

## The Nuclear Posture Review, New START, and the Russian Nuclear Buildup

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In April 2017, the Russian UN Mission Charge d'affaires Petr Ilyichev declared, "Currently we are systematically getting to the full-scale implementation of the New START [Treaty]." [1] Unfortunately, Russians actions contradict this statement. For example, in May 2017, President Vladimir Putin announced, "The Strategic Missile Force is smoothly switching over to Yars mobile and silo-based systems...Such modern systems already account for 62% of the armament of the Strategic Missile Force and their share will rise to 72% by the end of the year." [2] A ten percentage point increase in just seven months represents about a doubling of the highest previously announced deployment rate. The Strategic Missile Force (the ICBM force) comprises 60% of Russia's strategic nuclear delivery vehicles which it declared to be 523 on March 1, 2017. [3] A ten percentage point increase in the modernized portion of the Strategic Missile Force in seven months requires the deployment of over 30 multiple warhead (MIRVed) RS-24 Yars ICBMs. By comparison, Russia announced that in 2014 it had deployed 16 Yars and 23 in 2016. [4] The Russian numbers for 2014 and 2016 are for an entire year, not just seven months.

Russia's accelerated modernization rate is significant because it is exactly the opposite of what Russia should be doing if it intends to comply with the New START Treaty. Russian New START data for March 1, 2017, eleven months before the deadline when the New START numerical limits come into legal effect, indicated that Russia had moved from below the New START deployed warhead limit of 1,550 at New START entry-into-force in 2011 to 215 warheads above it. (At New START entry into force Russia had 1,537 deployed warheads.) We are now only eight months away from the deadline. Putin's programmatic announcement will probably increase the number of Russian warheads that have to be removed from accountability by February 5, 2018, to over 300 because Russian single-warhead SS-25 ICBMs are being replaced by Yars ICBMs carrying at least four warheads. [5] The remaining eight months includes a long, cold Russian winter, hardly ideal weather for making the type of changes necessary for Russia to comply with New START.

A few days after Putin's speech, General of the Army Sergei Shoigu, Russia's Defense Minister, revealed unprecedented details about Russia's near-term nuclear buildup. It was more bad news made worse by its linkage to the next stage of Russian defense modernization. He said that by

2021, a period in which the New START Treaty will be in force, Russia will add eight regiments of Yars ICBMs (9 to 10 missiles each) and four more Borey-class ballistic missile submarines carrying 16 six-warhead Bulava-30 nuclear ballistic missiles to its existing force of “modern” ballistic missile submarines and the deployment won’t end in 2021.<sup>[6]</sup> He also noted, “Advanced strategic missile systems being developed now will start arriving for the troops.”<sup>[7]</sup> This reportedly is a reference to “the completion of three intercontinental ballistic missile development programs: the RS-26 Rubezh (a development of the Yars-M), [the] RS-28 Sarmat and the rail-based Bagruzin by 2020.”<sup>[8]</sup> All these systems will have multiple warheads. *Sputnik News*, an official news agency, reports that the RS-26 carries four 300-kiloton warheads.<sup>[9]</sup> (Russia has been reticent about the number of RS-26s it plans to deploy, possibly because there are arms control compliance issues associated with it.)<sup>[10]</sup> According to TASS, Russia’s main official news agency, the 46 planned new Sarmat heavy ICBMs, will be deployed beginning in 2018 and will carry “no fewer than 15” nuclear warheads each.<sup>[11]</sup> This is obviously a ridiculous decision if Russia has any intent of complying with the New START Treaty because the Sarmat deployment would consume about half of the allowed warheads under New START. TASS also reports that the Bagruzin will employ the Yars ICBM,<sup>[12]</sup> stating a new missile division is being created for the Yars.<sup>[13]</sup> TASS reporting indicates a Bagruzin division will reportedly carry 120 warheads, assuming four warheads per missile.<sup>[14]</sup> The Russians will claim that the Bagruzin is not subject to New START, but the rest of their new ICBMs clearly are. Thus, it is increasingly clear that the Russian strategic nuclear modernization program is not a reasonable program if Russia intends to comply with New START.

General Shoigu also stated that Russia would modernize four to five strategic bombers per year. That will not increase the number of New START accountable warheads, but it will increase the overall Russian nuclear capability. Moreover, TASS reports that starting in 2020, two-to-three new Tu-160M2 heavy bombers will be produced each year.<sup>[15]</sup> These will count as one warhead each but can carry many more.

The probability of Russian compliance with New START is low. What are the Russians going to do? They could legally withdraw from New START as late as August 2017 and avoid a violation. This is not very likely. They could illegally “suspend” their obligations under New START (as they did with the Conventional Forces in Europe [CFE] Treaty), probably using the U.S. missile defense program as an excuse. That is more likely but not probable. What seems most likely is a lie and cheat approach – providing the U.S. with a bogus Russian deployed warhead number and depending upon the inadequacy of the New START Treaty verification regime to protect them from a U.S. response.

