**SASC-SF Hearing on President's Fiscal Year 2020 Budget Request for Nuclear Forces**

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Chairman Fischer, Ranking Member Heinrich, and distinguished Members of the Committee, thank you for the opportunity to testify on the President's Fiscal Year 2020 Budget Request for nuclear forces and our nuclear posture.

Today, the United States faces an extraordinarily complex and dangerous global security environment, in which the central challenge to our prosperity and security is the reemergence of long-term strategic competition with China and Russia, which seek to overturn the long-standing rules-based international order and change territorial borders.

This is acknowledged in the 2018 *National Defense Strategy*, which also notes that rogue regimes such as North Korea and Iran are destabilizing regions through their pursuit of nuclear weapons or sponsorship of terrorism.

And, while we are hopeful for a peaceful denuclearization of the Korean Peninsula, North Korea continues to pose a threat to the U.S. Homeland, as well as our allies, and Iran seeks to establish itself as the dominant regional power in the Middle East, restrict our access, support proxies, and sow violence throughout the region.

For decades, the United States led the world in efforts to reduce the role and number of nuclear weapons. Successive treaties enabled reductions in accountable strategic U.S. nuclear warheads, first to 6,000, and ultimately to 1,550. Thousands of shorter-range nuclear weapons not covered by any treaty were almost entirely eliminated from the U.S. nuclear arsenal. Overall, the U.S. nuclear weapons stockpile has drawn down by more than 85 percent from its Cold War high.

Unfortunately, Russia and China have chosen a different path and have increased the role of nuclear weapons in their strategies and actively increased the size and sophistication of their nuclear forces.

For this reason, a robust and modern U.S. nuclear deterrent helps ensure the United States competes from a position of strength and can deter nuclear attack and prevent large-scale conventional warfare between nuclear-armed states for the foreseeable future.

**The Nuclear Threat**

The 2018 *Nuclear Posture Review* (NPR) reflects DoD's strategic priority to maintain a safe, secure, survivable and effective nuclear deterrent. The NPR examined the challenges posed by Russia, China, North Korea and Iran in order to recommend a nuclear force posture adequate to deter aggression by these and other countries.

***Russia***

Russia continues to prioritize high levels of defense spending to upgrade its nuclear forces and pursue advanced weapons specifically designed to counter U.S. military capabilities. Russia's nuclear modernization program covers every leg of its strategic triad and includes advanced modern road-mobile and silo-based intercontinental ballistic missiles (ICBMs), new submarine-launched ballistic missiles (SLBMs), and long-range strategic bombers. According to Russia's TASS News Agency, Russian Minister of Defense Sergei Shoigu announced on February 21, 2017 that 90 percent of the country's strategic nuclear forces will be armed with modern weaponry by 2020.

In March 2018, only a month after the United States and Russia reached the limits on strategic systems established under the New START Treaty, President Vladimir Putin announced that Russia is developing even more new nuclear weapons capabilities, which include: 1) an intercontinental-range, nuclear armed hypersonic glide vehicle; 2) a maneuverable, nuclear-armed air-launched ballistic missile; 3) a long-range, nuclear-powered cruise missile; 4) a nuclear-powered, nuclear-armed underwater unmanned vehicle; and 5) a new heavy intercontinental range ballistic missile, called the SARMAT. President Putin, during this same speech, also announced that Russia developed new laser weapons systems "that have been supplied to the troops since last year."

This past February (2019), President Putin declared that Russia had successfully tested nuclear-propulsion engines that would allow the nuclear-tipped cruise missiles and underwater drones to travel for unlimited distances and evade traditional defenses. Some of these weapons would not be subject to the New START Treaty's central limits and verification regime as they exist today.

