

**DEPARTMENT OF THE AIR FORCE
PRESENTATION TO THE SUBCOMMITTEE ON STRATEGIC FORCES
UNITED STATES SENATE**

SUBJECT: MILITARY SPACE POLICY

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INTRODUCTION

Chairwoman Fischer, Ranking Member Donnelly, and distinguished Members of the Strategic Forces Subcommittee, thank you for the opportunity to discuss the challenges America faces in space and how the United States Air Force (USAF) will meet those challenges.

SPACE WILL BE CONTESTED ... IT IS NOW WARFIGHTING DOMAIN

For decades the United States has enjoyed unimpeded freedom of action in space. This benign environment allowed us to operate satellites for intelligence collection, missile warning, weather monitoring, communications, and precision positioning, navigation, and timing in support of all military operations for all of the services, without thinking about how to protect these systems. That environment no longer exists. Space will be contested in any conflict. Our potential adversaries understand the advantage we derive from space and view our reliance on space as a vulnerability they can exploit. Near-peer competitors will offset any U.S. military advantage derived from our space systems and continue to pursue capabilities to degrade or destroy them.

Clearly, freedom to operate in space is not guaranteed. In fact, space is now a warfighting domain, similar to the more familiar air, land, and maritime domains our men and women are fighting in today. We must ensure the reliability of our current systems and we must modernize. Our modernization will focus on our ability to deter potential adversaries, and to fight in a contested, degraded, and operationally limited environment should deterrence fail.

SPACE SUPERIORITY

Maintaining Space Superiority (freedom from attack and the freedom to maneuver and attack) is a core USAF mission. It is not just operationally important, it is also a strategic imperative for protecting U.S. and allied capabilities throughout a crisis or conflict.

The Air Force is the lead service for space. Our space systems, including our ground elements, could be the first system attacked in a high-end fight. We are committed to gaining a full understanding of space operations in a contested environment. We have dedicated time and resources to ensure our satellites have the proper mission assurance in order to survive and be available for any operational mission conducted by the Department of Defense or the Intelligence Community. Our adversaries understand that orbits can be changed, sensors can be blinded, and data can be corrupted. Space systems allow U.S. global operations to be executed with precision on a daily, worldwide basis, with reduced resources for our joint partners, allowing them to deploy fewer troops, lower casualties on the battle front, and decrease collateral damage. Space Superiority empowers both our forces and those of our allies to win faster.

U.S. GOVERNMENT ACCOUNTABILITY OFFICE (GAO) 2016 REPORT

In July of 2016, the U.S. GAO released a report, “*DEFENSE SPACE ACQUISITIONS: Too Early to Determine If Recent Changes Will Resolve Persistent Fragmentation in Management and Oversight*” (GAO Code 100289). In response, the Fiscal Year 2017 National Defense Authorization Act (FY17 NDAA) directed the Secretary of Defense and the Office of Management and Budget to provide

recommendations by June 23, 2017 on how to strengthen space organization and management.

To accomplish this, the Department of Defense (DoD) initiated a review of governance, strategy, budgeting, organization, concepts of operation (CONOPS) and acquisitions for space. The results of Air Force efforts thus far, as well as DoD-wide governance recommendations, will be reported to Congress later this summer.

USAF ORGANIZATION, POLICY, AND STRATEGY

1. Sharpen Warfighting Strategy and Policy Development.

The space enterprise is no longer simply an “enabler and force enhancer”... it is an *essential military capability* and a key component of joint warfare. When coupled with the rapidity and seriousness of the threat, we’re faced with gaps in U.S. space capabilities, as well as gaps in strategy and space policy.

While the Air Force has made progress on mission assurance and resilient capabilities in operations, current policy does not fully address deterrence and requirements for action in the 21st century. The DoD must also continue to develop a 21st century deterrence strategy which clearly addresses the recklessness of a war extending to space, while ensuring our space enterprise is postured to successfully fight and win, should deterrence fail. Space strategy and policy must be agile, able to establish and foster a joint, combined, and multi-domain warfighting construct, and adapt to meet Combatant Commander integrated priorities.

The Air Force must be able to pursue, adapt, and evolve strategy and policy to ensure unique technologies, innovative exploitation techniques, and diverse applications afford a strategic advantage in space. The proper authorities must be

appropriately placed in the hands of space enterprise commanders and officials. Those authorities must be pushed as far down as possible to ensure timely execution aligned with commander's intent. In the face of continuously adapting adversaries, evolving threats, and increased requirements for operational agility, space strategy and policy must guide decisive action to preserve the operational environment, and promote the responsible and safe use of space.

2. Strengthen CONOPS and Requirements Development.

Space is no longer a sanctuary. Most on-orbit capabilities are now vulnerable to our most challenging potential adversaries. The Air Force must prepare to survive and fight in space so that other joint forces can deploy and achieve their objectives within a complex and dynamic battlespace.

