INTRODUCTION

Chairman Cooper, Ranking Member Lamborn, and Members of the Committee, thank you for the opportunity to testify today on Department of the Air Force, National Security Space Programs. It is an honor to appear before you as the first commander of Space Systems Command (SSC). Today, on behalf of the Honorable Mr. Frank Kendall III, the Secretary of the Air Force and General John W. "Jay" Raymond the Chief of Space Operations, I'd like to address how this new command is in step with other space acquisition efforts, is addressing adversarial threats to the space domain, and is mobilizing space superiority to enable both Joint and Allied forces.

As you all are well aware, space forces are critical parts of our Nation's integrated deterrence. As Secretary Kendall has stated:

> *The U.S. cannot project power successfully unless our space-based services are resilient enough to endure while under attack…equally true, our terrestrial forces, Joint and combined, cannot survive and perform their missions if our adversary's space-based operational support systems, especially targeting systems, are allowed to operate with impunity.*[1]

Thanks to the leadership and support from Congress, the Department of the Air Force and the United States Space Force are focused fully on developing and fielding space capabilities to protect American and Allied interests in every domain.

SPACE SYSTEMS COMMAND

Space Systems Command was established as a Field Command last year, in August 2021, and is the primary supplier of space-enabled capabilities to the Joint force, equipping warfighters with Position, Navigation, and Timing (PNT); Missile Warning; global Satellite Communications or SATCOM; Space Domain Awareness; and Assured Access to Space through a robust space launch enterprise, to name a few. While the Command inherited many legacy Air Force Space Command and Space and Missile Systems Center (SMC) programs, as a Field Command, we prioritize the warfighter and are shifting our efforts from legacy programs, and exquisite systems, to a resilient and hybrid architecture designed to counter threats posed by potential adversaries, particularly China and Russia. We are doing all of this while still delivering capabilities to our warfighters for the fight tonight, if needed.

SSC was purpose-built to change the way the Space Force acquires space capabilities by not only delivering on our cost, schedule and performance promises, but by embracing new acquisition processes, like the Adaptive Acquisitions Framework, to rapidly deliver capabilities ahead of emerging threats. The command is mission-focused on developments across the lifecycle that are resilient and survivable, guaranteeing to the warfighter and the Nation that space capabilities will be there in times of crisis and conflict. Finally, the command leverages partnerships to build

[1] Frank J. Kendall, III, U.S. Secretary of The Air Force, "Kendall details 'Seven Operational Imperatives' & how they forge the Future Force," Secretary of the Air Force Public Affairs, (3 March 2022).

unity of effort across the acquisitions enterprise and focuses on systems-of-systems integration across all development organizations.

When designing SSC, we canvassed our mission partners for lessons learned and we structured the command to be the best of breed between the Space and Missile Systems Center (SMC 2.0), the Rapid Capability Offices (RCO), the National Reconnaissance Office (NRO), and the Missile Defense Agency (MDA). For example, we wanted the agility of an RCO coupled with the flat organizational structure of the NRO, and the systems engineering rigor of MDA. The resulting command boasts a flat organizational structure focused on systems-of-systems integration across the DoD space enterprise and empowered by five Program Executive Officers (PEOs) focused on delivering resilient space capabilities to the Joint force.

The PEOs are equipped and empowered to execute their programs and deliver capabilities at operationally relevant speeds. Future space acquisitions will be less about delivering platform-centric solutions like the Global Positioning System constellation, and instead require a focus on delivering integrated and networked capabilities around mission areas like resilient PNT. This requires the PEOs to focus on delivering capabilities grouped into mission areas and across the entire lifecycle of the acquisition. The five PEOs organized around the following missions areas: Space Sensing; Assured Access to Space; Military Communications and Position, Navigation, and Timing; Space Domain Awareness and Combat Power; and lastly Battle Management, Command Control and Communications, more often called BMC3. Through the standup of SSC, we flattened the organization and pushed decision-making to the lowest level possible. In addition to streamlined PEO authorities, the Field Command now holds the Head of Contracting Activity (HCA) enabling us to slash coordination timelines considerably, and allowing efforts to be put on contract faster.

