# **NUCLEAR TARGETING METHODS** AND MODERN DETERRENCE

Countervalue deterrent threats are no longer credible for the United States, and the model of counterforce targeting requires modification. Tailored targeting is a concept that matches adversary vulnerabilities and American political objectives to produce a unique targeting solution. When paired with a deliberate strategic messaging strategy, tailored targeting provides the president with a credible deterrent threat. A strategy of multiple tailored targeting solutions for various contingencies creates a continuum of effective deterrent options along the entire spectrum of conflict.

**♦** he concept of a countervalue strike is no longer credible in modern American nuclear deterrence, and counterforce needs modification. Tailored targeting complements the concept of tailored deterrence while assisting policy makers and military strategists in applying nuclear deterrence along the entire spectrum of conflict, from the gray-zone to general nuclear war. To this end, a holistic counterforce targeting strategy remains valid only if revised; tailored nuclear targeting must be envisioned in a new way.

# **Background**

The difference, of course, between the debate over the nature of thermonuclear war and previous such debates is that it remains hypothetical. And unless we want to bet everything on the optimist, that is what it will always be. For if we lost this bet, and the pessimist turned out to be right, a thermonuclear war will have destroyed the human race, and along with things like discourse and memory. The debate would remain forever unresolved, because those pessimists proven right, along with those optimists proven wrong, would all be dead.

> —Campbell Craig, *Destroying the Village*: Eisenhower and Thermonuclear War

Nuclear weapons fundamentally changed the way nations think about targeting. The strategic bombing campaigns of World War II lacked the precision, intelligence,

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and battle damage assessment capabilities required to make the promise of a quick victory through airpower a reality. The pure destruction resulting from the use of nuclear weapons made the airpower theories of the Air Corps Tactical School and Giulio Douhet more applicable. But the delivery of these awe-inspiring weapons remained largely imprecise for the duration of the Cold War.

To overcome the accuracy issues, nuclear targeting planned to employ the largest -yield weapons available against enemy cities; this became known as countervalue targeting. Eventually, a second targeting strategy, counterforce, emerged as an option to avoid targeting civilian populations and instead target adversary nuclear forces. As a general concept, if a state is the first to employ nuclear weapons, a counterforce targeting strategy designed as a disarming first strike is the most advantageous approach. In contrast, if the state is responding to a nuclear attack, it is more valuable to use a countervalue targeting strategy as a retaliatory response.<sup>2</sup>

### **Conventional Nuclear Integration**

While these two approaches have evolved since the Cold War, they remain the foundation of nuclear targeting. With advances in technology in the form of precision delivery and low-yield nuclear weapons, and the distinctly different geopolitical climate of 2022 compared to the height of the Cold War, it is time to reevaluate these targeting strategies.

The Summary of the 2018 National Defense Strategy highlighted the need for America to reassess its ability to deter adversaries, explicitly stating North Korea, China, and Russia are all developing new capabilities including advanced delivery options for nuclear weapons.<sup>3</sup> The United States is pursuing modernization for its nuclear triad and ballistic missile defense. But these technological solutions require a credible and capable targeting and messaging strategy to produce a convincing deterrent threat. America retains a technological advantage in the conventional realm, yet China and Russia are quickly approaching parity in several aspects of nuclear capability.<sup>4</sup>

The United States' nuclear modernization efforts will help address some of the technological and numerical shortfalls, but America can further combat Russian and Chinese advancements through superior tactics and training. One way to showcase America's continued superior nuclear capability is with conventional nuclear integration (CNI).

<sup>1.</sup> Fred Kaplan, The Bomb: Presidents, Generals, and the Secret History of Nuclear War (New York: Simon & Schuster, 2020).

<sup>2.</sup> Bernard Brodie, Strategy in the Missile Age (Santa Monica, CA: RAND Corporation, 1959), 229.

