



MONTHLY REPORT

Nuclear Risk Assessment

Korean Peninsula
2023/11



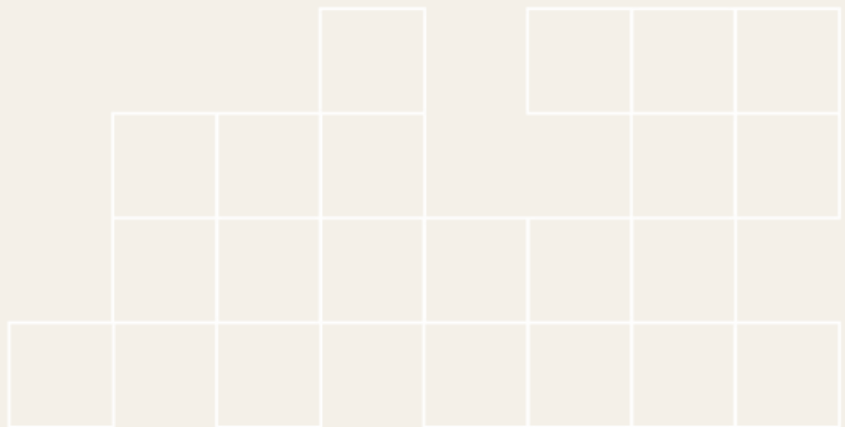
Open Nuclear Network

One Earth Future's Open Nuclear Network programme is a non-aligned, non-governmental entity that seeks to increase security for all States by ensuring that nuclear decision makers have access to high quality, shareable open source information which enables them to make the best decisions in the face of escalating conflict.

Nuclear Risk Assessment Report

Nuclear risk can emanate from various factors. These range from the more obvious military developments and incidents that could lead to increased tensions and possibly even nuclear misuse, to the often overlooked domestic and external contexts in which a country perceives its circumstances and, based on those perceptions, makes decisions that have direct or indirect implications for nuclear risk.

In an attempt to more comprehensively assess nuclear risks on and around the Korean Peninsula, this monthly Report examines the DPRK's and the ROK's nuclear and military spheres, as well as activities and policy decisions across main domestic and foreign policy spheres that could impact nuclear risks.



Methodology & Scope

The “ONN Nuclear Risk Assessment Report” strives for objectivity and accuracy through collection, research and analysis of open source information.

The Report focuses on the DPRK and the ROK; other key regional State actors – namely China, Japan, Russia, and the United States – are covered as part of the context in which Pyongyang and Seoul act and make their decisions, but they themselves are not the main objects of this Report’s analysis.

The Report consists of three sections: Nuclear, Military and Political.

The **Nuclear section** covers notable developments with direct implications for nuclear capabilities and dynamics on and around the Korean Peninsula. These include the DPRK’s nuclear and missile development and tests; military activities related to US extended deterrence to the ROK and in the region; as well as major nuclear policy changes.

The **Military section** covers key military-related developments that may not have direct implications for nuclear capabilities and postures but could lead to heightened nuclear risks. These include the two Koreas’ conventional military build-ups or military exercises, or unusual moves by the DPRK’s Korean People’s Army (KPA) or inter-Korean military conflicts.

The **Political section** addresses key domestic and external factors that could impact Pyongyang’s decisions on its nuclear posture. Examples include notable domestic political, economic and social developments, as well as its ROK and foreign policy trends. This section may also address domestic pressures in the ROK or changes in Seoul’s foreign policy that could have repercussions for nuclear risk, such as the public discourse in the ROK on acquiring its own nuclear capabilities or significant policy changes related to the ROK-US alliance or inter-Korean relations.

For busy readers, these three sections are preceded by key takeaways from each chapter.

To produce this monthly Report, ONN regularly monitors, collects and analyzes text, satellite imagery and ground photos and videos in publicly and commercially available sources from China, the DPRK, Japan, the ROK, Russia and the United States. Secondary and tertiary sources are used only if primary sources are unavailable. ONN observes a [Code of Ethics](#) for collection, research and analysis.

