

## ISSUE BRIEF

# US Strategy and Force Posture for an Era of Nuclear Tripolarity

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The term “nuclear tripolarity” describes a world in which China has joined the United States and Russia as a leading nuclear power. As China modernizes its existing nuclear forces and deploys new weapons, it is on track to roughly double its deployed nuclear arsenal in the next few years—from approximately 350 to 700 deliverable warheads. The US Department of Defense projects that China will go further, expanding its arsenal to at least 1,500 warheads by 2035.<sup>1</sup> At those force levels, China's arsenal would be comparable to US and Russian deployed nuclear forces, currently capped at 1,550 by the New START Treaty.<sup>2</sup>

What are the consequences of emerging tripolarity for US nuclear strategy and force posture? If the United States retains its current approach to nuclear force planning, the growth of China's arsenal (and the ongoing modernization of Russia's nuclear weapons) will likely compel the United States to significantly increase its own arsenal. The easiest way to do so would be to upload one to two thousand additional warheads from US reserves onto existing delivery systems when the New START treaty expires in 2026. Unfortunately, a major increase in US forces would likely mark just another step in an intensifying arms competition among the three leading nuclear powers, since China and Russia would then feel pressure to respond.

- 1 US Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2022*, Office of the Secretary of Defense, p. 98.
- 2 The New START treaty limits deployed strategic warheads at 1,550, but it counts each strategic bomber as a single “warhead.” Because bomber aircraft can carry multiple weapons, US and Russian nuclear forces can be slightly above 1,550 and still be compliant with the treaty. The treaty also does not address nuclear forces with a range below 5,000 kilometers. While Russia announced in February 2023 that it would suspend participation in New START inspections, both parties continue to appear to be in compliance with the treaty's central limitations on deployed accountable strategic forces.



Russia's Kh-47M2 Kinzhal is a dual-capable hypersonic weapon shown here on a MiG-31 interceptor. It is featured here in the 2018 Moscow Victory Day Parade. (Image courtesy Russian Presidential Press and Information Office)

Alternatively, if US leaders meet the challenge of emerging tripolarity by reevaluating core nuclear missions, assumptions, and planning principles, then the costs and risks of a new nuclear arms competition might be avoided. Specifically, the United States should reconsider its current prohibition on deliberately targeting enemy civilians with nuclear weapons—a policy that prohibits counter-city targeting even in retaliation for a major Chinese or Russian nuclear attack on the US homeland.<sup>3</sup> The prohibition on

deterrence through “countervalue” targeting—the common term for targeting civilian populations and infrastructure—is a hidden driver of US nuclear force requirements. It necessitates a large US arsenal that can absorb an enemy strike and subsequently destroy hundreds of hardened enemy military sites.<sup>4</sup> In an era of rapid adversary nuclear enhancements, this “counterforce-only” approach to nuclear planning is a recipe for large nuclear requirements and a likely three-party arms race.<sup>5</sup>

3 For debates on the legal status and policy wisdom of the current US prohibition on intentionally targeting civilians in nuclear reprisal, see Scott S. Sagan and Allen S. Weiner, “The Rule of Law and the Role of Strategy in U.S. Nuclear Doctrine,” *International Security*, Vol. 45, No. 4 (Spring 2021), pp. 126-166; Christopher A. Ford, et al., “Correspondence: Are Belligerent Reprisals Against Civilians Legal,” *International Security*, Vol. 46, No. 2 (Fall 2021), pp. 166-172; and Steve Fetter and Charles Glaser, “Legal, but Lethal: The Law of Armed Conflict and U.S. Nuclear Strategy,” *Washington Quarterly*, Vol. 45, No. 1 (Spring 2022), pp. 25-37.

4 These enemy military sites include but are not limited to nuclear targets.

5 Consistent with the nuclear literature, we divide nuclear targets into two broad categories: counterforce targets, which are military sites, and countervalue targets, which are civilian sites. Note that counterforce targeting (e.g., aiming at military sites) is often conflated with attacks intended to disarm (fully or partially) an enemy. In reality, one might strike counterforce targets for a wide range of reasons: to punish, to coerce, to disarm, and more. The distinction between target types and operational goals lies at the heart of the argument that follows.

Those who would abhor a return to countervalue nuclear targeting should consider that the current counterforce-only doctrine is a costly fiction. It is a fiction because the type of massive retaliatory strike the United States would launch if China or Russia attacked the US homeland would hit cities and kill millions of adversary civilians, even if formally aimed at military targets. The pure counterforce approach to targeting does not actually spare enemy civilians or cities, but it does expand US nuclear requirements. A more tailored approach to nuclear deterrence—one that threatens military targets in some scenarios, and cities in the most extreme circumstances—might not increase the risk to enemy civilians at all. It may pose a stronger deterrent than a counterforce-only approach, and it may offer the best means for avoiding a costly arms race in a tripolar world.