The tradition of a bipartisan unclassified Senate Select Intelligence Committee Treaty report ended with New START. The reason was apparently that, irrespective of ordinary political spin, it was impossible to produce a halfway accurate assessment of the New START verification regime that would not have sunk Treaty ratification. Unable to state his views in an official Committee report, then-Senator Christopher (Kit) Bond (R-MO) took the floor of the Senate and delivered this assessment of the New START Treaty: “The Select Committee on Intelligence has been looking at this issue closely over the past several months. As the vice chairman of this committee, I have reviewed the key intelligence on our ability to monitor this treaty and heard from our intelligence professionals. There is no doubt in my mind that the United States cannot

reliably verify the treaty's 1,550 limit on deployed warheads."[\[16\]](#) He pointed out one of the most amazing things about the New START Treaty is the inability of any inspection that can be conducted under the New START Treaty to prove a violation of the New START Treaty. As he explained, "As an initial hurdle, the ten annual warhead inspections allowed under the treaty permit us to sample only 2 to 3 percent of the total Russian force. Further, under New START, unlike its predecessor, any given missile can have any number of warheads loaded on it. So even if the Russians fully cooperated in every inspection, these inspections cannot provide conclusive evidence of whether the Russians are complying with the warhead limit."[\[17\]](#)

The reason for this is that, unlike the START and INF Treaties, the New START Treaty contains no attribution rules. Let me explain. Under the START Treaty, each type of strategic missile was attributed a specific number of warheads. The total number of accountable warheads was the number of deployed launchers of each missile type multiplied by the attribution number for that missile type. This allowed information from Russian data declarations, inspections and national technical means of verification to be used to count treaty accountable warheads. If during a warhead inspection, the inspectors saw more warheads on a missile than it was attributed with, this was a treaty violation. Not so under New START.

There are easy and relatively safe cheating scenarios which would allow Russia to go well beyond the number of deployed ballistic missile warheads allowed under New START (the number of actual bomber weapons is almost unlimited.) According to General Shoigu's statement cited above, Russia now has nine regiments of MIRVed Yars ICBMs. A large percentage of them are mobile ICBMs. To hide excess warheads, Russia could have two classes of Yars missiles – some deployed with less than the maximum number of warheads the missile can carry and some with the maximum number. For the Yars, the maximum number is apparently six now, but it may increase to ten.[\[18\]](#) To prevent missiles with six or even ten warheads from being inspected, all the Russians would have to do is to drive the missiles outside of the base. Under New START, they have up to 24 hours to do this, a significant increase from the 9 hours allowed in the START Treaty. This would be a treaty violation but so what? Nothing normally happens to Russia when it violates arms control treaties. The Obama administration, after saying it would respond to Russia's INF Treaty violations, did nothing and left office without telling the American people that the Russians had begun the actual deployment of the prohibited ground-launched cruise missile.[\[19\]](#)

There is also an easy cheating scenario with regard to silo-based or submarine-based ballistic missiles. During warhead inspections, warheads can be covered by covers that are supposed to be small enough so that no more than one warhead could fit under them. To cheat, all you have to do is to have covers that are large enough to conceal two or more warheads. This is not a hypothetical cheating option. The Russians actually used oversized covers under the START Treaty and got away with it. According to the 2005 Department of State compliance report, "Russian RV [reentry vehicle] covers, and their method of emplacement, have in some cases hampered U.S. inspectors from ascertaining that the front section of the missiles contains no more RVs than the number of warheads attributed to a missile of that type under the Treaty."[\[20\]](#) Indeed, in 2010, in response to a Senator's question about Russian START violations, the Intelligence Community indicated that among the most numerous Russian violations of the START Treaty were in warhead counting inspections.[\[21\]](#)

Russia is apparently well positioned to cheat using oversized warhead covers. This is easier if the missile carries two warhead sizes. Some Russian missiles are reported to carry two types of warheads. For example, the Liner SLBM carries both “medium” and “light” warheads, according to its manufacturer, the numerical difference being four “medium” vs. 9-12 “light.”[\[22\]](#) This clearly implies the “light” warheads are much smaller and lighter than the “medium” warheads. The future Sarmat heavy ICBM is reported to be able to carry both “heavy” and “medium” nuclear warheads.[\[23\]](#)

