



ANALYSIS

An Introduction to the 2020 Report on the Nuclear Employment Strategy of the United States

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INTRODUCTION

No other nuclear-armed power provides as much transparency about its nuclear policy, strategy, and force structure as does the United States. Through major unclassified posture and strategy reviews, annual budget requests, testimony to Congress, public speeches, and a myriad of unclassified official publications, the U.S. government reveals to friend and potential foe alike the purposes for which it maintains nuclear weapons, the potential circumstances of their employment, and the broad numbers and types of weapon systems deployed and under development.

To this end, Congress requires that the Secretary of Defense, on behalf of the president, submit a report on the *Nuclear Employment Strategy of the United States* when the president implements a change to that strategy. The *2020 Report on the Nuclear Employment Strategy of the United States* (also known as the Sec. 491 report, named for the Congressional statute requiring the report) reflects the implementation of new employment guidance by updating DoD military guidance and plans. In explaining to Congress those modifications to employment strategy, it is incumbent upon the Department of Defense to assess the effects of these changes for the important goals of nuclear deterrence, extended deterrence, and assurance of allies, among other goals.

The revised guidance reflects continuity with previous guidance while making prudent adjustments in response to contemporary nuclear threats and great power competition. As with any document that expounds on the employment of nuclear weapons, critics will almost certainly claim the guidance increases the role of nuclear weapons in U.S. national security policy. It does not. Instead, it calls for strengthening of U.S. and allied security through tailored nuclear deterrence strategies supported by flexible capabilities – a long-standing bipartisan approach supported by presidents and Congresses for decades.

The 2020 report, delivered to the Congressional defense committees in December 2020, represents the culmination of many hours of hard work and coordination, not only within OSD Policy, but also the Joint Staff, the State Department, United States Strategic Command, the National Security Council, and many other organizations. We hope its publication will provide further insight on the factors that influence U.S. nuclear strategy and posture.

CONTINUITIES WITH THE 2013 REPORT

Much like how the 2018 *Nuclear Posture Review* (NPR) shared a number of continuities with the 2010 *Nuclear Posture Review*, so too did the 2020 *Nuclear Employment Strategy* retain



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many elements from the 2013 *Nuclear Employment Strategy*.¹ For instance, the 2020 *Nuclear Employment Strategy*, like its predecessor, emphasizes the importance of modernizing the triad of U.S. nuclear forces – bombers, submarines, and land-based missiles – in addition to dual-capable aircraft. Both reports also recognize a similar set of roles for modernized nuclear weapons in U.S. defense strategy, namely, deterring potential adversaries, assuring allies and partners, achieving objectives should deterrence fail, and hedging against an uncertain future.

On deterrence specifically, both the 2013 and 2020 reports note that the credibility of U.S. deterrence requires the United States to plan to achieve its objectives should deterrence fail. This requires the United States to prepare for a “range” of scenarios in which U.S. officials may consider nuclear employment, from limited use up to general nuclear war. An important contribution to deterrence is the U.S. ability to adapt its force posture to respond to changes in the threat environment – a point on which both reports agree. To improve the prospects of deterrence working in a range of plausible scenarios against actors with unique capabilities and priorities, both reports highlight the ability to upload additional nuclear warheads onto strategic systems as important, especially since the U.S. industrial base and increased design and production capabilities cannot reasonably be expected to keep pace with dynamic deterrence requirements. The recent public discovery of three apparently new and previously undisclosed Chinese ICBMs fields, with well over 200 silos total, is just one example of how quickly deterrence requirements can change, and the manifest value of the ability to hedge against such challenges.² Both reports ultimately agree that nuclear deterrence is best served by a modernized U.S. nuclear arsenal, with a force posture that is able to adapt to anything from shifts in the threat environment, to technical or geopolitical surprise, and the needs of the U.S. president in any sort of crisis.

Should a crisis develop into a conflict however, and nuclear deterrence fails, neither the 2013 or 2020 versions of the reports express confidence that nuclear escalation can or will be controlled, but it would be imprudent not to try. Thus, both reports reject strategies that do not prepare for nuclear deterrence failure, such as “minimum deterrence,” and the policies and force postures often associated with it, such as de-alerting missiles, radical nuclear force reductions, and counter-value targeting (i.e., targeting population centers).³

¹ On the continuities between the NPRs, see, John R. Harvey, Franklin C. Miller, Keith B. Payne, and Bradley H. Roberts, “Continuity and Change in U.S. Nuclear Policy,” *Real Clear Defense*, February 7, 2018, available at https://www.realcleardefense.com/articles/2018/02/07/continuity_and_change_in_us_nuclear_policy_113025.html.

