

Challenging Minimum Deterrence

Articulating the Contemporary Relevance of Nuclear Weapons

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Since the end of the Cold War, the enduring relevance of nuclear weapons has been the subject of immense debate with policy analysts proposing several alternative nuclear postures meant to address the evolving geopolitical circumstances of the United States. These range from the extreme positions of complete nuclear abolition to a renewed interest in war-fighting roles for US nuclear weapons. The current need to initiate recapitalization programs for key elements of the US nuclear force gives this debate added meaning and urgency. One alternative currently under discussion is minimum deterrence. This article evaluates minimum deterrence as an alternative nuclear posture for the United States and introduces “dual deterrence” as a more suitable framework for understanding the contemporary relevance of US nuclear weapons.

Understanding Minimum Deterrence

In his classic work *Strategy in the Missile Age*, Bernard Brodie argues that nuclear weapons have changed traditional conceptions of war and that political and military leaders must adapt to these fundamental changes. For Brodie, one traditional concept that altered dramatically was deterrence. Prior to the advent of nuclear weapons, he contends that deterrence was a very “dynamic” concept that “acquired relevance and strength from its failures as well as its successes.” In the nuclear age, however, he argues that deterrence is effective only as a more static concept that unambiguously guarantees effective use of overwhelming force at any given moment. Consequently, deterrence is now underpinned by a potentially devastating “retaliatory instrument” that is constantly at the ready but perpetually unused. Brodie concludes that this strategic situation gives deterrence an almost “unreal” quality in the nuclear age with a fundamental problem of credibility.¹ For him, this issue of credibility is central to understanding and defining the concept of minimum deterrence.

Brodie expounds on this issue by asserting that minimum deterrence begins with an understanding of “basic deterrence.” From the perspective of the United States, basic deterrence is “deterrence of direct, strategic, nuclear attack upon targets within the home territories of the United States.”² For Brodie, basic deterrence does not have the same credibility problem that other uses of nuclear weapons may have because no one doubts that the United States, or any other state for that matter, would use all of the means at its disposal to respond to an overwhelming nuclear attack from another state. Thus, in the context of basic deterrence, the destructive potential of nuclear weapons can be *credibly* optimized in terms of national defense policy. The implications of this destructive potential bring about a fundamental change in the efficacy of deterrence. In the past, it was closely linked to the relative strength of opposing military forces. Brodie concludes that, in the nuclear age, “the potential deterrence value of an admittedly inferior force may be sharply greater than it has ever been before.”³ As the following discussion illustrates, this logic concerning the increased value of a small but effective force is central to the concept of minimum deterrence.

In essence, minimum deterrence simply argues that a small but secure nuclear retaliatory force can effectively threaten unacceptable damage to one's adversary and thus deter him from threatening the existence of the deterring state. According to this reasoning, a nuclear posture scaled and designed to “win the war” against a potential adversary's forces and economic infrastructure represents a fundamental misunderstanding of what nuclear weapons actually mean to interstate relations.⁴ Here, the arguments of modern advocates for minimum deterrence come into play. In a 2010 article advocating minimum deterrence, a group of US Air Force scholars and officers (James Wood Forsyth, Col B. Chance Saltzman, and Gary Shaub Jr.) adopt the view that nuclear weapons are fundamentally political in nature.⁵ They maintain that nuclear weapons are not suited to war fighting and are useful only as a guarantor of the basic security of a given state. However, they advocate a slightly different basis for minimum deterrence than the classic foundation laid by Brodie.

Although Brodie based minimum deterrence on the foundation of basic deterrence (termed “existential deterrence” by Forsyth, Saltzman, and Shaub), today's

advocates of minimum deterrence offer “proportional deterrence” as a theoretical bedrock for understanding minimum deterrence as a policy.⁶ Proportional deterrence asserts that deterrent forces must be scaled to inflict costs on an adversary that exceed the potential gains involved in either a large-scale nuclear attack or conventional invasion. Instead of simply threatening massive damage on a foe, proportional deterrence seeks to specifically communicate to adversaries that such destruction will quantitatively and qualitatively cancel any possible gains.⁷ This modern iteration of minimum deterrence shares a basic conceptual continuity with Brodie’s depiction in that it hinges on the willingness of the deterring state to hold the “aggressor’s population/industrial centers” at risk.⁸ Advocates of minimum deterrence describe this view as a “*countervalue*” approach that involves punishing one’s adversary versus a “*counterforce*” approach that focuses on targeting an adversary’s military in order to deny its wartime objectives.⁹ This commitment to a countervalue approach is one of the key facets of minimum deterrence that has traditionally made it unappealing to US policy makers. Such an aversion to countervalue targeting, however, has not always been a part of US policy.

