

North Korea's Nuclear Doctrine: Trusted Shield and Treasured Sword

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KEY TAKEAWAYS

Pyongyang's history of provocation and intimidation is a consistent indicator of its intent to use threatened or actual force to achieve its political objectives.

The United States must be able to protect the American homeland and U.S. forces in the Indo-Pacific against the growing North Korean nuclear and missile threat.

Washington should work with South Korea and Japan both to improve comprehensive allied missile defenses and to ensure sufficient allied offensive capabilities.

North Korea's nuclear, missile, and conventional forces are a formidable threat to the United States and its allies in northeast Asia. Pyongyang's history of provocation and intimidation is a consistent indicator of the regime's intent to achieve its political objectives through the threat or execution of force.

After assuming power, Kim Jong-un oversaw an expansive diversification of North Korea's arsenal and accelerated nuclear and missile testing. New weapons overcame the shortcomings of their predecessors and now pose a far greater threat to allied forces, including missile defense systems.

North Korea's nuclear doctrine has both driven development of new weapons and, in turn, evolved as new capabilities were achieved. Pyongyang's continuing development of nuclear and missile programs

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beyond the necessary requirements for deterrence suggests that the regime strives for a true warfighting strategy. Such a development would not only further increase the military threat to the region, but also raise the potential for greater willingness to engage in ever more provocative behavior as well as coercive diplomacy against South Korea and Japan.

The increasing viability of North Korea's ability to target the continental United States with nuclear weapons exacerbates long-standing allied fears of abandonment and decoupling of alliances. South Korea and Japan increasingly question the strength and commitment of the U.S. extended deterrence guarantee, wondering whether the U.S. would indeed be "willing to trade San Francisco for Seoul."¹

The United States must ensure that it can protect the American homeland and U.S. forces in the Indo-Pacific region against the growing North Korean nuclear and missile threat. To this end, Washington should coordinate with South Korea and Japan to improve comprehensive allied missile defenses. The United States and its allies must also have sufficient offensive capabilities to reduce the number of North Korean missiles that are launched.

Strategic Objectives of North Korea's Nuclear Program

For decades, debate raged about whether North Korea was developing nuclear weapons as a military capability or merely as a nuclear bargaining chip. The regime devoted far more resources to its nuclear programs than it would ever garner in return for abandoning them. The U.S. Intelligence Community assessed that "North Korea is unlikely to give up all of its nuclear weapons and production capabilities, even as it seeks to negotiate partial denuclearization steps to obtain key U.S. and international concessions."²

Pyongyang has repeatedly declared that it would never abandon its nuclear arsenal and that "only fools will entertain the delusion that we will trade our nuclear deterrent for petty economic aid."³ The North Korean leadership has affirmed that the country's nuclear weapons "are not goods for getting U.S. dollars" and not "a political bargaining chip."⁴

Pyongyang's nuclear arsenal provides a "trusted shield"⁵ and "treasured sword"⁶ to support both defensive and offensive missions. The regime's nuclear weapons concurrently fulfill several domestic, foreign policy, and military objectives. Specifically, they:

- **Provide leadership legitimacy.** Lacking the revolutionary credentials and lengthy government tenure of his predecessors, Kim Jong-un linked his personal prestige and legitimacy as leader to North Korea's

nuclear and missile programs. He elevated the importance and visibility of the programs and has embraced the breakthroughs of recent years as his exclusive contribution to defending the country. North Korean official media frequently release photos of Kim attending missile launches, lauding him as visionary and driving force.

Kim's gaining of *de facto* international recognition of North Korea as a nuclear weapons state is a source of national pride and perceived as achieving equal status with the United States. Foreign Minister Ri Yong-ho has told the U.N. General Assembly that Pyongyang's "ultimate goal is to establish the balance of power with the U.S."⁷

- **Preserve the nation and the Kim regime.** Pyongyang justifies its nuclear weapons as guaranteed protection against the U.S. "hostile policy" of military attacks and regime change against authoritarian regimes. Kim Jong-un brags that his nuclear force constitutes "a powerful deterrent that prevents [the U.S.] from starting an adventurous war. In no way would the United States dare to ignite a war against me and our country."⁸ North Korea points to U.S. and international interventions in Yugoslavia, Iraq, Libya, and Syria as evidence of the need for nuclear weapons to prevent an attack on North Korea.
- **Decouple the U.S.–South Korea alliance.** Pyongyang's increasing ability to target the continental U.S. with nuclear weapons has aggravated allies' concerns about U.S. capability, resolve, and willingness to defend their countries. North Korea seeks to erode the credibility of the U.S. extended deterrence guarantee by sowing doubt that Washington would come to allies' defense once the American homeland is under nuclear threat.

