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### **RETHINKING NUCLEAR DETERRENCE: A VIEW FROM THE UNITED STATES**

*A Policy Memo*

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#### **I. Signs of change**

In the last two years, there has been a fresh impetus in the United States to rethink nuclear deterrence as it was known during the Cold War. President Barack Obama promised in his Prague speech to work to reduce the levels of nuclear weapons in the U.S. arsenal and their role in national security strategy. The 2010 Nuclear Posture Review also suggested that the United States could go to lower levels of nuclear weapons if Russia would also.<sup>1</sup> The posture review also put nonproliferation and counterterrorism goals higher on the agenda than deterrence. The Senate voted to ratify the New Start agreement, limiting each side to levels of deployed weapons not seen since the early days of the Cold War, and renewing expired verification mechanisms. Several new studies described pathways toward still lower levels of nuclear weapons in the post-Cold War era. One study was based on extensive computer modeling, which showed it is possible to get to below 1,000 warheads between the two countries without weakening security on either side.<sup>2</sup> In another, published in *Strategic Studies Quarterly*, three Air Force strategists argued “America’s security can rest easily” on a comparatively small nuclear force which might number only 311 nuclear weapons.<sup>3</sup> An additional significant development was the growth of the Global Zero movement, and support for the goal of nuclear weapons elimination from elder statesmen of the nuclear era, including George Shultz, Henry Kissinger, Sam Nunn and William Perry.

However, these signs of change were accompanied by indications that Cold War inertia remains powerful, and the need for maintaining a strong nuclear deterrent is still felt in the United States. Obama’s nuclear posture review vowed to maintain “strategic deterrence” at reduced levels, as well as extended deterrence for allies.<sup>4</sup> The president also pledged large increases in spending to refurbish and improve the infrastructure that supports the design, stockpile stewardship and dismantlement of nuclear weapons.<sup>5</sup> The

United States has decided, for the time being, to continue to maintain the land-sea-air nuclear triad, and retain a substantial number of nuclear warheads in a non-deployed “hedge” or reserve against technical or geopolitical surprise.<sup>6</sup> The president retreated from a pledge made during his campaign to remove nuclear missiles from launch-ready alert.<sup>7</sup> And the debate around the New Start treaty in the Senate showed that many senators, and others in American politics, still view the nuclear arsenal as a symbol of strength, and any reduction as a sign of weakness.

## **II. Why rethink nuclear deterrence?**

Deterrence with nuclear weapons was born out of the confrontation between two great powers. Although the arms race was marked by moments of acute danger—the Cuban missile crisis of 1962, and the War Scare of 1983, for example—a nuclear bomb was never used in combat after the end of World War II. The idea took hold that deterrence kept the peace and led to some kind of stability. The stability brought risks, but the competition and the risks appeared to be manageable through arms control negotiations, verification mechanisms and confidence-building measures.

The two-bloc system disappeared two decades ago. In today’s environment, the United States does not face a sole adversary, and does not confront any major threat on the scale of the Soviet Union. The threats faced by all the major powers, including terrorism and cyber attacks, are asymmetric to nuclear weapons, largely unattributable and out of proportion to nuclear use. Nuclear deterrence is based on the idea that an attacker will be restrained by the credible threat of retaliation. However, nuclear deterrence has little value against opponents who are nearly impossible to identify or impervious to persuasion, as is the case in terrorism and cyber conflict. The future will bring more such anonymous threats.

Nonetheless, the United States and Russia still cling to old ideas about deterrence. Both countries prize warhead numbers as symbols of strength. As recent events demonstrate, neither can tolerate an unfavorable disparity between the size of their own arsenal and that of the other side; for their own reasons, each has gone to great pains in order to negotiate equal levels in a treaty. This is one of the most stubborn legacies of the Cold War: nuclear warheads are regarded as assets, as chips in a power game.<sup>8</sup> Such thinking does not take into account their lack of value against asymmetric threats, and their diminished value as instruments of rivalry between the United States and Russia. Also, the weapons and delivery vehicles involve considerable resource burdens, create risks of accident and miscalculation, and signal to the rest of the world that nuclear weapons are worth having.

Rethinking nuclear deterrence might allow the United States and Russia to focus more directly on the real threats that exist today and find new and more effective means of countering them.

### III. New pathways

The United States and Russia today possess more than 95 percent of the global nuclear stockpile. Eventually, other nations must be brought into the picture. But for now, the immediate challenge is to begin the re-evaluation of deterrence with Washington and Moscow. Here are a few promising ideas, both old and new, that could help gradually stand down Cold War nuclear deterrence.

