Future Options for the U.S. Nuclear Deterrent

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Strategic Forces Subcommittee
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Chairman Rogers, Ranking Member Cooper, distinguished members of the subcommittee, thank you for the invitation to testify before you today on this important subject.

The world is entering a period of strategic competition. Since the end of the Cold War, the United States has been primarily concerned with confronting insurgency, terrorism, and ethnic violence. However, Russia's aggression against Ukraine and the expansion of China's territorial claims in the South China Sea require the military to refocus its attention to major power competition. The United States must again prepare to contain, deter, and, if necessary, defend its allies against advanced militaries.

However, the return of strategic competition does not mean we are in "a new Cold War." The challenges of the coming decade are militarily and geopolitically different from the Soviet threat. Neither Russia nor China possesses the military or economic resources to compete with U.S. influence globally; instead, the challenge is one of maintaining stability in regional contexts and defending the core interests of U.S. allies against limited but persistent encroachment. There is little evidence that Russia or China is looking to surpass U.S. nuclear advantages, or that they could if they wanted to.

Both Russia and China are engaged in extensive but moderate programs to modernize their nuclear arsenals. Though these programs will cause minor perturbations in the strategic balance, none of them constitutes a major threat to the security of the United States. With a few notable exceptions, modernization programs in Russia and China are simple replacements of legacy systems that have reached the end of their service lives. Other programs, including the submarine programs of both countries, are efforts to compensate for major deficiencies in survivability and readiness. For the foreseeable future, both arsenals will remain markedly less capable than U.S. nuclear forces. For example, neither country is engaged in a serious effort to replace its non-stealthy legacy aircraft for delivery of both gravity bombs and air-launched cruise missiles. Reflecting these strategic realities, a 2012 Pentagon report concluded that Russia "would not be able to achieve a militarily significant

advantage by any plausible expansion of its strategic nuclear forces, even in a cheating or breakout scenario under the New START Treaty."[1]

The United States is in the enviable position of moving second in this round of strategic modernization. However, there is a real danger that U.S. modernization plans could generate new strategic concerns among its adversaries and provoke increased competition. Recently, there have been calls to build new nuclear capabilities and to deploy them closer to potential zones of conflict. These proposals represent a dramatic departure from the bipartisan consensus on nuclear policy that has stretched back to the 1980s. They underestimate the diplomatic and strategic costs of initiating new programs and overestimate the utility of nuclear weapons in confronting hybrid threats to U.S. allies. Existing plans to modernize the U.S. nuclear arsenal already place severe stress on the Pentagon budget and on the international system; exceeding these plans by seeking new capabilities is inadvisable. Most importantly, new nuclear capabilities would likely exacerbate perceived vulnerabilities in both Russia and China, causing them accelerate and expand their own modernization programs and to behave erratically in a crisis.

## Stability concerns

New nuclear weapons are unlikely to be effective tools for deterring or confronting new strategic challenges. Both Russia and China have adopted sophisticated strategies to gain territory by means of operations that remain below the threshold of war. Russia in particular seeks to cover this low-level aggression by issuing reckless nuclear threats. Nuclear weapons, no matter how small and no matter where they are stationed, cannot deter this kind of hybrid aggression. U.S. nuclear threats cannot help to roll back Russian occupation of Crimea or put a halt to Chinese land reclamation projects in the South China Sea. It is simply not credible to issue a nuclear threat in these circumstances.

It is far from certain that low-yield and special effects nuclear warheads are necessary to control escalation. It is not clear why or when a low-yield nuclear weapon would deter an adversary if the nation's strategic arsenal cannot. Similarly, there is little evidence to assure us that an adversary is less likely to retaliate against U.S. employment of a relatively lower yield nuclear weapon or one with a special effect or delivery method. As Deputy Secretary of Defense Robert Work recently warned Russia, "Anyone who thinks they can control escalation through the use of nuclear weapons is literally playing with fire."[2]

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[1] U.S. Department of Defense, "Report on the Strategic Nuclear Forces of the Russian Federation…," 2012, available: http://fas.org/programs/ssp/nukes/nuclearweapons/DOD2012_RussianNukes.pdf.

[2] David Alexander, "Russia 'playing with fire' with nuclear saber-rattling: Pentagon," *Reuters,"* 25 June, 2015, available: http://www.reuters.com/article/2015/06/25/us-usa-nuclear-arms-idUSKBN0P52FC20150625.

The case for procuring new tactical nuclear weapons relies on the belief that the United States can more credibly threaten to employ them. Utilizing any type of nuclear weapon—whether by providing release authority to a NATO ally or to an U.S. operator—would incur tremendous costs. It could provoke a wider nuclear exchange, complicate ongoing military operations, acquiesce to an enemy's desperate gamble to escape a disadvantageous situation, strain or fracture U.S. alliances, distract attention from an adversary's aggression, increase the likelihood that other countries pursue and utilize a nuclear weapon in similar ways, and damage U.S. standing around the world. These considerations raise the cost of pursuing, threatening to use, or using tactical nuclear weapons, which in turn decreases their utility as instruments of deterrence.[3]

To increase reliance on nuclear weapons in limited contingencies would only support Russia's effort to shift the strategic competition to the nuclear domain (where it is relatively strong) and away from conventional competition (where it is relatively weaker). The United States has no interest in encouraging competition at the nuclear level and every interest in resisting Russian aggression by cooperating closely with U.S. allies to apply diplomatic and military pressure specifically tailored to the threat. New nuclear deployments could increase tensions between NATO and Asian allies that would accept new systems and the many that would resist them. At the same time, they could detract attention, resources, and resolve from the need to quickly and decisively respond to low-level provocations.

