



New START: A Net Assessment

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Summary

Over a year after the ratification of the New Strategic Arms Reduction Treaty (New START) between the United States and the Russian Federation, the 'reset' between the two countries seems to be in trouble and the next steps on arms control are far from clear.

This briefing paper takes stock of the U.S.-Russia relationship through the lens of New START and its implementation.

It examines the Treaty obligations and verification procedures, placing an emphasis on what has already been achieved in the last 17 months since the Treaty entered into force. It also gives a short overview of the challenges and controversy surrounding New START and concludes with a view of just how important for the U.S. – Russia relationship it is to secure a successful implementation of this Treaty.

Parts I and II of the paper set out the process of New START ratification and define the Central Treaty provisions. They also present data on what the Treaty will mean in practice when fully implemented in 2018. By that point, if all goes

according to plan, the U.S. and Russia will each have the lowest numbers of deployed nuclear weapons since the 1950's: a maximum of 1,550 warheads deployed on 700 delivery vehicles, with a total of no more than 800 deployed and non-deployed ICBM launchers, SLBM launchers, and deployed and non-deployed heavy bombers.

Part III of the paper gives an overview of the Treaty's verification and compliance arrangements considered by many as some of its primary accomplishments. It describes the data exchanges, day-to-day notifications, on-site inspections, exhibitions, and other measures that provide a transparent, accurate and timely understanding, for both sides, of the other's strategic nuclear forces. It also briefly outlines the important work of the Bilateral Consultative Commission (BCC) that forms an integral part of the overall treaty arrangements. The paper argues that such arrangements help to prevent the risk of worst-case thinking, further mistrust, and avoidable misunderstandings proliferating on both sides. They do this by ensuring each side is more confident in what the other is doing.

The data presented **in part IV** focuses on implementation and demonstrates the changes in, and the story behind, the implementation numbers to date. Both parties are slowly moving towards New START's final limits while at the same time domestic circumstances are causing them to re-think the shape and extent of further changes in their nuclear force structures.

A number of themes of both U.S. and Russian concern in relation to New START are addressed in **part V**. The New START counting rules, the method of U.S. implementation of the Treaty's requirements, possible U.S. conversion of some nuclear armed missiles to long range precision-guided conventional roles, and U.S. deployment of ballistic missile defence systems in Europe, are issues considered by some in Russia as potentially undermining to Russian national security interests. As a result, they are being used to justify a failure to engage on other issues, such as non-strategic nuclear weapons. On the U.S. side, concerns in some quarters remain that New START does not count overall warhead stockpiles and gives up a U.S. advantage on strategic nuclear forces without doing anything to address the larger stockpile of Russian non-strategic nuclear weapons.

The paper concludes by presenting arguments in favour of New START's value and argues that it should be viewed as an essential building block for an improved U.S.-Russian relationship. Without New START, uncertainty would cloud each side's understanding of the other's strategic nuclear forces to the detriment of an already unstable relationship. It might be naive to assume that New START is inevitably the start-point of a cooperative process of further reductions. However, without it, the prospects for misunderstandings, further mistrust and tension in the U.S.-Russia relationship would only grow.

I. Introduction

Over the course of the last three years, the United States and the Russian Federation negotiated, signed and ratified the New Strategic Arms Reduction Treaty (New START).¹ This Treaty was intended to replace the 1991 Strategic Arms Reduction Treaty (START)², which expired on 5 December 2009, after 15 years of implementation. New START also superseded the Strategic Offensive Reductions Treaty (SORT)³, known as the Moscow Treaty, which was signed in 2002 and was due to expire at the end of December 2012.

New START was designed to promote stability and nuclear security through a managed reduction in U.S. and Russian strategic nuclear arsenals below the levels agreed in the START and SORT treaties. It was also devised to provide a monitoring and verification regime that would give each side confidence in what the other was doing.

The Treaty⁴ has been widely welcomed, especially by those who believe it signals renewed cooperation between the two signatory nations. It has also been seen as a stepping stone to further nuclear weapons reductions by the two nations that still control more than 95 per cent of the world's nuclear weapons.

The Treaty has been criticised however, both in the United States and Russia, for what are described as very modest reductions in weapons numbers; for the less than straight-forward nature of the Treaty's counting rules; and for the issues, such as non-strategic and non-deployed nuclear weapons, and ballistic missile defence deployments, that are not covered by the Treaty provisions at all.

This short ELN briefing paper sets out the key elements of the Treaty and its verification regime. It then goes on to provide an account of the steps already taken by the signatories to implement it, describes some of the controversy surrounding it, and concludes with an assessment of the value added by New START both to the U.S.–Russia bilateral relationship and to wider attempts to kick-start multilateral nuclear disarmament.

¹ The treaty is formally titled the Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms. The complete text of the Treaty can be found at: <<http://www.state.gov/documents/organization/140035.pdf>>; its Protocol and Annexes are available at: <<http://www.state.gov/documents/organization/140047.pdf>>.

² For a brief summary of the original START Treaty see Amy Woolf, "Strategic Arms Control after START: Issues and Options", CRS Report R40084, March 2010.

³ For more information about SORT see the U.S. State Department website available at: <<http://www.state.gov/t/isn/10527.htm>>.

⁴ For convenience, the New Strategic Arms Reduction Treaty or New START will be referred to as the Treaty throughout this briefing paper.

II. Entry into Force and the Central Treaty Provisions

On 8 April 2010, former Russian President Dmitry Medvedev and his U.S. counterpart President Barack Obama signed New START in Prague. On 5 February 2011, under the auspices of the 47th Munich Security Conference, Secretary Hillary Clinton and Foreign Minister Sergey Lavrov exchanged the instruments of ratification which brought the Treaty into force.⁵

New START contained a number of commitments, obligations and procedures. The Treaty limits each country's nuclear arsenal to:

- No more than 1,550 deployed strategic warheads.⁶
- An aggregate total of 700 deployed Inter-Continental Ballistic Missiles (ICBMs), Sea-Launched Ballistic Missiles (SLBMs) and heavy bombers.⁷
- No more than 800 deployed and non-deployed ICBM launchers, deployed and non-deployed SLBM launchers, and deployed and non-deployed heavy bombers.⁸

Under the New START counting rules, the number of warheads counted is the actual number of reentry vehicles⁹ emplaced on each deployed ICBM and SLBM. For nuclear-capable heavy bombers, the two sides have agreed

⁵ For more information on the act of ratification and exchange of instruments of ratification, see the Foreign and Commonwealth Office website at: <http://www.fco.gov.uk/en/publications-and-documents/treaties/practice-procedures/instruments-ratification>.

