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STATEMENT OF: Vic G. Mercado
Principal Deputy Assistant Secretary of Defense

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HASC-SF Hearing on President's Fiscal Year 2021 Budget Request for Nuclear Forces

Vic G. Mercado

Principal Deputy Assistant Secretary of Defense

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Chairman Cooper, Ranking Member Turner, and distinguished Members of the Committee, thank you for the opportunity to testify on the President's Fiscal Year (FY) 2021 Budget Request for nuclear forces and our nuclear posture.

The United States faces an extraordinarily complex and increasingly dangerous global security environment, in which the central challenge to us and our allies' prosperity and security is the reemergence of long-term strategic competition with China and Russia.

Great power competition has returned as China and Russia reassert their global influence. The *2018 National Defense Strategy* (NDS) states that both countries seek to overturn the long-standing free and open international order and alter territorial boundaries. Moreover, rogue regimes such as North Korea and Iran are destabilizing regions through their pursuit of nuclear weapons or ballistic missile programs.

For decades, the United States has led the world in efforts to reduce the role and number of nuclear weapons. Successive treaties required reductions in accountable delivery platforms and associated U.S. nuclear warheads. Additionally, 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 are increasing the size, diversity, and sophistication of their nuclear forces.

A modern and effective U.S. nuclear deterrent is necessary to deter nuclear attack as well as prevent large-scale conventional war between nuclear-armed states.

The Nuclear Threat

Nuclear weapons have served a vital purpose in America's National Security Strategy for the past 70 years, and continue as the foundation of our strategy to preserve peace and stability by deterring aggression against the United States, our allies, and our partners. DoD's strategic priority to maintain a safe, secure, survivable and effective nuclear

deterrent that takes into account the challenges posed by Russia, China, North Korea, and Iran.

Russia

The Russian threat is increasing. As the Russian economy declines, the imperative increases for President Putin to bolster his domestic legitimacy through assertive—and well-advertised—moves on the international stage. Modernizing Russia's nuclear forces and brandishing its nuclear might to show that Russia is a great power to be reckoned with is key to President Putin maintaining his domestic legitimacy.

In his recent January 2020 annual address to Parliament, President Putin stated, "Our efforts to strengthen national security were made in a timely manner and in sufficient volume. For the first time ever—I want to emphasize this—for the first time in the history of nuclear missile weapons, including the Soviet period and modern times, we are not catching up with anyone, but on the contrary, **other leading states have yet to create the weapons that Russia already possesses."**

These are not hollow words, as Russia is actively developing, testing, and fielding five new nuclear weapons capabilities, which have been referred to as novel nuclear systems. In particular, Russia has fielded the *Avangard* hypersonic glide vehicle and the *Kinzhal* air-launched ballistic missile.

Russia is not only fielding new capabilities, but modernizing its existing inventory and is conducting nuclear weapons tests that have created nuclear yield. Last year, Putin declared that the proportion of state-of-the-art weapons in Russia's strategic nuclear forces had reached 82 percent. This includes 80 new intercontinental ballistic missiles (ICBMs), 102 submarine-launched ballistic missiles, and three Borei nuclear-powered ballistic missile submarines, with the number of guided cruise missiles increasing thirty-fold.

Russia's capabilities are backed by a military doctrine that emphasizes the coercive nature and military value of nuclear weapons, including limited nuclear first use in a regional context. Putin's boasting about the extent and speed of Russia's nuclear modernization program and development of novel systems is concerning because it reflects the value Russia attaches to using nuclear force as an instrument of intimidation. Russia has demonstrated its willingness to forcibly seize territory of other countries and alter established borders, with implicit and explicit threats to use nuclear weapons. During its invasion of Crimea, Russia raised the alert level of its nuclear forces and issued veiled nuclear threats to ensure the West did not intervene. In recent years, Russia has also brandished its nuclear sword towards our NATO Allies.

