# Russia's INF Treaty Violations: Evidence and Implications

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In 2014, the Obama Administration concluded "that the Russian Federation was in violation of its obligations under the INF Treaty not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range capability of 500 km to 5,500 km, or to possess or produce launchers of such missiles." The Department of State said this was "a very serious matter." This was quite a shift from the State Department's previous position. Its 2013 compliance report stated, "The Parties to the Treaty last met in the Special Verification Commission in October 2003. There were no issues raised during this reporting period." This was technically true because the 2013 report covered the period up to the end of 2012, but the authors of the report had to be aware that this compliance issue had been raised with Russia by the Obama administration in

<sup>&</sup>lt;sup>1</sup> US Department of State, Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, July 2014, 8.

<sup>&</sup>lt;sup>2</sup> US Department of State Daily Press Briefing, July 29, 2014.

<sup>&</sup>lt;sup>3</sup> US Department of State, Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, July 2013, 8.

2013.<sup>4</sup> Indeed, Michael Gordon, writing in *The New York Times*, reported that testing of the prohibited missile began in 2008 and that by 2011 the Intelligence Community was aware of the compliance issue.<sup>5</sup> Hence, the 2013 State Department report was deceptive and apparently intended to advance the arms control policies of the Obama administration.

While the Obama administration declared the Russians to be in violation of the INF Treaty and senior officials admitted in public some Russian violations of other agreements (they were more candid in private), the Obama State Department generally circled the wagons around Russia with regard to issues of arms control compliance. This was not new. Since January 18, 1993, only a single State Department arms control compliance report, the 2005 report, 6 met the legal requirement under US law, 22 USC. 2593a, for an annual report with "a specific identification, to the maximum extent practicable in unclassified form, of each and every question that exists with respect to compliance by other countries with arms control, nonproliferation, and disarmament agreements with the United States."

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<sup>&</sup>lt;sup>4</sup> US Department of State Fact Sheet, "Timeline of Highlighted US Diplomacy Regarding the INF Treaty Since 2013," July 30, 2019.

<sup>&</sup>lt;sup>5</sup> Michael Gordon, "US Says Russia Tested Missile, Despite Treaty," *The New York Times*, January 29, 2014.

<sup>&</sup>lt;sup>6</sup> US Department of State, Adherence to and Compliance with Arms Control and Nonproliferation Agreements and Commitments, August 2005.

Russian (and prior Soviet<sup>7</sup>) violations of arms control treaties are very extensive. As recorded in a 2015 report to the House Armed Services Committee:

> According to the testimony of senior officials of the Department of State, the Russian Federation is not complying with numerous treaties and agreements, including the INF Treaty, the Open Skies Treaty, Biological Weapons the Convention, the Chemical Weapons Convention, the Vienna Document. the **Budapest** Memorandum, the Istanbul Commitments, the Presidential Nuclear Initiatives, the Missile Technology Control Regime, and the Russian Federation has recently withdrawn from the Treaty on Conventional Armed Forces in Europe (CFE).8

The 2018 Pentagon Nuclear Posture Review report also noted a wide range of ongoing Russian arms control violations. It stated:

> In this regard, Russia continues to violate a series of arms control treaties and commitments, the most significant being the INF Treaty. In a broader context, Russia is either rejecting or avoiding its obligations and commitments under

<sup>&</sup>lt;sup>7</sup> US Department of State, Soviet Noncompliance with Arms Control Agreements, Special Report No. 122, February 1, 1985.

<sup>&</sup>lt;sup>8</sup> US House Committee on Armed Services, 114<sup>th</sup> Congress, Markup of H.R. 1735-National Defense Authorization Bill for Fiscal Year 2016, Subcommittee on Strategic Forces Mark: H.R. 1735-FY16 NDAA (As Reported to the Full Committee), April 24, 2015, 41-42.

agreements, including the numerous Conventional Armed Forces in Europe Treaty, the Budapest Memorandum, the Helsinki Accords, and the Presidential Nuclear Initiatives. In addition, Russia has violated the Open Skies Treaty and is selectively implementing the politically binding Vienna Document to avoid transparency of its major military exercises.9

## The Scope of Russian INF Treaty Violation

The evidence strongly suggests that the Russian violation of the INF Treaty involved more than a single type of missile, the SSC-8/9M729. According to Latvia's Foreign Minister Edgars Rinkevics, "We knew that the INF Treaty was violated long before the United States decided to withdraw. We also knew, and spoke about it many times, that four different types [of missiles banned under the INF Treaty] were already targeted at the Baltic states they were deployed in Kaliningrad and in Russian territory near our borders."10 These missiles are capable of targeting the types of targets that the US must cover with strategic nuclear weapons because its arsenal does not include ground-launched theater missiles, much less nuclear capable missiles. The Russian October 2019 nuclear exercise called Thunder-2019 involved the launch of the SSC-8/9M729 11 cruise missile, the missile that was

<sup>&</sup>lt;sup>9</sup> US Department of Defense (2018), Nuclear Posture Review (Washington, D.C.: Office of the Secretary of Defense, February 2018), 73-74.

<sup>&</sup>lt;sup>10</sup> Amy Mackinnon, "Latvia's foreign minister on the demise of the US missile treaty with Russia and NATO's new focus on China," Foreign Policy.com, April 5, 2019.

