

Iran & North Korea: Proliferation Partners

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Iran & North Korea: Proliferation Partners

Iran and North Korea are the foremost destabilizing actors in their regions and rank among the world’s most repressive regimes. The threats posed by Iran and North Korea to the U.S. and its allies are broad and multifaceted. The Iranian-North Korean threat is compounded by the two nations’ cooperation, especially in the realm of nuclear and ballistic missile development.

The threats posed by Iran and North Korea to the U.S. and its allies are broad and multifaceted, encompassing weapons of mass destruction (WMD) proliferation and delivery, cybersecurity, transnational crime, human rights violations, and destabilizing regional activities. The Iranian-North Korean threat is compounded by the two nations’ decades-long record of cooperation, especially in the realm of nuclear and ballistic missile development. Knowledge and technology flow both ways between these partners, enabling each to refine and advance their illicit proliferation activities.

Before the U.S. withdrawal from the Joint Comprehensive Plan of Action (JCPOA) in May 2018, the nuclear deal rescued Iran’s economy from the brink of collapse, providing it with a massive cash infusion, granting it access to more than \$100 billion in previously frozen assets, and opening the Iranian market to foreign trade and investment. The reimposition of nuclear-related sanctions and implementation of a “maximum pressure campaign” against Tehran largely closed off the spigot of foreign business that had begun flowing to Iran. This has led the Iranian regime to double down on intransigence, intensifying its malign regional activities and undertaking phased, escalatory violations of the JCPOA in order to increase its leverage. Ultimately, Iran seeks to force the U.S. to blink first and provide sanctions relief before it recommits to its nuclear obligations. With the international community reticent to reengage with Iran to prevent the imposition of secondary U.S. sanctions, Iran is [reportedly intensifying its cooperation](#) with cash-starved and isolated North Korea.

DPRK-Iranian Ballistic Missile Cooperation



Iran’s Shahab 3 missile, designed after North Korea’s

Iran and North Korea have forged a strategic partnership that dates back to the 1979 founding of the Islamic Republic. Buttressed by a shared antipathy to the U.S. and a mutual need to weather international isolation, the two nations each brought something to the table that the other desperately needed: from Iran came oil and from North Korea came military expertise and hardware.

Iran’s nuclear and ballistic missile programs have long depended on external assistance from other states. North Korea, a country notorious for its extensive illicit export of ballistic missiles and related technology, has proven a particularly valuable partner. According to the [2018 Worldwide Threat Assessment of the U.S. Intelligence Community](#), “North Korea’s history of exporting ballistic missile technology to several countries, including Iran and Syria, and its assistance during Syria’s construction of a nuclear reactor— destroyed in 2007—illustrate its willingness to proliferate dangerous

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technologies.” Taking advantage of North Korea’s illicit export regime, according to the [Congressional Research Service](#), “Iran has developed a close working relationship with North Korea on many ballistic missile programs,” providing Iran “a qualitative increase in [ballistic missile] capabilities” and advancing Iran toward its “goal of self-sufficiency in the production of medium-range ballistic missiles.”

Iran’s role as North Korea’s principal Middle Eastern ally was solidified following the breakdown of the DPRK’s relationship with Iraq in 1982. This development opened the door for Iran to begin acquiring ballistic missiles from North Korea in the mid-1980s during the Iran-Iraq War, [when it began purchasing 300 km-range Scud-Bs \(Shahab-1\) to fulfill its wartime needs](#). U.S. sources estimated that by 1987, [North Korea and China were supplying roughly 70 percent of Iranian arms imports](#).

Iranian-North Korean strategic ties were further strengthened by the breakup of the Soviet Union, which had been the primary provider of subsidized oil to the DPRK. Iran expanded its oil exports to North Korea in exchange for technological assistance for its missile and nuclear programs. Encouraged by the success of Scud-B attacks during the Iran-Iraq War, Iran collaborated with North Korea throughout the 1990s in the development and procurement of increasingly longer-range ballistic missiles.

[In 1991, Pyongyang introduced the 500 km-range Scud-C \(Shahab-2\)](#), which it sold to several Middle Eastern countries, including Iran and Syria. North Korea’s sale of Scud-Cs to Iran was arranged during a [November 1990 visit to Tehran by North Korea’s defense minister](#), where he met with senior Iranian officials including the head of the Islamic Revolutionary Guard Corps (IRGC) Mohsen Rezaei, and the Ayatollah’s son, Ahmed Khomeini. In addition to agreeing on the purchase of Scud-Cs, the two sides agreed to convert a missile maintenance facility in eastern Iran into a production facility. In May 1991, Iran successfully tested a Scud-C in Qom, signifying the increasing military cooperation between the two nations.

In 1993, the U.S. intelligence community [warned](#) that Iran, “one of North Korea’s best customers for ballistic missiles and related technology, is likely to be one of the first recipients of the 1,000 km Nodong. By the end of this decade [1990s], Iran could be able to assemble short-range (Scud B and Scud C) and medium-range No Dong ballistic missiles.”

In May 1993, North Korea achieved a major breakthrough when it completed development and carried out the first successful test-launches of the Nodong-1, which it was negotiating to export to Iran in exchange for increased oil shipments. A 21-member Iranian delegation comprised of IRGC officials and Iranian defense industry representatives were on hand to observe the tests and train in the missile’s use. At Iran’s urging, North Korea expanded the Nodong’s range to 1,300 km, bringing all of Israel within Iran’s striking distance once the missile was fully operational. According to [Israeli intelligence estimates](#), North Korea began transferring Nodong (Shahab-3) missiles to Iran by 1995. The missile was adapted in the mid-2000s by a top Iranian nuclear scientist, Kamran Daneshjoo, [to carry a nuclear warhead](#). Today, the medium-range liquid-propelled Shahab-3 missile is the “[mainstay](#)” of Iran’s medium-range ballistic missile (MRBM) arsenal.

North Korea’s ballistic missile assistance to Iran was mutually beneficial, as Iran would frequently share sensitive data from their test-launches with the North Koreans, enabling the North Koreans to adjust and advance their program further. [North Korea, in tandem with China, sent a joint team of technicians](#)

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North Korea displaying what is believed to be its advanced BM-25 advanced missile at a military parade

[to Iran in 1997](#) to help Iran operationalize its domestic ballistic missile production capabilities and improve the range of its missiles. Iranian officials were and continue to be a frequent presence at North Korean ballistic missile test-launches.

According to the [Congressional Research Service \(CRS\)](#), “In the late 2000s, the [Intelligence Community] IC continued to assess that North Korean cooperation with Iran’s ballistic missile programs was ongoing and significant.” The CRS

concluded that, “Iran has likely exceeded North Korea’s ability to develop, test, and build ballistic missiles. But Tehran may, to some extent, still rely on Pyongyang for certain materials for producing Iranian ballistic missiles, Iran’s claims to the contrary notwithstanding.”

