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SUBCOMMITTEE ON DEFENSE
HOUSE COMMITTEE ON APPROPRIATIONS
UNITED STATES HOUSE OF REPRESENTATIVES

DEPARTMENT OF THE AIR FORCE

UNITED STATES SPACE FORCE

PRESENTATION TO THE

SUBCOMMITTEE ON DEFENSE

HOUSE COMMITTEE ON APPROPRIATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

SUBJECT: Organizational Structure of the U.S. Space Force

STATEMENT OF: Lieutenant General David D. Thompson, Vice Commander, U.S. Space Force

Major General Clinton E. Crosier, Director, Space Force Planning, Office of the
Chief of Space Operations

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INTRODUCTION

Chairman Visclosky, Ranking Member Calvert, and distinguished Members of the Committee, we are honored to appear before you today in our capacities as Vice Commander, U.S. Space Force, and Director of Space Force Planning, U.S. Space Force, respectively. Thank you for the opportunity to testify before you today on our plans and vision for the U.S. Space Force.

Strong bipartisan work by Congress, in concert with the President, has given us increased authority, predictability and resources. The Bipartisan Budget Act of 2019 set national defense spending levels for FY20 and FY21 at historic highs and, with the FY20 NDAA and Defense Appropriations bills passed in late December 2019, we have been able to once again pivot our space forces to face the threat. Under the leadership of Secretary of the Air Force (SECAF) Barbara Barrett and the Space Force's first Chief of Space Operations (CSO), General John "Jay" Raymond, the successful standup of the Space Force is the Department of the Air Force's top policy priority.

We are committed to creating an organization that will be lean, effective, and mission-focused, minimizing cost and bureaucracy by leveraging existing resources. The transfer of forces and missions into the Space Force will follow a deliberate, conditions-based process to minimize risk and fulfill our responsibilities as outlined in the FY20 NDAA: *"(1) protect the interests of the United States in space; (2) deter aggression in, from, and to space; and (3) conduct space operations."*

Last year the Department of the Air Force worked closely with Congress to establish the Space Force as a co-equal branch of the military charged with protecting and defending U.S. interests in space. Following Congress' decisive and bipartisan work to establish the Space Force as our sixth branch of the armed forces, we can confidently report excitement across the Department is high and the commitment from our leadership to get this right is resolute.

STRATEGIC ENVIRONMENT

Space capabilities have become vital to our national security, economy, and way of life. Game-changing space capabilities such as global communications, missile warning, weather forecasting and global positioning, navigation and timing, have also provided our nation a distinct military advantage by enhancing the security and lethality of our Joint warfighters. For 60 years, the United States enjoyed unhindered freedom of action in space; but, our adversaries have taken notice and are aggressively investing in space technologies to challenge our use of and competitive advantage in space. In recognition of this new reality, in March 2018, the President formally defined space as a warfighting domain in the *National Strategy for Space*, acknowledging the fact that our adversaries have chosen to bring the specter of conflict into the space domain.

China is aggressively pursuing both civil and military advancements in space, fielding a robust and growing fleet of remote sensing satellites and space surveillance capabilities. The Chinese are developing sophisticated on-orbit counterspace capabilities in addition to antisatellite weapons and jammers capable of targeting reconnaissance platforms and disrupting military and civilian communications. At the same time, Russia continues to modernize its space capabilities

as it seeks to re-establish its near-peer status with the United States. The Russians have invested in space-based surveillance and ground- and space-based antisatellite systems designed to disrupt U.S. command and control, communications, and intelligence capabilities. While they lack organic on-orbit capabilities, rogue regimes like North Korea and Iran continue to advance their own abilities in the realms of cyber-attacks, and electronic warfare with the objective of disrupting, denying, deceiving, or degrading our space capabilities and holding our national infrastructure at risk.

It is within this context that the President and Congress took historic steps to establish both the U.S. Space Command (USSPACECOM) and the Space Force. In combination, these two organizations pave the way for us to advocate for, acquire, and operate the systems and develop the warfighters we need to execute the missions of defending the space domain and providing the combat effects our joint and coalition partners require and have come to rely on and expect. To maintain unfettered access and freedom to operate in space, we must be prepared to protect, defend, and, if necessary, fight in, through, and from the ultimate high ground.

