

Forward Deployment of Non-Strategic Nuclear Weapons Is Needed to Deter Adversary Aggression

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KEY TAKEAWAYS

Since the end of the Cold War, the United States has drastically cut its nuclear arsenal and almost entirely abandoned its non-strategic, theater nuclear weapons.

China and Russia have a large advantage in theater-range non-strategic nuclear weapons, and the U.S. strategic nuclear triad is ill-suited to deterring them.

The United States cannot afford to fall further behind and must build an arsenal of theater-range capabilities fit for the current, complex threat environment.

The United States' failure to field a credible, theater nuclear-deterrence capability is destabilizing and puts the United States at a disadvantage with its adversaries in Beijing, Moscow, and Pyongyang—all of which are building and fielding low-yield theater-range non-strategic nuclear weapons (NSNWs) that can target U.S. and allied bases. Until the United States fields capabilities that can deter adversary non-strategic nuclear employment, it and its allies will remain at a significant disadvantage in their ability to deter aggression and, if necessary, prevail in a regional conflict.

Solving the Theater Deterrence Problem

China and Russia have a substantial advantage over the United States in theater-range nuclear weapons.

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An April 2024 State Department report on Russian tactical (non-strategic) nuclear weapons estimated that Russia has a stockpile of 1,000 to 2,000 NSNWs.¹ Likewise, the Department of Defense assesses that the People's Liberation Army Rocket Force has an arsenal of 500 nuclear-capable DF-26 intermediate-range ballistic missiles and more than 2,000 shorter-range conventional ballistic missiles.² Moreover, China is engaged in a breathtaking build-up of its strategic nuclear forces; it is the fastest-growing nuclear power on the planet, and there is no indication that its leaders intend to halt the build-up.³ In contrast, the United States maintains fewer than 200 NSNWs in its total arsenal, most of which are deployed in Western Europe.⁴ In East Asia, the United States has no forward deployed non-strategic nuclear weapons, as it withdrew its theater nuclear forces from the region at the end of the Cold War.⁵

Existing capabilities—particularly low-yield theater-range nuclear capabilities—are insufficient to arrest Chinese and Russian advantages, and alternatives are unlikely to suffice.

First, arms control negotiations over the past several decades have failed to stabilize a deteriorating security environment or even slow down U.S. adversaries in fielding theater nuclear systems. Over the past 18 years, Russia has violated almost every bilateral arms control treaty to which it has been a party.⁶ Despite the Biden Administration's efforts to negotiate with Moscow, Russia has remained recalcitrant because it sees no incentive to negotiate. Indeed, the National Security Council's then-Senior Director for Arms Control, Disarmament, and Nonproliferation Pranay Vaddi characterized Russian and Chinese behavior as an "outright refusal to even discuss arms control."⁷ While Vladimir Putin and Xi Jinping expand their respective nuclear arsenals, the United States thus far has done little to respond by way of developing new nuclear-capable forces, particularly at the theater level. This failure to respond has emboldened Moscow and Beijing further and diminished the incentives for America's adversaries to engage in arms control discussions.

Second, the existing strategic nuclear triad—composed of land-based intercontinental ballistic missiles, strategic bombers, and nuclear-powered ballistic missile submarines—is ill-suited to the task of deterring limited, low-yield theater nuclear aggression. Responding to a small, battlefield nuclear blast with a multi-megaton nuclear warhead is not credible; it is at best questionable that an American President would be willing to respond to a low-yield, theater range non-strategic nuclear strike with an intercontinental ranged, high-yield, strategic weapon, as doing so would represent a dramatic escalation. This is, in part, because strategic weapons

were designed to deter large-scale strikes on the American homeland—not to deter limited low-yield strikes on military targets in a forward theater.⁸

Moreover, using a strategic delivery system to respond to tactical use can be escalatory in ways that are counterproductive even if the warhead is low yield. There are thus asymmetries in warhead yield and capabilities that make responding to a tactical nuclear weapon with a strategic weapon unlikely. Moscow and Beijing might therefore calculate that they can engage in limited regional escalation without risking a U.S. response because of the asymmetries in forward deployed low-yield, theater-range NSNWs that clearly favor them over the United States.

Effective tailored deterrence demands carefully planned actions that send clear signals coupled with credible capabilities and tools that are fit to purpose. Put another way, using high-yield, North American-based strategic nuclear forces to respond to adversary low-yield, theater-range NSNWs is akin to using an icepick in place of a scalpel.