In the late 2000s, Iran’s development of solid-fueled missiles underscored the progress of its ballistic missile program. Iran pursued both solid- and liquid-fueled missiles, unlike the North Koreans, who focused on liquid-fueled. By the mid-2010s, it had amassed a family of short-range solid-fueled ballistic missiles, including the Fateh-110 and the Fateh-313; and a medium-range two-stage solid-fueled missile known as [the Sajjil](#). Iran’s full-fledged pursuit of solid-propellant technology reaches back at least to the mid-2000s when [the Islamic Revolutionary Guard Corp’s initiated its space launch vehicle program](#). In 2009, Uzi Rubin, former head of Israel’s missile defense program, told Reuters that Iran’s solid-fueled ballistic missiles demonstrated a “[quantum leap in capabilities](#)” over those shown by North Korea. Later, in 2017, Iran improved the Fateh-313 to develop [the Zolfaghar](#)—also a solid-fueled SRBM—made available to Iranian proxies in Iraq.

Solid-fuel missiles possess operational advantages over liquid-fueled missiles, increasing the value of Iranian military secrets for North Korea. The former [are easier to store and transport, harder to detect, and do not require a refueling process that is readily observable by spy satellites](#).

By contrast with Iran, prior to 2016, North Korea could not manufacture a large solid-propellant motor. The missile, which used its solid-fuel motor, the KN-02, [was capable of traveling only 100 km](#). However, in April 2016, North Korea suddenly tested the KN-11, a submarine-launched ballistic missile with two stages, each consisting of a solid-fueled motor much larger than the one previously tested. Its first test failed, however, in August, [it was tested successfully](#), traveling a distance of 500 km. The rapid progress of North Korea’s solid-fueled missiles over the course of a few months strongly suggested Iranian know-how and expertise, given that Iran was leagues ahead in terms of these types of motors.

Further corroborating the persistent missile development cooperation between the two countries, North Korea displayed a “[Nodong-variant... which possesses visible similarities to Iran’s Ghadr-1](#),” during an October 2010 parade. That same year, WikiLeaks released a secret American intelligence cable from February 2010 that concluded Iran had [obtained from North Korea a cache of 19 advanced BM-25](#)

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[missiles](#), which possess a range of up to 2,000 miles. According to reports, the BM-25 “[could carry a nuclear warhead](#),” giving Iran “for the first time...the capacity to strike at capitals in Western Europe or easily reach Moscow.”

Later, in May 2011, Reuters obtained a confidential UN report that [stated](#), “Prohibited ballistic missile-related items are suspected to have been transferred between [North Korea] and the Islamic Republic of Iran on regular scheduled flights of Air Koryo and Iran Air.” Such trade clearly violated U.N. sanctions that prohibited Iran at the time from “[any activity related to ballistic missiles capable of delivering nuclear weapons](#),” and North Korea from exporting nuclear and missile technology.

China may have blocked the publication of the UN report to avoid revealing that it facilitated the transfer of illicit technologies from North Korea to Iran. Several diplomats speaking on condition of anonymity [pointed out](#) that the unspecified “neighboring third country” mentioned in the report as the transit hub for transshipment of these technologies was China. A former U.S. intelligence official, Bruce Bechtol, claimed that China [allowed its airspace to be traversed and its ports accessed](#), making it possible for North Korea and Iran to circumvent international sanctions on the transshipment of nuclear and missile technology.

In December 2012, [North Korea completed its first successful launch of a long-range ballistic missile](#), confirming American fears that the so-called hermit kingdom had finally acquired the technology to pose a threat to American shores. Critically, according to Asian policy experts, “[North Korea’s sudden success on December 12th was not the result of good fortune but rather was the fruition of its increasing instructional cooperation with Iran](#).”

In 2013, the Washington Free Beacon reported that [Iranian missile technicians from the Shahid Hemmat Industrial Group traveled to Pyongyang to work on an 80-ton rocket booster](#). According to the report, “The booster is believed by U.S. intelligence agencies to be intended for a new long-range missile or space launch vehicle that could be used to carry nuclear warheads, and could be exported to Iran in the future.” Were Iran to acquire this technology, its ballistic missile program would be transformed from a regional into a global threat.

North Korea demonstrated that this missile engine poses a grave threat to international security. North Korean leader Kim Jung Un [tested the 80-ton rocket booster](#), known as the RD-250, in launching the Hwasong 12—an intermediate range ballistic missile that uses the RD-250 engine—in 2017. This missile is the first stage of the Hwasong 14 and 15, which were also [reportedly](#) test-launched in 2017, representing significant improvements in missile range. [Some experts believe that](#) the two-stage [Hwasong 14](#) and [Hwasong 15](#) could have ranges of up to 10,000 km depending on the missile’s payload.

Giving credence to the Washington Free Beacon report, in January 2016, the Obama administration [sanctioned](#) an official of the Shahid Hemmat Industrial Group (SHIG), accusing the organization of having “worked directly with North Korean officials in Iran from UN- and U.S.-designated Korea Mining Development Trading Corporation (KOMID).” The U.S. Treasury designated KOMID in 2015, claiming in its press release that the North Korean state-owned entity is “the primary arms dealer and main exporter of goods and equipment related to ballistic missiles and conventional weapons.” The press release [mentioned that KOMID has active offices around the world](#), and noted that sanctions were

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imposed on two KOMID agents operating in Iran as representatives of the North Korean government: Kim Yong Chol and Jang Yong Son.

According to the Obama administration, SHIG coordinates KOMID shipments to Iran which have included components suitable for use in ground testing of liquid propellant ballistic missiles and space launch vehicles. The Obama administration noted, “Within the past several years, Iranian missile technicians from SHIG traveled to North Korea to work on an 80-ton rocket booster being developed by the North Korean government.” Both of these allegations were confirmed in a U.N. report published in early 2021 (discussed below).

A month after the Obama administration imposed sanctions in 2016, then Director of National Intelligence James Clapper [testified before the Senate Armed Services Committee](#) that Iran’s progress on space launch vehicles “provides Tehran with the means and motivation to develop longer-range missiles, including ICBMs.”

Iran’s space launch vehicles closely resemble long-range missiles, and thus provide valuable information about missile technology. The Simorgh and Safir rockets, for example, were developed by “[stretching and stacking its longest-range medium-range ballistic missiles](#).” The [Safir rocket](#), which by 2017 had placed four satellites into low earth orbit, is a variant of the Nodong/Shahab-3 missile, which, as noted above, was imported to Iran from North Korea. Moreover, the upper stages of Iran’s space launch vehicles are “similar” to the second stage of North Korea’s Hwasong-14 missile, [according to Jeffrey Lewis](#), a nuclear nonproliferation expert. The Iranians and North Koreans [appeared to synchronize test launches](#) of the Simorgh and the Hwasong 14 in 2017.

Since the JCPOA

During negotiations of the JCPOA, Iran was actively importing missile components from North Korea, including large engines that could be used for future long-range missiles or space launch vehicles. The Obama administration [found out about these transfers](#), which constituted a blatant violation of U.N. sanctions banning the export of missile technology from Pyongyang and their import from Iran, and overlooked them so as to prevent the negotiations from stalling or failing. This continuation of DPRK-Iran missile cooperation even as negotiations were underway not only pointed to an immediate failure to enforce U.N. sanctions and punish transgressions, but also portended an agreement in which such transgressions would be overlooked, laxly enforced, or even permitted.

At the time, members of the U.S. Congress were, if not made aware of the ongoing missile cooperation, then alert to the possibility of a flawed deal—one which did not address Iran’s ballistic missile program. Therefore, the Senate Foreign Relations Committee voted to approve bipartisan legislation requiring the administration to submit any deal to Congress for approval, prior to implementation. But the White House threatened to veto the legislation, and ultimately signed the nuclear deal without the Senate’s approval.