Nuclear Risk Takeaways

Nuclear. Military. Political.



NUCLEAR

The DPRK did not attempt to launch its reconnaissance satellite in October as previously pledged and future plans for the launch are unknown at this time. Japan, the ROK and the United States conducted numerous trilateral maritime and air exercises in October. The deployment of US strategic assets for those exercises is in line with the ROK-US Washington Declaration commitment to enhance the “regular visibility” of US strategic assets to both provide more tangible deterrence assurances to the ROK as well as enhance interoperability and joint planning capabilities in the region.



MILITARY

Japan, the ROK and the United States alleged that several arms transfers were made from the DPRK to Russia and expressed concerns about potential reciprocal military technology transfers from Russia to the DPRK. The DPRK dismissed the allegations but stated that it is ready to further elevate the DPRK-Russian relationship. Bilateral cooperation in political, economic and possibly military fields between Russia and the DPRK is anticipated in the future. In light of Hamas’ surprise attack against Israel, as well as the alleged failure of the DPRK to honor the Comprehensive Military Agreement (CMA), the ROK military stressed the need to raise its combat readiness level and suspend the CMA. The risk of military conflict along the DPRK-ROK border may be increased if the CMA is suspended.



POLITICAL

The visit of Russian Foreign Minister Sergei Lavrov to the DPRK in October to discuss the agreements made at the September Kim-Putin summit signals a further deepening of political cooperation, with Lavrov expressing “complete support” for the DPRK regime. Reports of large-scale trade, potentially including military materials, indicate that some agreements may be under practical implementation, while DPRK Foreign Minister Choe Son Hui’s reference to the relationship as a “powerful strategic stability element” in the region suggests further alignment in the military sphere. Despite friction over the alleged repatriation of DPRK citizens held in detention in China, developments in the political sphere indicate that the situation has not negatively impacted Sino-ROK relations, although the issue may cause further tension in the coming months.



DPRK Puts First Reconnaissance Satellite Into Orbit, Tests Motors for New Intermediate-range Ballistic Missiles; United States and ROK Revise Tailored Deterrence Strategy, Further Implement Washington Declaration, Camp David Summit Commitments

The DPRK successfully put its first reconnaissance satellite into orbit and pledged to launch more satellites to better monitor the ROK and the Pacific. The country also tested solid-motors for a new intermediate-range ballistic missile. These developments indicate that the DPRK continues to build up its surveillance capabilities and enhance responsiveness and flexibilities of its Strategic Rocket Force. Meanwhile, the ROK and the United States revised their Tailored Deterrence Strategy, while continuing to implement commitments made in the Washington Declaration and at the Camp David Summit on US extended deterrence and trilateral cooperation with Japan.

The successful launch of the DPRK's first reconnaissance satellite paved the way for more launches to build upon its nascent space-based surveillance capabilities. Meanwhile the main launch tower at the Sohae Satellite Launching Ground is continuing to undergo reconstruction, suggesting that the DPRK may launch bigger rockets to support more ambitious space missions in the mid-to-long term.

- After two failed attempts in [May and August](#), the DPRK successfully put its first reconnaissance satellite into orbit on 21 November. The satellite is [orbiting the earth](#) in a sun-synchronous orbit, which is commonly used for earth observation satellites. The DPRK claimed that the satellite is in a healthy state and would officially [begin](#) operation on 1 December after a "fine-tuning process."
- The carrier rocket, Chollima-1, blasted off from a small launch pad built in [May 2023](#) at the Sohae Satellite Launching Ground to accommodate relatively small carrier rockets. Images and video released by State media suggest that the propulsion system of the Chollima-1 and the erector-launcher are derived from those of the Hwasong series intercontinental ballistic missiles (ICBMs) (Figure 1).

