

# 2018 NUCLEAR POSTURE REVIEW



## Trump's New Warheads and a Willingness to Use Them

### Your Guide to Key Policy Initiatives in the 2018 Nuclear Posture Review

On February 2, 2018, the Trump Administration released its [Nuclear Posture Review](#). This document outlines the President's U.S. nuclear weapons policy and strategy including:

- 1) The roles and purposes of nuclear weapons in U.S. security strategy;
- 2) The number and variety of U.S. nuclear weapons and plans for maintaining and upgrading nuclear weapons delivery systems and warhead production and infrastructure requirements, and;
- 3) The approach to controlling nuclear threats and stopping the spread of nuclear weapons outside of the United States – arms control and nonproliferation.

Nuclear Posture Reviews reflect the policy and political perspectives of the President and the geopolitical environment of the moment. This NPR is brought to us by the same President who has [questioned why we couldn't use nuclear weapons](#) and on February 12, 2018 followed up his NPR with a statement that it is indeed his Administration's intention to expand the U.S. arsenal "[far, far in excess of anybody else.](#)"

Unsurprisingly, this NPR contrasts greatly with the [2010 Obama Administration Nuclear Posture Review](#) aims to reduce the role and numbers of nuclear weapons. The Trump NPR expands roles for a "flexible" and "resilient" (words used repeatedly throughout the NPR) U.S. nuclear weapons force that should provide "tailored deterrence", (p. 26, and referred to often throughout the NPR), to counter a variety of nuclear and "non-nuclear strategic threats." The overly broad and vague "non-nuclear strategic threats" terminology is not much clarified by the mentioned examples of chemical, biological, cyber, and large-scale conventional aggression (p.38). The NPR prescribes "a tailored approach to effectively deter across a spectrum of adversaries, threats, and contexts (p. 26)."

This expansive, ready-for-anything role for U.S. nuclear weapon drives development of new and expanded nuclear weapons capabilities and increased production across the nuclear weapons enterprise. In contrast with the Obama approach, this NPR puts specific emphasis on the needed ability to develop new nuclear capabilities: "This need for flexibility to tailor U.S. capabilities and strategies to meet future requirements and unanticipated developments runs contrary to a rigid, continuing policy

of 'no new nuclear capabilities' ... The United States must be capable of developing and deploying new capabilities, if necessary, to deter, assure, achieve U.S. objectives if deterrence fails, and hedge against uncertainty (p. 27)."

On top of robustly maintaining all three legs of the nuclear triad (air- land, and sea-launched ballistic missiles and bombers) for the nuclear force structure, the NPR unveils "supplements" to "enhance the flexibility and responsiveness (p. 52)" of U.S. nuclear forces. There are two weapons "supplements" that have received special focus. First is a near-term plan to modify existing Submarine Launched Ballistic Missile (SLBM) warheads to provide a low-yield option. This is posed as a weapon that would fill a perceived "gap" (p. 55) in responding to Russia's non-strategic nuclear weapons threat. This strategy is at best confusing. Although the NPR avers that this weapon would not "lower the threshold (p. 54)" to be deemed more usable, it is also intended to be "a credible preservation of deterrence (p.54)". A more credible threat is one that is perceived as being likely to be used. Moreover, a low-yield weapon on a strategic SLBM is still a strategic weapon and nobody would know whether the warhead was a low-yield or higher yield weapon until detonated.

In the longer term, the NPR plans to develop a modern nuclear-armed sea-launched cruise missile (SLCM) on now conventionally armed surface ships or attack submarines. This capability would create strategic uncertainty with adversaries not knowing whether missiles are armed with conventional or nuclear warheads. The nuclear-armed SLCM would also force new operational demands and financial costs on the Navy. In the NPR, it seems that this weapon is perhaps being unartfully proffered as a bargaining chip striving to persuade Russia to change its behavior. The NPR states: "If Russia returns to compliance with its arms control obligations, reduces its non-strategic nuclear arsenal, and corrects its other destabilizing behaviors, the United States may reconsider the pursuit of a SLCM (p. 55)." Judging by Russian President Putin's recent nuclear policy speech and video, Russia does not seem

much enticed by this. Rather, the Trump NPR appears to have helped inspire Putin to accelerate pursuit of more and new nuclear weapons capabilities for Russia.

Both the low-yield SLBM warhead and planned SLCM have garnered much deserved attention and criticism from many analysts, but there is other notable trouble afoot in weapons design and development at the National Nuclear Security Administration (NNSA) that deserves more attention:

- First, the Department of Defense is moving forward with its Long-Range Stand-Off Weapon (LRSO) and that is being synchronized with NNSA's accelerated and expensive W80-4 life extension warhead. It seems apparent to expert observers that the life extension program for the W80-4 is attracting new design ideas and tweaks as it goes forward. If this trajectory of "Christmas treeing" up the W80-4 continues (i.e. adding enhancements), it will move the warhead further from its predecessor design and could introduce uncertainties that will cost more money and, if sufficiently different, create pressure for resumption of nuclear yield tests.
- Second, NNSA is accelerating work on a warhead replacement for the W78. It is noteworthy that this is referred to as a "warhead replacement" rather than a life extension. The W78 is not described in the NPR as the Interoperable Warhead (or IW1), as it was previously named when there were plans to make the warhead interchangeable on land and sea-based delivery systems. The NPR states that the warhead will be accelerated to Fiscal Year 2019 and that it will be fielded for the GBSD (Ground-Based Strategic Deterrent) by 2030. Further, the NPR says it will "investigate the feasibility of fielding the explosive package on a Navy flight vehicle (p. 61)." Notably, in [NNSA's Fiscal Year 2019](#) budget request the same warhead is still called IW1 (Volume 1 p. 9 and throughout). Many experts agree that even without "interoperability" this is still a new design, slated to undergo significant changes, including to the fundamental geome-

try of its plutonium pit. The significant changes to the warhead's physics package are likely to raise technical uncertainties with attendant pressure to conduct explosive yield nuclear tests to resolve them before the weapon can be certified.

