



Space Policy Review

Space Roles and Missions: From Fragmentation to Unity

By: Peter Garretson and Jackson Schnabel

The Big Picture

- ◆ **Nine Agencies, Zero Unity:** America's space enterprise is paralyzed by fragmentation across nine major organizations with overlapping authorities, competing missions, and no unified command—while China operates as one.
- ◆ **China's 2030 Advantage:** When NASA decommissions the ISS in 2030, China will have the only manned presence in orbit—one backed by a civil-military fusion that turns every major Chinese space achievement into a potential dual-use capability.
- ◆ **The Unassigned Missions:** No one nation manages space traffic management, debris cleanup, or space-based solar power development—critical capabilities worth trillions that America is simply not pursuing while adversaries advance.
- ◆ **\$75 Million vs. \$1.8 Trillion:** The Office of Space Commerce receives \$75.6 million to oversee an economy projected to reach \$1.8 trillion by 2035—a resource mismatch that guarantees American inferiority in space commerce.
- ◆ **Congress Holds the Key:** Only congressional action—consolidating oversight committees, clarifying authorities, and potentially creating a Department of Space—can transform fragmentation into unity before China's lead becomes irreversible.

The United States faces a fundamental organizational crisis in space. America's space enterprise remains fragmented across multiple agencies with unclear roles, overlapping responsibilities, and competing authorities. This institutional confusion undermines national security, stifles commercial innovation, and threatens U.S. leadership in the vital space domain.

In recent congressional testimony, United States Space Force (USSF) Chief of Space Operations General Chance Saltzman captured the essence of the problem:

We have kind of evolved the roles and missions between military space and IC space, civil space, [and] R&D space that NASA kind of focuses on. We have evolved to that point, but I don't know if based on the new security environment we really crystallize who is responsible for what and define that in terms that we can say, 'because I am responsible for this, these are the resources I am going to need.' We are kind of backing into it, to some degree... Now we need to clearly define what those roles and responsibilities are, or even establish a process by which we will evaluate new missions as they are developed, to make sure we give them to the right organization.¹

Gen. Saltzman is not the only one expressing such a concern. Todd Harrison, senior fellow at the American Enterprise Institute, communicated a similar sen-

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timent, describing the established functions of the USSF as “vague and overlapping.”² The root of this problem lies in Department of Defense Directive (DoDD) 5100.1, which provides the other military branches with specific, concrete missions while tasking the Space Force with five short and ambiguous objectives.³

This confusion creates a paradox: agencies must have clear roles while also maintaining the flexibility to adopt new missions. Unfortunately, the organizational haze surrounding the Space Force reflects a broader systemic failure. The National Aeronautics and Space Administration (NASA), the National Reconnaissance Office (NRO), the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC), and the Office of Space Commerce (OSC) all claim overlapping jurisdictions in U.S. space affairs.

Providing definitive roles and missions for each organization, along with a streamlined command structure, will empower the United States to defend its space superiority, develop the necessary technologies to protect itself from threats, and enable commercial space to evolve efficiently. Crucially, a unified approach is needed to prevent China from overtaking the United States as the world leader in space. Congress is the only body with the jurisdiction to accomplish this task. It must step up to reorganize and streamline America’s space program.

From Sputnik to Fragmentation

Space emerged as an improvised Cold War-era mission and evolved into today’s disorganized system, with crucial impacts on national security, economic competitiveness, and global norms in space. Fragmentation formed immediately.

The U.S. space program began as a collection of competing military projects.⁴ However, once the Soviet Union launched *Sputnik 1* on October 4, 1957, the program had to change. Congress and President Eisenhower responded by passing the National Aeronautics and Space Act in July 1958, creating NASA. The agency opened its doors in October of that year, with the new civilian administration focusing on the peaceful uses of outer space while the military continued operating independent projects. Simultaneously, the Air Force, Army, and Navy continued work on separate long-range missile projects.⁵ In the same year, the Department of War (Department of Defense) established what

is now the Defense Advanced Research Projects Agency (DARPA) to exploit breakthroughs in defense technology, including in space, ensuring the United States maintains the upper hand.⁶ Three years later, in 1961, Secretary McNamara created the NRO, which centralized satellite intelligence and created a blurred line between intelligence and war-fighting.⁷

