

United States House of Representatives
House Armed Services Committee
Subcommittee on Strategic Forces

March 19, 2013

Testimony Prepared By:

Dr. Keith B. Payne
Professor and Head, Graduate Department of Defense and Strategic Studies
Missouri State University
Former Commissioner, Congressional Commission on the Strategic Posture of the United States

Testimony Prepared By

Dr. Keith B. Payne

Professor and Head, Graduate Department of Defense and Strategic Studies

Missouri State University

Former Commissioner, Congressional Commission on the Strategic Posture of the United States

For the past four decades there have been periodic proposals within the US for deep reductions in the US nuclear arsenal. These proposals almost always promote an approach to deterrence and US force sizing that has come to be known over the years as Minimum Deterrence.

The basic Minimum Deterrence argument is that nuclear weapons are so lethal that a small number is adequate for deterrence, and will be so in the future. Consequently, the fundamental Minimum Deterrence claim is that we can make deep nuclear reductions without jeopardizing deterrence.

The number of deployed nuclear weapons typically recommended in Minimum Deterrence proposals ranges from 100 to 1000. The Global Nuclear Zero Commission's report, for example, recommends 450 deployed weapons now, and fewer in the future.¹

Minimum Deterrence proposals typically claim that deep reductions are a requirement of the 1968 Nonproliferation Treaty (NPT), will reduce nuclear dangers, advance US arms control and nonproliferation goals, and save billions of dollars—all without jeopardizing deterrence.

These Minimum Deterrence claims typically are predicated on the following series of nine interrelated propositions:

1. Russia and China are not serious security threats; nuclear deterrence considerations pertinent to a peer nuclear opponent no longer are salient in US security planning.
2. Nuclear weapons are irrelevant to today's most pressing security threat—weapons of mass destruction (WMD) terrorism—therefore, few nuclear weapons are needed for deterrence.
3. US conventional forces can substitute in many cases for nuclear forces to meet pertinent US deterrence goals.
4. Deterrence will function reliably and predictably at low US nuclear force numbers, now and in the future.
5. Deterrence considerations alone determine the size and composition of the nuclear force.

¹ James Cartwright, et al., *Global Zero U.S. Nuclear Policy Commission Report: Modernizing U.S. Nuclear Strategy, Force Structure and Posture* (May 2012), pp. 6, 17.

6. Ballistic missile submarines (SSBN) will remain invulnerable for 30 to 50 years. So, a small SSBN fleet can provide most or all of the nuclear capability needed for US deterrence needs, now and in the future.
7. The number of nuclear weapons and the risk of accidents and crises are directly correlated (more nuclear weapons means increased risk, while a decrease in their number reduces the risk).
8. US nuclear force reductions are essential to strengthen nonproliferation efforts; the NPT requires US movement toward nuclear disarmament.
9. A small number of nuclear weapons is adequate for deterrence, thus US defense spending can be reduced considerably by reducing nuclear forces.

When these core Minimum Deterrence propositions are examined against available evidence, it is apparent that they are demonstrably false, questionable-to-highly dubious, or self-contradictory. These flaws make recommendations derived from Minimum Deterrence equally dubious.

I can give a few examples that illustrate how the elements of Minimum Deterrence are false, dubious or self-contradictory.

Examples of claims that are false:

First, the claim that the NPT requires that the United States now move toward nuclear disarmament places the force of binding treaty obligation behind deep nuclear reductions. Yet, this claim is false: the NPT contains no such obligation. In fact, when Spurgeon Keeny of the NSC explained NPT provisions to Henry Kissinger in 1969, he stated that the reference to nuclear disarmament was “essentially hortatory.”²

Next, the Minimum Deterrence claim that nuclear deterrence, as a rule, is irrelevant to countering terrorism also is false. We know that terrorists can be deterred in some circumstances, and there is no reason to dismiss the potential for US nuclear capabilities to contribute by helping to deter their state sponsors.