On top of all of this, Russia is modernizing and expanding an active stockpile of approximately 2,000 nonstrategic nuclear weapons—often referred to as tactical nuclear weapons—that can be deployed on ships, bombers, and tactical aircraft, and with ground forces. None of these are limited by any arms control treaty. In contrast, the United States forward deploys to Europe small number of just one type of nonstrategic nuclear weapon—the B61 nuclear gravity bomb—which is delivered by a dual-capable tactical aircraft. Both the B61 and its delivery aircraft are being modernized, but not increased in number.

Russia's military doctrine emphasizes the coercive nature and military value of nuclear weapons. During its military operation against Crimea, Russia raised the alert level of its nuclear forces and issued veiled nuclear threats to ensure the West did not intervene. Russia has repeatedly brandished its nuclear sword towards our NATO Allies in recent years. In July 2017, Russian President Putin signed a new naval doctrine that stated, "under conditions of escalation of a military conflict, demonstration of readiness and determination to use force, including the use of nonstrategic nuclear weapons, is an effective deterrent factor." And, more recently, in his annual state-of-the-nation address on February 20, 2019, Putin said that, if Washington deployed intermediate-range missiles in Europe, Moscow would target the countries hosting the U.S. weapons.

***China***

China continues its expansive military modernization and is focused on establishing regional dominance and expanding its ability to coerce U.S. allies and partners. Consistent with a military strategy that stresses "optimization of its nuclear force structure," China is modernizing and rapidly expanding its already considerable nuclear forces, with little to no transparency regarding the scope and scale of its nuclear modernization program. China is the only P-5 country that has not announced publicly the size of its nuclear arsenal, and has rebuffed multiple U.S. attempts to engage in a meaningful bilateral dialogue on nuclear posture and risk reduction issues.

China is developing a new generation of mobile missiles, with warheads consisting of multiple independently targetable reentry vehicles (MIRVs) and penetration aids. In particular, China has developed a new road-mobile strategic ICBM and its most advanced ballistic missile submarine armed with new submarine-launched ballistic missiles (SLBM).

China has also announced development of a new nuclear-capable strategic bomber, indicating China's intent to develop a nuclear triad and has deployed a nuclear-capable precision guided DF-26 intermediate-range ballistic missile capable of attacking land and naval targets. China also tested a hypersonic glide vehicle in 2014.

China's nuclear forces include a mix of strategic-range systems capable of striking the homeland as well as theater-range forces capable of threatening allies, U.S. bases, and forces in the region. As China's capabilities both diversify and improve, there is risk China may perceive that these weapons provide it with coercive options in a crisis or conflict. China's modernization is troubling, and the lack of transparency combined with growing Chinese assertiveness in the region is one of the most serious risks to regional stability in the Indo-Pacific.

***North Korea***

North Korea's nuclear capabilities pose a potential threat to our allies and the U.S. homeland and add to an already complex strategic picture. North Korea has conducted six increasingly sophisticated nuclear tests and three ICBM flight tests that demonstrate its ability to strike the U.S. homeland. Although we remain hopeful that negotiations may produce a pathway to peace and denuclearization, we must also remain vigilant and maintain a strong deterrence posture.

**Policy**

The 2018 Nuclear Posture Review reflects the Department of Defense's strategic priority to maintain a safe, secure, survivable and effective nuclear deterrent. Nuclear forces are the ultimate foundation of our nation's security. Our deterrent forces must be modernized to remain credible—delay is not an option.

The highest U.S. nuclear policy and strategy priority are to deter potential adversaries from nuclear attack of any scale against the United States or its allies and partners. However, deterring nuclear attack is not the sole purpose of nuclear weapons. Given the diverse threats and profound uncertainties of the current and future threat environment, U.S. nuclear forces play the following critical roles in U.S. national security strategy:

- Deterrence of nuclear and non-nuclear attack;
- Assurance of allies and partners;

- Achievement of U.S. objectives if deterrence fails; and
- Capacity to hedge against an uncertain future.

