



CENTRE FOR AIR POWER STUDIES

In Focus

New Delhi

CAPS InFocus: 73/2022

21 October 2022

Understanding the Missile Tests by DPRK

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Keywords: Democratic People's Republic of Korea, Intermediate-Range Ballistic Missile, Hwasong-12, Nuclear Force Policy Act, Nuclear Weapon State, UN



Image Source: The Diplomat



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Introduction

In just a time of two weeks (last week of September 2022 to first week of October 2022) the Democratic People's Republic of Korea (DPRK) has conducted a total of six missile tests. This includes the Hwasong-12 that flew over the Japanese islands territory¹. This was the first time since 2017 that, it also tested an intermediate-range ballistic missile Hwasong-12. It landed in the Sea of Japan² on October 4, 2022. The Hwasong-12 is a single staged missile with a range of 4500 km that uses liquid propellant.³ The DPRK decided to use the liquid propellant in place of the more preferred solid propellant due to the disadvantages associated with solid propellants. The casting that would be required for the Hwasong-12 is becoming increasingly larger for solid-propellant motors. This hampers the consistency (quality) that is needed for its long-range flight⁴. In response the US, Japan, and South Korean militaries conducted live fire drills. To have the last word, the DPRK retaliated by conducting two more missile tests on October 6, 2022. The Pentagon Press Secretary said that "North Korea is testing its missile program. It's looking to adapt. And the issue here, though, is that these actions are provocative. They're dangerous. And as you well know, North Korea has not committed to any type of constructive or strategic dialogue on these issues. And so, in so much as they're testing these missiles, and the way that they're doing it -- it has the great potential for destabilizing the region."⁵

DPRK's Nuclear Force Policy Act

In September 2022, the DPRK announced its Nuclear Force Policy Act⁶. It was meant to signal to the US and South Korea that their nuclear forces are now operational. Certain parts of the act were created by specifically targeting South Korea and the US⁷. As a result, the United States is concerned with the growing modernization and expansion of the DPRK. The UN does monitor the DPRK missile program, and it conveyed that this year the DPRK has tested forty missiles⁸. In the last forty years, the DPRK has tested two hundred missiles and conducted six nuclear tests. More than half of those have been since Kim Jong Un came to power. On October 10, 2022, the official DPRK News Agency came out with a statement of what it is doing, including the types of missiles being launched and tested. Essentially, their message is that they have been carrying out tactical nuclear drills in preparation for any aggression against them. DPRK State media has said that the recent missile tests were a way to check the ability of their nuclear weapons to wipe out American and South Korean targets⁹. Kim Jong Un acknowledged plans to conduct more such tests¹⁰.

DPRK-US Nuclear Dyad

The DPRK is refining its ability to hit US bases. The US is firm in its defence of Japan and South Korea, if there is a war on the Korean Peninsula, then the DPRK would try to warn the US off, by indicating that it would hit any US cities or bases if the US gets involved in the war. The US would not be deterred by this, but certainly, it would be an escalation. So, countries like Japan and South Korea are very concerned. As the world witnessed with the longer-range test, the DPRK has succeeded in developing a nuclear capable intermediate-range ballistic missile. No problem with the flight of this missile was reported. The DPRK continues to make progress on a range of other short, medium, and longer-range ballistic missiles. The DPRK seems to be on the verge of conducting another nuclear weapons test, if it happens it will be the seventh.¹¹ The DPRK has claimed itself to be a permanent nuclear weapon state.¹² It also stated that it does intend to pre-emptively use its nuclear weapons against the United States or others.¹³ The combination of all of these factors is troubling, and the steps that the US and its allies have taken in recent years to warn the DPRK from going down this path, to strengthen deterrence, and assure its allies Japan and South Korea (that they would be well defended), have not been effective in stopping the DPRK from going down this path.

Conclusion

The DPRK is using the distraction caused due to the Russo-Ukrainian War to strengthen its status as a nuclear weapon state.¹⁴ Diplomatically the west has limitations, as was recently observed in the UN. So, inside the UN, China and Russia did not support the position of the west over the DPRK.¹⁵ The only solution that seems to be the best for the moment and perhaps for the future too, is for the US to exponentially increase the military capabilities of South Korea and Japan.

