then if the President chooses Option II he will be faced with even greater annual budget increases for NASA than forecast in the report.

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Exhibit B

The Bureau of the Budget needs the opportunity to conduct a full scale analysis and review of the documentation supporting the estimates in the report.

Should the President feel that announcement of a decision is required now, I would recommend that he specifically avoid endorsing any option defined in the report. These options were composed of illustrative programs and gross estimates of ultimate costs. If he endorses the manned Mars goal, I would hope that the timing would be left at "sometime in this century" until much more review of the requirements for meeting that goal can be completed. We are prepared to supply you with a list of the programmatic and fiscal constraints which should be communicated to NASA along with the final decision made by the President.

Robert P. Mayo
Director

Attachment

THE WHITE HOUSE
WASHINGTON
10/8/69

EVA:

Here is a copy of
Mr. Flanigan's reply
to the Staff Secretary
re Mayo's memo.

Be sweet.

Marie

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

October 6, 1969

TO: THE STAFF SECRETARY

FROM: PETER FLANIGAN PMF

RE: Log 1491

For your information, I am attaching hereto as Exhibit A a letter from Dr. Paine to the President recommending that he support Option 2. As Exhibit B, I am attaching a copy of a letter from Mr. Mayo to me which was sent to me with a copy of his letter to the President. Both these expand on problems set forth in Director Mayo's memorandum to the President of September 25.

I agree with Director Mayo that it would be a mistake for the President to adopt now a fixed set of actions which would have serious budgetary implications over the next year. However, I do not believe that the President can delay until the budget review to respond to the Space Task Group Report to him. I believe there is a middle ground which can meet the political requirements of an affirmative response from the President and at the same time meet the fiscal requirements so persuasively stated by Bob Mayo. In this middle ground the President should say that after a review of the Space Task Group's report, he believes that we should plan on a Mars landing in the mid-1980s. (This is essentially Option 2. However, by limiting it to the Mars landing, he does not approve all the other items of Option 2.) The President's statement should go on to say that obviously a program extending over the next 17 years cannot be fixed as of this time; that in moving toward this goal we must recognize that in certain years actions might be taken which temporarily delay certain activities, whereas in other times when budgetary conditions permit we can increase our effort and hopefully advance the date of the Mars landing.

I believe a program developed along these lines will result in retaining the needed fiscal flexibility, yet keeping for the President the enthusiasm generated by the current space program. At the time the President releases this memorandum, he can also direct NASA to prepare a 1971 budget at the "below 4.0B" level referred to in Mayo's memorandum to me of September 25.

I have asked my staff to draft the essential elements that would be used in a statement by the President along the lines suggested above.

Enclosures

NASA

October 3, 1969

MEMORANDUM FOR BOBBIE GREENE

I prefer the OST version of the proposed Presidential letter of transmittal for NASA's Twentieth Semiannual Report. I further suggest a slight rewording as indicated on the attached copy.

Peter Flanigan
Assistant to the President

Attachment

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

CTWhitehead:ed

Hogel- make copy + put in response file Done

THE WHITE HOUSE
WASHINGTON

Date 10/2

TO: Tom Whitehead

FROM: Peter Flanigan

FYI _____

Draft reply ✓

Please Handle _____

File _____

Other remarks

tape

THE WHITE HOUSE

WASHINGTON

September 30, 1969

MEMORANDUM FOR

MR. FLANIGAN

SUBJECT: Transmittal of NASA's Twentieth Semiannual Report to Congress

Mr. Heffner of OST has submitted a proposed Presidential letter of transmittal (Tab A) which differs from the transmittal letter drafted by NASA (Tab B). Would you please review the Heffner letter for any substantive changes from the NASA draft which its language may infer and let us know which version you prefer.

Thank you.

Bobbie

Bobbie Greene

Attachments

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY
WASHINGTON, D.C. 20506

September 26, 1969

MEMORANDUM FOR

Kenneth Cole
Staff Secretary
The White House

SUBJECT: NASA's Twentieth Semiannual Report

Attached is a proposed revision to the President's transmittal letter for subject report. Although great attention has accompanied the manned flight program, it would be desirable if the broad range of applications and science programs were explicitly recognized in the President's statement.

There are a number of uncorrected typographical errors in the index. Further careful editing of the report appears to be required.

The report provides a balanced accounting of space activities during the period in question and I recommend it be transmitted to the Congress.

Hubert Heffner
Acting Director

Attachment

A

DRAFT:
September 25, 1969

TO THE CONGRESS OF THE UNITED STATES:

I am transmitting herewith the Twentieth Semiannual Report of the National Aeronautics and Space Administration, covering the period July 1 through December 31, 1968.

This account encompasses the tenth anniversary of the National Aeronautics and Space Administration and includes space flight activities through the pioneering flight of Apollo 8. During this decade, we have successfully met many challenges and have achieved significant progress in our ability to utilize space for practical applications, scientific exploration, ~~science~~ and expansion of ~~the~~ frontiers ~~for~~ man's ~~presence.~~

We have subsequently landed astronauts upon the Moon, explored its surface, and returned these men to Earth. This historic event was made possible because of the solid foundation of a broad range of earlier activities, and through the skill and dedication of the many contributors to our space program.

I am pleased to forward this report to the Congress as part of the continuing record of our progress in space.

B

D R A F T
9/12/69

TO THE CONGRESS OF THE UNITED STATES:

I am transmitting herewith the Twentieth Semiannual Report of the National Aeronautics and Space Administration, covering the period July 1 through December 31, 1968.