<sup>&</sup>lt;sup>11</sup> "Grom-2019," Russian Defense Policy Blog, October 20, 2019.

determined to be in violation of the INF treaty, an indication that Russia was lying about its range in light of the range of the other cruise missiles being used.

Russian violations of the INF Treaty are apparently much greater in scope and significance than indicated in the State Department's unclassified compliance reports. In addition to the Russian SSC-8/9M729, there have been a number of other Russian ground-launched missiles reported in the Russian press, including the Russian state media, that have ranges that violated the INF Treaty (a range of 500-5,500-km). 12 The Trump administration withdrew from the INF Treaty in 2019 because of the SSC-8/9M729 and Russia's refusal to eliminate it. This missile represents a clear and important violation of the core obligation of the parties to the INF Treaty. Other apparent violations include the R-500/9M728, the Bastion ground-launched cruise missile and, possibly, a ground-launched version of the Kalibr naval cruise missile.13

Starting in 2007, Ria Novosti, an official Russian Government news agency (now called Sputnik News in its English language version), reported range numbers for the R-500

<sup>&</sup>lt;sup>12</sup> Mark B. Schneider, "The Nuclear Posture Review and the Future of the INF Treaty," Real Clear Defense, August 8, 2017.

<sup>&</sup>lt;sup>13</sup> Defense Intelligence Ballistic Missile Analysis Committee, National Air and Space Intelligence Center, Ballistic and Cruise Missile Threat, NASIC-1031-0985-2017, (Wright-Patterson Air Force Base, Ohio: National Air and Space Intelligence Center, June 2017), 37; Schneider, "The Nuclear Posture Review and the Future of the INF Treaty;" Dave Majumdar, "Novator 9M729: The Russian Missile that Broke INF Treaty's Back?", National Interest, December 7, 2017; Department of Defense, 2018 Nuclear Posture Review, 10.

ground-launched cruise missile that are in the INF Treaty prohibited zone. 14 In November 2007, Russian arms control expert Viktor Myasnikov, writing in Nezavisimoye Voyennoye Obozreniye, said that the R-500 exceeded the 500-km threshold of the INF Treaty on its first test and that its range could be expanded to 1,000 kilometers. 15 In November 2008, Ria Novosti said that the potential range of the R-500 "can exceed 2,000 kilometers..." 16 Russian journalist Ilya Kramnik indicated that there was possibly a second missile with a range of between 1,000-3,000-km. <sup>17</sup> Kommersant, a major Russian business publication, maintained that the range of the R-500 "can amount to 1,000 kilometers." 18 Sergi Balmasov, writing in Pravda.ru, indicated the R-500 has a range of 2,000-km. 19 In 2014, noted Russian journalist Pavel Felgenhauer explained the differences in the range numbers for the R-500. He said "the missile (R-500) has been tested at a range of 1,000 km," but the "...range could be

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<sup>&</sup>lt;sup>14</sup> "Russia to compensate for INF losses with Iskander missile system," *Ria Novosti*, November 14, 2007; Ilya Kramnik, "The Iskander: a story of a new face-off," *Ria Novosti*, November 19, 2008.

<sup>&</sup>lt;sup>15</sup> Mark B. Schneider, "Russian Violations of Its Arms Control Obligations," *Comparative Strategy*, 31, 4 (September 2012), 341.

<sup>&</sup>lt;sup>16</sup> Kramnik, "The Iskander: a story of a new face-off."

<sup>&</sup>lt;sup>17</sup> Ilya Kramnik, "Sticking an Iskander Missile Into The ABM Shield Part One," *UPI*, November 19, 2008; Ilya Kramnik, "Missile bargaining: Iskanders for missile defense," *Ria Novosti*, January 29, 2009.

<sup>&</sup>lt;sup>18</sup> Mikhail Barabanov, "The Iskander Factor," *Kommsersant*, November 9, 2008.

<sup>&</sup>lt;sup>19</sup> Sergi Balmasov, "Russia Shows Iskander Missile Systems to NATO," *Pravda.ru*, December 17, 2010.

extended up to 2,000-3,000 km by adding extra fuel tanks."20 It is interesting that when then-Russian Defense Minister Sergei Ivanov announced the first test of the R- 500 he boasted, "It can be used at long range with surgical precision, as doctors say."21 That appears to be a more accurate description of it than Russia's current denials of the missile's range.

Russia has treated the R-500 with unusual secrecy. After its first test, it disappeared from official Russian commentary for two years. While President Putin gave the developers of the R-500 missile a Russian state award, their names were not mentioned "because their identity is a state secret." 22 This is very unusual. It seems clear that Russia did not want reporters talking to the R-500 designers, almost certainly about the missile's range. The R-500 is reported to be nuclear capable. 23 The unclassified 2017 National Air and Space Intelligence Center (NASIC) report contains a photograph of the R-500 in flight but no entry for the R-500 in the chart on land-attack cruise missiles, which is a clear hint they could not come up with any credible range number that was INF Treaty compliant. The Russian Defense Ministry said serial production of the R-500 was

<sup>&</sup>lt;sup>20</sup> Jerome Cartillier and Jo Biddle, "US calls on Moscow to get rid of banned arms," Yahoo News, July 29, 2014.

<sup>&</sup>lt;sup>21</sup> "Putin: US Pursuing 'Imperialist' Policy," The Associated Press, February 11, 2009.

