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## U.S. National Space Policy

The President authorized a new national space policy on August 31, 2006 that establishes overarching national policy that governs the conduct of U.S. space activities. This policy supersedes Presidential Decision Directive/NSC-49/NSTC-8, National Space Policy, dated September 14, 1996.

### 1. Background

For five decades, the United States has led the world in space exploration and use and has developed a solid civil, commercial, and national security space foundation. Space activities have improved life in the United States and around the world, enhancing security, protecting lives and the environment, speeding information flow, serving as an engine for economic growth, and revolutionizing the way people view their place in the world and the cosmos. Space has become a place that is increasingly used by a host of nations, consortia, businesses, and entrepreneurs.

In this new century, those who effectively utilize space will enjoy added prosperity and security and will hold a substantial advantage over those who do not. Freedom of action in space is as important to the United States as air power and sea power. In order to increase knowledge, discovery, economic prosperity, and to enhance the national security, the United States must have robust, effective, and efficient space capabilities.

### 2. Principles

The conduct of U.S. space programs and activities shall be a top priority, guided by the following principles:

- The United States is committed to the exploration and use of outer space by all nations for peaceful purposes, and for the benefit of all humanity. Consistent with this principle, “peaceful purposes” allow U.S. defense and intelligence-related activities in pursuit of national interests;
- The United States rejects any claims to sovereignty by any nation over outer space or celestial bodies, or any portion thereof, and rejects any limitations on the fundamental right of the United States to operate in and acquire data from space;
- The United States will seek to cooperate with other nations in the peaceful use of outer space to extend the benefits of space, enhance space exploration, and to protect and promote freedom around the world;
- The United States considers space systems to have the rights of passage through and operations in space without interference. Consistent with this principle, the United States will view purposeful interference with its space systems as an infringement on its rights;
- The United States considers space capabilities -- including the ground and space segments and supporting links -- vital to its national interests. Consistent with this policy, the United States will: preserve its rights, capabilities, and freedom of action in

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space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests;

- The United States will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access to or use of space. Proposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for U.S. national interests; and
- The United States is committed to encouraging and facilitating a growing and entrepreneurial U.S. commercial space sector. Toward that end, the United States Government will use U.S. commercial space capabilities to the maximum practical extent, consistent with national security.

### **3. United States Space Policy Goals**

The fundamental goals of this policy are to:

- Strengthen the nation's space leadership and ensure that space capabilities are available in time to further U.S. national security, homeland security, and foreign policy objectives;
- Enable unhindered U.S. operations in and through space to defend our interests there;
- Implement and sustain an innovative human and robotic exploration program with the objective of extending human presence across the solar system;
- Increase the benefits of civil exploration, scientific discovery, and environmental activities;
- Enable a dynamic, globally competitive domestic commercial space sector in order to promote innovation, strengthen U.S. leadership, and protect national, homeland, and economic security;
- Enable a robust science and technology base supporting national security, homeland security, and civil space activities; and
- Encourage international cooperation with foreign nations and/or consortia on space activities that are of mutual benefit and that further the peaceful exploration and use of space, as well as to advance national security, homeland security, and foreign policy objectives.

### **4. General Guidelines**

In order to achieve the goals of this policy, the United States Government shall:

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- **Develop Space Professionals.** Sustained excellence in space-related science, engineering, acquisition, and operational disciplines is vital to the future of U.S. space capabilities. Departments and agencies that conduct space related activities shall establish standards and implement activities to develop and maintain highly skilled, experienced, and motivated space professionals within their workforce.
- **Improve Space System Development and Procurement.** United States space systems provide critical capabilities to a wide range of civil, commercial, and national security users. The primary goal of space system development and procurement must be mission success. Achieving this goal depends on effective research, development, acquisition, management, execution, oversight, and operations. Toward that end, departments and agencies shall create an environment that enables mission success, including, but not limited to, creating a common understanding of realistic and stable requirements and operational concepts; clearly identifying and managing risks, including system safety; setting and maintaining realistic and stable funding; delivering space capabilities on time and on budget; and providing acquisition managers with the tools, responsibility, budget flexibility, and authority to achieve this goal.
- **Increase and Strengthen Interagency Partnerships.** The challenges of the 21<sup>st</sup> century require a focused and dedicated unity of effort. Interagency partnerships provide opportunities to jointly identify desired effects, capabilities, and strategies. Departments and agencies shall capitalize on opportunities for dynamic partnerships — whether through collaboration, information sharing, alignment, or integration.
- **Strengthen and Maintain the U.S. Space-Related Science, Technology, and Industrial Base.** A robust science, technology, and industrial base is critical for U.S. space capabilities. Departments and agencies shall: encourage new discoveries in space science and new applications of technology; and enable future space systems to achieve new and improved capabilities, including incentives for high-risk/high-payoff and transformational space capabilities. Additionally, departments and agencies shall: conduct the basic and applied research that increases capability and decreases cost; encourage an innovative commercial space sector, including the use of prize competitions; and ensure the availability of space related industrial capabilities in support of critical government functions.

