

MONTHLY REPORT

# Nuclear Risk Assessment

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*Korean Peninsula*  
*2023/09*



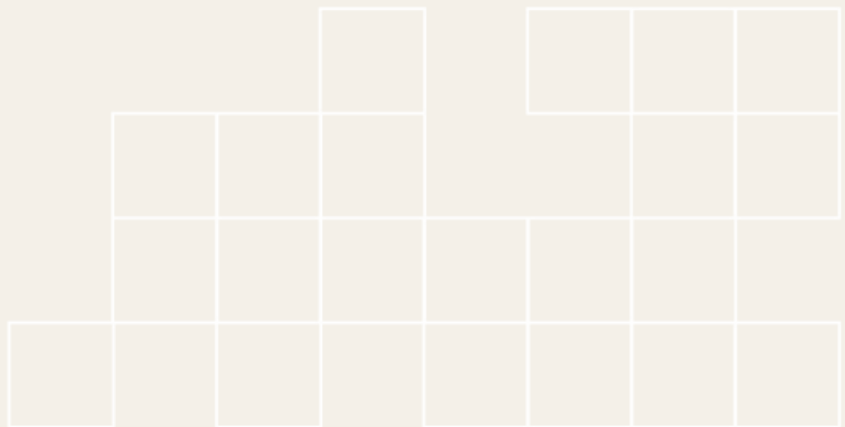
## Open Nuclear Network

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 adopted a constitutional amendment enshrining its nuclear force policy during a meeting of its Supreme People's Assembly. In a major step to nuclearize its navy, the DPRK launched its "tactical nuclear attack submarine." The DPRK's military also launched four cruise missiles shortly after the conclusion of joint ROK-US military drills and another two ballistic missiles while Kim Jong Un was visiting Russia. These developments demonstrate the continued efforts of the DPRK to enhance its nuclear weapon delivery capabilities.



## MILITARY

The ROK held a military parade and continues to enhance its deterrence posture against the DPRK's nuclear threat by strengthening conventional military capabilities and deepening military ties with the United States. Kim Jong Un visited space and military sites in Russia, raising concerns about possible military cooperation between the two countries.



## POLITICAL

A summit between Kim Jong Un and Vladimir Putin signalled a move towards comprehensive expansion of political, economic and defence cooperation between the DPRK and Russia, with the DPRK expressing that bilateral relations between the two nations are "top priority" for the regime. A series of official meetings and recently released trade data indicated progress in the recovery of China-DPRK economic exchange following a COVID-19-induced decline in 2020. The successful transfer of US soldier Travis King from DPRK to US custody without any publicly-reported concessions suggests that some lines of communication appear to be functional despite tense relations.



## Nuclear

### DPRK Enshrines Nuclear Policy into Constitution, Unveils Nuclear-armed Submarine, Launches Six Missiles

The DPRK adopted a constitutional amendment enshrining its nuclear force policy during a meeting of its Supreme People's Assembly. In a major step to nuclearize its navy, the DPRK launched its "tactical nuclear attack submarine." The DPRK's military also launched four cruise missiles shortly after the conclusion of joint ROK-US military drills and another two ballistic missiles while Kim Jong Un was visiting Russia. These developments demonstrate the continued efforts of the DPRK to enhance its nuclear weapon delivery capabilities.

During the 9th Session of the 14th Supreme People's Assembly, [held](#) on 26 and 27 September, the DPRK adopted a constitutional amendment which states that the DPRK seeks to develop nuclear weapons to a "higher level" to ensure its "right to existence and development." Following the adoption of a new nuclear law and affirmation of the DPRK's "irreversible" nuclear status in September 2022, this constitutional amendment further enshrines the DPRK's hardened policy line and nuclear weapon development plans in a more "[permanent](#)" way.

