The Iran-North Korea Nuclear Nexus: Unanswered Questions

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Introduction

Is there a nuclear proliferation nexus between Iran and the Democratic People's Republic of Korea (DPRK)? Pyongyang tested a nuclear weapon in early January – its fourth such test in a decade and its third since President Barack Obama took office. A top Iranian official overseeing Tehran's nuclear program was present during the last test, in 2013, and if experience is any guide, the Islamic Republic may have sent representatives to this year's as well. And just as North Korea unilaterally withdrew over a decade ago from the Nuclear Non-Proliferation Treaty and proceeded to conduct nuclear tests, an Iranian repeat of such a “breakout” scenario remains a disconcerting possibility.

Despite nearly two decades of Iranian denial and deception pointing to an ultimate objective of obtaining nuclear weapons, the International Atomic Energy Agency (IAEA) gave its go-ahead for the implementation of the nuclear agreement signed by Tehran and the P5+1 (the United States, United Kingdom, Russia, China, France, and Germany) in July 2015. This approval came despite the fact that Iran had not addressed many of the most troublesome aspects of its nuclear program – the so-called possible military dimensions.6

The U.S. government states that there is no proof attesting to Iran's nuclear cooperation with the DPRK. An April 2014 report by the Congressional Research Service, for example, found “no evidence that Iran and North Korea have engaged in nuclear-related trade or cooperation with each other,” while conceding that “ballistic missile technology cooperation between the two is significant and meaningful.”7

That report, however, intimates that the sources on which it was based might have been insufficient. It noted, for example, that the number of unclassified reports to Congress on nuclear-weapons issues had decreased considerably following the Intelligence Authorization Act for Fiscal Year 2013, which repealed requirements for the intelligence community to provide an unclassified annual report to Congress on the “Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions.”8

There is significant reason to believe Iran-North Korea nuclear cooperation is closer than commonly recognized. But with proof elusive, we have more questions than answers. This report endeavors to pose the most important among them.

Questions Raised by Rafsanjani’s Memoirs

Ali Akbar Hashemi Rafsanjani is widely considered the father of Iran’s nuclear program. His memoirs are based on journal entries from 1979 onward, and published on an annual basis at a twenty-year delay (entries from 1980, for example, were published in 2000). The memoirs provide detailed information into affairs of the state in the 1980s and early 1990s – the formative period for Iran-North Korea relations. Rafsanjani’s close relations with the late Supreme Leader Ruhollah Khomeini, and his position as deputy commander-in-chief of the armed forces, helped make him the key decision-maker on arms procurements from North Korea. By the end of the Iran-Iraq War, however, his journal entries on North Korea had become more opaque – a change that may reflect an emerging nuclear nexus between Tehran and Pyongyang.

On February 29, 1989, while receiving DPRK Vice Minister of Defense Kim Kwang-chin, Rafsanjani writes of hearing complaints over Tehran’s cancelation of arms-procurement contracts signed during the war with Iraq. The North Koreans, he writes, they had already purchased the raw material for producing missiles for Iran, and now faced a financial loss. Rafsanjani stresses Iran’s changed needs after the end of the Iran-Iraq War, and proposes that his country “import some of the goods,” but asks for an unspecified “technology transfer” instead of the rest of the commissioned ballistic missiles.

In his June 13, 1991 entry, Rafsanjani refers to his discussion with Hassan Firouzabadi, chief of staff of the Armed Forces, and an unidentified “Mr. Mortezaei” concerning “special and sensitive issues” related to North Korea. Later that month, on June 26, Rafsanjani further discusses the same issue with Firouzabadi, Defense Minister Akbar Torkan, unnamed Islamic Revolutionary Guard Corps commanders, and Hassan Rouhani, then secretary of the Supreme National Security Council and now president of the Islamic Republic. This time, the journal vaguely mentions discussion of “business transactions with North Korea.”

Rafsanjani’s August 4, 1991 entry sheds some light on the previous, cryptic journal entries. Receiving DPRK Deputy Prime Minister Kim Dal-hyon, Rafsanjani expresses interest in importing a “special commodity” in return for Iran’s oil shipments to the DPRK. Rafsanjani does not explain the nature of the commodity, but on November 9, 1991, he receives Dr. Majid Abbaspour, technical adviser to the president, for the order from Ayatollah Khomeini confirming Rafsanjani's appointment to this position, see انتصاب جانشین فرماندهی کل قوا (Appointment of the Deputy Commander in Chief), "Imam Khomeini Website" (Iran), accessed January 30, 2015. (www.imam-khomeini.ir/fa/)
who reports on the “progress of the chemical, biological, radiological and nuclear industries and offered consultation concerning his [upcoming] visit to North Korea.” Rafsanjani concludes the entry noting that he insisted upon being provided with unspecified “technical knowhow.”