North Korea seeks to drive a wedge between the U.S. and South Korea by depicting Seoul's alliance with Washington and "nuclear war exercises" as a catalyst for Armageddon on the peninsula—a message that resonated during President Donald Trump's threats of "fire and fury" preventive attacks.⁹ In 2017, Ri Jong-hyok, Deputy of the Supreme People's Assembly, commented that "[o]ur nuclear deterrence is a sword of justice aimed at fighting [U.S. nuclear weapons] and Asia and any country in the world need not worry about our threats as long as they do not join invasion and provocations toward us."¹⁰

Pyongyang also depicts the alliance as the impediment to improved inter-Korean relations and eventual reunification. Kim Jong-un declared in 2018 that for inter-Korean relations to improve, Seoul must “discontinue all the nuclear war drills they stage with outside forces” and “refrain from any acts of bringing in nuclear armaments and aggressive forces from the United States.”¹¹

- **Enhance coercive diplomacy.** Attaining an unambiguous nuclear intercontinental ballistic missile (ICBM) capability could lead North Korea to perceive that it has immunity from any international response. Pyongyang could feel emboldened to act even more belligerently and seek to intimidate the U.S. and its allies into accepting North Korean diktats. Pyongyang could use the fear of nuclear weapons to coerce South Korea to accommodate North Korean demands that it, for example, end bilateral military exercises and reduce U.S. force levels. The regime could use threats of nuclear attack to intimidate Tokyo to preclude U.S. forces from using Japanese bases, ports, and airfields during a Korean conflict.
- **Augment warfighting capability.** An iconic Korea proverb depicting the peninsula as surrounded by larger enemies bemoans that “when the whales fight, it is the shrimp’s back that is broken.” Nuclear weapons enable the shrimp to fend off the much larger whales. These weapons are the great equalizer, a David’s sling against the much larger U.S. Goliath.

North Korean nuclear weapons deter allied preemptive or decapitation attacks, inhibit allied military responses to North Korean actions, and threaten the American homeland. Preemptive nuclear attacks could target U.S. forces arriving on the Korean Peninsula and allied forces preparing a counteroffensive advance into North Korea, hold allied and U.S. cities at risk, and potentially provide the means for Pyongyang to reunify the peninsula on its terms.

Nuclear weapons could also provide the ultimate act of defiance amid a collapsing regime—a *Götterdämmerung* (Twilight of the Gods) or Samson collapsing the temple down upon himself scenario. During the 1993–1994 nuclear crisis, North Korean leader Kim Il-sung convened his generals to ask them what they would do if the U.S. attacked and North Korea lost the war. As the generals feared to acknowledge the

potential for loss, Kim Jong-il arose and exclaimed, “Great Leader! I will be sure to destroy the Earth! What good is this Earth without North Korea?”¹²

Nuclear Doctrine Evolves as Capabilities Improve

Pyongyang has not disclosed detailed information about its nuclear strategy. However, the regime’s public statements, along with its ever growing nuclear and missile capabilities, reveal its intentions.

North Korea’s nuclear doctrine has evolved in phases as the regime has augmented and improved its nuclear and missile arsenals. These phases have included:

- Hiding North Korea’s nuclear program and then denying its existence;
- Portraying the nuclear program as a diplomatic bargaining chip;
- Depicting North Korea’s nuclear arsenal as a defensive deterrent against U.S. aggression;
- Dissuading and defeating allied invasion with tactical nuclear weapons;
- Enabling a preemptive nuclear strike against the United States to deter preemptive attacks or a decapitation strike against the regime’s leadership; and
- Working to operationalize a nuclear warfighting capability to undermine the U.S. extended deterrence guaranty and potentially seek unification.

In January 2003, North Korea still claimed that it had “no intention of developing nuclear weapons.... At this point, our nuclear activities will be limited to peaceful purposes including generation of electricity.”¹³ Five months later, however, Pyongyang finally acknowledged the existence of its nuclear weapons, declaring publicly that its “nuclear deterrent force [was] not aimed to threaten or blackmail others.”¹⁴ This set the tone for years of statements by the regime that its nuclear weapons were a self-defense deterrent against U.S. nuclear or conventional attack.

In 2012, North Korea revised its constitution to enshrine itself as a nuclear weapons state.¹⁵ Kim Jong-un established the Strategic Rocket Command (later renamed the Strategic Force) as an independent military force equal to the ground, air, navy, and air defense force that reported directly to him and the military General Staff.¹⁶

In 2013, North Korea codified the role of its nuclear forces when it adopted the Law on Consolidating the Status of [a] Self-Defensive Nuclear Weapons State. Articles 2, 3, 4, and 5 of the law's 10 articles define the roles of Pyongyang's nuclear weapons:

2. They serve the purpose of deterring and repelling the aggression and attack of the enemy against the DPRK [Democratic People's Republic of Korea] and dealing deadly retaliatory blows at the strongholds of aggression until the world is denuclearized.
3. The DPRK shall take practical steps to bolster up the nuclear deterrence and nuclear retaliatory strike power both in quality and quantity....
4. The nuclear weapons of the DPRK can be used only by a final order of the Supreme Commander of the Korean People's Army to repel invasion or attack from a hostile nuclear weapons state and make retaliatory strikes.
5. The DPRK shall neither use nukes against the non-nuclear states nor threaten them with those weapons unless they join a hostile nuclear weapons state in its invasion and attack on the DPRK.¹⁷

The policy reflected an assured retaliation strategy of “deterrence by punishment” whereby nuclear weapons would deter allied attacks, including preemptive ones, by threatening a strong nuclear reprisal to inflict unacceptable losses on the United States. There was no distinction made between military and civilian targets. The regime also sought to decouple U.S. alliances before the launch of hostilities by emphasizing that its nuclear response would be directed only against the United States but not against South Korea or Japan *unless* they joined the U.S. hostile action.

Implementing the strategy required only a small nuclear force that could credibly survive an opponent's initial nuclear or conventional strike in order to retaliate and inflict high casualties and/or devastation. The nuclear arsenal could compensate for North Korea's deteriorating conventional forces.

As its nuclear arsenal improved, the regime adopted an asymmetric escalation strategy in which Pyongyang could viably threaten a preemptive first

strike attack with tactical nuclear weapons to deter or defeat a conventional attack by superior U.S. or South Korean forces.¹⁸ The regime would keep its nuclear ICBMs that threatened the U.S. homeland in reserve to maintain strategic deterrence.

Revised War Plan. After assuming power in December 2011, Kim Jong-un directed the North Korean military to develop a new strategy to invade and occupy Seoul within three days and all of South Korea within seven days. North Korea studied U.S. operations in Afghanistan and Iraq and concluded that it would have to prevail quickly before U.S. reinforcements arrived. Accomplishing this objective would necessitate early use of nuclear weapons and missiles against superior allied conventional forces.¹⁹

North Korea has warned that “any military conflict on the Korean Peninsula is bound to lead to an all-out [nuclear] war” that will be an “ultra-harsh war of reaction targeting the entire US mainland.”²⁰

North Korea’s Preemption Threats. As Pyongyang’s nuclear and missile prowess increased, so did its threats of a preemptive nuclear attack. Even before admitting it had nuclear weapons, North Korea had warned in 1994 that “[w]e will not give you time to collect troops around Korea to attack us.... [I]f it is clear you are going to attack, then we will attack.”²¹ Subsequently:

- In 2013, the Ministry of Foreign Affairs announced that North Korea would “exercise the right to a preemptive nuclear attack to destroy the strongholds of the aggressors.”²²
- In 2016, Li Yong-pil, director of the Foreign Ministry’s research center on the United States, stated that “a preemptive nuclear strike is not something the U.S. has a monopoly on. If we see that the U.S. would do it to us, we would do it first.”²³
- In 2016, the National Defense Commission warned that North Korea could conduct a “preemptive and offensive nuclear strike” if it believed the U.S. was about to conduct a decapitation strike or military operations to “bring down its social system.”²⁴
- In 2016, the Korean People’s Army General Staff declared that front-line North Korean forces would carry out “the preemptive retaliatory strike at the enemy groups” with “an ultra-precision blitzkrieg strike of the Korean style.”²⁵ The preemptive attack would “burn up all the objects in the areas under the control of the [South Korean] first and

third field armies...including Seoul...and will lead to the all-out attack for neutralizing the launch bases of the U.S. imperialist aggression forces in the Pacific operational theatre....”²⁶

- In January 2021, Kim Jong-un “set a goal of attaining an advanced capability for making a preemptive and retaliatory nuclear strike by [improving] the rate of precision good enough to strike and annihilate any strategic targets within a range of 15 000 kilometres with pinpoint accuracy.”²⁷ A month later, North Korea vowed that it would “pre-emptively mobilize the most powerful offensive force to thoroughly punish [enemies] outside the territory of our republic if hostile forces provoke us even just a little bit.”²⁸

North Korea’s Nuclear and Missile Capabilities

North Korea is producing a new generation of advanced mobile missiles that, in addition to being more accurate, more mobile, and more difficult to detect and target, have an enhanced ability to evade allied missile defenses. The regime has:

- Produced 30–60 warheads or weapons worth of fissile material²⁹ with capacity to create seven–12 warheads per year³⁰ and successfully tested a hydrogen (thermonuclear) weapon at least 10 times as powerful as the Hiroshima and Nagasaki bombs;
- Expanded and refined manufacturing facilities for fissile material, nuclear weapons, missiles, mobile missile launchers, and reentry vehicles;³¹
- Produced several different solid-fueled missiles that provide greater mobility, reduce the time necessary for launch preparation, evade allied missile defenses, and are accurate enough to attack hardened or battlefield military targets with fewer missiles;
- Practiced missile launches under wartime conditions by firing multiple missiles from numerous locations throughout the country, simulated nuclear airburst attacks over South Korea and Japan, and conducted salvo launches of several missiles simultaneously.