<sup>&</sup>lt;sup>22</sup> Steve Gutterman, "Putin celebrates Russia Day with State Prize ceremony at Kremlin," The Associated Press, June 13, 2007.

<sup>&</sup>lt;sup>23</sup> "Iskander-K Cruise missile," *Military-Today.com*, no date.

underway in 2012.<sup>24</sup> The R-500 has been deployed;<sup>25</sup> indeed, it is still in production.<sup>26</sup>

In retrospect, it appears likely that the Russian press reporting on the R-500 actually reflects a combination of the characteristics of the R-500/9M728 missile and the longer-range SSC-8/9M729 missile. In a June 2019 Russian display of the 9M729 and the R-500/ 9M728 canisters and launchers, the Russian Defense Ministry revealed that the 9M729 was an improved version of the R-500 and that the canister of the 9M729 was only 53 cm longer than the canister of the R-500/9M728.<sup>27</sup> Since the SSC-8/9M729 has flown well into the INF Treaty prohibited range zone, 28 the Russian display virtually proved that the R-500 was also a violation of the INF Treaty.

<sup>&</sup>lt;sup>24</sup> "New strategic cruise missiles developed in Russia - Defense Ministry (Part 2)," Interfax-AVN Online, August 8, 2012. (Translated by World News Connection).

<sup>&</sup>lt;sup>25</sup> "Russia: Engineering Design Bureau Creates A New Missile For Tactical Complex 'Iskander-M'," ARMS-TASS, February 10, 2014. No longer posted on the internet.

<sup>&</sup>lt;sup>26</sup> "Russia's top brass inks deal on delivery of missiles for Iskander-M launchers," TASS. June 7, 2019.

<sup>&</sup>lt;sup>27</sup> Huma Siddigui, "Russia formally unveils the deadly 9M729 cruise missile of the Iskander-M," New Delhi, Financial Express, June 24, 2019.

<sup>&</sup>lt;sup>28</sup> Hearing on the Status of US – Russia Arms Control Efforts, Before the Senate Committee on Foreign Relations, 115<sup>th</sup> Congress, September 18, 2018, Prepared Statement of David J. Trachtenberg, Deputy Under of Defense Policy, Secretary for https://www.foreign.senate.gov/imo/media/doc/091818 Trachtenber g Testimony.pdf

In 2009, Yury Fedorov, Associate Fellow, Russia and Eurasia Programme, Chatham House, noted that "...there are reports that it could have a range of up to 2000km, as it is an upgrade of the Soviet land based cruise missile RK-55, also known as CSS-X-4 Slingshot...destroyed in accordance with the INF treaty."<sup>29</sup> Based on the information contained in the unclassified INF Treaty Memorandum of Understanding about the CSS-X-4, photographs of the R-500/9M728 and the SSC-8/9M729 being launched and the Russian display of these missiles, their canisters and launchers, what Russia appears to have done is to modernized the CSS-X-4, reducing its length and its canister length enough so that it would be a different type of missile under the INF Treaty but one that was not compliant with the INF Treaty. Having gotten away with this, they then went on to build the SSC-8/9M729 which was close in size but superior in capability to the original prohibited missile.

Apparently, these were not the only deliberate Russian violations of the INF Treaty. The Russian Bastion is a groundlaunched supersonic cruise missile that has both a capability against ships and ground targets. It was used against ground targets in Syria.30 In July 2016, Interfax, Russia's main unofficial news agency, reported, "The Bastion coastal defense [cruise missile] system has an operational range of 600 kilometers and

<sup>&</sup>lt;sup>29</sup> Yury Fedorov, "American Ballistic Missile Defence, Russian Iskanders and a New Missile Crisis in Europe," Chatham House, REP Roundtable Summary, May 22, 2009.

<sup>30</sup> Nicholas de Larrinaga, Sean O'Connor, and Neil Gibson, "Russia" reveals Bastion-P deployment, land attack role in Syria," IHS Jane's Defence Weekly, November 16, 2016.

can be used against surface ships of varying class and type..."31 The operational range of the Bastion demonstrated in the Zapad-2017 exercise<sup>32</sup> provides another indication that its INF Treaty accountable range (range to fuel exhaustion) was Treaty noncompliant. In March 2020, Nezavisimaya Gazeta said that a modified version of the Bastion's Oniks ground-launched cruise missile had a range of 800 km. 33 Noted Russia expert Dr. Stephen Blank has written that "...the Oniks, which also flew over 500 km in its tests – is de facto an intermediate-range weapon."34

Russia also has an aeroballistic missile, the Iskander-M, which it claims has a 500-km range. The actual range of at least some versions of the Iskander-M is reported to be up to twice the official range of 500-km. 35 Lithuanian Foreign Minister Linas

<sup>&</sup>lt;sup>31</sup> "Russian Navy to get 5 coastal defense missile systems by end of 2016 - source (Part 2)," Interfax, July 22, 2016.

<sup>32 &</sup>quot;Russian navy launches barrage of cruise missiles in drills," AP Worldstream, September 19, 2017.

<sup>33</sup> Pavel Felgenhauer, "Russian Navy Readies for Future Conflicts in Arctic," Eurasia Daily Monitor, Volume 17, Issue 68, May 14, 2020.