Russia's nuclear modernization program not only covers every leg of the strategic Triad, but includes non-strategic nuclear weapons—sometimes referred to as tactical or theater

nuclear weapons—that can be deployed on ships, bombers, and tactical aircraft, and with ground forces. Russia has significantly increased the capabilities of its non-nuclear forces to project power into regions adjacent to Russia. It has approximately 2,000 non-strategic nuclear weapons of more than a dozen types, including nuclear torpedoes, nuclear air and missile defense interceptors, nuclear depth charges, nuclear landmines, and nuclear artillery shells. None of these are limited by any arms control treaty. Moreover, according to the Defense Intelligence Agency, the number of non-strategic nuclear weapons is expected to grow significantly over the next decade and these weapons are being modernized with an eye towards greater accuracy, longer ranges, and lower yields to suit their potential warfighting role.

In contrast, the United States deploys to NATO Allied territory a small number of just one type of non-strategic 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.

Finally, Russian production, flight-testing, and deployment of the SSC-8 ground-launched cruise missile not only violated Russia's Intermediate-Range Nuclear Forces (INF) Treaty obligations, but led to the treaty's termination. Russia now has fielded multiple SSC-8 Battalions that threaten our European Allies and aim to threaten the U.S. and European security partnership.

China

China continues its expansive military modernization and is challenging traditional U.S. military superiority in the Western Pacific. Over the next ten years, China is expected to at least double the size of its nuclear stockpile while implementing the most rapid expansion and diversification of its nuclear arsenal in its history. China is examining how low-yield nuclear weapons, air-launched ballistic missiles, and other novel delivery systems fit into its expanding nuclear arsenal. In 2018, China launched more ballistic missiles for testing and training than the rest of the world combined.

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 has armed its most advanced ballistic missile submarine with new submarine-launched ballistic missiles (SLBMs).

In addition to its land and sea-based components, China has announced development of a new nuclear-capable strategic bomber designed for stealth, the H-20. China has long signaled its intent to field a strategic nuclear triad, and its pursuit of the H-20 nuclear bomber further suggests China's commitment to expanding the role and centrality of nuclear forces in its military planning.

China has also deployed a nuclear-capable precision guided DF-26 intermediate-range ballistic missile capable of attacking land and naval targets. The DF-26 is an INF Treaty-range weapon (though China was never a party to the INF Treaty), which places it in the category of ground-launched missiles that Russia and the United States had eliminated from their arsenals until Russia violated the INF Treaty. China—like Russia—is also committed to the development of hypersonic weapons and is actively flight-testing hypersonic vehicles.

China's nuclear forces include a mix of strategic-range systems capable of striking our homeland as well as theater-range forces capable of threatening allies, U.S. bases, and forces in the region. The Defense Intelligence Agency (DIA) assesses that China's continued use of explosive containment chambers at its nuclear explosive test site at Lop Nur, together with its lack of transparency, raises questions about its testing activities. These activities further underscore the centrality of China's nuclear forces in its military strategy. 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.

North Korea

North Korea continues its illicit pursuit of nuclear weapons and missile capabilities in direct violation of United Nations (U.N.) Security Council resolutions. North Korea's nuclear capabilities pose a potential threat to our allies and the U.S. homeland.

Between 2006 and 2017, North Korea conducted six progressively sophisticated nuclear explosive tests and three ICBM flight tests that demonstrate its ability to reach the U.S. homeland. It continues to produce fissile material for nuclear weapons. And, more recently, North Korea tested a new sea-launched ballistic missile into the Sea of Japan fired from a sea-based platform.

The United States remains committed to the June 2018 full implementation of the commitments made by President Trump and Chairman Kim in the Singapore Summit Joint Statement. The United States continues to seek the complete elimination of the DPRK's weapons of mass destruction, their means of production, and their means of delivery. This goal is the same one laid out by the UN Security Council in multiple UN Security Council resolutions.

