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# Expert Commentary on the 2022 Nuclear Posture Review



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**Expert Commentary on the  
2022 Nuclear Posture Review**

**Edited by**

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## Preface

Initiated by the Clinton Administration in 1984, each new U.S. presidential administration has produced a *Nuclear Posture Review* (NPR) to provide a general outline of its nuclear policy goals and agenda. These NPRs quickly gain worldwide attention with regard to any changes or new developments in U.S. nuclear policy. The Biden Administration delivered a classified *Nuclear Posture Review* to Congress in March 2022, followed by an unclassified version released publicly on October 27, 2022.

This *Occasional Paper* provides commentary on the Biden Administration's 2022 unclassified NPR by 15 authors—American, British, and French—with serious backgrounds in nuclear policy. This *Occasional Paper* is the second in a series of three consecutive issues designed to provide expert reviews of three separate Biden Administration public reports—its *National Security Strategy*, *Nuclear Posture Review*, and *Missile Defense Review*.

The 15 diverse commentaries on the 2022 NPR offered in this *Occasional Paper* fall into three basic baskets. Several are largely sympathetic to the 2022 NPR; several are largely critical; and the third larger basket includes reviews that commend the report while also finding points of concern. All commentators find that the 2022 NPR is largely consistent with past U.S. policy, which has indeed been true across Democratic and Republican presidential administrations for decades. But these reviews also call out some points of policy divergence, in nuance or substance, either for praise or criticism. Readers are invited to compare and contrast the 15 articles contained in this *Occasional Paper* to help them discern how the 2022 NPR's policy goals and agenda compare to past U.S. policy and how they fare in an unprecedented, emerging international threat environment.

Keith B. Payne  
Editor



# **What is a “Responsible” Nuclear Power? Assessing the 2022 Nuclear Posture Review**

**by Matthew R. Costlow**

## **Introduction**

The United States has enjoyed a remarkably consistent set of nuclear policies over the decades, but within the confines of accepted bipartisan policy positions, new presidential administrations since the 1990s have generally written their *Nuclear Posture Reviews* (NPR) around certain themes. The Obama Administration’s 2010 NPR, for instance, was organized around the theme of making steps toward the reduction and eventual elimination of nuclear weapons; whereas the Trump Administration’s 2018 NPR was focused on strengthening deterrence in a worsening threat environment. The Biden Administration’s 2022 NPR, as I explain below, appears to be written around the theme of “responsible restraint”—it uses the word “responsible” in various forms eight times in just the first three pages. The Biden Administration clearly hoped for a more benign threat environment, such as the one President Obama inherited initially, which would be far more conducive—according to the Biden Administration—to reducing the role of nuclear weapons in U.S. strategy. Alas, that was not the hand it was dealt, so the 2022 NPR backs away from large, fundamental changes to U.S. nuclear policy and posture and settles for signaling how the Biden Administration is acting “responsibly”—and that others should take note.

One of President Biden’s most-used lines, having employed it over 40 times in two years, is how America must lead the world, not by the example of its power, but by the power of its example. Thus, the 2022 NPR focuses



heavily on how the United States acts “responsibly” as a nuclear-armed power, in contrast to others. This, naturally, leads to the question: What does it mean for the United States to act “responsibly” in the nuclear arena? And, given this standard, can the policies and postures prescribed by the 2022 NPR be judged as “responsible?”

This commentary on the 2022 NPR answers these questions in two parts. First, it examines the areas in which, in this author’s estimation, the Biden Administration’s positions are in keeping with the commonly understood definition of “responsible.” Second, it examines the areas in which the 2022 NPR’s stated policies and force posture decisions run afoul of the “responsible” standard the Biden Administration has set for itself.

### **Setting a Good Example**

The United States has the broadest and most diverse set of defense responsibilities of any nuclear-armed state in the world. Not only does the U.S. nuclear arsenal form the foundation of the U.S. national security strategy, it is also the ultimate backstop for the security of NATO and Indo-Pacific allies. America’s allies, in remarkable acts of trust, are basing their security in large part on the decisions of changing, often fickle, U.S. presidential administrations and Congresses—giving up the option in many cases of pursuing their own nuclear arsenals on which they could base their security. In short, the United States has not, and cannot, think only of itself when it makes choices about its defense policy and posture.

The authors of the 2022 NPR appear well aware of the global nature of U.S. defense responsibilities and seem to have taken allied and partner views into account on important topics. The Biden Administration, for example, openly contemplated shifting U.S. nuclear declaratory policy from the current policy of “calculated ambiguity” to

a “sole purpose” or “no first use” declaration.<sup>1</sup> Based on open press accounts, it appears that multiple allies actively opposed such changes, especially those most at risk of non-nuclear strategic attack.<sup>2</sup> The Biden Administration apparently took their concerns seriously and chose not to pursue a “sole purpose” declaration currently—but kept open the possibility of pursuing it in the future. Yet, even this aspirational goal of creating the conditions for a “sole purpose” policy is weaker than it appears since the 2022 NPR notes that the United States, “... will work with our Allies and partners to identify concrete steps that would allow us” to get to that point. Since the threat environment does not appear on the verge of an extended benign breakthrough, if allies and partners actually hold the key to identifying the conditions that would allow them to accede to a U.S. “sole purpose” policy, then one can be confident the conditions needed to get to “sole purpose” are likely to be consistently out of reach. Given the importance of extended deterrence and assurance, this is, indeed, a responsible decision to make.

The Biden Administration also made the responsible choice in explicitly opposing the Treaty on the Prohibition of Nuclear Weapons (TPNW)—a choice that is broadly unpopular among activists that favor nuclear disarmament. Indeed, not only does the 2022 NPR repudiate the TPNW itself, it goes even further by rejecting the fundamental assumptions behind what can be termed the “nuclear disarmament now” movement. It states, “The United States

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<sup>1</sup> For additional analysis on these options, see, Matthew R. Costlow, *A Net Assessment of “No First Use” and “Sole Purpose” Nuclear Policies*, *Occasional Paper*, Vol. 1, No. 7 (Fairfax, VA: National Institute for Public Policy, July 2021), available at <https://nipp.org/wp-content/uploads/2021/07/OP-7-for-web-final.pdf>.

<sup>2</sup> See, for example, Demetri Sevastopulo and Henry Foy, “Allies Lobby Biden to Prevent Shift to ‘No First Use’ of Nuclear Arms,” *FT.com*, October 29, 2021, available at <https://www.ft.com/content/8b96a60a-759b-4972-ae89-c8ffbb36878e>.

does not share the underlying assumption of the TPNW that the elimination of nuclear weapons can be achieved irrespective of the prevailing international security environment. Nor do we consider the TPNW to be an effective tool to resolve the underlying security conflicts that lead states to retain or seek nuclear weapons.”<sup>3</sup> This thoroughly realistic view of the security environment and its effect on the prospects for arms control certainly qualifies as a “responsible” assessment, even more so because it is directed against many of those who otherwise support President Biden’s policies. Telling hard truths to those that need to hear them is what a “responsible” leader does.

One final commendable example of “responsible” decision making is the Biden Administration’s focus on “integrated deterrence,” which—at least according to the 2022 NPR—relies on a deep understanding of the adversary, threatening that which the adversary values most, and doing so in ways that minimize the risk of misperception. Although there is justified concern that Biden Administration officials may seek to enhance the role of non-nuclear capabilities for deterrence to ultimately substitute for nuclear weapons in many situations (thus allowing nuclear reductions), the text of the NPR—if implemented as is—would not support that choice. It states: “Non-nuclear capabilities may be able to complement [note: Not “substitute for”] nuclear forces in strategic deterrence plans and operations in ways that are suited to their attributes and consistent with policy on how they are to be employed.”<sup>4</sup> The 2022 NPR even notes in its first paragraph, “For the foreseeable future, nuclear weapons will continue to provide unique deterrence effects that no other element

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<sup>3</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 19, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>4</sup> *Ibid.*, p. 10.

of U.S. military power can replace.”<sup>5</sup> Again, there is a very vocal minority among nuclear policy specialists who favor enhancing non-nuclear capabilities for the expressed purpose of replacing nuclear weapons in U.S. defense strategy, but the Biden Administration acted responsibly in maintaining that there should be a mix of nuclear and non-nuclear capabilities that can support U.S. deterrence requirements.

### Responsibility in Question

As stated above, one of the distinguishing characteristics of a “responsible” leader or state is the ability to make difficult choices that are for the best, but may not square with long-held desires or beliefs. The Biden Administration’s choice to kill the nuclear-armed Sea-Launched Cruise Missile (SLCM-N) in the 2022 NPR is one such example of failing to do so. The choice to eliminate a nascent program that was specifically designed to meet growing regional deterrence requirements is especially ill-considered given the emphasis the 2022 NPR gives to deterring an adversary’s limited nuclear employment regionally. It states, “The capability to deter limited nuclear attacks is critical given that some competitors have developed strategies for warfare that may rely on the threat of nuclear escalation in order to terminate a conflict on advantageous terms. The ability to deter limited nuclear use is thus key to deterring non-nuclear aggression.”<sup>6</sup> There is even an entire chapter of the 2022 NPR titled, “Strengthening Regional Nuclear Deterrence” — clearly indicating that something is lacking in the U.S. approach that must be corrected.

This makes the 2022 NPR’s justification for eliminating the SLCM-N—again, a weapon *specifically designed* to

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<sup>5</sup> Ibid., p. 1.

<sup>6</sup> Ibid., p. 7.

strengthen regional nuclear deterrence—all the more difficult to understand. The 2022 NPR justifies eliminating SLCM-N for three reasons: The existing ability of the low-yield W76-2 warhead; the SLCM-N’s believed inability to provide enough leverage for arms control with Russia; and, SLCM-N’s cost. The first reason is strange in that the authors of the 2022 NPR seem to acknowledge that the threat posed by low-yield weapons can be beneficial for regional deterrence—and elsewhere in the document, those same authors make the convincing case that nuclear deterrence at the regional level is becoming more difficult because of increasing numbers of adversary regional nuclear weapons, thus setting up an obvious disconnect with the termination of the SLCM-N program. The second reason, in a similar manner to the first, sets up a major disconnect by stating that SLCM-N “on its own” is insufficient to bring Russia to the arms control negotiating table—but this would seem to indicate that the Biden Administration believes it needs *more* regional nuclear capabilities *beyond* SLCM-N for the needed “leverage.”<sup>7</sup> This, in short, is not a reason for cutting SLCM-N. The third reason the 2022 NPR provides for cutting SLCM-N is its potential financial cost; but, again, this seems to go against other statements in the NPR where the authors clearly anticipate potentially needing to procure additional nuclear weapons in the future as the threats grow.<sup>8</sup>

In addition, while there is little open source reporting on how the allies viewed the decision to cancel SLCM-N, given the allies’ views of the worsening threat environment, it seems likely that at least some allies in the ocean-dominated Indo-Pacific region would have some strong opinions on the value of the U.S. *sea*-launched cruise missile. Given the 2022 NPR’s entirely commendable focus on assuring U.S.

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<sup>7</sup> Ibid., p. 20.

<sup>8</sup> Ibid. See, for example, pp. 5 and 11.

allies and extending deterrence, the Biden Administration's justification for cutting SLCM-N simply does not comport with the NPR's own stated priorities. In short, the Biden Administration's decision to cancel SLCM-N is not only an unwise strategic choice, but it contradicts the principles and policies written in the 2022 NPR.

Another important example of how a responsible nuclear state should *not* act is found in the 2022 NPR's discussion of nuclear arms control. It states, "Mutual, verifiable nuclear arms control offers the most effective, durable and responsible path to reduce the role of nuclear weapons in our strategy *and prevent their use.*"<sup>9</sup> To put it mildly, this assertion is highly dubious—it simply imparts on arms control near mystical powers that it does not have in the real world. This is dangerous insofar as officials in the Biden Administration believe this and pursue arms control agreements with the belief that the benefits listed in the sentence just cited will inevitably accrue. Promising too much from arms control is a recipe for arms control at any cost.

The 2022 NPR does not try to support the assertion that "mutual, verifiable nuclear arms control" is the most "effective, durable, and responsible" means of preventing nuclear employment—perhaps because there is no obvious evidence of this dynamic. Various iterations of U.S. nuclear deterrence strategies have far more support historically than any arms control agreement in preventing an adversary's nuclear employment during a crisis or conflict. Further, it is not even clear that nuclear arms control is more "effective" at reducing the role of nuclear weapons in U.S. strategy than, say, improved conventional capabilities or a more benign threat environment. In fact, to the extent that the prospects for nuclear arms control depend on the broader threat environment, the threat environment clearly

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<sup>9</sup> *Ibid.*, p. 16, emphasis added.

is a much more important factor than nuclear arms control in reducing the prospects for nuclear employment and the role of nuclear weapons in U.S. strategy.

## **Conclusion**

The 2022 *Nuclear Posture Review* clearly sought to portray the United States as a “responsible” nuclear-armed power—one that takes the duties of that role seriously, with special emphasis on restraint, avoiding miscalculation, and reducing reliance on nuclear weapons in its defense strategy. In many respects, the 2022 NPR correctly highlights the areas where the United States has acted quite responsibly, namely in rejecting fundamental changes to its nuclear declaratory policy that would harm allies, elucidating the relationship between the threat environment and arms control, and integrating the nuclear and non-nuclear tools of state power in ways that best strengthen deterrence and lower the risk of miscalculation. The Biden Administration, however, also made some poor choices like cutting SLCM-N and inflating the positive effects of nuclear arms control—decisions that contradict many of the principles and policies found elsewhere in the 2022 NPR.

As the Biden Administration contemplates how to adjust the U.S. nuclear force posture to the growing nuclear threats referenced in the 2022 NPR, it would do well to contemplate the words of the great Prussian strategist Carl von Clausewitz, who reminds us of the stakes in making national defense policy: “Woe to the government, which, relying on half-hearted politics and a shackled military policy, meets a foe who, like the untamed elements, knows no law other than his own power! Any defect of action and effort will turn to the advantage of the enemy, and it will not be easy to change from the fencer’s position to that of a wrestler. A slight blow may then often be enough to cause

a total collapse.”<sup>10</sup> America’s opponents and their nuclear arsenals appear to be taking the form of a wrestler, focused more on growing in size and strength. The question that cannot continue to remain unanswered is: What will America do about it?

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<sup>10</sup> Carl Von Clausewitz, author, Michael Howard and Peter Paret, editors and translators, *On War* (New York: Alfred A. Knopf, 1993), p. 257.





# Nuclear Posture Review and the Politics of Allied Assurance

by Michaela Dodge

The Biden Administration's recently published *Nuclear Posture Review* (NPR) displays a great degree of continuity with previous administrations' nuclear weapons policies, including pursuing nuclear weapons modernization of all three legs of the nuclear triad and recognizing the importance of the nuclear weapons infrastructure for supporting deterrence.<sup>1</sup> While these are commendable steps, there are other areas of nuclear policy in which the continuity with previous administrations' NPRs spells out bad news for the United States and its allies. That is because negative trends in nuclear security, including China's revisionist intentions, its "breathhtaking" nuclear build up, and Russia's regional nuclear coercive threats in the context of its war in Ukraine warrant a degree of *discontinuity* on the part of the United States so that it can continue to advance its national security goals and assure U.S. allies.<sup>2</sup>

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<sup>1</sup> For a more comprehensive assessment of continuities and discontinuities in the NPR, see John R. Harvey, Franklin C. Miller, Keith B. Payne, Bradley H. Roberts and Robert M. Soofer, "Assessing the Biden 2022 Nuclear Posture Review," *RealClearDefense*, November 16, 2022, available at [https://www.realcleardefense.com/articles/2022/11/16/assessing\\_the\\_biden\\_2022\\_nuclear\\_posture\\_review\\_865108.html](https://www.realcleardefense.com/articles/2022/11/16/assessing_the_biden_2022_nuclear_posture_review_865108.html).

<sup>2</sup> Roxana Tiron, "U.S. Sees Rising Risk in 'Breathhtaking' China Nuclear Expansion," *Bloomberg*, April 4, 2022, available at <https://www.bloomberg.com/news/articles/2022-04-04/u-s-sees-rising-risk-in-breathhtaking-china-nuclear-expansion>.

## The Good

The administration affirms several commendable policies “inherited” from its predecessors. For example, it endorses modernization of the nuclear triad, including the Sentinel intercontinental-range ballistic missile system. It recognizes the importance of the U.S. nuclear production complex and argues in favor of developing “tailored options that shape adversary perceptions of benefits and costs.”<sup>3</sup> In order to be credible and effective, the administration argues that these tailored deterrence approaches ought to “reflect our best understanding of their [the adversaries’] decision-making and perceptions.”<sup>4</sup>

On the issue of declaratory policy and in the context of alliance politics, the Biden Administration deserves credit for forgoing declarations of “no-first use” (NFU) and “sole purpose” policies, even if it did not foreclose the latter option entirely. “We retain the goal of moving toward a sole purpose declaration and we will work with our Allies and partners to identify concrete steps that would allow us to do so,” the NPR states.<sup>5</sup> NFU and sole purpose declaratory policies are bad ideas even under less dire circumstances than what the United States and allies face today.<sup>6</sup> Given then-candidate Biden’s support for implementing these policies, expressed, for example, in 2017 and again in 2020, it is a good thing that the administration listened to allied

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<sup>3</sup> U.S. Department of Defense, *Nuclear Posture Review*, October 27, 2022, p. 10, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>4</sup> *Ibid.*, p. 11.

<sup>5</sup> *Ibid.*, p. 10.

<sup>6</sup> Matthew R. Costlow, *A Net Assessment of “No First Use” and “Sole Purpose” Nuclear Policies*, *Occasional Paper*, Vol. 1, No. 7 (Fairfax, VA: National Institute Press, July 2021) available at <https://nipp.org/wp-content/uploads/2021/07/OP-7-for-web-final.pdf>.

concerns and preserved the status quo.<sup>7</sup> It is unlikely that allies will be supportive of these policies anytime soon given the worsening regional and strategic threats they are facing and the implicit reliance on U.S. nuclear use that is at the heart of their assurance.<sup>8</sup>

## The Bad

As mentioned above, the NPR underscores the importance of a nuclear weapons production infrastructure for deterrence. It states that a “safe, secure, and effective deterrent requires modern weapons and a modern infrastructure, enabled by a world-class workforce equipped with modern tools.”<sup>9</sup> While such an affirmation is necessary and proper, just saying so is not sufficient for the nuclear weapons complex to be able to fulfill the requirements placed upon it—tangible actions are needed. Every NPR has paid verbal homage to the necessity of a flexible, resilient, and capable nuclear weapons complex, yet those are some of the last words one would think of when considering the U.S. nuclear weapons infrastructure. For example, in the New Strategic Arms Reduction Treaty Resolution of Ratification, the Obama Administration

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<sup>7</sup> Office of the White House, “Remarks by the Vice President on Nuclear Security,” January 12, 2017, available at <https://obamawhitehouse.archives.gov/the-press-office/2017/01/12/remarks-vice-president-nuclear-security>; and, Joseph Biden, “Why America Must Lead Again,” *Foreign Affairs*, Vol. 99, No. 2 (March/April 2020), available at <https://www.foreignaffairs.com/articles/united-states/2020-01-23/why-america-must-lead-again>.

<sup>8</sup> Michaela Dodge, *Alliance Politics in a Multipolar World, Occasional Paper*, Vol. 2, No. 10 (Fairfax, VA: National Institute Press, October 2022), available at <https://nipp.org/wp-content/uploads/2022/10/OP-Vol-2-No-10.pdf>.

<sup>9</sup> U.S. Department of Defense, *Nuclear Posture Review*, October 27, 2022, op. cit., p. 23.

committed to supporting the Chemistry and Metallurgy Research Replacement (CMRR) building, a multi-billion recapitalization project to reconstitute the U.S. ability to produce plutonium pits. Yet, the Obama Administration deferred the CMRR project in the fiscal year 2013 budget submission and then cancelled its last phase in January 2014, leaving the nation without a viable near-term plan to produce plutonium pits.<sup>10</sup> The plan to produce 80 plutonium pits per year by 2030 is already delayed by as many as five years.<sup>11</sup> The Biden Administration has a tough challenge ahead if it is to break from away from this negative post-Cold War trend.

The 2022 NPR lacks clarity when it comes to strengthening nuclear deterrence in an environment with two strategic nuclear peers, a situation unprecedented in U.S. history. For reference, the current U.S. strategic nuclear force posture was largely set during the Obama Administration.<sup>12</sup> The 2010 NPR assumed that “Russia and the United States are no longer adversaries, and prospects for military confrontation have declined dramatically.”<sup>13</sup>

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<sup>10</sup> Michaela Dodge, “Nuclear Weapons: United States Should Rebuild Its Plutonium Pit Manufacturing Capability,” *The Heritage Foundation Backgrounder*, No. 3581, February 1, 2021, available at <https://www.heritage.org/sites/default/files/2021-02/BG3581.pdf>.

<sup>11</sup> Scott Wyland, “LANL’s pit production a year behind schedule,” *Santa Fe New Mexican*, October 5, 2022, available at [https://www.santafenewmexican.com/news/local\\_news/lanls-pit-production-a-year-behind-schedule/article\\_ca2262a2-43f9-11ed-84da-eb276b365663.html](https://www.santafenewmexican.com/news/local_news/lanls-pit-production-a-year-behind-schedule/article_ca2262a2-43f9-11ed-84da-eb276b365663.html).

<sup>12</sup> The limits set forth in the New Strategic Arms Reduction Treaty are as follows: 700 deployed intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and heavy bombers; 1,550 warheads on deployed ICBMs and SLBMs and warheads counted for deployed heavy bombers; and, 800 deployed and non-deployed ICBM launchers, SLBM launchers, and heavy bombers.

<sup>13</sup> U.S. Department of Defense, *Nuclear Posture Review Report*, April 2010, p. iv, available at

China's current nuclear expansion was completely unforeseen and those earlier optimistic assumptions about Russia turned out to be wrong.

To address these emerging trends, the Trump Administration made two modest changes to U.S. nuclear forces: it deployed a low yield variant of the W76 submarine-launched ballistic missile warhead and proposed a new nuclear-armed, sea-launched cruise missile (SLCM-N) in the long term. The Biden Administration cancelled the SLCM-N in its NPR, as if China's nuclear expansion did not exist and despite explicit support for it expressed by multiple military officials, including Joint Chiefs of Staff Chairman Mark Milley, Vice-Chairman Christopher Grady, and then-head of U.S. Strategic Command, Admiral Charles Richard.<sup>14</sup> The prospective SLCM-N is an important capability for U.S. allies, particularly in the Indo-Pacific region.<sup>15</sup> Its termination is contrary to the administration's stated commitment to tailor deterrence and assure allies. As the 2018 NPR points out, tailoring deterrence requires that the United States has more diverse and flexible options.<sup>16</sup>

The administration also decided to cancel the B-83 bomb, the last remaining nuclear capability in the current arsenal reportedly able to reliably destroy select hard and deeply buried targets (HDBTs). That is troubling given that

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[https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010\\_Nuclear\\_Posture\\_Review\\_Report.pdf](https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf).

<sup>14</sup> Mallory Shelbourne and Sam LaGrone, "Nuclear Sea-Launched Cruise Missile Has 'Zero Value,' Latest Nuclear Posture Review Finds," *USNI News*, October 27, 2022, available at <https://news.usni.org/2022/10/27/nuclear-sea-launched-cruise-missile-has-zero-value-latest-nuclear-posture-review-finds>.

<sup>15</sup> Michaela Dodge, *Alliance Politics in a Multipolar World*, op. cit., pp. 73-74.

<sup>16</sup> U.S. Department of Defense, *Nuclear Posture Review Report*, 2018, p. 55, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

adversaries protect assets they value most—including by burying them deeply into the ground—and the U.S. ability to deny adversaries sanctuaries has long been recognized as important for deterrence.<sup>17</sup> The NPR states the United States will leverage “existing capabilities” to hold at risk HDBTs,<sup>18</sup> but admits that this solution is insufficient relative to what adversaries are doing by noting that the administration will develop an “enduring capability for improved defeat of such targets.”<sup>19</sup>

### The Ugly

The largest disconnect between the discernible trends in the current international security environment and the administration’s wishful thinking is its decision to eliminate a “hedge against an uncertain future” as one of the formal roles of U.S. nuclear weapons.<sup>20</sup> The administration does not specify what the implications are for the U.S. force posture and planning. Given uncertainty generated by other states’ nuclear programs, it would be prudent *to increase* the emphasis on hedging rather than doing away with it as a formal role for nuclear weapons. The U.S. nuclear complex does not appear to be in good enough shape to perform the hedging function the way it did during the Cold War when it had a robust capacity to design and introduce into the stockpile new nuclear warheads in a short (and more responsive) timeframe.

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<sup>17</sup> Michaela Dodge, “Out of Sight Should Not Mean Out of Reach: Deterrence and the Proliferation of Hard and Deeply Buried Targets,” *Information Series*, No. 492 (Fairfax, VA: National Institute Press, June 9, 2021), available at [https://nipp.org/information\\_series/michaela-dodge-out-of-sight-should-not-mean-out-of-reach-deterrence-and-the-proliferation-of-hard-and-deeply-buried-targets-no-492-june-9-2021/](https://nipp.org/information_series/michaela-dodge-out-of-sight-should-not-mean-out-of-reach-deterrence-and-the-proliferation-of-hard-and-deeply-buried-targets-no-492-june-9-2021/).

<sup>18</sup> U.S. Department of Defense, *Nuclear Posture Review*, October 27, 2022, op. cit., p. 20.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid., p. 7.

## Conclusion

The 2022 NPR includes some laudable points. But its cancellation of the SLCM-N and the B-83, and its elimination of a formal requirement for hedging are contrary to the threat developments described in the NPR itself: Russia building a host of new nuclear capabilities; China rapidly expanding its nuclear arsenal; and, North Korea's continued emphasis on nuclear weapons to intimidate and deter the United States and its allies in a regional conflict. In particular, the Biden Administration ought to recognize the SLCM-N's merit, as the 2018 NPR pointed out, in providing "diversity in platforms, range, and survivability, and a valuable hedge against future nuclear 'break out' scenarios."<sup>21</sup>

Despite the significant deterioration in the threat environment since the 2018 NPR, and particularly since the 2010 NPR, the 2022 NPR carries on as if not much has changed. Despite some sound steps, for example, endorsing the Triad modernization and forgoing a "no first use" declaration, the Biden Administration is not going far or fast enough to preserve the credibility and viability of the U.S. nuclear deterrent in light of obvious and ominous threat trends.

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<sup>21</sup> U.S. Department of Defense, *Nuclear Posture Review Report*, 2018, op. cit., p. 55.





# Commentary: The Biden 2022 Nuclear Posture Review

by John R. Harvey

President Biden has concluded a wide-ranging review of U.S. nuclear policies, posture, and programs. That review — the 2022 *Nuclear Posture Review* (NPR)—was completed early last year and a public report was issued in October.<sup>1</sup> It was carried out in the midst of a crisis leading to Russia's February 2022 invasion of Ukraine and then the discovery of China's expanded ICBM program and anticipated sprint from a minimum deterrent force to nuclear peer status.

My colleagues and I have called attention to several Biden policy decisions which are to be commended and identified some shortfalls as well.<sup>2</sup> Of note, the 2022 NPR reflects a strong continuity with previous nuclear reviews. It affirms the long-standing U.S. policy that deterring a nuclear attack is the fundamental but not the sole purpose for U.S. nuclear weapons. To continue to deter conflict, it stresses the need for a strategic Triad of land- and sea-based ballistic missiles and heavy bombers. It recognizes Russia and China's coercive strategies of limited nuclear threats to advance expansionist goals, and the importance of tailored, flexible U.S. deterrence capabilities to defeat those strategies.

Very importantly, the 2022 NPR largely reaffirms the ongoing modernization program designed to carry out,

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<sup>1</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>2</sup> John R. Harvey, Franklin C. Miller, Keith B. Payne, Bradley H. Roberts and Robert M. Soofer, "Assessing the Biden 2022 Nuclear Posture Review," *Real Clear Defense*, November 16, 2022.

over the next two decades, the near simultaneous replacement of every leg of the aging Triad, a major upgrade to the nuclear command and control system, and recapitalization of the aging warhead production infrastructure. Biden's 2023 budget request is fully consistent with this NPR commitment.

These aspects of the 2022 NPR should garner broad bipartisan support. But there are shortfalls. It does not go far enough in addressing the worsened threat environment with concrete responses for continuing to deter Russia and China. Because major changes in the security environment, highlighted above, were evolving simultaneously with the NPR, the administration should be cut some slack for not yet having solutions to the challenges it correctly identifies. Urgent follow-on work to the NPR, however, should address such solutions. I call attention to two pressing NPR shortfalls—the failure to develop options for deterring the “two nuclear peer” threat and the threat from limited, first-use of nuclear weapons in an ongoing conventional conflict.