To be clear, this report advocates for neither a “minimum deterrence” doctrine (which requires *only* the capabilities necessary for retaliation against cities), nor the current counterforce-only approach. Instead, the United States should tailor its deterrent threats to the circumstances. The best way to deter nuclear attacks by regional adversaries is probably the threat of retaliatory disarming strikes—meaning counterforce strikes designed to disable the enemy’s remaining nuclear forces.<sup>6</sup> However, the best, simplest, and least destabilizing way to deter massive counter-city strikes on the US homeland by a leading nuclear power is to threaten retaliation in kind.

The remainder of the paper is organized as follows: First, it briefly describes the meaning and importance of emerging nuclear tripolarity. Second, it examines the foundations of US nuclear force requirements, including the core missions assigned to nuclear weapons and the principles used to guide force planning. Third, it explains why emerging tripolarity will require significant increases in US nuclear forces as long as core missions and planning principles remain in place. Fourth, it explains why the United States should consider an alternative, hybrid approach to nuclear policy—one that avoids the pitfalls of the current counterforce-only doctrine. Finally, it raises and refutes potential counterarguments.

## The Era of Nuclear Tripolarity

The first decades of the nuclear age were defined by the Cold War competition between the United States and the Soviet Union and the emergence of nuclear bipolarity. The United States developed nuclear weapons in 1945, and the Soviets joined the nuclear club just four years later in 1949. It took more than a decade (until the early 1960s) for the Soviet Union to deploy a truly survivable retaliatory capability against the United States. However, the basic structure of the nuclear order—two superpowers, each with much greater nuclear capabilities than anyone else—survived the end of the Cold War and endures today.<sup>7</sup>

China developed nuclear weapons in 1964 but maintained a relatively small arsenal, in the low hundreds of warheads, until recently. Today, according to US government assessments, China is “accelerating the large-scale expansion of its nuclear forces” by modernizing its existing forces and developing new capabilities, particularly silo-based, road-mobile, and sea-launched ballistic missiles. The Pentagon’s 2021 report to Congress projected that by the end of the decade China could have as many intercontinental ballistic missiles (ICBMs) as the United States and Russia. Predictions about the exact size and composition of China’s future nuclear arsenal of course remain uncertain, but what is clear is that China will soon be armed with hundreds of additional nuclear weapons that can be targeted at the United States.

The emergence of nuclear tripolarity is a fact, but its impact on US nuclear policy and force requirements is less clear. While some analysts conclude that deterrence will become somewhat more complicated in a tripolar world, others see a far greater risk that nuclear weapons will be used in a crisis or war as China upends the apparent stability of a bipolar nuclear world.<sup>8</sup> In fact, some leading analysts urge the United States to exit the New START Treaty and deploy as many as 3,500 nuclear weapons to maintain a credible deterrent.<sup>9</sup>

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- 6 See Keir A. Lieber and Daryl G. Press, “Coercive Nuclear Campaigns in the 21<sup>st</sup> Century: Understanding Adversary Incentives and Options for Nuclear Escalation,” March 2013, Report Number 2013-001, Project on Advanced Systems and Concepts for Countering Weapons of Mass Destruction (PASCC), pp. 46-48.
  - 7 On the Soviet Union’s struggle to create a survivable retaliatory capability, and US efforts to delay that day from arriving, see Keir A. Lieber and Daryl G. Press, *The Myth of the Nuclear Revolution: Power Politics in the Atomic Age* (Ithaca, NY: Cornell University Press, 2020), pp. 41-51.
  - 8 Then-USSTRATCOM Commander Admiral Richard Charles Richard stated, “We can start by rewriting deterrence theory... We have never faced two peer nuclear capable opponents at the same time who have to be deterred differently.” Theresa Hitchens, *Breaking Defense*, August 11, 2022. Andrew F. Krepinevich, Jr., referring to “the general stability of [a] bipolar system,” writes, “China’s attainment of great-nuclear-power status will dramatically upset this delicate equilibrium.” Andrew F. Krepinevich, “The New Nuclear Age: How China’s Growing Nuclear Arsenal Threatens Deterrence,” *Foreign Affairs*, May/June 2022.
  - 9 Frank C. Miller, “Outdated Nuclear Treaties Heighten the Risk of Nuclear War,” *Wall Street Journal*, April 21, 2022.

