

7 February 2013

North Korea's Armed Forces: All Dressed Up, with Places to Go?

Despite its poverty, North Korea maintains one of the world's largest armed forces. Axel Berkofsky looks at Pyongyang's recent efforts to improve its conventional and asymmetric military capabilities and what they might mean for the security of the Korean Peninsula.

By Axel Berkofsky for ISN

After the United Nations imposed sanctions on North Korea as punishment for the country's 12 December 2012 missile launch, Pyongyang announced plans to accelerate its nuclear weapons program. If we are to believe the current rhetoric coming out of North Korea, the regime is now poised to conduct its third nuclear test. Pyongyang's announcement once again raises concerns that North Korea might eventually develop the capability to target parts of the United States with nuclear weapons. Analysts also worry that Pyongyang could be only one test away from mounting a nuclear warhead onto a missile capable of hitting targets in South Korea. However, until either milestone is reached, Pyongyang's conventional and asymmetric warfare capabilities will continue to pose a serious threat to South Korea and its allies.

Champions of Asymmetric Warfare

North Korea has the world's fifth largest military with 1.1 million active soldiers and between 5 and 7 million reserve forces. While Pyongyang officially maintains an annual defense budget of roughly \$1.5 billion, it is estimated that the actual budget is nearer to \$5 billion. If this estimate is accurate, this would be roughly 25% of the country's Gross Domestic Product (GDP). Out of these funds, approximately 40% is allocated to procurement with a focus on self-propelled artillery, multiple rocket launchers, and ballistic missiles. However, to overcome problems associated with outdated military equipment (over 50% of the country's weapons were built in the 1960s), North Korea is also rapidly modernizing its three-part asymmetric military capabilities: long-range artillery, ballistic missiles, and Special Operation Forces (SOF).

Since the end of the Korean War, North Korea's 200,000 strong Special Operation Forces (SOF) has conducted numerous low-level covert operations and asymmetric attacks against the South. The SOF is usually organized by brigade or battalion, but can also consist of very small teams (3-4 men). North Korean army defectors have confirmed that up to 90% of the SOF's strategic targets (military bases, airports etc.) could be reached by parachute, hovercraft or through a tunnel system under the Demilitarized Zone (DMZ). At least four large North Korean tunnels under the DMZ are known, with

each one big enough to allow the passage of an entire North Korean infantry division.

Quantity Still Trumps Quality

Before infantry could cross the border and march the 38 kilometers to reach Seoul, North Korea's artillery and multiple rocket launchers (MRL) would most probably seek to prepare the ground and launch massive artillery attacks against the capital. Analysts estimate that North Korea possesses thousands of long-range launchers with at least 500 capable of hitting Seoul. The vast majority of these launchers are positioned in so-called hardened artillery sites (HARTS) constructed close to the DMZ, writes Bruce E. Bechtol for the [International Review of Korea Studies](#). Bechtol also estimates that 5-20% of rounds provided to forward artillery units could be equipped with chemical ammunition. If so, then Pyongyang could have a large number of chemical weapons already along the DMZ.

However, the quality of North Korea's artillery is not nearly as impressive as the quantity. When North Korea bombarded Yeonpyeong in November 2010, it was estimated that only 50% of the artillery used in the attack actually landed on the island.

Missile Improvements

North Korea's short-range and (not yet quite functioning) long-range missiles complete the trio of asymmetric capabilities. Pyongyang has, for example, successfully test-launched and deployed the *No Dong*, a ballistic missile with a range of 1300-1500 kilometers. The latest version of the *No Dong's* was on display at a [North Korean military parade](#) in October 2010 and showed similarities with the Iranian *Shahab* missile. This led some analysts to suggest that Pyongyang cooperated with Tehran on missile development. On the same occasion in 2010, Pyongyang also showcased its new KN-06 surface-to-air missile, which according to South Korea's Ministry of Defense is based on technology Pyongyang secretly obtained from China and Russia. This, in turn, prompted *Jane's* in 2010 to conclude that there had been a major expansion in North Korea's air defense potential.

Pyongyang's long-range *Musudan* (also referred to as *Taepodong*) missiles, on the other hand, have yet to be officially tested successfully although it is suspected that the North Korea's most recent satellite launch might actually have been another test of this missile. The *Musudan* missile technology and design are based on the former Soviet Union's *SS-N-6* technology and are launched from mobile land-based launch facilities. Satellite images show that up to 1000 *Musudan* missile are deployed at several sites within North Korea. The missiles are also believed to have a range of up to 4000 kilometers. In theory, this would enable Pyongyang to hit Guam, Hawaii and Alaska, as well as parts of the American mainland. The *Musudan* may also be capable of carrying a nuclear warhead if Pyongyang masters the technology of mounting warheads onto a missile.