FISCAL YEAR 2020 IMPLEMENTATION

In accordance with the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2020, and consistent with the National Defense Strategy, the Department views the establishment of the Space Force as a strategic imperative for our Nation. As noted in the *Comprehensive Plan for the Organizational Structure of the U.S. Space Force*, the Space Force elevates the role of space in national defense and represents an opportunity to transform how the Department of Defense (DoD) organizes, trains, and equips space forces to prepare for new security challenges in an era of great power competition.¹ Building the Space Force from the ground up is a historic opportunity. We are taking a clean-sheet approach, designing a twenty-first century military service with a streamlined organizational structure.

U.S. Space Force Standup. With the signing of the Fiscal Year 2020 NDAA, Air Force Space Command (AFSPC) was redesignated as the United States Space Force and its 16,000 military members were assigned to the U.S. Space Force. These members are assigned to Space Force but remain members of the Air Force. Some of these personnel, depending on specialty skillset, will have the opportunity to voluntarily and permanently transfer into the U.S. Space Force. A deliberate, conditions-based timeline will guide transition of both mission, units, and personnel into the Space Force with Air Force units beginning to transfer in FY20. As conveyed by the SECDEF, in his 20 December 2019 Space Force Implementation Memo, it remains the long term vision of DoD to consolidate the preponderance of space forces of all Armed Forces into the U.S. Space Force, as appropriate and authorized. DoD analysis is ongoing and will determine specific units, missions, and billets that should formally transfer from across the Army, Navy, and other DoD elements.

Headquarters Standup. The U.S. Space Force appreciates the \$40M appropriated in FY20 for the standup of the new Armed Force, and we are methodically but expeditiously hiring personnel into the new Headquarters, referred to as the Office of the Chief of Space Operations. The DoD

¹ Department of the Air Force (DAF), “Comprehensive Plan for the Organizational Structure of the U.S. Space Force,” February 2020.

provided a total of 160 billets, all within existing DoD resources, and 40 detailees in FY20 to begin the work of establishing the processes and procedures of the new Service Headquarters. We anticipate having all 200 positions filled by the end of March. Although we have an initial Headquarters organizational structure in place, in our commitment to innovation, we are currently exploring an end state Headquarters organizational design that could be quite different from other military headquarters. A standard Service headquarters could be over 1,000 personnel, but through innovative design we have already reduced our estimate by over 20 percent. We are working with Think Tanks and consultant firms to further build innovation into our final Headquarters design, with a goal of further reductions in the overall size, and enabling greater agility and reduced bureaucracy across our final processes.

Mission Focused Force. The Strategic Overview on the Space Force, submitted to Congress in February 2019 as part of the DoD legislative proposal, states “*Where appropriate, the [Space Force] will leverage existing [Air Force] infrastructure, except in performing those functions that are unique to the space domain or that are central to the independence of the new Military Service.*”

DAF is committed to ensuring the Space Force is light, lean, and mission-focused. Initially, the Space Force will be a mission-focused force comprised of uniformed military personnel and DAF civilians conducting or directly supporting space operations. The new Armed Force will create appropriate career tracks across relevant specialties, including space-specific operations, intelligence, engineering, acquisition, science, and cyber/communications. By tailoring the career fields that will be organic to the Space Force, the new Armed Force will focus resources directly on space warfighting capabilities and developing a robust cadre of space experts. The longer-term goal is to develop a cadre of more than 12,000 space professionals who will form the core of our Space Force by the end of FY25.

This mission-focused approach extends across the full range of critical support functions found in over 41 Field Operating Agencies (FOAs), Direct Reporting Units (DRUs), and Other Centralized Activities (OCAs), such as the Air Force Cost Analysis Agency, the Air Force Mortuary Affairs Operations, and Air Force Manpower Analysis Agency. Based on guidance to “*Leverage existing Air Force infrastructure,*” the Space Force will receive more than 80 percent of its FOA, DRU, and OCA support from the Air Force without incurring mission risk.