At the beginning of the nuclear age, US war plans were largely countervalue in nature and called for the decimation of Soviet cities in response to a Soviet invasion of Western Europe. Initial plans made in 1946, for example, called for the destruction of “20 urban targets in the Soviet Union.”¹⁰ By 1949 the list had grown to include “70 urban and industrial centers.”¹¹ These targets were certainly chosen for their ability to support the Soviet capacity to wage war, but, from a deterrence standpoint, they were clearly countervalue. Throughout the 1950s, the explicit policy of “massive retaliation” largely embraced countervalue targeting as a central component of US deterrence logic and military planning.¹² By the early 1960s, however, the focus began to change as overall US policy progressed toward the Kennedy administration’s “flexible response.” Secretary of Defense Robert McNamara articulated this shift unambiguously in a 1962 speech to the North Atlantic Treaty Organization (NATO) in which he stated that “principal military objectives, in the event of a nuclear war stemming from a major attack on the Alliance, should be the destruction of the enemy’s military forces, not of his civilian population.”¹³ Policy has certainly evolved immensely since the 1960s, but this conceptual commitment to a counterforce approach endures to this day.

The “Report on Nuclear Employment Strategy of the United States,” issued in 2013 by the Department of Defense in response to the 2010 *Nuclear Posture Review Report*, clearly illustrates this point. It observes that the “new guidance requires the United States to maintain significant counterforce capabilities against potential adversaries,” concluding unequivocally that US policy “does not rely on a ‘countervalue’ or ‘minimum deterrence’ strategy.” Instead, the report insists that the United States must be able to “achieve U.S. and Allied objectives if deterrence fails.” It clarifies how America plans to achieve these objectives, noting unambiguously that “the United States will not intentionally target civilian populations or civilian objects.”¹⁴ Thus, minimum deterrence, as defined by its modern proponents, would represent a significant conceptual change from the historic and contemporary nuclear postures of the United States.

Why Minimum Deterrence?

Proponents of minimum deterrence, however, argue not only that such a change is warranted by current circumstances but also that it ultimately reflects the true nature of nuclear weapons in interstate relations, whether US policy makers recognize this fact or not. In this view, the United States does not change the fundamental role of nuclear weapons in international relations by having a large and diverse arsenal. Instead, it simply overspends on nuclear weapons, failing to realize that the true significance of a nuclear arsenal lies in the narrow political utility outlined by the tenets of minimum deterrence.

To illustrate this point, supporters of minimum deterrence offer several examples. First, they cite the French nuclear arsenal as evidence that France can effectively secure its own defense by sizing its arsenal so that it can inflict proportional damage on a foe. Second, they discuss the relationship of China and the United States, observing that China has “about 200 operationally deployed” nuclear weapons. According to advocates of minimum deterrence, this arsenal represents the results of a “minimum deterrent strategy” designed to be capable of “destroy[ing] more than the value of Taiwan to the United States.” Given that Taiwan is “the most likely stakes [*sic*] in any conflict between the two countries,” they conclude that China’s minimum deterrence strategy effectively holds the much larger US arsenal at bay. Third, proponents offer the historical argument that “both sides were, in fact, deterred fairly early on during the Cold War” and that the massive buildup of nuclear arms misunderstood then, as it does now, the fundamental role of nuclear weapons in international relations.¹⁵

From all of the foregoing, champions of minimum deterrence conclude that nuclear weapons’ ability to inflict massive damage on a given state causes “statesmen to act with restraint.”¹⁶ Inducing this restraint, according to minimum deterrence, represents the true effect of these weapons on interstate relations and should be the goal of a nuclear posture. According to advocates of minimum deterrence, one can achieve the latter with a relatively small arsenal since, ultimately, the destructive potential of nuclear weapons is relevant, not a state’s espousing a “countervalue or counterforce targeting” philosophy during times of peace.¹⁷