Over the following decades, the pattern of plurality continued, particularly on the military side. The Strategic Defense Initiative Organization, created in 1984 under President Reagan, evolved into the modern-day Missile Defense Agency (MDA). The organization consolidated various missile defense organizations across the U.S. government, a necessary and useful step; however, the MDA also serves as yet another U.S. space program.⁸ In December 2019, Congress passed the fiscal year 2020 Defense Reauthorization Act, creating the newest components of the U.S. space program: the U.S. Space Force (USSF) and U.S. Space Command (USSPACECOM).⁹ The USSF and USSPACECOM hold parallel but distinct roles. While USSF organizes, trains, and equips forces, USSPACECOM manages warfighting, planning, and the execu-



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Table 1: The Fragmented U.S. Space Enterprise *Nine major organizations across four departments and independent agencies claim space jurisdiction, creating overlapping authorities and competing missions.*

Agency	Established	Department/Location	Primary Space Jurisdiction	Authority Type
NASA	1958	Independent Agency	Civil space exploration, R&D	Direct congressional mandate
DARPA	1958	Department of War (Department of Defense)	Defense technology breakthroughs	Direct DoD authority
NRO	1961	Intelligence Community/DoD	Satellite intelligence, reconnaissance	Direct intelligence authority
FCC	1930s (space role evolved)	Independent Agency	Spectrum allocation, orbital debris	Indirect via spectrum control
FAA/AST	1984	Department of Transportation	Commercial launches	Direct congressional mandate
MDA	1984 (evolved from SDI)	Department of War (Department of Defense)	Missile defense systems	Direct DoD authority
OSC	2010	Department of Commerce/NOAA	Remote sensing regulation	Direct congressional mandate
USSF	2019	Department of War (Department of Defense)	Military space operations	Direct congressional mandate
USSPACECOM	2019	Department of War (Department of Defense)	Space warfighting, planning	Direct DoD command authority

tion of missions in space.¹⁰

The regulatory side faces similar problems. The creation of the Federal Communications Commission (FCC) in the 1930s marked the start of space regulation, albeit accidentally. The FCC, which is independent of the president and the executive branch, holds crucial authority over radio communications and use of the electromagnetic spectrum. As a result, it authorizes the radio frequencies which satellites use to communicate, allowing the FCC to further regulate commercial space. It has also issued orbital debris mitigation regulations requiring operators to plan for their satellite's end-of-life. Now, it seeks to regulate in-space servicing, assembly, and manufacturing.¹¹ In practice, the FCC uses its jurisdiction over spectrum as a proxy for direct regulatory authority over commercial space activities.

Unlike the FCC's gradual expansion of its own authority, Congress explicitly carved up space regulation among multiple agencies. The Commercial Space Launch Act of

1984 granted the Department of Transportation (DOT) regulatory control of commercial spaceflight through the new Office of Commercial Space Transportation (AST), an entity that was initially within the DOT and is now within the FAA.¹² AST authority covers launch but stops at the edge of space—leaving in-orbit operations to the FCC's claimed jurisdiction. The National and Commercial Space Programs Act of 2010 added yet another layer, creating the Office of Space Commerce (OSC) within the National Oceanic and Atmospheric Administration (NOAA) and the Department of Commerce to oversee private space remote sensing systems.¹³

Thus, while the FCC expanded its authority gradually, the FAA and OSC were granted explicit authority over specific aspects of commercial space, launch, and remote sensing, respectively. The result is a patchwork regulatory system defined by a web of statutes and overlapping jurisdictions instead of a well-ordered system designed to regulate a trillion-dollar commercial industry.

Each of these organizations fills a specific niche without a cohesive national vision of space. They span departments and independent agencies, lacking coordination or unified strategy. The final product is a collection of agencies pursuing their own interpretations of space missions without regard for a broader American space strategy.

The Jurisdictional Web

The United States' space strategy is a mess. The existing jurisdictional framework is a collection of overlapping agencies without unified purpose. This creates two problems. First, in the absence of clearly specified authorities, agencies sit by and hope that somebody else will step up and claim responsibility. This game of 'hot potato' means that critically important missions are often overlooked. For example, no agency manages public benefit infrastructure, and there is no space-focused Coast Guard. While NASA identifies asteroids that could pose a threat to life on Earth, nobody prepares for mitigating such a threat if it is found. Second, the opposite problem occurs: where two agencies both believe an activity is central to their mission, we see turf wars for authority. Organizational turf wars are not a unique phenomenon for the government; the Department of War is certainly familiar with them. But this goes beyond simple competition for authority.

