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STATEMENT BY

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Introduction

Chairman DesJarlais, Ranking Member Moulton, and distinguished members of the Subcommittee: Thank you for inviting me to testify before you on the Department of Defense's (DoD) nuclear forces and atomic energy defense activities. I am honored to appear alongside Vice Admiral Wolfe, Lieutenant General Gebara, Dr. Vann, and Ms. Robbins.

The strategic threats to our nation continue to mount. China, Russia, and the Democratic People's Republic of Korea (DPRK) are fielding more advanced missiles with greater ranges and in greater numbers, providing them the means for strategic-level attack against the U.S. homeland. They are also rapidly modernizing, expanding, and diversifying their nuclear forces, incorporating advances in warheads, delivery systems of all types, and supporting command and control (C2) systems. Iran, meanwhile, continues to engage in concerning behavior related to enrichment and pursuit of nuclear-capable missiles. These developments pose an increasing threat to the United States and our allies and partners.

The nation's nuclear forces and supporting infrastructure remain the foundation of deterrence and defense against the growing threats to the homeland and to our interests abroad. We continue to affirm and support full scope modernization of U.S. nuclear forces and nuclear command, control, and communication (NC3) capabilities, as well as modernization of the complementary defense industrial base and the Department of Energy's nuclear production enterprise. However, we recognize that the current nuclear modernization program was conceived at a time when the United States and its allies did not contemplate a world with multiple nuclear challengers who are uninterested in arms control. In assessing how to address the evolving security environment with multiple nuclear challengers who are

making nuclear weapons more central to their national security, it may be necessary to adapt current U.S. force capability, posture, composition, or size. The Department will continuously evaluate whether adjustments should be made, and, when appropriate, make recommendations to the President.

Security Environment

From a nuclear deterrence perspective, this security environment with multiple nuclear challengers is unprecedented. China is expanding its nuclear arsenal at extraordinary speed and opaqueness, developing a nuclear triad of land-based and sea-based missiles and a nuclear-capable strategic bomber. The U.S. Intelligence Community assesses that China will have more than 1,000 operational nuclear warheads by 2030, many of which will be deployed at high readiness. Today, China maintains a diverse, more capable arsenal of intercontinental-range forces, theater-range road-mobile ballistic missile systems capable of launching unitary and multiple independently targetable reentry vehicles (MIRVs). In addition, China is developing advanced nuclear delivery systems, such as a strategic hypersonic glide vehicle (HGV) and a fractional orbital bombardment (FOB) system.

China has not publicly or formally acknowledged or explained its rationale for its rapid expansion and diversification of nuclear warhead and missile arsenals, yet the trajectory of its expansion points to a large, diverse nuclear arsenal with a high degree of survivability, reliability, and effectiveness. These developments, which stand in contradiction with its stated No First Use policy, could provide China with new options, both prior to and during a crisis or conflict, to leverage its nuclear capabilities for coercive purposes against U.S. allies and regional partners. Unfortunately, China's lack of transparency, growing military assertiveness, and reluctance to

engage in meaningful conversations on strategic risk reduction and arms control raise questions regarding China's intentions, nuclear strategy, and doctrine.

China also continues to develop counterspace capabilities to contest or deny other nations' access to and operations in the space domain. These include direct-ascent anti-satellite missiles, co-orbital satellites, electromagnetic warfare, and directed-energy systems. China seeks to enhance the People's Liberation Army's (PLA) space-enabled capabilities – including systems enabling the ability to track, target, and strike our Joint Force – and is increasing the number of space systems it has on orbit.

Russia's nuclear forces continue to pose an existential threat to the United States and U.S. allies and partners, and Russia continues to modernize and diversify its growing arsenal of strategic and theater-range nuclear weapons. This arsenal features centrally in Russia's overall security strategy, as seen in Russia's nuclear saber-rattling throughout the war in Ukraine. In addition, Russia is pursuing novel and destabilizing nuclear systems that are additive to its existing capabilities, and are designed to hold the U.S. homeland, allies, and partners at risk.