While new nuclear capabilities are unlikely to deter hybrid threats in this new environment, they could instead significantly contribute to instability. New procurement efforts would likely accelerate Russia and China's modernization efforts, contributing to what former Secretary of Defense Bill Perry recently warned is "a new round in the nuclear arms race."[4] In the context of U.S. conventional superiority, adversary countries have persistent and justified concerns about the survivability of their nuclear forces. Increasing emphasis on tactical nuclear weapons would blur the line between conventional and nuclear forces and exacerbate these concerns. This in turn could encourage U.S. adversaries to pursue new capabilities in an attempt to ensure the survivability of their nuclear forces and their ability to hold U.S. interests at risk.

It is neither a feasible nor a desirable goal for the United States to seek escalation dominance over nuclear-armed adversaries (with the exception of North Korea). Instead, perceived imbalances and vulnerabilities should be addressed through verifiable arms control agreements. In order to stabilize the strategic balance for the next decades, the United States should press Russia to engage in negotiations to

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[3] For more, see Adam Mount, "The strategic logic of nuclear restraint," *Survival* 57 (5), 2015 and Adam Mount, "Questioning the case for new nuclear weapons," *Bulletin of the Atomic Scientists,* 21 August, 2015, available: http://thebulletin.org/questioning-case-new-nuclear-weapons8671.

[4] Jonathan Tirone, "Vienna Forum Hears Warnings of a New U.S.-Russia Nuclear Arms Race," 24 June, 2015, available: http://www.bloomberg.com/news/articles/2015-06-24/u-s-risks-weapons-race-as-russia-adds-warheads-senate-stalls.

limit not only the existing arsenals but also the procurement programs that each party considers destabilizing.[5]

Fiscal concerns

The United States is starting a comprehensive effort to modernize its nuclear arsenal. In the next decades, nearly every bomber, submarine, missile, and warhead in the arsenal is set to be refurbished or replaced. Non-governmental estimates place the total cost of the nuclear triad between $800 billion and $1.1 trillion over the next thirty years (depending on cost growth and the programs included).[6] This outlay represents a significant challenge for the nuclear enterprise.

The overwhelming trend in major defense acquisition programs is for Congress to pare back the services' requests for large inventories of advanced systems, a trend which is likely to be repeated with the current nuclear modernization plans. If history is any precedent, Congress is unlikely to obligate funds for 100 new bombers and 12 new Ohio replacement submarines on top of numerous other outlays. However, unlike the last modernization cycle of the 1980s, U.S. arsenal today is not so large that it can absorb large cuts to planned systems with little effect on nuclear strategy. Cuts to the core systems of the triad will require changes to nuclear operations, including on-station requirements for submarines and changes to how warheads are distributed across the triad.

Nuclear modernization plans also place significant pressure on other military priorities. Every dollar spent on nuclear modernization constrains other programs, including maintaining the size of the U.S. Army and the Navy's surface fleet, procurement of a new generation of attack submarines and aircraft carriers, and the F-35 program.

Though the services will and should endeavor to maximize the options they can provide to the president in a crisis, fiscal constraints require that Congress and the White House make hard choices between conflicting priorities. The United States should prioritize the systems that are most important for deterrence—a replacement for the Ohio ballistic submarines and a new bomber platform—while making prudent cuts to the modernization plans. Congress should require the Department of Defense to generate a study that explains the necessity of the cruise missile as well as aggregate estimates of all nuclear items in the 050 account. In this highly constrained fiscal environment, the government should certainly resist calls to launch new programs for niche capabilities.

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[5] This proposal is described at length in Adam Mount, "Time for a different kind of U.S.-Russian arms control," *Bulletin of the Atomic Scientists,* 27 October, 2015, available: http://thebulletin.org/time-different-kind-us-russian-arms-control8829.

[6] Todd Harrison & Evan Braden Montgomery, "The Cost of U.S. Nuclear Forces," Center for Strategic and Budgetary Assessments, 2015 and Jon Wolfsthal, Jeffrey Lewis, and Marc Quint, "Trillion Dollar Triad," James Martin Center for Nonproliferation Studies, 2014.

Broader concerns

The costs of seeking new nuclear capabilities are not only monetary. The global nuclear order is at a precarious juncture. The Nuclear Nonproliferation Treaty (NPT), the cornerstone of the complex system of international institutions that govern the nuclear world, is at risk. Under the treaty, nonnuclear states commit not to pursue nuclear weapons as long as the nuclear states move toward disarmament. This year's Review Conference failed to reach consensus on steps to limit nuclear risk and nuclear proliferation, in part because the modernization efforts of the nuclear weapon states have caused some nonnuclear states to question whether this bargain is still sound.

Reneging on the U.S. commitment not to build new nuclear capabilities could stress the NPT to the breaking point, throwing the nuclear order into disarray and depriving the United States of important nonproliferation tools. A new effort to build tactical weapons would be a clarion signal to the world that nuclear weapons are necessary instruments of national defense and effective tools for controlling escalation. To seek low-yield nuclear weapons on the grounds that they are more "usable" would encourage other states to adopt the same logic and pursue the same capabilities.

It is far safer to maintain that nuclear weapons are not an effective means of controlling escalation. The United States should rely on its superior conventional systems and do all it can to avoid blurring the bright moral and prudential line between nuclear and conventional war.

In conclusion, current and projected strategic conditions do not warrant major changes to longstanding nuclear force structure. It is critical to national security and the country's standing in the world that the United States maintain its commitments not to seek new nuclear capabilities and to continue gradual reductions of its nuclear arsenal. In order to provide the services with realistic and rational guidance for deterrence operations through the entire modernization cycle, Congress and the White House should pursue prudent cuts to the current modernization plans that protect core priorities. Destabilizing systems should be limited through verifiable arms control agreements.