HOUSE COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON STRATEGIC FORCES

STATEMENT OF

LIEUTENANT GENERAL DAVID J. BUCK

COMMANDER

JOINT FUNCTIONAL COMPONENT COMMAND FOR SPACE

BEFORE THE HOUSE ARMED SERVICES SUBCOMMITTEE ON STRATEGIC FORCES ON FISCAL YEAR 2018 PRIORITIES AND POSTURE OF THE NATIONAL SECURITY SPACE ENTERPRISE

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Introduction

Chairman Rogers, Ranking Member Cooper, Members of the Subcommittee, thank you for your steadfast support of our men and women in uniform and this Nation. As this Committee is well aware, we've turned an educational corner of sorts. It's now widely-acknowledged that space is critical to the American way of life . . . this, coupled with an understanding of the compelling and compounding threats to our freedom of action in space, is the burning platform to evolve the National Security Space enterprise. It doesn't require a clean-slate approach; however, an overhaul is necessary to guarantee our freedom of access in, through and from space.

This is a challenge because, in the formative years, our National Security Space architecture was conceived, built and resourced to provide services or commodities during an era when our most significant co-orbital concern was debris. Given the emerging threat, we can no longer approach space with this service-provider mentality. Moving forward as Commander, Joint Functional Component Command for Space (JFCC SPACE), a foremost responsibility is to gain and maintain space superiority. This is a prerequisite for protecting and defending the Space Joint Operating Area and providing space force effects for Joint force combat engagement around the globe.

Over the past year we've made substantial progress especially with respect to all-domain operations and our mission to protect and defend the National Security Space enterprise. We are better warfighters. There are, however, areas that require continued focus and vigilance.

Normalizing Space Operations

Military campaigns can be domain-centric, but war is domain-agnostic--there is no such thing as a space war . . . at the macro level, it's all war. In this respect, we must treat space as we do every other domain (similar approaches, lexicon and mentality). We've made significant progress inculcating the warrior mindset and ethos with our space operators. However, we won't realize full potential until our Joint forces are as conversant about space as they are in air, land, sea and cyberspace, and space operations are fully synchronized in planning and execution.

The Space Mission Force, or SMF, construct, now in various stages of maturity across our operational Air Force space units, is central to transforming operations. The SMF focuses on the human capital aspect; it tunes our operators for current operations and prepares them for the future fight. The inherent combat operations and dwell (with advanced training) cycle underpins the evolution from service providers to warfighters--from solving engineering problems to fighting through contested, degraded and operationally-limited environments.

The good news is that I'm not talking about culture change much anymore. The young Soldiers, Sailors, Airmen and Marines who show up for duty at our space squadrons and centers have baked-in warfighter mentalities and ethos--we instill this from day one and they know no difference. We have also made significant strides evolving how we operate in the space domain over the past year. Yet there is still work to do. We have the warfighters, now we must equip them with the right tools, processes and partnerships to solidify our freedom of action in space.

Space Situational Awareness

As in all domains, we need knowledge and awareness of activities in, through and from space. This space situational awareness (SSA) is foundational and remains one of my critical

focus areas. Future conflict may very well begin in space . . . or cyberspace . . . or deep undersea--domains that challenge our ability to attribute hostile action or intent. For my part, I'm compelled to continuously improve our ability to discern who, what, when, where, why, and how --joint-warfighting awareness principles that enable space superiority. To this end, we've made good progress with several initiatives.

An important milestone was the activation of the 18th Space Control Squadron (18 SPCS) under the 21st Space Wing. This reorganization transitioned tactical-level SSA functions from the Joint Space Operations Center (JSpOC) to a squadron. The experts at the 18 SPCS focus on tactical-level functions such as sensor management, tasking and catalog maintenance. This frees the JSpOC, at the operational level, to concentrate on proactively providing terrestrial space effects for the Joint fight.

In the same vein, we recognize that some Space Traffic Management (STM) tasks are not central to our military mission--things like debris mitigation, conjunction data messages, advocacy for norms of behavior, etcetera. The Department of Defense (DoD) must always perform the SSA mission, maintain the single authoritative catalog and keep primacy over sensor tasking; however, certain STM functions may be better suited for a civil agency. To this end, the Federal Aviation Administration (FAA) Administrator and I have agreed to begin a pilot program to determine the correct path forward. As part of the pilot program, I anticipate a small footprint of FAA representatives working side-by-side with our space operators this year. However, we will continue to perform STM functions until we come to an agreement with another agency or agencies to assume some of these functions.

