

On the Relationship between Nuclear and Conventional Strategic Arms in the New START Treaty

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The New START Treaty signed by the U.S. and Russian Presidents on April 8, 2010 in Prague is currently considered for ratification by legislative bodies of both states, and there is still a chance, that it might enter into force this fall. Many supporters of the treaty suggest that negotiations on the next phase of reductions should begin promptly. The official Washington revealed its intention to start discussions that would cover both strategic and non-strategic nuclear arms.³ Moscow is likely playing a waiting game thus far. However, one may presume that even if the Russian side agrees to come to the negotiating table, on its turn, it will attempt to include the problems of missile defense and conventional strategic arms into the agenda of the discussions.⁴

This paper is devoted to the problem of strategic conventional arms.⁵ As shown below, U.S. and Russia disagree on the impact of strategic conventional arms on strategic stability. Moreover, the sides do not even share a common vision on what types of conventional arms should be referred to as strategic. In further analysis the term **strategic conventional arms** is defined as arms that carry conventional payloads and might have a counterforce capability, and, hence, exert an influence on strategic balance between the U.S. and Russia.

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² This article was published in Russian on July 16, 2010

³ [Nuclear Posture Review Report](#), 6 April 2010

⁴ Anatoli Diakov, Timur Kadyshev and Eugene Miasnikov, [Remarks on Further Reductions of Nuclear Weapons](#), Center for Arms Control, Energy and Environmental Studies at MPTI, Dolgoprudny, February 3, 2010.

⁵ On the impact of conventional precision guided weapons on strategic stability, see, for example: Eugene Miasnikov, Limiting Counterforce Capability of Precision Guided Weapons, In: Reset of U.S.-Russian Relations in Nuclear Sphere, Ed. by Alexei Arbatov and Vladimir Dvorkin, Carnegie Moscow Center, 2010, in print; Eugene Miasnikov, The Counterforce Potential of Precision Guided Munitions, In: [Nuclear Proliferation: New Technologies, Weapons, Treaties](#), Ed. by Alexei Arbatov and Vladimir Dvorkin, Carnegie Moscow Center, Moscow, 2009, pp. 84-103.

This article provides an analysis of the New START treaty limitations with respect to strategic conventional arms. The analysis shows that the new treaty contains the following measures:

- Numerical limits on Intercontinental Ballistic Missiles (ICBMs), Submarine Launched Ballistic Missiles (SLBMs), ICBM and SLBM launchers, deployed warheads on conventional ICBMs and SLBMs;
- Transparency measures with respect to those strategic delivery systems equipped for conventional armaments, for which similar systems equipped for nuclear armaments exist (ICBMs, ballistic missile submarines, heavy bombers);
- Limited transparency measures with respect to those strategic delivery systems equipped for conventional armaments, for which similar systems equipped for nuclear armaments have been eliminated or converted to systems equipped for conventional armaments (SSGNs, heavy bombers).

Our analysis also shows that the strategic conventional arms are limited by the New START Treaty to a much lesser extent than by the old treaty. Moreover, the New Treaty does not prohibit development of some types of strategic arms that were banned by the previous treaty.

The article also discusses ways for solving the problem of strategic conventional arms.

Attitudes of the Sides with Respect to Strategic Conventional Arms

Russian officials raised many times concerns with respect to strategic systems armed with conventional weapons, and suggested that this factor needs to be taken into account as nuclear arms are reduced. In particular, Russian President Dmitry Medvedev stressed in the spring of 2009, when he formulated conditions for the path of nuclear disarmament: ⁶

«...It is unacceptable to compensate nuclear reductions by developing strategic systems which are equipped with conventional weapons. This would be an unequal exchange...»

A similar thought was expressed by the Russian President in his speech at the UN General Assembly in the fall of 2009: ⁷

⁶ [Speech at Helsinki University and Answers to Questions from Audience](#), April 20, 2009, 19:30 Helsinki

⁷ [Address to the 64th Session of the UN General Assembly](#), September 24, 2009, New York

«...Unless we address problems such as anti-missile defense and creation of conventional strategic arms capabilities, we cannot make any real progress in disarmament...»