FISCAL YEAR 2021 REQUEST

The President’s FY21 budget makes key investments needed to firmly establish the Space Force, and continues the 4-year effort to field the capabilities needed to gain and maintain space superiority. The FY21 Space Force budget is approximately \$15.4 billion, representing an important investment in protecting and defending highly-capable satellite systems, developing a broad range of defensive and offensive options, fielding robust and resilient space systems and capabilities necessary to succeed in the space domain.

This year’s realignment to a separate space budget catalyzes a fundamental transformation of space from a combat support domain to a warfighting domain. First, we will protect and defend the highly-capable satellite systems that are not easily replaced while designing new more resilient systems. Second, we will develop a broad range of counterspace options to respond if

our national security space capabilities or freedom of action are threatened. To ensure a credible deterrent posture in the 21st century, we must demonstrate the capability and will to defend vital national interests across all domains, including space. Third, the Space Force will field robust and resilient space systems with a diverse architecture that will make it increasingly difficult for adversaries to benefit from an attack. Fourth, we will confuse and complicate our adversaries' decision calculus through partnerships and unpredictability. Preserving the U.S. and allied advantage in space enhances deterrence and ensures the survivability of national security space capabilities.

The most obvious change in the FY21 request is the major shift in moving existing Air Force space capability funding to the newly-created Space Force appropriations. The DAF will continue to work with the Office of the Secretary of Defense to align and unify DoD space activities into the Space Force while using existing Air Force infrastructure and support to avoid duplication of effort. The growth outlined in the FY21 President's Budget brings the Service a step closer to full operational capability and ownership of several mission sets that will transfer from the Air Force.

Operation and Maintenance. The Space Force O&M request includes \$2.6 billion for mission operations and sustainment to address day-to-day operations. The Space Force will be a mission-focused force comprised of uniformed military personnel and DAF civilians conducting or directly supporting space operations. The organizational structure of the Space Force will differ from that of the Air Force to present a flatter organization that will remove multiple layers of command and leverage common support functions and infrastructure provided by the Air Force. Air Force lawyers, doctors, civil engineers, logisticians, financial managers, and other support functions will continue to directly support space units and missions. At the headquarters level, the Space Force will be leveraging key Air Staff functions, such as civil engineering and information technology.

Functional alignment and mission analysis are ongoing to develop a final organizational design of the Space Force that takes into account DoD development of emerging space warfighting doctrine and space tactics, techniques, and procedures. Fielded space forces will be realigned around a new set of mission competencies that will allow DoD to posture for space superiority across the full spectrum of conflict and provide critical support to joint warfighting operations. Development of a field-level organizational design is underway including billet makeup and numbers. The creation of the field commands will come from existing resources and consolidate the preponderance of existing military space missions, forces, and authorities in the Space Force. These efforts will culminate with a SECAF decision on the structure of Space Force field commands and operational units by May 1, 2020.

Research, Development, Test, and Evaluation. The research, development, test, and evaluation (RDT&E) appropriation is the largest appropriation in the Space Force, comprising two-thirds of the overall budget. While a substantial portion of this is classified, the \$10.3 billion FY21 allocation does include a planned increase for the Next-Generation Overhead Persistent Infrared program, using Middle Tier of Acquisition authority to rapidly prototype more survivable missile warning satellites, and continues the development of the Next-Generation Global

Positioning System (GPS) Operational Control System, the ground component that will allow secure command of both modernized and legacy GPS satellites. Additional investments are being made in space command and control to provide space domain awareness and battle management command and control to meet emerging threats. Finally, the Space Force is committed to the weather mission and is funding the Electro-Optical/Infrared Weather System to meet important warfighting requirements. As a combined portfolio, the Space Force's RDT&E account invests to protect and defend our current space assets, to build more resilient and defensible architectures, and to develop offensive capabilities to challenge adversary space capabilities.

