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U.S. Options for Post–New START Arms Control with Russia

The Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms, better known as the New START Treaty (NST), is—or perhaps *was*, given Moscow’s de facto withdrawal from treaty implementation in 2023—the last remaining strategic arms control agreement between the United States and Russia. NST entered into force on February 5, 2011, and will expire on February 5, 2026, following a five-year extension agreed on in 2021. With less than two years remaining before NST’s expiration, the United States must carefully consider its options for what—if anything—should replace NST.

Developing those options is an extremely complicated endeavor. NST was a very significant treaty: It reduced both sides’ deployed strategic warheads by one-third compared with previously agreed ceilings and introduced a number of important innovations in its extensive verification regime. But it was largely a continuation of the framework of the original START treaty, which expired in December 2009, and built on the legacy of the negotiated, but never ratified, START II and the 2002 Strategic Offensive Reduction Treaty. As with those earlier treaties, NST

addressed the traditional delivery systems for U.S. and Russian strategic warheads—intercontinental ballistic missiles (ICBMs), heavy bombers, and submarine-launched ballistic missiles (SLBMs)—and the warheads deployed on those delivery systems. Yet even before NST entered into force, both Moscow and Washington stated explicitly that future treaties would have to address other nuclear weapons as well. Essentially, there was a consensus that the next agreement could not be a modernized version of past documents. U.S.-Russia strategic arms control would need to be reconceptualized.

Abbreviations

ABM	Anti-Ballistic Missile (Treaty)
BCC	Bilateral Consultative Commission
BMD	ballistic missile defense
COVID-19	coronavirus disease 2019
GLCM	ground-launched cruise missile
ICBM	intercontinental ballistic missile
INF	Intermediate-Range Nuclear Forces Treaty
NATO	North Atlantic Treaty Organization
NC3	nuclear command, control, and communications
NSNW	nonstrategic nuclear weapon
NST	New START Treaty
NTM	national technical means of verification
SALT	Strategic Arms Limitation Talks
SLBM	submarine-launched ballistic missile
SSD	Strategic Stability Dialogue
TWC	total warhead cap

Thus, when the United States and Russia began consultations on future arms control in 2021, an expansive set of issues was on the table, and there were few firm ideas about what agreements might be needed to address them. Both countries’ leaders initially demonstrated political will to move toward mutually acceptable accords: At a June 2021 U.S.-Russia summit in Geneva, U.S. President Joe Biden and Russian President Vladimir Putin agreed to establish a Strategic Stability Dialogue (SSD) “to lay the groundwork for future arms control and risk reduction measures.”¹ Before the end of September that year, the SSD had met twice and established two working groups: the Working Group on Principles and Objectives for Future Arms Control and the Working Group on Capabilities and Actions with Strategic Effects.² But almost immediately after that second meeting, the buildup of Russian forces along Ukraine’s borders became an urgent crisis. The SSD met for a final time in January 2022, the month prior to Russia’s full-scale invasion of its neighbor. But the agenda of that meeting had shifted from the future of arms control to a last-ditch attempt to avert the impending war of aggression that Moscow was on the verge of unleashing against Ukraine.

Since Russia’s full-scale invasion of Ukraine began on February 24, 2022, NST has essentially collapsed. First, in late 2022, the United States attempted to resume on-site inspections, which had been suspended by mutual agreement in March 2020 because of the coronavirus disease 2019 (COVID-19) pandemic. Despite extensive U.S. efforts to accommodate Russian inspections of U.S. treaty-accountable sites, which had been complicated by Ukraine-related sanctions, Moscow refused to allow U.S. inspectors to exercise their rights under the agree-

ment. This led to a formal noncompliance finding by the United States.³ Second, in November 2022, the United States and Russia agreed to hold a meeting of the Bilateral Consultative Commission (BCC), a forum mandated by NST to address treaty implementation. Days before the meeting was scheduled to take place, the Russian side pulled out of it.⁴ Finally, on February 21, 2023, President Putin announced that Russia would “suspend” its implementation of the treaty.⁵ Moscow subsequently clarified that it would abide by the treaty’s three central limits—1,550 deployed strategic warheads and 800 total launchers, of which 700 can be deployed—as a “gesture of goodwill.”⁶ However, abiding by these limits is not the same as abiding by the treaty, which includes mandatory provisions for notifications, data exchange, on-site inspections, and meetings of the BCC. In other words, Russia has effectively ceased implementing NST while stating its intent to continue to comply with the central limits. Russia’s de facto withdrawal from NST made an already-difficult environment for future arms control even more challenging. In January 2024, Moscow refused a U.S. offer to resume dialogue on strategic stability, essentially drawing a direct linkage between future arms control and U.S. support for Ukraine.⁷

In this paper, we consider the future of U.S.-Russia arms control. With the final existing arms control treaty hanging in the balance and dialogue suspended, the future of arms control seems quite bleak. However, the United States has options it can pursue even under these adverse circumstances. We summarize those options and provide some alternatives if circumstances were to improve. We further explore how Russia’s actions between now and NST’s expiry could affect those options.

U.S. Interests in Arms Control

Much has been written on possible approaches to post-NST arms control.⁸ Often, the analysis begins with what weapon systems to cover or what the treaty mechanisms should be. For the U.S. government, however, it is crucial to begin with the strategic rationale for a possible NST follow-on. That should, in turn, determine the United States’ approach to potential negotiations. What U.S. goals should a post-NST regime seek to achieve? What U.S. interests can arms control advance? Answering these questions is even more important in light of Russia’s aggression in Ukraine and the broader collapse in bilateral relations between the United States and Russia. We outline a range of possible goals in the following sections. We focus on security-related goals, as opposed to such broader diplomatic objectives as reinforcing the nonproliferation regime. It is important to note that the value of arms control is far from universally accepted in the United States; some in the policy community have described it as a largely counter-productive endeavor for U.S. interests.⁹

First-Strike Stability

Strategic arms control has served a variety of purposes for the United States since the first major agreements were reached in the early 1970s. Thomas Schelling and Morton Halperin, writing in 1961 before any major agreements were signed, noted that the rationale for the endeavor stemmed from the nature of strategic nuclear weapons themselves: “[Such weapons] have enhanced the advantage, in the event war should come, of being the one to start it, or of responding instantly and vigorously to evidence that war may have started.”¹⁰ In other words, the advantage of a first strike in

a strategic nuclear exchange—and the potential to be disarmed unless retaliation is swift—dramatically compresses decisionmaking time for leaders. The very ability to completely annihilate the adversary in minutes created the fear that war between states with nuclear weapons could not be limited. Strategic nuclear weapons, particularly absent mutual vulnerability, created a strong incentive to preempt. Schelling and Halperin made the case that the United States should see arms control as a necessary means, in addition to unilateral capability development and planning, of addressing these inherent challenges associated with the nuclear age.

