

ANTICIPATING NORTH KOREA'S NEXT NUCLEAR TEST

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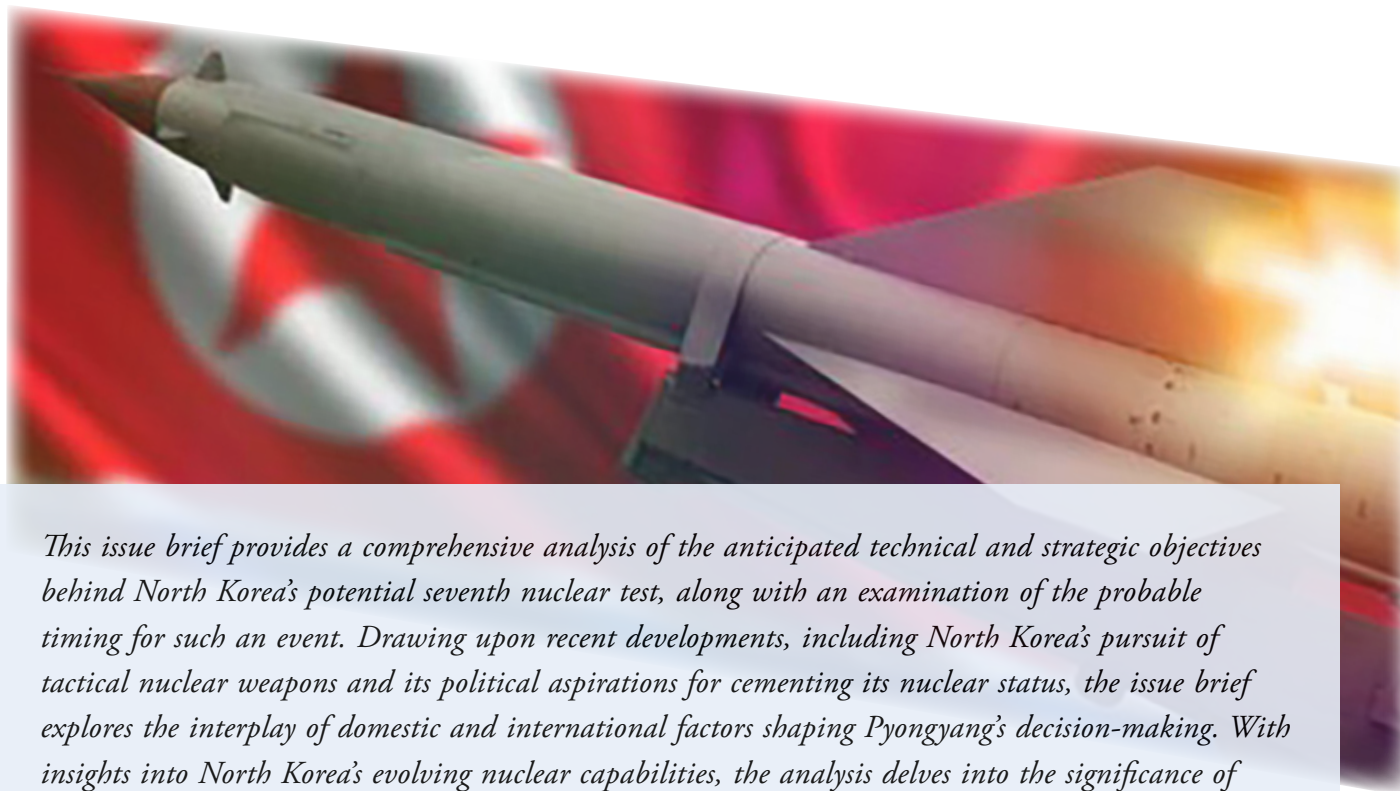


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This issue brief provides a comprehensive analysis of the anticipated technical and strategic objectives behind North Korea's potential seventh nuclear test, along with an examination of the probable timing for such an event. Drawing upon recent developments, including North Korea's pursuit of tactical nuclear weapons and its political aspirations for cementing its nuclear status, the issue brief explores the interplay of domestic and international factors shaping Pyongyang's decision-making. With insights into North Korea's evolving nuclear capabilities, the analysis delves into the significance of the upcoming U.S. presidential election as a potential catalyst for nuclear testing and its implications for regional dynamics. Furthermore, the issue brief underscores the imperative for the United States and other stakeholders to adopt a nuanced approach towards negotiations, grounded in the principle of denuclearization, while remaining vigilant against North Korea's strategic maneuvers to leverage nuclear testing for diplomatic advantage.