The problem extends beyond the War Department; the roles and missions of these agencies, spread across departments, determine how the greater U.S. space effort is organized and whether it is prepared for the future. Congress passes NASA reauthorization acts every few years, giving NASA explicit missions.¹⁴ This creates clarity in NASA's short-term goals, but, due to political variability, leaves the long-term missions of NASA vague. Annual budget changes and changes in the administration every 4-8 years make it difficult, if not impossible, for NASA to build a reliable long-term outline.¹⁵ Space projects require multi-year commitments, which this variability hampers.

Even newer space organizations suffer from vague authorities. As previously mentioned, the precise roles and missions of the USSF are quite unclear. The NRO, the more secretive third arm of the United States space pro-

gram, focuses on intelligence gathering and is responsible for the production and operation of sophisticated reconnaissance satellites.¹⁶ Yet there is no obvious distinction between where the NRO's intelligence mission ends and the USSF's operational responsibilities begin, particularly given that the USSF operates its own intelligence capabilities.

Between the three U.S. space programs, overlaps between the USSF and NRO are where issues arise. As noted, the USSF has an intelligence agency of its own, as do the other branches of the U.S. armed services. As a result, the USSF itself is a member of the U.S. Intelligence Community.¹⁷ DoDD 5100.1 tasks the USSF with "[protecting] U.S. interests in space... [and conducting] space operations" among three other equally vague tasks.¹⁸ The NRO describes its mission by saying that it "develops, acquires, launches, and operates space-based assets and ground systems to see, hear, and sense threats around the world in real time."¹⁹ While having multiple agencies involved in space intelligence is normal, they should have clearly defined missions to avoid duplication and confusion.

The FAA, FCC, and OSC all provide some form of space regulation. The FAA and OSC possess explicit authority, while the FCC's authority derives from its spectrum control responsibilities. However, it is unclear why three agencies are required instead of one agency with broader authority.

The result of these competing jurisdictions is the creation of substantial hurdles and red tape that may inhibit the potential growth of the American space industry. Despite this, American commercial space remains dominant. SpaceX has over 7,100 Starlink satellites operating in orbit, with plans to reach as many as 42,000 satellites, and has tested its heavy-launch vehicle, Starship, 9 times.²⁰

However, both private and public actors voice complaints about the regulatory burdens placed upon private space companies.²¹ These burdens result in delays that complicate private companies' ability to innovate and test new vehicles due to the extensive paperwork requirements across multiple agencies, an issue that is even more impactful for newer, smaller firms trying to compete with established launch providers. For example, Varda Space suffered a six-month delay in returning its first capsule

due to bureaucratic bottlenecks.²² There is a desire by private actors and space strategists alike to consolidate the agencies regulating private spaceflight, rather than continue to suffer from an agency turf war over regulatory duties. Importantly, this does not require reducing the regulations, as enforcing proper safety standards is vital for the future of space development.

Congress faces the same issues, further exacerbating the problem. The agencies are overseen by a menagerie of congressional committees, including the House and Senate Armed Services Committees, the House Committee on Science, Space, and Technology, and the Senate Committee on Energy and Natural Resources, among others. With each agency reporting to different congressional committees, no single committee takes responsibility for America's broader space strategy or overall competitiveness in space. It is counterproductive to have the key arms of the space program split across defense, commerce, energy, and intelligence. Reforming congressional oversight by consolidating space responsibilities under one committee would create a more unified approach, ensuring all space issues are considered together rather than in isolated, disjointed manner.

Historical Precedents

There is precedent for some of the streamlining and consolidation called for in this paper. However, other aspects of the proposed reforms are unprecedented. After the end of the Second World War, the Department of Defense had to formally determine the separation of responsibilities between the Army, Navy, and the newly created Air Force. The Key West Agreement in 1948 accomplished that. The agreement handled the same question of organizational authorities discussed here, with a particular focus on the Navy. It clarified where the Navy's jurisdiction with Naval Aviation and the Marine Corps ended, and where that of the Air Force and Army began.²³ The Navy was reluctant to give up the capabilities that full jurisdiction over Naval Aviation and the Marine Corps gave it and feared losing those divisions to the Air Force and Army in a move towards consolidation. The Key West Agreement allowed it to keep those responsibilities, while clearly outlining the duties of each armed service branch as a part of the unified U.S. armed services.