A “Minimum” Force Structure

Today the US strategic arsenal is capped by the New Strategic Arms Reduction Treaty (START) that entered into force in 2011. It limits the United States to “1,550 accountable strategic warheads, 700 deployed strategic delivery vehicles, and a combined limit of 800 deployed and non-deployed strategic launchers.” Additionally, the United States maintains a stockpile of “non-deployed nuclear weapons” as well as a small arsenal of “non-strategic nuclear weapons” deployed in Europe.¹⁸ Forsyth, Saltzman, and Shaub contend that this arsenal could be reduced to a mere “311 nuclear weapons” yet still “address military utility concerns” and sustain “a stable deterrence.”¹⁹ This trimmed-down arsenal would consist of 100 intercontinental ballistic missiles (ICBM) equipped with a single warhead each and 192 submarine-launched ballistic missiles (SLBM) equipped with one warhead each and loaded aboard a fleet

of eight deployed *Ohio*-class submarines. The remainder of the weapons would be available for use on B-2 bombers.²⁰ This hypothetical arsenal represents a greater than 90 percent reduction of the current one and would firmly commit the United States to the logic of minimum deterrence.²¹ According to minimum-deterrence advocates, it would also be diverse and reliable enough to ensure that the “vital ingredients of nuclear deterrence” such as “readiness, survivability, and flexibility” remain resident within the nuclear posture of the United States.²²

In light of their commitment to these traditional aspects of nuclear deterrence, it seems that modern proponents of minimum deterrence do not propose any drastic changes to the alert posture of US nuclear forces, even as they seek to alter its structure dramatically. Additionally, their recommendation of 311 warheads is not intended to represent the only arsenal that could operationalize the concept of minimum deterrence. Similar plans with slightly different numbers could also meet their intent. Nonetheless, supporters of minimum deterrence assert that anything less than drastic reductions represents a fundamental misunderstanding of the true impact of nuclear weapons on interstate affairs.²³

Challenging Minimum Deterrence

Having described minimum deterrence as a concept and explored its potential implications as a posture, this article devotes the next two sections to evaluating whether or not it can truly account for the specific geopolitical context of the United States, beginning with a short account of why America did not implement minimum deterrence during the Cold War. In the late 1950s, Brodie saw four immediate ways in which minimum deterrence failed to account for the Cold War geopolitical context of the United States. First, he asserts that “a large force” may be required to ensure “even a modest retaliation.” Second, he argues that deterrence forces must be formidable enough to account for the “generally high degree of motivation which the enemy feels for our destruction.” Third, Brodie rejects the fundamental claim of minimum deterrence that nuclear weapons are relevant only as political weapons by stating that “if deterrence fails we shall want enough forces to fight a total war effectively.” Finally, he insists that the nuclear arsenal of the United States be built to keep open the option of a first strike. That is, it must be sized to make such an opening attack “overwhelming to the enemy’s retaliatory force.”²⁴

Today, Brodie’s rationale for doubting minimum deterrence maintains varying levels of contemporary relevance. His assertion that a large arsenal is required to guarantee a retaliatory capability is mitigated by the resiliency of today’s nuclear triad, something that Brodie had only begun to foresee in the late 1950s.²⁵ Modern advocates of minimum deterrence understand this point and consequently highlight the survivability and diversity of even small nuclear forces that consist of long-endurance nuclear submarines, mobile land-based missile systems (although the United States does not currently deploy these), and versatile nuclear-capable bombers. Brodie’s second concern is a point of much contemporary debate. During the Cold War, the Soviet threat made it easy to perceive of an adversary willing to go to great

lengths to defeat the United States. Today, however, US policy reflects the broad consensus that “the threat of global nuclear war has become remote.”²⁶ Therefore, contemporary arguments about an adversary’s motivations in the context of nuclear war are largely grounded in the compelling but less immediate notion of continued geopolitical uncertainty (a point strengthened over the last two years by Russian misbehavior in Europe). This broad argument, however, is more effective in asserting the need to preserve a nuclear capability at all versus favoring a specific type of nuclear posture.

Next, for two reasons, Brodie’s concern over the need to preserve a potent first-strike capability as a viable policy option is much less compelling today than it was in the early days of the Cold War. First, the United States now enjoys a conventional superiority that it did not have during the Cold War and would benefit in most foreseeable scenarios from keeping a conflict conventional. Second, as Brodie later notes, strategic stability with another major nuclear power rests in large part on the ability of two potential adversaries to field a secure second-strike capability.²⁷ One would be hard pressed today to promote an offensive capability aimed at upsetting that stability.²⁸ Brodie’s concern over what to do if deterrence fails, though, remains immensely relevant and leads us to consider what a similar list of concerns might look like from the standpoint of today’s geopolitical context.

