IV. Organizations that Affect National Security Space

The previous chapters identified U.S. national security interests in space and measures needed to advance them. This chapter describes the principal organizations involved in national security space activities, concentrating on the Executive Office of the President, the Department of Defense, the Intelligence Community and the Congress. It provides an assessment of how well this structure now serves the nation's interests in space.

A. Executive Office of the President

There is no single individual other than the President who can provide sustained and deliberate leadership, direction and oversight of national security space policy that is needed. Currently, responsibility and accountability for space are broadly diffused throughout the government.

The 1996 National Space Policy designates the National Science and Technology Council (NSTC), a Cabinet-level organization chaired by the President, as "the principal forum for resolving issues related to national space policy." The Office of Science and Technology Policy (OSTP) coordinates Federal policies for science and technology. The Director of OSTP also serves as the Assistant to the President for Science and Technology. In this role, he co-chairs the President's Committee of Advisors on Science and Technology and supports the NSTC. The policy directs that, "as appropriate, the NSTC and NSC [National Security Council] will co-chair policy processes."

In the National Security Council, national security space issues are currently assigned to the Senior Director for Defense Policy and Arms Control. Within this office, one staff member is assigned responsibility for space issues. This staff position supports the Senior Director for Intelligence on the NSC staff and also supports the Office of Science and Technology Policy on national security space issues.

This arrangement has not, does not and cannot provide the focused attention to space matters that is needed (Figure 20). The interdependence of the space sectors requires a more concentrated focus on space at the Cabinet level. The distribution of responsibility for space activity among many departments and agencies is less than ideal.

> *This arrangement has not, does not and cannot provide the focused attention to space matters that is needed.*

**Figure 20: Current Organization for Space
Within the Executive Office of the President**
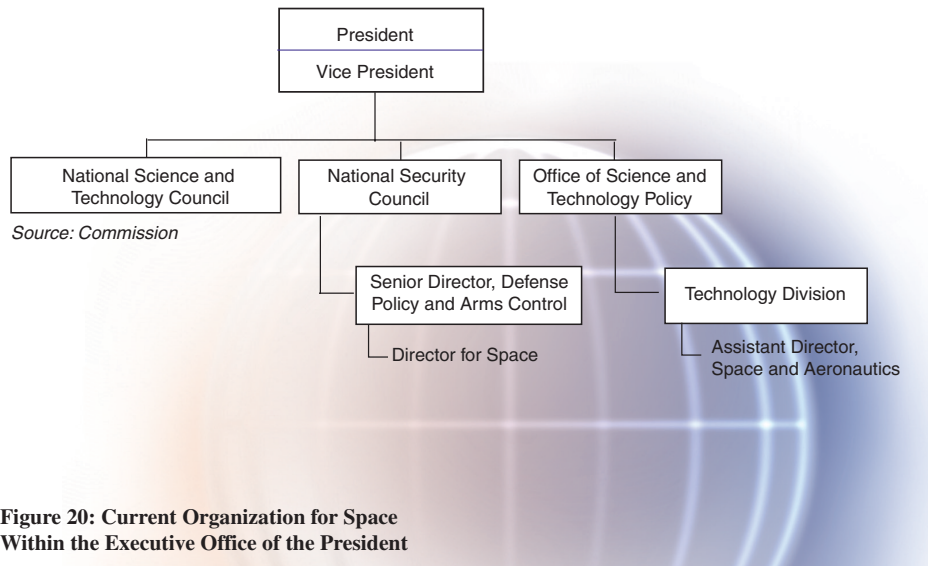
Moreover, the portfolio of the Senior Director with responsibility for space affairs on the NSC is broad. That combined with a lack of staff support means that space issues are selectively addressed, frequently only when they have become crises.

For the last two years, the NSC staff has worked to resolve a number of critical issues, such as licensing for earth remote sensing satellite services, modernizing the GPS constellation and integrating the nation's civil and military weather satellite systems. This case-by-case approach, however, has not allowed the development of a coherent, persistent and deliberate national process for implementing U.S. national security space policy.

