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North Korea's Nuclear Weapons and Missile Programs

Overview

Over the past decade, the Democratic People's Republic of Korea (DPRK, or North Korea) has advanced its nuclear weapons and ballistic missile programs, which has raised the threat Pyongyang poses to the U.S. homeland, U.S. allies in East Asia, and U.S. interests. In April 2026, a U.S. defense official testified that "North Korea's nuclear forces are increasingly capable of targeting the U.S. Homeland, and its missile forces can strike South Korea and Japan with nuclear or conventional warheads." The 2026 National Defense Strategy stated that these forces are "growing in size and sophistication, and they present a clear and present danger of nuclear attack on the American Homeland."

U.S. policies and multiple UN Security Council (UNSC) resolutions have imposed sanctions and called on North Korea to eliminate its nuclear weapons and ballistic missile programs in a "complete, verifiable and irreversible manner." Since 2022, Russian and Chinese policies toward North Korea have shifted. The U.S. Forces Korea commander said in April 2025 that in return for North Korea's assistance in its war against Ukraine, "Russia is expanding sharing of space, nuclear, and missile-applicable technology, expertise, and materials to the DPRK."

A trilateral statement of the United States, South Korea, and Japan reiterates their "steadfast commitment to the complete denuclearization of North Korea." North Korean leader Kim Jong-un has repeatedly rejected denuclearization negotiations since the most recent talks in 2019 between President Donald J. Trump and Kim broke down. According to the U.S. Intelligence Community's 2025 Annual Threat Assessment (ATA), Kim Jong-un views nuclear weapons as a "guarantor of regime security" and has "no intention" to renounce them. Congress could examine U.S. policies toward North Korea, including the implementation of sanctions, diplomatic efforts, and changes to U.S. and allied force posture.

Nuclear Doctrine and Plans

The 2026 ATA stated that North Korea is "committed to expanding its strategic weapons programs, including missiles and nuclear warheads, to solidify its deterrent capability." North Korean laws and doctrine governing the purpose and employment of nuclear weapons appear to affirm this assessment. A North Korean government report on the 2026 Ninth Congress of the Workers' Party stated that the "DPRK's position as a nuclear weapons state has been consolidated to be irreversible and permanent," according to a copy posted by an independent aggregator.

In May 2012, North Korea changed its constitution to describe the country as a "nuclear-armed state." The following year, the DPRK People's Assembly adopted a law stipulating that Pyongyang's nuclear weapons "serve

the purpose of deterring and repelling the aggression and attack of the enemy against the DPRK and dealing deadly retaliatory blows." According to a 2013 law, North Korea's nuclear weapons "can be used only by a final order of the Supreme Commander of the Korean People's Army [a position held by Kim] to repel invasion or attack from a hostile nuclear weapons state and make retaliatory strikes." A September 2022 law outlined the conditions under which North Korea would use nuclear weapons, which some analysts say lower the threshold for nuclear use.

In January 2021, the DPRK announced a Five-Year Defense Plan to field new submarines, develop tactical nuclear weapons, deploy multiple warheads on a single missile, and improve the accuracy of intercontinental ballistic missiles (ICBMs), among other goals. The plan included the development of an ICBM with a range of 15,000 kilometers (9,320 miles) for "preemptive and retaliatory nuclear strike," as well as ground-based and sea-based solid-fueled ICBMs. In September 2023, Kim announced that Pyongyang would boost nuclear weapons production "exponentially" and diversify nuclear strike options. In August 2025, Kim said the country was pursuing a "rapid expansion of nuclearization."

Nuclear Testing

North Korea has tested a nuclear explosive device six times, beginning in 2006, at its Punggye-ri nuclear test site. The underground tests produced increasing estimated yields. North Korea last conducted a nuclear test on September 3, 2017. North Korea characterized its most recently tested nuclear explosive device as a hydrogen bomb (or two-stage thermonuclear warhead) for deployment on an ICBM. In 2018, North Korea announced it had achieved its goals and would no longer conduct nuclear tests, and it dynamited the entrances to two test tunnels. The International Atomic Energy Agency (IAEA) reported that North Korea began restoring test tunnels in March 2022. A 2025 U.S. Defense Intelligence Agency (DIA) report stated, "North Korea has restored its nuclear test site and is now postured to conduct a seventh nuclear test at a time of its choosing."

Nuclear Material Production

North Korea is expanding its capacity to produce fissile material (plutonium and highly enriched uranium) for nuclear weapons. North Korea produces plutonium at its Yongbyon site. North Korea also operates gas centrifuge uranium enrichment plants. In March 2026, the IAEA reported "ongoing operation of enrichment facilities" at Kangson and Yongbyon and a new building at Yongbyon that is similar to the Kangson facility. In an April 2026 statement to the House Armed Services Committee, the DIA director said that "Pyongyang is also building a probable additional uranium enrichment facility at Yongbyon to increase stockpile production." Fissile

material production in large part determines the number and type of nuclear warheads a country is able to build.

Nuclear Warheads

According to a 2025 statement by the then-DIA director, North Korea aims to continue increasing its stockpile of nuclear warheads and improving their design for multiple delivery systems. Some nongovernmental experts estimate that North Korea has produced enough fissile material for up to 90 warheads but may have assembled approximately 50. In January 2021, Kim said the country was able to “miniaturize, lighten and standardize nuclear weapons and to make them tactical ones.” The 2024 ATA stated, “North Korea also unveiled a purported tactical nuclear warhead and claimed it could be mounted on at least eight delivery systems, including an unmanned underwater vehicle and cruise missiles.”