A contested space domain is a relatively new and dynamic problem set, and the USAF is updating its warfighting construct for the space joint warfighting domain to ensure freedom of action, and freedom from attack, against the spectrum of threats that range from near-peer adversaries to individual actors. The space mission force, who operate space systems 24/7/365, are training with a warfighting mindset to effectively "fight" against threats to their systems in a conflict that extends to space. This enhanced space warfighting syllabus strengthens CONOPs that define how the space enterprise will operate through all phases of conflict. It also identifies and prioritizes needs and capabilities required by joint commanders,

While there are obvious differences due to the physics of the domain, space warfighting is consistent with operations in the air—for which the Air Force has well-developed command and control and operational doctrine. Like other warfighting

domains, space effects span the globe and require centralized control and decentralized execution. Thwarting the enemy's objectives is best accomplished if actions are taken well in advance of the end-game, elevating the need for integrated courses of action in all domains. Accordingly, the Air Force is moving towards a Multi-Domain Command and Control approach that accelerates decision-making across all warfighting domains in ways that will overwhelm the adversary.

The DoD, in concert with the joint community, is also strengthening concepts of operation by developing Joint Counter-Space doctrine and publishing guidance in Joint Publications, such as Joint Pub 3-14 *Space Operations*. In addition, these CONOPS will drive future systems requirements. The Joint Staff has agreed with the Air Force's proposal to improve development of joint space requirements by adding full time USAF manpower to the Joint Staff dedicated to developing joint space requirements in coordination with U.S. Strategic Command (USSTRATCOM) and Air Force Space Command (AFSPC). The Space Requirements Integration Initiative (SRII), under the Joint Staff Deputy Director of Requirements (JS/DDR), will provide early insight into Air Force space requirements development and Air Force and Joint staffing processes. The effort will achieve Initial Operating Capability this month. In doing so, the joint space community will assist in developing and streamlining space requirements and reduce overall management time. This will ensure the DoD is able to: coordinate and integrate all space-related capability requirements; ensure requirements are identified and documented properly and to avoid the "re-litigation" of previously validated requirements; and institute the interactions with other portfolio management processes, such as the Capability Gap Assessment, Program and

Budget Review, and Capability Portfolio Management Review.

3. Accelerate Acquisition to Stay Ahead of Adversaries.

In order to align space acquisition authorities with Department roles and responsibilities, the Air Force is, first and foremost, taking action to regain Milestone Decision Authority (MDA) on multiple major space acquisition programs. These actions include the February 27, 2017 MDA reversion request and the MDA delegation requests to the Office of the Secretary of Defense. The intent is to implement and comply with Section 825 of the Fiscal Year 2016 National Defense Authorization Act (FY16 NDAA).

Most authorities essential to space acquisition improvement and success exist today, and the Air Force need only use these authorities to streamline current acquisition execution. For instance, the rapid acquisition authorities granted to the Operationally Responsive Space (ORS) program and the Air Force Rapid Capabilities Office (AFRCO) already allow execution of rapid prototyping and fielding of residual operational capability. Those authorities are supported by DoD instructions and overarching acquisition regulations that provide clear direction on alternative acquisition models, tailoring, and how to leverage rapid acquisition approaches. The USAF will exercise these authorities to the fullest extent possible, create strategies that remove potential obstacles and adapt current practices, while crafting new and improved approaches within these authorities. We must take immediate action to change the culture in our acquisition organizations to focus on speed, innovation, and risk acceptance.

4. Strengthen Joint Warfighting Organizations.

Today, every joint operation is enhanced with the integration of space capabilities. To succeed in the maritime, ground, and air domains to the degree warfighters have become accustomed, the DoD must be able to leverage the space domain similarly, which means effectively protecting and defending space capabilities for the joint fight. While current and potential enemies continue to develop space capabilities of their own, as well as systems to attack, degrade, and defeat allied space systems, the DoD must ensure our space systems and space forces are prepared to preserve the enormous investment in the space domain. Therefore, the DoD must begin shifting its organizational and training structures to normalize warfighting concepts for the space domain.

In alignment with Congressional direction to have a senior space coordination official, in accordance with H.R. 1745, Section 1602, the Secretary of Defense designated the Secretary of the Air Force to serve as Principal DoD Space Advisor (PDSA). The PDSA provides oversight of policy, resources, personnel and acquisitions and technology related to the DoD space enterprise. The PDSA also integrates the space control expertise and perspectives of appropriate organizational entities of the Office of the Secretary of Defense, the Joint Staff, the military departments, the Defense Agencies, and the Combatant Commands. The PDSA is also responsible for recommendations to the Secretary of Defense and Deputy Secretary of Defense to monitor and oversee the performance of the entire DoD space portfolio and provides cogent and analytically supported programmatic recommendations to DoD leadership. Finally, the PDSA advises on space issues

including policy and strategy formulation, international engagement, industrial base support and commercial partnerships. The PDSA construct is under review as part of the DoD response to the FY17 NDAA language on space governance. To better mitigate the threat to our space enterprise, the USAF is evolving the processes used to program, budget, develop, acquire, and field space systems in order to organize, train, and equip our forces to be successful in a contested domain, defend systems from adversary action, and to ensure space missions throughout the spectrum of conflict.