It is important to note that the consequences of nuclear tripolarity cannot be adequately understood in isolation from other key changes in the global nuclear environment. One area in particular—rapid technological changes that are rendering nuclear forces increasingly vulnerable—will amplify the strategic impact of tripolarity. Specifically, the “new era of counterforce,” based on revolutionary improvements in the accuracy of nuclear and conventional weapons and the ability to track nuclear forces via remote sensing, will exacerbate competition among the major nuclear powers as these countries face growing threats to maintaining secure retaliatory arsenals.<sup>10</sup> Although this paper primarily discusses the impact of emerging tripolarity, the interaction effects with technological change deserve further analysis. In order to understand how the changing strategic landscape will shape US nuclear force requirements, one must examine the core *missions* that those forces are meant to carry out.

### The Foundations of US Nuclear Requirements: Missions and Guidelines

The United States requires its nuclear forces to execute three central missions: (1) deter nuclear attacks against the United States and its allies; (2) assure US allies that their nuclear deterrence needs will be met; and (3) mitigate the consequences if nuclear deterrence fails.<sup>11</sup>

The first mission, the core of US nuclear policy, is broader than it appears because it requires deterring attacks from a diverse set of adversaries in a wide range of circumstances. The US arsenal must reliably deter powerful rivals that themselves are armed with large and diverse nuclear forces, as well as regional adversaries that field small and potentially vulnerable nuclear arsenals. US strategists must also posture US nuclear forces to deter a wide range of nuclear attacks, from large-scale strikes on the US homeland, such as an attack on US cities or a disarming strike aimed at the US nuclear arsenal, to smaller nuclear attacks, including battlefield strikes or instances of coercive nuclear escalation.

Recognizing the breadth of the core mission to deter nuclear attack is important because the targets the United States threatens to retaliate against in each case, and the forces available to execute those retaliatory strikes, would vary across those circumstances. Retaliation against a battlefield nuclear attack by a weak, poorly armed enemy might entail low-yield, highly accurate nuclear forces—either to punish or disarm the enemy. By contrast, retaliation after a strategic attack on the US homeland by a major nuclear rival might involve dozens of high-yield weapons drawn from whatever US forces survived the initial enemy strike. The key point is that an arsenal designed to deter nuclear attacks across a wide range of circumstances will require a range of capabilities.

The second mission for US nuclear forces—assurance—is principally an effort to convince allies that the US nuclear umbrella will succeed at the core deterrence mission. If allies lose faith that US deterrent efforts will succeed, they may pursue nuclear capabilities of their own or change their geopolitical alignment to reduce their exposure to nuclear attack. Viewed in this way, the assurance mission is important, but it does not create force structure requirements beyond the core deterrence mission. In some cases, allies may disagree with US planners about the nuclear capabilities (or posture or declaratory policy) that are needed to reliably deter nuclear attack. However, as long as the US nuclear force structure is well suited for the deterrence mission, assurance principally involves reaching agreement with US partners that US force structure, posture, and declaratory policies will in fact deter adversaries.<sup>12</sup>

Similarly, the requirements for the third mission—mitigating the consequences if deterrence fails—are roughly the same as the requirements for the first mission. For example, if North Korea uses nuclear weapons during a war on the Korean Peninsula, the United States may decide to “mitigate” the impact by conducting conventional and low-yield nuclear disarming strikes against Pyongyang’s remaining arsenal. The most relevant US nuclear capabilities for such strikes—such as B-61 bombs, low-yield warheads on Trident II submarine-launched ballistic missiles (SLBMs),

10 Keir A. Lieber and Daryl G. Press, “The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence,” *International Security*, Vol. 41, No. 4 (Spring 2017), pp. 9-49.

11 US Department of Defense, *Nuclear Posture Review*, October 27, 2022, pp. 7-8.

12 Some analysts may claim that the second mission does occasionally require additional forces—i.e., beyond those needed for mission one—by pointing to instances in which US allies lobbied the United States to retain particular weapon systems in the arsenal. Japan, reportedly, advocated for the nuclear Tomahawk Land Attack Missile (TLAM-N) despite US assessments that it was unnecessary for deterrence. But these cases are better understood as disagreements among allies about what forces are required for mission one (i.e., deterrence), rather than about extra forces required for mission two. The debate between US and Japanese officials reportedly centered on whether US ICBMs and SLBMs would be credible against limited attacks on Japan, given the large yield of those weapons, and hence whether the ballistic missiles would reliably deter attacks on Japan—i.e., a debate over the requirements of deterrence.