⁶ Deployed warheads include the actual number of warheads carried by deployed ICBMs and SLBMs, and one warhead for each deployed heavy bomber equipped for nuclear armaments. Definition available on page 2 at: <http://www.fas.org/sgp/crs/nuke/R41219.pdf>.

⁷ A deployed ICBM or SLBM is one that is contained in a deployed launcher. The term "deployed heavy bomber" means a heavy bomber equipped for nuclear armaments, other than a test heavy bomber or a heavy bomber located at a repair facility or at a production facility.

⁸ According to New START's Protocol a deployed ICBM launcher is "an ICBM launcher that contains an ICBM and is not an ICBM test launcher, an ICBM training launcher, or an ICBM launcher located at a space launch facility." A deployed SLBM launcher is a launcher installed on an operational submarine that contains an SLBM and is not intended for testing or training. A deployed mobile launcher of ICBMs is one that contains an ICBM and is not a mobile test launcher or a mobile launcher of ICBMs located at a space launch facility. Non-deployed launchers are, therefore, those that are used for testing or training, those that are located at space launch facilities, or those that are located at deployment areas or on submarines but do not contain a deployed ICBM or SLBM. More information available on page 6: <http://www.state.gov/documents/organization/140047.pdf>.

⁹ The term 'reentry vehicle' applies to the part of the front section of a missile which protects the warhead as it re-enters the Earth's atmosphere and that is designed for delivering a weapon to a target or for testing such a delivery.

to apply a "one bomber - one warhead" attribution rule.¹⁰ In other words, and primarily because the bombers could in theory be carrying more than one warhead, the warhead limit allowed by the Treaty may not in practice be the actual number of warheads deployed.¹¹

New START gives each side complete 'freedom to mix' within the Treaty ceilings or, to put it another way, the ability to choose its own force structure of ICBMs, SLBMs and nuclear capable bombers provided the total combined force stays within the overall limits.¹²

The parties must, however, meet the central limits within seven years after the Treaty enters into force, establishing 5 February 2018 as the official deadline for full implementation. The duration of the agreement is 10 years with an option to extend for up to 5 years, if both sides agree.

¹⁰ For the purposes of this Treaty, the term 'warhead' is used as a unit, not a physical item, applied for counting towards the 1,550 aggregate limit established by the Treaty. The term represents the declared number of reentry vehicles emplaced on deployed ICBMs and deployed SLBMs, and the one nuclear warhead attributed to each deployed heavy bomber. Glossary of terms in the New START Treaty is available at: <http://dpc.senate.gov/dpcdoc.cfm?doc_name=fs-111-2-186>.

¹¹ Further analyses on New START's counting rules are available on page 12 of this paper. See also Ivan Oelrich and Hans Kristensen, "New START Treaty Reduces Limit for Strategic Warheads but Not Number", 2010, available at: <<http://www.fas.org/blog/sis/2010/08/18/new-start-treaty-reduces-limit-for-strategic-warheads-but-not-number/>> and James E. Doyle, "U.S. – Russia Nuclear Arms Reductions The Next Round", 25 June 2012, available at: <<http://www.fas.org/blog/pir/2012/06/25/u-s-russia-nuclear-arms-reductions-the-next-round/>>.

¹² Steven Pifer, "Good News for U.S. Security", Arms Control Today, May 2010 available at: <<http://www.armscontrol.org/print/4209>>.

III. Verification and Compliance Arrangements

The Treaty has a verification regime made up of several elements. These include the use of national technical means (NTMs), unique identifiers (UIDs), telemetric information sharing, data exchanges and notifications, as well as on-site inspections and exhibitions related to the strategic offensive arms and facilities covered by the Treaty. Each of these is briefly set out below.

National Technical Means

This refers to satellites and other technical methods which are used to monitor compliance. Each party is required not to interfere with the national technical means of verification of the other party.¹³

Unique Identifiers

Each U.S. and Russian ICBM, SLBM, and heavy bomber is assigned a unique identifier to allow both nations to track these items through their lifecycle. The term “unique identifier or UID means a non-repeating alphanumeric number that has been applied by the inspected Party to an ICBM, SLBM, or heavy bomber.”¹⁴

Telemetric Data-Sharing

In order to enhance openness and transparency, the parties have agreed to share telemetric information on up to five launches of ICBMs and SLBMs each calendar year. Telemetric data relates to ICBM and SLBM flight testing data collected by both the U.S. and Russia. The data includes specific technical parameters of the missiles including missile acceleration rates, temperatures, and stage separation times and is broadcast from the missile during its flight. This information is captured by ground- or sea-based receivers.¹⁵ The collected data is then examined in order to evaluate the functioning of the missile system.¹⁶ Sharing some of this information increases transparency and gives each side greater understanding of the technical capabilities of the missiles possessed by the other.

Data Exchanges

New START also mandates that both parties maintain an extensive database which describes the numbers, technical characteristics and some

¹³ See “The New START Treaty”, Bureau of Arms Control, Verification and Compliance, U.S. Department of State, 20 October 2011, available at: <<http://www.state.gov/t/avc/rls/175945.htm>>.

¹⁴ Full definition available at: <<http://www.state.gov/documents/organization/140047.pdf>>.

¹⁵ See “New START Treaty and Telemetry”, Bureau of Verification, Compliance, and Implementation, Fact Sheet, 8 April 2010 available at: <<http://www.smdc.army.mil/2008/NST/NewSTARTTreatyandTelemetry.pdf>>.

¹⁶ Ibid.

locational information on the items limited by the Treaty. The parties are expected to exchange this data every six months.