Effective U.S. deterrence of nuclear attack and non-nuclear strategic attack requires ensuring that potential adversaries do not miscalculate regarding the consequences of nuclear first use, either regionally or against the United States itself. They must understand that the costs far outweigh any perceived benefits from non-nuclear aggression or limited nuclear escalation.

***Declaratory Policy***

U.S. nuclear declaratory policy is consistent with longstanding precepts that "the United States would employ nuclear weapons only in extreme circumstance to defend the vital interests of the United States, allies and partners." The 2018 Nuclear Posture Review (NPR) clarifies that the "extreme circumstances" that may lead the United States to consider nuclear use, include, but are not limited to: significant non-nuclear strategic attacks on U.S., allied, or partner civilian population or infrastructure; and significant non-nuclear strategic attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities. This clarification is intended to reduce the possibility of adversary miscalculation.

The 2018 NPR further states: "The United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations."

***No-First Use***

The United States has a long-standing policy of constructive ambiguity regarding U.S. nuclear employment that has deterred potential adversaries from nuclear coercion or aggression since the advent of the nuclear age. A policy of "no-first-use" would undermine U.S. extended deterrence and damage the health of our alliances because it would call into question the assurance that the United States would come to the defense of allies in extreme circumstances. "No-first-use" would likely embolden adversaries to test what they might perceive as weakened U.S. resolve to defend our allies and vital interests with every means at our disposal. Finally, a no-first use policy could undermine U.S. nonproliferation objectives if allies and partners felt the need to develop or possess their own nuclear weapons to deter potential adversaries.

**Posture**

The policies set forth in the 2018 NPR reaffirmed the conclusions of previous Republican and Democratic administrations that the diverse capabilities of the nuclear triad provide the flexibility and resilience needed for deterrence in the most cost-effective manner. Each triad leg is essential, complementary, and critical to ensuring no adversary believes it can successfully employ nuclear weapons for any reason, under any circumstances.

Unfortunately, each leg of the triad is now operating far beyond its originally-planned service life. Over the past 25 years, the United States made only modest investments in basic nuclear sustainment, life-extension, and operations. Most of the nation's nuclear delivery systems, built in the 1980s and prior, will reach their end-of-service life in the 2025-2035 timeframe and cannot be sustained further. If not recapitalized, these forces will age into obsolescence. Our choice is

not between replacing our Cold War systems or keeping them, but between replacing them or losing them altogether. Similarly, the DOE/NNSA infrastructure has long been underfunded and overdue for the upgrades necessary to create a modern, efficient nuclear complex to meet the nation's national security missions. DoD relies on the continued investment in recapitalization of DOE/NNSA's laboratories, production and test facilities.

Consequently, we must not delay the recapitalization of the triad and our nuclear command, control, and communications (NC3) system initiated by the previous Administration. The Fiscal Year (FY) 2020 Budget Request funds all critical Department of Defense (DoD) modernization requirements, helping to ensure that modern replacements will be available before the Nation's legacy systems reach the end of their extended service lives. The FY 2020 Budget Request for nuclear forces is $24.9 billion or roughly 3.5 percent of the DoD budget. This includes $8.4 billion for recapitalization programs (including the B-21, ground-based strategic deterrent (GBSD) ICBM, the long-range standoff (LRSO) cruise missile, and the Columbia-class nuclear ballistic missile submarine (SSBN)) and $16.5 billion to sustain and operate our nuclear forces.

DoD's FY 2020 request to recapitalize the nuclear enterprise is about 1.2 percent of the total DoD budget request. Over the long term, nuclear force modernization will cost approximately $320 billion over 23 years. Recent estimates, such as those from the 2018 Nuclear Posture Review, project that the total cost to sustain and modernize U.S. nuclear forces will account for about 6.4 percent of the Defense budget at its highest level of funding in 2029, returning to about 3 percent for sustainment upon completion of modernization. The January 2019 Congressional Budget Office report supports DoD's estimates concluding that the estimated cost of nuclear forces "is projected to rise from about 5% in 2019 to about 7% in 2028."

