

# The Increasing Russian Nuclear Threat

## THE ISSUE

Russia relies heavily on nuclear weapons to offset its own perceived inferiority of its conventional forces in a conflict with the forces of the North Atlantic Treaty Organization. Despite economic challenges, Russia is building up its nuclear forces, and in some areas could gain an advantage over the United States.

As Russia modernizes its nuclear forces and introduces new capabilities limited by existing arms controls, the United States has just barely begun to modernize its aging legacy strategic systems. Most of America's nuclear systems are between 40 years and 60 years old.

## RUSSIA'S STRATEGIC NUCLEAR FORCES UNDER NEW START

Russia's strategic nuclear forces are limited by the New Strategic Arms Reductions Treaty (New START) with the United States, which the new Biden Administration extended until 2026. Unclassified sources estimate Russia's strategic triad to consist of more than 300 silo and road-mobile intercontinental ballistic missiles (ICBMs), 10 nuclear-armed submarines, and 60 to 70 strategic bombers. According to New START counting rules, Russia currently deploys nearly 1,500 warheads—though that number is difficult to confirm. In fact, because Russia's ICBMs can carry multiple warheads per missile, Russia has an “upload capacity” that allows it to quickly surge deployed warheads *beyond* New START's limits.

Russia has been modernizing its nuclear triad since 1998, and President Vladimir Putin announced in December 2020 that this modernization is approximately 86 percent complete. The effort includes fielding new ICBMs, building more advanced strategic submarines, and a completed overhaul of the strategic bomber fleet.

## RUSSIA'S NEW “EXOTIC” NUCLEAR DELIVERY SYSTEMS

In addition to modernizing existing nuclear capabilities, Russia is also developing six entirely new capabilities, without breaking New START terms.

- **The maneuverable Avangard Hypersonic Boost-Glide Vehicle (HGV)** is carried aboard an ICBM before being loosed at its target. It is meant to evade enemy missile defense systems.
- **The Sarmat Heavy ICBM** can reportedly carry 10 to 15 nuclear warheads, or multiple Avangard HGVs, over the North Pole or South Pole to mainland U.S. targets.
- **The Poseidon is a nuclear-powered, underwater drone** that could create a radioactive “tsunami” to strike U.S. coastal targets.
- **The Burevestnik nuclear-powered cruise missile** offers unlimited range and second-strike capability.
- **The Kinzhal air-launched, dual-capable hypersonic ballistic missile** is a theater-range system that is already in service.
- **The Tsirkon sea-launched, dual-capable hypersonic cruise missile** is a threat to both sea and land targets.

While the Avangard and Sarmat systems are now counted, but not prohibited, under New START, the other weapons are not; all six have strategic stability implications.

## UNCONSTRAINED, NON-STRATEGIC NUCLEAR FORCES

Russia has a stockpile of at least 2,000 non-strategic (low-yield) nuclear weapons (NSWs) that are unconstrained by any treaty, outnumbering U.S. NSWs by at least 10 to one. In 2019, the Director of the Defense Intelligence Agency (DIA) reported that Russia's stockpile is anticipated to grow even more. Russia operates dozens of dual-capable delivery systems, including short-range ballistic missiles, depth charges, torpedoes, land mines, artillery, and mortars.

This disparity is particularly concerning because Russia's recent nuclear doctrine indicates a lower threshold for use of nuclear weapons. According to the United States' 2018 *Nuclear Posture Review*, Russia "mistakenly assesses that the threat of nuclear escalation or actual first use of nuclear weapons would serve to 'de-escalate' a conflict on terms favorable to Russia."

## RUSSIA'S NUCLEAR ENTERPRISE

Russia's current nuclear enterprise is able to increase its nuclear weapons stockpile both quantitatively and qualitatively. A 2020

Government Accountability Office report notes that Russia has the world's largest volume of bomb-making material. According to a 2019 Army War College estimate, in one year, Russia can produce between 1,000 and 3,000 plutonium pits for nuclear weapons modernization. In contrast, the U.S. has not had a plutonium-pit-production capability since the Cold War.

According to the DIA Director in 2019, Russia is conducting low-yield nuclear tests that will allow it to improve its weapons capabilities, including developing new earth-penetrating warheads that can strike hardened targets. Meanwhile, the United States has adhered to a zero-yield testing standard since 1992 and has not entered a new nuclear weapon into service since 1989.

Russia is clearly seeking to gain a competitive nuclear advantage over the U.S. This is unacceptably dangerous. To ensure credible, direct, and extended nuclear deterrence against Russia, and to avoid crisis escalation to the nuclear level, the United States must complete its own nuclear modernization while engaging Russia diplomatically on its nuclear forces.