### 5. National Security Space Guidelines

United States national security is critically dependent upon space capabilities, and this dependence will grow. The Secretary of Defense and the Director of National Intelligence, after consulting, as appropriate, the Secretary of State and other heads of departments and agencies, and consistent with their respective responsibilities as set forth in the National Security Act of 1947, as amended, Title 10, U.S.C. and Title 50 U.S.C., the National Security Intelligence Reform Act of 2004, and other applicable law, shall:

- Support the President and the Vice President in the performance of Executive functions, and senior Executive Branch national security, homeland security, and foreign policy

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decisionmakers; other Federal officials, as appropriate; and the enduring constitutional government operations and infrastructure;

- Support and enable defense and intelligence requirements and operations during times of peace, crisis, and through all levels of conflict;
- Develop and deploy space capabilities that sustain U.S. advantage and support defense and intelligence transformation; and
- Employ appropriate planning, programming, and budgeting activities, organizational arrangements, and strategies that result in an operational force structure and optimized space capabilities that support the national and homeland security.

To achieve the goals of this policy, the Secretary of Defense shall:

- Maintain the capabilities to execute the space support, force enhancement, space control, and force application missions;
- Establish specific intelligence requirements that can be met by tactical, operational, or national-level intelligence gathering capabilities;
- Provide, as launch agent for both the defense and intelligence sectors, reliable, affordable, and timely space access for national security purposes;
- Provide space capabilities to support continuous, global strategic and tactical warning as well as multi-layered and integrated missile defenses;
- Develop capabilities, plans, and options to ensure freedom of action in space, and, if directed, deny such freedom of action to adversaries;
- Have responsibility for space situational awareness; in this capacity, the Secretary of Defense shall support the space situational awareness requirements of the Director of National Intelligence and conduct space situational awareness for: the United States Government; U.S. commercial space capabilities and services used for national and homeland security purposes; civil space capabilities and operations, particularly human space flight activities; and, as appropriate, commercial and foreign space entities; and
- Establish and implement policies and procedures to protect sensitive information regarding the control, dissemination, and declassification of defense activities related to space.

To achieve the goals of this policy, the Director of National Intelligence shall:

- Establish objectives, intelligence requirements, priorities and guidance for the intelligence community to ensure timely and effective collection, processing, analysis and dissemination of national intelligence;
- Ensure that timely information and data support foreign, defense, and economic policies; diplomatic activities; indications and warning; crisis management; treaty compliance

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verification; appropriate civil, homeland security, and law enforcement users; and perform research and development related to these functions;

- Support military planning and satisfy operational requirements as a major intelligence mission;
- Provide intelligence collection and analysis of space related capabilities to support space situational awareness for: the United States Government; U.S. commercial space capabilities and services used for national and homeland security purposes; civil space capabilities and operations, particularly human space flight activities; and, as appropriate, commercial and foreign space entities;
- Provide a robust foreign space intelligence collection and analysis capability that provides timely information and data to support national and homeland security;
- Coordinate on any radio frequency surveys from space conducted by United States Government departments or agencies and review, as appropriate, and approve any radio frequency surveys from space conducted by the private sector, State, or local governments; and
- Establish and implement policies and procedures to: classify attributable collected information and operational details of intelligence activities related to space; protect sensitive activities; and declassify and release such information when the Director determines that protection is no longer needed.

### **6. Civil Space Guidelines**

The United States shall increase the benefits of civil exploration, scientific discovery, and operational environmental monitoring activities. To that end, the Administrator, National Aeronautics and Space Administration shall: execute a sustained and affordable human and robotic program of space exploration and develop, acquire, and use civil space systems to advance fundamental scientific knowledge of our Earth system, solar system, and universe.