Third, Minimum Deterrence also promises substantial savings via nuclear reductions.³ This claim too is demonstrably false because there are not substantial savings in reduced force numbers. As Dr. Don Cook of the National Nuclear Security Administration said in recent testimony, “There are not substantial additional costs in going small, but there are not substantial savings either.”⁴ And, Minimum Deterrence recommendations that the United States substitute

² Spurgeon Keeny, “Provisions of the NPT and Associated Problems,” memorandum to Henry Kissinger, January 24, 1969, [declassified], p. 5, available at <http://2001-2009.state.gov/r/pa/ho/frus/nixon/e2/83203.htm>.

³ See for example, Kingston Reif, “Nuclear Myths (and Realities),” *Bulletin of the Atomic Scientists*, January 15, 2013, at <http://www.thebulletin.org/node/9547>.

⁴ Testimony before the House Appropriates Committee, Subcommittee on Energy and Water, February 14, 2013.

conventional threats for nuclear would likely lead to a net increase in US defense spending. For example, one advanced conventional strategic capability recommended in the Global Zero report alone might cost \$5-\$20 billion to reach initial operational capability,⁵ and many additional conventional force improvements would be necessary.

These three key Minimum Deterrence propositions are false. There is ample evidence that each of the six remaining propositions is questionable at best.

For example, it is impossible to predict credibly that US relations with Russia and China, now and in the future, will be benign with regard to nuclear deterrence. That prediction is inconsistent with considerable current evidence that points to worsening relations with each. Regardless of how we would like to view Russia and China, their open-source discussions of threats and strategy point both to the United States as enemy number one and to the great relevance they attribute to their nuclear weapons.⁶

In addition, it is impossible to claim with any level of credibility that deterrence will work reliably at low force levels, now or in the future.⁷ The workings of deterrence simply are not predictable with such confidence.

Similarly, no one can claim credibly that US conventional threats can substitute for nuclear threats for deterrence. The increasing lethality of conventional forces may mean much or nothing for deterrence purposes, depending on many other key factors.

Likewise, the prediction of SSBN invulnerability for half a century more may prove prescient, but the many possibilities for rapid technological advancement and surprise should discipline any such promises.⁸

Finally, promises that US nuclear reductions will strengthen nonproliferation and reduce nuclear accidents and theft are all contrary to available historical evidence. There is no such correlation

⁵ National Research Council, Committee on Conventional Prompt Global Strike Capability, *U.S. Conventional Prompt Global Strike: Issues for 2008 and Beyond* (Washington, DC: National Academies Press, 2008), p. 40, available at, <http://www.nap.edu/catalog/12061.html>.

⁶ See for example, “The Nuclear Forces and Doctrine of the Russian Federation and the People’s Republic of China,” October 14, 2011, Testimony Prepared By: Dr. Mark B. Schneider, available at, http://armedservices.house.gov/index.cfm/hearings-display?ContentRecord_id=798a4a17-2a63-45b7-ae79-4629c32dfdd7&Statement_id=c9fe3c83-cd34-421c-b98c-ac29bdca094b&ContentType_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group_id=41030bc2-0d05-4138-841f-90b0fbaa0f88&MonthDisplay=10&YearDisplay=2011.

⁷ Even now, for example, Russian experts say that Russian defenses in the future would reduce Russian damage expectancy to 10% if the US follows Minimum Deterrence recommendations. No one knows if such a threat will prove adequate to deter in the future. See, Sergey Rogov, Viktor Yesin, Pavel Zolotarev, Valentin Kuznetsov, “Russia: Experts on Why US, Russia Are Unable to Agree on Missile Defense,” *Nezavisimoye Voyennoye Obozreniye*, Online, September 22, 2012, OSC Translated Text.

⁸ For an examination of possible surprises, see Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, *Report of the Defense Science Board 2008 Summer Study on Capability Surprise*, Vol. 1: Main Report, September 2009.

to date between the number of nuclear weapons and accidents, and further US nuclear reductions very likely will increase some allied interest in independent nuclear capabilities—defeating US nonproliferation goals. Some key allied voices already are expressing such concerns openly. In South Korea, for example, a large majority of the population now favors an independent South Korean nuclear capability.⁹

Key Minimum Deterrence claims that are self-contradictory:

Minimum Deterrence claims that a few hundred nuclear weapons are so lethal that they pose a deterrence threat of “catastrophic” dimensions. If true, it cannot also be true that reducing an opponent’s deployed weapons from say 2000 to 1000, or even 500, will provide any great direct benefit for US public safety in the event of an attack: even a few hundred remaining weapons would still cause “catastrophic” destruction.

