The Future of U.S. Nuclear Weapons Policy,

by the Committee on International Security and Arms Control of the National Academy of Sciences, National Academy Press, Washington, DC, 1997, 110 pages, \$15

At the close of the Cold War in 1991, the National Academy of Sciences released a landmark report, *The Future of the U.S.-Soviet Nuclear Relationship*. The report advised the U.S. and USSR. to reduce to 3500 weapons, to eliminate land-based MIRVed ICBMs, to remove most of the tactical weapons from Europe, to reduce the target base from 5,000-9,000 to 1,000-1,600, and so forth. These recommendations were quickly popularized by the Congressional testimony of Michael May and Wolfgang ("Pief") Panofsky. In a nutshell, the Academy gets high credit for encouraging the executive branch and congress to move the world to more sensible nuclear policies.

A half-dozen years later, the Academy has released the sequel, *The Future of U.S. Nuclear Weapons Policy*, which is intended to move strategic arms control beyond START II towards the deeper cuts of STARTs III, IV and V. The second report appears now at a time when the Russian military colossus is stumbling and the DUMA has START II on hold. The lack of viable economics limits Russia's choices, but it is imperative for both dance partners that they waltz together to the ratification rumba. Without the DUMA's ratification of START II, the political will to follow the Academy's recommendations will be slowed. Some of the 1997 recommendations are as follows:

- After the reductions envisioned in a START III accord (to some 2,000 to 2,500 strategic
 warheads), reductions to about 1,000 total (strategic and tactical) warheads each for the
 U.S. and Russia would be logical. A force of this size could effectively maintain the core
 function against the most challenging potential U.S. adversaries under any credible
 circumstance.
- At lower levels of warheads, it is necessary to begin counting individual warheads and verifying warhead dismantlement. Even an imperfect verification regime would greatly reduce the uncertainties in present U.S. estimates of the number of Russian warheads.
- The U.S. has a far greater potential for uploading its systems than Russia because of the capabilities of U.S. delivery vehicles. The Committee recommends reconsideration of the Nuclear Posture Review's "hedge" strategy, the ability to deploy thousands of additional warheads by increasing warhead loading on existing missiles and bombers.
- The Committee recommends that the nuclear postures be softened by removing the launch-on warning, massive attack options. They recommend adopting a more flexible planning system of "adaptive targeting" that would not be based on predetermined prompt attacks on counterforce targets.
- The decline in Russian conventional military forces, the decline in Russian national technical means of verification and radar warning systems, and the garrisoning of SS-25s and in-port SLBMs have probably pushed the Russians towards closer to hair-trigger responses. The Committee recognizes that removing systems from alert could lessen

these problems, but recognizes that further work is needed to determine which systems should be removed from continuous-alert practices in ways to avoid instabilities.

If the strides between the dance partners are orchestrated with the ratification of START II, some of the NAS recommendations should be relatively simple, such as reducing to 2,000 (and even 1,000) warheads. Some of the other steps will be more difficult, such as meaningful warhead dismantlement and counting. For centuries, military leaders have said that dangerous threats come from a combination of good military capabilities and bad political intentions. If the intentions of both partners are pure, even the more difficult tasks become possible. In the meantime, retaining a survivable deterrent under the sea should keep the dance floor dry. I heartily recommend *The Future of U.S. Nuclear Weapons Policy* for a good discussion of current strategic nuclear issues.

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