In recent months, Space Systems Command put on contract three more GPS IIIF satellites, which will provide regional military protection capability, an M-code signal that can be concentrated on a particular region, and provide up to 60 times greater anti-jamming measures, helping ensure our military personnel can access critical PNT data in contested environments. SSC has supported 38 launches, including five National Security Space Mission Launches. Our Space Command and Control Program is on-track this year to deliver a new suite of Space Domain Awareness tracking tools called ATLAS, which will work with the recently-fielded data platform Warp Core to replace the antiquated Space Domain Operations Center. Space Fence, a significant leap in capability for our Space Domain Awareness enterprise, has begun initial data drops into the Unified Data Library. On the talent management front, we recently hired 185 Guardians, across 16 geographic locations, who have the skills to rapidly deliver future space capabilities, and we are leveraging hiring authorities, like Highly Qualified Experts, to bring in the very best talent from industry.

In order to rapidly increase the resilience of the Nation's space capabilities, we are pursuing a "exploit what we have", "buy what we can", and "build what we must" acquisition model by building and leveraging our partnerships with industry, our Allies and our international partners around the globe. These partnerships will allow for adoption of new tools, injecting emergent technologies into the space enterprise, and building deterrent networks of space capabilities that

transcend national borders and American security and prosperity. We are underway on a number of organizational and procedural improvement efforts, and I'd like to outline just a few of them.

Leveraging Commercial Innovation

The Command is laser focused on building industry partnerships to enable rapid adoption of new commercial tools and technologies to leverage the research and development work already being done by industry. We have instituted a "Buy Before Build" mentality throughout the entire command, and are committed to leveraging the asymmetric strength that US industry and its innovative culture offers to stay ahead of the competition. We established the SSC Commercial Services Office and brought it to the National Capitol Region to both leverage the burgeoning commercial space industry and to work more jointly with the Space Development Agency, the NRO, and our Intelligence Community partners on fielding commercially-provided capabilities. The Commercial Services Office is building on the momentum set forth by the Commercial Satellite Communications Office that Congress helped transfer into the Space Force in FY2022. The SSC Commercial Services Office implements the lessons learned from commercial SATCOM purchases and extends them to other space mission areas. For example, our Space Domain Awareness division has partnered with U.S. Space Command's Joint Task Force-Space Defense Commercial Office to augment required military capabilities with resilient commercial capabilities in both data and processing efforts. Beyond the SSC Commercial Services Office, we are establishing a new, single SSC "Front Door" to help industry navigate the complexities of government acquisition and vector them to the right government customer. This will enable us to more readily engage with industry and shepherd previously obscured innovation to the warfighter.

Allied by Design

We established the SSC International Affairs Office to expand space Foreign Military Sales cases that contribute to a more resilient and integrated architecture. We are expanding cooperation and integrating the advanced capabilities of our Allies and partners who share in the cost of maintaining a safe and secure space environment. International partners have already been engaging with the Department of Air Force on space capabilities and collaboration opportunities and the DoD anticipates that to grow to over in the next few years. As we plan new acquisition efforts, international collaboration will be baked into the beginning of design reviews and early milestone approvals, saving time and funding for both the United States and our Allies.

SPACE ACQUSITION AND INTEGRATION

The Department has heard the concerns of Congress and others and focused on improving space acquisitions. Over the past two years the Department of the Air Force and the Space Force have worked with Congress to establish organizational and process improvements to strengthen and unify our Nation's space capabilities. The Department responded aggressively to address previous acquisition shortfalls. Thanks to members of Congress and this committee, the Department moved out swiftly to establish the new Office of the Assistant Secretary of the Air Force for Space Acquisition and Integration. The Department also implemented Congress's establishment of the Space Acquisition Council, established the Program Integration Council

(PIC), and created an innovative "Force Design to Program Execution" process. These organizational and process changes are now being woven together with the SSC Space Systems Integration Office, as the leader for space systems-of-systems engineering, to rapidly mature space acquisition. These efficiencies and authorities will help us deliver new capabilities at operationally relevant speeds.