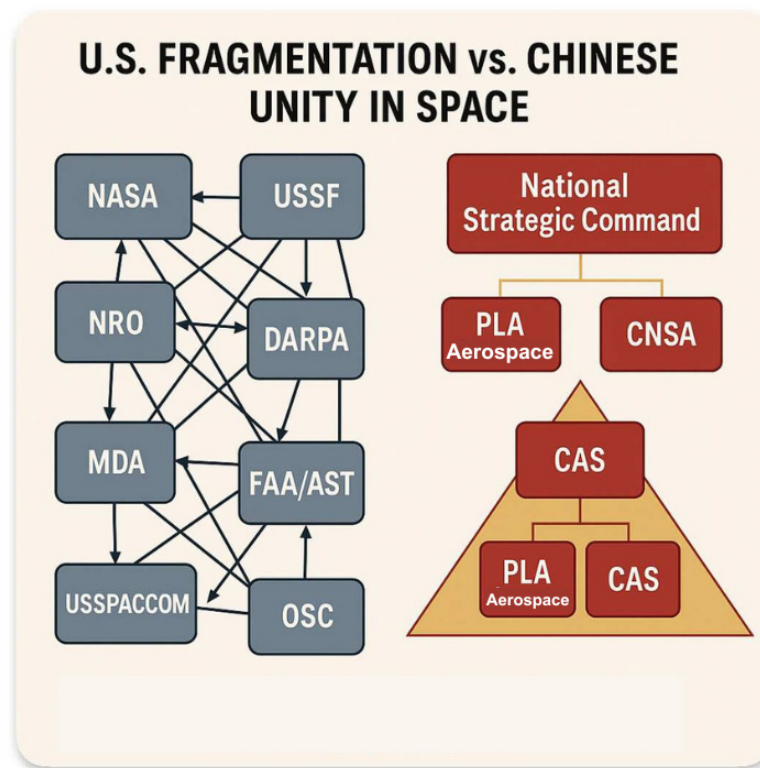
Nearly four decades later, there was once again a need for reorganization. It was clear that the United States' military did not have the proper coordination to reliably conduct joint missions between the branches of the U.S. military.²⁴ To address this problem, the Goldwater-Nichols Act of 1986 changed the organizational structure of the Joint Chiefs, along with clarifying that the chain of command went from the President to the Secretary of Defense to the field joint commander, not through the Joint Chiefs.²⁵ Public failures before this made reform easier. However, waiting for public failure to pursue reform is dangerous and unnecessary.

While both historical moments serve as useful examples, they exist entirely within the Department of War. The problems with the organization of American space extend beyond the DoD and across multiple departments and agencies, meaning the scope of reform is significantly larger. However, these instances nonetheless illustrate the value of consolidation, clarifying responsibilities, joint operability, and a clear chain of command. Congress should take these lessons to heart and streamline the United States' space program so that it can focus on preparing for the future of space use.

The Challenge of Chinese Unity

China, however, does not face these organizational challenges. Its centralized system enables the PRC to develop longer timescales than the United States and coordinate its commercial and governmental organizations to accomplish its objectives. In October 2024, China announced its 25-year strategy for space development and exploration.²⁶ A few months later, in March 2025, the PRC unveiled its planetary exploration roadmap, with missions spanning the 2030s.²⁷ The PRC aims to become the international leader in space by accomplishing these goals. These initiatives were announced jointly by the Chinese National Space Administration (CNSA), the Chinese Manned Space Agency, and the Chinese Academy of Sciences.²⁸ Historically, China has been quite successful at meeting deadlines it sets, so these commitments must be taken seriously.

China's robust space strategy represents a long-term commitment to space exploration that the United States struggles to maintain due to shifting budgets and polit-



