



# Detering Iran's Dash to the Bomb

Orde F. Kittrie, Bradley Bowman, Behnam Ben Taleblu  
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## Executive Summary

The Islamic Republic of Iran appears to be in the process of significantly advancing its nuclear weapons program in the coming weeks while Americans are preoccupied with politics at home and Israel is busy battling Hamas and Hezbollah. Iran may seek to establish a nuclear *fait accompli* before the next administration takes office in January 2025, especially if Iran perceives the new administration to be more hawkish, unpredictable, or otherwise less constrained.<sup>1</sup> This monograph is designed to recommend military and non-military steps the Biden-Harris administration should quickly take to deter Iran from making significant progress toward a nuclear weapon before the U.S. election on November 5 and the presidential inauguration on January 20.

The monograph begins with an analysis of the current status of Iran's nuclear program. It then lists specific nuclear weapons program advances that Iran might, unless deterred, undertake and complete in the coming weeks. Within the overall scope of its nuclear weapons program, Iran is evidently attempting to advance in two major categories. The first is enrichment activities other than enriching uranium to 90 percent U-235 (weapons-grade level). The second is nuclear weaponization activities (advancing toward construction of an explosive device capable of unleashing the destructive

power of the weapons-grade uranium (WGU) inserted therein). The next section derives key principles for deterring Iran based on previous successful U.S. efforts to deter Iran. The monograph then recommends specific military and non-military steps that the administration should take.

The concern that Iran may be in the process of significantly advancing its nuclear program appears consistent with a classified report on Iran's nuclear weapons program issued by the office of the director of national intelligence (ODNI) in late July. On July 28, Sen. Lindsey Graham (R-SC) described the classified ODNI report about Iran's nuclear program as "stunning."<sup>2</sup>

Graham said the report made him "very worried" that Iran "could use these three or four months before our election to sprint to a nuclear weapon" and warned, "we have to put them on notice that cannot happen."<sup>3</sup> Graham added, in a July 31 press conference, that "after having viewed the DNI report, I believe it is a certainty that if we do not change course, Iran will in the coming weeks or months possess a nuclear weapon."<sup>4</sup>

The unclassified version of the ODNI report on Iran's nuclear program, dated July 23,<sup>5</sup> contains a deeply troubling change from both an analogous 2023 report<sup>6</sup> and the Iran section of the Annual Threat Assessment

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1. On July 29, the U.S. Office of the Director of National Intelligence issued a statement asserting that Iran is "working to influence the presidential election." Office of the Director of National Intelligence, "100 Days Until Election 2024," July 29, 2024. (<https://www.odni.gov/files/FMIC/documents/ODNI-Election-Security-Update-20240729.pdf>). According to the ODNI, Iran's preference for a U.S. presidential candidate has not changed since 2020, when Iran "carried out a multi-pronged covert influence campaign intended to undercut former President Trump's reelection prospects," according to a declassified U.S. intelligence report. Sean Lyngaas, "Iran Using Covert Influence Campaign to Undermine Trump Candidacy, US Intelligence Says," *CNN*, July 29, 2024. (<https://www.cnn.com/2024/07/29/politics/iran-covert-influence-campaign-trump/index.html>); National Intelligence Council, "Foreign Threats to the 2020 US Federal Elections," March 10, 2021. (<https://www.dni.gov/files/ODNI/documents/assessments/ICA-declass-16MAR21.pdf>)

2. "Face the Nation," July 28, 2024," *CBS*, July 28, 2024. (<https://www.cbsnews.com/news/lindsey-graham-face-the-nation-transcript-07-28-2024>)

3. *Ibid.*

4. "Senator Graham News Conference on Hezbollah and Iran," *C-SPAN*, July 31, 2024. (<https://www.c-span.org/video/?537475-1/senator-graham-news-conference-hezbollah-iran>)

5. Office of the Director of National Intelligence, "Iran's Nuclear Weapons Capability and Terrorism Monitoring Act of 2022," July 23, 2024. (<https://www.dni.gov/files/ODNI/documents/assessments/ODNI-Unclassified-Irans-Nuclear-Weapons-Capability-and-Terrorism-Monitoring-Act-of-2022-202407.pdf>)

6. Office of the Director of National Intelligence, "Iran's Nuclear Weapons Capability and Terrorism Monitoring Act of 2022," June 2023. (<https://www.dni.gov/files/ODNI/documents/assessments/Iran-Nuclear-Weapons-Capability-and-Terrorism-Monitoring-Act-of-2022.pdf>)

of the U.S. Intelligence Community (published in February 2024).<sup>7</sup> The July report is missing the following sentence contained in the February 2024 report (and nearly identically in the 2023 report): “Iran is not currently undertaking the key nuclear weapons-development activities necessary to produce a testable nuclear device.”

The absence of this sentence,<sup>8</sup> when added to factors including Sen. Graham’s response to the classified version of the July 2024 report, suggests that the U.S. intelligence community may assess that Iran is currently undertaking key nuclear weaponization activities necessary to produce a testable nuclear device.

Recent U.S. and European efforts to deter Iranian nuclear progress have focused largely on persuading Iran not to enrich uranium to 90 percent uranium-235.<sup>9</sup> That level is typically referred to as weapons-grade uranium because it is the optimal level for nuclear weapons.<sup>10</sup> However, solely focusing on the enrichment level is far too narrow to effectively prevent Iran from acquiring a nuclear weapon or positioning itself at the brink of one, which would provide nearly all of the same benefits for Iran.

While U.S. and allied attention is focused on deterring Iran from crossing the 90 percent redline, evidence including the ODNI report indicates that Iran is attempting to significantly advance other elements of its enrichment program and its nuclear weaponization activities (to advance toward construction of an explosive device capable of unleashing the destructive power of the enriched uranium).

Iran could achieve sufficient progress in these other two categories (non-90 percent enrichment steps and nuclear weaponization activities), perhaps before November 5 and almost certainly by January 20, so that the cumulative effect will make it extremely difficult to stop an Iranian nuclear weapon by solely patrolling the 90 percent redline. In addition, the cumulative effect of these other advances will make it impossible to stop Iran from getting so close to a weapon that the regime will enjoy nearly all the benefits of having such a capability.

**“While U.S. and allied attention is focused on deterring Iran from crossing the 90 percent redline ... Iran is attempting to significantly advance other elements of its enrichment program and also its nuclear weaponization activities.”**

The goal of U.S. policy should be to roll back Iran’s nuclear weapons program. If the administration fails to quickly take tangible steps to strengthen deterrence, Iran will advance closer to a bomb and rollback will become even more difficult for this administration or the next.

The United States therefore must immediately act to deter the Iranian nuclear enrichment and weaponization advances specified in the first section of this monograph. The Iranian enrichment program advances could render it very difficult for the United States and Israel to stop Iran from producing a sufficient quantity of 90 percent enriched uranium for nuclear weapons. These enrichment program advances include,

7. Office of the Director of National Intelligence, “Annual Threat Assessment of the U.S. Intelligence Community,” February 5, 2024. (<https://www.dni.gov/files/ODNI/documents/assessments/ATA-2024-Unclassified-Report.pdf>)

8. For more on the changes in language by the U.S. intelligence community on Iran’s nuclear program in reporting, see: Andrea Stricker and Behnam Ben Taleblu, “Washington Fails — Again — To Gauge Iran’s Nuclear Threat,” *1945*, March 28, 2024. (<https://www.fdd.org/analysis/2024/03/28/washington-fails-again-to-gauge-irans-nuclear-threat>)

9. Arshad Mohammed, John Irish, Jonathan Landay, and Parisa Hafezi, “Smoldering Iran Nuclear Crisis Risks Catching Fire,” *Reuters*, May 5, 2023. (<https://www.reuters.com/world/middle-east/smoldering-iran-nuclear-crisis-risks-catching-fire-2023-05-05>)

10. While 90 percent purity is ideal for weapons applications, the only uranium bomb used during wartime in history was enriched to about 80 percent purity. Last February, the Islamic Republic had briefly enriched uranium to about 84 percent purity. See: Emily Strasser, “The weight of a butterfly,” *The Bulletin of Atomic Scientists*, February 25, 2015. (<https://thebulletin.org/2015/02/the-weight-of-a-butterfly>) and Bradford Betz, “Iran’s uranium processing has almost reached nuclear weapons-grade purity: inspectors,” *Fox News*, February 19, 2025. (<https://www.foxnews.com/world/irans-uranium-processing-almost-reached-nuclear-weapons-grade-purity-inspectors>)

but are not limited to, Iran shifting enrichment to hidden or deeply buried locations and Iran further decreasing the already very short time it would need to produce sufficient 90 percent enriched uranium for multiple nuclear weapons.<sup>11</sup>

On June 9 and 10, Iran informed the International Atomic Energy Agency (IAEA) that it would over the next three to four weeks be installing some 1,400 advanced centrifuges at its Fordow facility.<sup>12</sup> According to noted nuclear expert David Albright, that means that Iran had by mid-July likely sufficiently enhanced and arranged its enrichment capacity so that it could produce enough weapons-grade uranium for three nuclear weapons in just 10 days, and do so in a deeply fortified underground facility (Fordow) that presents challenges for any military that attempts to destroy it with airstrikes.<sup>13</sup> Once Iran produces sufficient weapons-grade uranium, the additional time needed to produce a functional nuclear weapon will be dependent on the time (if any) that Iran still needs to build a nuclear explosive device.

The Iranian nuclear weaponization program advances specified in the first section of this monograph would greatly shorten the time needed to complete the production of a nuclear explosive device.<sup>14</sup> The advances would also considerably increase the likelihood that the device would function effectively, even absent a test blast.<sup>15</sup> It may be impossible for the West to detect the

final stages of assembly and storage of an Iranian nuclear weapon, which can occur in a small, hidden facility.<sup>16</sup> Iran must be kept as far as possible from that point.

There is strong reason to believe that the U.S. government has the ability to deter Iran when Washington chooses to do so. This is demonstrated by the success of U.S. deterrence in a different arena earlier this year. Strong U.S. military action in early February 2024 led Iran to halt a campaign of near-daily attacks by Iranian proxies on U.S. forces in Iraq and Syria. While Iranian proxies had attacked U.S. forces in Iraq and Syria over 160 times in the 17 weeks between October 7, 2023, and February 4, 2024,<sup>17</sup> Iranian proxies attacked only two times (with no U.S. casualties or significant property damage) in the 23 weeks between February 4 and July 16, 2024.<sup>18</sup> Admittedly, as the deterrent impact of the February U.S. military responses has eroded, attacks on U.S. forces have resumed. The lesson from February, however, is still instructive.

Specific evidence that Iran's nuclear program is guided by a cost-benefit approach and thus deterrable can be derived from the regime's decisions to curtail key aspects of its nuclear program in 2003 and 2015. According to the public portions of a 2007 National Intelligence Estimate (NIE), "in fall 2003, Tehran halted its ... nuclear weapon design and weaponization work and covert uranium conversion-related and uranium enrichment-related work."<sup>19</sup> While the NIE's phrasing

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11. Interview with David Albright by Orde Kittrie on July 30, 2024.

