

National Space Policy Directive 4

# **NATIONAL SPACE LAUNCH STRATEGY**

**July 10, 1991**

THE WHITE HOUSE  
WASHINGTON

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NATIONAL SPACE POLICY DIRECTIVE 4

MEMORANDUM FOR THE VICE PRESIDENT  
THE SECRETARY OF STATE  
THE SECRETARY OF THE TREASURY  
THE SECRETARY OF DEFENSE  
THE ATTORNEY GENERAL  
THE SECRETARY OF COMMERCE  
THE SECRETARY OF TRANSPORTATION  
THE SECRETARY OF ENERGY  
DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET  
CHIEF OF STAFF TO THE PRESIDENT  
THE ASSISTANT TO THE PRESIDENT FOR NATIONAL  
SECURITY AFFAIRS  
THE ASSISTANT TO THE PRESIDENT FOR SCIENCE AND  
TECHNOLOGY  
THE DIRECTOR OF CENTRAL INTELLIGENCE  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
ADMINISTRATOR OF THE NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION

SUBJECT: NATIONAL SPACE LAUNCH STRATEGY

I. Introduction

a. National space policy provides a framework within which agencies plan and conduct U.S. government space activities. The National Space Launch Strategy provides guidance for implementation of that policy with respect to access to and from space.

b. Assured access to space is a key element of U.S. national space policy and a foundation upon which U.S. civil, national security, and commercial space activities depend.

c. United States space launch infrastructure, including launch vehicles and supporting facilities, should: (1) provide safe and reliable access to, transportation in, and return from space; (2) reduce the costs of space transportation and related services, thus encouraging expanded space activities; (3) exploit the unique attributes of manned and unmanned launch and recovery systems; and, (4) encourage, to the maximum extent feasible, the development and growth of U.S. private sector space transportation capabilities which can compete internationally.

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## II. Space Launch Strategy

a. The National Space Launch Strategy is composed of four elements.

(1) Ensuring that existing space launch capabilities, including support facilities, are sufficient to meet U.S. Government manned and unmanned space launch needs.

(2) Developing a new unmanned, but man-rateable, space launch system to greatly improve national launch capability with reductions in operating costs and improvements in launch system reliability, responsiveness, and mission performance.

(3) Sustaining a vigorous space launch technology program to provide cost effective improvements to current launch systems, and to support development of advanced launch capabilities, complementary to the new launch system.

(4) Actively considering commercial space launch needs and factoring them into decisions on improvements in launch facilities and launch vehicles.

b. These strategy elements will be implemented within the overall resource and policy guidance provided by the President.

## III. Strategy Guidelines

### a. Existing Space Launch Capability

(1) A mixed fleet comprised of the Space Shuttle and existing expendable launch vehicles will be the primary U.S. government means to transport people and cargo to and from space through the current decade and will be important components of the nation's launch capability well into the first decade of the 21st century.

(2) To meet U.S. government needs, agencies will conduct programs to systematically maintain and improve the Space Shuttle, current U.S. expendable launch vehicle fleets, and supporting launch site facilities and range capabilities. Such programs shall be cost effective relative to current and programmed mission needs and to investments in new launch capabilities.

(3) As the nation is moving toward development of a new space launch system, the production of additional Space Shuttle orbiters is not planned. The production of spare parts should continue in the near term to support the existing Shuttle

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fleet, and to preserve an option to acquire a replacement orbiter in the event of an orbiter loss or other demonstrable need. By continuing to operate the Shuttle conservatively, by taking steps to increase the reliability and lifetime of existing orbiters, and by developing a new launch system, the operational life of the existing orbiter fleet will be extended. The Space Shuttle will be used only for those important missions that require manned presence or other unique Shuttle capabilities, or for which use of the Shuttle is determined to be important for national security, foreign policy, or other compelling purposes.

(4) Consistent with U.S. national security and national space policy, the U.S. government may seek to recover residual value from ballistic missiles which are, or subsequently become, surplus to the needs of the Department of Defense. Prior to any release of such missiles, including components, beyond those already approved for use as space launch vehicles, the Department of Defense will conduct, and the National Space Council and the National Security Council will review, an assessment of alternative disposition options for such missiles. Disposition options will be evaluated in terms of their consistency with U.S. national security and foreign policy interests, available agency resources, defense industrial base considerations, and with due regard to economic impact on the commercial space sector, promoting competition, and the long-term public interest.

b. New Space Launch System

(1) The Department of Defense and the National Aeronautics and Space Administration will undertake the joint development of a new space launch system to meet civil and national security needs. The goal of this launch program is to greatly improve national launch capability with reductions in operating costs and improvements in launch system reliability, responsiveness and mission performance.