1. **Remove the hair-trigger.** The confrontation of the Cold War brought both sides the concept of Launch on Warning, and launch-ready alert for ground and sea-based nuclear missiles. The urgent, cocked-pistols confrontation is no longer appropriate between two countries that are attempting to cooperate and coexist as the United States and Russia are today. The current launch-ready alert status could be modified with a bilateral agreement to build in delays to launching. Separately, measures could be taken on both sides to give the respective leaders more time for decision-making. Also, both sides should revive the idea of a joint data exchange center to avoid surprises.<sup>9</sup>
2. **Remove unnecessary stockpiles.** Both the United States and Russia maintain thousands of warheads outside the negotiated, deployed levels, including the U.S. strategic reserve and the Russian tactical weapons. By keeping these weapons outside the arena of bilateral negotiations, both sides enhance the notion of warheads as assets. The next round of negotiations should be aimed at clearly eliminating any warheads outside the negotiated limits.
3. **Minimal deterrence.** Instead of calculating the levels of nuclear weapons based on targeting the other side's weapons, deterrence could be based on a minimum necessary to dissuade the other. This would undoubtedly be fewer weapons than are deployed today. Counterforce targeting would be abandoned.<sup>10</sup>
4. **Virtual deterrence.** Nuclear weapons cannot be uninvented. But even if the knowledge continues to exist, they could be banned. Consider: chemical and biological weapons have been banned by global treaty, but the knowledge still exists. Could future deterrence be made up of the credible *threat* to assemble a given number, based on knowledge, rather than the actual weapons? Far different verification measures would be necessary, but this bears more research and thinking.<sup>11</sup>
5. **Non-nuclear strategic weapons.** Re-thinking deterrence means also reexamining non-nuclear issues: strategic missile defense and conventional strategic arms, what purpose they would serve in a world with far fewer nuclear weapons, and whether they would be stabilizing or destabilizing.
6. **New methods of influence.** The central problem with deterrence is that it is outmoded. For the future, next-generation methods must be discovered for international persuasion, coercive diplomacy, defense and resilience. These methods will have to be tested against and found to counter anonymous and non-state actors, not just nation-states.
7. **Global near-zero.** Whatever one may think of this idea, a topic that demands more research and thinking is how to verify and prevent breakout once levels

begin to go very low. Could the national laboratories eventually be given the task of inventing the verification mechanisms needed for Global Zero, or even Global 100? <sup>12</sup>

In sum, the outdated concept of nuclear deterrence remains in place. Steps can be taken in the near term to start winding it down, while in the longer term there is a need to find a way to replace it in the vocabulary and decisions of the United States and Russia. The threats today are more diffuse, anonymous and unpredictable than the Cold War, and demand new approaches.

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<sup>1</sup> Nuclear Posture Review Report, 2010, U.S. Department of Defense, p. 30.

<sup>2</sup> Bruce Blair, Victor Esin, Matthew McKinzie, Valery Yarynich, and Pavel Zolotarev, "Smaller and Safer: A New Plan for Nuclear Postures," *Foreign Affairs*, Sept./Oct. 2010.

<sup>3</sup> James Wood Forsyth Jr., B. Chance Saltzman, Colonel, USAF, and Gary Schaub Jr., "Remembrance of Things Past: The Enduring Value of Nuclear Weapons," *Strategic Studies Quarterly*, Spring, 2010, p. 74.

<sup>4</sup> Nuclear Posture Review, p. ix.

<sup>5</sup> Walter Pincus, "Obama plan outlines reductions in U.S. nuclear arsenal," *The Washington Post*, July 15, 2010.

<sup>6</sup> Nuclear Posture Review, p. 21

<sup>7</sup> Nuclear Posture Review, p. x. Obama's pledge, in a campaign position paper on defense, stated: "The United States and Russia have thousands of nuclear weapons on hair-trigger alert. Barack Obama believes that we should take our nuclear weapons off hair-trigger alert -- something that George W. Bush promised to do when he was campaigning for president in 2000. Maintaining this Cold War stance today is unnecessary and increases the risk of an accidental or unauthorized nuclear launch. As president, Obama will work with Russia to find common ground and bring significantly more weapons off hair-trigger alert." See "A 21<sup>st</sup> Century Military for America," Barack Obama for President, undated.

<sup>8</sup> See Anne Harrington de Santana, "Nuclear Weapons as the Currency of Power: Deconstructing the Fetishism of Force," *Nonproliferation Review*, Vol. 16, No. 3, Nov. 2009.

<sup>9</sup> See "Reframing Nuclear De-Alert: Decreasing the Operational Readiness of U.S. and Russian Nuclear Arsenals," EastWest Institute, 2009.

<sup>10</sup> For a discussion of minimum deterrence, see Hans M. Kristensen, Robert S. Norris, Ivan Oelrich, "From Counterforce to Minimal Deterrence: A New Nuclear Policy on the Path Toward Eliminating Nuclear Weapons," Federation of American Scientists, April, 2009, Washington D.C.

<sup>11</sup> On virtual deterrence and other ideas in this list, the author is indebted to papers from a conference, "Deterrence: Its Past and Future," held at Stanford University's Hoover Institution on Nov. 11-12, 2010, to be published in a forthcoming volume. The author would like to thank Dr. Sidney Drell for permission to review the conference papers.

<sup>12</sup> For more, see Sidney Drell and Raymond Jeanloz, "Nuclear Deterrence in a World Without Nuclear Weapons," David Holloway, "Deterrence and Enforcement in a World Free of Nuclear Weapons," and Christopher Ford, "Nuclear Weapons Reconstitution and its Discontents: Challenges of 'Weaponless Deterrence,'" all in the forthcoming Hoover Institution volume.