B. Department of Defense

1. Secretary of Defense

Title 10 of the U.S. Code, which provides the statutory basis for the Armed Services, assigns the Secretary of Defense as the principal assistant to the President in all matters relating to the Department of Defense. The Secretary has "authority, direction, and control" over the Department. With respect to those elements of the Intelligence Community within the Department, Title 50 U.S.C. provides the statutory basis for the Intelligence Community and directs that the Secretary, in consultation with

the Director of Central Intelligence (DCI), "shall…ensure that [their] budgets are adequate…[and] ensure appropriate implementation of the policies and resource decisions of the Director of Central Intelligence by [those] elements…" This dual tasking establishes the obligation for the Secretary of Defense to ensure that the missions of the Department of Defense and of the Intelligence Community are successfully completed.

With respect to defense elements within the Intelligence Community, the DCI has the responsibility to "facilitate the development of an annual budget for intelligence and intelligence-related activities" and "establish the requirements and priorities to govern the collection of national intelligence by elements of the national intelligence community…" This includes those elements within the Department of Defense.

2. Office of the Secretary of Defense

The Deputy Secretary of Defense (DepSecDef) has generally been responsible for many aspects of the day-to-day management of the Department. On matters relating to space, the DepSecDef is usually involved in acquisition matters through the Under Secretary of Defense for Acquisition, Technology and Logistics, who serves as the Defense Acquisition Executive. As chairman of the Defense Resources Board, the DepSecDef is directly involved in budget decisions. With respect to intelligence, the DepSecDef and the DCI have historically conferred on policies, plans, programs and budgets for the Department of Defense and the Intelligence Community.

The relationship between the Secretary of Defense and the Director of Central Intelligence has evolved over time in such a manner that national security space issues do not receive the sustained focus appropriate to their importance to national security. Except for responding to urgent programmatic decisions, defense secretaries have generally delegated the management of national security space activities. Today, this responsibility is delegated to the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD (C3I)), who serves as the "principal staff assistant and advisor to the Secretary and Deputy Secretary of Defense and the focal point within the Department for space and space-related activities" (Figure 21). The ASD (C3I) in turn relies on deputy assistant secretaries to guide policy and acquisition and provide oversight of the Department's intelligence, surveillance, reconnaissance, information, command, control, communications and space programs.
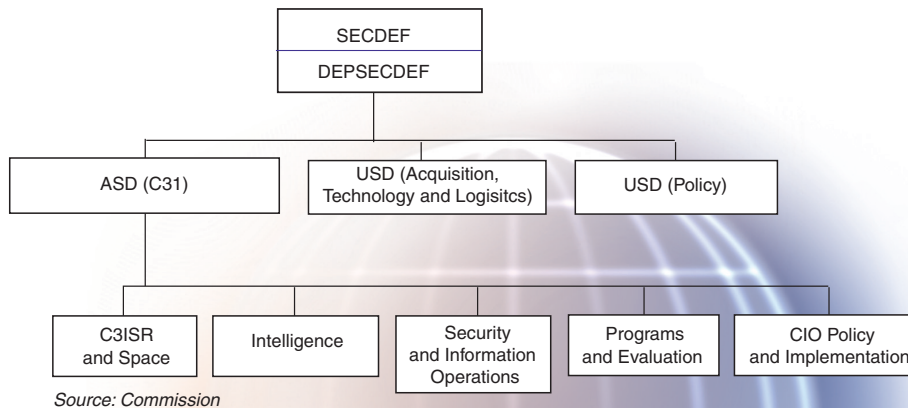
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 │and Space│ │            │ │    and    │ │   and     │ │    and     │
 │         │ │            │ │Information│ │Evaluation │ │Implementation│
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Source: Commission

Figure 21: Current Organization for Space Within the Office of the Secretary of Defense

As established in the Department of Defense Space Policy, the ASD (C3I) coordinates space policy and acquisition with the appropriate Under Secretaries for Policy and for Acquisition, Technology and Logistics. In the role of principal staff assistant, the ASD (C3I) is charged with "authority, direction and control" of the Defense Intelligence Agency and Defense Security Service; "staff supervision" of the National Security Agency and the National Reconnaissance Office; and "overall supervision" of the National Imagery and Mapping Agency and the work of the National Security Space Architect (NSSA).