United Against Nuclear Iran (UANI) advisor and former National Security Advisor John Bolton characterized the administration’s failure to act on the intelligence of DPRK-Iran cooperation as common practice in the U.S. bureaucracy, going back at least to the George W. Bush administration (in

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which he served as the undersecretary of state for arms control). The U.S. bureaucracy, he said, would often avoid calling out violations of U.N. Security Council resolutions, instead using euphemisms like “non-compliance” to describe violations.

This description of the U.S. foreign policy bureaucracy helps explain the Obama administration’s failure to negotiate a comprehensive deal. The administration evidently looked the other way after it had found out about the missile technology transfers, and then proceeded to negotiate an agreement that failed to address concerns about Iran’s ballistic missile program. The exports may have contributed to why “the administration [decided] to back away from securing any ballistic missile limits in the negotiations,” [said](#) Henry Sokolski, then head of the Non-Proliferation Policy Education Center. If the administration was unwilling to call out violations during the negotiations, it would likely have been unwilling to call them out after implementation. In other words, the suppression of intelligence “foreshadow[ed] how hard it would be to get honest reports made public once Iran starts violating any deal,” [added](#) Bolton.



October 2015 Iranian test launch of the precision-guided medium-range ballistic missile, Emad. (Fars News)

[U.N. Security Council Resolution 2231](#), the resolution endorsing the JCPOA, relaxed restrictions on Iran’s ballistic-missile program by replacing strong language that said Iran “shall not” engage in ballistic-missile activities with weaker language that merely “calls upon” Iran not to test any ballistic missiles “designed to be nuclear capable.”

Iran has taken full advantage of the watered-down U.N. Security Council Resolution 2231, test-launching at least 30 ballistic missiles since the JCPOA was reached in July 2015. Iran’s missile tests demonstrate how it has benefitted from its cooperation with North Korea and signal Iran’s clear intention to upgrade the range, accuracy and lethality of its ballistic missile arsenal.

Similarly, [North Korea’s ballistic missile tests undertaken in 2017 showed signs of incorporating Iranian technological improvements](#), highlighting the mutually beneficial nature of Iranian-North Korean ballistic missile cooperation.

Iran likely assisted North Korea in the construction of a missile silo in the mountainous region of Pyongan province, North Korea. Strategic Sentinel, a geospatial analysis and intelligence research firm, analyzed satellite images of the North Korean missile silo in 2016, and [determined that it closely resembled a missile base in Tabriz, Iran](#). Both facilities have the same 7.4-meter-wide sliding cover, indicating that the same or similar missiles can be stored there. The intelligence firm noted, furthermore, that the underground chambers appeared large enough to store missiles capable of delivering a nuclear warhead.

In October 2015, the Iranians demonstrated their ability to improve the range and accuracy of North Korean missiles, punctuating the new reality that the DPRK-Iran military cooperation is a two-way street. Iran [successfully test-launched the Emad](#), its first precision-guided medium-range ballistic missile. The Emad is a variant of the Nodong/Shahab-3 but [with an enhanced range of 2,000 km](#). Furthermore, it is

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accurate within 500 meters of its designated target, given that [it was equipped with a reentry vehicle that uses satellite navigation](#). Iran's successful test-launch of the Emad represents a leap forward in terms of Iran's strategic threat to the Middle East and Central Asia, as Iran now has a greater ability to target military and economic assets and population centers with near-precision accuracy.



Ghadr-1 ballistic missile on display during a 2009 Iranian military parade (Atta Kenare/AFP/Getty Images).

In November 2015, Iran reportedly tested the Ghadr-1. This missile is capable of striking targets at a range of 1,900 km, and appears to be intended to deliver a nuclear warhead. An Iranian defector [turned over schematics of the missile in 2004](#), which provided evidence it was the product of efforts to redesign the reentry vehicle of the Nodong/Shahab-3 for the purposes of accommodating a nuclear warhead. Then in 2018, Israeli Prime Minister Benjamin Netanyahu [revealed captured Iranian files](#) that depicted a nuclear implosion device mounted inside the Shahab 3, further suggesting that it was intended for use with nuclear weapons.

Iran conducted test-launches of the Shahab-3 in March and December of 2017, and [announced plans to further improve the accuracy of the Emad-1](#). Perhaps most alarmingly, Iran carried out test-launches of a ballistic missile known as the Khorramshahr in July 2016 and January 2017. The Khorramshahr is the name given domestically to the BM-25, "[which is the export name that North Korea gave the variant of the Musudan that it sold to Iran](#)," according to nonproliferation expert Jeffrey Lewis. As noted above, U.S. intelligence officials believed Iran had imported the Musudan back in 2010, even though North Korea had not tested it by that time.

The Musudan (Hwasong 10), which North Korea [first tested in April 2016](#), three months prior to the Iranian test-launch, has a range of 4,000 km—the most advanced missile North Korea had tested up until then. On the other hand, the modified version sent to Iran—the Khorramshahr/BM-25—has a range of 2500 km, bringing Europe into Iran's ballistic missile range. Iran's July 2016 test-launch failed upon takeoff, and the June 2017 launch [propelled the missile 1,000 km into the air](#). Nevertheless, these test-launches indicated that Iran was working toward expanding the range of its missiles, and may at that time have already possessed the "[building blocks](#)" for an intercontinental ballistic missile. It is not clear whether the Iranians continued to invest in the Khorramshahr, or began pursuing a missile more akin to the North Korean Hwasong 12/14/15.

In May 2017, [Iran conducted a failed cruise missile test launch from a Ghadir-class "midget" submarine](#) in the strategically vital Strait of Hormuz. The Iranian submarine's design closely mirrored that of North Korea's Yono-class, prompting speculation that the Tehran-Pyongyang military collaboration remained vibrant. North Korea provided Iran with at least one Yono-class submarine in 2004, but Iran began producing its own version at about the same time. By 2019, Iran [had 14 of these submarines](#). The Yono/Ghadir-class submarines are virtually undetectable and [were used by North Korea to sink a](#)

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[South Korean ship in 2010](#). Given that they can also be armed with Iranian Valfajar heavy-weight torpedoes, they pose as a direct threat to U.S. ships in the Persian Gulf.

Iran continued missile testing in 2018, launching a Fateh-110 short-range ballistic missile in [August 2018](#). According to the Center for Strategic & International Studies, [“Syria is known to have been developing a similar short-range solid-propellant missile and to have exported a similar design to North Korea.”](#) According to Secretary of State Mike Pompeo, Iran also tested a medium-range missile, [“capable of carrying multiple warheads,”](#) in December 2018. In February 2019, Iran claimed to have successfully launched an anti-ship cruise missile (ASCM), the Jask-2, from a Ghadir submarine—which, as noted above, is similar in design to North Korea’s Yono-class submarine. The Jask-2 cruise missile further strengthened the Iranian navy’s capability to confront U.S. ships in the Persian Gulf.