Russia has relied extensively on ballistic, cruise, and hypersonic missiles and Unmanned Aircraft Systems (UAS) in Ukraine. It has employed air-launched, ground-launched, and sea-launched systems, some of which could also deliver a nuclear warhead. Russia also seeks to exploit what it perceives as U.S. reliance on space for military operations and is investing in a similar range of offensive counterspace capabilities. Russia also engages in intermittent GPS jamming, which threatens peaceful maritime and air operations and increases the risk of mishaps. The Department remains concerned that Russia is developing a new satellite meant to carry a nuclear weapon as an anti-satellite capability. Placing a nuclear weapon, or other weapon of mass destruction, in orbit around the Earth, installing such a weapon on celestial bodies, or

stationing such a weapon in outer space in any other manner would violate international law and would be inherently destabilizing because of the potential for miscalculation, the risk of technical mishap, and the potential for Russia's loss of command and control. Placing a nuclear weapon on orbit is not merely a threat against any one nation, but a threat against all nations. A detonation of such a weapon would likewise be perceived as an attack on the United States and harm all nations because it would damage or destroy space systems that all nations depend upon, including systems providing vital communications, scientific, meteorological, agricultural, commercial, public safety, and national security services.

The Democratic People's Republic of Korea's (DPRK) arsenal of nuclear weapons and ballistic missiles, which violate multiple UN Security Council Resolutions, continues to expand, diversify, and improve. The DPRK has been improving its ICBM capabilities in recent years through frequent long-range tests, including the test of a new, more powerful solid-fueled missile last October, which is capable of reaching most of the continental United States. The DPRK's short-range and medium-range ballistic missiles, cruise missiles, multiple launch rocket systems, and artillery remain a substantial threat to the DPRK's neighbors, Eastern Europe, and U.S. forces in the region. At the same time, the DPRK actively threatens peaceful maritime and air operations through intermittent GPS jamming, increasing the risk of mishaps, accidental border incursions, and inadvertent escalation. The DPRK's nuclear and missile capabilities pose a clear and grave threat to the stability of the Korean Peninsula, the wider Indo-Pacific region, and increasingly to the U.S. homeland.

Iran maintains the largest missile program in the Middle East and in 2024 twice demonstrated its willingness and ability to conduct and deliver coordinated air and ballistic missile strikes of more than a thousand kilometers against Israel. Iran continues to develop its

missile capabilities and its pursuit of space launch vehicles (SLVs), such as the Simorgh, would shorten the timeline to produce an ICBM. These developments occur as Iran remains the world's foremost proliferator to state and non-state entities – including proxy and terrorist group – of ballistic and cruise missiles and UAS attack systems and related technologies.

Although Iran does not possess a nuclear weapon today, its concerning nuclear activities, including enrichment, continue alongside its missile developments. Iran is in breach of its Nuclear Non-Proliferation Treaty (NPT) obligations by concealing undeclared nuclear sites and material as required by its Comprehensive Safeguards Agreement with the International Atomic Energy Agency (IAEA). Public reports indicating that Iran may now be engaged in computer modeling related to nuclear weapons development raise significant concern.

Adversary Cooperation

We also see these countries working together to advance their respective interests. Russia has provided technical and economic assistance to the DPRK and Iran in return for thousands of munitions, attack drones, and ballistic missiles. DPRK missiles transferred to Russia have been tested and employed on the battlefield in Ukraine, resulting in improvements in their accuracy and destructive capability. The DPRK has also sent soldiers to the battlefield in Ukraine. The significant growth in the DPRK-Russia strategic partnership, which has violated multiple UN Security Council resolutions, merits close attention because the two countries increasingly share resources, knowledge, and technology to bolster and expand their repertoire of air and missile inventories. The possibility of further collaboration between nuclear-armed competitors represents a serious threat to U.S. interests and must be monitored carefully.

Nuclear Strategy and Posture

Foundations and Strategic Approach

Defending the U.S. Homeland is the DoD's top priority mission. This includes deterring a nuclear attack. U.S. nuclear weapons undergird all defense priorities, fulfilling three overarching roles: deterring nuclear and non-nuclear strategic attack, assuring our allies and partners, and enabling achievement of Presidential objectives if deterrence fails.

