II. Russian-US nuclear arms control

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In 2014 US-Russian nuclear arms control and disarmament efforts remained largely stagnant. Russia and the United States—which collectively account for more than 93 per cent of the global holdings of nuclear weapons—made little progress in implementing negotiated reductions in their deployed strategic nuclear forces. The United States renewed an allegation that Russia had violated an important cold war-era arms control treaty—a charge that Russia rejected and countered with its own compliance concerns. The year also saw a potential winding down of a long-running bilateral programme to secure nuclear materials and facilities in Russia. The developments came against the background of the broader deterioration in political relations between the two countries that have underscored their differences over the future of arms control.

Implementation of New START

In 2014 Russia and the USA continued to implement the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START).¹ Under the treaty the two parties agreed to limit the number of their deployed strategic nuclear warheads to 1550 each and to limit the number of their deployed strategic missile launchers and heavy bombers equipped for nuclear armaments to 700 each. The treaty limits do not cover the two countries' inventories of operational non-deployed strategic nuclear warheads or their stockpiles of retired warheads awaiting dismantlement. As of January 2015, Russia possessed a total inventory of approximately 7500 nuclear warheads and the USA had approximately 7100 warheads.²

Russia and the USA have moved slowly in implementing the New START-mandated force reductions. The biannual treaty data collected in September 2014 showed that the United States had reduced the number of its treaty-accountable deployed strategic launchers by 31 and the number of warheads attributed to those launchers by 103 since New START entered into force in February 2011 (see table 12.4).³ During the same period, Russia had increased its treaty-accountable deployed strategic

¹ For a summary and other details of New START see annex A, section III, in this volume.

² For detail about the size and composition of US and Russian nuclear warhead inventories, see chapter 11, sections I and II, respectively, in this volume.

³US Department of State, Bureau of Arms Control, Verification and Compliance, 'New START Treaty aggregate numbers of strategic offensive arms', Fact Sheet, 1 Jan. 2015, http://www.state.gov/t/avc/rls/235606.htm. The data is updated for each 6-month period after entry into force of the treaty.

Table 12.4. Russian and US aggregate numbers of strategic offensive arms under New START, as of 5 February 2011 and 1 September 2014

Category of data	Treaty limits ^a	Russia		United States	
		Feb. 2011	Sep. 2014	Feb. 2011	Sep. 2014
Deployed ICBMs, SLBMs and heavy bombers	700	521	528	882	794
Warheads on deployed ICBMs, SLBMS and heavy bombers ^b	1 550	1 537	1 643	1 800	1 642
Deployed and non-deployed launchers of ICBMs, SLBMs and heavy bombers	800	865	911	1124	912

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

Source: US Department of State, Bureau of Arms Control, Verification and Compliance, 'New START Treaty aggregate numbers of strategic offensive arms', Fact Sheets, 1 June 2011 and 1 Jan. 2015.

forces by 7 launchers and 106 warheads. The increase in the Russian numbers reflected the deployment of new strategic missile systems while older systems are being gradually retired. While there is no expectation that either party will fail to reduce its forces below the agreed limits by the 2018 deadline, the New START data highlights the parties' relative lack of urgency in meeting the mandated reductions in their respective nuclear forces modernization plans.⁴

INF Treaty compliance controversy

In 2014 there was renewed controversy over US allegations that Russia had violated the 1987 Soviet–US Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty).⁵ The agreement has an indefinite duration and remains in force for Russia and the United States.⁶ Under the treaty, the United States and Soviet Union agreed not to possess, produce or flight-test a ballistic missile or ground-launched cruise missile (GLCM) with a range capability of 500 to 5500 kilometres, or to possess or produce launchers of such missiles. The INF Treaty has long been

^a To be reached by Feb. 2018.

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

⁴ For detail about US and Russian nuclear force modernization plans, see chapter 11, sections I and II, respectively, in this volume.

 $^{^5}$ For a summary and other details of the INF Treaty see annex A, section III, in this volume. The full text of the treaty is available at http://www.state.gov/t/avc/trty/102360.htm.