Background

North Korea will likely conduct another nuclear test in the foreseeable future as it seeks to further develop its advanced nuclear capabilities and technologies. The November 2024 U.S. presidential election appears to be an opportune time to conduct such a test in order to draw attention and maximize its leverage in potential future negotiations. Pyongyang's recent hostile remarks and military provocations, such as missile launches—an ICBM test in December 2023 and an IRBM test

in early April 2024, for instance—would seem focused at creating a strategic environment.¹ Russia, which has accelerated military cooperation with North Korea, has recently asserted the legitimacy and possibility of additional nuclear tests.² The U.S. State Department in 2022 also assessed that another North Korean nuclear test is likely.³ The Experimental Light Water Reactor (ELWR), currently in test operation at Yongbyon, is expected to free up nuclear material resources needed for

nuclear testing. Furthermore, the Punggye-ri nuclear test site, which North Korea voluntarily destroyed in 2018 during the short-lived détente with the U.S. and South Korea, has already been restored and is ready for nuclear testing at any time.⁴

North Korea has made technical advancements through six previous nuclear tests between 2006 and 2017, achieving its intended goal of strengthening its nuclear status and position in diplomatic negotiations. A seventh nuclear test will also be conducted with these two purposes in mind. Accordingly, this issue brief assesses the potential technical and strategic objectives Pyongyang may pursue in conducting a seventh nuclear test as well as anticipating the probable timing for such an event.

Technical Objective: Tactical Nuclear Weapons

At the 8th Party Congress in January 2021, Kim Jong-un instructed his government to “develop tactical nuclear weapons that can be applied as different means in modern warfare depending on the purpose of the operational mission and the target of attack.”⁵ It was declared that efforts would be made to develop various types of tactical nuclear weapons in the future. In this context, North Korea needs strategic nuclear weapons to counter threats from the United States and tactical nuclear weapons to respond to what it sees as military threats from South Korea and Japan.

However, the huge financial resources required to simultaneously develop strategic and tactical nuclear weapons amid serious economic difficulties caused by international sanctions is likely to be a constraint.⁶ In particular, long-range ballistic missiles such as the Hwasong-18, test-launched by North Korea, have not been verified regarding their re-entry and final target striking capabilities. The United States is also suspicious of North Korea’s true ICBM capabilities, which undermines its ability to deter the United States.

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That North Korea has been prioritizing the development of smaller and lighter tactical nuclear warheads was evidenced by the unveiling of the “Hwasan-31” tactical nuclear warhead during Kim Jong-un’s inspection of a nuclear weapons laboratory in March 2023. During the inspection, eight types of delivery means for mounting tactical nuclear weapons were showcased, including various missile systems and an unmanned nuclear submarine.⁷ Additionally, on January 24, 2024, North Korea’s Missile General Directorate announced the first test launch of a new strategic cruise missile, the “BulHwasal-3-31” type, believed to be equipped with the Hwasan-31 warhead. The “31” in the missile’s name suggests its compatibility with the Hwasan-31 nuclear warhead.⁸

The Hwasan-31 warhead is designed to be standardized and systematized, allowing it to be mounted on eight different types of delivery means. This modular approach offers flexibility and efficiency for North Korea’s military

operations. The specifications of the Hwasan-31 warhead are estimated to be 40-50cm in diameter, 90cm in length, 150-200kg in weight, and with a yield ranging from 4 to 7 kilotons. This standardized design allows for easier management and operation of North Korea's tactical nuclear arsenal, despite resource constraints compared to other nuclear states.

