

# An Overlooked Aid to Arms Control: US Nuclear Modernization

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## Abstract

As the United States seeks to expand its nuclear arms control efforts in scope, incorporating all nuclear weapon types, and in numbers of partners beyond Russia (i.e., China), US officials must examine what policies might enable the best arms control outcome. An important but understated factor in helping the United States reach acceptable arms control agreements is its nuclear modernization program. US nuclear modernization efforts have been a major inducement in the past for the Soviet Union to agree to come to the negotiating table. Additionally, US nuclear modernization programs have provided its diplomats additional options for discovering areas of agreement with the Soviets. Finally, US nuclear modernization programs can further incentivize states to adhere to their commitments in an arms control agreement because they face a credible threat of counteraction should they choose to cheat. Alternative arms control approaches that emphasize unilateral US nuclear reductions to induce nuclear arms control agreements are unlikely to be successful.

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## Introduction

*Our experience has shown us only too clearly that weakness in arms strength means weakness in diplomacy.*

—Neville Chamberlain, 1938

**M**ilitary forces and diplomacy are both tools that advance US national interests and work best when used together. Military forces add credibility to US diplomats at the negotiating table. Diplomacy promotes deterrent messages by reaching the intended audiences and reducing the chances for miscalculation or misperception. Thus, when states seek to enter arms control agreements, as the United States has made clear it seeks to do, they must consider the military forces and the diplomatic positions needed to retain and increase their security.

The Biden administration has extended the New Strategic Arms Reduction Treaty (New START) for an additional five years. However, it has also signaled that it hopes to discuss further strategic nuclear arms reductions or caps with Russia while perhaps persuading China to join in discussions. It is an open question as to how willing Russian and Chinese leaders will be to consider US nuclear arms control proposals, but Moscow and Beijing will almost certainly factor US nuclear modernization plans into their response. Thus, the Biden administration must consider the effects of the ongoing US nuclear modernization program on its arms control prospects and priorities. To bring some clarity to this important but underappreciated aspect of defense strategy, this article explains the benefits a modernized US nuclear force brings to US nuclear arms control prospects. Conversely, it also examines how a failure to modernize US nuclear weapons, or to take unilateral efforts to significantly reduce them, may harm prospects for arms control that support US national security objectives.

### **Political Context of Nuclear Arms Control and Modernization**

The great Prussian military strategist Carl von Clausewitz taught in his classic book *On War* that war is the continuation of politics by other means. By extension, so too is nuclear arms control the continuation of politics by diplomatic means. Just as war is not waged for its own sake, arms control cannot be negotiated for the sake of an agreement—it must be driven by political leaders with political goals. “Political” here is not meant in a partisan way but as the origination of goals that can exist only in the realm of governing a state versus a focus on operational or tactical military objectives. Exactly what form a nuclear arms control agreement must take that advances US, allied, and partner security is left open for definition by the president and the negotiating team—whether they seek an agreement on nuclear weapons that caps them, reduces them, allows their expansion under certain constraints, or some other combination. In any case, the point remains: political goals determine ends, and nuclear arms control negotiations are one of the means. This article is not concerned with the ends per se (be they reductions, caps, transparency, etc.). Rather, it is focused on how the means of US nuclear modernization and US nuclear arms control negotiations interact—specifically, how the former can strengthen the latter.

One must note that the United States is not modernizing its nuclear weapons for the sake of having new weapons. Nor is it modernizing its nuclear arsenal for the primary reason of improving the prospects of nu-

clear arms control. Instead US nuclear weapons serve political goals such as providing deterrence against attack and supporting the security of allies and partners. Exactly what forms this modernization take is up to the president and Congress. The parallel US efforts to modernize its nuclear arsenal and pursue nuclear arms control intersect around the question of how one effort should affect the other. Should the United States, as John F. Kennedy stated, “depend on the strength of armaments—to enable us to bargain for disarmament?”<sup>1</sup> Or should the United States reduce its planned nuclear modernization to better the chances of enabling an arms control agreement?