Improved Nuclear Weapons Enable New Strategy

North Korea's evolving nuclear and missile forces increasingly provide the regime with the ability to conduct a preemptive first strike, retaliatory second strike, and battlefield counter-force attacks. Pyongyang has an extensive and diversified military force to attack targets in South Korea, Japan, U.S. bases in the Pacific, and the continental United States.

South Korean Ports and Airfields. To prevent the U.S. from augmenting forces in South Korea during a conflict, North Korea could use nuclear weapons to attack South Korean ports and airfields. In 2016, Kim Jong Un oversaw several successful Scud and Hwasong-7 (No Dong) mobile missile launching exercises that simulated preemptive nuclear airburst strikes against South Korean ports and airfields to be used by the U.S. military.³² North Korean media released a photo showing that the missile range would encompass all of South Korea, including the port of Busan where U.S. reinforcement forces would land.³³

South Korean Leadership and Military Targets. Pyongyang could threaten South Korea with a nuclear attack to coerce Seoul to surrender or abandon a counteroffensive attack on North Korea. Pyongyang has vowed to initiate a preemptive two-stage nuclear attack against the South Korean leadership, including turning the presidential Blue House into a "sea of flame," if the regime perceived even a "slight sign" of U.S. or South Korean preparations for a decapitation strike on the North Korean leadership.³⁴

U.S. bases in South Korea would be high-priority targets. These include U.S. Army bases in Pyeongtaek and Daegu, U.S. Air Force bases in Osan and Kunsan, and the U.S. Navy's Busan Naval Facility. Pyongyang would follow up with nuclear attacks against U.S. bases in the Asia-Pacific region and the U.S. mainland.³⁵

In 2019, Pyongyang revealed five new missile systems³⁶ and conducted a new annual record of 26 ballistic missile launches, all of which were violations of United Nations resolutions. The systems' enhanced accuracy enables North Korea to accomplish counter-force operations with fewer missiles.

Defeating Tactical Ballistic Missile Defense. North Korea is developing several systems and tactics that would be more effective in degrading or defeating allied missile defenses. Pyongyang has launched missiles to a higher altitude and shorter range that could allow a warhead to arrive at a steeper angle of attack and faster speed that could exceed ballistic missile defense (BMD) interception capabilities.

The KN-18 and KN-21 Scud variants have maneuverable reentry vehicles, and the KN-23 has a flight profile that shows evasive characteristics instead of a typical ballistic parabola. The KN-23 has been flown at depressed trajectories, potentially between the upper reach of Patriot missiles and below the minimum intercept altitude for Terminal High Altitude Area Defense (THAAD), with a final pull-up maneuver that provides a steep terminal descent.³⁷ The KN-23 could also be used in a first strike against leadership, hardened command and control, or high-value military targets.

In September 2021, North Korea fired two KN-23-variant missiles to a range of 800 kilometers. Not only was this further than previous test flights, but these were the first North Korean missiles to be launched from a train. While dispersing short-range ballistic missiles on train launchers presents additional targeting challenges for allied war planners, such small solid-fueled missiles are already widely deployed on road-mobile systems. However, a train-based launcher would be more suitable for large ICBMs, which so far have been test-launched from a limited supply of cumbersome eight-axle to 11-axle trucks.

Also that month, Pyongyang launched a new Hwasong-8 hypersonic glide missile to a range of 200 kilometers. Pyongyang claimed that the test successfully demonstrated the missile's "navigational control and stability" as well as its "guiding maneuverability and the gliding flight characteristics of the detached hypersonic gliding warhead."³⁸ Hypersonic missiles fly at least Mach 5 (five times the speed of sound), and the Hwasong-8 likely has a maneuverable reentry vehicle warhead that detaches from the missile to evade missile defenses.

North Korea has demonstrated the ability to fire several missiles at once, which could enable salvo attacks by less accurate Scud missiles to overwhelm BMD systems.³⁹ While not all North Korean missiles would have nuclear warheads, Pyongyang could saturate missile defenses with large numbers of conventionally armed missiles. The regime also has developed more capable, longer-range artillery and multiple rocket launchers to augment missile attacks.

SLBM Threat. North Korea has successfully tested the Pukguk-song-1 (KN-11) and Pukguk-song-3 (KN-26) submarine-launched ballistic missiles (SLBMs) that potentially could target South Korea and Japan with a nuclear warhead. In 2020 and 2021, North Korea paraded new nuclear-capable Pukguk-song-4 and Pukguk-song-5 SLBMs. The latter missiles could also form the basis of a land-based medium-range missile or even the first stage of a solid-fuel ICBM, which North Korea does not currently possess.