Finally, in support of modernizing these strategic systems, the bipartisan National Defense Strategy Commission concluded in its 2018 *Providing for the Common Defense* report that "Given the criticality of effective U.S. nuclear deterrence to the assurance of allies, and, most importantly, the safety of the American people, there is no doubt that these programs are both necessary and affordable."

***Supplemental Capabilities***

The 2018 Nuclear Posture Review concluded that the United States must supplement its existing stockpile with two modest capabilities to ensure Russia, China, and others do not perceive a gap in our regional deterrence posture. This is intended to discourage adversaries from limited nuclear attacks—strengthening deterrence and helping prevent conflict in the first place. By modifying a small number of existing SLBM warheads to provide a low-yield option and restoring a modern nuclear sea-launched cruise missile to the force, the U.S. will have credible response options to nuclear attacks of any magnitude. The low-yield SLBM warhead and nuclear-armed sea-launched cruise missile (SLCM) are measured responses to close troubling gaps in regional deterrence that have emerged in recent years. In addition, redeploying a SLCM addresses the enormous disparity in nonstrategic nuclear forces, without attempting to match Russia system for system. Both systems complement existing capabilities in the triad by providing assured, tailored options in the face of increasingly advanced air and missile defenses. In addition, the unique attributes of a nuclear SLCM may incentivize Russia to accept constraints on its nonstrategic nuclear capabilities.

Moreover, the supplemental capabilities do not require nuclear testing or developing new nuclear weapons. They do not violate any arms control treaties or other international obligations, and they do not lower the threshold for nuclear use. They are intended to raise Russia's threshold (or likelihood) for employing nuclear weapons by convincing Russia that it would gain no advantage in using low-yield nuclear weapons.

**NATO, Japan and Republic of Korea Engagements**

The United States continues to extend nuclear deterrence commitments to assure allies in Europe and the Asia-Pacific region. Based on our long-shared common values and interests, this commitment helps address allied concerns with regional threats, such as Russia's nuclear and non-nuclear capabilities and aggressive rhetoric; China's assertiveness; and North Korea's nuclear and non-nuclear threats.

The United States exhibits its commitment to extended deterrence in two ways: first, it maintains the capabilities necessary to deter and, if necessary, to respond decisively across the spectrum of potential nuclear and non-nuclear scenarios that could affect our allies and partners; and second it sustains regular allied dialogues to facilitate understanding of each other's threat perceptions and to determine how best to demonstrate our collective capabilities and resolve.

Within NATO, we continue to participate in the Nuclear Planning Group and the High-Level Group, which our Assistant Secretary for Strategy, Plans and Capabilities chairs. As NATO Allies reiterated in Brussels last July, as long as nuclear weapons exist, NATO will remain a nuclear alliance. The Alliance's deterrence posture continues to depend upon both U.S. strategic nuclear forces and forward deployed nuclear gravity bombs with U.S. and allied dual-capable aircraft.

In the Indo-Pacific region, the United States maintains formal extended deterrence dialogues with Japan—the U.S.-Japan Extended Deterrence Dialogue (EDD)—and with the Republic of Korea (ROK) (e.g. U.S. ROK Deterrence Strategy Committee (DSC)). Through regular bilateral meetings, allied site-visits to locations of U.S. strategic capabilities, and table-top exercises, both the EDD and DSC have helped us to develop a common Alliance understanding of deterrence principles, and to test application of those principles to scenarios we may face in the Indo-Pacific region. These dialogues contribute to alliance cohesion and effectiveness and help affirm to our allies that they should not doubt our extended deterrence commitments or our ability and willingness to fulfill them.