On January 30, 1992, Rafsanjani received Intelligence Minister Ali Fallahian and Mostafa Pour-Mohammadi, the Intelligence Ministry's director of foreign espionage, to discuss “procurement channels for sensitive commodities.” The journal’s February 8, 1992 entry also uses the term “special commodity,” and reads: “The North Koreans want oil, but have nothing to give in return but the special commodity. We too are inclined to solve their problem.”

Rafsanjani then orders Defense Minister Torkan to “immediately arrange a meeting” and organize a taskforce for analyzing the risks and benefits involved in such an enterprise. The taskforce ultimately recommends that Rafsanjani accept “the risk of procuring the commodities in question,” but the latter urges the intelligence minister “to act carefully.”

In his March 9, 1992 entry, Rafsanjani gloats over the U.S. Navy having tracked a North Korean ship bound for Syria while missing two DPRK vessels destined for Iran. Two days later, when the ships are unloaded in the Iranian ports of Bandar Abbas and Chabahar, Rafsanjani exults, “The Americans were really embarrassed.”

Rafsanjani never openly admits involvement in the procurement of nuclear technology and components from North Korea. However, his reported desire to be viewed as the father of Iran’s nuclear bomb may have contributed to his disclosing secrets of state that illuminate part of the larger puzzle over Iran-North Korea nuclear cooperation.

Key questions related to Rafsanjani’s memoirs include:

- What technology did Rafsanjani seek to import from North Korea in his February 29, 1989 conversation with the North Korean delegation, and in return for Iran’s oil exports in his August 4, 1991 conversation?

- What “technical knowhow” did Rafsanjani aim to acquire from North Korea in his November 9, 1991 conversation with Abbaspour, the technical adviser?

- Why did Rafsanjani call upon Fallahian and Pour-Mohammadi of the Intelligence Ministry to discuss “procurement channels for sensitive commodities,” and what are the commodities in question?

- What cargo did North Korean ships mentioned in his March 9, 1992 entry bring to Iran?

**Present-Day Nuclear Nexus**

Fast forward to today, and the Iran-North Korea relationship is characterized by three overriding patterns. First, both countries continue to rely...
on external sources for materials, equipment, and technologies that they cannot produce indigenously. Second, each has built a global capacity that allows it to improve on each step in the procurement chain. Third, despite mutual distrust and little in common aside from a shared disdain for the Western-led world order, they have learned how to work together.

Intelligence Community and Department of Defense assessments point to past flows of missiles and related technology between North Korea and Iran since the mid-1980s, but senior U.S. officials now state that Iran’s missile technology has progressed sufficiently that it no longer needs to rely on North Korean assistance.

25. On Iran, see Michael Elleman, “Iran’s Ballistic Missile Program,” The United States Institute of Peace, August 2015. (iranprimer.usip.org/resource/iran-ballistics-missile-program); On North Korea, see David Albright and Olli Heinonen, “In Response to Recent Questionable Claims about North Korea's Indigenous Production of Centrifuges,” Harvard Belfer Center for Science and International Affairs, October 18, 2013. (belfercenter.ksg.harvard.edu/publication/23514/in_response_to_recent_questionable_claims_about_north_korea’s_indigenous_production_of_centrifuges.html)


what extent are North Korea’s Syrian ties a potential template for Pyongyang’s relationship with Iran?

- China has long been suspected of serving as a central trading hub for some of the most critical equipment, technologies, and expertise related to the nuclear-weapons trade. To what extent does U.S. strategy to monitor and counter potential Iran-DPRK illicit nuclear cooperation involve greater cooperation from Beijing?

**Commercial Indicators of a Nuclear Nexus**

Analysts have suggested the possibility that Iran is outsourcing aspects of its nuclear weapons program to the DPRK, but tend to cite ballistic missile cooperation to make that case. In 1987, for example, the Islamic Republic received some 100 Scud-B missiles from North Korea as part of a deal in which the former agreed to finance the latter’s longer-range missile program in exchange for missile technology and the option to buy the finished projectiles.