The ASD (C3I) also serves as the Chief Information Officer of the Department, and is the principal staff assistant in the Office of the Secretary of Defense (OSD) for developing, overseeing and integrating DoD policies and programs relating to the Department's information superiority strategy. In addition to space systems and space policy, ASD (C3I) functions include information policy and information management, command and control, communications, counterintelligence, security, information assurance, information operations, intelligence, surveillance and reconnaissance, and intelligence-related activities conducted by the Department.

The office of ASD (C3I) was first established in the early 1980s, restructured in the mid-1990s and restructured again in the late 1990s. Its development over time reflects an effort to provide a single point of responsibility for C3I within OSD. The evolving role for space in military operations, however, makes this difficult. Before the Gulf War, space

capabilities were not well integrated into military operations. During and since the Gulf War, space has been seen as the place in which a combination of intelligence and surveillance sensors and command, control and communications systems could be based "to support the warfighter." The campaigns in Bosnia and Serbia extended the role for space. Information operations, which include the defense and attack of computer networks, were recognized as critical elements of military campaign planning. Many information operations are linked through satellites.

The scope of the ASD (C3I) portfolio reflects the difficult task of coordinating the many roles for space—national intelligence, support to the warfighter and information operations—across the many functions of DoD, which include policy, acquisition and interagency coordination. While concentrating responsibility in one office has advantages, the large number of issues to address and agencies to oversee and coordinate with results in a competition among them for the time and attention of the Assistant Secretary.

Within the organization, responsibility for space has devolved to a deputy assistant secretary. However, an official at this level does not have the rank to give space-related activities the visibility they need and to represent the Department in interagency fora.

In the office of the ASD (C3I), the Deputy Assistant Secretary of Defense for Programs and Evaluation is responsible for oversight of Service programming and budgeting for space-related C3I capabilities. It does not appear that this position has sufficient authority at the working level to influence policies that drive programming and budgeting decisions within the DoD.

The National Security Space Architect, who reports to both the ASD (C3I) and the head of the DCI's Community Management Staff, is charged with developing and coordinating space architectures that reflect the range of Intelligence Community and DoD space mission areas, with a view toward the mid- and long-term. However, the architect has no authority over the budgets or acquisition programs of the Services or the Intelligence Community.

The current ASD (C3I) organization suffers from three difficulties:

- The span of control is so broad that only the most pressing issues are attended to and space matters are left, on a day-to-day basis, in the hands of middle-level officials without sufficient influence within the Department and the interagency arena.

- Its influence on the planning, programming and budgeting process for space is too far removed or too late to have substantial effect on either the Services' or the Intelligence Community's processes.

- Within this structure, it is not possible for senior officials outside DoD to identify a single, high-level individual who has the authority to represent the Department on space-related matters.

3. Military Commanders in Chief (CINCs)

The nine CINCs are responsible for considering how space-based assets might be used to satisfy mission needs and how space capabilities and applications could be integrated into contingency and operational plans in their areas of responsibility. They also contribute to developing military requirements for space and space-related capabilities through the normal requirements process.

The CINCs are authorized to organize their forces as needed to carry out their assigned responsibilities. In recent military operations, the CINCs have organized functional commands for air, land and maritime operations. Future operations may well require a component commander for space due to the growing importance of space-based assets to combat operations.

4. Commander in Chief of U.S. Space Command and North American Aerospace Defense Command and Commander, Air Force Space Command

The Commander in Chief, U.S. Space Command (CINCSPACE) serves as the Commander in Chief, North American Aerospace Defense Command (CINCNORAD) and as the Commander, Air Force Space Command. As CINCSPACE, he serves as the advocate for the space requirements for all the CINCs and, on an annual basis, submits to the Chairman of the Joint Chiefs of Staff an Integrated Priority List that reflects these requirements. CINCSPACE has a broad set of responsibilities that are quite different in character. He is responsible for protecting and defending the space

environment. His responsibilities also include support of strategic ballistic missile defense and DoD's computer network attack and computer network defense missions.

