Confronting Nuclear Proliferation Challenges: Iran and North Korea

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The primary nuclear arms control challenge in today's world is to carve out effective policies for stopping new and determined proliferators from acquiring nuclear weapons. This refers to states that embarked on clandestine military nuclear programs while members of the NPT – Iraq, Iran, and North Korea, but also Libya and Syria – which means that they had explicitly foresworn working on a nuclear weapons capability. Nevertheless, these states abused the weak provisions of the treaty in order to advance their military programs in violation of their commitment to remain non-nuclear, while at the same time pretending to be in compliance with that very commitment. This complicated situation rendered dealing with these proliferators in a timely and effective manner extremely difficult for the strong international actors tasked with upholding the NPT.

One could ask why the focus in the nuclear realm should be on these few proliferators when the vast majority of nuclear weapons are in the hands of the US and Russia – some 95 percent – and the other nuclear states. Indeed, concern for the humanitarian consequences of the actual use of nuclear weapons, together with complaints that the nuclear states have not done enough to disarm as mandated by the NPT, have fueled a new UN-based treaty that seeks to ban nuclear weapons altogether. But while the potential for mass destruction from nuclear weapons is immense and horrific, over the decades since WWII, the nuclear states developed a habit of self-restraint as far as actual use – a norm some have described as the "nuclear taboo."[1] Moreover, the US and Soviet superpowers established

rules of the game in their bilateral nuclear relationship throughout the Cold War years, which helped maintain global strategic stability despite their vast nuclear arsenals, and also enabled significant nuclear reductions. Nuclear weapons have come to be regarded as weapons of non-use and for deterrence purposes only, and the norm has been extended to the additional nuclear states, both recognized (Britain, France, and China), and unrecognized (India, Pakistan, and Israel, an assumed nuclear state).

The determined proliferators, however, have a very different starting point, embedded in defiance of an international treaty that they joined of their own free will. Though their initial arsenals will be extremely small in comparison with established nuclear powers, grave dangers emanate from the nature of the states in question – their motivation for going nuclear, and the degree to which they can be expected to adhere to the nuclear taboo that has been established over the years.

This article examines the threat posed by Iran and North Korea, the two most serious nuclear proliferators challenging their respective regional orders, and the global nonproliferation regime. It examines two questions that have implications for assessing the ability of key international actors to confront not only Iran's ongoing nuclear ambitions, but any future proliferator that embarks on a nuclear path in violation of its NPT commitments: how international actors choose to confront the proliferator, and their ability to cooperate effectively in pursuit of their shared nonproliferation goal. After a brief overview of the current situation in both Iran and North Korea, the article will assess the negotiations strategy used so far to rein in both proliferators, and the prospects for global powers to work together to get more effective nonproliferation policies on track.

Proliferation of Nuclear Weapons Capabilities and Delivery Systems

2017 saw North Korea and Iran at the center of developments regarding proliferation of nonconventional weapons and their delivery systems. Both states have advanced nuclear weapons and missile development programs, although only North Korea has crossed the nuclear threshold. North Korea has a proven nuclear weapons capability, whose current peak was demonstrated

in the high-yield underground test of September 3, 2017. That test – North Korea's sixth – was accompanied by a seismic signal of over 6 on the Richter scale, and was assessed to have a yield of around 100 kilotons (kt) TNT equivalence. Most assessments indicate that North Korea used a "boosted" nuclear mechanism. Since there was very little seepage to the atmosphere of radioactive material from this test, it was not possible to assess the characteristics of the explosion accurately, but North Korea claims to have full hydrogen capability, of an unknown yield.

North Korea has a proven capability of producing both plutonium and enriched uranium (the two materials that can be used in the core of a nuclear explosive device), but there are no precise data as to the quantities produced. The prevalent (though not sole) assessment is that North Korea has an arsenal of 20-40 nuclear warheads, and production is ongoing.

Iran has a proven capability of producing military-grade enriched uranium, and as far as is known, the know-how to produce military-grade plutonium as well. The JCPOA (the Iran nuclear deal) that was achieved in July 2015 slows down the pace of Iran's nuclear development in the first years of the deal, but effectively enables Iran to proceed with its uranium enrichment program and increase the rate down the line. The critical question is whether when the JCPOA provisions sunset, Iran will utilize its capabilities to withdraw from the NPT and produce nuclear weapons. Another issue is whether Iran, whose efforts at deception and concealment are well known, has an ongoing parallel clandestine program for the production of fissile materials that could, in due course, serve in assembling warheads, to be mounted on the missiles that it is actively producing.