This account carries the activities of the space program through Apollo 8--the first manned flight around the Moon. Since that event, of course, Apollo astronauts have landed on the Moon, explored its surface, and returned to Earth. However, I believe that the feeling of intense satisfaction and involvement experienced by the Nation during the pioneering Apollo 8 mission remains with us and has been renewed with the succeeding flights, for each in its turn has been unprecedented.

It is a great pleasure for me to forward this report for the attention of the Congress.

/s/ Richard M. Nixon

THE WHITE HOUSE
/date/

MEMORANDUM

NASA

THE WHITE HOUSE

WASHINGTON

October 1, 1969

FOR Peter Flanigan

FROM Tom Whitehead

I understand from Will you wanted a memorandum on the NASA personnel and organization question as soon as possible.

As you know, Will and I have been working with OST, Harry Flemming's shop, and Darrell Trent to encourage Dr. Paine to bring some Administration-oriented executives into the senior NASA staff. Our efforts in this regard are, it appears, being actively resisted by Paine and others in NASA. This memo is to summarize the situation for you and to suggest a possible course of action.

By way of background, George Bell has been working with NASA for some months in his efforts to fill the key vacancies at NASA. The response from NASA has been negligible, as may be seen from the attached memos from Paine, dated May 5, 1969 and August 26, 1969. To date, only the General Counsel position has been filled as a result of our efforts.

On September 18, 1969, Will met with Willis Shapley, the Associate Deputy Administrator (for Administration) to find out what the current status was. He learned at that meeting that Paine is now personally reorganizing the top echelons of the NASA staff. Shapley stated that Paine is approaching this problem by identifying the key people he wants on his senior staff and then organizing around their individual capabilities. Thus, Shapley could not provide a proposed organization chart or a current definition of the new jobs in NASA. Shapley said that he would send us material describing the types of individuals they would presumably need in the agency. We have not received anything to date. The result of this approach could well be that Paine will fill all the key jobs from within the organization before the White House is even aware of the details of the reorganization. You are, of course, aware of his selection of George Low to be his deputy. Our candidate for this job, Dr. Gordon MacDonald, is being considered for a position two levels below the deputy level.

WEK/nck

Copies to: Dr. Whitehead
Mr. Trent
Mr. Kriegsman
Central Files

We have also checked with OST and BOB staffs to find out whether they are aware of the reorganization. Neither group has any specific knowledge, outside of rumors that is, of any major reorganization.

We believe it essential that we bring new talent into NASA in the top positions, that we have the opportunity to assess any organizational changes before they are firmly set, and that some of the new senior people should be strongly oriented with the Administration rather than with the NASA bureaucracy. However, Paine is clearly entitled to some time to sort his thoughts out internally, before involving us. (Of course, he has had several months already.)

I suggest that I call Willis Shapley in; inform him of our interest and concern; and ask that Paine get in touch as soon as possible (say within two weeks) to discuss the whole personnel-organization issue. I believe this is preferable to calling Paine in abruptly.

Clay T. Whitehead
Staff Assistant

NASA file

To: Mr Bell NASA Gen
Action:
Return To: File

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

Info To:

OFFICE OF THE ADMINISTRATOR

AUG 26 1969 Flemming 8/26/69

Honorable Harry S. Flemming
Special Assistant to the President
The White House
Washington, D. C. 20500

Dear Mr. Flemming:

At the suggestion of George Bell, here is a summary of the status of senior NASA positions discussed in my letter to you of May 5, 1969.

Presidential Appointment:

Deputy Administrator -- I am still searching for the rare combination of a top-flight university scientist in a space-related field willing to come to Washington for several years whose views would be politically acceptable. No candidate satisfactory on all counts has yet been suggested. The two men closest to filling the bill who might accept if asked are Dr. Gordon C. F. MacDonald, now Vice Chancellor of the University of California at Santa Barbara, and Dr. Leo Goldberg, Director of the Harvard College Observatory. Either would be acceptable to Dr. DuBridge. Comments on the suitability of these men from your point of view would be welcomed.

Schedule C Appointments:

1. General Counsel -- As you know, we are waiting final word from you before proceeding to bring Mr. Spencer M. Beresford on board the first week in September. At that time Paul Dembling, the present General Counsel, is transferring to the position of Deputy Associate Administrator.

2. Associate Administrator for Advanced Research and Technology -- No outstanding and available candidate from outside NASA has been found or suggested equal to those within NASA who have distinguished themselves in connection with the Apollo program (such as Dr. Robert Gilruth) so we plan to fill this position by promotion from within. Before making a final selection, I am working on a number of organizational changes aimed at providing a better focus for our work in aeronautics and tying our work in space technology closer to the major future projects recommended in the forthcoming report of the Space Task Group.

Non-Schedule C Career Excepted Positions:

1. Associate Administrator for Organization and Management -- The scope and title of this position may also change in the forthcoming reorganization. As Mr. Bell has been advised, I am considering Dr. Harold Asher of General Electric for this position. Mr. Fred H. Mansbridge was recommended by Senator Mundt, Senator Curtis, and others, but he lacks adequate experience and qualifications to be the top administrative officer of such a large and complex organization. As indicated below, we have also been considering him for the vacancy in the Office of Legislative Affairs.