South Korea currently has no missile defenses against an SLBM attack from its maritime flanks. The THAAD BMD system radar is limited to a 120-degree view that is directed toward North Korea, precluding it from protecting against SLBMs arriving from either the East or West Seas.⁴⁰ The SM-2 missile currently deployed on South Korean destroyers provides protection only against anti-ship missiles. South Korea has expressed interest in the U.S.-developed SM-3 or SM-6 ship-borne systems to provide ship-borne ballistic missile defense, but they are not yet deployed.

Establishing North Korean Area Denial. North Korea could use the Hwasong-10 (Musudan) and Hwasong-12 (KN-17) intermediate-range missiles to conduct theater nuclear strikes against U.S. bases in Japan and Guam to prevent the flow of forces and logistics to the Korean Peninsula. The Supreme Command of the Korean People's Army has warned that "the U.S. should not forget that the Anderson Air Force Base on Guam...and naval bases in Japan and Okinawa...are within the striking range of the DPRK's precision strike means."⁴¹ The Ministry of Foreign Affairs has similarly declared that "all the U.S. military bases in the operational theater in the Pacific including Guam will face ruin in the face of all-out and substantial attack."⁴²

To emphasize its threat, Pyongyang announced in 2017 that it was considering "making an enveloping fire at the areas around Guam with medium-to-long-range strategic ballistic rocket Hwasong-12 in order to contain the U.S. major military bases on Guam."⁴³ The plan was to have the missiles impact 30–40 kilometers on either side of Guam.⁴⁴ Foreign Minister Ri Yong-ho subsequently declared that North Korea might conduct a nuclear airburst test of a hydrogen bomb over the Pacific.⁴⁵

Removing Japan from the Equation. Pyongyang could threaten nuclear attacks to intimidate Tokyo into rejecting the use of Japanese ports, airfields, and bases for U.S. and U.N. Command operations against North Korea.

In 2017, Kim Jong-un observed a missile firing exercise practicing the war plan "to strike the bases of the US imperialist aggressor forces in Japan."⁴⁶ The government's statement was accompanied by a map showing that the missiles were fired to the range of the U.S. Marine Corps Air Station at Iwakuni. North Korea threatened to "reduce the U.S. mainland into ashes and darkness" and warned that "[t]he four islands of the [Japanese] archipelago should be sunken into the sea by [our] nuclear bomb.... Japan is no longer needed to exist near us."⁴⁷ North Korea also identified the Japanese cities of Tokyo, Osaka, Yokohama, Nagoya, and Kyoto as targets.⁴⁸

In September 2021, North Korea successfully tested a new long-range cruise missile. North Korean official media declared that the cruise missile flew on a figure-eight pattern to a range of 1,500 kilometers (930 miles) and is a “strategic weapon”—usually a reference to being nuclear-capable.⁴⁹ The missile has the range to threaten Japan and would augment North Korea’s ballistic missile arsenal that is intended to intimidate Tokyo from assisting the United States during a Korean conflict.

Cruise missiles can fly lower than ballistic missiles and with maneuverable, less predictable trajectories to evade missile defense radars. Cruise missiles can hit their target from any direction, thereby posing difficulties for missile defense systems such as THAAD that do not have 360-degree radar coverage.

Threatening the U.S. Mainland. As noted, Pyongyang has threatened to “reduce the U.S. mainland into ashes and darkness.”⁵⁰ Kim was photographed in front of a map labelled “U.S. Mainland Strike Plan,” with missile trajectories aimed at Washington, D.C.; Indo-Pacific Command in Hawaii; San Diego (a principal homeport of the Pacific Fleet); and Barksdale Air Force Base in Louisiana (home of Air Force Global Strike command).⁵¹

In 2017, North Korea conducted three successful tests of the Hwasong-14 (KN-20) and Hwasong-15 (KN-22) ICBMs to replace the earlier, less capable KN-08 and KN-14 ICBMs. According to General Terrence O’Shaughnessy, Commander of U.S. Northern Command and North American Aerospace Defense Command (NORAD), North Korea has demonstrated the capability to threaten the U.S. homeland with thermonuclear-armed ICBMs “capable of ranging most or all of North America.”⁵² U.S. Forces Korea has assessed that the Hwasong-15 ICBM has a range of 8,000 miles and is capable of reaching anywhere in the U.S. mainland.⁵³

In October 2020, Pyongyang unveiled the Hwasong-16 ICBM, the world’s largest mobile missile on a launch vehicle. This missile, larger than North Korea’s previous ICBM models, may be capable of carrying three or four nuclear warheads.