- Article 58 of Chapter IV of the DPRK's constitution previously [stated](#) that "the Democratic People's Republic of Korea is shored up by the all-people, nationwide defence system." This has been [supplemented](#) to specify that the DPRK aims "to ensure the country's right to existence and development, deter war and protect regional and global peace by rapidly developing nuclear weapons to a higher level." This now makes the DPRK the only nuclear-armed State with a specific constitutional clause addressing its nuclear weapons policy.
- While [speaking](#) at the parliamentary meeting, Kim Jong Un cited the "structure of the new Cold War" as a justification for the country's nuclear programme and stated that "the DPRK's nuclear force-building policy has been made permanent as the basic law of the state, which no one is allowed to flout with anything." Kim first publicly used the term "new Cold War" in a [speech](#) given at a plenary meeting in late December 2022. During the parliamentary meeting, Kim also described the "major tasks" of the five-year defence development plan set forth during the [Eight Party Congress](#) as "successfully carried out" and called for "exponentially boosting the production of nuclear weapons and diversifying the nuclear strike means and deploying them in different services."
- While Kim Jong Un appeared to suggest in [September 2022](#) that his country's nuclear policy direction could change based on "the political and military environment on the Korean peninsula", this new constitutional amendment and accompanying speech no longer include any conditionality or room for potential manoeuvrability. This new amendment, in particular, appears to enshrine the DPRK's hardened policy line and nuclear weapon development plans in a more "[permanent](#)" way, signalling that they are unlikely to change.

On 6 September, the DPRK [launched](#) its first "tactical nuclear attack submarine" – the "No. 841 Hero Kim Kun Ok" – at the Pongdae Submarine Factory in South Hamgyong province. This diesel-electric submarine was rebuilt on the basis of an obsolete diesel-electric attack submarine. The launch of the No. 841 submarine is a milestone in the DPRK's pursuit of sea-based nuclear capabilities. ONN has [published](#) an analysis of this submarine and the increasing nuclearization of the Korean People's Army (KPA) Navy (KPAN). Below are the key takeaways from ONN's analysis:



## Nuclear (cont.)

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- The conversion of an old submarine into an underwater nuclear weapon launch platform likely represents a relatively fast and economical way to establish a sea-based nuclear deterrence capability. Though the operational capabilities of the new submarine have been [questioned](#) by the ROK, it is likely that the DPRK would adopt a more tolerant acceptance level. During times of tension, the submarine may choose to [operate](#) within waters relatively well-guarded by other KPA assets to improve its survivability.
- In addition to converting all medium-size submarines into “tactical nuclear attack submarines”, with No. 841 being the standard type, the DPRK leader also ordered the defence industry to increase efforts in building nuclear-powered submarines and various modern warships that are powered by modern naval engines.
- The nuclearization of the KPAN is in line with (1) the DPRK’s long-time effort to increase the number of nuclear weapons and diversify their means of delivery and (2) the development trajectory of a KPA that is increasingly centred around nuclear weapons.
- Arming the KPA Ground Force and the KPAN with nuclear weapons raises the possibility that the DPRK could eventually pursue a nuclear triad. However, there is no evidence the DPRK is currently pursuing this capability.

The DPRK reportedly launched [four nuclear-capable land-attack cruise missiles](#) on 2 September and another [two short-range ballistic missiles](#) on 13 September. The 2 September launch was described as a “counteraction drill” to the ROK-US joint military exercises, while the 13 September launch demonstrated the KPA’s ability to execute a delayed order or the ability to verify an order sent by Kim Jong Un and top military leadership from outside the territory of the DPRK.