Both Cold War-era strategic arms control and NST were directly aimed first and foremost at ensuring first-strike or crisis stability, essentially ensuring mutual vulnerability by making effective preemption nearly impossible. This traditional arms control goal remains important for U.S. interests. However, U.S. concerns about a first strike—that is, the effectiveness of a disarming first strike by Russia—are much less acute today than they were in

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the past. The lion's share of U.S. strategic warheads are deployed on SLBMs, and the U.S. government appears to be quite confident in the ability of the current *Ohio*-class and future *Columbia*-class ballistic missile submarines to survive a Russian first strike. A variety of contingencies could diminish that confidence, however. For example, a qualitative leap in antisubmarine warfare could make the sea-based leg of the triad vulnerable.

In addition, Russia's fears about its ability to retaliate after a U.S. first strike, which are much more acute than those of the United States, pose a problem for Washington as well.¹¹ It is not in the United States' interest for Russia to be incentivized to use nuclear weapons in a crisis because of "use them or lose them" concerns. Although that has not stopped the United States from pursuing counterforce capabilities, the U.S. capacity to limit damage from a Russian strategic nuclear strike is, in fact, quite circumscribed.¹² Given the intertwined nature of the U.S.-Russia deterrence relationship, an acute Russian perception of vulnerability would create risks for both sides. The stabilizing nature of the survivability of both sides' strategic forces has been explicitly stated as a shared objective since 1990, when Moscow and Washington issued a joint statement calling for "agreements that improve survivability, remove incentives for a nuclear first strike and implement an appropriate relationship between strategic offenses and defenses."¹³

Arms Race Stability

During the Cold War, the massive arms buildup was, at least in part, spurred by fears of a disarming first strike. Building more warheads and delivery systems created more targets for a potential adversary first strike and thus

made it less likely to succeed. Arms control agreements, by reinforcing mutual vulnerability, undermined the military logic of arms racing; the numerical ceilings in those agreements effectively precluded arms racing. Thanks to earlier agreements, the United States and Russia have dramatically decreased their holdings of nuclear weapons from Cold War-era highs. NST was responsible for another one-third cut in the number of deployed strategic warheads.

Avoiding a new arms race with Russia remains an important objective for the United States. In fact, the United States would be at a disadvantage if such a race were to begin in 2026. Russia's modernization cycle is now at the stage of producing and fielding the next generation of its nuclear weapons and delivery systems; Moscow could, if it so chooses, increase its numbers of nuclear weapons in the coming decade. Washington, by contrast, is at an earlier stage in its modernization. Its next-generation delivery systems, such as the *Sentinel* ICBM and *Columbia*-class ballistic missile submarines, will not be fielded until the early 2030s.¹⁴ And U.S. weapons laboratory facilities have bottlenecks and infrastructure challenges that could preclude significant warhead production.¹⁵ That said, the United States could increase the number of deployed warheads by uploading—i.e., increasing the number of warheads on the delivery vehicles—its current generation of ICBMs and SLBMs. For example, the U.S. Minuteman III ICBMs currently have one warhead; they could be uploaded using nondeployed warheads to have up to three.

Arms race stability has historically also helped reduce military expenditure and eased pressure on budgets. In light of ongoing fiscal challenges in the United States, this is another objective that arms control can further.

Ensuring Advantages and Compensating for Disadvantages

The United States has pursued other objectives through arms control in addition to reinforcing stability. John Maurer's research has shown that U.S. policymakers saw arms control during the Cold War as a means of promoting U.S. military advantages. "To accomplish this goal," he wrote, "states can structure arms-control agreements to place stricter limits on their adversaries than on themselves, or they can seek to construct symmetrical arms-control regimes that limit weapons technologies more advantageous to their adversaries."¹⁶ For example, Maurer notes that the 1972 Anti-Ballistic Missile (ABM) Treaty was not a blanket ban on deployment and testing and instead allowed both sides one missile defense base. The push to structure the treaty in this way stemmed from a U.S. drive to continue to develop missile defense capabilities that might have provided a future military advantage over the Soviets. Today, the United States would likely seek to preserve the advantages that it has in certain domains, such as conventional strike and missile defense.

Arms control can also be used to mitigate against (real or perceived) adversary advantages. Today, the focus of U.S. policymakers when it comes to Russian qualitative advantages has been on the novel delivery systems Moscow has fielded—or has announced plans to field—in recent years. These include the Poseidon nuclear-powered, nuclear-armed long-range autonomous underwater vehicle; the Burevestnik nuclear-powered, nuclear-armed cruise missile; the Avangard hypersonic boost-glide vehicle; and the Sarmat heavy liquid-fueled ICBM.¹⁷ When NST was still functioning, Moscow had agreed that Avangard, which

is loaded onto existing treaty-accountable ICBMs, and Sarmat, a treaty-accountable ICBM itself, would be covered under NST. Poseidon and Burevestnik, however, do not meet the definitions of treaty-accountable weapons under NST. Prominent voices in the policy debate have called for these “exotic systems” to be addressed in future agreements.¹⁸ Some analysts have argued that the United States should seek a Russian commitment to eliminate nuclear-powered cruise missiles and long-range nuclear torpedoes.¹⁹ Others fear that hypersonic glide vehicles, such as Avangard, which combine the fast flight times of ballistic missiles with the unpredictability of cruise missiles, pose a uniquely destabilizing threat, and both sides should agree not to load them with nuclear weapons.²⁰

It would indeed be in the United States’ interests to address all Russian strategic nuclear weapon-delivery systems in a new arms control agreement. However, just how central this issue should be in any future talks is debatable. Poseidon and Burevestnik are designed exclusively as retaliation

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weapons, meant to reinforce mutually assured destruction by overcoming any defenses and ensuring Russia’s ability to respond even after an attempted disarming strike. Therefore, they are not a direct threat to strategic stability. Moreover, it is unclear what arms control can do to address them because they are unlikely to be fielded in significant quantity, and therefore capping their numbers would provide minimal benefit. That said, including them in a future agreement to address all U.S. and Russian strategic weapons would certainly be beneficial for strategic stability.