Procurement. The FY21 Space Force procurement appropriation will emphasize continued investment in transformational space systems at \$2.4 billion. In addition, we continue to focus on our enhanced GPS III constellation, adding two satellites this year to make this capability significantly more accurate and resilient for both military and civilian users. The National Security Space Launch (NSSL) program is fundamental to sustaining space capabilities for the Joint Force. Space and Missile Systems Command's "NSSL Phase 2 Launch Service Procurement" contract will provide continued mission success and flexibility in the contested space domain. We are funding three national security space launches to assure U.S. access to space and eliminate our dependence on non-allied engines. And as we move into Phase 2 of the launch services procurement, we look to foster a commercially competitive market to make this program as cost-effective as possible in the future. Finally, this budget also includes \$105 million for launch vehicle integration to replenish the Space Based Infrared System constellation as legacy satellites near end-of-life.

The Space Force continues to make significant improvements in acquisition reform in the areas of oversight and implementation of initiatives to increase the productivity, effectiveness, and efficiency of space acquisitions. In accordance with the authorities provided by Section 804 of the FY16 NDAA, 10 programs and various classified programs have utilized Middle Tier Acquisition authority and tailored acquisition approaches to cut documentation and reviews and flattened access to decision authorities producing an estimated time savings of 21 and a half years.

The Department's effort to design the Space Force organizational structure includes the development of integrated architectures and aligns with congressional direction to streamline acquisition functions of the Space and Missile Systems Center, Space Development Agency, and Space Rapid Capabilities Office under a single authority, the Assistant Secretary of the Air Force for Space Acquisition and Integration. Finally, the consolidation of acquisition oversight will significantly improve the Space Force's ability to integrate future space programs and architectures.

Military Personnel. To build readiness for Space operations in an era of peer-competition, the National Defense Strategy Commission recommends developing "a space cadre that ensures an

enduring focus on space capabilities and unmatched competence in this area.”² The FY21 budget anticipates 6,434 military authorizations into the Space Force to form the initial cadre of our Service. Planners are actively developing specific processes and conditions that must be met before beginning the transfer process with Air Force members transitioning first with Army and Navy members following at a later date. A separate account for Space Force military personnel is anticipated for FY 2023. The FY21 budget also plans for 3,545 civilians in the Space Force.

DoD and DAF have a unique opportunity to consider a clean sheet, 21st century approach to human capital management specifically designed for the United States Space Force's unique mission set that develops and emphasizes a space warfighting culture. DAF has established a working group that is developing innovative options to integrate the space functions of the Reserve Components into the United States Space Force. While we study these options, existing Guard and Reserve personnel remain critical to the space mission performed by the U.S. military today. These units are aligned to support the Space Force while the Department completes our analysis. We will provide more details as they become available.

DAF views growing and developing a cadre of space professionals as an imperative to meet the demands of a warfighting domain. While the Space Force will leverage the Air Force's existing training infrastructure, we are in the process of creating space-specific training programs to develop space intelligence and acquisition experts. The expansion of education and training courses would fall under the proposed establishment of a Space Training and Readiness Command as a field-level organization within the Space Force.

THE WAY AHEAD

As specified by the Secretary of Defense, it remains the long term vision of DoD to consolidate the preponderance of space forces under the Space Force as appropriate and authorized. Analysis is ongoing that will determine specific units, missions, and billets that should formally transfer from Army, Navy, and other DoD elements. A deliberate, conditions-based timeline will guide service member transition into the Space Force.

The FY21 budget builds toward the Space Force we need to win against any potential adversary. Our request was driven by our need to invest not just in quantity and near-term capacity, but also in quality and in the integrated Joint Force capabilities that keep the balance of future power decidedly in the United States' favor. But we cannot do this alone. We ask Congress and our stakeholders to partner with us in achieving irreversible momentum as we implement the National Defense Strategy and build the Space Force our nation needs.

We thank the Committee for your leadership and support. Together we will build a resilient and ready Space Force that will continue to serve as the foundation for our desire to maintain our military advantage and promote American prosperity.

² United States Institute of Peace, “Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission,” p.39.