An unarmed Minuteman III intercontinental ballistic missile was launched at 4:36 a.m. PST during an operational test December 17, 2013, from Vandenberg Air Force Base, California. (US Air Force photo by Airman 1st Class Yvonne Morales)

and air-launched cruise missiles—are also, by definition, the weapons on which the United States implicitly relies to deter North Korean attacks in the first place. The most demanding counterforce mission (in terms of force structure) is likely the requirement to conduct effective counterforce strikes after absorbing a major Russian nuclear attack. Some important scenarios may create niche requirements for the third mission (i.e., “mitigate consequences”), but because of the way the United States limits its target selection (“counterforce-only”), the deterrence mission and the mitigation mission largely call on the same forces.

To some extent, US force requirements follow logically from the three missions described above—and principally from mission one. In reality, however, the missions merely shape the force. The actual requirements (that is, the precise numbers of weapons and their operational require-

ments) depend substantially on three additional planning principles.

First, the survivability of US nuclear forces is not permitted to depend upon an elevated nuclear alert status nor quick employment decisions by US leaders. The US arsenal is deliberately designed to be survivable even at peacetime alert levels. Although the United States maintains a “launch on warning” *capability*, its retaliatory ability does not depend on the quick launch of forces. Instead, the US arsenal is designed to “ride out” an enemy’s counterforce strike and subsequently inflict devastating retaliation. This is an aspect of US posture intended to reinforce deterrence and reduce the risk of nuclear accidents from false alarms. Not surprisingly, an approach to deterrence that rejects high alert levels or quick employment decisions is costly, requiring redundant capabilities and robust command and control arrangements

to ensure that some retaliatory forces will always survive and remain usable after any plausible attack.

The second key planning principal that drives US nuclear force structure is the rejection of a “single-leg survivability” approach to deterrence. Although some commentators refer to the ballistic missile submarine (SSBN) force as the inherently survivable leg of the US nuclear triad, US planners have intentionally designed survivability into each element of the arsenal. For example, individual US ICBMs are vulnerable to Russian missile attacks, but the missiles are deployed in large enough numbers to make them survivable as a force. Even a major strike on US ICBM fields using current Russian weapons would leave many missiles intact and ready to retaliate. Previously, the US strategic bomber force was deployed in a dispersed manner, with enough aircraft on alert to ensure retaliation. Today’s force is concentrated at a small number of bases, although at times of heightened tension the aircraft can be alerted and dispersed. In short, the US nuclear triad is not merely designed to create flexible employment options—each leg enhances the survivability of the overall force.

Of the three core US nuclear planning principles, the third has the greatest impact on US nuclear force structure. As mentioned at the outset, the United States aims nuclear weapons solely at enemy military targets, not at their cities.<sup>13</sup> In other words, the United States threatens to respond to any nuclear attack—even an unrestrained strike on US cities—by retaliating against enemy military forces.

At first glance, this US policy appears to create a dangerous asymmetry. Telling enemies that a devastating strike on US cities will trigger retaliation against adversary *military* targets seems like an underwhelming threat, thereby weakening deterrence. Although there may be some validity to that concern, the United States’ counterforce retaliatory doctrine is not as restrained as it sounds. Many adversary military targets are located inside urban areas. Furthermore, many enemy military targets would require nuclear ground bursts to destroy them. Ground bursts (as opposed to airbursts) would necessarily create large fallout plumes that would contaminate wide swaths of territory. In short, current US targeting doctrine does not directly

threaten cities, but it does not protect enemy civilians either. The “counterforce-only” approach to US nuclear deterrence would do little—or perhaps nothing—to reduce civilian fatalities if there were a major nuclear war.

Although the counterforce-only approach to retaliation may not spare enemy populations, it does significantly increase US nuclear requirements. For example, if the US retaliatory posture were based on the threat to retaliate with one hundred high-yield warheads against enemy cities, a total force of one thousand US weapons might be sufficient to guarantee that at least one hundred would survive. However, a nuclear doctrine based on the threat to retaliate against hundreds of military targets, many of which are hardened and thus require multiple strikes, means that large numbers of US forces must survive an enemy attack. A peacetime US arsenal must be even bigger.

To be clear, there are reasonable arguments in favor of each of these guiding principles. However, for reasons described in the next section, if US planners continue to base US force structure requirements against the ability to execute the current missions—and do so according to current planning principles—the emergence of nuclear tripolarity will cause US nuclear requirements to grow significantly.

## Force Structure in the Era of Tripolarity

If the United States retains its current nuclear missions and planning principles, the pressures of tripolarity—exacerbated by the impact of rapidly changing technology on arsenal vulnerability—will require significant increases to US nuclear force structure.

