



## ANALYSIS

### THE CHALLENGES IN ESTIMATING THE NUMBER OF RUSSIAN NUCLEAR WEAPONS

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The 2023 edition of the Director of National Intelligence (DNI) *Annual Threat Assessment of the U.S. Intelligence Community* provides an ominous warning about the Russian nuclear threat. It states: 1) “Russian leaders thus far have avoided taking actions that would broaden the Ukraine conflict beyond Ukraine’s borders, but the risk for escalation remains significant”; (2) “Heavy losses to its ground forces and the large-scale expenditures of precision-guided munitions during the conflict have degraded Moscow’s ground and air-based conventional capabilities and increased its reliance on nuclear weapons”; and, 3) “Russia maintains the largest and most capable nuclear weapons stockpile, and it continues to expand and modernize its nuclear weapons capabilities.”<sup>1</sup> While the DNI report appears to provide a grim confirmation that Russia has achieved a growing margin of nuclear advantage, this level of detail does not allow for any real understanding of Russian nuclear capabilities or the nature of the nuclear threat Moscow poses to the United States and its allies.

#### Sources of Information on Russian Nuclear Capability

Since the public generally receives minimal information from the U.S. government concerning the Russian nuclear threat, and this appears unlikely to change anytime soon, other sources of information must be examined. These include:

- Data from START, START II, and New START Treaties. (Unfortunately, the 1991 START Treaty data are old; the START II Treaty never entered into force and its data were never updated; and, New START Treaty data provided very little public information and the data flow is not likely to resume anytime soon, if ever);

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This article is adapted from, Mark B. Schneider, *How Many Nuclear Weapons Does Russia Have? The Size and Characteristics of the Russian Nuclear Stockpile, Occasional Paper*, Vol. 3, No. 8 (Fairfax, VA: National Institute Press, August 2023), available at <https://nipp.org/papers/how-many-nuclear-weapons-does-russia-have-the-size-and-characteristics-of-the-russian-nuclear-stockpile/>.

<sup>1</sup> Office of the Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Community* (Washington, D.C.: Office of the Director of National Intelligence, February 6, 2023), pp. 12, 14. (Emphasis in the original.) Available at <https://www.dni.gov/index.php/newsroom/reports-publications/reports-publications-2023/item/2363-2023-annual-threat-assessment-of-the-u-s-intelligence-community>.



- Information released under the Freedom of Information Act, although usually in a highly redacted form;
- Congressional hearings, one of the best Western sources;
- Russian press reports concerning Russia's strategic and non-strategic nuclear weapons, which until recently were almost entirely ignored in the Western press;
- Statements by active duty and retired senior Russian military officers;
- Russian journalists writing in Western aviation and other publications;
- Statements by senior Russian political officials concerning the scope of reductions from Soviet levels; and,
- Reports from Western journalists.

While these sources are useful, none of them is a good substitute for a responsible U.S. government policy to provide the public with information concerning Russian nuclear capabilities—the largest and most serious nuclear threat today. Thanks to Washington's apparent policy to provide scant information in this regard, the public has no sanity check on much of what is reported in the Western press or in the Russian press—the latter being the most abundant source of information on Russian nuclear capabilities. Unfortunately, as the Putin dictatorship expands, there is less and less of a free press in Russia and, hence, more dependence on Russian state media. For example, in 2012, Putin ended U.S. involvement in the elimination of Soviet-era nuclear forces, removing that source of insight.<sup>2</sup>

Today, few Western journalists consistently cover Russian nuclear weapons developments, although the information they provide can be very important. Congress has mandated annual reports that cover the nuclear threat from China, Iran and North Korea, *but not Russia*, despite the fact that the Russian nuclear stockpile is far larger and far more sophisticated. Russia is fighting a vicious war of aggression against Ukraine and issuing unprecedented nuclear threats to the United States and NATO. The only alternative today is to piece together information about Russian nuclear weapons capabilities from as many credible sources as possible.

The startling revelation starting in 2021 of hundreds of Chinese ICBM silos (reported publicly by NGOs *before it was confirmed* by the Pentagon) illustrates both the paucity of information provided by Washington and why numbers from such organizations as the Federation of American Scientists (FAS) should not be accepted at face value absent adequate documentation. The March 2023 FAS China nuclear weapons report registered an increase of only 60 Chinese nuclear warheads compared to their November 2021 report. Yet,

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<sup>2</sup> "Cooperative Threat Reduction Timeline," *Russia Matters*, no date, available at <https://www.russiamatters.org/facts/cooperative-threat-reduction-timeline>.

this number seems implausible—there are now hundreds of additional Chinese ICBM silos and China is MIRVing its ICBMs and SLBMs.<sup>3</sup>

During the Cold War, the U.S. government kept the American people well-informed about the Russian nuclear threat until the Clinton Administration gradually reversed this openness. This state of affairs deteriorated further during the George W. Bush Administration. It said virtually nothing about the Russian nuclear threat after the 2001 *Nuclear Posture Review* (NPR),<sup>4</sup> (which itself said little and was dominated by the apparent perception that Russia no longer posed a threat), until 2008 when U.S. threat perceptions slowly began to change following Russia's invasion of Georgia.<sup>5</sup> The Obama Administration's 2010 *Nuclear Posture Review Report* contained very little information concerning Russian nuclear capabilities.<sup>6</sup> The United States has not released an unclassified estimate for the size of Russia's total nuclear weapons inventory in more than 10 years and, with few exceptions, government officials and senior military leaders tend to be circumspect in what they say publicly about Russian nuclear forces.

The 2018 NPR is an exception to this data vacuum; it made available to the public significant information that had not previously appeared in the press. Even the February 2022 FAS report noted that it “constituted the first substantial official US public statement on the status and composition of the Russian nonstrategic nuclear arsenal in more than two decades...”<sup>7</sup> In contrast, the 2022 NPR report provided very little information. It merely recited the New START Treaty limit on accountable, deployed strategic nuclear warheads, ignored the fact that it grossly undercounted bomber weapons, provided no detail on Russian modernization programs, and ignored Russian non-compliance issues with the New START Treaty.<sup>8</sup> The one useful piece of information it contained was that its estimate of “up

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<sup>3</sup> Mark B. Schneider, “Will the Pentagon Ever Get Serious About the Size of China's Nuclear Force?,” *Real Clear Defense*, December 15, 2022, available at [https://www.realcleardefense.com/articles/2022/12/15/will\\_the\\_pentagon\\_ever\\_get\\_serious\\_about\\_the\\_size\\_of\\_chinas\\_nuclear\\_force\\_870335.html](https://www.realcleardefense.com/articles/2022/12/15/will_the_pentagon_ever_get_serious_about_the_size_of_chinas_nuclear_force_870335.html); Hans M. Kristensen, Matt Korda, and Eliana Reynolds, “Chinese Nuclear Weapons, 2023,” *Bulletin of the Atomic Scientists*, Vol. 79, No. 2 (2023); and, Hans M. Kristensen and Matt Korda, “Chinese Nuclear Weapons, 2021,” *Bulletin of the Atomic Scientists*, Vol. 77, No. 6 (2021).