Iran

Iran has developed and fielded a substantial arsenal of ballistic missiles that can strike targets throughout the region as far as 2,000 kilometers, as well as cruise missiles and UAVs designed to target U.S. forces and our partners in the region. Iran's ballistic missiles are a key component of its strategic deterrent. This long-range strike capability is used to intimidate our partners in the region. Additionally, Iran's current attempts to launch a space vehicle could provide valuable information that would aid its effort to develop an ICBM capability.

Iran recently launched over a dozen ballistic missiles against U.S. bases in Iraq demonstrating their willingness to not only threaten, but use ballistic missiles for strategic effect. And the threat is increasing. According to DIA, Iran will deploy an increasing number of more accurate and lethal theater ballistic missiles and pursue technical capabilities that could enable it to produce an ICBM.

In addition to developing more capable ballistic missiles, Iran continues to expand its uranium enrichment program in nonperformance of JCPOA commitments. The IAEA has reported since May 2019 that Iran has taken steps to exceed its JCPOA limits, including on the level and amount of enriched uranium, its research and development of advanced centrifuges, as well as on its stockpile of nuclear-grade heavy water. We have made clear that we will continue imposing maximum pressure on the Iranian regime until it ceases its destabilizing activities and negotiates a comprehensive deal.

Nuclear Deterrence Policy

Nuclear deterrence is the highest priority mission of the Department of Defense. Our deterrent underwrites every U.S. military operation around the world and is the foundation and backstop of our national defense. To maintain credible deterrence in the face of growing nuclear threats, the United States must continue modernizing its nuclear forces—delay is not an option.

The *2018 Nuclear Posture Review* reflects the Department of Defense's strategic priority to maintain a safe, secure, survivable and effective nuclear deterrent. We have made significant progress on implementing the 2018 Nuclear Posture Review. Just over two years after its February 2018 publication, we have completed more than 80 percent of the original tasks that the Department set for itself, with the most significant initiatives having transitioned into routine Departmental processes, such as the Nuclear Weapons Council. Two of the most significant accomplishments include fielding the W76-2 submarine-launched low-yield ballistic missile warhead to the sea-based deterrent force, and reorganizing the Department's governance of nuclear command, control and communications (NC3) activities.

Although nuclear deterrence strategies cannot prevent all conflict, they are essential to preventing nuclear attack, non-nuclear strategic attacks, and large-scale conventional aggression. The extension of the U.S. nuclear deterrent to more than 30 allies and partners helps to ensure their security, and reduces their need to possess their own nuclear capabilities.

No country should doubt the strength of our extended deterrence commitments or the strength of U.S. and allied capabilities to deter or, if necessary, defeat any potential adversary's nuclear or non-nuclear aggression.

Declaratory Policy

U.S. nuclear declaratory policy is consistent with longstanding precepts that "the United States would only consider the employment of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its 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 significant non-nuclear strategic attacks. "Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and 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 that "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."

Tailored Deterrence with Flexible Capabilities

The credibility of U.S. nuclear extended deterrence depends on how potential adversaries perceive our resolve to use nuclear weapons in response to a limited nuclear attack against an ally or partner or U.S. deployed forces. We shape an adversary's perception of U.S. resolve through declaratory policy, capabilities, exercises, and a plausible employment strategy.

For North Korea, the survival of the Kim regime is paramount. Our deterrence strategy for North Korea makes clear that any North Korean nuclear attack against the United States or its allies and partners is unacceptable and will result in the end of that regime. There is no scenario in which the Kim regime could employ nuclear weapons and survive.

Should Russia or China do the unthinkable and launch a limited nuclear strike, the United States will strive to end the conflict and restore deterrence at the lowest level of damage for the United States and its allies and partners.

For this strategy to succeed, the President needs flexible deterrence options. This involves a range of limited, graduated nuclear response options including a variety of delivery systems and explosive yields to deny the adversary any first-use objectives and impose costs to further nuclear use.