The JSpOC's Commercial Integration Cell (CIC) is a benchmark for commercial-military partnership. The trust built through daily interactions with full-time, commercial satellite

operator presence on the JSpOC operations floor is mutually beneficial. The ability to share information at the operational level provides insight into commercial perspectives, capabilities, best practices and technical solutions. Our commercial partners collaborate in areas like theater support, SSA, resiliency, threat mitigation and exercises. We are in the process of folding an additional company (the seventh) into this important partnership. The CIC is breaking new ground yet traditional contract mechanisms are either geared toward services contracts or research and development agreements--neither is a long-term fit for the CIC. Currently, the CIC is enabled through the latter . . . a set of Cooperative Research and Development Agreements (CRADA). We have more work to do in this area and we are proposing to extend the CRADAs to further explore options to ensure an enduring partnership.

We continue to modernize and optimize our terrestrial SSA collection infrastructure. Most notably, the Space Fence under construction at Kwajalein Atoll in the Western Pacific is on schedule for delivery in early 2019. We are excited about the projected ten-fold increase in capability it will provide--allowing us to see orbital inclinations with new, un-cued detection capabilities. Furthermore, the C-band Radar was successfully relocated to Western Australia and is operational and making significant contributions to our space surveillance network from this critical region. This new strategically significant SSA capability is indicative of our strong partnership with Australia.

The space layer of SSA was enhanced with the launch of the third and fourth Geosynchronous SSA Program (GSSAP) satellites last August. We anticipate initial operational capability from space vehicles 3 and 4 this summer. The GSSAP mission is to collect and transmit SSA data from the geosynchronous regime. Through close proximity operations, the GSSAP enables characterization for surveillance, anomaly resolution and orbital tracking data.

The constellation is operated by the 1st Space Operations Squadron at Schriever Air Force Base (AFB), Colorado. These warfighters continue to refine their craft and codify tactics, techniques and procedures while operating our "freshest set of eyes" 22,500 miles above the surface of the earth. The GSSAP constellation has already proven to be a cornerstone of our ability to ensure freedom of action in space.

Space Intelligence and Indications and Warnings

Another focus area is space intelligence and indications and warning (I&W). In all domains, robust, actionable, intelligence underpins successful operations and is critical to understanding and predicting adversary intentions and actions. This is an area ripe for growth as our national space intelligence capability has atrophied. I understand this cannot happen overnight--improving our intelligence capabilities and I&W will take time. First we must find the billets and then grow the core expertise, but we've started the conversation. To this end, the Air Force A2 has planted the seed corn by initiating a task force to assess Air Force Intelligence, Surveillance and Reconnaissance support to space operations. I am grateful for this attention and advocacy. Similarly, I am pleased with the drive within the National Intelligence Community to bolster their space intelligence capabilities across a number of agencies. Again, I recognize that this will take time, but I am also grateful for their current support to my mission and look forward to continued partnership in this area.

Authorities and Rules of Engagement

We must also get the right authorities pushed to the right level at the right time with clear Rules of Engagement (ROE). We're discovering through test and experimentation that the speed of a fight in, through and from space requires further delegation of authorities to enable

flexibility on the operational-level commander's timing and tempo. Today, the planning and approval process for certain missions can take weeks--much of this time is consumed by requirements to gain approvals from the highest-level decision-makers in the DoD. In a bygone era . . . with a service-provider construct in a permissive environment . . . there was not a compelling case to modify these authorities or implement ROEs. Today--against a thinking, capable and agile adversary--existing authorities and ROEs severely limit my ability to protect, defend and provide space effects for the Joint fight. Gaining and maintaining space superiority is foundational to everything we do. Working with higher headquarters and the Office of the Secretary of Defense, we have made progress in several respects, and we need to keep at it. I've directed my team to continue examining and exercising space authorities and ROEs during every experiment conducted at the JSpOC and National Space Defense Center (NSDC). This will help inform and provide advocacy to implement the right policies for space control that is in consonance with other domains.

Battle Management and Command and Control (BMC2)

If command and control isn't good, warfighting isn't good. Even with optimal authorities and ROEs, we will fall short absent battlespace management and command and control for our space forces. We must continue to push the edge of the C2 envelope and vigorously pursue capabilities that improve domain awareness and command and control on tactically- and operationally-relevant timelines.

Air Force Space Command (AFSPC), Air Force Rapid Capabilities Office (AFRCO), Space and Missile Systems Center (SMC), Air Force Research Lab (AFRL) and JFCC SPACE are partnering to rapidly develop BMC2 capabilities to address emerging threats. The AFRL BMC2 Joint Emergent Operational Need (JEON) team will execute three spirals of system

development over a two-year period focused on delivering initial infrastructure and applications. The JEON will provide solutions for the top 25 capability statements derived from test and experimentation efforts. The third spiral will be complete in Fiscal Year 2019.