<sup>4</sup> For example, see, Donald H. Rumsfeld, *Annual Report to the President and the Congress* (Washington, D.C.: Department of Defense, 2002), p. 12, available at [https://history.defense.gov/Portals/70/Documents/annual\\_reports/2002\\_DoD\\_AR.pdf?ver=2014-06-24-153732-117](https://history.defense.gov/Portals/70/Documents/annual_reports/2002_DoD_AR.pdf?ver=2014-06-24-153732-117).

<sup>5</sup> Samuel W. Bodman and Robert M. Gates, *National Security and Nuclear Weapons in the 21st Century* (Washington, D.C.: Department of Defense, September 2008), p. 8, available at <https://apps.dtic.mil/sti/tr/pdf/ADA487443.pdf>.

<sup>6</sup> U.S. Department of Defense, *Nuclear Posture Review Report* (Washington, D.C.: U.S. Department of Defense, April 2010), available at [https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010\\_Nuclear\\_Posture\\_Review\\_Report.pdf](https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf).

<sup>7</sup> Hans M. Kristensen and Matt Korda, “Russian Nuclear Weapons, 2022,” *Bulletin of the Atomic Scientists*, Vol. 78, No. 2 (2022), p. 11. The FAS attack on the Trump Administration's assessment is inaccurate and ignores the critical role played by then-Secretary of Defense Ashton Carter in bringing public attention to the dangerous aspects of Russian nuclear strategy.

<sup>8</sup> U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 4, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

to” 2,000 Russian non-strategic nuclear weapons counted only active weapons.<sup>9</sup> In March 2023, STRATCOM Commander General Anthony Cotton said, “Russia also has a stockpile of approximately 2,000 theater nuclear weapons that does not fall under the limits established by the NST [New START Treaty].”<sup>10</sup>

## Problems in Assessing the Number of Russian Nuclear Weapons

The United States had difficulty estimating the size of the Soviet nuclear warhead stockpile during the Cold War. The same may be happening now regarding Russia. Why was this so? Dr. Fred Iklé, Under Secretary of Defense during the Reagan Administration, explained it as follows: “These things [nuclear weapons] don’t take that much space,” and so, “It’s conceivable that we could have missed them, as we did many other things in Russia, like the big fissures in their economy.”<sup>11</sup> Nuclear weapons, particularly those initially developed in the 1970s and 1980s,<sup>12</sup> are very small. They are *not* manufactured, stored, maintained, deployed and eventually dismantled in the open where they can be imaged by satellites and then counted.

Former Under Secretary of State Rose Gottemoeller was mistaken with regard to the verification of the number and types of Russian nuclear weapons when she recently argued:

The verification regime of the [New START] treaty has worked remarkably well, with the parties exchanging data twice a year on their weapon holdings and regularly—sometimes multiple times a day—informing each other of the movement of their nuclear systems.

Through these measures—backed up by its own national technical means (satellites, reconnaissance aircraft, radars, etc.)—the United States has been able to keep a close eye on developments in the Russian strategic nuclear forces. This effort has proven highly important in recent months. It has been a significant source of predictability, offering 24/7 insights into Russian nuclear operations.<sup>13</sup>

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<sup>9</sup> Ibid., p. 4.

<sup>10</sup> Anthony J. Cotton, *Statement of Commander Anthony J. Cotton, United States Strategic Command* (Washington, D.C.: House Armed Services Committee, Subcommittee on Strategic Forces), p. 8, available at <https://armedservices.house.gov/sites/republicans.armedservices.house.gov/files/2023%20USSTRATCOM%20Congressional%20Posture%20Statement%20-%20HASC-SF.pdf>.

<sup>11</sup> William J. Broad, “Russian Says Soviet Atom Arsenal Was Larger Than West Estimated,” *The New York Times*, September 26, 1993, available at <https://www.nytimes.com/1993/09/26/world/russian-says-soviet-atom-arsenal-was-larger-than-west-estimated.html>.

<sup>12</sup> U.S. Department of Defense, *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2018), p. 9, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>; and, Mark Schneider, “The Future of the U.S. Nuclear Deterrent,” *Comparative Strategy*, Vol. 27, No. 4 (2008), pp. 347-348.

<sup>13</sup> Rose Gottemoeller, “Resuming New START Inspections must be a Critical Goal of Upcoming US-Russia Talks,” *Bulletin of the Atomic Scientists*, November 23, 2022, available at <https://thebulletin.org/2022/11/resuming-new-start-inspections-must-be-a-critical-goal-of-upcoming-us-russia-talks/>.

Secretary Gottemoeller did not acknowledge the fact that the most detailed and frequent information the United States obtained from Russia concerning deployed strategic nuclear weapons occurred *during on-site inspections which have now not taken place for more than three years*. The information provided to the inspectors included, “The number of reentry vehicles emplaced on each deployed” ICBM and SLBM.<sup>14</sup> While “satellites, reconnaissance aircraft, radars, etc.” do provide useful information relevant to assessing the capabilities of Russian missiles, none of these National Technical Means of Verification (NTM) can count the number of nuclear warheads actually deployed on any Russian missile. Indeed, in May 2020, Secretary Gottemoeller expressed a different opinion about the critical importance of on-site inspections. She argued, “...we discarded the counting rules in favor of confirming declared warheads on the front of missiles *through reciprocal inspections*; in fact, we did not need telemetry measures to confirm compliance with the warhead limits in the new treaty...”<sup>15</sup> This also is a problematic assessment. A decade earlier, Senator Christopher Bond (R-MO), then Vice Chairman of the Senate Select Committee on Intelligence, pointed out that the New START Treaty “discarded” the “critical counting rules” (sometimes called attribution rules) of the original START Treaty which were “...designed to work hand-in-glove with our satellites, in favor of reliance on no more than ten sample inspections a year—again, just 2 to 3 percent of Russia’s force.”<sup>16</sup> The Obama Administration even argued during New START ratification that less verification was adequate for New START because of the supposed benign nature of Putin’s Russia and the “reset.”<sup>17</sup>

A report by Republican Senators on the Senate Foreign Relations Committee—James Risch (ID), Jim DeMint (SC), James Barrasso (WY), Roger Wicker (MS), and James Inhofe (OK)—explained the deficiencies of the New START Treaty in counting deployed warheads:

Fortunately, START I did not rely on these inspections alone for verification; it wisely relied primarily on our National Technical Means (NTM) to verify an “attribution” rule that in general, counted warheads based on their demonstrated capability. (Under this rule, a missile type was considered to have a certain attributed number of warheads, such that warhead verification became an exercise

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<sup>14</sup> United States of America and the Russian Federation, *Protocol to the Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms* (Washington, D.C.: Department of State, 2010), pp. 122-123, available at <https://2009-2017.state.gov/documents/organization/140047.pdf>.