The United States must be prepared to respond to first nuclear use not to engage in "nuclear war-fighting," but to convince an adversary that the cost of any perceived benefit of further use of nuclear weapons will outweigh any benefits an adversary believes it can gain. This strategy serves to reinforce deterrence of conflict at the outset.

No-First Use

To preserve deterrence and the assurance of allies and partners, the United States has never adopted a "no first use" policy and, given the contemporary threat environment, such a policy is not justified today. U.S. policy is to retain some calculated ambiguity regarding nuclear employment.

A policy of "no-first use" would increase the risk of nuclear war by changing how adversaries, and allies and partners, view the credibility of the U.S. nuclear deterrent and our resolve to use nuclear weapons when threatened. Adversaries could miscalculate that the United States might not defend its allies and vital interests with every means at our disposal, and this could embolden them to wage aggression using conventional weapons or to use nuclear weapons. Moreover, it would undermine U.S. extended deterrence and damage the health of our alliances because such a policy would call into question the assurance that the United States would come to the defense of allies in extreme circumstances with whatever means is appropriate. 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.

Force Posture

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

The United States does not need to match adversary capabilities by system or by numbers. But it does need to continue with its current nuclear modernization program.

Each leg of the Triad is now operating far beyond its originally planned service life. The U.S. nuclear deterrent is dependent on nuclear delivery and NC3 systems that were mostly fielded in the 1980s or earlier. Although still reliable and credible today, our current delivery systems, weapons, command and control systems, and infrastructure are rapidly aging into obsolescence. And, because all the systems are reaching the end of their sustainability in the same 2025 to 2035 timeframe, the U.S. nuclear modernization program is relying on "just-in-time" 1:1 replacements of its strategic systems.

Continued funding is of paramount importance because both DoD and the Department of Energy's National Nuclear Security Administration (NNSA) are engaged in this tightly integrated effort to modernize the U.S. nuclear deterrent to meet today's challenges.

Our choice is not between replacing our Cold War systems or keeping them, but between replacing them or losing them altogether. As long as nuclear modernization is pursued on a sustained basis, Russia, China, North Korea and Iran can be successfully deterred.

DoD appreciates Congress's recognition of the importance of modernizing U.S. nuclear forces after decades of deferred recapitalization. In FY 2020, Congress funded 98 percent of DoD's budget request for nuclear force modernization, operations and sustainment, and fully funded NNSA's budget request for weapons activities.

We request continued support to modernize and sustain the Nation's nuclear deterrent.

The FY 2021 Budget Request funds all critical 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 2021 Budget Request for nuclear forces is $28.9 billion. This includes $12.1 billion for recapitalization programs (including the ground-based strategic deterrent (GBSD) ICBM, the B-21 strategic bomber and long-range standoff (LRSO) cruise missile, and the Columbia-class nuclear ballistic missile submarine (SSBN)) as well as $16.8 billion to sustain and operate our nuclear forces.

DoD's FY 2021 request for nuclear forces is roughly 4.1 percent of the total DoD budget, and the request to recapitalize our nuclear forces is about 1.7 percent of the total DoD budget request. Recent estimates, such as those from the 2018 Nuclear Posture Review, project that the total cost to modernize, sustain, and operate U.S. nuclear forces over the next 20 years 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 and operations upon completion of modernization. Consistent with DoD's estimates, the Congressional Budget Office, in January 2019, concluded that the estimated cost of nuclear forces "is projected to rise from about 5% in 2019 to about 7% in 2028."

The nation's nuclear modernization program is affordable. The United States seeks only what it needs to maintain a credible nuclear deterrence and has no plans to pursue the kinds of exotic novel nuclear capabilities being fielded by Russia. Nuclear attack is the only existential threat to the United States, and our nuclear arsenal is the nation's ultimate insurance policy against such an attack. As the bipartisan National Defense Strategy Commission concluded in its 2018 *Providing for the Common Defense* report, "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 recommended two modest supplemental capabilities to the current U.S. stockpile to address Russia and China's growing arsenal of low-yield and

theater—or "non-strategic"—nuclear weapons. While this imbalance was manageable in the past, changes in Russian behavior in recent years, its continued investment in these systems, and the lack of binding limits on its non-strategic nuclear weapons have created a more serious risk, requiring the United States to take countervailing steps.