Another cheating possibility is a covert mobile ICBM force. The Reagan administration concluded that the Russians probably did this with their SS-16 mobile ICBM, whose deployment was prohibited under the SALT II Treaty.[\[24\]](#) The January 1984 Presidential noncompliance report stated, “While the evidence is somewhat ambiguous, and we cannot reach a definitive conclusion, the available evidence indicates that Soviet activities at Plesetsk are a probable violation of their legal obligation not to defeat the object and purpose of SALT II prior to 1981 during the period when the Treaty was pending ratification and a probable violation of a political commitment subsequent to 1981.”[\[25\]](#) While we insisted on a serious mobile ICBM verification regime in START, very little of it survived in New START.[\[26\]](#)

Even with the START verification regime, the Senate Select Committee on Intelligence reported that, “...U.S. intelligence will have less than high confidence in its monitoring of such areas as non-deployed mobile ICBMs, the number of RVs actually carried by some ICBMs and SLBMs, and some provisions relating to cruise missiles and the heavy bombers that carry them.”[\[27\]](#) Significantly, we lost continuous monitoring of mobile ICBM production in New START; indeed, we had not monitored Russian mobile ICBM production since 2009 when START expired.

In addition, the START Treaty inspection regime for the actual elimination of mobile ICBMs was deleted from New START. In 2016, Bill Gertz reported, “During the recent visit to a Russian missile base, U.S. technicians found critical components of SS-25s—road-mobile, intercontinental ballistic missiles—had been unbolted instead of cut to permanently disable the components. Additionally, American inspectors were unable to verify missiles slated for elimination had been destroyed. Instead, only missile launch canisters were inspected.”[\[28\]](#) The Russians may already have exploited the limitations of the New START verification regime. In December 2014, ICBM Force Commander Colonel General Sergey Karakayev said, “There are currently around 400 missiles [ICBMs] with warheads on combat duty.”[\[29\]](#) This is not an isolated statement. Yet, Russia’s declared strategic force numbers make it impossible for Russia to have more than about 300 ICBMs “with warheads on combat duty,” unless Russia has a covert force of mobile ICBMs. If Russia is cheating on deployed ICBM numbers, it is also cheating on the deployed warhead numbers.

Another easy way to cheat is to put long-range nuclear cruise missiles on shorter range aircraft and not declaring them to be heavy bombers as required by New START. In 2012, Colonel General Alexander Zelin, then-commander of the Russian Air Force, said that the new Su-34 long-range strike fighter would be given “long-range missiles...Such work is underway, and I think that it is the platform that can solve the problem of increasing nuclear deterrence forces

within the Air Force strategic aviation.”[\[30\]](#) The START Treaty had a verification regime for conventional air-launched long-range cruise missiles. New START does not. If there has been a single launch of a nuclear-capable long-range cruise missile from the Su-34, Russia would now be in violation of the New START Treaty.

In May 2017, the Russian government-owned newspaper *Rossiyskaya Gazeta* reported that the Tu-22M3M (the improved Backfire bomber) was being modified to launch the KH-101 long-range air-launched cruise missile, a missile that Putin and the Russian Defense Ministry have said is nuclear capable.[\[31\]](#) This revelation came after about a decade of Russia characterizing the KH-101 as a conventional cruise missile, which is what one would do if one intended to cheat.

The revelations relating to the Su-34 and the Backfire potentially mean that Russia will have hundreds of accountable warheads and delivery vehicles above the New START Treaty limit and likely will have an even a greater number of actual nuclear warheads.

One of the key issues in the 2017 Nuclear Posture Review (NPR) is how many strategic nuclear warheads Russia will have over the next 10-20 years. If we simply assume Russian New START compliance, agreed New START Treaty extension and ignore the Russian legal circumvention options due to New START loopholes, the number of Russian strategic nuclear warheads projected in the NPR could be a small fraction of what will actually exist 10-20 years in the future. Government threat assessments will obviously be made using more than open sources, but what we currently know from open sources suggest a serious review is in order.

Even if the Russians do not cheat, their strategic nuclear force will certainly not be near the notional 1,550 warheads allowed under New START due to loopholes in the Treaty and Russian circumvention. Indeed, in 2016, Hans Kristensen and Robert Norris credited Russia with 2,600 actual deployed strategic nuclear warheads, mainly due to the undercounting of bomber weapons under New START.[\[32\]](#) (They estimated that the U.S. has 1,590 deployed strategic nuclear weapons.)[\[33\]](#) As *RIA Novosti*, a Russian government news agency, pointed out, “Under the Treaty, one nuclear warhead will be counted for each deployed heavy bomber which can carry 12-24 *missiles* or bombs, depending on its type.”[\[34\]](#) Ten to fifteen years from now we are likely to see 3,000-3,500 operationally deployed Russian strategic nuclear warheads the way they were counted under the Bush administration’s 2002 Moscow Treaty, which was far more realistic than New START. If the potential increase in Russian capabilities is ignored, we will truly be in arms control never-never land. If we add to this the ten-to-one Russian advantage in tactical or non-strategic nuclear weapons, Russia would have clear nuclear superiority, and this advantage would likely grow.