A few months before Iran tested the Fateh-110 missile, North Korea [unveiled](#) its most capable solid-fueled tactical ballistic missile yet, the KN-23. The KN-23 runs on a solid-fuel composite, like the Fateh-110, allowing it to be [fired near instantaneously from mobile transporter erector launchers](#). Moreover, the KN-23 is controlled at every stage of flight to maximize precision. Given Iran’s advanced stage of solid-fuel missile development compared to North Korea, it could also possess such a capable tactical missile. If it does, Iran would be able to support its ground troops, in lieu of an effective air force, in distant places such as Syria and Iraq.

More recently, North Korea-designed missiles were used in attacks against U.S. forces in the Middle East. On January 8, 2020, in retaliation for the U.S. slaying of top Quds Force commander Qassem Soleimani, Iran launched a barrage of ballistic missiles at the Ain al-Asad airbase in Iraq, causing traumatic brain injuries to [109 U.S. troops](#). Following the attack, then-Secretary of Defense Mark Esper [said](#) that 11 Qiam-1 missiles had struck the base. The [Qiam-1](#)—a liquid-fueled short-range ballistic missile developed and deployed by Iran—is a variant of the [Shahab 2](#), which was imported from North Korea back in 1991.

In late 2020, U.S. officials [told Reuters that North Korea had resumed long range missile cooperation with nuclear-armed North Korea](#) without specifying the project. Following these revelations, the U.S. Treasury Department [re-designated the former director of SHIG](#), Seid Mir Ahmad Nooshin, for being involved in “negotiations with the North Koreans on long-range missile development projects.” Radio Farda, the Iranian branch of the U.S.-funded Radio Europe news network, [suggested](#) that the project the U.S. officials were referring to was the 80-ton thrust RD-250 rocket engine project, which might have begun as far back as 2013.

As noted, technology and knowledge flow both ways between Iran and the DPRK. Many recent North Korean ballistic missile tests have featured precision technology developed by Iran. According to [Israeli defense analyst Tal Inbar](#), “Iran purchased North Korea’s technical know-how on ballistic missile production, upgraded the DPRK missiles’ forward section, and distributed these advancements back to North Korea. The similarities between North Korean missiles launched during recent tests and Iranian technology suggest that Iran is a possible contributor to North Korea’s nuclear buildup, rather than a mere transactional partner.” Contrary to the belief that Iran merely offers cash and oil in exchange for North Korean military secrets, Iran could also assist North Korea in [the development of unmanned aerial vehicles and sea- and land-based cruise missiles](#), in addition to ballistic missiles and nuclear technology.

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North Korea, on the other hand, could transfer the Hwasong-12 ballistic missile to Iran. Sources close to the Iranian government revealed that Beijing [was considering facilitating the transfer of Iranian oil](#) to North Korea in exchange for the missile, as part of its [25-year military plan with Iran](#). Iran certainly covets this missile, which would expand the current range of its arsenal to 4,500 km; and China would benefit by growing the Iranian threat to the U.S., and easing its own burden of providing oil to the DPRK.

According to a [confidential U.N report](#) by a panel of experts monitoring sanctions on North Korea revealed in February 2021, Iran and North Korea have resumed cooperation in the field of long-range ballistic missile development. It was unclear whether such cooperation had ever stopped. North Korea has allegedly transferred Iran critical ballistic missile parts, with the most recent observed shipment taking place in 2020. Iran's ambassador to the UN claimed that the investigation relied upon "[false information and fabricated data](#)."

The [U.N. report](#) sheds light on the DPRK and Iranian individuals and entities involved in the missile cooperation, as well as technical and logistical details of their projects. First, the panel of experts confirmed the above-mentioned findings of the U.S. Treasury Department that the UN and U.S.-designated Korea Mining Development Trading Corporation (KOMID) and the Iranian Shahid Hemmat Industrial Group (SHIG) take the lead on shared missile development projects. They coordinate the exchange of missile specialists, parts, technology, and equipment. For example, KOMID and SHIG routinely operated Islamic Republic of Iran Shipping Lines (IRISL) vessels to ship "[valves, electronics, and measuring equipment suitable for use in ground testing of liquid propellant ballistic missiles and space launch vehicles](#)." Iran responded to these accusations in saying that an investigation could not easily be carried out given "widespread national restrictions imposed to contain the COVID-19 pandemic."

In addition to these items, SHIG's Shahid Haj Ali Movahed Research Center, which the Obama administration [sanctioned](#) in March 2016 for its role in missile cooperation between Iran and North Korea, received "support and assistance" from North Korea missile specialists for a space launch vehicle (SLV). 13 KOMID specialists, thought to be experts on liquid-propelled ballistic missile systems, were allegedly sent to work in Iran, and are identified in the report. 5 Iranian officials involved in the project are also identified. With the exception of two of these individuals, their roles in the project are not described. One of them, Seid Nooshin, is identified as a key negotiator with the DPRK on long-range missile projects.

The U.S. intelligence community presumes that Iran's active investment in space launch capabilities is related to efforts to acquire intercontinental ballistic missile capabilities (ICBM), as both SLVs and ICBMs use similar technologies. That could explain why ballistic missile experts and negotiators from KOMID were sent to work on SLVs in Iran. In turn, Iranian missile technicians from SHIG traveled to North Korea to work on the 80-ton rocket booster that the North Korean government was developing, potentially for an ICBM. These specialists, who have worked in North Korea over the past several years, are not identified in the report.

Furthermore, the report unearths how North Korea and Iran evade sanctions and transfer funds that are likely intended for their respective nuclear and ballistic missile programs. The report mentions 3 Iranian individuals suspected of smuggling gold and cash on behalf of the DPRK, but does not identify them.

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They are thought to reside in the UAE. The DPRK nationals involved in the smuggling are believed to use Emirates Airlines to carry out the operations. The airline has not been forthcoming in their response to the investigation, which has been going on at least since 2019 when the airline first received requests for information, so there are still many unknowns with regard to the logistics. What is known, according to the report, is that two DPRK nationals, Pak Sin Hyok and Ri Kuk Myong, operating out of the North Korean embassy in Tehran, participate in and coordinate the smuggling, which could be in violation of multiple sanctions measures prohibiting the transfer of financial assets, including cash, to and from the DPRK.

In January 2022, North Korea launched what appeared to be a hypersonic missile. If that is true, as [recent expert analysis suggests](#), it would mean that North Korea has not only drastically increased the [quantity of missile tests compared with 2021](#), but also the quality. This test undoubtedly raised [long-standing concerns](#) that Pyongyang could transfer one of these missiles to Iran.

In October 2023, Rafael Grossi, the chief of the International Atomic Energy Agency (IAEA), [lamented](#) the international community's past failures in North Korea and stressed the imperative of not repeating them in Iran's nuclear program. Addressing an annual U.S. State Department arms control conference, Grossi [emphasized](#), "The world must not fail in Iran as it did in North Korea." He expressed grave concerns over Iran's nuclear activities, noting that despite regular access to declared facilities, the dismantling of monitoring equipment and restrictions on snap inspections had compromised the IAEA's oversight. Grossi highlighted Iran's enrichment advancements, disclosing that the nation had enriched uranium to 60% purity, [approaching levels suitable for nuclear weapons](#). He urged concerted global efforts to prevent Iran from developing atomic weapons, underscoring [the critical need](#) for robust monitoring and international cooperation to avoid the mistakes made with North Korea.