Boosting Firepower Left, Right and Centre

A 2011 [report](#) by the Center for Strategic and International Studies (CSIS) confirms that Pyongyang remains committed to its 'military first' policy (*Songun*). This privileges the armed forces over the majority of North Koreans, and has led to accusations that defense procurement has been prioritized ahead of feeding an impoverished country. Data from the International Institute for Strategic Studies (IISS) may add substance to such accusations. In the latest version of the *Military Balance*, the IISS estimates that the Korean People's Army Navy currently numbers 378 patrol and coastal combat vessels, 70 tactical submarines and 8 surface combat ships. In terms of air power, the report counts a total of 852 military aircraft, including 488 fighters.

Modernization efforts in recent years have prioritized the country's naval capabilities, with a particular focus on safeguarding territorial waters in the Yellow Sea. For instance, a new hovercraft base is

currently being constructed some 56 kilometers away from a range of South Korean islands. Upon completion, the base could accommodate up to 70 hovercrafts capable of traveling at speeds of up to 90 kilometers per hour. Further reports suggest that the hovercrafts could transport a full platoon of infantry forces and reach South Korean territory in less than 40 minutes.

In 1999, North Korea's air power was boosted by the acquisition of *MiG-29* fighters from Russia. However, while Pyongyang is estimated to have 40 advanced MiG-29s at its disposal, the large majority of its fighter aircraft are still hopelessly outdated and unable to compete with South Korean and US counterparts. Moreover, fuel shortages continue to limit the country's ability to conduct large-scale training exercises, with fighter pilots believed to train as little as 20 hours per year.

Attacking Preemptively

Put under enough domestic and international pressure, Pyongyang could opt for an all-out war and preemptively attack the South. In that case, following an outdated Soviet Union military doctrine, Pyongyang's artillery would probably launch a massive attack on South Korean and US military positions south of the DMZ, as well as directly on Seoul.

While an all-out attack remains very unlikely, the military posture of Pyongyang's armed forces suggests that a preemptive strike is at least a possibility. Indeed, the percentage of armed forces deployed along the DMZ in relation to North Korea's other forces has increased over recent years. Today, it is estimated that Pyongyang deploys more than 60% of its total military units and up to 80% of its firepower within 100 km of the DMZ. Accordingly, Pyongyang could quickly initiate an invasion and inflict massive human and material damage before being confronted with a massive US-South Korean counterattack. However, the time to do so would be fairly limited. The IISS's Mark Fitzpatrick told ISN Security Watch that North Korea's long-range artillery systems might have no more than ten minutes before joint US-South Korean counter-battery fire, air strikes and helicopter attacks begin to respond.

A joint US-South Korean preemptive attack is as equally 'unappealing' with allied forces only capable of targeting the most visible and well-known North Korean missile launch sites. The same is also true for nuclear facilities. While the US and South Korea could attack the plutonium production site at Yongbyon, finding and destroying hidden nuclear facilities across the country remains a complex task. What's more, the [IISS estimates](#) that Washington would have to deploy up to 500,000 of its armed forces in the event of all-out conflict on the Korean Peninsula.

Good and Bad News

Fortunately, a preemptive attack from either side of the DMZ remains unappealing in both Washington and Pyongyang. North Korea is more than aware that ordering its artillery to bomb Seoul would not only lead to a massive counterattack and the end of the regime, it will almost inevitably bring China into the conflict. The bad news, however, is that Pyongyang's frantic efforts to improve and increase the number, range and quality of its ballistic missiles and long-range artillery may continue to be accompanied by the occasional asymmetric attack against the South. This, in turn, suggests that when it comes to South Korea's warnings of massive retaliation, Pyongyang might continue to take a gamble on Seoul's bark being worse than its bite.

For additional reading on this topic please see:

[The Veil Slowly Lifts on North Korea's Nuclear Program](#)

[North Korea's Missiles, Nukes, and False Promises: How to Respond?](#)

[North Korean Proliferation Challenges: the Role of the European Union](#)
[North Korea's Nuclear Weapons: Technical Issues](#)

For more information on issues and events that shape our world please visit the ISN's featured [editorial content](#) and the [ISN Blog](#).

Axel Berkofsky is Professor at the University of Pavia, Italy and Senior Associate Research Fellow at the Milan-based Istituto per gli Studi di Politica Internazionale (ISPI).

Publisher

[International Relations and Security Network \(ISN\)](#)

Creative Commons - Attribution-Noncommercial-No Derivative Works 3.0 Unported

<http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?id=158779&lng=en>

ISN, Center for Security Studies (CSS), ETH Zurich, Switzerland