2. Assistant Administrator for Industry Affairs -- I have narrowed down the field for this position to two candidates:

-- The leading man is Mr. Daniel J. Harnett, presently Director of Contracts, Pricing, and Programs of the Northrop Corporation in California. He has had the level of experience we are looking for, and his experience with the Logistics Management Institute gives him a sound background in Government-industry relationships from both the Government and industry points of view. He is a political independent who has the endorsement of Senator Murphy and Governor Reagan.

-- The other candidate is Mr. Howard P. Mason, now Vice-President, Western Region, of Aerojet General Corporation. He has a good record of industry experience relevant to NASA's operations and did an outstanding industry-Government relations job as Head of Aerojet's Washington Operations Office for several years. We first interviewed him sometime ago on the basis of an industry recommendation; his name was subsequently referred to us by your office. We understand that Congressmen Alphonzo Bell and Glenard Lipscomb endorse him, and that he is a registered Republican.

I expect to be able to advise you of the selection later this week.

3. Assistant Administrator for Technology Utilization -- The scope and nature of this position may also be altered as a result of reorganization. We had hoped to find a suitable person for this job among the candidates for the industry affairs position, but these--including the top two contenders discussed above--do not seem to have the depth of substantive understanding of technology and the dissemination of technical information needed to provide leadership in the technology utilization field. If I can find, within or outside NASA, a technical man with these qualifications and a good understanding of how technology can help in major national problems, I may decide to place him in charge of a broader new office dealing with economic and social applications, within which an individual with an industry-oriented background could serve effectively as Director of Technology Utilization.

One of the candidates for the position of Assistant Administrator for Technology Utilization was Dr. Charles C. Mack, presently with Philco-Ford, who was referred to us by your office. When interviewed, he first felt that the Technology Utilization position was not what he was interested in and that he preferred to be considered for the job of Associate Administrator for Advanced Research and Technology. When subsequently advised that his experience would not qualify him for that position, he shifted his interest back to Technology Utilization. He has some qualifications and experience as a technical man, but lacks the breadth and leadership qualities to work with industry and public groups in advancing the application of the broad range of technology emerging from the space program. His industry references indicate that he is not very good at supervising large groups of people. We have concluded, therefore, that he is not the man for the Technology Utilization job and will advise him of this shortly.

4. Deputy Assistant Administrator for Legislative Affairs -- We understand that Mr. John MacKenzie, whom your office suggested for a job in this area sometime ago but whose name was subsequently withdrawn, is now once again interested in this position. We have tried to arrange an interview, without success so far, but understand that he will be in touch with us again when he returns to the city. We understand that your office would like us to consider MacKenzie ahead of others suggested for this post, including Fred H. Mansbridge. As indicated in my May 5 letter, my plan is to fill the position with a man well enough qualified to move up into the top legislative affairs spot in a year or so after he has developed a good understanding of NASA programs and problems. Based on the interview with Mr. Mansbridge sometime ago, we do not believe that he has this promise. If we can find another spot in the organization where Mr. Mansbridge can make a contribution, we will invite him to come for another interview.

My understanding is that the formal clearance procedures outlined in your memorandum of May 22, 1969, do not apply to the Non-Schedule C Career Excepted positions listed above. I will, however, advise your office in advance of all appointments I propose to make to get your reaction.

Called Bill's attention 9/4

For all senior NASA positions where candidates have not finally been selected, I will, of course, continue to welcome your suggestions of qualified candidates.

Sincerely yours,

T. O. Paine
Administrator

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

OFFICE OF THE ADMINISTRATOR

File
NASA Personnel

To: Mr. Flemming
Action:
Return to:
May 5, 1969
FYI:
Destroy:
Info To:
5/6/69

Honorable Harry S. Flemming
Special Assistant to the President
The White House

Dear Mr. Flemming:

This is in reply to your letter of April 7, 1969.

The non-career appointive positions in the National Aeronautics and Space Administration are the two Presidential appointees (Administrator and Deputy Administrator) and seven Schedule C positions which are filled by appointment by the Administrator. The extremely demanding nature of NASA's missions and their world-wide public visibility make it imperative that the positions be filled by this nation's ablest people in this field. Information on these positions is enclosed in the form of Attachment A to your letter.

The status of actions in process and my current intentions on senior NASA positions to be filled or where a change is under consideration are set forth below. In this summary I have also included certain "career excepted" positions not listed on Attachment A, i.e., positions included in the 425 NASA positions which are excepted from Civil Service Commission jurisdiction by statute but are considered and treated as career positions.

For all of these positions I am, of course, considering all available qualified candidates whom you suggest as well as the most competent people we can locate in the U.S., including candidates from within NASA. President Nixon's Administration needs people in these top positions with nationally-recognized competence in aerospace science, technology, industry, or management, with appropriate advanced degrees or equivalent professional experience. I am sure you agree that as a highly-specialized research agency operating in complex and difficult new areas NASA could not do the job it must do for the Administration and the country if it compromised the quality of its leadership. The problem is to locate, attract and hold these people, who are obviously in great demand.

There are now a total of five actual or prospective top level vacancies for which I wish to consider the best candidates who may be suggested:

1. Deputy Administrator

2. Associate Administrator for Advanced Research and Technology (Schedule C)

3. Assistant Administrator for Industry Affairs (career excepted)

4. Assistant Administrator for Technology Utilization (career excepted)

5. Associate Administrator for Organization and Management (career excepted)

In addition, as your office has suggested, we are considering the possibility of replacing or reassigning the career incumbents in the positions of:

6. General Counsel (Schedule C)

7. Assistant Administrator for Legislative Affairs (career excepted)

With respect to the positions of Deputy Administrator, Associate Administrator for Advanced Research and Technology, and Assistant Administrator for Industry Affairs, we have contacted many people, including the top leaders in the aerospace industry, urging them to help the Administration locate the best possible man for each job.