The Secretary of Commerce, through the Administrator of the National Oceanic and Atmospheric Administration, shall in coordination with the Administrator, National Aeronautics and Space Administration, be responsible for operational civil environmental space-based remote sensing systems and management of the associated requirements and acquisition process as follows:

- The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, in collaboration with the Secretary of Defense through the Secretary of the Air Force, and the Administrator, National Aeronautics and Space Administration will continue to consolidate civil and military polar-orbiting operational environmental sensing systems in accordance with current policy direction;
- The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, shall continue a program of civil geostationary operational environmental satellites with support from the National Aeronautics and Space Administration; and

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- The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, and the Administrator, National Aeronautics and Space Administration shall ensure to the maximum extent possible that civil space acquisition processes and capabilities are not duplicated.

The Secretary of the Interior, through the Director of the U.S. Geological Survey, shall collect, archive, process, and distribute land surface data to the United States Government and other users and determine operational requirements for land surface data.

The United States will study the Earth system from space and develop new space-based and related capabilities to advance scientific understanding and enhance civil space-based Earth observation. In particular:

- The Administrator, National Aeronautics and Space Administration shall conduct a program of research to advance scientific knowledge of the Earth through space-based observation and development and deployment of enabling technologies; and
- The Secretary of Commerce and the Administrator, National Aeronautics and Space Administration, and other departments and agencies as appropriate, in support of long-term operational requirements, shall transition mature research and development capabilities to long-term operations, as appropriate.

The United States will utilize government and commercial space-based and related capabilities wherever feasible to enhance disaster warning, monitoring, and response activities; and take a leadership role in international fora to establish a long-term plan for coordination of an integrated global Earth observation system and promote the adoption of policies internationally that facilitate full and open access to government environmental data on equitable terms.

### **7. Commercial Space Guidelines**

It is in the interest of the United States to foster the use of U.S. commercial space capabilities around the globe and to enable a dynamic, domestic commercial space sector. To this end, departments and agencies shall:

- Use U.S. commercial space capabilities and services to the maximum practical extent; purchase commercial capabilities and services when they are available in the commercial marketplace and meet United States Government requirements; and modify commercially available capabilities and services to meet those United States Government requirements when the modification is cost effective;
- Develop systems when it is in the national interest and there is no suitable, cost effective U.S. commercial or, as appropriate, foreign commercial service or system that is or will be available when required;
- Continue to include and increase U.S. private sector participation in the design and development of United States Government space systems and infrastructures;

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- Refrain from conducting activities that preclude, deter, or compete with U.S. commercial space activities, unless required by national security or public safety;
- Ensure that United States Government space activities, technology, and infrastructure are made available for private use on a reimbursable, non-interference basis to the maximum practical extent, consistent with national security; and
- Maintain a timely and responsive regulatory environment for licensing commercial space activities and pursue commercial space objectives without the use of direct Federal subsidies, consistent with the regulatory and other authorities of the Secretaries of Commerce and Transportation and the Chairman of the Federal Communications Commission.

### **8. International Space Cooperation**

The United States Government will pursue, as appropriate, and consistent with U.S. national security interests, international cooperation with foreign nations and/or consortia on space activities that are of mutual benefit and that further the peaceful exploration and use of space, as well as to advance national security, homeland security, and foreign policy objectives. Areas for potential international cooperation include, but are not limited to:

- Space exploration; providing space surveillance information consistent with security requirements and U.S. national security and foreign policy interests; developing and operating Earth-observation-systems.

The Secretary of State, after consultation with the heads of appropriate Departments and Agencies, shall carry out diplomatic and public diplomacy efforts, as appropriate, to build an understanding of and support for U.S. national space policies and programs and to encourage the use of U.S. space capabilities and systems by friends and allies.

### **9. Space Nuclear Power**

Where space nuclear power systems safely enable or significantly enhance space exploration or operational capabilities, the United States shall develop and use these systems. The use of space nuclear power systems shall be consistent with U.S. national and homeland security, and foreign policy interests, and take into account the potential risks. In that regard:

- Approval by the President or his designee shall be required to launch and use United States Government and non-government spacecraft utilizing nuclear power sources with a potential for criticality or above a minimum threshold of radioactivity, in accordance with the existing interagency review process;
- To that end, the Secretary of Energy shall: conduct a nuclear safety analysis for evaluation by an ad hoc Interagency Nuclear Safety Review Panel which will evaluate the risks associated with launch and in-space operations; assist the Secretary of Transportation in the licensing of space transportation; provide nuclear safety monitoring to ensure that operations in space are consistent with the safety evaluation performed; and

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maintain the capability and infrastructure to develop and furnish nuclear power systems for use in United States Government space systems; and