Enhancing Allies’ Security

In principle, any arms control agreement that reinforces strategic stability and reduces the likelihood of a U.S.-Russia nuclear war enhances the security of U.S. allies. Indeed, North Atlantic Treaty Organization (NATO) allies all came out in favor of NST during U.S. deliberations on ratification and were supportive of the treaty in subsequent summit communiqués.²¹ But arms control has also been used to constrain specific adversary capabilities that pose security threats to U.S. allies. The Intermediate-Range Nuclear Forces Treaty (INF), for example, eliminated a class of Soviet weapons that could reach U.S. allies, but not the U.S. homeland. The issue of theater strike weapons (both those banned by INF and those with shorter range) directly affects U.S. allies in Europe and Asia and therefore should feature in a post-NST negotiation.

Systems Previously Banned by INF

With the demise of INF, there are no current constraints on U.S. and Russian ground-based theater-range missile deployments. The INF had previously banned such mis-

siles with ranges between 500 and 5,500 kilometers, which would reach civilian or military targets in NATO member states. The United States withdrew from INF because of Russia's deployment of the 9M729 (SSC-8), a ground-launched cruise missile that Washington said breached the INF limits. According to the U.S. government, Russia has already fielded that missile.²² Following the U.S. withdrawal, Moscow indicated that it would adapt its Kalibr sea-launched cruise missile for a ground-launched mode as well, although that system has yet to materialize. Since withdrawing, the United States has begun to develop and test INF-range systems but has yet to deploy them.

The INF agreement came after the Euromissile crisis, which saw the United States and the Soviet Union deploy intermediate-range ballistic missiles armed with nuclear warheads—as well as, in the U.S. case, ground-launched cruise missiles (GLCMs)—in Europe. The Soviet Union's deployment of SS-20 intermediate-range ballistic missiles in Europe heightened fears of *nuclear decoupling*—i.e., Moscow would have been able to conduct prompt nuclear strikes on Western European capitals without attacking the United States, thus potentially decoupling allies from the United States. Moscow considered the subsequent U.S. deployment of intermediate-range ballistic missiles and GLCMs to Europe a *decapitation threat*. In other words, these systems could promptly strike Soviet nuclear command, control, and communications (NC3) with little warning, potentially preventing Moscow from retaliating. By ending both the decoupling and decapitation threats, the treaty reinforced first-strike stability through mutual vulnerability.

Both sides' current and announced theater strike systems do not include nuclear-armed ballistic missiles. Cruise missiles are slower than ballistic missiles and thus

do not pose the same acute decapitation concerns, although any ground-based system would be considered prompt if deployed within range of NC3 nodes or capitals. And while the 9M729 is said to be dual-capable, the warheads for it presumably are stored in a manner similar to that of Russian nonstrategic nuclear weapons (NSNWs). Therefore, decoupling concerns are also not as pronounced as they were with the SS-20.

While the specific drivers of INF are not directly relevant in this case, the security of U.S. allies would certainly be enhanced if Russian cruise missiles capable of striking Europe were addressed by arms control agreements in some way. In the event of conflict, NATO allies are likely to be on the receiving end of Russian INF-range systems deployed in Europe. Therefore, the allies would benefit from arms control measures that address Russian systems that had been banned by INF.

Nonstrategic Nuclear Weapons

Russia's nearly 2,000 NSNWs pose a direct challenge for U.S. allies because nearly all the allies are within these weapons' range. NSNWs, for which Russia has a wide variety of delivery systems, many of which are dual-capable, are shorter-range than the INF systems.

For the United States, bringing NSNWs into the arms control regime has been a bipartisan priority since the ratification of NST. Indeed, the imperative of bringing NSNWs into an arms control regime was explicitly referenced in the Senate resolution of ratification for the treaty.²³

While limiting NSNWs has been described as the "holy grail" of arms control, doing so presents many difficulties.²⁴ Russia likely has hundreds more NSNWs than the United States. Published reports suggest that the United

States has approximately 200 B61 gravity bombs in its stockpile, at airbases in the continental United States, and on the territories of several NATO allies.²⁵ Russia reportedly has nearly ten times the number of NSNWs and a wide range of launchers that can fire them, including systems that also have conventional missions. The numerical disparity renders mutual reductions—the traditional arms control approach to warheads—very difficult.

Even if Russia can be convinced to agree to limits on its nonstrategic nuclear arsenal, verification could be uniquely challenging for these systems.²⁶ Whereas strategic systems tend to be deployed on large and easily observable launchers, most of which do not fulfill conventional missions, nonstrategic warheads are delivered by short-range fighters, tactical and operational rockets, and warships, almost all of which are dual-capable. Limiting the holdings of these launchers would thus have a major impact on both sides' conventional military capabilities.²⁷ The warheads themselves are small and usually stored in highly sensitive warehouses (unlike strategic warheads, which are often deployed atop their launchers), which makes it difficult to design an inspection and verification regime able to satisfy both parties that neither party is cheating while not compromising closely guarded nuclear secrets.²⁸ These challenges are likely not insurmountable, but existing intrusive verification methods used for strategic systems do not provide a ready-made blueprint.