The advanced status of North Korea's proven nuclear weapons capability, and the assessment that Iran could reach the same status if a political decision to do so is made, has turned world attention to the advances of both states on the missile front as well – the delivery mechanism for nuclear warheads. Of concern are advances regarding the range, precision, and potential payloads of both states' ballistic missiles.

North Korea conducted two successful missile tests in July 2017 that proved its ability to launch from its territory a ballistic missile capable of reaching the US and Canada mainland territories. The actual tests were of a shorter range, but the overall trajectory was of a length equivalent to the required

range. As is common in North Korea, the July tests were accompanied by threats to the United States, in this case referring specifically to the island of Guam, a US territory situated in the Pacific Ocean. In late November, North Korea conducted a third ICBM test, this time with an even longer range, estimated to be able to reach Washington, DC. Despite North Korea's claim, it is still uncertain whether Pyongyang has the ability to mount a nuclear warhead on a long range ballistic missile capable of reaching the US mainland. Nonetheless, there is little doubt that sooner or later it will be able to accomplish this.

Iran is also intensively developing its missile capabilities, at the moment limited to medium ranges. It already has the capability to launch both ballistic and cruise missiles to ranges of 2000 kilometers (and perhaps even longer). Table 1 presents a list of the main missiles already in Iran's possession or under development. Until Iran or its allies have precision target ballistic missiles, the purpose of the medium range missiles is more likely directed to delivering WMD in general and nuclear weapons in particular.

Table 1: Iranian Medium Range Missiles

Status	Range	Type	Missile Type
Operational	2,000 km	Ballistic	Sejjil
Operational	2,000 km	Ballistic	Shahab-3
Under development	1,950 km	Ballistic	Ghadr 1 (Shahab-3 Variant)
Under development	1,700 km	Ballistic	Emad (Shahab-3 Variant)
Operational	2,000-3,000 km	Cruise missile	Soumar
Under development	2000 >km	Ballistic	Khorramshahr

The JCPOA did not address the missile issue. Moreover, UN Security Council Resolution 1929, which requires Iran to stop work on missiles capable of carrying a nuclear warhead, was subsequently weakened by UNSCR 2231 (which authorizes the JCPOA) – a resolution that only "calls on Iran" to do so. Iran has not heeded this request, and the situation could

worsen if Iran acquires land bases closer to Israel, since this would resolve the warhead weight issue: the shorter the distance to the target, the heavier the possible warhead.

Negotiating with Determined Proliferators: Can It Work?

To date, the nuclear ambitions of both North Korea and Iran have been dealt with by means of negotiations and diplomacy. However, past experience in negotiating with both proliferators has seen long and drawn out processes that have produced problematic deals. In North Korea's case, the deals from 1994 and 2005 were violated, and with regard to Iran, the 2003-2005 negotiations failed to produce a lasting agreement. The jury is still out regarding the long term viability of the JCPOA.

What is clear is that the set-up and structure of these negotiations granted an inherent advantage to the nuclear proliferators because these states were not interested in a negotiated outcome, which would require them to give up their budding military capabilities. Rather, they were in the main trying to avoid harsh (economic and/or military) consequences by agreeing to take part in the process, while at the same time striving to continue their programs. The fact that they were not pressed to actually reach a deal enabled them to tactically use the negotiations framework as a way to play for time, which they very much needed in order to make nuclear advances.

Both North Korea and Iran followed this strategy, although with very different tactics. North Korea left the NPT in early 2003 soon after it was caught with evidence of a clandestine uranium enrichment program. The six-party talks (2003-2008) with North Korea were an attempt to roll back its nuclear capability, but the five parties facing it had little economic or military leverage to compel Pyongyang to change course. China refused to press too hard economically for fear North Korea would implode, and the US was deterred from threatening military force because of the thousands of missiles targeting Seoul. North Korea used these years, and the subsequent eight years of "strategic patience" under Obama, to advance its nuclear capabilities significantly. Today North Korea is a nuclear state, and despite US demands for denuclearization, achieving this through diplomacy is an elusive goal. The international powers today have even less leverage over North Korea than in the past, and China remains unwilling to cut its economic

lifeline to North Korea. Some believe that if the US were to weigh ending its military presence in South Korea it might change the North Korean calculation, but that is not something the US is willing to consider. As such, the dynamic in recent months is moving in the direction of establishing red lines of nuclear deterrence between the US and North Korea, and the process is inherently unstable at the current stage – rife with risks of miscalculation and/or preemptive action by one of the sides along the way.