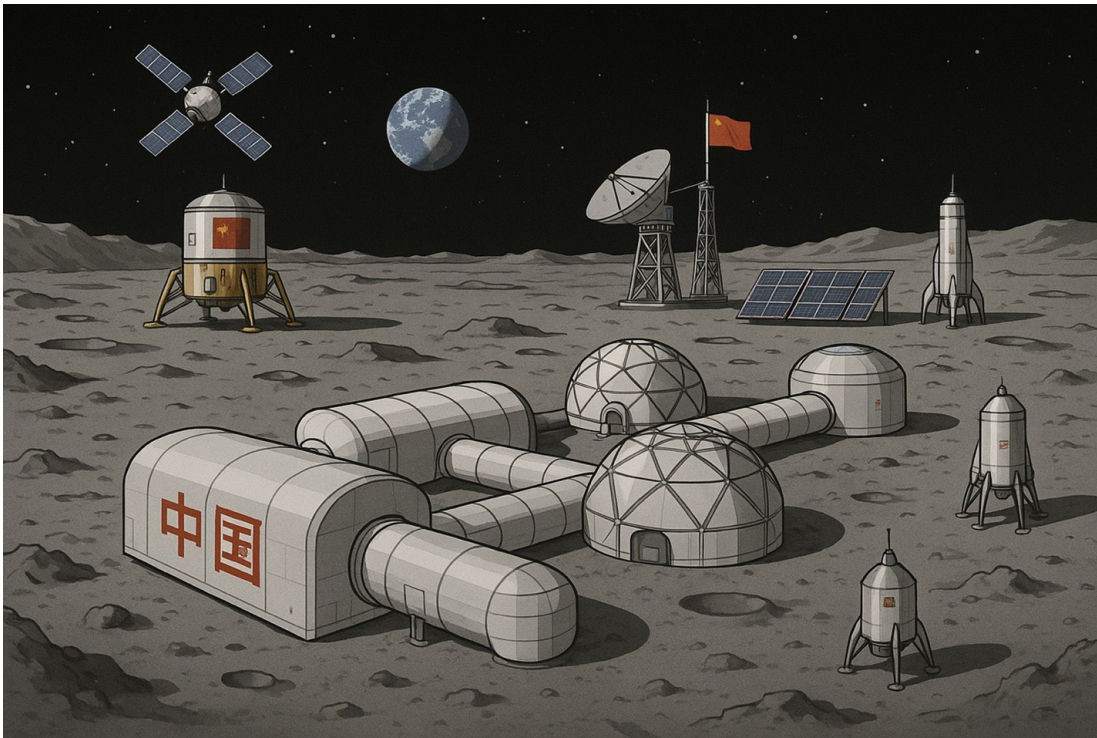
Source: Generated by ChatGPT (OpenAI), 2025, based on data from Garretson & Schnabel, "From Fragmentation to Unity: Reorganizing America's Space Enterprise."

ical leadership. Changing presidential administrations and congressional leadership often brings shifting priorities, which may mean prioritizing alternative space missions or deprioritizing space altogether. China does not have this problem and views space development as a point of national pride and means of gaining power. This institutional continuity allows long-term dedication to space objectives.

China also employs civil-military fusion, integrating their efforts across defense and civil organizations. For space, this means that the CNSA is not wholly distinct from the PRC's PLA Aerospace Force, the Chinese equivalent of the USSF.²⁹ This stands in sharp contrast to the U.S. model, where NASA is dedicated to civil space activities while the DoD and NRO handle separate defense or security issues. The Chinese approach coordinates all aspects of its space programs, research, and resources under unified strategic direction. While the United States maintains significant advantages in private sector innovation and technological capabilities, China's organizational unity presents a strategic challenge that American fragmentation must address.

Chinese Space Dominance

The United States cannot allow China to become the leader in space. According to the current plans, NASA will decommission the ISS by the end of 2030, leaving China with the only crewed presence in space.³⁰ In the absence of a U.S. commercial alternative, any country that seeks to do research in low-Earth orbit will have no choice but to work with China. While private companies are developing commercial space stations, with the first modules scheduled for launch as early as 2026, there is still substantial work left and no guarantee the U.S. will have a functional space station.³¹ Already, following Chinese Chang'e 5 mission that brought back new Lunar samples for the first time in decades, many countries work with China. The United States, however, is largely unable to access the material due to the Wolf Amendment, which prohibits most NASA cooperation with China.³² China hopes to reach the Moon before the United States can return.³³ If China accomplishes this, it would, at least temporarily, possess a monopoly on Lunar research while the United States remains excluded.³⁴



Source: Generated by ChatGPT (OpenAI), 2025.

The Chinese counterpart to the American GPS, BeiDou, continues to grow, reaching 1 trillion location checks per day, and China plans further technological improvements.³⁵ And while GPS has a significant first-mover advantage, with most infrastructure designed around its system rather than BeiDou, analysts already consider BeiDou technologically superior to GPS in certain aspects.³⁶ The system allows for messaging through the platform, a capability that GPS does not share.^{37, 38} Increased reliance on BeiDou creates a world economy more dependent on Chinese technology, enhancing Chinese power and influence. Furthermore, states, including Iran and Pakistan, have adopted BeiDou for military purposes rather than GPS. This takes away the leverage the United States formerly held over these countries, as they are more flexible in what system they use for positioning, navigation, and timing.³⁹

