

STATEMENT OF

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POLICY

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SUBCOMMITTEE ON STRATEGIC FORCES

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Introduction

Chairman King, Ranking Member Fisher, and distinguished members of the subcommittee: Thank you for inviting me to testify before you on the Department's Fiscal Year (FY) 2025 space budget. I am honored to appear alongside Assistant Secretary Calvelli and General Guetlein. This written testimony closely follows the testimony of the Assistant Secretary of Defense for Space Policy before the House Armed Services Committee on April 30, 2024.

The world is clearly in a time of rapid change in the space strategic environment, one which does not favor the slow or those resistant to change. As the United States evaluates the current security environment, both the People's Republic of China (PRC) and Russia are focused on rapidly fielding space and counterspace capabilities to hold our Joint Force at risk and deny us the space-based services on which our Joint Force relies. The President's space budget request of \$33.7 billion for Fiscal Year (FY) 2025 – including \$25.2 billion in investments for procurement and research, development, test, and evaluation – will advance a wide array of space capabilities critical for continued access to the space-based services we rely on and to ensure the space domain remains safe, stable, secure, and sustainable. These investments will help protect the Joint Force and ensure our ability to operate in a contested and congested environment.

FY 2025 Space Budget Request

The President's FY 2025 budget request of \$33.7 billion for space strikes a balance among current warfighting needs, modernizing our architecture, and developing new capabilities to outpace our potential adversaries. This request includes approximately \$8.5 billion for

military construction, military personnel, and funding for operations and maintenance. The budget request also identifies \$25.2 billion in investments in resilient architectures, space command and control, integrated space fires and protection capabilities, modernized and agile electronic warfare architecture, enhanced battlespace awareness and space systems defense, and a range of capabilities designed to enhance our space control. Important investments for the Department include:

- \$2.4 billion for National Security Space Launch, which will procure 11 launch vehicles to provide assured access to space and will modernize space launch ranges to support increased commercial use.
- \$1.5 billion for more resilient positioning, navigation, and timing (PNT) and Global Positioning System (GPS) III Follow-On satellite support, including procurement of two GPS III Follow-On satellites and Next-Generation Operational Control System (OCX) development.
- \$4.2 billion for a resilient protected tactical, wideband, and narrowband communications architecture and the Space Development Agency's proliferated low Earth orbit (pLEO) transport layer development.
- \$4.7 billion to develop new proliferated Resilient Missile Warning / Missile Tracking architectures and Next-Generation Overhead Persistent Infrared (OPIR) space and ground architectures.
- \$12.3 billion for a range of capabilities to increase resilience of existing architectures and to enable us to protect our space interests during competition, crisis, and conflict.

While the depth and breadth of space threats continues to rapidly expand, we can only meet these challenges through strong and sustained investments in our space capabilities. The

Department cannot operate effectively or efficiently under repeated continuing resolutions. I urge Congress to ensure the timely passage of appropriations for Fiscal Year 2025.

Security Environment

People's Republic of China (PRC)

According to the Office of the Director of National Intelligence's (ODNI) 2024 Annual Threat Assessment (ATA), China will probably have achieved "world-class status in all but a few space technology areas" by 2030. The PRC views the space domain, and the ability to deny space to PRC adversaries, as a critical component of modern warfare. The PRC has made significant investments in space systems to rapidly expand its ability to monitor forces across the globe, improve its long-range precision strike capabilities against U.S. and allied forces, and deter or deny outside regional intervention. To advance its concept of "informatized" warfare, the PRC continues to develop and modernize space capabilities to conduct intelligence, surveillance, and reconnaissance (ISR) and to enhance communication, data relays, and PNT for its forces. The PRC also continues to rapidly develop counterspace capabilities to hold our on-orbit assets at risk. These capabilities include electronic warfare systems, direct-ascent anti-satellite missiles, directed-energy systems such as ground-based lasers, potential space-based kinetic weapons, and orbiting space robots. To support its increased investment in space, the PRC is modernizing its launch capabilities and capacity to reconstitute its space capabilities if needed.