Tripolarity—exemplified by the additional 350 Chinese ICBMs—raises new challenges for US nuclear planners. First, there is the possibility, however remote, that Russia and China might someday coordinate a joint nuclear disarming strike against US nuclear forces.<sup>14</sup> Given the extraordinary risk involved in a nuclear disarming strike, and the extreme sensitivity of information that would need to be shared among the co-conspirators, the likelihood of a coordinated attack appears very low. That said, nuclear

13 Current US doctrine prohibits the deliberate targeting of civilians with nuclear weapons, so all US plans for nuclear employment exclusively target military objectives. According to the *2022 Nuclear Posture Review*, the United States “will not intentionally target civilian populations or objects” with nuclear weapons. Official guidance also holds that all nuclear employment plans must “seek to minimize collateral damage” to civilians, even in retaliation for a nuclear strike against US or allied civilians. In short, US nuclear doctrine, strategy, legal commitments, and policy appear to prohibit deliberate countervalue targeting, meaning that all US nuclear options are fundamentally counterforce in nature.

14 This seems extremely unlikely to the authors, but it cannot be completely dismissed, as countries have in the past conspired to launch aggressive wars together.



A U.S. Air Force B-52H Stratofortress assigned to Barksdale Air Force Base, Louisiana., lands at Andersen Air Force Base, Guam, in support of a Bomber Task Force deployment, February 8, 2021. (US Air Force photo by Senior Airman Jacob M. Thompson)

weapons deter best when countries are fully confident that their arsenals are survivable. Therefore, the possibility of an overwhelming joint attack does slightly increase the challenge for the US nuclear arsenal.

The second effect of nuclear tripolarity works through a subtler logic and presents a greater challenge for US nuclear planners—a problem often referred to as the “third man in.” Currently, the core US nuclear mission (“deter nuclear attack”) requires, among other things, the ability of US forces to survive any Russian nuclear disarming strike and subsequently inflict unacceptable damage on Russia’s military forces. In a tripolar era, however, the US ability to retaliate after a Russian attack would be limited by fears that China might subsequently strike the United States (i.e., after US forces had first been degraded by Russia and then expended in the US retaliatory strike). The third man

in problem is not merely that a retaliatory strike on Russia would leave the United States vulnerable to China. Rather, the knowledge that the United States would be constrained in its retaliation might embolden Russia and China in the first place. In short, if the United States is vulnerable to the sequential strikes by Russia and China envisioned in a third man in scenario, it might be vulnerable to many types of nuclear coercion.

The third effect of tripolarity exacerbates the third man in problem. Nuclear forces take years to build, and they are designed to last for decades. As a result, force structure should be resilient against plausible political changes in international politics. In the coming decades, however, the geopolitical landscape may evolve in radically different directions. China and Russia might become close allies. Alternatively, China may reverse its recent authoritarian



The *Ohio*-class ballistic-missile submarine USS *Henry M. Jackson* (SSBN 730) gets in position to receive a payload of supplies from an MV-22B Osprey in the vicinity of the Hawaiian Islands. (US Navy photo by Mass Communication Specialist 1st Class Devin M. Langer)

turn, liberalize, and move toward the West. Pessimists in Beijing may even worry about a third possibility: regime change in Moscow, opening the door to a US-Russian rapprochement. However, if each tripolar power feels compelled to build an arsenal able to survive an adversary's attack, retaliate, and still be able to deter the third nuclear great power, the world will be primed for costly and destabilizing arms racing.

The pernicious effects of nuclear tripolarity are exacerbated by the other aspects of the deterrence landscape, described above. The revolutions in accuracy and remote sensing mean that all nuclear forces are becoming more vulnerable, magnifying the third man in problem.<sup>15</sup> US plan-

ners remain understandably reluctant to base their nuclear deterrence strategy on single-leg survivability. They understand that submarines can sometimes be tracked—in fact, Soviet submarines were vulnerable during significant periods of the Cold War. In an era of unprecedented technological change, no delivery system—even whisper-quiet US nuclear submarines—will necessarily be survivable in the future.

Possibly the biggest factor that exacerbates the problems of nuclear tripolarity is the US counterforce-only approach to deterrence. Maintaining a force that can survive a Russian attack and retaliate effectively against Moscow's military forces—and then survive a Chinese attack and retaliate ef-

<sup>15</sup> On the revolutions in accuracy and sensing, see Lieber and Press, "The New Era of Counterforce." These technological trends exacerbate the third man in problem because, in an era of high-accuracy and unprecedented sensing capabilities, an initial disarming strike will be expected to destroy a large fraction of a country's retaliatory forces. Additionally, the dangers posed by the "third man's" arsenal—which will be highly accurate itself and cued by advanced sensors—will constrain the victim's retaliatory options more than if the "third man" had a blunt, unsophisticated arsenal.



fectively against Beijing's military—is a demanding mission. Furthermore, building the capabilities to carry out those counterforce strikes in such demanding circumstances (i.e., after absorbing massive disarming attacks) will necessitate a force that is so capable that it will undermine the peacetime survivability of Russia's and China's arsenals.