(2) The new launch system, including manufacturing processes and production and launch facilities, will be designed to support a range of medium to heavy-lift performance requirements and to facilitate evolutionary change as requirements evolve. The design may take advantage of existing components from both the Space Shuttle and existing expendable rockets in order to expedite initial capability and reduce development costs. While initially unmanned, the new launch system will be designed to be "man-rateable" in the future.

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(3) The new launch system will be managed, funded, and developed jointly by the Department of Defense and the National Aeronautics and Space Administration. The development program will be structured in the near term toward the goal of a first flight in 1999. However, the program should allow for several schedule options for the first flight and should identify key intermediate milestones. Since the new launch system will provide the opportunity for significant long-term benefits to the commercial space launch industry, the agencies should actively explore the potential for U.S. private sector participation. Final decisions on the program schedule, including the date of the first flight, will be made during fiscal year 1993, based on updated requirements and technical and budgetary considerations at that time. A joint program plan will be prepared by the Department of Defense and the National Aeronautics and Space Administration and reviewed by the National Space Council.

(4) The Department of Defense and the National Aeronautics and Space Administration will plan for the transition of selected space programs from current launch systems to the new launch system at appropriate program milestones to insure mission continuity and to minimize satellite and other transition costs.

c. Space Launch Technology

(1) In addition to conducting the focused development program for a new launch system, appropriate U.S. government agencies will continue to conduct broadly based research and focused technology programs to support long-term improvements in national space launch capabilities. This technology effort shall address launch system components (e.g., engines, materials, structures, avionics); upper stages; improved launch processing concepts; advanced launch system concepts (e.g., single-stage-to-orbit concepts including the National AeroSpace Plane); and experimental flight vehicle programs.

(2) The Department of Defense, the Department of Energy, and the National Aeronautics and Space Administration will coordinate space launch technology efforts and, by December 1, 1991, jointly prepare a 10-year space launch technology plan.

d. Commercial Space Launch Considerations

(1) In addition to addressing government needs, improvement of space launch capabilities can facilitate the ability of the U.S. commercial space launch industry to compete. Consistent with U.S. space policy, U.S. government agencies will

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actively consider commercial space launch needs and factor them into decisions on existing space launch capabilities, development of a new space launch system, and implementation of space launch technology programs in the following ways:

(a) U.S. government funded investments will be consistent with approved budgets and U.S. government requirements.

(b) U.S. government agencies, in acquiring space launch related capabilities, should:

(1) Allow contractors, to the fullest extent feasible, the flexibility to accommodate commercial needs when developing launch vehicles and infrastructure to meet government needs.

(2) Emphasize procurement strategies which are based on: "best value" rather than lowest cost, performance-based functional requirements, commercial production and quality-assurance standards and techniques, and the use of commercially-offered space products and services.

(3) Encourage commercial, state, and local government investment and participation in the development and improvement of U.S. launch systems and facilities.

(4) Provide for private sector retention of technical data rights, except those rights necessary to meet government needs or to comply with statutory responsibilities.

(c) U.S. government agencies should seek to remove, where appropriate, legal or administrative impediments to private sector arrangements such as industry teams, consortia, cost-sharing, and joint production agreements which may benefit U.S. government needs and economic competitiveness. Agencies should also seek legislative authority for stable long-term commitments to purchase space transportation services.

(d) Within applicable law, U.S. government agencies are encouraged to use industry advisory groups to facilitate the identification of commercial space launch needs and the elimination of barriers that unnecessarily impede commercial space launch activities. U.S. agencies are also encouraged to consult with state and local governments.

(2) U.S. government agencies should develop explicit provisions to implement these guidelines for actively considering commercial space launch needs. As appropriate, agencies should solicit public views on these provisions.

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IV. Reporting Requirements

U.S. Government agencies affected by these strategy guidelines are directed to report by December 1, 1991, to the National Space Council on their activities related to the implementation of these policies.

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