NOTES:

¹ Bruce Klingner, "North Korea's Hwasong-12 Missile Test Over Japan Must Be Punished", *The Heritage Foundation*, October 7, 2022, <https://www.heritage.org/asia/commentary/north-koreas-hwasong-12-missile-test-over-japan-must-be-punished> Accessed on October 13, 2022.

² Jen Kwon, "North Korea fires ballistic missile over Japan for first time in 5 years, drawing quick response from U.S., South Korea", *CBS News*, October 13, 2022, <https://www.cbsnews.com/news/north-korea-missile-over-japan-draws-rebuke-south-korea-us-fighter-jet-drill/> Accessed on October 13, 2022.

³ Missile Defense Project, "Hwasong-12 (KN-17)," Missile Threat, *Center for Strategic and International Studies*, May 20, 2022, <https://missilethreat.csis.org/missile/hwasong-12/>. Accessed on October 13, 2022.

⁴ Markus V. Garlauskas, "Pukkuksong-5: Why North Korea's New Solid-Fuel Missile Is a Problem", *The National Interest*, February 1, 2021, <https://nationalinterest.org/blog/korea-watch/pukkuksong-5-why-north-koreas-new-solid-fuel-missile-problem-177402> Accessed on October 13, 2022.

⁵ Brigadier General Pat Ryder, "Pentagon Press-Secretary Air Force Brig. Gen. Pat Ryder Holds an On-Camera Press Briefing", *U.S. Department of Defense*, October 6, 2022, <https://www.defense.gov/News/Transcripts/Transcript/Article/3182735/pentagon-press-secretary-air-force-brig-gen-pat-ryder-holds-an-on-camera-press/> Accessed on October 11, 2022.

⁶ Alexander Vorontsov, "How to Interpret North Korea's Nuclear Forces Policy Act?", *RIAC*, September 29, 2022, <https://russiancouncil.ru/en/analytics-and-comments/analytics/how-to-interpret-north-korea-s-nuclear-forces-policy-act/> Accessed on October 13, 2022.

⁷ Ibid

⁸ AP, "Joe Biden consults Japan PM Kishida after North Korea missile test", *Business Standard*, October 4, 2022, https://www.business-standard.com/article/international/joe-biden-consults-japan-pm-kishida-after-north-korea-missile-test-122100401209_1.html#:~:text=North%20Korea%20has%20test-fired%20about%2040%20missiles%20over,by%20North%20Korea%20in%20the%20past%2010%20days. Accessed on October 20, 2022.

⁹ Hyung-Jin Kim, "North Korea confirms nuclear missiles tests to 'wipe out' enemies", *The Globe and Mail*, October 9, 2022, <https://www.theglobeandmail.com/world/article-north-koreas-kim-jong-un-oversaw-tactical-nuclear-military-training-2/#:~:text=North%20Korea%20said%20Monday%20its%20recent%20barrage%20of,would%20conduct%20more%20provocative%20tests%20in%20coming%20weeks.> Accessed on October 15, 2022.

¹⁰ Ibid

¹¹ Bruce Klingner, "North Korea's Hwasong-12 Missile Test Over Japan Must Be Punished", *The Heritage Foundation*, October 7, 2022, <https://www.heritage.org/asia/commentary/north-koreas-hwasong-12-missile-test-over-japan-must-be-punished> Accessed on October 13, 2022.

¹² Alexander Vorontsov, "How to Interpret North Korea's Nuclear Forces Policy Act?", *RIAC*, September 29, 2022, <https://russiancouncil.ru/en/analytics-and-comments/analytics/how-to-interpret-north-korea-s-nuclear-forces-policy-act/> Accessed on October 13, 2022.

¹³ Christy Lee, "Experts: North Korea's New Law on Preemptive Use of Nuclear Weapons Puts Regime at Risk", *VOA*, September 15, 2022, <https://www.voanews.com/a/experts-north-korea-s-new-law-on-preemptive-use-of-nuclear-weapons-puts-regime-at-risk/6749962.html> Accessed on October 13, 2022.

¹⁴ Victor Cha, Ellen Kim, Andy Lim, "North Korea Tests Missile over Japan", *CSIS*, October 5, 2022, <https://www.csis.org/analysis/north-korea-tests-missile-over-japan-0> Accessed on October 15, 2022.

¹⁵ Ibid