<sup>15</sup> Rose Gottemoeller, “The New START Verification Regime: How Good Is It?,” *Bulletin of the Atomic Scientists*, May 21, 2020. (Emphasis added.) Available at <https://thebulletin.org/2020/05/the-new-start-verification-regime-how-good-is-it/>.

<sup>16</sup> Christopher Bond, “The New START Treaty,” *Federation of American Scientists*, November 18, 2010, available at [https://irp.fas.org/congress/2010\\_cr/bond-nstart.html](https://irp.fas.org/congress/2010_cr/bond-nstart.html).

<sup>17</sup> Paula DeSutter, “Verification and the New START Treaty,” The Heritage Foundation, July 12, 2010, available at <https://www.heritage.org/arms-control/report/verification-and-the-new-start-treaty>.

of simply multiplying numbers of missiles observed with satellites multiplied by the attributed warhead number.)<sup>18</sup>

No one argued at the time that NTM alone could verify the New START deployed warhead limits. When the United States lost on-site inspections, it lost virtually the entire New START deployed warhead verification regime. No one in 2010 could have anticipated: that the United States would abide three years without inspections; Russia's refusal to resume inspections; the illegal Russian "suspension" of the Treaty and the end of data notifications; or, that Washington would take no programmatic action in response to these Russian actions. Indeed, if the Russian termination of on-site inspections amid the geopolitical crisis in Ukraine had been anticipated, the New START Treaty clearly would not have been approved by the Senate. The 1979 Soviet invasion of Afghanistan helped sink the SALT II Treaty.<sup>19</sup> Current events are much worse.

### **Russian Violations and "Suspension" of the New START Treaty**

The United States is now in a one-sided arms control arrangement with Russia in which the United States is complying with the New START Treaty limitations despite Russian violations of the Treaty and the growing possibility that it has expanded its strategic nuclear forces substantially beyond the Treaty limits. This is happening in the context of unprecedented Russian nuclear war threats.

In its 2023 report on implementation of the New START Treaty, the State Department for the first time acknowledged that it could not certify Russian compliance with New START because Moscow refused to resume on-site inspections required under the Treaty, which had temporarily ceased due to the Covid pandemic. The report states:

Based on the information available as of December 31, 2022, the United States cannot certify the Russian Federation to be in compliance with the terms of the New START Treaty. In refusing to permit the United States to conduct inspection activities on Russian territory, based on an invalid invocation of the "temporary exemption" provision, Russia has failed to comply with its obligation to facilitate U.S. inspection activities, and denied the United States its right to conduct such inspection activities. The Russian Federation has also failed to comply with the obligation to convene a session of the Bilateral Consultative Commission (BCC) within the timeline set out by the Treaty.<sup>20</sup>

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<sup>18</sup> Senate Foreign Relations Committee, *Treaty with Russia on Measures for Further Reduction and Limitation of Strategic Offensive Arms* (Washington, D.C.: U.S. Senate, October 1, 2010), Executive Report 111-6, pp. 115-116, available at <https://www.congress.gov/111/crpt/erpt6/CRPT-111erpt6.pdf>.

<sup>19</sup> "Strategic Arms Limitations Talks/Treaty (SALT) I and II," *State.gov*, no date, available at <https://history.state.gov/milestones/1969-1976/salt>.

<sup>20</sup> U.S. Department of State, *Report to Congress on Implementation of the New START Treaty Pursuant to paragraph (a)(10) of the Senate's Resolution of Advice and Consent to Ratification of the New START Treaty (Treaty Doc. 111-5)*, (Washington,

However, by focusing on procedural violations the Department of State appears to create the impression that this merely reduces the level of confidence in Russian data declarations, even asserting that: “...the United States assesses that Russia did not engage in significant activity above the Treaty limits in 2022. The United States also assesses that Russia was likely under the New START warhead limit at the end of 2022.”<sup>21</sup>

This appears to be more wishful thinking than confident conclusion. NTM alone, without counting rules, cannot determine the actual number of warheads deployed on Russian missiles, particularly in an arms control environment where high levels of proof are required given Moscow’s systematic violation of arms control agreements. The only good measure available today may be the actual maximum potential of Russian missiles. Russia appears to want the United States to believe that although it first illegally refused on-site inspections and then “suspended” the New START Treaty—ending data notifications—it continues to comply with the Treaty’s numerical limitations. In the current Putin-created crisis atmosphere, the expectation of continued compliance lacks credibility. Why should Russia continue to comply when Treaty violations likely cannot be detected and there is little chance of Russia facing negative consequences for Treaty violations? The State Department report itself cites Russian data that put it only one warhead below the limit in September 2022.<sup>22</sup> This means that to deploy any new ICBMs or SLBMs legally, Russia *would have to download an existing missile or missiles* depending on how many warheads the new deployed missiles carried. This would have to be done before the new missiles were deployed to avoid a New START Treaty violation.

Even if NTM detected activity at a Russian missile launcher site, there may be no way to determine if Russia is downloading or uploading warheads. In its last data update, Russia declared it had 1,549 warheads in September 2022<sup>23</sup> (to be discussed below). Since Russia has announced the deployment of new ICBMs after its last data update, unless Russia has done further downloading of its other ICBMs or SLBMs, it now is likely above the Treaty limit of 1,550 deployed nuclear warheads. The Russian number would be much higher if Moscow decided to upload its missiles covertly in the absence of on-site inspections, coinciding with its attack on Ukraine—hardly a far-fetched proposition.

Like Amb. Gottemoeller, the Department of State apparently is presuming that Russia has been telling the truth about its force numbers and that Russian data declarations are accurate. Yet, Moscow is a serial violator of arms control agreements and, in fact, data exchanges do not verify any number; they only provide numbers that must be verified.<sup>24</sup>

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D.C.: Department of State, January 2023), p. 5, available at <https://www.state.gov/wp-content/uploads/2023/01/2022-New-START-Implementation-Report.pdf>.

<sup>21</sup> Ibid., p. 16.

<sup>22</sup> Ibid., p. 4.

<sup>23</sup> “Russian Missile Unit Puts Another Yars ICBM on Duty,” *Interfax*, December 15, 2022, available at <https://infoweb.newsbank.com/apps/news/document-view?p=WORLDNEWS&docref=news/18E6C6996F8859A8>.

<sup>24</sup> See the discussion in, The New START Working Group, “New START: Potemkin Village Verification,” The Heritage Foundation, June 24, 2010, available at <https://www.heritage.org/arms-control/report/new-start-potemkin-village-verification>.