In addition, the parties are required to share information on the locations of non-deployed delivery vehicles listed in the database as well as to notify each other when they move these systems. Even though New START does not limit the number of non-deployed ICBMs and SLBMs, it does require that these missiles are placed at facilities which hold and support ICBMs and SLBMs.¹⁷ In other words, non-deployed missiles must be located at specified facilities away from deployment sites and labelled with “unique identifiers” to reduce concerns about hidden missile stocks.¹⁸

Such rules are applied so that each side can keep track of the numbers and locations of non-deployed missiles and to discourage efforts to accumulate large numbers of missiles not counted by the Treaty. Overall, New START data exchanges are aimed at providing each party with a detailed picture of the other’s strategic nuclear forces.¹⁹

Notifications

In order to foster further transparency and to sustain an atmosphere of predictability and stability, the two countries have further agreed to provide day-to-day notifications regarding the operations of their strategic forces. On this basis, the U.S. and Russia regularly receive a full accounting of where weapons systems are located, whether they are outside their normal deployment areas, operational bases, undergoing maintenance or have been retired.²⁰

On-site Inspections

On-site inspections provide further supplementary information to each party. They offer first-hand information gathered about each side’s strategic arsenals to confirm the validity of the exchanged data, thus ensuring compliance with the Treaty obligations. They can occur at facilities where

¹⁷ These facilities include submarine basis, ICBM or SLBM loading facilities, maintenance facilities, repair or storage facilities, conversion or elimination facilities for ICBMs and SLBMs, test ranges, space launch facilities, and production facilities. Non-deployed ICBMs and SLBMs may also be in transit between these facilities for the allowed period of up to 30 days. More information available at: Amy F. Woolf, “The New START Treaty: Central Limits and Key Provisions”, Congressional Research Service, 23 December 2011, page 3.

¹⁸ Tom Z Collina, “New START at a Glance”, Arms Control Association, June 2011, available at: <<http://www.armscontrol.org/factsheets/NewSTART>>.

¹⁹ Amy F. Woolf, “The New START Treaty: Central Limits and Key Provisions”, Congressional Research Service, 23 December 2011, page 3 and page 4.

²⁰ *Global Security Newswire*, “New START Implementation Proceeding ‘Smoothly’: U.S.,” 02 August 2011, available at <http://gsn.nti.org/gsn/nw_20110802_2741.php>.

both deployed and non-deployed launchers and missiles are placed. Inspections are conducted on a random basis and at short notice.²¹

The right to begin conducting on-site inspections began 60 days after the Treaty's entry into force. During the time between the exchange of the instruments of ratification in February 2011 and the first on-site inspections in April 2011, the U.S. and Russia exchanged lists of inspectors' names and provided visas for them to smooth the inspection process.

The on-site inspections themselves fall into two categories.

Type one inspections are designed to take place in ICBM bases, submarine bases, and air bases that are hosting deployed or non-deployed launchers, missiles, and bombers. The parties are expected to use these inspections "to confirm the accuracy of declared data on the numbers and types of deployed and non-deployed strategic offensive arms subject to New START".²² Among other things, during Type One inspections, the parties are able to verify:

- the number of warheads positioned on deployed ICBMs at the inspected ICBM base;
- the number of deployed ICBMs of each type stored at the base;
- the number of deployed ICBM launchers at the base;
- the aggregate number of warheads on deployed SLBMs contained in SLBM launchers installed on ballistic missile submarines stationed at the base; and
- the number of nuclear armaments located on deployed heavy bombers as well as the numbers of heavy bombers of each type at the inspected air base.

The Treaty states that each side can conduct 10 Type One inspections each year with no more than two facilities being inspected twice a year.²³

Type Two inspections cover sites that contain non-deployed or converted launchers²⁴ and missiles. These include "ICBM loading facilities; SLBM

²¹ Amy F. Woolf, "The New START Treaty: Central Limits and Key Provisions", Congressional Research Service, 23 December 2011, page 22, available at: <<http://www.fas.org/sgp/crs/nuke/R41201.pdf>>.

²² Ibid.

²³ For these and other details on the New START Treaty as a whole see the protocols to the Treaty, available at: <<http://www.state.gov/documents/organization/140047.pdf>>.

²⁴ A converted launcher is a launcher which can no longer carry nuclear armaments: "If an ICBM launcher or SLBM launcher is converted to a launcher of ICBMs or a launcher of SLBMs of another type, it shall be considered to be a launcher of ICBMs or a launcher of SLBMs of the type to which it was converted. If an ICBM launcher, SLBM launcher, or heavy bomber is converted by rendering it incapable of employing ICBMs, SLBMs, or nuclear armaments, so that the other party can confirm the results of the conversion, such a converted strategic offensive arm shall cease to be subject to the aggregate numbers provided for in Article II of the Treaty and may be used for purposes not

loading facilities; storage facilities for ICBMs, SLBMs, and mobile launchers of ICBMs; repair facilities for ICBMs, SLBMs, and mobile launchers of ICBMs; test ranges; and training facilities.”²⁵ The Treaty states that each side can execute up to 8 Type Two inspections each year.²⁶

Overall, with the two different types of inspections, the United States and Russia are each able to perform 18 random, short-notice inspections per side per year.

Exhibitions

Finally, the Treaty contains provisions for what are known as exhibitions. These involve each party displaying its forces while allowing the other to confirm the information shared in the previous data exchanges. Such exhibitions are “carried out at the invitation of the party conducting the exhibition, separately from inspections, at the locations and in the periods of time chosen by the party conducting the exhibition.”²⁷ Exhibitions are as important as inspections as they allow each side the opportunity to view and understand the characteristics and distinguishing features of weapons systems in use by the other. This information increases understanding of the capabilities of weapons limited by the Treaty and further increases the level of openness and transparency being provided by each state to the other.²⁸

Compliance

Beyond this mix of individual verification procedures and techniques, the Treaty also established a Bilateral Consultative Commission (BCC) as its compliance and implementation body. It is expected to meet twice a year and has the authority to resolve questions relating to compliance. The parties are authorised to use the BCC to reach agreement on any changes to the Protocol to the Treaty, including its Annexes, but only if these changes do not affect substantive rights or obligations contained in the Treaty.²⁹

inconsistent with the Treaty.” More information available on page 90 at:
<<http://www.state.gov/documents/organization/140047.pdf>>.

²⁵ Amy Woolf, “Monitoring and Verification in Arms Control”, Congressional Research Service, page 22, 23 December 2011.

²⁶ Ibid, page 22.

²⁷ Ibid, page 23, quoting from the Protocol to the Treaty.