<sup>3.</sup> James N. Mattis, Summary of the 2018 National Defense Strategy: Sharpening the American Military's Competitive Edge (Washington, DC: Office of the Secretary of Defense (OSD), January 2018), 8.

<sup>4.</sup> OSD, Military and Security Developments Involving the People's Republic of China 2020: Annual Report to Congress (Washington, DC: OSD, September 2020), ix.

The Joint doctrine of the United States military discusses the importance of maintaining a flexible and integrated nuclear and conventional force.<sup>5</sup> Additionally, it acknowledges the importance of messaging, stating "effective military capabilities require that they be visible to and known by the adversary. The ability to communicate US intent, resolve, and associated military capabilities in ways that are understood by adversary decision makers is vital."6

Finally, Joint doctrine recognizes the need for nuclear options along a spectrum from "limited use to large-scale employment," and that nuclear operations "must not assume use in isolation but must plan for strike integration into the overall scheme of fires." Tying CNI to messaging and tailored nuclear targeting options translates doctrine into practice.

Joint doctrine provides a starting point for US military planners. Effectively executing CNI, however, requires the integration of conventional and nuclear forces in exercises and live-fly situations. Without exercising conventional nuclear integration, the military remains unprepared to implement a plan requiring the tactical-level integration of conventional and nuclear forces.

In addition to providing the required training for American military forces, exercising CNI also allows America to message its deterrent capability in a way that is highly visible to adversaries and demonstrates American credibility. Joint doctrine also promotes the importance of integrating planners with decision makers to achieve tailored deterrence options.8 Current Joint doctrine discusses the need for planning tailored, flexible deterrence options that are quick to implement, but the concept of a tailored targeting strategy to complement tailored deterrence is missing.

# **Countervalue and Counterforce Targeting**

When Giulio Douhet wrote *The Command of the Air* in 1921, the technology to execute his concepts for strategic bombing did not exist. He envisioned a fleet of airplanes that would bomb an enemy into capitulation, independent of other military action. Douhet's idea was to use bombers to coerce adversary leadership by targeting civilian populations with what was essentially a countervalue attack. 10

With the introduction of nuclear weapons in 1945, the technology caught up to the theory and the United States took an approach to nuclear strategy that drove a single targeting solution. The newly independent US Air Force embraced Douhet's theory

<sup>5.</sup> Chairman of the Joint Chiefs of Staff (CJCS), Joint Nuclear Operations, Joint Publication (JP) 3-72 (Washington, DC: CJCS, April 17, 2020), II-1.

<sup>6.</sup> CJCS, JP 3-72, I-4.

<sup>7.</sup> CJCS, V-3.

<sup>8.</sup> CJCS, III-1.

<sup>9.</sup> Giulio Douhet, The Command of the Air, trans. Dino Ferrari (Washington, DC: Air Force History and Museums Program, 1998).

<sup>10.</sup> Douhet, Command of the Air.

and developed plans to destroy Soviet Union cities with nuclear weapons. 11 President Dwight D. Eisenhower concluded, however, that the idea of a nuclear war was so terrible that the only option was to use the threat of nuclear retaliation to avoid conflict; this policy became known as massive retaliation. 12 The cataclysmic potential of general thermonuclear war was so horrific that the purpose of the United States military changed from winning a war to avoiding war entirely.<sup>13</sup>

During President John F. Kennedy's administration, the United States publicly moved toward a counterforce strategy, but the policy of avoiding war with another nuclear power remained the practice through the Cuban Missile Crisis and Vietnam War. 14 Thus in the first three decades that the United States possessed nuclear weapons and developed the concepts of counterforce and countervalue, the overall targeting strategy for the United States remained the same: avoid general nuclear war altogether by threatening to respond with a single massive volley of nuclear weapons striking all available targets.<sup>15</sup>

In the 1970s, nuclear targeting strategies remained constrained by two primary issues: the inability to rely on command and control networks to manage a nuclear conflict and the inability to discriminate between a counterforce and a countervalue attack. 16 The assumption at the time was that any nuclear exchange would quickly eliminate the president's ability to issue orders to the nuclear force.