### **The “Two Nuclear Peer” Threat**

In the past, U.S. nuclear forces were focused on Russia; in a sense China was a lesser included threat. The emergence of China toward nuclear peer status, seen as a prospect for the mid-2030s, changes that calculation. Quoting from the 2022 NPR:

By the 2030s the U.S. will, for the first time in its history, face two major nuclear powers as strategic competitors and potential adversaries. This will create new stresses on stability and new challenges for deterrence, assurance, arms control and risk reduction.

Can the United States continue to deter China as a nuclear peer, an aggressive Russia, or possibly both

simultaneously, with existing nuclear forces? Recall that the ongoing nuclear modernization program was established more than a decade ago when the global security environment was much more benign. Its purpose then was not to create more nuclear weapons with exquisite new military capabilities, but simply to replace today's aging weapons with modern variants. Is this program sufficiently adaptable and flexible to address today's dynamic threats as well as threats that will evolve over the 50-70 years that these systems are to remain in the field?

Deterring a hostile Russia and China, possibly at the same time, has been U.S. policy for decades. In the Cold War, even in light of a major nuclear exchange with Russia, the United States maintained sufficient survivable warheads in reserve to deter incentives for China to "pile on." But this was a time when both Russia and the United States maintained thousands of strategic warheads, while China possessed just a few tens of ICBMs that could reach the United States. There was flexibility then in U.S. forces to deter both. Today, with deployed U.S. strategic warheads capped at 1,550 under New START, China is ramping up to an estimated 1,500 ICBM warheads. Limiting U.S. options is the fact that the intensive, ongoing modernization program leaves little, if any, excess capacity for DoD or NNSA to respond with new nuclear program starts in the near term.

### **Implications of Sino-Russia Coordination**

Multipolar deterrence will be more complex, pose increasingly dynamic threat scenarios, and result in increased uncertainties compared to the Cold War's bipolar confrontation.<sup>3</sup> One important complexity involves

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<sup>3</sup> Keith B. Payne, David J. Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why It Matters, Occasional Paper*, Vol. 2, No. 8 (Fairfax, VA: National Institute Press, August 2022). The

the implications for deterrence of various degrees of Sino-Russia security coordination.

If we believed that the Russian and Chinese nuclear (and conventional) threats were independent and uncorrelated, then the two nuclear peer deterrence problem would be somewhat manageable. Some Russian nuclear modernization could provide new capabilities—a hypersonic glide re-entry vehicle, a hypersonic land-attack cruise missile, a nuclear-powered subsonic cruise missile—that could degrade crisis stability by posing a no-notice decapitation threat to U.S. leadership. U.S. plans to upgrade its early warning system are taking this concern and these programs into account. On the other hand, if Russia complies with New START limits on warheads and delivery systems, there would be little need in the near term to augment U.S. force size or capability. If China stops once peer status is achieved, some adjustment to U.S. targeting priorities, for example, may be warranted but not likely a pressing need for force augmentation. To first order, if the threats are uncorrelated, planned U.S. forces are likely sufficient to deter.

If China and Russia achieved a degree of coordination in their planning and force posture, then this calculus changes and will depend on the details of such coordination. For example, if U.S. forces were engaged in a NATO-Russia conventional conflict, with possible nuclear overtones, China, with minimal coordination with Russia, could exploit this target of opportunity “on the fly” to pursue its threat to take over Taiwan by force. A proactive U.S. strategy would be to posture sufficient conventional forces to deter this second conflict while fighting the first, and to retain adequate nuclear forces in reserve to deter the second conflict from going nuclear.

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authors highlight increased uncertainties in multipolar deterrence in three areas: Sino-Russian coordination, associated deterrence requirements, and increased potential for deterrence failure.

A more sophisticated, and perhaps less likely, level of Sino-Russian coordination could involve a formal alliance between the two countries, perhaps with integrated forces and forces planning. This poses a more difficult problem that could lead to simultaneous, coordinated strikes against NATO and Taiwan backed by the combined nuclear forces of both countries. That said, the appropriate U.S. strategy might be not that different from the minimal coordination scenario. That is, the United States would seek to field nuclear and conventional forces that, combined with force capabilities provided by allies, could deter both countries at the same time. In a tri-polar nuclear confrontation unaccompanied by one or more ongoing regional conflicts—e.g., the Cold War bolt-from-the-blue scenario—the job would be to field a force with retaliatory capabilities sufficient to hold at risk required target sets in both countries.

We cannot predict the future degree of possible coordination between Russia and China in confronting the United States. Even so, the conceptual approach to solving the deterrence problem for the two coordination cases outlined above, again to first order, is roughly the same. The harder problem is to identify U.S. force size and capabilities, force posture, and hedging needs to deter both as well as the implications for other aspects of U.S. nuclear security.

A factor in establishing force sufficiency is whether or not the United States will require additional warheads to threaten China's expanded silo-based ICBM force. U.S. policy is to hold at risk, to the extent feasible, critical target sets most valued by enemy leaders. It is not a stretch to conclude that an adversary's nuclear forces might well fall into that category. If so, several hundred additional ballistic missile warheads could be needed to redress a potential counterforce targeting shortfall. Other alternatives could be explored. Depending on its assessment of the likelihood of

various levels of Sino-Russia coordination, the United States might simply accept some additional risk in redressing such shortfalls with a smaller force augmentation. Bolstering U.S. ballistic missile defenses could also lower augmentation needs. A third possibility is to assess whether adequate deterrence might be achieved absent presumed counterforce targeting.

### **Hedging the “Two Nuclear Peer” Threat<sup>4</sup>**

If a decision were made to augment U.S. forces, what are hedge options? In the near term, forces could be augmented by uploading reserve warheads to existing delivery systems. In the longer term, “hot” production lines from the ongoing modernization program—for the Sentinel ICBM, B-21 bomber, Columbia SSBN, LRSO, nuclear warheads and the like—could be extended once their originally intended build was completed.

For a threat that may materialize by the mid-2030s, this second option is not sufficiently responsive. If a planned force of 12 Columbia subs is fielded at a rate of one per year starting say in 2030, then the 13<sup>th</sup> “hedge” sub would not come off the production line until the early 2040s. Deploying 400 Sentinel ICBMs at an estimated rate of one per week, again starting in the 2030 timeframe, means that additional ICBMs could not be fielded until the late 2030s. What could be done sooner by uploading reserve warheads to existing delivery systems?

Under the 1,550 accountable warhead limit, the United States allocates about 1,090 warheads to the SSBN force, 400

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<sup>4</sup> Very simply put, a baseline nuclear force is designed to address the anticipated threat; the “hedge,” is intended to provide options to adjust that force if we guess wrong on the threat or experience technical failure of a warhead or delivery system. China’s aggressive effort to ramp up its ICBM force is precisely the “surprise” event for which a hedge was developed.

single-warhead ICBMs, and, according to the bomber counting rule, 60 warheads assigned to heavy bombers (although each can carry multiple ALCMs and bombs). MIRVing Minuteman III and uploading SLBM warheads to currently unoccupied slots on the Trident II D-5 bus could add close to 1,000 additional warheads to the deployed force. Uploading additional ALCMs to B-52 bombers—they can carry up to 20 but are typically deployed with fewer—would add significantly to that total. To be sure, uploading does add some operational inefficiencies. Still, this is not an insignificant force augmentation capability.

Timing is an additional hedge consideration. Making reserve warheads available for upload could take many months depending on whether limited-life components such as tritium bottles are available or need to be produced. Once activated, the timelines for weapons upload will vary depending on the delivery system—days to weeks for bombers, weeks to months for the subs, and months to years for ICBMs. If existing trends in China's nuclear expansion continue, the choice may become when, not whether, to implement such options.

### **Detering Limited Nuclear First Use**

The 2022 NPR rightly calls attention to rising concerns about an adversary's limited nuclear first use in an ongoing conventional conflict as means to achieve a more favorable outcome—the so-called “escalate to win” strategy.<sup>5</sup> We have seen the increased role for tactical, low-yield nuclear weapons in Russia's security posture, their prominence in modernization programs and military exercises, and have concern that a limited, first-use employment strategy has

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<sup>5</sup> See Matthew Kroenig, “A Strategy for Detering Russian Nuclear De-Escalation Strikes,” Atlantic Council, Scowcroft Center for Strategy and Security, April 2018.



gained a foothold in Russia's, and perhaps other countries' evolving nuclear doctrine.

During the Cold War, a broadly held view of many on both sides was that any use of nuclear weapons, however limited, would escalate to global nuclear holocaust. That view, at least among some senior Russian military leaders, may not be so broadly held today.<sup>6</sup> In regional conventional conflict, an adversary who believed it could control escalation might resort to limited first use, for example, to solidify territorial gains from an initial conventional attack, discourage or make it more difficult for the United States to come to the defense of allies involved in the fight, or end a losing conflict short of regime demise.

Consider the following scenario: Mr. Putin launches a conventional strike against NATO to occupy the Baltic States and return them to Russia.<sup>7</sup> NATO mobilizes with U.S. conventional air, sea and ground forces on the way to reinforce the continent. After achieving a partial occupation in the first week, Russia employs one or two nuclear weapons on a key European port to disrupt U.S. plans to reinforce allies as well as to coerce allies (and allied publics) to back down. Would Russia believe that the United States would retaliate with multi-hundred kiloton warheads leading to substantial casualties? Would a U.S. response be more credible if it had a broader spectrum of nuclear strike options? Some argue that the existing arsenal is sufficient to deal with this threat. But this logic does not explain why, despite this arsenal, Russia has increased focus on theater nuclear forces as seen in modernization programs, military

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<sup>6</sup> Michael Kofman, Anya Loukianova Fink, "Escalation Management and Nuclear Employment in Russian Military Strategy," *War on the Rocks*, September 19, 2022.

<sup>7</sup> This assumes a future Russian force that is well-trained and well-equipped for the mission, unlike today's force whose military incompetence is being revealed time and again in Russia's war with Ukraine.

exercises, and doctrine. Rather, it suggests an emerging deterrence gap.

### **Low-yield Options<sup>8</sup>**

Primarily to deter (or fight) a major Russian assault on Europe/NATO, during the Cold War the United States had fielded thousands of low-yield tactical nuclear weapons using all means of delivery down to artillery shells and even soldiers. By 1991, nearly all of those weapons were retired. The United States is maintaining today three options for low-yield warhead delivery:

- B61 bomb delivery on F-16 strike aircraft and the B-2 strategic bomber,
- ALCM delivery on B-52 bombers,
- And, just recently, a low-yield warhead delivered by the Trident II SLBM.

Air-delivered options today are becoming more and more vulnerable to rapid improvements in adversary air defenses, among other things. Ongoing modernization—an updated B61-12 gravity bomb, a new LRSO cruise missile, and new F-35 and B-21 bombers—will mitigate, but not eliminate, the problem. Low-yield Trident could strike anywhere in the world, with greatly reduced unintended casualties, within tens of minutes of a presidential decision. It could help deter aggression by placing at prompt risk, once located, mobile command posts essential to military operations. The downside of this option is that it trades a larger number of strategic warheads per missile for a smaller number of low-yield systems.

If developed and fielded, nuclear SLCMs deployed on attack submarines would provide an additional

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<sup>8</sup> “Low-yield” means explosive force in the range of five kilotons, not insignificant by any means, but a factor of 20 or more in yield below today’s strategic warheads.

employment option that would strengthen deterrence of limited first use and further assure allies.<sup>9</sup> It would provide an additional hedge to the increasing uncertainties faced in deterring future threats and offer opportunities to convey messages of assurance and deterrence via submarine patrols in European and Asian waters, conceivably accompanied by port visits. Unlike NATO's dual-capable aircraft in Europe, nuclear SLCMs on submarines are survivable to preemptive attack and their command and control is solid. This conveys to Russia and China that any limited use could lead to an assured, timely, precise, and proportionate response from U.S. forces locally deployed (but not based) in the region.

The NPR cites the important role played by the low-yield W76-2 Trident II warhead in helping deter limited first use. For the same reason, President Biden's decision to cancel SLCM-N should be reconsidered. SLCM-N provides unique capabilities not replicated by other nuclear weapons for both deterrence and assurance. Congress should continue to authorize funds for the program, as it has in the FY23 NDAA, and extend funding to the out years.

### **Remaining Thoughts on Deterring Limited First Use**

While important, a broader set of low-yield options is just part of an overall plan to deter limited first use. Perhaps the most likely path to such use today involves escalation from an ongoing regional conventional conflict. Increased forward deployment of U.S. conventional forces could help to deter such conflict in the first place by the ability to bring increased force to bear more quickly and to reduce reliance

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<sup>9</sup> John R. Harvey, Robert Soofer, "Issue Brief: Strengthening Deterrence with SLCM-N," Atlantic Council, Scowcroft Center for Strategy and Security, November 2022.

on vulnerable reinforcement routes. In recent years, progress has been made here and in related areas.<sup>10</sup> Fielding new long-range precision conventional strike, in certain cases, could replace a low-yield nuke in responding to limited first use. Much more can be done to bolster conventional deterrence by ensuring that hardware and command and control assets are sufficiently hardened to moderately severe nuclear environments, and that the regional commands, supported by Strategic Command, adapt their plans to fight the war once nuclear weapons have been introduced to the conventional battlefield.

Adversary limited nuclear first use should not automatically lead to a U.S. nuclear response. Fulsome consideration of the multiple pathways to such use, however, will help to provide the President with the detailed information, consultative mechanisms, pre-planned options, and hardware needed to respond appropriately, whether nuclear or otherwise.

Part of deterrence is what the United States says directly to an adversary about what it would do in response to limited nuclear first use. News reports suggest that the Biden team has held quiet discussions with Russian leaders about its response to such use in the Ukraine conflict.<sup>11</sup> It is unclear what was threatened but it might well have been

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<sup>10</sup> For details about the European Reassurance Initiative, renamed the European Deterrence Initiative, see White House Fact Sheet, June 3, 2014 at <https://obamawhitehouse.archives.gov/the-press-office/2014/06/03/fact-sheet-european-reassurance-initiative-and-other-us-efforts-support->. For more recent initiatives on U.S. defense contributions to Europe see, DoD Fact Sheet, June 29, 2022, at <https://www.defense.gov/News/Releases/Release/Article/3078056/fact-sheet-us-defense-contributions-to-europe/>. For recent initiatives to bolster NATO's rapid response force, and its first time deployment after Russia's February 2022 invasion of Ukraine, see NATO issue paper, "NATO Response Force," North Atlantic Treaty Organization, July 11, 2022, at [https://www.nato.int/cps/en/natohq/topics\\_49755.htm](https://www.nato.int/cps/en/natohq/topics_49755.htm).

<sup>11</sup> "Senior White House Official Involved in Undisclosed Talks with Top Putin Aides," *Wall Street Journal*, November 7, 2022.

along the lines of a promise to take steps to consign Russia to the status of a global pariah state. Other non-nuclear response options specific to Ukraine could include, in order of increasing severity:

- Provide frozen Russian assets to Ukraine to prosecute the war and rebuild the country,
- Conduct cyber or kinetic attacks on Russia's geo-location satellite constellation,
- Conduct cyber attacks on Russian ISR supporting military activities against Ukraine,
- Create and enforce a "no fly" zone over Ukraine with U.S. air forces and air defenses,
- Provide long-range precision conventional strike systems that Ukraine could use to attack targets in Russia supporting the war.

Nuclear weapons options would also be available; their use, of course, would depend on the severity of Russian first use whether in Ukraine or elsewhere.

With regard to North Korea, the 2022 NPR (as did the 2018 NPR) states that "any nuclear attack by North Korea against the United States or its allies or partners . . . will result in the end of that regime." This very explicit threat, if effectively communicated, would no doubt capture Kim Jong-un's attention, and bolster deterrence because, if ever executed, it would eliminate the only thing he cares about — his continued hold on power.

## **Conclusion**

Central tenets of the 2022 NPR are in the mainstream of U.S. nuclear policy and deserve full bipartisan support. At the same time, there are a few critical shortfalls. Concrete options have not yet been advanced to: (1) address China's sprint to nuclear peer status and the associated complexities

and uncertainties for deterring two such adversaries, and (2) deter the intensified threat of the limited, first use of low-yield nuclear weapons in an ongoing conventional conflict. Because these threats were crystalizing simultaneously with the work of the 2022 NPR, it is not surprising that a detailed approach for addressing them is lacking. That said, the Biden team over the coming year should advance a comprehensive plan for their resolution.<sup>12</sup>

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<sup>12</sup> For a thoughtful approach to addressing complexities of 21<sup>st</sup> century deterrence, including deterring multipolar and limited nuclear-use threats, see Brad Roberts, “On Theories of Victory, Red and Blue,” *Livermore Papers on Global Security* No. 7, Lawrence Livermore National Laboratory, Center for Global Security Research, June 2020.



# **The Biden NPR: Embracing Foundations, Rejecting Improvements**

**by Rebecca L. Heinrichs**

In March 2022, President Joe Biden submitted his classified *Nuclear Posture Review* (NPR) to Congress. In October 2022, the Biden Administration released a public version. The Biden NPR is remarkable in two significant ways. The first is in its continuity with the previous two administrations on the fundamentals of U.S. nuclear deterrence policy, including the very salience of nuclear deterrence and assurance in the modern threat context, the imperative of continued timely modernization of the nuclear triad, and in its declaratory policy. Before becoming president of the United States, and as recently as 2019 on the campaign trail, Joe Biden criticized various aspects of the fundamentals, so his embrace of them as president speaks to their enduring wisdom even, and perhaps especially, in a dynamic international environment wherein analysts assess the threats to U.S. interests will get worse and not better. The second is in the NPR's simultaneous recognition of the profound changes in the threats to U.S. interests and its choice to reject an initiative to adapt the program of record to improve U.S. deterrence credibility, even after senior military officials warned against its rejection, while also offering none of its own solutions to respond to current challenges. In a sense, the NPR would make more sense had it been written in 2010 before Russia invaded Ukraine twice and before China's strategic breakout in tandem with its provocations against Taiwan. But as a 2022 document, it is woefully inadequate to provide direction for the current and near future challenges.

The 2022 NPR starts off shaky, citing strategic deterrence as "a top priority mission for the Department of



Defense (DoD) and the Nation.”<sup>1</sup> One may be tempted to dismiss the characterization of strategic deterrence as *a* and not *the* priority as a meaningless oversight. But the 2018 NPR’s language on the subject is so much stronger, one must conclude this change is an intentional softening. The 2018 NPR reads, “Throughout past decades, senior U.S. officials have emphasized that the highest priority of the Department of Defense is deterring nuclear attack and maintaining the nuclear capabilities necessary to do so.”<sup>2</sup> Legislators would be warranted to press Pentagon officials on the meaning of this rhetorical softening and ask what other priorities are competing with strategic deterrence.

Even with the inexplicable shaky start, to its credit the Biden NPR sets aside the confusing meaning of the much-vaunted concept of “integrated deterrence,” to assert and embrace the classic and enduring definition of deterrence. It says, “Central to U.S. deterrence strategy is the credibility of our nuclear forces to hold at risk what adversary leadership values most. Effectively deterring—and restoring deterrence if necessary—requires tailored strategies for potential adversaries that reflect our best understanding of their decision-making and perceptions.”<sup>3</sup> With this elegant definition, the Biden NPR places itself squarely within the bipartisan consensus since the Cold War. The official U.S. policy reflects a rejection of the notion that nuclear deterrence has a sufficiently high probability of holding when only maintaining a small arsenal of nuclear weapons designed for assured massive retaliation. Instead,

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<sup>1</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 1, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>2</sup> U.S. Department of Defense, 2018 *Nuclear Posture Review* (Washington, D.C.: Department of Defense, February 2018), p. XI, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

<sup>3</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 11.

U.S. policy is to hold at risk the varied sets of targets based on what each adversary values and possesses. The strategy is tailored for the different contingencies if deterrence fails and seeks to be ready to attempt to convince adversaries to cease hostilities at the lowest levels of violence and destruction possible and return to peace in the case of a deterrence failure. While planning deterrence options and responses if deterrence fails, the Biden NPR embraces a strict counterforce employment guidance that is consonant with the moral and legal strictures outlined in the Department of Defense Law of Armed Conflict in the Law of War Manual. The Biden NPR states that “the DoD Law of War Manual recognizes that ‘[t]he law of war governs the use of nuclear weapons, just as it governs the use of conventional weapons.’ In addition, longstanding U.S. policy is to not purposely threaten civilian populations or objects, and the United States will not intentionally target civilian populations or objects in violation of LOAC.”<sup>4</sup> A counterforce employment strategy requires a nuclear deterrence force that is more numerous and precise due to the many military and regime point targets, and requires various delivery systems due to the diverse nature of the targets and how well and differently they are defended.

The Biden NPR also maintains the longstanding U.S. declaratory policy. In 2019, when President Biden was a candidate for the Democratic Party’s presidential nomination, he affirmed his commitment to adopting a No First Use (NFU) policy.<sup>5</sup> Thus, there was understandable concern or hope, depending on one’s perspective, that as President, Mr. Biden might move the United States in that

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<sup>4</sup> Ibid., p. 8.

<sup>5</sup> Senator Joe Biden speaking at campaign event, Union of Concerned Scientists, September 2, 2019, Joe Biden Re-Affirms Support for No First Use of Nuclear Weapons - YouTube.

direction.<sup>6</sup> However, after studying the threat, assessing adversary perceptions, and taking into account ally and partner perspectives and risk, the Biden Administration chose to maintain current policy and to continue to eschew NFU. Moreover, it did not even adopt a Sole Purpose policy, citing an “unacceptable level of risk in light of the range of non-nuclear capabilities being developed and fielded by competitors that could inflict strategic-level damage to the United States and its Allies and partners.” Incongruent with this sound conclusion, the Biden NPR did not relinquish the goal of moving towards a Sole Purpose declaratory statement.<sup>7</sup> It raises the question: why is a Sole Purpose policy a worthy goal if it increases unacceptable risks for either a deterrence failure or nuclear proliferation?

The 2022 NPR supports the nuclear modernization plan for all three legs of the triad.<sup>8</sup> Of note, as a presidential candidate, Mr. Biden called the W76-2 low-yield submarine launch ballistic missile program reinitiated by the Trump Administration a “bad idea.”<sup>9</sup> But the NPR states bluntly that “the W76-2 currently provides an important means to deter limited nuclear use.”<sup>10</sup> It also explains that the nuclear weapons partial refurbishment strategy since the Cold War falls short of the modern security demands and thus, like the prior NPRs, commits to investing in a modern nuclear weapons production infrastructure and enterprise.<sup>11</sup>

Despite the important virtues of the Biden NPR, it fails to provide additional or supplemental capabilities or

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<sup>6</sup> Rebecca L. Heinrichs, “Reject No First Use Policy,” *Newsweek*, August 24, 2020.

<sup>7</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 9.

<sup>8</sup> *Ibid.*, p. 21.

<sup>9</sup> Robert Burns, “Biden Would Push for Less US Reliance on Nukes for Defense,” *Associated Press*, September 21, 2020.

<sup>10</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 20.

<sup>11</sup> *Ibid.*, p. 23.

operational changes to meet the needs and deterrence requirements for the changing nuclear threat environment. The NPR outlines the nature of the nuclear challenges posed by China and Russia, particularly focusing on the way Russia is using nuclear weapons coercively as it carries out its war of conquest against Ukraine. While Russia retains the world's largest nuclear weapons force, the 2022 NPR assesses that the PRC is amid an ambitious nuclear weapons expansion and is expected to possess "at least" 1,000 deliverable nuclear warheads by the end of the decade.<sup>12</sup> Notably, the 2022 DoD report, *Military and Security Developments Involving the People's Republic of China*, extends this forecast, assessing that Beijing is likely on track to field a stockpile of 1,500 nuclear weapons by 2035.<sup>13</sup>

The PRC's nuclear weapons growth, which the United States is still striving to understand, and Russia's willingness to threaten to cross the nuclear threshold in a regional conventional war of choice, points to the strong possibility of the wisdom in supplementing current capabilities. But rather than offering suggestions, the Biden NPR doesn't even retain plans for an important supplemental capability offered by the Trump Administration and supported by senior military officials, the Nuclear Sea-Launched Cruise Missile (SLCM-N). Rejecting SLCM-N, the Biden NPR asserts that the low-yield ballistic missile is sufficient to meet the need identified for the SLCM-N.<sup>14</sup>

The Biden Administration's rejection of the SLCM-N goes against the recommendations of numerous senior military officials. In March, General Tod Waters, then commander of U.S. European Command, testified to the House Armed Services Committee that continuing the

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<sup>12</sup> Ibid., p. 4.

<sup>13</sup> U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China*, 2022, p. 98.

<sup>14</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit. p. 20.

development of the SLCM-N would be his best military advice.<sup>15</sup> In a letter to lawmakers the following month, then STRATCOM chief Admiral Charles Richards wrote in support of the SLCM-N: "The current situation in Ukraine and China's nuclear trajectory convinces me a deterrence and assurance gap exists. To address this gap, a low-yield, non-ballistic capability to deter and respond without visible generation is necessary to provide a persistent, survivable, regional capability to deter adversaries, assure allies, provide flexible options, as well as complement existing capabilities."<sup>16</sup> And in June, chairman and vice-chairman of the Joint Chiefs of Staff, General Mark Milley and Admiral Christopher Grady, wrote, "We continue to see value in pursuing the nuclear-armed sea-launched cruise missile to deter regional nuclear attack because of its distinct contribution. Nuclear weapons will continue to provide unique deterrence effects that no other element of U.S. military power can replace," in a joint unclassified letter to certain members of Congress.<sup>17</sup> The Biden NPR's persistent rejection of the prior administration's analysis about the gaps in our deterrence options and the proposal for a capability that is likely to improve our ability to raise the nuclear threshold when our adversaries appear to be lowering it, especially after Russia's invasion of Ukraine amid Russian officials' nuclear saber-rattling, and after U.S. military officials publicly expressed support for the supplemental capability, defies reason.

The Biden NPR also emphasizes the goal of reducing nuclear dangers beyond what deterrence provides towards that end. Among other stated goals, it lists arms control,

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<sup>15</sup> House Armed Services Committee, Full Committee Hearing: *National Security Challenges and U.S. Military Activity in Europe*, March 30, 2022.

<sup>16</sup> Joe Gould, "US Strategic Command Chief: Sea Missile Cancellation Opens 'Deterrence and Assurance Gap,'" *DefenseNews*, April 5, 2022.

<sup>17</sup> John R. Harvey and Rob Soofer, "Strengthening Deterrence with SLCM-N," *Issue Brief*, Atlantic Council, November 2022, p. 2.

heading off a costly arms race, non-proliferation, and signaling the desire to reduce the salience of nuclear weapons globally. This is consistent with the *Interim National Security Strategic Guidance*, which the Biden Administration published in March 2021. The Interim Guidance stated a commitment to, “reduce the role of nuclear weapons in our national security strategy” even as it committed to ensuring our means of strategic deterrence remain “safe, secure, and effective and that our extended deterrence commitments to our allies remain strong and credible.”<sup>18</sup>

It is unclear how these other goals will be achieved distinct from striving towards increasing the credibility of U.S. nuclear deterrence and ally assurance, including supplementing current capabilities, and whether making progress towards achieving them will realistically strengthen or undermine the ultimate goal—the highest priority—of deterring strategic attack against the United States, our allies, and other vital interests.

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<sup>18</sup> The White House, *Interim National Security Guidance*, March 2021, p. 13.



# The Transformation of Deterrence: Serving War and Not Peace

by Peter Huessy

Since 1994, five successive American administrations have published a *Nuclear Posture Review* (NPR) that, in varying degrees of detail, has outlined the nation's nuclear plans, policies and strategies. The reviews have considerable commonality,<sup>1</sup> including support for a Triad of nuclear platforms and an extended deterrent umbrella for our allies, while supporting what has been termed a "responsive infrastructure"<sup>2</sup> able to sustain a credible deterrent, with respect to both our deployed and reserve nuclear warheads.

For nearly seven decades, including during the NPR era, the United States primarily aimed to deter the Soviet Union and then Russia from using its massive conventional and nuclear forces in Europe. That singular major nuclear adversary era is now over,<sup>3</sup> not the least because China is now estimated by the U.S. Department of Defense<sup>4</sup> to

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<sup>1</sup> John R. Harvey et al., "Assessing the Biden 2022 Nuclear Posture Review," *RealClearDefense*, November 16, 2022, [https://www.realcleardefense.com/articles/2022/11/16/assessing\\_the\\_biden\\_2022\\_nuclear\\_posture\\_review\\_865108.html](https://www.realcleardefense.com/articles/2022/11/16/assessing_the_biden_2022_nuclear_posture_review_865108.html).

<sup>2</sup> *Future Nuclear Posture of the United States* (U.S. Senate, January 26, 2016), [https://www.armed-services.senate.gov/imo/media/doc/Harvey\\_01-27-16.pdf](https://www.armed-services.senate.gov/imo/media/doc/Harvey_01-27-16.pdf).