### **US Nuclear Modernization as an Aid to Arms Control Success**

While a successful nuclear arms control agreement can only be identified via politically defined metrics (e.g., decreased destructive power, fewer missiles, increased transparency, etc.), it is still possible to describe how a modernized US nuclear arsenal may make success more likely—even without knowing the particular US end goals that would define “success.” The key concept in this regard is leverage. A clear assumption of US government officials, going back to the Cold War, is that states like Russia or China will not make major nuclear reductions unilaterally and instead need an incentive to do so.<sup>2</sup> US nuclear modernization, according to current US officials and policies, is the main source of leverage to incentivize Russian and Chinese officials.

There are three reasons why US nuclear modernization can increase the chances for nuclear arms control success and, by extension, US security. First, US nuclear modernization can influence states like Russia and China to participate in negotiations for fear of a more capable US nuclear arsenal. Second, once the United States has one or more negotiating partners, a modernized US nuclear arsenal provides more counters and offsets to adversary systems in either capability, number, or age—making a beneficial agreement more likely. Third, once an agreement is reached, a modernized or modernizing US nuclear arsenal can create additional incentives for other states to refrain from significant cheating because of the risk of a relatively swift US counter enabled by “warm” weapons production lines. Each of these reasons is examined below.

### ***An Incentive for Others to Participate in Negotiations***

Perhaps the most widely discussed perceived benefit of US nuclear modernization related to nuclear arms control is its purported ability to pressure another state to participate in negotiations. That is, another state may fear that US nuclear modernization would lead to a more capable US nuclear arsenal and, should arms control agreements expire, a larger arsenal as well. This belief likely lies behind the 2018 *Nuclear Posture Review's* statement that “ensuring our nuclear deterrent remains strong will provide the best opportunity for convincing other nuclear powers to engage in meaningful arms control initiatives.”<sup>3</sup> Indeed, a myriad of former senior Department of Defense and Department of State officials, including several ambassadors and diplomats, have espoused this view in the atomic age.

For example, US secretary of state George Shultz, looking back on the arms control environment of the 1980s, stated, “But if the West did not deploy Pershing II and cruise missiles, there would be no incentive for the Soviets to negotiate seriously for nuclear weapons reductions.”<sup>4</sup> Longtime arms control negotiator Ambassador Edward Rowny made a similar observation in 1984 after the Soviet Union’s arms control delegation walked away from the Intermediate-Range Nuclear Forces (INF) and START negotiations. He asserted, “The best way to encourage the Soviets to return to the table is to continue current programs designed to ensure our common defense, while simultaneously reiterating our readiness to resume negotiations toward balanced and verifiable agreements. One-sided cuts in our defense programs or failure to uphold alliance commitments would only reward the Soviets for their intransigence and make a return to the negotiating table less likely.”<sup>5</sup> Four years earlier, in 1980, Richard Burt, who later became an ambassador, likewise stated, “The Soviets are concerned about the US strategic modernization program. Going forward with the US modernization program gives them a strong incentive to negotiate seriously in START.”<sup>6</sup>

These assertions by US officials appear to have strong support in the historical record, especially from testimony by former Soviet arms control officials. In a comprehensive review of Soviet arms control decision-making, Aleksandr G. Savelyev, and Nikolay N. Detinov found that “the American defense spending increase, SDI [Strategic Defense Initiative], and other defense programs greatly troubled the Soviet leadership, which now [1985] concluded that appropriate Soviet-American agreements were the only way out.”<sup>7</sup> Retired general Viktor Starodubov, the chief Strategic Arms Limitation Talks II (SALT II) adviser to the Soviet General Staff and official member of the SALT II Soviet delegation, stated post-Cold War,

“I think it was logical for both countries that at some point the leaders . . . [concluded] that it was impossible to continue increasing armaments any longer.” He noted, “We in the Soviet Union understood it too, but we also understood that for us trying to catch up to the United States would be too costly, too difficult, in terms of the economy and so forth. That is why we . . . [determined] the need for negotiating limits on, and later reducing, strategic weapons.”<sup>8</sup> The change in Soviet leadership to Mikhail Gorbachev, with his focus on economic and military reforms, largely contributed to Soviet participation in nuclear arms control discussions with the United States. However, Soviet officials also recognized that US nuclear modernization programs could continue unabated. The Soviet Union would then be forced to either reduce its nuclear arms unilaterally due to funding or continue producing weapons at an economically unsustainable rate with unknown, potentially disastrous consequences.

