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~~TALENT-KEYHOLE~~  
CONTROL SYSTEM

~~(S)~~ NATIONAL RECONNAISSANCE OFFICE  
WASHINGTON, D.C.

THE NRO STAFF

17 October 1978

MEMORANDUM FOR DR. MARK

SUBJECT: PD-42: Civil and Further National Space Policy

At Attachment 1 is the recently published PD-42 on Civil Space Policy. It contains little in the way of surprises since the NRO actively participated in the drafting/decision making process.

Of some interest are items at page 3, an April 1, 1979 OMB Cross-Cut of all Weather Satellite Programs; page 4, a DCI-chaired committee designed to consider release of photo-reconnaissance imagery by February 15, 1979; and, page 7, a requirement that the PRB submit an implementation plan to enhance technology transfer between sectors (civil, military and intelligence) by May 15, 1979. The page 6 discussion on a strategy to utilize the Space Shuttle is in general agreement with your views and endorses the back-up ELV strategy.

We have been assured both by DOD and the IC Staff that we will have an active role in the various committees and working groups called for in PD-42; your input via PRB channels is also assured on the technology transfer issue.

Attachment 2 contains the Press Release generated by the White House in support of PD-42.

  
J. D. HILL  
Director

2 Attachments

1. PD-42
2. Press Release

cy: Program A  
Program B  
Program C  
DD/L&A  
DD/S&T  
DD/P&B  
D/TENCAP

ACTION OFFICER:  5096 

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THE WHITE HOUSE

WASHINGTON

~~SECRET~~ - GDS

October 10, 1978

Presidential Directive/NSC-42

**TO:**

- The Secretary of State
- The Secretary of Defense
- The Secretary of the Interior
- The Secretary of Agriculture
- The Secretary of Commerce
- The Secretary of Energy
- The Director, Office of Management and Budget
- The Assistant to the President for Domestic Affairs and Policy
- The Administrator, Agency for International Development
- The Director, Arms Control and Disarmament Agency
- The Chairman, Joint Chiefs of Staff
- The Director of Central Intelligence
- The Administrator, National Aeronautics and Space Administration
- The Director, Office of Science and Technology Policy
- The Director, National Science Foundation

**SUBJECT:** Civil and Further National Space Policy (U)

This directive establishes national policies based on Presidential review of space policy issues submitted by the Policy Review Committee (Space). The President has approved civil and further national space policies which shall guide the conduct of United States space programs and activities discussed below. These policies are consistent with and augment decisions reached in PD/NSC-37--National Space Policy. (C)

ADMINISTRATION CIVIL SPACE POLICY. The United States' overarching civil space policy will be composed of three basic components. (U)

**First:** Space activities will be pursued because they can be uniquely or more efficiently accomplished in space. Our space policy will become more evolutionary rather than centering around a single, massive engineering feat. Pluralistic objectives and needs of our society will set the course for future space efforts. (U)

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Second: Our space policy will reflect a balanced strategy of applications, science, and technology development containing essential key elements that will:

- Emphasize applications that will bring important benefits to our understanding of earth resources, climate, weather, pollution, and agriculture. (U)
- Emphasize space science and exploration in a manner that permits the nation to retain the vitality of its space technology base, yet provides short-term flexibility to impose fiscal constraints when conditions warrant. (U)
- Take advantage of the flexibility of the Space Shuttle to reduce operating costs over the next two decades. (U)
- Increase benefits by increasing efficiency through better integration and technology transfer among the national programs and through more joint projects. (U)
- Assure US scientific and technological leadership for the security and welfare of the nation and to continue R&D necessary to provide the basis for later programmatic decisions. (U)
- Provide for the private sector to take an increasing responsibility in remote sensing and other applications. (U)
- Demonstrate advanced technological capabilities in open and imaginative ways having benefit for developing as well as developed countries. (U)
- Foster space cooperation with nations by conducting joint programs. (U)
- Confirm our support for the continued development of a legal regime for space that will assure its safe and peaceful use for the benefit of all mankind. (U)

