

THE IMMINENT IRAN NUCLEAR CRISIS, ATOMIC ARCHIVE AND PATH FORWARD

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On June 27, Iran will – by its own account – violate the terms of the Joint Comprehensive Plan of Action (JCPOA) by exceeding the amount of low enriched uranium hexafluoride (LEU_{F_6}) gas that it is permitted to stockpile pursuant to the agreement. The 300 kilograms limit was set in the JCPOA to create a long lead time for Iran to produce a nuclear weapon if it chose to exit the JCPOA and embark on such a path. Though U.S. negotiators did not imagine in 2015 that it would be the United States that withdrew from the JCPOA first – and while Iran was in full compliance with the agreement, as established multiple times by the International Atomic Energy Agency (IAEA) – the practical reality is that this step will begin to winnow down Iran’s required time toward the bomb.

As one of us has written about elsewhere with a colleague, Eric Brewer,¹ this step does not and should not be seen as the end of a diplomatic path for resolution of the situation. There is still ample time for the United States and Iran to choose to negotiate. Both Donald Trump and Iran’s leaders have indicated some readiness to talk, though with different expectations for how negotiations would begin, as Iran has demanded² a halt in U.S. sanctions and restart of its JCPOA commitments and Trump has repeatedly³ sought⁴ a summit-level meeting but has not offered any good will gestures to facilitate it.

However, it is also evident that the road to diplomacy is getting rockier, as Iran is accused of attacking tankers transiting the Persian Gulf, has shot down an unmanned U.S. Navy aircraft and is publicly testing the constraints of the JCPOA. Iran’s domestic politics are poisonous, with tremendous risks for any actors proposing a more accommodating policy toward Washington. For the United States, too, the situation has been complicated by the political factors at play (both the complex bureaucratic politics of the Trump Administration and the demands of more hawkish members of Congress) and the sense of opportunity that still persists among some in the United States that Iran is poised for regime collapse and change. Our assessment is that Iran’s government is far more stable than many would like to believe and that a change in regime might not be in our interest if more aggressive forces in the country gain the upper hand. This may add up to a profound unwillingness on either side to make the necessary first steps to engage in talks or to persist with them once begun.

Beyond these specific and immediate issues, another one may soon emerge from the “nuclear archive” seized by Israeli Mossad from Iran in 2018, especially the possible existence of undeclared nuclear material in Iran. As Reuters reported in April 2019,⁵ the IAEA has

conducted inspection-related activities at a site in Iran pointed to by Israeli Prime Minister Netanyahu⁶ as having housed 15 kilograms of undeclared “radioactive material” in the past. The IAEA’s investigation is still ongoing but it is possible that it may find traces of this material from its inspections; in turn, it may or may not be possible to authoritatively adjudicate Iranian compliance based on any findings. However this plays out, the scene has set for a renewed debate over the JCPOA and – more importantly – negotiated agreements with Iran. The logic goes: if Iran cheated (or may have cheated) on the JCPOA, then it will cheat on any agreement...and therefore no agreement is worth pursuing with Iranian government. This is no mere supposition: then U.S. Ambassador Nikki Haley⁷ made precisely this argument in 2017.

We do not share this sentiment nor do we think that this argument is particularly constructive in seeking to constrain Iran’s present nuclear capabilities or those that it might develop in the future, as our longstanding support for the JCPOA makes clear. However, there remains questions about how the international community should approach the archive – especially given the potential for more revelations about Iran’s nuclear past -- and take advantage of that which it illuminates.

The archive conundrum

Like other former U.S. government officials and representatives of think tanks following the Iran nuclear issue, Israeli government officials briefed the authors on the archive and what it reveals. Other organizations have been granted far more extensive access to the archive, but what we have learned has reinforced our own longstanding conviction that Iran had a nuclear weapons program in the past and – as the U.S. Intelligence Community⁸ has maintained since at least 2007 – Iran retains the option to pursue such a capability in the future. As noted in that 2007 National Intelligence Estimate, “only an Iranian political decision to abandon a nuclear weapons objective would plausibly keep Iran from eventually producing nuclear weapons – and such a decision is inherently reversible.”

