



## North Korea Probably Can't Strike the US Yet - But It's Still Plenty Scary

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National Security Experts and North Korea watchers say the reclusive country may test a nuclear bomb on Saturday, the 'Day of the Sun' holiday that marks the birthday of national father Kim Il-sung. The Hermit Kingdom's recent saber-rattling prompted the United States to dispatch the Vinson carrier group as a show of force, and President Trump has not ruled out a pre-emptive strike.

The government of North Korea told the media to expect some kind of display on Saturday, which could be something as routine as a military parade. It could also, though, be a nuclear test with global reverberations. Recent reports claimed that the US was prepared to strike in the event of such a test, which were met with vitriol by Pyongyang. "We certainly will not keep our arms crossed in the face of a US pre-emptive strike," Vice Minister Han Song Ryol told the Associated Press on Friday. "We will go to war if they choose."

The Pentagon tried to defuse the situation by saying there's been no talk of a first strike—but that the US will retaliate if North Korea attacks its allies in South Korea or Japan. All of which is to say, tensions are dangerously high, making this a good time to assess what exactly North Korea can and cannot do.

So far, its nuclear weapons program has been long on bluster but short on results. The country possesses a nuclear weapon, but not a missile capable of delivering it very far. Which means that what matters most any forthcoming test is not how it goes, but how the world respond

*Update: North Korea celebrated the 'Day of the Sun' with a lavish military parade, and attempted to launch a missile, but appears to have failed. Its nuclear testing facility still seems primed for activity.*

### Going Nuclear

Even a weak attempt at lobbing a missile—nuclear or otherwise—at the US or its allies would be deeply worrisome. But any effort at doing that requires two things: A nuclear warhead small enough to mount on a missile, and a missile capable of reliably flying more than a few thousand miles. So far, it doesn't appear North Korea has either of those things.

North Korea's nuclear ambitions started almost at its founding in 1948. The program started in earnest in the early 1950s, and the country spent decades creeping toward a bomb. The country

agreed to wind down the program in the 1990s, but later reneged on the promise. The country conducted its first nuclear test in 2006; others followed in 2009, 2013, and last year. So far the country has conducted five tests in all.

One of the country's biggest stumbling blocks has been securing enough fissile material to build bombs. Until recently, it found the stuff hard to come by. A South Korean government assessment released in January estimated that North Korea possesses about 110 pounds of weapons-grade plutonium, up from the 77 pounds the Institute for International Science and Security estimated in 2014.

That number should continue rising. The International Atomic Energy Agency recently concluded that North Korea has doubled the size of the one uranium enrichment site the agency knows about, and experts suspect the country may have a second, secret enrichment facility. Such an expansion would allow North Korea to amass hundreds, not dozens, of weapons. Recent evidence also suggests that North Korea has fortified its nuclear test site so it can handle larger bombs.

Building a nuclear weapons requires more than fissile material and a test site, though. North Korea also has been developing the ancillary technologies like a re-entry vehicle to protect the warhead as it flies through the atmosphere, and making the transition from liquid fuel to solid fuel—which makes the missiles lighter and more stable in flight. That switch also makes it harder for the international community to know when North Korea is preparing missiles, because the missiles no longer require a long liquid fueling process easily photographed by satellites.

None of this constitutes good news, and it only gets worse. For years, a key obstacle to North Korea's ability to threaten the United States was its inability to make a warhead small enough to mount on a missile capable of traveling that far. But the country may be making progress by collaborating with friendly countries like Iran and Pakistan.

“In terms of miniaturizing, I think most experts would assess that they have the capability to miniaturize a nuclear warhead to put on most of its missiles,” says Frank Aum, a former Department of Defense senior advisor on North Korea. “Although it's unclear whether they could do it on an ICBM,” referring to the intercontinental ballistic missiles in the Hermit Kingdom's arsenal. Of which it has several.

## **Missile Command**

North Korea holds ample stocks of conventional ballistic missiles capable of short and medium range flights, and has been developing missiles with greater capabilities. “They have not conducted a long-range test yet. But Kim Jong-un, in his New Year's Day speech, said that they're in final preparations for doing so, so that could be any time,” says Aum. “They've also conducted satellite launches, a couple of successful ones, and those satellite launches use ballistic missile technology that's similar to a long range missile.”

Until it conducts a long-range test, no one can know for sure just how far North Korean can reach. The country's shorter-range tests give some indications, though. In February, North Korea fired a Pukguksong-2 rocket that it called a medium long-range ballistic missile. US officials

estimate it traveled a little more than 300 miles before landing in the Sea of Japan. A medium long-range missile typically has a range of up to 3,400 miles.

Experts think the radius within which North Korea could reliably target includes South Korea, Japan, and possibly Guam and parts of China and Russia. North Korea's Rodong missile can hypothetically carry a one-ton warhead a little over 600 miles, and its Musudan missile has a theoretical range well beyond 2,000 miles. But these missiles have underperformed or failed completely in many tests. The North Korean government claims that some tests have been successful, but there's been no outside verification of that.

Though North Korea remains isolated and its nuclear program delayed, there's little surprise that it has developed some capabilities, given other countries have spent decades developing this technology. "There are natural technological paths and they're following natural paths in terms of their missile program," says Joel Wit, a co-director for the North Korean analysis program 38 North. That means not just increasing the range of its missiles, but limiting accidental explosions. But experts agree that North Korea still can't traverse the 5,600 or so miles to continental US shores.

"The good news from the US position is there's no evidence yet that North Korea could hit the continental US right now. Maybe unpopulated parts of Alaska," says Eric Gomez, a nuclear deterrence policy analyst at the Cato Institute.

### **Flirting With Disaster**

None of this minimizes the damage North Korea could cause by firing a nuke. It can't hit the US, but it can hit US allies. "In a conflict scenario North Korea probably tries to hit Seoul first and then tries to hit US bases both in South Korea and Japan," says Gomez. And that could strain US relationships with allies in the region as Washington tries to manage the situation. "I think there's a general feeling in South Korea and Japan that we are not consulting them enough," Wit adds. "They are the ones that are going to bear the brunt of any North Korean retaliation."

Knowing so little about North Korea's capabilities also makes it difficult to form strategic plans. "I worry every day about something we miss, something we didn't have access to," CIA Director Mike Pompeo said on Thursday at the Center for Strategic and International Studies in Washington DC. "We don't have a complete enough understanding of all that's taking place."

If anything, this weekend may bring more clarity to what North Korea can do. The scary part will be what consequences that might bring.