Ballistic Missiles

Under Kim Jong-un, North Korea has accelerated the pace of its ballistic missile test launches. A ballistic missile is a projectile powered by a rocket engine until it reaches the peak (or *apogee*) of its trajectory, at which point it falls back to earth using earth’s gravity. Ballistic missiles can deliver nuclear and conventional payloads at high speed and over great distances. They are categorized as short-range, medium-range, or long-range (i.e., intermediate range and intercontinental) based on the distance from the launch site to the target. North Korea’s inventory comprises both solid-fueled missiles, which offer advantages in maintenance and mobility, and liquid-fueled missiles, which have greater thrust and power than solid propellants.

In developing its ballistic missile forces, North Korea has prioritized capabilities “designed to evade U.S. and regional missile defenses, improve the North’s precision strike capabilities, and put U.S. and allied forces at risk,” according to the 2025 ATA. The DIA director’s April 2026 testimony stated that North Korea’s missile tests “align with Pyongyang’s defense modernization goals of improving deterrence against Washington through the development of a modern solid propellant missile force.” North Korea has tested ballistic missiles in January, March, and April 2026.

Intercontinental and Intermediate Range Missiles

North Korea has tested ICBMs “capable of reaching the entire [U.S.] Homeland,” according to the 2026 ATA. Between 2022 and 2024, North Korea conducted “more than a dozen ICBM flight tests,” one U.S. official stated in congressional testimony in 2026. In 2025, DIA assessed that the DPRK had “10 or fewer” ICBMs and that it could possess 50 ICBMs by 2035.

The DPRK successfully tested two liquid-fueled, road-mobile ICBMs in 2017: the Hwasong-14 (U.S. designated KN-20) and Hwasong-15 (KN-22). North Korea began test launching the larger Hwasong-17 (KN-28) ICBM in 2022. North Korea tested the Hwasong-18 and Hwasong-19 solid-fueled ICBMs in 2023 and 2024, respectively. In October 2025, North Korea unveiled the solid-fueled Hwasong-20, which the DPRK does not appear to have yet flight tested.

North Korea’s intermediate-range ballistic missiles (IRBMs) may have the range to target Guam and other U.S.

forces in the region. North Korea’s IRBMs include the liquid-fueled Hwasong-12, which North Korea last tested in 2022, and the solid-fueled Hwasong-16, last tested in 2025.

Short- and Medium-Range Missiles

North Korean SRBMs and medium-range ballistic missiles (MRBMs), which may be armed with conventional or nuclear warheads, could target South Korea, Japan, and U.S. forces in the region. According to the 2026 ATA, North Korea is “investing in nuclear-capable systems to deter the U.S., challenge regional missile defenses, and hold targets in South Korea at risk.”

The Hwasong-11A (KN-23) SRBM has the potential to strike locations throughout the Korean Peninsula with either a conventional or nuclear payload and uses a solid propellant. The KN-25 SRBM blurs the line between rocket and missile in that while its design resembles that of a guided artillery rocket, it is reportedly capable of matching the range and destructive effects of an SRBM. In the MRBM category, the Pukguksong-2 (KN-15) is a solid-fueled missile launched from a tracked vehicle, which provides the system mobility and survivability.

Submarine-Launched Ballistic Missiles (SLBMs)

North Korea’s efforts to develop SLBMs suggest an effort to diversify its ballistic missile forces. The DPRK tested the Pukguksong-3 (KN-26), an SLBM reportedly designed to carry a nuclear warhead, in 2019. North Korea has since revealed the Pukguksong-4, -5, and -6. Some analysts have questioned whether North Korea’s development of submarines has kept pace with that of its SLBMs.

Missile Technology Development

In its report on the Ninth Party Congress in February 2026, North Korea committed to “upgrading the conventional weapons possessed by our army” and to “accelerate the deployment of already-developed new-type weapons for action.” The report highlighted weapons technology programs it said were underway, including the development of attack drones, anti-satellite weapons, and SLBMs.

North Korea has tested ballistic missile payloads and warheads that could complicate missile defenses. In 2025, North Korea said it tested a Hwasong-16B IRBM with a hypersonic glide vehicle (HGV) payload and reportedly unveiled a variant of the KN-23 SRBM, the Hwasong-11E, that may be armed with an HGV payload. Such technology could offer greater maneuverability than conventionally armed missiles, though some analysts have said that North Korea’s development of HGVs is at an early stage. Additionally, in April 2026, North Korea tested ballistic missiles armed with cluster munition warheads.

North Korea has prioritized development of multiple independently targetable reentry vehicle (MIRV) payloads that would allow a single ballistic missile to carry multiple warheads. North Korea reportedly conducted an unsuccessful test of an MIRV-armed ballistic missile in June 2024. Some observers have stated that North Korea’s tests of what it has called a “newly upgraded” solid rocket motor in 2025 and 2026, one that may be used on the Hwasong-20, could support North Korea’s development of ballistic missiles armed with multiple warheads.

Daniel M. Gettinger, Analyst in U.S. Defense Policy

Mary Beth D. Nikitin, Specialist in Nonproliferation

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