Regarding deployed warheads, there is no possible way to verify the total number without on-site inspections, and the Russian notification fig leaf no longer exists. In early March 2023, Congressman Doug Lamborn (R-CO), Chairman of the House Armed Services Strategic Forces Subcommittee, stated that, “*I understand that Russia has ceased providing the U.S. with treaty notifications, yet we continue to provide them to Russia.*”<sup>25</sup> The Department of State confirmed this was the case until March 30, 2023.<sup>26</sup> Jon Wolfsthal, who served as a Senior Advisor to the Obama Administration’s NSC wrote, “...if Russia is indeed stopping data exchanges and notifications, it would fundamentally change the nuclear relationship with Russia.”<sup>27</sup> The United States continued unilateral Treaty notifications until June 2023.<sup>28</sup>

### NTM and Assessment of Russian Deployed Missile Warhead Loadings

Thanks to the original 1991 START Treaty, which required the provision of technical data on ICBMs and SLBMs, telemetry tapes, and interpretative data, and contained a near ban on telemetry encryption, the United States likely has a reasonably good understanding of the *maximum* capabilities of most *existing* Russian strategic missiles. However, NTM without accepted attribution rules as part of an agreement cannot verify: 1) the number of warheads on newly deployed Russian ICBMs and SLBMs; 2) the strategic nuclear warhead reductions that have been made by means of downloading; and, 3) whether downloaded missiles have since been uploaded.

As is obvious from commercial satellite imagery, large platforms such as submarines and fixed missile silos are the easiest to monitor. Yet, even if the United States had counting rules to facilitate the counting of warheads, there would still be the problem of confirming the number of mobile ICBMs the Russians have produced and deployed, which would be necessary to confirm the number of Russia’s deployed warheads. This difficulty is the reason why the United States insisted on Perimeter Portal Continuous Monitoring of mobile ICBM production in both the 1991 START and 1987 INF Treaties.<sup>29</sup> Washington lost this element of verification with the demise of the START Treaty in 2009 and Moscow would not allow it to continue under the New START Treaty.

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<sup>25</sup> Doug Lamborn, “Lamborn Opening Statement at FY24 Strategic Forces Posture Hearing,” House Armed Services Committee, March 8, 2023. (Emphasis in the original.) Available at <https://armedservices.house.gov/news/press-releases/lamborn-opening-statement-fy24-strategic-forces-posture-hearing>.

<sup>26</sup> U.S. Department of State, “U.S. Countermeasures in Response to Russia’s Violations of the New START Treaty,” *State.gov*, June 1, 2023, available at <https://www.state.gov/u-s-countermeasures-in-response-to-russias-violations-of-the-new-start-treaty/>.

<sup>27</sup> Andrew Roth and Julian Borger, “Putin says Russia will halt Participation in New Start Nuclear Arms Treaty,” *The Guardian*, February 21, 2023, available at <https://www.theguardian.com/world/2023/feb/21/putin-russia-halt-participation-new-start-nuclear-arms-treaty>.

<sup>28</sup> U.S. Department of State, “U.S. Countermeasures in Response to Russia’s Violations of the New START Treaty,” *State.gov*, June 1, 2023, available at <https://www.state.gov/u-s-countermeasures-in-response-to-russias-violations-of-the-new-start-treaty/>.

<sup>29</sup> New START Working Group, “An Independent Assessment of the New START Treaty,” The Heritage Foundation, April 30, 2010, available at <http://www.heritage.org/Research/Reports/2010/04/An-Independent-Assessment-of-New-START-Treaty>; and, The New START Working Group, “New START: Potemkin Village Verification,” *op. cit.*



Additionally, the Heritage Foundation's 2010 New START Treaty verification report incisively noted that, "Also gone [from New START] are the START requirements for 'cooperative measures' to enhance the capability of National Technical Means (NTM) to monitor mobile missiles at their bases (called 'restricted areas' in START I), the restriction on the size of ICBM bases, [and] the restriction on the size of deployment areas for road-mobile ICBMs."<sup>30</sup> It observed that the New START Treaty discarded the previous START Treaty provision that granted each party the right to "conduct suspect-site inspections to confirm that covert assembly of ICBMs for mobile launchers of ICBMs or covert assembly of first stages of such ICBMs is not occurring," and the restriction that limits an ICBM base to a single type of mobile ICBM.<sup>31</sup>

Combined with the complete loss of inspections, the inadequate verification regime in New START poses a serious problem. As noted in Chapter 3 above, Colonel General Karkayev's repeated statements that he had 400 ICBMs on "combat duty" could be part of a cheating scenario involving undeclared mobile ICBM deployments or circumvention of the Treaty by the rapid reload of launchers. In either case, it could mean that Russia has more deployed strategic nuclear warheads than the number it has declared. Again, given Moscow's history as a serial violator of agreements, such a scenario is not far-fetched.

During the 2010 New START Treaty deliberations, there was no Senate Select Committee on Intelligence report on the Treaty's monitoring regime, as had been the norm. An objective report would probably have sunk the Treaty. Then-Senator Christopher Bond stated on the floor of the Senate that, "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.*"<sup>32</sup> He offered his fellow members of the Senate a classified letter outlining the problems verifying Russian nuclear warhead numbers under New START.

Paula DeSutter, Assistant Secretary of State for Verification, Compliance, and Implementation during the George W. Bush Administration, has stated that the verification regime of the New START Treaty is so poorly designed that the U.S. capacity to confirm Russian warhead numbers is "very, very low," and it is "virtually impossible" to prove a substantive violation.<sup>33</sup> She also pointed out, "We do not have the independent satellite capabilities to be able to achieve the level of contribution to verification that we had in the Intermediate Nuclear Forces (INF) treaty or in the START treaty."<sup>34</sup> This suggests an erosion of U.S. capabilities to count Russian nuclear warheads since the end of the Cold War. Moreover, like everyone else in 2010, she was *not* assuming there would be *no on-site*

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<sup>30</sup> The New START Working Group, "New START: Potemkin Village Verification," *op. cit.*

<sup>31</sup> *Ibid.*

<sup>32</sup> Bond, "The New START Treaty," *op. cit.* (Emphasis added.)

<sup>33</sup> "Paula A DeSutter on Strategic Arms Reduction Treaty (START II)," The Heritage Foundation, 2010, available at <https://www.youtube.com/watch?v=AFdEAZt7Glw>.

<sup>34</sup> *Ibid.*

inspections for more than three years, or that Treaty suspension would be accepted without a U.S. programmatic response.

The traditional methodology for estimating foreign nuclear threats and force numbers involves assessing: 1) adversary objectives; 2) their technology; 3) their nuclear testing activities; 4) the amount of fissile material they have; 5) their nuclear warhead technology; 6) their production capability; and, 7) the number and characteristics of their delivery vehicles. Efforts are made to collect as much information as possible concerning the number of nuclear weapons and delivery vehicles that have been produced. In a situation like the current one in which Russia places its highest priority on its nuclear capability, has a massive amount of both fissile material and Cold War-level nuclear warhead production capabilities,<sup>35</sup> and is a serial violator of arms control treaties, the possibility for very large underestimates of Russia's nuclear stockpile clearly exists. This is especially true of any estimates based—even in part—on Moscow's arms control declarations regarding its force numbers in the absence of robust verification measures. Indeed, in the absence of a confident U.S. capability to confirm the number of Russian warheads, warhead numbers over Treaty limits may be expected. Russia is likely to try to get the most it can from the money that it is spending for its strategic nuclear forces and to optimize its delivery capabilities to meet its strategy requirements.