Should China reach this position of dominance in space, it may more effectively pursue space-based solar power, a potential planet-wide, cheap, and clean energy source.⁴⁰ Achieving this leadership role creates a degree of dependency on China as a source of navigational information and energy, an undesirable dependency on a near-peer competitor and potential adversary. Even though the United States will not use BeiDou, many neutral states

may come to rely on it. China's continued incorporation of space programs into the Belt and Road Initiative (BRI) creates further soft power considerations.⁴¹ Through the BRI, China funds and builds infrastructure projects in partner countries, often incorporating Chinese technology standards. China integrates some of its Belt and Road projects with BeiDou, forcing adaptation of the system. China designs these systems so they work best with BeiDou and without interoperability, increasing the likelihood that a country that adopts BeiDou will continue using the system. To maintain its position of leadership, the United States must counteract this by enacting its vision of space.

The Missing Missions

America's fragmented space organization has left critical missions unassigned or poorly coordinated. These gaps create vulnerabilities that our adversaries can exploit while U.S. agencies fight over overlapping authorities. There are several vital space functions that lack clear ownership. Addressing these requires either assigning responsibilities to existing agencies or creating new ones. The following recommendations serve as a starting point for further study, not a definitive blueprint for reform.

Strategic Leadership & Planning

Peacetime Strategic Initiative: No agency is responsible for proactively shaping the space domain during peacetime.⁴² Current space doctrine focuses on warfighting but lacks a framework for securing key orbital positions, building partnerships, and developing industrial capacity before conflicts arise. A future strategic positioning function could operate under a refined National Space Council or within a newly created Department of Space providing unified direction for how space or space-adjacent agencies shape the domain in peacetime.

Economic Development: The OSC received just \$75.6 million in FY25 to oversee industrial development of a space economy projected to reach \$1.8 trillion by 2035.⁴³ This massive resource mismatch undermines U.S. competitiveness in commercial space. Solutions include significantly expanding OSC funding and creating a space working capital fund to serve military commands, civilian agencies, and U.S. allies based on demand rather than appropriated budgets.⁴⁴

Regulatory & Commercial

Regulation: Multiple agencies (FAA, FCC, OSC) claim overlapping authority over commercial space, creating regulatory confusion and delays for companies. Consolidating these responsibilities under a single agency would streamline oversight without reducing safety standards. This could operate under an expanded OSC or a new agency under the Department of Space.

Constabulary and Space Law Enforcement: No agency handles space traffic management, debris cleanup, emergency response, or law enforcement in space.⁴⁵ As commercial spaceflight expands, these functions become critical for maintaining safe orbital operations—emer-

gencies will happen, and the world and the United States must prepare to respond.⁴⁶ Coordinating the cleanup of debris and other environmental space hazards will ensure that orbits remain viable for decades to come. The U.S. needs a space equivalent of the Coast Guard to manage these responsibilities and either through an expanded U.S. Coast Guard, a novel Space Guard, or a new dedicated USSF unit.⁴⁷