This presented a two-fold problem. First, if the president could not issue an execution order, then the nuclear weapons were unusable. Second, if the president could not communicate with the nuclear forces, then issuing a war termination order was also problematic.<sup>17</sup> This problem resulted in the assumption that any nuclear warfighting options requiring tightly coupled command and control were infeasible. The targeting plan remained essentially the same: a few alleged counterforce options involving the massive employment of weapons against a large target set, thus achieving a countervalue effect.18

Messaging also constrains nuclear targeting. Many of the countervalue targets in the Soviet Union were located in close proximity to urban population centers. Therefore, to the Kremlin, a counterforce attack on the Soviet Union looked the same as a

<sup>11.</sup> Campbell Craig, Destroying the Village: Eisenhower and Thermonuclear War (New York: Columbia University Press, 1998).

<sup>12.</sup> Craig, Destroying the Village, viii.

<sup>13.</sup> Bernard Brodie, "The Absolute Weapon: War in the Atomic Age," in *The Absolute Weapon: Atomic* Power and World Order, ed. Bernard Brodie (New Haven, CT: Yale Institute of International Studies, 1946).

<sup>14.</sup> Craig, Destroying the Village, 51.

<sup>15.</sup> Eric Schlosser, Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety (New York: Penguin Books, 2014), 457.

<sup>16.</sup> Desmond Ball and Jeffery Richelson, Strategic Nuclear Targeting (Ithaca, NY: Cornell University Press, 1986), 15.

<sup>17.</sup> Ball and Richelson, Strategic Nuclear Targeting.

<sup>18.</sup> Ball and Richelson, 57.

countervalue attack. 19 This issue remains true in the post-Cold War world. While modern technology provides high fidelity on ballistic missile trajectories, a nucleararmed adversary may still misinterpret a counterforce missile attack as a countervalue strike and respond in kind.

Several modern nuclear states maintain a nuclear alert posture capable of a launchon-warning response. Thus the use of ballistic missiles, regardless of the targets or the quantity of missiles used, carries a significant probability of immediate escalation. Combined with the nuclear taboo covered in more detail later and the current international norms of liberal democracies, any threat of a massive nuclear attack, regardless of the targets, is credible in only the most desperate of situations that directly threaten national survival.20

Difficulties in discrimination and proportionality continue to complicate countervalue's messaging problems.<sup>21</sup> The discrimination challenge is that an adversary cannot determine if an incoming ballistic missile is part of a limited or a major nuclear attack. Therefore, rationally, the adversary will assume the worst case of a massive attack.<sup>22</sup> The proportionality problem argues that threatening to respond to nonnuclear attacks with nuclear weapons creates credibility issues.

Both issues negate the credibility of a countervalue nuclear deterrent threat. If the United States messages a countervalue targeting strategy, then an adversary will assume any ballistic missile attack from the United States is a countervalue attack. Likewise, if the United States does not have a proportional nuclear response, then it undermines any deterrent message that threatens a nuclear response to a nonnuclear attack.

Since 1945, the nonuse of nuclear weapons has created an internationally recognized taboo surrounding nuclear weapon employment. The taboo's power has expanded to the point where it is arguable whether the United States would use nuclear weapons even in response to a nuclear attack.<sup>23</sup> Add to this decision calculus the difficulties of discrimination, and it is unlikely the United States would employ a countervalue nuclear attack even in response to an attack on mainland America.<sup>24</sup> Therefore, countervalue nuclear threats are no longer credible for American deterrence.

Yet countervalue targeting remains valid for other nuclear states. With the difficulties in discerning a countervalue and counterforce ballistic missile attack, countervalue nuclear threats only remain credible in specific circumstances. A nuclear state

<sup>19.</sup> Ball and Richelson, 15.