Concurrently, the AFRCO will leverage rapid prototyping and an industry consortium to develop the BMC2 operational prototype. The industry consortia will help define open architecture standards consistent with models used with the Common Mission Control Center effort. The AFRCO will take advantage of inherent expertise with C2 development. The AFRCO will absorb the AFRL's JEON efforts with Spiral 4 to ensure the baseline infrastructure and software are consistent with the open architecture standards for space. Importantly, our space operators will be integrated with the systems development and demonstrations to ensure the program meets operators' needs. The operational prototype is scheduled to complete in the 2021 timeframe.

The Space and Missile Systems Center will lead the Enterprise Space Battle Management Command and Control (ESBMC2) program of record and serve as the enterprise manger to coordinate integration and interoperability activities across the operations centers. The SMC will sustain and modernize ESBMC2 as the program of record following the transition of the operational prototype from AFRCO. The JSpOC and the NSDC are the centerpieces of this ESBMC2 program of record.

Progress continues with the NSDC at Schriever AFB, Colorado. Changing the name of the Joint Interagency Combined Space Operations Center, or "JICSpOC," to "National Space Defense Center" is more than a name change. It captures the success, maturation and essence of this center. This said, words matter . . . and a key enabler thus far at the NSDC is the integration

of the DoD, National Reconnaissance Office (NRO) and key organizations and agencies within the National Intelligence Communities.

We discovered through experimentation that it makes more sense to keep the entry point for foreign partners--the "C" or "Combined" aspect--at the JSpOC. This is where the integration with our allies takes place. It is more efficient to leverage these relationships at Vandenberg AFB with existing facilities and processes. Additionally, "JICSpOC" did not convey the mission of the organization as my primary node for national space defense--for protecting and defending the Space Joint Operating Area. The space pros at the NSDC are on the front lines of ensuring our freedom of action in space. The "National Space Defense Center" naming convention effectively communicates this mission. Over the coming year, I'm focused on ensuring we receive adequate manning while keeping the foot on the gas pedal to ensure the BMC2 system delivery remains on track. Currently, there are over 80 people present for duty at the NSDC. I anticipate over 200 personnel working in the NSDC next year.

A key benefit of the NSDC is allowing the JSpOC at Vandenberg AFB to focus on space integration with the terrestrial Joint fight. The JSpOC will remain the integration center for our allied and commercial partners. So while our foreign teammates will not physically reside at the NSDC, they continue to be valuable partners at both the JSpOC and JFCC SPACE headquarters. This is important because if we're going to fight together, we must plan together.

This summer, we expect officers from each of our resident foreign partners--Australia, Canada, and Great Britain--to be certified Chiefs of Current Operations (CCO) at the JSpOC. For context, the CCO leads the team responsible for command and control of the DoD space enterprise and is my operational eyes and ears--vital to daily operations and integral to supporting Coalition forces worldwide. Beyond their support of daily operations, these officers

will also aid in expanding the integration between the JSpOC and their respective countries' space operations centers.

Under United States Strategic Command direction, we are also standing up a Multinational Space Collaboration (MSC) effort to facilitate information sharing with like-minded nations beyond our FVEY partners. The MSC effort allows us to explore mutual capabilities and identify opportunities for greater integration with additional international partners by collocating international liaison officers with U.S. space operators at Vandenberg AFB. We are in the final stages of concluding an agreement with Germany for a liaison officer to JFCC SPACE as the first addition under this construct. I anticipate the liaison officer will be posted at Vandenberg AFB this summer and, based on interests from other foreign partners, we expect more to follow. These partnerships help secure home-field advantage across the globe.

Progress continues toward consolidating our staff and operations center at Vandenberg AFB into a single and modern facility. The JSpOC currently resides in a refurbished Titan booster hangar and, while it has served us well for nearly a decade, this repurposed hangar cannot meet future power and communications requirements. The refurbishment of an existing facility at Vandenberg AFB is moving forward following successful relocation of critical Western Range equipment to facilitate building modifications. We project full operational capability and occupancy late 2019.

Conclusion

Every challenge is an opportunity . . . and we have many opportunities in space. As a learning organization, we will naturally continue to mature our approaches and organizational structures. The speed and complexity of future fights demands operationally agile organizations.

We look forward to working closely with General Raymond and Air Force Space Command to implement General Hyten's organizational vision for United States Strategic Command. I am wholly confident we are postured to meet future challenges and to preserve freedom of action in space for this great Nation. I thank the Committee for their leadership and advocacy and look forward to our continued partnership to guarantee our freedom of action in space for the Joint Force and the Nation.