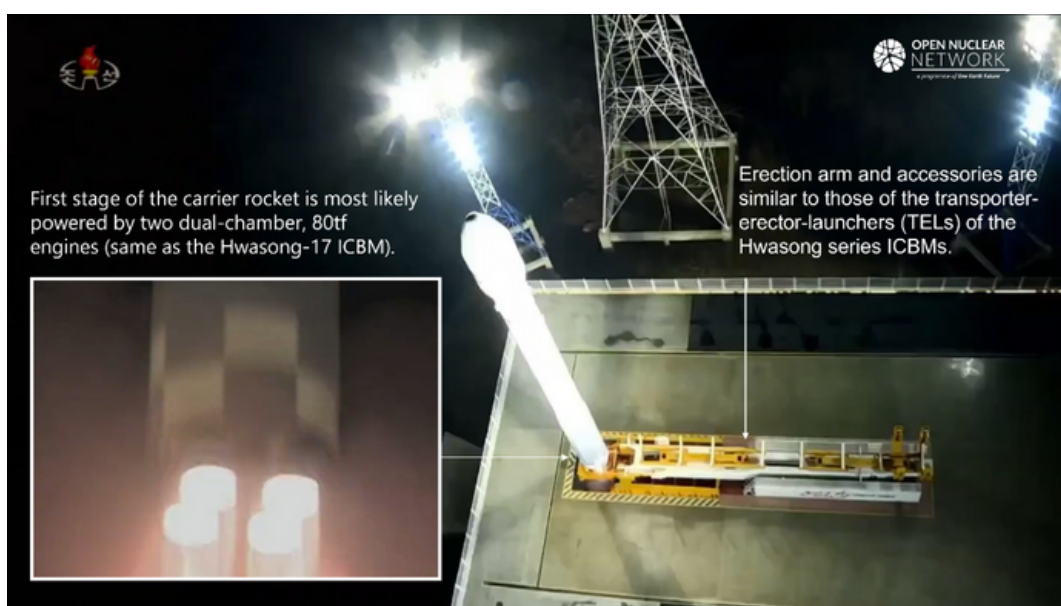


Figure 1. State media video confirmed an [earlier assessment](#) that the Chollima-1 is as powerful as the Hwasong-17 ICBM. Its launch mechanism is also derived from TELs of the Hwasong series ICBMs. Images: [KCTV](#)



Nuclear (cont.)

DPRK Puts First Reconnaissance Satellite Into Orbit, Tests Motors for New Intermediate-range Ballistic Missiles; US and ROK Revise Tailored Deterrence Strategy, Further Implement Washington Declaration, Camp David Summit Commitments

- DPRK leader Kim Jong Un [oversaw](#) the launch and inspected photos submitted by the National Aerospace Technology Administration on [22](#), [24](#), [25](#), [28](#) and [29 November](#), demonstrating his great interest in pursuing space-based surveillance capabilities.
- The 21 November satellite launch served to verify the Chollima-1 carrier rocket and paved the way for more launches. After the orbital insertion, the DPRK pledged to launch several more reconnaissance satellites in “[a short span of time](#).”
- The main launch tower at Sohae and the entire Sohae Satellite Launching Ground have been [undergoing reconstruction](#). This suggests that the DPRK may build and launch bigger carrier rockets to support more ambitious space missions in the mid-to-long term.

The test firing of solid-propellant motors for a new intermediate-range ballistic missile (IRBM) is another indicator that the Strategic Rocket Force of the DPRK is transitioning from liquid-propellant IRBMs and ICBMs to solid-propellant ones. Such a transition would make the Strategic Rocket Force more responsive and flexible in combat situations, though it remains unclear if and how long it would take the DPRK to completely phase out liquid-propellant systems.

