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Congressional Testimony

**Hearing on the Importance of the New
START Treaty**

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Chairman Engel, Ranking Member McCaul, and esteemed members of the Committee on Foreign Affairs: Thank you for the opportunity to testify on the value of the New START Treaty to U.S. national security. My testimony will cover three specific areas related to New START and arms control in general: First, the way in which U.S. and allied security is enhanced through the Treaty's verification and monitoring regime; second, the potential for New START to constrain Russia's new nuclear-armed delivery systems; and, third, a proposed way forward on arms control with China.

As the Committee is examining the value that the New START Treaty provides to the national security of the United States and its allies, especially in NATO, I hope to leave you with two clear conclusions:

(1) New START's expiration will undermine U.S. security by removing all limits on Russia's modernizing nuclear arsenal, by reducing our visibility into that arsenal, and by damaging the cohesion of the trans-Atlantic Alliance. NATO places great stock in continuing the U.S.-Russia arms control process.

(2) Extending New START will not create any new problems; the Treaty will continue to support U.S. national security goals.

Over the Information Barrier: New START Verification and Monitoring

New START not only allows the United States to monitor Russian compliance with the Treaty, but also provides the United States Intelligence Community (USIC) with information that it is unlikely to obtain in any other way. As General Hyten noted with regard to New START inspections, "there is really nothing that can replace the eyes-on/hands on ability to look at something."¹ At the very least, without New START in place, the Intelligence Community would need substantially more resources so it could maintain the same degree of confidence in its knowledge of Russia's nuclear forces. The incoming STRATCOM Commander, Admiral Richard, confirmed this in response to questions following his nomination hearing last month: "The Intelligence Community would likely

¹ "Testimony on U.S. Strategic Command and U.S. Northern Command in Review of the Defense Authorization Request for Fiscal Year 2020 and the Future Years Defense Program." Senate Armed Services Committee. February 26, 2019. https://www.armed-services.senate.gov/imo/media/doc/19-14_02-26-19.pdf

have to adjust its collection priorities and capability investments to compensate for the loss of information provided by data exchanges and inspections.”²

In reality, it is unlikely that the Intelligence Community could fully replicate our insight into Russia’s nuclear arsenal. Over time, the uncertainty may grow much higher. New START also permits theUSIC to optimize its collection against priority targets, such as monitoring the missile programs of Iran, China, and North Korea. When New START was negotiated, theUSIC made clear that information gained through verification provisions was an important complement to information from other sources. While some characteristics or procedures of Russian nuclear forces, such as the locations of missile silos or movements of large weapons are simpler to monitor through national intelligence capabilities,³ notifications and inspections are uniquely useful for gaining other types of information, such as the number of warheads on missiles and confirmation of the non-deployed status of nuclear armaments.

Let me briefly describe three New START information mechanisms and what the U.S. learns through them: data exchanges, notifications, and on-site inspections.

Twice per year, the United States and Russia exchange data on Treaty-accountable ballistic missiles, heavy bombers, nuclear bases, test sites, and storage facilities. This information is maintained in a common database on each country’s nuclear forces and serves as a valuable source of information for U.S. policy makers, military personnel, and intelligence analysts, and is used in diplomatic discussions with Russian counterparts. The United States also makes data related to Russia’s deployed strategic delivery vehicles and weapons publicly available on the State Department website, providing a snapshot to members of Congress, outside government analysts, and the interested public of Russia’s strategic nuclear arsenal and its compliance record.

