

November 2024

# Reconsider Nuclear Modernization Plans

Prioritize strategic stability and accountability over a dangerous and unsustainable search for supremacy

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## TOPLINE

The United States is on track to spend the equivalent of more than two Manhattan projects a year in one of the most expensive arms races in history. Unfortunately, all the systems currently being developed are already significantly over budget and behind schedule – and several might even be actively eroding America’s national security by destabilizing global strategic stability and legitimizing the idea of “limited” nuclear use.

## THE PROBLEM

Fundamentally, the problem with rapid new nuclear weapons development is that it is strategically destabilizing. If one nation learns that a rival is rapidly developing systems that could overwhelm or defeat its defenses, a realist response dictates that that nation must do the same to offset any strategic advantage its rival might gain and maintain deterrent parity. The alternatives are to consider attacking that rival before they have produced new weapons that can defeat your existing forces, or to find a way to negotiate with those rivals to produce verifiable diplomatic agreements to limit the production and deployment of new and destabilizing forces.

History provides many examples of this dynamic. The United Kingdom and Germany engaged in a serious naval arms race that contributed to the tensions preceding World War I. It eventually led to the Washington Naval Treaty, which sought to limit the development and deployment of new and more powerful warships. The Cold War nuclear arms race with the Soviet Union saw rapid and escalatory weapons development on both sides that led to several nuclear near-misses and the constant fear that one side would try for a “bolt out of the blue” first strike to destroy the other before a new weapon or technology could be developed that would disrupt a delicate

strategic stability. Luckily for all of us here today, with each nuclear near miss, cooler heads prevailed, and diplomats were able to craft verifiable treaties to limit the most dangerous and destabilizing weapons.

If any lesson can be learned from the last Cold War – when the United States maintained a nuclear arsenal with tens of thousands of more warheads than we do today – it is that merely possessing more nuclear weapons does not make Americans any safer. The underlying truth is that deterrence isn't bolstered by rapid weapon development or numerical supremacy. Rather deterrence relies on credibility – a foundational policy of maintaining a reliable force strong enough to ensure that any opponent considering a strike would face a reprisal too devastating to make any such attack worthwhile.

Unfortunately, these are not the values that the current U.S. nuclear weapons program of record seems to value, let alone the new proposals for even larger nuclear weapons enterprises being promoted to the incoming presidential administration.

## **ESSENTIAL CONTEXT**

The United States already maintains the world's most powerful nuclear arsenal, a high-tech array of weapons systems that currently consists of a deployed force of some 1,670 strategic nuclear warheads. These weapons already have the power to destroy all of human civilization. The overwhelming majority of U.S. nuclear warheads are significantly more powerful than the bombs dropped on Hiroshima and Nagasaki in 1945, which measured 15 and 21 kilotons, respectively. The most powerful weapon currently in the arsenal has an explosive yield of 1.2 megatons, or 80 times the explosive power of the bomb that was dropped on Hiroshima. Even the smallest weapon in the arsenal is able to “dial its yield” up or down between 5-150 kilotons depending on its target. In addition to these weapons, the United States maintains a “hedge” of some 1900 strategic nuclear warheads of all types in reserve, ready to be uploaded onto launchers in the event of a crisis. Finally, the U.S. maintains some 100 weapons – variously termed as tactical, battlefield, or non-strategic – forward deployed at six NATO air bases that are meant to be carried by conventional fighter craft in the event of a full-scale war in Europe.

Perhaps ironically, to find political support for the ratification of the landmark New START arms control treaty in 2010, the Obama Administration agreed to a seemingly modest \$88 billion new nuclear weapons programs, originally billed as a modernization plan to fix or update critical elements of the aging legs of the nuclear triad. But once the doors had opened to this new nuclear spending – the first since the

end of the Cold War – vested parochial interests began lobbying for more money for additional weapons programs and new nuclear missions. The result has been a flood of new weapons system proposals, totaling over \$1.7 trillion in new nuclear weapons spending. This includes every leg of the U.S. strategic triad, a belt-and-suspenders approach to nuclear deterrence that comprises a diverse force of land-based ballistic missiles, manned strategic bombers, and stealthy second-strike ballistic missile submarines; as well as new and destabilizing nonstrategic nuclear weapons, intended to be fielded alongside U.S. conventional forces, which experts argue could make nuclear war more likely.

All of these factors have produced a dangerous global nuclear weapons landscape, where the United States is now both actively contributing to a new global nuclear arms race by spending generational wealth on new nuclear weapons, while falling years behind schedule and billions of dollars over budget (by as much as 80% program cost growth in the case of the new ICBM) on its own weapons development programs through mismanagement and a near-total lack of oversight.

This current path is not only unsustainable, but reckless, given the risks associated with a lack of care in the stewardship of the most powerful and dangerous weapons ever created by man.

As such, the new administration should take a hard line in curbing the significant fiscal overreach and unaccountability of America's current nuclear weapons program of record by cutting out-of-control programs that may be weakening the U.S. deterrent force, while prioritizing essential modernization efforts meant to maintain America's secure-second strike ability and overall deterrent credibility.

## **POLICY RECOMMENDATIONS**

### **Commit the United States to a legitimate deterrence-first nuclear approach, focused on secure second-strike submarine capability over the next ten years.**

Relations between nuclear states have destabilized dramatically over the first half of this decade, with many of the norms and values that governed how nuclear armed states interact with one another eroding significantly. Most of the major arms control agreements that governed the type and size of the world's nuclear arsenals have either lapsed or been abrogated, while several regional wars between nuclear states and their non-nuclear neighbors have erupted across the globe. Threatening rhetoric and saber rattling has escalated significantly between nuclear powers, while all nine nuclear nations have embarked upon significant nuclear weapons modification and expansion programs; resulting in what many experts have described as a new nuclear arms race.