Deterrence is fundamentally about influencing adversary decision-making, and our nuclear posture shapes adversary decision-making in peacetime, crisis, and conflict in ways that no other military capability can. Not all adversaries are deterred in the same way. As such, a capable, credible, and effective nuclear deterrent provides the President with flexible capabilities that can be tailored to deter, and if necessary, respond to, a spectrum of adversaries and contexts. For the foreseeable future, U.S. nuclear capabilities will continue to provide a necessary, unique, and irreplaceable contribution to deterrence. Therefore, the full scope modernization of U.S. nuclear forces and NC3 capabilities, as well as modernization of the complementary defense industrial base and the Department of Energy's nuclear production enterprise, are critical to our national security priorities.

Deterring strategic attack is an enduring requirement, which means that we must prioritize sustainment of our legacy nuclear forces alongside our modernization efforts. Our legacy nuclear forces remain ready, but they have all exceeded their planned service lives and are showing their age.

The multiple nuclear challenger problem that we confront places demands on our deterrence and defense posture that no U.S. presidential administration has had to face since

the first nuclear weapon was developed. While each challenger presents individualized risks to the United States, the simultaneity and growing collaboration between these challengers forces us to think in new ways about what it takes to maintain stable deterrence, provide extended deterrence to our allies, deter opportunistic aggression in the event deterrence fails against any one challenger, and manage increasingly complex escalation dynamics.

Recognizing this challenge, the Department's current nuclear employment posture and planning guidance begins to address the risk presented by multiple nuclear challengers, both in planning approaches and in regard to how we will consider future possible force posture, composition, readiness, and size adjustments. In implementing this guidance, we recognize that the current nuclear modernization program was conceived in a different, less complex security environment.

The Department agrees with the bipartisan Strategic Posture Commission that the nuclear program of record – which mostly replaces existing capabilities on a like-for-like basis – is necessary but may not be sufficient to meet the new threats. From the Department's perspective, it is critically important that the President have sufficient flexibility in his nuclear forces to ensure he has the tools to continue deterring adversaries, to assure allies and partners and, if deterrence fails, to achieve his objectives. All our nuclear sustainment and modernization efforts and, potentially, any nuclear force adjustments, have the goal of bolstering deterrence and maintaining presidential decision space to favorably manage escalation at the lowest level of employment, in the event deterrence fails.

We face several dilemmas in contemplating possible changes. Our existing defense industrial base and nuclear production enterprise have aged, possessing limited capacity and, in some respects, are reestablishing manufacturing capability that has long been dormant.

Today, the defense industrial base is simultaneously tackling multiple nuclear delivery modernization programs and nuclear warhead acquisition or life extension programs. Many of these programs are technologically complex, reliant on new technologies, and attempt to scale at a level that has not been undertaken since the end of the Cold War. As a result, several programs are delayed. On top of this, we recognize the difficult resourcing choices the Department faces in trying to balance nuclear modernization needs and demands for modernization of capabilities in non-nuclear domains.

The U.S. ability to project power and protect vital U.S. interests depends on strategic deterrence holding in peacetime, crisis and conflict, 24/7/365. We need to face these challenges and make smart, informed decisions on force posture, composition, readiness, and size adjustments necessary both to carry us through the transition period from legacy systems to the fielding of their modem replacements, and to lay the groundwork for ensuring our capabilities are sufficient to maintain the deterrence mission beyond the transition.

Looming less than one year away is the expiration of the New START Treaty in February 2026. In the absence of any breakthroughs on arms control, this will be the first time in decades there is no international agreement to limit the size of U.S. and Russian strategic nuclear forces. We have laid the groundwork for responding to this potentially unconstrained nuclear environment by exploring options to increase future launcher capacity or deploy additional warheads on the land, sea, and air legs. We also remain open to risk reduction efforts and arms control agreements that enhance U.S. security by helping to manage competition among nuclear states. Moreover, a future arms control framework must take into account the rapid growth and projections of China's nuclear forces. If the circumstances for arms control negotiations emerge, the Department stands ready to contribute to these efforts.

Allies and Partners

The United States remains committed to maintaining our extended deterrence relationships, which reflect an ongoing and robust commitment from allies and partners to contribute to a strong and credible deterrence. At the same time, our allies and partners understand that the United States will continue to emphasize that strong and healthy alliances and partnerships cannot be one-sided, lest the foundation of mutual trust erodes. We want allies not dependencies.

