

New START and non-strategic nuclear weapons

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Working paper

APS-CSIS Workshop “Technical and Policy Issues Associated with a U.S. – Russian Agreement on Non-Strategic Nuclear Weapons”

February 25-26, 2013

Washington, DC

Nuclear disarmament has always been one of the central issues of U.S.-Russian relationships and an important element of the effort to combat nuclear proliferation and counter the dangers associated with nuclear weapons. During his first term in office, President Obama made a commitment to “peace and security of a world without nuclear weapons” and worked with his Russian counterpart to negotiate the New START treaty that will reduce strategic nuclear arsenals of the two countries to the level of 1,550 nuclear warheads. In the beginning of the second presidential term, the U.S. administration pledged to renew its efforts to engage Russia in further reductions of nuclear arsenals. It has already begun preliminary discussions with Russian officials and is reported to be preparing specific proposals to Russia regarding future nuclear cuts.¹

The new U.S.-Russian nuclear disarmament dialog is widely expected to address the issue of non-strategic nuclear weapons, which have not been covered by New START or earlier arms control agreements (with the exception of the INF treaty). Now that the strategic arsenals are being reduced to the level of about 1,500 warheads, it is increasingly difficult to justify the exclusion of non-strategic warheads from the disarmament talks.² The United States is estimated to have about 500 nuclear warheads that could be assigned to non-strategic delivery systems, while Russia is believed to have about 2,000 warheads in this category. There is a significant uncertainty in the number of non-strategic nuclear warheads in Russia, but all estimates suggest a degree of disparity between the U.S. and Russian non-strategic nuclear forces. If a new disarmament agreement takes a form of a legally binding treaty it would have to address the difference between U.S. and Russian non-strategic nuclear forces. In the New START resolution of ratification the U.S. Senate urged the administration “to address the disparity between the non-strategic (tactical) nuclear weapons stockpiles” in future negotiations with Russia, so it is unlikely to approve a treaty that does not include measures to that effect.³

¹ R. Jeffrey Smith, “Obama administration embraces major new nuclear weapons cut,” The Center for Public Integrity, February 8, 2013, <http://www.publicintegrity.org/2013/02/08/12156/obama-administration-embraces-major-new-nuclear-weapons-cut>.

² In this paper the term “non-strategic nuclear weapons” is used to describe all nuclear armaments that are not explicitly covered by the New START or INF treaties.

³ U.S. Senate, New START Resolution of Ratification.

The issue of expanding the scope of the U.S.-Russian nuclear disarmament dialog to non-strategic nuclear weapons has been a subject of intense discussion among experts for a long time. Although this discussion has not produced a consensus on the best way to deal with non-strategic nuclear weapon, several common themes have emerged. Most experts seem to agree that extending disarmament measures to non-strategic weapons would require access to non-deployed weapons at operational bases and storage facilities. Most proposals in this area also assume that the United States and Russia should exchange data on their non-strategic nuclear arsenals early in the process. Finally, a number of proposals suggest establishing a common ceiling that would limit all categories of nuclear weapons in active arsenals – strategic and non-strategic as well as deployed and non-deployed.

There are several arguments in favor of including non-deployed nuclear weapons, whether strategic or non-strategic, in the nuclear disarmament process. A strong case can be made that nuclear reductions should eventually cover all categories of nuclear warheads and also extend to weapon components and fissile materials. However, in the context of the U.S.-Russian arms control, the need to include non-deployed weapons is often justified by reasons that are more technical in nature.

First, it is often assumed that because of the variety of dual-capable systems that can be equipped with nuclear armaments, non-strategic weapons do not lend themselves to the strategic arms control approach, which relies primarily on limiting and reducing the number of delivery systems. Second, it is believed that a limit on non-deployed weapons could provide Russia with an incentive to initiate the discussion of non-strategic arsenals by limiting the U.S. “upload potential” – the capability to deploy additional warheads on the existing strategic launchers. Finally, establishing a limit on non-deployed weapons would probably help address the concerns about disparity between non-strategic arsenals expressed by the U.S. Senate.