<sup>&</sup>lt;sup>34</sup> Stephen Blank, "Behind Moscow's Arms Control Offensive," Eurasia Daily Monitor, Volume 17, Issue 31, March 4, 2020.

<sup>35</sup> Gennadiy Melnik and Denis Telmanov, "Iskanders Taught to Work in Formation. Russia's Main Military Argument Tested for First Time in Conditions Close to Actual," Moscow Izvestiya Online, September 26, 2011. (Translated by World News Connection.); Viktor Myasnikov, "Full Verbal Arms Race Is Under Way and Has Prospects of Becoming Real One." Moscow Nezavisimaya Gazeta, Nov. 21, 2007 (Translated by World News Connection); Stephen Forss, "The Russian Operational Tactical Iskander Missile System," (Helsinki: National Defense University of Finland Maanpuolustuswkorkeakoulu, 2012), 15; "Southern MD Missile Brigade holds tactical exercise at the Kapustin Yar range,"

Linkevicius has said the range is 435miles (700-km). 36 An upgraded Iskander-M missile is reportedly also being developed.<sup>37</sup> Because of the way the INF treaty range definition for ballistic missiles is written (i.e., demonstrated range), this may not be a violation of the INF Treaty but it is a violation of the Presidential Nuclear Initiative commitments with regard to nuclear warheads for short-range missiles.

There are reports that the Kalibr missile is associated with the Iskander system.<sup>38</sup> A June 2017 unclassified report by NASIC indicated that Russia had deployed the 3M14 (the Kalibr<sup>39</sup>), a ground-, sea-, and submarine-launched cruise missile, with a range of 2,500-km.<sup>40</sup> This was omitted from a revised version of the report published later. We do not know why but it could relate to the politics of arms control compliance within the Intelligence Community. There had been no State Department determination that there was a Russian ground-launched Kalibr

Defense Ministry of the Russian Federation, September 30, 2016; "Russia: Pundit on new military doctrine, response to strategic challenges," BBC Monitoring Former Soviet Union, March 22, 2007 (Translated by World News Connection).

<sup>&</sup>lt;sup>36</sup> "Russia deploys missiles on NATO doorstep: Lithuania," AFP, October 16, 2016.

<sup>&</sup>lt;sup>37</sup> "Russia to upgrade Iskander-M missile systems," *TASS*, April 11, 2017.

<sup>&</sup>lt;sup>38</sup> Forss, "The Russian Operational Tactical Iskander Missile System," 16.

<sup>39</sup> Mark Episkopos, "Russia's Dangerous "Kalibr" Cruise Missile Could See Range Doubled: Report, The National Interest, January 12, 2019.

<sup>&</sup>lt;sup>40</sup>Defense Intelligence Ballistic Missile Analysis Committee, National Air and Space Intelligence Center, Ballistic and Cruise Missile Threat, 37.

missile and the Intelligence Community is not supposed to make compliance determinations, which are made by the NSC.41

Russia has tested the RS-26 Rubezh ballistic missile, apparently an intermediate-range missile masquerading as an ICBM (a possible violation or circumvention of both the INF Treaty and the New START Treaty). 42 According to state-run Sputnik News, it carries four 300-kt nuclear warheads. 43 It may not be able to fly to ICBM range with its normal full payload. Indeed, according to Rossiyskaya Gazeta, a Russian government daily newspaper, it has "a combat radius from 2,000 km." 44 There has been no unclassified compliance report by the Department of State on this issue, despite the legal requirement for such a report.

Bill Gertz, writing in The Washington Times and in The Washington Free Beacon, has stated that an intelligence community official told him, "The intelligence community believes it's [the RS-26/Rubezh] an intermediate-range missile that [the Russians] have classified as an ICBM because it would

<sup>41 &</sup>quot;The Select Committee Investigative Record," The Village Voice, February 16, 1978, 92.

<sup>&</sup>lt;sup>42</sup> Mark B. Schneider and Keith B. Payne, "Russia Appears to Be Violating the INF Treaty," National Review.com, July 28, 2014.

<sup>&</sup>lt;sup>43</sup> "Doomsday Weapon: Russia's New Missile Shocks and Dazzles US, China," Sputnik News, March 9, 2016.

<sup>44 &</sup>quot;Баллистическая ракета РС-26 'Рубеж' будет принята на вооружение Ракетных войск стратегического назначения в 2017 году, сообщил РИА Новости источник в российском военном ведомстве," Rgu.ru, March 11, 2016. http://rg.ru/2016/05/11/raketurubezh-postaviat-na-dezhurstvo-cherez-god.html. (In Russian.)

violate the INF treaty if its true characteristics were known..."45 The INF Treaty compliance issue for the RS-26 related to a Treaty interpretation given to the Senate during the INF Treaty ratification hearings. During the ratification process, Senator Sam Nunn (D-GA.) quoted a letter from Assistant Secretary of State Ed Fox stating the Reagan administration's interpretation of the treaty as follows: "If the test at strategic range was with a configuration (booster, stages, post-boost vehicle, RVs [reentry vehicles]) that is unlike that used for remaining tests of the system at INF range, the configuration tested to INF range would be considered a new missile in the INF range and prohibited by the Treaty."46 This is the fact situation described by the Russian Ministry of Defense. 47 Later on, the Reagan administration stated that if such testing occurred, it wanted to address the issue on a case-by-case basis.