²⁸ Ibid, page 23.

²⁹ Amy Woolf, “The New START Treaty: Central Limits and Key Provisions”, Congressional Research Service, page 30, 14 February 2012.

IV. Implementation to Date

The Data Exchanges and the Story Behind the Numbers

To date, the U.S. and Russia have conducted three comprehensive data exchanges regarding their strategic nuclear forces. The first of these contained data as at February 2011, the second at September 2011 and the third at March 2012. The results are presented in Table 1 below.

Table 1

Date	United States				Russian Federation				New START Limits
	Feb 2011	Sept 2011	Mar 2012	Change since Feb 2011	Feb 2011	Sept 2011	Mar 2012	Change since Feb 2011	
Warheads on Deployed ICBMs, on Deployed SLBMs, and Nuclear Warheads Counted for Deployed Heavy Bombers	1800	1790	1737	-63	1537	1566	1492	-45	1550
Deployed ICBMs, Deployed SLBMs, and Deployed Heavy Bombers	882	822	812	-70	521	516	494	-27	700
Deployed and Non-deployed Launchers of ICBMs, Deployed and Non-deployed Launchers of SLBMs, and Deployed and Non-deployed Heavy Bombers	1124	1043	1040	-84	865	871	881	+16	800

All data drawn from the U.S. Department of State, Bureau of Arms Control, Verification and Compliance Fact Sheets published in June 2011, October 2011 and April 2012³⁰

The data in the table highlights a number of points in particular. The first is that as of September 2011, Russia had 1,566 deployed strategic warheads and 871 deployed and non-deployed launchers, meaning that in both these categories Russia was already very close to the final limits envisaged by the Treaty only six months after its entry into force. On deployed strategic delivery vehicles moreover, with 516 in September 2011, Russia had

³⁰ More information on New START Fact Sheets available at: <http://www.state.gov/t/avc/newstart/c39906.htm>.

reduced its numbers only marginally since February 2011 but was already well below the final limits on deployed strategic delivery vehicles written into the Treaty.³¹ Since then, and by March 2012 it had reduced its number of deployed delivery vehicles further to just 494.

These figures are partly explained by the fact that Moscow is retiring older missiles faster than it is adding new ones. According to Russian arms control specialist and State Duma member Alexei Arbatov, Russia could see its forces reduced even further over the next decade, possibly to as low as 350 - 400 deployed delivery vehicles and 1,000 - 1,100 New START-accountable warheads.³²

That said, newly re-elected President Putin has been at pains recently to stress that the rate of Russian missile production will increase in the future. On 21 February 2012, he announced that the government plans on spending about 23 trillion rubles, the equivalent of U.S. \$ 768.46 billion in the next ten years to modernise Russia's armed forces. The money will be allocated to the Russian Armament Program for 2011-2020 and around 10 per cent of this amount – U.S. \$70 billion - will be put aside for modernising the strategic nuclear triad.³³

Moreover, a further plan to develop around eight Project 955 or Borey class strategic nuclear submarines (SSBNs) armed with Bulava missiles is being confirmed.³⁴ Additional plans also will include the development of over 170 Topol-Ms, as well as 30 SS-19 and 108 RS-24 road mobile missiles, according to comments made recently by Strategic Missile Force Commander, Lt. Gen. Sergei Karakayev.³⁵

This and other elements of the nuclear force modernisation program will mean the percentage share of Russia's Strategic Missile Force composed of new weaponry and delivery systems will increase from the current 30 per cent to about 97 per cent by 2020 – assuming this plan is fully funded and implemented.³⁶

The figures in Table 1 on the United States show that between February 2011 and March 2012 the U.S. reduced its deployed strategic warheads from 1,800 to 1,737, deployed strategic delivery vehicles from 882 to 812,

³¹ U.S. Department of State, "New START Treaty", Bureau of Arms Control, Verification and Compliance, 20 October 2011, available at: <<http://www.state.gov/t/avc/rls/175945.htm>>.

³² Referenced in Kingston Reif, "New START: One year later", Bulletin of the Atomic Scientists, 02 February 2012, available at: <<http://www.thebulletin.org/web-edition/columnists/kingston-reif/new-start-one-year-later>>.

³³ *Foreign Policy*, "Being Strong: Why Russia needs to rebuild its military", by Vladimir Putin, 21 February 2012 available at: <http://www.foreignpolicy.com/articles/2012/02/21/being_strong>.

³⁴ Pavel Podvig, "Russia to Spend \$70 billion on strategic forces by 2020," available at: <http://russianforces.org/blog/2011/02/russia_to_spend_70_billion_on.shtml>.

³⁵ *Ria Novosti*, "Russia to Revamp Ballistic Missile Arsenal by 2020", 22 February 2012.

³⁶ *Ibid.*

and deployed and non-deployed launchers from 1,124 to 1,040. In order to reach the final New START limits in 2018, the United States will need to reduce its nuclear force by a further 187 warheads, 112 deployed delivery vehicles, and a further 240 deployed and non-deployed launchers from the March 2012 figures.

According to Kingston Reif from the Bulletin of Atomic Scientists, the Pentagon initially planned to meet the Treaty limits of 700 deployed strategic delivery vehicles by deploying a robust triad of 240 submarine-launched ballistic missiles, no more than 420 intercontinental ballistic missiles, and no more than 60 nuclear-capable bombers.³⁷ However, a current strategic policy review in Washington may yet affect these calculations.

The Nuclear Posture Review Implementation Study is reportedly in the final stages, and the findings are expected to be with the President soon. To what extent the results of the Review will be made public is unknown. The new analysis is expected to influence the shape and extent of further cuts in the U.S. nuclear force structure and therefore to influence the speed and nature of U.S. compliance with the requirements of New START.³⁸ Pentagon officials have compiled several options for the President, ranging from an arsenal that remains at New START levels to one with 300 to 400 warheads. However, it has been made clear that this internal review is still under way and that no firm decisions have been made.³⁹

The cost of maintaining a large nuclear arsenal through a period of major reductions in planned defence expenditure is an important consideration.⁴⁰ President Obama's fiscal year 2013 budget, released in February 2012, called for cuts of some U.S. \$487 billion from the Defense Department budget, and some analysts believe that in this context, the U.S. Air Force might go down to less than 40 nuclear-capable bombers, in which case, it is not clear that a viable bomber leg of the triad could be sustained.⁴¹

Implementation beyond Data Exchanges

Beyond the data exchanges and the story behind the numbers, since February 2011, the U.S. and Russia have exchanged over 2,500

³⁷ Kingston Reif, "New START: One year later", Bulletin of the Atomic Scientists, 02 February 2012.

