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Russian INF Treaty Violations: Implications for the Nuclear Posture Review and the Future of the INF Treaty

Dr. Mark Schneider

Mark B. Schneider is a senior analyst at the National Institute for Public Policy and a former senior official in the Defense Department.

In 2014, the Obama administration determined, "...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."¹ However, it never revealed which missile was in violation of the Treaty. Soon after the Obama administration left office, Michael Gordon, writing in the *New York Times*, reported that Russia had actually deployed the prohibited cruise missile.² This story was soon confirmed by the Trump administration, but the precise missile involved was still not revealed.³ In June 2017, an unclassified intelligence report by the National Air and Space Intelligence Center, U.S. Air Force (NASIC), indicated that Russia had deployed the 3M14, a ground-, sea- and submarine-launched cruise missile with a range of 2,500-km.⁴ The 3M-14 is the Russian Kalibr cruise missile.⁵ The military implications of the deployment of the Kalibr should be a significant issue in the Nuclear Posture Review (NPR).

The impressive capabilities of the Kalibr missile were demonstrated in Russian attacks in Syria which the Russian Defense Ministry said displayed an accuracy that "did not exceed three meters [miss distance]."⁶ The Russian press has long reported a Kalibr range of 2,500-km and President Vladimir Putin declared this missile "can be equipped either with conventional or special nuclear warheads."⁷ The June 2017 report of the Defense Intelligence Agency (DIA) on *Russia Military Power* noted, "The KALIBR-family of cruise missiles are some of Russia's most capable systems," have a "lower flight profile than other Russian cruise missile systems" [hence, enhancing its ability to penetrate air defenses],

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and are “capable of carrying conventional or nuclear warheads.”⁸ It also said, “With the arrival of two KALIBR-equipped vessels in 2016, the Russian Baltic fleet presents a significant long-range precision conventional and theater nuclear strike threat to Western Europe.”⁹ It is noteworthy that Russia’s Defense Minister General of the Army Sergei Shoigu announced that in the second quarter of 2017 some 60 Kalibr missiles were delivered to the troops.¹⁰ This number is apparently unprecedented and almost certainly fuels the prohibited deployment.

The ground-launched Kalibr missile will allow Russia to deploy large numbers of Kalibr missiles economically, dramatically increasing the threat to Europe and Asia. It no longer requires building expensive corvettes, frigates and destroyers to deploy Kalibrs legally because the typical launcher for a ground-launched cruise missile is a small military truck. Even the \$70-million dollar Bunyon-M class corvettes,¹¹ (designed to be an inexpensive Kalibr platform) which launched the first Kalibr attacks in Syria, are vastly more expensive than a few small military trucks and their supporting vehicles. Moreover, in July 2017, state-run *Sputnik News* reported that Russia’s hypersonic cruise missile the Zircon, now being tested at speeds up to Mach 8, “can be fired from the same launchers as the cruise missiles Kalibr and the anti-ship missile Oniks...”¹² *Sputnik News* later reported that the Zircon “is designed for speeds of up to 12 times the speed of sound.”¹³ If so, its flight time-to-target would be comparable to ballistic missiles and it would be much less detectable and difficult to intercept.

The Oniks is a supersonic anti-ship/land-attack cruise missile, which is ground-launched by the Bastion system. According to the DIA report on *Russia Military Power*, the TSIRKON (Zircon), “is expected to enter service in 2018, [and] will have a 500 to 1,000-km range.”¹⁴ (This matches reports in the Russian state media that its range may be 1,000-km.¹⁵) The NASIC report says it is possibly nuclear capable.¹⁶ Since its range is entirely within the INF Treaty prohibited zone, if the Zircon were launched from the ground-mobile launchers of the Kalibr, the Bastion or any other ground-mobile launcher it would be another serious violation of the INF Treaty. The Zircon could be an augmentation of the Kalibr and a potentially much more capable replacement for the Oniks in the Bastion system. Prohibited ground-launched deployment of the Zircon is a real possibility.

There are apparently more Russian violations of the INF Treaty than just the prohibited Kalibr production, testing and deployment. In July 2016, *Interfax*, Russia’s main unofficial news agency, reported, “The Bastion coastal defense system has an operational range of 600 kilometers and can be used against surface ships of varying class and type...”¹⁷ (The INF Treaty accountable range of the Bastion is almost certainly larger than the operational range because range for cruise missiles is calculated assuming fuel exhaustion.¹⁸) There are other press reports that the Bastion has a range of 600-1,000-km.¹⁹ The Bastion has been used against ground targets in Syria.²⁰ If Russia is already violating the INF Treaty, they will hardly hesitate to upgrade the capabilities of the Bastion system.