<sup>3</sup> David Vergun, "Conflict With a Nuclear-Capable Peer Possible, Says Stratcom Commander," *DOD News*, September 21, 2022, <https://www.defense.gov/News/News-Stories/Article/Article/3166522/conflict-with-a-nuclear-capable-peer-possible-says-stratcom-commander/>.

<sup>4</sup> Department of Defense, *Military and Security Developments Involving the People's Republic of China 2022, A Report to Congress* (Department of Defense, November 29, 2022), <https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022->



deploy 1,500 strategic nuclear warheads by 2035, a four-fold increase from today and nearly matching the U.S. nuclear ballistic missile forces allowed by the 2010 New START agreement.<sup>5</sup>

In short, for the first time in our history, the United States will face not one but two nuclear armed peer competitors.<sup>6</sup>

The good news is that the 2022 *Nuclear Posture Review* supports a Triad of strategic bombers, land-based ICBMs and submarines armed with sea-launched ballistic missiles.<sup>7</sup> Notable is the administration's support for deploying low-yield warheads on the submarine-launched D-5 missile, an initiative of the Trump Administration and designed to deter Russia from the limited use of low-yield nuclear weapons.<sup>8</sup>

The bad news is the administration proposed to stop funding a nuclear armed sea-based cruise missile,<sup>9</sup> also designed to enhance extended deterrence by providing a

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MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF.

<sup>5</sup> Peter Huessy, "Chinese Nuclear Deceptions," *RealClearDefense*, December 13, 2022, [https://www.realcleardefense.com/articles/2022/12/13/chinese\\_nuclear\\_deceptions\\_869909.html](https://www.realcleardefense.com/articles/2022/12/13/chinese_nuclear_deceptions_869909.html).

<sup>6</sup> Vergun, "Conflict With a Nuclear-Capable Peer Possible, Says Stratcom Commander," *op. cit.*

<sup>7</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 20, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PD>.

<sup>8</sup> Patty-Jane Geller, *The Gaping Logic Hole in the Administration's Nuclear Posture Review*, The Heritage Foundation, November 21, 2022, <https://www.heritage.org/defense/commentary/the-gaping-logic-hole-the-administrations-nuclear-posture-review>.

<sup>9</sup> Ellen Mitchell, "Biden Moves to Scrap Trump-Era Sea-Launched Nuclear Missile Program," *The Hill*, October 27, 2022, <https://thehill.com/policy/defense/3708054-biden-moves-to-scrap-trump-era-sea-launched-nuclear-missile-program/>.

president a wider range of responsive options. Fortunately, Congress has funded the research program in the new defense bill signed into law late in 2022.

As the 2022 *Nuclear Posture Review* acknowledges,<sup>10</sup> Russia and China see the use of nuclear weapons or the threat to use nuclear weapons as serving aggression, not to deter war.<sup>11</sup> Traditionally, nuclear deterrence for the United States has been generally thought of as a necessary retaliatory capability to prevent a nuclear armed power from attacking first, whether with conventional, biological, chemical, cyber or nuclear weapons.<sup>12</sup> Given that any nuclear power can “go first,” the retaliatory deterrent, to be credible, had to have enough survivable force to make any attacking nation think twice about risking its own destruction.

But now we are facing not only Russia as a major attacking threat, but Russia and China together with projected nuclear forces by 2035 deployed (in the field) that are 200% of the current U.S. deployed arsenal.<sup>13</sup>

The survivability of the U.S. nuclear force was a concern of top U.S. military commanders as far back as the first decade of the nuclear age. General Curtis LeMay, the Strategic Air Command (SAC) Commander and also Chief of Staff of the USAF, worried that the U.S. strategic bomber force relied upon gravity bombs housed at 14 storage sites in the United States.<sup>14</sup> The Soviets could strike first at the undefended storage depots and, by eliminating the U.S.

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<sup>10</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 11.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid., p. 9.

<sup>13</sup> Task Force 21, “11th Annual Nuclear Triad Symposium,” Task Force 21, September 23, 2022, <https://www.taskforce21.com/>.

<sup>14</sup> Atomic Heritage Foundation, “Curtis LeMay,” National Museum of Nuclear Science & History, n.d., <https://ahf.nuclearmuseum.org/ahf/profile/curtis-lemay/>.

stockpile of nuclear weapons, make useless the U.S. deterrent of strategic nuclear bombers.

LeMay proposed that the USAF look seriously at deploying a ballistic missile launched from silos—which would be safe from attack given the Soviet lack of high accuracy weaponry required to successfully destroy them. The Navy started thinking along the same lines. Following the shock of the Soviet Sputnik satellite launch,<sup>15</sup> under the direction of USAF General Bernard Schriever, in 5-7 years the United States developed both a submarine sea-based SLBM (Polaris) and a land-based ICBM (Minuteman). The latter was first deployed at Malmstrom USAF base in Montana on the very day that President Kennedy announced the discovery of the Soviet nuclear-armed missiles deployed to Cuba.<sup>16</sup>

Throughout the subsequent nuclear age, the U.S. Triad, first deployed in 1958-62, has been seen as indispensable to sustaining a credible second-strike retaliatory capability sufficient to deter any Soviet and now Russian and Chinese use of conventional or nuclear weapons, including an all-out attack using many thousands of such weapons.

During the 1970s the strategic balance markedly worsened as the Soviets opened up what was described as a “window of vulnerability.”<sup>17</sup> Upwards of 13,000 Soviet nuclear warheads were likely aimed at U.S. military targets and capable of taking out the most accurate U.S. ICBM

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<sup>15</sup> Michelle Cadoree Bradley, “Sputnik and the Space Race: 1957 and Beyond,” Library of Congress, July 10, 2019, <https://guides.loc.gov/sputnik-and-the-space-race>.

<sup>16</sup> Peter Huessy, “Is the United States Trying to Fight and Win Nuclear Wars?,” Hudson Institute, February 9, 2022, <https://www.hudson.org/national-security-defense/is-the-united-states-trying-to-fight-and-win-nuclear-wars>.

<sup>17</sup> Peter Huessy, “Can a Nuclear War Be Won? America’s Adversaries May Think So,” *National Interest*, May 24, 2022, <https://nationalinterest.org/feature/can-nuclear-war-be-won-america%E2%80%99s-adversaries-may-think-so-202593>.

missiles, including those needed to hold at risk key Soviet offensive missiles.

That first strike window was closed through a combination of U.S. nuclear deployments and successful strategic nuclear arms control. Subsequently, the collapse of the Soviet empire was widely assumed by Western security analysts to end Moscow's search for hegemonic power over Europe and the United States,<sup>18</sup> and its nuclear threat to U.S. retaliatory forces.

Having solved that Cold War survivability puzzle, the United States now faces another tough nuclear challenge which, as noted above, the 2022 NPR discusses. In 1999, Russian President Yeltsin issued a decree calling for the development of battlefield nuclear forces to give Moscow militarily and politically useful weapons.<sup>19</sup> Current Russian President Putin has achieved the decree's objectives with the deployment of a number of medium- and low-range, highly-accurate, low-yield nuclear weapons.<sup>20</sup>

Top U.S. officials warned the United States about this development, including Brad Roberts,<sup>21</sup> now director of the LLNL's Global Security Research Center and then Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy, and General John Hyten,<sup>22</sup> then head of U.S.

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<sup>18</sup> Francis Fukuyama, "The End of History?," *Center for the National Interest*, 16 (1989), pp. 3–18.

<sup>19</sup> Arms Control Association, "Yeltsin Signs Decree on Tactical Nuclear Weapons," *Arms Control Today*, April 29, 1999, <https://www.armscontrol.org/act/1999-04/yeltsin-signs-decree-tactical-nuclear-weapons>.

<sup>20</sup> Mark Schneider, "Russian Nuclear Threats, Doctrine and Growing Capabilities," *RealClearDefense*, July 28, 2022, [https://www.realcleardefense.com/articles/2022/07/28/russian\\_nuclear\\_threats\\_doctrine\\_and\\_growing\\_capabilities\\_844910.html](https://www.realcleardefense.com/articles/2022/07/28/russian_nuclear_threats_doctrine_and_growing_capabilities_844910.html).

<sup>21</sup> Brad Roberts, "On Theories of Victory, Red and Blue," *Center for Global Security Research* 7 (June 2020), pp. 106, 42.

<sup>22</sup> John E. Hyten, *U.S. Strategic Command Space and Missile Defense Symposium Remarks*, Symposium (Missile Defense Symposium, 2018),

Strategic Command and subsequently Vice Chairman of the Joint Chiefs of Staff.

Roberts explained that “escalate to de-escalate” is a Russian strategy which threatens to use a limited number of theater nuclear weapons in order to get the United States and its allies to stand down in a crisis or conventional conflict.<sup>23</sup> General Hyten thought it better to describe the Russian strategy as “escalate to win,” where Moscow would rally to win even if at first losing the conventional battle against superior U.S. conventional forces.

That Russian strategy was partially evident in serial aggression in Syria, Ukraine, Belarus, Moldova and Georgia since 2008, backed up with harsh rhetoric from Moscow, as part of an “escalate package” of (1) newly deployed nuclear weapons, (2) exercises with and tests of such weapons, (3) rhetorical salvos threatening the use of nuclear weapons, and (4) published strategies making the use of such nuclear force an explicit part of Russian policy.<sup>24</sup>

In doing so, Russia has flipped traditional notions of nuclear deterrence upside down. Nuclear force from Moscow’s perspective is now seen predominantly as a tool to help aggression succeed,<sup>25</sup> (not to deter it)—even when Moscow’s conventional capability may not be up to the task if faced with the full capability of U.S. and its allied conventional forces.

The Russian escalate to win threats are likely the reason the United States and NATO refrained from using their own conventional forces to directly intervene in the Ukraine

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<https://www.stratcom.mil/Media/Speeches/Article/1600894/us-strategic-command-space-and-missile-defense-symposium-remarks/>.

<sup>23</sup> Roberts, “On Theories of Victory, Red and Blue,” op. cit., p. 42.

<sup>24</sup> Mark Schneider, “Russian Use of Nuclear Coercion against NATO and Ukraine,” National Institute for Public Policy, *Information Series*, No. 521 (May 2, 2022), p. 7.

<sup>25</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 11.

war.<sup>26</sup> The United States and its allies have provided Ukraine with over \$18 billion of military equipment, but not front-line fighters, bombers, long-range cruise missiles or artillery.

On the other hand, so far, the U.S. nuclear deterrent likely has prevented Putin from actually using nuclear weapons in the theater. However, as Stephen Blank of the Foreign Policy Research Institute has warned, standing down in the face of such Russian threats undermines the very faith the United States and allies should have in the credible nature of America's nuclear deterrent, as repeatedly expressed in the 2022 NPR.<sup>27</sup>

While the NPR does acknowledge the Russian adoption of an escalate to win strategy,<sup>28</sup> and hints the Chinese may similarly adopt such a hegemonic strategy,<sup>29</sup> it fails to lay out a complete policy for countering the Russian escalate strategy.

To be clear, this is not simply a matter of "escalation dominance." The idea of being able to prevent a conventional or nuclear conflict from escalating to a more destructive level has always been a central feature of U.S. deterrent declaratory policy, although the extent to which the United States has built and deployed forces to implement such a strategy has varied.<sup>30</sup>

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<sup>26</sup> Aaron Blake, "Why Biden and the White House Keep Talking about World War III," *The Washington Post*, March 17, 2022, p. 3, <https://www.washingtonpost.com/politics/2022/03/17/why-biden-white-house-keep-talking-about-world-war-iii/>.

<sup>27</sup> Stephen Blank, "Russia in Ukraine: Between Nuclear War and Civil Strife" (Hudson Institute, 2022), [https://us06web.zoom.us/rec/share/d2PeDh8l-kKJt1dg-BYl5aiWoBvD2KzlUqsbeF668bKPXh3c\\_878tG\\_9J9wNZ40.\\_koinA2d87By0g5F?startTime=1667919773000](https://us06web.zoom.us/rec/share/d2PeDh8l-kKJt1dg-BYl5aiWoBvD2KzlUqsbeF668bKPXh3c_878tG_9J9wNZ40._koinA2d87By0g5F?startTime=1667919773000).

<sup>28</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 5.

<sup>29</sup> *Ibid.*, p. 11.

<sup>30</sup> Robert S. Ross, "Navigating the Taiwan Strait: Deterrence, Escalation Dominance, and U.S.-China Relations," *International Security*, 27, No. 2 (Fall 2002), pp. 48-85, p. 52.

As previously discussed, the window of vulnerability opened up when the Soviets built an arsenal of 13,000 deployed strategic nuclear weapons with which to coerce the United States. Given such numbers, it has been an article of faith that any use of nuclear weapons, however initially limited, would quickly rise to what Paul Nitze once told me could be described as the “Armageddon option.”<sup>31</sup>

While U.S. nuclear officials may believe any limited use of nuclear weapons will quickly escalate, it is clear Mr. Putin and many of his high military officials don’t believe that is the case. However reckless the United States may deem such Russian thinking, it is what Moscow thinks;<sup>32</sup> and probably China as well.<sup>33</sup>

Importantly, although arms control has markedly reduced deployed strategic nuclear forces in Russia and the United States, and assisted in closing the first window of vulnerability, Moscow’s escalate to win strategy assumes the use of a relatively small number of nuclear weapons which no potential arms deal short of complete disarmament would address.

The NPR only partially explores the road the United States must travel to block Putin’s escalate to win strategy. It is not enough to enhance America’s conventional capability,<sup>34</sup> as that is precisely what Putin has adopted an escalate strategy to counter. Putin seeks to get the United

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<sup>31</sup> This comment by Nitze was made to this author during a 1986 conversation in his office at Johns Hopkins School of Advanced International Affairs, which Nitze founded.

<sup>32</sup> Roberts, “On Theories of Victory, Red and Blue,” op. cit., p. 42.

<sup>33</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 11.

<sup>34</sup> The White House, “National Security Strategy” (The White House, October 12, 2022), <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>, p. 22.

States out of the fight unilaterally by securing what Sun Tzu described as “winning without fighting.”<sup>35</sup>

Another challenge for the U.S. government is how to downgrade and reduce the role of nuclear weapons in U.S. defense strategy, as called for by the NPR,<sup>36</sup> to get Russia and China to follow what Washington sees as the better moral standard. But Russia and China are not seeking to reduce the role of nuclear weapons. If anything, the Russian and Chinese massive nuclear modernization of dozens of new types of strategic and theater nuclear systems shows the opposite intent, especially Russia’s just announced 2023 program to increase funding for strategic nuclear systems by 1.5 times current levels.<sup>37</sup>

Whether the proper U.S. and allied response is the development of a sea-based new nuclear armed cruise missile<sup>38</sup> is not fully knowable; but such a deployment at least begins to address a gap Putin seeks to exploit.<sup>39</sup> The United States also has to determine the extent to which new space, cyber, missile defense and artificial intelligence technologies, when added to current nuclear modernization, are all part of the needed mix of capabilities

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<sup>35</sup> Susan Ratcliffe, “Oxford Essential Quotations,” *Oxford Reference*, n.d., <https://www.oxfordreference.com/display/10.1093/acref/9780191843730.001.0001/q-oro-ed5-00010536;jsessionid=828D3D1F31EAF84C8D094696ACF91137#:~:text=Sun%20Tzu%20fl.&text=To%20win%20one%20hundred%20victories,is%20the%20acme%20of%20skill>.

<sup>36</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 15.

<sup>37</sup> Sami Quadri, “Vladimir Putin ‘allocating over 30% of Entire Budget on Defence’ as Cost of Ukraine War Weighs on Russia,” *Yahoo! Finance*, December 11, 2022, <https://ca.finance.yahoo.com/news/vladimir-putin-allocating-over-30-104342846.html>.

<sup>38</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 20.

<sup>39</sup> “United States Nuclear Strategy and Policy,” September 20, 2022, <https://www.armed-services.senate.gov/imo/media/doc/Edelman-Miller%20Opening%20Statement%20ASC%20Hearing%20Sept.%2020202226.pdf>.



the United States needs to sustain and improve deterrence against the new threats. Unfortunately, the 2022 NPR does not fully explore these questions.<sup>40</sup>

To date, U.S. military conventional military exercises and wargames do not end in victory when nuclear weapons—however limited in number—are introduced onto the battlefield.<sup>41</sup> That firewall was long assumed to be solid, while allowing U.S. conventional forces to prevail. Putin thinks otherwise.

The use or threatened use of nuclear weapons is currently explicit Russian policy.<sup>42</sup> Even should the United States develop a strategy that provides ample options for Russia to de-escalate, Putin (or a future Russian leader) may paint himself so deeply into a corner that whatever off-ramps are available, he still refuses to take that option for fear it would be interpreted as a surrender or defeat.<sup>43</sup> Not getting into a conventional conflict in the first place would avoid such a scary future, but having acquiesced in previous Russian invasions of Moldova, Georgia and Ukraine, our options to avoid such future nuclear blackmail may still be seriously limited, even should Russia fully withdraw from Ukraine.<sup>44</sup>

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<sup>40</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 10.

<sup>41</sup> Oliver Parken and Tyler Rogoway, "Extremely Ominous Warning About China From US Strategic Command Chief," *The Warzone*, November 6, 2022, <https://www.thedrive.com/the-war-zone/extremely-ominous-warning-about-china-from-us-strategic-command-chief>.

<sup>42</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 2.

<sup>43</sup> Blank, "Russia in Ukraine: Between Nuclear War and Civil Strife," op. cit.

<sup>44</sup> Ibid.

# 2022 Nuclear Posture Review: Ideology Meets Reality

by Susan Koch

The *leitmotif* of the 2022 *Nuclear Posture Review* (NPR) is found in the title of its first chapter: “A Comprehensive, Balanced Approach to Defending Vital National Security Interests and Reducing Nuclear Risks.”<sup>1</sup> The entire document is replete with statements of the changes to U.S. nuclear policy that the Biden Administration would like to implement, and that it retains as longer-term goals, but that it cannot yet adopt because of the current and foreseeable international political and military environment.

While the NPR describes this as a “balanced approach,” it might be more accurately described as the result of the tensions between the nuclear policy proclivities of the President and of many members of his administration and the realities of current and emerging nuclear and other strategic threats to the United States, our allies and partners.

The result is an NPR which has some important provisions that work against U.S., allied and partner security interests, but also has a surprising number of common features with its predecessors. The tone is certainly different, especially when compared with the 2018 NPR. There are frequent expressions of regret at the administration’s current inability to adopt new policies that would further reduce the size and importance of U.S. nuclear forces, and of hope that those new policies can eventually be adopted. Nevertheless, the 2022 NPR failed to meet the aspirations of those who advocate a substantial reduction in U.S. and allied reliance on nuclear weapons. It

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<sup>1</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), available at <https://www.defense.gov/News/Publications/>.

also assuaged some fears of those who worried that the review would seriously weaken U.S. deterrence, extended deterrence, and allied assurance, just when the United States, our allies and partners confront increasingly dangerous threats to the international order from China, Russia, North Korea and potentially Iran.

### **The NPR Definition of Core International Challenges**

The NPR identifies four states in particular as posing increasingly serious threats to the international order. It emphasizes that by the next decade, “the United States will, for the first time in its history, face two major nuclear powers [Russia and China] as strategic competitors and potential adversaries.”<sup>2</sup> The threat from the Democratic People’s Republic of Korea (DPRK) is not comparable to that from China or Russia, but its nuclear, non-nuclear and missile forces pose “a persistent threat and growing danger to the U.S. homeland and the Indo-Pacific region.”<sup>3</sup> as it expands and improves its nuclear, missile and non-nuclear forces.

Finally, although the U.S. Government does not believe that Iran is now pursuing nuclear weapons capability, the NPR expresses concern that Iran’s ongoing violations of the Joint Comprehensive Plan of Action (JCPOA) could support a weapons program.<sup>4</sup> The NPR almost certainly underestimates the danger of an Iranian nuclear weapons program. In June 2002, expert observers concluded that Iran had enough uranium enriched to 60 percent to create a

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<sup>2</sup> Ibid., p. 4.

<sup>3</sup> Ibid., p. 5.

<sup>4</sup> Loc. cit.

nuclear weapon.<sup>5</sup> Shortly thereafter, several Iranian officials publicly agreed that Iran could build a nuclear weapon whenever it wanted, even as they repeated official denials that the country is pursuing nuclear weapons.<sup>6</sup>

## Major Decisions in the NPR

The 2022 NPR highlights several decisions that it maintains are designed “to ensure a safe, secure, and effective deterrent while taking responsible steps to advance the goal of reducing the role of nuclear weapons in U.S. strategy.”<sup>7</sup> In other words, these decisions encapsulate the basic tensions at the heart of the new NPR. Central issues addressed in these decisions involve nuclear force structure, nuclear strategy and declaratory policy, and nuclear risk reduction.

### *Nuclear Force Structure*

The 2022 NPR reaffirmed the U.S. commitment to fully fund the strategic triad, to include (but not be limited to) the following: the Sentinel Intercontinental Ballistic Missile (ICBM) program; the Columbia-Class ballistic missile submarine (SSBN) program for a minimum of 12 boats; the B-21 Raider bomber for a minimum of 100 aircraft; and the long-range standoff weapon (LRSO). The review contains no reference to earlier controversies over whether to deploy a new ICBM or LRSO. The same is true of the decision to

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<sup>5</sup> See, for example, David Albright and Sarah Burkhard, *Iranian Breakout Timeline Now at Zero*, June 1, 2002, available at <https://isis-online.org/isis-reports/detail/iranian-breakout-timeline-now-at-zero/>.

<sup>6</sup> Jon Gambrell, “Analysis: Iran Now Speaking Openly on Nuclear Bomb Prospects,” August 4, 2002, available at <https://ap-news.com/article/middle-east-iran-dubai-nuclear-d96093efcf1e6b8581138b9db48cbcdc>.

<sup>7</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 3.

retain the W76-2 low-yield Submarine-Launched Ballistic Missile (SLBM), although the NPR hedges its position by saying that the deterrent value of the W76-2 will be reassessed periodically.

One major change in the 2022 NPR to the previous administration's nuclear force program was the cancellation of the nuclear Sea-Launched Cruise Missile (SLCM-N). According to the review, the Biden Administration "concluded SLCM-N was no longer necessary given the deterrence contribution of the W76-2, uncertainty regarding whether SLCM-N on its own would provide leverage to negotiate arms control limits on Russia's NSNW [nonstrategic nuclear weapons], and the estimated cost of SLCM-N in light of other nuclear modernization programs and defense priorities."<sup>8</sup>

The reference to SLCM-N's usefulness as an arms control bargaining chip is revelatory, as is the failure of the NPR to address the system's potentially important contribution to extended deterrence and allied reassurance against both the Russian and Chinese threats. In a review that prides itself on its focus on allies and partners, the SLCM-N decision is difficult to understand. The Congress has chosen to keep the SLCM-N program alive, but only barely. The Fiscal Year 2023 National Defense Authorization Act (NDAA), enacted in December 2022, authorizes \$25 million for continued SLCM-N research and development.

It is difficult to understand the reasons for, or the practical impact of, another nuclear force policy change in the 2022 NPR—the abandonment of "hedging against an uncertain future" as a role for nuclear weapons. The NPR describes the import of this change as follows: "The United States will continue to carry out robust risk management strategies within the nuclear enterprise so that it is capable

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<sup>8</sup> Ibid., p. 20.

of delivering credible deterrence even in the face of significant uncertainties and unanticipated challenges.” The aim is to build “enduring advantage and resilience in our stockpile, production complex, and science and technology efforts.”<sup>9</sup> The unstated implication is that success in that effort would end the need to retain non-deployed warheads as a hedge, but any resultant stockpile reductions would not happen in the near term, if at all. It may be useful to recall in that regard that, despite its rhetoric, the Obama Administration implemented smaller nuclear stockpile reductions than any of its post-Cold War predecessors.<sup>10</sup>

### *Nuclear Strategy and Declaratory Policy*

A central theme of the Obama Administration 2010 *Nuclear Posture Review* was “to reduce the role of nuclear weapons in U.S. national strategy and U.S. military strategy,” including by reducing their importance in deterrence of non-nuclear attack. The ability to reduce the role of nuclear weapons was attributed in the first place to benign changes in the international environment: “the Soviet Union and the Warsaw Pact are gone. Russia is not an enemy, and is increasingly a partner in confronting proliferation and other emerging threats.” China was not mentioned as a major player in the international environment facing the United States. The second factor behind the purported ability to reduce further the role of U.S. nuclear weapons was the development of U.S., allied and partner non-nuclear capabilities to deter and defend against non-nuclear attack. While that second factor retains some validity, the first

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<sup>9</sup> Ibid., p. 7.

<sup>10</sup> See State Department, “Fact Sheet: Transparency in the U.S. Nuclear Weapons Stockpile,” October 5, 2021, available at [https://state.gov/wpcontent/uploads/2021/10/Fact\\_Sheet\\_unclass\\_2021\\_final-v2-002.pdf](https://state.gov/wpcontent/uploads/2021/10/Fact_Sheet_unclass_2021_final-v2-002.pdf).

quickly turned out to be completely mistaken in its confidence regarding Russia and China.<sup>11</sup>

Despite the benign political and military/technological environment that the Obama Administration expected for the foreseeable future, the 2010 NPR found that:

there remains a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring a conventional or CBW [chemical or biological weapons] attack against the United States or its allies and partners. The United States is not prepared at the present time to adopt a universal policy that the 'sole purpose' of U.S. nuclear weapons is to deter nuclear attack on the United States and our allies and partners, but will work to establish conditions under which such a policy could be safely adopted.<sup>12</sup>

By the last years of the Obama Administration, it was difficult to characterize the international order as benign. China was expanding its military forces and its threatening presence in the Indo-Pacific Region. Russia had ended our Cooperative Threat Reduction partnership, was violating the Intermediate-Range Nuclear Forces Treaty, and had invaded Ukraine, illegally claiming Crimea as its own. In May 2016, Secretary of Defense Ash Carter declared: "We haven't had to prioritize deterrence on NATO's eastern flank for the last 25 years. While I wish it were otherwise, now we have to."<sup>13</sup>

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<sup>11</sup> U.S. Department of Defense, *Nuclear Posture Review Report*, April 2010, p. 15.

<sup>12</sup> *Ibid.*, p. 16.

<sup>13</sup> Secretary of Defense Ash Carter, "Remarks at EUCOM Change of Command," May 3, 2016, available at <https://defense.gov/News/Speech/Article/750946/remarks-at-eucom-change-of-command>.

Nevertheless, according to press reports, President Obama and outside arms control advocates continued to emphasize the 2009 “Prague Agenda” of working toward the elimination of nuclear weapons. They seriously considered adopting a No First Use (NFU) policy, under which the United States would pledge never to be the first to use nuclear weapons in a conflict. This was difficult to comprehend, given the adverse changes in the international environment since the 2010 NPR found that conditions were not yet ready for a more limited Sole Purpose declaration. Press reports indicate that the Secretaries of State, Defense and Energy persuaded the President to abandon the NFU idea because of the adverse effects it would have on deterrence and allied assurance.<sup>14</sup>

While the Obama Administration abandoned the NFU proposal, it announced in its waning days that the conditions had been met for adoption of a Sole Purpose policy. This was also difficult to understand, considering that those conditions were even less achievable in 2017 than they had appeared in 2010. In a speech on January 12, 2017, just eight days before President Trump’s inauguration, then-Vice President Biden declared:

... Over the course of our Administration, we have steadily reduced the primacy nuclear weapons have held in our national security policies since World War II—while improving our ability to deter and defeat any adversaries—and reassure our allies—without reliance on nuclear weapons.

Given our non-nuclear capabilities and the nature of today’s threats—it’s hard to envision a plausible scenario in which the first use of nuclear weapons

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<sup>14</sup> See David E. Sanger and William J. Broad, “Obama Unlikely to Vow No First Use of Nuclear Weapons,” *New York Times*, September 5, 2016.



by the United States would be necessary. Or make sense.

President Obama and I are confident we can deter—and defend ourselves and our Allies against—non-nuclear threats through other means.

The next Administration will put forward its own policies. But, seven years after the Nuclear Posture Review charge—the President and I strongly believe we have made enough progress that deterring—and if necessary, retaliating against—nuclear attack should be the sole purpose of the U.S. nuclear arsenal.<sup>15</sup>

Under the circumstances, both advocates and opponents of a significantly reduced role for nuclear weapons expected that the Biden Administration NPR would endorse at least Sole Purpose and possibly NFU. Neither happened. Instead, the 2022 NPR echoed the 2010 version, stating that “*the fundamental role of nuclear weapons is to deter nuclear attack on the United States, our Allies, and partners,*” [italics in original] and further, that “there remains a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring attacks that have strategic effect against the United States or its Allies and partners.”<sup>16</sup>

In an unusual discussion that has few, if any, counterparts elsewhere in the 2022 NPR or its predecessors, the Biden Administration assured supporters of Sole Purpose and NFU declaratory policies that the decision not to adopt them was carefully considered. Moreover, they made clear that the current strategic environment was

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<sup>15</sup> The White House, Office of the Vice President, “Remarks by the Vice President on Nuclear Security,” January 12, 2017, available at <https://obamawhitehouse.archives.gov/the-press-office/2017/01/12/remarks-vice-president-nuclear-security>.