Russia

Russia is seeking to mitigate U.S. spacepower by developing a range of offensive counterspace capabilities, including electronic warfare, directed energy weapons, direct-ascent anti-satellite missile systems, and orbital systems with counterspace applications. Russia's investments in counterspace systems are designed to exploit what Russia views as U.S. overreliance on space for conducting military operations and to offset perceived U.S. military advantages. As noted in the ODNI 2024 ATA, Russia will be more reliant on counterspace capabilities as it rebuilds its ground force from extensive losses in its war against Ukraine. Russian military doctrine embraces multi-domain attacks, using both reversible and irreversible capabilities, to target adversary satellites. Russia has conducted cyber intrusions against commercial satellite communication networks, and Russia has demonstrated through both public statements and actions that it views commercial satellites providing space-based services to Russia's adversaries as potential targets. Russia is also developing a concerning anti-satellite capability related to a new satellite carrying a nuclear device. The Department is extremely concerned that Russia may be considering the incorporation of nuclear weapons into its counterspace programs, based on information we deem credible. The United States has been aware of Russia's pursuit of this sort of capability dating back years, but only recently have we been able to make a more precise assessment of their progress. This capability could pose a threat to all satellites operated by countries and companies around the globe, as well as to the vital communications, scientific, meteorological, agricultural, commercial, and national security services humanity depends upon.

Democratic People's Republic of Korea (DPRK)

The DPRK is a persistent threat and source of continuing provocations to both the United States and our allies and partners. The DPRK continues to pursue its space program, conducting several reconnaissance satellite launch attempts over the last year in violation of multiple UN Security Council resolutions related to DPRK use of ballistic missile technology. The DPRK also maintains previously demonstrated non-kinetic counterspace capabilities, including systems for jamming communications and GPS signals.

Iran

Iran is continuing to develop its space program. In February, Iran used Russian launch services to place communications and navigation satellites into orbit. Iran has also publicly acknowledged its capabilities to jam satellite communications and GPS signals. Its continued development of space launch vehicles (SLV), such as the Simorgh, would shorten the timeline to produce an intercontinental ballistic missile, if it decided to develop one, because the systems use similar technologies.

Growing Use of Commercial Space Services

The advantages of space-based services are no longer exclusive to nations with indigenous space programs. Many space services are now commodities; for instance, satellite communication services and readily available, highly detailed satellite imagery can be procured by nascent space-faring nations and non-state actors alike. The Department greatly benefits from the innovation of our commercial space sector. We also recognize that our adversaries and competitors will seek to exploit satellite imagery, data, communications, and other commoditized

services through illicit means and through commercial entities and avenues beyond U.S. regulatory regimes. In this respect, space-based services are no different from goods and services in sectors across the economy.

Space Strategy and Policy Investments

The space domain is critical to U.S. national security and essential to all four of our National Defense Strategy's priorities. Our Joint Force relies on space-based services every day to conduct operations and likewise relies on space control capabilities to protect itself from space-enabled attack.

Our competitors recognize the importance of space to the United States, and they continue to develop and field counterspace capabilities designed to deprive us of the advantages of space during conflict.

Over the last two years, in partnership with Congress, the Department has made significant progress on four key space strategy and policy priorities: space control, space cooperation, space classification, and commercial space integration. To maintain our advantage in space, the Department will continue to press on these four priorities.

Space Control

In 2022, at the request of the President's national security advisor, the Department worked with the Intelligence Community to conduct the Space Strategic Review (SSR). This extensive effort baselined the entire national security space community on our overall space posture and where we need to head. Our analysis confirmed that China is the Department's pacing challenge in the space domain, and that space is in fact an operational domain where we

must defend our national security interests and counter space-enabled threats. In June 2023, the President approved the Space Security Guidance, affirming the SSR's recommendations.

As we implement that guidance, our primary means of deterring in space will be through resilience. The Department continues to adopt resilient-by-design architectures through a range of approaches, including disaggregation, distribution, diversification, proliferation, and protection. One way we are increasing the resilience of our space capabilities is through the Space Development Agency's proliferated satellite architecture. In April 2023, the Department launched the first 10 satellites of the Proliferated Warfighter Space Architecture, followed by an additional 13 satellites five months later. This was accomplished in less than three years from contract award to launch, an accelerated timeline made possible by leveraging commercial satellite bus lines and existing technologies. This architecture will enhance and support no-fail missions such as networked communications, missile warning, missile tracking, and missile defense.