When it did happen, the Obama administration ignored the Fox interpretation and apparently did not do any case-bycase analysis of the RS-26 fact situation because there is no unclassified compliance report and it would have likely issued

<sup>45</sup> Bill Gertz, "Russian aggression: Putin violating nuclear missile treaty," The Washington Times, June 25, 2013.

<sup>&</sup>lt;sup>46</sup> Markups and Hearings Before the Committee on Foreign Relations United States Senate One Hundredth Congress Second Session on The Treaty Between the United States of American and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-range and Shorter-range Missiles, March 22, 23, 24, 28, 29 and 30, and May 1988, Part 6 (Washington, D.C.: US Government Printing Office, 1989), 137. Available online via the HathiTrust Digital Library https://catalog.hathitrust.org/Record/007608396.

<sup>&</sup>lt;sup>47</sup> Keith B. Payne and Mark B. Schneider, "The Nuclear Treaty Russia Won't Stop Violating," The Wall Street Journal, February 11, 2014.

one if it could clear the Russians. All the Obama administration said was that, "The recent test of a new type of Russian ICBM, as announced in the Russian press, was notified and conducted consistent with the requirements of the New START Treaty; it was not subject to any provisions or restrictions under the INF Treaty."48 Just declaring it an ICBM does not make the INF Treaty legal issue or the potential New START Treaty legal issue go away.

The INF Treaty was the first arms control treaty subject to the Biden Condition (named for former Senator and later Vice President Joseph Biden) which states that a Treaty must be interpreted consistent with how it was authoritatively interpreted to the Senate. The Obama administration violated the Biden condition by failing to meet requirements of the Senate INF Treaty resolution of ratification and its implementing language (22 USC 2593a).49

There are also compliance issues related to Russian surface-to-air missiles which have a secondary ground-attack role. Pavel Felgenhauer reported, "... Moscow plans to covertly quit the 1987 treaty on medium and short-range missiles" because the Russian S-300 and the S-400 air defense missiles, the

<sup>48</sup> Deputy Undersecretary of Defense James Miller, Letter to the Honorable Michael R. Turner, Chairman, Subcommittee on Strategic Forces, Committee on Armed Services, US House of Representatives, August 3, 2012.

<sup>&</sup>lt;sup>49</sup> Joseph R. Biden, Jr. and John B. Ritch III, "Treaty Power: Upholding a Constitutional Partnership," University of Pennsylvania Law Review, Vol. 37, Issue 5 (1989), 1529-1557; on compliance reporting, see Keith B. Payne and Mark Schneider, "Russia Always Cheats on Arms Treaties," The Wall Street Journal, August 18, 2014.http://www.nipp.org/wpcontent/uploads/2014/11/Payne-Schneider-WSJ-8.19.14.pdf.

new S-500 air and missile defense interceptor and the Moscow ABM interceptors are nuclear armed and can function as "dualuse... conventional or nuclear medium- or shorter-range ballistic missiles."50 The surface-to-surface capability of the S-300 and S-400 has been confirmed respectively by the President of Belarus and TASS, the main official Russian news agency, many times. 51 State-run RT has also said the S-400 can strike ground and naval targets. 52 In March 2017, TASS quoted Colonel Alexander Gordeyev, the head of the Eastern Military District's press service, as saying, "Crews of the S-300 missile systems performed rocket strikes at ground air defense objects of a simulated enemy."53 Felgenhauer wrote that the range of the S-300 in the

<sup>&</sup>lt;sup>50</sup> Pavel Felgenhauer, "Russia Seeks to Impose New ABM Treaty on the US by Developing BMD," Eurasia Daily Monitor, Volume 7, No. 136 (July 16, 2010).

<sup>51</sup> Pavel Felgenhauer, "Moscow Is Ready to Supply Iran With Powerful S-300 Missiles," Eurasia Daily Monitor, Volume 12, No. 71 (April 16, 2015). The article has a link to one of his sources for its surface-tosurface role; it was the President of Belarus. Belarus has the S-300 and is presumably aware of its capabilities. See also "Russian Armed Forces" will get five S-400 air defense systems in September-October 2016," TASS, February 29, 2016. http://tass.ru/en/defense/859641.

<sup>52 &</sup>quot;S-400 missile defense regiment takes up combat duty outside Moscow (VIDEO)," Russia Today, January 11, 2017. https://www.rt.com/news/373371-moscow-air-defense-s400/.

<sup>53 &</sup>quot;S-300 missiles strike simulated enemy's ground air defenses in East Siberian drills." March TASS, 31, 2017. http://tass.com/defense/938610.

ground-attack mode was "up to 400-km." 54 It is clearly the shortest range of the four missile types he mentioned.

The INF Treaty contained an exception to allow for missile defense and air defense interceptors missiles used "solely" for air or missile defense, but that exception would be lost if it also had a surface-to-surface role.55 If Felgenhauer was correct, at least two of the missiles he mentioned (the Moscow ABM missiles and the S-500 when tested to their full range) violated the INF Treaty. 56 On the S-400 it would require more information than is available from open sources to make a judgement. Again, there was no unclassified State Department compliance report on this issue.