12. Francois Murphy, "IAEA Report: Iran Installs More Centrifuges at Fordow Enrichment Plant," *Reuters*, June 13, 2024. (<https://www.reuters.com/world/middle-east/iaea-report-iran-installs-more-centrifuges-fordow-enrichment-plant-2024-06-13>)

13. David Albright, "Technical Note: Iran's Recent Increase in Enrichment Capacity at the Fordow Enrichment Plant," *Institute for Science and International Security*, June 19, 2024. (<https://isis-online.org/isis-reports/detail/technical-note-irans-recent-increase-in-enrichment-capacity-at-fordow/8>)

14. Interview with David Albright by Orde Kittrie on July 30, 2024.

15. *Ibid.*

16. "Verification Requirements For A Nuclear Agreement With Iran: Nuclear Verification Capabilities Independent Task Force of the Federation of American Scientists," *Federation of American Scientists*, September 1, 2014. (<https://www.jstor.org/stable/resrep19033?seq=10>)

17. Lara Seligman, "Iran proxy attacks on US troops in Iraq, Syria drop off as Red Sea heats up," *Politico*, March 6, 2024. (<https://www.politico.com/news/2024/03/06/proxy-attacks-iraq-syria-red-sea-00145428>)

18. "Drones target Iraq's Ain al-Asad airbase, no casualties, say military sources," *Reuters*, July 16, 2024. (<https://www.reuters.com/world/middle-east/drones-target-iraqs-ain-al-asad-airbase-no-casualties-say-military-sources-2024-07-16>)

19. National Intelligence Council, "Iran: Nuclear Intentions and Capabilities," November 2007. ([https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203\\_release.pdf](https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf))

and scope remain controversial, Iran did significantly ramp down its nuclear weapons program in fall 2003.<sup>20</sup>

The 2007 NIE assessed that the halt came “in response to increasing international scrutiny and pressure resulting from exposure of Iran’s previously undeclared nuclear work.” This, said the NIE, indicated that “Tehran’s decisions are guided by a cost-benefit approach rather than a rush to a weapon irrespective of the political, economic, and military costs.”<sup>21</sup>

**“Deterring these [other] Iranian nuclear weapons program advances will be more complicated than deterring the bright red line of Iranian enrichment to 90 percent in facilities monitored by the IAEA.”**

A 2011 National Intelligence Estimate, which was not made public, reportedly reached a similar conclusion,<sup>22</sup> which was then reflected in the following language in 2012 congressional testimony delivered by Director of National Intelligence James Clapper: “We judge Iran’s nuclear decision-making is guided by a cost-benefit approach, which offers the international community opportunities to influence Tehran.”<sup>23</sup>

The Islamic Republic’s decision to enter into the Joint Comprehensive Plan of Action (JCPOA) nuclear deal in July 2015 was evidently also the result of a cost-benefit calculation. Iran agreed to various constraints on its nuclear program in exchange for a lifting of various sanctions that had taken a massive toll on the Iranian economy.

After providing an up-to-date analysis of how close Iran may already be to producing sufficient weapons-grade

uranium and to constructing a nuclear explosive device, this monograph includes a list of two dozen nuclear program advances that Iran might, unless deterred, undertake and complete in the coming weeks.

If Iran succeeds in completing these steps between now and November 5, the regime could be in position to dash to a crude nuclear bomb between November 5 and January 20. Alternatively, the regime could be in position to stop just short of a completed nuclear bomb and present the new U.S. administration with the *fait accompli* of an Iran that is a true nuclear threshold state, as close as a few screw turns away from possessing a workable nuclear weapon.

Deterring these Iranian nuclear weapons program advances will be more complicated than deterring the bright red line of Iranian enrichment to 90 percent in facilities monitored by the IAEA. Several of these potential advances are more incremental than the bright line of whether 90 percent has been reached or exceeded. Several of these advances would take place in facilities that are not monitored by the IAEA. For many of the weaponization advances, Iran has carefully concocted (or will undoubtedly try to concoct) cover stories, claiming that the work is for civilian or non-nuclear military purposes. In other instances, Iran is likely to claim these advances are a response to U.S. or Israeli actions.

While the cumulative effect of some or all of the nuclear weapons program advances would equal or outweigh the significance of Iran crossing the 90 percent line, it is difficult to envision the United States threatening to respond, or responding, to each of these individual advances with the same force it has implied it would

20. Paul K. Kerr, “Iran and Nuclear Weapons Production,” *Congressional Research Service*, March 20, 2024. (<https://crsreports.congress.gov/product/pdf/IF/IF12106>)

21. National Intelligence Council, “Iran: Nuclear Intentions and Capabilities,” November 2007. ([https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203\\_release.pdf](https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf))

22. Greg Thielmann, “U.S. Intelligence Assessment of Iran’s Nuclear Program: Essentials Remain the Same,” *Arms Control Association*, January 31, 2012. (<https://www.armscontrol.org/blog/2012-01-31/us-intelligence-assessment-irans-nuclear-program-essentials-remain-same>)

23. Director of National Intelligence James R. Clapper, “Unclassified Statement for the Record on the Worldwide Threat Assessment of the US Intelligence Community for the Senate Committee on Armed Services,” *Testimony before the Senate Armed Services Committee*, February 16, 2012. ([https://www.dni.gov/files/documents/Newsroom/Testimonies/20120216\\_SASC%20Final%20Unclassified%20-%202012%20ATA%20SFR.pdf](https://www.dni.gov/files/documents/Newsroom/Testimonies/20120216_SASC%20Final%20Unclassified%20-%202012%20ATA%20SFR.pdf))



*Shahab-3 and Zolfaghar missiles at Tehran rally featuring “Death to America” and “Death to Israel” chants. The IAEA has reported evidence of Iran working to develop a nuclear warhead for the Shahab-3. (Photo by Stringer/AFP via Getty Images)*

use in response to a bright-line-crossing Iranian move to acquire a nuclear weapon. It is thus essential that the United States develop, and apply to these individual advances, a more nuanced and graduated deterrence toolkit.

In the interest of refining the U.S. deterrence toolkit to effectively deter the specified Iranian nuclear advances, this monograph sets forth 12 principles for deterring Iran. These principles reflect lessons learned from previous successful efforts to deter Iran.

The monograph includes six case studies of particularly relevant U.S. successes in deterring Iran, which include both large-scale and much smaller-scale deterrent successes using military, economic, and diplomatic tools.

The principles for deterring Iran also draw from analysis of Iranian culture, politics, and leadership statements as well as general deterrence theory and some past U.S. failures to deter Iran. Each of these principles will likely be applicable to deterring Iran after, as well as

before, the inauguration of a new U.S. president on January 20, 2025.

In the past, the United States has relied on sanctions, isolation, sabotage, and the threat of force as its key tools to rein in Iran’s nuclear weapons program.<sup>24</sup> Iran’s current partnership with Russia,<sup>25</sup> and greatly increased supply of oil to China,<sup>26</sup> means that sanctions and isolation may be less useful than they were before. In addition, the growth of Iran’s nuclear program and stockpiles means that sabotage may be less impactful. Thus, it is more important than ever for the United States to more effectively use the threat of force to deter Iranian nuclear advances of various types.

This monograph includes recommended steps the Biden-Harris administration should quickly take to enhance its ability to deter the regime in Iran from advancing toward a nuclear arsenal before the U.S. election on November 5 and the presidential inauguration on January 20.

The monograph recommends the United States adopt and implement the following steps to enact a whole-of-government strategy to identify and deter Iranian nuclear advances:

- The United States should internally identify the full range of potentially significant Iranian nuclear advances and develop a set of U.S. and allied military and non-military responses to employ if Iran undertakes each advance.
- Responses should not merely seek to reverse the advance but also impose a larger cost on the regime.
- The United States should also determine which of the potential advances the United States should declare a redline, either publicly or in private messaging to the regime in Iran.

<sup>24</sup>. Michael Eisenstadt, “America’s Failing Iran Nuclear Policy: Time For A Course Adjustment,” *War on the Rocks*, October 20, 2023. (<https://warontherocks.com/2023/10/americas-failing-iran-nuclear-policy-time-for-a-course-adjustment>)

<sup>25</sup>. Behnam Ben Taleblu, “The Despot Duo: Russo-Iranian Cooperation and Threats to U.S. Interests,” *Testimony before the House Foreign Affairs Subcommittees on Middle East, North Africa, and Central Asia and Europe*, April 17, 2024. (<https://docs.house.gov/meetings/FA/FA13/20240417/117148/HHRG-118-FA13-Wstate-BenTalebluB-20240417.pdf>)

<sup>26</sup>. Clayton Thomas, Liana W. Rosen, and Jennifer K. Elsea, “Iran’s Petroleum Exports to China and U.S. Sanctions,” *Congressional Research Service*, May 8, 2024. (<https://crsreports.congress.gov/product/pdf/IN/IN12267>)

The section on recommended military steps for the United States to take to deter Iranian nuclear advances in the coming months contains the following:

- The administration should consider declassifying intelligence assessments related to Iran's nuclear weapons program to build domestic and international consensus for necessary deterrent strategies.
- To deter additional significant nuclear advances or a full Iranian nuclear sprint, the administration should consider deploying select U.S. military forces affiliated with strategic targeting mission sets to the region, at least on a temporary basis, to signal the administration's political will to stop an Iranian nuclear breakout, if necessary.
- U.S. forces should regularly take part in military exercises that demonstrate targeting capabilities against hardened and deeply buried targets as well as expand the number of ground, air, and naval exercises with the military forces of Israel, Jordan, Saudi Arabia, the United Arab Emirates, Bahrain, Qatar, Kuwait, Oman, and Iraq. These exercises should incorporate assets deployed for deterrence against regional escalation.
- Building on the success of the January 2023 Juniper Oak bilateral exercise with Israel (the largest in history), the administration should work with Israel to conduct by October a Juniper Oak 2024 exercise.
- The administration should learn from past successful deterrence of Iran and respond more quickly and forcefully to attacks on U.S. forces in Iraq and Syria. That will better protect deployed U.S. troops and increase concerns in Tehran that the United States might be willing to use military force.
- The administration should formally announce a major effort to systematically deepen and expand U.S.-Israel intelligence sharing.
- The Pentagon could lease to Israel a number of its own KC-46 refueling planes.
- The administration should announce in the next couple months, and implement as quickly as possible, steps to expedite the delivery of Israel's order for new

F-15IA fighter aircraft and the modernization of its existing F-15I fighters.

- The White House should lift its hold on the shipment of 2,000-pound bombs (MK-84) to Israel to provide Jerusalem with vital capabilities and signal to the Iran axis that U.S. support is unwavering.
- Congress and the administration should ensure that there are no delays in delivering hundreds of the BLU-109 Penetrator Bomb to Israel, which can help it destroy modestly hardened targets while minimizing civilian casualties.
- Congress and the administration should ensure that any air-launched munitions, guidance kits, and fuses requested by Israel since October 7 that require congressional notification are sent to Capitol Hill and delivered to Israel without delay.

The monograph's recommended non-military steps to deter Iranian nuclear advances in the coming months include:

- President Joe Biden should make an unambiguous statement such as the following: "If Iran takes additional decisive steps toward producing a nuclear bomb, I will use military force to destroy Iran's nuclear program and impose crippling costs on the regime, including by destroying other targets important to it." The additional decisive steps, which need not be publicly specified, could include the most important of the potential Iranian advances set forth in this monograph, including enriching uranium to 90 percent, expelling IAEA inspectors, or undertaking significant additional weaponization activities.
- The U.S. deterrent statement will resonate more if it is not just a line or two in a presidential speech but is instead accompanied by an explanation of why it is essential to U.S. national security that Iran does not acquire nuclear weapons.
- Particularly during the election season and transition period, other top U.S. officials and candidates should also issue strong messages of U.S. commitment to use force, if necessary, against Iran's nuclear program. Those officials and candidates should include: Vice President Kamala Harris, Governor Tim Walz,

Secretaries Lloyd Austin and Antony Blinken, former President Donald Trump, Senator JD Vance, and members of Congress from both parties.

- President Biden should reiterate and strengthen the existing U.S. commitment to support Israeli action to prevent an Iranian nuclear bomb. It is important to deterrence that other top U.S. officials and candidates also express strong support for Israel's freedom of action to prevent Iran from acquiring a nuclear bomb. Those officials and candidates should again include: Vice President Harris, Governor Walz, Secretaries Austin and Blinken, former President Trump, Senator Vance, and leading legislators from both parties.
- The Biden administration should massively increase economic sanctions immediately until Iran curtails its nuclear weapons program. If the administration is unwilling to do so, it should at least make clear to Iran that specific additional advances would incur severe economic consequences (along with other types of U.S.-imposed consequences).
- The United States should work with the United Kingdom, France, and Germany to trigger the snapback process by which pre-JCPOA UN sanctions and restrictions can be re-imposed on Iran in accordance with UN Security Council Resolution 2231. Resolution 2231, which endorsed the JCPOA, terminated numerous sanctions and restrictions previously imposed on Iran by several prior Security Council resolutions. As a result, the threat of a snapback constitutes significant leverage over Iran. Iran is clearly in significant non-compliance with its JCPOA commitments and thus subject to snapback.
- The United States should enhance plans and prepare to deploy cyber capabilities to disrupt and

disable Iran's nuclear weapons-related infrastructure. This includes not just the core operations of the Natanz and Fordow facilities but also the critical infrastructure and the physical security of those facilities.