While North Korea may have acquired valuable data for miniaturizing nuclear warheads through its six nuclear tests and its subsequent development of the Hwasan-31 warhead, its feasibility remains uncertain. Utilizing the same nuclear warhead package across eight different weapon systems with varying characteristics would likely require additional nuclear testing for verification. Indeed, the United States has continued to accumulate and apply data from multiple nuclear tests over the past decades,⁹ highlighting the importance of nuclear testing for validating weapon capabilities. Conducting such a test would enhance credibility regarding North Korea's capability to deploy tactical nuclear weapons, thus increasing the visibility of the threat posed by its nuclear arsenal.

In December 2023, the International Atomic Energy Agency (IAEA) reported heightened activity and detected

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hot water emissions around North Korea's Yongbyon Experimental Light Water Reactor (ELWR), indicating that it may have entered the testing phase.¹⁰ This reactor has the capacity to produce approximately 15 to 20 kg of plutonium annually, which is significantly higher than existing 5MW nuclear reactors. This increase in plutonium production suggests that North Korea has secured additional resources to enhance and expand its nuclear capabilities, potentially including conducting more nuclear tests and producing additional nuclear warheads.

Political Objectives: Cementing its Nuclear Status

North Korea is pursuing a long-term strategy to cement its status in the eyes of the world as a nuclear state. Production of weapons and their deployment is one part of this strategy. Another part is propagating the idea that it will not relinquish its nuclear weapons under any circumstances. This stance has been codified in its Nuclear Weapons Possession Act, Nuclear Weapons Policy Act, as well as the Constitution in April 2012.¹¹

However, a significant challenge for North Korea in solidifying its status as a nuclear state is to prompt the United States to include nuclear disarmament or non-proliferation on the negotiation table. North Korea's intentions arise from the core principle underpinning nuclear disarmament negotiations: The formal acknowledgment of the possession of nuclear weapons. Doing so would de facto acknowledge North Korea as a nuclear state.

While three countries—Israel, India, and Pakistan—possess nuclear weapons outside the terms of the Nuclear Non-Proliferation Treaty (NPT), the recognition of these countries as “de facto nuclear states” relies on the tacit approval of the United States considering their strategic significance and U.S. interests. There is no indication from the U.S. that it would extend such an approval to North Korea, however.¹²

Some non-proliferation experts in the U.S. have argued that while the ultimate goal remains the denuclearization

of the Korean Peninsula, it is essential to acknowledge that North Korea has already acquired a certain level of nuclear capabilities. As a pragmatic approach, they propose negotiating intermediate-stage agreements to prevent the further advancement of North Korea's nuclear weapons and missiles.¹³ Recently, Jung Pak, the U.S. senior official for North Korea, and Mira Rapp-Hooper, the National Security Council senior director for East Asia and Oceania, reiterated that the complete denuclearization of the Korean Peninsula remains the objective. However, they recognize that interim steps may be necessary along the path to achieving this goal.¹⁴ Although specific details about these interim steps were not provided, it is understood that reducing the threat involves freezing or reducing North Korea's current nuclear arsenal, with corresponding compensation.

There are concerns that Trump, should he be re-elected, may compromise with North Korea if he returns to denuclearization talks. Trump has voiced admiration for Kim Jong-un, stating that during his presidency, there were no significant issues with North Korea, and that, due to their strong chemistry and amicable relationship, the U.S. were safe.¹⁵ Trump has denied reports suggesting he was contemplating tolerating North Korea's possession of nuclear weapons, including entertaining the provision of financial support under the condition of halting further nuclear development. North Korea also appears to favor Trump as a negotiating partner potentially willing to change the existing parameters of returning to the negotiation table. North Korea's long-term objective may be to perpetuate escalating tensions, strategically positioning itself for negotiations by creating a higher starting point. This approach could serve as a springboard for ego-driven high-level diplomatic endeavors, enabling figures like Trump to claim credit for mitigating tensions and restoring a semblance of stability on the Peninsula. In this regard, a seventh nuclear test could play a decisive role in shaping the strategic environment towards what Pyongyang wants most: Its recognition as a nuclear state and the lifting of sanctions.