Responding to a limited non-strategic attack with a strategic weapon also runs the risk of driving Beijing and Moscow closer together. Strategic nuclear forces are blunt instruments when it comes to signaling, and attempting to telegraph resolve to Moscow by alerting strategic bombers (as an example) may be perceived as an unprompted sign of aggression in Beijing. An alarmed Beijing may turn to Moscow for additional help, thus precipitating cooperation among adversaries the United States otherwise seeks to deter.

Finally, the few low-yield nuclear options in development in the United States are necessary but insufficient for the growing number of missions required to deter the increasingly diverse set of nuclear threats posed by three nuclear-armed adversaries. The nuclear-armed sea-launched cruise missile (SLCM-N) currently under development is unlikely to come online before 2034 as the program requires “an entirely new industrial base.”⁹ The W76-2 low-yield submarine-launched ballistic missile warhead, which the Navy fielded in 2020, is mated to a strategic delivery system.¹⁰ Likewise, the Long Range Standoff (LRSO) air-launched cruise missile will not be fielded for several more years and is designed to be delivered by strategic bombers. These bombers will be based in the continental United States, and it is unclear how reliably the missiles will be able to penetrate Chinese or Russian air defenses.

The underlying logic behind these low-yield options makes clear the utility of a larger and more diverse U.S. arsenal of theater-range nuclear options that are survivable and capable of warfighting objectives tailored to specific adversaries. However, three low-yield options are, on their own, insufficient.

Consequently, the United States needs a more diverse and tailored regional deterrence capability if it means to reliably convince its nuclear-armed adversaries that they will accrue no benefit—and potentially will incur significant cost—from employing low-yield, theater-range NSNWs.

The Need for Forward Deployed Non-Strategic Nuclear Weapons

During the Cold War, the United States used its nuclear forces to communicate intent and stake during times of acute crisis. At various points, from the Berlin Crisis¹¹ to the Cuban Missile Crisis¹² to the 1973 Yom Kippur War,¹³ the United States used nuclear forces to signal to its adversaries in Moscow that they were approaching a threshold or a red line that, if crossed, might trigger an American response, which could include a strategic or even nuclear component. Such nuclear signaling helped to convince the Soviets that further actions on their part could have caused the Cold War to turn hot.

Such nuclear signals were credible because the United States maintained a nuclear force that included strategic systems on high alert capable of targeting the Soviet homeland on short notice. The U.S. Air Force kept nuclear-armed bombers loaded and on “strip-alert”—capable of taking off within minutes to strike targets inside the Soviet Union—and at times on orbit over the Arctic Circle.¹⁴ Nuclear-armed submarines patrolled the oceans, and vast swaths of the American prairies housed hundreds of nuclear-armed missiles.

Beyond that, however, the United States had thousands of low-yield, theater-range NSNWs forward deployed in Asia and Europe. These weapons gave the United States “flexible response” options to adversary aggression.¹⁵ That is, the United States and its allies could dial up or dial down the level of conventional or nuclear response to any adversary attack. Aggression could be met with conventional responses; limited, low-yield nuclear responses generated from within the theater; or high-yield strategic responses generated from forces within the American homeland.

Since the end of the Cold War, however, the United States has drastically cut its nuclear arsenal—and almost entirely abandoned its non-strategic, theater nuclear weapons. As mentioned, Russia’s NSNW arsenal dwarfs the existing U.S. capability, and the U.S. has no NSNWs deployed in the Indo-Pacific.¹⁶

While the United States maintains a credible and robust strategic deterrent designed to prevent a nuclear attack on the American homeland, the United States’ ability to send tailored deterrence signals to its adversaries is

undermined by the relative paucity of its theater NSNWs. Flushing bombers, sending additional ballistic missile submarines out to sea, or increasing the alert status of a missile wing sends signals to Beijing, Moscow, and Pyongyang, as these systems are—by their nature—intended to deliver nuclear warheads to any target on the planet.