Thus, there appears to be historical justification for the belief that if states like Russia perceive that the United States was willing and able to modernize its nuclear arsenal, they are more likely to seriously consider joining nuclear arms control negotiations.

### ***Comparable Arsenals Increase Chances of Agreement***

Once the United States and others have agreed to negotiate, a modernized or modernizing US nuclear arsenal will likely benefit the US negotiating position by providing more options for US negotiators to parry the other side’s proposals. In short, if the United States is extensively constrained—for instance, in the size, capability, or age of its arsenal—there will be fewer scenarios where negotiators can make like-to-like weapon system comparisons and find a balance agreeable to all sides. As in the case of the INF Treaty, the United States could counter Soviet intermediate-range ballistic missiles with its in-kind systems. These comparable systems allowed like-for-like exchanges while also serving deterrence and assurance roles.

US officials have often stated the same idea. As Gen Paul Selva, then vice chairman of the Joint Chiefs of Staff, testified to the US Congress, “The places we [the United States] have had success in negotiating types and classes of weapons out of adversary nuclear arsenals in our strategic arms reductions talks [have] been when we possess a similar capability that poses a tactical, operational, and strategic problem for our adversaries.”<sup>9</sup> A historical example of US systems posing a “problem” for an opponent was the US Safeguard antiballistic missile (ABM) system. In this instance, US ABM technology was well advanced beyond that of the Soviets, bring-

ing them to the negotiating table and providing an incentive to agree once negotiations had begun. Ambassador Burt remarked, “Moscow did agree to forgo the heavy deployment of ballistic missile defenses. But the United States, on the verge of deploying the Safeguard system—a much more proficient ABM than the Soviets possessed at the time—possessed considerable leverage in negotiations that led to the 1972 treaty.”<sup>10</sup>

From the Russian perspective, perceived gaps in capability between systems appear to affect the willingness to negotiate seriously about further reductions. Sergei Ivanov, then–presidential chief of staff for Vladimir Putin, stated in 2013, “When I hear our American partners say: ‘Let’s reduce something else,’ I would like to say to them: ‘Excuse me, but what we have is relatively new.’ They [the U.S.] have not conducted any upgrades for a long time. They still use Trident [missiles].”<sup>11</sup> President Putin even claimed at the end of 2019 that “the share of modern weapons in the [Russian] nuclear triad has reached 82 percent.”<sup>12</sup> Since most of the newest US nuclear systems under the current modernization program will not be deployed until the late 2020s and early 2030s, states like Russia may have less incentive, at least in the near term, to find like-for-like comparisons with the US arsenal. This is the case unless, of course, Russian officials view the US commitment (both fiscal and political) to its modernization program to be nearly unquestionable.

It may be reasonable, therefore, for US officials to consider these Russian perceptions about the value of characteristics in their respective nuclear forces—like age, capability, and number—when planning for nuclear modernization and the possibility of nuclear arms control negotiations in the future. As Assistant Secretary of Defense Robert Scher stated at the time, the DOD plans for a US nuclear arsenal that, in part, “retains leverage for future arms control agreements.”<sup>13</sup> Such planning may pay off when negotiating a nuclear arms control agreement by permitting US diplomats several otherwise unavailable negotiating options. Certainly, the more options the United States has, the more likely it may reach an agreement acceptable to a state like Russia and to the security interests of the United States. Should an arms control agreement, however, not be possible or prudent, modernized US nuclear weapons will retain their value for their traditional roles nevertheless. In essence, a limited US nuclear arsenal diminishes the leverage of the US, constrains the number of options to achieve its political goals, and increases the risk of it being forced to make unnecessary concessions.