Hard evidence of active nuclear weapons development and production is lacking. However, the activities of the Shahid Hemmat Industrial Group (SHIG), for example, suggest a certain depth to DPRK-Iran ballistic missile collaboration. On April 6, 2000, the U.S. Treasury issued sanctions through Executive Order 12924 against SHIG for missile-technology proliferation involving items controlled by the Missile Technology Control Regime (MTCR). This was followed in 2003 by sanctions pursuant to Executive Order 12938, which penalized Iran for acquiring MTCR-controlled missile technology from China’s North Industries Corporation. This was followed two years later by additional sanctions pursuant to Executive Order 13382, which added several of the most significant Iranian and North Korean entities (such as the Atomic Energy Organization of Iran, Shahid Hemmat Industrial Group, Korea Mining Development Trading Corporation, and Tanchon Commercial Bank) to Treasury’s list of banned proliferation entities.


33. The June 1987 missile deal was reportedly worth $5 million and involved the sale of 90-100 Scud-B missiles from North Korea to Iran. “SCUD-B Shahab-1,” Federation of American Scientists, accessed January 25, 2016. (www.fas.org/nuke/guide/iran/misile/shahab-1.htm)


SHIG is similar to most Iranian government entities involved in nuclear- and ballistic missile-related proliferation in that it is constantly adding new front companies and individuals to a network that operates with hundreds of individuals and entities to procure material, expertise, and equipment. Many of the entities reported to have been involved in procurement for SHIG rely on North Korean firms and China-based brokers and intermediaries. This raises additional questions that are crucial to understanding the Iran-DPRK nexus:

- North Korea and Iran both have dangerously expanding ballistic-missile arsenals. That includes Pyongyang’s recently tested Unha-3 ICBM “space launch vehicle” as well as the rapid-launch intermediate-range Musudan, based on a Soviet SSN6. Does North Korea have the means to deliver nuclear weapons via missiles, and if so, has it transferred that know-how to Iran?

- Is there evidence of Iran-DPRK efforts to acquire sensitive ballistic-missile-related materials and technologies (such as graphite and tungsten, guidance, and navigational systems)?

- Iran continues to develop a growing range of short and medium-range ballistic missiles. What are Tehran’s plans for developing space launch vehicles such as the Simorgh, which could be capable of ICBM ranges if Iran develops suitable reentry vehicles?

Several companies are also known to be involved in facilitating nuclear-related activities between Iran and North Korea, and several have been officially sanctioned by the United States and the European Union. These include the Saeng Pil Trading Corporation (SPTC), which appears to have been involved in brokering the sale of the Chinese-origin precision-guided munitions known as Lei Shi. SPTC’s illicit trade has reportedly included key components for the munitions, including guidance systems.

- Is the United States monitoring the better-known North Korean trading companies that could be


42. “Commission Implementing Regulation (EU) No. 137/2013 of 18 February 2013,” Official Journal of the European Union, February 19, 2013. (eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013R0137); The Luoyang Optoelectro Technology Development Center (LOEC), known as the 612 Institute, produces precision-guided munitions such as the LS-6 Thunder Stone precision-guided glide bomb and various air-to-air missile such as the PL-5, PL-9, which have been exported to several countries including Iran and North Korea. Wendell Minnick, “China Developing Counterstealth Weapons,” Defense News, January 31, 2011. (archive.defensereports.com/article/20110131/DEFFEAT04/10130315/China-Developing-Counterstealth-Weapons)
involved with Iranian transactions, such as SPTC? Is Washington tracking the representatives of these companies in countries of the former Soviet Union, where the firms reportedly purchase export-controlled items such as Scud missile components?\(^\text{43}\)

- Namchongang – a trading company subordinate to Pyongyang's General Bureau of Atomic Energy – is one of the DPRK's primary entities involved in illicit procurement of nuclear-related items.\(^\text{44}\)

What is being done to stop the subsidiaries, front companies, and international brokers that act on the company's behalf to acquire sensitive raw materials (such as high-purity cobalt and titanium for maraging steel)?