<sup>16</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 9.

dramatically different from the one that then-Vice President Biden described in January 2017.

We conducted a thorough review of a broad range of options for nuclear declaratory policy—including both No First Use and Sole Purpose policies—and concluded that those approaches would result in an unacceptable level of risk in light of the range of non-nuclear capabilities being developed and fielded by competitors that could inflict strategic-level damage to the United States and its Allies and partners. Some Allies and partners are particularly vulnerable to attacks with non-nuclear means that could produce devastating effects.<sup>17</sup>

Still, the 2022 NPR echoed the Obama Administration in its commitment to the long-term goal of adopting a Sole Purpose declaratory policy: “We retain the goal of moving toward a sole purpose declaration and we will work with our Allies and partners to identify concrete steps that would allow us to do so.”<sup>18</sup> The NPR makes no attempt at identifying such steps or indicating the likelihood of achieving its Sole Purpose goal in the current or foreseeable strategic environment. Interestingly, and importantly, the NPR includes no comparable commitment to eventual adoption of NFU. Perhaps the Biden Administration took to heart the strong allied opposition to the reported Obama Administration consideration of NFU in 2016.

The decision not to adopt Sole Purpose or NFU was extremely important—reinforcing (or at least not undermining) extended deterrence and allied assurance in the face of growing Russian and Chinese threats. However, that salutary effect on both allies and adversaries may have been weakened by the retention of the Sole Purpose goal.

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<sup>17</sup> Loc. cit.

<sup>18</sup> Loc. cit.

While a revival of NFU consideration appears unlikely, allies and partners may worry – and adversaries hope – that a Sole Purpose declaratory policy could eventually be adopted, with consequent damage to extended deterrence.

### *Nuclear Risk Reduction*

The 2022 NPR discussion of arms control maintains the balance – or tension – between aspiration and reality found elsewhere in the report. “Mutual, verifiable nuclear arms control offers the most effective, durable and responsible path to reduce the role of nuclear weapons in our strategy and prevent their use. ... PRC and Russian actions to expand their nuclear arsenals make mutual and verifiable arms control challenging.”<sup>19</sup>

Surprisingly, given the primacy of the Chinese threat, the Biden NPR does not foresee trilateral, or bilateral U.S.-China, arms control negotiations. “Russia will remain a focus of U.S. efforts given the size, diversity, and continuing modernization of its nuclear arsenal. However, we will need to account for the PRC’s nuclear expansion in future U.S.-Russia arms control discussions.”<sup>20</sup> The administration hopes to negotiate a follow-on to the New START Treaty, although it recognizes that “negotiation requires a willing partner operating in good faith.”<sup>21</sup> The NPR is silent on any specific U.S. goals or proposals for such a new agreement.

As for China, arms control negotiations are not expected in the near term. Instead, the aim appears to be for incremental confidence-building measures that might lead eventually to arms control negotiations. “The scope and pace of the PRC’s nuclear expansion, as well as its lack of transparency and growing military assertiveness

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<sup>19</sup> Ibid., p. 16.

<sup>20</sup> Loc. cit.

<sup>21</sup> Loc. cit.

...[underscore] the need for discussions on practical steps to reduce strategic risks, including steps that could lay the groundwork for additional discussion of mutual restraints in capabilities and behavior.”<sup>22</sup>

## Conclusion

In sum, the 2022 NPR could have been improved in several ways to strengthen strategic deterrence, extended deterrence and allied assurance. But fears (or for some, hopes) were not realized that the Biden NPR would echo the January 2017 Vice-President’s speech in its devotion to nuclear elimination ideology and denial of the realities of the current and foreseeable strategic environments. For that, we may have to thank Putin and Xi for the clear threats that they pose to the United States, our allies and partners – threats that cannot be ignored or downplayed. In the concluding words of the 2022 NPR: “for the foreseeable future, nuclear weapons will continue to provide unique deterrence effects that no other element of U.S. military power can replace. To deter aggression and preserve our security in the current security environment, we will maintain a nuclear posture that is responsive to the threats we face.”<sup>23</sup>

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<sup>22</sup> Ibid., p. 17.

<sup>23</sup> Ibid., p. 25.



# 2022 Nuclear Posture Review: Operationally Flawed?

by David J. Lonsdale

## Introduction

Although it is recognised that a nuclear posture review is not a comprehensive presentation of operational details, still, such a document cannot be purely abstract. An explanation of nuclear weapons policy must be grounded in operational reality. Indeed, the *2022 Nuclear Posture Review* (NPR) itself stipulates that implementation of the NPR requires the development of operational and organizational concepts.<sup>1</sup> Moreover, the *2022 NDS Fact Sheet: Campaigning*, states that, “the entire Department of Defense synchroniz[es] all that we do to build warfighting advantage, close warfighting vulnerabilities, and disrupt adversary actions.”<sup>2</sup> Campaigning is the bread and butter of operationalization. To this end, an NPR should be read alongside the congressionally mandated *Report on the Nuclear Employment Strategy of the United States*. However, since the extant report on nuclear employment was produced during the Trump Administration, it cannot be regarded as an accurate representation of the Biden Administration’s approach to operational employment. With this in mind, this paper will assess the 2022 NPR primarily from an operational perspective, with references

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<sup>1</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 10.

<sup>2</sup> U.S. Department of Defense, *2022 NDS Fact Sheet: Campaigning*, (Washington, D.C.: Department of Defense, 2022), <https://media.defense.gov/2022/Oct/27/2003103939/-1/-1/1/STRATEGIC-WAYS-COMPILATION-NDS-FACTSHEETS.PDF>, p. 3.

to strategy where appropriate. In doing so, it will identify areas that need further development. The paper will begin with a brief explanation of the levels of strategy, and how they relate to one another in the process of strategy.

### Levels of Strategy

Any form of strategy, including nuclear strategy, is a process that converts military power into policy effect. This is achieved by ensuring that actions across the levels of strategy are in harmony. Specifically, endeavours at all levels should be guided by policy requirements, military realities, and should be in tune with the nature of war.<sup>3</sup> This sounds rather straightforward, and yet, as noted by the renowned strategist Edward N. Luttwak, disharmony amongst the levels is often the norm.<sup>4</sup> Too often there is a disconnect amongst actions at the different levels. The levels of strategy are composed of the tactical, operational, strategic, grand strategic, and policy. The tactical level is concerned with the details of combat, what weapons are required, how they are deployed, and how they should be used in combination in the face of the enemy. The operational level operates on a larger scale, linking tactical actions together in a campaign to achieve operational objectives in the pursuit of wider strategy. Again, the operational level is concerned with combining different force elements in the face of the enemy. In the final step of the military strategic process, operational actions are similarly linked together to achieve strategic level objectives. It is at the strategic level that, in a more general

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<sup>3</sup> For discussions on the nature of war and the process of strategy, see Carl von Clausewitz, *On War* (Princeton, NJ: Princeton University Press, 1978), and Colin S. Gray, *Theory of Strategy* (Oxford: Oxford University Press, 2018).

<sup>4</sup> Edward N. Luttwak, *Strategy: The Logic of War and Peace* (Cambridge, MA: The Belknap Press, 1987).

sense, military power is converted into policy effect. Normally, at the grand strategic level, this will be done in combination with the other instruments of power, including, but not limited to, diplomacy, economics, intelligence, and cyber.<sup>5</sup>

Since nuclear strategy has traditionally been dominated by deterrence, it will prove useful to discuss, in general and historical terms, how deterrence operates within the levels. This will provide an understanding of how the levels of strategy relate to nuclear weapons. During the Cold War, at the policy level the United States sought to contain the Soviet Union. At the grand strategic level this was pursued by a range of measures, including alliance building, the exercise of intelligence power, and military strategy. During this historical period, military strategy was dominated by deterrence. By 1967, the United States and its NATO allies had settled on *Flexible Response* as a strategy designed to deter the Soviet Union at different levels of aggression. Operationally, within the European theatre this required the forward deployment of conventional and nuclear forces, with the aim of blunting a Soviet invasion, whilst threatening escalation to central nuclear war for deterrence purposes. Operationally, NATO deterrence strategy was premised on the ability to deny the Soviet Union its military objectives in Central and Western Europe, as well as punish any aggression with unacceptable costs via the doctrine of Assured Destruction.<sup>6</sup> Tactically, this approach required

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<sup>5</sup> Grand strategy is discussed in the following works: Hal Brands, *What Good is Grand Strategy: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush* (Ithaca, NY: Cornell University Press, 2014); Tami Davis Biddle, *Strategy and Grand Strategy: What Students and Practitioners Need to Know* (Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2015); and, John Lewis Gaddis, *On Grand Strategy* (London: Penguin, 2018).

<sup>6</sup> As noted by David Trachtenberg, the deliberate targeting of civilian centres was eventually removed from U.S. nuclear strategy. See David J. Trachtenberg, *Mischaracterizing U.S. Nuclear Deterrence Policy: The Myth*



forces that could survive an initial Soviet strike, operate effectively at different levels of escalation, and penetrate Soviet defences to deliver combat effect.

### **Strategy and Operations: What is Included in the NPR**

Before fully engaging in an analysis of the NPR, I must first identify the goals it seeks to pursue: “U.S. nuclear weapons deter aggression, assure allies and partners, and allow us to achieve Presidential objectives if deterrence fails.”<sup>7</sup> These seem reasonable goals, but how are they to be achieved at the strategic and operational levels?

Strategically, the 2022 NPR contains a reasonable amount of detail. To achieve said goals, U.S. nuclear forces are considered alongside conventional forces and other instruments as an element of collective, integrated, tailored deterrence. In this sense, it is recognised that the United States and its allies face a varied set of threats from more than one source. As a consequence, and somewhat echoing *Flexible Response*, the United States must be able to respond across the spectrum of conflict in a manner appropriate with the situation at hand. Indeed, given the current security environment, especially in relation to Russia, much emphasis is given to deterring and defeating limited regional aggression. The NPR is especially cognizant of the potential for limited nuclear use, or threat thereof, to act as a cover for conventional aggression. Indeed, the review contains much discussion of the threat of escalation, and ultimately seeks to “deter both large-scale and limited nuclear attacks.”<sup>8</sup> At the same time, the NPR seeks to

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of *Deliberate Civilian Targeting, Information Series*, No. 542 (Fairfax, VA: National Institute Press, December 14, 2022).

<sup>7</sup> 2022 *Nuclear Posture Review*, op cit., p. 1.

<sup>8</sup> Ibid., p. 7.

manage escalation risk through nuclear restraint. In this, the United States is aiming for a difficult balancing act. It seeks an effective deterrent, but not one that is especially threatening (in the interests of stability). Similarly, it wishes to deter escalation at every level, but does not appear to seek escalation dominance, for fear of provoking an adversary. This challenging strategic balancing act requires careful operationalization. However, as will be argued below, the latter is somewhat diluted in the 2022 NPR.

That being said, and to its credit, the 2022 NPR echoes the 2018 NPR in discussing the possibility of deterrence failure and subsequent use of nuclear weapons. In general terms, U.S. nuclear forces would be used to achieve objectives, restore deterrence if possible, and end a conflict at the lowest level of damage on the best achievable terms, and in line with the Laws of Armed Conflict (LOAC). Finally, in relation to North Korea, the 2022 NPR provides more specific detail, “any nuclear attack by North Korea against the United States or its Allies and partners is unacceptable and will result in the end of that regime.”<sup>9</sup>

From an operational perspective, the 2022 NPR contains some detail, but is lacking in certain areas. To pursue the above strategic objectives, the review presents a reasonably strong rationale for the nuclear triad, and confirms that most of the extant modernisation programmes will continue. The ICBM force continues to be based on one warhead per missile, but with the possibility of uploading if required. To enhance extended deterrence and reassure allies and partners, modernised U.S. nuclear forces will be forward-deployed in Europe. Furthermore, awareness of operational issues is demonstrated by the discussion of the need to strengthen Nuclear Command, Control, and Communications (NC3). Additionally, the Production-based Resilience Program (PRP) indicates that the DoD

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<sup>9</sup> Ibid., p. 12.

acknowledges the potential for geopolitical and/or technological change, and the subsequent need for a force and/or posture response. In relation to the utility of nuclear weapons, the NPR lists the attributes of the nuclear triad – effectiveness, responsiveness, survivability, flexibility, and visibility. These are certainly logical, although somewhat vague if one is looking for operational detail.

To fulfill the requirements of responding to limited nuclear threats, and specifically to send a message that the United States will not be deterred from intervening in support of allies, operational emphasis is given to the F-35A, B61-12 bomb, W76-2 warhead and Long-Range Standoff (LRSO) weapon. Reversing a decision of the Trump Administration, the Sea-Launched Cruise Missile (SLCM-N) program is to be cancelled, on the basis that the W76-2 warhead can cover this area of deterrence. Likewise, the B83-1 gravity bomb is to be retired, eventually to be replaced by a new capability to deal with deeply-buried targets.

Reflecting the strategy of integrated deterrence, the 2022 NPR seeks to further utilize conventional forces in its operational approach to deterrence. Whilst there is a logic to increasing conventional and nuclear integration, it seems reasonable to speculate that this move is somewhat driven by the Biden Administration's policy of nuclear restraint and desire to reduce the role of nuclear weapons in U.S. defense policy. Something similar is evident in the discussion of when the United States would launch its nuclear forces. The Biden Administration has a fixation on stability, crisis management and nuclear restraint. As a consequence, the NPR is keen to point out that U.S. nuclear strategy is not premised on a launch-on-warning or launch-under-attack posture. Rather, U.S. nuclear forces are intended to absorb an initial attack before response. As will be discussed below, this stance on nuclear launch causes some operational issues for the review.

## Strategy and Operations: What is Missing from the NPR

Although the above noted details provide some clarity on how the process of nuclear strategy would function, unfortunately the NPR is lacking important operational details for the pursuance of the above stated strategic objectives. This is strongly evident in relation to deterrence posture, both in its punishment and denial forms.

In relation to punishment, aside from the aforementioned threat to the North Korean regime, nowhere in the NPR is it clearly stated how punishment will be operationalized. There is no equivalent of Assured Destruction in the 2022 NPR. Rather, the review only includes general references to the consequences and costs of breaching the nuclear threshold. Under the guise of tailored deterrence, the NPR states that U.S. nuclear forces must “hold at risk what adversary leadership values most.”<sup>10</sup> Yet, and bearing in mind the NPR’s commitment to the LOAC, it is reasonable to ask how such consequences and costs would be imposed by U.S. nuclear forces. Since a countervalue approach to targeting is ruled out, we are left with counterforce attacks. However, could a counterforce approach always, and in every circumstance, inflict unacceptable costs and consequences on an adversarial power?<sup>11</sup> What if the adversary leadership most values its civilian population and infrastructure? It may be, although one doubts it, that the authors of the NPR are taking a so-called ‘counterforce plus bonus’ approach, whereby unintended civilian casualties from a counterforce attack strengthen the deterrent effect. All told, when it comes to

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<sup>10</sup> Ibid., p. 11.

<sup>11</sup> For a discussion of modern counterforce capabilities, see Keir A. Lieber and Daryl G. Press, “The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence,” *International Security*, Vol. 41, No. 4 (Spring 2017), pp. 9–49.

deterrence via punishment, the 2022 NPR is frustratingly vague on how such a deterrence strategy would be operationalized.

There are similar problems with deterrence via denial. To counter the threat of nuclear escalation in regional conflicts, the NPR champions limited nuclear options as a means to provide the Joint Force freedom of action. In this sense, the NPR promotes the objective of deterring or defeating adversaries in such a situation. So far, so good. And yet, once again, operational details are frustratingly limited in how this would be achieved. Of course, not every scenario can be operationally detailed. Nonetheless, some notion of how nuclear weapons could be used to “defeat” an adversary would be useful. For example, does the United States envision replicating the Cold War by using nuclear weapons to counter enemy regional conventional superiority? Alternatively, would nuclear weapons be used to neutralise enemy nuclear forces and leave U.S. conventional forces free to dominate the battlespace? Some engagement with these questions would be helpful. One is left with the impression that the NPR is good on slogans, but often not backed up by operational details.

Deterrence by denial is also problematic in relation to missile defense. Despite the utility of missile defense in a denial strategy, there is no mention of it in the NPR. It is true that regional missile defense is discussed in the 2022 *Missile Defense Review*. However, the potency of missile defense, especially in an escalatory scenario, is significantly undermined by the Biden Administration’s fixation on stability and subsequent decision to forgo missile defence of the U.S. homeland against Russian and Chinese nuclear forces.<sup>12</sup> Put simply, if a regional conflict escalates to

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<sup>12</sup> David J. Lonsdale, “2022 Missile Defense Review: A Failure in Integration,” in David J. Trachtenberg, ed., *Expert Commentary on the 2022 Missile Defense*, Occasional Paper, Vol. 3, No. 4 (Fairfax, VA: National Institute Press, April 2023).

potential attacks against the homeland, the United States is left without a key defensive denial capability.

The absence of missile defence also undermines the stated objective of limiting damage in the event of nuclear conflict. Without national missile defenses to blunt a nuclear attack on the U.S. homeland, damage limitation is thus restricted to pre-emptive counterforce strikes. However, to fulfill the policy of nuclear restraint and to manage escalation risk, pre-emptive attacks seem unlikely. As a consequence, the NPR contains no clear explanation of how the strategic objective of damage limitation would be operationally achieved.

## Conclusion

From the early days of the nuclear age, we can identify a fundamental schism in thinking about nuclear strategy. The fault line for this schism relates to the operational details of nuclear weapons. Existential deterrence theorists tend to assume that, as a consequence of their unique destructive power, nuclear weapons deter by the mere fact of their existence. In contrast, so-called warfighting theorists argue that credible deterrence requires much work, that the operational details matter. This is not merely an academic debate. During the Cold War there was often a disconnect between public nuclear policy and operationalization.<sup>13</sup> On the evidence of the 2022 NPR, it seems that the Biden Administration is more closely aligned with the existential deterrence camp. Important operational details are missing from the current nuclear posture. This may be because the administration is too focused on restraint, stability, and

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<sup>13</sup> See, for example, William E. Odom, "The Origins and Design of Presidential Decision-59: A Memoir," in Henry D. Sokolski (ed.), *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*, (Carlisle, PA: Strategic Studies Institute, 2004), pp. 175-196.

reducing the role of nuclear weapons in U.S. defense policy (described as a key goal in the NPR). By prioritising these three positions, the 2022 NPR appears reluctant to engage with important operational details. This can be seen, for example, in the reluctance to describe how punishment works and the role of missile defense in denial and damage limitation. To be sure, the NPR contains some operational details. However, significant gaps still exist. Consequently, as it currently stands, the 2022 NPR offers no clear idea of how U.S. nuclear strategy functions through the levels of strategy. We can only hope that important operational details are added in the next edition of the report on nuclear employment strategy.

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## 2022 NPR – Light on Fear, Heavy on Confusion

by Curtis McGiffin

After 21 months in office, the Biden Administration's delayed *Nuclear Posture Review* (NPR) was finally released to the public in October 2022. Despite some of its redeeming qualities, this NPR is tone deaf to reality and presents a correspondingly confusing retort to the nation's security threats of today and tomorrow and thus diminishes deterrence and the war averting effect it seeks to achieve.

The NPR is a legislatively mandated document that establishes American nuclear policy, strategy, capabilities, and force posture for the next five to 10 years.<sup>1</sup> The 2022 NPR is the fifth NPR to be published since President Clinton released the first post-Cold War review in 1994. Each president has followed suit with an NPR early in his first term. No president has ever released a second. This is an important point as the 2022 NPR could be described as merely an amended version of the Obama-Biden Administration's NPR of 2010.

Launched under the specter of Russian nuclear escalation, a North Korean nuclear menace, and a massive Chinese nuclear expansion effort, the 2022 NPR attempts to balance the necessity of nuclear deterrence in a dangerous strategic environment, brimming with nuclear threats and potential conflict, while simultaneously attempting to uphold the idealistic goals of the nuclear disarmament and climate change communities. However, the idealists may be more disappointed than the realists with this NPR. One commentator, Tom Collina at the Ploughshares Fund, an organization that advocates for nuclear disarmament,

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<sup>1</sup> U.S. Department of Defense, "Nuclear Posture Review," *Defense.gov*, <https://dod.defense.gov/News/Special-Reports/NPR/>.



described the 2022 NPR as “lacking fresh thinking” and a document that looks “back to the old Cold War playbook.”<sup>2</sup> He couldn’t be more wrong.

Not a total disappointment to the realists, the 2022 NPR does include some laudable elements. These include a re-affirmation of the need for a strategic nuclear triad and its continued modernization. It also acknowledges the opponents’ coercive strategies of limited nuclear threats to advance expansionist goals, and it reiterates the value of extended deterrence and the views of American allies regarding the nation’s nuclear umbrella.<sup>3</sup> However, deterrence thrives on the presence of fear, an unpleasant emotion caused by the anticipation or awareness of danger.<sup>4</sup> There is less to fear in this NPR.

Deterrence is the prevention of action by fear of the consequences, a state of mind brought about by the existence of a credible threat of unacceptable counteraction.<sup>5</sup> “To ‘deter’ literally means to stop someone from doing something by frightening them out of attacking because the expected reaction of the opponent will result in one’s own severe punishment.”<sup>6</sup> For deterrence to work today, that

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<sup>2</sup> Tom Collina, “Biden’s Nuclear Policy Fails the Ukraine Test,” *RealClearDefense.com*, November 14, 2022, available at <https://www.defenseone.com/ideas/2022/11/bidens-nuclear-policy-fails-ukraine-test/379717/>.

<sup>3</sup> John Harvey, Franklin Miller, Keith Payne, Bradley Roberts, and Robert Soofer, “Assessing the Biden 2022 Nuclear Posture Review,” *RealClearDefense.com*, November 16, 2022, [https://www.realcleardefense.com/articles/2022/11/16/assessing\\_the\\_biden\\_2022\\_nuclear\\_posture\\_review\\_865108.html](https://www.realcleardefense.com/articles/2022/11/16/assessing_the_biden_2022_nuclear_posture_review_865108.html).

<sup>4</sup> *Merriam-Webster Dictionary online*, <https://www.merriam-webster.com/dictionary/fear>.

<sup>5</sup> *The Oxford Essential Dictionary of the US Military*, “Deterrence,” Oxford University Press, 2002, <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095713592;jsessionid=0A4A5C90AE83DD2096C3810F8D9E8E35>; and, DoD Dictionary, 1994.

<sup>6</sup> Patrick Morgan, *Deterrence: A Conceptual Analysis* (Beverly Hills, CA: Sage Publications Inc., 1977), p. 20.

fear factor must be transferred across the capability spectrum in order to forestall the use of nuclear weapons. Abolishing currently fielded weapons and cancelling future weapon capabilities not only eliminates credible options for the president to use, but removes any fear imposed by their possible retaliatory use.

The 2022 NPR does a superb job at describing the threat environment and then promptly ignores those threats by endorsing a milquetoast response that is at best perplexing and at worst dangerous. These issues include eliminating two key weapons programs, rejecting the nuclear hedge, publicly stating the desire for a “sole use” policy, and over-valuing arms control.

### **Eliminating Weapons Programs**

The *Nuclear Posture Review* suggests, “We will maintain a safe, secure, and effective nuclear deterrent and flexible nuclear capabilities to achieve our objectives should the president conclude that the employment of nuclear weapons is necessary.”<sup>7</sup> Flexibility goes hand in hand with tailored deterrence concepts that demand a wide spectrum of capability and capacity to achieve the desired effect. The administration correctly states that “these flexible, tailorable capabilities are key to ensuring that Russia’s leadership does not miscalculate regarding the consequences of nuclear use on any scale, thereby reducing their confidence in both initiating conventional war against NATO and considering the employment of non-strategic nuclear weapons in such a conflict.”<sup>8</sup> If these statements are

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<sup>7</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 8, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>8</sup> *Ibid.*, p. 11.

purposed, then why eliminate current and planned capabilities now without any replacement?

The administration's decision to retire the B83-1 gravity bomb, America's only megaton nuclear weapon, without an identified replacement makes no sense. While the NPR cites "limitations on its capabilities and rising maintenance costs," it offers no further detail on the decision.<sup>9</sup> Furthermore, the NPR states "we will leverage existing capabilities to hold at risk hard and deeply buried targets."<sup>10</sup> This declaration is refuted by the graphic on the next page which notes, "...and develop an enduring capability for improved defeat of hard and deeply buried targets."<sup>11</sup> The clearly identified requirement to hold at risk deeply buried targets is overshadowed by the NPR's doublespeak on eliminating the B83-1 without a capable replacement in the stockpile or identifying what other existing capabilities it might leverage. Perhaps the administration should dust off the old Robust Nuclear Earth Penetrator (RNEP) concept that was called for to address the 1,400 hard and deeply buried targets identified in the 2001 NPR?

Nothing is more fearsome than a megaton weapon. Whatever "increasing limitations on its capabilities" to which the NPR was referring should be sufficiently overcome by the awesome capability of the new B-21 Raider. A sixth-generation bomber, the B-21 boasts the most advanced stealth technology to "defeat the anti-access, area-denial systems it will face."<sup>12</sup> Any potential adversary would and should fear a B-21 bomber armed with the B83-

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<sup>9</sup> Ibid., p. 20.

<sup>10</sup> Ibid., p. 20.

<sup>11</sup> Ibid., p. 21.

<sup>12</sup> Northrop Grumman Corp., "Here are 10 key facts about the Northrop Grumman's B-21 Raider," *Northrop Grumman.com*, <https://www.northropgrumman.com/what-we-do/air/b-21-raider/10-facts-about-northrop-grumman-b-21-raider/>.

1 nuclear bomb and the credibility of such an airframe delivering a megaton weapon to its target.

The nuclear-armed Sea-Launched Cruise Missile (SLCM-N), cancelled in the 2022 NPR, was first proffered under the 2018 NPR to bolster regional deterrence. However, the new NPR concludes the SLCM-N is no longer necessary given the deterrence contribution of the W76-2 low-yield Submarine Launched Ballistic Missile, the uncertainty of any gained arms control leverage on Russia's non-strategic nuclear weapons, and estimated cost.<sup>13</sup> It is important to note the same paragraph says the W76-2's "deterrence value will be re-evaluated as the F-35A and LRSO are fielded and in light of the security environment and plausible deterrence scenarios we could face in the future."<sup>14</sup> This paradoxical justification of using one capability as a reason to eliminate another capability, while also planning to jettison the former capability, presents deterrence credibility challenges to all readers, both foreign and domestic.

The SLCM-N presents real fear to the adversary while inversely presenting real assurance to allies and partners. At sea, these systems can be deployed and re-deployed around the world quickly and discreetly, providing the POTUS with real regional deterrence options without the fanfare or footprint of a bomber taskforce. Moreover, these systems can hold a great many targets at risk via a reasonable standoff capability and potentially defeating anti-access, area-denial systems that would otherwise place aircraft and pilots in jeopardy. The Navy requested to cancel the SLCM-N due to its cost of \$2.1 billion over the next five years, a pittance within DoD budgets that will average well over \$800 billion annually. However, the deterrence value derived from the fear of these weapons

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<sup>13</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 20.

<sup>14</sup> *Ibid.*

may well avert regional conflict and wars costing millions of lives and trillions of dollars.

In bipartisan fashion, lawmakers added into the 2023 National Defense Authorization Act (NDAA) a requirement for the Departments of Defense and Energy to retain not less than 75 percent of their B83-1 nuclear gravity bomb stockpile, which President Biden proposed retiring in the NPR. The Pentagon must provide Congress with a study on how it will field capabilities to strike hard and buried targets before these weapons can be decommissioned.<sup>15</sup> It seems Congress was skeptical of other capabilities' sufficiency. Moreover, lawmakers also authorized \$45 million to continue the SLCM-N program after top military leaders and commanders, including the Chairman of the Joint Chiefs of Staff, Gen. Mark Milley, publicly expressed support for the weapon, in a split with Secretary of Defense Austin and other top civilian leaders, who contended the nuclear-armed cruise missile is not required.<sup>16</sup> This act of congressional oversight bolsters deterrence in an uncertain world, even if the administration appears unconvinced.

### **Rejecting The Nuclear Hedge**

The Biden Administration's desire to abandon the nuclear hedge is perhaps the most dangerous and daunting decision in the 2022 NPR. This is a rejection of American nuclear policy by the last five American presidents – Democrat and Republican.