- Beyond these specific warheads, the NPR states: "An additional needed flexibility is to reduce the time required to design, develop, and initially produce a warhead, from a decision to enter full-scale development (p. 63)." Read: more mischief to come.
- The NPR also encourages extending the life of older nuclear weapons such as the mega-ton yield B-83, which will now have to wait for its slated retirement "until a suitable replacement is identified (p. 61)." Also, the NPR plans to pick through the retired stockpile to "examine the potential for retired warheads and components to augment the future hedge stockpile (p. 63)." In conjunction with diminished resources and emphasis on nuclear weapons dismantlement, this could leave many wondering if nuclear disarmament commitments are ever permanent.

The NPR also demands increased nuclear weapons production with claims that "the United States has fallen short in sustaining a modern infrastructure that is resilient and has the capacity to respond to unforeseen developments (p. 61)." This infrastructure improvement includes a requirement to scale up to produce at least 80 plutonium pits per year by 2030. This will drive dramatically increased production at Los Alamos and may require another facility. (Current indications are that this additional pit production capacity could be planned at the Savannah River Site.) The NPR also specifically calls for increased production of enriched uranium, tritium, and lithium. The devil will be in the details of future planning and budget documents that will describe facilities, processes, locations, and costs.

Nevertheless, the increased production capacity outlined in this NPR is much greater in scale (and financial cost) than Obama-era modernization plans. This increased production will

have an insidious synergy with the drive to develop new nuclear designs and "flexible" capabilities. Moreover, this increased production will grow the size of the weapons complex and expand the enduring legacy of environmental and health impacts in affected communities.

Meanwhile, the NPR contains what is at best a skeptical short shrift assessment of the value of arms control and nonproliferation efforts. Although there are tailored deterrence plans to counter threats from key global hot spots, like Russia, North Korea, Iran, and China, there is not a robust strategy on diplomacy and arms control to address these threats. This imbalance is further reflected in overall budget priorities that raise the defense budget to over \$700 billion while significantly cutting the State Department.



While aggressive on the need for flexibility and resilience in nuclear weapons capabilities, when it comes to arms control efforts, the NPR has a more passive approach. After itemizing difficulties of arms control progress and challenges to assuring compliance of other countries, the NPR states that the United States, "remains willing to engage in a prudent arms control agenda (p.74)." Those involved in previous arms control efforts would agree that we didn't achieve significant progress, by standing in the corner of the dance floor weighing the most cautious path to engage. Arms control

requires much more focus in policy and strategic planning, along with more funding.

When it comes to multilateral agreements, there is further abdication of U.S. leadership. For example, there is no statement of commitment to U.S. obligations to pursue disarmament under Article VI of the Non-Proliferation Treaty. While supporting the Comprehensive Test Ban Treaty Organization and its nuclear monitoring system, this President's NPR says bluntly that the U.S. will not seek Senate ratification of the Comprehensive Test Ban Treaty (p. 63).

Moreover, the United States could resume nuclear explosive testing if deemed "necessary to ensure the safety and effectiveness of the U.S. nuclear arsenal (p.72)," or "necessary to meet severe technological or geopolitical challenges (p. 63.)" Especially in conjunction with plans to develop new and modified nuclear weapons designs, the lack of U.S. ratification of the CTBT paired with carefully worded exceptions could significantly erode the treaty and other key countries' commitments to refrain from testing.

The NPR also has disdainful criticism of the Treaty on the Prohibition of Nuclear Weapons, opened for signature at the U.N. in 2017, stating that this treaty is "fueled by wholly unrealistic expectations of the elimination of nuclear arsenals (p. 72.)" Apparently, it is much more realistic to expand the role and number of U.S. nuclear weapons and expect *that* will encourage a response from the rest of the world that makes us safer.

Overall, this NPR sets a policy blueprint that expands the roles and number of nuclear weapons, and that means that nuclear weapons dangers and burdens are increasing. It is imperative that Congress and the concerned public boldly act to counter wrongheaded nuclear policies and profligate spending requests that will lead to the new weapons - and the increased willingness to use them - outlined in the 74-page 2018 Nuclear Posture Review.

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This report with links is available at [www.trivalleycares.org](http://www.trivalleycares.org)

## **WHO WE ARE:**

Since 1983, Tri-Valley CAREs has strengthened global security by preventing the further development of nuclear weapons and working tirelessly for their elimination. The group was founded by residents living near Livermore Lab, one of two locations where all U.S. nuclear weapons are designed. Tri-Valley CAREs monitors nuclear weapons and environmental cleanup throughout the U.S., with a special focus on Livermore Lab and the surrounding Bay Area and Central Valley communities. Our vision for a "green lab" in Livermore provides tangible steps to move the world from reliance on nuclear weapons to a more sustainable and just future.

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