The Iran case followed a different trajectory, but for years, Iran too proved highly successful in abusing the terms of the NPT to advance its nuclear program, while avoiding harsh punishment and remaining in the NPT. In contrast to North Korea, Iran proved vulnerable to economic pressure, and when in 2012 the US and EU finally applied biting sanctions beyond the scope of the UNSC, the result was that Iran came to the table looking for a deal – but one that would enable it to keep as much of its nuclear infrastructure as possible, while securing maximum sanctions relief.

In the negotiation that began in earnest in 2014, the international negotiators finally came to the table with the leverage over Iran that they gained from employing these sanctions. The negotiation itself, however, saw concessions from the P5+1 that distanced them from their nonproliferation goal of dismantling Iran's problematic uranium enrichment program and returning Iran to its NPT commitment. The sum total of these concessions resulted in a deal that placed some restrictions on Iran's nuclear activities and stockpile, but nevertheless enabled Iran to maintain and even advance critical aspects of its nuclear infrastructure – work on advanced centrifuges (allowed by the deal) and ballistic missile delivery systems (not covered by the deal). With the lifting of international sanctions, the JCPOA also signaled diminished international leverage over Iran. Moreover, the period from late 2015 to 2017 has seen Iran bolster its presence and activities across the Middle East, especially in Iraq, Syria, and Lebanon. Strengthened in economic and regional terms – and with a more advanced nuclear infrastructure – Iran will be in a more advantageous position to move to nuclear weapons when the main JCPOA restrictions begin to expire than it was before the deal was achieved.

Beyond the broader question that these experiences raise as to whether negotiations can offer an effective strategy for confronting an NPT-violating nuclear proliferator, the more immediate question today, especially for Israel,

regards the next steps for Iran; specifically, whether the new direction of the Trump administration toward the JCPOA and Iran in general can succeed.

In mid-October 2017, after a nine month review process, the Trump administration announced that the US will not certify the JCPOA a third time. The announcement regarding decertification was made in the context of the unveiling of the Trump administration's Iran policy, which addresses the full range of Iran's "destructive action." The President clarified that the JCPOA is but one component of US policy toward Iran, and devoted much attention to the destabilizing activities of the Islamic Revolutionary Guard Corps (IRGC). Unwilling at this stage to withdraw from the JCPOA, President Trump conditioned his final decision with regard to the deal on the outcome of the administration's efforts to cooperate with Congress and US allies in addressing the flaws in the deal and Iran's regional misbehavior: if the administration is "not able to reach a solution working with Congress and [US] allies, then the agreement will be terminated."[2]

The specific areas of concern with regard to the nuclear deal center on the sunset provisions, inspections at military facilities, and Iran's work on advanced centrifuges. Of equal concern are Iran's advances in the missile realm – both ballistic and cruise missiles. While in some respects the US can advance its policy goals on its own – especially regarding non-nuclear sanctions, and sanctions on the IRGC – strengthening key provisions in the deal will necessitate finding common ground with the other P5+1 members as a basis for cooperation.

Cooperation among the Global Powers

An essential prerequisite for confronting current nuclear proliferation and the means of delivery – thereby helping to safeguard the nonproliferation regime – is the extent to which the US, Russia, and China can cooperate in addressing these challenges. Along with the ideological (and military) confrontation between the US and Soviet Union during the Cold War, the era was marked by cooperation among these superpowers, not only in creating a nuclear order, but also in establishing the nonproliferation regime. Nonproliferation was considered by both to be a high priority, which in turn engendered a period where the regime was (relatively) successful in

combating nuclear proliferation. Fewer states than expected became nuclear capable and the situation was deemed controllable.

Despite the fact that those days seemed to have passed, the question remains: given the highly unstable international environment and the risks to peace and stability, can these powers today reach a common understanding as to the nuclear proliferation threat, and subsequently cooperate in order to diffuse both the nuclear and missile threats? Moreover, when it comes to Iran, there is a need to include the EU as well, due to its role in the negotiations over the JCPOA.