With the growing dependence on space and the vulnerability of space-related assets, more attention needs to be given to deploying and employing space-based capabilities for deterrence and defense. As space missions continue to expand, space will continue to mature as an "area of responsibility." All of this will require CINCSPACE to pay more attention to the space tasks assigned by the National Command Authorities, leaving less time for other assigned duties as CINCNORAD and Commander, Air Force Space Command.

5. Military Services

Each military Service is directed by the Secretary of Defense to execute specific space programs, comply with DoD space policy and integrate space capabilities into its strategy, doctrine, education, training, exercises and operations. Each Service is free to develop those space capabilities needed to perform its mission. However, no single Service has been assigned statutory responsibility to "organize, train and equip" for space operations. Eighty-five percent of space-related budget activity within the Department of Defense, approximately $7 billion per year, resides in the Air Force.

U.S. Air Force
The Air Force provides the facilities and bases, and operates and maintains its assigned space systems, to support the operational requirements of the U.S. Combatant Commands. These activities include surveillance, missile warning, nuclear detection, position, navigation, timing, weather and communications. The U.S. Air Force launches satellites for DoD and other government agencies and is responsible for air and missile defense and space control operations. The Air Force does not develop, acquire or operate the space-based reconnaissance satellites on which it and the other Services rely for precision, targeting, location and battlespace awareness. Those systems are developed, acquired and operated by the National Reconnaissance Office.

No single service has been assigned statutory responsibility to "organize, train and equip" for space operations.

Within the Air Force, space-related activity is centered primarily in four elements (Figure 22). Space systems operations and requirements are organized under Air Force Space Command (AFSPC). The 14th Air Force launches the NRO, DoD and selected civil satellites and provides support for commercial satellite launches. The 14th Air Force also provides space-based support to the CINCs, and supports NORAD by providing missile warning and space surveillance information. Air Force Space Command develops all Air Force space requirements and works with the other Services in developing their requirements.
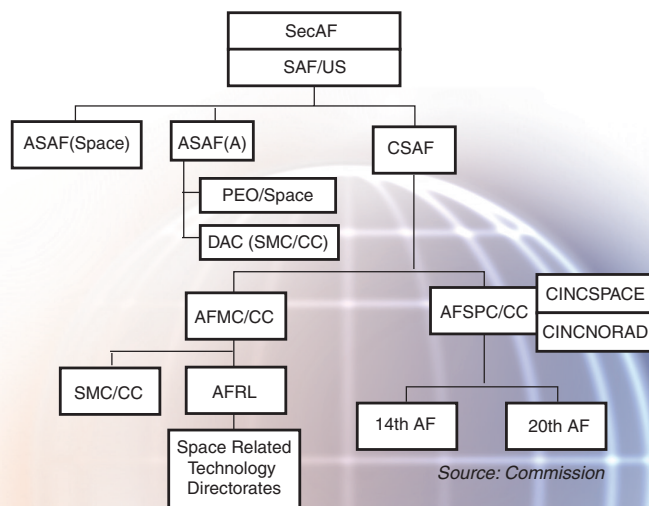

Figure 22: Current Organization for Space Within the Air Force

Design, development and acquisition of space launch, command and control, and satellite systems are conducted by personnel assigned to the Space and Missile Systems Center (SMC) under the Air Force Materiel Command. The Program Executive Officer (PEO) and the SMC Commander, who also serves as the Designated Acquisition Commander (DAC), report to the Assistant Secretary of the Air Force for Acquisition on the cost, schedule and performance for the programs in their portfolios. The Air Force Research Laboratory, also part of Air Force Materiel Command, conducts advanced technology research.

The Air Force role as the lead Service for space dates to the 1960s, with the creation of the Air Force Research and Development Command—the predecessor to Air Force Systems Command. The Air Force has since made a series of adjustments in the organization of its space activities. In

many cases, these adjustments responded to a growth in responsibilities for space operations and space mission management. In 1982, for example, the Air Force Space Command was created because of growing dependence on space, the evolving threat from the Soviet Union, the growing space budget and a perceived need to "operationalize" space.