In early February 2023, Major General Mohammad Bagheri, Chairman of the Chiefs of Staff of the Iranian Armed Forces, [called for expanding ties with North Korea](#) to address threats to global security. In his message congratulating General Pak Su-il on his appointment as the new head of the General Staff Department (GSD) of the North Korean Army, Bagheri [expressed his hope for the success of both nations](#) in achieving their objectives.

In late April 2024, according to Associated Press reports, [a significant development emerged](#) as North Korea announced a high-level economic delegation's journey to Iran, marking the first known talks between the two nations since the onset of the COVID-19 pandemic. The North Korean state media [disclosed](#) that Pyongyang's delegation, headed by Yun Jung Ho, the Minister of External Economic Relations, departed on Tuesday for Iran. The exact nature and agenda of the discussions [were initially shrouded in secrecy](#), with the Korean Central News Agency offering scant details beyond the delegation's departure.

During their visit, the delegation held discussions with Iranian government officials and the [private sector, aiming to explore opportunities for bilateral trade](#). Despite long-standing suspicions of collaboration between North Korea and Iran on ballistic missile programs, Iran's foreign ministry spokesman, Nasser Kanani, categorically [dismissed](#) these allegations. He attributed them to "biased speculations" and "untrue and baseless news" spread by certain media outlets. This denial came as [reports emerged](#) that Iran had supplied numerous ballistic missiles to Russia for its conflict with Ukraine.

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Simultaneously, North Korea was also suspected of providing Russia with rockets and artillery, claims that both nations have consistently refuted.

U.S. Secretary of Defense Lloyd J. Austin III [highlighted](#) to lawmakers on the Senate Appropriations Defense Subcommittee that Iran and North Korea had significantly bolstered Russia's military efforts against Ukraine. Austin [emphasized](#) that North Korea provided substantial munitions and missiles to Russia, with reports [indicating](#) over 10,000 containers of munitions delivered since September 2023. Austin stated, "We saw Russia engage North Korea, who provided quite a bit of munitions and missiles." Additionally, Austin pointed out the role of Iranian drones in aiding Russia, noting [that these contributions](#) helped Russia recover from setbacks in its war efforts. The Secretary [underscored](#) the collective support from Iran, North Korea, and China as pivotal in sustaining the conflict's scale despite challenges in effectiveness noted for some North Korean-made missiles.

In May 2024, North Korean leader Kim Jong Un [expressed condolences](#) to Iran following President Ebrahim Raisi's death in a helicopter crash. According to state media KCNA, Kim described Raisi's passing as a "great loss" for Iran and extended his wishes for the swift recovery of the bereaved families. Kim [lauded](#) Raisi as "an outstanding statesman and a close friend," [noting his significant contributions](#) to Iran's sovereignty and development and his role in advancing the gains of the Islamic revolution.

Proliferation of North Korea-Designed Ballistic Missiles to Iranian Proxies

The Trump administration [designated North Korea](#) as a state sponsor of terrorism in 2017, [citing the assassination of Kim Jung Un's half-brother](#) by North Korean agents at Kuala Lumpur International Airport. The U.S. State Department's [2020 Country Report on Terrorism](#) reaffirmed the DPRK's role in international terrorism. In December 2021, the State Department submitted an annual report to Congress in which it [revealed that the U.S. would keep the country on the list](#), as its "behavior, in a number of areas... remains problematic and concerning," said John Godfrey, acting coordinator for counterterrorism. Yet, the report did not appear to mention North Korea's links to Iranian proxies.

North Korea has provided Iran with missile technology that in turn got proliferated to its proxies, particularly Hezbollah. Israeli officials [estimated](#) that the long-range missiles that Iran shipped to Hezbollah after the 2006 war between Israel and Hezbollah had North Korean components. In 2008, North Korea [attempted to provide Iran with components for the Katyusha rockets](#), which [have been used in attacks by Iranian proxies in Iraq](#) and are [the mainstay of Lebanese Hezbollah's missile arsenal](#). Military analysts [note](#) that North Korea had a hand in developing the Katyusha rocket.

Iranian proxies in Iraq are [known to possess](#) Iranian-made ballistic missiles, including the [Fateh-110](#) and the [Zolfaghar](#). On the other hand, Hezbollah [possesses the Scud C missile](#), which originated in North Korea. While the weapons transfers may have gone through Iran, rather than coming directly from North Korea, this missile—the largest in Hezbollah's arsenal—points to one of the consequences of North Korean missile proliferation to Iran: the growth of terrorism in the Middle East.

North Korea has a history of more directly supporting Iranian proxies with weapons. In addition to [training Hezbollah forces](#) in the late eighties into the early 2000s, as well as helping them [construct underground tunnels and bunkers](#) as recently as 2021, North Korea provided arms or sought to provide

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arms to Hezbollah on multiple documented occasions. In 2009, Thai authorities [grounded an IL-76 cargo plane flying from North Korea](#), and subsequently discovered 240 mm rockets among a cache of weapons thought to be intended for Hezbollah. In 2014, a U.S. district court [ruled that North Korea and Iran were liable](#) for damages in Israel caused by Hezbollah in the 2006 war, because they provided “material support and assistance” which enabled the latter’s rocket attacks.

Furthermore, North Korea is partly responsible for fueling the devastating war between the Houthis in Yemen and the Saudi-led coalition. In 2015, South Korean intelligence reported that the Houthis had [launched Scud C missiles](#), which originated in North Korea, into Saudi Arabia. Then in 2018, a UN report disclosed that [North Korea had been trying to sell weapons to the Houthis](#), including conventional arms and ballistic missiles. The UN experts investigated both the North Korean Ministry of Military Equipment and the Korea Mining Development Trading Corporation for involvement in the weapons transfer. And again in 2019, UN experts [alleged](#) that the DPRK was supplying the Houthis with weapons. The Houthis [are thought to possess](#) not only the Scud C, but also the Burkan-1, which is a variant of the Iranian Shahab-1 (originally developed in North Korea); and the Burkan-2H, a variant of the Iranian Qiam missile, itself a modification of the Scud C.

North Korea played a role in the October 7, 2023 massacre instigated by the Iranian-backed Sunni Islamic terrorist group Hamas against the Jewish state of Israel. The Jerusalem Post [reported in January 2024 that during the war in Gaza](#), the IDF recovered large quantities of weapons produced in North Korea. The South Korean National Intelligence Service confirmed these findings, identifying North Korean F-7 rocket-propelled grenades and Bang-122 artillery shells used by Hamas. Additionally, a Hamas-aligned terrorist group in Gaza [was founded to possess North Korean-made 122-mm multiple rocket launchers](#). The Stimson Research Institute study further revealed that North Korea’s military technology has reached Hamas and other terrorist groups through Iran, facilitated by intermediaries in Lebanon, Sudan, and Egypt.

DPRK-Iranian Nuclear Cooperation

Mounting evidence indicates that Iran’s collaboration with North Korea extends beyond ballistic missile cooperation into the nuclear realm. As North Korea’s nuclear program became more sophisticated in the 2000s, its nuclear assistance to Iran became more overt. Since 2010, Iran-DPRK nuclear cooperation has markedly intensified.