Another key aspect of this normalization of the space domain is the requirement to institutionalize the mechanisms for training and equipping a combat capable force. USAF best practices learned from operating in the air domain can serve as a basis for developing corresponding mechanisms for addressing threats in space. These include understanding the capabilities, limitations, and vulnerabilities of effective weapon systems, operational testing and tactics development for those systems, basic qualification training, and advanced training for space crews. The, Space Mission Force (SMF) construct, recently implemented by AFSPC, affords space operators the opportunity to receive advanced training. It establishes a deployment period for space crews to perform Combatant Command missions, followed by a reconstitution period to focus on advanced training requirements.

Expert training must be conducted at the unit level and also at the aggregate space domain level to ensure the force is prepared to fight their weapon systems in a threat environment. To date, by design, space operators have been trained primarily in the basic operation of space systems for the purpose of delivering space effects to

warfighters from a benign space environment. As a result, AFSPC has begun focusing on the threats in order to develop better understanding of how an adversary will operate to employ those capabilities. Leveraging the best practices of the air domain, space training must evolve to include robust development of tactics, techniques, and procedures (TTPs) for overcoming space threats, and include the entire joint team. The development of these TTPs will require the fielding of an Operational Training Infrastructure (OTI) for space systems.

HQ USAF DEPUTY CHIEF OF STAFF, SPACE OPERATIONS (AF/A11) & AFSPC

The Air Force Chief of Staff is the Joint Chief responsible for presenting space capabilities for the Joint Force and maintaining control of operational requirements. A key initiative in our efforts to strengthen our space organization is the stand up of a 3-star Deputy Chief of Staff for Space Operations position (AF/A11), who is directly accountable to the Secretary and Chief of Staff of the Air force. AF/A11 will actively posture our senior USAF leaders with the appropriate expertise to treat space as a warfighting domain and increase the speed of headquarters' decision-making. AF/A11 will also streamline operations and requirements decision making through the CSAF and the Joint Staff (vice OSD) to meet the demands of a warfighting domain.

Furthermore, as a service component to USSTRATCOM, AFSPC provides the Combatant Commander with the preponderance of its space power. In light of this, and in parallel with the stand-up of AF/A11, AFSPC/CC has been elevated to the Joint Force Component Commander for Space (JFCC Space) ... in essence a 4-star Air Force commander focused on the joint fight. Additionally, the Joint Interagency Space Operations Center (JICSpOC) has transitioned to a National Space Defense Center

(NSDC), effectively transforming the focus, resources, and energy from one of experimentation to warfighting operations.

NEAR TERM JOINT WARFIGHTING IMPERATIVES

The National Space Defense Center was placed under USSTRATCOM to better reflect its purpose, which is to defend and secure the space domain. Responsibility for the NSDC officially transferred from AFSPC and the Space Security and Defense Program (SSDP) to Joint Functional Component Command for Space under USSTRATCOM in fiscal year 2016. Funding through FY 2016 was accomplished using the unfunded requirements process, and in FY 2017 the NSDC was included in the FY 2017's President's Budget. This organization entered its initial phase of operations in November 2016 following a series of experiments and exercises designed to explore, develop, and refine operational concepts and tactics, techniques, and procedures. In strong partnership with the Intelligence Community, the team has made great strides for the nation. The USAF has shouldered the preponderance of the resource responsibility in establishing the NSDC by freeing up facility space at Schriever Air Force Base, using USAF dollars and manpower to outfit those spaces, and providing the leadership that allowed for the execution of the experimentation phase. Furthering our commitment, we are now expanding the existing NSDC floor space, upgrading the underlying infrastructure, outfitting the information systems, providing a large portion of the manpower to establish an around-the-clock operational capability that will play a key role in deterring any adversary that might consider extending a conflict to space, and to ensure critical space capabilities for our forces should deterrence fail.

CONCLUSION

Space is no longer the sole province of world powers or a sanctuary for the U.S. It is a domain where barriers to access are rapidly disappearing. In the last decade, space has become more competitive, more congested and more contested, with potential adversary capabilities growing in number and sophistication.

In response to increasing challenges in the space domain, the Air Force is fully committed to increasing resilience and deterrence as we retain our competitive advantage over our strategic competitors. We have made tremendous advancements towards unifying efforts for efficiency as a resilient and responsive leader in the space domain—but admittedly, much work remains. In 2017, your Air Force will finalize our family of space warfighting Concepts of Operations, identify our capability gaps, continue our posture transition to increase deterrence, and ensure our force can fight and win a conflict that either starts or extends into space, and strengthen our support to Combatant Commanders. We are cognizant that the decisive advantage that space brings to military operations has been the deciding factor in every military operation conducted in recent years. Your Air Force remains committed to leading the space enterprise to ensure our joint warfighters can fight and win in every domain.

We thank the Subcommittee members for their support and look forward to our continued partnership to provide resilient, capable, and affordable space capabilities for the joint force and the nation.