Here Russia enters the picture. Given the recent close relationship between North Korea and Russia, particularly in terms of North Korea's support with

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ammunition and missiles for its war in Ukraine, it is conceivable that Russia may seek to align with North Korea's strategy and even position itself as a mediator in tensions on the Korean Peninsula. If Russia actively works to mitigate North Korea's threats and provocations of nuclear war and proposes nuclear cooperation with North Korea on the condition of non-proliferation, there is a risk that North Korea's broader objective of gaining acknowledgment as a nuclear state may materialize with Russia's support.¹⁶ President Putin's recent statement that “North Korea has its own nuclear umbrella” also supports this possibility.¹⁷

Timing of Nuclear Test

From North Korea's perspective, nuclear testing represents its most potent leverage against the United States. Therefore, it should be conducted strategically, at a pivotal moment when it can precipitate a shift in the situation. It is highly probable that North Korea will escalate the crisis and then resort to nuclear tests to orient towards dialogue when the benefits outweigh the costs and risks. Moreover, for the nuclear test to yield maximum benefit, it must serve as a catalyst for compelling the international community to acknowledge that the North Korean nuclear issue cannot be resolved through existing measures such as

sanctions. Thus, North Korea will seek the opportune moment to capitalize politically on nuclear testing. The upcoming November 2024 U.S. presidential election season presents the most favorable opportunity. If the Biden administration wins re-election, there is unlikely to be any significant alteration in the current North Korea policy, which has been characterized by de facto neglect. North Korea continues to pose a formidable foreign policy challenge for the United States, requiring significant levels of engagement and resource allocation. However, given the ongoing conflict in Ukraine and escalating tensions in the Middle East, Washington's capacity to fully commit is constrained. As a result, a pragmatic approach blending Obama's strategic patience with Trump's occasional olive-branch gestures appears to be the most viable path forward. While rhetoric may shift, the underlying policy may continue to reflect a de facto neglect due to competing priorities elsewhere. Kim Jong-un will need to exert strong pressure to change Biden's policy. From its perspective, testing may be necessary to create the necessary strategic change.

Should Trump win the U.S. presidential election, North Korea will endeavor to initiate direct negotiations with Washington, akin to the scenario observed in 2018. To set the stage for this, from Pyongyang's perspective, it must escalate nuclear coercion, including nuclear tests, to the utmost extent to instigate an "acute" crisis. North Korea will cultivate the perception that the North

China's concerns will play a crucial role in shaping the timing of any test. China staunchly opposes North Korea's possession of nuclear weapons, recognizing that such a development could significantly alter the security landscape of Northeast Asia.

Korean nuclear issue constitutes a paramount U.S. security concern. Consequently, immediately following Trump's assumption of office in January 2025, North Korea will push for nuclear disarmament negotiations and the lifting of sanctions.

China's concerns will play a crucial role in shaping the timing of any test. China staunchly opposes North Korea's possession of nuclear weapons, recognizing that such a development could significantly alter the security landscape of Northeast Asia. The attainment of nuclear state status by North Korea could trigger heightened extended deterrence measures by the United States. This might include scenarios such as the redeployment of nuclear weapons on the Korean Peninsula at South Korea's request, potentially leading to increased missile defense initiatives and rearmament in Japan. Moreover, there's a possibility that South Korea, Japan, and Taiwan might explore their own paths toward nuclear armament.

However, the Chinese leadership perceives its ability to fundamentally alter North Korea's nuclear situation as limited. Instead, Beijing seeks to exert influence over the timing of North Korea's actions to prevent it from any potential destabilization for China during critical periods.¹⁸ North Korea takes this factor into careful consideration when making decisions about its timing. Despite China's likely dissatisfaction with any further nuclear test, it is likely that China will refrain from endorsing further UN Security Council sanctions. Conversely, some argue that North Korea's provocations, while causing regional instability, could offer strategic benefits to China. These provocations divert U.S. attention away from China and provide China with valuable strategic "breathing space."