Pyongyang has also revealed that it can now indigenously produce mobile ICBM transporter-erector-launchers. The regime had previously been constrained in the number of ICBMs it could deploy by the small number of large logging vehicles purchased from China and converted to carry missiles. Pyongyang’s ability to deploy more missiles on mobile launchers with multiple warheads causes the limited U.S. missile defenses protecting the American homeland to be at risk of being overwhelmed.

In January 2021, Kim Jong-un lauded his scientists for developing miniaturized nuclear weapons from tactical warheads to a super-large

thermonuclear hydrogen bomb as well as more accurate guidance technology for ICBMs. He announced that North Korea was developing the ability to deploy multiple warheads on a solid-fueled ICBM, a nuclear-powered submarine to launch intercontinental strategic weapons, and a military reconnaissance satellite.⁵⁴

North Korea has not yet conducted an ICBM flight test that successfully demonstrated a reentry vehicle capability. However, the CIA has assessed that North Korea's ICBM reentry vehicles would likely perform adequately if flown on a normal trajectory to continental U.S. targets.⁵⁵

Stumbling into Nuclear War

There is also the potential for stumbling into a major war. A North Korean provocation or tactical-level clash along the border could inadvertently escalate into major strategic conflict. Alternatively, each side could misinterpret the other's intentions, thereby fueling tensions, intensifying a perceived need to escalate, and raising the risk of miscalculation, including preemptive attack.

Given its poor intelligence and reconnaissance capabilities, Pyongyang might misconstrue allied military exercises as a prelude to an actual attack. The regime would likely be unable to distinguish a limited attack, as the U.S. was contemplating in 1994 and 2017, from the initial steps of an all-out attack. Pyongyang might assume the worst and rush to preempt the preemption.

Allied military plans taken in response to North Korea's growing nuclear capabilities could fuel a regime fear that it should adopt a "use it or lose it" policy for its vulnerable nuclear forces in the early stages of hostilities. In 2015, the U.S. and South Korea adopted Operations Plan 5015, which includes options for a preemptive strike on the North's nuclear and missile facilities and decapitation attacks on North Korea's leadership, including Kim Jong-un. Joint U.S.–South Korean military exercises have practiced some of these scenarios.⁵⁶

South Korea has developed independent preemptive attack plans and acquired weapons capable of attacking North Korean weapons of mass destruction. Seoul has created a three-part strategy consisting of the Kill Chain detection and preemptive attack system to target North Korean missiles prior to launch; the Korea Air and Missile Defense System; and the Korea Massive Punishment and Retaliation⁵⁷ to attack nuclear, missile, and leadership targets after attack or upon detection of signs of imminent North Korean attack.

South Korea could undertake unilateral preemptive military attacks without consulting with the United States. In 2013, the chairman of South Korea's Joint Chiefs of Staff told the National Assembly that if Seoul assessed that Pyongyang was contemplating using nuclear weapons, "preemptive strikes on the North's nuclear facilities are a matter of exercising the right of self-defense and Seoul does not require Washington's consent to make them." A defense official added that South Korea would launch preemptive strikes within 30 minutes of detecting signs of an imminent North Korean nuclear attack.⁵⁸

In 2016, a South Korean defense official commented, "Should the North *threaten to use* nuclear weapons, we will use sophisticated guided weapon system [*sic*] to strike its missile and launching facilities."⁵⁹ Seoul may rely increasingly on a preemption strategy because North Korea's growing nuclear capabilities are an existential threat. One nuclear weapon over Seoul would threaten one-third of the country's population as well as its centralized government and business sectors.

Future Capabilities Open Dangerous Doors

North Korea's continually advancing proficiencies suggest additional and more worrisome evolutions in its nuclear doctrine. Pyongyang may be on the path to developing capabilities that go beyond deterrence to a viable offensive warfighting strategy. In a few years, North Korea could have 100–200 nuclear warheads, dozens of mobile ICBMs, and hundreds of improved, survivable short-range, medium-range, and intermediate-range missiles as well as submarine-launched missiles.

Pyongyang could feel emboldened to use nuclear threats to coerce Seoul into accepting regime demands and deter the United States from responding. Pyongyang might also assume that conditions for military action had become favorable if it believed the U.S. extended deterrence guarantee had been undermined.

Greater North Korean nuclear capabilities could undermine the effectiveness of existing allied military plans. Washington and Seoul could be deterred from implementing all phases of Operations Plan 5015, the comprehensive combined force plan for responding to large-scale hostilities with North Korea. The strategy includes options for preemptive attacks on North Korean leadership, nuclear, and missile targets as well as follow-on phases in which allied forces would enter North Korea after rebuffing initial regime attacks.

North Korea's ability to target American cities with thermonuclear weapons could inhibit U.S. responses or exacerbate growing allied concerns about the viability of the U.S. extended deterrence guarantee. South Korea and Japan have already questioned the willingness of the United States to risk its cities for theirs.