There is another Russian ground-launched cruise missile, the R-500, part of the Iskander system, which is widely reported to have a range that is prohibited by the INF Treaty. In November 2007, *Ria Novosti*, an official Russian Government news agency, reported, “The flight range of a new cruise missile adapted for Iskander and successfully tested in May 2007 could exceed 500 km (310 miles).”²¹ In November 2008, it revealed that the potential range of the R-500 “can exceed 2,000 kilometers...”²² *Kommersant*, a major Russian publication, maintained that the range of the R-500 “can amount to 1,000 kilometers.”²³ Writing in *Ria Novosti* and for the *UPI*, Russian journalist Ilya Kramnik said that the range of the R-500, and possibly a second missile type, could be between 1,200 and 3,000-km.²⁴ In 2014, noted Russian journalist



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Pavel Felgenhauer “said the missile (R-500) has been tested at a range of 1,000 km,” but the “range could be extended up to 2,000-3,000 km by adding extra fuel tanks.”²⁵

These reports are quite credible because the R-500 is much too big to have a range of under 500-km. When it was first launched in 2007, then-Defense Minister Sergei Ivanov stated, “It can be used at long range with surgical precision, as doctors say.”²⁶ The R-500 has now been deployed.²⁷ Russia may also be in the process of upgrading the R-500 system because there are reports that the Kalibr missile has become associated with it.²⁸

There are issues with regard to the Russian RS-26 “ICBMs” compliance with the INF and START Treaties. 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 violate the INF treaty’ if its true characteristics were known...”²⁹ A number of prominent Russian experts have said the RS-26 has a theater-range attack mission. According to *Kommersant*, former Duma Defense Committee Vice Chairman Alexsey Arbatov, said, “...judging from the unofficial assessments of the experts, this system is also designed for intermediate-range targeting, which de facto corresponds to the category of missiles eliminated under the [INF] Treaty...”³⁰ He also linked the RS-26 MIRVed payload to intermediate-range targeting. Sergey Rogov, Vice Admiral (ret.) Valentin Kuznetsov, Colonel General (ret.) Viktor Yesin and Major General (ret.) Pavel Zolotarev, experts associated with the USA and Canada Institute of the Russian Academy of Science, have called the Rubezh “an ICBM but with reduced flight range (consequently, it can accomplish missions for the destruction of targets in the European Theater).”³¹ According to the June 2017 NASIC report, “Russia claims it will deploy the RS-26 Rubezh for shorter-range targets...”³²

It is unlikely that the RS-26 can actually fly to over 5,500-km with its full warhead load which is reported in the Russian state media to be four warheads of 300-kt.³³ The range of the RS-26 is clearly much less than any real Russian ICBM. (See chart on page 29 of the 2017 NASIC missile report.) The claim that the RS-26 is an “ICBM” is based completely on the Russian assertion that the missile was flown to 5,600-km on its first launch with a single RV.³⁴ The NASIC report does not confirm this but merely states the Russian press asserts this.³⁵

Even if this is true, the missile was tested to the range of about 2,000 kilometers and with multiple warheads.³⁶ This has never happened before with regard to any ICBM. While there are occasional tests of Russian ICBMs to less than ICBM range,³⁷ the vast majority of ICBM tests fly to ICBM range. In fact, the possibility of avoiding the INF Treaty’s restrictions by labeling a prohibited missile an “ICBM” in just this fashion was raised by U.S. senators during the INF Treaty ratification process, and such testing was authoritatively interpreted as a violation of the INF Treaty.

In 1988, Senator Sam Nunn (D., Ga.) stated that “during the hearings [on the INF Treaty], concern was expressed that the Soviets could develop and deploy a new type of ground-launched ballistic missile to replace the SS-20 if the missile were tested the first time at a range in excess of 5,500 kilometers, even if every other test was at INF ranges.” Senator Nunn then 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, postboost 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



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considered a new missile in the INF range and prohibited by the Treaty.”³⁸ This describes the Russian-depicted RS-26 fact situation and the Fox letter characterizes it as a Treaty violation.