In addition to the semi-annual aggregate data exchange, the parties exchange notifications about other Treaty matters on a much more frequent basis. These notifications are sent confidentially and securely through the U.S. and Russian Nuclear Risk Reduction Centers (NRRC). If a party undertakes an action which requires updates to the database, such as moving a missile from one base

² Response to Questions for the Record following Senate Armed Services Committee nomination hearing to be Admiral and Commander, U.S. Strategic Command. <https://twitter.com/KingstonAReif/status/1201715545214726144?s=20>. See <https://www.armed-services.senate.gov/hearings/19-10-24-nomination--richard>

³ Helms, Richard. “Strategic Arms Limitation and Intelligence.” Central Intelligence Agency. https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol16no4/html/v17i1a01p_0001.htm

to another, producing a new missile, or deploying additional warheads on a system, the party must send a notification within five days. As each accountable weapon has a unique identification number, the constant flow of notifications provides the U.S. government with a very current picture of Russian nuclear force activities on a system-by-system basis. By the State Department's latest count,⁴ more than 19,000 notifications have been exchanged since the Treaty entered into force in 2011.

On-site inspections are central to New START verification. Inspections—"spot checks" of nuclear forces—are used to confirm the data declared through the exchanges and notifications previously described. The Russian military receives just 32 hours' notice before a U.S. inspection team's arrival on Russian soil, making it difficult to engage in a deception. Moreover, Russia is unaware of the chosen military site until the inspectors arrive in-country. The short notice and uncertainty increase the chances of detecting inappropriate activity, thus deterring noncompliance.

There are two types of inspections: "Type One"—inspections of deployed and non-deployed nuclear weapons systems at operational military bases—ten of which may be conducted each year by each side; and "Type Two"—inspections of non-deployed systems at storage facilities and test ranges—with an allowance of eight per year for each party. These inspections are designed to confirm the accuracy of Russia's data declarations, including the number of nuclear weapons emplaced on ballistic missiles and bombers and to ensure non-operational sites and non-deployed nuclear systems are not secretly being kept in an operational state.

During an inspection, the U.S. team has an opportunity to select any system of its choice for inspection. For example, at an ICBM base, U.S. inspectors may choose a deployed ICBM and launcher for inspection, during which the inspection team will confirm that the number of warheads on the missile equals the number declared by Russia in information exchanges. Inspectors may choose a non-deployed ICBM to confirm that "offline" missiles are, in fact, unavailable for operations.

Finally, inspections facilitate conversations between U.S. and Russian military officers and allow direct observations of Russian military operations on active nuclear bases. The regular discussions between U.S. and Russian diplomats and military officials on strategic nuclear weapons are only possible because of the information obtained through the Treaty. It is unimaginable for the same, relatively open conversation conducted during New START diplomatic meetings to occur when the only available information is collected through national intelligence means.

⁴ "New START at a Glance." U.S. Department of State. <https://www.state.gov/new-start/>

Russia's New Nuclear Weapons and New START

New START limits both Russia's operational force—nuclear weapons which can be employed against the United States at short notice—as well as its large non-operational force which could be made operational over time. These limits enhance U.S. and allied security by capping the potential growth of Russia's large nuclear arsenal, which is largely composed of land-based ballistic missiles capable of deploying with additional warheads. As Russia is far along in its nuclear modernization program, New START's numerical limits are vitally important. This is especially true as Russia is now producing new nuclear systems under its modernization plan, whereas the United States has yet to begin deployment of its own modernized force. Looking forward, New START will limit the most immediately threatening of the five new long-range nuclear-armed weapons unveiled by Vladimir Putin in March 2018.

The only two new long-range nuclear systems—the *Sarmat* heavy ICBM and the *Avangard* hypersonic glide vehicle (HGV)—will likely be deployed before the Treaty expires, if extended, (and they may well be deployed much sooner). Russian officials have confirmed both new systems will count under New START's limits and will be inspectable.⁵ Other systems, which are likely to be deployed after 2026, should be considered in the context of negotiating a future agreement to restrict Russia's nuclear arms.

Limiting *Sarmat* and *Avangard* is important to U.S. and allied national security. The *Sarmat* ICBM will be capable of carrying multiple nuclear warheads, perhaps more than 10 on each missile.⁶ Without New START in place, Russia could greatly exceed the current 1,550 deployed warhead limit simply by deploying a handful of *Sarmat* missiles. With New START in force, Russia will not be able to take full advantage of the *Sarmat's* large payload capacity. ICBMs are already limited under New START, so bringing *Sarmat* into Treaty accountability is relatively straightforward. The inclusion of these systems into New START should be of interest to Congress, given members' concerns regarding the direction of the U.S.-Russia relationship and Russia's continued development of new nuclear capabilities.