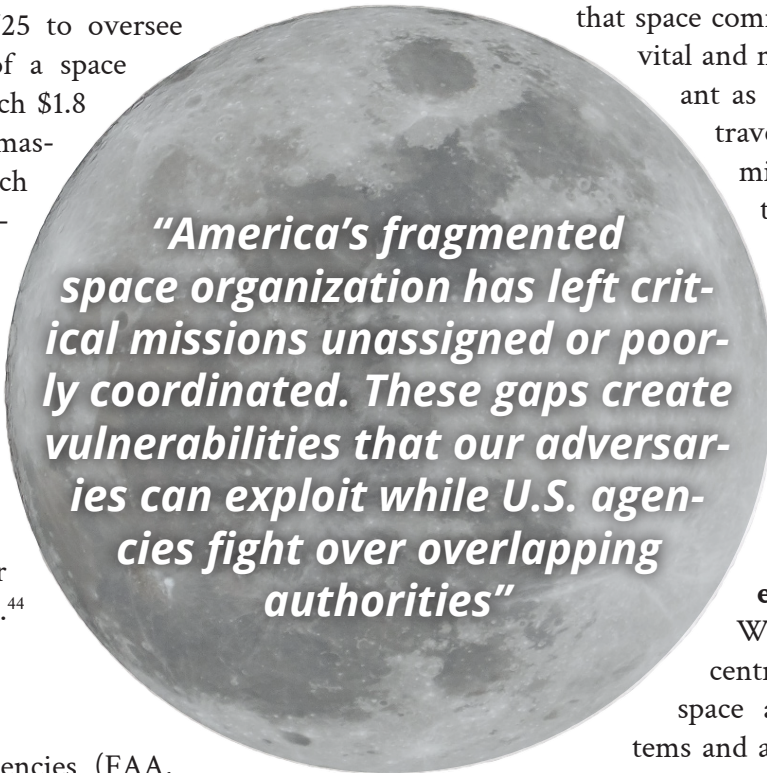
Defense & Security

Space Protection and Humanitarian Operations: No agency is responsible for humanitarian relief operations or non-war military operations in space.⁴⁸ Ensuring that space commerce operates smoothly is vital and may become just as important as sea trade. As private space travel continues to mature, the military will need capabilities for search and rescue, emergency response, and protecting commercial operations from hostile actors. A dedicated USSF unit, or units, should handle these responsibilities.

Service Roles in Counter Space and Integration:

While the USSF served to centralize the armed services' space assets, certain legacy systems and assets remain with the other branches, namely the U.S. Army missile defense sensors and Naval communications assets. Consolidating these resources under the USSF would ensure that all armed services' space assets unify under one branch, rather than remaining spread out across multiple services.

Tactical Reconnaissance, Surveillance, and Tracking (TacRST): The NRO handles strategic reconnaissance, surveillance, and tracking, while the USSF operates its own intelligence agency, the National Space Intelligence Center.⁴⁹ This overlap creates coordination



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challenges between intelligence producers and operational users. If these functions are to remain with the NRO, better integration is necessary to ensure the USSF can properly close kill chains. However, it may make more sense to transfer much of this responsibility to the USSF as the end-user of the information.

Intelligence Community in the Post-USSF Era: The USSF was created in 2019, but the U.S. Intelligence Community still operates as if it doesn't exist. The NRO and National Geospatial-Intelligence Agency continue constructing and operating the most advanced space systems while the USSF has established its own agency, the National Space Intelligence Center. This duplicity creates overlapping responsibilities and unclear divisions of labor between legacy IC agencies and the new space service. In an era of real-time, space-enabled military intelligence, it is necessary to determine the proper balance between the IC agencies and USSF operational commands. Specific recommendations require an in-depth, classified review of these organizational overlaps.

Missile Defense and the “Golden Dome” Problem: Ballistic missile defense, a high-priority item for the second Trump administration, requires pinpoint accuracy achieved extremely quickly. The Golden Dome, the proposed space-based network of sensors and interceptors for missile defense, reflects yet another example of the interagency battle for authority.⁵⁰ The USSF, NRO, MDA, and combatant commands all want responsibility for the system. Assigning this to USSPACECOM, with the USSF as the supporting and acquiring service, makes sense given the space-based nature of the system.

Next Generation of Battle Management - Air to Orbit: JSTARS and AWACS, the military's airborne battle management and surveillance platforms, are becoming increasingly out-of-date, more vulnerable, and limited. The successor to these platforms is likely to be space-based, yet it is unclear who is responsible for creating these successors. A USSF program, a joint service effort, or part of the Golden Dome initiative are all possible answers. Congress must decide which approach to pursue, and this choice will determine both the nature of the system and the future doctrine of the armed services.

Technical & Infrastructure

Public Space Infrastructure: Public space infrastructure extends far beyond GPS to include in-space refueling, communications backbones, space situational awareness systems, and debris tracking networks. Currently, the Space Force's Mission Delta 31 (MD31) operates GPS satellites used by millions of Americans daily.⁵¹ As transportation expands to include these additional critical systems, MD31's role will grow significantly. Establishing a Space Force corps of engineers that MD31 can operate under creates a long-term dedicated organizational structure for the broader task of managing America's public space infrastructure.

Energy and Propulsion: Nuclear propulsion is a top priority for future space missions due to the increased efficiencies in energy and propulsion techniques.⁵² However, no agency has clear responsibility for developing this capability for space applications.⁵³ While the DoE oversees nuclear technology research on the civil side and DARPA may pursue such technologies for defense applications, there is no coordinated approach. NASA's civilian-focused projects, such as Artemis and deep space exploration missions, could benefit from broader nuclear applications. A DoD-led initiative, with assistance from DoE and NASA, would provide the necessary coordination for this critical technology.