But resilience alone is insufficient to provide mission assurance or to deny adversaries' uncontested use of space in conflict. The Space Security Guidance made clear that the United States will defend space systems, and we will protect and defend our men and women in harm's way from space-enabled threats, just as we do for threats they face in and from land, sea, and air. This may require the Department to take action to ensure that our potential adversaries are unable to rely on their space systems to find and strike U.S. and allied forces. As part of the U.S. Government's integrated deterrence strategy, the United States may leverage counterspace options across all operational domains if necessary. In doing so, the Department will continue to be a leader in the responsible use of space to ensure that the domain remains safe, stable, secure, and sustainable.

The Department continues to advance our Tactically Responsive Space capabilities to support integrated deterrence and warfighting needs. Last September, the Victus Nox mission successfully launched, with 24-hour notice, showcasing our ability to rapidly respond to emerging situations as well as highlighting the benefits of leveraging commercial systems, capabilities, and services. A new tactically responsive space mission, Victus Haze, will exercise a realistic threat response scenario in an on-orbit space domain awareness demonstration. That launch is planned for late-2025.

In developing and, if necessary, using our capabilities to protect the Joint Force, we will ensure that space is safe, stable, secure, and sustainable so that everyone may benefit from using space for peaceful purposes. We do not make that commitment lightly. The Department is leading by example and adheres to the Secretary's Tenets of Responsible Behavior in Space, which include limiting generation of long-lived debris, operating in a professional manner with due regard to others, and avoiding the creation of harmful interference.

The Department also supports this Administration's work to advance national security norms in space through the United Nations (UN), including our commitment not to conduct destructive, direct-ascent anti-satellite missile testing. We also supported this year's U.S.-Japan co-drafted UN Security Council resolution, which would have reaffirmed the obligation not to place in orbit around the Earth any objects carrying nuclear weapons, or any other kinds of weapons of mass destruction. Concerningly, Russia vetoed that resolution.

Our approach is in stark contrast to the behavior of our competitors. In the past 20 years, both Russia and China have irresponsibly and destructively conducted debris-generating direct-ascent anti-satellite missile tests. And even while both countries continue to develop, test, and deploy weapons on-orbit, they simultaneously promote at the UN hollow, unverifiable treaties

against the weaponization of space. At the same time Russia and the PRC refuse to join dozens of others in committing to an actual norm of responsible behavior: not to conduct destructive direct-ascent anti-satellite missile tests. No one wins if space is overrun by debris. We continue to call on our competitors to demonstrate their commitment to preserving space as a safe, secure, stable, and sustainable domain.

Space Cooperation

The U.S. network of allies and partners is an asymmetric advantage that our competitors cannot match. Through space cooperation with our allies and partners, we broaden the number of systems collectively available for space operations, both on orbit and on the ground; strengthen resilience; expand our options for diplomatic and military responses; and complicate an adversary's decision making. The Combined Space Operations (CSpO) Initiative, a group of defense representatives from likeminded nations, continues to be the premier forum for civilian and military national security space leadership to work toward shared goals. In December 2023, the CspO Initiative Principals Board welcomed representatives from Italy, Japan, and Norway as new members of the body, joining representatives from Australia, Canada, France, Germany, New Zealand, the United Kingdom, and the United States.

The Department is also investing in bilateral space cooperation around the globe. Last year, my team conducted the first bilateral space cooperation dialogue with the Indian Ministry of Defense. We advanced discussions with our Japanese partners on finalizing our unique space domain awareness hosted payload partnership. U.S.-Norway collaboration enabled the integration of U.S. payloads on two Norwegian satellites to provide 24/7 protected satellite communications for forces operating in the Arctic. The Department has been, and will continue

to be, committed to expanding space cooperation to enhance information sharing, set standards for interoperability, promote responsible behavior, and develop combined operations in space.

But space cooperation is not only about working with allies and partners. It is also an important tool we use with our competitors to navigate challenging issues, avoid misunderstandings, and maintain stability. Since President Biden's summit with President Xi last year, my team has been part of bilateral exchanges with their Chinese counterparts on space security. Both the United States and China have a vested interest in a safe, secure, stable, and sustainable space domain, and both sides will benefit from continuing to talk. The United States and China conducted an initial consultation on bilateral arms control and nonproliferation in November 2023, which included a discussion of space security issues. Since then, the United States has sought a substantive response from the PRC on concrete ways to reduce strategic risk, including instituting bilateral pre-notifications of strategic ballistic missile test launches or adopting measures to deconflict activities in space. Unfortunately, the PRC has declined a follow-on meeting and has not provided a substantive response to our suggested options.