Russian officials also emphasized the existence of a strong link between Pentagon's "Prompt Global Strike" (PGS) (this concept serves as a framework for development of strategic non-nuclear arms⁸) and ballistic missile defense programs. In particular, according to Anatoli Antonov, Director of the Department for Security and Disarmament of the Russian Ministry of Foreign Affairs:⁹

«...Global missile defense cannot be discussed apart from the strategic offensive weapons. The undeniable link between missile defense and strategic offensive weapons is axiomatic. Taken together they can become a strategic complex able to deliver "first disarming strike"...Setting up such a complex could upset the strategic balance of forces and act as a destabilizing factor, since global missile defense could erode the system of mutual deterrence. Furthermore, we see a direct link between US plans for global missile defense and the prompt global strike concept which means the ability to strike any point on the globe within an hour of the relevant decision. This concept, when combined with global missile defense, becomes a means for world domination, politically and strategically. This is a rather serious factor which undermines the principles of mutual deterrence and mutual security and erodes the architecture of strategic stability...»

Over the last few years dangers of this type have been accentuated in documents reflecting views of the Russian military-political leadership. Both "The National Security Strategy of the Russian Federation till 2020" and "The Military Doctrine of the Russian Federation" adopted in 2009 and 2010 respectively list deployment of strategic conventional precision guided weapon systems as one of the main dangers for Russia — along with the development and deployment of strategic missile defense and militarization of space.

Nevertheless, one should admit that Moscow has not articulated yet unambiguously what kind of arms — along with conventional ICBMs and SLBMs — it regards as strategic conventional arms. One may not rule out, that Russia also includes in this category some other conventional strategic offensive arms like heavy bombers, long range air (ALCMs) and sea (SLCMs) launched cruise missiles. Russian military experts consider these types of arms as a substantial destabilizing factor.¹⁰ Perhaps, new types of weapons

⁸ Anatoli Diakov and Eugene Miasnikov, ["Prompt Global Strike" in the US Strategic Forces Development Plans](#), Center for Arms Control, Energy and Environmental Studies at MIPT, Dolgoprudny, September 14, 2007

⁹ [Speaking notes A.I. Antonov Director, Security and Disarmament Department, Russian Ministry of Foreign Affairs NATO-Russia Council Meeting](#), October 17, 2007

¹⁰ See, for example, V.Yu. Volkovitskiy, [Prikrytiye Strategicheskikh Yadernykh Sil – Vazhneyshaya Zadacha Voyenno-Vozdushnykh Sil](#) (Screening Strategic Nuclear Forces is the Most Important Task for Air Forces), part 2, *Vozdushno-Kosmicheskaya Oborona*, N 1,

prohibited by the “old” START Treaty but developed now within the frames of PGS program, are also of concern.

The views of the U.S. side on strategic conventional arms fundamentally differ from the Russian views. Although at signing of the new START Treaty the U.S. side admitted the impact of conventional ICBMs and SLBMs on strategic stability and agreed to set up limits on such systems, nevertheless, it gives a high priority to development of strategic conventional systems and, at the least, does not envisage making such systems a subject of future negotiations. When the U.S. administration submitted the new Treaty to Congress, it made clear that the treaty does not contain any constraints for testing, development and deployment of current or planned PGS systems. Besides that, it is a view of the U.S. side that not all new kinds of weapon systems of strategic range would be “new kinds of strategic offensive arms” subject to the New START Treaty. Specifically, it stated that it would not consider future strategic range non-nuclear systems that do not otherwise meet the definitions of the Treaty to be “new kinds of strategic offensive arms” for purposes of the Treaty.¹¹

Measures Envisaged for Existing Types of Strategic Conventional Arms

Transparency measures of the New START Treaty cover Trident strategic nuclear submarines, converted to long range SLCM carriers (SSGNs), and those heavy bombers, nuclear missions of which were cancelled.