To be clear, the United States should pursue nuclear modernization on its own merits for the traditional roles of enhancing deterrence, strength-

ening assurance, achieving US objectives should deterrence fail, and hedging against an uncertain future. The useful byproduct of this modernization can be better possibilities for arms control that are in the US national interest. Yet a modernized US nuclear arsenal will not, on its own, guarantee an equal or advantageous balance of forces as a result of an arms control agreement. Nevertheless, it could increase the chance of such an outcome if other factors such as political will and domestic support remain equal.

### ***A Modernizing US Nuclear Arsenal Could Help Discourage Arms Control Violations***

Finally, a modernized or modernizing US nuclear arsenal could boost the chances for arms control success by deterring others' arms control violations. The prospect of a relatively rapid US response in kind (e.g., production of more or new missiles), or even a disproportionate response that far outweighs any expected benefit of the violation, can help deter violations in the first place. It appears that when the Soviet Union and Russia have violated arms control treaties in the past, they have sought a military advantage from the violation. To deter such violations, therefore, the United States should present the possibility that not only will the violation be detected but that the violator will become less secure because of the US military response.

This response could take the form of increased production or production rate of nuclear weapons of the same type as the violating weapon. Or the prospective response might be the increased production or production rate of nuclear weapon types that the violator perceives as the most threatening. These options become substantially more realistic—and perhaps credible to the other side—as the United States maintains warm production lines amid its nuclear modernization effort. US political leaders may not decide to use these options when responding to a violation, but having them available as a convenient byproduct of US nuclear modernization may improve the chances of deterring a violation in the first place, especially when combined with other potential diplomatic and military efforts.

While historical examples of this dynamic are thin, US officials have consistently pointed out the possibility of the deterring effect of weapons production lines already operating. In his article “After Detection—What?,” Fred Iklé stated, “In entering into an arms-control agreement, we must know not only that we are technically capable of detecting a violation but also that we or the rest of the world will be politically, legally and militarily in a position to react effectively if a violation is discovered.”<sup>14</sup> Further, “A potential violator of an arms-control agreement will not be

deterred simply by the risk that his action may be discovered. What will deter him will be the fear that what he gains from the violation will be outweighed by the loss he may suffer from the victim's reaction to it."<sup>15</sup> Over 20 years later, US defense official and strategist Walter Slocombe wrote, "Indeed, the knowledge that the United States could respond to detected violations in ways that would prevent any Soviet gain is at least as important a deterrent to Soviet cheating as the knowledge that the United States would detect the violation."<sup>16</sup>

In the most recent major Russian arms control violation, Russia's possession of the 9M729 ground-launched cruise missile (GLCM) was a transgression under the INF Treaty that the United States could not immediately counter militarily in a like-for-like manner.<sup>17</sup> Since the United States had remained compliant with the INF Treaty, it had no GLCM manufacturing capability at the time of the Russian violation. Consequently, the US lack of a like-for-like response meant that it had no equal deterrent presenting a threat of decreased Russian security.

Certainly, the US ability to increase the production or production rate of nuclear weapons in response to a nuclear arms control violation is no panacea and must work in conjunction with other factors such as political will, diplomatic efforts, and domestic support to be effective. But US nuclear modernization and its warm production lines offer another incentive to others to comply with their nuclear arms control commitments. The prospect of a US capability to detect and respond quickly with increased nuclear weapons production to a major nuclear arms control violation also gives US officials another tool of leverage to bring the violator back into compliance—as would likely be the goal. Critics may contend that another response such as increasing conventional weapons production or deployments would still be credible. It would be unlikely, however, to convince the violator to come back into compliance in the same way that a like-for-like increase in nuclear weapons would.

### **Objection to the Benefits of a Modernized US Nuclear Arsenal for Arms Control**

Despite the benefits described above of a modernized US nuclear arsenal for its arms control objectives, some proponents of a more limited US nuclear arsenal (perhaps only partially modernized) also have their arguments. They contend that the leverage of increasing the numbers and/or capability of US nuclear weapons is unnecessary to achieve arms control objectives. The following examines their claim.