The current US strategic situation presents three specific challenges to the perspective of minimum deterrence. The first is embodied in Brodie’s question about what to do if deterrence fails. He asserts, in accordance with the logic of minimum deterrence, that holding an enemy’s cities at risk in times of peace initially seems to be the obvious way to maximize “deterrent effect.” However, he observes that “the rub comes from the fact that what looks like the most rational *deterrence* policy involves commitment to a strategy of response which, if we ever had to execute it, might then look very foolish. The strategy of deterrence ought always to envisage the possibility of deterrence failing” (emphasis in original).²⁹ *In short, a fundamental problem with minimum deterrence is that a purely countervalue retaliatory attack gains the defender no advantage, defensive or offensive, during an actual exchange.* Specifically, because minimum deterrence does not give the defender a counterforce (denial) option for destroying an enemy’s capacity to fight, it thus potentially leaves the original belligerent in a position to continue seeking his war aims. A countervalue (punishment) strike could certainly kill large numbers of civilians but would not necessarily decimate the near-term military capacity of a given foe and inevitably lead to the termination of a particular war.

Lawrence Freedman addresses this logic in his book *Deterrence*, writing that “in principle, denial is a more reliable strategy than punishment because, if the threats have to be implemented, it offers control rather than continuing coercion. With punishment, the target is left to decide how much more to take. With denial the choice is removed.”³⁰ For Freedman, contextual factors ultimately could make a countervalue strategy more appealing to a certain actor, but from a conceptual standpoint, denial is clearly the preferable option. Additionally, one should emphasize that minimum deterrence assumes a countervalue response even if a nation’s own cities are spared during a large-scale counterforce attack. That is, a retaliatory

response could actually provoke a second strike on previously untouched cities within one's own territory.³¹

For advocates of minimum deterrence, however, the need to maintain a counterforce capability against another great power—Russia, specifically—to address this conceptual shortcoming is less than compelling. Minimum-deterrence advocates state explicitly that holding Russian cities at risk is enough to deter a larger Russian arsenal.³² This thinking seems to represent an extension of Kenneth Waltz's realist take on deterrence relationships. He writes that “to ask why a country should carry out its deterrent threat if deterrence fails is to ask the wrong question.” Instead, Waltz believes that any threat of a strong response is enough to deter a would-be attacker in the nuclear era because “uncertainty of response, not certainty, is required for deterrence,” given the fact that “if retaliation occurs, one risks losing so much.”³³

Ultimately, Waltz's point is a compelling argument in favor of the logic of minimum deterrence on this matter since it seems to address the underlying issue of credibility. However, his contention cannot overcome the fundamental fact that minimum deterrence would commit the United States to taking militarily useless and potentially counterproductive actions with enormous moral repercussions should deterrence fail.³⁴ In his recently published book on the history of nuclear weapons, Eric Schlosser sums up this fundamental shortcoming well: “The problems with a strategy of minimum deterrence have changed little in the past fifty years. It cannot defend the United States against an impending attack. It can only kill millions of enemy civilians after the United States has already been attacked.”³⁵ Clearly, this is not an acceptable basis for US policy, given that the United States is capable of fielding a viable counterforce deterrent. Although one should acknowledge that no large-scale targeting scheme could ever be purely counterforce or purely countervalue, the distinction between the two extremes is nonetheless more than just academic. It is intensely practical because the focus of one's targeting scheme would have immense consequences in terms of civilian casualties and overall levels of civil destruction should a large-scale nuclear exchange ever occur.

The second challenge to a posture of minimum deterrence is its failure to account for the prospect of the limited use of nuclear weapons in an otherwise conventional war. As noted above, the United States enjoys conventional superiority today in most foreseeable scenarios. This superiority raises the potential value of nuclear weapons to US adversaries who may see them as a way of counterbalancing US strengths. Keir Lieber and Daryl Press assert that “if U.S. military forces begin to prevail on the battlefield, US adversaries may use nuclear threats to compel a cease-fire or deny the United States access to allied military bases.” They add that “such threats might succeed in pressuring the United States to settle the conflict short of a decisive victory.” They observe that this adversary strategy should not be regarded as “far-fetched” since “it was NATO's policy during much of the Cold War” when alliance forces were vastly outnumbered by those of the Warsaw Pact. Instead, they conclude that “a central strategic puzzle of modern war is that the tactics best suited to dominating the conventional battlefield are the same ones most likely to trigger nuclear escalation.”³⁶ This role of nuclear weapons is not adequately accounted for by minimum deterrence because it fails as a policy to fully

envision the relevance of nuclear weapons to relatively weak states that may believe a limited war with the United States is in their interests.