It was mentioned above, that Russian experts very frequently consider long range SLCMs as a destabilizing factor, threatening survivability of the Russian Strategic Forces in future. Besides Trident SSGNs, sea launched cruise missiles can also be carried by attack submarines and surface ships. However, neither attack submarines, nor surface ships are a subject of the New START Treaty.¹²

SSGNs Armed with Long Range Cruise Missiles

Conversion of four “Ohio” class strategic submarines to SSGNs was finished in 2008. Each converted SSGN is capable to carry 154 long range Tomahawk SLCMs. The “old” START Treaty counted each SSGN as a platform with 24

January-February 2010; Mikhail Volzhenskiy, [PRO: Zamaskirovana Pod Zashitu, Sozdana Dlya Napadeniya](#) (Missile Defense: Concealed as Defensive, Created for Offense), *Izvestiya*, May 28, 2007 .

¹¹ [Article-by-Article Analysis of New START Treaty Documents](#), Bureau of Verification, Compliance, and Implementation, May 5, 2010, Article V, p.13

¹² At previous START negotiations Russia always insisted on limiting nuclear long range SLCMs and their carriers, however the United States strongly objected. Nevertheless, according to Alexei Arbatov, Director of the Center for International Security at IMEMO, both sides radically changed their attitudes at the negotiations of the New START Treaty. After making a decision in the new Nuclear Posture Review to abandon nuclear Tomahawk SLCMs, the United States proposed limiting long range SLCMs, but the Russian side refused to discuss the U.S. proposal (Alexei Arbatov’s answers to questions at the seminar [“Evaluating the New START Treaty. Prospects for Its Ratification”](#) in Moscow Carnegie Center, May 27, 2010).

SLBM launchers, because the conversion was conducted by procedures other than specified in the old START Treaty.

When the New START Treaty enters into force, four SSGNs will also be counted as 96 “Trident-1” SLBM launchers. However, the New Treaty specifies simplified procedures aimed at excluding these launchers from counting:¹³

- Not later than three years after entry into force of the Treaty, the United States of America shall conduct an initial one-time exhibition of each of these four SSGNs. The purpose of such exhibitions shall be to confirm that the launchers on such submarines are incapable of launching SSBNs.
- After completion of the initial exhibitions, the United States of America shall periodically provide an opportunity for the Russian Federation to confirm that none of the launchers on the four SSGNs has been reconverted and each of them remain incapable of launching an SLBM. The Russian Federation shall have a right, while conducting a Type One inspection at a submarine base, to inspect designated launchers on an SSGN if such a submarine located at the submarine base. Throughout the duration of the Treaty, the number of such inspections shall not exceed a total of six inspections for all four SSGNs existing at the time of entry into force of the Treaty, and the number of such inspections shall not exceed two inspections for each SSGN.

If either Party decides to convert other ballistic missile submarines to SSGNs, such submarines shall be subject to similar measures, and an additional number of inspections shall be agreed within the framework of the Bilateral Consultation Commission (BCC).

Heavy Bombers Equipped for Non-nuclear Armaments

When the New START Treaty enters into force, it will count less than 206 deployed and non-deployed heavy bombers (47 B-1B, 18 B-2 and 141 B-52), and less than 206 warheads attributed to heavy bombers. The heavy bombers of B-52 type, that were decommissioned and placed at storage bases, shall also be counted by the New Treaty.

After implementing the New START the United States plan to retain no more than 60 heavy bombers, equipped for nuclear armaments, including all 18 B-2s and no more than 42 B-52s.¹⁴ The rest of bombers will be excluded from counting mostly by converting them to heavy bombers equipped for non-nuclear armaments. The new START Treaty does not have limits for heavy

¹³ Protocol to the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. Part 9. Second Agreed Statement.

¹⁴ [Statement of Secretary of Defense Robert M. Gates](#) before the Senate Foreign Relations Committee May 18, 2010

bombers equipped for non-nuclear armaments. It should be emphasized that the New START Treaty does not require irreversibility of conversion, and, in fact, procedures for conversion of nuclear bombers to non-nuclear ones can be chosen by the side that conducts such conversion. It is well known, that during implementation of the previous START Treaty, the U.S. side failed to demonstrate irreversibility of conversion of B1-B heavy bombers to heavy bombers equipped for armaments other than long range nuclear ALCMs.¹⁵ Thus, it is likely that a similar situation might occur in future with respect to conversion of nuclear to non-nuclear heavy bombers.