Planetary Defense: Planetary defense—protecting Earth from threats from the solar system, notably asteroid impacts—is a crucial responsibility. NASA's Planetary Defense Coordination Office currently identifies and tracks asteroids and comets that could pose a threat, but it has no capability to intercept or neutralize them.⁵⁴ ⁵⁵ This creates a dangerous gap between threat detection and threat mitigation. NASA, as an organization dedicated to research, lacks the operational capabilities needed for executing planetary defense missions. Assigning this complete mission to the USSF would consolidate detection and mitigation capabilities under one agency with the necessary operational expertise.

Policy Recommendations

America's fragmented space enterprise cannot compete with China's unified approach or address the critical mission gaps identified above. Congress alone has the authority to restructure America's space enterprise for strategic competition. These five recommendations provide the framework for comprehensive reform:

1. Interagency Executive Review

Congress should direct the executive branch to conduct a comprehensive assessment of all agencies involved in the space domain. This could also take the form of a new national space commission. This study must identify which agencies carry what responsibilities, which missions lack clear ownership, where overlaps exist, and how to remedy these organizational failures. The executive branch must complete the review and submit it back to Congress within 12 months. Following the model of prior reforms, such as Goldwater-Nichols or the restructuring of the Intelligence Community in 2001, this review will provide the foundation for restructuring.

2. Space Working Capital Fund

Congress should broaden the Space Working Capital Fund, which is expected to open for the USSF in late 2025.⁵⁶ Expanding the fund would enable civilian agencies, combatant commands, and potentially even U.S. allies to buy into space services, including TacRST navigation, or planetary defense services. This demand-driven approach focuses resources on areas where agencies see a need for technology, ensuring development of what is needed without bureaucratic infighting hampering innovation. Users would drive resources to the technologies and companies that are best suited for their needs, accelerating development in critical areas.

3. Committee on Space Affairs and Congressional Oversight

Oversight of the key arms of the American space program is divided among multiple congressional committees, hindering essential coordination. NASA's work is strategic and critical to the American security posture, even in peacetime. Moving NASA and the NRO under the purview of the Strategic Forces subcommittee of the Armed Services Committees would create an environment more conducive to a unified space effort. Transitioning NASA

funding into defense appropriations would further this goal. Combined with shifting the DoE's Office of Nuclear Energy into the Strategic Forces subcommittee, this consolidation would give one committee complete oversight of American space programs. This reform would help the United States capture some organizational advantages of unified space governance while enabling private sector innovation.

4. Condensed Oversight

Fragmented regulatory oversight of the American space industry undermines strategic coordination and any hope of developing and enacting a grand space strategy. The web of agencies creates bureaucratic obstacles for new companies seeking to enter the market. Consolidating space industry oversight under one agency (or at least one 'front door'), whose sole responsibility is space regulation, would solve these problems. This would streamline processes without reducing safety standards, allowing for greater innovation.

5. Department of Space

Establishing a cabinet-level Department of Space would consolidate space responsibilities into one organizational structure. Delaying this creation until the review proposed above is completed allows for its recommendations to be considered when structuring the new department. The Department of Space would house the agencies managing many of the areas discussed, enabling them to coordinate on joint missions within a unified structure rather than scattered across multiple existing departments. The department would be tasked with developing a clear vision and the execution of civil and commercial space policy for the United States. It would facilitate greater coordination among space-related functions and provide a home for emerging space-focused objectives.

Conclusion

The United States must restructure its space programs to eliminate overlap and enable effective coordination on joint missions. The U.S. must not only stay competitive but dominant in space. Currently, America is falling behind. China and near peers operate with dedicated all-nation space missions, while a web of agencies fragments the American strategy. Part of this is a result of the civil-military divide that the United States maintains.

However, even the civil side of American space faces division. NASA leads exploration, while the FAA, FCC, and OSC have licensing and oversight roles. Resolving this fragmentation does not necessarily mean utilizing the same civil-military fusion as China, but it nonetheless requires reducing the divides that the civil side experiences. NASA must reliably plan on larger time scales to prevent China from overtaking the United States as the dominant player in space. The USSF must have a clearly defined place in the United States' space program, rather than the ambiguous role it currently fills. The variety of critical missions left unclaimed by agencies represent a strategic vulnerability that competitors can exploit. Only Congress has the authority to handle these problems, and it must act decisively to effectively reorganize and unify American's space enterprise.

Endnotes

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more effective than anticipated, NASA states it needs more research to understand how effective this technique works on larger, solid asteroids.

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