CSIS BRIEFS

Trump's New Nuclear Architecture for Modernization and Arms Control

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THE ISSUE

- Expanding upon the National Defense Strategy (NDS), Under Secretary of State for Arms Control Thomas DiNanno recently announced **a new nuclear architecture** "that addresses the threats of today, not those of a bygone era," including nonstrategic nuclear weapons (NSNWs) and China's growing nuclear arsenal.
- Facing this increasingly volatile security environment, the United States under the Trump administration must simultaneously modernize its nuclear arsenal and pursue arms control and risk reduction measures.
- To deter adversaries and manage escalation especially in theater conflicts, the United States may need to diversify and expand its nuclear arsenal, including by investing in nuclear-capable standoff weapons.
- Following this new architecture, the administration should also continue to work toward arms control agreements with both China and Russia, including risk reduction measures, such as a Presidential Nuclear Summit.

INTRODUCTION

Thirty-four years before his second presidential administration, in a 1990 interview with *Playboy,* Donald Trump summarized his thinking on nuclear weapons issues: "I've always thought about the issue of nuclear war; it's a very important element in my thought process. It's the ultimate, the ultimate catastrophe, the biggest problem this world has, and nobody's focusing on the nuts and bolts of it." Trump's position on nuclear issues has been relatively consistent since 1990, with an enduring emphasis on competition, homeland defense, and a long-term goal of working toward nuclear disarmament. Indeed, in the same 1990 interview, Trump confided that one of his lifelong goals was to negotiate an arms control agreement, an ambition that led him to **attempt to contact** then-President Ronald Reagan in hopes of leading an arms control negotiation with the Soviet Union in 1984.

The Trump administration's January 2026 **NDS** and recent statements by senior officials contain the clearest indicators yet of the administration's approach to nuclear issues. The NDS emphasizes a role for nuclear weapons in escalation management, a sentiment echoed in statements from senior administration officials and the president himself about the February 2026 expiration of the 2010 New Strategic Arms Reduction Treaty (New START). In a major speech on the future of arms control, for example, Under Secretary of State for Arms Control and International Security Thomas DiNanno **said** that there was "a clear imperative to call for a new architecture that addresses the threats of today, not those of a bygone era. This means taking into account all Russian nuclear weapons, both novel and existing strategic systems, and addressing the breakout growth of Chinese

nuclear weapons stockpiles." Thus far, Trump's new nuclear architecture appears to be based on the joint pillars of a more flexible deterrent and more comprehensive arms control. Moreover, the strategy comes with a sense of urgency as the administration faces crucial decisions about how to execute nuclear modernization plans, reassure increasingly anxious allies, and deliver on the president's ambitions for arms control and "denuclearization."

This policy brief analyzes the Trump administration's recent strategy documents and speeches to better understand Trump's efforts in nuclear modernization, alliance management, and arms control. Furthermore, it revisits the sense of urgency expressed in the 2023 Strategic Posture Commission report, which thus far has been largely ignored by the Administration, and recommends immediate steps that the administration can take to simultaneously execute on nuclear modernization, deterrence, and arms control.

DIVERSIFY AND EXPAND: FORCE POSTURE OPTIONS FOR DETERRENCE AND ASSURANCE

U.S. nuclear posture is at an inflection point: The Department of Defense (now called the Department of War) and the National Nuclear Security Administration are in the process of modernizing all three legs of the strategic nuclear triad—(1) land-based intercontinental ballistic missiles (ICBMs), (2) ballistic missile submarines (SSBNs), and (3) strategic bombers. With the Sentinel ICBM, the Columbia SSBN, and the B-21 bomber at differing stages of completion, Under Secretary of Defense for Policy Elbridge Colby **affirmed** that "ensuring we retain a modern, capable, and effective nuclear deterrent should be our top priority." Although the current modernization program of record (POR) is necessary to achieving stated U.S. nuclear goals, the **Strategic Posture Commission** and some policy analysts **suggest** that the POR may be insufficient, and the United States may need to supplement the POR with different or additional capabilities. The Trump administration's strategy documents provide some hints as to which augmentations the administration may prioritize to reach its interpretation of nuclear sufficiency.