- The United States should prepare to deploy cyber capabilities to deter and respond to relevant nuclear advances by attacking the command-and-control capabilities of Iran's Islamic Revolutionary Guard Corps (IRGC) and degrading Iran's capabilities to mobilize and direct its paramilitary forces.
- The United States should prepare to deploy cyber capabilities to deter and respond to relevant nuclear advances by disrupting or degrading the operations of Iran's military facilities.
- The United States should enhance its cyber engagement and collaboration with Israel. Given the reported impact on Iran's nuclear program of the apparent U.S.-Israeli partnership on Stuxnet, it seems likely that announcements of relevant new U.S.-Israeli cyber partnerships (phrased as vaguely as necessary to protect secrecy) could add to the deterrent pressure on Iran.
- The administration should implement, without delay, a graduated offensive information war campaign inside Iran that systematically exposes the Iranian people to the corruption, hypocrisy, lies, and oppression by regime leaders and ensures the Iranian people know the truth regarding the regime's foreign and domestic policies.
- The United States should strongly encourage, and assist, the IAEA to continue pressing concerns that Iran's nuclear program is not peaceful.

## Iran's Nuclear Weapons Program: Current Status and Possible Next Steps

### Iran is Rapidly Advancing Toward a Nuclear Bomb

Iran's breakout time — the amount of time needed to produce sufficient weapons-grade uranium for one nuclear weapon — “is now probably one or two weeks,” said U.S. Secretary of State Antony Blinken on July 19.<sup>27</sup> This is reportedly the shortest period of time that U.S. officials have ever publicly referenced for Iran producing that quantity of weapons-grade uranium.<sup>28</sup> As of May 2024, the Institute for Science and International Security assessed that Tehran could make enough weapons-grade uranium for a nuclear weapon in one week and enough for 13 weapons in four months.<sup>29</sup>

Increasing the danger, Iran has evidently added new enrichment capacity at its deeply buried Fordow facility this summer. According to Institute for Science and International Security President David Albright, this added capacity is sufficient for Iran,

using only Fordow, to produce enough weapons-grade uranium for three nuclear weapons in just 10 days.<sup>30</sup> To complicate matters, targeting the deeply buried nuclear facilities at Fordow presents unique challenges for military planners.<sup>31</sup>

Once Iran produces sufficient weapons-grade uranium, the time needed to produce a functional nuclear weapon will depend on the amount of time (if any) that Iran still needs to build a nuclear explosive device. Iran acquired vast knowledge and experience in developing and building nuclear weapons during the early 2000s under the regime's “Amad Plan.”<sup>32</sup> Certain U.S. sources have repeatedly assessed that Iran has not yet “mastered all of the necessary technologies” for building nuclear weapons.<sup>33</sup> Based on that assessment, those U.S. government sources estimated, prior to recent developments, that Iran would need one year to complete the nuclear weapons production steps besides the acquisition of weapons-grade uranium.<sup>34</sup>

However, Olli Heinonen, former deputy general of the IAEA, recently estimated that Iran may be able to create an arsenal of eight nuclear warheads within six months.<sup>35</sup> And in 2023, Gen. Mark Milley, then chairman of the Joint Chiefs of Staff, estimated that

27. Antony J. Blinken, *Remarks at Aspen Security Forum*, July 19, 2024. (<https://www.state.gov/secretary-antony-j-blinken-at-aspen-security-forum-fireside-chat-moderated-by-mary-louise-kelly-of-national-public-radio>)

28. Jennifer Hansler and Kylie Atwood, “Blinken says Iran's nuclear weapon breakout time is probably down to 1-2 weeks,” *CNN*, July 19, 2024. (<https://www.cnn.com/2024/07/19/politics/blinken-nuclear-weapon-breakout-time/index.html>)

29. David Albright, Sarah Burkhard, Spencer Faragasso, and Andrea Stricker, “Analysis of IAEA Iran Monitoring and Verification Report — May 2024,” *Institute for Science and International Security*, May 29, 2024. ([https://isis-online.org/uploads/isis-reports/documents/Analysis\\_of\\_May\\_2024\\_IAEA\\_Iran\\_Verification\\_Report\\_May\\_31\\_2024\\_Final.pdf](https://isis-online.org/uploads/isis-reports/documents/Analysis_of_May_2024_IAEA_Iran_Verification_Report_May_31_2024_Final.pdf))

30. David Albright, “Technical Note: Iran's Recent Increase in Enrichment Capacity at the Fordow Enrichment Plant,” *Institute for Science and International Security*, June 19, 2024. (<https://isis-online.org/isis-reports/detail/technical-note-irans-recent-increase-in-enrichment-capacity-at-fordow/8>)

31. David Albright, “Technical Note: Iran's Recent Increase in Enrichment Capacity at the Fordow Enrichment Plant,” *Institute for Science and International Security*, June 19, 2024. (<https://isis-online.org/isis-reports/detail/technical-note-irans-recent-increase-in-enrichment-capacity-at-fordow/8>)

32. David Albright and Sarah Burkhard, “We Need a New Discussion About Iran's Nuclear Weapons Work,” *Institute for International Science and Security*, August 6, 2024. (<https://isis-online.org/isis-reports/detail/we-need-a-new-discussion-about-irans-nuclear-weapons-work>)

33. Paul K. Kerr, “Iran and Nuclear Weapons Production,” *Congressional Research Service*, March 20, 2024. (<https://crsreports.congress.gov/product/pdf/IF/IF12106>)

34. *Ibid.*

35. Olli Heinonen, “Detecting and Blocking Iran's Nuclear Breakout,” *The Jerusalem Strategic Tribune*, April 2024. (<https://jstribune.com/heinonen-detecting-and-blocking-irans-nuclear-breakout>)

once Iran has sufficient weapons-grade uranium, it “would only take several more months to produce an actual nuclear weapon.”<sup>36</sup>

Albright has assessed, based on analysis of hundreds of Amad Plan documents that Israel seized from Iran in 2018, that “Iran already knows how to build nuclear weapons, although there are some unfinished tasks related to the actual construction of them.”<sup>37</sup> Albright assessed in late 2023 that Iran would need six months between deciding to construct a nuclear weapon and testing such a weapon.<sup>38</sup> He estimates Tehran could further shorten the timeline for a Western response if Iran produced weapons-grade uranium toward the end of a breakout instead of at the start.<sup>39</sup> That time would also shrink enormously if Iran were to achieve the relevant nuclear weaponization advances specified in this monograph.

At least two Iranian officials have claimed that Iran is much closer than six months to a nuclear bomb. In February, former Atomic Energy Organization of Iran chief Ali-Akbar Salehi claimed that Iran has crossed “all the scientific and technological nuclear thresholds” to build a bomb<sup>40</sup> and hinted that Tehran already has all the pieces of a nuclear weapon completed but disassembled.<sup>41</sup>

Days later, IAEA Director General Rafael Mariano Grossi reacted to Salehi's comments by saying that Iran is “not entirely transparent” regarding its nuclear program. “Let me know what you have,” he warned.<sup>42</sup> Grossi also said in an interview published on April 10, “All this loose talk about nuclear weapons is extremely unhelpful, and I frankly deplore it,” reflecting the gravity of Salehi's comments.<sup>43</sup> “If you are a party to the Nuclear Non-Proliferation Treaty,” said Grossi, “you are not supposed to have nuclear weapons in any way — assembled, disassembled, in a drawer, in a cupboard, or whatever. You should not pursue it; you should not have it. Period.”<sup>44</sup>

**“If you are a party to the [NPT],’ said [IAEA Director General] Grossi, ‘you are not supposed to have nuclear weapons in any way — assembled, disassembled, in a drawer, in a cupboard, or whatever.’”**

Notwithstanding Grossi's sharp rebuke of Salehi, Javad Karimi Ghodousi, a member of the Iranian parliament's National Security Commission, made another worrisome statement less than two weeks later. Ghodousi declared that if the supreme leader “issues permission, we would be a week away from testing the first [nuclear bomb].”<sup>45</sup> The next day,

36. Laurence Norman and Michael R. Gordon, “Iran Could Produce Nuclear Weapon in Several Months if It Decides to Do So, Mark Milley Says,” *The Wall Street Journal*, March 23, 2023. (<https://www.wsj.com/articles/iran-could-produce-nuclear-weapon-in-several-months-if-it-decides-to-do-so-mark-milley-says-eecd38f07>)

37. David Albright, “How quickly could Iran make nuclear weapons today?” *Institute for Science and International Security*, January 8, 2024. (<https://isis-online.org/isis-reports/detail/how-quickly-could-iran-make-nuclear-weapons-today/8>)

38. Ibid.

39. Ibid.

40. “Former Iranian Nuclear Chief Ali-Akbar Salehi: Iran Has Crossed All Scientific And Technological Thresholds Necessary For Producing A Nuclear Bomb,” *Middle East Media Research Institute*, February 14, 2024. (<https://www.memri.org/reports/former-iranian-nuclear-chief-ali-akbar-salehi-iran-has-crossed-all-scientific-and>)

41. Peter Aitken, “Iran boasts of capability to attack Israeli base after nuclear official indicates ability to create bomb,” *Fox News*, February 14, 2024. (<https://www.foxnews.com/world/iran-boasts-capability-attack-israeli-base-nuclear-official-indicates-ability-create-bomb>)

42. Jon Gambrell, “The Head of UN's Nuclear Watchdog Warns Iran is ‘Not Entirely Transparent’ on its Atomic Program,” *Associated Press*, February 13, 2024. (<https://apnews.com/article/iran-nuclear-program-iaea-gross-israel-hamas-gaza-war-ee164aefb63a533548a54179c952b5e1>)

43. Joby Warrick, “Nuclear deal in tatters, Iran edges close to weapons capability,” *The Washington Post*, April 10, 2024. (<https://www.washingtonpost.com/national-security/2024/04/10/iran-nuclear-bomb-iaea-fordow/>)

44. Ibid.

45. Khosro Sayeh Isfahani, “The nuclear fatwa that wasn't—how Iran sold the world a false narrative,” *Atlantic Council — Iran Source*, May 9, 2024. (<https://www.atlanticcouncil.org/blogs/iransource/iran-nuclear-weapons-fatwa-khamenei/>)

Ghodousi elaborated, saying that Iran “needs half a day or maximum a week to build a nuclear warhead.”<sup>46</sup> Ghodousi’s statement is consistent with that of Salehi but inconsistent with the assessment of many Western experts.

## The U.S. and IAEA Have Limited Visibility Into Iran’s Nuclear Weapons Program

There is a significant possibility that Iran could enrich sufficient uranium to weapons-grade levels, manufacture nuclear weapon components, or even assemble complete bombs, in small, covert facilities undetected by the United States or the IAEA.<sup>47</sup> Heinonen recently stated that an Iranian breakout “would be difficult to detect by the technical means used by Western intelligence agencies.”<sup>48</sup>

Heinonen explained that “the enrichment installation needed for the one, decisive last leap would require less than 1,000 advanced centrifuges, which can be put to work in a small and relatively easily hidden floor

space.”<sup>49</sup> He added that the “necessary workshop for uranium conversion to metal, and machining of weapon components, would be even smaller” and “difficult to find.”<sup>50</sup> Iran reportedly also may be working on a new, secret enrichment facility in mountains near the Natanz enrichment site that is 100 meters deep.<sup>51</sup> Such a site would create additional challenges for any effort to destroy Iran’s nuclear program.<sup>52</sup>

Iran has greatly limited IAEA monitoring of its nuclear activities.<sup>53</sup> Thus, the IAEA lacks a comprehensive picture of the regime’s nuclear activities, which eases Iran’s task of stockpiling advanced centrifuges at a secret enrichment site for use in a breakout to nuclear weapons.