Moreover, the New Treaty assumes a simplified procedure for excluding B1-B heavy bombers from accounting.¹⁶ Nuclear missions of B1-B bombers were abandoned by the Nuclear Posture Review of 2001.

- No later than one year after entry into force of the Treaty, the United States of America shall conduct a one-time exhibition of a B-1B heavy bomber equipped for non-nuclear armaments to demonstrate that the B-1B heavy bomber is incapable of employing nuclear armaments. The features that distinguish a heavy bomber equipped for nuclear armaments from a heavy bomber equipped for non-nuclear armaments are recorded.
- All B-1B heavy bombers that have been converted prior to the completion of such an exhibition and that have the recorded distinguishing features shall be included in the category of heavy bombers equipped for non-nuclear armaments.

Upon completion of the conversion of the last B-1B heavy bomber to a heavy bomber equipped for non-nuclear armaments, all B-1B bombers will cease to be subject to the Treaty.¹⁷ Since this moment, they can be based or temporary located outside the national territory with no prior notification.¹⁸ Nevertheless, the Russian side shall have a right to inspect conventional B-1B heavy bombers that are located at Dyess or Ellsworth Air Force Bases. Such inspections can be conducted with a purpose to demonstrate that designated B-1B heavy bombers remain incapable of employing nuclear armaments. No more than three B-1B bombers are allowed to be inspected during one inspection. No more than one such inspection may be conducted each year at either Ellsworth Air Force Base or Dyess Air Force Base. Such inspections shall fall within the annual quota for Type Two inspections.

¹⁵ Midykhat Vildanov, [Kamen' za pazukhoy](#), (Harbored Grudge), *Natsional'naya Oborona*, March, 2010

¹⁶ Protocol to the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. Part 9. First Agreed Statement

¹⁷ New START Treaty, Article III, para.7

¹⁸ New START Treaty, Article IV, para.11

The New START Treaty prohibits joint basing of heavy bombers equipped for nuclear armaments and heavy bombers equipped for non-nuclear armaments.¹⁹ However, it allows joint basing of “nuclear” and “non-nuclear” heavy bombers of one type.²⁰ There are no other restrictions on deployments of heavy bombers equipped for non-nuclear armaments, but a party to the Treaty needs to notify the other party, if the bombers are temporarily deployed outside of the national territory.

Heavy bombers equipped for non-nuclear armaments are subject to Type Two inspections, if they are located at air bases, i.e. facilities at which deployed heavy bombers are based and their operation is supported.

Measures Envisaged for Future Types of Strategic Conventional Arms

Conventional ICBMs and SLBMs

The New START Treaty sets the following limits with respect to conventional ICBMs and SLBMs, their launchers and warheads:

- Deployed conventional ICBMs and SLBMs are included in the limit of 700 for deployed ICBMs, deployed SLBMs and deployed heavy bombers.
- Aggregate number of warheads on ICBMs and SLBMs deployed for non-nuclear armaments is included in the limit of 1550 for warheads on deployed ICBMs, deployed SLBMs and nuclear warheads counted for deployed heavy bombers.
- Deployed and non-deployed conventional ICBM and conventional SLBM launchers are included in the limit of 800 for deployed and non-deployed ICBM launchers, deployed and non-deployed SLBM launchers and deployed and non-deployed heavy bombers.

Conventional ICBMs and SLBMs are subject to Type One inspections. The Treaty does not have any restriction on number of warheads used in tests of ICBMs or SLBMs of any types.

Our analysis shows that the text of the Treaty has a loophole allowing unlimited deployment of conventional ICBMs. In particular, definition of a “non-deployed launcher of ICBMs” excludes soft-site launchers. By the Treaty definition “soft-site launcher” means any land-based fixed launcher of ICBMs or SLBMs other than a silo launcher.²¹ At the same time, soft-site launchers of

¹⁹ New START Treaty, Article IV, para.9

²⁰ Protocol to the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. Part 9. Third Agreed Statement

²¹ Protocol to the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. Part 1.