By the early 2000s, Israeli intelligence sources reported that the DPRK and Iran had set up [a missile-centrifuge exchange deal](#). Under this arrangement, the DPRK “provided Iran with the engines for the Nodong missiles (the precursors of the Iranian Shahab-3 missiles) and worked out Shahab-3 manufacturing problems in Iran” in exchange for uranium enrichment assistance.

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Iran's increased cooperation with North Korea is believed to have contributed to the DPRK's first successful long-range ballistic missile test in December 2012.

In June 2004, reports emerged that Iran's Islamic Revolutionary Guard Corps had [sought to cover up a spill of weapons-grade enriched uranium](#) that occurred upon its delivery from North Korea at Imam Khomeini International Airport in 2002. A North Korean cargo jet was reportedly being unloaded under military supervision, when one of the crates slipped and cracked open on the tarmac. The airport was subsequently closed down to allow for Iranian scientists to decontaminate the area; they worked under the cover of night to avoid public scrutiny.

Despite the heightened attention Iran's nuclear activities have received since the early 2000s, and the international effort to impede the regime's

nuclear development, nuclear cooperation between Iran and the DPRK continues today. This is extremely problematic, according to experts, because ["Nuclear cooperation between North Korea and Iran, including the export and import of sensitive nuclear and missile technology, could greatly benefit both countries – reactor, plutonium, and weapons technologies from North Korea to Iran; centrifuge technologies and missile technologies in both directions."](#)

North Korea is believed to have aided Iran's weaponization efforts. According to Rep. Ted Poe (R-TX), [intelligence provided to the International Atomic Energy Agency](#) indicates "that North Korea transferred 'crucial technology' to Iran including mathematical formulas and codes for nuclear warhead design." In August 2011 for example, the nonproliferation Institute for Science and International Security (ISIS) highlighted a report by German newspaper *Süddeutsche Zeitung*, which stated that North Korea had provided Iran with a computer program called MCNPX 2.6.0. The program ["simulates with great precision whether a nuclear bomb would explode."](#) Western intelligence sources suggest that this program ["may have been part of a larger \\$100 million deal with North Korea for nuclear training and know-how and missile technology."](#)

Iran is also believed to have supported North Korean initiatives to arm a long-range missile with a nuclear warhead. Without confirming the location of such efforts, retired Army Major General Robert Scales [told](#) Fox News that "we know Iran is helping North Korea miniaturize their nuclear weapons," suggesting that it was not until Iran's assistance that the DPRK resolved issues with its nuclear program, which were apparent in the failure of nuclear test launches at the time. One instance of Iran-North Korean collaboration to "miniaturize" a warhead—a step toward preparing it to fit the specifications of a ballistic missile—[allegedly took place in Iran's top-secret Parchin facility](#) as the Obama administration was negotiating the nuclear accord. The Iran nuclear deal that the U.S. finally agreed to, though, ["established inadequate rules for on-the-ground investigation and environmental sampling about alleged nuclear weapons-related high explosive work at this Parchin site."](#)

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Iranian officials, including Mohsen Fakhrizadeh, the former head of Iran's nuclear program, [were present at North Korea's first three nuclear tests in 2006, 2009, and 2013](#), reportedly paying millions of dollars for the privilege of attending. Access to another party's nuclear test data can provide significant ["information about the design and yield of the device detonated — or about the size and configuration of the bomb's uranium hemisphere or plutonium core. Testing data could indicate the weight and shape of the nuclear device, its triggering mechanisms, or the warhead's material composition."](#) The information gleaned from attending North Korea's nuclear tests could go a long way toward helping Iran establish a covert nuclear weapons capability and reaffirms international concerns that Iran's nuclear program is oriented towards military, rather than civil, applications.

The high degree of cooperation between Iran and the DPRK was formalized by the September 2012 signing of a ["Civilian Scientific and Technological Cooperation Agreement"](#) between the two countries. This agreement, which was ratified by Ali Akbar Salehi, head of Iran's Atomic Energy Organization, facilitated the establishment of ["joint laboratories and exchange programs for scientific teams, as well as to transfer technology in the fields of information technology, engineering, biotechnology, renewable energy, and the environment."](#) U.S. officials point out that ["The last time North Korea signed an agreement like this it led to the largest act of nuclear proliferation in modern history,"](#) referring to ["a similar agreement \[North Korea signed\] in 2002 with Syria's Bashar al-Assad](#), after which North Korean scientists aided Syria in building a nuclear reactor that was destroyed by an Israeli strike in 2007."

Tehran [may have funneled up to \\$1 billion](#) into the construction of the nuclear reactor in the Kibar desert. Then Israeli National Security Advisor told the Israeli prime minister that Iran was funding the project as a means to secretly acquire enriched uranium in case its domestic uranium enrichment project failed.

It seems likely then, that the DPRK-Iran agreement provides a smokescreen behind which the two countries can engage in cooperation to develop and improve missile and nuclear technologies, and the illicit trade of [nuclear-related technologies and materials](#), including ballistic missiles, centrifuges, and enriched uranium.



Satellite imagery of the Tounghae launchpad.

Revealing the nefarious intent behind the pact, Supreme Leader Ali Khamenei stated that the agreement is the ["outcome of the fact that Iran and NK have common enemies, because the arrogant powers do not accept independent states."](#) Further, the agreement has provided a means for both countries to dodge U.N. and U.S. sanctions on "missile proliferation activities." Under the agreement, ["when one side masters or acquires a key missile-related technology, the other now institutionally benefits."](#)

Potential evidence of illicit nuclear-related trade facilitated by the agreement between Iran and the DPRK surfaced shortly after the signing of the agreement. In February 2013, it was discovered that [North](#)

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[Korea's upgraded missile launch site at Tonghae integrated similar design features to an Iranian launch complex in Semnan](#). These new features, which “[haven’t] been used by the North before,” include “a flame trench covering that protects large rockets from the hot exhaust gases they emit on takeoff.”

Recommendations



During his inauguration festivities on August 3, 2013, Iranian President Hassan Rouhani met with Kim Yong Nam, the head of North Korea's parliament.

Iran's strategic cooperation in the development of ballistic missile technology with the DPRK is an essential component of Iran's project to destabilize the Middle East and achieve regional dominance. The advancements Iran has made to its ballistic missile arsenal as a result of its illicit collaboration with North Korea enhance Iran's ability to confront the U.S. and its allies and increase the costs for responding to Iran's provocations. Further, the enduring relationship between the DPRK and Iran greatly hinders international efforts to obstruct Iran's nuclear development and to terminate North Korea's nuclear weapons program. Notwithstanding the JCPOA, Iran retains a pathway to nuclear weapons capacity through its ties with North Korea, threatening the deal's efficacy. Indeed, the day

after President Trump reimposed nuclear sanctions on Iran following his withdrawal from the JCPOA, North Korea's foreign minister [met](#) with President Hassan Rouhani in Tehran.