In the future, space will play an expanded role in transforming U.S. military forces; providing support to air, land and sea forces; conducting new missions of space surveillance; protecting space capabilities; and projecting power in, from, to and through space. These new missions will expand the Department's deterrence and defense capabilities into space.

Few witnesses before the Commission expressed confidence that the current Air Force organization is suited to the conduct of these missions. Nor was there confidence that the Air Force will fully address the requirement to provide space capabilities for the other Services. Many believe the Air Force treats space solely as a supporting capability that enhances the primary mission of the Air Force to conduct offensive and defensive air operations. Despite official doctrine that calls for the integration of space and air capabilities, the Air Force does not treat the two equally. As with air operations, the Air Force must take steps to create a culture within the Service dedicated to developing new space system concepts, doctrine and operational capabilities.

> *As with air operations, the Air Force must take steps to create a culture within the Service dedicated to developing new space system concepts, doctrine and operational capabilities.*

U.S. Army

Space operations assigned to the Army are conducted by Army Space Command, an element of the Army's Space and Missile Defense Command (SMDC). Army Space Command is assigned as the Army component to U.S. Space Command. Army Space Command is assigned payload control responsibility for the Defense Satellite Communications System (DSCS) and operates Ground Mobile Forces terminals, providing DSCS communications to DoD forces forward deployed worldwide. The Army conducts space surveillance operations from Kwajalein Atoll in the Marshall Islands. Satellite terminal and receiver operations are spread throughout the Army, based in units responsible for a particular function. Joint Tactical Ground Stations are co-operated by the Army Space

Command and Naval Space Forces in Europe, Korea and the Middle East. Army intelligence units assigned worldwide operate a variety of terminals and receivers that collect and receive space, air and ground intelligence.

The Department of the Army Headquarters approves Army space requirements developed by SMDC's Force Development Integration Center. However, Army Space Command and the Army Training and Doctrine Command also influence the development of Army space requirements. Research, development and acquisition of space-related equipment are generally conducted within the Space and Missile Defense Command, the Intelligence and Security Command or the Communications Electronic Command. The Army Space Program Office has responsibility for the operation of systems acquired through the Army's Tactical Exploitation of National Capabilities (TENCAP) program.

U.S. Navy
Naval Space Command serves as the naval component of U.S. Space Command. Its responsibilities include operating assigned space systems for surveillance and warning; providing spacecraft telemetry and on orbit engineering; developing space plans, programs, concepts and doctrine; and advocating naval warfighting requirements in the joint arena. Space research and development in the Navy is conducted by the Naval Research Laboratory. Space requirements for the Navy and Marine Corps are developed by Naval Space Command; space systems are acquired by the Space and Naval Warfare Systems Command. The Navy also maintains a small TENCAP office to enhance warfighter use of national security space information.

Naval Space Command serves as the Alternate Space Command Center to U.S. Space Command's primary center located at Cheyenne Mountain, Colorado. It is also responsible for operating the Navy Radar Fence, which contributes to space surveillance. The Navy operates the UHF Follow-On constellation of communication satellites, is responsible for the development and acquisition of its replacement system, the Multi User Objective System, and acquires Navy ground terminals. The primary mission of Naval Space Command is to provide direct space support to Fleet and Fleet Marine Force operational units around the world, whether for routine deployments, exercises or crisis response.

6. National Reconnaissance Office

The National Reconnaissance Office (NRO) is the single national organization tasked to meet the U.S. Government's intelligence needs for space-borne reconnaissance. The NRO is responsible for unique and innovative technology; large-scale systems engineering; development, acquisition and operation of

> *The NRO today is a different organization, simultaneously struggling to manage a large number of legacy programs while working to renew a focus on leading edge research.*

space reconnaissance systems; and related intelligence activities needed to support national security missions. While the NRO is an agency of the Department of Defense, its budget, the National Reconnaissance Program (NRP), is one part of the National Foreign Intelligence Program (NFIP). The Director of Central Intelligence provides guidance for and approves the NRP and all other elements of the NFIP. The Secretary of Defense ensures implementation of the DCI resource decisions by DoD elements within the NFIP. As a result, the NRO is a joint venture between these organizations.