Lieber and Press see the solution to this potential scenario in a diverse nuclear arsenal with three specific attributes. The first is the maintenance of “some high-yield nuclear weapons.” In this regard, they agree with advocates of minimum deterrence that these weapons are still important for existential threats, and they further agree that the number of these weapons could be reduced beyond current levels. The second attribute is “conventional counterforce weapons.”³⁷ This recommendation also coincides with the arguments of today’s minimum-deterrence advocates in that it emphasizes the ability of modern precision weaponry to counter some of the nuclear capabilities of less sophisticated adversaries.³⁸ The final attribute is an arsenal of low-yield nuclear weapons with improved accuracy.³⁹ At this point, Lieber and Press diverge sharply from the minimum-deterrence perspective, asserting that such weapons are needed to deter the limited use of nuclear weapons and concluding that “a credible deterrent must give U.S. leaders acceptable options in the event an enemy were to use nuclear weapons. An arsenal that can only destroy cities fails that test.”⁴⁰ One should note that during the second Bush administration, this logic underpinned research into “precision, low-yield weapons that would inflict a much lower level of civilian casualties” and thus act as a more effective deterrent to nuclear escalation.⁴¹

Finally, it is important to understand that Lieber and Press’s concerns about the role of limited nuclear strikes in otherwise conventional wars are not merely conceptual. Instead, they are readily apparent in open-source accounts of recent Russian strategic planning. Russian scholar Yury Fedorov argues that “nuclear weapons are seen as the only means to compensate for the growing gap in nonnuclear forces between Russia and technologically advanced countries, especially the United States.” He points out that this concern has generated a theory of “nuclear de-escalation.” This theory posits that the “first limited use of nuclear weapons would not automatically escalate to a large-scale nuclear war” but that it might “convince” an adversary state “that using conventional military force (precise air and missile strikes) against Russia would be irrational.” Fedorov notes that such “‘nuclear deescalation’ scenarios have been part of large-scale command and staff exercises in Russia since 1999.”⁴² This trend in Russia and elsewhere is something that minimum deterrence as a nuclear posture is ill prepared to confront. For Lieber and Press, this shortcoming of minimum deterrence is once again founded in a lack of credibility because “destroying cities would be a vastly disproportionate response if an enemy used nuclear weapons against a purely military target.”⁴³

The third challenge posed to minimum deterrence by the contemporary geopolitical context of the United States is extended deterrence. The 2010 *Nuclear Posture Review Report* describes extended deterrence as the provision of nuclear deterrence to US allies in order to deter regional aggression and keep them from feeling the need to proliferate with their own nuclear arsenals. This effort entails deploying limited numbers of nonstrategic nuclear weapons to NATO countries in Europe and maintaining the ability to forward-deploy nonstrategic and strategic nuclear weapons to the Asia-Pacific region in response to contingencies.⁴⁴ All of this is enabled by a diverse set of weapons and delivery systems within the current stockpile

that, in the near future, will include modernized B-61 nuclear bombs carried by stealthy F-35s and B-2s.⁴⁵

Proponents of minimum deterrence, though, believe that extended deterrence is not in the interests of the United States. They urge US policy makers to step back from our alliance commitments and consider whether or not alliances in general are “useful.”⁴⁶ This sweeping recommendation carries a litany of policy implications beyond the scope of this work.⁴⁷ However, on the limited topic of nuclear deterrence, the most immediate impact of removing the US nuclear umbrella would be the encouragement of proliferation by states friendly to the United States that would be left without a nuclear deterrent. Drawing again on the arguments of Waltz, minimum-deterrence advocates seem comfortable with this reality because, in their view, such a situation would force US allies to shoulder the burden of their own deterrence forces and would most likely generate regional stability similar to that experienced today between India and Pakistan.⁴⁸ To those who might lament the loss of stabilizing US influence and even control in these situations, Waltz offers two points relevant here. First, he states that nuclear proliferation does “not make nuclear war likely.” Second, he declares that if weaker states do eventually use nuclear weapons in the course of war, “the world will not end.” Instead, Waltz contends that “the use of nuclear weapons by lesser powers would hardly trigger their use elsewhere.”⁴⁹

Advocates of minimum deterrence make some important points about the potentially stabilizing effect of nuclear weapons in regional conflicts, but they ultimately fail to make a compelling argument as to why the United States should abandon the long-standing alliances that have served global stability and nonproliferation so well in the post-World War II era. Although it is true that further proliferation among US allies *may* fit into stable regional-security architectures, the provision by the United States of extended deterrence to its allies allows America to exercise important influence throughout the world and ultimately makes regional nuclear wars less likely. In doing so, the United States ensures that the weapons used to deter nuclear aggression against its allies utilize the strictest standards of nuclear surety. There is no guarantee that potential proliferators would also implement such stringent safeguards on their own arsenals.