The February 2021 revelation that Iran and North Korea resumed cooperation on the development of long-range ballistic missiles increases the urgency of reining in both countries' military advancements. Due to the intertwined nature of the DPRK and Iranian nuclear and missile programs, any effort to thwart Iran's illicit proliferation activities in perpetuity must also disrupt the Iranian-North Korean pipeline. U.S. policymakers should consider the following measures to curtail Iran and North Korea's abilities to work in tandem to advance their destabilizing activities:

Advance legislation targeting Iran's ballistic missile program and the Iran-North Korea ballistic missile pipeline:

Given Kim Jong-un's increasingly bellicose behavior and repeated Iranian ballistic missile activity, sanctions need to be tightened to address this illicit relationship. The Biden administration should advocate for the passage of legislation targeting both Iran and North Korea's ballistic missile programs. Such measures can play an integral role in disrupting the Iran-DPRK illicit procurement pipeline and can deny the two nations components and other technologies needed to advance their missile programs.

U.S. lawmakers wisely seized an opportunity to blunt the complementary ambitions of Iran and North Korea in 2017. The bipartisan [Korean Interdiction and Modernization of Sanctions Act \(KIMSA\)](#), which overwhelmingly passed both houses of Congress and was signed into law by President Donald Trump on August 2, 2017 increased a president's ability to impose sanctions on countries found to have violated

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U.N. Security Council resolutions regarding North Korea. The legislation also expanded the list of activities that would trigger sanctions against a country partnering with North Korea on possible weapons development. Crucially, the Act requires the President to issue an annual report to Congress assessing the extent of cooperation (including through the transfer of goods, services, technology, or intellectual property) between North Korea and Iran, relating to their respective nuclear, ballistic missile development, chemical or biological weapons development, or conventional weapons programs.

Passage of KIMSA was an important step, but more can be done by Congress. Congress should explore legislation tightening sanctions against entities such as the [Shahid Hemmat Industrial Group](#), a subsidiary of Iran's Aerospace Industries Organization which is responsible for key elements of Iran's ballistic missile program, and its North Korean counterpart, the Korea Mining Development Trading Corporation (KOMID). Shahid Hemmat produced Iran's Shahab-3 and Ghadr ballistic missiles and cooperated with North Korea in their development, based on the DPRK's Nodong missiles. Congress can lower the ownership threshold to 25% or greater for sanctions targeting entities partially controlled by Shahid Hemmat, KOMID, and other key organizations tied to Iran and North Korea's ballistic missile programs.

The [Maximum Pressure Act](#), introduced to the U.S. House of Representatives by Rep. Jim Banks (R-IN) on April 21, 2021, addresses the ownership threshold, while aiming to reinforce the Trump administration's "maximum pressure" campaign against Iran. Not only would it raise the bar to revive the 2015 accord or enter into a new one by requiring Senate certification, it would expand sanctions against Iran's ballistic missile program, which are largely set to expire in October 2023 under the terms of the JCPOA.

The bill requires the president to target individuals and entities involved in the development and/or procurement of ballistic missiles. Transactions in U.S. property and interests in U.S. property of any foreign person seen to have materially contributed to "the supply, sale, or transfer... to or from Iran... of arms or related materiel, including spare parts" should be blocked; and their visas should be revoked or denied. The legislation expands the definition of the entities that fall into that category to include a person or entity that is either owned by entities known to be involved in Iran's ballistic missile program, including the Shahid Hemmat Industrial Group, or owns a partial stake of at least 25% of such entities. Then, the legislation dictates that the U.S. Treasury Department should establish and update a "missile proliferation watch list" on an annual basis that monitors entities in which the Aerospace Industries Organization, Shahid Hemmat Industrial Group, or Shahid Bakeri Industrial Group has less than a 25% ownership, or has a seat on its board.

Moreover, the legislation lists additional conditions that would need to be met before sanctions can be terminated. The referenced sanctions would stay in effect unless Iran has "ended its proliferation of ballistic missiles and halts further launching or development of nuclear-capable missile systems." The president would need to certify that Iran has complied with this condition, among others, with the appropriate congressional committees before termination.

Prevent a North Korean pathway to an Iranian nuclear bomb:

The U.S. must monitor Iranian efforts to outsource elements of its illicit nuclear program to North Korea and seek to prevent a North Korean pathway to an Iranian nuclear bomb—or an Iranian pathway to a

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ballistic missile delivery mechanism for a North Korean bomb. A key shortcoming of the JCPOA was that its restrictions only addressed Iran's domestic nuclear program and the agreement lacked an enforcement mechanism to prevent the transfer of nuclear material and missile technologies to Iran from another country. A revamped nuclear agreement should concretely and completely forestall Iran from obtaining nuclear material from outside countries such as North Korea.

Iran remains bound by the nuclear Nonproliferation Treaty (NPT), which prohibits transfers of nuclear technology, but its decades-long track record of violating the treaty by enriching and stockpiling nuclear materials and conducting weaponization experiments indicate that the NPT alone is an insufficient constraint on Iran's nuclear ambitions. Nonproliferation experts have also cautioned that if Iran is unwilling to freeze its nuclear program until the JCPOA's restrictions sunset, it can covertly and concretely advance its nuclear program elements such as advanced centrifuge research, fissile material stockpiling, and weaponization efforts outside of Iran. These scenarios create a real risk that even under the NPT and JCPOA, Iran can shrink its breakout time to a nuclear weapon so drastically that the international community would have insufficient time to mount a coordinated response, leaving military action as the only available option.

UNSCR 2231 is similarly an insufficient mechanism to prevent the exchange of missile technology. It merely ["calls upon,"](#) rather than prohibits Iran from undertaking any activity relating to ballistic missiles designed to be capable of delivering nuclear weapons. Likewise, [according](#) to paragraph 4 of Annex B of Resolution 2231, "the supply, sale or transfer directly or indirectly" from Iran or by Iranians of items, materials, equipment, goods, and technology under the Missile Technology Control Regime is only permitted if approved by the U.N. Security Council on a case-by-case basis. This restriction [applies](#) to "any items, materials, equipment, goods and technology that... could contribute to the development of nuclear weapon delivery systems." These provisions lapse after eight years by October 2023. The Biden administration should prioritize extending UNSCR 2231's missile limitations indefinitely. Furthermore, it should incorporate restrictions on Iranian missile development in any future nuclear agreement, correcting a key shortcoming of the JCPOA. While Iran has maintained that it will never abandon its missile program, it may be possible to compel Iran to accept restrictions permanently limiting the development of long-range capabilities, mitigating the threat to the American homeland.

UNSCR 2231 banned the transfer of arms to (conventional weapons) or from Iran until October 2020. On that date, the conventional weapons embargo on Iran expired under the terms of UNSCR 2231, which endorsed the JCPOA. The U.S. Defense Intelligence Agency [assessed](#) in 2019 that Iran would likely proceed to modernize its weapons systems by importing items that had been banned for decades. Therefore, the Trump administration attempted to force the U.N. Security Council to extend the arms embargo, but the other signatories to the accord resisted the U.S. proposal. In lieu of a U.N. arms embargo, the Biden administration could use authorities granted it under the Iran-Iraq Arms Nonproliferation Act; the Iran, North Korea, Syria Non-Proliferation Act; Iran's designation as a state sponsor of terrorism; as well as Executive Order 13949 to stanch the flow of weapons and weapons components to Iran.