Writing in September 2011, Vladimir Kudelev noted that Russia's Federal Space Agency had published a request for proposals for "the elimination of the solid-propellant rocket engines and warheads of intercontinental ballistic missiles (ICBMs) of the Kurver, Skorost, and Topol-M missile complexes and the Bark submarine-launched ballistic missiles (SLBMs)."57

<sup>&</sup>lt;sup>54</sup> Felgenhauer, "Moscow Is Ready to Supply Iran With Powerful S-300 Missiles."

<sup>55</sup> Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, December 8, 1987, Article VII, paragraph 3.

<sup>&</sup>lt;sup>56</sup> Mark B. Schneider, "Confirmation of Russian Violation and Circumvention of the INF Treaty," National Institute Information Series, 360, (Fairfax, VA: National Institute for Public Policy, February 2014), 18.

<sup>&</sup>lt;sup>57</sup> Vladimir Kudelev, "The Super-Accurate Skorost and the Undetectable Kuryer. The Forgotten Unique Developments of Aleksandr Nadiradze,"

The problem, as Kudelev noted, was that the Skorost was "erroneously described as an ICBM" because it "had a maximum range of 4,000 km."58 Since the missile had been flight tested in the 1980s,<sup>59</sup> it should have been declared and eliminated if any existed in 1988. Again, there was no unclassified State Department compliance report on this issue.

Dave Johnson, a staff officer in the NATO International Staff Defense Policy and Planning Division, has written that "...the capabilities now available to Russia consist of redundant, overlapping, long-range, dual-capable missile coverage of nearly all of Europe from within Russian territory, airspace, and home waters." 60 Our failure until recently to react to Russian arms control violations has in part enabled this.

### The Newly Announced Russian Ground-Launched Missiles

In the aftermath of the US decision to withdraw from the INF Treaty in response to Russian violations, Russia announced 2020 initial operational capability dates for the deployment of intermediate-range and short-range ground-launched

Moscow Voyenno-Promyshlennyy Kuryer, October 12, 2011. (Translated by World News Connection.)

<sup>&</sup>lt;sup>58</sup> Ihid

Encyclopedia Astronautica (online), "Skorost," no date, http://www.astronautix.com/s/skorost.htmlled.

<sup>60</sup> Dave Johnson, "Russia's Conventional Precision Strike Capabilities, Regional Crises, and Nuclear Thresholds," Livermore Papers on Global Security, No. 3 (Livermore: Lawrence Livermore National Laboratory Center for Global Security Research, February 2018), 39.

hypersonic missiles. <sup>61</sup> These appear to have been covert programs that would have violated the INF Treaty but that are now being made public so they can be used as threats against potential US counter deployment of ground-launched INF-range missiles. The extreme difficulty in developing hypersonic missiles does not suggest a two-year timeline is at all feasible unless there was a pre-existing program intended for covert deployment.

Russia clearly had a pre-existing program to develop the Tsirkon, a scramjet-powered hypersonic cruise missile, for naval deployment. In 2019, President Putin said its range was over 1,000 km and a retired Russian admiral indicated that its range was 2,000 km.<sup>62</sup> Until Putin's announcement, the official Russian range of the Tsirkon was 400 km, although Russian state media reported estimates of as much as 1,000 km.<sup>63</sup> Claiming a range of 400 km is exactly what a state would do if it planned a covert ground-launched deployment of a cruise missile with a range that violated the INF Treaty. In 2019, since the US announced its INF Treaty withdrawal and Russia had no intention of resuming compliance with the INF Treaty, there was no longer any reason for claiming the range was below the INF Treaty threshold.

In addition to the hypersonic missiles, Russia also announced that the Kalibr nuclear capable cruise missile may be

<sup>&</sup>lt;sup>61</sup> "Presidential Address to Federal Assembly," *Kremlin.ru*, February 20, 2019.

<sup>&</sup>lt;sup>62</sup>Ibid., and "Russian Navy's Tsirkon missiles capable of hitting command posts in US territory – expert," *Interfax*, February 21, 2019.

<sup>&</sup>lt;sup>63</sup> "Russian Navy to have nigh-unstoppable hypersonic missiles by 2018 – report," *RT*, April 20, 2016.

deployed in a ground-launched basing mode. 64 This missile reportedly has a range of 2,500 km.<sup>65</sup> In 2019, TASS reported that "...the land-based variant of the ship-launched cruise missile Kalibr-M with maximum range of over 4.500 kilometers will be developed."66 There was earlier information about the possibility of a ground-launched Kalibr. In November 2017, Chief of the Russian General Staff General of the Army Valeriy Gerasimov stated that Russia had deployed a missile that sounds like the Kalibr-M. He stated that Russia had "...set up full-scale units of vehicles capable of delivering precision-guided missiles to targets located up to 4,000 kilometers away."67 These reports could be connected and suggest another covert program that would violate the INF Treaty.

A Russian press report suggested that Russia may develop an intermediate-range ground-launched ballistic missile that combines a new first stage rocket with the Kinzhal

<sup>&</sup>lt;sup>64</sup> Andrew Osborn, "Russia plans new missile systems to counter U.S. by 2021," Reuters, February 5, 2019.

<sup>65 &</sup>quot;Potential Russian response to collapse of INF treaty discussed," BBC Monitoring Former Soviet Union, August 7, 2019; "Meeting with Defence Minister Sergei Shoigu," Kremlin.ru, December 8, 2015; "In the course of the last 24 hours, aircraft of the Russian Aerospace Forces have performed 82 combat sorties engaging 204 terrorist objects in Syria," Defense Ministry of the Russian Federation, December 9, 2015.