Whereas the logic of strategic arms control and the INF relates directly to reinforcing strategic stability, the benefits of bringing NSNWs into arms control are less clear-cut. Unlike strategic weapons, Russian NSNWs cannot be used to target launchers of U.S. strategic weapons, so they pose no direct threat to first-strike stability. It

would, of course, be in the United States' interest if Russia were to have fewer nuclear weapons that can target U.S. allies. But even a 50-percent cut in Russian NSNW holdings, leaving Moscow with approximately 1,000 warheads, would not dramatically alter the threat posed to allies. In any case, given the current numerical disparity, significant reductions could only come either as a (highly unlikely) unilateral gesture or as part of a broader deal. Short of significant reductions, a verifiable Russian commitment not to increase NSNW holdings could provide accountability, increase transparency, and enhance mutual confidence.

Pavel Podvig and Javier Serrat proposed to ensure that the warheads remain in a limited number of storage facilities that are not colocated with facilities where nuclear-capable delivery systems are present.²⁹ This approach, perhaps the most comprehensive plausible NSNW arms control proposal, would avoid strategic arms control verification models of checking compliance with numerical ceilings altogether and instead focus on ensuring that the weapons are not deployed on delivery systems. The parties could verify the nondeployed status of NSNWs by demonstrating the absence of warheads at sites associated with the delivery systems.

Arms Control Options

These four U.S. interests—strengthening first-strike stability, reinforcing arms race stability, ensuring advantages and compensating for disadvantages, and enhancing allies' security—can be pursued through either formal arms control agreements or political commitments. The following sections describe possible arms control measures in those two categories.

Formal Arms Control Agreements

A Follow-On Treaty to New START

There remains a strong case for an NST-like treaty that maintains numerical limitations and verification procedures for strategic weapons. Assessments of China's growing arsenal and other force-planning considerations beyond the scope of this paper are likely to determine the numbers of strategic offensive weapons that the United States requires. Regardless, the key questions for arms control are less about the numbers in such an arrangement and more about the systems it could plausibly address and the mechanisms in place for verification. In part, the diminished emphasis on numbers stems from a widespread view that further significant bilateral cuts in deployed strategic weapons will be unwise until the full extent of the Chinese buildup is clear.

While a follow-on agreement to NST should address the weapons covered in that treaty, capturing the two—Burevestnik and Poseidon—that fall outside the scope of NST because of definitional issues would also, as noted previously, be desirable. There are two possible means to bring these two exotic weapons into an arms control regime:

1. *Commitments to ban or limit certain systems:* It might be possible to negotiate a commitment to ban the class of weapons to which the Burevestnik and Poseidon belong—nuclear-powered, nuclear-armed cruise missiles and nuclear-armed, nuclear-powered unmanned long-range torpedoes, respectively. In return, the United States could commit to not developing or deploying weapons that concern Russia, such as space-to-earth kinetic capabilities, which Moscow seems to fear despite the lack of any open-source indication of related U.S. development

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plans.³⁰ Alternatively, the United States and Russia could agree to a ceiling on holdings of these classes of weapons.

2. *Making all long-range nuclear weapons–delivery systems treaty-accountable:* The next treaty could broaden the definition of the types of delivery systems that would be treaty-accountable to include all long-range (traditionally defined as at least 600 kilometers) systems that carry a nuclear payload. This would bring both Burevestnik and Poseidon, and any future new systems that either side might develop, at least as delivery systems, into treaty accountability. Because neither weapon appears likely to carry the equivalent explosive power of more than one strategic warhead, each delivery system could count as one warhead, as with the NST bomber counting rule.

Such a follow-on agreement to NST would potentially further all four aforementioned U.S. interests.

Warhead Cap

The United States has long called for all nuclear weapons to be subject to arms control, including nondeployed and nonstrategic warheads.³¹ Indeed, the U.S. Senate, in its resolution of ratification for NST, called for the next arms control agreement to do just that.³² The Biden administration has reiterated the goal of “new arms control that addresses all of Russia’s nuclear weapons.”³³

One mechanism that could be used to achieve this end is a total warhead cap (TWC).³⁴ NST limits only about 25 percent of U.S. and Russian combined warhead inventories. The rest are either NSNWs, nondeployed strategic warheads, warheads on strategic bombers if the bombers carry more than one, and those awaiting dismantlement. In theory, a TWC could cover all these categories—or most of them—and provide a ceiling for each party’s holdings. To further the interests of enhancing allied security and

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easing budgetary pressures, a TWC might be a promising supplemental agreement to an NST follow-on.

In addition to bringing all nuclear weapons into an arms control regime, a TWC has the potential advantage of offering a means of addressing U.S. and allied concerns about Russian NSNWs without the need to develop a separate regime specific to NSNWs. Given the significant Russian numerical advantage in NSNWs, it is hard to imagine a bilateral regime that would cover only NSNWs because such an agreement would disproportionately benefit the United States. However, under a TWC, the United States could effectively leverage its numerical advantage in nondeployed strategic warheads to capture Russian NSNWs because all warheads, both deployed and nondeployed and strategic and nonstrategic, would count toward the overall cap. In other words, it would open up the trade space in a negotiation by putting everything on the table. Within an overall TWC, subceilings on warhead types could also be negotiated. For example, the NST ceiling on deployed strategic warheads (1,550) could be embedded within a TWC. Indeed, even ballistic missile defense (BMD) could be addressed in a TWC arrangement—and without a formal limitation on interceptor numbers. For example, for each interceptor fielded by one side, the other side could have the right to raise its ceiling by a specified number of warheads.

While a TWC would allow the parties to determine how to apportion their allowed amounts of warheads to different missions, it would also force trade-offs. For example, Russia would have fewer strategic warheads at its disposal if it decided to build up NSNW numbers, assuming that its total warhead numbers were already at the ceiling. That dynamic could incentivize restraint in Moscow

on NSNW numbers in a way that other arms control approaches could not. A TWC would also, in theory, offer a means of ensuring that, in the absence of INF, there will not be a nuclear crisis in Europe even if both sides deployed a significant number of INF-range systems (the cap would ensure that most would not be nuclear-armed or would be only so armed at the expense of other warheads).