<sup>20.</sup> Nina Tannenwald, The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons since 1945 (Cambridge, MA: Cambridge University Press, 2007), 16.

<sup>21.</sup> Evan Braden Montgomery, "Posturing for Great Power Competition: Identifying Coercion Problems in U.S. Nuclear Policy," Journal of Strategic Studies, published online February 24, 2012, https://www.tandf online.com/doi/.

<sup>22.</sup> Thomas C. Schelling, Arms and Influence (New Haven, CT: Yale University Press, 1966).

<sup>23.</sup> Tannenwald, The Nuclear Taboo, 16.

<sup>24.</sup> Tannenwald, 16.

that maintains an assured retaliation nuclear posture can retain a credible countervalue nuclear deterrent.25

For example, China has kept an extremely consistent assured retaliation posture since first acquiring nuclear weapons in the 1960s. By 1967, China's arsenal had a nuclear capable bomber, intercontinental ballistic missiles, and a thermonuclear weapon. By all measures, the country was a modern nuclear force. But it did not pursue parity with the Soviet Union or the United States. Instead, China built and maintained a survivable second-strike capability and never pursued a large number of weapons or a first-strike capability.

China possesses an arsenal of large megaton and inaccurate weapons. The country has modernized its nuclear forces and added a nuclear-capable submarine, but the goal remains the preservation of a survivable second-strike option. Considering its available technology and resources, China could certainly build a nuclear force to rival the United States or Russia. Instead, it pursues a strong conventional force that can match the United States and Russia. 26 Unlike the United States, a countervalue targeting strategy remains credible for Chinese deterrence.

With the implausibility of countervalue nuclear threats, counterforce is the only option left for the United States. Counterforce targeting remains valid for American deterrence, but it requires revision—the concept of counterforce necessitates decoupling from the idea of a first strike and expanding into tailorable targeting alternatives. A single, massive, first-strike counterforce attack designed to eliminate the adversary's ability to respond is one extreme along a continuum of counterforce options. Dovetailing with the idea of tailored deterrence, tailored targeting provides planners a way to create credible deterrent threats based on the adversary.

# **Tailored Targeting: Potential Models**

Currently, the United States views conventional operations and nuclear operations as separate enterprises. Given America's conventional superiority, this model does limit conflict escalation up to the point of a limited nuclear exchange. Presently, however, the United States has a gap in its ability to deter conflict between conventional war and general nuclear war. American conventional superiority has also created space for adversaries to operate below the threshold of state-sponsored violence, otherwise known as the gray zone. To better manage conflict escalation and present deterrence options to the president at all levels of conflict, the United States must reevaluate how it messages deterrence.

To make credible deterrent threats, the president requires a response option that matches adversary capabilities at every level. The 2018 national defense strategy outlined the need for defense strategies tailored for individual adversaries and geographic

<sup>25.</sup> Vipin Narang, "Nuclear Strategies of Emerging Nuclear Powers: North Korea and Iran," Washington Quarterly 38, no. 1 (2015).

<sup>26.</sup> Narang, "Nuclear Strategies," 123.

regions; this is the basic concept for tailored deterrence.<sup>27</sup> A counterforce continuum of tailored targeting options presents a way to take the concepts of tailored deterrence and pair them with executable options to create credible deterrence threats. Tailored targeting integrates conventional and nuclear response options to manage escalation by providing credible response options at all levels of conflict.

John Warden and Robert Pape provide historical examples of targeting methodologies applicable to nuclear deterrence and a counterforce continuum of targeting options. Warden's "five rings" include leadership, organic essentials, infrastructure, population, and fielded forces.<sup>28</sup> In addition to his five-ring model, Warden offers three strategies to compel the enemy: imposed cost for coercion, paralysis leading to incapacitation, and destruction ending in annihilation.<sup>29</sup> According to David Fadok, "collectively, these strategies represent a continuum of force application. The point chosen along that strategy continuum should coincide with the level of objective intent."<sup>30</sup> Similarly, Pape presents four strategies for coercion: punishment, risk, denial, and decapitation.<sup>31</sup> The models presented by Warden and Pape inform a way to reconceptualize counterforce targeting as a continuum.