I know that you will continue to assist me in every way you can to help me find the right men for these jobs. These are the qualifications that we need for each position:

1. The Deputy Administrator should be a man to whom both the Administration and I can look with confidence to guide the affairs of the agency as an alter ego to me when necessary as specified by statute. In addition, he will have important day-to-day technical executive responsibilities. He should be an internationally-recognized leader in aerospace science, technology or industry, whose appointment by the President will be acclaimed by the press and by the aerospace community.

At this time I am considering or attempting to interest the following principal possibilities:

Courtland Perkins	Princeton
Leo Goldberg	Harvard
H. Guyford Stever	Carnegie-Mellon
Harvey Brooks	Harvard
Colin Pittendrigh	Princeton
Luis Alvarez	Berkeley
Norman Ramsey	Harvard
Lyman Spitzer	Princeton
Jesse Greenstein	Palomar-Mt. Wilson

Mr. Frank B. Jewett, formerly President of Vitro Corporation, was suggested by your office as a possibility, but I believe that he may be more suitable for the Industry Affairs or Technology Utilization positions. I have written him to see whether he is interested; if so, I will ask him to come for an interview.

2. The Associate Administrator for Advanced Research and Technology is one of the most important and challenging jobs of technical leadership and management in Government. The future of United States preeminence in aeronautics and space may well depend on the capabilities of the man who next fills this job. The caliber needed is exemplified by the previous incumbent, Mr. James Beggs, a former Westinghouse executive, whom President Nixon, as you know, appointed Under Secretary of Transportation.

At this time, I am considering or attempting to interest the following principal possibilities:

Holt Ashley	Stanford
Van W. Bearinger	Honeywell
Welko Gasich	Northrop
Wayland Griffith	Lockheed
I. Grant Hedrick	Grumman
Donald A. Hicks	Northrop
Vincent W. Howard	Northrop
Roy Jackson	Northrop
Robert G. Loewy	University of Rochester
Ronald Smelt	Lockheed

3. The position of Assistant Administrator for Industry Affairs has normally been filled by an individual at the level of Vice President of a major aerospace corporation who has agreed to serve in the Government for several years. The last three incumbents were prominent Vice Presidents of Lockheed, Aerojet, and IBM. We need a man of similar caliber now for this job. As you know, the incumbent, Mr. Philip N. Whittaker, has been appointed by President Nixon to be Assistant Secretary of the Air Force for Installations and Logistics. Our Industry Affairs man, in addition to supervising our procurement, industrial relations, and related activities, is the senior NASA official concerned with proper functioning of our relations with industry, through which we accomplish about 90 per cent of our work.

Prospects now under consideration include:

Spencer M. Beresford	Lawyer
Daniel J. Harnett	Northrop
Frank B. Jewett, Jr.	Vitro
Allan Kauffman	Litton
A. A. Landesco, Jr.	RCA
William Patterson	General Electric

I have included Mr. Spencer M. Beresford on this list, even though he does not have an industry background, because of his general qualifications and experience which might enable him to establish the necessary relationships with industry.

4. Assistant Administrator for Technology Utilization - The incumbent, Dr. Richard L. Lesher, is a professional economist who is leaving in May to accept private employment. Under his leadership NASA's technology utilization program has carried out pioneering innovations in the transfer of new technology from Government programs into the mainstream of the U. S. economy. This position also supervises our extensive scientific and technical publication and dissemination activities. We need here a person with the requisite understanding of the use of new technology in industry, a flair for innovation, and an understanding of computerized document systems. Several of the individuals we are considering for Industry Affairs are also the principal current possibilities for this position.

5. The position of Associate Administrator for Organization and Management has been filled since its creation about two years ago by Mr. Harold B. Finger, who has now, as you know, been appointed by President Nixon to be Assistant Secretary of HUD for Research and Development. For this job we need an individual of outstanding management ability, with an understanding of the special problems of managing major aerospace programs and with relevant accomplishments in Government administration, preferably in DOD or NASA. An understanding of NASA's programs and organization and their relation to universities and industry are very important. These factors, taken together, point in the direction of filling the position from within NASA, but if we can bring in a top-notch man from the outside with personal experience in NASA or DOD, we could follow that course. A man with strong aerospace management experience like Dr. Harold Asher of General Electric exemplifies the type of person we are seeking here, and is the only outside candidate now under consideration.

6. For General Counsel I am considering, at the request of your office, Spencer M. Beresford, whom I am also considering for Assistant Administrator for Industry Affairs as indicated above. His qualifications for General Counsel post are good, although not better than those of the incumbent, Mr. Paul G. Dembling. Mr. Dembling, a political Independent, is a long-time career civil servant with over 20 years service in NACA and NASA. Among many other things, he served with distinction on the Eisenhower Administration Task Force that drafted the bill that became the Aeronautics and Space Act of 1958, and played an important role in the work of the U. S. delegations to the UN Legal Subcommittee out of which emerged the treaties on the peaceful uses of outer space and the return of astronauts. He holds the NASA Distinguished Service Medal and is widely recognized in aerospace and legal circles for his competence. For these reasons I am reluctant to displace him unless this is clearly a matter of major and long-term importance to the Administration. If my final decision is to replace him, I would shift him to another senior position in NASA. The Deputy General Counsel in NASA is a career position filled by our top legal expert on NASA procurement and contracting. It is extremely important that we have an experienced man here to give legal oversight to our procurement and contracting. For this reason I am not now considering a change in this position.