To that end, NATO will remain a nuclear alliance and U.S. forward deployed nuclear weapons in Europe will continue to play a critical role in U.S. security. The nuclear forces of the United Kingdom (UK), which explicitly contribute to the defense of NATO, and the nuclear forces of France, which are independent, but which have always had a European dimension, also contribute to deterrence. In this respect, the United States, the UK, and France (P3) have strengthened our collective commitment to the nuclear mission in NATO while also improving coordination on strategic activities, deterrence messaging, and threat assessments. We will continue to work closely with all relevant allies to ensure a strong nuclear deterrence posture in NATO commensurate with the growing threats that this most crucial of alliances faces. We have also conveyed that the United States does not see a tension between a Europe that has primary responsibility for conventional defense of the European continent and our continued commitment to working with NATO allies to ensure the continued credibility and effectiveness of NATO nuclear deterrence, underpinned by the full range of U.S. nuclear capabilities.

In the Indo-Pacific region, China is by far the most comprehensive and serious challenge to U.S. national security, while the DPRK poses a persistent though lower threat to

U.S. interests. In the face of this, we continue to partner with the Department of State and other interagency stakeholders to deepen our dialogues with Australia, Japan, and the Republic of Korea (ROK). The annual U.S.-Australia Strategic Policy Dialogue encompasses cooperation on a range of strategic challenges, including extended deterrence, and arms control. The biannual Extended Deterrence Dialogue with Japan addresses enhancing bilateral cooperation, improving coordination, and strengthening the alliance's capabilities. The Nuclear Consultative Group with the ROK also meets biannually and focuses on bolstering nuclear cooperation, including through in-depth discussions on the alliance's approach to conventional-nuclear integration. The U.S.-ROK Extended Deterrence Strategy and Consultation Group (EDSCG) serves as a key annual forum for the alliance to discuss and coordinate on security and policy issues affecting the Korean Peninsula and broader Indo-Pacific. These bilateral dialogues provide us with venues to discuss our deterrence policies, strategic messaging, and activities to reinforce national interests.

We continue to strengthen these dialogues through discussions of escalation dynamics, strategic messaging, potential impact of other adversary strategic capabilities, and enhancement of alliance consultations. We are also exploring ways, across all our extended deterrence relationships, in which allied non-nuclear capabilities can support U.S. deterrence operations so that our allies can bolster their deterrence contributions in a concrete manner.

U.S. Nuclear Capabilities and Nuclear Infrastructure

As the nuclear arsenals of China, Russia, and the DPRK grow, U.S. nuclear weapons will continue to provide a necessary, unique, and irreplaceable contribution to deterring strategic attacks against the United States and our allies and partners. While we are confident that our nuclear deterrent remains safe, secure, and effective today, we face difficult and

important decisions to ensure it remains so in the coming decades. In these respects, congressional support of our nuclear capabilities and the supporting infrastructure will be critical to maintaining our deterrent.

There are two distinct facets to how U.S. nuclear weapons deliver deterrence on behalf of the nation. Certain capabilities are primarily suited to deterring strategic attack against the homeland – i.e., central deterrence. Other capabilities are better suited to deterring theater nuclear attack and managing escalation – i.e., regional deterrence. These concepts are not mutually exclusive of each other in that nuclear employment in a region, of any scale, is a plausible pathway that could escalate uncontrollably into a larger-scale exchange implicating the U.S. homeland. Modernized nuclear forces will be essential for sustaining and strengthening central and regional deterrence.

To support central deterrence, the Department is focused on the timely replacement of Cold War era systems across all three legs of the triad, all of which have exceeded their planned service lives. The new systems are mostly on a like-for-like basis intended to replace the full triad, with little to no margin between the end of effective life of existing systems and fielding their replacements. The continued sustainment of legacy systems is imperative to avoid a deterrence shortfall and to mitigate risk during the transition to modern systems.