- For government spacecraft, the head of the sponsoring Department or Agency shall request launch approval and be responsible for the safe operation of the spacecraft in space.
- For the launch and use of non-government spacecraft utilizing nuclear power sources, the operator will be responsible for the safe operation of the spacecraft in space, including nuclear power sources. To that end:
  - The United States Government shall designate a point of entry and develop procedures for reviewing non-governmental missions that use space nuclear power systems;
  - The Secretary of Transportation shall be the licensing authority for U.S. commercial launch activities involving nuclear materials, including a payload determination, subject to the requirements described above;
  - The Nuclear Regulatory Commission will license activities prior to launch that involve utilization facilities and nuclear materials not owned by the Department of Energy;
  - The United States Government will conduct safety analysis, evaluation, and nuclear safety monitoring on a fee-for-service basis, to the extent allowed by law, where the operator will fully reimburse the United States Government entity for services provided; and
  - The Secretary of Energy shall establish and implement policies and procedures to protect sensitive information regarding the control, dissemination, and declassification of space-related nuclear activities.

**10. Radio Frequency Spectrum And Orbit Management And Interference Protection**

The use of space for national and homeland security, civil, scientific, and commercial purposes depends on the reliable access to and use of radio frequency spectrum and orbital assignments. To ensure the continued use of space for these purposes, the United States Government shall:

- Seek to obtain and protect U.S. global access to the radio frequency spectrum and orbital assignments required to support the use of space by the United States Government and commercial users;
- Explicitly address requirements for radio frequency spectrum and orbit assignments prior to approving acquisition of new space capabilities;
- Consistent with current approaches, assure, to the maximum practical extent, that U.S. national security, homeland security, civil, and commercial space capabilities and

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services and foreign space capabilities and services of interest to the United States Government are not affected by harmful interference; and

- Seek spectrum regulatory status under U.S. domestic regulations for United States Government owned and operated earth stations operating through commercial satellites, consistent with the regulatory status afforded commercial operations and with the allocation status of the satellite service.

**11. Orbital Debris**

Orbital debris poses a risk to continued reliable use of space-based services and operations and to the safety of persons and property in space and on Earth. The United States shall seek to minimize the creation of orbital debris by government and non-government operations in space in order to preserve the space environment for future generations. Toward that end:

- Departments and agencies shall continue to follow the United States Government Orbital Debris Mitigation Standard Practices, consistent with mission requirements and cost effectiveness, in the procurement and operation of spacecraft, launch services, and the operation of tests and experiments in space;
- The Secretaries of Commerce and Transportation, in coordination with the Chairman of the Federal Communications Commission, shall continue to address orbital debris issues through their respective licensing procedures; and
- The United States shall take a leadership role in international fora to encourage foreign nations and international organizations to adopt policies and practices aimed at debris minimization and shall cooperate in the exchange of information on debris research and the identification of improved debris mitigation practices.

**12. Effective Export Policies**

As a guideline, space-related exports that are currently available or are planned to be available in the global marketplace shall be considered favorably.

Exports of sensitive or advanced technical data, systems, technologies, and components, shall be approved only rarely, on a case-by-case basis. These items include systems engineering and systems integration capabilities and techniques or enabling components or technologies with capabilities significantly better than those achievable by current or near-term foreign systems.

**13. Space-Related Security Classification**

The design, development, acquisition, operations, and products of intelligence and defense-related space activities shall be classified as necessary to protect sensitive technologies, sources and methods, and operations, consistent with E.O. 12958, E.O. 12951, and applicable law and regulation as amended.

- The Secretary of Defense and the Director of National Intelligence shall establish and implement policies and procedures to protect, disseminate, and appropriately classify and

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declassify activities and information related to their respective responsibilities outlined in this policy. Where appropriate, they shall coordinate their respective classification guidance.

The following facts are unclassified:

- The United States Government conducts: satellite photoreconnaissance that includes a near real-time capability; overhead signals intelligence collection; and overhead measurement and signature intelligence collection; and
- United States Government photoreconnaissance is used to:
  - Collect intelligence; monitor compliance with arms control agreements; collect mapping, charting, and geodetic data that is used to support defense and other mapping-related activities; collect scientific and environmental data and data on natural or man-made disasters; and the foregoing categories of information can be provided to authorized federal agencies;
  - Provide information for indications and warning and the planning and conduct of military operations; and
  - Image the United States and its territories and possessions, consistent with applicable laws, for purposes including, but not limited to, homeland security.

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