7. The position of Assistant Administrator for Legislative Affairs in NASA is not a Schedule C position. It is now filled by Mr. Robert F. Allnutt, a career civil servant from our Langley Research Center, with training in both engineering and law. In this job we need a man who not only can be relied on to represent the agency and the viewpoint of the President in dealing with Congress, but who also understands the NASA technical program and has the facility for explaining complex technical matters to members of Congress and their expert committee staffs. The incumbent's legal and technical background is extremely helpful in working with our top technical officials in the preparation and presentation of NASA's Congressional testimony. His engineering and legal degrees also made possible his past service with distinction as NASA's Chief Patent Counsel. Although he is registered as a Democrat, he was appointed to the Legislative Affairs position as a career advancement and is serving in this office on a non-partisan basis, as both the Republicans and Democrats he deals with in Congress have pointed out to me with some force.

As I have indicated to your staff, I do want to have the best possible man in this position, and will gladly consider and interview any candidates you may propose. As you know, Mr. John McKenzie's name was withdrawn. We have had a few applicants through Congressional channels, but none have come close to meeting the minimum qualifications. I understand that your office will be referring additional candidates, and if we can find a good man who could become qualified to handle our complex technical program through experience, we could start him in as Deputy. He could then learn while following through the rest of the legislative cycle the NASA FY 1970 authorization and appropriation bills, our major legislative problems this year.

Since Mr. Allnutt has been recommended to me by the ranking Republican members of our House and Senate Space Committees with which NASA's Office of Legislative Affairs is primarily concerned, I do not propose to take any immediate action on this job other than to continue to consider the candidates you refer to me. I will be seeing soon Mr. Peter Millspaugh whom your office has suggested for the Deputy position, but my present thinking is to hold the Deputy job for possible use as outlined above.

I appreciate very much and share whole-heartedly the desire of the President to have the best possible appointments made as soon as possible to our unfilled positions, and am devoting all the time possible to this matter. I appreciate very much the assistance you are giving me.

Sincerely yours,

T. O. Paine
Administrator

Attachment

NASA Key Positions

Presidential Appointments:

Administrator		T. O. Paine
Deputy Administrator	✓	Vacant

Other Executive Salary Positions (Appointed by Administrator):

Associate Administrator		*H. E. Newell
Associate Deputy Administrator		*W. H. Shapley
Deputy Associate Administrator		inactive
General Counsel		*P. Dembling
Associate Administrator for Manned Space Flight		*G. E. Mueller
Associate Administrator for Space Science and Applications		*J. E. Naugle
Associate Administrator for Advanced Research and Technology	✓	Vacant

Other Key Positions (Appointed by Administrator):

Asst. Administrator for Public Affairs		*J. E. Scheer
Asst. Administrator for Legislative Affairs	✓	*R. Allnutt
" " Ind. Affairs + accept		
" " Tech. Util. - "		

Other Positions Open Soon:

Associate Administrator for Organization and Management – formerly Finger	
NASA Historian	

Check Dem/ Thad

* Career official

ATTACHMENT A

ALL NON-CAREER POSITIONS

AGENCY: National Aeronautics and Space Administration

NAME OF APPOINTEE	TITLE	POLITICAL AFFILIATION	VOTING STATE	TYPE OF APPOINTMENT	APPOINTMENT INTENTION
Thomas O. Paine	Administrator	Democrat	California	Presidential/Senate	Appointed.
Vacant	Deputy Administrator	--	--	Presidential/Senate	Seeking highly qua fied individual.
Homer E. Newell	Associate Administrator	Republican	D. C.	NASA Administrator/ Schedule C	Decision made to retain incumbent.
Willis M. Shapley	Associate Deputy Administrator	Democrat	D. C.	NASA Administrator/ Schedule C	Decision made to retain incumbent.
Vacant	Deputy Associate Administrator	--	--	NASA Administrator/ Schedule C	Keep vacant pendin need in possible future reorganizat or use for qualifi person pending fin assignment.
Paul G. Dembling	General Counsel	Independent	Maryland	NASA Administrator/ Schedule C	S. M. Beresford or retain incumbent.
George E. Mueller	Associate Administrator for Manned Space Flight	Republican	D. C.	NASA Administrator/ Schedule C	Decision made to retain incumbent.
John E. Naugle	Associate Administrator for Space Science and Applications	Democrat	Maryland	NASA Administrator/ Schedule C	Decision made to retain incumbent.
Vacant	Associate Administrator for Advanced Research and Technology	--	--	NASA Administrator/ Schedule C	Seeking highly qua fied individual.

NASA

December 30, 1969

FOR: Dr. Kissinger

FROM: Peter Flanigan

Re the attached memorandum from you, I support your recommendation that Borman's memorandum be forwarded to Mr. Pollack. I note that you will "press for early action." It is not necessary that someone from my office be included in this group.

CC: Mr. Whitehead

PMF:jz

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

December 17, 1969

MEMORANDUM FOR PETER FLANIGAN

FROM : Henry A. Kissinger

SUBJECT: Foreign Astronauts and the U.S. Space Program

I have reviewed Colonel Frank Borman's memorandum on foreign astronauts' participation in our space program which you sent to me for comment. I agree with the essentials of the memorandum with one exception, which has to do with procedure. Colonel Borman suggests that Presidential instruction to Dr. Paine will suffice to get the program going. While this is certainly one way of getting the ball rolling, I would recommend another method which will achieve the same objective.

