

I. Russian–US nuclear arms control

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A new chapter in strategic nuclear arms control and Russian–US relations was opened on 5 February 2011, when the Russian Foreign Minister, Sergei Lavrov, and the US Secretary of State, Hillary Rodham Clinton, exchanged the ratification documents to bring into force the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START).¹

The new treaty mandated modest reductions in the numbers of strategic nuclear warheads deployed by Russia and the United States below the limits imposed by two existing treaties: the 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms (START) and the 2002 Treaty on Strategic Offensive Reductions (SORT, or Moscow Treaty).² It also imposed numerical limits on the parties' deployed and non-deployed strategic nuclear delivery vehicles—intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) and long-range heavy bombers (see table 8.1). The delivery vehicles will be treaty-accountable until they are converted or eliminated according to the provisions described in a protocol.³

One of New START's main achievements was to extend the verification regime established by START. Both countries had emphasized that this was an indispensable step for maintaining transparency and predictability in their strategic nuclear force postures. The New START verification regime is built around an extensive database that identifies the numbers, locations and technical characteristics of weapon systems and facilities limited by the treaty. It provides for notifications, inspections and exhibitions to confirm information in the database and to monitor treaty-limited forces. Among other measures, the treaty requires each party to place a 'unique identifier' (an alphanumeric tag) on all missiles, associated launchers and bombers, which is to be used in notifying the other party when they are moved between declared facilities or change status. In addition, New START allows for Russia and the USA to continue to use national technical

¹ 'New START Treaty "lays foundation" for Russia-U.S. cooperation—Lavrov', RIA Novosti, 5 Feb. 2011, <<http://en.rian.ru/russia/20110205/162466422.html>>. The US Senate had provided its advice and consent to ratification of New START on 22 Dec. 2010. The Russian State Duma and Federation Council ratified the treaty on 25 Jan. 2011 and 26 Jan. 2011, respectively. For a summary and other details of New START see annex A in this volume. For a summary of the Russian and US ratification debates see Kile, S. N., 'Nuclear arms control and non-proliferation', *SIPRI Yearbook 2011*, pp. 370–71.

² US Department of State, Bureau of Verification, Compliance and Implementation, 'Comparison of the START Treaty, Moscow Treaty, and New START Treaty', Fact sheet, 8 Apr. 2010 <<http://www.state.gov/t/avc/rls/139901.htm>>. For summaries and other details of START and SORT see annex A in this volume.

³ For a description of New START's central limits see Kile (note 1), pp. 365–68.

Table 8.1. Russian–US nuclear arms reduction treaties' force limits

Treaty	Date of signature	Date of entry into force	Total treaty-accountable nuclear warheads	Total strategic nuclear delivery vehicles ^a	Expiration date
START	31 July 1991	5 Dec. 1994 ^b	6000	1600	5 Dec. 2009
SORT	24 May 2002	1 June 2003	1700–2200	.. ^c	.. ^d
New START	8 Apr. 2010	5 Feb. 2011	1550	800 ^e	5 Feb. 2021

START = Treaty on the Reduction and Limitation of Strategic Offensive Arms; SORT = Treaty on Strategic Offensive Reductions (Moscow Treaty)

^a These are intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) and heavy bombers

^b In May 1992 Belarus, Kazakhstan and Ukraine became parties to START alongside Russia (as the legally recognized successor state to the Soviet Union) and the USA.

^c SORT did not impose a numerical limit on total strategic nuclear delivery vehicles

^d SORT, which was scheduled to expire on 31 Dec. 2012, was superseded by New START.

^e No more than 700 may be deployed

Source: US Department of State, Bureau of Verification, Compliance and Implementation, 'Comparison of the START Treaty, Moscow Treaty, and New START Treaty', Fact sheet, 8 Apr. 2010, <<http://www.state.gov/t/avc/rls/139901.htm>>.

means (NTM), such as satellites and remote sensing equipment, to gather data about each other's strategic forces. It also provides for the parties to exchange telemetry data from up to five missile flight tests annually as a transparency and confidence-building measure.