## Iran Can Significantly Advance Toward a Nuclear Bomb in the Coming Weeks

Iranian officials have long claimed that Supreme Leader Ali Khamenei has issued a *fatwa* (a reversible ruling on a point of Islamic law) that the “use” of nuclear

46. Following Ghodousi’s comments, some members of parliament tried to tone down or walk back his comments. Ibid.

47. “Verification Requirements For A Nuclear Agreement With Iran: Nuclear Verification Capabilities Independent Task Force of the Federation of American Scientists,” *Federation of American Scientists*, September 1, 2014. (<https://www.jstor.org/stable/resrep19033?seq=10>)

48. Olli Heinonen, “Detecting and Blocking Iran’s Nuclear Breakout,” *The Jerusalem Strategic Tribune*, April 2024. (<https://jstribune.com/heinonen-detecting-and-blocking-irans-nuclear-breakout>)

49. Ibid.

50. Ibid.

51. David Albright, Sarah Burkhard, Spencer Faragasso, and the Good ISIS Team, “Imagery Update: Construction is Ongoing at the Natanz Tunnel Facility,” *Institute for Science and International Security*, March 25, 2024. ([https://isis-online.org/uploads/isis-reports/documents/Continued\\_Construction\\_at\\_Natanz\\_Kolang\\_Gaz\\_La\\_Tunnel\\_Complex\\_March\\_25\\_2024\\_Final.pdf](https://isis-online.org/uploads/isis-reports/documents/Continued_Construction_at_Natanz_Kolang_Gaz_La_Tunnel_Complex_March_25_2024_Final.pdf)); Jon Gambrell, “An Iranian nuclear facility is so deep underground that US airstrikes likely couldn’t reach it,” *Associated Press*, May 22, 2023. (<https://apnews.com/article/iran-nuclear-natanz-uranium-enrichment-underground-project-04dae673fc937af04e62b65dd78db2e0>)

52. David Albright, Sarah Burkhard, Spencer Faragasso, and the Good ISIS Team, “Imagery Update: Construction is Ongoing at the Natanz Tunnel Facility,” *Institute for Science and International Security*, March 25, 2024. ([https://isis-online.org/uploads/isis-reports/documents/Continued\\_Construction\\_at\\_Natanz\\_Kolang\\_Gaz\\_La\\_Tunnel\\_Complex\\_March\\_25\\_2024\\_Final.pdf](https://isis-online.org/uploads/isis-reports/documents/Continued_Construction_at_Natanz_Kolang_Gaz_La_Tunnel_Complex_March_25_2024_Final.pdf)); Jon Gambrell, “An Iranian nuclear facility is so deep underground that US airstrikes likely couldn’t reach it,” *Associated Press*, May 22, 2023. (<https://apnews.com/article/iran-nuclear-natanz-uranium-enrichment-underground-project-04dae673fc937af04e62b65dd78db2e0>)

53. Rafael Mariano Grossi, “Verification and Monitoring in the Islamic Republic of Iran in light of United Nations Security Council Resolution 2231 (2015),” *International Atomic Energy Agency, Board of Governors*, February 23, 2021. (<https://www.iaea.org/sites/default/files/documents/gov2021-10.pdf>)

weapons is “*haram*” (forbidden).<sup>54</sup> However, as one Iran analyst has noted, Khamenei’s purported *fatwa* that the “use” of nuclear arms is forbidden did not forbid the “‘production and storage’ of nuclear arms.”<sup>55</sup>

Recent comments by Salehi and others suggesting that the regime now possesses the requisite equipment and technical expertise necessary to build nuclear weapons represent a significant deviation from prior Iranian statements. Previous Iranian official public discussions of nuclear weapons focused on the *fatwa* and rarely hinted at acquiring nuclear weapons.

In addition, there have been several worrisome statements hinting at a potential change in the purported *fatwa*. In April, amidst the Israeli-Iranian military conflict that month, an IRGC official in charge of nuclear security threatened, “If the fake Zionist regime decides to use the threat of attacking our country’s nuclear centers as a tool to put pressure on Iran, it is possible and conceivable to revise the nuclear doctrine and policies of the Islamic Republic of Iran and deviate from the previously declared considerations.”<sup>56</sup>

This was echoed by a former foreign minister of Iran, Kamal Kharrazi in a May interview: “Two years ago, in an interview with Al Jazeera, I announced that Iran has the potential to produce a nuclear bomb; and today we still have that capacity, but we have no decision to produce a nuclear bomb ... but if Iran’s existence is threatened, we will have to change our nuclear doctrine.”<sup>57</sup>

In the coming weeks, many Americans will be preoccupied with domestic politics, and Israel will almost certainly be busy battling Hamas and Hezbollah. Iran’s disposition against a possible second Trump term, as documented by the ODNI,<sup>58</sup> could tempt Tehran to create a nuclear *fait accompli* before a potential Trump inauguration on January 20.

There is evidence that the regime is already attempting to use this period to significantly advance its nuclear program. The unclassified version of the ODNI report on Iran’s nuclear weapons program, dated July 23, indicates that the U.S. intelligence community can no longer attest that “Iran is not currently undertaking the

54. Andrea Stricker, “Washington Cannot Rely on Iran’s Alleged Anti-Nuclear Fatwa,” *Foundation for Defense of Democracies*, February 11, 2021. (<https://www.fdd.org/analysis/2021/02/11/washington-cannot-rely-on-anti-nuclear-fatwa>); Khosro Sayeh Isfahani, “The nuclear fatwa that wasn’t—how Iran sold the world a false narrative,” *Atlantic Council — Iran Source*, May 9, 2024. (<https://www.atlanticcouncil.org/blogs/iransource/iran-nuclear-weapons-fatwa-khamenei>); “Iran Signals It Is Closer To Building Nuclear Weapons,” *Iran International*, February 12, 2024. (<https://www.iranintl.com/en/202402123916>)

55. Khosro Sayeh Isfahani, “The nuclear fatwa that wasn’t—how Iran sold the world a false narrative,” *Atlantic Council — Iran Source*, May 9, 2024. (<https://www.atlanticcouncil.org/blogs/iransource/iran-nuclear-weapons-fatwa-khamenei>); “Iran Signals It Is Closer To Building Nuclear Weapons,” *Iran International*, February 12, 2024. (<https://www.iranintl.com/en/202402123916>)

56. “Official: Revising Iran’s Nuclear Doctrine Possible,” *Kayhan* (Iran), April 19, 2024. (<https://kayhan.ir/en/news/126409/official-revising-iran%E2%80%99s-nuclear-doctrine-possible>)

57. “Iran will have to change nuclear doctrine if existence threatened: Ex-FM,” *Islamic Republic News Agency* (Iran), May 9, 2024. (<https://en.irna.ir/news/85471128/Iran-will-have-to-change-nuclear-doctrine-if-existence-threatened>)

58. On July 29, the U.S. Office of the Director of National Intelligence issued a statement asserting that Iran is “working to influence the presidential election.” Office of the Director of National Intelligence, “100 Days Until Election 2024,” July 29, 2024. (<https://www.odni.gov/files/FMIC/documents/ODNI-Election-Security-Update-20240729.pdf>). According to the ODNI, Iran’s preference for a U.S. presidential candidate has not changed since 2020, when Iran “carried out a multi-pronged covert influence campaign intended to undercut former President Trump’s reelection prospects,” according to a declassified U.S. intelligence report. Sean Lyngaas, “Iran Using Covert Influence Campaign to Undermine Trump Candidacy, US Intelligence Says,” *CNN*, July 29, 2024. (<https://www.cnn.com/2024/07/29/politics/iran-covert-influence-campaign-trump/index.html>); National Intelligence Council, “Foreign Threats to the 2020 US Federal Elections,” March 10, 2021. (<https://www.dni.gov/files/ODNI/documents/assessments/ICA-declass-16MAR21.pdf>)

key nuclear weapons-development activities necessary to produce a testable nuclear device.”<sup>59</sup>

Another phrase in the unclassified report underscores that at least some of the increase in Iranian nuclear activity involves weaponization. ODNI states that Iran has “undertaken activities that better position it to produce a nuclear device, if it chooses to do so.”<sup>60</sup> This is a notable and concerning change from the identically placed language in the previous year’s report, which stated that Iran has “undertaken research and development activities that would bring it closer to producing the fissile material needed for completing a nuclear device following a decision to do so.”<sup>61</sup>

In July, *Axios* reported that the United States and Israel both detected suspicious activities that “could be part of a covert Iranian effort to use the period around the U.S. presidential election to make progress toward nuclear weaponization.”<sup>62</sup> The activities reportedly involved computer modeling and other research to develop nuclear weapons.<sup>63</sup>

In June and early July, Iran also dramatically increased its enrichment capacity (adding 1,400 advanced centrifuges) at its deeply buried Fordow facility.<sup>64</sup>

According to Albright, Iran appears likely, in the period before January 20, to attempt to achieve two

categories of major advances toward a nuclear arsenal. One is to further decrease the time the regime would need to produce sufficient weapons-grade uranium for nuclear weapons. The second category is to increase the possibility of success for, and shorten the time required to complete, the production of nuclear explosive devices.<sup>65</sup>

Albright estimates that the regime could thereby reduce considerably the time it would need to build a crude nuclear weapon. Unlike analysts who assume that Iran is only interested in the ability to produce numerous warheads suitable for delivery by ballistic missiles, Albright assesses that Iran might choose to simply dash to produce a crude nuclear weapon (deliverable by ship or truck).<sup>66</sup> This would “signal Iran’s entry into the nuclear weapons club as the tenth member, either dramatically via an underground nuclear test, or stealthily via leaks about its accomplishment.”<sup>67</sup> Albright notes that entry into the nuclear weapons club with a crude device was the approach taken by both North Korea and Pakistan.<sup>68</sup>

Albright explains that since it is unclear whether the United States and IAEA could quickly detect an Iranian dash to a bomb, reducing the time required for such a dash would facilitate Iran being able to do so before the United States could detect the activity and respond.<sup>69</sup>

59. Office of the Director of National Intelligence, “Iran’s Nuclear Weapons Capability and Terrorism Monitoring Act of 2022—Assessment Regarding the Regional and Global Terrorism of the Islamic Republic of Iran,” July 23, 2024. (<https://www.dni.gov/index.php/newsroom/reports-publications/reports-publications-2024/3971-iran-s-nuclear-weapons-capability-and-terrorism-monitoring-act-of-2022-assessment-regarding-the-regional-and-global-terrorism-of-the-islamic-republic-of-iran>)

60. Ibid.

61. Ibid.

62. Barak Ravid, “Scoop: U.S. privately warned Iran over suspicious nuclear activities,” *Axios*, July 17, 2024. (<https://www.axios.com/2024/07/17/iran-nuclear-program-research-warning>)

63. Ibid.

64. Francois Murphy, “IAEA Report: Iran Installs More Centrifuges at Fordow Enrichment Plant,” *Reuters*, June 13, 2024. (<https://www.reuters.com/world/middle-east/iaea-report-iran-installs-more-centrifuges-fordow-enrichment-plant-2024-06-13>)

65. Interview with David Albright by Orde Kittrie on July 30, 2024.

66. “The Iran Threat Geiger Counter: Reaching Extreme Danger,” *Institute for Science and International Security*, February 5, 2024. (<https://isis-online.org/isis-reports/detail/the-iran-threat-geiger-counter-reaching-extreme-danger/8>)

67. David Albright, “How quickly could Iran make nuclear weapons today?” *Institute for Science and International Security*, January 8, 2024. (<https://isis-online.org/isis-reports/detail/how-quickly-could-iran-make-nuclear-weapons-today/8>)

68. Ibid.

69. Ibid.

Albright estimates that Iran appears less likely to attempt to enrich uranium to weapons-grade levels before January 20. This is because the Biden administration has made such enrichment (to 90 percent) a red line. This is a clearly definable line (unlike some weaponization activities for which Iran can concoct a cover story), and enriching to 90 percent is easier to monitor (given the IAEA's presence).<sup>70</sup>

An Iranian dash to weapons-grade levels before January 20 is more likely to occur if Western estimates are wrong that Iran still needs several months of weaponization research and development and Salehi is right (or closer to right) in indicating that Iran already has all the pieces of a nuclear weapon completed but disassembled. It is possible that Iran has been progressing related activities secretly, perhaps at military sites. If Iran reaches a point where it only needs hours or days to construct a nuclear explosive device, it might increase

the regime's willingness to gamble. A pre-January 20 Iranian crossing of the 90 percent redline may also be more likely to occur if Trump wins the election on November 5 and Iran calculates it is in its interest to achieve 90 percent (and perhaps even a bomb) between Trump's election and inauguration.