While Russia was below the New START Treaty deployed warhead limit on the first day of New START, it built up to well above the limit before it downloaded its forces mainly in the year before the Treaty limits went into effect.<sup>36</sup> Russia then had to download its missiles in order to meet the New START treaty limits.<sup>37</sup> Unfortunately, the traditional methodology of counting warheads does not work in an arms control environment where reductions are made by downloading strategic missiles because, as discussed above, that likely cannot be verified in the absence of rigorous, continuing on-site inspections, which no longer exist with Russian termination of inspections.

From early 2018, when the New START limits on force numbers went into legal effect, to early February 2022, the FAS reports indicated that Russia added 71 MIRVed SS-27 Mod 2/RS-24 Yars ICBMs and 32 MIRVed Bulava-30 SLBMs.<sup>38</sup> The FAS May 2023 report said that Russia had deployed an additional 18 SS-27 Mod 2/RS-24 Yars MIRVed ICBMs and one Avangard hypersonic missile.<sup>39</sup> The May 2023 number is close to what Russia announced it

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<sup>35</sup> Robert P. Ashley Jr., "Russian and Chinese Nuclear Modernization Trends," *Defense Intelligence Agency*, May 29, 2019, available at <https://www.dia.mil/Articles/Speeches-and-Testimonies/Article/1859890/russian-and-chinese-nuclear-modernization-trends/>; and, Broad, "Russian Says Soviet Atom Arsenal Was Larger Than West Estimated," *op. cit.*

<sup>36</sup> "New START Treaty Aggregate Numbers of Strategic Offensive Arms," *Department of State*, June 1, 2011, available at <https://2009-2017.state.gov/t/avc/rls/164722.htm>; and, "New START Treaty Aggregate Numbers of Strategic Offensive Arms," *Department of State*, April 1, 2016, available at <https://2009-2017.state.gov/t/avc/rls/2016/255377.htm>.

<sup>37</sup> Kristensen and Korda, "Russian Nuclear Weapons, 2022," *op. cit.*, p. 100.

<sup>38</sup> *Ibid.*, p. 99; and, Hans M. Kristensen and Robert S. Norris, "Russian Nuclear Forces, 2018," *Bulletin of the Atomic Scientists*, Vol. 74, No. 3 (2018), p. 188.

<sup>39</sup> Kristensen, Korda, and Reynolds, "Russian Nuclear Weapons, 2023," *op. cit.*, p. 175.

had deployed in December 2022.<sup>40</sup> Since February 2022, Russia apparently has added one Borei-A class ballistic missile submarine (armed with 16 MIRVed missiles) to its operational force, and put another submarine on sea trials.<sup>41</sup> Russia's announced plans for 2023 involve deploying: 1) a total of 22 MIRVed Yars ICBMs and Avangard hypersonic boost glide vehicles; 2) the new Sarmat heavy ICBM; 3) a new Borei-A class ballistic missile submarine; and, 4) three new Tu-160 heavy bombers.<sup>42</sup> Russia clearly has a nuclear warhead upload capability far above New START limits and may have used the end of on-site inspections to exploit it. The point here is that there is no way to verify the number of Russian warheads deployed after the end of on-site inspections. The only metric Washington can estimate with reasonable confidence is the maximum possible Russian warhead loads.

### **Arms Control and Russian Nuclear Threat Assessment**

It may be counterintuitive, but arms control agreements can complicate the public availability of information regarding the number and types of Russian nuclear weapons. In U.S. practice, a very high level of proof is required to charge Russia with a treaty violation. The intelligence on the treaty violation may be sensitive and it may not be possible to make it public. In addition, there are restrictions on what the Intelligence Community and the Department of Defense can say in public about Russian compliance. While compliance reports are issued by the State Department, compliance determinations are made by the National Security Council. This dates to Henry Kissinger's time in office and the beginning of strategic nuclear arms control restrictions in 1972 with the ABM Treaty and the SALT I Interim Agreement. In a 1978 report, the House Intelligence Committee reportedly said that, "Dr. [Henry] Kissinger wanted to avoid any written judgment to the effect that the Soviets have violated any of the SALT agreements. If the Director [of the CIA] believes the Soviets may be in violation, this should be the subject of a memorandum from him to Dr. Kissinger. The judgment that a violation is considered to have occurred is to be one that will be made at the NSC level."<sup>43</sup> The impact of this policy has been to turn ordinary intelligence and related discussions of Russian nuclear warhead numbers into major political decisions.

In addition, there appear to be bureaucratic politics associated with compliance determinations. Sven Kraemer, who served on the NSC Staff as a senior official in three administrations, reported that, "...new interagency efforts to assess Soviet violations of the SALT II agreement were blocked by the Department of State during 1981..."<sup>44</sup> Kraemer also noted that "there were delaying tactics and resistance within the government bureaucracy,

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<sup>40</sup> "Meeting of Defence Ministry Board," *Kremlin.ru*, December 21, 2022, available at <http://en.kremlin.ru/events/president/news/70159>; and, "A Board Session of the Ministry of Defence was held in Moscow under the Leadership of the Supreme Commander-in-Chief of the Armed Forces of Russia Vladimir Putin," *Kremlin.ru*, December 21, 2021, available at <http://en.kremlin.ru/events/president/news/67402>.

<sup>41</sup> Ibid.

<sup>42</sup> "Meeting of Defence Ministry Board," December 21, 2022, op. cit.

<sup>43</sup> "The Select Committee Investigative Record," *The Village Voice*, February 16, 1978, p. 92.

<sup>44</sup> Sven F. Kraemer, "The Krasnoyarsk Saga," *Strategic Review*, Vol. 18, No. 1(Winter 1990), pp. 27, 29.

especially in the State Department, ACDA [Arms Control and Disarmament Agency] and parts of CIA.”<sup>45</sup>

The same situation seems to be at play today. In 2017, Hans Kristensen wrote a report entitled, “NASIC [National Air and Space Intelligence Center] Removes Russian INF-Violating Missile From Report,” which said, “...(NASIC) has quietly published a corrected report on the world’s Ballistic and Cruise Missile Threats that deletes a previously identified Russian ground-launched cruise missile. The earlier version published on June 26, 2017, identified a ‘ground’ version of the 3M-14 [Kalibr] land-attack cruise missile that appeared to identify the ground-launched cruise missile the United States has accused Russia of testing and deploying in violation of the 1987 INF Treaty.”<sup>46</sup> The lack of any unclassified U.S. government treatment of the ground-launched Kalibr issue before the 2020 State Department noncompliance report appears linked to the problems of dealing with compliance issues within the U.S. Intelligence Community. These cases illustrate the difficulties of noncompliance determinations and the public discussion of the subject.