The implications of tripolarity on deterrence may seem esoteric to those outside the nuclear community, but they are well understood by US planners. Consequently, calls for increasing US nuclear forces are growing common. The easiest way to enhance US nuclear capabilities in the short term is to upload existing delivery systems with available warheads. The current Minuteman III ICBM force (four hundred missiles, with one warhead each) can accommodate an additional four hundred warheads, which would not enhance the survivability of the missiles but would increase the capability of any ICBMs that survived an enemy disarming strike.<sup>16</sup> Similarly, the United States could increase the number of warheads on each Trident II missile, adding between five hundred and one thousand warheads across the eight to ten submarines typically at sea.<sup>17</sup>

Estimating the number of uploaded warheads required to absorb a Russian nuclear attack and retaliate, and then absorb a Chinese attack and retaliate, would require a complete force exchange analysis, which is beyond the scope of this paper. However, analysts who advocate for more US nuclear forces have a point: *if* the United States intends to retain its current nuclear missions and achieve them using traditional planning principles, the addition of one thousand Chinese warheads, potentially loaded on 350 modern ICBMs, would require a significant increase in US forces. At the same time, critics of a US nuclear buildup have a point too: given the substantial counterforce capabilities of the additional US weapons (and the geopolitical uncertainties inherent in tripolarity), it is likely that these US enhancements would trigger responses from Russia and China.

Is there an alternative approach to nuclear planning that would achieve core missions (deter, assure, and mitigate), continue to reject hair-trigger alert postures, and steer clear of the uncertainties of single-leg survivability?

## A Hybrid Strategy for the Era of Nuclear Tripolarity

The United States should consider an alternative approach to nuclear policy that avoids the pitfalls of the current counterforce-only strategy and the weaknesses of a pure minimum deterrence countervalue doctrine. This paper proposes an alternative hybrid approach, which retains and continues to gradually enhance existing counterforce capabilities to fulfill their current roles in US plans. The hybrid policy, however, would change its approach to deterring large-scale nuclear attacks on the US homeland by threatening punitive retaliatory strikes against enemy cities in those extreme circumstances.

The weaknesses of the current counterforce-only approach are described above. It requires a large and expanding force, thereby undermining future efforts to limit or reduce nuclear stockpiles; it may trigger a spiraling arms race among the United States, Russia, and China; and it may ironically provide a weaker deterrent.<sup>18</sup> At the same time, the opposite approach—a pure countervalue strategy—has even greater limitations. Most importantly, a countervalue-only approach would limit US leaders to poor retaliatory options after a limited enemy nuclear attack—especially one that spared US and allied cities. US credibility—in the eyes of both allies and adversaries—would suffer as a result, with adverse consequences for proliferation and deterrence.

A hybrid strategy would avoid the negative consequences of both alternatives—leaving the United States with its current counterforce capabilities to provide credible retaliatory options across a wide range of circumstances (e.g., an adversary's limited nuclear attack), all the while avoiding the need to build additional counterforce capabilities each time China or Russia enhances its nuclear arsenal.

Table 1 summarizes the current and hybrid approaches to nuclear deterrence. Regardless of which approach the United States chooses, the mission of deterring a nuclear attack can be accomplished in two ways: by threatening a retaliatory damage-limiting strike against the enemy's nuclear forces, or by threatening a punitive retaliatory response designed to inflict pain. Where the strategies differ is in how each would execute a punitive response.

16 Of the four hundred US Minuteman ICBMs currently deployed, two hundred are armed with Mk12A reentry vehicles; those missiles can each carry two additional warheads. The United States has fifty unused Minuteman silos which could be reloaded, but doing so would draw missiles away from the pool designated for testing, which would harm force readiness.

17 As the United States transitions from *Ohio*- to *Columbia*-class SSBNs, both the number of deployed submarines and the number of missiles per boat will drop.

18 For these and additional arguments, see Fetter and Glaser, "Legal, but Lethal," pp. 31-35.

**Table 1: Comparing the Current and Alternative Approaches to Targeting**

	<b>Counterforce-only Strategy (Current policy)</b>	<b>Hybrid Strategy (Proposed policy)</b>
<b>Damage Limitation</b>	Counterforce	Counterforce
<b>Punishment</b>	Counterforce	Countervalue

The current policy seeks to deter nuclear attacks by providing US leaders with two options for retaliation: First, the policy allows for counterforce strikes to degrade (or disarm entirely) an enemy’s forces after the enemy has used nuclear weapons against the United States or its allies. Second, if meaningful damage limitation is impossible, the United States can conduct retaliatory counterforce strikes to punish an enemy. The overarching goal is deterrence: the threat of disarming attacks, or punitive strikes against military targets, is intended to dissuade a potential adversary from conducting nuclear attacks in the first place.