If the Trump administration seeks to reaffirm a requirement for nuclear parity with Russia, an accurate assessment of the number of deployed Russian strategic nuclear warheads is very important. If there is large-scale Russian cheating under New START, the number of excess Russian ballistic missile warheads would be hundreds, and eventually perhaps thousands, of weapons above the New START limit. They can increase their warhead number through circumvention, but it would cost a lot more.



When the growth of Russian strategic warheads is linked to an arms control compliance issue, an accurate assessment suddenly becomes more difficult to make. Sven Kraemer, who served on the NSC longer than any other person in history and who was Director of Arms Control Policy during the Reagan administration, records that, “new interagency efforts to assess Soviet violations of the SALT II agreement were blocked by the Department of State during 1981” and that there were “delaying tactics and resistance within the government bureaucracy, especially in the State Department, ACDA, and parts of CIA.”[\[35\]](#) He reported that the Department of State developed, and applied to the Soviet Union, what he called the “Al Capone” defense under which the Soviet Union “would be [in] ‘net compliance’ with the U.S. tax code as long as he adhered to a majority of its detailed provisions, even while violating others.”[\[36\]](#)

Insight into the impact of the arms control noncompliance on defense policy is provided in a declassified memorandum summarizing the Reagan-era NSC meeting on the issue of whether or not the U.S. would continue to observe the SALT I Interim Agreement on Strategic Offensive Forces and the SALT II Treaty (being observed under a “no-undercut” policy which had been agreed on with Moscow) in the face of Soviet violations of these agreements. Terminating these agreements (as President Reagan eventually did) would allow the U.S. to continue its relatively inexpensive nuclear air-launched cruise missile program. The document records that “Secretary Shultz stated it would be a great error to give up some sense of constraint associated with the two treaties [the SALT I Interim Agreement and SALT II] since that would drastically change the environment. At the same time given clear violations, some response is called for.”[\[37\]](#) Secretary Shultz’s suggestion was to field the “Midgetman” ICBM, an expensive program that soon died because of the cost. His argument was the same as the one being made today regarding continued U.S. observance of the INF Treaty, despite Russian violations that the State Department declared were “a very serious matter.”[\[38\]](#)

What was the “sense of constraint associated” with SALT I and II that Secretary Shultz thought so valuable? At the meeting, Director of Central Intelligence William Casey said: “continuing interim restraint policy would do little to restrain the Soviets – they have broken the bank – they can have 12,000 warheads by 1990, and we can do little to change in [the] near term.”[\[39\]](#) This sounds a lot like current events although on a much larger scale. Ambassador Steven Pifer of the Brookings Institute observes, “Russia has violated the [INF] Treaty by testing and deploying a ground-launched cruise missile of intermediate range. The Obama administration sought to bring Russia back into compliance, but its efforts failed.”[\[40\]](#) Pifer would stay in the Treaty and try to talk the Russians into compliance. The prospect of this is probably close to zero. His proposal is essentially the same as Secretary Shultz made in 1985 (and Reagan rejected).

In an obvious reference to ground-launched cruise missile production, General Shoigu, in his May 2017 speech, noted, “Last year alone, military units were supplied with 40 delivery vehicles for precision-guided weapons and 180 long-range cruise missiles.”[\[41\]](#) Instead of the promised INF Treaty’s “missile zero,” we are now getting 180 “long-range” cruise missiles a year.

The “Al Capone defense” is apparently alive and well in State Department talking points. In 2016, a senior U.S. combatant commander, probably using them, stated that Russia was “largely” complying with the New START treaty. Since the limitations were not legally in effect in 2016, the only thing the Russians could be in non-compliance with is the verification regime. Just

what the Russian New START violations are, and their significance for concealing excess Russian warheads should be carefully looked at in the NPR.

Trump administration NPR decision-makers should develop an accurate assessment of how much cheating is possible under New START and how high Russian warhead levels may go in the next twenty years if Russian solves its New START Treaty numerical problems with the lie and cheat approach. My advice to them is first to review the 2010 New START National Intelligence Estimate. Another document that should be reviewed is the 1991 START Treaty National Intelligence Estimate. That will provide them with a feel for how much monitoring we lost in the New START Treaty.

If we do not regain nuclear parity, the chances of Putin or his successor initiating the limited use of nuclear weapons to support aggression may substantially increase over the next 15 years, a period in which, under the best case scenario, the U.S. nuclear deterrent will erode because of aging, lack of modernization and the deployment of increasingly advanced missile and air defenses by Russia and China.

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