The NRO had a reputation as one of the U.S. Government's best system acquisition agencies and worked to maintain exceptional systems engineering capabilities. In its early years, the NRO was a small, agile organization, a leader in developing advanced technologies, often first-of-a-kind systems, for solving some of the nation's most difficult intelligence collection challenges. The NRO today is a different organization, simultaneously struggling to manage a large number of legacy programs while working to renew a focus on leading edge research. The NRO's capacity to convert leading edge research and technology into innovative operational systems is inhibited by the requirement to maintain its legacy programs.

The NRO has been very successful in collecting intelligence globally and, as a result, customers have become increasingly dependent on the products from satellite reconnaissance. The NRO has spent an increasing amount of time operating and maintaining a large number of legacy satellite reconnaissance programs. To minimize the risk of disruption in service to its customers in this resource-constrained environment, the NRO's plans for new system acquisitions tend to stress operational utility and reliability, while reducing technical risk. This approach has the effect of favoring

evolutionary improvements to current systems and less focus on developing new systems that incorporate revolutionary technical advances.

C. Intelligence Community

The Director of Central Intelligence is the principal advisor to the President for intelligence matters related to national security and serves as the head of the Intelligence Community. The DCI is responsible for providing national intelligence to the President, to the heads of departments and agencies of the executive branch, to the Chairman of the Joint Chiefs of Staff and senior military commanders and, when appropriate, to the Congress. "National intelligence" refers to "intelligence which pertains to the interests of more than one department or agency of the government."

The elements of the Intelligence Community include: the Office of the Director of Central Intelligence; the Central Intelligence Agency; the National Security Agency; the Defense Intelligence Agency; the National Imagery and Mapping Agency; the National Reconnaissance Office; other offices within DoD for the collection of specialized national intelligence through reconnaissance programs; the intelligence elements of the Army, Navy, Air Force, Marine Corps, Federal Bureau of Investigation, Department of the Treasury and Department of Energy; and the Department of State's Bureau of Intelligence and Research (Figure 23).

The DCI develops and presents to the President an annual budget for the National Foreign Intelligence Program, which is distributed throughout the budgets of the various departments and agencies that comprise the Intelligence Community.

The Community Management Staff, managed by the Deputy Director of Central Intelligence for Community Management, assists the DCI in coordinating and managing the Intelligence Community, including responsibility for managing resources and collection requirements and assessing space programs and policies. It is also responsible for coordinating policy and budgets with the Office of the Secretary of Defense. The Community Management Staff has made substantial progress in coordinating the planning and budgeting of the components of the Intelligence Community. However, it does not have authority to reprogram in-year money within components, an authority that would enhance its