An agreement featuring a TWC would likely find support in the U.S. Senate because it would answer the call in the NST resolution of ratification for the next treaty to address all Russian warheads. Russia also has more warheads in total, so a cap presumably would affect its stockpile more than that of the United States.

However, a TWC would not necessarily reduce Russian NSNW holdings; rather, that would depend on the warhead ceiling agreed to, whether Moscow needs to cut to get below that ceiling, and whether it chooses to cut NSNWs or strategic warheads to do so. And a TWC would do nothing to complicate Russia's potential use of NSNWs in a crisis. It is therefore unclear whether a TWC would alleviate U.S. allies' concerns about NSNWs.

While a TWC would offer the United States a means of limiting all of Russia's nuclear weapons, it would not directly enhance first-strike stability. Therefore, it is not a replacement for an NST follow-on, but an additional measure that could be used in the context of a renewed treaty regime covering NST-limited launchers and warheads.

A TWC would be a novel approach to arms control. To date, arms control has addressed warheads only in the context of their deployment on treaty-accountable launchers. Such a novel approach would require novel mechanisms to make it work. The challenges associated with implementing a TWC are primarily related to verification. Warhead

verification represents essentially uncharted waters for arms control, although researchers inside and outside governments have developed relevant proposals.³⁵ START did include provisions for warhead *production* monitoring, although Russia refused to include such provisions in NST. In late 2020, Moscow and Washington could not finalize an agreement capping warhead numbers for just a year, largely because of disagreements over verification. The United States reportedly insisted on perimeter portal monitoring of assembly and disassembly facilities (similar to START), and Russia refused any such on-site verification measures.

Political Commitments and Informal Arrangements

This section covers mechanisms other than formal agreements to pursue arms control. Given the deeply hostile nature of the bilateral relationship and the political challenges of getting treaties through the U.S. Senate, such mechanisms might be the only viable path forward for arms control. Even if the United States and Russia begin talks on a successor to NST, they are highly unlikely to finalize an agreement before the treaty's expiration. Therefore, this section begins with instruments that could be used either as interim measures pending the entry-into-force of a new agreement or as steps that could be taken even in the absence of a new dialogue process.

These commitments could come in the form of unilateral steps, coordinated unilateral steps, negotiated political commitments, or tacit understandings. One example of a tacit understanding allowed the United States and the Soviet Union to maintain their divergent interpretations of the right of innocent passage in territorial waters under

the United Nations Convention on the Law of the Sea while avoiding a direct clash. In February 1988, USS *Yorktown* and *Caron* conducted freedom-of-navigation operations in Soviet territorial waters off of Crimea in the Black Sea and were rammed by Soviet ships in what became an infamous signaling incident. Subsequently, the two sides were able to find a tacit understanding that precluded such incidents in the future. At a meeting in September 1989 in Jackson Hole, Wyoming, U.S. Secretary of State James Baker III and Soviet Foreign Minister Eduard Shevardnadze issued unilateral statements. The Soviet statement acknowledged the right of other states' vessels to conduct innocent passage through Soviet territorial waters. The United States declared that there was no need for U.S. ships to conduct freedom-of-navigation operations in Soviet territorial waters.³⁶

Mutual Political Commitment to Maintain New START Treaty Ceilings

Barring a Chinese bolt to parity with the United States, it would be in the U.S. interest to maintain NST ceilings with Russia even after the treaty's expiration. Such a step would reinforce first-strike and arms-race stability. While legally binding numerical constraints verified through on-site inspections are the arms control gold standard, alternatives are possible, even if they are less robust. One option for the United States is to negotiate with Russia a mutual political commitment to comply with NST limits.

This would not be the first time for ceilings to exist outside of treaty instruments. First, for 13 months following the expiration of START in December 2009, the United States and Russia undertook a mutual commitment “as a matter of principle, to continue to work

together in the spirit of the START Treaty.”³⁷ Although it lacked specific ceilings, the statement was seen as indicative of a pledge not to build up while NST negotiations were ongoing. Second, even though the United States never ratified the 1979 Treaty on the Limitation of Strategic Offensive Arms (Strategic Arms Limitation Talks [SALT] II), it undertook efforts to adhere to the treaty's limits. The Reagan administration referred to this as a policy of interim restraint pending negotiation of a new arms control treaty.³⁸ Finally, after Russia's February 2023 de facto withdrawal from NST, Russia appears to have upheld its unilateral pledge to abide by the ceilings as of this writing.

A political commitment to ceilings on deployed strategic warheads and delivery systems would be impossible to verify without on-site inspections and robust, legally binding notification obligations. That said, while marginal increases in Russian deployed warheads, for example, could escape detection, a substantial breakout would be difficult to conceal from U.S. national technical means of verification (NTM). Ceilings without a treaty clearly have significant drawbacks, but they could be useful as an interim measure or in lieu of no ceilings at all.

Continued Notification and Data Exchange

Certain arms control instruments are only possible in the context of a legally binding treaty mechanism. In particular, on-site inspections depend on the privileges and immunities granted to inspectors by treaties, and their activities—and the responsibilities of the inspected party—are governed in minute detail by treaty protocols. Without a treaty to replace NST, inspections will likely end.

Losing inspections will be a blow to arms control. No advancements in NTM can replace the confidence created by viewing weapon systems in person. Moreover, inspections offer opportunities for both sides to better understand each other and even to develop relationships that can be leveraged in moments of crisis. Former U.S. inspectors often point to times when these relationships proved critical in clarifying possible misunderstandings.

However, the suspension of NST inspections during the COVID-19 pandemic underscored the primary importance of notifications and data exchange in arms control. Indeed, the regular transmission of notifications between the U.S. National and Nuclear Risk Reduction Center and the Russian National Nuclear Risk Reduction Center was the beating heart of NST, the daily activities that translated treaty text into interaction between two potential adversaries. By the time Russia effectively withdrew from NST and ceased sending notifications, more than 20,000 had been exchanged.