Third: It is neither feasible nor necessary at this time to commit the US to a high-challenge, highly-visible space engineering initiative comparable to Apollo. As the resources and manpower requirements for Shuttle development phase down, we will have the flexibility to give greater attention to new space applications and exploration, continue programs at present levels, or contract them. An adequate Federal budget commitment will be made to meet the objectives outlined above. (U)

SPACE APPLICATIONS. The President has approved the following:

Government Role in Remote Sensing

1. Land Programs. Experimentation and demonstrations will continue with LANDSAT as a developmental program. Operational uses of data from the experimental system will continue to be made by public and private users prepared to do so. Strategies for the future of our civil remote sensing efforts are to be addressed in the FY 1980 budget review. This review should examine approaches to permit flexibility to best meet the appropriate technology mix, organizational arrangements, and potential to involve the private sector. (U)
2. Integrated Remote Sensing System. NASA will chair an interagency task force to examine options for integrating current and future potential systems into an integrated national system. This review will cover technical, programmatic, private sector, and institutional arrangements. Emphasis will be placed on user requirements; as such, agency participation will include Commerce, Agriculture, Interior, Energy, State, appropriate Executive Office participation, as well as Defense, the DCI, and others as appropriate. This task force will submit recommendations to the Policy Review Committee (Space) by August 1, 1979, for forwarding to the President prior to the FY 1981 budget review. (U)
3. Weather Programs. In the FY 1980 budget review, OMB--in cooperation with Defense, the DCI, NASA, and NOAA--will conduct a cross-cut review of meteorological satellite programs to determine the potential for future budgetary savings and program efficiency. Based on this cross-cut, the Policy Review Committee (Space) will assess the feasibility and policy implications of program consolidation by April 1, 1979. (U)
4. Ocean Programs. Any proposed FY 1980 new start for initial development of a National Oceanic Satellite System (NOSS) will be reviewed based on a ZBB priority ranking. The Policy Review Committee (Space) will assess the policy implications of combining civil and military programs as part of this process. (U)

5. Private Sector Involvement. Under the joint chairmanship of Commerce and NASA, along with other appropriate agencies, a plan of action will be prepared by February 1, 1979, on how to encourage private investment and direct participation in the establishment and operations of civil remote sensing systems. NASA and Commerce jointly will be the contacts for the private sector on this matter and will analyze proposals received before submitting to the Policy Review Committee (Space) for consideration and action. (U)

Declassification of Photoreconnaissance Imagery. A selective and phased public release of photoreconnaissance imagery or information warrants careful assessment before acceptance or rejection. An interagency task force with appropriate user agency participation chaired by the DCI will submit an options paper to the Policy Review Committee (Space) by February 15, 1979. (S)

Communications Satellite R&D. NASA will undertake carefully selected communications technology R&D. The emphasis will be to provide better frequency and orbit utilization approaches. Specific projects selected will compete with other activities in the budget process. (U)

Communications Satellite Services. Commerce's National Telecommunications and Information Administration (NTIA) will formulate policy to assist in market aggregation, technology transfer, and possible development of domestic and international public satellite services. This policy direction is intended to stimulate the aggregation of the public service market and for advanced research and development of technology for low-cost services. Under NTIA this effort will include: (a) an identified 4-year core budget for Commerce to establish a management structure--competitive against other budgetary priorities in Commerce--to purchase bulk services for domestic and international use; (b) support for advanced R&D on technologies to serve users with low-volume traffic requirements subject to its competitiveness against other applications expenditures; and (c) AID and Interior coordination with NTIA in translating domestic experience in emerging public service programs into potential programs for lesser-developed countries and remote territories. (U)

Long-term Economic Activity. It is too early to make a commitment to the development of a satellite solar power station or space manufacturing facility. There are very useful intermediate steps that would allow the development and testing of

key technologies and experience in space industrial operations without committing to full-scale projects. We will pursue an evolutionary program to stress science and basic technology--integrated with a complementary ground program--and will continue to evaluate the relative costs and benefits of proposed space activities compared to earth-based activities. (U)

SPACE SCIENCE AND EXPLORATION GOALS

Priorities at any given time will depend upon the promise of the science, the availability of particular technology, and the budget situation in support of the following Presidentially-approved goals:

- We will maintain US leadership in space science and planetary exploration and progress. (U)
- The US will continue a vigorous program of planetary exploration to understand the origin and evolution of the solar system. Our goal is to continue the reconnaissance of the outer planets and to conduct more detailed exploration of Saturn, its moons, and its rings; to continue comparative studies of the neighboring planets, Venus and Mars; and to conduct reconnaissance of comets and asteroids. (U)
- To utilize the space telescope and free-flying satellites to usher in a new era of astronomy, as we explore interstellar molecules, quasars, pulsars, and black holes to expand our understanding of the universe and to complete the first all sky survey across the electromagnetic spectrum. (U)
- To develop a better understanding of the sun and its interaction with the terrestrial environment. Space probes will journey towards the sun. Earth orbiting satellites will measure the variation in solar output and determine the resultant response of the earth's atmosphere. (U)
- To use the Space Shuttle and Spacelab, in cooperation with the Western Europeans, to conduct basic research that complements earth-based life science investigations and human physiology research. (U)
- Our policy in international space cooperation should include three primary elements: (1) support the best science available regardless of national origin, but expand our international planning and coordinating effort; (2) see

supplemental foreign support only for selected experiments-spacecraft which have been chosen on the basis of sound scientific criteria; and (3) avoid lowering cooperative activities below the threshold where our science and international cooperative efforts would suffer. (U)

STEPS TO INCREASE BENEFITS FOR RESOURCES EXPENDED. The President has approved the following:

Strategy to Utilize the Shuttle

1. The strategy for providing some backup expendable launch vehicles (ELV's) is prudent. The exact requirements for ELV procurement will be reviewed in the FY 1980 budget review as will the five Defense and intelligence systems proposed for accelerated transition. The key determinant is the readiness of the Shuttle. (S)
2. As we move toward Shuttle, we will review national policy on separate organizational control to determine whether potential cost savings are possible. Separate Defense and NASA Shuttle support facilities are being prepared to respond to different requirements for orbits, security, and operations. CMB will undertake a budget cross-cut--taking into account all critical factors--on Shuttle operational management responsibility with NASA, Defense, and the DCI and make recommendations on this issue during the FY 1980 budget review. Based on this cross-cut, the Policy Review Committee (Space) will review these recommendations in terms of impact on policy. (S)
3. Incremental improvements in the Shuttle transportation system will be made as they become necessary and will be examined in the context of emerging space policy goals. An interagency task force will make recommendations on what future capabilities are needed. Representation will include NASA, Defense, the DCI, Commerce, Interior, Agriculture, OMB, NSC, OSTP, State, and others as appropriate. This task force will submit the findings to the Policy Review Committee (Space) for transmittal to the President by August 1, 1979. (U)
4. Current Shuttle survivability provisions will be limited to existing maneuverability capabilities and to encryption of command and data links to, from, and between space segments. Concerned agencies--NASA, the DCI, and Defense--will study what future steps might be necessary to fully comply in the

long term with PD/NSC-37 and make recommendations to the Policy Review Committee (Space) by August 1, 1979, so that appropriate findings can be reflected during the FY 1981 budget process. (S)

Technology Sharing. The existing Program Review Board (PRB) will take steps to enhance technology transfer between the sectors. The objective will be, as directed in PD/NSC-37, to maximize efficient utilization of the sectors while maintaining necessary security and current management relationships among the sectors. The PRB will submit an implementation plan to the Policy Review Committee (Space) by May 15, 1979. In addition, the PRB will submit subsequent annual progress reports. (U)



Zbigniew Brzezinski



October 11, 1978

Office of the White House Press Secretary

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THE WHITE HOUSE

FACT SHEET

U.S. CIVIL SPACE POLICY

The President announced today a space policy that will set the direction of U.S. efforts in space over the next decade. The policy is the result of a four-month interagency review requested by the President in June 1978. American civil space policy will be centered around three tenets:

First: Our space policy will reflect a balanced strategy of applications, science and technology development containing essential key elements that will:

- Emphasize space applications that will bring important benefits to our understanding of earth resources, climate, weather, pollution and agriculture, and provide for the private sector to take an increasing responsibility in remote sensing and other applications.
- Emphasize space science and exploration in a manner that retains the challenge and excitement and permits the nation to retain the vitality of its space technology base, yet provides short-term flexibility to impose fiscal constraints when conditions warrant.
- Take advantage of the flexibility of the space shuttle to reduce the cost of operating in space over the next two decades to meet national needs.
- Increase benefits for resources expended through better integration and technology transfer among the national space programs and through more joint projects when appropriate, thereby increasing the return on the \$100 billion investment in space to the benefit of the American people.
- Assure American scientific and technological leadership in space for the security and welfare of the nation and continue R&D necessary to provide the basis for later programmatic decisions.
- Demonstrate advanced technological capabilities in open and imaginative ways having benefit for developing as well as developed countries.
- Foster space cooperation with nations by conducting joint programs.
- Confirm our support of the continued development of a legal regime for space that will assure its safe and peaceful use for the benefit of mankind.

Second: More and more, space is becoming a place to work -- an extension of our environment. In the future, activities will be pursued in space when it appears that national objectives can most efficiently be met through space activities.

Third: It is neither feasible nor necessary at this time to commit the United States to a high-challenge space engineering initiative comparable to Apollo. As the resources and manpower requirements for shuttle development phase down, we will have the flexibility to give greater attention to new space applications and exploration, continue programs at present levels or contract them. To meet the objectives specified above, an adequate Federal budget commitment will be made.

## SPACE APPLICATIONS

As a part of his overall review and in accordance with his desire to increase emphasis on uses of space for a wide variety of practical and economic benefits the President made the following decisions:

Remote Sensing Systems. Since 1972 the United States has conducted experimental civil remote sensing through LANDSAT satellites. There are many successful applications and users, including Federal departments, other nations, a number of states, and a growing number of commercial organizations. The United States will continue to provide data from the developmental LANDSAT program for all classes of users. Operational uses of data from the experimental system will continue to be made by public, private, and international users. Specific details and configurations of the LANDSAT system and its management and organizational factors will evolve over the next several years to arrive at the appropriate technology mix, test organizational arrangements, and develop the potential to involve the private sector.

Integrated Remote Sensing System. A comprehensive plan covering expected technical, programmatic, private sector, and institutional arrangements for remote sensing will be explored. NASA will chair an interagency task force to examine options for integrating current and future systems into an integrated national system. Emphasis will be placed on defining and meeting user requirements. This task force will complete its review prior to the FY 1981 budget cycle.

Weather Satellites. Separate operational requirements for meteorological data over the past two decades have led to separate Defense and Commerce's National Oceanic and Atmospheric Administration (NOAA) weather satellites. The Defense community, NASA, and NOAA will conduct a review of meteorological satellite programs to determine the degree to which these programs might be consolidated in the 1980s and the extent to which separate programs supporting specialized defense needs should be maintained. The possibility of integrated systems for ocean observations from space will also be examined.

The Private Sector. Along with other appropriate agencies, NASA and Commerce will prepare a plan of action on how to encourage private investment and direct participation in civil remote sensing systems. NASA and Commerce will be the contacts for the private sector on this matter and will analyze proposals received before submitting to the Policy Review Committee (Space) for consideration and action.

Communications Satellite R&D. United States leadership in communications satellite systems will be supported by NASA. Selected technological opportunities to provide better frequency and orbit utilization and other longer-term opportunities will be pursued.

Communications Satellite Services. Some areas of communications services--such as educational and health services and basic communications services for remote areas--involve low-volume and intermittent use and have evidenced little interest from commercial satellite operators. The Department of Commerce's National Telecommunications and Information Administration (NTIA) will assist in market aggregation, technology transfer, and possible development of domestic and international public satellite services. This direction is intended to stimulate the aggregation of the public service market drawing on the technology that is already in existence. The Agency for International Development and Interior will work with NTIA in translating domestic experience in public service programs into potential programs for lesser-developed countries and the remote territories.

