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.

   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.

   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.

   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.