"Policy options narrow considerably when responding to a state that is advancing rapidly toward the nuclear threshold," FDD nonproliferation experts Anthony Ruggiero and Andrea Stricker noted in a March 2022 memo. "If the Islamic Republic chooses to move closer to threshold status — or dash to nuclear weapons — there would likely be substantial uncertainty surrounding its precise intentions and activities."<sup>71</sup> That is why it is important to understand in detail all the possible actions that Iran is taking — or may be taking in the coming weeks — to move closer to the nuclear threshold.<sup>72</sup>

## Key Potential Steps for Iranian Nuclear Advancement

The following, drawn largely from Albright,<sup>73</sup> is a list of key advancement steps (other than 90 percent enrichment) that Iran might, unless deterred, undertake before January 20:

### *Enrichment and other fissile material advances*

- further decrease the time the regime would need to produce sufficient weapons-grade uranium for multiple nuclear weapons, for example by:
  - installing new equipment noticeably designed for enrichment up to 90 percent, say under the cover of producing a naval propulsion reactor (which may be under construction or is in advanced planning)
  - producing additional uranium enriched to 60 percent
  - installing additional, more efficient centrifuges
  - building/finishing and outfitting another enrichment plant, perhaps invoking its illegal interpretation of Code 3.1 that it need not yet inform the IAEA about the plant. This could happen at a deeply buried site near the Natanz Fuel Enrichment Plant.
- otherwise make it harder for the United States or Israel to halt such enrichment (for example by shifting more activities to deeply buried, or more deeply buried, locations)
- finish enriched uranium metal line at Isfahan

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70. Ibid.

71. Andrea Stricker and Anthony Ruggiero, "Iran Approaches the Nuclear Threshold," *Foundation for Defense of Democracies*, March 3, 2022. (<https://www.fdd.org/analysis/2022/03/03/iran-approaches-the-nuclear-threshold>)

72. Andrea Stricker, "Iran: The Next Nuclear Weapons State?" *National Security Journal*, August 12, 2024. (<https://www.fdd.org/analysis/2024/08/12/iran-the-next-nuclear-weapons-state>)

73. Interview with David Albright by Orde Kittrie on July 30, 2024.

- produce more uranium metal enriched to 20 percent
- produce 60 percent enriched uranium metal
- practice making weapons-grade uranium nuclear weapons components using surrogate materials such as titanium

#### **Iranian steps to reduce IAEA access to data and equipment**

- destroy video tapes from earlier JCPOA monitoring
- assemble centrifuges in new, secret facilities without monitoring equipment
- employ hackers to target IAEA safeguards or dissemination systems
- further curtail or interfere with IAEA inspector presence, such as by falsely declaring security or accident emergencies

#### **Weaponization advances**

*to increase the possibility of success for, and shorten the time the regime would require for completing the production of nuclear explosive devices*

- update and finalize a detailed task plan and schedule (e.g., a Gantt diagram) for building a nuclear explosive device and then warheads for ballistic missiles<sup>74</sup>
- computer modeling, for example simulating nuclear explosive devices
- accelerated development, production, or assembly work on a neutron initiator
- advancing and re-energizing work on multi-point explosive initiation systems suitable for a nuclear explosive device (Iran might attempt under a civilian or non-nuclear military cover story)
- testing explosive diagnostic systems and neutron detection systems for pulsed neutron sources (Iran might attempt under a civilian or non-nuclear military cover story)
- undertake development of dual-use nuclear weaponization components under the cover of a non-nuclear military purpose, such as arming and fusing systems, self-destruct mechanisms, flyer plates, or a high-altitude altimeter for the detonation of explosives inside a ballistic missile re-entry vehicle
- build or prepare a camouflaged, underground nuclear test facility in an existing mountain tunnel complex located in a semi-remote area of Iran
- secretly carry out a so-called “cold test” of a prototype nuclear explosive device that uses a surrogate material for weapons-grade uranium and, if caught, declare it a non-nuclear military experiment

#### **Other**

- reversing or reinterpreting Khamenei's purported *fatwa* that the “use” of nuclear weapons is forbidden
- statements by regime officials that Iran has, is on the brink of, or needs nuclear weapons
- Iranian withdrawal from the Nuclear Non-proliferation Treaty
- progress on developing or building a ballistic missile re-entry vehicle suitable for carrying a nuclear warhead
- a combination of developments that leaves U.S. officials with insufficient confidence they would identify an Iranian dash to a bomb before it was too late<sup>75</sup>

<sup>74</sup>. An earlier example of a Gantt diagram for Iran's production of nuclear weapons in its Amad Plan can be seen in Chapter 3 of *Iran's Perilous Pursuit of Nuclear Weapons*. David Albright with Sarah Burkhard and the Good ISIS Team, *Iran's Perilous Pursuit of Nuclear Weapons* (Washington, DC: Institute for Science and International Security Press, 2021).

<sup>75</sup>. Eric Brewer, “Iran's Evolving Nuclear Program and Implications for U.S. Policy,” *Center for Strategic and International Security*, October 15, 2021. (<https://www.csis.org/analysis/irans-evolving-nuclear-program-and-implications-us-policy>)

## Principles for Deterring Iran

### **Iran Does Occasionally Retreat, But Only Tactically, and Typically Only When Regime Survival is at Risk**

Since the Islamic Revolution of 1979, Tehran has persistently pursued the same core strategic objectives: ensuring regime survival, exporting its revolution, sponsoring terrorist proxies, becoming the region's pre-eminent ballistic missile power, and developing a nuclear threshold capability or weapon. However, the regime has on several occasions changed tactics, backing away or recalibrating its approach, in the face of international efforts to coerce, constrain, or otherwise shape its choices. The regime often uses the term "expediency" to describe a change of tactics without altering its ultimate objectives.

**History demonstrates that the Islamic Republic will only significantly change its tactics when faced with meaningful risks to its top priority, staying in power, without which it would be unable to pursue any of its other strategic and ideological objectives.** Faced with costs and risks of a significant but lesser magnitude, Tehran typically oscillates between escalation and de-escalation, only truly settling for a suboptimal outcome with a face-saving line of retreat when it senses that pursuit of a tactic can meaningfully impact regime survival.

To effectively deter or coerce Iran, the United States need not issue a direct threat to end the regime. To bolster deterrence, U.S. policy should credibly threaten to impose costs that would, if continued, pose an existential threat to the regime.

There is bipartisan concern that the United States may be insufficiently deterring Iran from advancing

its nuclear weapons program. That concern was eloquently addressed in a December 2021 joint statement by Howard Berman (former Democratic chair of the House Foreign Affairs Committee); Michele Flournoy (former under secretary of defense for policy under President Barack Obama); Jane Harman (former Democratic ranking member of the House Intelligence Committee); Leon Panetta (former secretary of defense and CIA director under President Obama); David Petraeus (former CIA director under President Obama after serving as commander of U.S. Central Command); and others.<sup>76</sup>

The joint statement explained why it is "essential" to "stop the dangerous advance of the Iranian nuclear program."<sup>77</sup> The following excerpt is even more relevant today given recent and pending Iranian nuclear advances:

Without convincing Iran it will suffer severe consequences if it stays on its current path, there is little reason to hope for the success of diplomacy. And given the speed with which Iran is moving forward with its nuclear program, such consequences cannot be limited to political isolation, condemnatory resolutions in international fora and additional economic sanctions, all of which are a necessary part of an American strategy toward Iran but are not sufficient at this stage to convince Iran's leaders that the price they will pay requires them to alter their course.

Therefore, for the sake of our diplomatic effort to resolve this crisis, we believe it is vital to restore Iran's fear that its current nuclear path will trigger the use of force against it by the United States. The challenge is how to restore U.S. credibility in the eyes of Iran's leaders. Words—including formulations that are more pointed and direct than "all options are on the table"—are also necessary but not sufficient.

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76. Howard Berman, Michèle Flournoy, Jane Harman, Leon Panetta, David Petraeus, Dennis Ross, and Robert Satloff, "Statement on Improving the Potential for a Diplomatic Resolution to the Iran Nuclear Challenge," *The Washington Institute for Near East Policy*, December 17, 2021. (<https://www.washingtoninstitute.org/about/press-room/press-release/statement-improving-potential-diplomatic-resolution-iran-nuclear>)

77. Ibid.

In that context, we believe it is important for the Biden administration to take steps that lead Iran to believe that persisting in its current behavior and rejecting a reasonable diplomatic resolution will put to risk its entire nuclear infrastructure, one built painstakingly over the last three decades.<sup>78</sup>

Since the 1980s, there have been several cases in which Iran is widely believed to have backed down. Cases that are several decades old are valuable in the Iranian context because of the regime's remarkable continuity in leadership, with Ali Khamenei serving as Iran's supreme leader since 1989 after serving as president from 1981 to 1989.

Lessons learned from past successful U.S. efforts to coerce or deter Iran must take into account that Iran may be more skeptical now than it was in prior decades regarding Washington's willingness to use its unmatched military power to launch the attacks necessary to halt Iran's nuclear weapons program. Thus, a U.S. action that sent a successful deterrent message to Iran in the past may not be sufficient today. Tehran's closer ties to China and Russia than in prior decades may also make it more difficult to isolate Iran internationally.

One definition of deterrence is "causing someone not to do something because they expect or fear that they will be worse off if they do it than if they do not." By contrast, the other principal form of coercion is "compellence," which seeks "to propel a target to take an action, or to stop taking an action it has already started."<sup>79</sup> Compellence is typically harder to achieve than deterrence.

This monograph focuses on deterrence, offering recommendations designed principally to persuade

Iran to refrain from advancing its nuclear program. However, some case studies below include both deterrence and compellence.

The following are illustrative examples of where the United States succeeded in deterring or compelling Iran.

### ***Iran Halted Maritime Harassment***

**In spring 1988, Iran backed off from engaging the U.S. military after a forcible response by the U.S. Navy.** In 1987 and early 1988, during the Iran-Iraq War, Iran repeatedly engaged in maritime harassment operations. One U.S. Navy guided-missile frigate was severely damaged by an Iranian mine. The United States responded on April 18, 1988, with Operation Praying Mantis, a one-day campaign that was at the time the largest U.S. Navy surface action since World War II.<sup>80</sup>

American forces destroyed two Iranian surveillance platforms, sank two Iranian warships, and severely damaged another.<sup>81</sup> According to David Crist, senior historian for the chairman of the Joint Chiefs of Staff, "After Operation Praying Mantis, Iran backed off from engaging the U.S. military. Having lost its most capable ships, the Islamic Republic of Iran Navy kept its remaining combatants in port for most of the remainder of the Iran-Iraq War."<sup>82</sup>

More recently, an FDD study examined 26 instances between January 2021 and July 2023 of Iranian maritime aggression involving harassments, attacks, or seizures. The study revealed a consistent trend. When U.S. Navy and partner vessels were present, Iranian forces tended to back down, demonstrating how American military power can help deter or defeat Iranian malign behavior.<sup>83</sup>

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78. Ibid.