Russian violations of the INF Treaty illustrate this difficulty. For example, well before the publication of the State Department’s 2020 non-compliance report, the 2018 NPR finally announced to the public that the missile the Obama Administration determined to be a violation of the INF Treaty was the SSC-8/9M729.<sup>47</sup> The ground-launched Kalibr was another INF Treaty non-compliance issue.<sup>48</sup> Another Russian missile, the R-500/9M728 (sometimes called the Iskander-K), was the subject of many Russian press reports which stated it had a range (usually 1,000-km but sometimes higher) that was in the INF Treaty-prohibited range (500-5,500-km).<sup>49</sup> The 2017 NASIC report on ballistic and cruise missiles had a photograph of the R-500 but there was no data entry that would have revealed its range.<sup>50</sup> There was also no mention in the NASIC report that the supersonic ground-launched Bastion anti-ship/land attack cruise missile had an INF Treaty-prohibited range, which the Russian press

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<sup>45</sup> Ibid.

<sup>46</sup> Hans M. Kristensen, “NASIC Removes Russian INF-Violating Missile From Report,” *Federation of American Scientists*, August 22, 2017, available at <https://fas.org/blogs/security/2017/08/nasic-2017-corrected/>.

<sup>47</sup> U.S. Department of Defense, 2018 *Nuclear Posture Review*, op. cit., p. 10; and, Paul McLeary, “The Rest Of The Story: Trump, DoD & Hill Readied INF Pullout For Years,” *Breaking Defense*, October 22, 2018, available at <https://breakingdefense.com/2018/10/the-rest-of-the-story-trump-dod-hill-readied-inf-pullout-for-years/>.

<sup>48</sup> U.S. Department of State, *Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* (Washington, D.C.: Department of State, June 2020), p. 14, available at <https://www.state.gov/wp-content/uploads/2020/06/2020-Adherence-to-and-Compliance-with-Arms-Control-Nonproliferation-and-Disarmament-Agreements-and-Commitments-Compliance-Report-1.pdf>.

<sup>49</sup> Mark B. Schneider, “Additional Russian Violations of Arms Control Agreements,” *Real Clear Defense*, December 18, 2017, available at [https://www.realcleardefense.com/articles/2017/12/18/additional\\_russian\\_violations\\_of\\_arms\\_control\\_agreements\\_112795.html](https://www.realcleardefense.com/articles/2017/12/18/additional_russian_violations_of_arms_control_agreements_112795.html); and, Mark B. Schneider, “Russia’s INF Treaty Violations: Evidence and Implications,” *Journal of Strategy and Politics*, Vol. 2, No. 3 (2020), pp. 57-59, available at <https://studyofstrategyandpolitics.files.wordpress.com/2020/06/jsp-7-schneider-russias-inf-treaty-violations.pdf>.

<sup>50</sup> Defense Intelligence Ballistic Missile Analysis Committee, *Ballistic and Cruise Missile Threat* (Wright-Patterson AFB, OH: National Air and Intelligence Center, 2017), available at [https://www.nasic.af.mil/Portals/19/images/Fact%20Sheet%20Images/2017%20Ballistic%20and%20Cruise%20Missile%20Threat\\_Final\\_small.pdf?ver=2017-07-21-083234-343](https://www.nasic.af.mil/Portals/19/images/Fact%20Sheet%20Images/2017%20Ballistic%20and%20Cruise%20Missile%20Threat_Final_small.pdf?ver=2017-07-21-083234-343).

was openly reporting. Indeed, in July 2016, *Interfax*, the Russian 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...”<sup>51</sup>

The point of this discussion is to emphasize that, when a treaty compliance issue is involved with Russian force numbers, information about Russian missile systems seems to become politicized and may be withheld from the public. Because neither the Intelligence Community nor the Pentagon can make public information that would indicate a violation of an arms control treaty without NSC sanction, it appears that what the United States says about Russian systems often is incomplete or in some cases possibly inaccurate. Indeed, the 1979 report of the Senate Select Committee on Intelligence on the monitoring of the SALT II Treaty reported that, “It is clear from the SALT I record that intelligence of possible Soviet violation of the Treaty was, in some cases, and for a time, withheld from Executive branch officials who had a need for such information.”<sup>52</sup> This pattern may be continuing. While reports that would indicate Russian violation of the INF Treaty appeared in Russian state and non-state media going back to 2007,<sup>53</sup> Paula DeSutter has stated, “I can assure you that when I left the Department of State in January 2009, I had not been briefed on any INF Treaty violations.”<sup>54</sup>

In addition, DeSutter stated that her successor as Assistant Secretary of State, Rose Gottemoeller, did not inform the allies that Russia was violating the INF Treaty until it had been well-known for three years.<sup>55</sup> She also said that Congress was not informed and no serious effort was made to bring Russia back into compliance immediately following determination of violation.<sup>56</sup> In January 2014, Michael Gordon, then with *The New York Times*, reported that by 2011 the Intelligence Community was aware of the INF noncompliance issue.<sup>57</sup> Official confirmation of Russian press reports about prohibited

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<sup>51</sup> “Russian Navy to get 5 Coastal Defense Missile Systems by end of 2016 - source (Part 2),” *Interfax*, July 22, 2016, available at <https://dialog.proquest.com/professional/professional/docview/1806232632?accountid=155509>. See also, “Russia to Boost its Baltic Fleet with Missile Ships – Paper,” *Izvestia / BBC Monitoring*, October 26, 2016, available at <https://infoweb.newsbank.com/apps/news/document-view?p=WORLDNEWS&docref=news/16046D09ED1F9ED8>; and, “Russian Paper Reports on Plans for Coastal Defence on Kuril Islands,” *Izvestia / BBC Monitoring*, November 29, 2017, available at <http://mutex.gmu.edu/login?url=https://www.proquest.com/wire-feeds/russian-paper-reports-on-plans-coastal-defence/docview/1971759334/se-2?accountid=14541>.

<sup>52</sup> U.S. Senate, Select Committee on Intelligence, *Principal Findings on the Capabilities of the United States to Monitor the SALT II Treaty* (Washington, D.C.: U.S. Government Printing Office, October 1979), pp. 3-4, available at <https://www.intelligence.senate.gov/sites/default/files/publications/96salt.pdf>.

<sup>53</sup> Mark B. Schneider, “Confirmation of Russian Violation and Circumvention of the INF Treaty,” *Information Series*, No. 360, February 2014, pp. 3-5, available at <http://www.nipp.org/wp-content/uploads/2014/11/Confirmation-of-Russian-Violations-of-the-INF-Treaty8.pdf>.

<sup>54</sup> Paula A. DeSutter, *Statement of Paula A. DeSutter: INF Treaty Withdrawal and the Future of Arms Control* (Washington, D.C.: House Armed Services Committee, February 26, 2019), p. 2, available at <https://docs.house.gov/meetings/AS/AS29/20190226/108944/HHRG-116-AS29-Wstate-DeSutterP-20190226.pdf>.