The key question and issue, from this perspective, is how the United States and international community can best keep Iran convinced that it is not in its national interest to pursue nuclear weapons. The approach undertaken by the United States prior to the Trump Administration was to seek a negotiated agreement that imposed severe constraints on Iran’s physical capacity to produce fissile material and facilitated monitoring mechanisms that can provide adequate warning of an imminent Iranian breakout to permit a U.S. response. People of good will could disagree about how far these constraints had to go and how to define “adequate warning,” but the concept was the same among many different groups in the United States. The JCPOA debate showed the many different cleavages that exist in the assessment of those terms and concepts.

The archive itself may produce another, similar cleavage, as it suggests to some advocates that Iran’s nuclear weaponization capabilities are so advanced that they render nuclear agreements with Tehran impractical. As an Israeli official noted, the extent of Iran’s latent nuclear weapons capability shown in the archive is such that Iran may be highly confident that it could produce nuclear weapons very swiftly should it take that decision. This argument supports the notion that any nuclear fuel cycle capability in Iran’s hands must be considered



a nuclear *weapons* capability. It is also a line of argument that is supported by the lack of a confession of nuclear weapons-related work from Iran in 2015 and the possible presence of undeclared nuclear material from the previous weapons program: with so much to hide, can we ever be truly confident in Iran's nuclear intentions?

Questioning the agitation

As unsettling as the existence of a nuclear weapons archive in Iran may be, it is surprising that so many opponents of the JCPOA are themselves acting with shock and incredulity regarding the information revealed by the archive. After all, the United States itself announced publicly in 2007 that Iran had a nuclear weapons program that was coordinated at senior levels and that some parts of the Iranian system were “continuing to develop a range of technical capabilities that could be applied to producing nuclear weapons.” The IAEA has subsequently reported at length on the activities of the nuclear weapons program, showing as long ago as November 2011⁹ the extent of those activities. In part on the strength of this assessment, the IAEA has been clear – as recently as May 31¹⁰ of this year – that it is not in a position to provide assurance as to the absence of undeclared nuclear material and activities in the country. Instead, the IAEA has said that it is evaluating this matter, in part as a means of fulfilling Iran's commitment in the JCPOA to implement the Additional Protocol, which authorizes enhanced inspector access to places and information. The idea that there are things that happened in Iran that we do not know is hardly new, even if some former U.S. officials¹¹ suggested that “we know” about what happened in Iran with great certainty. U.S. officials were well aware of the gaps that existed in U.S. knowledge regarding Iran's nuclear weapons work as relates to specific projects and activities; it is notable that, even with the archive, gaps exist still now.

The focus of those remarks and – in fact, the JCPOA – is that there was no doubt in U.S. negotiator's minds that Iran had a nuclear weapons program and that it made substantial progress on that program. From the standpoint of the threat it embodied, U.S. negotiators assumed the only way to prevent Iran from moving out in furtherance of a nuclear weapons program would be to control its fissile material production and to give Iran a reason not to pursue such a capability.

From a breakout timeline perspective, the U.S. negotiating team assumed that Iran's weaponization work was functionally zero, such that the calculations that went into the one-year breakout timeline established in the JCPOA was set solely to nuclear material production. While the details in the archive are fascinating for experts and contain lessons that should be used to guide non-proliferation in Iran and beyond, the archive only cements the view that finding a way to get Iran to constrain its fissile material production and subject it to monitoring is an absolute U.S. national security imperative.

In the last two decades of the Iran nuclear issue, the only instrument to do that for longer than a few months has been the JCPOA.

Does Israel have a different view of the archives?

Israel has, unsurprisingly, been thorough and thoughtful in its analysis of the archive's copious data. While the government of Israel has a very different approach to the Iran nuclear problem,



its three key conclusions are largely consistent with the bottom line analysis of the authors, and also with our previous view of Iran's nuclear program. They describe the archive as:

1. **A large amount of new, credible and usable information on Iran's previous nuclear weapons program (specifically, the Amad¹² period);**

This seems true, and even an understatement. How this information can be used is the question we seek to address below.

2. **Proof of Iranian concealment and deception of the IAEA; and,**

Again, assuming the authenticity of the documents (which we cannot independently evaluate but do not doubt), this is true. But it is concealment and deception *prior to 2003*, not during the implementation of the JCPOA as relates to current activities. This deception is well known – it was, in many ways, the impetus for international cooperation leading to the JCPOA. The detailed accounting of *how* the deception was carried out should be used to improve IAEA procedures in Iran and elsewhere to go forward, and so the fact that Israel secured the archive is an international public service, but the fact of deception is the opposite of a surprise.