³⁸ Tom Z. Collina and Daryl G. Kimball, "Time to Rethink and Reduce Nuclear Weapons Spending", Arms Control Association, Volume 2, Issue 16, December 2011 available at: <<http://www.armscontrol.org/issuebriefs/Time-to-Rethink-and-Reduce-Nuclear-Weapons-Spending>>.

³⁹ Tom Z. Collina, "Former STRATCOM Head Calls for Cuts", Arms Control Association, June 2012, available at: <http://www.armscontrol.org/act/2012_06/Former_STRATCOM_Head_Calls_for_Cuts>.

⁴⁰ Steven Pifer, "After New START: What Next?" Arms Control Association, December 2010, available at <http://www.armscontrol.org/act/2010_12/%20Pifer>.

⁴¹ Tom Z. Collina, "Former STRATCOM Head Calls for Cuts", Arms Control Association, June 2012, available at: <http://www.armscontrol.org/act/2012_06/Former_STRATCOM_Head_Calls_for_Cuts>.

notifications regarding nuclear-weapon transfers, test-firings and other information, according to Rose Gottemoeller, Acting U.S. Under Secretary for Arms Control and International Security.⁴²

In 2011, the U.S. conducted all of the allowed 18 annual on-site inspections in Russia and the Russians carried out 18 inspections in the U.S. In 2012, the parties have each conducted 5 inspections so far. According to the State Department, "all these inspections have taken place at ICBM, SLBM, and heavy bomber bases; storage facilities; conversion or elimination facilities; and test ranges".⁴³

Both nations have already completed four Treaty - required exhibitions of other strategic systems. For instance, Russia conducted an exhibition of the RS-24 road-mobile ICBM and its associated launcher in 2011, and the U.S. exhibited the B-2A bomber and nuclear powered submarine equipped with cruise missiles (SSGN) in early April 2011. An exhibition of the converted U.S. B-1B bomber took place on 18 March 2011 confirming that it is no longer capable of employing nuclear armaments.⁴⁴

The first Bilateral Consultative Commission meeting took place in April 2011 and the second in October 2011. During its third session held in Geneva from 24 January – 7 February 2012, the BCC decided that in 2012 the two sides would exchange telemetric information held on one launch of an ICBM or SLBM conducted by each party during the months between February – December 2011.⁴⁵ Telemetric information was subsequently exchanged among the parties on 6 April, 2012.⁴⁶ To date, both parties have also conducted demonstrations of telemetric information playback equipment and recording media to be used during telemetry exchanges.

⁴² Rose Gottemoeller, "New START Implementation", Statement before the Senate Foreign Relations Committee, 21 June 2012, available at:

<http://www.foreign.senate.gov/imo/media/doc/REVISED_Gottemoeller_Testimony.pdf>.

⁴³ Kingston Reif, "New START: One Year Later", 02 February 2012 available at <<http://thebulletin.org/web-edition/columnists/kingston-reif/new-start-one-year-later>>.

⁴⁴ U.S. State Department, "New START Treaty Implementation Update", Fact Sheet, Bureau of Arms Control, Verification and Compliance, 17 May 2012, available at: <<http://www.state.gov/t/avc/rls/183335.htm>>.

⁴⁵ Mission of the United States Geneva, "U.S. and Russia sign agreements on telemetric data related to New START Treaty implementation", 07 February 2012, see: <<http://geneva.usmission.gov/2012/02/08/bcc-session/>>.

⁴⁶ U.S. Department of State, "The New START Treaty Implementation", 15 May 2012 available at: <<http://m.state.gov/md189861.htm>>.

V. Issues of Controversy Surrounding New START

Despite the reductions already underway, and the extensive verification regime in place, New START has had its detractors. Two decades of declarations to the effect that the Cold War is over and that we have entered a new era of cooperative U.S.-Russian relations cannot mask the fact that a considerable degree of mistrust remains on both sides. This mistrust is affecting the debate on whether New START is a good or effective treaty.

Russian Concerns

To take concerns expressed by some on the Russian side first, these can be said to center on issues related to New START counting rules, the U.S. consideration of conversion of some nuclear armed missiles to long range, precision guided conventional roles and U.S. deployment of ballistic missile defence. Each of these is dealt with in turn below.

One of the most important limitations of the Treaty is that it counts only those warheads that are actually deployed on missiles and not those warheads that are held in reserve. Under the **New START counting rules**, all heavy bombers are counted as carrying only one warhead despite their ability in practice to carry between 8 to 20 nuclear warheads. This, critics argue, means the actual number of warheads deployed may be higher at any one time than is actually assigned by the counting regime.⁴⁷

The fact that only deployed warheads are counted has been a major point of criticism by many advocates of nuclear disarmament but it also feeds a specific Russian concern over just how quickly the United States might be able to redeploy warheads held in reserve.

The reasoning here is connected to the way in which the United States is implementing the Treaty on the one hand, and the limitations in how Russia might be able to respond on the other. To be more specific, the U.S. is leaving single warheads on missiles designed to carry multiple warheads while leaving the missiles themselves on deployment. This means that, even within the Treaty limits, the U.S. has the capacity to quickly 'upload'⁴⁸ warheads to missiles at some point in the future if it chooses to do so.⁴⁹

In contrast, the lack of Russian capacity to replace old missiles quickly, together with the fact that new missiles are already being introduced with

⁴⁷ For more information on New START counting mechanism for heavy bombers as carrying only one warhead each see Steven Pifer, "New START and U.S. National Security", Brookings, 27 July 2011, available at http://www.brookings.edu/testimony/2010/0727_new_start_pifer.aspx.

⁴⁸ This means the downloaded warheads could be returned to deployed missiles.