<sup>55</sup> Paula A. DeSutter, “Paula DeSutter Discussing Russian Nuclear and Ballistic Missile Modernization,” George Marshall Institute, March 19, 2014, available at <https://www.youtube.com/watch?v=x9rAqUXwVa8>.

<sup>56</sup> *Ibid.*

<sup>57</sup> Michael Gordon, “US Says Russia Tested Missile, Despite Treaty,” *The New York Times*, January 29, 2014, available at <https://www.nytimes.com/2014/01/30/world/europe/us-says-russia-tested-missile-despite-treaty.html>.

ground-launched INF-range missiles was only made public by the State Department when it confirmed the Michael Gordon story.<sup>58</sup> Not until later in 2014 did the State Department's public non-compliance report reveal that Russia had violated the INF treaty.<sup>59</sup>

Hence, it can rightly be concluded that the existence of an arms control agreement and related compliance issue can reduce the availability of open source data on Russian nuclear capabilities and negatively impact efforts to make open source assessments of Russian nuclear warhead numbers.

### **Reports of Russian Non-Compliance With New START Treaty Substantive Limitations**

An examination of the Biden Administration's 2022 reports on arms control non-compliance reveals that Russia is violating all of the arms control treaties, most recently including New START.<sup>60</sup> Why would New START be an exception? There is substantial evidence of Russian non-compliance with the New START Treaty. Many of these issues involve cruise missiles, the very missiles Russia is using against Ukraine. This includes the Kh-101, a cruise missile which President Putin says has a range of 4,500-km and is nuclear-capable.<sup>61</sup> A long-range nuclear capable cruise missile deployed on any aircraft that is not a heavy bomber would violate the New START Treaty because a long-range, nuclear-capable cruise missile is recognized as nuclear-armed under the Treaty and would cause any aircraft carrying it to be counted as a heavy bomber under the Treaty. The Russian MoD has said the same thing.<sup>62</sup> In 2022, Yury Borisov, then Russia's Deputy Prime Minister in charge of defense procurement, stated that "*the Kh-101 airborne missile [is] carried by the Sukhoi Su-30 and Su-35 fighter-bombers.*"<sup>63</sup> Later, RT, which is Russian state media, deleted the pertinent information stating that, "*This article has been amended in regards to a quote by Yury Borisov on the missiles*

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<sup>58</sup> Jen Psaki, "Daily Press Briefing – January 30, 2014," *State.gov*, available at <https://2009-2017.state.gov/r/pa/prs/dpb/2014/01/221045.htm>.

<sup>59</sup> U.S. Department of State, *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* (Washington, D.C.: Department of State, July 2014), p. 8, available at <https://2009-2017.state.gov/t/avc/rls/rpt/2014/230047.htm>.

<sup>60</sup> U.S. Department of State, *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* (Washington, D.C.: Department of State, July 2022), available at <https://www.state.gov/wp-content/uploads/2022/04/2022-Adherence-to-and-Compliance-with-Arms-Control-Nonproliferation-and-Disarmament-Agreements-and-Commitments-1.pdf>.

<sup>61</sup> "Meeting of Commission for Military Technical Cooperation with Foreign States," *Kremlin.ru*, July 6, 2017, available at <http://en.kremlin.ru/events/president/news/54993>; and, "Meeting with Defence Minister Sergei Shoigu," *Kremlin.ru*, December 8, 2015, available at <http://en.kremlin.ru/events/president/news/50892>.

<sup>62</sup> "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, available at [http://eng.mil.ru/en/news\\_page/country/more.htm?id=12071355@egNew](http://eng.mil.ru/en/news_page/country/more.htm?id=12071355@egNew); and, "Strategic Tu-95MS Bombers Destroyed the ISIS Militants' Command Post and Storages in Syria with a Missile Attack," *Defense Ministry of the Russian Federation*, August 5, 2017, available at <http://eng.mil.ru/en/newspage/country/more.htm?id=12132186@egNews>.

<sup>63</sup> "Top Official Explains why Russia hasn't run out of Precision Missiles in Ukraine," *RT*, April 19, 2022. (*Emphasis in the original.*) Available at <https://www.rt.com/russia/554134-borisov-interview-defense-industry/>.

carried by the Sukhoi Su-30 and Su-35 fighter-bombers.”<sup>64</sup> Nuclear-capable Kh-101s on these fighter-bombers would put Russia far in violation of the deployed warhead and the deployed delivery vehicle limits of the New START Treaty since there are hundreds of them.

Russian state media have linked the Kh-101 and Kh-555 (reportedly nuclear-capable) cruise missiles to the Backfire bomber, which is not a heavy bomber counted under New START.<sup>65</sup> As noted, if Russia puts a long-range (i.e., 600-km or greater range) nuclear air-launched cruise missile (ALCM) on a non-heavy bomber, it turns every carrier of that type into a heavy bomber and *de facto* puts Russia in violation of the numerical limits of the New START Treaty on deployed warheads and deployed delivery vehicles.<sup>66</sup> This is one of the reasons U.S. fighter aircraft do not carry long-range nuclear ALCMs.

In 2012, then Commander of the Russian Air Force, Colonel General Alexander Zelin, stated that the Su-34 long-range strike fighter would be given “long-range missiles...Such work is under way and I think that it is the platform that can solve the problem of increasing nuclear deterrence forces within the Air Force strategic aviation.”<sup>67</sup> This is likely to be another instance of deploying the nuclear-capable Kh-101 on an aircraft that is not a heavy bomber—making that aircraft accountable under the Treaty and a likely violation of New START ceilings.

There are similar non-compliance issues, often identified by Russian state media, involving the deployment of nuclear-capable Russian Kh-22 and the Kh-32 cruise missiles on the Backfire bomber.<sup>68</sup> Yet, these issues are missing in the February 2022 FAS report and in the State Department’s non-compliance reports. They could potentially involve hundreds of undeclared warheads, putting Russia in violation of all three New START Treaty limits—deployed warheads, deployed delivery vehicles and deployed and non-deployed delivery vehicles.<sup>69</sup> The State Department’s non-compliance reports have never addressed General Karakayev’s repeated statements that he has 400 ICBMs on “combat duty.”

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<sup>64</sup> Loc. cit. (*Emphasis in the original.*)

<sup>65</sup> “Russia: First Tu-22M3M bomber due 2018, 30 to be Upgraded,” *BBC Monitoring Former Soviet Union*, May 21, 2017, available at <https://infoweb.newsbank.com/apps/news/document-view?p=WORLDNEWS&docref=news/16486E6AB5806170>; and, Alexander Fedor, “Flexible Strategic Fist,” *Oborona.ru*, December 12, 2015, available at <http://www.oborona.ru/includes/periodics/armedforces/2015/1214/145317358/detail.shtml>. (In Russian.)