Later on, the Reagan administration stated that if such testing actually 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-by-case analysis of the RS-26 fact situation. This appears to be a violation of the Biden condition for INF Treaty ratification which stated that a Treaty must be interpreted consistent with the way it was authoritatively explained to the Senate. Ironically, the Obama administration is the only one to have violated the Biden condition.

There is also a New START Treaty compliance issue relating to the RS-26. The RS-26 apparently uses the first two stages of the SS-27,³⁹ which is an ICBM maintained, stored and transported as an assembled missile in a launch canister. If so, this is a violation of the New START Treaty because the first stage of the missile is coming out of a production facility in two upper stage configurations. The same provision was in the START Treaty and it was authoritatively interpreted during the Clinton administration when two versions of the SS-25 ICBM were produced.⁴⁰ Significantly, the House Armed Services Committee is attempting to mandate a study of the RS-26 compliance issue.⁴¹

The threat to U.S. allies from the RS-26 is quite substantial. The argument that it does not matter if the RS-26 violates the INF Treaty because it will be captured by the New START Treaty is apparently bogus. In 2010, then-Senator Jon Kyl (R-AZ) noted, “It is clear from the [Senate Foreign Relations Committee] report that the language [in the New START Treaty] would not cover rail-mobile systems if Russia were to reintroduce them.”⁴² Not surprisingly, Russia has announced it is developing a rail-mobile ICBM. Significantly, the New START Treaty omitted all references to rail-mobile ICBMs and changed the mobile ICBM launcher definition to exclude them.⁴³ It is reported that the rail-mobile ICBM will be based on the RS-24/Yars ICBM.⁴⁴ Colonel (ret.) Viktor Litovkin, now a noted, if hardline, Russian journalist, wrote in the state media that the MS-26 [RS-26] Rubezh missile will be deployed on the rail-mobile launcher.⁴⁵ If so, potentially significant numbers of the RS-26 missiles and their warheads will not be limited by New START unless the Treaty is amended. The U.S. resolution of ratification requires a Treaty amendment to bring rail-mobile ICBMs into the New START Treaty.⁴⁶ The Obama administration certainly did not negotiate any Treaty amendment bringing rail-mobile launchers into the New START Treaty and apparently did not even try.

There are major INF Treaty compliance issues associated with Russian surface-to-air missiles and missile defense interceptors. While the INF Treaty allows INF-range missiles of this type, it does so provided they are “solely” for air or missile defense.⁴⁷ In July 2010, Pavel Felgengauer wrote, “...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 new S-500 air and missile defense interceptor and the Moscow ABM interceptors are nuclear armed and can function as “dual-use as conventional or nuclear medium or shorter range ballistic missiles.”⁴⁸ He also wrote that this capability was actually demonstrated in the Russian Far East Vostok-2010 military exercise.⁴⁹ *Red STAR*, the official newspaper for the Russian Defense Ministry, has reported that Russia has 700 nuclear warheads for the Moscow ABM and its surface-to-air missiles.⁵⁰ In April 2015, Felgenhauer wrote that the Russian S-300 system (the shortest range of the systems he listed) has a nuclear ground-attack capability with a range of “up to 400 kilometers.”⁵¹ This article contained a link to a statement by the President of Belarus to the effect that the



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S-300 had a surface-to-surface capability. In February 2016, Felgenhauer noted that the S-300PMU2, which Russia has sold to Iran, can attack “land and sea targets” with precision accuracy.⁵²

Evidence for the reported surface-to-surface role has now appeared in the Russian state media. In February 2016, *TASS* reported the S-400 “can also be used against ground objectives.”⁵³ *TASS* has reported this many times. State-run *Russia Today* has said the S-400 can strike ground and naval targets.⁵⁴ In March 2017, *TASS* quoted Col. 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.”⁵⁵

If what Felgenhauer says is true, the Moscow ABM system violated the INF Treaty since the first day it was in force because the range of some of its interceptors was long.⁵⁶ Whether the S-300 and S-400 surface-to-air missiles violate the INF Treaty depends upon their testing history. If the S-500 has a surface-to-surface role, it would be virtually impossible for this missile, with a stated intercept range of 600-km,⁵⁷ not to violate the INF Treaty once it is fully tested.