3. **Proof that Iran preserves key assets that allow it to resume its nuclear weapons program upon decision.**

From the documents presented to us, it is clear that Iran preserves intellectual assets and human resources. It is possible that they have also preserved a meaningful amount of physical infrastructure. It is precisely our view that Iran (like Pakistan, North Korea, and any number of countries before it) *could* build a nuclear weapon that informed the international community's perspective – which we continue to share – of the necessity of controlling Iran's fissile material production.

More broadly, the Israelis also conclude, correctly, that “Iran ran a comprehensive military nuclear weapons program.” Such a conclusion is close to the 2007 U.S. National Intelligence Estimate¹³ The conclusion goes farther than the IAEA's 2015 assessment¹⁴ that “a range of activities relevant to the development of a nuclear explosive device were conducted in Iran prior to the end of 2003 as a coordinated effort, and some activities took place after 2003. The Agency also assesses that these activities did not advance beyond feasibility and scientific studies, and the acquisition of certain relevant technical competences and capabilities.” In part the difference reflects new information from the archives, but it is also an artifact of the clipped diplomatic language of international organizations.

A path forward

Of course, the issue with the JCPOA is that key provisions of it will expire, which is why there has been sustained interest in seeking ways of dealing with this “sunset” issue. One of us has proposed¹⁵ a few solutions¹⁶ to this problem along with Bob Einhorn, a long-time U.S. non-proliferation expert.

The archive can and should play a role in these efforts as well.



First and foremost, the archive will give targets for IAEA inspection missions inside of Iran, as indeed appears to be the case already. The archive should continue to be mined by the IAEA to identify the questions that it should ask and the places that it should go inside of Iran. Under the Additional Protocol, Iran has an obligation to facilitate such access where there are legitimate questions as to the presence of undeclared nuclear materials and activities. The archive should be used to facilitate this work and to support the IAEA's efforts to reach a "broader conclusion" as to the nature of Iran's nuclear program.

Second, the archive should be used to allow Iran to come clean about its past. To be clear, a "full confession" by Iran would not satisfy many JCPOA critics, as they would likely argue that there remain omissions in the record. Nor would a confession replace the need for further inspections and monitoring. But, Iran has now received a clear demonstration of the danger of trying to avoid the need to confront its nuclear past. Instead of continuing along this course of action, Iran should acknowledge the risks that come along through obfuscation and turn the incident to its advantage by acknowledging the activities that are described within it. Iran can also provide access to the requested places and activities, particularly where there are links to undeclared nuclear materials.

Here, the Egyptian and South Korean cases of 2005 offer a comparison. Both countries provided access and information to support the IAEA's implementation of its inspections under the Additional Protocol. Both activities revealed potentially important undeclared nuclear activities in these countries but also offered a path forward toward resolution of them. The United States and its partners could make clear – including through resolutions at the IAEA Board of Governors and elsewhere – that Iranian disclosure and cooperation would not be penalized. Critics of the JCPOA should applaud this step if they are sincere in that their objectives with Iran are solely about preventing nuclear weapons proliferation rather than using the nuclear issue as a broader cudgel against Iran.

Third, the archive can be used to improve the operation of the JCPOA and future agreements. We are pessimistic that the JCPOA will still be operative in the months to come given the escalatory approaches taken by the U.S. and Iranian governments, starting with the withdrawal of the United States from the agreement in May 2018. Even if it does, it is unlikely to bear the weight of assertive new weaponizations inspections so long as Iran is not receiving the benefits of U.S. sanctions relief. However, if the JCPOA survives, the remaining participants should prepare to improve its implementation should the U.S. return to compliance, including through specified provision of Iranian declarations of equipment that was involved in the past weaponization effort.

Regardless, but especially if the JCPOA does not survive, we should consider this issue for a future negotiated approach with Iran. As one of us wrote about with Bob Einhorn earlier this year, there are improvements in the JCPOA that ought to be considered, particularly those involving declarations of and inspector access to weaponization-related equipment for purposes of verifying its non-use in nuclear weapons work presently ("Section T" of the JCPOA).