Lieutenant General David “D.T.” Thompson Vice Commander, U.S. Space Force

Lt. Gen. David D. Thompson is Vice Commander, Headquarters United States Space Force. He is responsible to the Chief of Space Operations for the U.S. Space Force in carrying out space missions and integrating space policy, guidance, coordination and synchronization of space-related activities and issue resolution for the Department of the Air Force.

U.S. Space Force organizes, trains, equips and maintains mission-ready space forces and provides missile warning, positioning, navigation and timing and communications for North American Aerospace Defense Command, U.S. Strategic Command, U.S. Space Command and the other functional and geographic combatant commands.

Lt. Gen. Thompson was commissioned in 1985 as a graduate of the U.S. Air Force Academy. He is a career space officer with assignments in operations, research and development, acquisition and academia. He has commanded operational space units at the squadron, group and wing levels. The general is also an Olmsted Scholar, graduate of the Senior Acquisition Course and a Level III-Certified Program Manager. Prior to his assignment as Vice Commander, U.S. Space Force, Lt. Gen. Thompson was the Vice Commander, U.S. Air Force Space Command.

EDUCATION

1985 Bachelor of Science, Astronautical Engineering, U.S. Air Force Academy, Colorado Springs, Colo.

1989 Master of Science, Aeronautics and Astronautics, Purdue University, West Lafayette, Ind.

1990 Squadron Officer School, Maxwell Air Force Base, Ala.

1998 Air Command and Staff College, Maxwell AFB, Ala.

2000 Advanced Program Managers Course, Defense Sys Management College, Fort Belvoir, Va.

2001 Air War College, Maxwell AFB, Ala., by seminar

2005 Master of Science, National Security Industrial Policy, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.



Major General Clinton E. Crosier
Director, Space Force Planning
Office of the Chief of Space Operations
U.S. Space Force

Maj Gen Clinton E. Crosier is the Director, Space Force Planning, Office of the Chief of Space Operations, U.S. Space Force, Arlington, Virginia. In this capacity, he is directly responsible for formulating the DoD plan for the stand-up and operation of the U.S. Space Force. Included in his responsibilities are the macro-organizational design of the U.S. Space Force, stand-up of initial force elements, and development of funding and manpower requirements, policies, and processes that will govern the establishment of the first new Military Service in 72 years.

General Crosier attended Iowa State University on an Air Force ROTC scholarship. He was commissioned and entered the Air Force in 1988 after receiving a degree in aerospace engineering.

General Crosier has a broad range of experience in intercontinental ballistic missile and space operations, including a deployment to the Middle East as the U.S. Central Command Director of Space Forces. He has served in staff assignments in the U.S. Senate, Secretary of the Air Force's Action Group, Headquarters U.S. Air Force Office of Legislative Liaison, Office of the Secretary of Defense, Headquarters Air Force Space Command, and Air Force Global Strike Command. His operational commands include the 2nd Space Launch Squadron, Vandenberg AFB, California; 50th Operations Group, Schriever AFB, Colorado; and the 460th Space Wing, Buckley AFB, Colorado. Prior to his current assignment, Gen Crosier served as the Director, Operational Capability Requirements (A5R), Deputy, Deputy Chief of Staff for Strategy, Integration, and Requirements (Dep A5) Headquarters U.S. Air Force, and as the establisher and first Director of the Air Force Warfighter Integration Capability (AFWIC).

EDUCATION

1987 Bachelor of Science in Aerospace Engineering, Iowa State University, Ames

1990 Master of Business Administration, Summa Cum Laude, University of Southern Mississippi, Hattiesburg

1991 Squadron Officer School, distinguished graduate, outstanding contributor, Maxwell AFB, Ala.

1997 Air Command and Staff College by correspondence, Maxwell AFB, Ala.

2000 Legislative Fellows Program, U.S. Senate, Washington, D.C.

2002 Air War College, by correspondence, outstanding graduate

2004 Master of National Security Studies, highest distinction, Newport, R.I.

2004 Naval War College, distinguished graduate, Newport, R.I.

2006 Joint Forces Staff College, Norfolk, Va.