⁵ "Foreign Ministry: Sarmat, Avangard systems may be included in New START treaty." Nov 1, 2019. <https://tass.com/defense/1086515>

⁶ "Russia's 'Invulnerable' Satan 2 Nuclear Missile Will Be Ready to Fire by the End of 2020, Space Agency Official Says." July 8, 2019. <https://www.newsweek.com/russia-satan-2-nuclear-missile-rs-28-sarmat-ready-fire-2020-1447994>

The *Avangard* HGV will be deployed on an ICBM delivery platform. The system is designed to evade U.S. missile defenses; Russia publicly detailed *Avangard*'s maneuverability after release from a ballistic missile. Russia recently held a Treaty-mandated exhibition of the *Avangard* to provide baseline information (photographs and measurements) to be used in future inspections.⁷ In other words, thanks to the New START Treaty, the United States was able to put inspectors' eyes on the very first known strategic HGV Russia has ever fielded.

Two other new Russian weapons, an undersea autonomous nuclear delivery system (*Poseidon*) and nuclear-powered cruise missile (*Burevestnik*), pose a real threat to the United States, but given problems encountered during research and development, they are unlikely to be deployed in the term of New START, even if the Treaty is extended.

A final system, the *Kinzhal* hypersonic air-launched ballistic missile, is worth keeping an eye on, but in its current configuration it is a theater-strike weapon and not an intercontinental-range system which the Treaty limits. New START was designed to maintain the central strategic balance between the United States and Russia, limiting the nuclear weapons readily able to strike one national territory from the other. These are the weapons which would be used against priority targets—nuclear weapons, population centers, and political leadership—and would be indicative of a global nuclear conflict between the two countries. It's no surprise that the strategic arms control process has been focused on these types of weapons for decades.

If *Kinzhal* were deployed on a heavy bomber, it would be a "nuclear armament" under the Treaty and that aircraft would count against New START's numerical limits. However, *Kinzhal* is currently deployed on a modified fighter aircraft, the Mig-31. The aircraft has a relatively short range, and even when armed with the long-range *Kinzhal*, is not an intercontinental weapon. However, Russia is also modernizing a medium bomber, the Backfire, which could carry *Kinzhal* in the future. New START has very specific range and payload requirements for the type of aircraft that are Treaty-accountable. Backfire does not meet those requirements, and it is unlikely the modernized version will either.

If, however, the modernized Backfire is armed with *Kinzhal*, it may have the capability to strike valuable targets in the U.S. homeland, in which case, it should be considered a strategic weapon.

⁷ "Demonstration of Russia's new Avangard system to US specialists was expected - expert." Nov 26, 2019. <https://tass.com/world/1093045>

Anticipating such a scenario, New START provides each party with the opportunity to raise concerns when it believes a “new kind” of strategic offensive arm is emerging, that is to say, a nuclear-armed weapon of long-range that is not an ICBM, SLBM, or heavy bomber. This provision gives the United States a powerful argument that the modernized Backfire—if armed with *Kinzhal*—should be included in the Treaty and gives U.S. diplomats a Treaty basis for raising the issue during New START dialogues.

If New START is extended, then the United States can and should focus its diplomatic efforts on limiting new, unconstrained Russian nuclear weapons, such as *Poseidon*, *Burevestnik*, and *Kinzhal*. If New START is not extended, U.S. arms control policy will have to grapple not only with limiting these niche systems, but with managing all of Russia’s nuclear forces. It makes little sense, therefore, to release Russia from constraints on most of its nuclear weapons that are readily available to strike the United States over concerns about developmental weapons that will, in all likelihood, not be deployed before 2026.