The hybrid strategy would retain counterforce capabilities for damage limitation, but in case of direct attacks against US or allied urban areas, it would rely on countervalue threats for the purpose of punishment. In other words, against adversaries with potentially vulnerable arsenals (e.g., North Korea today; possibly Iran in the future), US nuclear deterrence would rest on the threat of retaliatory damage-limiting strikes—meaning counterforce attacks designed to disarm the adversary, if possible. (In this respect it would be identical to the current approach.) Against adversaries with forces too large for effective damage limitation, however, the hybrid strategy would base retaliatory plans—to deter the most extreme attacks—on threats of punitive countervalue retaliation.

The hybrid strategy could be implemented at current and planned force levels. The hybrid approach requires the same damage-limitation capabilities as the counterforce-only strategy. In both cases, the United States requires nuclear and non-nuclear means for degrading (or disarming) the arsenals of small nuclear powers. Weapons

like the B-61, low-yield Trident, the planned “long range standoff” (LRSO) cruise missile, and possibly the proposed nuclear-armed sea-launched cruise missile (SLCM-N) could play a role in this mission. Also, in both cases, the United States would retain (and enhance) the counterforce weapons that provide substantial damage limitation capabilities against larger nuclear adversaries. The higher-yield Trident, Minuteman III, and stealthy long-range bombers armed with LRSO missiles are well-suited to that role. Those counterforce capabilities, which have been force-sized against the Russian target set, would be more than adequate against China’s smaller force.<sup>19</sup>

Simply put, the switch from a counterforce-only approach to the hybrid strategy offered here affects US force requirements merely by changing the *means* by which the United States would inflict punishment after a catastrophic attack on the US homeland. Following the current strategy will drive the United States to acquire more warheads to target China’s new ICBMs and other new nuclear targets with whatever US force survived a Chinese first strike. Worse yet, the current strategy would require US planners to cover Russian military targets with the weapons that survived a Russian disarming strike, and *still* have enough forces remaining to survive a third man in attack from China before retaliating against Chinese military targets. The hybrid strategy, by contrast, rejects this excessively demanding approach to deterrence. It would simply warn Russia that a crippling nuclear attack on the US homeland will be met with a hundred (or so) weapons that will inflict massive punishment on Russian society. If China, for some inconceivable reason, wished to be the third man in for this catastrophe, the US arsenal will have

<sup>19</sup> Unless the United States requires the ability to conduct substantial damage-limitation strikes against both China and Russia simultaneously, the increase in China’s ICBMs does not require additional counterforce capabilities for the United States.



An unarmed Trident II (D5LE) missile launches from *Ohio*-class ballistic missile submarine *USS Maine* (SSBN 741) off the coast of San Diego, California, February 12, 2020. (US Navy Photo by Mass Communication Specialist 2nd Class Thomas Gooley)

a hundred or more warheads left to inflict massive harm on China's society too.

To reiterate, the purpose of these threats is to deter the attacks in the first place. However, the goal of deterrence is easier to reach—and can be done with fewer forces—if the planning guidance abandons the counterforce-only approach.

### Counterarguments

Critics of a hybrid deterrent approach might argue that the current US strategy already targets adversary civilians indirectly, and therefore solves the problem this paper identifies, in a politically acceptable fashion. Specifically, critics of a hybrid strategy argue that adversary "military" sites selected for nuclear retaliation include many targets located inside enemy cities. Thus, any adversary would suffer vast civilian casualties from US retaliation whether or not the

US strike were technically limited to counterforce targets. Moreover, this critique explains why, allegedly, the United States will not need to arms race under tripolarity, since the deployment of additional Chinese weapons will not affect US requirements for punitive counterforce attacks. Given that the effect of these retaliatory counterforce strikes is intended to be *punitive*, the United States can plan to destroy the same number of (urban) military targets in Russia or China, regardless of how many new ICBMs or other weapons China deploys.

The problem with this critique (and the current counterforce-only strategy) is that it is an unstable solution built on sleight-of-hand: targeting cities, without targeting cities. As a result, the strategy is vulnerable to powerful critiques from both doves and hawks. The doves will assail the current strategy because the military targets inside cities do not meet the high legal bar for "proportionality," because millions of civilians would inevitably die. These attacks on the current strategy are underway, evidenced by efforts

to define the practice of nuclear deterrence (and nuclear weapons themselves) as illegal under international law.<sup>20</sup> Hawks will attack the contradictions in the current policy from the other side. US policy aims to deter nuclear attack by threatening to retaliate against enemy military targets, but with China's buildup the United States does not have enough weapons to cover those targets. Therefore, the United States needs more. These attacks are also underway as seen in calls to upload US missiles and submarines in response to China's new ICBMs.