Development of the low-yield submarine-launched ballistic missile (SLBM) warhead (W76-2) and a nuclear-armed sea-launched cruise missile (SLCM-N) are a measured approach to strengthen deterrence by denying potential adversaries any mistaken confidence that limited nuclear employment can provide a useful advantage over the United States and its allies. Russian doctrine, Russia's exercises, and its vast arsenal of non-strategic nuclear weapons point to its belief that these weapons provide—through their use or threat of use—a means to coerce NATO or otherwise support conventional aggression against U.S. allies and partners.

The U.S. has fielded a small number of SLBM W76-2 warheads and in the longer term plans to pursue SLCM-N, a capability that existed in the U.S. arsenal until retired in 2010 when the security environment was seen as more benign.

The United States is not attempting to match or counter every new Russian and Chinese system. And to be clear, as stated in the 2018 NPR, these capabilities are "not intended to enable, nor [do they] enable, nuclear war-fighting." Their purpose is to ensure U.S. deterrence remains strong in the face of this changing nuclear environment.

Both systems complement existing capabilities in the Triad by providing assured, tailored options in the face of increasingly advanced air and missile defenses. These supplemental capabilities strengthen deterrence, are compliant with all treaties and agreements, and provide the United States a prompt, more survivable low-yield strategic weapon, support our commitment to extended deterrence, and demonstrate to potential adversaries that there is no advantage to limited nuclear employment because the United States can credibly and decisively respond to any threat scenario.

These supplemental capabilities do not require nuclear explosive testing, do not violate arms control treaties, and do not lower the U.S. threshold for nuclear use—they are intended to reduce the likelihood that Russia, China, or other potential adversaries would use nuclear weapons first. In other words, these capabilities would raise the threshold for nuclear use.

U.S. Nuclear Stockpile

To continue to meet military requirements and better mitigate future risks, the United States has adopted a stockpile strategy emphasizing Responsiveness, Resiliency and Flexibility (RRF). The imperative behind this strategy is not to increase the size or scope of the U.S. nuclear arsenal, but to shape the force so it can credibly and effectively deter, assure and, if necessary, defeat potential adversaries today and in an unpredictable future. Building largely on legacy systems, an RRF warhead strategy will provide a nuclear

stockpile that can more readily and confidently hedge both within and between legs of the Triad, thereby mitigating risk and meeting military requirements in a continually evolving threat environment.

The previous "3+2" warhead strategy focused on transitioning to three interoperable ballistic missile warheads and two air-delivered warheads. While appropriate for the more benign environment described in the 2010 Nuclear Posture Review, this approach is not fit for today's evolving and dynamic security environment.

Today's dynamic security environment requires a mix of yields and improved platforms that account for the risks identified in the 2018 NPR. By increasing the number of warhead types while retaining roughly the same total number of deployed warheads as in the previous stockpile strategy, the RRF strategy accomplishes this goal.

In the coming years, we will see some adjustment to our approach, including in this budget, $32 million for the DoD portion of the W93/Mk7 warhead and aeroshell. This warhead will provide USSTRATCOM and the Navy a means to address evolving ballistic missile warhead modernization requirements, mitigate against simultaneous age-out of the W76 and W88 warheads, improve operational effectiveness, and mitigate geopolitical, technical, operational, and programmatic risk in the sea leg of the triad.

As a result of the 2018 NPR directed study to assess the feasibility of fielding the Air Force's W78 warhead replacement on a Navy reentry body, DoD directed the Navy to pursue developing and fielding the down-selected W93/Mk 7. This will address identified geopolitical, technical, operational, and programmatic risk associated with the Navy's current warhead composition of the W76 and W88 families. Development of the W93/Mk7 will have the additional benefit of supporting our long-standing ally, the United Kingdom, which needs to field a new ballistic missile system for its continuous-at-sea deterrent. The UK deterrent plays a vital role in NATO's overall defense posture.