<sup>66 &</sup>quot;Russia to develop land-based Kalibr-M missile — source," TASS, February 23, 2019.

<sup>67 &</sup>quot;Army; Russia sets up delivery vehicles that can carry precisionguided missiles up to 4,000 km - General Staff," Interfax, November 7, 2017.

maneuvering missile as its second stage.<sup>68</sup> This may also be a preexisting Russian program that has now been brought into the open. There may be other Russian hypersonic missile programs under development that have not been reported in open sources.

### Dealing with Russian INF Treaty Violations

When the Trump administration made its decision to withdraw from the INF Treaty last year, there was no question that Russia had violated it. By December 2018, the evidence was strong enough for the entire NATO alliance to declare formally: "[The] Allies have concluded that Russia has developed and fielded a missile system, the 9M729, which violates the INF Treaty and poses significant risks to Euro-Atlantic security. We strongly support the finding of the United States that Russia is in material breach of its obligations under the INF Treaty." <sup>69</sup> In light of the fact that NATO operates on the basis of unanimous consent, the evidence had to have been decisive. In November 2018, the Government of the Netherlands, hardly a bastion of anti-Russian feeling in Europe, declared that it "can independently confirm that Russia has developed and is currently introducing a ground-based cruise weapon" with a range of over 500-km. <sup>70</sup>

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<sup>&</sup>lt;sup>68</sup> "Potential Russian response to collapse of INF treaty discussed," *BBC Monitoring Former Soviet Union.* 

<sup>&</sup>lt;sup>69</sup> Statement on the Intermediate-Range Nuclear Forces (INF) Treaty Issued by the NATO Foreign Ministers, Brussels, December 4, 2018.

<sup>&</sup>quot;Dutch Ministers Accuse Russia of Developing Cruise Missile Violating INF Treaty," The Moscow Times, November 28. <a href="https://themoscowtimes.com/news/dutch-ministers-accuse-russia-developing-cruise-missile-violating-inf-treaty-63630">https://themoscowtimes.com/news/dutch-ministers-accuse-russia-developing-cruise-missile-violating-inf-treaty-63630</a>.

Nor had there been insufficient US communication with Russia about INF compliance. As the Department of State has said, "Prior to the US suspension of its obligations [under the INF] Treaty] on February 2 [2019], the United States raised Russia's INF violation in more than 30 engagements, including at the highest levels of government. The United States has convened six meetings of technical experts to discuss Russia's INF Treaty violation since 2014."71 Despite high level pressure on Russia to comply, "....we were met only with obfuscation, falsehoods, and denials." 72 The Russians had demonstrated a complete unwillingness to admit they were in violation of the INF Treaty or to correct it. The ability to ignore arms control commitments anytime it was convenient was one of the biggest advantages President Putin had in his new Cold War with the West.

The Trump administration has not overreacted to the Russian INF violations. If anything, it has done the opposite. However, it has pursued the strongest compliance policy vis-a-vis Russia since the Reagan administration. That was not easy to do, and the administration deserves enormous credit for its success. It has laid down a clear marker that there will not be one-sided arms control treaty compliance. This is critically important.

Still, the unfortunate reality is that unless there is a strong push from the Department of Defense, special interests in the Department of State can prevent compliance with US law regarding informing the Congress and the public about Russian

<sup>71 &</sup>quot;INF Myth Busters: Pushing Back on Russian Propaganda Regarding the INF Treaty," Fact Sheet, US Department of State, Bureau of Arms Control, Verification and Compliance, July 30, 2019.

<sup>72</sup> Ibid.

arms control violations. The Department of State is dominated by what has been called "clientitis," which Bill Gertz defines as "the tendency of government officials to treat foreign officials they deal with as clients and orient policies in ways that would not upset relations." This has been going on for decades. Sven Kraemer, Director of Arms Control Policy in the Reagan administration NSC and the longest serving member of the NSC staff in history, has recorded that, "...new interagency efforts to assess Soviet violations of the SALT II agreement were blocked by the Department of State during 1981," and, after this, there were "delaying tactics and resistance within the government bureaucracy, especially in the State Department, ACDA and parts of CIA." Under Reagan, these factions lost, but after January 20, 1993, they once again became dominant, as evidenced by lack of compliance with the law.

Russia has proposed a moratorium on INF missile deployment in Europe. The effect of such action would, best case, give Russia a monopoly on INF-range missiles capable of targeting Europe with no limit on the overall number of INF-range ground-launched cruise missiles that could be deployed. It is also very possible that the range of the SSC-8/9M729 or other Russian cruise missiles could be long enough to target Europe when deployed outside of Europe. Thus, there would be no limit to the threat to Europe, the Middle East or the Far East even if

<sup>73</sup> Bill Gertz, "Skyfall details blocked," *The Washington Times*, October 23, 2019.

<sup>&</sup>lt;sup>74</sup> Sven F. Kraemer, "The Krasnoyarsk Saga," *Strategic Review*, Winter 1990, 27, 29.