During the Cold War, U.S. nuclear signaling incorporated both increasing the alert levels and readiness of strategic systems and the bases in Europe that housed theater nuclear weapons. These signals were intended for the United States' sole nuclear peer—the Soviet Union. Since then, China and now North Korea have emerged as credible nuclear threats to the American homeland and would be just as vulnerable to strikes from nuclear-capable U.S. bombers, submarines, and missiles. How, then, would any of the actors in Beijing, Moscow, or Pyongyang know if they are the target of a U.S. nuclear messaging campaign, given that the steps Washington would take to deter or signal to one of those three actors is indistinguishable from the steps they would take to signal either of the other two actors?

Indeed, a nuclear signaling campaign that may once have convinced Moscow to back down during the Cold War could increase the threat to the United States by causing Beijing and Pyongyang to take more aggressive postures toward Washington. In this scenario, a nuclear signaling campaign by Washington that utilizes strategic forces—but is meant to be tailored against one specific actor in Beijing, Moscow, or Pyongyang—could be interpreted by all three nuclear-armed authoritarians as a signal against themselves.

At best, the other two nuclear-armed states would likely enhance their levels of readiness in response to the United States' nuclear force generation. At worst, however, they might respond to the nuclear force generation as though it were directed against them, leading them to generate their own nuclear forces to hedge against a potential U.S. strike. Given their coordination on other military issues, they might also coordinate their countermoves to more effectively disadvantage the United States. The paucity of its theater nuclear forces and its resultant reliance on strategic nuclear systems might therefore leave the United States in two or three simultaneous crises, where it would otherwise be embroiled in one regional crisis.

While Washington's nuclear signaling would almost certainly be coupled with a mixture of private and public messaging to all actors about who was the intended target of such signaling, and that the United States was not generating its nuclear forces as a means to coerce or target the other two nuclear-armed adversaries, this would raise a very basic question: Why would either of the other two actors take Washington's word at face value, when the actions the United States was taking with its strategic nuclear

forces were indistinguishable from the actions it would take if it were generating nuclear forces against those adversaries?

As mentioned, the United States can attempt to address this problem through private and public messaging, but the surest way to shore up Washington's ability to engage in nuclear signaling that is both credible and targeted is by fielding credible theater, nuclear forces—as it did in the Cold War. This would be accomplished by not only modernizing U.S. strategic forces—which Washington is doing today—but, more important, by developing and forward deploying a diverse and credible set of theater-specific nuclear capabilities designed to deter China, North Korea, and Russia individually.

Such systems should include nuclear-armed, low-yield, theater-range air-breathing missiles that can be launched from within the theater on air, maritime, and ground platforms—and they should also include high-velocity nuclear-armed hypersonic and ballistic missiles that are difficult to intercept. This would not only shore up the United States' ability to deter limited aggression by adversaries within a specific theater but would also allow the United States to more precisely tailor its deterrence messages by having the ability to generate theater-specific nuclear forces in response to regional aggression.

Conclusion

The United States can strengthen regional deterrence and better tailor its nuclear signals to specific nuclear actors—thereby reducing the threat to the United States from second-party actors—by fielding low-yield, theater-range nuclear capabilities. Limited, theater-specific nuclear capabilities will enable tailored deterrence operations fit for a multi-adversary environment, thus reducing the chances that America's adversaries will cooperate in times of crisis.

For its signaling to be credible, the United States must have an arsenal of theater-range capabilities fit for the current, complex threat environment. Indeed, it is today's asymmetry in theater-range forces between Washington and its adversaries that has created a deterrence gap. Filling this gap requires capabilities that Washington can credibly use to deter and, if necessary, defeat regional aggression without guaranteeing catastrophic escalation.

Tailored deterrence remains a sound concept, but it must be adjusted to meet the demands of today's complex threat environment. Different adversaries have distinct vulnerabilities and perceptions of threat, and as

the second Trump Administration embarks on its Nuclear Posture Review process, it should identify the appropriate combination of capabilities for each theater.

This is a demanding task, but the United States cannot afford to fall farther behind its adversaries. The Department of Defense should prepare for a more complex nuclear mission and direct the services to re-learn the tactical nuclear operations skills they developed during the Cold War. The National Nuclear Security Administration, the Department of Energy component charged with building and maintaining America's nuclear stockpile, must move to a wartime footing and expedite its efforts to produce new nuclear warheads. The Department of State must prepare a broader toolkit of capabilities by developing plans for communicating these new tailored deterrence messages.

Finally, Congress must adequately resource the nuclear arsenal. Inadequate funding and continuing resolutions cannot continue to hamper U.S. nuclear modernization.

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