A more survivable North Korean nuclear force could create first-strike uncertainty for the United States with respect to whether it is able to target all of North Korea's nuclear weapons. The regime's ability to hold numerous American cities at risk of attack by hydrogen bombs could lead allies to perceive that Washington would not respond to North Korean actions.

The defense of the continental U.S. is currently provided by 44 Ground-Based Interceptors in Alaska and California. The Trump Administration directed that an additional 20 interceptors be deployed by the mid to late 2020s.⁶⁰ Several interceptors would likely be fired at each incoming North Korean missile. While this is a viable deterrent when North Korea's ICBM force is small, Pyongyang's development of ICBMs with multiple warheads and indigenous production of mobile launch vehicles puts U.S. missile defenses at risk of being overwhelmed.

If North Korea believed the U.S. was unwilling to risk catastrophic civilian losses, the regime could act more belligerently in pursuing its strategic objectives. A former North Korean official testified before Congress in 1997 that "Kim Jong-il believes that if North Korea creates more than 20,000 American casualties in the region, the U.S. will roll back and [that] North Korea will win the war."⁶¹

North Korea may conclude that a large nuclear weapons arsenal provides the ability to fulfill its oft-stated goal of reunifying the Korean Peninsula on regime terms. At the Seventh Congress of the Workers' Party of Korea in May 2016, Kim Jong-un declared that North Korea "should not allow the national split to persist any longer but reunify the country in our generation without fail."⁶² The regime has pledged repeatedly to achieve the "final victory of the great war for national reunification."⁶³

What the United States Should Do

- **Continue diplomatic efforts to promote denuclearization.** Every international denuclearization agreement with North Korea has failed because of Pyongyang's noncompliance or cheating. Despite this, Washington should continue its efforts to achieve a negotiated reduction of the North Korean nuclear and missile threats. However, the United States and its allies must concurrently implement measures

to enhance their deterrence and defense capabilities. Diplomacy and deterrence are not mutually exclusive: Deterrence consists of credible commitment and capabilities.

- **Affirm America's commitment to defend its allies.** North Korea is unlikely to attack South Korea as long as it perceives the U.S.–South Korean alliance as strong and the U.S. pledge to defend South Korea as beyond doubt. Washington should make absolutely clear to friend and foe alike that it will defend its allies by continually reaffirming its extended deterrence guarantee to use all necessary force, including nuclear weapons, in response to a North Korean attack. To maintain deterrence against North Korean conventional attacks, which could escalate to nuclear war, Washington must maintain current levels of U.S. forces in the region until North Korean nuclear, missile, and conventional force threats have been sufficiently reduced. Washington and Seoul should resume allied conventional military exercises to previous levels once COVID conditions allow it.
- **Enhance strategic defense of the American homeland.** North Korea's growing ICBM force with potential multiple warheads and more launchers poses problems for American homeland missile defenses. The U.S. currently has only 44 Ground-Based Interceptors. The Biden Administration should maintain plans to augment the force to 64 interceptors by fielding the Next Generation Interceptor (NGI) before the end of the decade. In addition to a necessary interceptor capacity increase, the NGI will have advanced capabilities that can address North Korea's advanced missiles more effectively. These improvements will enhance deterrence by decreasing North Korea's confidence that its plan would succeed and will also thwart efforts to decouple the United States from its allies.
- **Augment U.S. regional ballistic missile defense.** Pyongyang's expanding force of tactical missiles and SLBMs increases the threat to U.S. forces in the Indo-Pacific region that are critical for responding to contingencies on the Korean Peninsula. One way to improve regional missile defense is by building an advanced missile defense system on Guam to bolster the existing THAAD system on the island. The United States should commit to a phased approach toward missile defense for Guam, initially providing an Aegis Ashore system, while simultaneously initiating an effort to improve the system incrementally with additional

sensors and shooters. The U.S. Congress should fund the Guam defense system within the Pacific Deterrence Initiative at \$350 million.⁶⁴

- **Ensure the effectiveness of both offensive and defensive deterrence.** The United States and its allies must have the capacity not only to defend against incoming North Korean missiles, but also to reduce the number of missiles that are launched. Doing so requires comprehensive systems to monitor, identify, track, and target North Korean missiles, including mobile land-based and submarine-based versions.
- **Complete modernization programs for U.S. nuclear forces.** All components of the U.S. nuclear triad, including delivery systems and the warheads they carry, were built during the Cold War and will lose credibility due to aging effects if their replacements are not delivered on schedule. Ensuring that these modernization programs remain on track is essential for assuring allies of the U.S. commitment to extended deterrence.
- **Help to enhance South Korean–Japanese relations.** Strained relations between America’s two critically important northeast Asia allies undermines the ability of the U.S. to defend South Korea against North Korean aggression. Even as it seeks to play a behind-the-scenes role to mitigate tensions arising from bilateral historic issues, the United States should create a trilateral security initiative. Convening a 2+2+2 meeting of the U.S., South Korean, and Japanese foreign and defense ministers could facilitate the development of comprehensive strategies for addressing common threats and objectives. The allies should develop trilateral plans for responding to North Korean provocations and for crisis management. Early initiatives could include standardizing logistic cross-servicing, information-sharing protocols, and overseas deployments.