Similarly, it cannot be true both that Russia is now a friend of the United States and will remain so in the future, and that arms control agreements with Russia will provide great direct security benefit for the United States. If there is no pertinent Russian threat, now or in the future, there can be no direct security benefit to whittling down Moscow’s numbers. The United States typically is unconcerned about the number of French or British nuclear weapons—presumably for the understandable reason that those particular weapons pose no threat to the United States. If Russia similarly is of no security concern, now or in the future, there similarly is no direct security value in focusing obsessively on negotiations to reduce incrementally the number of its nuclear weapons. Yet, facilitating such negotiations is said to be one of the great benefits of Minimum Deterrence.

Also, Minimum Deterrence claims that maintaining effective deterrence is a priority goal. Yet, its nuclear reductions would degrade the US force characteristics that may now be most important for deterrence, i.e., flexibility, resilience and adaptability. These qualities are linked to the size and diversity of the US nuclear arsenal. Consequently, some Minimum Deterrence advocacy of US deep force reductions now actually argues against US force flexibility and resilience,¹⁰ and thereby threatens to degrade deterrence. In 2010, Gen. Kevin Chilton, Commander of Strategic Command, stated in testimony before the Senate that the 1550 deployed warhead ceiling of the New START Treaty was the lowest level he could endorse given this need for flexibility.¹¹ There has been no apparent great benign transformation of international

⁹ See Jiyeon Kim, Karl Friedhoff, Chungky Kang, “The Fallout: South Korean Public Opinion Following North Korea’s Third Nuclear Test,” The Asian Institute for Policy Studies, *Issue Brief*, No. 46 (February 25, 2013), pp. 7-8. See also, Martin Fackler and Choe Sang-Hun, “As North Korea Blusters, South Flirts with Talk of Nuclear Arms,” *New York Times*, March 11, 2013.

¹⁰ Tom Nichols, “Time to Change America’s Atomic Arsenal,” *The Diplomat*, March 14, 2003, at <http://thediplomat.com/2013/03/14/time-to-change-americas-atomic-arsenal/>.

relations since these estimates to suggest that flexibility is now less important for deterrence or that lower force levels are now adequate for this purpose.

In addition, if ample deterrence is easily secured at very low force numbers, then it must be true that the United States itself is vulnerable to deterrence by states with small survivable nuclear arsenals, prospectively including North Korea and Iran. If so, the advantages of possessing even a small nuclear force are likely to appear exceedingly attractive to such countries and US reduction of its nuclear arsenal hardly can be expected to have a beneficial nonproliferation effect on these states. Rather, validating Minimum Deterrence may help inspire them and others to seek nuclear capabilities all the more by lowering the bar for securing a nuclear deterrent/coercive capability against the United States.

Finally, Minimum Deterrence recommends that the United States exploit its conventional force advantages to reduce its own reliance on nuclear weapons and thus lead others to reduce their aspirations for nuclear weapons. However, available evidence demonstrates that some states, particularly including Russia, China and North Korea, place greater emphasis on their nuclear weapons *in response* to US conventional advantages. Consequently, the US pursuit of advanced conventional capabilities as recommended by Minimum Deterrence is very likely to lead these countries to emphasize nuclear forces, not follow the US lead toward nuclear disarmament.

The Potential Degradation of Deterrence and Assurance at Very Low US Force Numbers

The problem with Minimum Deterrence is not only that it rests on false, dubious or self-contradictory claims. More importantly is the fact that because it does so, its advocacy for deep force reductions, no “new” US nuclear capabilities, and the application of US nuclear deterrence *only* to opponents’ nuclear threats (“sole purpose”) are likely to undermine the US capacity to deter opponents and assure allies. These policies would:

- Offer fewer choices among warheads and delivery modes and restrict the US capability to adapt to new threats in the future—thereby limiting US flexibility and the prospective effectiveness of US deterrence strategies;
- Inevitably move US deterrence strategies toward threats against civilian-based targets and/or threats against a very small set of military targets: such threats may well be inadequate and/or incredible for some deterrence purposes and purposefully targeting civilian centers violates long-standing moral norms;
- Ease the technical/strategic challenges for opponents who might seek to counter our deterrence strategies and static nuclear capabilities, now or in the future;

¹¹ General Kevin Chilton, Commander, *U.S. Strategic Command, Hearing of the Senate Foreign Relations Committee; Subject: The New START (Strategic Arms Control and National Security) Treaty: Views From the Pentagon*, Federal News Service, June 16, 2010, pp. 18-19.