The "hedge" includes the deliberate preservation and storing of nuclear warheads that, with minimal technical support, are ready to be added to the stockpile – acting as a

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<sup>15</sup> Connor O'Brien, "Five ways lawmakers smacked down Biden's Pentagon plans," *Politico.com*, December 21, 2022, <https://www.politico.com/news/2022/12/21/congress-biden-ndaa-plans-00074939>.

<sup>16</sup> *Ibid.*

precautionary insurance policy against technical problems within the nuclear stockpile or adverse geopolitical security circumstances such as advances in adversary capabilities and defenses which might require an increase in the number of weapons available for use.<sup>17</sup> As of October 2021, the United States had just 3,750 warheads in its stockpile, having dismantled 711 since FY17, and some 2,000 warheads currently awaiting dismantlement.<sup>18</sup>

The NPR notes that China's nuclear expansion could present new complexities to the security environment to include possession of "at least" 1,000 deliverable warheads by 2030.<sup>19</sup> Conspicuously omitted from the NPR is the fact that China is building 230 intercontinental ballistic missile silos in Xinjiang.<sup>20</sup> The NPR stresses the need to factor China's new nuclear behavior into our arms control and risk reduction approaches with Russia and that it may be necessary to consider nuclear strategy and force structure adjustments to ensure deterrence and other objectives for both China and Russia.<sup>21</sup> This language seemingly acknowledges that the American arsenal may be too small to simultaneously deter both Russia and China in the future. To our adversaries and allies, arsenal size matters and the numbers of American nuclear weapons may well translate into enhancing the fear factor necessary for adequate deterrence effect.

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<sup>17</sup> Office of the Assistant Secretary of Defense for Nuclear Matters, *Nuclear Matters Handbook 2020* (Washington, D.C., 2020), p. 48.

<sup>18</sup> U.S. State Department, "Transparency in the U.S. Nuclear Weapons Stockpile," *State.gov*, October 5, 2021, <https://www.state.gov/transparency-in-the-u-s-nuclear-weapons-stockpile/>.

<sup>19</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 4.

<sup>20</sup> John Feng, "China's New Nuclear Missile Silos Confirm U.S. Defense Officials' Fears," *Newsweek.com*, July 28, 2021, <https://www.newsweek.com/chinas-new-nuclear-missile-silos-confirm-us-defense-officials-fears-1613882>.

<sup>21</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 5.

This author is confused by the administration's desire to draw down American capability without the ability to rapidly build new warheads. At the current annual rate of 178 dismantled warheads per year, the hedge will be eliminated in just 11 years, leaving future administrations with few options and vulnerable to nuclear blackmail.

### **Desiring A "Sole Purpose" Policy**

There was much fanfare about the lack of a "sole purpose" or "no first use" policy in the Biden NPR due to the global circumstances of the Russian invasion of Ukraine and Chinese threats to Taiwan. This expected declaration was replaced by the term "fundamental role" in the NPR. According to the document, "As long as nuclear weapons exist, the fundamental role of nuclear weapons is to deter nuclear attack on the United States, our allies, and partners."<sup>22</sup> This, in fact, is simply carryover language from the 2010 NPR which states, "the fundamental role of U.S. nuclear weapons, which will continue as long as nuclear weapons exist, is to deter nuclear attack on the United States, our allies, and partners."<sup>23</sup> To be sure, sole purpose remains a key aspiration of the administration. As the NPR clearly states, the "objective of making deterrence of nuclear attack on the United States and our allies and partners [is] the sole purpose of U.S. nuclear weapons."<sup>24</sup>

In light of the global security threat of today, the North Atlantic Treaty Organization (NATO) allies, as well as Japan and Australia in the Indo-Pacific, who enjoy the shade of the American nuclear umbrella, successfully lobbied President Biden *not* to alter existing nuclear policy to

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<sup>22</sup> Ibid., p. 9.

<sup>23</sup> U.S. Department of Defense, *2010 Nuclear Posture Review* (Washington, D.C., April 2010), p. vii.

<sup>24</sup> Ibid., p. ix.

include a “no first use” declaration.<sup>25</sup> However, American extended deterrence policy promises may not last very long if President Biden retains the goal of moving toward a sole purpose declaration.<sup>26</sup> Security circumstances be damned, the disarmament community must be satisfied.

## Overvaluing Arms Control

The 2022 NPR subordinates the role of deterrence to the role of arms control and places abnormal and exuberant confidence in a treaty approach that often fails. Russian noncompliance with arms control agreements is too numerous to list; but they include nuclear, chemical, biological, and conventional weapons, as well as transparency efforts.<sup>27</sup>

The administration’s hasty extension of the New START treaty in February 2021 was meant to ensure verifiable limits on Russian ICBMs, SLBMs, and heavy bombers.<sup>28</sup>

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<sup>25</sup> Amanda Rivkin, “US allies fret Biden may change nuclear policy: report,” *DW.com*, October 30, 2021, <https://www.dw.com/en/us-allies-concerned-about-possible-no-first-use-change-to-nuclear-policy-report/a-59669965>.

<sup>26</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 9.

<sup>27</sup> Heather Williams, “Arms Control after Ukraine: Integrated Arms Control and Deterring Two Peer Competitors,” *CSIS.org*, December 16, 2022, [https://www.csis.org/analysis/arms-control-after-ukraine-integrated-arms-control-and-deterring-two-peer-competitors#:~:text=Russia%20has%20consistently%20violated%20arms,Threat%20Reduction%20\(CTR\)%20programs;John-ThorDahlburg,%20RussiaAdmitsItViolatedPactonBiologicalWarfare,%20LATimes.com,September15,1992,https://www.latimes.com/archives/la-xpm-1992-09-15-mn-859-story.html;and,PatrickGoodenough,%20RussiaHasBeenViolatingOpenSkiesTreatyForYears;NowTrumpWantsOut,%20CNSNews.com,May25,2020,https://www.cnsnews.com/article/international/patrick-goodenough/russia-has-been-violating-open-skies-treaty-years-now](https://www.csis.org/analysis/arms-control-after-ukraine-integrated-arms-control-and-deterring-two-peer-competitors#:~:text=Russia%20has%20consistently%20violated%20arms,Threat%20Reduction%20(CTR)%20programs;John-ThorDahlburg,%20RussiaAdmitsItViolatedPactonBiologicalWarfare,%20LATimes.com,September15,1992,https://www.latimes.com/archives/la-xpm-1992-09-15-mn-859-story.html;and,PatrickGoodenough,%20RussiaHasBeenViolatingOpenSkiesTreatyForYears;NowTrumpWantsOut,%20CNSNews.com,May25,2020,https://www.cnsnews.com/article/international/patrick-goodenough/russia-has-been-violating-open-skies-treaty-years-now).

<sup>28</sup> Antony J. Blinken, Secretary of State, “On the Extension of the New START Treaty with the Russian Federation: Press Statement,” *State.gov*,



However, the Russians have not allowed the resumption of the New START Treaty-required weapons inspections, which were suspended in 2020 due to COVID-19. Moreover, Russia also unilaterally suspended its cooperation with the treaty's inspection provisions in August 2022 to protest American support for Ukraine.

The hurried extension also removed any opportunity to address Russia's novel weapons designed to circumvent the New START treaty.<sup>29</sup> Negotiations with an adversary that is willing to invade a sovereign country for its own revanchist goals, has a record of treaty non-compliance, and seeks to design, acquire, and deploy novel nuclear capabilities destined to usurp both the spirit and intent of the treaties they sign, should be informed by recognition of the scoundrels that they are. Continuing to advocate for arms control with adversaries that are not symmetrically interested makes America look desperate and open to exploitation.

The NPR also fails to define any goals for arms control negotiations, making arms control a goal in and of itself. On the contrary, any future arms control negotiations must first meet the national security needs of both countries; require a robust and un-cancelling inspection process; and, address the destabilizing growth of technology that leads to attack-time-compression—reducing the ability to either respond or de-escalate.<sup>30</sup> Finally, absent a real effort to incentivize China to actually come to the negotiating table through fear,

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February 3, 2021, <https://www.state.gov/on-the-extension-of-the-new-start-treaty-with-the-russian-federation/>.

<sup>29</sup> Bill Gertz, "Russian Weapons Circumvent New START Arms Pact: Stratcom wants nuclear torpedo, advanced missiles covered if New START extended," *Freebeacon.com*, February 27, 2019, <https://freebeacon.com/national-security/russian-weapons-circumvent-new-start-arms-pact/>.

<sup>30</sup> Adam Lowther and Curtis McGiffin, "America Needs A 'Dead Hand,'" *Warontherocks.com*, August 16, 2019, <https://warontherocks.com/2019/08/america-needs-a-dead-hand/>.

calling on the PRC to adopt a moratorium on fissile material production is little more than a wish-list item and diminishes the veracity of a document like an NPR.<sup>31</sup>

## Conclusion

Bernard Brodie's 1946 axiom remains true, "The chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them."<sup>32</sup> For deterrence to work and war to be averted, our adversary must fear the United States and its capacity for nuclear retaliation at all levels of the conflict spectrum. Fear is a primal emotion that does not require a political elucidation. Fear must inform adversary perception and its discernment of America's nuclear deterrence credibility. If an adversary sees the U.S. ability to deliver a devastating response as credible and assured, then the fear to attack is realized and deterrence is achieved.

This 2022 NPR lacks the sufficient fear factor to persuade adversaries of anything more than America's commitment to the status quo continuation of a now 10-year-old triad recapitalization program that has another 10-15 years to complete. In fact, the willful effort to diminish deterrence with political platitudes and unfeasible idealistic goals of pursuing a nuclear weapons-free world via policy constraints, will negatively affect the global stability and peace created by America's robust nuclear arsenal.<sup>33</sup>

The wholesale elimination of both the SLCM-N and the B83-1 nuclear bomb remove any negotiating trade space for

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<sup>31</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 17.

<sup>32</sup> Bernard Brodie, ed., *The Absolute Weapon: Atomic Power and World Order* (New Haven, CT: Yale Institute of International Studies, February 15, 1946), p. 62.

<sup>33</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 25.

the administration. These weapons are not New START treaty-accountable, and it is doubtful that President Putin will positively respond to President Biden's unilateral elimination of them. Putin's goal is to disarm and disincentivize the American nuclear deterrent without disarming himself. President Reagan's 1983 deployment of the Air Force-adapted Tomahawk into the mobile ground-launched cruise missile (GLCM) with extended range and a nuclear warhead coupled with the Army's upgraded Pershing II Medium Range Ballistic Missile via the "dual track" strategy eventually led to the Intermediate-Range Nuclear Forces (INF) Treaty and wholesale reductions in nuclear arsenals. Unilaterally abandoning SLCM-N forecloses any similar feat.

The 2022 NPR paints a brutal but accurate picture of today's security environment and promptly dismisses that cold reality with bromides, idealism, and feckless policies that scare our allies and not our adversaries. Successful deterrence requires both capability and credibility in synchronicity. America's nuclear arsenal needs all available and obtainable capabilities in order to credibly deter across the full spectrum of potential conflict, not just the strategic level. Hard nuclear power and fear, combined with aggressive diplomacy, equal real global stability, possible reductions in global nuclear weapons, and actual peace.

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# **The 2022 NPR: Commendation and Concerns**

**by Keith B. Payne**

## **Introduction**

The Biden Administration's 2022 *Nuclear Posture Review* (NPR) was released publicly on October 27, 2022, seven months after the classified version was delivered to Congress in March 2022. It is the fifth in a series of such reviews that began with the Clinton Administration's 1994 NPR and was preceded most recently by the Trump Administration's 2018 NPR. These reports are intended to provide the basic parameters of an administration's nuclear policy.

This discussion of the 2022 NPR is not meant to be a comprehensive review; rather it provides some general comments and then focuses on a handful of issues that deserve attention and further scrutiny.

## **A Welcome Relief**

First, this NPR, even with flaws, is a welcome relief. This is because, while President Biden's past positions regarding nuclear policy seemed to be a captive of minimum deterrence thinking and the nuclear disarmament community, the 2022 NPR is not. It includes multiple useful points that do not move U.S. policy in the problematic ways apparently expected by the nuclear disarmament community – to that community's obvious disappointment.

By doing so, we see a familiar dynamic. President Jimmy Carter came into office asking why the U.S. strategic nuclear deterrent could not reside in a single ballistic missile carrying submarine. He departed office having signed the

“Countervailing Strategy,” which was the basis for the subsequent Reagan Administration’s nuclear modernization program of the 1980s.

Two decades later, President Obama came into office vocally promoting global nuclear disarmament. Indeed, he was awarded the Nobel Prize for doing so. Nevertheless, he subsequently put into motion most of the current nuclear modernization program that now so alarms the nuclear disarmament community.

The Biden Administration’s NPR carries on this tradition of a new administration that enters with an apparent nuclear disarmament agenda, but, with time, moves toward general consistency with established bipartisan policy. For example, despite apparent pressure from the disarmament community, this NPR does not:

- eliminate a leg of the Triad;
- adopt a no first use or a sole purpose declaratory policy;
- retreat from U.S. extended nuclear deterrence coverage for the assurance of allies, i.e., the “nuclear umbrella”;
- depart from most of the nuclear rebuilding program initiated by the Obama Administration and advanced by the Trump Administration; or,
- regress to the badly-aging policy agenda of minimum deterrence that continues to be pushed by some.<sup>1</sup>

In short, despite the expectations of some and the fears of others, this NPR generally is consistent with all previous

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<sup>1</sup> John Isaacs. “‘Old Think’ Is Driving U.S. Nuclear Weapons Policy: Cutting drastically the number of U.S. nuclear weapons should not depend on Russian or Chinese assent and could and should be considered now,” *National Interest Online*, December 17, 2022, available at <https://nationalinterest.org/feature/%E2%80%98old-think%E2%80%99-driving-us-nuclear-weapons-policy-206024>.

NPRs and decades of established bipartisan policy. As a former Biden Administration DoD official rightly observed, "...the new Nuclear Posture Review (NPR) makes relatively few changes from the 2018 NPR, continuing decades-long policies and strategies."<sup>2</sup> It does not adopt the policy agenda advocated by the disarmament community for decades. Particularly disappointing for that community must be the NPR's definitive rejection of the U.N.'s contemporary Treaty on the Prohibition of Nuclear Weapons.<sup>3</sup> For not descending to those places despite the apparent pressure to do so, the 2022 NPR deserves a good measure of praise.

I would like to build on this point by emphasizing the two most important background positions this NPR advances. These are the positions that justify its rejection of minimum deterrence and all that goes along with a disarmament agenda that is so detached from the contemporary threats facing the West.

First, for the most part, this NPR acknowledges the increasing dangers of the international threat environment and the implications of those dangers for U.S. nuclear deterrence policy. There is no need to go into detail here about those dangers; they involve the question of how to deter in an unprecedented, uncertain threat environment.<sup>4</sup> The general principles of deterrence are timeless, but the

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<sup>2</sup> Leonor Tomero, "NPR 2022 Recognizes Importance of Risk Reduction, Falls Short on Reducing Role of Nukes," *RussiaMatters.org*, December 26, 2022, available at <https://www.russiamatters.org/analysis/npr-2022-recognizes-importance-risk-reduction-falls-short-reducing-role-nukes>.

<sup>3</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 19, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>4</sup> See Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why it Matters*, *Occasional Paper* (Fairfax, VA: National Institute Press, August 2022).

application of deterrence must be adapted to changing circumstances and dangers. This NPR seems to recognize both the emerging dangers and the need to adapt now. That recognition is a relief.

This point is directly related to a second background NPR position that deserves praise. That is, its clear acceptance of the need to “tailor” deterrence to the unique circumstances of opponent, time and place. The need to tailor deterrence may seem like a no-brainer to those unfamiliar with much of U.S. Cold War policy—which essentially presumed that opponents shared U.S. perspectives on factors key to the functioning of deterrence, i.e., a uniformity of perceptions, values and modes of calculation. But I assure you, getting to the point where tailoring deterrence to account for the significant differences in these factors is a basic policy principle was decades in the making and is enormously consequential.

Why consequential? Because once the requirement to tailor deterrence to the unique circumstances of opponent, time and place is recognized, so too is the flexibility in deterrence capabilities, planning and strategy needed to be able to tailor deterrence. In short, a spectrum of capabilities, nuclear and conventional, may be required to deter a diversity of opponents at different times and in different contexts. There is no easy, all-purpose standard of adequacy for deterrence; believing otherwise is the basic dangerous presumption of minimum deterrence policy thinking. This NPR helps to put a nail in that coffin, at least for now. That is no trivial point.

### **Four Points of Concern**

While the 2022 NPR warrants the above commendation, there are four points of concern that must be called out. First, despite its recognition of the dangers in the emerging threat context, it seems to take an overly relaxed, business-

as-usual approach those threats. Perhaps this is because, reportedly, this NPR was not updated prior to its October 2022 release to take into account both Russian and Chinese actions throughout 2022.<sup>5</sup>

For example, the timeline it adopts with regard to the threat from China seems overly optimistic. To be specific, it says that China likely intends to possess “at least” 1,000 deliverable warheads by the end of decade, and that “by the 2030s” the United States will face two major nuclear powers as strategic competitors and potential adversaries.<sup>6</sup>

Saying that China will possess “at least” 1,000 strategic warheads by the end of the decade suggests that the number given is the lowest end of a plausible range of force numbers—the lowest common denominator. Using the qualifier “at least” for prospective Chinese nuclear force numbers is artful but does not give insight as to the likely range of plausible numbers. It is akin to saying there is “at least” one person in each automobile on the road, i.e., a driver. That observation is true, of course, but likely misleading as to the actual number of persons on the road.

Indeed, one month after the NPR’s October 2022 public release, the Pentagon issued its annual report on China and concludes that China plans to “basically complete modernization” of its armed forces by 2035, and, “If China continues the pace of its nuclear expansion, it will likely field a stockpile of about 1500 warheads by its 2035 timeline.”<sup>7</sup>

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<sup>5</sup> *The Washington Post* pointed out, “Perhaps most strikingly, the authors acknowledge that the [NPR] documents were not updated since March...despite a war in Ukraine that was in its infancy when they penned their assessments.” See, Karoun Demirjian, “6 key takeaways from the Pentagon’s new defense, nuclear policies,” *The Washington Post*, October 27, 2022, available at <https://www.washingtonpost.com/national-security/2022/10/27/6-highlights-pentagon-nuclear-china/>.

<sup>6</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 5.

<sup>7</sup> U.S. Department of Defense, *Military and Security Developments Involving the People’s Republic of China*, 2022, p. IX, available at,



Here, mercifully, the NPR's artful qualifier "at least" is discarded for the more telling descriptor "about" with reference to the number of Chinese nuclear forces. Even that number, which is 50 percent higher than the figure given in the 2022 NPR, may be low. A former senior DoD official who follows the Chinese force numbers very closely observed: "The 2022 Pentagon report is clearly minimizing the numerical implications of Chinese deployment of MIRVed strategic missiles.... Today, the low estimates of Chinese nuclear weapons numbers and projected growth are so far below the delivery capability of the missiles that China is *known* to be building that they lack any credibility."<sup>8</sup>

The NPR's seemingly relaxed view of the threat to U.S. deterrence goals posed by China is out of place given Beijing's apparent intentions, military buildup, and expanding nuclear capabilities. The NPR seems to suggest that China's threat to U.S. deterrence goals is years away, while then-Commander of Strategic Command, ADM Charles Richard, recently said the U.S. deterrence ship is sinking now and "it isn't going to matter how good our [operating plan] is or how good our commanders are, or how good our forces are – we're not going to have enough of them. And that is a very near-term problem."<sup>9</sup>

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<https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

<sup>8</sup> Mark B. Schneider, "Will the Pentagon Ever Get Serious About the Size of China's Nuclear Force?," *RealClear Defense*, December 15, 2022, available at

[https://www.realcleardefense.com/articles/2022/12/15/will\\_the\\_pentagon\\_ever\\_get\\_serious\\_about\\_the\\_size\\_of\\_chinas\\_nuclear\\_force\\_870335.html](https://www.realcleardefense.com/articles/2022/12/15/will_the_pentagon_ever_get_serious_about_the_size_of_chinas_nuclear_force_870335.html) (emphasis in original).

<sup>9</sup> Quoted in, Caleb Larson, "'Sinking Slowly': Admiral Warns Deterrence Weakening Against China," *National Interest*, November 7, 2022, available at, <https://nationalinterest.org/blog/buzz/'sinking-slowly'-admiral-warns-deterrence-weakening-against-china-205759>.

As ADM Richard has rightly observed, China's threat to U.S. deterrence goals is looming now. Perhaps China's rapid expansion of nuclear forces will not *fully mature* until the 2030s. But its threat to U.S. deterrence goals is *not* dependent on the time it takes China to reach some measure of "parity" (or more) with the United States in strategic nuclear force numbers. China's threat to deterrence flows from the contemporary combination of Beijing's expansionist, revisionist goals and corresponding rapid buildup of conventional and nuclear capabilities.

The number of China's strategic nuclear forces in comparison to the number of comparable U.S. nuclear force is not irrelevant to U.S. deterrence considerations, but it is *not* the only, or the most important component of the threat China poses to U.S. deterrence goals. Believing that some ebbing U.S. numeric advantage or "parity" in strategic forces equals a safe relationship with China reflects the type of thinking that has unhelpfully skewed U.S. deterrence policy for decades, e.g., that a "parity" or balance in strategic nuclear forces (according to a chosen numeric measure) ensures that deterrence stability will endure.

That notion essentially is an inadequate engineering approach to understanding deterrence. If such an engineering approach to deterrence were reasonable, calculating how to deter and identifying a force adequate to the task would be much simpler. But it is not. It misses the most important political-military factors of the involved parties, i.e., their respective values, intentions, focus, political goals, determination, perceptions of strengths, weaknesses and vulnerabilities, and communications.

Accordingly, the most important ingredients in the threat to deterrence now posed by China are the apparent decade-long developments in its thinking about the role of nuclear weapons in support of its corresponding

expansionist, revisionist foreign policy goals.<sup>10</sup> This includes the use of nuclear threats for the purpose of nuclear coercion to support those expansionist goals. This unprecedented political-military challenge to U.S. deterrence goals is *not* dependent on China attaining some U.S. notion of “parity” or better in strategic nuclear forces in the 2030s. This challenge is here and now, and the United States needs to recognize its immediacy and identify a path forward to sustain the deterrence of war. The 2022 NPR does not appear to do so.

Second, this NPR curiously eliminates the SLCM-N program, against the expressed advice of senior U.S. military leaders,<sup>11</sup> and contrary to the overall thrust of the report itself. SLCM-N would have unique capabilities likely valuable for tailoring and extending deterrence in the emerging threat environment. This NPR seems to recognize emerging threats to deterrence and the need to tailor deterrence, but then seeks to kill a capability uniquely suited to tailoring and preserving deterrence in the emerging threat context. It is difficult to explain this decision other than SLCM-N—having been initiated by the Trump Administration—was the chosen, low-hanging fruit to eliminate something nuclear.

Third, the 2022 NPR identifies arms control as “the most effective, durable and responsible path to reduce the role of

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<sup>10</sup> For a lengthy analysis of China’s goals and envisioned role for nuclear weapons see, Keith Payne, Matthew Costlow, Christopher Ford, David Trachtenberg, and Alexander Vaughan, *Deterring China in the Taiwan Strait, Special Issue: Journal of Policy and Strategy*, Vol. 2, No. 2, 2022, especially chapters 1 and 2, available at, <https://nipp.org/wp-content/uploads/2022/05/Special-Issue-final.pdf>.

<sup>11</sup> See for example, Valerie Insinna, “Grady ‘Aligned’ With Milley on Embattled Low-Yield Nuke Program,” *Breaking Defense*, May 5, 2022, available at <https://breakingdefense.com/2022/05/grady-aligned-with-milley-on-embattled-low-yield-nuke-program>.

nuclear weapons in our strategy and *prevent their use*.”<sup>12</sup> To claim that arms control rather than deterrence is the “most effective, durable and responsible path” to preventing the employment of nuclear weapons is manifestly problematic and suggests a distorted prioritization. In Europe today, did past agreements regarding the elimination of nuclear weapons on Ukrainian soil prevent Russian invasion of Ukraine or Moscow’s subsequent stream of extreme nuclear threats? These threats have created greater concern about the probability of nuclear war than at any time in decades. Do the pertinent past agreements or *any others* now provide the much-appreciated measure of confidence that Moscow will *not* actually employ nuclear weapons, or do NATO’s deterrence capabilities provide that comfort? To ask the question is to identify the proper prioritization of deterrence and arms control as paths to prevent nuclear use. Both may be helpful, but when arms control and deterrence initiatives are in competition and trade-offs must be made, the priority must be in favor of deterrence because sustaining deterrence is paramount to preventing nuclear employment in a harsh threat environment.

Finally, and potentially most importantly, this NPR eliminates “hedge against an uncertain future” as a formal role of nuclear weapons.<sup>13</sup> This position contradicts the NPR’s recognition of the need to adapt deterrence in an increasingly dangerous and uncertain threat environment. It also contradicts the decades-long bipartisan recognition of the critical need for hedging, and the increasing uncertainties and corresponding need for hedging in the

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<sup>12</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 16 (emphasis added).

<sup>13</sup> *Ibid.*, p. 7.

emerging threat environment,<sup>14</sup> which this NPR acknowledges.

One can only wonder at the logic that says nuclear deterrence is a top priority in an increasingly uncertain threat environment, but that hedging is no longer a formal role for nuclear weapons. Some have suggested this is innocuous language to be ignored.<sup>15</sup> Perhaps, but there was ample time to clean up any unintended language, and incautious policy words can have outsized consequences, now and in the future.

Recall that over 50 years ago an NSC analyst explained to Henry Kissinger that the nuclear disarmament language in Article VI of the Non-Proliferation Treaty (NPT) “is an essentially hortatory statement and presents no problems,”<sup>16</sup> so Kissinger did not need to think twice about it. Yet, that Article has since become the focal point of claims that the NPT *requires* movement to nuclear disarmament.

Policy words can have meaning, and this NPR’s language rejecting hedging holds potentially significant consequences. Perhaps this language against hedging, rather than being an innocuous throw-away line, was included as a hook for future efforts to eliminate U.S. capabilities needed to upload nuclear weapons beyond New START limits, i.e., capabilities to hedge. If so, it is both

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<sup>14</sup> See Payne and Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why it Matters*, Occasional Paper, op. cit., pp. 20-49.

<sup>15</sup> See this reported comment by Hans Kristensen in, Bill Gertz, “Biden strategy shift limits role of nuclear arms as China, Russia expand arsenals,” *The Washington Times*, November 2, 2022, available at <https://www.washingtontimes.com/news/2022/nov/2/biden-strategy-shift-limits-role-of-nuclear-arms-a/>.

<sup>16</sup> Spurgeon Keeny, *Memorandum For Dr. Kissinger, Provisions of the NPT and Associated Problems*, The White House, January 24, 1969, Declassified August 6, 2007, p. 5, available at <https://2001-2009.state.gov/documents/organization/90727.pdf>.

serious and far removed from the harsh realities of the contemporary and foreseeable threat environment.

## Conclusion

In summary, the 2022 NPR deserves considerable praise for rejecting the minimum deterrence and nuclear disarmament policy agendas. Indeed, one dissatisfied commentator with a disarmament agenda concluded that the United States should just stop issuing NPRs because “the Pentagon controls the pen,” i.e., they are written by DoD professionals who, on a fully bipartisan basis, tend to be guided by an alternative national security agenda.<sup>17</sup> They may hold nuclear disarmament up as an ultimate destination, but generally recognize, as the bipartisan Strategic Posture Commission (Perry-Schlesinger Commission) observed, “The conditions that might make possible the global elimination of nuclear weapons are not present today and their creation would require a fundamental transformation of the world political order.”<sup>18</sup>

Those who now are critical of the 2022 NPR for generally rejecting their preferred nuclear disarmament policy agenda simply cannot understand the continuing reluctance of those responsible for U.S. nuclear policy and security to adopt their disarmament recommendations. A pertinent insight by the late and incomparable Oxford Professor, Sir Michael Howard, may be helpful in this regard: “Nobody who has been brought into contact with that inner group of civil and military specialists who are

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<sup>17</sup> Joe Cirincione, “A failure to review America’s nuclear posture,” *Bulletin of the Atomic Scientists*, October 28, 2022, available at <https://thebulletin.org/2022/10/a-failure-to-review-americas-nuclear-posture/>.