79. Tami Davis Biddle, "Coercion Theory: A Basic Introduction for Practitioners," *Texas National Security Review*, Spring 2020. (<https://tnsr.org/2020/02/coercion-theory-a-basic-introduction-for-practitioners>)

80. "Operation Praying Mantis," *Naval History and Heritage Command*, September 20, 2023. (<https://www.history.navy.mil/browse-by-topic/wars-conflicts-and-operations/middle-east/praying-mantis.html>)

81. Ibid.

82. David Crist, "A Gulf of Conflict: A History of U.S.-Iranian Confrontation at Sea," *The Washington Institute for Near East Policy*, June 2009, page 9. (<https://www.washingtoninstitute.org/policy-analysis/gulf-conflict-history-us-iranian-confrontation-sea>)

83. Ryan Brobst and Bradley Bowman, "Iran's Maritime Aggression," *Foundation for Defense of Democracies*, accessed July 24, 2024. (<https://www.fdd.org/iranmaritimeaggression>)

### *Iran Terminated the War Against Iraq*

In July 1988, Iranian Supreme Leader Ayatollah Ruhollah Khomeini ended the eight-year Iran-Iraq War (a conflict the regime called the “Holy Defense”)<sup>84</sup> that he had previously pledged to continue until “the last drop of blood and the last breath.”<sup>85</sup> **Khomeini halted the war in the face of heavy battlefield losses to Iraq, an Iraqi missile campaign against civilian targets, a significant naval defeat by the United States, an economic crisis at home, the accidental downing of an Iranian airliner by U.S. forces,<sup>86</sup> and a sense that Iran was isolated internationally.**

Ali Akbar Hashemi Rafsanjani, who was then both parliamentary speaker and acting commander-in-chief, said, “Time is not on our side anymore. The world ... has decided to make a serious effort to save Saddam and tie our hands.”<sup>87</sup> **Khomeini explained that he was halting the war in order to preserve the Islamic Revolution and its system of government.**

### *Iran Decelerated its Nuclear Weapons Program in 2003*

According to a 2007 National Intelligence Estimate (NIE), portions of which were made public, “in fall 2003, Tehran halted its ... nuclear weapon

design and weaponization work and covert uranium conversion-related and uranium enrichment-related work.”<sup>88</sup> While the NIE’s phrasing and scope remains controversial, it is apparent that Iran did dial down some of its nuclear weapons program in fall 2003,<sup>89</sup> including by suspending some enrichment activity.<sup>90</sup> In addition, Iran that year allowed the IAEA to visit two formerly clandestine Iranian nuclear facilities and started implementing the IAEA’s Additional Protocol.

The 2007 NIE assessed that the halt was “directed primarily in response to increasing international scrutiny and pressure resulting from exposure of Iran’s previously undeclared nuclear work.”<sup>91</sup> This, said the 2007 NIE, indicated that “Tehran’s decisions are guided by a cost-benefit approach rather than a rush to a weapon irrespective of the political, economic, and military costs.”<sup>92</sup>

A 2011 National Intelligence Estimate, which was not made public, reportedly also concluded that Iran’s nuclear calculus is guided by a cost-benefit approach.<sup>93</sup> This was then reflected in the following language in 2012 testimony by then Director of National Intelligence James Clapper: **“We judge Iran’s nuclear decision-making is guided by a cost-benefit approach, which**

84. Rober Pear, “Khomeini Accepts ‘Poison’ of Ending the War with Iraq; U.N. Sending Mission,” *The New York Times*, July 21, 1988. (<https://www.nytimes.com/1988/07/21/us/khomeini-accepts-poison-of-ending-the-war-with-iraq-un-sending-mission.html>)

85. “Words of Khomeini: On Islam, the Revolution and a Cease-Fire,” *The New York Times*, July 23, 1988. (<https://www.nytimes.com/1988/07/23/world/words-of-khomeini-on-islam-the-revolution-and-a-cess-fire.html>)

86. Ray Takeyh, *Guardians of the Revolution: Iran and the World in the Age of the Ayatollahs* (New York: Oxford University Press, 2009), pages 81-107.

87. Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume II: The Iran-Iraq War* (Boulder: Westview Press, 1990), page 380.; Anoushiravan Ehteshami, *Iran: Stuck in Transition* (London: Routledge, 2017), page 190.

88. National Intelligence Council, “Iran: Nuclear Intentions and Capabilities,” November 2007. ([https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203\\_release.pdf](https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf))

89. Paul K. Kerr, “Iran and Nuclear Weapons Production,” *Congressional Research Service*, March 20, 2024. (<https://crsreports.congress.gov/product/pdf/IF/IF12106>)

90. Paul K. Kerr, “Iran’s Nuclear Program: Status,” *Congressional Research Service*, December 20, 2019. (<https://crsreports.congress.gov/product/pdf/RL/RL34544>)

91. National Intelligence Council, “Iran: Nuclear Intentions and Capabilities,” November 2007. ([https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203\\_release.pdf](https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf))

92. Ibid.

93. Greg Thielmann, “U.S. Intelligence Assessment of Iran’s Nuclear Program: Essentials Remain the Same,” *Arms Control Association*, January 31, 2012. (<https://www.armscontrol.org/blog/2012-01-31/us-intelligence-assessment-irans-nuclear-program-essentials-remain-same>)

**offers the international community opportunities to influence Tehran.**"<sup>94</sup>

The principal source of pressure leading Iran to decelerate its nuclear weapons program in 2003 was reportedly the U.S. invasion of Iraq in March 2003<sup>95</sup> to "disarm Iraq" of weapons of mass destruction, "end Saddam Hussein's support for terrorism," and "free the Iraqi people." According to the Congressional Research Service, "[s]tatements from current and former Iranian officials indicate that, during fall 2003, Tehran feared that the United States might ... undertake military action or other coercive measures against Iran."<sup>96</sup> Regardless of the overall merits of the 2003 U.S. invasion of Iraq, the exercise of American military power that year in Iraq reportedly contributed to Iran decelerating its nuclear program.

#### **Iran Backed Down From Challenging U.S. Drone Flights**

In November 2012, a robust U.S. response caused Iran to back down from challenging U.S. drone flights. **This "demonstrated," in the words of then Secretary of Defense Leon Panetta, "that diplomacy is most effective when the message is clear, the determination unambiguous, and the force behind it sufficient to make it stick."**<sup>97</sup>

An Iranian fighter jet had fired three times on an American Predator drone monitoring activity in the Strait of Hormuz from international airspace. According to Panetta, the United States responded by informing the Iranians that Washington would fly the mission again the next day and "[i]f you come near us, we are going to shoot you down." The next day, when the drone flew the mission accompanied by two F-16s, the "Iranians let the drone and its escorts pass overhead unimpeded."<sup>98</sup>

#### **Iran Agreed to Nuclear Concessions as Part of the Joint Comprehensive Plan of Action**

In July 2015, Iran agreed to the JCPOA nuclear deal, which placed several time-limited restrictions on its nuclear program. Many commentators, and many members of Congress from both parties, criticized the JCPOA's curtailments of Iran's nuclear program for being insufficiently long-term and verifiable.<sup>99</sup>

Although they were divided on the sufficiency of the JCPOA, many leading supporters and opponents of the JCPOA seemed to agree that the U.S. economic sanctions campaign that had preceded it was a valuable tool to contain Iran's nuclear weapons program. A broad range of commentators credited the sanctions campaign with achieving significant (albeit, to some, insufficient) curtailment of Iran's nuclear progress.

94. Director of National Intelligence James R. Clapper, "Unclassified Statement for the Record on the Worldwide Threat Assessment of the US Intelligence Community for the Senate Committee on Armed Services," *Testimony before the Senate Armed Services Committee*, February 16, 2012. ([https://www.dni.gov/files/documents/Newsroom/Testimonies/20120216\\_SASC%20Final%20Unclassified%20-%202012%20ATA%20SFR.pdf](https://www.dni.gov/files/documents/Newsroom/Testimonies/20120216_SASC%20Final%20Unclassified%20-%202012%20ATA%20SFR.pdf))

95. Michael Eisenstadt, "America's Failing Iran Nuclear Policy: Time For A Course Adjustment," *War on the Rocks*, October 20, 2023. (<https://warontherocks.com/2023/10/americas-failing-iran-nuclear-policy-time-for-a-course-adjustment>)

96. Paul K. Kerr, "Iran's Nuclear Program: Status," *Congressional Research Service*, December 20, 2019. (<https://crsreports.congress.gov/product/pdf/RL/RL34544>)

97. Leon Panetta, *Worthy Fights: A Memoir of Leadership in War and Peace*, (New York: Penguin Books, 2014), page 435.

98. *Ibid.*

99. See, e.g., Sen. Chuck Schumer, Press Release, "My Position on the Iran Deal," August 6, 2015. (<http://www.schumer.senate.gov/newsroom/press-releases/my-position-on-the-iran-deal>). Schumer was at the time the third ranking Democrat in the Senate; House Foreign Affairs Committee, Press Release, "Engel Statement on Iran Deal," August 6, 2015. (<https://democrats-foreignaffairs.house.gov/2015/8/ranking-member-engel-statement-iran-deal>). Engel was at the time the ranking Democrat on the House Committee on Foreign Affairs; Lauren Fox, "Sen. Bob Corker Rails Against the Iran Deal," *National Journal*, July 23, 2015. (<http://www.nationaljournal.com/congress/sen-bob-corker-rails-against-the-iran-deal-20150723>). Corker, a Republican, was at the time the chairman of the Senate Foreign Relations Committee.

For example, in statements praising the JCPOA in July and August 2015, President Obama attributed the Iranian concessions to “the sanctions that have proven so effective”<sup>100</sup> that “were put in place precisely to get Iran to agree to constraints on its program.”<sup>101</sup> **In April 2015, then CIA Director John Brennan stated that Khamenei had become more flexible in negotiations with the West because he was persuaded that “six years of sanctions had really hit,” and Iran’s economy was “destined to go down” unless a deal was reached with the West and sanctions were lifted.**<sup>102</sup>

The JCPOA could have further curtailed Iran’s nuclear program if the economic pressure had been stronger. Announcing in August 2015 that he would vote against the JCPOA, Sen. Chuck Schumer (D-NY) said it would be “better to keep U.S. sanctions in place, strengthen them, enforce secondary sanctions on other nations, and pursue the hard-trodden path of diplomacy once more, difficult as it may be.”<sup>103</sup> Other critics suggested the U.S. negotiating position could also have been strengthened if economic pressure had been supplemented with a more credible threat to halt

Iran’s nuclear weapons program by force if all other options failed.<sup>104</sup>

### ***Iran Largely Halted Attacks on U.S. Forces in Iraq and Syria for 23 Weeks in 2024***

According to a July 2024 report by the ODNI, “[s]ince February, Iran-aligned militant groups in Iraq have adhered to an Iranian-ordered pause on attacks against U.S. military and diplomatic targets in Iraq and Syria.”<sup>105</sup> Indeed, Iranian proxies entirely halted attacks on U.S. forces in Iraq and Syria for the 11 weeks between February 4 and April 21.<sup>106</sup>

On April 21-22, U.S. troops faced two rocket and drone attacks that caused no casualties or significant damage. But there were again no Iranian proxy attacks on U.S. forces in Iraq and Syria in the 12 weeks between April 22 and July 16.<sup>107</sup>

This was in stark contrast to the 17 weeks between October 7, 2023, (the day Hamas attacked Israel) and February 4, during which Iranian proxies attacked U.S. troops in Iraq and Syria over 160 times.<sup>108</sup> The July 2024 ODNI report described how, during that

**100.** President Barack Obama, “Remarks by the President on the Iran Nuclear Deal,” July 14, 2015. (<https://obamawhitehouse.archives.gov/the-press-office/2015/07/14/statement-president-iran>)

**101.** President Barack Obama, . “Remarks by the President on the Iran Nuclear Deal,” August 5, 2015. (<https://obamawhitehouse.archives.gov/the-press-office/2015/08/05/remarks-president-iran-nuclear-deal>)