The issue of nuclear safety also looms large. China is concerned about North Korea's nuclear tests in this regard, particularly given their proximity to the border. China is worried about potential environmental disasters, including radiation leaks, if further tests were to occur. It is known that during the sixth nuclear test, cities near the border were issued with danger warnings, and recent reports indicate a continuation of frequent earthquakes near the Punggye-ri nuclear test site. The ground at

the site has been weakened by past tests, with over 40 earthquakes occurring since the sixth test in September 2017, resulting in significant ground collapses.¹⁹

It can be predicted that North Korea will carefully assess the timing of any potential nuclear test, considering multiple factors such as its stockpile of nuclear materials, technological capabilities, preparedness for testing, external circumstances, and its domestic situation. However, the timing of such a test is expected to be driven more by political objectives rather than purely technical considerations.

Looking Ahead

This year marks the 30th anniversary of the 1994 Geneva Agreed Framework between the United States and North Korea. The goal of the international community's policy toward North Korea, including the United States, since the 1990s, has been the denuclearization of North Korea. However, this objective has failed to prevent North Korea from developing, testing, deploying, and exporting nuclear weapons and missile technology. North Korea is a self-declared de facto nuclear state. North Korea legislated a nuclear preemptive strike in 2022 and amended its constitution at the end of 2023, declaring that it would not give up nuclear weapons. The policy of not tolerating North Korea with nuclear weapons has all but fizzled out. North Korea has passed the “point of no return” as a non-nuclear state.

While Pyongyang is cognizant of the atmosphere related to interim steps that has recently been raised in Washington—characterized by rhetorical shifts without substantive policy changes—North Korea will regard any potential proposal by the United States for a nuclear freeze and disarmament negotiations as implicit recognition of its status as a nuclear state. Recent shifts in North Korea's stance towards South Korea—now seen as an enemy and not estranged brethren to be reunified with—accompanied by Kim Jong-un's aggressive rhetoric and persistent missile test launches since late 2023, suggest a deliberate orchestration of crisis to shape a strategic environment conducive to altering circumstances.²⁰ In such a scenario, the probability of North Korea conducting nuclear tests to amplify its influence is significant.

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Any disarmament negotiations between the United States and North Korea would spark considerable controversy, not only within South Korea but also across the international community. South Korea would likely insist on the redeployment of tactical nuclear weapons by the U.S. or even consider pursuing its own nuclear armament to uphold a nuclear balance on the Korean Peninsula. Moreover, any such negotiation process would likely disrupt the international non-proliferation regime that the United States has steadfastly sought to uphold since the inception of the NPT in the 1970s. This could establish a detrimental precedent for future aspiring nuclear weapons states, suggesting that despite initial sacrifices eventual recognition of possessing nuclear weapons is attainable.

Hence, it would be imperative for the United States to clarify that negotiations be grounded on the principle of denuclearization, as a long-term objective, and to exercise caution in the usage of terms like “disarmament negotiations,” which may inadvertently validate nuclear weapons states. Furthermore, any potential “interim step” agreement that does not include verification would be meaningless: North Korea's nuclear advancement

must be contained and verified through thorough inspections.

Nuclear testing comes with substantial costs and risks. There exists a likelihood that North Korea might consider engaging in negotiations by strategically timing a nuclear test when the perceived benefits outweigh the associated costs and risks. This highlights the importance of closely monitoring the dynamics of the upcoming U.S. presidential election, which North Korea views as potentially advantageous to its interests.

Ultimately, North Korea retains full discretion over the timing of nuclear tests, emphasizing its strategic advantage in negotiations. It is crucial to recognize that North Korea's strategy of escalating crises to bolster negotiation leverage is a deliberate tactic employed by the Kim regime. Where possible, this is a scenario that requires the key stakeholders on the Korean Peninsula to prepare for and coordinate.

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