- The DPRK's Mining Development Guidance Bureau is North Korea's primary entity for arms trading. Are there contacts between the bureau and Iranian government and commercial entities? Are there contacts between Iran and North Korean trading companies that procure commodities and technologies in support of defense R&D programs?\(^\text{45}\)

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### Policy Recommendations

The signs of military and scientific cooperation between Iran and North Korea suggest that Pyongyang could have been involved in Tehran's nuclear and ballistic-missile program, and that state-run trading companies may have assisted in critical aspects of Iran's illicit nuclear-related activities. Washington, however, needs a better understanding of Iranian and North Korean proliferation networks and the impact of U.S. government demarches, designations, sanctions, and arrests in order to improve the possibility of interdicting illicit materials. To answer the most critical intelligence questions on Iran-DPRK nuclear cooperation, Washington should consider the following steps:

- **Get China on board.** Iranian and North Korean proliferators turn most often to the world’s largest illicit marketplace, China, where they are able to conceal the most important elements of any illicit deal: the identity of intended end users and intermediaries, and the finance and transport of dual-use goods. If Beijing were a willing partner and better integrated into the global counter-proliferation effort, North Korean, Iranian, and other proliferators would have a much harder time obscuring their identities, roles, and transactions.

- **Study key locations.** The locations of DPRK trading companies say a great deal about how Pyongyang is looking to evade sanctions and move equipment through established procurement chains. International efforts should revolve around some of Iran and North Korea’s known locations of choice, such as Damascus, Phnom Penh, Cairo, Algiers, and Kampala, Uganda. A heavy focus should be placed on Africa – a particularly permissive environment for evading sanctions.

- **Insist on greater financial transparency.** A report by the intergovernmental Financial Action Task
Force found that Iran and North Korea are the only two countries that pose a threat to the international financial system itself, “with substantial risks emanating from money laundering and terrorist financing.”46 After implementation of the nuclear deal with Iran, new measures to protect the integrity of the international financial system are now needed.

• **Create new incentives.** The U.S. Rewards for Justice Program is one of the biggest incentives to sources, facilitators, and testifiers who assist U.S. law enforcement investigations and operations. Rewards for Justice pay-outs should be used to motivate individuals, companies, and foreign-liaison partners to assist with counter-proliferation operations.

• **Enact new legislation.** On January 12, the House of Representatives passed the North Korea Sanctions Enforcement Act by a vote of 418 to 2. The bill requires Treasury to determine whether the DPRK is a jurisdiction of primary money laundering concern, and calls on UN member states to implement sanctions on Pyongyang designed to curb nuclear proliferation, arms trafficking, cash smuggling, and the importation of luxury goods. Importantly, the legislation requires that the U.S. administration report on the “identity of Iranian and North Korean persons that have knowingly engaged in or directed the provision of material support or the exchange of information between North Korea and Iran on their respective nuclear programs.” Enacting the legislation would compel the administration to answer many of the questions posed in this report.


Even if the above steps are taken, more questions will undoubtedly remain. In the wake of the nuclear deal with Iran and recent aggressive actions taken by the DPRK, Washington must strive to gain deeper insights into North Korea’s nuclear program, and the growing threat that it poses to American and Western interests.
About The Authors

**Ali Alfoneh** is a senior fellow at the Foundation for Defense of Democracies, and a top expert on Iran and the inner workings of its regime. Ali came to FDD from the American Enterprise Institute, where he worked as a resident fellow specializing on civil-military relations in Iran and the Islamic Revolutionary Guards Corps (IRGC). He is the originator of the thesis that the Islamic Republic is transforming into a military dictatorship, which he first published in 2005, and has since been adopted by Secretary of State Hillary Clinton. Ali is the author of *Iran Unveiled: How the Revolutionary Guards Is Transforming Iran from Theocracy into Military Dictatorship*. AEI Press, April 2013. Ali has testified on Iran before the House of Representatives and the Canadian Parliament and speaks frequently at leading policy research institutes. Ali appears regularly in a range of publications including *The Washington Post*, *The Weekly Standard*, *Business Insider*, *BBC*, *Bloomberg*, *Voice of America*, among others, and he frequently writes commentary for the *Arab Weekly*.

**Scott Modell** is the Managing Director of The Rapidan Group. Scott is an uncommonly talented and seasoned expert on Iran and the broader Middle East and offers unparalleled insight into geopolitical and energy related developments and trends in that region, as well as Latin America and Europe. He is a highly decorated former Central Intelligence Agency officer who served for 13 years in the Directorate of Operations, with five tours conducting operations in Latin America, Western Europe, and the Middle East. He also participated in post 9-11 operations in Afghanistan, serving on the battlefields in the southern and southeastern regions of the country as a member of paramilitary counterterrorism teams composed of CIA officers and local Afghan forces. In addition to his Rapidan Group responsibilities, Scott is currently a Non-Resident Fellow at the Center for Strategic and International Studies focusing on security issues related to Iran and the Middle East and a senior advisor to U.S. Special Operations Command on Counter Threat Finance operations.
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