



How to approach nuclear modernization?

A US response

Matthew Kroenig

Abstract

Between 2014 and 2023, the United States expects to spend \$355 billion to modernize its nuclear arsenal. In subsequent decades, even higher expenditures are envisioned. But Washington is far from alone in modernizing its nuclear weapons. According to researchers from the Federation of American Scientists, “all the nuclear-armed states have ambitious nuclear weapon modernization programs . . . that appear intended to prolong the nuclear era indefinitely.” Disarmament advocates believe such modernizations are fundamentally at odds with the goal of eliminating nuclear weapons—while weapon states argue that, as long as nuclear weapons exist, arsenals must be modernized in order to keep them safe, secure, and effective. Here, Eugene Miasnikov of Russia (2015), Matthew Kroenig of the United States, and Lu Yin of China (2015) debate how—in a world where complete disarmament is nearly every nation’s stated goal but disarmament seems by no means imminent—nuclear-armed countries should approach the maintenance and modernization of their arsenals.

Keywords

China, Cold War, Intermediate-Range Nuclear Forces Treaty, no-first-use policy, North Korea, nuclear weapon modernization, nuclear weapons, Russia, Ukraine, United States

My childhood dream was to star in the National Basketball Association. But I stand only six feet one inch tall, I’m entering my late 30s, and I haven’t played competitive basketball in over 15 years. My chances of playing at the professional level are essentially zero. Some might argue that, if I am to have any hope of realizing my boyhood wish, I should spend my days running wind sprints and practicing free throws. But that path would improve my chances from none to extremely slim, and would certainly take away from my

duties as a professor, researcher, and analyst. In the end, it simply isn’t worth ruining the life I have in order to chase a fantasy.

The same can be said of the United States’ choices regarding its nuclear posture. Over the next decade and beyond, the United States will go through a much-needed modernization of its aging nuclear capabilities, and these plans enjoy strong bipartisan support. But some critics argue that the modernization project conflicts with stated disarmament goals, including President

Obama's vision of bringing about "a world without nuclear weapons."

The fact, however, is that the world is characterized by intense security competition and sometimes outright conflict. Though some observers hoped that the end of the Cold War would bring the end of history, political discord among great powers has returned in recent years. Russia has violently occupied Crimea and invaded the Donbas region of eastern Ukraine, and continues to menace the rest of Ukraine and Europe. It has violated the Intermediate-Range Nuclear Forces Treaty by testing a new intermediate-range, ground-launched cruise missile. Moscow is introducing new intercontinental ballistic missiles, bombers, and submarines. China, meanwhile, is asserting revisionist territorial claims in East Asia. Its conventional military buildup threatens to overturn the military balance that has kept the peace in East Asia for over half a century—a peace from which China has benefited more than any other state. It is expanding and modernizing its nuclear forces. And though Beijing trumpets its formal no-first-use policy, Chinese officials privately admit that Beijing might use nuclear weapons first under a narrow range of contingencies.

Over the past two decades, conventional military dominance has allowed the United States to de-emphasize its nuclear weapons, but the US conventional advantage is eroding as Russia and especially China build up their non-nuclear military capabilities. Moreover, nuclear weapons remain the ultimate instrument of military power—and Washington's potential adversaries, including Russia, China, and North Korea, are modernizing their nuclear arsenals with an eye toward using those

weapons in the event of conflict with the United States. This is reality.

Nonetheless, some argue that achieving the fond hope of complete nuclear disarmament requires the United States to cut its arsenal and refuse to modernize its forces. But if Washington pursued that course, other countries would not blindly follow its lead. Complete nuclear disarmament may be desirable, but achieving it will require nothing less than a major transformation of the international political system and the eradication of the root causes of international insecurity. The largest nuclear reductions in history immediately followed the cessation of Cold War hostilities—and presumably worldwide nuclear disarmament would require an even more radical reduction in tensions among all states. Proposals that recommend changes in strategic posture as steps toward disarmament therefore risk confusing cause and effect.

To be sure, all states should work to reduce international tensions so that disarmament might be achieved in the future. If and when security threats are reduced sufficiently, nuclear draw-downs will easily follow. But in the meantime, simply allowing the US arsenal to rust away will not meaningfully affect chances for eliminating nuclear weapons worldwide.

Fantasy, responsibility

Failure to modernize would not contribute to disarmament—but more than that, it would be irresponsible. A crippled US nuclear force would embolden enemies, frighten allies, generate international instability, and undermine US national security. In other words, it would risk ruining the world that currently exists.

Rather than preparing for an alternate reality, therefore, Washington needs to build the nuclear forces that it needs to deter threats to international peace and security in *this* reality. This means maintaining a robust nuclear posture and fully modernizing nuclear forces as planned. It means upgrading all three legs of the nuclear triad, refurbishing nuclear warheads, modernizing the production complex, and if necessary summoning the political will to build new capabilities to meet new demands.

Some might argue that modernization in the United States will spur reactions in other states, contributing to a new arms race—but, as pointed out above, modernization plans are proceeding apace in the rest of the world quite apart from any decisions made in Washington. Critics also cite cost as an obstacle but at modernization's peak the nuclear upgrades will only account for around 5 percent of the US defense budget. Thus, nuclear weapons provide a strategic deterrent at a reasonable price.

In sum, there is no good reason for the United States not to follow through on its planned modernization of nuclear forces. Perhaps one day we will be pleasantly surprised by an opportunity to live out our fantasies. Until then, we must live up to our responsibilities.

Editor's note

In the Development and Disarmament Roundtable series, featured at www.thebulletin.org, experts

primarily from developing countries debate topics related to nuclear weapons, nuclear energy, climate change, and economic development. Each author contributes an essay per round, for a total of nine essays in an entire roundtable. This feature is made possible by a three-year grant from the Norwegian Foreign Ministry. Eugene Miasnikov, Matthew Kroenig, and Lu Yin all contributed to the online roundtable titled "Modernizing nuclear arsenals: Whether and how," featured at: <http://thebulletin.org/modernizing-nuclear-arsenals-whether-and-how7881>.

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