⁶ In 1991 the number of states parties to the INF Treaty was increased to include the successor states of the former Soviet Union (Belarus, Kazakhstan, Russia, Turkmenistan, Ukraine and Uzbekistan) with treaty-limited weapons and sites on their territories.

regarded as a milestone achievement in arms control because it eliminated and permanently banned an entire class of nuclear weapons.⁷ It also established a cooperative verification regime using data exchanges, notifications and intrusive on-site inspections that was a model for later arms reduction treaties, including for New START.8

The rationale for adhering to the INF Treaty has come under critical scrutiny in Russia. Among other concerns, senior Russian officials have noted that the treaty prevents Russia from possessing advanced intermediate-range missile systems that many of its neighbours, such as China and India, are deploying.9 In September 2014 former Russian Defence Minister Sergei Ivanov warned that Russia could be forced to eventually withdraw from the treaty if it hindered Russia's ability to respond to new security threats.10

US compliance concerns

In recent years the United States has raised concerns about Russia's compliance with the INF Treaty. The US administration informed Congress in late 2011 about evidence of prohibited Russian missile tests, and it briefed North Atlantic Treaty Organization (NATO) allies in January 2014. The USA raised its compliance concerns in a series of meetings with Russia beginning in May 2013.11

In July 2014, the US State Department's annual report on global compliance with arms control and non-proliferation agreements stated publicly for the first time that the United States had 'determined that the Russian Federation is in violation of its obligations under the INF Treaty not to possess, produce, or flight-test a ground-launched cruise missile' with the proscribed range capability 'or to possess or produce launchers of such missiles'. 12 The 2014 Compliance Report did not identify the missile in question or cite the evidence used to make the determination. According to press reports and remarks by US officials, the alleged violation concerned Russian flight tests at the Kapustin Yar test site in western Russia of a

⁷ By the June 1991 treaty deadline, the Soviet Union had destroyed a total of 1846 ballistic and cruise missiles, while the USA had eliminated 846. Acronym Institute, 'INF Treaty inspection regime successfully concluded', Disarmament Diplomacy, no. 58 (June 2001), http://www. acronym.org.uk/dd/dd58/58news4.htm>.

⁸ Gottemoeller, R., 'Looking back: the Intermediate-Range Nuclear Forces Treaty', Arms Control Today, vol. 37, no. 5 (June 2007).

⁹ Topychkanov, P., 'Is Russia afraid of Chinese and Indian missiles?', Carnegie Moscow Centre, 3 Nov. 2014, http://carnegie.ru/eurasiaoutlook/?fa=57100.

¹⁰ Grigorieva, E., [A world without walls], Rossiyskaya Gazeta, 22 Sep. 2014 (in Russian).

¹¹ Gordon, M., 'U.S. says Russia tested cruise missile, violating treaty', New York Times, 28 July 2014.

¹² US State Department, Bureau of Arms Control, Verification and Compliance, 'Unclassified report on adherence to and compliance with arms control, nonproliferation and disarmament agreements and commitments', July 2014, p. 8, http://www.state.gov/documents/organization/230108.pdf>.

ground-launched cruise missile to ranges prohibited by the INF Treaty, beginning in 2008. The missile had not yet been operationally deployed. 13

There was considerable speculation about which Russian missile system precipitated the US allegation. Many non-governmental analysts focused on the R-500 Iskander-K cruise missile, which uses a road-mobile launcher. He Some experts believe that the range of the R-500 missile may exceed the lower limit of the INF Treaty. However, US officials reportedly indicated that the R-500—which was first tested in 2007 and deployed in 2013—was not the source of the alleged treaty violation. He

Other analysts speculated that the alleged violation may have involved Russia conducting flight tests of a sea-launched cruise missile (SLCM).¹⁷ Article VII of the INF Treaty allows such tests as long as the SLCMs are launched from a 'fixed land-based launcher which is used solely for test purposes'. During a hearing in the US House of Representatives in April 2014, one committee member suggested that Russia may have tested a SLCM using an operational mobile land-based launcher, in contravention of the treaty's restrictions.18 Some Russian media sources also indicated that the focus of US compliance concerns was on a newly produced naval cruise missile that Russia had tested from a land-based launcher in order to collect more reliable data on its performance and technical characteristics.¹⁹ This speculation was difficult to independently confirm since US officials only referred to the alleged violation as involving a groundlaunched cruise missile. No public statements or media reports indicated that they had identified a naval missile as the focus of US compliance concerns in meetings with Russian counterparts.