- The four land-attack cruise missiles were launched into the West Sea/Yellow Sea shortly after the conclusion of the 11-day Ulchi Freedom Shield exercise on 31 August, which the DPRK [criticized](#) as a rehearsal for an “actual war to invade the north.” The launch was described by the Central Military Commission (CMC) of the Workers’ Party of Korea as “counteraction drills” to “fully demonstrate the action will and capability to deter the enemies’ attempts for a war of aggression.” The CMC also [called](#) on “all the service personnel of the nuclear force to maintain high alertness (...) and make the U.S. and the military gangsters of the ‘ROK’ more clearly understand the situation (...) through the overpowering exercise of the war deterrence.”
- The launch of two short-range ballistic missiles into the East Sea/Sea of Japan marked the [first time](#) the DPRK fired ballistic missiles while Kim Jong Un was outside of the country. The launch was carried out on an order that was given either prior to Kim’s departure to Russia or when Kim was in Russia. Though the order was executed in peacetime, it nonetheless demonstrates the KPA’s ability to execute a delayed order or the ability to verify an order sent by Kim Jong Un and [top military leadership](#) from outside the territory of the DPRK.



## ROK Enhances Conventional Deterrence; Kim, Putin Discuss Military Cooperation in Major Summit

The ROK held a military parade and continues to enhance its deterrence posture against the DPRK's nuclear threat by strengthening conventional military capabilities and deepening military ties with the United States. Kim Jong Un visited space and military sites in Russia, raising concerns about possible military cooperation between the two countries.

The ROK held its first military parade in a decade on 26 September. A wide range of state-of-the-art conventional military equipment was showcased during the parade. Also in September, the ROK revealed a plan to upgrade its lightweight aeroballistic missile, and the United States approved the sales of an additional 25 F-35 Joint Strike Fighters to the ROK. These developments illustrate the continuing efforts of the ROK to deter the DPRK's nuclear threats with both overwhelming domestic conventional capabilities and continued military ties with the US.

- During his 26 September speech to commemorate the founding of the country's armed forces, ROK president Yoon Suk Yeol [reiterated](#) that "if North Korea uses nuclear weapons, its regime will be brought to an end by an overwhelming response from the South Korea-U.S. alliance." A [wide range](#) of state-of-the-art conventional weapons – including aeroballistic missiles, land-attack and anti-ship cruise missiles, air and missile defence systems, and drones – were [displayed](#) during the parade.
- The ROK's Defense Acquisition Program Administration (DAPA) [announced](#) its plan to complete the development of the KTSSM-II (Korean Tactical Surface-to-Surface Missile-II, Figure 1) by 2027. With an [increased range](#) of over 300 km, the KTSSM-II will be able to better respond to threats posed by the DPRK's new type of long-range artillery and missile systems, such as the [600 mm multiple rocket launcher](#) and [Hwasong-11 series aeroballistic missiles](#), which may be launched from deeper within the DPRK's territory. The KTSSM-I, which is [currently](#) under production and being deployed to frontline units, is an aeroballistic missile with a [maximum range](#) of approximately 130 km to 180 km.



Figure 1. The KTSSM-II will become a core weapon of the ROK's [Three-Axis system](#), according to DAPA. Image: [DAPA](#)



## Military (cont.)

### ROK Enhances Conventional Deterrence; Kim, Putin Discuss Military Cooperation in Major Summit

- The US Defense Security Cooperation Agency (DSCA) [announced](#) on 13 September that it [approved](#) the sale of up to 25 additional F-35A fighter jets to the ROK. The additional sales will boost the ROK's F-35 fleet to over 60 planes. The DSCA [stated](#) that the sale will "improve the Republic of Korea's capability to meet current and future threats by providing credible defense capability to deter aggression in the region and ensure interoperability with U.S." The ROK's stealth fighter jet fleet will eventually consist of both the F-35 and the domestically-developed [KF-21](#).
- The developments illustrate the continuing efforts of the ROK to deter DPRK's nuclear threats by further developing domestic conventional capabilities and by strengthening military ties with the United States.

During a visit to Russia, Kim Jong Un toured space launch and military sites, further raising concerns about possible military cooperation between the DPRK and Russia. Military cooperation could benefit both parties, and the public display of willingness to strengthen military ties may suggest more developments are on the horizon.