New START's inspection provisions were simplified compared to those in START in order to reduce implementation costs. One result was that the total number of permitted annual inspections decreased under the new accord. However, individual inspections can be more comprehensive—in some cases gathering data that would have required multiple inspections under START. Under the new treaty, there are two types of short-notice on-site inspection compared to the nine different types of inspection specified in START. Each side may conduct Type 1 inspections up to 10 times annually, and Type 2 inspections up to 8 times annually, to confirm the accuracy of declared data on launchers, missiles, bombers and related facilities subject to the treaty. Type 1 inspections focus on sites with deployed and non-deployed strategic systems; Type 2 inspections focus on sites with only non-deployed strategic systems.⁴ Type 1 inspections are also used to confirm that the number of warheads carried on deployed ICBMs and SLBMs is consistent with the numbers listed in the database. This objective reflects an important change in warhead attribution rules under New START: it permits the parties to count—through direct observation—the actual number of warhead re-entry vehicles on deployed missiles ran-

⁴ For detail of the 2 types of inspection see Kile (note 1), pp. 366–67.

Table 8.2. Russian and US aggregate numbers of strategic offensive arms under New START, as of 5 February 2011 and 1 September 2011

Category of data	Russia		United States	
	Feb. 2011	Sep. 2011	Feb. 2011	Sep. 2011
Deployed ICBMs, SLBMs and heavy bombers	521	516	882	822
Warheads on deployed ICBMs and SLBMs, and warheads counted for heavy bombers ^a	1 537	1 566	1 800	1 790
Deployed and non-deployed launchers of ICBMs, SLBMs and heavy bombers	865	871	1 124	1 043

ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile.

^a Each heavy bomber, whether equipped with nuclear-armed cruise missiles or nuclear gravity bombs, is counted as carrying only 1 warhead, even though the aircraft can carry larger weapon payloads.

Source: US Department of State, Bureau of Arms Control, Verification and Compliance, 'New START Treaty aggregate numbers of strategic offensive arms', Fact Sheet, 1 June 2011 and 25 Oct. 2011, <<http://www.state.gov/t/avc/rls/164722.htm>> and <<http://www.state.gov/t/avc/rls/176096.htm>>.

domly selected for inspection. START had attributed a fixed number of warheads to each ICBM and SLBM—in most cases equal to the maximum number of re-entry vehicles that the missile had been tested with—regardless of whether an individual missile carried fewer warheads.

Implementation of data exchanges, notifications and inspections

On 22 March 2011 Russia and the USA completed the initial exchange of data, which was required no later than 45 days after New START entered into force, on numbers, locations and technical characteristics of the strategic arms subject to the treaty. The parties subsequently released to the public the total number of nuclear warheads carried on their respective treaty-accountable strategic nuclear delivery vehicles as well as the aggregate numbers of their deployed and non-deployed delivery vehicles (see table 8.2).

The summary of the aggregate data from the parties' second biannual exchange was publicly released in October 2011. The new data showed that the USA continued to make modest reductions in its treaty-limited forces under New START. It also revealed that Russia was already close to meeting the New START ceiling of 1550 deployed warheads to be achieved by the 2018 deadline for implementing the treaty.⁵ However, the data did

⁵ Some US critics of New START have argued that the treaty disproportionately favoured Russia since it planned to reduce its strategic nuclear forces with or without a new treaty. See e.g. Payne, K. B., 'Postscript on New START', *National Review*, 18 Jan. 2011.

not provide information about specific changes in the Russian force structure.⁶

The release of the aggregate treaty data highlighted a potential shortcoming in New START: the information that the parties are required to make public about their respective strategic nuclear forces is more limited, in terms of scope and level of detail, than that provided under START. The new treaty permits Russia and the USA to release detailed information about changes in their own force structures but, unlike the earlier treaty, one party may not release information on the other's strategic forces going beyond the summary of aggregate data without consent.⁷ Following the second exchange of data the USA declassified and published information about its numbers of specific types of delivery vehicle and their locations. Russia has not indicated whether it plans to release additional data or allow the USA to do so. Several non-governmental analysts and former US defence officials have expressed concern that the restrictive public data-sharing provision in New START represents a setback for efforts to promote international nuclear transparency and to build the requisite confidence for advancing a multilateral arms-reduction process.⁸