At Presidential direction an interagency group has been formed to study and make recommendations on all aspects of international space cooperation. Included in the group are representatives of State, Defense, NASA, OST, the Space Council, and my staff. I recommend that Colonel Borman's memorandum be forwarded to Mr. Herman Pollack, State/SCI, Chairman of the interagency group, as a matter pertinent to his responsibility. I shall press for early action. Do you want someone from your office in that group?

Space

December 30, 1969

FOR: Dr. Kissinger

FROM: Peter Flanigan

Re the attached memorandum from you, I support your recommendation that Borman's memorandum be forwarded to Mr. Pollack. I note that you will "press for early action." It is not necessary that someone from my office be included in this group.

CC: Mr. Whitehead

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

December 17, 1969

MEMORANDUM FOR PETER FLANIGAN

FROM : Henry A. Kissinger

SUBJECT: Foreign Astronauts and the U.S. Space Program

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Nixon to Give Space Goals; Modest Program Expected

By Thomas O'Toole
Washington Post Staff Writer

In a special message to the nation Tuesday, President Nixon will outline America's goals in space for the next 10 years.

While it will be the first presidential space proclamation since President Kennedy made it a national goal to land men on the moon, Mr. Nixon is expected to spring no such surprises.

Instead of calling for a specific goal like landing men on Mars, it is understood the President will embrace a balanced, middle-of-the-road program, with major emphasis on development of a manned space station that can stay in space for weeks and even months at a time.

Together with the space station, Mr. Nixon probably will urge development of a reusable shuttle craft to ferry men and supplies from earth to space.

It is not clear how much money the President will ask for his program, though it is understood the fiscal 1971 request will not be much larger than the $3.7 billion the space agency received in fiscal 1970.

But the big question is not next year's budget request, it is the budget for the next five years.

If the President asks for a start on both the space station and the shuttle, these two projects alone will cost $10 billion or more.

See SPACE, A10, Col. 1

Should the timetable for their development and flight lie in the next decade, then heavy spending on these programs will have to begin in 1971, or 1972 at the latest.

If budgets for these programs do not show a steep increase next year or the year after, then two other questions crop up. Where does it leave the Apollo program to land eight more crews on the moon? And where does it leave the Apollo Applications Program, which has three earth orbital flights planned for the next three years?

No matter what Mr. Nixon does, he must formulate a space program that will keep the Cape Kennedy launch facilities from mothballs—and a minimum of two manned flights a year is needed for that.

But to save money for the new space station and space shuttle programs, the President may decide to scrap the last four Apollo flights to the moon. This move would divert as much as $1 billion to other programs, since it would save $250 million on each of the four Saturn 5 moon rockets needed to power the flights.

The President might also scrub the three Apollo Applications flights, though this move would not save anything like $1 billion.

Space sources consider either one of these measures drastic, since they might have the effect of temporarily shutting down Cape Kennedy.

Despite the new emphasis on space stations and shuttles, the earliest the space station will fly is 1976 and the earliest probable date for the shuttle is 1978. Without an Apollo or an Apollo Applications program to fill in the gaps, Cape Kennedy might go without a manned flight for as long as three years.

December 16, 1969

To: Marge

From: Eva

Mr. Whitehead has discussed the attached with Magruder and they are in basic agreement and think either Mr. Flanigan or Mr. Whitehead should call Tom Paine immediately so that he knows this is in the mill and doesn't hear from other sources.

Mr. Whitehead thinks this reflects the comments Mr. Flanigan had -- if not, ask him to call Tom as soon as possible.

Also, Tom wanted me to remind you that he is meeting with Governor Scranton at 6 o'clock and he needs to talk with Mr. Flanigan before that meeting -- on the phone is O.K.

~~ADMINISTRATIVELY CONFIDENTIAL~~ December 16, 1969

PLAN

SPACE STATEMENT

Description: A Presidential statement on the general planning for the next decade in space and general coverage of important FY 71 space decisions, Thursday, December 18th.

Objective: To state to the public the general direction of the future space program, to announce several Administration initiatives, and to associate the President with the future of the space program -- see attached briefing paper.

President: A short statement by the President for the press in the Roosevelt Room immediately prior to the release.

Press Coverage: In addition to the President's statement, the Vice President should accompany the President. Drs. Paine, DuBridge and Flanigan should be available to answer questions. -- Ziegler

Follow-up: Strong endorsement from AIA, EIA, major contractors, etc. -- Colson

Have series of statements for Astronauts to use in public appearances. -- Klein

Have Astronauts and Dr. Paine on news shows after message. -- Klein

Advance briefing for space committees in Congress. Harlow

Have NASA give a special briefing for space writers. Do in both Washington and Houston. -- Klein

Have short speeches prepared for comment on Hill. -- Nofziger

Prepare for wide distribution information on the application of space technology to earth technology. -- Klein

Preparation of a draft for the President's use in his 10-minute appearance. -- Keogh

DRAFT OUTLINE 12/12/69

President's Statement on Our Next Decade in Space

Here we are: Two successful visits to the Moon

Where are we going in space?

Three goals: Exploration -- man's quest; worthwhile in and of itself.
Science -- extending our knowledge of the universe, matter and nature.
Applications -- turning space science and technology to economics and social benefit here on earth.