FORCE DESIGN TO PROGRAM EXECUTION

In the midst of emerging challenges, such as demonstrations of destabilizing hypersonic missiles and anti-satellite weapons, the Space Force is implementing a cost-conscious, threat-informed, data-driven force design process to define space architectures that will replace single platform solutions built for a benign domain. The new process starts with the Space Warfighting Analysis Center (SWAC), supported by the PIC, by analyzing thousands of possible architectures for each mission area and evaluating the performance, cost, and resilience of each so we can clearly define the threat, inform requirements, and increase transparency with potential solution-providers to expedite delivery of capabilities.

The Space Force's Digital Transformation is assisting the streamlined Force Design and Program Execution processes. Faster decision making and more robust capability architectures are a product of digitally modeling the environment and government reference architecture performance tradeoffs against the threat to ultimately recommend an optimized constellation. The new programs will deliver a proliferated, multi-orbit architecture with built-in resilience.

The United States Space Force Chief Strategy and Resource Officer (CSRO) rapidly transforms force designs into warfighting requirements that the acquisitions community can acquire. The new "Force Design to Program Execution" process utilizes concurrent and iterative processes between the SWAC, the PIC, and CSRO in designing the requirements and initiating acquisition programs. This new "Force Design to Program Execution" process promises to significantly reduce the traditional acquisition timelines by years.

Program Integration Council

The establishment of the PIC two years ago has successfully resulted in better unity of effort in space acquisitions programs. The SSC Space Systems Integration Office acts as the secretariat for the PIC, working towards increasing collaboration and removing stove-pipes across the Department of Defense and IC space acquisition cadres. The PIC includes senior membership from the Department of the Air Force Rapid Capabilities Office, Space Rapid Capabilities Office, National Reconnaissance Office, Space Operations Command, Missile Defense Agency, Space Development Agency, Space Systems Command, and the SWAC.

The PIC takes the requirements and evaluates if there is a commercial solution available, if there is an opportunity for partnership with Allies, or if there will be a need for a program of record, and which space acquisition agency is the "best athlete" to get after the need. The PIC then makes a coordinated recommendation to the appropriate acquisition authorities regarding how best to meet the requirements.

Most recently, the PIC assisted in improving integration and coordination of programs, including for the joint SSC-NRO Program Office for SILENTBARKER (a Space Domain Awareness program) and combined program offices for Missile Warning, Missile Tracking and Missile Defense between the Space Development Agency, Space Systems Command and the Missile Defense Agency.

Space Acquisition Council

The Space Acquisition Council (SAC) utilizes the results from the PIC to advise the Space Service Acquisition Executive (SAE) on Department of the Air Force programs of record. The SAE will direct the allocation of resources to execute force designs.

One example of this at work is the SAC recommendation for executing the new Missile Warning, Missile Tracking, and Missile Defense force design through combined program offices between Space Systems Command, Space Development Agency, and the Missile Defense Agency. This example demonstrates the SAC's ability to work across organizational and agency boundaries to achieve unity of effort and eliminate duplication.

All of these organizational and process changes, driven by the Space Force with our mission partners and based on the studies and critiques on the Department of Defense's space program management shortcomings, will create resilient, Joint, integrated capabilities for the warfighter.

CONCLUSION

None of these improvements would have been possible without the steadfast support and challenges of this Committee and I thank you all for the work to continue pushing the Space Force to improve space acquisition and program management. Like this Committee, Space Systems Command is heavily invested in the success of all National Security Space programs.

I thank Congress for being a demanding customer and for their continued interest and support in the United States Space Force. I also thank the Committee for your leadership and support in military space acquisitions and for your partnership in creating the Space Force as a whole to secure our Nation's vital interests. I look forward to answering your questions today.