Finally, the archive is *leverage* for future negotiators. It has always been clear that the JCPOA, like arms control agreements to which it has a family resemblance, would need a follow-on deal. We believe that the U.S. was better positioned to lead international negotiations on



such a deal prior to withdrawing from the JCPOA. However, the United States could restore that position through careful diplomacy (though the authors of this paper have somewhat different views of how to do so, with Blanc arguing in favor for a U.S. return to the deal if Iran remains compliant and Nephew laying out an detailed alternative, again with Einhorn). Part of restoring the U.S. position will be reestablishing that Iran's nuclear program if unconstrained, would threaten international peace and security, which the U.S. is a provider of international stability. This will be a challenge, but the detailed accounting of weaponization efforts and duplicity in the archive will help.

Beyond Iran

Outside of the Iran context, there are other things that the archive can enable:

- *Improvements at the IAEA:* The IAEA has had a glaring problem for years concerning nuclear weaponization, namely that there are many inspectors from countries that are not permitted to know things about nuclear weaponization. To teach them how to inspect nuclear weapons program could, in effect, teach them about nuclear weapons, which the NPT prohibits. Proposals to solve this problem have ranged from creating a separate team of nuclear weapons experts to address these issues in a sustained way to using more ad hoc arrangements (such as occurred with Libya, when only inspectors from weapons states were permitted full access to Libya's nuclear documents). The examination of the archive gives a new impetus to resolve this dispute.

While the IAEA and the international community were aware of Iranian deception efforts, the level of detail provided by the archive should allow for a substantial review of how countries seek to hide both fissile material and nuclear weapons programs.

- *Improvements in intelligence analysis:* similarly, the archive provides an opportunity to check specific analytical findings against contemporaneous Iranian documentation. Both correct and erroneous judgements should be carefully evaluated for lessons learned. As one example, it may be that international intelligence analysts missed early nuclear intentions for what became the Fordow facility. If so, we should determine why.
- *Improvements in export controls:* The archive has once again revealed a range of equipment and goods that Iran was able to procure from abroad. It should be mined to identify potential loopholes in export control regimes at an international and a corporate level. Companies that are still operating – as this program is also over 30 years old – should be approached by appropriate authorities to show them examples of equipment that was diverted by Iran and ensure that no such possibility exists now in their corporate compliance programs. It may also be useful to explore options for improving end-use verification checks made by companies, using archive materials to underscore the need for such inspections.
- *Improvements in handling weapons experts:* One of the more troubling pieces of information from the archive relates to how nuclear weapons experts from other countries contributed to the Iranian program. Some of this was known in the past, but the extent of this cooperation is still disturbing. A conversation among the nuclear weapon-possessing



states should be held to discuss how best to manage the spread of nuclear weapons expertise. Programs for managing this issue existed throughout the 1990s, perhaps with limited effect given what Iran was able to glean. But, this underscores rather than obviates the need for work along these lines. Civil society groups could also become involved, particularly with nuclear-related scientists and establishing codes of conduct that – while not legally barring some activities – may at least raise the issue in productive ways.

Conclusion

The nuclear archive seized by Mossad is important in many respects, but it need not be fatal to the JCPOA nor should it be seen as an indication that the JCPOA is obsolete. To the contrary, its existence underscores the need to wrestle seriously with the problem of Iranian nuclear weapons latency and the other systemic issues that nuclear proliferation involves. It should be used, but with an eye towards solving problems rather than as a cudgel against Iran today.

Notes

1. <https://thehill.com/opinion/international/447859-the-new-red-line-on-iran-will-fail>
2. <https://www.reuters.com/article/us-usa-iran/iran-calls-u-s-sanctions-economic-war-says-no-talks-until-they-are-lifted-idUSKCNIT42GB>
3. https://www.washingtonpost.com/world/national-security/us-asked-french-to-broker-trump-rouhani-phone-call-but-iranian-president-said-no/2017/11/02/9addf436-bfea-11e7-959c-fe2b598d8c00_story.html?utm_term=.296208fce055
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 16. <https://www.brookings.edu/research/the-iran-nuclear-deal-prelude-to-proliferation-in-the-middle-east/>
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