Warden's strategy of imposed cost aims to make continued resistance too expensive for the enemy. His cost imposition strategy seeks to exceed the enemy's tolerance threshold as violently and instantaneously as possible with simultaneous parallel attacks upon a designated target set.<sup>32</sup>

This strategy works well with a counterforce continuum targeting strategy using the idea of tailored targeting. For an adversary that relies on a finite number of geographic decisive points to control an area, a tailored targeting solution that attacks critical nodes with nuclear, conventional, and nonkinetic attacks would be an example of Warden's imposed cost strategy. This type of attack would instantaneously exceed the adversary's ability to resist without causing significant collateral damage or massive civilian casualties.

Of Pape's four strategies, the strategy of risk, or gradual escalation, best applies to tailored targeting. When communicating deterrent threats to a nuclear-inferior adversary, a strategy that holds a single valuable target at risk with a nuclear weapon provides planners with a way to send a credible deterrent message while avoiding immediate escalation to general nuclear war. If deterrence fails, a nuclear attack on a vital target achieves a military objective and demonstrates American resolve without the United States resorting to an escalatory large-scale nuclear attack.

<sup>27.</sup> Mattis, National Defense Strategy, 45.

<sup>28.</sup> David S. Fadok, "John Boyd and John Warden: Airpower's Quest for Strategic Paralysis," in The Paths of Heaven: The Evolution of Airpower Theory, ed. Phillip S. Meilinger (Maxwell AFB, AL: Air University Press, 1997), 373.

<sup>29.</sup> Fadok, "Strategic Paralysis," 373.

<sup>30.</sup> Fadok, 375.

<sup>31.</sup> Robert A. Pape, Bombing to Win: Air Power and Coercion in War (Ithaca, NY: Cornell University Press, 1996), 18.

<sup>32.</sup> Fadok, "Strategic Paralysis," 375.

For example, detonating a single 5-kiloton nuclear weapon on a notional highvalue target in a rural area would send an escalatory message without creating excessive collateral damage or a mass-casualty event, therefore limiting the likelihood of further escalation.

Unfortunately, neither Warden's nor Pape's model perfectly translates to a counterforce continuum of tailored targeting options. Warden advocates for targeting methods that achieve strategic paralysis, a condition where the adversary is unable to further process information or provide command and control to its military forces, while Pape advocates for a strategy of denial that removes the adversary's ability to further pursue a military objective.

Targeting enemy leadership and command and control networks with nuclear weapons is problematic. If the country maintains an alert force for its nuclear weapons, attacking command and control networks induces a high probability of escalation to general nuclear war. This does not mean tailored targeting cannot achieve strategic paralysis, rather it demonstrates the need for tailored solutions unique to the intended adversary. Realizing tailored targeting solutions for tailored deterrence requires a new continuum of counterforce deterrence options that augments the currently available targeting methodologies.

### Counterforce Deterrence Options: A Continuum

Counterforce targeting can be reimagined as a continuum of options to achieve effects along the entire spectrum of conflict. Figure 1 displays a counterforce continuum of tailored targeting strategies. First, the tailored targeting strategy must align with the military and political objectives of the campaign. At one extreme is the classic definition of counterforce: an attack on enemy nuclear forces and command and control networks intended to disable the enemy's ability to launch its nuclear forces. At the other extreme is a single, low-yield, precise nuclear detonation.

A coordinated nuclear attack on enemy command and control networks might produce strategic paralysis, while a single nuclear weapon targeting option might hold a critical decisive point at risk. The United States has nuclear forces capable of employing nuclear weapons at any point along this spectrum. But America does not currently message, plan, or exercise options at the lower end of this spectrum.