- Kim Jong Un met with Russian President Vladimir Putin at the Vostochny Spaceport on 13 September. Prior to the summit, Putin [reportedly said](#) they would "discuss all issues" when responding to the question if military cooperation would be included in the summit agenda. Kremlin spokesman Dmitry Peskov [told](#) reporters that, as neighbours, the DPRK and Russia implement cooperation in sensitive areas that "should not become the subject of public disclosure and announcement."
- During his six-day trip to Russia, Kim Jong Un also paid visits to military sites such as the [Yuri Gagarin Aviation Plant](#), the [Knevichi airbase and a naval port of Russia's Pacific fleet](#) in Vladivostok. Kim also toured the Vladivostok Military Expo with local governor Oleg Kozemyako, who, in a move that violates United Nations Security Council [sanctions](#), gifted Kim, among other items, [suicide and reconnaissance drones](#).
- Despite remarks from Putin and the Kremlin, [reportedly](#), no documents were signed after the summit. However, military cooperation could be [mutually beneficial](#) to both parties, and the public display of their willingness to strengthen military ties may suggest that [more developments](#) are on the horizon.





## Political

# Comprehensive Development of DPRK-Russia Military, Political Ties; Progress in DPRK-China Economic Exchange; Travis King Returned to US

A summit between Kim Jong Un and Vladimir Putin signalled a move towards comprehensive expansion of political, economic and defence cooperation between the DPRK and Russia, with the DPRK expressing that bilateral relations between the two nations are “top priority” for the regime. A series of official meetings and recently released trade data indicated progress in the recovery of China-DPRK economic exchange following a COVID-19-induced decline in 2020. The successful transfer of US soldier Travis King from DPRK to US custody without any publicly-reported concessions suggests that some lines of communication appear to be functional despite tense relations.

In his longest foreign visit since taking office, Kim Jong Un travelled to Russia for a summit meeting with Russian President Vladimir Putin to discuss bilateral cooperation in a wide variety of fields, stating that Russian relations are “top priority” for the regime. The emphasis on the military sector, in particular, suggests an intent to comprehensively expand bilateral defence and security cooperation, including possible technology transfer. In contrast to earlier US intelligence [predictions](#) of an arms-for-food deal, the DPRK reportedly refused an offer of food aid and instead focused broadly on economic trade and cooperation. With several high-level visits planned at both the presidential and ministerial levels in the near future, DPRK-Russia relations are expected to continue to develop extensively in the near future.

- On 13 September, Kim Jong Un and Vladimir Putin held a summit meeting at the Russian space base “Vostochny Cosmodrome” alongside top officials from the defence development and military industry. The two leaders inspected the facilities together, held an expanded meeting attended by representatives from both countries and conducted a one-on-one meeting. During the summit, Kim [expressed](#) that relations with Russia are “top priority” for Pyongyang and that he is supportive of “all decisions” made by Putin.
- In addition to technical and military cooperation, the two leaders reportedly discussed exchanges in the fields of [education, medicine, agriculture, logistics and trade](#). Kim Jong Un reportedly [refused](#) an offer of food aid. Following the summit, it was [announced](#) that an agreement to resume the Russian-North Korean Intergovernmental Commission on Trade, Economy and Science and Technology Cooperation, which has been suspended since early 2020, had been made in order to facilitate discussions on cooperation. The first meeting is scheduled to be held in Pyongyang in November.
- Following the summit, Kim Jong Un travelled to various locations in the Far East of Russia, including a [fighter jet plant](#), an [airfield](#) and a port of the [Russian Pacific Fleet](#). Kim discussed “strategic and tactical coordination, cooperation and mutual exchange between the armed forces of the two countries” with Russian Minister of Defense, Sergei Shoigu. Kim also [visited](#) the Far Eastern Federal University, a marine biology complex and a mill. Including travel time, he spent a total of ten days on his trip to Russia, making this Kim’s longest overseas trip since taking office in late 2011.



## Political (cont.)

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- During a reception hosted after the summit, Putin [accepted an invitation](#) from Kim Jong Un to visit the DPRK. No schedule for the visit has been reported as of 30 September. The Russian Minister of Foreign Affairs, Sergey Lavrov, [said](#) he will visit the DPRK in October as a follow-up to the summit where he may discuss the timing and scope of Putin's visit.