Some legal instrument would be needed to exchange information with Russia about U.S. nuclear weapons that is not already public because this information is often highly classified. Sharing information about the locations and number of nuclear warheads without a treaty might require amending the Atomic Energy Act of 1961. The more general aggregate data about numbers of warheads and launchers, currently required on a biannual basis by NST, might require only a presidential directive. Vince Manzo has proposed additional prenotifications of changes in these declared data.³⁹

Inspections offer opportunities for both sides to better understand each other and even to develop relationships that can be leveraged in moments of crisis.

Political Commitment to Continue Noninterference with National Technical Means of Verification

Commitments not to interfere with NTM have been part of arms control agreements since the 1972 Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms (SALT I) and the ABM Treaty. Indeed, NTM—generally, a euphemism for reconnaissance satellites—was the primary means of verification before the advent of on-site inspections and regular notifications. NST also contains an NTM noninterference provision. However, as Aaron Bateman notes, Moscow and Washington never agreed on a specific definition of either *NTM* or *noninterference* during decades of arms control talks.⁴⁰ This lack of specificity simplifies the task of translating the noninterference pledge into a political commitment. If the United States could agree to such a mutual pledge with Russia after NST expiry, that would potentially curb Russian activities

that complicate the U.S. intelligence community's mission of assessing the state of Moscow's nuclear arsenal and its compliance with any potential post-NST commitments.

Restraint Commitments on Strategic Defenses

The lack of constraints on U.S. BMD capabilities after the abrogation of the ABM Treaty has increased Russia's concerns about its capacity to retaliate after a first strike. Russian analysts and officials have consistently demanded that the United States negotiate treaty limits to its missile defense systems—systems that the analysts and officials fear may endanger the ability of Russia's strategic forces to deter a U.S. attack.⁴¹ U.S. officials have responded that U.S. missile defenses are far too limited to have any meaningful effect on a full-scale Russian nuclear attack and are instead intended to defend the country from such states as North Korea with much smaller arsenals.⁴² Some U.S. analysts have suggested

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that Washington negotiate limits on its missile defenses in exchange for Russian concessions in other areas.⁴³ The United States should be able to build a sufficiently robust defense against any “rogue state” missile launches even if such limits are agreed with Russia. Some constraints on the interceptor stockpile and the geographic location of BMD radars or other missile defense infrastructure will not have any major strategic impact on the United States or its allies.⁴⁴ Attempting to build a larger system to defend against a Russian strategic attack is impractical.⁴⁵

While binding limits on BMD are politically unpopular in the United States, and therefore a treaty including them would face stiff resistance in the U.S. Senate, policy-makers could consider mutual restraint commitments on BMD deployment plans to reduce Moscow's concerns about first-strike stability. For example, Steven Pifer has proposed that the United States could provide Russia annual disclosures of its inventory of BMD interceptors, launchers, and associated radars and its ten-year plan for any increases in that inventory, along with a pledge of advance notification of any change in those plans.⁴⁶ This would amount to a voluntary numerical ceiling on missile defenses. Such a commitment could be mutual; Russia's BMD capabilities are more limited than those of the United States, but Russia is developing new missile defense systems.

Moratorium on Ground-Based Intermediate-Range Missiles in Europe

Soon after the demise of INF in 2019, Moscow declared a moratorium on deployment of ground-based missiles of intermediate range and proposed that NATO do the same.⁴⁷ This proposal was dismissed by the United States and its NATO allies with good reason: They had declared

that a new Russian missile, the 9M729, had a range that exceeded INF's 500-kilometer cap and that the missile had been deployed. In October 2020, Russian President Putin put forth a more detailed moratorium proposal. He specified that Russia would be interested in negotiating a mutual moratorium with the United States on deployment of INF-range, ground-based missiles in Europe. The proposal offered to provide access to Kaliningrad to verify the absence of the 9M729 there in exchange for Russian inspections of the Mk-41 launchers at the NATO Aegis Ashore BMD sites in Europe, which Moscow has alleged could be used to fire GLCMs. Without admitting that the 9M729 violated the then-already-expired treaty, Russia offered to withdraw all such missiles from Europe in return for a U.S. pledge not to deploy INF-range, ground-based systems on the European continent.⁴⁸ Since then, and even after the start of the war in Ukraine, Moscow has said the proposal remains on the table.⁴⁹

In the run-up to the war in Ukraine, the United States indicated that it would be willing to discuss this issue in the SSD context. Indeed, there is a strategic logic to avoiding an unconstrained ground-based missile race in Europe. Although the U.S. military has announced a variety of plans to develop (conventionally armed) INF-range, ground-based systems, and some might well be deployed to Europe, measures short of the INF's outright ban could be envisioned to minimize any destabilizing consequences of such deployments. For example, the United States could announce the number of launchers of such missiles that it plans to deploy, which would essentially amount to an informal ceiling. Or the United States could commit to deploying the missiles on the territory of member states that are farther away from Russia's NC3. Confidence in

limited numbers and greater warning time could reduce decapitation concerns in Moscow. Of course, any such measures should come in the context of mutual Russian commitments to self-restraint.

Commitment to Dialogue

In the absence of treaty-mandated communication mechanisms, such as the BCC, and obligations to demonstrate new types of treaty-limited weapons, establishing a regular, working-level dialogue between the governments on matters relevant to strategic stability will be increasingly important to avoid misunderstandings and miscalculations. Such a mechanism could be modeled on the SSD but with scheduled biannual meetings not tied to specific events or agreements. Manzo suggests creating a working group on strategy, concepts, and systems that could allow for both sides to explain plans and credibly communicate intentions.⁵⁰ Briefings on new systems could also be provided.

Unilateral Declarations

The United States could continue to unilaterally declare the numbers of its currently deployed strategic warheads and launchers even after NST's expiry and consider providing declarations on its future plans. There is little to lose from making these plans explicit, and doing so might help mitigate potential Russian misperceptions.