By October 2023, core provisions which prevented the supply, sale or transfer of designated nuclear and ballistic missile-related goods to Iran, will expire, further creating an opportunity for Iranian-DPRK cooperation. It advanced U.S. national security interests as it casted a broad ban on rocket systems, not

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only including ballistic missiles, but space launch vehicles and sounding rockets, capable of delivering a 500 kg payload to a range of at least 300 km. However, after October 2023, Iran would be able to import technology and components used in the development of nuclear weapon delivery systems, such as ballistic missiles. In combination with the weakened language of the UNSCR 2231, the sunset of the import ban would give Iran a license to develop its ballistic missile program with the support of external actors. Iran would, then, be in a position to procure weapons components and technology, as well as technical expertise relating to its ballistic missile program, from abroad.

To date, the U.S. has not officially confirmed nuclear collaboration between Iran and the DPRK. However, as shown throughout this report, missile collaboration can be demonstrated on numerous occasions, given the transfer of missiles, missile components and technology, and expertise which has resulted in an Iranian missile arsenal that in many ways resembles that of North Korea. In reaching a nuclear deal with the P5+1, Iran sought to demonstrate the exclusively peaceful nature of its nuclear program. Since the July 2015 agreement, however, it has accelerated its ballistic missile testing, risking international sanctions and channeling resources into an effort that in effect is oriented toward perfecting the delivery means for a potential nuclear payload.

At the end of 2021, Iran's Islamic Revolutionary Guard Corps reported that it had test-launched 16 surface-to-surface ballistic missiles, as the window for a revived nuclear deal was quickly closing. In a blatant disregard for the language in UNSCR 2231 calling on Iran to abstain from advancing its ballistic missile program, the IRGC is said to have tested the Emad, Ghadr, Sejjil, Zalzal, Dezful, and Zolfaghar missiles—many of which have origins in North Korea and were mentioned in this report. Iran's ballistic missile testing and expenditures and recent investments in space launch/satellite technology contradict the pretense that its nuclear program is exclusively peaceful.

Despite the recent freeze on North Korean nuclear and missile tests, North Korea also escalated its ballistic missile and nuclear testing since 2015, carrying out two nuclear tests in 2016 alone. From January to June 2022, North Korea significantly accelerated its ballistic missile testing. North Korea has already [conducted 31 missile tests as of June 2022](#), compared with only eight in the entire year of 2021. Moreover, they are [reportedly](#) preparing to test a nuclear device.

By front-loading the deal with access to more than \$100 billion in frozen assets and opening up the Iranian market to trade and investment, the JCPOA created a rich incentive for Iran to continue advancing its nuclear and ballistic missile programs, or to acquire weapons-grade fissile material and perhaps even completed nuclear weapons, from cash-strapped North Korea. Now with the aforementioned UNSCR provisions scheduled to expire, Iran will have a more legalized pathway to advance its arsenal. Although the JCPOA is on life support, the U.S. should encourage the European Union, Russia, and China to support their extension and make them permanent.

Disrupt Iran-DPRK Procurement Networks:

The similarities between North Korean and Iranian ballistic missiles raise the possibility that should North Korea successfully develop Nodong nuclear warheads, for instance, they would be compatible with Iran's Shahab-3s. Iran and the DPRK would then be able to enter into a sharing agreement. In July

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2015 [congressional testimony](#), nonproliferation expert Larry Niskch of the Center for Strategic and International Studies (CSIS) stated that, “A North Korean-Iranian agreement to share Nodong nuclear warheads, it seems to me, is a realistic possibility at this stage. North Korea and Iran have had successful sea and air clandestine transportation networks. There have been few interdictions of these networks. The transfer of Nodong warheads from North Korea to Iran would have a good chance of success.” To prevent this eventuality, the U.S. must act to disrupt North Korea and Iran’s clandestine sea and air procurement networks, which have operated largely free of interference. The U.S. must work with China, in particular, to ensure that flights on the Pyongyang-Tehran route, which stop in Beijing, are not carrying illicit nuclear materials or sums of cash. Civil aviation companies considering doing business with Iran should also be cautioned that Iran may seek to use their aircraft for the secret transport of nuclear and ballistic missile components and technologies.

Another situation that the Biden administration must address is that of Chinese entities facilitating North Korea’s access to critical parts and technologies from other countries. A number of Chinese banks and businesses, including the state-owned Bank of China, are reportedly complicit in the DPRK’s sanctions-busting and proliferation efforts. According to a Politico report, [“For at least a decade, North Korea has sidestepped U.S. and United Nations sanctions against its own trading and financial institutions by establishing a global network of front companies, shell companies and third-country agents to seek parts, technology and financing for its weapons programs.”](#) Counterproliferation officials have cautioned, “These front companies rely on assistance provided by Chinese banks to gain access to U.S. and global financial systems, often by conducting transactions in U.S. dollars, and on Chinese businesses to obtain weapons parts.”

Sensitive political considerations have hindered successive U.S. administrations from taking decisive action against China’s role in North Korea’s proliferation efforts to date. Given the interconnected nature of Tehran and Pyongyang’s ballistic missile programs, North Korea’s proliferation advancements have redounded to Iran’s benefit. The acceleration of Iran and North Korea’s destabilizing proliferation activities lend a renewed urgency to the need for secondary sanctions against Chinese banks and businesses facilitating North Korea’s WMD activities. According to Dennis Wilder, the CIA’s deputy assistant director for East Asia and the Pacific from 2015-2016, “Treasury has done their homework on this for many years, and...there are sanctions packages that are either ready to go, or could be ready in a minute.”

China has avoided sanctions against its entities illicitly aiding North Korea in the past by agreeing to step up pressure against Pyongyang. This incremental, one-step forward, two-steps back approach has enabled the North Korean threat to metastasize. This pattern repeated once again in August of 2017, as [China agreed to U.N. Security Council sanctions targeting North Korean exports in response to continued ballistic missile testing](#) in an apparent effort to avoid secondary sanctions on major Chinese banks and corporations. Undeterred, North Korea has continued its illicit ballistic missile testing, provocatively [launching a projectile that passed over Japan on August 28, 2017](#).

Applying secondary sanctions against Chinese entities aiding North Korea at this time would impose a significant cost, as U.S. regulators are able to prevent offending banks from conducting transactions in U.S. dollars, effectively cutting them off from the international trading system. Posing this stark choice to major Chinese banks is the best path to finally compelling them to conduct proper due diligence and

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ensure that they are upholding U.N. sanctions and not abetting North Korean front companies engaged in WMD proliferation. Closing North Korea's Chinese conduit to the global marketplace should hinder the advancement of its illicit ballistic missile and nuclear programs, while degrading Iran's proliferation capabilities as well.

A piece of legislation introduced to the Senate by Sen. Marsha Blackburn on May 24, 2022 seeks to ensure that the Biden administration does not enter into a nuclear deal with Iran without addressing China's role in supporting Iran's procurement of arms, including ballistic missiles. As noted in the above section, China may be considering facilitating an exchange of the Hwasong-12 missile from North Korea to Iran for oil as part of its 25-year military/security partnership with Iran, in an effort to alleviate its own burden of providing oil to North Korea while at the same time growing the threat to the American homeland. It has also been reported on numerous occasions that Iranian procurement networks go through China, as China gives North Korea access to its airspace and ports when shipping arms to Iran. Therefore, the [Iran China Accountability Act](#) is a step in the right direction, because it dictates that the Government of Iran should terminate its "strategic military or security partnership" with the People's Republic of China—a partnership that could in the future build upon the Iran-DPRK procurement network.

Key Resources

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