<sup>18</sup> Congressional Commission on the Strategic Posture of the United States, *America’s Strategic Posture* (Washington, D.C.: U.S. Institute of Peace, 2009), p. xvi.

responsible for the security of this country can fail to notice the almost physical pressure exerted on them by that responsibility, affecting their processes of thought (and often their manner of speech) in much the same way as the movements of a man are affected when he tries to walk in water....they share a common skepticism as to the possibility of disarmament, or indeed of the creation of any effective international authority to whom they can turn over any portion of their responsibilities." Sir Michael adds the critical point that, "the impatient onlookers, who have never themselves been plunged into that element, cannot understand why."<sup>19</sup>

I am pleased to commend the 2022 NPR for its clear rejection of the disarmament community's policy agenda and minimum deterrence, and correspondingly, for recognizing the need to rebuild U.S. deterrence capabilities to meet the deterrence needs of an increasingly dangerous threat environment. That praise comes with a caveat, however, because the 2022 NPR also contains some internally contradictory, troubling directions that are detached from, and inadequate for the rapidly advancing threats now confronting the West. Perhaps there is more to come.

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<sup>19</sup> Michael Howard, *Studies in War and Peace* (New York: Viking Press, 1964), pp. 215-216.

# The 2022 “Nesting” Experiment

by Brad Roberts

In 2019, I (among others) made the case that the United States should jettison the separate reviews of nuclear, missile defense, and other capability portfolios that had grown in number and size in recent administrations in favor of a more integrated approach.<sup>1</sup> I did so on the argument that greater coherence was both necessary and possible. The necessity arose from the inadequacy of the nation’s response to new challenges in the new security environment—an assessment delivered forcefully in 2018 by the bipartisan National Defense Strategy Commission, which concluded that the United States “could lose” its next war, perhaps catastrophically.<sup>2</sup> If the review process was leading us to failure, something needed to change. The possibility of greater coherence arose from the lessons to be learned from the experience of the three preceding administrations in trying to promote various forms of integration.

In spring 2021, newly appointed Secretary of Defense Lloyd Austin articulated his interest in integrated deterrence.<sup>3</sup> In follow up, the Biden Administration decided to “nest” the *Nuclear Posture Review* (NPR) and *Missile Defense Review* (MDR) within the *National Defense Strategy* (NDS).<sup>4</sup> Notably, it conducted a separate space

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<sup>1</sup> See for example, Brad Roberts, “It’s Time to Jettison Nuclear Posture Reviews,” *Bulletin of Atomic Scientists*, January 2020.

<sup>2</sup> Eric Edelman and Garry Roughead, co-chairs, *Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission*, 2018.

<sup>3</sup> C. Todd Lopez, “Defense Secretary Says ‘Integrated Deterrence’ is Cornerstone of U.S. Defense,” *DoD News*, April 30, 2021.

<sup>4</sup> Except as noted, the excerpts below are all from the specified reviews.



posture review that was not nested and remains classified.<sup>5</sup> Was this experiment a success? That is, did the review process produce a result that is integrated, conceptually and practically? And did it produce a result that is sound – that is, that puts the United States on a course away from catastrophic failure? What lessons follow?

### **An Integrated Result?**

At the very least, “nesting” implies some similarity between the nested elements and the nest. To what extent were the contents of the NPR and MDR shaped by the contents of the NDS? Do their views of the security environment align? Do they draw on the same analytical structures? Where they diverge, do they do so for some good reason?

All three documents begin with a discussion of the security environment. They convey a common view of that environment as well as some necessary divergences given their different foci. All three describe the more multipolar nature of the security environment and the more multi-domain character of modern conflict. But the divergences are striking. The NPR goes further than the other two documents in exploring the ways in which changes in the security environment have eroded deterrence. More importantly, the documents seem to convey different ideas about threats. The NDS characterizes China as the “pacing challenge” for U.S. defense strategy and sets out a strategy for long-term competition with it, while also addressing the “acute threat” posed by Russia. In contrast, the MDR takes North Korea as the pacing threat for homeland missile defense, as evident in the commitments to “stay ahead” of its developing posture and to rely on nuclear deterrence to prevent the larger-scale missile strikes of which Russia and

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<sup>5</sup> Theresa Hitchens, “US Strategic Space Review signed out, but no unclassified version is coming,” *Breaking Defense*, November 1, 2022.

China are capable. The NPR seems to take Russia as the pacing threat, describing it as “the rival with the most diverse and capable nuclear forces.” On China, the NPR makes no changes to U.S. nuclear policy or posture in reaction to current and projected growth in China’s nuclear forces. Instead, it describes China as “a growing factor in evaluating our deterrent” and asserts that “it may be necessary to consider nuclear strategy and force structure adjustments.”

The NDS then turns to an ends-ways-means construct to elaborate the administration’s defense strategy. The ends are succinctly articulated as defense priorities: to defend the homeland, to deter strategic attacks, to deter aggression and prepare to prevail if deterrence fails, and to ensure military advantage with a robust defense ecosystem. Ways and means are then aligned with these objectives.

In contrast, the NPR and MDR set out separate strategy and policy frameworks. These begin with a characterization of the particular roles of nuclear weapons and missile defenses in U.S. defense strategy. This discussion of roles is essential. But oddly it is not mapped against the NDS defense priorities. A more coherent mapping of roles against those priorities would have been helpful in creating an integrated view of the overlapping utilities of nuclear weapons and missile defenses in achieving U.S. objectives.

In the further elaboration of these frameworks, there are many consistent elements. The three reviews express consistent views of integrated deterrence, of the role of nuclear weapons in defense strategy, and of the value of anchoring U.S. strategy in cooperation with allies and partners. But the inconsistencies are again striking. For example, the NDS emphasizes campaigns of day-to-day activity to achieve U.S. objectives, including deterrence. In contrast, the word “campaign” is not to be found in the NPR or MDR. In the NPR at least, this connection would have

been straightforward to make, as the concept of tailored deterrence, as discussed in the NPR, encompasses ideas about actions over the long term to shape an adversary's thinking.

Another inconsistency relates to enduring advantage. The NDS devotes a chapter to "building enduring advantages," in support of the intent to "construct an enduring foundation for our future military advantage." The NPR and MDR never mention this concept. The NPR does articulate a need for "a resilient and adaptive nuclear security enterprise" and promises to "develop and field a balanced, flexible stockpile capable of pacing threats, responding to uncertainty, and maintaining effectiveness." But there is no discussion of what strategic advantage might mean or of how advantages have shifted, are shifting, or might yet shift in the unfolding tripolar competition with Russia and China.

In assessing the impact of the NDS on the NPR and MDR, two further points of divergence stand out. One is the divergence on "strengthening deterrence." The NDS conveys a clear commitment to sustaining and strengthening deterrence. Consider now the NPR commitments on nuclear deterrence:

1. Modernize U.S. nuclear forces through timely replacement of legacy fielded systems
2. Sustain fielded systems
3. Identify current or planned capabilities that are no longer required
4. Reduce the role of nuclear weapons
5. Strengthen regional nuclear deterrence
6. Develop new operational and organizational concepts
7. Better synchronize nuclear and non-nuclear planning exercise and operations

There is an implied 8<sup>th</sup> step following on the observation that, “in light of the expansion of China’s forces...changes in strategy and posture may be required to achieve deterrence, assurance, and employment objectives for both Russia and China.”

This list is stronger on sustaining than on strengthening. Item 1 will not materially alter the strength of the U.S. nuclear deterrent. Items 3 and 4 neither strengthen nor sustain deterrence. Items 5-7 will or could result in a strengthening of deterrence; but they have often been promised in the past and have proven difficult to achieve. Item 8 will prove immensely contentious.

The second divergence is on urgency. Secretary Austin is a man in a hurry. In his covering letter to the NDS, he conveys concern about our “turbulent times,” “stamped by dramatic changes” and “our generational challenge.” He also conveys a sense of urgency about “seizing this decisive decade” and rejecting “business as usual” as “not acceptable.” In contrast, the NPR offers a brief nod to urgency in its closing paragraph. The rest comes across as business as usual. The conviction that deterrence has eroded has not translated into agendas in the NPR and MDR to rapidly redress that erosion. Perhaps this reflects a judgment that the nuclear/strategic deterrent of the United States is as strong as it needs to be—a judgment that is difficult to square with the rest of the review.

Did the nesting process produce a result that is integrated, conceptually and practically? It produced a result that has elements of integration and, arguably, is more integrated than before. But divergences remain. Many of those divergences are appropriate and necessary, given the particular attributes and features of the different domains. But some of the divergences are unnecessary and unhelpful. More integration remains possible and necessary.

## A Sound Result?

Is the approach reflected in the 2022 nested reviews more likely than the approach of four years ago to win the endorsement of the NDS Commission? The findings of 2018 were compelling: the commission concluded that “the United States could face decisive military defeat” and was “unlikely to reverse its rivals’ momentum across an evolving, complex spectrum of competition.” It faulted DoD’s understanding of new challenges, especially to deterrence, and DoD’s failure to develop new operational concepts, including for the problem of multi-domain escalation. “The United States has been responding—inadequately—to operational challenges posed by our adversaries. We must reverse that paradigm and present competitors with challenges of our making.”<sup>6</sup> Does the 2022 review convey better understanding, improved operational concepts, and a sound strategy for success in reversing rivals’ momentum and winning wars? Here again, the results are mixed.

On “better understanding,” the three documents convey an understanding of the challenges across the full spectrum of conflict, with separate discussions of conflict in the gray zone, military crises, and war in a multi-domain context. But there is no single section that concisely describes the new military problems across this spectrum. The pieces of the puzzle can be found but it is left to the reader to assemble the puzzle and to determine whether it is complete and accurate.

On “improved operational concepts,” the three documents break no new ground. But, like their predecessors, they promise to do so in follow-on work. Of course, policy and posture reviews are not necessarily the place to do such work. At the very least, however, it would

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<sup>6</sup> Edelman and Roughead, *Providing for the Common Defense*, op. cit.

have been useful here to discuss the lessons of past experience in attempting this work and how to overcome past barriers to success, such as the limited institutional capacity and underdeveloped analytical tools.

On a “strategy for success,” the three documents do not, in my judgment, convey a strategy for reversing rivals’ momentum and winning wars. To be sure, they convey many of the right domain-specific ideas. But there is no coherent theory of victory here that each element supports—that is, a collection of hypotheses about how the actions of the United States and its allies will influence an adversary’s decision calculus so that he or she acts in a manner congruent with U.S. interests.<sup>7</sup> Such a theory and strategy may yet emerge from integrated deterrence; but it remains a work in progress. It is an aspiration. For the moment, it appears to have become too many different things to too many people.

These shortfalls are most conspicuous *via-a-vis* escalation risks. The three reviews clearly convey a high degree of concern about escalation, nuclear and otherwise, in the types of conflicts possible in the new security environment. But the brief characterization of “complex escalation dynamics” does not go very far in explaining how U.S. adversaries plan and prepare to wage limited wars with multi-domain actions intended to “sober but not enrage” the United States into recognizing the asymmetry of stake underlying the conflict and thus to induce U.S. de-escalation.<sup>8</sup> Even less is said about new U.S. approaches to manage those dynamics to its advantage. In fact, the reviews convey a much stronger focus on the risks we wish to avoid than the risks we seek to impose. That is, there are many more references to the risks of inadvertent and accidental escalation and to efforts to anticipate and prevent

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<sup>7</sup> Brad Roberts, *On Theories of Victory, Red and Blue*, Livermore Paper No. 7 (Livermore, CA: Lawrence Livermore National Laboratory, 2020).

<sup>8</sup> *Ibid.*, p. 50.

them than to imposing calculated risks on adversaries in support of U.S. deterrence objectives.

### **Taking Stock**

Was the “nesting experiment” a success? By the two metrics considered here, it produced a mixed result. There is a good deal of coherence across the three elements but, conceptually and practically, some important and concerning gaps remain. The risks in the new security environment seem well understood but the escalation problem seems to remain an abstraction, subject as it is to further study in the implementation phase (where the Pentagon “will develop”—future tense—the needed concepts for escalation management). Until a sound set of ideas exists about how to disincentivize and respond to escalation and to incentivize de-escalation and war termination (aka, a theory of victory), we have no basis for judging whether the right capabilities are in place or development.

It is important to caveat these findings as follows: Much of the thinking reflected in these reviews remains locked away in the classified realm. The unclassified versions of the NPR and MDR are in fact much shorter than their predecessors. This follows from an apparent preference that they not overshadow the unclassified summary of the *National Defense Strategy* with which they are nested in publication. The 2022 NPR is one third the length of its 2018 predecessor. The 2022 MDR is one half the length of its 2018 predecessor. That said, the publicly released documents must be judged on their own merits.

With these observations in mind, should the experiment be conducted again? Some close to the process argue that it should not, given the mismatch between the hefty investment of time and effort required and the somewhat modest result. But the time and effort were to be expected,

as was the modesty result. After all, the task was much more intellectually and politically challenging than the old way of business. And there was no precedent on which to build. But now there is precedent as well as a supply of people who have thought their way some distance into this set of challenges.

More importantly, innovation and adaptation remain urgent leadership priorities. To return to the NDS Commission 2018 report: "Previous congressionally mandated reports...warned that this crisis was coming. The crisis has now arrived, with potentially dire effects not just for U.S. global influence but also for the security and welfare of America itself." The strategy, policy, and posture reviews are our national roadmap to the escape from this crisis. The map in hand keeps us pointed in the right direction. But the next map must bring into better focus the new military problem and deliver a more coherent solution.

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# The Biden Administration's Nuclear Posture Review

by Mark B. Schneider

President Putin has predicted, “We are in for probably the most dangerous decade...”<sup>1</sup> His policies will make it so. On October 9, 2022, President Biden stated that Putin was serious about his nuclear threats, and, “We have not faced the prospect of Armageddon since Kennedy and the Cuban Missile Crisis.”<sup>2</sup> Two weeks later, the Biden Administration released its 2022 *Nuclear Posture Review* (NPR) report. The day before, Russia’s Defense Minister General Sergei Shoigu told Putin that Russia’s ongoing nuclear exercise was “a training session” which involved “delivering a massive nuclear strike by strategic offensive forces...”<sup>3</sup> Russian state television reported the target was the United States.<sup>4</sup> In September 2022, Putin’s Deputy at Russia’s National Security Council (and former President) Dimitri

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<sup>1</sup> “Valdai International Discussion Club meeting,” *Kremlin.ru*, October 27, 2022, available at <http://en.kremlin.ru/events/president/news/69695>.

<sup>2</sup> Rachel Scully, “Kirby: Biden ‘Armageddon’ remark reflects ‘the very high stakes that are in play,’” *The Hill*, October 9, 2022, available at [https://thehill.com/blogs/blog-briefing-room/3679978-kirby-biden-armageddon-remark-reflected-the-very-high-stakes-that-are-in-play/?email=a0dedcf95f8cd21a1117f83c469a4fcd135c5d5&email=c97832c4c0f0d52789fa3356ead821d1&emailb=b521a3cf0715490021c8d8781f43fedf419889810dda4e4042ea2a9e8868dfba&utmsource=Sailt&utm\\_medium=email&utm\\_campaign=10.09.22%20KB%20The%20Hill%20-%20Sunday%20Shows](https://thehill.com/blogs/blog-briefing-room/3679978-kirby-biden-armageddon-remark-reflected-the-very-high-stakes-that-are-in-play/?email=a0dedcf95f8cd21a1117f83c469a4fcd135c5d5&email=c97832c4c0f0d52789fa3356ead821d1&emailb=b521a3cf0715490021c8d8781f43fedf419889810dda4e4042ea2a9e8868dfba&utmsource=Sailt&utm_medium=email&utm_campaign=10.09.22%20KB%20The%20Hill%20-%20Sunday%20Shows).

<sup>3</sup> “Russia holds exercise to practice massive retaliatory nuclear strike — Shoigu,” *TASS*, October 26, 2022, available at <https://tass.com/defense/1527705>.

<sup>4</sup> Zoe Strozewski, “Putin’s Nuclear Missile Test Was Practice for Attacking U.S.: State TV,” *Newsweek*, October 27, 2022, available at <https://www.newsweek.com/putins-nuclear-missile-test-was-practice-attacking-us-state-tv-1755235>.

Medvedev declared, “The Donbas (Donetsk and Luhansk) republics and other territories will be accepted into Russia...[and] any Russian weapons, including strategic nuclear weapons...could be used for such protection.”<sup>5</sup> This elaborated on President Putin’s statement that, “In the event of a threat to the territorial integrity of our country and to defend Russia and our people, we will certainly make use of all weapon systems available to us. This is not a bluff.”<sup>6</sup>

The Biden Administration recognizes the broader context of these threats. As described in the 2022 *National Security Strategy* report, “Russia’s brutal and unprovoked war on its neighbor Ukraine has shattered peace in Europe and impacted stability everywhere, and its reckless nuclear threats endanger the global non-proliferation regime.”<sup>7</sup> It states, “Our competitors and potential adversaries are investing heavily in new nuclear weapons. By the 2030s, the United States for the first time will need to deter two major nuclear powers, each of whom will field modern and diverse global and regional nuclear forces.”<sup>8</sup> It warns that, “Russia’s conventional military will have been weakened [by their war in Ukraine], which will likely increase Moscow’s reliance on nuclear weapons in its military planning.”<sup>9</sup> This assessment is not in the 2022 NPR. Indeed, *The Washington Post* pointed out, “Perhaps most strikingly, the authors acknowledge that the [NPR] documents were

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<sup>5</sup> “Russia’s Medvedev: new regions can be defended with strategic nuclear weapons,” *Reuters*, September 22, 2022, available at <https://www.reuters.com/world/europe/russias-medvedev-strategic-nuclear-weapons-can-be-used-defend-new-regions-2022-09-22/>.

<sup>6</sup> “Address by the President of the Russian Federation,” *Kremlin.ru*, September 21, 2022, available at <http://en.kremlin.ru/events/president/news/69390>.

<sup>7</sup> The White House, *National Security Strategy*, October 2022, available at <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

<sup>8</sup> *Ibid.*, p. 21.

<sup>9</sup> *Ibid.*, p. 26.

not updated since March...despite a war in Ukraine that was in its infancy when they penned their assessments.”<sup>10</sup> Thus, the new U.S. nuclear strategy, as presented in the 2022 NPR, all but ignores the most dangerous political-military development since the end of the Cold war.

To its credit, the 2022 NPR preserves the nuclear Triad. While very important, this alone does not guarantee an effective deterrent. Numbers and types of weapons count and our adversaries have both. Moreover, the 2022 NPR eliminates some 2018 NPR programs designed to deal with the threat environment that now currently exists. The 2022 NPR provides weak and even disingenuous justifications for its decisions. It terminated the nuclear sea-launched cruise missile or SLCM-N (a decision opposed by the senior military leadership)<sup>11</sup> and the B83-1 high-yield bomb<sup>12</sup> (also opposed),<sup>13</sup> at a time when STRATCOM Commander Admiral Charles Richard stated that the “...current

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<sup>10</sup> Karoun Demirjian, “6 key takeaways from the Pentagon’s new defense, nuclear policies,” *The Washington Post*, October 27, 2022, available at <https://www.washingtonpost.com/national-security/2022/10/27/6-highlights-pentagon-nuclear-china/>.

<sup>11</sup> “Rogers Statement on National Defense Strategy,” House Armed Services Committee, October 27, 2022, available at <https://republicans-armedservices.house.gov/news/press-releases/rogers-statement-national-defense-strategy>.

<sup>12</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 3, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>13</sup> Bill Gertz, “Pentagon to scrap nuclear gravity bomb as part of Biden review,” *The Washington Times*, April 4, 2022, available at [https://www.washingtontimes.com/news/2022/apr/4/pentagon-scrap-nuclear-gravity-bomb-part-biden-rev/?utm\\_source=smartnews.com&utm\\_medium=smartnews&utm\\_campaign=smartnews+](https://www.washingtontimes.com/news/2022/apr/4/pentagon-scrap-nuclear-gravity-bomb-part-biden-rev/?utm_source=smartnews.com&utm_medium=smartnews&utm_campaign=smartnews+).

situation in Ukraine and China's nuclear trajectory convinces me a deterrence and assurance gap exists."<sup>14</sup>

According to the 2022 NPR, SLCM-N was terminated because "the W76-2 [low-yield Trident] currently provides an important means to deter limited nuclear use. Its deterrence value will be re-evaluated as the F-35A and LRSO [air-launched nuclear cruise missile] are fielded, and in light of the security environment and plausible deterrence scenarios the United States could face in the future."<sup>15</sup> This suggests that the weapon used to justify the termination of the SLCM-N, i.e., the W76-2, should itself be removed in favor of non-strategic nuclear weapons deployed entirely on aircraft and survivable only if on alert. With this "bait and switch" it is noteworthy that the Biden Administration has not placed aircraft on alert in the current crisis despite the many Russian nuclear threats.<sup>16</sup>

To its credit, the 2022 NPR recognizes the importance of extended deterrence.<sup>17</sup> It states, "When engaged in conventional operations against a nuclear-armed adversary the Joint Force must be able to survive, maintain cohesion, and continue to operate in the face of limited nuclear

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<sup>14</sup> Joe Gould, "US Strategic Command chief: Sea missile cancellation opens 'deterrence and assurance gap,'" *Defense News.com*, April 5, 2022, available at <https://www.defensenews.com/pentagon/2022/04/05/us-strategic-command-chief-sea-missile-cancellation-opens-deterrence-and-assurance-gap/>.

<sup>15</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 20.

<sup>16</sup> "No change to U.S. nuclear posture due to Russia threats, Pentagon says," *Reuters*, September 27, 2022, available at <https://www.reuters.com/world/no-change-us-nuclear-posture-due-russia-threats-pentagon-says-2022-09-27/>; Joe Gould, "No changes coming to US nuclear posture after Russian threat," *Defense News.com*, March 5, 2022, available at <https://www.defensenews.com/pentagon/2022/03/01/no-changes-coming-to-us-nuclear-posture-after-russian-threat/>.

<sup>17</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 3.

attacks.”<sup>18</sup> However, this requirement obviously was not taken into account when the SLCM-N was terminated. The 2022 NPR recognizes the need to be able to “fight and win” in a nuclear or WMD environment,<sup>19</sup> but provides no credible, non-strategic nuclear weapons appropriate to deter battlefield nuclear or WMD use or a means to shoot back if there are attacks on U.S. or allied forces. Without this capability, Dr. Bradley Thayer writes, the United States “will be compelled to move from conventional war to a strategic nuclear exchange.”<sup>20</sup>

The 2022 NPR states the B83-1 high-yield bomb program was discarded “...due to increasing limitations on its capabilities and rising maintenance costs. In the near-term, we will leverage existing capabilities to hold at risk hard and deeply buried targets [HDBTs].”<sup>21</sup> Yet, there are no large maintenance costs for nuclear weapons other than fixing problems when they are detected and in life extension, particularly without nuclear testing. The reference to “increasing limitations on its capabilities” probably relates to the reports of Russian construction of new underground bunkers.<sup>22</sup> The 2018 NPR retained high-yield bombs because, “The B83-1 and B61-11 gravity bombs

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<sup>18</sup> Ibid., p. 10.

<sup>19</sup> Ibid.

<sup>20</sup> Bradley Thayer, “Biden’s national security documents risk US national security,” *Epoch Times*, October 31, 2022, available at [https://www.theepochtimes.com/bidens-national-security-documents-risk-us-national-security\\_4828158.html](https://www.theepochtimes.com/bidens-national-security-documents-risk-us-national-security_4828158.html).

<sup>21</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 20.

<sup>22</sup> Bill Gertz, “Russia Building New Underground Nuclear Command Posts,” *The Washington Free Beacon*, August 15, 2016, available at <https://freebeacon.com/national-security/russia-building-new-underground-nuclear-command-posts/>; Mark B. Schneider, “Putin’s New Assured Survival Nuclear Bunker,” *Real Clear Defense*, December 1, 2020, available at [https://www.realcleardefense.com/articles/2020/12/01/putins\\_new\\_assured\\_survival\\_nuclear\\_bunker\\_651424.html](https://www.realcleardefense.com/articles/2020/12/01/putins_new_assured_survival_nuclear_bunker_651424.html).

can hold at risk a variety of protected targets.”<sup>23</sup> The 2022 NPR did not retain them. Compared to the retained weapons, the B83-1 has unique capabilities against hard and deeply buried facilities because of its very high yield.<sup>24</sup> As the National Academy of Sciences report on *Effects of Nuclear Earth-Penetrator and Other Weapons* concluded, it takes very high-yield or high-yield and earth penetration to destroy HDBTs.<sup>25</sup> The 2001 NPR noted the deterrence need to put HDBTs at risk and proposed a study of an improved nuclear weapon to do this.<sup>26</sup> The Congress vetoed it. If Putin launches a nuclear strike, it would not be from his Kremlin office but from a deep underground bunker. Putin’s assured survival could impact his decision to use nuclear weapons.<sup>27</sup> If so, terminating the B83-1 is a deterrence mistake.

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<sup>23</sup> U.S. Department of Defense, *Nuclear Posture Review* (Washington, D.C.: U.S. Department of Defense, February 2018), p. X, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

<sup>24</sup> Gertz, “Pentagon to scrap nuclear gravity bomb as part of Biden review,” op. cit.: Johnathan Medalia, *Robust Nuclear Earth Penetrator Budget Request and Plan, FY2005-FY2009*, CRS Report RL32347, Congressional Research Service, December 2004, available at <https://apps.dtic.mil/sti/pdfs/ADA474446.pdf>.

<sup>25</sup> *Effects of Nuclear Earth-Penetrator and Other Weapons* (Washington, D.C.: THE NATIONAL ACADEMIES PRESS, 2005) available at <https://nap.nationalacademies.org/read/11282/chapter/1#vii>.

<sup>26</sup> U.S. Department of State and U.S. Department of Energy, *Report to Congress on the Defeat of Hard and Deeply Buried Targets*, July 2001, p. 9, available at <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB372/docs/Underground-DeeplyBuried.pdf>; Hans M. Kristensen and Matt Korda, “Nuclear Notebook: United States nuclear weapons, 2021,” *Bulletin of the Atomic Scientists*, January 12, 2021, available at [https://thebulletin.org/premium/2021-01/nuclear-notebook-united-states-nuclear-weapons-2021/?utm\\_source=Newsletter&utm\\_medium=Email&utm\\_campaign=ThursdayNewsletter02252021&utm\\_content=NuclearRisk\\_US2021\\_01112021](https://thebulletin.org/premium/2021-01/nuclear-notebook-united-states-nuclear-weapons-2021/?utm_source=Newsletter&utm_medium=Email&utm_campaign=ThursdayNewsletter02252021&utm_content=NuclearRisk_US2021_01112021).

<sup>27</sup> Mark B. Schneider, “The Biden Administration’s Nuclear Posture Review: Assured Survival for Vladimir Putin,” *Real Clear Defense*, April

The 2022 NPR announced that the United States will “Eliminate ‘hedge against an uncertain future’ as a formal role of nuclear weapons,”<sup>28</sup> reversing a U.S. policy position that is more important than ever,<sup>29</sup> and dates to the 1960s when it was decided to “hedge” against “Greater-than-expected-threats.”<sup>30</sup> National security journalist Bill Gertz states that “Defense sources” told him that eliminating hedging as a formal task “will undermine efforts to reach arms control accords and weaken deterrence against unanticipated nuclear threats.”<sup>31</sup> The 2022 NPR rationale is the unprovable and dubious claim made in support of “stockpile stewardship” without nuclear testing.<sup>32</sup> This may

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21, 2022, available at

[https://www.realcleardefense.com/articles/2022/04/21/thebiden\\_administrations\\_nuclear\\_posture\\_review\\_assured\\_survival\\_for\\_vladimir\\_putin\\_828253.html](https://www.realcleardefense.com/articles/2022/04/21/thebiden_administrations_nuclear_posture_review_assured_survival_for_vladimir_putin_828253.html).

<sup>28</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 3.

<sup>29</sup> See Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why it Matters*, *Occasional Paper* (Fairfax, VA: National Institute Press, August 2022).

<sup>30</sup> “STATEMENT OF SECRETARY OF DEFENSE ROBERT S. McNAMARA BEFORE THE SENATE ARMED SERVICES COMM ON THE FISCAL YEAR 1969-73 DEFENSE PROGRAM AND 1969 DEFENSE BUDGET” (Washington, D.C.: U.S. Department of Defense, January 22, 1968), pp. 58-59, available at <https://history.defense.gov/Historical-Sources/Secretary-of-Defense-Annual-Reports/>.

<sup>31</sup> Bill Gertz, “EXCLUSIVE: Biden strategy shift limits role of nuclear arms as China, Russia expand arsenals,” *The Washington Times*, November 2, 2022, available at <https://www.washingtontimes.com/news/2022/nov/2/biden-strategy-shift-limits-role-of-nuclear-arms-a/>.