A series of meetings in September between DPRK and Chinese officials indicate that development of economic cooperation between the two nations is progressing, including potential future cooperation in the tourism industry. The post-pandemic recovery of economic exchange is reflected in recent trade data, which shows an increase from the previous year in overall trade volume. The recent surge in DPRK exports to China exceeds that of the pre-COVID-19 year of 2019, pointing towards a potential current focus on foreign currency earnings.

- On 1 September, DPRK Foreign Economic Minister Yoon Jeong-ho [met](#) with Chinese Ambassador Wang Yajun in Pyongyang and expressed a willingness to closely cooperate to bring the DPRK-China economic and trade cooperation relationship to a "new level". On 21 September, the Chinese Ambassador also [met](#) DPRK National Tourism Director General Jung Sung Il and expressed hope that traffic between the two nations would normalise soon in order to resume tourism exchange and deepen cooperation.
- On 8 September, China [dispatched](#) a delegation headed by Vice-premier Liu Guozhong to participate in the celebrations of the 75th anniversary of the foundation of the DPRK. Liu is the previous governor of the Jilin province bordering the DPRK and is currently in charge of economic affairs. In addition to a meeting with Kim Jong Un, the delegation was invited for [talks](#) and a [reception](#) with DPRK Premier Kim Tok Hun and senior officials from the Ministry of Foreign Affairs and External Economic Relations.
- According to data from the General Administration of Customs of China, the cumulative trade volume between the DPRK and China in the first half of this year saw an [increase](#) of 211% compared to the same period last year. However, while the overall trade volume for the first half of the year remains below that of the pre-COVID-19 year of 2019, data released in September shows a 66.4% increase in exports during the month of August compared to the same month in 2019.

In late September, the DPRK deported US soldier Travis King, who entered the country by crossing the Military Demarcation Line in mid-July. In a sign of functioning communication lines despite tense relations, the White House reported that it had received mediation support from Sweden and transit facilitation by China and that US agencies had secured the soldier's return to US custody. The reported entry of Swedish government officials into the DPRK to facilitate the release constitutes the third foreign nationality allowed to enter the country since the 2020 border closure (after Chinese and Russian citizens). It indicates that Sweden retains its facilitator role in DPRK-US relations despite the departure of its embassy personnel and showcases the ability of the DPRK and the United States to, albeit indirectly, communicate and coordinate on certain matters despite the current stalemate in relations.



## Political (cont.)

# Comprehensive Development of DPRK-Russia Military, Political Ties; Progress in DPRK-China Economic Exchange; Travis King Returned to US

- On 27 September, DPRK State media [released](#) a report on the conclusion of the investigation into Travis King, stating that a decision had been made to “expel” him. Later that same day, the White House [confirmed](#) that Travis King had departed from the DPRK through the border with China and was in US custody. Travis King was [reportedly](#) transferred from China to an ROK military base before being returned to the US.
- The White House [stated](#) that it had engaged in outreach through the United Nations and the United Nations Command, suggesting that these channels of communication remain in operation despite tense relations.
- Sweden, the protecting power of the US in the DPRK with an embassy in Pyongyang, acted as the “primary interlocutor” that mediated the release. The Swedish government [reportedly](#) “transited into the DPRK” during the operation, which constitutes the first reported case of Swedish nationals in the DPRK since the embassy staff [departed](#) in August 2020. With the exception of Chinese and Russian diplomatic visits, no entry of foreigners into the DPRK has been reported since the closure of the borders in January 2020. The White House stated that the government of China facilitated the transport of Travis King through the China-DPRK border, but that it did not partake in mediation.
- The DPRK [reportedly](#) informed the US via Sweden of its intent to release Travis King in early September. Despite earlier [suggestions](#) that the DPRK may use the incident as a propaganda tool or bargaining chip vis-à-vis the US, the White House stated that no concessions had been made in exchange for the release.



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