During 2011 the parties fulfilled other New START inspection and monitoring requirements in accordance with the schedule set out in the treaty's protocol and annexes. In March Russia showed US inspectors for the first time its new multiple-warhead RS-24 ICBM and road-mobile launcher at the production plant in Votkinsk, Udmurtia.⁹ During the same month the USA conducted similar one-time exhibitions of its B-2A and B-1B bombers. The USA's B-1B bombers have all been converted to carry only conventional weapons. Following the exhibition to demonstrate that the bombers were not capable of employing nuclear armaments, they no longer counted against the New START limits on US forces.¹⁰

As of 5 February 2012 Russia and the USA had each conducted 18 Type 1 and Type 2 inspections—the maximum number permitted on an annual basis—at ICBM, SLBM and heavy bomber bases, storage facilities, conversion and elimination facilities, and test ranges. The Type 1 inspections

⁶ For detail of the changes in Russian and US strategic nuclear forces see chapter 7, sections I and II, in this volume.

⁷ Russia and the USA have the right to release to the public data and information obtained during the implementation of the treaty following agreement within the Bilateral Consultative Commission. New START (note 1), Article VII, para. 5.

⁸ Kristensen, H. M., 'New START aggregate numbers released: first round slim picking', Federation of American Scientists (FAS), FAS Strategic Security Blog, 1 June 2011, <<http://www.fas.org/blog/ssp/2011/06/aggregatedata.php>>.

⁹ 'U.S. and Russia know location of each other's missile silos—RSVN commander', Interfax, 16 Dec. 2011.

¹⁰ US Department of State, Bureau of Verification, Compliance and Implementation, 'New START Treaty implementation update', Fact sheet, 5 Feb. 2012, <<http://www.state.gov/t/avc/rls/183335.htm>>.

used for the first time the procedures specified in the New START protocol to confirm the actual number of warheads placed on randomly selected missiles. In addition, the parties' nuclear risk-reduction centres had exchanged over 1800 notifications, including those related to the production, conversion, elimination and movement of launchers and delivery vehicles based on the 'unique identifiers' assigned to treaty-limited items.¹¹

The notification process was also used for convening the initial meetings of the Bilateral Consultative Commission (BCC), which is the treaty's principal implementation and compliance body. The BCC has a mandate similar to that of the Joint Compliance and Inspection Commission (JCIC) under START. It is intended to resolve questions relating to treaty compliance and to adopt 'such additional measures as may be necessary to improve the viability and effectiveness of the treaty'; the BCC has the authority to amend the protocol, or its annexes, as long as the changes do not affect substantive rights or obligations under the treaty.¹²

Russia and the USA held the first regular biannual meeting of the BCC from 28 March to 8 April 2011.¹³ The representatives issued two joint statements that addressed technical procedures to be used during the on-site inspection process.¹⁴ The BCC's second meeting for the year was held from 19 October to 2 November 2011.¹⁵ Among other topics, the two sides reportedly discussed Russia's concerns about the procedures by which the USA had converted its B-1B bombers so that the aircraft could only carry conventional weapons.¹⁶

New START and missile defence

The implementation of New START proceeded apace against the background of the ongoing dispute between Russia and the USA over US plans to develop and deploy a new missile defence architecture that will include radar and missile interceptors sites in Europe. Russia has expressed con-

¹¹ US Department of State (note 10).

¹² New START (note 1), protocol, part VI; and US Department of State, Bureau of Verification, Compliance and Implementation, 'Bilateral Consultative Commission', Fact sheet, 11 Aug. 2011, <<http://www.state.gov/t/avc/rls/145830.htm>>.

¹³ Russian Ministry of Foreign Affairs, 'On the first session of the Bilateral Consultative Commission under the new START Treaty', Press release, 11 Apr. 2011, <http://www.mid.ru/brp_4.nsf/0/4e6295f7991faabac325786800493b29>.

¹⁴ US Department of Defense (DOD), Office of the Undersecretary of Defense for Acquisition, Technology and Logistics, 'New START BCC joint statements', 8 Apr. 2011, <<http://www.acq.osd.mil/tc/treaties/NST/BCC.statements.htm>>.

¹⁵ US Department of State, 'U.S.–Russia Bilateral Consultative Commission on the New START Treaty', Media note, 2 Nov. 2011, <<http://www.state.gov/r/pa/prs/ps/2011/11/176586.htm>>.