Space Classification

Our ability to work closely with allies and partners in the space domain, and our ability to use our space capabilities to protect and defend the Joint Force, requires the right information getting to the warfighter at operationally relevant speeds. But that information flow continues to be significantly hampered by the overclassification of space activities.

In coordination with Defense and Intelligence Community stakeholders, my team spent more than a year completely rewriting a 20-year-old legacy space classification policy, which reflected priorities of a different time and a different security environment. That legacy policy

limited our ability to share information within the Department, limited our ability to cooperate with our allies and partners, and limited the ability of our industry partners to provide cost effective and timely solutions to difficult problems. Ultimately, it limited our ability to adequately plan and train for conflict as we must in this era.

In December 2023, Deputy Secretary Hicks approved our entirely new space classification policy. Across the Pentagon, there is now a concerted effort to implement that policy and decrease the siloed nature of space activities. The Military Services are reviewing programs to reduce their classification to a level that benefits the warfighter. And we are leaning forward on how much we can share with our allies and partners, including industry, to allow more meaningful cooperation.

Our goals are to enable better integration of space in joint and combined operations, ensure that classified capabilities are accounted for in war plans and exercises, and still maintain protections for information appropriate to today's needs. Over time, the new policy should dramatically improve information flow and reduce the time and money required to build future systems.

Commercial Space Integration

Just last month, in April 2024, the Department released its first-ever Commercial Space Integration Strategy. Shortly after, the U.S. Space Force released a service-level strategy, nested under the broader DoD document. This marks a new effort to harness the remarkable innovation of the commercial space sector to enhance our resilience and strengthen integrated deterrence.

To protect our men and women in uniform and ensure the space services they rely on will be available when needed, the Department has a responsibility to leverage all tools available. That includes commercial solutions.

From more mature capabilities such as launch, space domain awareness, and satellite communications, to emerging capabilities such as on-orbit mobility and logistics, the commercial sector's ability to innovate, scale production, and rapidly refresh technology is opening the door to all kinds of possibilities.

Our National Defense Strategy directed the Department to increase collaboration with the commercial space sector and leverage its technological advancements and entrepreneurial spirit. The Department's new Commercial Space Integration Strategy and the U.S. Space Force's companion Commercial Space Strategy follow through on that directive.

The degree to which commercial space capabilities and services can benefit U.S. national security will ultimately be measured by how well the Department can actually integrate commercial solutions into the way we operate, not just in peacetime, but also in conflict. To accomplish this, as Secretary Austin wrote in the foreword to the strategy, the Department needs "to eliminate the structural, procedural, and cultural barriers to overcoming legacy practices and preconceived notions of how the commercial sector can support national security."

Over the last year, my team engaged directly with space stakeholders across the Department, with interagency partners, and with commercial space entities of all sizes. We hosted roundtables, tabletop exercises, and informational sessions to better understand how commercial space solutions could support the Department, while also accounting for the commercial sector's interests. Informed by that body of work, our new strategy directs the Department to pursue four lines of effort for commercial space integration: (1) ensure access to

commercial space solutions across the spectrum of conflict; (2) work to achieve integration prior to crisis; (3) establish the security conditions necessary to integrate commercial space solutions and help commercial providers reduce risk; and (4) support the development of new commercial space capabilities that have the potential to support the Joint Force.

This is an important new effort that leverages American ingenuity to enhance the resilience of our national security space architecture and strengthen deterrence. The strategy is deliberately unclassified to be transparent about what we need to achieve, and to hold ourselves accountable for what we have committed. I am confident it will pay dividends for the Department for years to come.

Conclusion

Space capabilities are essential to overall military effectiveness and central to the Department's integrated deterrence strategy. As we contend with a dynamic security environment, the Department remains committed to making critical space investments to deter our competitors and prevail in conflict should deterrence fail.

Thank you to the subcommittee for your tireless dedication to the Department and our servicemembers, and for the opportunity to come and speak with you today. I look forward to answering your questions.