#### Horseshoes and Hand Grenades

The American aversion to precise nuclear weapons hinders the implementation of a counterforce continuum targeting strategy. The US military and political systems maintain an enduring argument that advanced nuclear weapons, specifically weapons that increase counterforce targeting capability, are destabilizing—any qualitative or quantitative nuclear advantage provides an incentive for a state to use its nuclear arsenal.<sup>33</sup>

<sup>33.</sup> Matthew Kroenig, The Logic of American Nuclear Strategy: Why Strategic Superiority Matters (New York: Oxford University Press, 2018), 130.

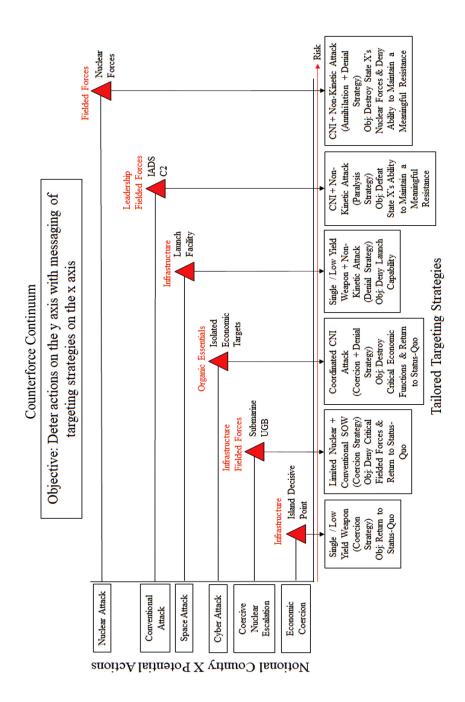


Figure 1. Counterforce continuum of tailored targeting strategies

Paradoxically, the result of avoiding advanced nuclear weapons is a reliance on a countervalue targeting strategy that would produce mass civilian casualties if it were ever employed.<sup>34</sup> America's adversaries do not share this aversion to new nuclear weapons, rapid delivery systems, or precision guidance for nuclear weapons.

Technology and strategy often take years to synchronize. After fielding a nuclear cruise missile, the United States spent 20 years developing long-range conventional precision-strike cruise missiles.<sup>35</sup> The military is currently experiencing the opposite technological lag between high-precision conventional weapons and nuclear weapons. America launched the international precision-targeting revolution in Operation Desert Storm in 1991. But this precision revolution has not yet led to highly precise nuclear weapons. To fully exploit a counterforce continuum targeting strategy, nuclear weapon guidance technology must catch up to conventional weapon capability.

### **Tailored Targeting in Practice**

To implement a counterforce continuum, planners require a method to match targeting strategies with intended effects. Tailored targeting provides this solution. The United States has adopted the concept of tailored deterrence to send specific deterrent messages to different adversaries. Tailored targeting, likewise, provides planners with the ability to achieve a multitude of effects across the entire spectrum of conflict and message tailored deterrent threats to individual adversaries.

In an era of great power competition, tailored targeting supporting a counterforce continuum provides policy makers and planners with a competitive, credible deterrent strategy. The United States must continue to compete with nuclear weapons; a nuclear stalemate is difficult to achieve, and a secure, second-strike capability requires modernization to remain viable. Further, deterring conventional attacks with nuclear weapons requires usable, credible nuclear options.<sup>36</sup> Messaging tailored targeting options to America's adversaries, building credibility with exercises that include nuclear and conventional forces, and moving to real-world operations provide the United States with usable nuclear options.

Simply stated, tailored targeting is a concept that matches adversary vulnerabilities with US political objectives to produce a unique targeting solution. When paired with a deliberate strategic messaging strategy, tailored targeting provides the president with a credible deterrent option (fig. 2). A strategy of multiple tailored targeting solutions for various contingencies creates an effective deterrent strategy for the United States along the entire spectrum of conflict.