ICBMs are not considered as deployed launchers of ICBMs, thus they are not subject to the Treaty limits. The old START Treaty explicitly prohibited ICBM deployment in soft-site launchers, and this provision eventually became an obstacle for implementing Air Force plans on conventional ICBM deployment.²² The New START Treaty opens such a possibility. If the United States chooses to deploy ICBMs based at soft-site launchers (such options as Vandenberg or Cape Canaveral were considered previously) such launchers would not count against the Treaty limit for deployed and non-deployed launchers. If a soft-site launcher accommodates an ICBM, such a missile would count as non-deployed,²³ and hence, neither the quantity of ICBMs in soft sites, nor the number of warheads deployed on such ICBMs would be limited by the Treaty. If the United States proceeds with deployment plans, the base at which soft-site ICBM launchers are deployed will likely be declared as a test range, so that it will not be subject to inspections.

The New Treaty allows excluding SLBM launchers converted by rendering them incapable of employing SLBMs.²⁴ Currently the United States plan to deploy 240 Trident II SLBMs on 12 submarines,²⁵ so that each submarine would carry 20 deployed launchers for SLBMs. Plans for deployment of armaments in converted launchers for SLBMs have not been clarified yet. One may not exclude a possibility, that converted launchers of SLBMs will accommodate long range SLCMs.

The Russian side will have a right to inspect converted launchers of SLBMs during Type Two inspections with a purpose to confirm that SLBM launchers installed on ballistic missile submarines remain incapable to employ SLBMs.

Other Future Strategic Conventional Arms

As mentioned above, when the para. 2 of the Article V was negotiated, the U.S. side explicitly stated that it would not consider all new kinds of weapon systems of strategic range as “new kinds of strategic offensive arms” subject to the New START Treaty. Thereby it meant that programs developed within the Prompt Global Strike concept would not be limited by the new Treaty.

²² Anatoli Diakov and Eugene Miasnikov, [“Prompt Global Strike” in the US Strategic Forces Development Plans](#), Center for Arms Control, Energy and Environmental Studies at MIPT, Dolgoprudny, September 14, 2007

²³ According to the New START Treaty definitions, non deployed ICBM means an ICBM not contained in a deployed launcher of ICBMs or on a deployed launcher of ICBMs.

²⁴ Protocol to the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. Part 3. Sections 1,4.

²⁵ In addition to twelve submarines with deployed launchers of SLBMs two strategic submarines would be located routinely at repair facilities. Launchers on these two submarines will be counted as non-deployed.

At the time being PGM programs are in the phase of research and development,²⁶ and there is no decision yet on what kind of armaments are going to be deployed. At the same time, one may expect that the New START Treaty will not create obstacles for development or limits for deployment with respect to the following types of future strategic conventional armaments:

- Heavy bombers converted to heavy bombers equipped for non-nuclear armaments, such as conventional ballistic missile of air-to-surface type or conventional long range ALCMs. In particular, the New Treaty will not prohibit deployment of conventional long range ALCMs on B-1B heavy bombers;
- New types of heavy bombers, equipped for non-nuclear armaments, including conventional air-to-surface ballistic missiles and conventional long range ALCMs;
- Military airplanes, other than heavy bombers (with a range less than 8000 km), armed with conventional long range ALCMs;
- Conventional ground based long range cruise missiles (GLSMs) with a range exceeding 5500 km.²⁷

Solving the Problem of Strategic Conventional Arms

It is not difficult to notice, that in the context of current US-Russian relations there is a similarity between the problem of strategic conventional arms and the problem of ballistic missile defenses. The United States justify development of strategic conventional arms, as well as that of missile defenses, by the need to face limited threats from “rogue” states. Russia considers this trend, as well as evolution of missile defenses, as a tendency that threatens survivability of its future strategic forces. Russian concerns grow, because strategic conventional arms are frequently considered in the United States as the first line of the missile defense (“pre-boost-phase defense”) carrying out a task to preventively destroy threatening ballistic missiles of a “rouge” state, or, in any event, substantially lower their attack potential, and by this means increase effectiveness of the following layers of a missile defense system.