While an extension of U.S.-Russian talks to non-deployed weapons, whether strategic or non-strategic, would benefit the cause of nuclear disarmament, it is highly unlikely that the two countries could make progress in this area at this point. The United States and Russia have been discussing measures related to transparency of nuclear warhead inventories since the mid-1990s. At the time, the two countries made progress in verifying warhead dismantlement process, but never resolved differences regarding accounting of warheads in active arsenal.⁴ In the late 1990s, Russia discontinued most of the work in this area and there are no signs that it would be ready to resume it today. Indeed, during the New START negotiations it rejected the U.S. proposal to account for nuclear weapons assigned to strategic bombers that are stored at air bases, which indicates that a similar proposal related to non-strategic weapons is not likely to be accepted. As for the limit on the U.S. “upload potential,” which could have provided an incentive for Russia to return to accept the approach based on accounting for non-deployed weapons, the New START negotiations

⁴ Anatoly Dyakov, “Nuclear Warheads and Weapon-Grade Materials,” in Alexei Arbatov and Vladimir Dvorkin, eds. *Nuclear Reset: Arms Reduction and Nonproliferation*, Carnegie Moscow Center, 2012, <http://www.armscontrol.ru/pubs/en/Diakov-NucWarheads.pdf>

demonstrated that Russia no longer considers it a pressing issue – the treaty allows for significant disparity in the number of non-deployed strategic warheads that could be returned to deployed launchers. In this situation, an attempt to introduce non-deployed warheads in the U.S.-Russian discussion of further reductions or nuclear is unlikely to help move the negotiations forward.

An alternative way of dealing with the issue of non-strategic nuclear warheads would use the approach developed during the New START negotiations. While the treaty still relies primarily on limiting the number of delivery systems, it contains a number of new elements that could potentially adapted to non-strategic nuclear arms control. Unlike its predecessors that assigned a certain number of warheads to each deployed launcher, New START contains a limit on *deployed* nuclear warheads and provides a mechanism that could be used to verify the number of nuclear warheads that are actually deployed on delivery systems.

The most important consideration that would allow extending the New START framework to non-strategic nuclear weapons is the fact that neither Russia nor the United States keep their non-strategic weapons mated to delivery systems, so none of these weapons would be considered deployed. The Russian government has repeatedly stated on record that all its non-strategic nuclear warheads have been consolidated at centralized storage facilities.⁵ Indeed, the only Russian delivery systems that carry nuclear warheads are land-based ICBMs and submarine-launched ballistic missiles.⁶ The United States also keeps its non-strategic weapons de-mated from delivery systems, although some weapons are stored in close proximity to the delivery aircraft.⁷

In effect, the United States and Russia already have zero deployed non-strategic nuclear warheads. This means that an agreement that would address non-strategic weapons could confirm their non-deployed status and develop procedures that would verify the absence of nuclear warheads on delivery systems – a much simpler task than verifying the number of nuclear weapons, deployed or non-deployed. As discussed below, verification procedures included in New START would allow to do so without significant modifications.

Although most of the New START framework could be extended beyond U.S. and Russian strategic arsenals, there are a number of issues that would have to be addressed before New START provisions could be applied to non-strategic weapons.

⁵ See, for example, “Statement by the Delegation of the Russian Federation on Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons at the second Session of the Preparatory Committee for the 2010 Non-Proliferation Treaty Review Conference,” Geneva, April 28- May 9, 2008.

⁶ Based on a series of interviews with directors of the 12th Main Directorate that operates nuclear storage facilities. See “Poryadok v yadernykh chastyakh,” *Krasnaya zvezda*, 5 September 2006, http://old.redstar.ru/2006/09/05_09/1_02.html, “Dezhurstvo u yadernoy knopki,” *Rossiyskaya gazeta*, 4 September 2007, <http://www.rg.ru/2007/09/04/orujie.html>, “Garanty yadernogo shchita,” *Krasnaya zvezda*, 3 September 2012, <http://www.redstar.ru/index.php/component/k2/item/4428-garantyi-yadernogo-schita>.

⁷ Hans Kristensen, *Non-Strategic Nuclear Weapons*, Federation of American Scientists, Special Report No 3, May 2012, pp. 11, 17.