The better option is the hybrid approach: (1) maintain enough counterforce capability to provide the disarming and damage limiting options that US foreign policy commitments require, and (2) retain enough survivability to inflict devastating *countervalue* strikes—against one or two major adversaries—to deter the most extreme attacks on the US homeland. The legal battles to defend the practice of deterrence will ensue, just as they would with the current strategy. However, the hybrid approach is much less likely to trigger a costly and dangerous tripolar arms race.

A second criticism is that US allies and the international community would be appalled if the United States adopted a hybrid deterrence policy which explicitly incorporated countervalue targeting. Critics might contend that allied objections would weaken US alliances and undermine US standing as a leader in the rule-based order. However, for decades US policy rejected the claim that the humanitarian legal principles of distinction and proportionality applied to plans for nuclear deterrence. A major policy shift mandating that US nuclear doctrine adhere to those principles occurred only recently—during the administration of former US President Barack Obama in 2013.<sup>21</sup> The United States was able to stake a claim to global leadership and promote the rules-based-order prior to 2013, and it could continue to do so today regardless of the details of its nuclear deterrence strategy. Debates over deterrence and law are political as much as they are legal, and key US allies depend on the US nuclear umbrella. They will accept the hybrid approach if they understand it is the best way to provide

a credible deterrent while minimizing the risk of a nuclear arms race.

## Conclusion

The strategic dynamics of a tripolar nuclear world are worrisome. If China's nuclear expansion and modernization continue as expected, the US nuclear arsenal will also need to grow to satisfy current mission requirements. This in turn will lead China and Russia to worry about the vulnerability of their own arsenals, likely triggering additional arms buildups. Understood in this light, the United States must find a balance that addresses real challenges to critical nuclear deterrence missions yet avoids (if possible) actions that will trigger a costly and counterproductive arms race.

One promising path forward is to revisit and adapt fundamental nuclear planning principles—to address the constraints of a new era. Specifically, the United States should formulate a hybrid deterrent approach, which retains counterforce capabilities for some circumstances (e.g., deterring nuclear escalation during regional wars) while accepting that a counterforce-only doctrine is not well suited to deter major nuclear attacks on the US homeland. Adopting a hybrid approach would more effectively deter nuclear attacks on the US homeland or that of its allies, while also allowing the United States to avoid a new nuclear arms race.

If the United States were to move in the direction this paper suggests, it would raise important questions about how to square US nuclear policy with international law.<sup>22</sup> Changing US doctrine to permit countervalue targeting *for the most extreme contingencies* might be justified by legal exemptions given for national “supreme emergency” or interpretations that allow for “belligerent reprisal.” Alternatively, a legal justification might be built on the distinction between what is necessary for planning (for the purpose of deterrence) versus actual execution (in case of nuclear war).<sup>23</sup> As others have noted, international humanitarian law was intended to moderate the conduct of war—not undermine

20 See the analysis in Sagan and Weiner, “Rule of Law.”

21 Sagan and Wiener, “Rule of Law,” pp. 127-128.

22 Alternatively, the importance of adopting a nuclear policy that most effectively bolsters deterrence (i.e., the prevention of nuclear war) and avoids the dangers of a “no cities” approach may simply require the United States to no longer abide by current interpretations of international law in this area. As Fetter and Glaser write in reference to the Law of Armed Conflict, “[we] do not believe that the value of complying with the LOAC for its own sake warrants adopting a strategically inferior strategy.” Fetter and Glaser, “Legal, but Lethal,” p. 28.

23 Note that NATO's nuclear sharing policy involves planning (for the purpose of deterrence) to transfer nuclear weapons to non-nuclear members of the Nonproliferation Treaty—an action that would be illegal if executed. Similarly, a hybrid deterrence strategy would involve planning for actions that would only be executed if such extreme events had occurred (major nuclear strikes on the US homeland) as to nullify the context of existing international law.

policies designed to prevent war.<sup>24</sup> Ultimately, international humanitarian law, and the boundaries of its jurisdiction when those laws conflict with necessary action in the face of existential threats, has always been subject to interpretation and reinterpretation. Regardless, the first step involves the renewed analysis of fundamental strategic questions. The answers point to the need to change US policy to bolster deterrence and prevent a dangerous arms race.

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24 Fetter and Glaser, "Legal, but Lethal," pp., 27-28.

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