Space as both: an adventure for the present
an investment in the future

The manned lunar landing goal was a challenge to the Nation and an adventure for all mankind.
But it was also a vehicle for developing a space exploration capability.

We now have that capability -- both manned and unmanned -- and must now shift our focus to a continuing program of exploration and application; space exploration will be a part of our lives for the rest of time; we must now make it a continuing process rather than a series of crash timetables.

Based on a careful review of the possibilities developed by the Space Task Group, I have decided on the following major program goals and initiatives for the next decade in space:

1. Explore the moon

The Apollo manned landings should be paced at a rate to maximize scientific return, consistent with the minimum launch rate for safety and reliability.

2. Explore the planets and the solar system

During the next decade, we will launch scientific spacecraft to observe every planet and to explore the vast space between. We will attempt to land an unmanned spacecraft on Mars in 1973. New scientific satellites also will be launched to explore space near the earth.

3. Develop an extended earth orbit capability for man

An Experimental Space Station built from Apollo technology will begin operational missions in the next few years. By the middle of the next decade, men will be working in space for months at a time.

4. Extend man's capability in space

In the next decade we will begin to design an even longer-lived Space Station Module that will serve both as a near-earth space station and a building block for manned interplanetary travel. We will land men on the planet Mars as a part of this program.

5. Expand earth applications

Beginning with early development of an Earth Resources Technology Satellite, we will pursue over the next decade a vigorous program to emphasize a wide range of new applications of space technology. Meteorology, communications, navigation, and air traffic control also will be explored.

6. Lower the costs of space launches

Our recently developed rocket technology will provide a reliable launch capability through the next decade. The production of Saturn V launch vehicles will be suspended in view of the planned rate of lunar exploration and our current inventory of 8 vehicles; it can be resumed at any time in the future as the need arises. We will continue our research to make possible even lower costs for launching space payloads in the future. We will begin to design a space shuttle that will be re-usable to provide frequent, reliable, and low-cost launches for a wide range of space payloads.

7. Expand international cooperation

Space exploration and its benefits here on earth should be a venture for all mankind. We do not seek to exploit space for national purposes, but to share it. Our progress will be faster and our accomplishments will be greater if all nations work together, both in contributing resources and in sharing results.

This is a far-reaching and comprehensive program to extend our space capability and to put it to work for us here on earth. The resources required will be great, and so will the benefits. We will seek to provide a stable level of expenditures to enable steady progress consistent with other pressing national priorities. In addition, we hope to be able to expand our effort in some years and move some accomplishments nearer in time.

The important thing is to recognize that man has begun to explore new worlds. Mankind has entered a new era: For the rest of history, we will be men <u>from</u> the planet Earth. Let us conduct ourselves accordingly.

Mr. Whitehead

~~ADMINISTRATIVELY CONFIDENTIAL~~ December 16, 1969

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complex

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stet reword

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THE WHITE HOUSE

WASHINGTON

December 12, 1969

FOR: TOM WHITEHEAD

FROM: JEB MAGRUDER

Attached are three examples of our planning. If you could outline your plan in this form I would like to go over your ideas with you on Monday.

Attached

~~CONFIDENTIAL~~ December 11, 1969

PLAN

ANNUAL REPORT 1969

Description: A series of events and activities calculated to demonstrate and depict the accomplishments of the Nixon Administration in their first year of office.

Objective: To expose the public to an Administration interpretation of its successes and failures in 1969.

President: Live television broadcast with the President being interviewed by representatives from each of the networks. Duration, one hour. Questioning to be limited to subjects germain to 1969.

Press Coverage: Arrange with networks for time and panel. -- Ziegler

Follow-up:

1. Hold a press backgrounder in the White House on December 11th or 12th to discuss year-end accomplishments of the Administration. Select specific representatives of the press to attend. Utilize Kissinger on foreign affairs and Ehrlichman, Garment, and Harlow on domestic affairs. -- Ziegler/Klein

2. Develop a year-end report on the Administration's accomplishments. This will be in two forms: (a) a detailed report of approximately 25 pages for use by speakers, editors and columnists who want information in considerable depth; and (b) a brief hard-hitting summary of no more than six pages. -- Keogh

3. Develop a briefing book for the President's live television broadcast with network commentators to cover their questions about failures as well as discussion of accomplishments. -- Keogh

4. Prepare several speeches or speech inserts or outlines for use by Administration spokesmen. -- Keogh/Klein

5. Modify briefing book to serve as summary to be mailed to editors and commentators. -- Keogh/Klein

6. During period December 15th-30th, arrange National and local television appearances for key Cabinet members to discuss end of year summary. -- Klein

7. During period December 15th-30th, develop regional and local television opportunities for sub-Cabinet level officials. -- Klein

8. During period December 15th-30th, arrange National television appearances for key White House staff. -- Klein/Ziegler

9. During period December 15th-30th, place a large number of White House staff and sub-Cabinet officers as speakers addressing various assemblies and forums. -- Klein/Ziegler

10. Arrange to have wrap-up done by AP, UP, and news magazines. -- Klein

11. Make special effort to get high level women and ethnic appointees speaking about the Administration from their point of view. -- Klein/Brown

12. Prepare a movie from available footage and illustrate the Administration in action. -- Klein

13. Deliver facts kits to Republican Congressmen and encourage them to write and speak on the accomplishments of the Administration. Select key members and arrange speaking engagements for them. -- Nofziger/Klein/Keogh

14. Create a press kit with photos and summaries of the "year in review" for the First Family, with the firsts of the social year included, by Wednesday. -- Stuart

