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# NDRI Pentagon Briefing Examines the Future of Nuclear Deterrence

Russia and the United States have made significant agreements to reduce nuclear weapons since the collapse of the Soviet Union in 1991. The Strategic Arms Reduction Treaty (START I), signed by the U.S. and USSR in 1991, limited the number of strategic nuclear delivery vehicles to 1600 and the number of warheads per country to 6,000. The START II treaty, which would further reduce the number of warheads to 3,000-3,500, was signed in 1993 and ratified by the U.S. Senate in 1996. START III, if ratified, would establish lower aggregate levels of 2,000-2,500 strategic nuclear warheads for each country by 2007.

RAND researchers David Mosher and Roger Molander argued during a briefing to the Pentagon on January 18, 2001, that reducing nuclear forces below START III levels will require a fundamental reassessment of the role of nuclear weapons in national security policy, including nuclear targeting strategies.

The United States must determine what the future role of nuclear weapons will be in U.S. national security policy, what the future role of nuclear weapons are in the security policy thinking of other nations, and where the opportunities lie for U.S. leadership in charting the long-term role of nuclear weapons in international security policy.

**Why Does the Nuclear Issue Matter Now?**

The presidential election resulted in a new administration that will face questions about the future of bilateral arms control. Statements made during the presidential campaign suggested a probable reassessment of nuclear weapons policy by the incoming administration. An amendment to the fiscal year 2001 National Defense Authorization Act, which former President Clinton signed on October 30, 2000, actually requires such an assessment by mandating that the incoming administration complete a formal nuclear posture review (NPR) by December 2001. In addition, Russia is on the path to reducing warheads below the START III goals (2500 warheads) established at the Helsinki, Finland summit in 1997 held by Clinton and former Russian President Boris Yeltsin.

**RAND's Analysis**

Drs. Mosher and Molander described the analyses they have conducted during a project for which RAND was tasked to explore a handful of possible futures for U.S. nuclear forces and end states that could occur within the next 20 to 30 years.

They first examined the possible deterrence role that nuclear weapons might play in the future and asked:

1. What countries are the United States attempting to deter with its nuclear arsenal: China, Russia, or regional powers such as Iraq and North Korea?
2. What potential actions would the United States be attempting to deter: nuclear, bio-chemical, or conventional attacks? Or would state-sponsored terrorism be a more likely target for nuclear deterrence?

During the Cold War, "strategic warfare" and "strategic nuclear warfare" were virtually synonymous in U.S. thinking. Today, the two are independent concepts, particularly in the context of the recent rise in asymmetric threats from regional powers.

In the foreseeable future, the United States will need to address strategic warfare in all its forms, such as weapons of mass destruction (WMD), terrorism, and information warfare.

RAND researchers determined that nuclear weapons are just one means of deterring strategic attack or conducting strategic warfare; therefore, any reassessment of the role of nuclear weapons should be done within the broader context of deterring and conducting strategic warfare.

**Addressing Policy and Analytical Questions**

As the researchers examined nuclear deterrence in the context of larger strategic warfare, several policy and analytical questions emerged:

1. What is the preferred (desirable and feasible) role of nuclear weapons in U.S. security policy and that of other key nations?
2. What is the appropriate U.S. nuclear targeting strategy in a deterrence context as it relates to Russia, China, and other potential regional adversaries?
3. What is the appropriate targeting philosophy?
4. What kind of analytic approach can be used to organize thinking about these questions?

**Analytic Approach.** The researchers took the analytic approach of projecting long-term end states, or asymptotes, within the parameters of some key dimensions: 1) the global political environment, 2) the role of nuclear weapons in strategic warfare, 3) the size and character of nuclear arsenals, 4) virtual arsenals, 5) defenses against nuclear attack, 6) strategic stability, and 7) arms control and unilateral cuts.

**Targeting Issues.** Reductions in nuclear warheads create targeting challenges. Researchers developed target matrices to illustrate some potential future targeting strategies to address these challenges. They determined that targeting to both China and Russia will be more difficult as forces are reduced. Above some number of warheads (somewhere between 2,500 and 1,000), the targeting problem can best be approached from the top down, which is what the United States has largely done since the Cold War. However, below that threshold, the targeting problem must be approached from the bottom up (i.e., "zero-based" targeting).

**Conclusions and Recommendations**

The researchers came to the following conclusions:

1. QDR and NPR should be nuclear strategy reviews. A narrow focus on forces will not serve fundamental U.S. security interests. Assessments must have long-term goals in mind and must view nuclear weapons in the broader context of conducting and deterring strategic warfare.
2. New Presidential guidance or review for any substantive changes to nuclear forces or targeting strategy is needed.
3. The United States needs a new conceptual framework to organize thinking about START III and other strategic warfare issues that address targeting and stability issues. This framework must account for all dimensions of the problem, not just offensive nuclear forces, and requires a long-term perspective to influence near-term decisions.

**Bringing China into the Regime**

During the briefing, the researchers also explored the role that China might play in a world with fewer nuclear weapons.

The main question is how to bring China into a nuclear arms control framework. Mosher and Molander discussed ways to achieve trilateral "strategic stability", including:

1. seeking stability in the broad strategic relationship between the three nations,
2. seeking stability in the strategic nuclear relationship between the three nations,
3. seeking stability in the broad strategic and nuclear relationship between the three nations and other nuclear-armed (or potentially nuclear-armed) nations, and
4. building on a template of the U.S.-Soviet Union/Russia experience.