**102.** David E. Sanger, “C.I.A. Director Says Iran’s Economic Peril Helped Drive Nuclear Deal,” *The New York Times*, April 8, 2015. (<https://www.nytimes.com/2015/04/09/world/middleeast/cia-director-says-irans-economic-peril-helped-drive-nuclear-deal.html>)

**103.** Sen. Chuck Schumer, Press Release, “My Position on the Iran Deal,” August 6, 2015. (<http://www.schumer.senate.gov/newsroom/press-releases/my-position-on-the-iran-deal>)

**104.** See, e.g., William B. Caldwell, IV and Charles Wald, “Remind Iran of U.S. Military Option,” *Newsday*, July 11, 2015. (<https://www.newsday.com/opinion/commentary/remind-iran-of-u-s-military-option-x58282>). Caldwell and Ward were both retired generals in the U.S. armed forces); Nicholas Burns, Chuck Freilich, Orde Kittrie, Martin Malin, Gary Samore, Michael Singh, Ariane Tabatabai, Will Tobey, and Mark Wallace, “Expert Opinions on the Extension of Negotiations,” *Harvard Belfer Center*, July 22, 2014. (archived version available at <https://web.archive.org/web/20160730035507/http://iranmatters.belfercenter.org/blog/expert-opinions-extension-negotiations>); David Albright, Mark Dubowitz, Orde Kittrie, Leonard Spector, and Michael Yaffe, “U.S. Nonproliferation Strategy for the Changing Middle East,” *The Project on U.S. Middle East Nonproliferation Strategy*, January 2013, page 58-62. (<https://isis-online.org/uploads/isis-reports/documents/FinalReport.pdf>)

**105.** “Drone, rocket attacks targeted US forces in Iraq, US officials say,” *Reuters*, April 22, 2024. (<https://www.reuters.com/world/middle-east/drone-rocket-attacks-targeted-us-forces-iraq-us-officials-say-2024-04-22>)

**106.** Ibid.

**107.** “Drones target Iraq’s Ain al-Asad airbase, no casualties, say military sources,” *Reuters*, July 16, 2024. (<https://www.reuters.com/world/middle-east/drones-target-iraqs-ain-al-asad-airbase-no-casualties-say-military-sources-2024-07-16>)

**108.** Lara Seligman, “Iran proxy attacks on US troops in Iraq, Syria drop off as Red Sea heats up,” *Politico*, March 6, 2024. (<https://www.politico.com/news/2024/03/06/proxy-attacks-iraq-syria-red-sea-00145428>)

October 7 to February 4 period, Iranian-sponsored militants had “conducted a campaign of near-daily attacks against U.S. forces in Iraq and Syria.”

**The 23-week nearly complete halt in attacks by Iranian proxies followed unusually strong U.S. retaliatory strikes on Iranian interests on February 2 and 7.** Those U.S. strikes came in response to a drone attack, attributed to the Islamic Resistance in Iraq — a coalition of Iranian-backed militias — that killed three U.S. Army Reserve soldiers in Jordan on January 28.<sup>109</sup>

The U.S. military strike on February 2 struck more than 85 targets at seven facilities in Iraq and Syria that were utilized by the IRGC and Iran’s proxies.<sup>110</sup> The strike reportedly killed dozens of militants.<sup>111</sup> There were reportedly<sup>112</sup> no Iranian officials killed in the attack.<sup>113</sup> However, the U.S. announcement of its February 2 strike specified that the targets were “facilities utilized by Iran’s Islamic Revolutionary Guard Corps” as well as the militant groups that they sponsor. Then, on February 7, a U.S. drone strike in Baghdad killed an Iranian proxy group’s senior commander, whom the United States held “responsible for directly planning and participating in attacks on U.S. forces.”<sup>114</sup>

The U.S. strikes in February represented a major change from the roughly nine low-level strikes that the United States had ineffectually mounted in response to more than 160 Iranian proxy attacks between October 7 and the end of January.<sup>115</sup> The low-level U.S. strikes between October 7 and the end of January were clearly insufficient to deter Iran or its proxies. By contrast, the much stronger and IRGC-targeting U.S. strikes of February 2 and 7 evidently had a positive deterrent effect on the risk calculus of Iran and its proxies in Iraq and Syria.

### Deterrence Must be Sufficient to Outweigh Perceived Intelligence Gaps

There is a significant possibility that Iran could enrich sufficient uranium to weapons-grade levels, manufacture nuclear weapon components, or even assemble complete bombs, in small, covert facilities.<sup>116</sup> Heinonen stated that an Iranian breakout “would be difficult to detect by the technical means used by Western intelligence agencies.”<sup>117</sup>

Heinonen explained that “the enrichment installation needed for the one, decisive last leap would require less than 1,000 advanced centrifuges, which can be put to work in a small and relatively easily hidden floor

**109.** Haley Britzky, Natasha Bertrand, and Oren Liebermann, “Three US troops killed in drone attack in Jordan, more than 30 injured,” *CNN*, January 29, 2024. (<https://www.cnn.com/2024/01/28/politics/us-troops-drone-attack-jordan/index.html>)

**110.** The White House, “On-the-Record Press Call on U.S. Military Operations in the Middle East,” February 2, 2024. (<https://www.whitehouse.gov/briefing-room/press-briefings/2024/02/02/on-the-record-press-call-on-u-s-military-operations-in-the-middle-east>)

**111.** Lara Seligman, “Iran proxy attacks on US troops in Iraq, Syria drop off as Red Sea heats up,” *Politico*, March 6, 2024. (<https://www.politico.com/news/2024/03/06/proxy-attacks-iraq-syria-red-sea-00145428>)

**112.** “U.S. Strikes IRGC and Iranian-Backed Proxies in Iraq and Syria,” *Foundation for Defense of Democracies*, February 3, 2024. (<https://www.fdd.org/analysis/2024/02/03/u-s-strikes-irgc-and-iranian-backed-proxies-in-iraq-and-syria>)

**113.** Oren Liebermann and Natasha Bertrand, “US destroyed or damaged 84 of 85 targets in Iraq and Syria, officials say; no indications of Iranian casualties,” *CNN*, February 4, 2024. (<https://www.cnn.com/2024/02/04/politics/us-damage-assessment-syria-iraq/index.html>)

**114.** Ahmed Rasheed and Timour Azhari, “Kataib Hezbollah commander killed in Baghdad in US strike,” *Reuters*, February 9, 2024. (<https://www.reuters.com/world/middle-east/sound-loud-blasts-heard-iraqs-baghdad-reuters-witness-2024-02-07>)

**115.** Michael Knights, Amir al-Kaabi, and Hamdi Malik, “Tracking Anti-U.S. and Anti-Israel Strikes From Iraq and Syria During the Gaza Crisis,” *The Washington Institute for Near East Policy*, accessed May 16, 2024. (<https://www.washingtoninstitute.org/policy-analysis/tracking-anti-us-and-anti-israel-strikes-iraq-and-syria-during-gaza-crisis>)

**116.** “Verification Requirements For A Nuclear Agreement With Iran: Nuclear Verification Capabilities Independent Task Force of the Federation of American Scientists,” *Federation of American Scientists*, September 1, 2014. (<https://www.jstor.org/stable/resrep19033?seq=10>)

**117.** Olli Heinonen, “Detecting and Blocking Iran’s Nuclear Breakout,” *The Jerusalem Strategic Tribune*, April 2024. (<https://jstribune.com/heinonen-detecting-and-blocking-irans-nuclear-breakout>)



*Natanz Fuel Enrichment Plant Mt. Kolang Gaz La Complex New Construction. April 4, 2024. (Image (c) Airbus Pleiades 2024 via Google Earth; Institute for Science and International Security)*

space.”<sup>118</sup> He added that the “necessary workshop for uranium conversion to metal, and machining of weapon components, would be even smaller” and “difficult to find.”<sup>119</sup>

The United States and the IAEA may not currently have the capacity in all cases to detect, with sufficient reliability and speed, a nuclear weapons program hidden at clandestine facilities. In addition, even if the United States were to detect an Iranian dash to a bomb, it might not be able to react in time. Because weaponization work can occur in small facilities that are undetectable<sup>120</sup> and Iran is known to have conducted such work in the past,<sup>121</sup> it is particularly unclear that the United States knows for certain how much, if any, additional progress Iran needs to make toward mastering weaponization.

118. Ibid.

119. Ibid.

120. Andrea Stricker and Behnam Ben Taleblu, “Washington Fails — Again — To Gauge Iran’s Nuclear Threat,” *1945*, March 28, 2024. (<https://www.fdd.org/analysis/2024/03/28/washington-fails-again-to-gauge-irans-nuclear-threat>)

121. International Atomic Energy Agency, Board of Governors, “Final Assessment on Past and Present Outstanding Issues regarding Iran’s Nuclear Programme,” December 2, 2015. ([https://isis-online.org/uploads/isis-reports/documents/IAEA\\_PMD\\_Assessment\\_2Dec2015.pdf](https://isis-online.org/uploads/isis-reports/documents/IAEA_PMD_Assessment_2Dec2015.pdf))

122. See commentary in the Iranian press: “Iran has grown too strong no power can attack it: Gen. Safavi,” *Mehr News Agency* (Iran), September 29, 2021. (<https://en.mehrnews.com/news/179214/Iran-has-grown-too-strong-no-power-can-attack-it-Gen-Safavi>); “We neither seek nor fear war: IRGC chief to US,” *Islamic Republic News Agency* (Iran), January 31, 2024. (<https://en.irna.it/news/85371741/We-neither-seek-nor-fear-war-IRGC-chief-to-US>); “آمریکا-جرات-حمله-به-ایران-را-ندارد”; “چرا ایالات متحده توان حمله [America Does Not Dare Attack Iran],” *Mehr News Agency* (Iran), November 11, 2022. (<https://www.mehrnews.com/news/5629727/چرا-ایالات-متحده-توان-حمله-به-ایران-را-ندارد>); “چرا ایالات متحده-توان-حمله-گسترده-به-ایران-را-ندارد [Why is the United States unable to launch a massive attack on Iran?],” *Iranian Students News Agency* (Iran), February 1, 2024. (<https://www.isna.ir/news/1402111209165/چرا-ایالات-متحده-توان-حمله-گسترده-به-ایران-را-ندارد>)

123. See comments by Amir-Ali Hajizadeh in: “سردار حاجی زاده: آمریکا اگر می‌خواهد کمتر هزینه بدهد، باید جمع کند و از منطقه برود” [Commander Hajizadeh: If America Wants Less Cost, it Should Pick Up and Leave the Region], *Donya-e-Eqtesad* (Iran), December 31, 2021. (<https://donya-e-eqtesad.com/fa/tiny/news-3830219>)

The United States cannot simply depend on its ability to detect — and head off — a dash when it occurs. Washington needs to persuade Tehran that it will pay a sufficiently high price, if caught before completion, that it is not worthwhile for the regime to dash for a bomb even if it calculates that it might not get caught before it possesses a nuclear weapon.

## Tehran Likely Doubts the Current U.S. Will to Forcibly Halt Iran’s Nuclear Program

If the American threat to halt Iran’s nuclear weapons program is to be credible, the United States must both possess the capacity to halt the program and demonstrate the will to use that capacity if necessary. The Islamic Republic is apparently not currently persuaded that the United States has the will to launch the magnitude of attacks necessary to halt Iran’s nuclear weapons program or to engage in other significant military action directly against Iran.<sup>122</sup>

Iranian military statements are not always straightforward. They often involve hyperbole or deception, and they often address multiple audiences at once, domestic and foreign. But it is clear that the regime in Tehran increasingly feels (thanks in part to its improved missile and drone capabilities) that it is not defenseless against, and thus could impose significant costs in response to, a major U.S. attack on targets in Iran.<sup>123</sup>

Writing in September 2022 about the need to enhance the credibility of U.S. deterrence vis-à-vis Iran's nuclear program, Dennis Ross said that Iranian leaders "do not believe Washington will ever use force against them."<sup>124</sup> Iran began enriching up to 60 percent in April 2021.<sup>125</sup> Before it did so, there was reportedly a debate within the regime over whether doing so was too risky.<sup>126</sup> "Those who pushed to enrich," said Ross, "no doubt feel vindicated and even more confident that the United States will not respond with force."<sup>127</sup>

The decision to enrich to 60 percent followed the Iranian parliament's passage of a bill pressing for escalatory measures, including resuming uranium enrichment to 20 percent purity.<sup>128</sup> The bill was in response to Israel's November 2020 killing of Mohsen Fakhrizadeh, Iran's chief military nuclear scientist.<sup>129</sup>

"The America of today is not the America of the past 10, 20, or 30 years,"<sup>130</sup> declared IRGC Chief Hossein Salami after the bungled U.S. withdrawal from Afghanistan in 2021. The way Iranian decision-makers see U.S. staying power today is fundamentally different than three decades ago.