Arms Control

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. The President has charged his national security team to think more broadly about arms control, both in terms of the countries and the weapons systems involved. The President wants serious arms control that delivers real security to the American people and our allies and partners. To achieve this, both Russia and China must be brought to the table.

The United States has not yet made a decision on whether to extend the New START Treaty. The New START Treaty serves its purpose of limiting the number of three categories of strategic offensive arms, together with the warheads deployed on them—ICBMs and their launchers, SLBMs and their launchers, and heavy bombers. But we cannot ignore the imbalance in nuclear weapons created by the size of Russia's non-

strategic nuclear weapons stockpile, which remains outside of the New START Treaty. Nor can we ignore DIA estimates that regardless of whether or not New START is extended, this stockpile will continue to grow significantly over the next decade. Additionally, Russia continues to develop, test, and field new nuclear-capable strategic offensive systems, several of which will not be subject to New START limitations based on the treaty categories as they exist today.

Russia and China will have little incentive to begin negotiating a more comprehensive nuclear arms control agreement if the United States immediately extends a treaty that does not limit capabilities of concern in either Russia's or China's nuclear arsenal.

I believe Russia and China each have an interest in avoiding a United States that is completely unconstrained in its ability to field nuclear forces.

Allied Engagements

NATO

The United States has formal extended nuclear deterrence commitments to assure allies in Europe, Asia and the Pacific region. Based on our long-shared common values and interests, these commitments help address allied and partner concerns over 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. No country should doubt the strength of our extended deterrence commitments or the strength of the U.S. and allied capabilities to deter and, if necessary defeat, any potential adversary's nuclear or non-nuclear aggression.

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 dialogues with allies and partners to facilitate understanding of each other's threat perceptions, to determine how best to demonstrate our collective capabilities and resolve, and to adapt as necessary to a changing security environment.

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 London in December 2019, as long as nuclear weapons exist, NATO will remain a nuclear Alliance. NATO is determined to maintain the full range of capabilities necessary to deter and defend against any threat to the safety and security of Allied populations. The Alliance's deterrence posture continues to rely on U.S. strategic nuclear forces, U.S. nuclear gravity bombs forward deployed in Europe, and the capabilities and infrastructure provided by Allies concerned. These capabilities include U.S. and Allied dual-capable aircraft, which remain central to the deterrence mission, and related Allied contributions to further enhance the nuclear mission. NATO

continues to adapt in order to ensure that its deterrence and defense posture remains credible, coherent, resilient, and adaptable.

United Kingdom

Under the terms of the 1958 Mutual Defense Agreement, the United States and the United Kingdom have maintained robust nuclear cooperation for more than 60 years. We maintain regular dialogue through annual Staff Talks and other technical engagements. The United Kingdom uses U.S. Trident missiles, equipped with UK warheads, onboard its VANGUARD-class SSBNs. The UK's continuous at-sea deterrent contributes to the overall security of both NATO and the United States.

France

In addition, the independent strategic nuclear forces of France contribute significantly to the overall security of the NATO Alliance, and enhance the deterrent effect of U.S. strategic forces. The United States maintains a formal dialogue with France through the Annual Staff Talks to facilitate understanding of each other's threat perceptions and on other issues related to nuclear security.

Japan, Australia Republic of Korea

In the Indo-Pacific region, the United States maintains formal extended deterrence dialogues with Japan through the Extended Deterrence Dialogue (EDD), Australia with the Strategic Policy Dialogue, and with the Republic of Korea (ROK) through the Deterrence Strategy Committee (DSC) of the Korea-U.S. Integrated Defense Dialogue. Through regular bilateral meetings, site-visits, 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.

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 2021 Budget Request.

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