The first pillar of Trump's new nuclear architecture is a more flexible deterrent. While the 2026 NDS was relatively light on details about the United States' nuclear posture, a clear **priority** was to "modernize and adapt our nuclear forces . . . with focused attention on deterrence and escalation management amidst the changing global nuclear landscape." The document continues, "The United States should never—*will* never—be left vulnerable to nuclear blackmail." Previous strategy documents—including the first Trump administration's **2018 Nuclear Posture Review**—did not explicitly mention "escalation management." The new 2026 NDS's focus on escalation management as a guiding consideration for nuclear modernization is a notable departure from the past and may provide some clues as to the administration's thinking on which systems to prioritize, as well as whether (and how) to expand the current program of record.

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The Trump administration's NDS and its **2025 National Security Strategy** (NSS) both call for a strong, secure, and effective nuclear deterrent that is robust, credible, and modern. The NDS further **articulates** that such goals will require the modernization and adaptation of U.S. nuclear forces. Although neither document specifies which systems are required to achieve U.S. nuclear objectives, the administration's focus on escalation management alongside deterrence suggests that filling what it perceives as potential gaps in the escalation ladder with nuclear options is a priority. The administration is also likely to prioritize the defense of the homeland, strengthening deterrence in the Indo-Pacific, and burden-shifting onto allies for conventional regional defense. The administration may also give precedence to systems that can be built and fielded quickly. This would align with the **2018 Trump Nuclear Posture Review**, which called for "expanding flexible U.S. nuclear options now, to include low-yield options . . . for the preservation of credible deterrence against regional aggression. It will raise the nuclear threshold and help ensure that potential adversaries perceive no possible advantage in limited nuclear escalation, making nuclear employment less likely." This is an even more urgent priority given the **expansion** of China's nuclear arsenal.

A prominent omission from the 2026 **NDS** is an explicit commitment to extend deterrence to U.S. allies. Former British Defense Secretary Denis Healey famously **opined** during the Cold War that it "only takes five percent credibility of American retaliation to deter the Russians, but ninety-five percent credibility to reassure the Europeans." Given the challenges of making allied assurance credible even when commitments are frequently and explicitly stated, this omission can be read either as an unnecessary fumble of alliance management or as an intentional signal from the administration that the United States is reevaluating its role in its alliances and the world more broadly.

Subsequent statements from the administration, however, clarified U.S. extended deterrence commitments. At the 2026 Munich Security Conference, for example, Secretary of State Marco Rubio **affirmed** that "in a time of headlines heralding the end of the transatlantic era, let it be known and clear to all that this is neither our goal nor our wish." Secretary of Defense Pete Hegseth has frequently **reaffirmed** the importance of extended *nuclear* deterrence in conversations with U.S. allies, and the NDS indicates U.S. allies will **receive** "critical but more limited" U.S. support in defending against threats below those that pose the greatest threat to U.S. interests. And perhaps most decisively, Under Secretary of Defense for Policy Colby has repeatedly **restated** the U.S. commitment to NATO Article 5, and at a NATO Defense Ministerial **said** unequivocally, "We will continue to provide the U.S. extended nuclear deterrent."

The NSS and NDS both reaffirm the Trump administration's longstanding ambition to shift the burden of conventional regional defense and deterrence onto U.S. allies, with the United States facilitating a burden-sharing network to enable allies to take primary responsibility for regional conventional defense, and the United States continuing to provide extended nuclear deterrence. The United States is urging Europe to finalize this burden shift by **2027**, while Europe's **Readiness 2030** initiative has targeted conventional defense autonomy by 2030. Though the United States has made very clear its desire for allies to possess the conventional capabilities necessary to defend themselves, the software that will synchronize allied capabilities and U.S. extended nuclear deterrence remains underdeveloped. Significant effort will be needed by all allies to develop deterrence and warfighting concepts that seamlessly mesh allied conventional capabilities and U.S. nuclear deterrence. Whole-of-alliance **conventional nuclear integration** is not a new challenge, meaning fora already exist for managing the problem. The NATO High Level Group and extended deterrence dialogues with Indo-Pacific partners will be invaluable to ensure that the administration's desired burden-sharing outcomes continue to adequately deter adversaries and reassure allies.