- Encourage rather than deter some opponents from arms competition and challenges to our deterrence strategies;
- Threaten the US capability to assure allies and thereby encourage some to acquire their own nuclear deterrents—and a possible “cascade” of nuclear proliferation;
- Render US deterrence forces more vulnerable to opponent covert deployments or cheating on arms control agreements in the absence of significant US hedging measures and/or wholly unprecedented and intrusive verification measures; and
- Leave some severe threats by opponents free of any caution imposed by US nuclear deterrence, such as biological, chemical, and cyber threats. This could increase the prospects for such attacks on the United States and allies. For example, the 2013 Defense Science Board report on cyber threats concludes “that a survivable nuclear triad...is required” to anchor US deterrence capabilities against the cyber threat.¹²

Guidelines That Do Fit Available Evidence

The same evidence that demonstrates Minimum Deterrence claims to be false, dubious, or self-contradictory also suggests a better set of guidelines given contemporary realities. I should note that the six guidelines below are fully in line with the conclusions of the bipartisan Congressional Strategic Posture Commission’s 2009 report.¹³

- Promises that neither Russia nor China will pose threats in the future that involve nuclear deterrence are completely incredible and at variance with considerable contemporary evidence. US policy makers must take into account that US nuclear deterrence strategies need to be applicable to great nuclear powers, peers, regional opponents, and state sponsors of terror who might otherwise enable terrorist organizations to acquire weapons of mass destruction.
- Confident predictions about the future functioning of deterrence in a highly dynamic environment are particularly incredible. In such an environment, informed estimates of US deterrence requirements must be based on an understanding of opponents’ likely decision making in plausible threat contexts.
- In a highly-dynamic environment, deterrence requirements will be as varied and shifting as are opponents and contexts. One approach will not fit all with regard to US deterrence planning and forces. It is logical and reasonable in such an environment to expect that US deterrence forces with flexibility and resilience can help US deterrence strategies adapt to shifting requirements and be as effective as is possible. These key deterrence

¹² Department of Defense, Defense Science Board, *Resilient Military Systems and the Advanced Cyber Threat*, January 2013, pp. 15, 42.

¹³ See William Perry and James Schlesinger, et. al., Congressional Commission on the Strategic Posture of the United States, *America’s Strategic Posture* (Washington, D.C.: U.S. Institute of Peace, 2009).

qualities are linked to the size and diversity of the US arsenal and their preservation should be a high priority in the calculation of US force adequacy. It is for this reason that the bipartisan Strategic Posture Commission emphasized the preservation of the US nuclear Triad; it offers considerable inherent flexibility, diversity and resilience.¹⁴

- Given the need for effective deterrence and the corresponding value of force flexibility, resilience, the United States should be most careful to avoid arms control and other restrictive measures that would lock in an undiversified and inflexible arsenal—whether done by treaty, executive agreement or unilaterally. Minimum Deterrence proposals for very low force numbers, the elimination of the Triad, and a standing policy of no “new” US capabilities are particularly dangerous in this regard: the potential degradation of deterrence would be a high-risk trade-off for its fragile promises of benefit. In contrast, the great value of the Triad in this regard is why virtually no one outside of Minimum Deterrence favor its elimination.
- The integrity of US alliances and preservation of US nonproliferation goals likely depend on the credible US assurance of allies, including nuclear assurances. Given these priority goals, the United States must understand the unique security challenges and fears of allies, and size and structure US forces with the unique requirements of assurance in consideration. Deterrence and assurance are separate functions and their requirements will frequently differ. Here too we should be most careful to avoid arms control and other restrictive measures that would lock in an arsenal that is too narrow and inflexible to support the assurance of allies. Again, Minimum Deterrence proposals for deep force reductions, the elimination of the Triad, the removal of dual capable aircraft from Europe, and a standing policy of no “new” capabilities are particularly risky in this regard.
- The functioning of deterrence is not predictable and in some plausible cases, it will not work. This reality suggests the potentially great value of US defensive capabilities, including missile defense, to provide protection for US society in the event deterrence fails. This goal, too, should be a factor in US force-sizing calculations. The emergence of new nuclear powers with modest arsenals and extreme hostility for the United States suggests the growing value and practicality of such defenses. The recent severe nuclear missile threats to the United States announced by North Korea, and the Obama administration’s rhetorical emphasis on US national missile defense in response, are a reminder of that value.¹⁵ Downplaying the need for national defenses against at least limited threats in favor of fragile Minimum Deterrence promises would be another high-risk trade-off.