<sup>34.</sup> Kroenig, American Nuclear Strategy, 130.

<sup>35.</sup> Paul Bracken, The Second Nuclear Age: Strategy, Danger, and the New Power Politics (New York: St. Martin's Griffin, 2012), 80.

<sup>36.</sup> 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), 5.



Figure 2. Tailored targeting<sup>37</sup>

### Messaging

Conventionally inferior nuclear states or those with an existential threat of catastrophic defeat are more likely to develop coercive nuclear escalation (CNE) tactics, which use the threat of nuclear escalation to counter a conventionally superior state.<sup>38</sup> The United States and NATO employed CNE tactics in the Cold War to deter a superior Soviet Union conventional attack. Today, Russia uses CNE to deter a conventionally superior United States.<sup>39</sup> Tailored targeting solutions on a counterforce continuum seek to achieve deterrence, not coercion, but it would provide the United States a credible deterrent against countries seeking to use CNE tactics to counter American conventional superiority.

Finally, messaging tailored targeting deterrent threats is most credible if the United States maintains nuclear superiority. A secure second-strike capability will deter nuclear aggression against mainland America, but not all nuclear retaliation capabilities are equal. A state that has nuclear superiority over its adversary can increase escalation further than the inferior state. Historically, states with nuclear superiority prevail in crisis situations over states that are nuclear inferior.

The intent of a counterforce continuum of tailored targeting options is not to win a nuclear war, it is to send credible deterrent messages to potential adversaries. Providing American policy makers with credible deterrent threats allows the United States to deter conflict across the full spectrum of warfare. A nuclear superior United States can message deterrent threats that are highly believable to its adversaries, allowing America to increase diplomatic pressure with less risk of escalation to open warfare.

Nuclear weapons can achieve a valid military effect in a proportional way. The problem again lies in messaging. Any ballistic missile attack originating from the United States or an American submarine risks misinterpretation as the start of a massive nuclear attack. Messaging a limited attack requires the United States military to

<sup>37.</sup> I wish to thank Maj Roni Yadlin for her efforts in creating this figure.

<sup>38.</sup> Lieber and Press, Power Politics, 108.

<sup>39.</sup> Lieber and Press, 108.

<sup>40.</sup> Kroenig, American Nuclear Strategy, 3.

<sup>41.</sup> Kroenig, 15.

<sup>42.</sup> Kroenig, 79.

fly conventional and nuclear assets in exercise situations to demonstrate that America has a credible limited nuclear response option.

### Wargaming and Exercises

To move the concepts of tailored targeting and the counterforce continuum from theory to reality requires testing and validation before incorporation into strategy and doctrine. Wargaming and implementing the ideas of a counterforce continuum of tailored targeting options into military exercises is a logical starting place for this testing and validation. As the United States continues to develop a tailored deterrent strategy for potential adversaries, planners must identify potential target sets for tailored targeting solutions. As this article has argued, tailored deterrence requires tailored targeting solutions that exploit adversaries' vulnerabilities, limit the potential for escalation, and present opportunities to send clear deterrent messages.

Before these concepts are implemented into military contingency plans, they require vetting in wargaming scenarios. The United States must "think about the unthinkable" and simulate fighting wars that include conventional, nuclear, and nonkinetic weapons.<sup>43</sup> Wargaming scenarios with conventional and nuclear elements will compel strategists and planners to start working through the challenges of conventional nuclear integration. Such wargaming is also an excellent way to develop targets that work with the concept of tailored targeting. Identifying critical targets and effects allows the United States to develop a tailored deterrence message for potential adversaries.

After wargaming tailored targeting and the counterforce continuum, the concepts require testing in an exercise situation to work through some of the planning, communication, and execution issues when conventional and nuclear forces operate together. These live-fly exercises will provide valuable training for the Joint force and build the credibility of America's CNI capability. Real-world exercises also provide US policy makers with tangible results they can use to send credible deterrent messages.