Unfortunately, as has been the case with much of the rest of the United States' recent major weapons development programs, most of these new projects are now significantly behind schedule and over budget – potentially forcing taxpayers to simultaneously pay for current systems to be life-extended, while siphoning resources away from other critical national security priorities.

Amidst these dangerous and destabilizing times, it is essential that the new administration doubles down on the core mission of the U.S. nuclear arsenal, to deter (i.e. avoid) a nuclear confrontation, and prioritize resources toward the successful development of the new Columbia-class SSBN program - even at the cost of other nuclear programs already in the pipeline. If any single nuclear modernization program must be completed successfully, it needs to be the maintenance of the United States' secure-second strike capability.

The strategic value and relevance of all other current nuclear modernization programs are marginal compared to the ability of the U.S. Navy to deter an enemy attack on the United States or its allies through making any potential gains too costly to contemplate given the reliable nuclear second-strike posed by the U.S.'s SSBN fleet. As such, this administration should commit the United States to a deterrence-first approach that prioritizes this most essential element of the triad by cutting and repurposing funding from other systems that are unlikely to further the U.S. deterrent, or that may even weaken it by reinforcing the failures of unaccountable and overly ambitious programs that are unlikely to ever come to fruition.

**Make a public commitment to no new nuclear testing – for Americans, our allies, and the world.**

The global return of explosive nuclear testing by the world's major nuclear powers, and the likely negative follow-on effects it would have across many fields, would be incredibly dangerous and destabilizing for Americans, our allies, and the world.

From a big picture perspective, no one benefits from escalating global nuclear tensions, and a shortsighted decision to restart U.S. explosive nuclear testing for the first time since 1992, would result in the breaking of one of last global nuclear taboos and likely lead to an even greater destabilization of international norms and affairs. Likewise, from a realist – hard-security – standpoint, a resumption of U.S. explosive nuclear testing benefits the United States little, while giving up a significant strategic advantage. This is because much of the relative strength of the U.S. nuclear arsenal rests in its reliability compared to other nuclear powers.

The reality is that U.S. nuclear weapons have been tested more than those of any other nation, giving U.S. forces a serious advantage in the arsenal's technical reliability. U.S. commanders know how U.S. nuclear weapons work, and – more importantly – that they will work, with a high degree of certainty and specificity. By breaking the current moratorium on explosive nuclear testing, a new administration would provide justification for other nuclear weapons states that may want to develop new nuclear weapons that would require explosive nuclear tests. This would not only cede a significant strategic advantage to the United States' nuclear rivals but would simultaneously stoke a nuclear arms race that U.S. taxpayers and the national security establishment are already struggling to pay for and manage domestically.

As such, this administration should make a public commitment to not conduct new explosive nuclear tests, thereby maintaining a significant technical advantage in the U.S. nuclear arsenal, while recapturing a measure of moral high ground on the issue and forcing any nuclear rival hoping to expand its arsenal to look like a pariah in the eyes of the world.

**Cut new tactical nuclear systems that pose a discrimination problem – and lessen the risk of nuclear escalation.**

The United States is currently in the process of developing several nuclear weapons systems that can be described as tactical, battlefield, or nonstrategic. These weapons, which are often characterized by smaller explosive nuclear yields than strategic weapons, and which are often fielded alongside conventional forces, pose a significant threat to global stability as they are often viewed as being smaller and even more usable than their larger strategic nuclear cousins.

While the United States has maintained significant numbers of such forces in the past, and plans for the use of such weapons in a less-than-deterrent battlefield role have been drawn-up by U.S. commanders in every major conflict the United States has fought in from the end of the Second World War to Desert Storm, they have never been used. This should be telling today, as no matter the potential tactical benefit they may have offered, or how dire the situation for U.S. forces on the ground may have been, the use of often vast, ready, and expensive stockpiles of these weapons has never been countenanced.

This is because both commanders and previous presidential administrations all ultimately decided that the escalation of a conflict to a nuclear level, and the normalization of nuclear use for less-than-deterrent purposes, would ultimately undercut the deterrent capability of the U.S. nuclear arsenal and raise the likelihood of a full-scale and self-defeating nuclear war.

Today, a majority of the new U.S. tactical nuclear weapons programs under consideration or in development would be based on dual-purpose U.S. cruise missile platforms. This adds a significant complication to future U.S. warfighting capabilities by introducing a discrimination problem into the launch of any U.S. cruise missile, in any theatre, across the globe. This is because any enemy facing a U.S. cruise missile strike would not be able to readily tell if they were under a conventional or nuclear attack, given that such missiles would be indistinguishable to common sensors and would have been likely launched from platforms capable of carrying both types of munitions.

Given that cruise missiles have become one of the most ubiquitous weapons in the U.S. arsenal today, this prevents a major problem for U.S. leaders, commanders, and conventional forces that have come to rely on these weapons in nearly every conventional battlefield scenario.

In a decade so far characterized by rising global tensions and the fear of a return of great power conflict, the incoming Trump administration should prioritize the safety of American forces, U.S. citizens, and allies by drawing a clear line between nuclear and non-nuclear forces, and thereby avoid potentially stumbling into a nuclear war it never intended to escalate beyond the conventional threshold.