Additionally, the United States could consider unilateral declarations of its nonintent to develop, test, or deploy certain weapon systems. The Biden administration, for example, announced in April 2022 a commitment not to conduct destructive, direct-ascent antisatellite missile testing as a voluntary self-restraint measure, with plans to

propagate it as an international norm.⁵¹ Such declarations require no negotiation or even consultation with any other party. Future unilateral declarations could cover other systems, such as space-to-earth kinetic weapons.

Scenarios to 2026

Russia's actions before NST's expiry will affect the prospects for future arms control. A return to full compliance with the treaty would help restore the credibility of arms control and help make the case for future agreements. In that case, the period of the Russian suspension could be considered something of an anomaly created by the extraordinary circumstances of the war in Ukraine. (The amount of time the treaty is fully implemented before its expiry would also be significant—18 months of inspections and notifications would be a better track record than two months, for example.) Russia's continued de facto adherence to the central NST limits, which are the core of the treaty, will affect the U.S. interest in maintaining its nuclear arsenal at or below NST levels and the extent of the arms-racing dynamics between the two countries. A potential Russian breakout from NST ceilings could prompt the United States to build up its arsenal, leaving little room for arms control of any kind.

From these two variables—whether Russia returns to full compliance with the treaty before it expires and whether Russia maintains its pledge to comply with the NST central limits on a voluntary basis—we can derive three possible scenarios for the period until NST's expiry: (1) a return to full Russian compliance before NST expiry; (2) continued Russian nonimplementation of NST until its expiry but no clear violation of the central limits; and (3) continued Russian

nonimplementation of NST until its expiry accompanied by a buildup of its strategic arsenal beyond the central limits.

We assume that the United States will maintain its current position on its obligations under NST until its expiry: namely, that the treaty is in force and that the United States considers itself bound by the treaty's provisions. The legal countermeasures imposed following Russia's suspension were intended to induce Moscow to return to compliance. Therefore, if Russia does return to compliance, we assume that the United States would reverse those countermeasures and return to full implementation. While it is possible that the U.S. government would decide to withdraw from the treaty, for the purposes of our analysis, we assume continuity in official policies.

Scenario 1: A Return to New START Treaty Implementation Before Expiry

In this scenario, we assume that the Russia-Ukraine war ends sometime before early 2025. The war concludes in some form of negotiation—the details of which are not relevant for this paper—and the Kremlin declares that the conditions it set for a resumption of NST implementation have been met. Notifications, on-site inspections, and data exchange resume. Meetings of the BCC in an agreed-on third country also recommence. The United States considers Russia to have returned to full compliance with the treaty. Although Russia's aggression in Ukraine did irreparable harm to bilateral U.S.-Russia ties, Washington maintains a carve-out in what is essentially a nonfunctional relationship for strategic stability talks. These talks resume with a year or more to go before NST expiry in February 2026.

This scenario would be the most conducive to further arms control. There will be many obstacles to agreeing to and ratifying an NST follow-on treaty in any of the scenarios, given the near collapse of U.S.-Russia relations after the full-scale invasion of Ukraine. However, a Russian return to compliance with NST would be a strong argument in the interagency and broader public debate about the utility of arms control, as it would undermine the argument that arms control with Russia is pointless because of Moscow's chronic noncompliance with agreements. Although the timeline to reach a new agreement before NST expiration would be extremely limited, this scenario would open an opportunity for pursuing a full-fledged negotiation either before or after February 2026.

Scenario 2: No Implementation, but No Breakout

In this scenario, Russia does not return to NST implementation before its expiry but maintains its commitment to comply with the central NST limits. This contingency could come to pass either because the Russia-Ukraine war has continued through February 2026 or because the Kremlin has decided not to renew implementation of the treaty despite the war coming to an end. The climate of bilateral animosity is so profound at the present that Russia's political logic for suspending NST might well persist beyond the end of the active combat phase. But in this scenario, the U.S. intelligence community assesses with high confidence that Russia has not exceeded the central limits of the treaty—or, if it has, not to a materially significant degree. Under this scenario, a legally binding treaty will be an extremely difficult sell in Washington, but if Moscow returns to an SSD-like dialogue format and the sides are

able to come to agreement, it is not impossible to imagine, particularly if the Russia-Ukraine war comes to an end. Regardless, if Russia is willing to engage, it is worth exploring the possibility of finding a new agreement. And even if Russia is unwilling, some of the unilateral commitments mentioned previously would be worth considering.

Scenario 3: A New Buildup

In this scenario, Moscow not only never returns to NST implementation, but it also exceeds one or more of the central limits of the treaty. This scenario leaves little room for any negotiated arms control measures, regardless of whether they are legally binding. In this scenario, Moscow has demonstrated that it is more interested in increasing its nuclear arsenal than in engaging in mutual restraint. Nonetheless, the United States should consider unilateral declarations and tacit understandings that could prevent an all-out arms race and reinforce strategic stability.

A Russian return to compliance with NST would be a strong argument in the interagency and broader public debate about the utility of arms control.

Conclusion

The best-case scenario of Russia's return to NST implementation and compliance with the ceilings would be most conducive to future arms control. However, that seems a rather unlikely scenario as of this writing. Yet, even in the worst case of a Russian buildup beyond NST's central limits, considering certain unilateral measures would still be sensible, such as commitments not to develop and

deploy destabilizing capabilities. And in the scenario of a continuation of the status quo of Russia's noncompliance with NST but de facto adherence to its central limits, bilateral agreements or political commitments would be possible, assuming creative diplomacy and political will on both sides. In any case, as we have demonstrated in this paper, the United States has arms control options that could further core national security interests.

Notes

¹ The White House, “U.S.-Russia Presidential Joint Statement on Strategic Stability.”

² U.S. Department of State, “Joint Statement on the Outcomes of the U.S.-Russia Strategic Stability Dialogue in Geneva on September 30.”

³ Pamuk, “U.S. Says Russia Violating New START Nuclear Arms Control Treaty.”

⁴ Lee, “US Says Russia Abruptly Postpones Arms Control Talks.”