² Joby Warrick, “China is Building More Than 100 New Missile Silos in its Western Desert, Analysts Say,” *Washington Post*, June 30, 2021, available at https://www.washingtonpost.com/nationalsecurity/china-nuclear-missile-silos/2021/06/30/0fa8debc-d9c2-11ebbb9e-70fda8c37057_story.html; and, William J. Broad and David E. Sanger, “A 2nd New Nuclear Missile Base for China, and Many Questions About Strategy,” *The New York Times*, July 26, 2021, available at <https://www.nytimes.com/2021/07/26/us/politics/china-nuclear-weapons.html>; and, Rod Lee, “PLA Likely Begins Construction of an Intercontinental Ballistic Missile Silo Site near Hanggin Banner,” *China Aerospace Studies Institute (United States Air Force)*, available at <https://www.airuniversity.af.edu/CASI/Display/Article/2729781/pla-likely-begins-construction-of-an-intercontinental-ballistic-missile-silo-si/>.

³ For more on what constitutes a “minimum deterrence” strategy, see, Keith B. Payne and James Schlesinger, *Minimum Deterrence: Examining the Evidence* (Fairfax, VA: National Institute for Public Policy, 2013), available at <https://nipp.org/wp-content/uploads/2021/05/Final-for-Distro-7.17.pdf>.



On this point, both reports note that U.S. nuclear employment plans adhere to the Law of Armed Conflict and do not intentionally target civilian populations. In short, the United States will retain multiple nuclear response options that meet the policy goals put forth by the U.S. president in a conflict.

On assurance and extended deterrence, the 2013 and 2020 reports agree that a modernized U.S. nuclear arsenal, including elements that can be forward deployed, is vital for providing assurance to allies and increasing the chance that potential adversaries will view U.S. defense commitments as credible. The U.S. nuclear arsenal in this regard is the most powerful nonproliferation tool the United States possesses, since if allies and partners view the U.S. commitment to their security as credible, then they can forgo pursuing their own independent nuclear weapon programs. As the nuclear and strategic non-nuclear threats to U.S. allies and partners appear to be expanding, the U.S. ability to extend deterrence will likely remain a key focus of U.S. nuclear employment strategy.

Finally, both reports agree that U.S. nuclear weapons play an important role in hedging against adverse geopolitical or technological developments. For U.S. nuclear weapons to accomplish their hedging mission more effectively, the United States must support and fund a flexible and responsive nuclear infrastructure to modernize the existing U.S. nuclear arsenal instead of relying almost solely on the non-deployed stockpile. Importantly, the U.S. nuclear hedge can play more than the passive role of simply responding to outside events. Rather, the U.S. ability to upload additional warheads onto strategic systems can have a deterrent effect helping to convince potential adversaries that they cannot match or gain superiority over the United States even with a rapid buildup.

AREAS OF DIFFERENCE BETWEEN THE 2013 AND 2020 REPORTS

Many of the differences between the 2013 and 2020 reports are attributable to the major shifts in the security environment between the time the two reports were published, not, as some may suspect, a result of partisan or ideological differences. Whereas in the 2013 report, the “most immediate and extreme danger” was nuclear terrorism (in addition to the other pressing threat of proliferation), in the 2020 report, the fundamental threats are an aggressive and expansionist China plus a revanchist Russia, and specifically in the nuclear realm, the threat of their limited nuclear employment. Since the 2013 report was published, it has become clear that China and Russia are not seeking “strategic stability,” at least as defined by the United States. Instead, they have been modernizing their nuclear forces and increasing their arsenal sizes significantly to support their strategies of nuclear coercion, Russia mainly through its non-strategic nuclear weapons and China with its intermediate- and intercontinental-range nuclear weapons. Crucially, the projected increases in the Chinese and Russian nuclear arsenals are not seen as merely temporary, but rather long-lasting and critical to consider as the United States contemplates its future nuclear force structure in the ongoing Biden Nuclear Posture Review.



Given these changes in the security environment since the 2013 report, the 2020 report did not include the previous language on the United States pursuing nuclear reductions of up to one third of deployed nuclear warheads, which would have brought the total to about 1,000 deployed nuclear warheads. This particular scenario, however, depended on reciprocal Russian action, as the 2013 report makes clear: “The U.S. intent is to seek negotiated cuts with Russia so that we can continue to move beyond Cold War nuclear postures. Although the new U.S. nuclear employment strategy would allow reductions below New START Treaty levels, the new employment strategy does not direct any changes to the currently deployed nuclear forces of the United States.”⁴ Of course, Russia chose not to pursue the U.S. offer and subsequent developments such as its invasion of Ukraine, its buildup of nuclear weapons, its violation of the Intermediate-Range Nuclear Forces (INF) Treaty, and the ongoing Chinese nuclear build-up, caused the United States to reassess the desirability of such a large reduction in deployed nuclear warheads.