¹⁴ Ibid., pp. 25-26, 29.

¹⁵ Press Briefing by Press Secretary Jay Carney, Office of the Press Secretary, The White House, March 7, 2013.

A Modern-Day Ten Year Rule

Minimum Deterrence is a contemporary version of the famous British Ten Year Rule. In August 1919, Britain, exhausted by World War I, established the Ten Year Rule. British armed forces were instructed to estimate their requirements and budget “on the assumption that the British Empire would not be engaged in any great war during the next ten years.”¹⁶ This rule was to be in effect “on a daily moving basis” until such time as it was expressly removed.¹⁷ Based on this hopeful prediction of a benign future and comparable high hopes for naval disarmament negotiations, British naval allocations were cut by 85 percent between 1919 and 1923.¹⁸ The British government did not rescind the Ten Year Rule until 1932, and even then admonished that this did not mean the end of austere budgets. Of course, Britain began the struggle for its existence with a resurgent Germany seven years later and was ill-prepared for such a struggle, in part as a result of this rolling Ten Year Rule that codified the optimistic hope for a benign future and deferred prudent military preparation.

The Ten Year Rule was premised on a view of the international environment that fit the hopes and desires of an exhausted, war-weary Britain; but those hopes became increasingly surreal through the 1920s and early 1930s.

Today, in the United States, Minimum Deterrence is very much akin to the Ten Year Rule, except that its recommendations would lock in “legally binding” US reductions and make recovery and adjustment very difficult, lengthy and costly in the event of a darker future than predicted. And, it would do so at a time when Russia and China are modernizing their nuclear capabilities while explicitly threatening US allies and naming the United States as the primary opponent, and rogue states are moving forward on nuclear weapons and multiple means of delivery while also threatening the United States and allies.

Britain finally abandoned the Ten Year Rule in 1932 after developments in Europe and Asia demonstrated that its premise did not reflect reality. Minimum Deterrence proponents have yet to reconsider their hoped-based predictions, despite abundant evidence that they are wrong, questionable or self-contradictory.

During the period that the Ten Year Rule was in effect, Britain and the United States promoted various disarmament negotiations. The late celebrated US diplomat and historian, George Kennan, offered the following indictment of these efforts: “A...line of utopian endeavor that preoccupied American statesmanship over long periods of time was the attempt to arrive at multilateral arrangements for disarmament...at the very time this mountainous labor was in progress, Weimar Germany was disintegrating miserably into the illness of

¹⁶ See Paul Kennedy, *The Rise and Fall of British Naval Mastery* (New York: Humanity Books, 1998), p. 273.

¹⁷ *Ibid.*, p. 279.

¹⁸ *Ibid.*, p. 274.

National Socialism, and new political realities were being created which were to sweep all this labor from the scene...The evil of these utopian enthusiasms was not only, or even primarily, the wasted time, the misplaced emphasis, the encouragement of false hopes. The evil lay primarily in the fact that these enthusiasms distracted our gaze from the real things that were happening...The cultivation of these utopian schemes, flattering to our own image of ourselves, took place at the expense of our feeling for reality. And when the rude facts of the power conflict finally did intrude themselves directly upon us, in the form of enemies against whom we were forced to fight in the two World Wars, we found it difficult to perceive the relation between them and the historical logic of our epoch, because we understood the latter so poorly.”¹⁹

The same can be said of Minimum Deterrence proposals today.

¹⁹ George F. Kennan, *Realities of American Foreign Policy* (London: Oxford University Press, 1954), pp. 20-23.