

THE WHITE HOUSE

WASHINGTON

October 10, 1978

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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)

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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 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

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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) seek

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. OMB 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. (C)
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

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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)



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