First, although no U.S. or Russian non-strategic warheads are currently operationally deployed, the New START accounting rules, if strictly applied, would not allow either side to report zero deployed non-strategic warheads. The reason for this is that the treaty does not differentiate between nuclear and non-nuclear reentry vehicles on ballistic missiles and counts each nuclear-capable heavy bomber as a single deployed nuclear warhead. Therefore, under New START rules, each delivery system, such as an aircraft or an SLCM, that is designated as nuclear-capable would account for one deployed nuclear warhead, even though it carries only conventional warhead. However, these rules were agreed upon in the context of strategic delivery systems that could carry multiple warheads. For non-strategic weapons these would be redundant, as each nuclear-capable delivery system would be accounted for as a deployed launcher. The accounting rules could therefore be modified, so no deployed nuclear warheads would be associated with nuclear-capable aircraft and only actual *nuclear* warheads deployed on other delivery systems would be counted against the treaty limit. Since this limit is expected to be zero, a modification of this kind should be possible.

Second, for a New START-type agreement to effectively cover non-strategic systems, it would have to pay special attention to measures that allow to distinguish between nuclear-capable and non-nuclear-capable systems. New START provides two ways of doing so that could be adapted to a variety of non-strategic systems.

New START allows an entire type of delivery systems to be declared as non-nuclear capable and therefore exempt from the treaty limitations. Specifically, heavy bombers of a certain type would no longer be subject to the treaty if they all have been converted to “heavy bomber[s] equipped for non-nuclear armaments” with accordance to the treaty procedures.⁸ The United States took advantage of this provision by demonstrating that all its B-1B bombers are not equipped for nuclear armaments and therefore will no longer subject to the treaty limitations.⁹

Another New START provision allows conversion of heavy bombers within the same type – the treaty then requires that “a heavy bomber equipped for nuclear armaments shall be distinguishable from a heavy bomber equipped for non-nuclear armaments.”¹⁰ No conversion of this kind has been completed yet, but the United States plans to leave only 40 of the 75 B-52H bombers it declared operational in 2011 as “equipped for non-nuclear armaments.” The B-52H bombers that will be converted for non-nuclear missions will no longer count toward the treaty limits.¹¹

The bomber conversion provisions of the New START treaty demonstrate a practical possibility of measures that would allow drawing a demarcation line

⁸ New START, Article III.7(c). The procedure is described in New START Protocol, Part III, Section V, Paragraph 3.

⁹ “New START Treaty Implementation Update,” Bureau of Arms Control, Verification and Compliance, May 17, 2012, <http://www.state.gov/t/avc/rls/183335.htm>.

¹⁰ New START, Article III.7(b).

¹¹ Dave Majumdar, “DoD: Denuclearized B-52s OK Under New START,” Defense News, May 4, 2011, <http://www.defensenews.com/article/20110504/DEFSECT01/105040302/DoD-Denuclearized-B-52s-OK-Under-New-START>.

between nuclear and non-nuclear delivery systems. This could substantially reduce the verification burden in an agreement that would cover non-strategic weapons. The feasibility of implementing these measures in the context of non-strategic delivery systems has been demonstrated by Russia and Ukraine – one of the agreements that regulate presence of Russian aircraft at the Black Sea Fleet bases allows Ukraine to verify that these aircraft are not capable of carrying nuclear weapons.¹²

The New START inspection provisions contain a number of measures that could be used to verify the absence of deployed nuclear warheads on non-strategic delivery systems. To do so, inspectors are allowed to use radiation detection equipment specified in the treaty. For example, inspectors have the right to use this equipment to verify that objects “located on the front section of a deployed ICBM or deployed SLBM” or “located on a designated heavy bomber” and declared to be non-nuclear are, in fact, non-nuclear.¹³ If an agreement that covers non-strategic systems assumes that no nuclear objects are allowed to be deployed on the inspected delivery systems, inspection procedures would be simpler than those in New START, which allows some nuclear warheads to be deployed.

Overall, progress in reaching an agreement on non-strategic nuclear weapons would require resolving a number of political issues that range from missile defense to the balance of conventional forces. If the United States and Russia could find a way to find a common ground on these issues, they should be able to resolve technical issues associated with non-strategic nuclear weapons as well. The approach to nuclear reductions that was developed in New START provides a time-tested framework for dealing with some of the problems that may be encountered on the way to an agreement on non-strategic weapons. If properly adapted, this framework could be used as a basis for deeper reductions of nuclear arsenals that would cover all categories of deployed nuclear weapons.

¹² Igor Sutyagin, “Atomic Accounting. A New Estimate of Russia’s Non-Strategic Nuclear Forces,” RUSI, Occasional Paper, November 2012, p. 29.

¹³ Protocol to the New START Treaty, Annex on Inspection Activities, Part Five, Section VI, paragraph 1.