



North Korea Nuclear Weapons Activity

Number of nuclear weapons

Unverified, but recent [estimates](#) suggest that North Korea possesses enough fissile material for 20-60 nuclear weapons. The actual number of weapons is likely lower.

Nuclear tests

- 1. October 2006** – Claimed successful. Deemed unsuccessful.
On October 16, 2006, the U.S. Director of National Intelligence [confirmed](#) that “North Korea conducted an underground nuclear explosion in the vicinity of P’unggye on October 9, 2006. The explosion yield was less than a kiloton.” At such a low yield, the international community labeled the North’s test a failure.
- 2. May 25, 2009** – Claimed successful. Deemed unsuccessful.
On June 15, 2009, the [U.S. Director of National Intelligence](#) stated, “The U.S. Intelligence Community assesses that North Korea probably conducted an underground nuclear explosion in the vicinity of P’unggye on May 25, 2009. The explosion yield was approximately a few kilotons.” Official and unofficial reports vary on estimated yield but it was generally regarded as higher than North Korea’s 2006 test, yet still considered unsuccessful.
- 3. February 12, 2013** – Claimed successful. Deemed successful.
On February 12, 2013, the U.S. Director of National Intelligence [stated](#) that North Korea probably carried out an underground nuclear explosion with a yield of approximately several kilotons. Some experts [speculate](#) that the test involved uranium, rather than plutonium as used in the last two tests, but there has been [no official confirmation](#) regarding which material was involved. North Korea [claimed](#) that the device tested was a miniaturized warhead that could be mounted on a ballistic missile.
- 4. January 6, 2016** – Claimed successful. Deemed successful, but not a hydrogen explosion.
On January 6, 2016, North Korea claimed to have detonated a miniaturized hydrogen bomb. Hydrogen bombs, or [thermonuclear weapons](#), derive their extremely high yield from nuclear fusion, or the process of combining light elements to make heavier ones. However, the international community has been unable to confirm the [validity of the announcement](#). Based on the low seismic readings of the test, the bomb’s yield was not estimated to be high enough for a true thermonuclear weapon.
- 5. September 9, 2016** – Claimed successful. Deemed successful.
At 9:00 am local time on September 9, 2016, the [U.S. Geological Survey](#) detected seismic activity consistent with nuclear test explosions. North Korea announced that it had successfully tested a miniaturized nuclear weapon, coinciding with the celebration of the anniversary of the founding of the DPRK. According to a Washington Post [report](#), North Korean officials claimed that the test represented significant advancement toward “smaller, lighter” warheads with “higher strike power.” The test was [estimated](#) to have a 10 to 20-kiloton yield, the largest North Korea has produced to date. In comparison, the bomb dropped on Hiroshima, Japan during World War II had a 15-kiloton yield.
- 6. September 3, 2017** – Claimed successful. Deemed successful.
At noon local time on September 3, 2017, the [U.S. Geological Survey](#) recorded an earthquake of 6.3 magnitude near Sungjibaegam, North Korea. According to [news reports](#), North Korea state media claimed that it had successfully tested a hydrogen bomb (also called an H-bomb or thermonuclear weapon). The tremors caused by the explosion were nearly 10 times more powerful than those triggered by North Korea’s 5th nuclear test, indicating a yield of [up to 250 kilotons](#), though the exact

yield has not been finalized. This yield would be consistent with either a large fission weapon, or more likely either a boosted weapon or a thermonuclear weapon.

Sources: Congressional Research Service, U.S. Director of National Intelligence, U.S. Geological Survey, Washington Post, Reuters, BBC, CNN, Nuclear Threat Initiative, New York Times, 38 North.