¹³ Collina, T., 'Russia breaches INF Treaty, U.S. says', *Arms Control Today*, vol. 44, no. 7 (Sep. 2014).
¹⁴ Lewis, J., The problem with Russia's missiles, *Foreign Policy*, 29 July 2014; and Sokov, N., and Pomper, M., 'Is Russia violating the INF Treaty?', *National Interest*, 11 Feb. 2014.

¹⁵ Forss, S., *The Russian Operational-Tactical Missile Iskander Missile System*, Finnish National Defence University, Department of Strategic and Defence Studies, Series 4, Working Paper no. 42 (Finnish National Defence University: Helsinki, 2012).

¹⁶ Collina (note 13).

¹⁷ Podvig, P., 'Russia and the INF treaty violation', Russianforces.org, 4 Aug. 2014, http://russianforces.org/blog/2014/08/cruise_missile_and_the_inf_tre.shtml.

¹⁸ Sherman, B., Member of the US House of Representatives, Statement during joint hearing on US-Russia nuclear arms negotiations before the Subcommittee on Terrorism Nonproliferation and Trade and Subcommittee on Europe, Eurasia and Emerging Threats of the US House of Representatives Committee on Foreign Affairs, 29 Apr. 2014, http://docs.house.gov/meetings/FA/FA18/20140429/102163/HHRG-113-FA18-transcript-20140429.pdf, p. 7.

¹⁹ Litovkin, V., 'U.S. accuses Russia of violating Intermediate-Range Nuclear Forces Treaty', Russia Beyond the Headlines, 30 July 2014, http://rbth.co.uk/international/2014/07/30/us_accuses_russia_of_violating_intermediate-range_nuclear_force_38623.html>.

Russian response

Russia strongly denied the US claim that it had violated its INF Treaty commitments. In a statement issued on 1 August 2014, the Russian Foreign Ministry dismissed the US State Department Compliance Report for making a charge supported by 'little to no evidence and based on warped logic'.²⁰ The statement reiterated Russia's complaint that the USA, by citing a need to protect intelligence sources and methods, had failed to provide any specific facts about the alleged Russian violation.

The Foreign Ministry statement set out Russia's own INF Treaty compliance concerns about US weapon programmes. It outlined three US systems and activities of concern: (a) the use in missile defence tests of target missiles 'which have characteristics similar to' those of intermediate-range missiles; (b) the production and use of armed unmanned aerial vehicles (UAVs), 'which clearly fall within the definition of ground-launched cruise missiles under the [INF] Treaty'; and (c) the plan to deploy a ground-launched version of the naval Mark-41 (Mk-41) missile launcher in Romania and Poland as part of its Phased Adaptive Approach for missile defence in Europe, which 'will be a flagrant violation of the INF Treaty'.²¹

While the USA promptly rejected the Russian complaints as baseless, non-governmental analysts have been less categorical. Particular attention has been given to Russia's concern about the Mk-41 Vertical Launch System, which is currently used on US Navy ships to launch the Tomahawk intermediate-range sea-launched cruise missile as well as defensive interceptor missiles. US officials have stated that the land-based version of the MK-41 system to be based in Poland and Romania uses 'some of the same structural components' as the sea-based version but is not capable of launching cruise missiles.²² This implies that there may be no 'functionally related observable differences' between the sea-based and land-based Mk-41 systems.²³ Some observers have urged the USA to consider taking

²⁰ Ministry of Foreign Affairs of the Russian Federation, 'Comments by the Russian Ministry of Foreign Affairs on the report of the U.S. Department of State on adherence to and compliance with arms control, nonproliferation, and disarmament agreements and commitments, 1 Aug. 2014, http://www.mid.ru/brp_4.nsf/0/D2D396AE143B098144257D2A0054C7FD.

²¹ Ministry of Foreign Affairs of the Russian Federation (note 20).