MORE

Future Applications and Economic Activity. It is too early to make a commitment to the development of a satellite solar power station or space manufacturing facility due to the uncertainty of the technology and economic cost-benefits and environmental concerns. There are, however, very useful intermediate steps that will allow the development and testing of key technologies and experience in space industrial operations to be gained. The United States will pursue an evolutionary program that is directed toward assessing new options which will be reviewed periodically by the Policy Review Committee (Space). The evolutionary program will stress science and basic technology--integrated with a complementary ground R&D program--and will continue to evaluate the relative costs and benefits of proposed activities.

#### SPACE SCIENCE AND EXPLORATION

The President reviewed the space science and planetary exploration program and determined that the United States' priorities at any given time will depend on the promise of the science, the availability of the particular technology, and the budgetary situation. The United States will maintain a position of leadership in space science and planetary exploration and will:

- Continue a vigorous program of planetary exploration to understand the origin and evolution of the solar system. The goal in the years ahead is to continue the reconnaissance of the outer planets and to conduct more detailed exploration of Saturn, its moons, and its rings; to continue comparative studies of the neighboring planets, Venus and Mars; and to conduct reconnaissance of comets and asteroids.

- Utilize the space telescope and free-flying satellites to usher in a new era of astronomy, as we explore interstellar molecules, quasars, pulsars, and black holes to expand our understanding of the universe.

- Develop a better understanding of the sun and its interaction with the terrestrial environment through space systems--such as the Solar Maximum Mission and the Solar Polar Mission--that will journey towards the sun and earth-orbiting satellites that will measure the variation in solar output and determine the resultant response of the earth's atmosphere.

- Utilize the space shuttle and spacelab, alone and in cooperation with other nations, to conduct basic research that complements earth-based life science investigations and human physiology research.

Our policy in international space cooperation will include two basic elements: (1) to pursue the best science available regardless of national origin and expand our international planning and coordinating effort; and (2) to seek cooperative support for experiments-spacecraft which have been chosen on sound scientific criteria.

#### INCREASED BENEFIT FOR RESOURCES EXPENDED

As a result of the President's review, decisions were made that will increase the benefit to the United States for resources expended.

Strategy to Utilize the Shuttle. The Administration will make incremental improvements in the shuttle transportation system as they become necessary. Decisions on extending the shuttle's stay time in orbit and future upper stage capabilities (e.g., the reusable space tug and orbital transfer vehicle) will be examined in the context of our emerging space policy goals. An inter-agency task force will make recommendations on what future capabilities are needed. This task force will submit the findings to the Policy Review Committee (Space) prior to the FY 1981 budget cycle.

**Technology Sharing.** The Policy Review Committee (Space) will take steps to enhance technology transfer between the space sectors. The objective will be to maximize efficient utilization of the sectors while maintaining necessary security and current management relationships.

**BACKGROUND**

Early in his Administration, the President directed a National Security Council review of space policy. The emphasis was on coherent space principles and national space policy and did not deal in detail with the long-term objectives of our defense, commercial, and civil programs. The review, completed in May 1978, resulted in a Presidential Directive that set the basic framework for our civil space policy completed last week. The President's May 1978 directive established a Policy Review Committee (Space) to provide a forum for all Federal agencies in which to advise on proposed changes to national space policy and to provide for rapid referral of issues to the President for decision. This Committee is chaired by the Director of the Office of Science and Technology Policy, Frank Press. In June 1978 the President directed the Policy Review Committee (Space) to assess the future needs of the nation's civil space program, and their report formed the basis for the policy decisions outlined here. The following agencies and departments participated: The National Aeronautics and Space Administration; Commerce, Interior, Agriculture, Energy, State, National Science Foundation, Agency for International Development, Defense, Director of Central Intelligence, Joint Chiefs of Staff, and Arms Control and Disarmament Agency, as well as the Domestic Policy Staff, the National Security Council Staff, and the Office of Management and Budget.

For further information on the above, contact the Office of Science and Technology Policy (Art Morrissey/395-5736) or the National Aeronautics and Space Administration's Director of Public Affairs (Bob Newman/755-3828).