direction of Intelligence Community affairs. Nor is it well structured to coordinate with OSD on broad intelligence policy, long-term space strategy and other issues requiring intelligence support.
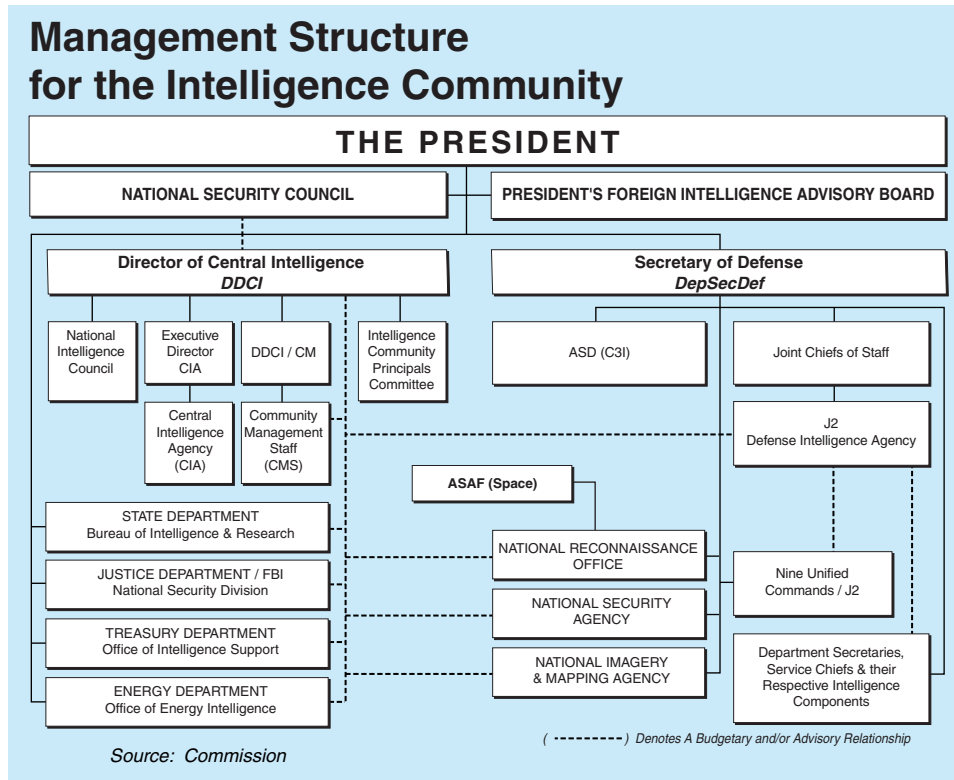
Management Structure for the Intelligence Community

THE PRESIDENT

NATIONAL SECURITY COUNCIL

PRESIDENT'S FOREIGN INTELLIGENCE ADVISORY BOARD

Director of Central Intelligence
DDCI

Secretary of Defense
DepSecDef

National Intelligence Council

Executive Director CIA

DDCI / CM

Intelligence Community Principals Committee

ASD (C3I)

Joint Chiefs of Staff

Central Intelligence Agency (CIA)

Community Management Staff (CMS)

J2 Defense Intelligence Agency

ASAF (Space)

STATE DEPARTMENT
Bureau of Intelligence & Research

JUSTICE DEPARTMENT / FBI
National Security Division

TREASURY DEPARTMENT
Office of Intelligence Support

ENERGY DEPARTMENT
Office of Energy Intelligence

NATIONAL RECONNAISSANCE OFFICE

NATIONAL SECURITY AGENCY

NATIONAL IMAGERY & MAPPING AGENCY

Nine Unified Commands / J2

Department Secretaries, Service Chiefs & their Respective Intelligence Components

(‑‑‑‑‑‑‑‑‑) *Denotes A Budgetary and/or Advisory Relationship*

Source: Commission

Figure 23: Current Intelligence Community Management Structure

D. Congress

Congressional oversight of the authorization and appropriation of national security space funding routinely involves no fewer than six committees. These include the House and Senate Armed Services Committees (HASC/ SASC), the House and Senate Appropriations Committees (HAC/SAC), the Senate Select Committee on Intelligence (SSCI) and the House Permanent Select Committee on Intelligence (HPSCI), as well as the Budget Committees. Four or five committees review DoD space programs; six committees review intelligence space programs. For example, the HPSCI reviews the Joint Military Intelligence Program and the Tactical Intelligence and Related Activities program; the SSCI does not. While an exception, some civil space activities can be reviewed by as many as 13 committees.

Generally, each committee mirrors the priorities of the executive branch interests it oversees. The intelligence committees focus on issues concerning "sources and methods" and on the ability of the Intelligence Community to provide intelligence to the National Command Authorities. The Armed Services committees contend with competing space requirements of the three Services, the military intelligence agencies and the CINCs, and tend to see national intelligence primarily as support for combat forces. The appropriations committees' subcommittees on defense oversee all defense and intelligence space programs and are one place where national security space programs are viewed together. However, they focus primarily on budgets.

Executive branch officials must expend considerable time and energy interacting with a large number of committees and subcommittees that, on some matters, have overlapping jurisdiction. To the extent that this process can be streamlined, it would likely benefit the nation, Congress and the executive branch. It would also help if there were an environment in which national security space matters could be addressed as an integrated program—one that includes consideration for commercial and civil capabilities that are often overlooked today.