- On 15 November, the DPRK [claimed](#) to have tested the first and second stage solid motors for a newly developed IRBM on 11 and 14 November respectively. According to [photos](#) released by Korean Central News Agency, the tests were conducted at the Sohae Satellite Launching Ground and the Magunpo solid motor test site. Commercial satellite images available to ONN were not sufficiently clear to confirm or exclude this test.
- State media [reported](#) that the development of the [Hwasong-18 solid-propellant ICBM](#) and this new solid-propellant IRBM is part of the “2023 plan for developing defence science and weapons systems,” which was set forth by the Central Committee of the Workers' Party of Korea (WPK) and Central Military Commission of the WPK. The flight tests of the Hwasong-18 ICBM and the recent solid motor tests for the new IRBM indicate that the Strategic Rocket Force of the KPA is transitioning from liquid-propellant IRBMs and ICBMs to solid-propellant ones. In comparison to liquid-propellant, road-mobile ballistic missiles, solid-propellant ones require less maintenance and fewer pre-launch preparations. Such a transition would make the Strategic Rocket Force more responsive and flexible in combat situations.
- However, it remains to be seen if and how long it would take the DPRK to completely phase out liquid-propellant, road-mobile IRBMs and ICBMs. The designation of 18 November as “[Missile Industry Day](#)” commemorating the [first successful launch of the liquid-propellant Hwasong-17 ICBM in 2022](#) appears to underscore the prominence of heavy weight, liquid-propellant, land mobile ICBMs within the Strategic Rocket Force.



Nuclear (cont.)

DPRK Puts First Reconnaissance Satellite Into Orbit, Tests Motors for New Intermediate-range Ballistic Missiles; US and ROK Revise Tailored Deterrence Strategy, Further Implement Washington Declaration, Camp David Summit Commitments

The US and the ROK met for their 55th Security Consultative Meeting and revised their Tailored Deterrence Strategy, while continuing to implement commitments made in the [Washington Declaration](#) and at the [Camp David Summit](#) on US extended deterrence and trilateral cooperation with Japan.

- The US and the ROK met for their [55th Security Consultative Meeting](#) (SCM) and revised their Tailored Deterrence Strategy (TDS) for the first time in ten years. The two sides pledged to “strengthen combined defense architecture and accelerate expanding the ROK-side role in preparation” against WMD threats posed by the DPRK. While the TDS has not been disclosed in full, the SCM Joint Communique describes it as a “flexible and robust document that serves as a strategic framework to effectively deter and respond to advancing DPRK” threats.
- Particularly notable is that the two sides [agreed](#) at the SCM to also pursue cooperation of the U.S. Shared Early Warning System (SEWS), which comprises ten US satellites, including the [US Space-Based Infrared System](#), aimed at monitoring for early warning of missile launches and other threats. SEWS has been critical for the United States’ own [situational awareness](#) around the world. Increased information sharing based on the SEWS will enhance the ROK’s and joint US-ROK missile detection and response capabilities going forward.
- Also in November, a [US nuclear-powered submarine](#), the USS Santa Fe, and a [US aircraft carrier](#), the USS Carl Vinson, visited South Korea in a demonstration of “combined defense posture and firm resolve.” Japan, the ROK, and the United States [conducted](#) joint naval drills involving both assets on 26 November. This follows a US-ROK [joint air drill](#) with nuclear-capable B-52H bombers on 15 November. These drills and visits, alongside the outcomes of the 55th SCM, demonstrate that the US and the ROK continue to implement commitments made in the [Washington Declaration](#) and at the [Camp David Summit](#), particularly on expanded information sharing, extended deterrence consultations, and tangible deterrence assurances.



Military

Comprehensive Military Agreement Scrapped, Leading to Increased Military Presence Along Border

The 21 November satellite launch of the DPRK led to the final breakdown of the [2018 Comprehensive Military Agreement](#), under which the DPRK and the ROK agreed to establish buffer zones and cease hostile activities along the border. The risk of military conflict along the DPRK-ROK border may have increased due to increased military presence.