Evaluating Minimum Deterrence

In sum, a posture of minimum deterrence allows some states to utilize nuclear weapons effectively in their most fundamental capacity. As long as a state can credibly threaten a massive countervalue strike in extreme scenarios, minimum deterrence can deter a large-scale nuclear attack and provide for a deterrent against other existential threats, including conventional invasion. If a particular state has no other strategic use for nuclear weapons, given its specific geopolitical context and overriding values, minimum deterrence may be both an effective and efficient nuclear posture. States such as China and India enjoy such a context and assume such a stance.⁵⁰ Others, however, see nuclear weapons as a way to balance out the conventional superiority of potential adversaries and thus envision a more expansive role

for them in their national policies. Broadly speaking, Russia and Pakistan are such states.⁵¹ The geopolitical context of the United States, though, is unique in three important ways.

First, US policy is committed to maintaining counterforce retaliatory capabilities that effectively target a foe's military prowess should nuclear deterrence fail. This position differs significantly from what is often described as a "nuclear war-fighting strategy" and simply means that the United States has expressed a continuing aversion to targeting civilian population centers as a means of deterrence. This policy enhances credibility, provides national leaders with retaliatory options capable of denying an adversary's military objectives, and acknowledges the well-established US desire to minimize civilian casualties even in the most extreme scenarios. Second, the United States enjoys conventional superiority in most foreseeable contingencies; nevertheless, it has the need to deter the limited use of nuclear weapons by states that may seek to level the battlefield through a relatively discreet use of nuclear weapons. Finally, the United States has also committed to providing extended deterrence to its allies in a manner that assures security partners and discourages further proliferation. These contextual factors make a strict posture of minimum deterrence simply inadequate to the strategic needs of the United States.

Dual Deterrence

Instead, the geopolitical context of the United States requires a two-part nuclear posture that effectively addresses its strategic concerns and, in the process, provides an effective guide for the recapitalization of the US nuclear enterprise. This posture is *dual deterrence*, the first element of which is *existential deterrence*. The latter differs from the existential deterrence referenced by advocates of minimum deterrence in that it does not assume a countervalue targeting scheme based on a small number of survivable weapons.⁵² Instead, existential deterrence simply denotes a force exclusively postured to deter threats to the sovereignty and survival of the United States through the credible threat of a large-scale counterforce retaliatory capability. This force would be reserved for the most extreme scenarios and would underwrite the independence and basic security of the United States. The existential deterrence force would consist of the ICBM and SLBM legs of the current triad and would require few, if any, changes to current force structure, alert postures, or command and control practices. However, some warhead and missile cuts *may* be feasible as military planners continue to assess the capabilities necessary to maintain a credible counterforce targeting scheme in an era when parity with another great power is no longer the driving factor in force levels. These potential cuts could yield valuable savings as both the ICBM and SLBM fleets face recapitalization expenditures over the next couple of decades.

This emphasis on the ICBM and SLBM legs as a constant existential deterrent does not mean, however, that the bomber leg of the triad would be irrelevant for ensuring US security and survival. Nuclear-capable bombers continue to play a role in deterring a large-scale nuclear exchange and can be postured appropriately in times of crisis. They also supply a critical technological hedge for the other legs of

the triad in the event that unforeseen vulnerabilities emerge in either capability. However, this role has evolved dramatically since the beginning of the nuclear era when bombers stood constant nuclear alert to deter the Soviet threat. Because bombers have not maintained continuous airborne alert since 1968 or continuous ground alert since 1991, it is time that we update our understanding of what this indispensable leg of the triad fundamentally offers the United States beyond its possible role in a doomsday scenario.⁵³