⁴⁹ For more information on the counting rules of nuclear warheads and the U.S. plans for the future of the U.S. ICBM and SLBM force, see Ian Kearns, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", BASIC Trident Commission, Discussion paper 1, November 2011, page 7, available at: <http://www.basicint.org/sites/default/files/commission-briefing1.pdf>.

their full complement of warheads in place, means the Russians have no similar upload potential, at least for the foreseeable future.

Some in Russia are concerned that the U.S. is deliberately implementing New START in this way because it wants to protect itself against a sudden surge in the size of the Chinese nuclear arsenal. But whatever the reason, it is clear that at some point in the future, the U.S. could in theory withdraw from the Treaty, 'upload' thousands of additional warheads to missiles, and, so the reasoning goes, gain a real strategic nuclear advantage over Russia.

While few are seriously worried that the U.S. would ever try to use this advantage by launching a first strike against Russian nuclear forces, the fear that such a nuclear advantage would alter the correlation of forces and allow Russia to be pressured into wider concessions on the international agenda against its interests is a real one.

A further dimension of concern on the Russian side is the **development of long-range, conventionally armed U.S. weapons**. This has been a feature of the debate because the U.S. had considered converting some strategic nuclear missiles into strategic long-range conventional weapons with precision guidance systems although Congress has evidenced great scepticism in such a program and there is currently no money and no program to do so; the U.S. is not considering other non-ICBM/SLBM "prompt-strike" options.⁵⁰ Theoretically, if it were to happen this could strengthen U.S. decapitating first strike or counter-force potential but again, in practice, the real concern is perhaps that the trend could reinforce the overall U.S. military advantage to the detriment of Russia's wider political and economic interests.

Turning to **ballistic missile defence** (BMD), when New START was signed, no limits on testing, development or deployment of current or planned missile defence systems (nor on conventional strike capabilities) on either side were provided by the Treaty. However, ballistic missile defence is the most divisive issue in U.S. – Russia ties today and has the potential to undermine New START if the disagreement persists or is allowed to escalate.

At NATO's 2010 summit in Lisbon, Russia and NATO agreed in principle to pursue missile defence cooperation. At that time, there were expectations that the two sides might come to an agreement by the time of the NATO Summit in Chicago in May 2012. Since then however, the dialogue has stalled and appears to be poisoning the wider NATO-Russia relationship.

⁵⁰ Elaine M. Grossman, "Pentagon Unveils New Plan for Conventional Submarine-Based Ballistic Missiles", 27 January 2012, Global Security Newswire, available at: <<http://www.nti.org/gsn/article/pentagon-unveils-new-plan-conventional-submarine-based-ballistic-missiles/>>, and Amy Woolf, "Conventional Prompt Global Strike and Long Range Ballistic Missiles: Background and Issues", 6 July 2012, available at: <<http://www.fas.org/sgp/crs/nuke/R41464.pdf>>.

In recent months, the talks have foundered over Russia's request for a legally binding assurance that any BMD system deployed by NATO in Europe will not be aimed at Russia's strategic nuclear forces. The Obama administration and NATO have offered to provide political guarantees but have made clear they will not issue a legally binding document. This is essentially because such a document would not get past the U.S. Senate. Therefore, Washington has offered instead to allow Russian specialists to observe one or more U.S. missile interceptor tests to verify the systems do not have the ability to threaten Russia's long-range missiles.⁵¹ The U.S. administration has also announced that it is considering transferring some antimissile data to Russia.⁵² However, in an interview with *RIA Novosti* on 21 March 2012, Russia's Deputy Foreign Minister Sergey Ryabkov asserted that the U.S. has not yet disclosed any such missile defence data.⁵³

At the same time, bilateral agreements between the U.S. and Poland, Romania, Spain and Turkey on hosting NATO missile shield components have gone forward, significantly increasing Russian unease and further clouding the relationship between Russia and the U.S./NATO.

Washington's intention is to station advanced sea-and land-based missile interceptors around Europe in several phases up to 2020. The first phase providing "interim capability" to NATO with Standard Missile-3 (SM-3) interceptors on Aegis ships and a tracking radar in Turkey, was declared operational at the Chicago Summit.⁵⁴ Later planned phases include the stationing of land-based SM-3s of increasing capability and number in Romania (2015) and Poland (2018) and the 2020 deployment of the SM-3 IIB⁵⁵, which is advertised to have some capability against long-range ballistic missiles.⁵⁶

⁵¹ *Global Security Newswire*, "Russia Does Not See Deal on NATO Missile Shield Before 2012 Summit", 31 October 2011, available at <<http://www.nti.org/gsn/article/russia-does-not-see-deal-on-nato-missile-shield-before-2012-summit/>>.

⁵² *Global Security Newswire*, "U.S. Considering Antimissile Data Transfer to Russia, Pentagon Says", 14 March 2012, available at <<http://www.nti.rsvp1.com/gsn/article/us-seriously-considering-antimissile-data-transfer-russia-pentagon-says/?mgh=http%3A%2F%2Fwww.nti.org&mgf=1>>.

⁵³ *Ria Novosti*, "U.S. Never Disclosed Missile Defence Data to Russia", 21 March 2012 available at: <<http://en.ria.ru/world/20120321/172294252.html>>.

⁵⁴ According to a May 20 White House summary, "interim capability" means that, in a crisis, NATO could assume operational command of the U.S. missile interceptor system in Europe, currently composed of an Aegis-equipped ship with Standard Missile-3 (SM-3) IA interceptors in the Mediterranean Sea, an AN/TPY-2 radar in Turkey, and a command and control center in Germany. More information on the future phases available at: Tom Collina, "NATO Fields Interceptors Without Russia:

<http://www.armscontrol.org/act/2012_06/NATO_Fields_Interceptors_Without_Russia?>.

⁵⁵ The SM-3 Block IIB is a hit-to-kill interceptor using the force of a direct collision to destroy its target. It could be launched from the Aegis Ashore weapon system (a land-based version of the Navy's Aegis Ballistic Missile Defence system). Read more here:

All of this is relevant for New START because of the historical link between offensive and defensive systems. Russia fears that future U.S. strategic missile interceptor deployments could eventually grow powerful enough to intercept Russian missiles, thus undermining its nuclear retaliatory capability. In particular, Russian policy-makers are concerned that they can get no statement out of the U.S. on what the maximum number of missile interceptors deployed is likely to be.