There are fundamental and seemingly insurmountable differences among the three powers regarding "strategic stability" at the global and regional levels.[3] With regard to the global order, the Russians and Chinese share the view that the post-Cold War era is no longer defined by bipolar dynamics. They challenge US hegemony and believe that the US and its Western allies must recognize the reality of a multipolar world – namely, the equal role that both Russia and China have in determining the course of events. US efforts to conduct strategic dialogues with Russia (and China) during the two Obama administrations, with the aim of identifying areas of agreement in the nuclear/military realm that could have enhanced cooperation, failed. Russia's annexation of Crimea and its military intervention in Eastern Ukraine were a direct cause for the downturn in strategic relations, which was manifested by mutual accusations regarding violations of agreements, such as the Intermediate-Range Nuclear Forces (INF) Treaty, and steps that were perceived by both sides as undermining the nuclear and conventional balance of power – and as a result, their security.

A lack of trust currently also marks US-China relations. China's steps to reassert its domination in its neighborhood are reinforced by rapid military growth. Moreover, US steps in Northeast Asia aimed at enhancing the regional security of its allies, and the lack of strategic dialogue between the US and China, complicate efforts not only to set US-China relations on a new course, but also efforts to find a peaceful resolution of the North Korean crisis.

Against this backdrop, it is obvious that finding common ground regarding the two outstanding regional proliferation challenges posed by North Korea and Iran has become much more difficult.

The difference between the US, Russia, and China on the North Korean crisis becomes apparent when analyzing how the respective parties propose to diffuse the situation and subsequently to solve the conflict. Whereas for the US all options are on the table, for Russia and China the only way forward is via political and diplomatic means. Furthermore, Russia considers the US objective of denuclearization of the Korean peninsula as an unrealistic goal at an early stage, and prefers to contain North Korea's aggression through diplomacy. In an attempt to negate the North Korean nuclear threat, the US has taken steps to defend its allies in the region by deploying a missile defense system, and increasing its military presence – moves that Russia opposes and that have irritated China, which feels threatened by them.

Disagreements between the three powers are also apparent regarding the Iran nuclear deal, and in this case the EU joins Russia and China in their support for the JCPOA. Whereas the Obama administration considered the deal a success, President Trump has described it as "one of the worst and most one sided transactions the United States has ever entered into." The P5+1 states rejected the position announced by President Trump in his October speech, and in a joint statement following Trump's announcement, UK Prime Minister Theresa May, German Chancellor Angela Merkel, and French President Emmanuel Macron expressed their concern regarding the possible negative implications of the decision to decertify the JCPOA and their commitment to the deal.

Still, the Trump administration will be seeking the cooperation of France, Germany, and the UK for its plans to put more pressure on Iran. And these states have already underscored new readiness to address the nonnuclear aspects of Iran's policies and destabilizing behavior.[4] In fact, in anticipation of Trump's decertification decision, and warning of the negative consequences of leaving the deal, Macron in particular noted weeks before Trump's speech his willingness to build on the deal, which he agreed was "not sufficient." He was quoted then as saying, for the first time, that the JCPOA could be supplemented to deal with what happens after provisions begin to sunset (2025), and to address the issue of ballistic missiles that were not included in the deal. He also said he wanted to discuss Iran's role in the region, and declared: "Is this agreement enough? No. It is not, given the evolution of the

regional situation and increasing pressure that Iran is exerting on the region, and given increased activity by Iran on the ballistic level since the accord."[5]

In sum, the lack of stability in the international security environment and the turn for the worse in relations between the US, Russia, and China in recent years bode ill for the future of the nonproliferation regime, and the prospect of effectively addressing the regional challenges to peace and security from both Iran and North Korea. This trend is exacerbated by a growing lack of trust – and uncertainty as to the future course that the Trump administration will take in its foreign and security policies – which in turn leads to the resumption of a nuclear as well as a conventional arms race. Still, for France (a P5+1 member, if not global power equal to the US, Russia, and China), the changed course of the Trump administration and the threat to leave the JCPOA have brought to the surface the expressed need to deal with at least some of the issues of concern raised by the administration with regard to Iran: the sunset provisions in the deal, the under-attended issue of Iran's growing missile threat, and broader issues of Iran's regional activities.