Trump's new nuclear architecture, therefore, will focus on escalation management and prioritize a more flexible nuclear force to give the president options to deter and defeat adversaries, particularly at the regional level. Given these guiding principles, the administration has at least three options for diversifying the U.S. nuclear force to meet the requirements outlined in the NDS and NSS. The first option is to expand on existing capabilities, such as by uploading additional warheads or by increasing the orders for capabilities already planned in the POR. Unrestricted by treaty obligations, the United States could significantly expand the size of its nuclear arsenal over the next 12 months by uploading warheads on all three legs of the triad. The ICBM force could **accommodate** double its current number of warheads, approximately 30 B-52s could be **restored** to nuclear capable, and the existing Ohio-class SSBNs could be **refitted** to carry 24 submarine-launched ballistic missiles (SLBMs) each, thus achieving a higher number of active SLBM tubes during the transition from Ohio- to Columbia-class.

The administration's focus on deterring threats to the homeland indicates that modernization of all three legs of the strategic triad will likely continue at pace, if not accelerate. Several experts and officials have already called for increasing the number of certain systems. For instance, the Air Force **plans** to buy 100 B-21 Raiders, though former STRATCOM Commander Gen. Anthony Cotton **argued** that number should be at least 145, and other analysts have **proposed** ideal inventories closer to 300. While the slow initial production rate of the B-21 was designed to insulate the program from potential budget cuts, one option for rapidly achieving more is to increase both the rate of production and the total number of aircraft produced. The Air Force and Northrop Grumman recently **expanded** production capacity for the B-21, utilizing the **$4.5 billion** in funds appropriated by Congress in 2025 to hasten bomber production.

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Another way to expand the POR would be to grow the Columbia SSBN program beyond the initial plan of 12 hulls, **a number set** with New START treaty obligations in mind. With the expiration of New START in February 2026, the United States is no longer beholden to limitations on the size of its SSBN fleet, though several hurdles remain between the current POR and a larger fleet. The Navy **aims** for hulls 3–12 to be built at a rate of one per year, meaning options for expanding the size of the Columbia fleet are either decades in the making or would require a significant expansion of U.S. shipbuilding capacity. While some analysts have **advocated** for redesigning future submarines in the class to carry an additional four launch tubes, bringing them from 16 to 20 total, others have **indicated** that such additions would render those boats incompatible with existing SSBN support architecture. Therefore, a larger number of smaller boats may yield a cheaper and more flexible fleet than a smaller number of larger ones.

Second, introducing new theater standoff weapons to the U.S. arsenal could satisfy most of the goals the administration has laid out for nuclear weapons. The United States lags behind its chief competitors in nonstrategic, theater-range systems, creating what some analysts **fear** could become a significant gap in the country's ability to manage crisis escalation in future regional conflicts in Europe or the Indo-Pacific. By prioritizing lower-yield nuclear standoff weapons that can be rapidly deployed and fielded in-theater, the Trump administration would go a long way to filling in this potential gap in the U.S. escalation ladder, providing the president with options to rapidly respond to adversary aggression without having to utilize strategic forces. Not only would theater-based standoff weapons free up strategic forces for homeland defense, but they would also improve the credibility of U.S. deterrence at the lower end of the escalation ladder by complicating adversary decisionmaking to aggressively act against U.S. interests beyond the homeland. Paradoxically, in light of the cold shoulder the NDS shows to U.S. allies, the nuclear weapons it may value the highest are also among the best options for strengthening extended deterrence, though only if paired with adequately assuring strategy and policy. Critically, the fiscal year 2026 National Defense Authorization Act (NDAA) **accelerates** the deadline for limited deployments of SLCM-N to the end of FY 2032, two years earlier than that set in the FY 2025 NDAA.