# Real-World Operations

Beyond using war games and exercises, CNI tactics, techniques, and procedures, as well as tailored targeting solutions, can be integrated into real-world operations. One possibility that demonstrates capability is a bomber task force mission that includes conventional and nuclear bombers working together with allies to send a clear message of resolve. This is a logical extension of the already flexible and tailored messages of current bomber task force missions.

For example, a nuclear bomber or a dual-capable aircraft might rendezvous with a formation of forward-deployed conventional fighters and bombers to conduct a training mission in an area where a previously identified critical target in a tailored targeting solution exists. This type of bomber task force mission would create a highly visible and credible deterrent message while also demonstrating America's ability to project power.

<sup>43.</sup> Bracken, Second Nuclear Age, 81.

#### **Nuclear Posture**

There are several counterarguments to increasing the United States counterforce nuclear posture and messaging. The Interim National Security Strategic Guidance states the United States "will take steps to reduce the role of nuclear weapons in our national security strategy."44 While the interim guidance does not specify how the new administration plans to reduce the role of nuclear weapons, some policy makers have proposed further unilateral reductions to America's nuclear stockpile and oppose nuclear modernization efforts.<sup>45</sup> Further unilateral decreases in the US nuclear arsenal or a failure to modernize existing forces will force America into a countervalue targeting strategy.46

As this article has demonstrated, countervalue nuclear threats are not credible for the United States. Therefore, further reductions and modernization delays will not decrease America's dependence on nuclear weapons for national security but will decrease America's ability to respond to a national security crisis with a proportional response. A counterforce continuum of tailored targeting options, however, provides American politicians with options that leverage existing nuclear weapons to make credible deterrent threats.

Others argue any use of nuclear weapons will result in catastrophic damage and massive loss of life. Using this argument, short of retaliation for a nuclear strike on the American homeland, any use of nuclear weapons does not meet the principle of jus in bello, the internationally accepted norm of discrimination and proportionality in warfare. <sup>47</sup> This argument is inconsistent with the reality of the effects of nuclear weapons. Hyperbole about the effects of nuclear weapons does not deter their employment. The United States must have proportional response options to deter nuclear use at all levels of conflict.

#### Conclusion

The United States must have credible deterrent threats in the multipolar world of great power competition. Countervalue targeting strategies and deterrent threats are no longer credible for US deterrence. A nuclear force pressed into a countervalue targeting strategy due to stagnation or reductions undermines America's deterrent credibility. Counterforce targeting strategies require decoupling from the idea of a large first-strike option, and technologies such as precision-guided nuclear warheads must be viewed as enhancing deterrent options and not as destabilizing weapons.

<sup>44.</sup> Joseph R. Biden Jr., Interim National Security Strategic Guidance (Washington, DC: The White House, March 2021), 13, https://www.whitehouse.gov/.

<sup>45.</sup> William J. Perry, "How a US Defense Secretary Came to Support the Abolition of Nuclear Weapons," Bulletin of the Atomic Scientists, December 7, 2020, https://thebulletin.org/.

<sup>46.</sup> Mark Gallagher and Justin Sorice, "Considering Alternative Nuclear Targeting Strategies," Comparative Strategy 33, no. 5 (December 2014).

<sup>47.</sup> Michael Walzer, Just and Unjust Wars: A Moral Argument with Historical Illustrations (New York: Basic Books, 1977), 21.

A credible deterrent threat requires a military that can execute realistic conventional nuclear integration operations and give the president options to deter aggression at every level of conflict. Re-envisioning nuclear targeting strategies as a continuum of tailored targeting solutions along with executing realistic CNI training provides the United States with credible deterrent threats in the modern geopolitical landscape. The lessons learned from wargaming and exercising these concepts will allow planners to implement the idea of a counterforce continuum and tailored targeting into future contingency plans to provide senior leaders with credible and tailored deterrence options. Æ

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