<sup>32</sup> U.S. Department of Defense, *2022 Nuclear Posture Review*, op. cit., p. 7; “Statement of C. Paul Robinson, Director, Sandia National Laboratories, United States Senate Committee on Armed Services, October 7, 1999,” p. 9, available at <http://armed-services.senate.gov/statemnt/1999/991007pr.pdf>; Kathleen C. Bailey, “THE COMPREHENSIVE TEST BAN TREATY - *The Costs Outweigh the Benefit*,” Cato Institute, January 15, 1999, available at <https://www.cato.org/policy-analysis/comprehensive-test-ban-treaty-costs-outweigh-benefits#>; and, Paul Robinson, John Foster, and



mean that the United States plans to cut dramatically its inactive stockpile which now hedges against a variety of threats.<sup>33</sup> If so, there will be little capability to respond to new threats until after 2030 when the United States is supposed to have the ability to produce “no fewer than” 80 “pits” (the vital plutonium component of nuclear weapons)<sup>34</sup> compared to a current Russian production capability of thousands per year.<sup>35</sup> In the late 1950s, the United States produced 5,000 nuclear weapons in a single year.<sup>36</sup> Eighty weapons a year would not allow a timely response to virtually any greater than expected Russian and Chinese nuclear threats.

The 2022 NPR probably understates all adversary nuclear capabilities. It gives no number for Russian strategic nuclear weapons. This decade, Russia could move to thousands of nuclear warheads above the maximum New

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Thomas Scheber, “The Comprehensive Test Ban Treaty: Questions and Challenges,” (Washington, D.C.: Heritage Foundation Lecture No. 1218, November 7, 2012), available at <http://www.heritage.org/research/lecture/2012/11/the-comprehensive-test-ban-treaty-questions-and-challenges>.

<sup>33</sup> Gertz, “EXCLUSIVE: Biden strategy shift limits role of nuclear arms as China, Russia expand arsenals,” *op. cit.*

<sup>34</sup> National Nuclear Security Administration, “PLUTONIUM PIT PRODUCTION,” (Washington, D.C.: U.S. Department of Energy, no date), available at <https://www.energy.gov/nnsa/plutonium-pit-production>.

<sup>35</sup> Rebeccah L. Heinrichs, “Transcript: The Arms Control Landscape ft. DIA Lt. Gen. Robert P. Ashley, Jr.,” Hudson Institute, May 31, 2019, available at <https://www.hudson.org/national-security-defense/transcript-the-arms-control-landscape-ft-dia-lt-gen-robert-p-ashley-jrt>.

<sup>36</sup> U.S. Department of Energy, “DECLASSIFICATION OF CERTAIN CHARACTERISTICS OF THE UNITED STATES NUCLEAR WEAPON STOCKPILE,” (Washington, D.C.: U.S. Department of Energy, no date), available at [https://alternatewars.com/WW3/DOE\\_Fact\\_Stockpile.htm](https://alternatewars.com/WW3/DOE_Fact_Stockpile.htm).

START accountable number of 1,550.<sup>37</sup> The 2022 NPR says, “Russia has an active stockpile of up to 2,000 non-strategic nuclear warheads that is not treaty-limited” and the number is increasing.<sup>38</sup> This would give them a 10-to-one advantage.<sup>39</sup> However, a 2019 report of the Congressional Research Service said estimates range from 2,000-6,000.<sup>40</sup> Additionally, China is massively expanding its nuclear forces.<sup>41</sup> One element of this is the Chinese construction of

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<sup>37</sup> James R. Howe, “CHAPTER 10. FUTURE RUSSIAN STRATEGIC NUCLEAR AND NON-NUCLEAR FORCES: 2022,” in Stephen J. Blank, ed., *The Russian Military in Contemporary Perspective* (Carlisle, PA: U.S. Army War College, September 2019), available at <https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1389.341>.; Mark B. Schneider, “Russian Nuclear Force Expansion and the Failure of Arms Control,” *Real Clear Defense*, October 24, 2019, available at [https://www.realcleardefense.com/articles/2019/10/24/russian\\_nuclear\\_force\\_expansion\\_and\\_the\\_failure\\_of\\_arms\\_control\\_114810.html#\\_ednref11](https://www.realcleardefense.com/articles/2019/10/24/russian_nuclear_force_expansion_and_the_failure_of_arms_control_114810.html#_ednref11).; Houston T. Hawkins, “RETHINKING THE UNTHINKABLE,” *Los Alamos National Laboratory National Security Science*, December 14, 2014, p. 10, available at <https://www.lanl.gov/discover/publications/national-security-science/2014-december/assets/doc/NSS-december2014.pdf>.; Bill Gertz, “Russia Sharply Expanding Nuclear Arsenal, Upgrading Underground Facilities,” *Washington Free Beacon*, December 13, 2017, available at <http://freebeacon.com/national-security/russia-sharply-expanding-nuclear-arsenal-upgrading-underground-facilities/>; and, “082319 Crane Naval Submarine Warfare Center Symposium on Strategic Nuclear Weapons Modernization and Hypersonics with Deputy Assistant Secretary of Defense for Nuclear Matter Peter Fanta,” mimeo.

<sup>38</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 4.

<sup>39</sup> Doug Lamborn, “ICYMI: In the wake of Russia’s invasion, the US must refocus on nuclear deterrence,” March 9, 2022, available at <https://lamborn.house.gov/media/press-releases/icymi-wake-russia-s-invasion-us-must-refocus-nuclear-deterrence>.

<sup>40</sup> Amy F. Wolf, “Nonstrategic Nuclear Weapons,” Congressional Research Service, September 6, 2019, available at <https://crsreports.congress.gov/product/pdf/RL/RL32572/38>.

<sup>41</sup> Roxana Tiron, “U.S. Sees Rising Risk in ‘Breathtaking’ China Nuclear Expansion,” *Bloomberg*, April 4, 2022, available at <https://www.bloomberg.com/news/articles/2022-04-04/u-s-sees-rising-risk-in-breathtaking-china-nuclear-expansion>.

360 new ICBM silos, reportedly with “up to 10 warheads” each.<sup>42</sup> How does that add up to the 2022 NPR’s count of “at least 1,000 [Chinese] deliverable warheads” by 2030?<sup>43</sup> Some estimates of Chinese nuclear capability credited them with more warheads *before* China started building new silos.<sup>44</sup>

Regarding the greater than expected Chinese threats, within about a month after the release of the 2022 NPR, U.S. government sources revealed that China had already deployed MIRVed JL-3 SLBMs on its six Jin-class (type 094) ballistic missile submarines.<sup>45</sup> Moreover, the Pentagon’s

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<sup>42</sup>“2022 Space and Missile Defense Symposium,” STRATCOM.MIL, August 11, 2022, available at <https://www.stratcom.mil/Media/Speeches/Article/3126694/2022-space-and-missile-defense-symposium/>; Scott Wyland, “LANL remains key part of U.S. nuclear weapons plan,” *The Santa Fe New Mexican*, October 28, 2022, available at <https://news.yahoo.com/lanl-remains-key-part-u-150800931.html>; and, John Grady, “Hyten: China’s ‘Unprecedented Nuclear Modernization’ Chief Concern,” *USNI News*, September 14, 2021, available at <https://news.usni.org/2021/09/14/hyten-chinas-unprecedented-nuclear-modernization-chief-concern>.

<sup>43</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 4; The John Batchelor Show, “1/2: #PRC: #Russia: The combined nuclear and missile threat: Rick Fisher, senior fellow of the International Assessment and Strategy Center, on this,” October 31, 2022, available at <https://lnkd.in/eCwhpGyh>; and, Mark B. Schneider, “The Chinese Nuclear Breakout and the Biden Administration’s Nuclear Posture Review,” *Real Clear Defense*, August 28, 2021, available at <https://dialog.proquest.com/professional/professionalnewsstand/docview/1462482121/fulltext/17ACFD860BA4EF6BC35/1?accountid=155509&site=professionalnewsstand&tac=17ACFD860BA4EF6BC35/1&t:cp=maintain/resultcitationblocksbrief&t:zoneid=transactionalZone17b6a573c91>.

<sup>44</sup> For alternative estimates see, Mark B. Schneider, “The Number of Chinese Nuclear Warheads,” *Real Clear Defense*, April 27, 2021, available at [https://www.realcleardefense.com/articles/2021/04/27/thenumberof\\_chinese\\_nuclear\\_warheads\\_774594.html](https://www.realcleardefense.com/articles/2021/04/27/thenumberof_chinese_nuclear_warheads_774594.html).

<sup>45</sup> Greg Weaver, “China increases ability to strike U.S. with sub-carried missiles,” *Fox News*, November 20, 2022, available at

2022 annual report on Chinese military power said that, “If China continues the pace of its nuclear expansion, it will likely field a stockpile of about 1500 warheads by its 2035 timeline.”<sup>46</sup>

The 2022 NPR does not explain how the United States can deter both Russia and China with planned U.S. nuclear forces.<sup>47</sup> How might it be possible to target 360 new Chinese silos? Even before the new Chinese silos (and possibly more Russian silos),<sup>48</sup> it reportedly required 2,700-3,000 strategic nuclear warheads to implement the U.S. targeting strategy; the United States now reportedly has under 2,000 deployed warheads.<sup>49</sup>

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<https://www.foxnews.com/us/china-increases-ability-strike-u-s-sub-carried-missiles>; and, National Air and Intelligence Center, *The Ballistic and Cruise Missile Threat*, Wright-Patterson Air Force Base, NASIC, July 2020, p. 33, available at

[https://media.defense.gov/2021/Jan/11/2002563190/-1/-1/1/2020%20BALLISTIC%20](https://media.defense.gov/2021/Jan/11/2002563190/-1/-1/1/2020%20BALLISTIC%20AND%20CRUISE%20MISSILE%20THREAT_FINAL_2OCT_REDUCED_FILE.PDF)

[AND%20CRUISE%20MISSILE%20THREAT\\_FINAL\\_2OCT\\_REDUCED FILE.PDF](https://media.defense.gov/2021/Jan/11/2002563190/-1/-1/1/2020%20BALLISTIC%20AND%20CRUISE%20MISSILE%20THREAT_FINAL_2OCT_REDUCED_FILE.PDF).

<sup>46</sup> *Military and Security Developments Involving the People’s Republic of China 2022* (Washington, D.C.: U.S. Department of Defense, 2022), pp. IX, 94, 100, available at

<https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>; National Air and Intelligence Center, *The Ballistic and Cruise Missile Threat*, op. cit., p. 33.

<sup>47</sup> “1/2: #PRC: #Russia: The combined nuclear and missile threat: Rick Fisher, senior fellow of the International Assessment and Strategy Center, on this,” op. cit.

<sup>48</sup> “Highlights of Russia’s arms procurement programme for 2018-2027,” *BBC Monitoring Former Soviet Union*, December 30, 2019, available at <https://dialog.proquest.com/professional/professionalnewsstand/docview/233124>

[0824/fulltext/18393DD38D67B5BF777/1?accountid=155509&accountid=155509&site=professionalnewsstand&t:ac=18393DD38D67B5BF777/1&t:cp=maintain/resultcitationblocksbrief&t:zoneid=transactionalZone\\_424a9e8841d963](https://dialog.proquest.com/professional/professionalnewsstand/docview/233124).

<sup>49</sup> Rebeccah Heinrichs and Baker Spring, “Deterrence and Nuclear Targeting in the 21st Century,” Heritage Foundation, November 30,

When rolling out the 2022 NPR, Secretary of Defense General (ret.) Lloyd Austin said U.S. nuclear forces are “significant.”<sup>50</sup> The previous requirement was “second to none,” but this is no longer true.<sup>51</sup> They may become second to two. The 2022 NPR displays no recognition that the capabilities of U.S. nuclear forces will likely decline this decade due to: 1) aging, 2) possible reliability issues due to the absence of nuclear testing, 3) improving adversary active and passive defenses, 4) Russian and Chinese nuclear force expansion, and 5) the slow pace of U.S. nuclear modernization. Many of these deficiencies predate the 2022 NPR, but it does little to resolve them; these problems are ignored, and the cuts make the situation worse. Contrary to the 2022 NPR, arms control won’t solve these problems because China will not participate, while Russia consistently cheats and won’t agree to significant, verifiable reductions.<sup>52</sup> Neither will conventional weapons deter massive nuclear strikes.

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2012, available at <https://www.heritage.org/node/12067/print-display>.

<sup>50</sup> “Secretary of Defense Lloyd J. Austin III Holds a Press Conference,” U.S. Department of Defense, October 27, 2022, available at <https://www.defense.gov/News/Transcripts/Transcript/Article/3202353/secretary-of-defense-lloyd-j-austin-iii-holds-a-press-conference/>.

<sup>51</sup> Robert G. Joseph, “Second to One,” *National Review*, July 2, 2012, available at <https://www.nationalreview.com/2012/07/second-one-robert-g-joseph/>.

<sup>52</sup> John Xie, “China Rejects US Nuclear Talks Invitation as Beijing Adds to Its Arsenal,” *Voice of America*, July 13, 2022, available at [https://www.voanews.com/a/east-asia-pacific\\_voa-news-china\\_china-rejects-us-nuclear-talks-invitation-beijing-adds-its-arsenal/6192705.html](https://www.voanews.com/a/east-asia-pacific_voa-news-china_china-rejects-us-nuclear-talks-invitation-beijing-adds-its-arsenal/6192705.html); Dr. Christopher Ashley Ford, “Russian Arms Control Compliance and the Challenge of the Next Agreement,” U.S. Department of State, June 23, 2020, available at <https://2017-2021.state.gov/Russian-Arms-Control-Compliance-and-the-Challenge-of-the-Next-Agreement/index.html>; William Schneider, “Arms Control: The Lesson of Russia’s Serial Treaty Violations,” Hudson Institute, September 18, 2014, available at <https://www.hudson.org/research/10613-arms-control-the-lesson-of->

In November 2022, Admiral Richard declared, “As I assess our level of deterrence against China, the ship is slowly sinking.”<sup>53</sup> The 2022 NPR certainly does not provide any lifeboats and may have accelerated the process.

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russia-s-serial-treaty-violations; U.S. Department of State, “2021 Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments,” available at <https://www.state.gov/2021-adherence-to-and-compliance-with-arms-control-nonproliferation-and-disarmament-agreements-and-commitments/>; and, Marshall Billingslea, “Arms Control and the New START Treaty,” *Information Series*, No. 472 (Fairfax, VA: National Institute Press, December 8, 2020), available at [https://nipp.org/information\\_series/billingslea-marshall-arms-control-and-the-new-start-treaty-information-series-no-472/](https://nipp.org/information_series/billingslea-marshall-arms-control-and-the-new-start-treaty-information-series-no-472/).

<sup>53</sup> C. Todd Lopez, “Stratcom Commander Says U.S. Should Look to 1950s to Regain Competitive Edge,” *DoD News*, November 3, 2022, available at <https://www.defense.gov/News/News-Stories/Article/Article/3209416/stratcom-commander-says-us-should-look-to-1950s-to-regain-competitive-edge/>.



# Explaining the 2022 Nuclear Posture and Why it Matters

by Robert Soofer

A review of the nation's nuclear posture should be a strategy-driven exercise: Assess the threats to U.S. strategic interests, examine the role of nuclear weapons in broader U.S. national security policy, develop policies and strategies for nuclear weapons, and then determine the force structure and posture to support that strategy. For the most part, this is how posture reviews are conducted; however, it would be a mistake to neglect the political dimension where the views of the President and his senior advisors, Congress, media, allies, and domestic interests provide a dynamic decision-making process that may lead to uneven results. This is the way to understand the 2022 *Nuclear Posture Review* (NPR).

Many of the contributors to this volume consider the NPR to be within the mainstream of U.S. nuclear policy.<sup>1</sup> Important continuities in policy include: recognition of the vital role of nuclear weapons for deterring nuclear and “catastrophic” non-nuclear attacks and assuring allies; recommendations to modernize each leg of the nuclear triad, begun by the Obama Administration and continued under Trump; and, recognition that U.S. nuclear strategy and forces must be capable of deterring a range of nuclear threats from limited use to large-scale attacks.

Perhaps the most significant new contribution to U.S. nuclear policy is the acknowledgment that “by the 2030s, the United States will, for the first time in its history, face two major nuclear powers as strategic competitors and

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<sup>1</sup> See John Harvey, Franklin Miller, Keith Payne, Bradley Roberts, and Robert Soofer, “Assessing the Biden 2022 Nuclear Posture Review,” *Real Clear Defense.com*, November 16, 2022.



potential adversaries.”<sup>2</sup> The fear is opportunistic aggression—an adversary taking advantage of a situation where the United States is already engaged in conflict with another major power. To mitigate this risk, the report states that “we will rely in part on nuclear weapons...recognizing that a near-simultaneous conflict with two nuclear-armed states would constitute an extreme circumstance.” Use of the phrase “extreme circumstance” is significant because U.S. nuclear declaratory policy states that the United States would only use nuclear weapons in extreme circumstances to defend vital U.S. interests, including allies and partners. This language, therefore, suggests the two-nuclear peer (2NP) problem may create an extreme circumstance where nuclear weapons may have to be considered; this would seem to suggest an increasing role for U.S. nuclear weapons in the future.

Yet, despite this important acknowledgement, the 2022 NPR fails to offer specific strategy and force structure recommendations to address the 2NP problem and appears to be contradictory or at least unhelpful in other areas. For example, while noting “the current and ongoing salience of nuclear weapons in the strategies of our competitors,” it states a commitment by the United States “to reduce the role of nuclear weapons in our strategy....” The report explains why adopting a no-first-use or sole use policy would be inimical to U.S. interests (particularly for extending deterrence to assure nervous allies), yet states that “we retain the goal of moving toward a sole purpose declaration and we will work with our allies and partners to identify concrete steps that would allow us to do so.” This makes little sense: if it were the allies that convinced the

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<sup>2</sup> Unless otherwise noted, all quotes are from the unclassified 2022 *Nuclear Posture Review*. See U.S. Department of Defense, 2022 *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

administration to forgo no first use, then what steps would be necessary to convince them otherwise and why would we want to try in the first place? This contradictory language serves to confuse allies and may weaken U.S. security assurances, which may cause allies to increase the role of nuclear weapons in their national security policies and acquire their own nuclear arsenals.

We are left, then, with a nuclear posture review that, while getting the threat and strategy right, seems to argue with itself over some very important policy decisions, while leaving the most important strategy-policy issue (three party deterrence) unaddressed. How did this come to be, and why does it matter? It's important to understand the policy-making dynamic that led to this result because it may suggest the difficulty in addressing the 2NP problem that lies ahead. While I don't have direct insight into the NPR process conducted by the Biden Administration, there is circumstantial evidence in press reporting<sup>3</sup> and official statements to suggest the process was complicated by widely disparate views about the role of nuclear weapons. This was not the case during the Trump NPR where, for the most part, senior advisors were pulling in the same direction and headed toward the same objectives.

### Policy Contradictions

To understand why the review seems to favor language associated with no first use (or sole use) and reducing the role of nuclear weapons, one could examine the President's campaign pledges and early statements. In a 2020 article in the journal *Foreign Affairs*, then-candidate Joe Biden makes clear that if elected he "will take other steps to demonstrate

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<sup>3</sup> See, for example, Bryan Bender, Alexander Ward, and Paul McLeary, "Pentagon bearing down on Biden to shelve nuclear reforms," *Politico.com*, November 5, 2021.

our commitment to reducing the role of nuclear weapons.” He states his belief “that the sole purpose of the U.S. nuclear arsenal should be deterring and, if necessary, retaliating against a nuclear attack,” and says that “as president I will work to put that belief into practice, in consultation with the U.S. military and US allies.”<sup>4</sup>

The NPR was further influenced by the March 2021 *Interim National Security Strategy*, which called for U.S. leadership in “heading off costly arms races and re-establishing our credibility as a leader in arms control.” The guidance reiterated that the United States would take steps to reduce the role of nuclear weapons and renew American non-proliferation leadership that will be “essential to reducing the dangers posed by nuclear weapons.”<sup>5</sup>

It would be difficult and inappropriate for those conducting the NPR to ignore this guidance from the White House as well as the President himself. It should come as no surprise, therefore, that reducing the role and sole purpose are included in the NPR, if only as aspirational policy goals. It is noteworthy that the President, in the final analysis, accepted the advice of his senior military officials and closest allies and decided not to alter long-standing U.S. declaratory policy. That the aspiration remains in the NPR is an artifact of politics. Likewise, the NPR maintains the low-yield, submarine-launched ballistic missile (SLBM) warhead (W76-2) to deter limited nuclear threats, yet says its “deterrence value will be re-evaluated...in light of the security environment and plausible deterrence scenarios we could face in the future.” Given the expansion of Chinese and Russian regional nuclear capabilities, it’s hard to imagine how such a reevaluation could make the W76-2 less

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<sup>4</sup> Joseph R. Biden, “Why America Must Lead Again,” *Foreign Affairs*, March/April 2020.

<sup>5</sup> *Whitehouse.gov*, Interim National Security Strategic Guidance, March 2021.

necessary; again, this recommendation is likely the result of a political compromise amongst senior advisors.

### **Addressing the Three-Party Deterrence Challenge**

Harder to explain is the lack of any significant recommendations to address the emerging two nuclear peer problem. The NPR states the strategic problem quite clearly:

- “By the 2030s the United States will, for the first time in its history, face two major nuclear powers as strategic competitors and potential adversaries.”
- “In a potential conflict with a competitor, the United States would need to be able to deter opportunistic aggression by another competitor. We will rely in part on nuclear weapons to help mitigate this risk, recognizing that a near-simultaneous conflict with two nuclear armed states would constitute an extreme circumstance.”
- “We recognize that as the security environment evolves, it may be necessary to consider nuclear strategy and force adjustments to assure our ability to achieve deterrence and other objectives for the PRC—even as we continue to do so for Russia.”

Since the review notes that China is likely to have a nuclear triad and regional nuclear forces consisting of at least 1,500 nuclear weapons by 2035, and that Russia’s nuclear arsenal is “expected to grow further,” and that neither country is “interested in reducing its reliance on nuclear weapons,” it is increasingly clear how the security environment will evolve; therefore, there is no reason to delay adjustments to U.S. strategy and forces. Former STRATCOM commander, Admiral Chas Richard, believes

China's strategic breakout is happening now, and argues that a response is warranted immediately.<sup>6</sup>

Why call attention to the emerging challenge, yet offer no response? There may be at least two possible explanations: first, the administration simply ran out of time and intends to address the question over the next year; and second, the administration could not come to agreement on how to respond to this challenge given the range of views held by senior administration officials.

Having co-led the 2018 NPR, I can attest to the time, resources, and senior leader attention needed to conduct such reviews, so it is plausible that the reason the NPR contains no specific strategy or force structure recommendations is because they simply ran out of time and intend to address the new strategic problem in the near future, perhaps during implementation of the NPR. The NPR spent substantial time reviewing the Obama-Trump decision to replace the Minuteman ICBM and reassessing the Trump Administration's recommendation for supplemental nuclear capabilities. The no-first-use decision figured prominently during the NPR process and was a decision settled ultimately by the President himself. Given the attention spent on these issues perhaps it is not surprising that the more complicated consideration of the two nuclear peer problem went unaddressed.

On the other hand, the alternative explanation—that senior leaders could not reach agreement on how to respond to the two nuclear peer problem—seems plausible as well. Complicating the review process may have been a divide among senior administration officials over the significance of China's nuclear expansion and how to address it. The NPR report notes that strategy and force structure changes may be necessary, so there were senior officials involved in the review who held the view that

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<sup>6</sup> Aaron Mehta, "STRATCOM Chief Warns of Chinese Strategic Breakout," *Breaking Defense.com*, August 12, 2021.

additional or perhaps different U.S. nuclear forces may be needed. Yet other senior officials, such as Under Secretary of State for Arms Control and International Security, Bonnie Jenkins, “would say that building more weapons is not the answer.”<sup>7</sup> Under these circumstances, it may not be surprising that the NPR remains undecided on the way ahead.

The anti-nuclear (or minimum deterrence) faction in Congress also may have had an impact on the President and the nuclear review process when on January 26, 2022, 56 Senators and Representatives sent a letter to the President imploring him “to take bold steps that reduce our reliance on nuclear weapons, elevate arms control, and retire President Trump’s new, unnecessary warfighting nuclear weapons.” Under these circumstances, it may not be surprising that the aspirational language on no first use and reducing the role of nuclear weapons found its way into the final document.

### **What Comes Next?**

To be sure, addressing the two nuclear peer problem is going to be difficult and will require a serious national analytic effort. It is also going to become a national political issue driven by near-term deadlines. First, Congress and the administration will have to agree on how to handle the nuclear Sea-Launched Cruise Missile (SLCM-N) which the NPR canceled and for which the Congress will provide \$45.0 million in the coming year (Fiscal Year 2023). This amount is not enough to commence a true developmental effort, so the debate remains unsettled. A new Republican majority in the House of Representatives is likely to

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<sup>7</sup> Not attributed, “U.S. not seeking to start new arms race or boost its nuclear arsenal,” *TASS* (Russia), October 27, 2022. Reporting on remarks by Ambassador Bonnie Jenkins at the Carnegie Endowment for International Peace.

continue to press the issue while senior Democrats in both the House and Senate seem supportive of continued research and development, if not a deployment decision at this time. Left unaddressed, the SLCM-N will only grow in political salience as the 2024 national election gets underway. In fact, the administration's handling of the two nuclear peer problem more broadly is likely to become a national political issue, reminiscent of previous Cold War nuclear debates such as the Missile Gap or the Window of Vulnerability.

Another important deadline is the expiration of the New START treaty in February 2026. The administration appears to be interested in a follow-on framework to extend or replace the New START treaty, though negotiations with Russia at this time seem unlikely. Still, one has to start thinking through the issues even now, and one of the most important factors to consider is the expansion of China's nuclear capabilities as well as Russia's increasing reliance on nuclear threats, novel strategic nuclear weapons, and regional nuclear forces not covered under New START. Our arms control objectives should be closely coupled to how we intend to handle the two nuclear peer problem.

Two camps are starting to form: the first is worried that expiration of New START and the expansion of Chinese nuclear forces will spark an arms race; the second is apprehensive that the United States will not do enough to meet the challenge of two nuclear peers and opportunistic aggression in the next decade. The uncertainty between these two poles will drive political debate, perhaps creating undeviating divisions, making compromise difficult. A bipartisan approach to the problem could include a modest increase in U.S. nuclear forces but within a New START follow-on framework. The 2NP challenge can be met without resorting to an early-Cold War arms race. The sooner a compromise is reached, the better for all sides.

In summary, while the 2022 NPR is well within the mainstream of U.S. nuclear policy, its inherent contradictions and lack of well-defined recommendations to address the two nuclear peer problem represent important shortfalls. It's a concern because reaching agreement on future strategy and force structure changes (once we know what those are) will be difficult and likely fraught with politics. The good news is that the fundamental national consensus on a strong nuclear deterrent, demonstrated over the last three presidential administrations, continues to endure and is likely to grow even stronger as the threat advances.

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# About Right: Biden's 2022 Nuclear Posture Review

by Ashley J. Tellis

For a candidate who argued during his presidential campaign that “the sole purpose of the U.S. nuclear arsenal should be deterring – and, if necessary, retaliating against – a nuclear attack,”<sup>1</sup> Joe Biden’s 2022 *Nuclear Posture Review* has turned out about right on multiple counts. The administration’s declaratory policy, for example, correctly walked back the position taken by Biden the candidate when it admitted that a “sole purpose” declaration does not serve U.S. interests at this juncture. Thus, the administration has in effect conceded that no matter how noble the president’s impulses during the campaign may have been – seeking a safer world in the presence of nuclear weapons – achieving that outcome depends as much on the choices made by others, including America’s adversaries, as it does on the United States.

In this context, getting the balance right on matters of nuclear doctrine, force structure, and operational posture will always be challenging because of the tensions inherent in the multiple objectives simultaneously pursued by Washington. The first and most important task facing the United States in the nuclear realm is to maintain effective nuclear forces to protect the U.S. and allied homelands as well as their core interests in the global system. This objective requires the United States to maintain nuclear forces of a certain size and quality depending on the character and capabilities of its adversaries and the nuclear strategies that they are judged to pursue. At a time when

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<sup>1</sup> “The Power of America’s Example: The Biden Plan for Leading the Democratic World to Meet the Challenges of the 21st Century,” <https://joebiden.com/americanleadership/#>.

the United States finds itself locked into great-power competition with at least two major rivals, Washington's capacity to devalue nuclear weapons will be stressed, especially when one competitor, Russia, has already demonstrated a blatant proclivity for nuclear coercion and the other, China, has embarked on a dramatic transformation of its nuclear arsenal.

Beyond coping with great-power nuclear threats, Washington has to deal with the responses provoked by its own order-managing activities globally. The United States, whether it admits it or not, is a hegemonic power. It protects its security and interests, as well as those of its allies, by preserving an international system that is in the ultimate analysis upheld by the use of force. The application of power that is consequently necessary to maintain the U.S.-led international order will inevitably prompt some states to acquire nuclear weapons precisely in order to prevent Washington from undermining their specific interests. Therefore, even if the United States foreswore the possession and use of nuclear weapons, the very fact that other states will feel threatened by U.S. conventional military advantages and its willingness to use force to preserve an international order that favors its interests would be reason enough for some challengers—both major and minor—to acquire nuclear weapons.