Third, in order to enable additional flexibility in regional conflicts while managing costs, the Department of Defense could increase the number of dual-capable systems in its arsenal. Developing a small warhead that can be easily hot-swapped onto a usually conventionally armed short- or medium-range system would give the United States significant additional operational flexibility, generating the option for prompt and precise low-yield nuclear strikes. There are several reasons why the administration may choose not to pursue such capabilities, chief being that a hot-swappable warhead program would likely redirect significant National Nuclear Security Administration resources away from other, more pressing strategic priorities. Resources are already being directed toward novel technologies that have the potential to flip the offense-defense cost curve in the missile age, or that at least could provide the United States with adequate defenses in the face of rapidly diversifying missile threats. For example, should the production of directed energy weapons capable of missile intercept at scale become possible, the United States may be well on its way **toward solving** the homeland missile defense equation. While these may be unlikely short- or medium-term solutions, the administration would be wise to **continue maturing** the science facilitating directed energy weapons and other potential black swan systems.

A NEW ERA OF ARMS CONTROL

The second pillar of Trump's new nuclear architecture is a more inclusive approach to arms control. Statements by **Rubio**, **DiNanno**, and the **president** himself signal that the administration remains open to arms control initiatives, but on a more equitable basis. DiNanno spoke amidst New START's conclusion, as Washington chose not to accept a hollow Russian offer to continue to observe the central limits without verification. President Trump has suggested that it would be "a wonderful thing for China, for Russia, and for the United States to denuclearize as much as possible."

Any future arms control efforts will face at least three main challenges. First is deep distrust of Russia due to Moscow's legacy of noncompliance. According to analysts Eric Edelman and Frank Miller, Russia has **violated** at least nine arms control agreements since Putin came to power in 2000, including the 1987 **Intermediate-Range Nuclear Forces Treaty**. In 2024, the United States revealed concerns that Russia could be planning to violate the by placing a nuclear weapon in space, an action which could threaten critical communication systems. Even with intrusive inspections, trust between Washington and Moscow is not only likely to remain at a deficit but could be particularly challenging if future arms control is in a treaty format and must go to the U.S. Senate for advice and consent.

China's enduring refusal to participate in strategic arms control poses an additional challenge. Following DiNanno's statement, for example, Chinese Foreign Ministry spokesperson Lin Jian **declined** to participate in multilateral arms control talks and instead urged the United States to "resume dialogue with Russia on strategic stability," repeating its **claim** that Russia and United States, as the two largest nuclear powers, hold primary responsibility for arms control. There were some early signs that China may be more open to arms control, such as an October 2023 **meeting** between senior officials from both countries and China's subsequent missile launch notifications, but these overtures are a far cry from the type of arms control agreement the Trump administration seems to be envisioning. Moreover, there is the practical challenge of the lack of experience in information exchanges, transparency, and verification activities between China and the United States.

A final challenge lies in the asymmetry in NSNWs. Historically, arms control addressed operationally deployed strategic systems, such as ICBMs and bombers, wherein the United States and the Soviet Union (and then Russia) had relative parity. That is no longer the case. In fact, since 2010, Russia has **expanded** its number of NSNWs by 25 percent and China by 300 percent; in contrast, the United States has decreased its number of NSNWs by 33 percent. Concern about these imbalances is not new, and the U.S. Senate's 2010 consent to ratification of the New START treaty **mandated** that any future agreement "would address the disparity between the tactical nuclear weapons stockpiles of the Russian Federation and of the United States and would secure and reduce tactical nuclear weapons in a verifiable manner."

But future **arms control** does not necessarily have to look like arms control of the past. A trilateral legally binding treaty with intrusive verification and on-site inspections is politically problematic in the near-term not only for Beijing and Moscow, but also for Washington, because of distrust and the strategic necessity of expanding and diversifying the arsenal. Therefore, as U.S. deterrence becomes more flexible, so must arms control. This can take the form of informal agreements and focusing on behaviors rather than capabilities. Additional considerations for a new era of arms control include how it can be used to shape the wider international nuclear narrative, and how the Trump administration can use its new nuclear architecture to combat Chinese and Russian nuclear disinformation.