The 2020 report does not provide a preferred total number of deployed warheads because the arsenal size is primarily driven by the requirements of deterrence, assurance, achieving objectives should deterrence fail, and hedging, all within a dynamic threat environment. These requirements must be responsive to changes in the threat environment, both short and long term, and logically so too must the U.S. nuclear arsenal retain its flexibility and especially its ability to upload additional warheads. Instead, the 2020 report states, “Given the range of possible adversary nuclear employment scenarios, it would be imprudent for the United States to reduce its nuclear forces unilaterally at this time or in the near future. Unilateral U.S. nuclear reductions would likely degrade the deterrence of attacks on the United States, its allies, and partners; undermine the assurance of allies and partners; and do nothing to halt the continuing modernization and projected substantial increases in Russian and Chinese nuclear arsenals.”⁵

Another area of difference between the two reports is in U.S. nuclear declaratory policy. While the 2013 report followed the lead of the 2010 NPR and endorsed a U.S. effort to create the conditions under which the United States could adopt a “sole purpose” policy – where deterring nuclear attack was the sole purpose of the U.S. nuclear arsenal – the Obama Department of Defense determined that the conditions (i.e., an improved threat environment) did not yet exist. The 2020 report, on the other hand, states that “the United States sees no benefit and significant risk” in adopting a sole purpose policy, due mostly to two factors. First, if adversaries believed the sole purpose policy, it could simplify their attack calculus and lead to an increased chance of their aggression up to a level just below nuclear employment to achieve their war aims at the expense of the United States, its allies,

⁴ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States* (Washington, D.C.: Department of Defense, 2013), p. 6, available at https://archive.defense.gov/pubs/ReporttoCongressonUSNuclearEmploymentStrategy_Section491.pdf.

⁵ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020* (Washington, D.C.: Department of Defense, 2020), p. 9, available at nipp.org/document-number-one.



and its partners. Second, a U.S. sole purpose would “dispirit” allies and partners by “raising doubts” about the U.S. will to defend them.⁶

DETECTING AN ADVERSARY’S REGIONAL LIMITED NUCLEAR ATTACK

After noting the similarities and differences between the Obama and Trump Nuclear Employment Strategies, it is important to note a central theme in the 2020 *Nuclear Employment Strategy*: explaining how the United States plans to deter, and if deterrence fails, respond to an adversary’s limited nuclear attack, perhaps arising from their failed conventional aggression in a regional conflict. First, the 2020 report notes that the United States will attempt to minimize civilian damage “to the extent possible consistent with achieving U.S. objectives and restoring deterrence.”⁷ In other words, U.S. policy is not to strike back reflexively at an opponent in a fit of vengeance without regard for civilian lives after absorbing a limited nuclear strike – U.S. military options must help accomplish defined policy goals.

Second, to increase the chances that a U.S. response to a limited nuclear strike achieves U.S. objectives, including deterring further nuclear escalation, the United States retains a set of graduated and flexible response options – underpinned by a set of nuclear weapon capabilities with a mix of attributes. If the President or senior U.S. leadership believes the set of options they are presented will not meet their desired objectives, the United States also retains the ability to adaptively plan based on new guidance or information. Again, the emphasis in the 2020 *Nuclear Employment Strategy* is on maintaining the capabilities necessary for the United States to adapt in what would likely be a rapidly-changing crisis or conflict, when information is at a premium and adversary intentions are uncertain – a goal endorsed by at least five decades of bipartisan U.S. nuclear policymakers.

Third, it is imperative that the United States maintains a suite of nuclear weapons, each with unique characteristics (speed, yield, survivability, etc.) to support U.S. leadership options, aid deterrence efforts, and if needed, respond effectively in a manner that demonstrates the adversary stands to lose far more than it could hope to gain – a goal in harmony with the 2013 report. Should deterrence fail and an adversary conduct a limited nuclear strike, the United States will have the capability to respond in a way that both demonstrates “resolve and restraint” – a difficult balance to be sure, but one that accounts for the undoubtedly serious stakes of the conflict as well as the desire to restore deterrence at the “lowest level of damage possible and on the best achievable terms for the United States, allies, and partners.”⁸

⁶ For a more in-depth study of the purported benefits and potential costs of changes to U.S. nuclear declaratory policy, see, Matthew R. Costlow, *A Net Assessment of “No First Use” and “Sole Purpose” Nuclear Policies* (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>.

⁷ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 7.

⁸ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 7.