The United States has attempted to diminish these incentives by, on the one hand, maintaining a global nonproliferation regime that seeks to curtail the spread of nuclear weapons while, on the other hand, limiting the issuance of nuclear threats and accepting commitments to eventual nuclear disarmament. This solution is precarious, however, because the existence of nuclear rivals compels the United States to maintain and modernize its nuclear arsenal continuously, even if doing so runs counter to the competing objectives of nonproliferation and disarmament. The latter goals are undoubtedly valuable insofar as they

reduce the number of states with nuclear weapons and, by extension, diminish the nuclear dangers facing the United States.

But the basic trilemma is unavoidable: The United States cannot neutralize the threats posed by nuclear rivals, induce states threatened by U.S. conventional military power to eschew the acquisition of nuclear weapons, and honestly meet its international disarmament obligations simultaneously. Something has to give, and until the international system ceases to be fundamentally rivalrous—an outcome that will not be realized within history as we know it—the ambition to abolish nuclear weapons will have to be surrendered despite pretenses to the contrary.

It is to the Biden Administration's credit that the nuclear posture review clearly affirms the reality that nuclear weapons remain the bedrock of U.S. and allied security, providing "unique deterrent effects that no other element of U.S. military power can replace."<sup>2</sup> Consistent with this appraisal—which has been shared on a bipartisan basis for decades—the 2022 review declares the importance of preserving the nuclear triad and modernizing it appropriately; emphasizes not just the imperative of robust deterrence but also the need to effectively respond to any adversary nuclear use; underscores the priority of preserving deterrence effectiveness both by maintaining the capacity for flexible response and by holding at risk those assets most valued by an adversary; commits to deploying the requisite nuclear capabilities to deter and neutralize strategic coercion that seeks to discourage U.S. defense of its allies or force war termination on unacceptable terms; and, pledges to make investments in the nuclear infrastructure, workforce, and research and development activities

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<sup>2</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 1, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

required to sustain the effectiveness of U.S. nuclear weapons indefinitely.

These elements are corroborated by the administration's budget requests, which are intended to fund the replacement systems for the existing triad, the upgrades to the nuclear command and control system in the face of emerging threats, and the rejuvenation of the warhead production infrastructure necessary to maintain the nuclear arsenal. To that degree, the critics of the 2022 review are correct: the Biden Administration has not moved significantly to reduce the U.S. reliance on nuclear weapons, but it could hardly be expected to given the troubling transformations in the Russian and, more importantly, Chinese nuclear arsenals—even if the problems posed by North Korea and Iran are entirely disregarded. Castigating the review as “a major step backward,”<sup>3</sup> thus, overlooks the fact that the United States, too, is a prisoner of structural constraints that are not solely of its own making. In circumstances where the United States and its allies have to be defended against nations that appear willing to exploit their nuclear reserves either for coercion or because of fears about their own weaknesses in the face of U.S. advantages, Washington has no choice but to maintain the nuclear weapons necessary not simply to deter but, more emphatically, to deter through strategies of discriminate damage limitation rather than through the crude alternative of mutually assured destruction.

To the degree possible, the United States must seek to protect its interests through the use of conventional military forces rather than nuclear weapons in the first instance. This is especially true in foreseeable future contingencies involving China. This priority actually justifies the

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<sup>3</sup> Lisbeth Gronlund, “The new US nuclear posture review is a major step backward,” *Bulletin of the Atomic Scientists*, November 4, 2022, <https://thebulletin.org/2022/11/the-new-us-nuclear-posture-review-is-a-major-step-backward/>.

administration's cancellation of the nuclear sea-launched cruise missile (SLCM-N) because this weapon's deployment would complicate naval operations, reduce conventional weapon loadouts when these are at a premium, and fail to offer any unique capability beyond that of the long-range standoff weapon when it is inducted into the inventory. The decision to preserve the W76-2 low-yield warhead, in this context, is eminently sensible because it provides rapid and flexible response with high penetration capability and is deployed on nuclear ballistic missile submarines. These forces support deterrence of nuclear escalation within a conventional conflict without forcing acute tradeoffs vis-à-vis the conventional weaponry deployed in a given theater. Both these decisions have been debated—and are admittedly debatable—but they should not detract from the fact that the broad direction set and affirmed by Biden's 2022 review is eminently sound in the face of the evolving great power competition confronting the United States.

There are, however, discomfiting uncertainties looming on the horizon. For starters, it is simply unclear what the final size of the Chinese nuclear arsenal will be as it continues its current expansion. Unlike the front-line U.S. and Russian nuclear forces that are constrained by the New START Treaty, China's nuclear expansion is unconstrained by any legal regime and Beijing is in any case not limited by any meaningful fissile material production constraints. For all the insinuation that China had stopped producing weapons-related highly enriched uranium in the late 1980s, it is unclear whether Beijing has actually done so. And the prospective availability of new fast breeder reactors implies that China could produce vastly increased quantities of weapons-grade plutonium for its expanding nuclear arsenal in relatively quick order. All of this implies that the 2022 *Nuclear Posture Review's* commitment to pursuing further nuclear reductions through arms control will be sorely tested. Given current developments, it is unclear

whether Russia would be willing to engage in further nuclear reductions and, although Moscow will cite U.S. missile defenses as the chief obstacle, the rapidly enlarging Chinese arsenal also effectively constrains further Russian reductions at exactly the time when Beijing has no interest in participating in any nuclear arms control—a condition that is likely to persist if China does in fact seek to achieve nuclear parity with the United States.

Furthermore, the character of the strategic nuclear threats facing the United States are also poised to mutate considerably as a result of China's continuing nuclear transformation. Until recently, only Russia could hold at risk critical segments of America's strategic nuclear forces; China at best had only the capability to threaten U.S. countervalue targets. Within the next decade, however, China could well acquire the technical capacity to execute effective counterforce strikes on U.S. land-based ballistic missiles and its bomber force bases. Beijing today can execute such missions against various regional adversaries in and around Asia, but these capabilities could extend to threatening U.S. nuclear forces within the continental United States itself during this decade or the next. Chinese forces, in a sharp departure from the past, will also enjoy dramatically faster launch capabilities than were ever contemplated by Beijing previously. Moreover, China appears to be leaving behind its previous conviction that nuclear weapons are unusable in favor of preparing for at least some forms of limited nuclear use. These developments will complicate the standing U.S. nuclear strategy of damage limitation and, although the review correctly notes that "a near-simultaneous conflict with two nuclear-armed states would constitute an extreme circumstance,"<sup>4</sup> the U.S. strategic deterrent ultimately will have to be sized and configured to neutralize even the least probable contingencies if Washington is to satisfactorily

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<sup>4</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 12.

discharge its national defense, extended deterrence, and global order-maintenance obligations simultaneously. It is in this context that the need to develop effective weapons to defeat hard and deeply buried targets with alacrity—now that the B83-1 bomb is being retired—also becomes pressing.

Even more urgently, the United States needs to accelerate the conventional military investments as well as rethink the kind of nuclear capabilities and posture that will be required for successful regional deterrence in Asia. The 2022 review makes a persuasive case that the administration's current initiatives suffice for effective nuclear deterrence in Europe. In contrast, the requirements for effective nuclear deterrence in Asia, particularly in light of the expanding Chinese nuclear capabilities, deserve deeper consideration. Because the possibility of Chinese limited nuclear use represents the most likely challenge in the theater, the United States in concert with its allies needs to reexamine the requirements for regional nuclear assurance. But, of greater significance, Washington needs to quickly complete the currently contemplated U.S. conventional force transformations, to include the acquisition of new capabilities as well as the appropriate force posture adjustments, precisely in order to avoid relying excessively on U.S. nuclear responses as a means of preserving stability in East Asia. Since a conflict with China cannot be ruled out *tout court* at a time when the United States is equally—and correctly—insistent that it “will not be deterred from defending our Allies and partners, or coerced into terminating a conflict on unacceptable terms,”<sup>5</sup> the importance of mustering formidable conventional military capabilities backed up by the appropriate nuclear reserves and strategic defenses will be critical for protecting U.S. interests in Asia and elsewhere.

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<sup>5</sup> Ibid., p. 11.



Finally, given the myriad uncertainties on the horizon — many of which are detailed in the 2022 review — it is odd that the administration has eliminated the “‘hedge against an uncertain future’ as a formal role of nuclear weapons.”<sup>6</sup> While there may be opportunities to reduce the size of the U.S. reserve stockpile in the future, the character of the evolving international environment suggests that it may not yet have outlived its usefulness. Consequently, dropping the “hedge” as a formal objective will hopefully not undermine the otherwise sensible approach to managing nuclear weapons enunciated in Biden’s 2022 nuclear posture review.

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<sup>6</sup> Ibid., p. 3.

# **A Moderate, Europe-Compatible Nuclear Posture Review**

**by Bruno Tertrais**

The Biden Administration's *Nuclear Posture Review* (NPR) is overall a successful balancing act, but also one which raises questions regarding its implementation. It is largely compatible with European preferences and interests.

## **A Successful Balancing Act**

Having announced a reduction in the role of nuclear weapons, the Biden Administration had to show that it was faithful to its commitments despite an unfavorable international and political context. It attempts to do so in four ways: by omitting to mention the “hedging” function of the nuclear arsenal, which was present in the two previous NPRs (with no obvious consequences on programs); by cancelling the sea-launched cruise missile (SLCM-N) program and withdrawing the B83 bomb from service; by implicitly suggesting that a limited use of nuclear weapons by an adversary is as much a matter of “denial” (through resilience and protection) and conventional deterrence as of nuclear deterrence; and, by announcing that the administration wishes to continue in this direction.

The four reference adversaries of the United States — North Korea, China, Iran, Russia — have been the same for more than two decades but the Biden NPR breaks with the traditional presentation.

China's place is, of course, the big news. It is “the only major competitor that has both the ability and the will to challenge the United States in a systemic way.”<sup>1</sup> But the

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<sup>1</sup> According to a U.S. Department of Defense official speaking off the record, Washington, D.C., November 2022.

rapid development of its arsenal has come as a surprise. There is now a fear in Washington that Beijing will come to imitate Moscow, with a massive increase in its arsenal (the U.S. DoD imagines China with 1,000 weapons in 2030, notably via the provision of DF-41 ICBMs) and its diversification (orbital bombardment?), a policy the French call “aggressive sanctuarisation” (hiding behind its nuclear shield to commit aggression), and a possible evolution of its doctrine.

For U.S. officials, Russia is only an “acute” threat, but it remains the only existential one to the United States at this point. One notes that the characterization of the Russian doctrine in the NPR is not identical to that of 2018 (the debatable phrase “escalate to de-escalate” does not appear in the 2022 Review), even if the hypothesis of coercive use is mentioned. The assessment of its nonstrategic weapons stockpile has not changed for several years (“up to 2000”). While North Korea is the subject of increasing attention due to the evolution of its capabilities (and is threatened with the extinction of its regime in the event it used nuclear weapons), Iran is not presented as a future nuclear actor. Consequently, one can assume that only conventional deterrence must be applied, at this stage, towards Tehran, as long, of course, as it does not have nuclear weapons. Finally, WMD terrorism is still mentioned, and the doctrine of the “responsibility of the sponsoring State,” formulated in the 2000s, is explicitly reaffirmed in relation to North Korea. Naturally, the NPR mentions the risk of opportunistic aggression and thus of simultaneous deterrence challenges.

As is well known, Mr. Biden personally favored a declaratory doctrine of “sole purpose.” But he clearly had to moderate his positions under the triple pressure of the international context (Russia, China), of conservatives allied views (in Asia and in Europe), and of Republicans in Congress. If the “fundamental” role of nuclear weapons is to deter a nuclear attack (of any kind), they also contribute to the deterrence of “any form of strategic attack.” Other

declaratory doctrine elements introduced in 2010 and confirmed in 2018 (“extreme circumstances,” “vital interests”) are perpetuated. The formula “allies and partners,” essentially intended to cover Taiwan, is maintained.

Nuclear weapons find their place in a concept of “integrated deterrence,” which is dear to the heart of the current U.S. Secretary of Defense and is now intended to be “central” to American strategy. Nevertheless, the concept is already old and, in fact, already implemented by the United States (for a long time, one might say, recalling that the creation of the U.S. STRATCOM dates from 30 years ago, and that the idea of a seamless deterrence has long been part of U.S. strategy). Integration is to be reflected in several ways: by a better coordination of strategies and means within the Pentagon, but also within the administration in general, including, for example, the State Department but also the Treasury (“Ukraine is a laboratory for integrated deterrence,”<sup>2</sup> said a DoD official); by integrating planning beyond what is already the case today;<sup>3</sup> by synchronizing exercises (nuclear and non-nuclear, regional and global); through a renewal of preparedness for a limited nuclear attack by an adversary; by strengthening the means of deterrence by interdiction (protection, resilience of means in all environments); and, by suggesting that it would not

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<sup>2</sup> According to a senior U.S. Department of Defense official speaking off the record, Newport, RI, September 2022.

<sup>3</sup> The current STRATCOM Operations Plan (2019, Change 1 to Conplan 8010/2010, Strategic Deterrence and Force Employment) provides for “Directed Planning Options” in the nuclear, non-nuclear, cyber and space domains. These options begin at “Phase Zero,” aimed at convincing an adversary that the United States is willing to act, and, if necessary, first. William A. Arkin and Marc Ambinder, “Exclusive: Ukraine Crisis Could Lead to Nuclear War Under New Strategy,” *Newsweek*, February 4, 2022, <https://www.newsweek.com/exclusive-ukraine-crisis-could-lead-nuclear-war-under-new-strategy-1676022>.

necessarily lead to a nuclear response. “Escalation must be a choice, not an obligation.”<sup>4</sup> Nevertheless, the administration insists that nuclear weapons remain “unique” and are the “bedrock” of deterrence.<sup>5</sup>

### Important Lingering Questions

There are some contradictions in the NPR. How can one persist in wanting to move towards a “sole purpose” doctrine when the Review recognizes that the context does not allow for it? Is it reasonable to expect an improvement of the strategic context in the coming years? To be fair, the Biden Administration makes it clear that it will only be possible to reduce the role of nuclear weapons further (and to adjust the declared doctrine accordingly) “if circumstances permit.” These circumstances are both strategic and technological (the possibility of substituting nuclear assets by non-nuclear ones), but also budgetary (given that enhancing deterrence by denial will be costly). But here again, is it reasonable that the U.S. budgetary situation will be much better in a few years? Also, why keep the Low-Yield Trident (LYT) weapons system (now also justified by the Chinese threat) and at the same time envisage its replacement?<sup>6</sup> And, how can one insist so much on “assurance” while cancelling the SLCM program, known to matter to Washington’s East Asian allies in particular?

Planning will, of course, need to be reviewed. Current planning includes the following principles:<sup>7</sup> a systematic

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<sup>4</sup> According to a senior U.S. Department of Defense official speaking off the record, Newport, RI, September 2022.

<sup>5</sup> According to a U.S. Department of Defense official speaking off the record, Washington, D.C., November 2022.

<sup>6</sup> Its continuation will be reassessed after the F35A/B61-11 and the Long-Range Stand-Off Missile are fielded.

<sup>7</sup> *Report on the Nuclear Employment Strategy of the United States 2020* (Specified in Section 491(a) of Title 10 U.S.C.), November 30, 2020, <https://man.fas.org/eprint/employment-2020.pdf>.

(tailored) adaptation to the adversary; a menu of options for a response that can be flexible and incremental and not necessarily symmetrical; a minimization of civilian damage and deliberate non-targeting of civilian populations and objects; the need to persuade the adversary that America would dominate escalation; the use of nuclear weapons to restore deterrence but also, in the event of a large-scale nuclear attack and, if necessary, to prevent further use of nuclear weapons and inflict intolerable costs on the adversary. The objectives are always deemed to be what adverse leadership values most. These general principles are likely to be perpetuated.

The real challenge for the Biden Administration will be to deal with the scenario of possible simultaneous major attacks. The elephant in the room is thus the question of a possible increase in the arsenal. "Historically, we have sized our forces with a margin and capability [designed to] manage uncertainty, leaving us with enough capability to credibly deter any other threat we face, and that will soon no longer be true. [China] is no longer a lesser included case. (...) We have never had to deal simultaneously with two major nuclear powers, which must be deterred in different ways," the U.S. STRATCOM estimated in August 2022.<sup>8</sup> An increase in the number of weapons could be achieved in the short term (use of the reserve warheads) by increasing the number of warheads on intercontinental ballistic missiles (ICBMs), and/or, in the medium term (probably a decade), by producing new weapons. This could be justified not only by the need to have counterforce planning options against Russia and China (but not simultaneously), but also to reassure countries protected by the American nuclear

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<sup>8</sup> Tara Copp, "US Military 'Furiously' Rewriting Nuclear Deterrence to Address Russia and China, STRATCOM Chief Says," *DefenseOne*, August 11, 2022, <https://www.defenseone.com/threats/2022/08/us-military-furiously-rewriting-nuclear-deterrence-address-russia-and-china-stratcom-chief-says/375725/>.

umbrella that the United States would remain “second to none.”

These developments do not bode well for a resumption of the arms control process. It is easy to point out in Washington that the New START ceiling (1,550 accountable weapons) was defined by what Russia was in... 2010. The resumption of the process with China (with which only “nuclear risk reduction” is envisaged) is considered unlikely and, in any case, from the American point of view, it would only be possible with Russia if Moscow were to play the New START inspections game in full—which is not currently the case. And the Chinese factor would have to be taken into account, even in a bilateral framework.

Finally, it is legitimate to ask how, in a period of budget deficit, the administration intends to both increase non-nuclear assets (offensive and defensive) and prepare for an increase in its offensive nuclear potential.

### **A Review Compatible with European Preferences**

NATO European countries include some significant anti-nuclear or pro-disarmament movements, but the war in Ukraine has largely silenced their voices. Thus, the Biden Administration’s NPR was received positively overall in Europe. Declaratory policy was seen as reasonable, and key European allies (the United Kingdom and France) claimed that consultations with them “contributed to the [American] debate being concluded more quickly.”<sup>9</sup> Indeed, European officials applauded the scope and level of consultations that existed during the drafting process, notably in bilateral and Quad (United States, United Kingdom, France, Germany) formats. UK and French officials also appreciated the continuity in language, given the importance they attach to

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<sup>9</sup> According to a UK Ministry of Defense official speaking off the record, Washington, D.C., November 2022.

expressions such as “vital interests” and “extreme circumstances.”<sup>10</sup>

To be sure, the primary importance of China in U.S. nuclear policy, as acknowledged by the NPR, has no parallel in European thinking, which today focuses more than ever on Russia. Still, both the United Kingdom and France are known to take into account the Chinese nuclear and ballistic threat in their own planning. Thus, the divergence in priorities does not translate into an incompatibility in policies.

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<sup>10</sup> According to European officials interviewed in Washington, D.C., November 2022.





# **The 2022 Nuclear Posture Review: A Case of Schizophrenia**

**by David J. Trachtenberg**

In October 2022, after a lengthy delay, the Biden Administration finally released the unclassified version of its *Nuclear Posture Review* (NPR), which was embedded in the *National Defense Strategy* (NDS) along with the *Missile Defense Review* (MDR).

To those who advocated for major changes to the traditional U.S. approach to nuclear strategy endorsed by bipartisan administrations over the past several decades, including a stronger emphasis on measures to advance the nuclear disarmament agenda, the 2022 NPR was something of a disappointment. As one critic lamented, “Biden’s NPR adjusts nuclear policy and programs at the margins while making no significant changes to the Pentagon’s budgets and deployments.” Because of this, he argued, “Let this be the end of a flawed, inadequate, and dangerous nuclear posture review process.”<sup>1</sup>

The 2022 NPR does contain a few surprises, not the least of which are some significant elements of continuity with the Trump Administration’s NPR and other prior Nuclear Posture Reviews. This includes support for the nuclear Triad and a commitment to modernize all three “legs”; revitalizing the U.S. nuclear infrastructure; support for extended deterrence; the need for “tailored nuclear deterrence strategies”; rejecting calls to de-alert ICBMs; and, even a rejection of “sole purpose” and “no first use” policies that the president himself openly favored. It also adopts

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<sup>1</sup> Joe Cirincione, “A failure to review America’s nuclear posture,” *Bulletin of the Atomic Scientists*, October 28, 2022, available at <https://thebulletin.org/2022/10/a-failure-to-review-americas-nuclear-posture/>.

almost verbatim the same declaratory policy on nuclear weapons employment contained in the 2018 NPR, stating that, “The United States would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States or its Allies and partners.”<sup>2</sup>

The 2022 NPR also acknowledges that “due to the actions of our strategic competitors, the international security environment has deteriorated in recent years.”<sup>3</sup> It recognizes China’s and Russia’s military expansion and their greater reliance on nuclear weapons for coercive purposes, stating, “The current and growing salience of nuclear weapons in the strategies and forces of our competitors heightens the risks associated with strategic competition and the stakes of crisis and military confrontation.”<sup>4</sup> It further states that “as the security environment evolves, it may be necessary to consider nuclear strategy and force adjustments to assure our ability to achieve deterrence....”<sup>5</sup> Indeed, the NPR explicitly declares that the United States will “maintain nuclear forces that are responsive to the threats we face.”<sup>6</sup>

However, the document appears to suffer from a case of schizophrenia. For example, while recognizing that Russia and China have increased the role of nuclear weapons in their own postures, it says, “The United States is committed to taking steps to reduce the role of nuclear weapons in our strategy....”<sup>7</sup>

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<sup>2</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 9, available at <https://s3.amazonaws.com/uploads.fas.org/2022/10/27113658/2022-Nuclear-Posture-Review.pdf>.

<sup>3</sup> *Ibid.*, p. 4.

<sup>4</sup> *Ibid.*, p. 5.

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*, p. 1.

<sup>7</sup> *Ibid.*, p. 7.

Moreover, while acknowledging that China has embarked on what it calls “an ambitious expansion, modernization, and diversification of its nuclear forces,” and that Russia is “steadily expanding and diversifying [its] nuclear systems,”<sup>8</sup> the NPR proposes no new or “diversified” U.S. nuclear programs, cancels the nuclear sea-launched cruise missile (SLCM-N) program, and proposes to retire the B83-1 gravity bomb—reportedly the only weapon in the current U.S. inventory capable of defeating hard and deeply buried targets.

There are other internal inconsistencies in the NPR itself. For example, while eliminating “hedging against an uncertain future” as an explicit role for nuclear weapons, the NPR states that the United States will work to ensure it is “capable of delivering credible deterrence even in the face of significant uncertainties and unanticipated challenges.”<sup>9</sup> How the administration proposes to ensure a nuclear posture that is responsive to uncertainties without the need to hedge against uncertainty is, itself, uncertain.

And, while the NPR rejects certain policies such as “no first use” and “sole purpose” because they pose an “unacceptable level of risk in light of the range of non-nuclear capabilities being developed and fielded by competitors,” it states that, “We retain the goal of moving toward a sole purpose declaration” at some point in the future. Why a “sole purpose” declaration would make sense in the future when it currently poses an “unacceptable level of risk” remains unexplained.

Interestingly, the NPR’s emphasis on “integrated deterrence” includes, in its words, “better synchronizing nuclear and non-nuclear planning, exercises, and operations.”<sup>10</sup> It notes that this integrated deterrence

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<sup>8</sup> *Ibid.*, p. 4.

<sup>9</sup> *Ibid.*, p. 7.

<sup>10</sup> *Ibid.*, p. 10.

approach “incorporates suitable non-nuclear capabilities tailored to specific threat scenarios....”<sup>11</sup> “Non-nuclear capabilities may be able to complement nuclear forces in strategic deterrence plans and operations,” it states.<sup>12</sup>

This integration of nuclear and non-nuclear capabilities for deterrence was also a key tenet of the Trump Administration’s NPR, which noted that “U.S. forces will ensure their ability to integrate nuclear and non-nuclear military planning and operations.”<sup>13</sup> As the 2018 NPR declared, U.S. forces “will plan, train, and exercise to integrate U.S. nuclear and non-nuclear forces to operate in the face of adversary nuclear threats and employment.”<sup>14</sup>

Better integration of nuclear and non-nuclear capabilities was also one of the key pillars of the “New Triad” concept proposed in the Bush Administration’s NPR.<sup>15</sup> Indeed, both the Bush and Trump Administrations were roundly criticized by those who saw such integration as blurring the line between the use of nuclear and non-nuclear weapons, thus lowering the threshold for nuclear use and making nuclear war more likely.

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<sup>11</sup> Ibid., p. 9.

<sup>12</sup> Ibid., p. 10.

<sup>13</sup> U.S. Department of Defense, *2018 Nuclear Posture Review* (Washington, D.C.: Department of Defense, February 2018), p. 21, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

<sup>14</sup> Ibid., pp. VIII, 21.

<sup>15</sup> The “New Triad” concept in the 2001 NPR envisioned a “Strike” leg comprised of the traditional nuclear Triad as well as advanced conventional offensive strike capabilities. See Chapter 7 in Secretary of Defense Donald H. Rumsfeld, *Annual Report to the President and the Congress 2002*, pp. 83-92, available at [https://history.defense.gov/Portals/70/Documents/annual\\_reports/2002\\_DoD\\_AR.pdf?ver=2014-06-24-153732-117](https://history.defense.gov/Portals/70/Documents/annual_reports/2002_DoD_AR.pdf?ver=2014-06-24-153732-117).

For example, as one commentary on the 2001 NPR noted, “In the NPR, a clear distinction between nuclear and conventional weapons no longer exists...” and the document “is designed to justify the continuing modernization of nuclear weapons and research aimed at making nuclear weapons more useable.”<sup>16</sup> Another critic noted,

In another step toward making the nuclear arsenal easier to use and disarmament harder to achieve, the NPR calls for merging the forces that carry out nuclear and conventional ‘global strikes’.... The more the military planning system comes to view nuclear weapons as just another step on the continuum of capabilities for target destruction, the more likely the United States—or some other nation—will be to use them.<sup>17</sup>

Critics of the Trump Administration’s 2018 *Nuclear Posture Review* also echoed similar accusations. As one argued, the NPR reflects a “sharp departure from current policy or even pre-Obama policies” by placing “an emphasis on integrating nuclear and conventional forces to facilitate nuclear warfighting. This new policy deliberately blurs the line between nuclear and conventional forces and eliminates a clear firewall.”<sup>18</sup>

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<sup>16</sup> Jean du Preez, “The Nuclear Posture Review and the Nonproliferation Regime,” *The Nonproliferation Review*, Fall-Winter 2002, p. 69, available at <https://www.nonproliferation.org/wp-content/uploads/npr/93dupreez.pdf>.

<sup>17</sup> Robert S. Norris, Hans M. Kristensen, and Christopher E. Paine, *NUCLEAR INSECURITY: A Critique of the Bush Administration’s Nuclear Weapons Policies*, National Resources Defense Council, September 2004, p. 7, available at <https://www.bits.de/NRANEU/docs/critique.pdf>.

<sup>18</sup> Lisbeth Gronlund, quoted in Jeff Daniels, “Trump’s Nuclear Posture Review shows greater willingness to use nukes first, say critics,” *CNBC*, February 2, 2018, available at <https://www.cnn.com/2018/02/02/trump-nuclear-posture-document-encourages-use-of-nukes-say-critics.html>.

While those arguments were specious at the time, there seems to be no such criticism of the concept of integration now that the Biden Administration has adopted it. It would seem that imitation truly is the sincerest form of flattery. Indeed, the arguments for integrating nuclear, non-nuclear, and defensive capabilities to improve deterrence are not new; they made sense then and continue to make sense now.

Another inconsistency with regard to “integrated” deterrence seems to be the lack of integration between the NPR and the *Missile Defense Review* (MDR). For example, the NPR eliminates “hedging against an uncertain future” as an explicit role for nuclear weapons.<sup>19</sup> However, the MDR calls investing in the “full spectrum of missile defeat capabilities” while hedging against uncertainty “a strategic imperative for the United States.”<sup>20</sup> Of course, neither strategy document proposes investing in defensive capabilities that would hedge against the prospect of either a Russian or Chinese strategic attack on the U.S. homeland.

In short, the 2022 *Nuclear Posture Review* appears to be a kluge of conflicting narratives reflecting different views held by competing constituencies within the Biden Administration’s national security apparatus. While its acknowledgement of the changed threat environment is realistic and validates the findings articulated in the Trump Administration’s 2018 NPR, its action plan for dealing with the new realities of the international security environment appears to contradict its own conclusions regarding the nature and evolution of global security threats. Unfortunately, such a schizophrenic approach is likely to do more to confuse than enlighten U.S. allies, strategic partners, and the American public.

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<sup>19</sup> U.S. Department of Defense, 2022 *Nuclear Posture Review*, op. cit., p. 7.

<sup>20</sup> U.S. Department of Defense, 2022 *Missile Defense Review*, p. 12, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

In today's volatile world, this is hardly the demonstration of clear thinking and sound judgment that American leadership demands.

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