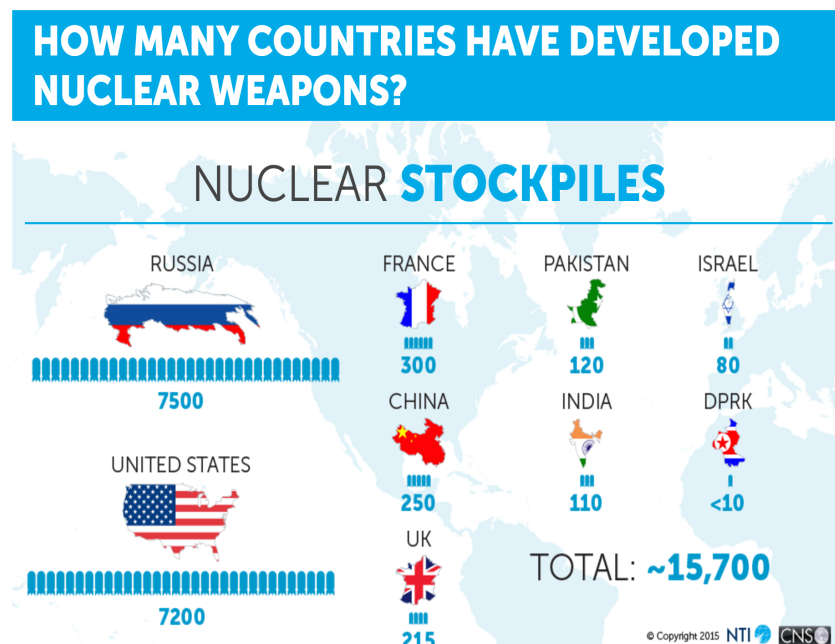


Contact: hhs@usc.edu

The North Korea Nuclear Threat

What's the problem?

Nuclear weapons are among the greatest threats facing civilization. If a nuclear weapon exploded in a major city, the blast center would be hotter than the surface of the sun; tornado-strength winds would spread the flames; radioactive fallout would spread for hundreds or thousands of square miles; and as many as a million or more people could die over time. Survivors would have no electricity, no transportation, no phones; hospitals, if they are still standing, would be overwhelmed. The number of nuclear weapons that exist throughout the world are enough to end civilization as we know it many of times over.



For the handful of nations that possess nuclear weapons, how they are controlled and managed has been a fundamental issue since the dawn of the nuclear age. North Korea—a country steeped in secrecy—raises many questions in this regard. How does it ensure its weapons and facilities

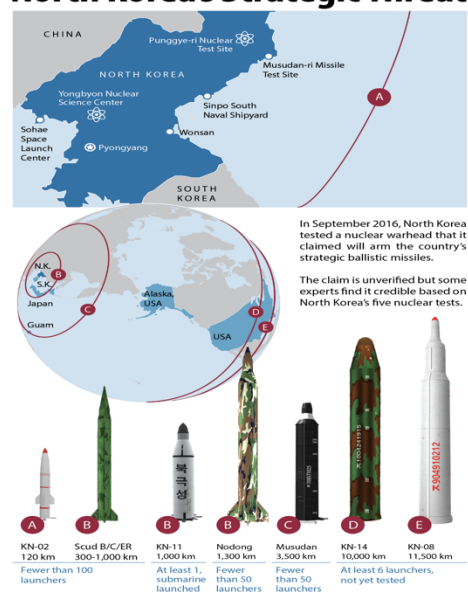
are safe and secure? The world has no assurances. North Korea's nuclear program remains a source of deep concern for the international community. It is rapidly increasing its stockpile of nuclear weapons material with little pushback from the United States. Since 2003, North Korea is no longer a party to the Treaty on the Non-Proliferation of Nuclear Weapons. This treaty, originally entered into force in the 1970's and extension in 1995, is an international treaty with an objective to prevent the spread of nuclear weapons and weapons technology and achieve nuclear disarmament.

North Korea's nuclear strength:

North Korea has tested nuclear explosive devices in 2006, 2009, 2013, and twice in 2016. Each time the explosions grew in power. They are clearly learning and improving their nuclear expertise. This, coupled with its missile program, poses a serious threat to the U.S. and its allies.

North Korea's leader, Kim Jong-Un, is often painted as a crazed dictator with delusions of grandeur and aspirations to make North Korea a formidable nuclear power. But the truth is likely to be much more rational - he is a dictator whose main goal is survival. Kim knows he has a weak hand, but a nuclear trump card. This makes him and the North's actions very dangerous. Analysts estimate that North Korea has accumulated enough plutonium and highly enriched uranium to produce at least 20 nuclear weapons, and may be producing enough fissile material to add another weapon to this stockpile every six to seven weeks. U.S. military officials have also stated that North Korea likely has the capability to produce nuclear warheads compact enough to be paired atop a ballistic missile. Any estimate of North Korea's nuclear capabilities is subject to considerable uncertainty because of the regime's extreme isolation and secrecy. In a worst-case scenario, if unchecked, North Korea's arsenal could approach 100 nuclear weapons by 2024. Their estimated strategic threat is depicted in the graphic below.