While this may not be a violation of the INF Treaty, Russia is in the process of circumventing it by the deployment of an advanced version of the nuclear capable Iskander-M ballistic missile with a reported range of 600-1,000-km.⁵⁸ The Treaty accountable range of ballistic missiles is the maximum tested range, not range potential as is the case with cruise missiles. It is probably not necessary to test the Iskander-M to its maximum range to have confidence in its capabilities in the 500-1,000-km range band.

Writing in September 2011, Russian journalist Vladimir Kudelev noted that Russia’s Federal Space Agency published a request for proposals for “the elimination of the solid-propellant rocket engines and warheads of intercontinental ballistic missiles (ICBMs) of the Kuryer, Skorost, and Topol-M missile complexes and the Bark submarine-launched ballistic missiles (SLBMs).”⁵⁹ 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.” Since the missile had been flight tested in the 1980s, it should have been declared and eliminated under the INF Treaty.⁶⁰ While this may not be a current compliance issue if the missiles have been eliminated due to age, it would be useful for the NPR to look at the issue of how many of these missiles were produced and when they were produced. This has substantial implications for accurately assessing the scope of Russian cheating.

What does this mean for the NPR? First, Russia is now aware that we are very reluctant to react to its arms control violations. Consequently, Russia will violate any arms control agreement to the extent it finds necessary or convenient. If it gets away with violating the INF Treaty, the scope of its other arms control violations will likely increase. Second, the politics of arms control compliance will restrict dissemination of critical information to much of the military. This has happened before,⁶¹ and it will happen again. Third, diplomacy will not resolve the INF issues and there will never be any NATO consensus on an arms control compliance issue. Hence, the U.S. must act on its own like the Reagan administration did when it terminated U.S. observance (under a “no undercut” policy) of the SALT I and II agreements in response to Soviet violations. Fourth, we have to deter a range of Russian military options that directly result from their violation and circumvention of the INF Treaty and their political commitments under the 1991-1992 Presidential Nuclear Initiatives regarding tactical nuclear weapons. Russia has achieved an enormous superiority in non-strategic nuclear systems that we cannot have because of continued unilateral U.S. compliance with the INF Treaty and the political commitments that



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Russia is violating. In effect, Russia has reconstituted the Soviet non-strategic or theater/tactical nuclear Triad while we have reduced our capability to dual capable fighter aircraft carrying only gravity bombs. This leaves us much more vulnerable than we should be which, in turn, could result in Russian first use of tactical nuclear weapons in a war against NATO. Today, the INF Treaty provides no security benefit for the U.S. or NATO. Its verification regime is long dead and, moreover, even if it still existed, it would not provide information relevant to the existing compliance issues unless Russia were really stupid and deployed prohibited missiles at bases open to inspection.

The military implications of the INF Treaty violations are stark. The Soviet INF-range ground-launched missile capability was extensive, but it was entirely nuclear and the missiles were not very accurate. The emerging pattern of Russian INF Treaty violations will result in a force even more threatening. Russia is migrating to a ground-launched missile force that will probably be 100% dual capable with high accuracy. Russian ground-launched cruise missiles will also probably become hypersonic. Russian INF-range missiles probably carry precision low-yield and low-collateral damage nuclear weapons as well as traditional high-yield weapons and a variety of conventional weapons. U.S. INF missiles have migrated to the Smithsonian, and, unless we change policy, they will remain there.

The NPR should address the implications of the Russian INF Treaty violations for global stability. China is also a beneficiary of the INF Treaty which is now providing no security benefit for the U.S. or our Asian allies. Indeed, the 2017 edition of the Pentagon's annual China report confirms China is deploying the new DF-26 IRBM which "is capable of conducting conventional and nuclear precision strikes against ground targets and conventional strikes against naval targets in the western Pacific Ocean."⁶² The large Chinese force of ground-launched INF-range missiles could determine the outcome of a major war as well as making it much more likely.

Failure to react to Russia's violations of its arms control commitments will significantly enhance the risk of war. The Reagan administration, which concluded the INF Treaty, would have terminated it in response to Russia's egregious behavior. Its termination of the SALT I and II agreements in response to Soviet violations very likely contributed to the negotiation of the START and INF Treaties and resulted in some corrective action with regard to Soviet violations in the late Soviet period. The failure of all administrations after George H.W. Bush to punish Russia for arms control violations has contributed to the situation we now face.

Compliance with arms control agreements is critical to our national security and global stability. Unilateral compliance with arms control agreements is tantamount to unilateral disarmament. As President Ronald Reagan stated 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."⁶³

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