What South Korea and Japan Should Do

In addition, allied missile defense plans should be reviewed and coordinated. To this end, South Korea should:

- **Continue deployments of its Medium-Range Surface-to-Air Missile (M-SAM) and development of its Long-Range Surface-to-Air Missile (L-SAM) programs** to augment existing land-based missile defenses.

- **Procure the Standard Missile-6 ship-based system** to intercept North Korean submarine-launched ballistic missiles. Currently, South Korean naval ships can defend against anti-ship missiles but not against ballistic missiles launched from the West Sea or Sea of Japan.
- **Integrate its Korea Air and Missile Defense (KAMD) program into the comprehensive allied BMD system** incorporating U.S. and Japanese sensors and interceptors. Seoul has refused to do this because of bilateral tensions with Japan arising from sensitive historic issues. Currently, the KAMD is operated independently but in coordination with U.S. missile defenses, including the Terminal High Altitude Area Defense deployed to South Korea in 2017. However, integrating the KAMD would enable quicker, more efficient allied tracking, targeting, and intercepting of North Korean ballistic missiles.
- **Maintain conditions-based wartime operational control transfer.** Transitioning to a South Korean command of Combined Forces Command before Seoul has ameliorated deficiencies in command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4/ISR) and joint or combined operations and before the North Korean nuclear threat has been reduced could have detrimental consequences in wartime. President Moon Jae-in's push for transition during his term runs counter to the bilateral agreement for a conditions-based rather than timeline-based transfer.⁶⁵
- **Strengthen its offensive capabilities.** In recent years, South Korea has implemented impressive improvements in its military forces. As part of its Kill Chain strategy, Seoul has improved and expanded its aircraft attack capabilities and has developed missiles with larger payloads and longer ranges. During the May 2021 U.S.–South Korean summit, Presidents Biden and Moon announced the end of payload and range restrictions on South Korean missiles.⁶⁶ With the termination of the previous Revised Missile Guidelines, South Korea can now develop ballistic missiles with ranges beyond the Korean Peninsula. In September 2021, Seoul announced that it would develop a missile with a three-ton warhead for hardened North Korean targets.⁶⁷

For its part, Japan should:

- **Augment its missile defenses.** Tokyo's abrupt decision to cancel two planned Aegis Ashore missile defense sites in favor of two additional Aegis-equipped ships does not provide a comparable level of missile defense. The land-based version would have protected the entire country, been unaffected by weather or staffing shortages of Aegis ships, and freed U.S. and Japanese ships for other missions. Tokyo should review its missile defense plans to ensure that it possesses robust defenses against North Korea's increasingly sophisticated missiles.⁶⁸
- **Develop strike capabilities.** Tokyo should adopt a comprehensive strategy of robust missile defenses augmented with strike forces to suppress and attrite the number of attacking missiles. Being able to hold enemy targets at risk increases the price of any attack on Japan, thereby enhancing deterrence and regional stability while degrading an opponent's attempts at coercion.⁶⁹ A Japanese ability to "shoot the archer" rather than intercepting all incoming arrows would enhance allied capabilities to disrupt an opponent's ability to conduct follow-on attacks and thereby reduce additional casualties and destruction. Japan's acquisition of strike capabilities would also augment U.S. military capabilities in the Indo-Pacific region.
- **Integrate its strike capabilities into an alliance framework.** Because its Self-Defense Forces lack requisite intelligence, surveillance, and other capabilities necessary for dynamic real-time targeting, Japan should incorporate any strike missions into the overall alliance structure. This would likely include all Japanese sensors and platforms associated with the strike mission. Combined operational planning and command-and-control would augment alliance capabilities, reduce redundancy, and enable more effective implementation. The allies should assess any necessary changes in existing roles, missions, and capabilities.

Conclusion

North Korea has steadily improved both the quality and the quantity of its nuclear and missile arsenals. In recent years, Pyongyang has unveiled tactical and strategic missile systems that pose greater risk to the United States and its allies.

The United States must ensure that it can protect the American homeland and U.S. forces in the Indo-Pacific region against this growing North Korean nuclear and missile threat. To this end, Washington should coordinate with South Korea and Japan to improve comprehensive allied missile defenses. The United States and its allies must also have sufficient offensive capabilities to reduce the number of North Korean missiles that are launched.

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