⁵ President of Russia, “Poslanie prezidenta federal’nomu sobraniuu.” There are no provisions for suspension of implementation of the treaty in the text of NST.

⁶ “Lavrov Called Russia’s Readiness to Maintain New START Ceilings a Gesture of Goodwill.”

⁷ Gordon, “Russia Rejects U.S. Proposal to Reopen Arms-Control Dialogue.”

⁸ See, for example, Rogers, Korda, and Kristensen, “Nuclear Notebook: The Long View—Strategic Arms Control After the New START Treaty.”

⁹ See, inter alia, Heinrichs, “Obama Administration Pursues Arms Control at Great Loss to US”; and Dodge, “What Do Russia’s Nuclear Threats Tell Us About Arms Control Prospects?”

¹⁰ Schelling and Halperin, *Strategy and Arms Control*, p. 3.

¹¹ Charap et al., *Mitigating Challenges to U.S.-Russia Strategic Stability*.

¹² Studies suggest that the United States would have trouble limiting the damage from a Chinese strike, even though China’s arsenal is far smaller than Russia’s (Glaser and Fetter, “Should the United States Reject MAD?”).

¹³ George H.W. Bush Presidential Library and Museum, “Soviet-United States Joint Statement on Future Negotiations on Nuclear and Space Arms and Further Enhancing Strategic Stability.”

¹⁴ Bugos and Hernández, “New U.S. ICBMs May Be Delayed Two Years.”

¹⁵ U.S. Government Accountability Office, *Nuclear Weapons*; Hruby, “Testimony Statement of the Honorable Jill Hruby Under Secretary for Nuclear Security and Administrator of the National Nuclear Security Administration U.S. Department of Energy.”

¹⁶ Maurer, “The Purposes of Arms Control,” p. 16.

¹⁷ President of Russia, “Poslanie prezidenta federal’nomu sobraniuu.”

¹⁸ See, for example, Ford, “U.S. Priorities for ‘Next-Generation Arms Control,’” p. 4.

¹⁹ Timbie, “A Way Forward,” pp. 197–198.

²⁰ Evans, *Strategic Arms Control Beyond New Start*, p. 29.

²¹ Spindelegger et al., “New Start Matters.”

²² U.S. Department of State, *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*.

²³ Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START Treaty).

²⁴ Stewart, “Remarks Given to the Arms Control Association’s 50th Anniversary Annual Meeting.”

²⁵ Kristensen and Korda, “United States Nuclear Weapons, 2023.”

²⁶ Pifer, “Reviving Nuclear Arms Control Under Biden.”

²⁷ Arbatov, “Saving Strategic Arms Control.”

²⁸ Pifer, “Nuclear Arms Control in the 2020s”; Gottemoeller, “Rethinking Nuclear Arms Control,” pp. 145–146; Diakov, “Prospects for Limiting Nonstrategic Nuclear Weapons.”

²⁹ Podvig and Serrat, *Lock Them Up*.

³⁰ Podvig, “Russia and Military Uses of Space.”

³¹ Pifer, “Reviving Nuclear Arms Control Under Biden”; Woolf, “Promoting Nuclear Disarmament Through Bilateral Arms Control,” p. 312.

³² U.S. Senate, Resolution of Advice and Consent to Ratification of the New START Treaty (Treaty Doc. 111-5).

³³ U.S. Department of State, “Secretary Blinken’s Call with Russian Foreign Minister Lavrov.”

³⁴ Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control*.

³⁵ See, for example, Marleau and Brubaker, *Overview of Warhead Verification Research at Sandia National Laboratories*; Doyle, “How Biden Can Achieve a First in Arms Control”; and Yan and Glaser, “Nuclear Warhead Verification.”

³⁶ Winkler, *Incidents at Sea*, pp. 88–99.

³⁷ “Joint Statement by President Barack Obama and President Dmitry A. Medvedev of Russia on the Expiration of the Strategic Arms Reduction Treaty.”

³⁸ Manzo, *Nuclear Arms Control Without a Treaty?* p. 81.

³⁹ Manzo, *Nuclear Arms Control Without a Treaty?* pp. 70–71.

⁴⁰ Bateman, “Trust but Verify.”

⁴¹ Pifer, “Reviving Nuclear Arms Control Under Biden”; Evans, *Strategic Arms Control Beyond New START*, pp. 31–32.

⁴² Geller, “New START”; Pifer, “Biden Nuclear Posture Review.”

⁴³ Pifer, “Reviving Nuclear Arms Control Under Biden”; Evans, *Strategic Arms Control Beyond New START*, pp. 31–32.

⁴⁴ Brooks, “The End of Arms Control?” pp. 93–94; Timbie, “A Way Forward,” p. 199.

⁴⁵ Pifer, “Biden Nuclear Posture Review,” pp. 18–20.

⁴⁶ Pifer, *Missile Defense in Europe*, p. 22.

⁴⁷ Chernenko and Solovev, “Rakety srednei i men’shei mirnosti.”

⁴⁸ President of Russia, “Zayavlenie Vladimira Putina o dopolnitel’nykh shagakh po deeskalatsii obstanovki v Evrope v usloviyakh prekrashcheniya deistviya Dogovora o raketakh srednei i men’shei dal’nosti (RSMD).”

⁴⁹ “MID dopustil otkaz ot moratoriya na razmeshchenie raket.”

⁵⁰ Manzo, *Nuclear Arms Control Without a Treaty?* pp. 77–78.

⁵¹ The White House, “Fact Sheet: Vice President Harris Advances National Security Norms in Space.”

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About This Paper

The Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms, better known as the New START Treaty, is—or perhaps was, given Moscow’s de facto withdrawal from treaty implementation in 2023—the last remaining major bilateral strategic arms control treaty between the United States and Russia. In light of the treaty’s expiration in February 2026, the United States must carefully consider its options for what—if anything—should replace it. In this paper, we outline the objectives the United States could seek to achieve in post–New START arrangements and the options it could pursue to do so. We present viable ways of pursuing arms control goals even in the context of an unprecedentedly hostile bilateral relationship.

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