- Sea Leg: Nuclear-powered ballistic missile submarines (SSBNs) are critical, stabilizing, and efficient elements of U.S. nuclear deterrence and assurance and serve as the most survivable leg of the triad. The Department continues to develop the COLUMBIA-class SSBNs, which will replace the aging OHIO- class submarine fleet. The COLUMBIA will safeguard the effectiveness and availability of the sea-leg and its strategic weapon system through the 2080s. We are taking

steps to ensure the availability of some current generation OHIOs, so they can operate longer during the transition to COLUMBIA. We are committed to fielding the W93 warhead and the Mk7 reentry body, and the Trident II (D5) Life Extension 2, which are critical to maintain the Trident system through the 2080s.

- Air Leg: The air leg of the triad provides the President with the most flexible and visible options to deter and respond. The Long-Range Standoff cruise missile (LRSO) coupled with the upgraded B-52 and new B-21 bombers, will ensure the continued credibility and effectiveness of the air-leg of the Triad for the foreseeable future. Moreover, the future B61-13 – a modern variant of the B61 gravity bomb – will strengthen deterrence and assurance by providing the President with additional options against certain harder and large-area military targets while not increasing the overall numbers of weapons in the U.S. stockpile or stressing other weapon modernization. The air-leg also provides unique contributions to central deterrence.
- Land Leg: Our ICBMs deter aggression day-to-day, in crisis, and in conflict as the most responsive leg of the nuclear triad. The ICBM is highly survivable against anything but a large-scale nuclear attack. To destroy the U.S. ICBMs on the ground, an adversary would need to launch a precisely coordinated attack with hundreds of high-yield and accurate warheads. In July 2024, the Department certified to Congress that a modified Sentinel ICBM program remains essential to national security and that there are no viable alternatives to the program that provide acceptable capability at less cost. This certification came after a comprehensive review of the costs of Sentinel and a review of a range of

alternatives. While Sentinel is in development, sustaining Minuteman III as a viable deterrent will be essential.

- NC3: The Department is also focused on modernizing NC3 so that the President can continue to credibly and effectively command and control U.S. nuclear forces under all conditions as long as nuclear weapons exist. NC3 modernization is focused on retaining survivability, endurability, and redundancy across all relevant Detect, Decide, and Direct mission threads. To support these three mission functions, the Department's NC3 modernization programs include, among other initiatives, the augmentation of the Evolved Strategic Satellite (ESS) communication system/constellation, which will eventually replace the Advanced Extremely High Frequency (AEHF) communications system/constellation; the recapitalization of the E-4B National Airborne Operations Center aircraft under the Survivable Airborne Operations Center (SAOC) program to directly support the President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staff; and the recapitalization of the E-6B Take Charge and Move Out (TACAMO) aircraft under the E-130J program.

In addition, the Department is committed to fielding flexible nuclear forces that enhance regional deterrence. We will continue to field the F-35A dual-capable fighter aircraft equipped with the B61-12 bomb. In 2024, Dutch F-35As completed operational certification for the Dual Capable Aircraft mission, making the Netherlands the second NATO member (after the United States) to achieve this milestone. We will also retain the W76-2 low-yield submarine launched ballistic missile warhead, and we are proceeding with the nuclear-armed sea-launched cruise missile (SLCM-N) program.

The Department also fully supports the recapitalization and revitalization of the National Nuclear Security Administration (NNSA) infrastructure for improved and accelerated design, manufacture, and sustainment of the nuclear weapons stockpile. This will be critical to ensure our current and future nuclear stockpile remains safe, secure, reliable, and effective. Continued, consistent, and on time funding for the nuclear enterprise is imperative. We look forward to working closely with Congress to ensure we are meeting our shared goals of enhancing deterrence while minimizing risk to the modernization program, the nuclear weapons enterprise, and the Joint Force.

Conclusion

The United States must deliver the nuclear modernization program while continuing to sustain legacy systems to avoid a deterrence shortfall and mitigate risk. The United States is also committed to investing in extended deterrence and assurance by fielding flexible nuclear forces suited for regional deterrence and working with allies and partners to provide concrete, non-nuclear capabilities to support U.S. deterrence operations.

The Department will continue to pursue the necessary policies and investments to deter our adversaries and, if deterrence fails, prevail in conflict. This mission requires sufficient and consistent funding and support. Thank you for your dedication to our mission and our servicemembers, and for the opportunity to testify to you today alongside my distinguished colleagues. I look forward to answering your questions.