²² McKeon, B. P., Statement of Brian P. McKeon, Principal Deputy Under Secretary of Defense, before the House Committee on Armed Services, Subcommittee on Strategic Forces, and the Committee on Foreign Affairs, Subcommittee on Terrorism, Nonproliferation and Trade, 10 Dec. 2014, http://docs.house.gov/meetings/FA/FA18//20141210/102793/HHRG-113-FA18-Wstate-McKeonB-20141210.pdf, p. 10.

²³ Thielman, G., 'Moving beyond INF Treaty compliance issues', Arms Control Now, 5 Sep. 2014, http://armscontrolnow.org/2014/09/05/moving-beyond-inf-treaty-compliance-issues/. In other US and Soviet/Russian nuclear arms control agreements, the parties agreed that similar systems with different purposes, such as heavy bombers converted to non-nuclear delivery roles, should possess functionally related, observable differences (FRODs) for verification purposes.

steps not required under the INF treaty to physically modify the landbased version of the system in an observable way in order to reassure Russia that it is not capable of launching cruise missiles.²⁴

Lack of progress in Russia-US discussions

Russia and the USA have made little progress in resolving the dispute over INF Treaty compliance. On 11 September the two sides held consultations in Moscow. The Russian delegation was headed by the director of the Arms Control Department of the Foreign Ministry, Mikhail Ulyanov, and the US delegation by the Under Secretary of State for Arms Control and International Security, Rose Gottemoeller. Both sides reconfirmed their commitment to upholding the INF Treaty while maintaining that the other side had not provided satisfactory answers to their respective compliance questions.²⁵ Deputy Foreign Minister Sergey Ryabkov later stated that additional consultations with the United States on the INF Treaty were 'not planned to be held anytime soon'.²⁶

The stalemate in the bilateral discussions came against the background of escalating political tensions over the compliance controversy. In December 2014, a senior US defence official told a congressional committee that the Pentagon's Joint Staff had reviewed 'a broad range of military response options [for] convincing [the] Russian leadership to return to compliance with the INF Treaty as well as countering the capability' of a Russian treaty-prohibited system.²⁷ He acknowledged that deploying new US GLCMs 'would obviously be one option to explore'.²⁸

Given the lack of progress in high-level negotiations since 2013, there have been calls for the two sides to move to a different forum for discussing treaty compliance issues.²⁹ One idea is to reconvene the Special Verification Commission (SVC) established by the INF Treaty.³⁰ The purpose of the SVC, which has not met since 2003, is to serve as a 'forum for discussing and resolving implementation and compliance issues, [and] for considering additional procedures to improve the viability and effectiveness of the

²⁴ Thielman (note 23).

²⁵ Barnes, D., 'Russia–U.S. face off over INF Treaty', *Arms Control Today*, vol. 44, no. 8 (Oct. 2014). ²⁶ TASS, 'No RussiaUS talks on INF Treaty planned soon–deputy foreign minister', 20 Oct. 2014, http://en.itar-tass.com/russia/755339.

²⁷ McKeon (note 22), p. 8.

²⁸ Gertz, B., 'Pentagon considering deployment of nuclear missiles in Europe', Washington Free Beacon, 11 Dec. 2014, http://freebeacon.com/national-security/pentagon-considering-deployment-of-nuclear-missiles-in-europe/.

²⁹ See e.g. Penza News, 'Russia-US INF Treaty dispute may be solved only through extensive talks-analysis', Eurasia Review, 29 Sep. 2014, http://www.eurasiareview.com/29092014-russia-us-inf-treaty-dispute-may-solved-extensive-talks-analysis/.

³⁰ Meier, O., Thielman, G. and Zagorski, A., 'Formal dialogue on compliance can still save the INF Treaty', European Leadership Network, 29 Jan. 2015, http://www.europeanleadershipnetwork.org/formal-dialogue-on-compliance-can-still-save-the-inf-treaty-_2368.html.

Treaty'.³¹ Proponents have argued that the SVC provides a closed-door forum that would permit the parties to exchange technical information to resolve specific issues of concern, including those related to weapon programmes and capabilities in compliance 'grey areas'.³² Such a move could also mark a return to a more cooperative Russian–US dialogue that would help to preserve an important arms control achievement in spite of the growing tensions in their political relations and in the European security environment.

³¹ INF Treaty (note 5), Art. XIII.

³² Meier, Thielman and Zagorski (note 30).