Fourth, and importantly, while adversaries can be certain there will be a response to their limited nuclear employment, they cannot be certain of the size and scope of that response – an uncertainty of such great magnitude and consequence should contribute to deterrence of the attack in the first place. In essence, an adversary leadership should view the risks of challenging the United States from the lowest end of the nuclear weapons employment threshold all the way up to general nuclear war as insurmountable and not worth any imaginable gain. The U.S. ability to, in the most extreme scenario, absorb a large-scale nuclear attack and still retain “sufficient survivable forces to ensure credible response options” is potentially vital for any attempt to deter further adversary nuclear escalation after a limited nuclear strike.⁹

Some critics may respond that such a U.S. strategy sounds like nuclear “war-fighting” – perhaps pointing to the recent U.S.-Russian reaffirmation of the principle that “a nuclear war cannot be won and must never be fought.”¹⁰ Yet, U.S. nuclear employment strategy and the principle that nuclear war cannot be won and must never be fought are actually in alignment – the United States certainly seeks to prevent a nuclear war, and to that end, it retains the ability to respond to a nuclear attack to strengthen deterrence against the possibility. As former Secretary of Defense Mattis observed, “... a safe, secure, and effective nuclear deterrent is there to ensure a war that can never be won, is never fought.”¹¹

The term nuclear “war-fighting” posture should be retired both because of its use as a scare tactic meant to end debate, but also because it inaccurately purports to describe a characteristic or goal of nuclear strategies that does not exist. In other words, as soon as one advocates for a U.S. nuclear strategy that falls between “suicide” (via an immediate unlimited nuclear response) and “surrender” in response to an adversary’s nuclear attack, then the strategy is wrongly characterized as nuclear “war-fighting.” One can advocate for more or fewer response options, or more narrowly-scoped options, etc., but should nuclear deterrence fail, and should “surrender” or “suicide” be unacceptable options, then the United States must have policies, plans, and capabilities to restore deterrence and limit damage as effectively and at as little cost as possible. It is a paradox of nuclear deterrence that one must appear prepared to use nuclear weapons to provide the best chance that they are not used.

IMPLICATIONS

The policy and military requirements described in the 2020 *Nuclear Employment Strategy* provide the background and context for several U.S. efforts. For instance, the United States is modernizing its nuclear triad because U.S. officials view it as vital for fulfilling the

⁹ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 6.

¹⁰ The White House, “U.S.-Russia Presidential Joint Statement on Strategic Stability,” *WhiteHouse.gov*, June 16, 2021, available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/16/u-s-russia-presidential-joint-statement-on-strategic-stability/>.

¹¹ James Mattis, “Air Force Association 2017 Air, Space and Cyber Conference,” *Defense.gov*, September 20, 2017, available at <https://www.defense.gov/Newsroom/Speeches/Speech/Article/1318960/air-force-association-2017-air-space-and-cyber-conference/>.



requirements of deterrence, assurance, achieving objectives should deterrence fail, and hedging. Not modernizing, or eliminating, a leg of the nuclear triad will severely damage the ability of the other two legs to fulfill those requirements and would likely increase the severity of the threat against the remaining two legs.

The findings of the 2020 *Nuclear Employment Strategy* are applicable to a host of other areas in U.S. policy as well. For example, U.S. nuclear arms control efforts must be informed by U.S. security requirements, so that if and when the United States crafts an agreement, it will not infringe on the most foundational capabilities and policies that promote deterrence. Likewise, it is important to bear in mind the role that U.S. nuclear forces play in the deterrence of opponents' regional aggression and thus the assurance of allies – a key to allied decisions to pursue their own nuclear capabilities.

Ultimately, U.S. nuclear policy and the capabilities that support it are inextricably linked to the broader U.S. defense strategy as a whole; and thus the 2020 *Nuclear Employment Strategy* should not be read with too narrow a focus because nuclear employment policy writ large is about more than simply employing nuclear weapons. U.S. nuclear employment policy, and the supporting force structure, must convince potential adversaries that there is no plausible “nuclear shortcut” to snatch victory from the jaws of conventional defeat, and neither is there any plausible path for military victory at higher rungs of the escalation ladder toward general nuclear war. In essence, U.S. nuclear employment policy and nuclear forces should convey to the adversary that major conflict – whether conventional, nuclear, or other – with the United States and its allies is always the worst possible option; or, if conflict is ongoing, then ceasing the conflict is the best possible option. Without the U.S. capability and confidence to deter the highest levels of violence of nuclear war, its defense strategy at the conventional level is unlikely to succeed against a nuclear-armed adversary.

Stable deterrence thus demands that the United States be capable, and be seen as capable by others, of employing nuclear weapons in extreme circumstances that threaten the vital interests of the United States and its allies. The 2020 *Nuclear Employment Strategy* is a significant part of that process. We hope that its publication and the subsequent discussion of it will contribute to deterrence by further clarifying the factors that U.S. officials consider when developing nuclear policy.

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