<sup>66</sup> Mark B. Schneider, “Russia’s Modernization Programs for Strategic Nuclear Bombers,” *Real Clear Defense*, March 24, 2020, available at [https://www.realcleardefense.com/articles/2020/03/24russias\\_modernization\\_programs\\_for\\_strategic\\_nuclear\\_bomber\\_s\\_115141.html](https://www.realcleardefense.com/articles/2020/03/24russias_modernization_programs_for_strategic_nuclear_bomber_s_115141.html).

<sup>67</sup> “Russian strategic aviation to be reinforced with Su-34 frontline bombers,” *Interfax-AVN*, March 19, 2012, available at <https://wnc-eastview-com.mutex.gmu.edu/wnc/article?id=40013181>.

<sup>68</sup> Mark B. Schneider, “Russian Air-Delivered Non-Strategic Nuclear Weapons,” *Real Clear Defense*, June 15, 2018, available at [https://www.realcleardefense.com/articles/2018/06/15/russian\\_air-delivered\\_non-strategic\\_nuclear\\_weapons\\_113537.html](https://www.realcleardefense.com/articles/2018/06/15/russian_air-delivered_non-strategic_nuclear_weapons_113537.html); and, Jack Buckby, “Russia Is Using Old Missiles Designed to Kill Aircraft Carriers to Strike Ukraine,” *19FortyFive.com*, July 31, 2022, available at <https://www.19fortyfive.com/2022/06/russia-is-using-old-missiles-designed-to-kill-aircraft-carriers-to-strike-ukraine/>.

<sup>69</sup> Mark B. Schneider, “The Most Serious Russian Violation of the New START Treaty Yet,” *Real Clear Defense*, May 16, 2022, available at

This study is not a review of Russian arms control violations, *per se*. However, it provides this detailed review of the subject to demonstrate that when there are arms control compliance issues involved, the State Department, the Defense Department and the Intelligence Community may be far from candid about Russian nuclear force numbers and types. Scholars, commentators, and members of Congress can essentially be left in the dark and reliant on estimates of Russian force numbers that lack credibility and may be intended to advance an arms control agenda.

### **Assessing the Size of the Russian Nuclear Arsenal**

Making assessments of the total size of the Russian nuclear arsenal is much more difficult than assessing the number of its deployed strategic nuclear weapons. Nuclear weapons are produced for purposes other than immediate deployment—for example, spares, upload hedges and destructive dissections to detect reliability problems. Russia does not announce the size of its arsenal. Indeed, the Russian nuclear weapons stockpile has never been subject to any inspections.<sup>70</sup> Hence, the information needed for confident U.S. government assessments of the size of the Russian stockpile is exceedingly difficult to obtain, and there is the ever-present problem of possible Russian deception in this regard.

Russian deception with regard to its arms control compliance and force numbers is potentially linked to accurately estimating the number of Russian nuclear weapons. An adversary's ability to implement successful deception is impacted by the U.S. counterintelligence capability. The same is true regarding cheating on arms control commitments, which usually relies on denial and deception.

Yet, one of the most significant U.S. national security weaknesses reportedly has been in the area of counterintelligence. In January 2023, Bill Gertz wrote that declassified documents just made public indicated that after the departure of James Angleton (then CIA chief of counterintelligence), "...the counterintelligence function ...was downgraded and removed as an independent function, an action critics say resulted in major failures at the agency years later."<sup>71</sup> In September 2022, Michelle Van Cleave, the first person to serve as the statutory head of U.S. counterintelligence, told the Senate Select Committee on Intelligence that, "...the national CI [counter intelligence] office has failed to accomplish the principal goals for which it was created."<sup>72</sup> She continued, "hostile penetrations and foreign deception operations that

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[https://www.realcleardefense.com/articles/2022/05/16/themost\\_serious\\_russian\\_violation\\_of\\_the\\_new\\_start\\_treaty\\_yet\\_832443.html](https://www.realcleardefense.com/articles/2022/05/16/themost_serious_russian_violation_of_the_new_start_treaty_yet_832443.html).

<sup>70</sup> Pavel Felgenhauer, "Putin Delivers More Restrained National Address as Moscow Announces Partial Troop Withdrawal," *Eurasia Daily Monitor*, Vol. 18, No. 65 (April 22, 2021), available at <https://jamestown.org/program/putin-delivers-more-restrained-national-address-as-moscow-announces-partial-troop-withdrawal/>.

<sup>71</sup> Bill Gertz, "Once-secret Files Reveal New Details of CIA's Divisive Defector Dispute," *The Washington Times*, January 1, 2023, available at <https://www.washingtontimes.com/news/2023/jan/1/once-secret-files-reveal-new-details-cias-divisive/>.

<sup>72</sup> Michelle Van Cleave, Michelle Van Cleave Statement for the Record (Washington, D.C.: U.S. Senate, Select Committee on Intelligence, September 21, 2022) p. 1, available at <https://www.intelligence.senate.gov/sites/default/files/os-mvccleave-092122.pdf>.



have grown far bolder and deeper than the resources we have available to counter them, [are] putting lives and treasure and U.S. supreme national interests at risk.” And, “Human intelligence is still Russia’s forte... By contrast, the West’s intelligence efforts against Russian targets were sharply reduced as the U.S. waged a global war on radical Islam—and also because we thought a post-Cold War Russia would no longer be counted among our adversaries.”<sup>73</sup> Absent effective counterintelligence, U.S. adversaries can manipulate U.S. threat assessments by passing disinformation. According to Van Cleave, “the practice of deception, [is] an ever-present feature in intelligence work.”<sup>74</sup>

In addition to arms control enthusiasm in Washington and possible Russian disinformation, there is the growing problem of a generation gap within the Washington bureaucracy resulting in the Soviet-era being increasingly forgotten. The de-emphasis of intelligence on Russia during the George W. Bush Administration and the retirement and deaths of most analysts with Soviet-era experience have also had a negative impact on intelligence assessments in general, and public assessments of Russian force numbers in particular.

In summary, the unfortunate reality in open source assessments of Russian nuclear capabilities is that Washington tells the American people relatively little about Russian nuclear forces, or the nature of the threat posed by Russia’s expanding and modernized nuclear arsenal. Furthermore, the existence of arms control agreements complicates assessments of Russia’s nuclear forces and activities, and appears to undermine the public release of information on the subject. Russian termination of on-site inspections under New START may have left Washington largely in the dark for years with regard to the count of Russian strategic nuclear warheads, and certainly defies estimates based on a presumption of Russian compliance with New START force levels. Lastly, the United States may not have good intelligence about the scope of the Russian threat because of the inherent difficulty in collecting intelligence as well as the potential deficiencies in the U.S. government’s counterintelligence capabilities.

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<sup>73</sup> Ibid., p. 6.

<sup>74</sup> Michelle Van Cleave, “Strategic Counterintelligence: What Is It and What Should We Do About It?” *Studies in Intelligence*, Vol. 51, No. 2 (2007), available at <https://www.cia.gov/static/6adf09076081439a16d353b398420f33/what-is-what-do.pdf>.