¹⁶ Misasnikov, E., 'Developing approaches toward resolving the issue of nonstrategic nuclear weapons', Centre for Arms Control, Energy and Environmental Studies, Paper prepared for the Roundtable 'Improving transparency on tactical nuclear weapons: building blocks for a NATO–Russia dialogue', Berlin, 17–18 Nov. 2011, <<http://www.armscontrol.ru/pubs/en/em231111.html>>.

cern that the USA's European Phased Adaptive Approach (EPAA) to missile defence would increase the capabilities of US and North Atlantic Treaty Organization (NATO) missile defences in a way that could threaten Russia's strategic nuclear deterrent.¹⁷ The EPAA envisions the deployment, in four phases, of approximately 500 interceptor missiles on more than 40 ships and at two European land bases (one in Poland and one in Romania), as well as a radar based in Turkey, by the beginning of the 2020s.¹⁸ The USA has insisted that the system's architecture is designed to provide protection for US forces, allies and partners in Europe against ballistic missile threats from the Middle East, in particular from Iran, and is not directed against Russia.

During 2011 the discussions between Russia and the USA and its NATO allies on missile defence cooperation made little progress. At a meeting of the heads of state and government of the NATO–Russia Council held in November 2010, NATO and Russia had agreed to pursue missile defence cooperation, including a joint missile threat assessment.¹⁹

Russia proposed establishing a sector-based joint missile defence system in which each side (Russia and NATO) would be fully responsible for its own zone and would have control over any decision to launch interceptor missiles.²⁰ In contrast, the USA and its NATO allies favoured the creation of two independent missile interceptor systems that could form the basis for Russian–NATO cooperation. The proposed cooperation could include exchanging missile early-warning and tracking information and setting up a joint data 'fusion' centre. The new body would allow NATO and Russian officers to have simultaneous access to missile launch data from sensors in NATO countries and Russia.²¹

Following NATO's rejection of its proposal, Russia intensified its call for the USA to provide legally binding guarantees that the EPAA system would not be directed against Russia's strategic nuclear forces. Russia also reportedly wanted an agreement that would limit the total number of new missile interceptors as well as place restrictions on the speed and deployment locations of the interceptors. Russian officials warned that the unrestrained qualitative and quantitative build-up of Western missile defences could be

¹⁷ For a technical assessment of the EPAA's implications for Russia's strategic deterrent see Butt, Y. and Postol, T., *Upsetting the Reset: The Technical Basis of Russian Concern over NATO Missile Defense*, Federation of American Scientists (FAS) Special Report no. 1 (FAS: Washington, DC, Sep. 2011).

¹⁸ See Arms Control Association, 'The phased adaptive approach at a glance', Fact sheet, June 2011, <<http://www.armscontrol.org/factsheets/Phasedadaptiveapproach>>.

¹⁹ NATO–Russia Council, Joint statement, Lisbon, 20 Nov. 2011, <http://www.nato.int/cps/en/natolive/news_68871.htm>.

²⁰ Bogdanov, K., 'European missile defenses and Russia's last warning', RIA Novosti, 7 Oct. 2011, <<http://en.rian.ru/analysis/20111007/167474493.html>>.

²¹ Collina, T. Z., 'Missile defense cooperation stalls', *Arms Control Today*, vol. 41, no. 5 (July/Aug. 2011).

regarded by Russia as an exceptional event under Article 14 of New START, whereby Russia has the right to withdraw from the treaty.²²

The parties made little progress during the year towards reaching a compromise formula for settling the missile defence dispute. On 23 November Russian President Dmitry Medvedev warned in a nationally televised speech that Russia was losing patience with the impasse in bilateral and multilateral talks on missile defence and reserved 'the right to discontinue further disarmament and arms control measures'.²³ He also outlined a number of possible Russian military and diplomatic responses if the USA and NATO moved forward with plans for a missile defence system that did not adequately address Russia's concerns. At a meeting of the NATO–Russia Council held on 8 December 2011 and attended by NATO foreign ministers and their Russian counterpart, the officials showed little willingness to modify their established positions on missile defence in order to break the diplomatic impasse.²⁴

Next steps after New START

In addition to the long-running dispute over missile defence, Russia and the USA continued to disagree about the focus and timing of the next steps in bilateral arms control. These disagreements primarily concerned two categories of nuclear weapon that are not subject to constraints under New START or other legally binding instruments: non-strategic (or tactical) nuclear weapons and warheads that are held in storage or otherwise not deployed.