<sup>&</sup>lt;sup>75</sup> "NATO Rejects Putin's Missile Moratorium Offer," *The Moscow Times*, September 27, 2019.

the moratorium were honored, which would not be likely considering Russia's compliance record. There is also the possibility of the covert deployment of additional prohibited missiles in European Russia. Additionally, there is the issue of the range of the other Russian ground-launched cruise missiles discussed above. NATO has rejected the Russian proposal as "not a credible offer."76

#### Conclusion

What is to be done? A recent article by distinguished British strategist Dr. Colin Gray and Matt Costlow, then a Senior Analyst with the National Institute for Public Policy, noted that most supporters of continued US compliance with the INF Treaty despite Russian violations, "...suggested US responses from the professional arms control community center around some mix of 'mutual inspections'..." <sup>77</sup> 'more dialogue' and The recommendations of the arms control enthusiast community<sup>78</sup> are Pollyannaish. The US government seriously engaged with Russia since 2013 on correcting the Russian violations without any success and Russia deployed the prohibited missile. 79

<sup>76</sup> Ibid.

<sup>&</sup>lt;sup>77</sup> Dr. Colin S. Gray and Matthew R. Costlow, "Time to Withdraw from the INF Treaty," National Institute Information Series, 433 (Fairfax Va.: National Institute for Public Policy, August 28, 2018).

<sup>&</sup>lt;sup>78</sup> Some of the most vocal arms control enthusiasts have had little or no experience in actual arms control negotiations, or if so, have done a terrible job.

<sup>&</sup>lt;sup>79</sup> "The Intermediate-Range Nuclear Forces Treaty (INF)," Key Topics – Bureau of Arms Control, Verification and Compliance, US Department of State. https://www.state.gov/inf.

According to then-Under Secretary of State Andrea Thompson, Russia's response was "its standard playbook of distraction, misinformation, and counter-accusations."<sup>80</sup>

Moreover, nothing in the INF Treaty verification regime (it expired 13 years after the Treaty's entry into force in 1988)<sup>81</sup> had anything to do with determining the range of cruise missiles, which was left to National Technical Means of verification. The INF Treaty verification regime was limited to inspections at declared bases and facilities. All the inspectors did was to verify the absence of missiles and launchers originally declared in the Treaty to be INF-range systems or verify the elimination of declared missiles and launchers. There were no inspection rights concerning suspect sites or suspect missile types.

A 1988 Senate Intelligence Committee report on monitoring the INF Treaty pointed out that "Therefore, the burden of detecting banned activities at undeclared sites, where they are most likely to occur, will fall on National Technical Means of verification." 82 Indeed, the report voiced concern

<sup>80</sup> Hearing on the Status of US – Russia Arms Control Efforts, Before the Senate Committee on Foreign Relations, 115<sup>th</sup> Congress, September 18, 2018, Prepared Statement of Andrea Thompson, Under Secretary of State for Arms Control and International Security, 1. https://www.foreign.senate.gov/imo/media/doc/091818\_Thompson\_Testimony.pdf

<sup>&</sup>lt;sup>81</sup> Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, December 8, 1987, Article XI, paragraph 6.

<sup>&</sup>lt;sup>82</sup> US Senate Select Committee on Intelligence, *The INF Treaty Monitoring and Verification Capabilities*, Rep. No. 100-318, April 21, 1988, 7.

about the exact problem that developed twenty years later: "We are concerned that the Soviets could covertly extend the range capability of a cruise missile, or overtly develop a new groundlaunched missile with a prohibited long-range capability..."83

The belief in the arms control community that we could talk our way out of this problem not only ignores the history of Russian violations of the INF Treaty, but more importantly, the history of Soviet/Russian noncompliance with arms control obligations. Moreover, the range of a cruise missile can't be determined by displays which at most will provide only slightly better data on the size of these missiles.<sup>84</sup> This became irrelevant once we observed a ground-launched missile fly to INF Treatyprohibited range.

As then Principal Deputy Secretary of Defense for Policy David Trachtenberg stated in September 2018, "The evidence is conclusive. Russia possesses a missile system, the SSC-8, in direct violation of the INF Treaty. Russia has tested this ground-based system well into the ranges covered by the INF Treaty, produced it, and fielded it. The violation is real, and it goes against the core purpose and restrictions of the INF Treaty."85

The issue was no longer confirmation. It was what we should do about it and the Trump administration did the right thing. President Donald Trump stated in February 2019, "For

<sup>83</sup> Ibid., 8.

<sup>&</sup>lt;sup>84</sup> Robin Emmott, "Russia, US fail to save missile treaty, Washington to pull out," Reuters, January 19, 2019.

<sup>85</sup> Prepared Statement of Honorable David J. Trachtenberg, Deputy Under Secretary of Defense for Policy.

arms control to effectively contribute to national security, all parties must faithfully implement their obligations." <sup>86</sup> The reason for this was stated by President Ronald Reagan in 1982: "Simply collecting agreements will not bring peace. Agreements genuinely reinforce peace only when they are kept. Otherwise, we are building a paper castle that will be blown away by the winds of war."<sup>87</sup>

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<sup>&</sup>lt;sup>86</sup> "Statement from the President Regarding the Intermediate-Range Nuclear Forces (INF) Treaty," February 1, 2019.

<sup>&</sup>lt;sup>87</sup> President Ronald Reagan, "Remarks in New York, New York, Before the United Nations General Assembly Special Session Devoted to Disarmament," June 17, 1982.