Based on the vision outlined thus far by the Trump administration, there appear to be at least three potential pathways for a new arms control architecture. In descending order of formality, the first is a legally binding treaty with a joint warhead ceiling that allows states to freely mix capabilities and design their force postures below that ceiling. The first Trump administration made a similar effort, hoping to set the United States and Russia at a one-warhead ceiling and China at a different, lower limit. The benefits of this approach are that it would address the asymmetry in NSNWs while also providing the administration the flexibility to pursue a more diverse nuclear force with predictability about Chinese and Russian arsenals. The downside is, as in 2019–2020, China is highly unlikely to accept such an offer.

A second option is a multilateral effort within the **P5 process**, such as joint commitments to hotlines or other forms of crisis communication channels, to keeping a human in the loop in the nuclear decisionmaking, or to reaching an agreement on missile launch notifications. An agreement on launch notifications would be particularly valuable going into a Nonproliferation Treaty Review Conference (NPT RevCon) and could inject new momentum into the P5 process. Many of these risk-reduction initiatives have been proposed or discussed in the past, with Russia or China typically **playing** a spoiler role, which they may do again, leaving the United States, France, and the United Kingdom to develop shared best practices and responsible nuclear behaviors. Moreover, given Russia's legacy of noncompliance, these agreements may not come with any meaningful predictability. For example, in January 2022, Russia along with the rest of the P5 **signed** a statement that

"a nuclear war cannot be won and must never be fought." Yet, less than two months later Putin began his invasion of Ukraine **backed** by repeated nuclear threats. Russian commitments remain of little value.

An even less-formal option would be a presidential agreement between Trump, Putin, and Xi on specific measures to prevent nuclear use or to reduce the risks associated with nuclear weapons. There is historical precedent for this in the **1973 Agreement on the Prevention of Nuclear War**, which committed the United States and the Soviet Union to, among other things, "refrain from the threat or use of force against the other Party, against the allies of the other Party and against other countries, in circumstances which may endanger international peace and security." A similar high-profile agreement between heads of state may come with similar challenges of trust; however, it could also impose high defection costs and have some restraining power. Such an agreement could also align with the increasingly personalist foreign policies emerging in all three countries.

AN ENDURING SENSE OF URGENCY

China's and Russia's rapid nuclear buildups, delays in U.S. nuclear modernization, and the breakdown of institutions including traditional arms control treaties have injected a sense of urgency into updating the United States' nuclear posture. Failing to act on this moment of urgency would risk a future deterrence gap from potential production and development lag times, along with increasingly anxious allies that could present a short- to medium-term proliferation risk. With that in mind, what follows are five recommendations for how the second Trump administration can implement its new nuclear architecture.

First, because speed and cost requirements will impose restrictions on what weapons systems and policies are possible, fast, cheap options should take priority. Where existing tools and delivery systems can be utilized to speed up the delivery and deployment of new capabilities, they should be. Furthermore, fast and cheap options that fill existing gaps in the arsenal should be prioritized, such as the continued development of air-launched standoff weapons including the long-range **standoff weapon**, which will grant the United States a rapidly forward deployable nuclear asset, assisting both assurance and deterrence signaling in regional crises or conflicts. In searching for places to trim fat and enable a nimbler acquisition strategy, the administration should avoid cutting high-value programs that are close to fielding an initial capability.