During 2011 the USA renewed its call for the two sides to begin new talks aimed at limiting their non-strategic nuclear weapon inventories. Russia is believed to maintain a considerably larger stockpile of such weapons than the USA. On 3 February US President Barrack Obama informed the US Senate, pursuant to a provision added to the New START ratification resolution by Republican senators, that the administration's next arms control goal was to begin talks with Russia within one year on limiting stockpiles of non-strategic nuclear weapons.²⁵ US officials emphasized that addressing tactical nuclear weapons would require close coordination with

²² 'Russia "disappointed" by U.S. failure to provide missile guarantees', RIA Novosti, 16 May 2011, <<http://en.rian.ru/russia/20110516/164052008.html>>.

²³ Office of the President of Russia, 'Statement in connection with the situation concerning the NATO countries' missile defence system in Europe', 23 Nov. 2011, <<http://eng.kremlin.ru/news/3115>>.

²⁴ Presto, S., 'NATO, Russia remain at odds over missile shield', Voice of America, 8 Dec. 2011, <<http://www.voanews.com/english/news/europe/NATO-Russia-Still-at-Odds-Over-Missile-Shield-135258238.html>>.

²⁵ US Senate, Resolution of advice and consent to ratification, Senate Treaty Document 111-5, 22 Dec. 2010, <<http://www.state.gov/t/avc/rls/153910.htm>>.

allies in NATO as well as deeper engagement with Russia on a range of security issues.²⁶

Russia showed little interest in US proposals for discussing measures to reduce or regulate non-strategic nuclear weapon stockpiles, at least in the near term.²⁷ Lavrov emphasized that Russia would not take part in any such discussions before the USA had withdrawn its non-strategic nuclear weapons from Europe and irreversibly dismantled the infrastructure for their deployment.²⁸ In addition, Russian officials continued to link the opening of negotiations on tactical nuclear arms reductions to progress on other issues affecting strategic stability. These included limits on US ballistic missile defences, long-range conventional strike weapons and weapons in space.²⁹

As the year ended, senior US officials acknowledged that new talks on non-strategic nuclear weapons were unlikely to get under way soon. The Assistant Secretary of State for Verification, Compliance, and Implementation, Rose Gottemoeller, explained that the USA was currently in a 'homework period' to prepare a way forward for new talks leading to cuts in non-strategic nuclear weapons and warheads in storage.³⁰ She suggested that the two sides could already begin to discuss technical and definitional issues related to non-strategic weapons as a preliminary step towards the eventual opening of negotiations.³¹

²⁶ Benitez, J., 'US consults with NATO allies on reducing tactical nuclear weapons', NATO Source, Atlantic Council, 17 Feb. 2011, <<http://www.acus.org/natosource/us-consults-nato-allies-reducing-tactical-nuclear-weapons>>. In the Strategic Concept adopted on 19–20 Nov. 2010, the NATO member states agreed to continue the discussion of the role of defence and deterrence in NATO's strategy, including its nuclear posture. NATO, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* (NATO: Brussels, Nov. 2010).

²⁷ For Russian views on reducing tactical nuclear weapons see Miasnikov (note 16).

²⁸ Russian Ministry of Foreign Affairs, 'Statement by H.E. Mr Sergey Lavrov, Minister of Foreign Affairs of the Russian Federation, at the Plenary meeting of the Conference on Disarmament, Geneva, 1 Mar. 2011', 1 Mar. 2011, <http://www.mid.ru/brp_4.nsf/0/2de66a92e764dbb8c3257846004dfd44>.

²⁹ Miasnikov (note 16); and Sokov, N., 'Medvedev's statement on missile defense might mean Russia postpones further dialogue until 2013', James Martin Center for Non-Proliferation Studies (CNS), 2 Dec. 2011, <http://cns.miis.edu/stories/111202_medvedev_statement.htm>.

³⁰ Rose Gottemoeller: getting to yes', *Bulletin of the Atomic Scientists*, vol. 67, no. 6 (Nov./Dec. 2011), p. 5.

³¹ 'U.S. preparing for tactical nuclear cuts in future arms deal with Russia', RIA Novosti, 27 Dec. 2011, <http://en.rian.ru/military_news/20111227/170513651.html>.