**Intermediate-range Nuclear Forces (INF) Treaty Developments**

On February 2, 2019, after years of Russian cheating on its Intermediate-Range Nuclear Forces (INF) Treaty obligations, and after exhausting every reasonable diplomatic, economic, and military effort to persuade Russia to comply with its treaty obligations, the United States suspended its obligations under the INF Treaty and gave notice of the U.S. intent to withdraw from the Treaty. As NATO Secretary General Jens Stoltenberg asserted, "Russia is in material breach of the INF Treaty and must use the next six months to return to full and verifiable compliance or bear sole responsibility for its demise." Allies fully support the U.S. decision to suspend its obligations under INF and the U.S. intent to withdraw from the Treaty.

To be clear, what prompted the U.S. suspension was not a technical violation or an interpretive difference, but Russia's development, testing, and fielding of a ground-launched cruise missile system specifically banned by the INF Treaty. For those concerned that our suspension will cause Russia to develop these systems further, I can only say Russia's legal obligations under the INF Treaty proved no barrier to its pursuit and fielding of a banned system in the first place. To assert that Russia is reacting to our suspension is to ignore the reality of Russia's conduct under the INF Treaty.

As the President stated in February 2019, the United States is moving forward with developing ground-launched missile capabilities. This is a direct consequence of Russia's violation of the INF Treaty. Now that our Treaty obligations are suspended, we are beginning work that if pursued to completion would be inconsistent with the Treaty. The United States is developing systems that are conventional in nature, and this work is designed to be reversible should Russia return to compliance by verifiably destroying its INF Treaty-violating missiles, launchers, and associated equipment. This development will include flight tests, although we do not anticipate progressing to this stage before the United States' withdrawal from the Treaty takes effect on August 2. What sort of system we ultimately develop will be driven by our assessment of military requirements and in consultation with Congress and with our allies and partners.

**The New START Treaty**

As stated in the 2018 Nuclear Posture Review, the United States is committed to arms control efforts that advance U.S., allied, and partner security; are verifiable and enforceable; and include partners that comply responsibly with their obligations. As both the 2018 NPR and the 2018 NATO Brussels Summit Communique noted, we must take account of the prevailing international security environment. In the arms control context, this means Russia and, increasingly, China.

While we assess Russia to be in compliance with the central limits of New START, the history of Russia's arms control behavior is sobering. I will not recount here Russia's many violations of its treaty obligations and other political commitments. It is instructive, however, that, only a month after the United States and Russia reached the central limits on strategic nuclear systems prescribed by the New START Treaty, President Putin—with great fanfare—announced Russia was developing new long-range nuclear delivery systems, some of which would not be limited by the New START Treaty. This is troubling given that Russia is also modernizing its growing and increasingly capable arsenal of shorter-range, nonstrategic nuclear weapons, which are also not covered by New START. Members of this Committee will remember that Russia's nonstrategic arsenal was of great concern when the New START Treaty was ratified, and it remains a concern today.

That said, the Department supports pursuing a prudent arms control agenda, which could include extending the New START Treaty, provided the outcomes improve the security of the United States and our allies and partners, and effectively help manage strategic competition among states.

**Conclusion**

Mr. Chairman, let me conclude by stating that nuclear deterrence is the bedrock of U.S. national security. The U.S. nuclear deterrent must dissuade any adversary from mistakenly believing it can benefit from using nuclear weapons—even in a limited way—against the United States or its allies and partners.

Our nuclear deterrent underwrites all U.S. military operations and diplomacy across the globe—it is the backstop and foundation of our national defense. A strong nuclear deterrent also contributes to U.S. nonproliferation goals by eliminating the incentive for allies to have their own nuclear weapons.

In an increasingly complex and threatening security environment, we must make the investments needed to address the on-going atrophying of our nuclear capabilities and ensure we have the capabilities, now and in the future, to deter and defend against attacks on our homeland, U.S. forces deployed abroad, and allies and partners.

I urge the Committee to support the important nuclear programs and funding contained in the President's FY 2020 Budget Request.

Thank you again for the opportunity to testify. I look forward to your questions.