This discussion leads us to the second element of dual deterrence: *escalation deterrence*, the purpose of which is simply to keep conventional wars conventional. It does so by deterring the limited use of nuclear weapons in otherwise conventional wars and by providing extended deterrence to critical US allies. It would be constituted in the near term by the Air Force's dual-capable bombers and fighters and would be maintained in the future by ensuring that the long-range strike bomber and the F-35 become nuclear capable. From a weapons perspective, this force would be enabled by the current weapons stockpile in the near term and sustained in the future by the modernization of B-61 gravity bombs and by procurement of the long-range standoff missile. Escalation deterrence should also keep the door open to further weapons development if current weapons are not deemed credible deterrents to any emerging capabilities or employment doctrines that potential adversaries may pursue.⁵⁴

The strategic value of an escalation-deterrence force would be immense and would enhance the flexibility traditionally offered by the air-breathing leg of the triad. Not only would it effectively counter de-escalation theory by providing the scalable options advocated by Lieber and Press and reassure US allies by keeping the US nuclear umbrella credible, but also it would ensure that the United States maintains a flexible force capable of adaptive strategic messaging. In fact, even the term *escalation deterrence* would prove valuable because it would reinforce the significance of dual-capable aircraft's participation in key regional exercises as well as the purpose of bomber "presence" deployments around the world. The participation of B-2 and B-52 bombers in exercises over South Korea in 2013 illustrates this concept well.⁵⁵ In this sense, an escalation-deterrence force would supply the tools necessary for context-specific messaging or "tailored deterrence campaigns" during times of tension short of war.⁵⁶

The organizational value of an escalation-deterrence force would also be immense for the US Air Force. It would provide focus for the dual-capable bomber and fighter fleets, enabling a fresh look at everything from nuclear training scenarios to critical command and control practices, all the while maintaining the sacred tenets of nuclear surety.

Conclusion

Ultimately, dual deterrence does not envision any revolutionary new uses for nuclear weapons, nor does it advocate sweeping changes to US force structures. It simply categorizes the contributions of the three legs of the triad in a manner that articulates their enduring relevance to potential adversaries, critical allies, and even the

US nuclear enterprise itself. It is a balanced posture that avoids the extremes of nuclear abolition and minimum deterrence on the one hand and a robust war-fighting role on the other. It broadly clarifies the potential roles of nuclear weapons yet does not eliminate useful strategic ambiguity or prevent the legs of the triad from reinforcing each other as a hedge for both technological and geopolitical uncertainty. Its purpose is simply to articulate the enduring value of nuclear weapons to the United States while minimizing the value of nuclear threats to potential adversaries across the spectrum of escalation. By doing so, dual deterrence offers a basic framework for approaching the much-needed recapitalization of the US nuclear enterprise. ☛

Notes

1. Bernard Brodie, *Strategy in the Missile Age* (Princeton, NJ: Princeton University Press, 1959), 272, 273.
2. *Ibid.*, 273.
3. *Ibid.*, 274–75.
4. *Ibid.*, 276.
5. James Wood Forsyth, Col B. Chance Saltzman, and Gary Shaub Jr., “Remembrance of Things Past: The Enduring Value of Nuclear Weapons,” *Strategic Studies Quarterly* 4, no. 1 (Spring 2010): 84.
6. *Ibid.*, 78–79.
7. *Ibid.*
8. *Ibid.*, 79.
9. *Ibid.*, 76.
10. Phillip S. Meilinger, *Bomber: The Formation and Early Years of Strategic Air Command* (Maxwell AFB, AL: Air University Press, Air Force Research Institute, 2012), 104.
11. *Ibid.*, 108.
12. Lawrence Freedman, *The Evolution of Nuclear Strategy*, 3rd ed. (New York: Palgrave Macmillan, 2003), 222.
13. *Ibid.*, 223.
14. Department of Defense, “Report on Nuclear Employment Strategy of the United States Specified in Section 491 of 10 U.S.C.” (Washington, DC: Office of the Secretary of Defense, June 2013), 4, 2, 5.
15. Forsyth, Saltzman, and Shaub, “Remembrance of Things Past,” 78–79, 82.
16. *Ibid.*, 80. For further elaboration of this argument, see James Forsyth’s “The Common Sense of Small Nuclear Arsenals,” *Strategic Studies Quarterly* 6, no. 2 (Summer 2012): 93–111.
17. Forsyth, Saltzman, and Shaub, “Remembrance of Things Past,” 82; and James W. Forsyth, Col B. Chance Saltzman, and Gary Shaub Jr., “Minimum Deterrence and Its Critics,” *Strategic Studies Quarterly* 4, no. 4 (Winter 2010): 5.
18. Department of Defense, *Nuclear Posture Review Report* (Washington, DC: Office of the Secretary of Defense, April 2010), ix, 27.
19. Forsyth, Saltzman, and Shaub, “Remembrance of Things Past,” 82.
20. Forsyth, Saltzman, and Shaub, “Minimum Deterrence,” 5–6.
21. Forsyth, Saltzman, and Shaub, “Remembrance of Things Past,” 82.
22. Forsyth, Saltzman, and Shaub, “Minimum Deterrence,” 5.
23. *Ibid.*, 10.
24. Brodie, *Strategy in the Missile Age*, 277.
25. *Ibid.*, 286.
26. Department of Defense, “Report on Nuclear Employment Strategy,” 2.
27. Brodie, *Strategy in the Missile Age*, 303.
28. For an in-depth discussion on how the concept of stability through mutual vulnerability evolved during the Cold War and continues to influence nuclear policy today, see Keith B. Payne’s *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century* (Fairfax, VA: National Institute Press, 2008).
29. Brodie, *Strategy in the Missile Age*, 291, 292.