Implications for Israel

What is the upshot of this analysis for Israel's national security? The most immediate concern for Israel as to nuclear nonproliferation efforts regards Iran. From Israel's perspective, Iran's regional activities are as problematic as the nuclear issue, and at this point are a more urgent concern. As such, the new policy advocated by the Trump administration – whereby the nuclear and regional aspects of Iran's activities are closely linked and will be tackled together – is very much in tandem with Israel's threat perception. Israel can similarly benefit from efforts to create a coalition of states in the Middle East to advance mutually beneficial cooperation in light of the common threat from Iran.[6]

It will take time before it emerges whether Trump can gain more support for his approach to the JCPOA and broader Iran policy, or whether the prominent negative trends dividing the strong powers (US, Russia, and China) will dominate, denying the ability to advance nonproliferation goals. Additionally, even if some cooperation is fostered with European nations, there remains the formidable task of compelling Iran to agree, as required by the terms of the JCPOA. The current lack of leverage over Iran could torpedo any such

effort. Nevertheless, a demand could be put forward by the US and its allies for focused discussions directed at clearing up ambiguities with regard to rights of IAEA inspections at Iran's military facilities. There can also be a demand for greater transparency as to what has been done in this regard (especially with reference to Section T of Annex I of the JCPOA). One area where the US and some like-minded states could more realistically advance a new approach on their own is in the missile realm – ironically, because this issue was left outside the deal, the international actors have a freer hand to adopt a harsher approach toward Iran. The US and others are also free to confront Iran's dangerous activities in the Middle East as they see fit.

Israel's options for helping the Trump administration realize its policy aims are limited. Beyond expressed support for the administration's policy, ideas have been raised to create new US-Israel understandings, in parallel to the deal. Amos Yadlin and Avner Golov have advocated this approach:

> The United States and Israel (which is not a party to the JCPOA) must promote a "parallel agreement" that defines what would be considered flagrant breaches of the agreement, and reach agreement regarding actions to be taken in response to these breaches. This parallel agreement should address coordination of intelligence efforts against the Iranian nuclear program; Israeli and American reactions to an Iranian attempt, whether overt or covert, to acquire nuclear weapons; and a plan to build independent Israeli capabilities to handle this scenario. Finally, the agreement must include a joint policy against the non-nuclear Iranian threat to Israel and US allies in the Middle East.[7]

Israel is on the sidelines of the main arena for currently dealing with the provisions of the JCPOA – in the Joint Commission and the P5+1 framework. Moreover, the government's positions are well known to all of the relevant parties. On the regional issues, however, Israel can and should continue to take action to ensure its security interests, primarily vis-à-vis developments in Syria and with regard to Iran's weapons assistance to Hezbollah, while continuing to coordinate with both Russia and the US.

Finally, Israel must be prepared for unexpected but serious developments, such as an Iranian underground nuclear test that might occur because of work it conducted at an undeclared facility that was not being monitored, or a

missile launch potential that Iran establishes in Syria or even Iraq that will significantly shorten the ranges to Israel, while enabling a heavier potential payload and shorter warning times.

Taken in a more general context, the security situation concerning Israel has become more serious and potentially more threatening. Given Iran's expansionist ambitions and activities in Syria, Iraq, and Yemen, it is hard to predict future developments. Iran will likely seize opportunities to further its regional ambitions and territorial influence, through the development of weapons and delivery systems. At present, there appears to be the beginning of an informal sub-regional consensus against these ambitions, and Israel should help promote the formation of a coalition based on this approach. Israel must also continue to navigate relations carefully with both the US and Russia. The realities that are currently taking shape in the region present threats that Israel may find increasingly difficult to confront on its own.

Notes

1 See Nina Tannenwald, "Stigmatizing the Bomb: Origins of the Nuclear Taboo," *International Security* 29, no. 4 (2005): 5-49.

2 "Remarks by President Trump on Iran Strategy," White House Office of the Press Secretary, October 13, 2017.

3 For more on the concept of strategic stability against the backdrop of US relations with Russia and China, see Brad Roberts, "Strategic Stability under Obama and Trump," *Survival* 59, no. 4 (2017): 47-74.

4 Declaration by the Heads of State and Government of France, Germany, and the United Kingdom, UK GOV, October 13, 2017.

5 See John Irish, "Iran Regional Behavior Means Nuclear Deal not Enough," *Reuters,* September 21, 2017; Nick Wadhams, "The US is Testing Support for Extending Iran Nuclear Limits," *Bloomberg,* September 14, 2017; and Kelsey Davenport, "Iran Nuclear Deal 'Sunset' Gets Scrutiny," *Arms Control Today,* October 1, 2017.

6 See Israel Chief of Staff interview: Amos Harel, "Israeli Military Chief Gives Unprecedented Interview to Saudi Media: 'Ready to Share Intel on Iran,'" *Haaretz,* November 17, 2017.

7 Amos Yadlin and Avner Golov, "Preparing an Alternative Strategy before Withdrawing from the Nuclear Agreement with Iran," *INSS Insight* No. 978, October 10, 2017.