15. Mobilize the Republican Governors to promote the deeds of the Nixon Administration at the Republican Governors Conference, Hot Springs, Arkansas, December 11th-13th. -- Dent

16. Deliver facts kits to all State party organizations. -- Dent

17. Utilize the Vice President to press the more partisan accomplishments of the President and to explain the achievements with the inference that the "Democrats couldn't have done this". -- Blair

18. Have year-end report included in a special issue of The Republican. -- Klein

Project Manager -- Magruder

~~ADMINISTRATIVELY CONFIDENTIAL~~ December 11, 1969

PLAN

PRESIDENT'S TROOP WITHDRAWAL ANNOUNCEMENT

Description:	The President will provide a report on Vietnam developments since his November 3rd speech and announce the next troop withdrawal increment of his Vietnamization program.
Objectives:	To capitalize on the support generated by the November 3rd speech. To provide a direct Presidential report to the people on Vietnam developments since November 3rd -- both the bad news and the good. To emphasize the President does have a plan which is working, and that his troop withdrawal decisions are based on thorough, methodical investigation and evaluation of all relevant factors (3 criteria, etc.). To focus attention on the progress (Vietnamization and Pacification) being made by the South Vietnamese in assuming a larger share of the burden. To reemphasize that it is the inflexibility and intransigence of the Communists which is blocking a negotiated settlement; that the President remains convinced that negotiations represent the quickest and best path to peace but lacking a willingness by the Communists to enter meaningful negotiations, he will continue to actively pursue the Vietnamization alternative.
President:	10 minutes.
Press Coverage:	The President will deliver the statement from his Oval Office. Dr. Kissinger will give a 30 minute backgrounder for the press in the Roosevelt Room ahead of time. - Ziegler

Follow-up:

Immediate:

Prepare material from statement for Hill distribution. - Nofziger

Have laudatory statements from Senators and Congressmen heralding President's decision and expressing confidence that announcement should dispel any doubts that the President is following a well thought out plan. - Nofziger

Arrange interviews by the networks with Secretary Laird which can be used on the evening news shows following a replay of the President's statement. - Klein

Schedule Secretary Laird on the TODAY Show the day after the statement. - Klein

Have South Vietnamese Ambassador Bui Diem appear on news shows to emphasize cooperative nature of Vietnamization Program and South Vietnamese resolve to assume that portion of the burden carried by the U.S. - Klein/Kissinger

Future:

Do special letter to Douglas Committee and members of Freedom Foundation group which recently visited Vietnam, enclosing statement and encouraging speeches and statements by members of groups, emphasizing their own eye-witness knowledge of progress being made in Vietnamization and pacification. - Colson

Have Dick Garbett run statement as feature in next issue of RNC's "Monday". - Klein

Highlight change in Vietnam policy and situation after one year of RN leadership with news columnists, news magazines and editors. - Klein

Have Dr. Kissinger's office update Vietnam fact sheet (e.g., Situation on January 20, 1969/ Situation Today) for wide distribution on Hill. - Hodek

Project Managers - Hodek/Butterfield

~~ADMINISTRATIVELY CONFIDENTIAL~~

GAME PLAN

GOVERNORS CONFERENCE

Description: Governors' Conference on December 3, 1969, including families, on narcotics and drugs. Collateral discussions with Governors on foreign affairs/domestic affairs generally.

Objective: To demonstrate great Presidential concern with problem of drug abuse and alert Governors and their families to the facts about drug abuse and the Administration's efforts to stop drug abuse.

President: 25 minutes. (Hopefully adjusted to include all of morning session.)

Press Coverage: Full coverage, plus press conference by Governor Chairman and GOP Governor Chairman. - Ziegler

Follow-up: Immediate:

1. Have Justice Department develop speech outline to be made available to Administration spokesmen speaking prior to the Conference. - Krogh and Klein

2. Have packet prepared for each Governor, including proposed press release on why the Governor is coming; a letter to the Governor from Governor Boe pointing out that this is a non-partisan meeting on a vital subject and urging their maximum support and publicity. - Boe and Klein

3. Ask 25 women's editors from major newspapers to attend to write the family aspect of the event. - Klein

4. Ask 25 newspapers to send their most qualified reporters in this area. - Klein

5. Make press conference facilities available for attending Governors after the session and urge them to make use of them. - Ziegler

6. Make available to Governors and to Administration spokesmen immediately after the conference a summary of what was discussed and what was decided. - Klein

7. Ask Department of Defense to make special effort to get wide showing of its film on narcotics between now and the end of the Congressional session. - Krogh

8. As part of pre-conference effort to point out the need for the conference, it is suggested that some hard news be supplied in the period between now and the conference, i.e., major narcotics raid, progress report on dealings with dope centers such as Turkey and Mexico, release of new statistics. - Krogh

9. Put remarks Linkletter made at White House regarding his daughter's death into pamphlet form and distribute at the conference. - Klein

10. Advance speeches and information for Congressional use. - Nofziger

11. Have cameras and pool coverage for morning session and Vice President's remarks. - Ziegler

Future:

1. Have follow-up conference with youth after the Governors' Conference on narcotics. - Krogh and Garment

2. Continue working with Linkletter on outside appearances. - Klein

3. Have copies of morning session sent to editors, Congressmen, Senators, and Governors with a cover letter from the President. - Klein

4. Have outside groups concerned with narcotics mailed copy of morning session with copy of letter from President. - Colson

Project Manager - Krogh