North Korea’s Nuclear Inventory

North Korea’s nuclear weapons program has existed for decades in a self-described attempt to protect the regime from security threats posed by adversaries and proxies. Bilateral efforts between the United States and the DPRK under the Agreed Framework ultimately failed, and in 2003, North Korea officially withdrew from the Nuclear Non-Proliferation Treaty (NPT). Just three years later, the country successfully tested its first nuclear weapon. Despite extensive multilateral sanctions and efforts to persuade the state to continue diplomatic discussions, North Korea continues to build its stockpile of nuclear weapons and delivery systems, test short-, intermediate- and long-range missiles, and produce fissile material.

North Korea’s nuclear doctrine has varied from a declared policy of “no first use,” (albeit with some caveats), to codified authorization for an offensive nuclear attack. More recently, the DPRK has declared itself a nuclear weapons state and vowed never to abandon its nuclear arsenal, further complicating diplomatic paths to the denuclearization of the Korean peninsula.

The DPRK relies heavily on its land-based nuclear arsenal and has devoted significant effort to developing missiles and mobile delivery systems to enhance its nuclear capabilities. Recent analysis indicates that North Korea might now possess smaller nuclear warheads that could be mounted on medium- to long-range ballistic missiles. However, the operational status of many of these missiles is unknown and/or difficult to verify. North Korea remains in violation of several arms control treaties, test bans and UNSC resolutions.

How Many

It is estimated that North Korea has enough fissile material to build 45 to 55 nuclear warheads, with 20 to 30 possibly assembled warheads.

Air

There is no public evidence that North Korea has air-based capabilities.

Sea

North Korea currently claims to be developing a series of Pukguksong class submarine launched ballistic missiles (SLBM). So far, successful tests are limited to the Pukguksong-1 (KN-11), and the Pukguksong-3 (KN-26). The deployment status of these missiles remains unknown.

Land

Short-Range Missiles Ballistic Missiles (SRBMs): North Korea has several close and short-range (<1,000 km) operational ballistic missiles, including the Hwasong-5, Hwasong-6, and the KN-02 (Toksa). New and smaller tactical weapons such as the KN23, KN24, and KN25, have undergone significant testing, with mixed results, since 2019. Some analysts suggest that while these missiles are likely meant for conventional warfighting, they could eventually be used to carry a nuclear payload.

Medium-Range Ballistic Missiles (MRBMs): North Korea possesses three types of medium-range (800-2,000km) ballistic missiles, the Hwasong-7 (Nodong-1), Hwasong-9, and the Pukkuksong-2 (KN-15). According to experts, the KN-15 is dual-capable (able to carry either conventional or nuclear warheads) and poses a significant regional risk if deployed. North Korea has two intermediate-range ballistic missiles: the Hwasong-10 (Musadan) and the Hwasong-12 (KN17). The Hwasong-10 (Musudan) status remains unknown following
several failed tests in 2016. The Hwasong-12 (KN17) has been tested successfully three times, the latest being in January 2022. The deployment status of these missiles is unknown.

Intercontinental Ballistic Missiles (ICBMs): North Korea’s first successful ICMB test flight occurred in 2017, when the country launched the Hwasong-15. The Hwasong-17, a newer long-range missile that is believed to be capable of delivering multiple nuclear payloads (MIRV) has yet to have a verifiably successful launch. Despite extensive development and testing of these weapons, however, there is thus far limited evidence that any of these weapons can survive violent re-entry into the Earth’s atmosphere.