30. Lawrence Freedman, *Deterrence* (Cambridge, UK: Polity Press, 2004), 39.
31. Brodie, *Strategy in the Missile Age*, 292.
32. Forsyth, Saltzman, and Shaub, "Remembrance of Things Past," 83–84.
33. Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, 2nd ed. (New York: W. W. Norton & Company, 2003), 24.
34. Although the moral shortcomings of a countervalue strategy are not the focus of this article, one cannot discuss this aspect of minimum deterrence without acknowledging the moral dimension involved in committing to a countervalue retaliatory targeting scheme.
35. Eric Schlosser, *Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety* (New York: Penguin Press, 2013), 484.
36. Keir A. Lieber and Daryl G. Press, "The Nukes We Need: Preserving the American Deterrent," *Foreign Affairs* 88, no. 6 (November/December 2009): 42, 43.
37. *Ibid.*, 47, 48.
38. Forsyth, Saltzman, and Shaub, "Remembrance of Things Past," 83.
39. Lieber and Press, "Nukes We Need," 48.
40. *Ibid.*, 44.
41. Roger Speed and Michael May, "Assessing the United States' Nuclear Posture," in *U.S. Nuclear Weapons Policy: Confronting Today's Threats*, ed. George Bunn and Christopher F. Chyba (Washington, DC: Brookings Institution Press, 2006), 265.
42. Yuri Fedorov, "Russia: 'New' Inconsistent Nuclear Thinking and Policy," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford, CA: Stanford University Press, 2008), 135, 148.
43. Lieber and Press, "Nukes We Need," 44.
44. Department of Defense, *Nuclear Posture Review Report*, 31–32.
45. *Ibid.*, 34–35.
46. Forsyth, Saltzman, and Shaub, "Minimum Deterrence," 8.
47. These broad policy implications are best understood by reading James Forsyth's "The Past as Prologue: Realist Thought and the Future of American Security Policy," *Strategic Studies Quarterly* 5, no. 3 (Fall 2011): 102–20. In this work, Dr. Forsyth effectively lays out a broad vision for an American foreign policy that includes minimum deterrence within an overall realist framework.
48. Forsyth, Saltzman, and Shaub, "Remembrance of Things Past," 80–81.
49. Sagan and Waltz, *Spread of Nuclear Weapons*, 17.
50. National Security Advisory Board on Indian Nuclear Doctrine, "Draft Report of National Security Advisory Board on Indian Nuclear Doctrine" (New Delhi: Government of India Press, 17 August 1999), 2.
51. Charles E. Costanzo, "South Asia: Danger Ahead?," *Strategic Studies Quarterly* 5, no. 4 (Winter 2011): 101.
52. Forsyth, Saltzman, and Shaub, "Remembrance of Things Past," 78.
53. Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton, NJ: Princeton University Press, 1993), 195; and Schlosser, *Command and Control*, 458.
54. One of the advantages of having an "escalation deterrence" force is that it would provide strategic context for assessing future weapons programs similar to the Bush-era Robust Nuclear Earth Penetrator program.
55. James A. Blackwell Jr. and Charles E. Costanzo, "Busting Myths about Nuclear Deterrence," *Strategic Studies Quarterly* 9, no. 1 (Spring 2015): 18.
56. Gen Kevin Chilton and Greg Weaver, "Waging Deterrence in the Twenty-First Century," *Strategic Studies Quarterly* 3, no. 1 (Spring 2009): 34.



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