## ***US Nuclear Reductions Could Induce Russian or Chinese Arms Control Cooperation***

Advocates for US unilateral nuclear reductions commonly posit that this avenue could lead to arms control benefits without the expensive bill for US nuclear modernization or at least only a partial bill. For instance, Kingston Reif and Alicia Sanders-Zakre propose that “a [US] decision to reduce to 1,000 deployed strategic warheads would put the United States in a stronger position to pressure Russia to rethink some of its expensive nuclear recapitalization projects and reduce its deployed strategic nuclear warheads. Perhaps more intriguingly, a US willingness to reduce its arsenal could lead China to take a less passive approach to nuclear disarmament and more openly discuss the size, composition, and operations of its nuclear forces.”<sup>18</sup> Or as a Deep Cuts Commission report recently stated, “Even if Russia is reluctant to join the United States in building down, a US reduction would put Russia on the defensive and force Moscow to explain to a critical international community why it needs to maintain a larger deployed nuclear arsenal than the United States.”<sup>19</sup> Although anything is possible, the history of nuclear arms control with the Soviet Union and Russia and the complete lack of nuclear arms control with China undermine this claim.

If it is true that Russia and China will respond positively to reductions in either the size or capability of the US nuclear arsenal, then one would expect to see such action-reaction dynamics in the past. However, there is little such evidence. A few examples demonstrate this. Post-Cold War, the United States minimized its nonstrategic nuclear arsenal, and while Russia reduced its nonstrategic nuclear arsenal, it did not go nearly as far as the United States. Instead, it is now well into a modernization program and projected to substantially grow its nonstrategic nuclear arsenal.<sup>20</sup> There is also no indication that Russia’s modernization program was influenced in any positive way by the US decision to unilaterally reduce its forces by retiring the nuclear-armed Tomahawk Land Attack Missile (TLAM-N) in 2010. While the United States has steadily reduced the number of its nuclear weapons, China has thus far refused to engage in a meaningful nuclear arms control dialogue. If US nuclear reductions could spur additional arms control benefits, one would expect to see much greater arms control cooperation today.

Analysts must ask the question then, Why has it become standard practice in the arms control community to recommend that the United States engage in unilateral reductions for the sake of a better arms control environment? This question is especially puzzling when there is no good ex-

ample of success in adopting that strategy. On the other hand, the approach of leveraging a capable, credible US nuclear arsenal has proven successful. As former secretary of defense Harold Brown observed, “Appropriate restraint in our programs and actions is still warranted. But there is no evidence from history that unilateral reductions in our posture will produce Soviet reciprocity. An important function of our various arms control negotiations is precisely to achieve equitable and verifiable mutual reductions without undue risk. To substitute unilateral reductions for these negotiations does not seem to be either prudent or realistic.”<sup>21</sup> Calls for unilateral US nuclear reductions thus appear self-defeating because, if implemented, they would reduce chances for future arms control agreements by limiting or eliminating necessary US leverage.

If the United States were to, for example, eliminate its intercontinental ballistic missile (ICBM) force, past experience indicates that it would then have no leverage over Russia and China to do the same. They would likely pocket the concession and hold out for more since withholding from an agreement netted them that much. Even worse, the US arsenal would then have no credible counters or offsets comparable to the Russian or Chinese nuclear arsenal in type, making further opportunities for nuclear arms control agreements more difficult.

What is the ultimate reason then why leverage in the form of a modernized US nuclear arsenal is to be preferred over unilateral US nuclear reductions in maximizing the benefits of arms control? The answer comes down to differences in national goals. While many US arms control proponents are seeking ways to solve the problem of nuclear war, the leaderships of Russia and China are pursuing ways to increase their countries’ security at the expense of the United States. Ambassador Ed Rowny, who had decades of experience in negotiations with the Soviets, assessed that “the Soviets simply do not negotiate in a spirit of problem-solving. Those of us who have negotiated with the Soviets do not expect them to. We have come to understand that, whereas we would like to work out solutions, the Soviets would rather compete.”<sup>22</sup> Equally experienced, Ambassador Paul Nitze explained why the Soviet Union saw little need for urgency on significant nuclear arms reductions in the 1970s during the Strategic Arms Limitation Talks:

We [the United States] could not get the Soviets to agree to tight limitations on offensive arms comparable to those applied to ABM systems or reductions in such arms. Indeed, limiting defenses did not appear to have any effect on the Soviet offensive buildup. Part of the problem was that the Soviets were doing well concerning offensive systems. We had ceased

building new ICBMs, ballistic missile submarines, and heavy bombers some years earlier; we were improving them through qualitative changes. The Soviet Union was actively deploying large numbers and new types of ICBMs and SLBMs. Momentum thus tended to favor the Soviets; they saw no reason to sign a piece of paper that would cause them to forgo that advantage.<sup>23</sup>

Leverage matters when negotiating with other states on nuclear arms control measures. Former under secretary of defense for policy James Miller lent credence to the US need for leverage, noting, “When the Obama administration asked the Russians, ‘Ok, we want to talk about tactical nuclear weapons. We are open to talking about them as an entity by themselves or to roll them together with strategic for conversation,’ the answer that we got was *nyet*. And it was, ‘. . . You Americans don’t have anything going on in this arena. Why should we negotiate?’”<sup>24</sup> Future nuclear arms control prospects hinge not only on the negotiating leverage provided by a modernized US nuclear arsenal but also on the recognition that leverage itself is most likely to be the superior negotiation tactic over unilateral concessions.

## Conclusion

Arms control is one of many tools designed to achieve and protect US national interests, as is the US nuclear arsenal. A modernized US nuclear arsenal is only a partial solution to the inherently political problem of achieving satisfactory arms control agreements with other states—should that be the goal. By itself, US nuclear modernization will not guarantee that a plausible arms control agreement will materialize. However, it is the most likely technical catalyst to produce the conditions favorable to arms control in the US national interest.

The United States should prioritize its nuclear modernization efforts for the traditional roles of deterring adversaries, assuring allies and partners, achieving US objectives should deterrence fail, and hedging against an uncertain future. Policy makers should realize, however, that particular benefits for the arms control process may result from a modernized US nuclear arsenal. First, it may increase the chance that others will join the negotiations for fear of a more capable US nuclear arsenal. Second, it may increase the chance of favorable counters and offsets between countries’ nuclear arsenals, making an agreement on comparable systems more plausible. Third, it may increase the chance of deterring serious arms control violations by credibly threatening a proportionate or disproportionate nuclear buildup as a response. History indicates that the alternative

strategy of unilateral US nuclear reductions would not provide the same benefits and make significant and beneficial arms control less likely for the United States—not to mention the damaging effects on accomplishing the traditional missions of nuclear weapons.

The US nuclear arsenal's primary mission—and the main goal of its modernization—should always be contributing to the defense of the United States, its allies, and partners. If political leaders seek a nuclear arms control agreement with other states, US nuclear modernization efforts—besides contributing to US security—can increase the chance of successful nuclear arms control. As Ambassador Burt affirmed, “Arms control will only prosper if the Soviet Union has the incentive to negotiate; what is required to bring this about is a sound military foundation on our part. . . . Arms control has the potential to buttress our security and deterrence; it cannot take the place of our collective efforts to do the same.”<sup>25</sup> Ultimately, only US political leaders can decide whether and what kind of nuclear arms control will advance US national security. But when they do, a modernized US nuclear arsenal will likely increase the chance they can achieve those goals—while strengthening deterrence against the worst outcomes should those efforts fail. **SSQ**

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### **Notes**

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22. Edward L. Rowny, "U.S. and Soviet Approaches to Arms Control," US Department of State, Current Policy No. 868, 19 September 1986, 2, <https://catalog.hathitrust.org/>. Some may disagree with this statement, indicating that US officials have on occasion viewed arms control as a competition with the Soviet Union. But the overall point remains that, in general, the Soviet Union sought to compete in arms control while the majority of writing in the United States was focused on finding mutually acceptable solutions.

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