On 23 November 2011, then President Medvedev warned in this context that Moscow may have to opt out of New START and halt other arms control talks, if the U.S. proceeded with the missile shield without acknowledging Russia's concerns.⁵⁷

More recently, speaking in the Russian State Duma, in March 2012, Russian Foreign Minister Sergey Lavrov stressed that both U.S./NATO and Russia still have an opportunity to develop a common security project in the European-Atlantic region but only if the U.S. showed more consideration for Russia's national interests.⁵⁸ In a press conference after the NATO-Russia Council Meeting in Brussels on 19 April 2012, he also used former U.S. President Ronald Reagan's famous 1987 dictum, "trust but verify" in relation to what NATO is doing with regard to BMD deployments.⁵⁹

Even allowing for some possible brinkmanship, it seems clear that the United States and Russia will have to come to some arrangement on ballistic missile defence if the momentum on nuclear reductions and arms control represented by New START is to be maintained and further built upon.

U.S. Concerns

On the U.S. side, the concerns expressed about New START have been of a different kind. Some members of the Senate, led by Senator Jon Kyl of Arizona and Senator Mitch McConnell of Kentucky, have raised fears about

<<http://www.defencetalk.com/sm-3-block-iib-development-program-33372/#ixzz1t8IDCubX>>.

⁵⁶ Tom Z. Collina, "U.S. – Russia Missile Defence Talks Deadlock", *Arms Control Today*, January/February 2012 available at: <http://www.armscontrol.org/act/2012_01-02/US_Russia_Missile_Defense_Talks_Deadlock>.

⁵⁷ BBC News Europe, "Russia in Europe Missile Threat", 23 November 2012, available at: <<http://www.bbc.co.uk/news/world-europe-15857431>>.

⁵⁸ *The Voice of Russia*, "Missile Defence as Indicator of 'Resetting'", 14 March 2012, available at: <http://english.ruvr.ru/2012_03_14/68444955/>.

⁵⁹ RT, "Russia on AMD: Words not enough", 19 April 2012, available at:

<http://rt.com/politics/nato-lavrov-nuclear-defense-460/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+ppp-csis-readings+%28Essential+Readings+Part+of+the%3A++Proliferation+Prevention+Program%29>.

the Treaty's failure to address Russia's non-strategic or "tactical" nuclear weapons (TNWs)⁶⁰ in particular.

The issue of TNWs is sensitive in the United States because while Russia has an estimated inventory of roughly 2,000 such weapons, the United States currently has an inventory of only around 760 warheads including B61-3, B-61-4 and B61-10 gravity bombs. Of these, 150-200 bombs are deployed in five European NATO countries – Italy, Turkey, the Netherlands, Germany and Belgium.⁶¹

In a statement about New START presented to the U.S. Senate in February 2012, consistent with the U.S. Senate Resolution of Ratification to New START in December 2010, President Obama has stressed that "the United States will seek to initiate, following consultations with NATO Allies but not later than one year after New START entry into force, negotiations with Russia on an agreement to address the disparity between the [TNW] stockpiles of Russia and the U.S. and to secure and reduce TNW in a verifiable manner".⁶² In any future negotiated reductions, the Obama Administration is expected to seek Russian agreement to increase transparency on tactical nuclear weapons in Europe, to relocate these weapons away from the territory of NATO members, and to include tactical nuclear weapons in the next round of U.S.-Russian arms control discussions in conjunction with strategic and non-deployed nuclear weapons.⁶³

Uncertainty surrounds TNWs today because neither the U.S. nor Russia have provided detailed information about their stockpiles and no bilateral transparency and verification measures have been implemented in relation to this category of weapons. Thus, it is unclear how many tactical nuclear weapons of different types exist, what eliminations of these weapons have previously taken place, and how safe and secure the remaining weapons are against acts of theft, terrorism or misuse.⁶⁴ What is clear from the

⁶⁰ For a brief discussion on the distinction between strategic and non-strategic (tactical) nuclear weapons, see Ian Kearns, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", BASIC Trident Commission, Discussion Paper 1, November 2011, page 7.

⁶¹ For detailed information on U.S. and Russia's non-strategic nuclear weapons inventories, see: Hans M. Kristensen, "Non-Strategic Nuclear Weapons", Federation of American Scientists, Special Report No 3, May 2012, pages 14 and 46 available at: <http://www.fas.org/_docs/Non_Strategic_Nuclear_Weapons.pdf>.

⁶² Barack Obama, "Message from the President on the New START Treaty", The White House, Office of the Press Secretary, 02 February 2012, available at: <<http://www.whitehouse.gov/the-press-office/2011/02/02/message-president-new-start-treaty-0>>.

⁶³ Rose Gottemoeller, remarks at the United States Naval Academy, 20 April 2011, available at: <<http://www.state.gov/t/avc/rls/161470.htm>>.

⁶⁴ Vladimir Rybachenkov, "Tactical Nuclear Weapons", remarks at a Carnegie-Ploughshares Workshop "Next Steps in Arms Control", Washington, 15 February 2012, available at: <<http://www.armscontrol.ru/pubs/en/vir-120215.pdf>>.

perspective of U.S. critics of New START, is that the Treaty both made concessions to Russia in strategic nuclear forces while doing nothing to address the disparity in Russian and U.S. tactical nuclear weapons.

According to Anatoly Diyakov, a senior Russian analyst, Russian officials are willing to consider discussions about the future of tactical nuclear weapons, but only in conjunction with other issues. Some of the issues relevant from the Russian perspective appeared in the New START ratification statement of the Russian State Duma, which stated that: “questions concerning potential reductions and limitations of non-strategic nuclear arms must be considered in a complex of other problems of arms control, including deployment of any ballistic missile defence systems, plans for the creation and deployment of strategic delivery vehicles armed with non-nuclear weapons, the risk of space militarisation, as well as existing quantitative and qualitative disparities in conventional arms, on the basis of necessity to maintain strategic stability and strict observance of a principle of equal and indivisible security for all”.⁶⁵ The Russian government has also made clear that it would prefer to see how New START implementation progresses before engaging in discussions aimed at reductions in the numbers of TNWs.

Behind the scenes, another complicating factor is that perceived weaknesses in Russia’s conventional forces mean Russia is becoming more reliant on nuclear weapons for its security.