- Following the DPRK's 21 November satellite launch, ROK President Yoon Suk Yeol [approved](#) a motion on 22 November to partially suspend the [2018 Comprehensive Military Agreement](#), specifically Article 1, Clause 3 which designated No Fly Zones above the Military Demarcation Line (MDL) separating the two Koreas. The partial suspension enabled the ROK to resume aerial surveillance along the MDL.
- Also on 22 November, the ROK detected [what appeared to be a failed ballistic missile launch](#) from Sunan area, Pyongyang. The launch came after the partial suspension of the CMA, suggesting that it may have been intended as a response from the DPRK to the suspension. However, other possibilities, such as the launch being a scheduled developmental test for the solid-propellant IRBM, cannot be ruled out.
- On 23 November, the DPRK's defense ministry issued a [statement](#) saying the "KPA will never be bound" by the CMA and would "immediately restore all military measures" halted under the CMA. On 27 November, the ROK defense ministry [released](#) photos showing KPA soldiers building guard posts and transporting recoilless guns inside the Demilitarized Zone.
- Citing alleged failures of the DPRK to honor the agreement, the Yoon Suk Yeol administration and the ruling party [had been calling](#) for the suspension of the CMA for months. While the breakdown of the CMA has enabled both Koreas to better monitor each other's movement at the front line, it has also increased tensions along the border and may result in a lowered threshold for border altercations.



Political

ROK Continued Hardline Inter-Korean Approach; Possible DPRK-Russia Cooperation in Sanctioned Activities; Resumption of China-Japan-ROK Trilateral Cooperation Without Alignment on DPRK

In November, the ROK Unification Ministry's new Basic Plan for inter-Korean relations and its process to repeal the ban on leaflet balloons signaled a continued hardline approach towards the DPRK. A DPRK-Russia Inter-Governmental Commission meeting showcased further expansion of bilateral cooperation potentially including UNSC sanctioned activities, while a China-Japan-ROK Foreign Minister meeting signified the resumption of trilateral cooperation, but with weakened alignment on Korean Peninsula security issues.

In November, ROK Minister of Unification Kim Young-ho reported the new Basic Plan for the Development of Inter-Korean Relations the next five years, containing agenda items previously unacknowledged by the DPRK during inter-Korean dialogue. The focus is in line with a hardening stance towards the DPRK under the Yoon Suk Yeol administration. The level and wording of the DPRK response to the Unification Ministry's process to withdraw guidelines on leaflet balloons and engage the United Nations Command does not indicate any immediate retaliatory actions but sets a baseline for further responses should the DPRK decide to pursue such.

- On 15 November, Minister of Unification Kim Young-ho [reported](#) the 2023-2027 Basic Plan for the Development of Inter-Korean Relations to the National Assembly Foreign Affairs and Unification Committee. The plan aims to normalize "principled inter-Korean relations" and strengthen intelligence analysis capabilities. The plan, which sets the agenda for inter-Korean dialogue should it be resumed in the future, also introduces topics previously unacknowledged by the DPRK, such as the issue of abductees, detainees, and prisoners of war. It further promotes the formation and operation of an inspection committee to ensure the implementation of inter-Korean agreements.
- It comes alongside the recent [launch](#) of a process by the Unification Ministry to repeal the guidelines banning floating balloons carrying propaganda leaflets, in accordance with a Constitutional Court [decision](#) in September. The DPRK has previously responded strongly to leaflet balloons, including by demolishing the inter-Korean liaison office in 2020. A DPRK commentary released in November [stated](#) that leaflet balloons will act as a "detonator" for the end of the ROK regime and threatened to "pour a shower of shells" across the border. However, the level of the commentary does not indicate any immediate retaliatory actions.
- It also comes alongside the first-ever [visit](#) by a unification minister to the United Nations Command, as part of a larger effort to further integrate the ROK in the work of the multi-national command. Prior to the visit, the DPRK Foreign Ministry released a [statement](#) condemning further development of the UNC and called for its dissolution.

DPRK-Russia cooperation continued to progress in November as Russia sent a delegation to Pyongyang to participate in the 10th Inter-governmental Commission for Cooperation in Trade, Economy, Science and Technology. The topics discussed suggest that the two countries are considering engaging in sanctioned economic activities. Public statements in November by senior officials from both the DPRK and Russia indicate a continuation of the deepening alignment on foreign policy issues.



Political (cont.)