U.S. Arms Control Policy Toward China

The Trump Administration has argued that China should be brought into the arms control process. Administration officials have expressed concern about “China’s lack of transparency regarding the scope and scale of its nuclear modernization program” and unwillingness to discuss nuclear weapons issues with the United States.⁸ Certainly, limiting China’s nuclear forces by bringing them into a strategic arms control agreement is a worthy long-term goal. However, New START is a poor model for a U.S.-China treaty, and the benefits of the Administration’s current tactic—threatening New START’s expiration to pressure China into negotiating—are unclear, while the risks are obvious.

According to the Defense Intelligence Agency (DIA), China’s warhead stockpile is in the “the low couple of hundreds.”⁹ Moreover, China possesses significantly fewer ICBMs, SLBMs, and heavy bombers than the United States and Russia. This large numerical imbalance reduces the urgency of bringing China into legally binding arms control, certainly compared to the urgency of preserving the

⁸ “Trump Arms Control Plan Draws Criticism.” Arms Control Today. June 2019.

<https://www.armscontrol.org/act/2019-06/news/trump-arms-control-plans-draw-criticism>

⁹ “DIA Estimates for Chinese Nuclear Weapons.” Federation of American Scientists. May 31, 2019.

<https://fas.org/blogs/security/2019/05/chinese-nuclear-stockpile/>

limits on Russia’s nuclear forces. Looking at the historical parity in nuclear forces, at no point since the arms reduction process began did either the U.S. or Russia face a significant quantitative disparity in strategic nuclear weapons with the other party (see *Fig. 1*).

Fig 1: Estimates of New START Accountable Systems
in the United States, Russia, and China

Deployed ICBMs, SLBMs, and heavy bombers¹⁰	
United States	668
Russia	513
China ¹¹	172
Warheads for Strategic Delivery Systems	
United States	1356 (deployed), 3,570 (stockpile) ¹²
Russia	1426 (deployed), 2,670 (stockpile) ¹³
China	Low 200s (total) ^{14, 15}

It is unclear how China could be incorporated into New START with such a stark difference in numbers. It is unlikely that China, despite its long history of maintaining a small nuclear arsenal, would be interested in agreeing to legally binding limits which codify a status as a second-class nuclear power. Unlike the United States and Russia, China does not maintain its warheads on alert ICBMs, ready to launch within minutes. This is a drastically different posture from the alert U.S. and Russian

¹⁰ Where available, U.S. and Russian numbers drawn from <https://www.state.gov/new-start-treaty-aggregate-numbers-of-strategic-offensive-arms-11/>

¹¹ “Chinese nuclear forces, 2019.” Bulletin of the Atomic Scientists. Jun 28, 2019. <https://www.tandfonline.com/doi/full/10.1080/00963402.2019.1628511>

¹² “US nuclear forces, 2019.” Bulletin of the Atomic Scientists. Apr 29, 2019. <https://www.tandfonline.com/doi/pdf/10.1080/00963402.2019.1606503?needAccess=true>

¹³ “Russian nuclear forces, 2019.” Bulletin of the Atomic Scientists. Mar 4, 2019. <https://www.tandfonline.com/doi/pdf/10.1080/00963402.2019.1580891?needAccess=true>

¹⁴ Recently, the Director of the Defense Intelligence Agency Lt. Gen. Ashley stated the Chinese nuclear warhead count is “in the low couple of hundreds.” See <https://fas.org/blogs/security/2019/05/chinese-nuclear-stockpile/> This is lower than FAS’ estimate of 290. See Footnote 11.

ICBM forces. In New START, the verification regime emphasizes reentry vehicle inspections for alert ballistic missiles: the fastest possible means of delivering a nuclear warhead from one territory to the other.

Finally, China has not participated in a formal arms control process before. Beijing does not have a Nuclear Risk Reduction Center and has not hosted treaty inspectors on nuclear bases. The infrastructure for implementing a treaty like New START simply doesn't exist.