Russian government officials have, in this context, placed emphasis on the need for the removal of U.S. tactical nuclear weapons from European soil before substantive negotiations with the U.S. on TNWs can begin.⁶⁶ While speaking in Brussels at a media conference after a recent meeting of the NATO-Russia Council, Russian Foreign Minister Lavrov asserted that “Russia and the U.S. may reduce tactical nuclear weapons on a mutual basis only after America withdraws such weapons from Europe.”⁶⁷ According to the former Russian Ambassador to NATO, Dmitry Rogozin, the Kremlin does not refer to the U.S. nuclear weapons in Europe as tactical in any case. Due to their range and location, they are considered by Moscow effectively as a supplement to U.S. strategic forces. In that context, Rogozin went on: “The ball is in the court of NATO and, in the first place, the United States. It must remove its nuclear weapons from Europe. Russia did that a long time

⁶⁵ Anatoly Diyakov, “Challenges and Opportunities after New START”, ELN, 23 September 2011, available at: <http://www.europeanleadershipnetwork.org/anatoly-diakov-speech_175.html>.

⁶⁶ Hans Kristensen, “10 NATO Countries Want More Transparency for Non-Strategic Nuclear Weapons”, Federation of American Scientists Security Blog, 24 April 2012.

⁶⁷ RT, “Russia on AMD: Words not enough”, 19 April 2012, available at:

<http://rt.com/politics/nato-lavrov-nuclear-defense-460/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+ppp-csis-readings+%28Essential+Readings+Part+of+the%3A++Proliferation+Prevention+Program%29>.

ago; our weapons are stationed on our territory and we cannot move them further".⁶⁸

⁶⁸ Global Security Newswire, "Russian General Sees Growing Threat of Nuclear War", 18 November 2011, available at: <<http://www.nti.org/gsn/article/russian-general-sees-growing-threat-nuclear-war/>>.

VI. Conclusion: The Value of New START

Given the gaps in and controversies surrounding New START it is possible, as a minority in both signatory states have done, to conclude that the Treaty is a bad one that leaves national interests at risk and important issues unaddressed. This, however, would be to over-estimate the Treaty's intended scope and ambition and to under-estimate its already demonstrated value.

New START signifies a responsible partnership between the world's two largest nuclear powers and a renewed willingness to continue to regulate and reduce their nuclear arsenals. Even though modest, the Treaty imposes lower limits on U.S. and Russian nuclear arsenals to levels not seen since the 1950s.

The Treaty is also an important achievement – symbolic and real - in attempts to re-set relations between the two states and most importantly, it provides an extensive and worthwhile verification regime, which contributes transparency and an element of confidence building to the relationship.

New START's provisions for the maintenance and exchange of extensive data sets which describe the locations, numbers, and technical characteristics of weapons limited by the Treaty are valuable in and of themselves. The Treaty also gives the parties the opportunity to conduct several types of exhibitions and on-site inspections in order to confirm the information provided in exchanges of data. These and other elements of the verification regime provide the informational basis for a more stable nuclear relationship.

The progress already made in implementing the Treaty is to be applauded and further steps to preserve and extend implementation should be encouraged.

In addition, because the U.S. and Russia are in the possession of over 95 per cent of the world's nuclear weapons, the Treaty has value in a wider context. It demonstrates disarmament leadership on the part of the world's two major nuclear powers and by doing so makes a positive contribution to efforts to shore up the grand bargain at the heart of the global nuclear non-proliferation regime. Without New START, it would be much harder for the existing nuclear powers to push for stronger non-proliferation measures from others around the world.

The specific context of the U.S.-Russian relationship and wider international developments by the mid-point of 2012 can also be said to amplify the value of New START. Without the Treaty, a vacuum over what was happening with each side's strategic nuclear forces would have to be added to an already unstable mix in the relationship. This mix includes: a deepening crisis over missile defence; political uncertainty in both countries, due to imminent U.S. elections and the post-election climate in Russia; and disagreements between the two states over how to handle events in Syria and the wider Middle East. In this wider context New START can be seen as a stabilising

influence not only to the nuclear dimension of the relationship but also as an important cooperative anchor to the relationship as a whole.

In terms of the global picture, it is also important to note that far from the world moving into a genuine process of multilateral rather than bilateral nuclear disarmament, the danger, particularly but not only in Asia, is of a new multi-dimensional arms race across conventional, nuclear and space based systems.⁶⁹ In this context, New START places potential upper limits on any arms race, at least in relation to strategic nuclear force numbers and is therefore a stabilising factor at global and not just bilateral level. Moreover, if any potential follow-on talks lead to significant further nuclear reductions on each side, other nuclear-weapon states could be included in the negotiations.⁷⁰

While the future for legally binding agreements beyond New START is cloudy, the Treaty is being implemented successfully and is already making a positive contribution to Euro-Atlantic and global security.

About the ELN

The European Leadership Network (ELN) is a non-partisan, non-profit organisation registered in the United Kingdom. It works to advance education in, and to promote greater understanding of, multilateral nuclear disarmament, non-proliferation and related issues. It does this in particular by producing and disseminating independent research and analysis, and by providing an independent platform for international dialogue and debate on such issues. In conducting its work, the ELN draws on a network of senior European political, military and diplomatic figures for input, and has developed long-term strategic partnerships with some of Europe's other leading security, defence and foreign policy think-tanks. This combination is designed to ensure that the ELN draws on a wide range of European perspectives.

⁶⁹ For more information on the extent of nuclear modernisation programmes taking place in nuclear armed states, please see Ian Kearns, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", BASIC Trident Commission, Discussion paper 1, November 2011, available at: <<http://www.basicint.org/sites/default/files/commission-briefing1.pdf>>. Also, for more on nuclear armed states and conditions for deep reductions, see James M. Acton, "Bombs Away? Being Realistic about Deep Nuclear Reductions", Washington Quarterly, Spring 2012, available at: <<http://carnegieendowment.org/2012/03/19/bombs-away-being-realistic-about-deep-nuclear-reductions>>.

⁷⁰ Global Zero U.S. Nuclear Policy Commission Report: Modernizing U.S. Nuclear Strategy, Force Structure and Posture, page 4, available at: <<http://www.globalzero.org/en/us-nuclear-policy-commission-report>>.