

Russia's Nuclear Inventory

The U.S.S.R. dramatically <u>accelerated</u> its atomic weapons program following the U.S. bombings of Hiroshima and Nagasaki, and successfully tested its first plutonium bomb in <u>1949</u>. An arms race between the United States and the Soviet Union quickly ensued, leading to a massive stockpile build-up, the development of even deadlier <u>thermonuclear weapons</u>, and new vehicles by which they might be delivered.

Unprecedented nuclear <u>testing</u> and the Cuban Missile Crisis in 1962 sparked a global conversation about nuclear weapons, leading to a period of diplomatic discussions aimed at reducing the risk of catastrophe. The U.S.S.R. became a signatory to <u>several</u> of these treaties until its collapse in 1991. The Russian Federation was recognized as the natural successor to the Soviet nuclear arsenal of more than 30,000 nuclear warheads, as well as all treaty requirements.

However, the fall of the Soviet Union presented a particularly tricky situation regarding NPT treaty obligations. Usable nuclear infrastructure and an estimated 3,200 nuclear warhead equipped missiles were suddenly within the territory of the newly sovereign states of Ukraine, Kazakhstan, and Belarus. Through a series of diplomatic negotiations, the three countries eventually agreed to give up their strategic and non-strategic nuclear arsenals in exchange for respect for their sovereignty and nuclear security protections.

Russia now has the largest nuclear inventory in the world and is a designated Nuclear Weapons State under the Nuclear Non-Proliferation Treaty (NPT). The country has made significant progress toward fully modernizing its Soviet-era nuclear weapons and delivery systems. Russia and the United States continue to operate under the obligations of the New Strategic Arms Reduction Treaty (New START), which puts limits on offensive strategic arsenals and ensures deeper transparency between the two states. New START was extended for five years during the early days of the Biden administration and is set to expire in 2026. After decades of arms control agreements between the United States and Russia, New START is the last remaining nuclear disarmament treaty between the world's two biggest nuclear powers.

Russia's nuclear triad consists of air, land, and sea delivery systems, all of which are in the process of modernization.

How Many?

Russia is estimated to possess roughly <u>5,977</u> nuclear warheads, of which 1,588 are actively deployed. A slight majority of these weapons are designated as strategic, while the minority appear to be non-strategic (tactical). Consistent with arms control agreements such as START and New START, Russia's strategic arsenal has <u>decreased</u> significantly since the end of the Cold War.

Air

Russia has approximately <u>68</u> heavy bombers in its nuclear air fleet. They consist of two divisions: the Tu-160 (Blackjack) and the Tu-85MS (Bear H). The Bear H class makes up the majority of its fleet, each of which can carry up to 16 <u>AS-15</u> missiles, or roughly 700 nuclear warheads when combined. Current modernization efforts aim to equip their fleet with nuclear cruise missiles.

Sea

Russia's operational nuclear force consists of 11 nuclear-powered ballistic missile submarines (SSBNs), separated into three classes. The Delta and Boreii, the current active classes, can carry up to 16 SLBMs (the SS-N-23 "Skiff" and the Bulava SS-N-32) that are capable of delivering up to 624 nuclear warheads. Russia's

strategic naval force is currently constructing up to <u>10</u> additional and improved Boreii class nuclear submarines, all of which are expected to be completed by 2027 but face severe resource constraints. In addition to their fleet of strategic nuclear submarines, Russia has an additional 26 <u>nuclear-powered</u> submarines that consist of 17 attack SSNs and 9 SSGNs carrying various conventional cruise missiles.

Land

It is estimated that Russia has roughly 306 strategic ICBMs that carry up to 1,185 nuclear warheads. Most notable among these ICBMs are the SS-27 Mod 1 (Topol-M) and the SS-27 Mod 2 (Yars), both capable of carrying multiple nuclear warheads (MIRVs). Additionally, Russia is currently developing the Sarmat (SS-X-30) missile that is advertised as larger and more capable than previous designs. Alongside the Sarmat, Russia is also developing a hypersonic glide vehicle known as Avangard.