Instead of attempting to limit China through New START, U.S. diplomats should focus on ensuring that China does not build up its arsenal and challenge the United States numerically. China's current stockpile of fissile material is estimated to be insufficient to allow a militarily significant increase in warhead numbers. Moreover, China is believed to have cut off the production of more fissile material. Accordingly, U.S. policy should focus on gaining first, a clear commitment that China will not produce more fissile material, and second, transparency about the size of its current stockpile. Other subjects, such as enhancing regional crisis stability and mitigating potential escalation risks should a conflict occur are also possibilities for future negotiations. But China is unlikely to enter negotiations if the U.S.-Russia arms control process has ended.

Conclusion

To conclude, let me state unequivocally that New START extension is clearly in the U.S. interest. Let me return to two key points which make that clear:

(1) New START's expiration will undermine U.S. security by removing limits on Russia's nuclear arsenal, reducing our visibility into that arsenal, and damaging NATO cohesion. Allies do not want to face an unconstrained Russia and believe strongly in a continuing U.S.-Russia arms control process.

(2) Extending New START will not create any new problems; it will continue to support U.S. national security goals, including by continuing limits on and providing insights into Russia's nuclear arsenal and providing a stable basis for the United States' planned nuclear modernization.

The information that New START provides about Russia's nuclear forces is invaluable to U.S. intelligence and shows that Russia has complied with New START; Russia's compliance record in New START stands in contrast to its record in the Intermediate-Range Nuclear Forces (INF) Treaty, and demonstrates the value of an active verification and monitoring regime.¹⁶ New START is invaluable for our defense planners; without Treaty-mandated information, we would be unable to plan over the long term, crucial for the decades-long U.S. nuclear modernization plan. Expiration will likely lead to more military planning based on worst case scenarios with Russia and reduced resources for other priorities, including the growing military competition with China.

New START constrains Russia's modernizing nuclear force to the lowest level since the 1960s. These limits will also apply to the most immediately concerning of Russia's new nuclear systems—the *Sarmat* ICBM and *Avangard* HGV—which are yet to be deployed. Further, the United States enjoys an advantage by staying in the Treaty as it is just beginning its own modernization efforts. New U.S. systems are unlikely to be deployed until the late 2020s, years after New START would expire even if it is extended for the maximum five years. This means that the Treaty constrains only legacy U.S. systems while limiting Russia's modernized weapons, potentially through 2026.

While incorporating China into legally binding arms control should not be an immediate priority—not least because refusing to extend New START unless China joins will risk undermining U.S. security relative to both Russia and China—it is a worthy long-term goal. But there is no chance for arms control with China if New START is permitted to expire. It is unimaginable that China would join the arms control process if the U.S. and Russia walked away. In fact, this goal is ultimately best served by preserving arms control with Russia to create a foundation for future multilateral efforts. New START extension may be key to bringing China into a future negotiation.

Even while debating the merits of New START extension, the U.S. government must be poised to address the arms control challenges of the future, including dealing with remaining unconstrained Russian nuclear-armed delivery systems, addressing the disparity in non-strategic nuclear weapons between the United States and Russia, and bringing China into an arms control process. Through your funding decisions and engagement with the State Department and White House, you should encourage and resource our diplomats to focus on these tasks. Addressing dangerous weapons and policies of potential adversaries through sensible arms control policy requires

¹⁶ Though the INF Treaty was an agreement without an expiration date, the verification and monitoring activities, including on-site inspections, ended in 2001, after all Treaty-prohibited missiles had been eliminated.

technical expertise and resources. I encourage Congress to look seriously at the U.S. government's arms control workforce; hiring and retaining the next generation of arms control experts is an important mission this Committee can embark on.

The president can extend the New START Treaty with the stroke of a pen. This committee, in a bipartisan fashion, has already taken important legislative action to declare the importance of extending New START to American national security. I hope that today's hearing and the conversations and debate it may create among your esteemed colleagues will move the House and the Senate to take up bipartisan legislation which signals Congress' strong interest in the Trump Administration extending this Treaty.

Thank you for the opportunity to testify. I look forward to answering any questions you may have.