Second, the Administration should strengthen the capabilities and credibility behind its extended nuclear deterrent and strengthen the software that goes into burden-sharing. As the United States manages competition across multiple domains and theaters, its global alliance network remains a critical advantage and force multiplier. In accelerating the redistribution of the defense burden, hardware innovations, while important, will be secondary to ensuring the right software is in place to integrate regional strategy, planning, and defense. Recent remarks by world leaders at the **Munich Security Conference** indicate the appetite for collaboration among U.S. allies still exists. The administration would be wise to capitalize on this positive momentum by strengthening communication channels through the NATO High Level Group in Europe and through bilateral deterrence dialogues in the Indo-Pacific. These channels will be critical for ensuring the United States and its partners adequately integrate conventional and nuclear planning as U.S. allies increase their conventional deterrence capabilities and responsibilities.

Third, arms control and risk reduction must play a role in preventing nuclear escalation. The era of strategic competition is not likely to end anytime soon. Moreover, assuming China and Russia continue to qualitatively and quantitatively develop their own strategic arsenals and maintain regional ambitions as the United States also expands and diversifies its arsenal, nuclear-related risks will continue to rise. As much as a credible nuclear posture must be backed up by new capabilities and the capacity to produce them, it must also be paired with an arms control policy that is ready to engage when the time is right. In the short term, President Trump should publicly **invite** his Chinese and Russian counterparts to a nuclear summit to

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discuss three priorities for nuclear risk reduction: (1) clarifying the testing moratorium, (2) establishing a trilateral nuclear hotline, and (3) reaffirming the principles outlined in the **1973 Agreement on the Prevention of Nuclear War** to refrain from nuclear threats.

Fourth, the United States should play a leadership role in the forthcoming NPT RevCon, particularly by working with allies and partners, including in the Global South, to hold China and Russia accountable for their nuclear expansion and testing activities. This can include leading on transparency within the P5 process, such as by discussing nuclear doctrine under the Trump administration. President Trump's **comments** about nuclear testing present a timely opportunity to pressure Beijing and Moscow to be more transparent about their own nuclear programs, and the administration's attempts to provide concrete testing data about China are a valuable first step. Assistant Secretary of State for Arms Control Chris Yeaw has **indicated** that a U.S. priority in the upcoming RevCon is to encourage "countries of the world to continue to press that all nuclear weapon states need to be involved in this. It's not a special responsibility for the U.S. and Russia, particularly given the geometric expansion of the Chinese nuclear force structure." Perhaps most importantly, however, the United States should avoid playing a spoiler role in RevCon, by (for example) blocking consensus on specific issues such as language on nuclear testing or past commitments. This will require active diplomacy in the coming months and during RevCon itself, particularly when working with allies.

Fifth, the administration needs to continue and to expand work to modernize the supporting infrastructure of the **nuclear enterprise** and the wider nuclear defense **industrial base**, building on the president's May executive order. The less robust the enterprise is, the more likely capabilities **arrive** delayed and over budget. Bolstering the capacities of the industrial base and nuclear enterprise are the strongest peacetime signals the administration can send to adversaries and allies that the United States is serious about achieving the president's goals as stated in the NSS. Expansions of both the industrial and human capital available to the nuclear enterprise are urgently needed. Furthermore, the security environment mandates a sharpened focus on the production tasks at hand, and a return to underground **explosive testing** or **pulling plutonium** from the stockpile for other purposes could risk a distraction or diversion of resources.

CONCLUSIONS

In the same **1990 *Playboy* interview**, when asked how he would handle nuclear issues if he were president, Trump replied in the third person: "He would believe very strongly in extreme military strength. He wouldn't trust anyone. He wouldn't trust the Russians; he wouldn't trust our allies; he'd have a huge military arsenal, perfect it, understand it."

Trump's earlier impulse may have some value today, when the actions of U.S. adversaries have degraded trust and exacerbated the need for a flexible nuclear arsenal capable of deterring in-theater aggression. While not necessarily needing to grow vastly in size, the U.S. nuclear arsenal would benefit from tailored measures to strengthen the enterprise and adapt capabilities to the current threat environment. Additionally, improved capabilities must be complemented by risk-reduction measures that simultaneously secure U.S. and allied interests and advance global peace and security. Together, the paired ambitions of military strength and nuclear arms control could protect the United States, its allies, and the world at a time of rising global instability.

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