The problem of strategic conventional arms may lead the next round of U.S.-Russian negotiations on nuclear reductions to a dead-end. In any event, it is difficult to expect a breakthrough in finding a solution to this problem as long as both sides do not abandon the concept of mutual assured destruction.

²⁶ Current status of PGS programs, in particular, is described in: Eugene Miasnikov, Limiting Counterforce Capability of Precision Guided Weapons, In: Reset of U.S.-Russian Relations in Nuclear Sphere, Ed. by Alexei Arbatov and Vladimir Dvorkin, Carnegie Moscow Center, 2010, in print

²⁷ GLCMs with a range less than 5500 km are prohibited by INF Treaty.

The same is true for the problem of missile defenses. It is interesting that the U.S. side recognizes the need to find a mutually acceptable solution and tries to initiate joint scientific and technical programs on missile defense cooperation with Russia.²⁸ It looks like the United States hope, that success of such programs will strengthen mutual confidence between the sides, so that Russia will stop considering the future U.S. missile defense system as a threat for itself. The United States will likely propose such a dialog on joint missile defense cooperation programs as an alternative to discussion of missile defenses in the context of nuclear weapons reductions, and make an attempt to split the problem of missile defenses from the dialog on strategic offensive arms by moving it into the frame of another dialog focused on missile defense cooperation.

Since approaches of the sides toward the problem of missile defenses differ fundamentally, and previous numerous attempts of cooperation in this field were far from successful, it is difficult to predict a success in the outcome of the current dialog. Even if we assume that the U.S.' approach will allow to find a solution to the problem of missile defenses, a similar approach to the problem of strategic conventional arms is unlikely to work. In addition to apparent similarities between these two problems there are also significant differences.

First of all, in contrast to the dialog on missile defenses, a U.S.-Russian discussion on strategic conventional arms has not even begun yet. By the moment, the official Washington does not see the need for discussion of this particular issue with Moscow.

Second, as the dialog of the two sides on cooperation on missile defenses shows, the issue of orientation of such cooperation is extremely sensitive. Even taking into account that a future joint missile defense system has a defensive nature, the sides are unable yet to find a consensus on what particular threat it is going to face. It is evident, that any attempt to define the source of such a threat will entail substantial political costs for Russia, which does not consider any other state as a "rogue". A hypothetical cooperation in the area of offensive arms would entail even higher costs, and first of all – for Russia.

Finally, it is possible, that there is something in technologies for missile defenses that Moscow can offer to Washington. However, the United States is far superior to Russia in development of precision guided munitions. Existing imbalance will apparently grow with time, since Russia is not capable to make investments in this field that would be comparable in amount with the United States'.

At this time solving the problem of strategic conventional arms seems possible within the frame of a dialog on strategic offensive arms only. An approach

²⁸ Frank A. Rose, [Prospects for U.S.-Russia Missile Defense Cooperation](#), Remarks at the 11th Royal United Services Institute for Defence and Security Studies (RUSI) Missile Defence Conference, London, United Kingdom, May 27, 2010

similar to the one used during negotiations on the New START Treaty might become successful. Russia's primary interest was reduction of the U.S. strategic forces, and the United States first of all wanted transparency of the Russian strategic forces.²⁹ In spite of asymmetry of the interests, the sides succeeded to achieve a compromise. Negotiations on the next round of nuclear arms reductions will likely not be limited only by arms that became a subject of the New START Treaty. Thus a potential compromise can be sought in a broader field. For example, Russia might attempt to achieve substantial benefits for itself in solving the problems of missile defenses and strategic conventional arms, provided that it makes some concessions regarding non-strategic nuclear weapons. Time will show to what extent both sides are prepared for discussing such an agenda.

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²⁹ [Prospects for Strategic Arms Control After 2009](#), presentation by Eugene Miasnikov for students of Moscow Institute of Physics and Technology, October 21, 2009