North Korea's Strategic Threat



According to North Korea analysts at the military intelligence firm, Stratfor, North Korea possibly has missiles capable of striking the United States. Analysts working to determine North Korea's capabilities often rely on photos from the country's own propaganda.



Above, North Korea's leader, Kim Jong-Un, demonstrates a model of its first miniaturized nuclear warhead, small enough to fit on a missile. Inside the C.I.A., they call it "the disco ball." An analyst from the Middlebury Institute of International Studies used the photo to estimate the device's size, from which he deduced its weight and destructive yield. The analyst determined the yield would be equivalent to the atomic bombs that the United States dropped on Japan in the 1940's. More importantly, its small size appeared to match North Korea's claim that it can fit this warhead on their long-range missiles. Analysts further determined from the photograph's background image, an intercontinental missile, that the weapon is designed for range of thousands of miles (enough to reach Washington D.C., if perfected).

So why doesn't the U.S. just destroy North Korea's nuclear capabilities?

Isolated and secretive, North Korea presents the United States with a unique challenge we cannot ignore. Recently, tension has escalated on the Korean Peninsula, with talk of military action by the United States gaining traction. However, a preemptive strike on North Korea would carry an enormous risk - nearly guaranteed - of retaliation on South Korea or U.S. assets in the area. U.S. pilots currently train in mock North Korean airspace with stealth planes like the F-22 and F-35 to destroy surface-to-air missiles, or SAM, and nuclear sites. While the fifth-generation aircraft would likely succeed and overwhelm North Korean forces, this wouldn't occur before the North's many artillery pieces and perhaps even chemical weapons would be launched at Seoul and U.S. forces in the South. Moreover, the nuclear sites are too spread out and hidden for the U.S. forces to completely knock out. The terrain of North Korea also plays well for Kim. Its landscape presents difficulties in hunting down sensitive sites, even with the large advantage in military technology the U.S. can bring to bear.

What can we do to prevent actual military conflict?

With heightened tensions, ratcheted up rhetoric, brinkmanship not seen in more than two decades, and more military hardware moving around the region, the risk of unintentional war is high. To avoid unintended war, first and foremost, there must be a sustained effort in dialogue and negotiation—the U.S. must make real and sustained efforts to engage with the North. Right now, the dynamics are focused on one-upmanship and saber rattling.

A crucial step to avoid war is to slowly but visibly tone down the existing level of military activity and “hardware” in the region. Redirecting the U.S. carrier task force that was sent to the region, as well as the U.S. nuclear ballistic missile submarine would be clear signals that the United States is pulling back from its brinkmanship approach, without diminishing our ability to protect our interests and allies. The U.S. would need to make it clear to China and our allies that military conflict is the last thing desired. This would mean establishing some protocols with China that would avoid miscalculation or confusion in the event of North Korean provocations.

It is also critical for the United States to offer a clear opening for the North to have a dialogue, without any conditions. Our government can propose a “freeze” on North Korea’s programs later, but the first step is to re-establish actual government to navigate said discussions. Such an effort would help avoid mistakes and potential disaster.

As everyday citizens, it is important to remember that talking to your representatives in Congress, as well as your neighbors and local journalists, can make an impact. You have every right to let them know you are concerned, and that non-military options are available.

Conclusion:

It is difficult to fully assess North Korea's nuclear capabilities given that we have very little access to North Korea's missile and nuclear facilities. One thing for certain is that their stockpile of nuclear weapons increases each year. Unfortunately, their nuclear missiles probably can't be stopped by one system or even multiple systems. Several proposed solutions currently circulate in the national-security arena, all with strengths and weaknesses, all risking innocent lives. One that hasn't received enough attention is the one with the greatest potential to resolve things: negotiations.

References:

<http://bigstory.ap.org/article/1872906c09ef4db8a151d654f95afe3b/ap-analysis-questioning-stereotypes-about-north-korea>

<http://www.nsquarecollaborative.org/>

<http://www.nti.org/learn/nuclear/>

<http://www.bbc.com/news/world-asia-pacific-11813699>

<http://www.npr.org/2017/03/29/521909787/the-u-s-has-an-active-cyber-war-underway-to-thwart-the-north-korean-nuclear-thre>

<https://www.usnews.com/news/world/articles/2017-04-21/how-north-korea-could-use-nuclear-weapons-and-how-the-us-could-stop-them>

<https://www.nytimes.com/2017/04/18/world/asia/north-korea-missile-program-sabotage.html>

<https://www.nytimes.com/interactive/2017/02/24/world/asia/north-korea-propaganda-photo.html>

<https://www.stratfor.com/analysis/what-us-would-use-strike-north-korea>