ROK Continued Hardline Inter-Korean Approach; Possible DPRK-Russia Cooperation in Sanctioned Activities; Resumption of China-Japan-ROK Trilateral Cooperation Without Alignment on DPRK

- On 15 November, the DPRK [hosted](#) the 10th meeting of the DPRK-Russia Inter-governmental Commission for Cooperation in Trade, Economy, Science and Technology in Pyongyang. It is the highest ministerial-level economic cooperation consultative body between the two countries.
- According to a Russian [statement](#), the two sides discussed increased exchange in the fields of trade, education, culture and joint geological exploration of deposits of gold, iron and rare earth metals. Joint ventures with the DPRK and mineral exports from the DPRK are sanctioned under UNSC resolutions [2375](#) and [2270](#), respectively.
- At a reception held for the Russian delegation on 14 November, Kozlov reportedly [stated](#) that Russia is interested in developing “substantial cooperation” with the DPRK in accordance with agreements made at the September bilateral summit and that the two countries are “fighting shoulder to shoulder” at the forefront against “dominationist forces”. He also met with DPRK Premier Kim Tok Hun and DPRK vice foreign minister Im Chon Il. On the sidelines, the Russian Minister of Sports Oleg Matytsin held talks with his DPRK counterpart Kim Il Guk and reportedly [signed](#) a “2024-2026 exchange plan.”
- Earlier in the month, the DPRK Foreign Ministry released a [statement](#) condemning US Secretary of State Blinken’s comments on DPRK-Russia relations. It expressed that the US should “be accustomed to the new reality of DPRK-Russia relations” and stated that should the US and its allies “wreck peace” on the Korean peninsula, they will be met by a “strong and coordinated counteraction of independent sovereign states.”

In an effort to resume trilateral cooperation halted since 2019, the Foreign Ministers of China, Japan and the ROK held a meeting in Busan on 26 November and discussed a variety of fields including security but failed to provide a date for a future leaders' summit. Their commitment to a resolution of the “North Korean nuclear issue” indicates a weakened alignment on the topic as compared to the 2019 summit, which contained language on the “complete denuclearization of the Korean Peninsula” and the “full implementation” of UNSC resolutions. Despite continued disagreements on sensitive topics and China’s criticism of increased Japan-ROK-US trilateral cooperation, bilateral consultations contained indications of future bilateral security dialogues.

- On 26 November, ROK Foreign Minister Park Jin, Chinese Foreign Minister Wang Yi and Japanese Foreign Minister Yoko Kamikawa [held](#) the 10th China-Japan-ROK Foreign Ministers' Meeting in Busan to discuss trilateral cooperation in the fields of people-to-people exchange, science and technology, sustainable development, public health, economic cooperation and trade, and peace and security. It was the first foreign minister meeting to take place since 2019 due to the global pandemic and issues in bilateral relations between the ROK and Japan.



Political (cont.)

ROK Continued Hardline Inter-Korean Approach; Possible DPRK-Russia Cooperation in Sanctioned Activities; Resumption of China-Japan-ROK Trilateral Cooperation Without Alignment on DPRK

- While the three ministers [agreed](#) to continue communication at "all levels to resolve the North Korean nuclear issue", the language used represents a weakened alignment as compared to that from the 2019 [meeting](#) which included the "complete denuclearization" of the Korean Peninsula and "full implementation" of UNSC resolutions. The ROK and Japan [condemned](#) the DPRK's recent satellite launch in a separate bilateral statement. The Chinese Foreign Minister instead [expressed](#) the need for the three nations to act as "stabilizers" and a "pressure reducing valve" to improve the tense situation on the Korean peninsula, and to "resist the formation of regional cooperation into camps."
- The Foreign Ministers also held bilateral meetings on the sidelines, which [included](#) contentious topics such as recent China-ROK technological competition, the release of radioactive wastewater from the Fukushima nuclear power plant and [compensation](#) for wartime sexual slavery victims. Despite differences, China and the ROK [agreed](#) to strengthen strategic and security dialogue, including an invitation for Park to visit Beijing, and Japan and China [agreed](#) to hold a security dialogue between Tokyo and Beijing "as soon as possible."
- During the meeting, the three ministers reiterated the agreement to arrange a trilateral summit between the leaders of China, Japan and ROK at the "earliest convenient time," but did not provide a date.



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