America's eroded deterrence is further demonstrated by Tehran's repeated plots to conduct assassinations on U.S. soil.<sup>131</sup> Over the summer, Iran reportedly plotted to assassinate Donald Trump.<sup>132</sup> On August 6, the Justice Department charged a Pakistani national tied to Iran with allegedly plotting to assassinate a politician or U.S. government official on U.S. soil.<sup>133</sup> In 2022, the Justice Department charged an Iranian national, working on behalf of the IRGC, with attempting to arrange the murder of former National Security Advisor John Bolton.<sup>134</sup>

**124.** Dennis Ross, "A New Iran Deal Won't Prevent an Iranian Bomb," *Foreign Policy*, September 9, 2022. (<https://foreignpolicy.com/2022/09/09/a-new-iran-deal-wont-prevent-an-iranian-bomb>)

**125.** "Timeline: Iran's Nuclear Program Since 2018," *United States Institute of Peace, The Iran Primer*, May 3, 2023. (<https://iranprimer.usip.org/blog/2023/may/03/timeline-iran%E2%80%99s-nuclear-program-2018#:~:text=April%2016%2C%202021%3A%20Iran%20began,nuclear%20facility%2C%20the%20IAEA%20reported>)

**126.** Ibid.

**127.** Dennis Ross, "The United States Needs a Better Strategy to Deter Iran," *Foreign Policy*, July 6, 2022. (<https://www.foreignaffairs.com/articles/middle-east/2022-07-06/united-states-needs-better-strategy-deter-iran>)

**128.** Nasser Karimi, "Iran's parliament approves bill to stop nuclear inspections," *Associated Press*, December 1, 2020. (<https://apnews.com/article/iran-parliament-bill-nuclear-inspection-e2f2225c1f91c5c09afaf776cf9e04e3>); Kelsey Davenport, "The Iranian Nuclear Crisis: Time for Plan B," *Arms Control Association*, December 2022. (<https://www.armscontrol.org/act/2022-12/features/iranian-nuclear-crisis-time-plan-b>)

**129.** Behnam Ben Taleblu, "Parsing Iranian Responses to the Killing of Mohsen Fakhrizadeh-Mahabadi," *FDD's Long War Journal*, December 5, 2020. (<https://www.longwarjournal.org/archives/2020/12/parsing-iranian-responses-to-the-killing-of-mohsen-fakhrizadeh-mahabadi.php>)

**130.** See comment by Hossein Salami in: "سردار سلامی: خروج آمریکا از افغانستان مفتضحانه بود/توازن قدرت تغییر کرده است" [Commander Salami: America's Withdrawal From Afghanistan Was Disgraceful/The Balance Of Power Has Shifted], *Iranian Students News Agency* (Iran), September 22, 2021. (<https://www.isna.ir/news/1400063123361/سردار-سلامی-خروج-آمریکا-از-افغانستان-مفتضحانه-بود-توازن-قدرت>)

**131.** Iran has even called on Americans to carry out revenge against U.S. officials for the killing of former IRGC Quds Force chief Qassem Soleimani. See: Joel Gehrke, "White House worried Iran is plotting assassination attempts against Trump administration officials," *Washington Examiner*, January 9, 2022. (<https://www.washingtonexaminer.com/news/1663126/white-house-worried-iran-is-plotting-assassination-attempts-against-trump-administration-officials>)

**132.** Evan Perez, Zachary Cohen, Natasha Bertrand, Kylie Atwood, and Kristen Holmes, "Exclusive: Secret Service ramped up security after intel of Iran plot to assassinate Trump; no known connection to shooting," *CNN*, July 16, 2024. (<https://www.cnn.com/2024/07/16/politics/iran-plot-assassinate-trump-secret-service/index.html>)

**133.** United States Attorney's Office, Eastern District of New York, Press Release, "Pakistani National with Ties to Iran Charged in Connection with Foiled Plot to Assassinate a Politician or U.S. Government Officials," August 6, 2024. (<https://www.justice.gov/usao-edny/pr/pakistani-national-ties-iran-charged-connection-foiled-plot-assassinate-politician-or>)

**134.** U.S. Department of Justice, Press Release, "Member of Iran's Islamic Revolutionary Guard Corps (IRGC) Charged with Plot to Murder the Former National Security Advisor," August 10, 2022. (<https://www.justice.gov/opa/pr/member-irans-islamic-revolutionary-guard-corps-irgc-charged-plot-murder-former-national>)

In 2021 and then again in 2023, the Justice Department charged several persons with Iran-directed plots to kidnap or kill Masih Alinejad, an Iranian-American who has spoken out against Iran.<sup>135</sup> While neither plot succeeded, both involved considerable preparatory activity around her home.

According to a July 2024 ODNI report, “Tehran publicly vows to conduct lethal operations inside the United States and continues to identify the former U.S. President, former Secretary of State, and former Commander of U.S. Central Command as among its priority targets.”<sup>136</sup> This is hardly the behavior of a regime that fears American power.

These failures of U.S. deterrence speak to a U.S. credibility gap — not a capability gap — in the mind of Iranian decision-makers. **Given Iran's current skepticism of American will regarding Iran's nuclear program, a U.S. step (or package of steps) sufficient to send a deterrent message to an Iran less skeptical of American resolve must be stronger today than was needed in the past.**

## Iran Is More Likely to Back Down When It Feels Isolated Internationally

Iran is more likely to back down when it feels isolated internationally. International isolation contributed to the Iranian regime agreeing to halt the Iran-Iraq War. Iran was again isolated between 2006 and 2015, this time by a series of UN Security Council resolutions passed with Chinese and Russian support, which pressured Iran to curb its nuclear program.<sup>137</sup> This isolation contributed to the Iranian nuclear concessions contained in the Joint Plan of Action and Joint Comprehensive Plan of Action.<sup>138</sup>

Iran is currently much less isolated. Its military cooperation with Russia has vastly expanded since Moscow's February 2022 invasion of Ukraine,<sup>139</sup> and its oil sales to China have dramatically increased over the last 18 months.<sup>140</sup> In addition, Iran joined the Shanghai Cooperation Organization, a China-founded regional security grouping, in July 2023.<sup>141</sup> It also joined the BRICS alliance of emerging market countries in August 2023.<sup>142</sup> Iran has even been enhancing diplomatic ties

<sup>135</sup> U.S. Department of Justice, Press Release, “Iranian Intelligence Officials Indicted on Kidnapping Conspiracy Charges,” July 13, 2021. (<https://www.justice.gov/opa/pr/iranian-intelligence-officials-indicted-kidnapping-conspiracy-charges>); U.S. Department of Justice, Press Release, “Justice Department Announces Charges and New Arrest in Connection with Assassination Plot Directed from Iran,” January 27, 2023. (<https://www.justice.gov/opa/pr/justice-department-announces-charges-and-new-arrest-connection-assassination-plot-directed>)

<sup>136</sup> Office of the Director of National Intelligence, “Iran's Nuclear Weapons Capability and Terrorism Monitoring Act of 2022— Assessment Regarding the Regional and Global Terrorism of the Islamic Republic of Iran,” July 23, 2024. (<https://www.dni.gov/index.php/newsroom/reports-publications/reports-publications-2024/3971-iran-s-nuclear-weapons-capability-and-terrorism-monitoring-act-of-2022-assessment-regarding-the-regional-and-global-terrorism-of-the-islamic-republic-of-iran>)

<sup>137</sup> Kelsey Davenport, “UN Security Council Resolutions on Iran,” *Arms Control Association*, October 2023. (<https://www.armscontrol.org/factsheets/un-security-council-resolutions-iran>)

<sup>138</sup> See reference to multilateral pressure here: Mark Dubowitz and Karim Sadjadpour, “What America Misunderstands About the Islamic Republic of Iran,” *Foundation for Defense of Democracies, Foreign Policy*, June 7, 2024. (<https://www.fdd.org/podcasts/2024/06/07/what-america-misunderstands-about-the-islamic-republic-of-iran>)

<sup>139</sup> For more on the evolving Iran-Russia relationship, see: Behnam Ben Taleblu, “The Despot Duo: Russo-Iranian Cooperation and Threats to U.S. Interests,” *Testimony before the House Foreign Affairs Subcommittees on Europe and Middle East, North Africa, and Central Asia*, April 17, 2024. (<https://docs.house.gov/meetings/FA/FA13/20240417/117148/HHRG-118-FA13-Wstate-BenTalebluB-20240417.pdf>)

<sup>140</sup> Clayton Thomas, Liana W. Rosen, and Jennifer K. Elsea, “Iran's Petroleum Exports to China and U.S. Sanctions,” *Congressional Research Service*, May 2024. (<https://crsreports.congress.gov/product/pdf/IN/IN12267>)

<sup>141</sup> Sudhi Ranjan Sen, “Iran Joins SCO, the China-Founded Regional Security Grouping,” *Bloomberg*, July 4, 2023. (<https://www.bloomberg.com/news/articles/2023-07-04/iran-joins-sco-the-china-founded-regional-security-grouping?sref=3OIZCXOE>)

<sup>142</sup> Claudia Chiappa, “6 new countries to join BRICS, including Iran and Saudi Arabia,” *Politico Europe*, August 24, 2023. (<https://www.politico.eu/article/brics-summit-south-africa-six-new-countries-join-alliance>)



Then Iranian President Ebrahim Raisi speaks during BRICS Extraordinary Joint Meeting in Tehran, Iran, on November 21, 2023. (Photo by Iranian Presidency/Anadolu via Getty Images)

with U.S. partners, including, for example, Saudi Arabia, Egypt, Bahrain, and Azerbaijan.<sup>143</sup>

**Iran's current lack of isolation may mean that a U.S. deterrent message to Iran would need to be significantly magnified today if it is to be effective.**

### Private Warnings to Iran Can Sometimes Contribute to Deterrence

There is a history of U.S. administrations sending private warnings to Iran. For example, Iranian proxy attacks on the U.S. Embassy in Baghdad in April 2008 and against U.S. bases in Iraq in June 2011 reportedly stopped after quiet U.S. threats to respond militarily.<sup>144</sup>

Private messaging with Iran can be useful because it enables the regime to be conciliatory without losing

face. Private messaging may thus be useful for deterring some attempted Iranian nuclear advances. However, as former Secretary of State George P. Shultz famously said, “the hard reality is that diplomacy not backed by strength is ineffectual” — and that is true whether messages are sent publicly or privately.<sup>145</sup>

### Irregular Warfare Can Contribute to Detering Iran, With Reduced Risk of Escalation

The U.S. Department of Defense defines the term “irregular warfare” to mean “a form of warfare where states and non-state actors campaign to assure or coerce states or other groups through indirect, non-attributable, or asymmetric activities.”<sup>146</sup> Iran has long been an exceptionally effective practitioner of irregular warfare, including by using proxies to create plausible deniability in a manner that facilitates eroding and circumventing redlines while reducing escalation risk.

The Islamic Republic's use of irregular warfare has been successful against the United States because U.S. policymakers tend to think about war and peace with state actors like Iran in stark, binary terms, and have frequently been constrained by concerns about escalation leading to all-out war.<sup>147</sup> In fact, a central element of Iranian security policy involves attempting to extract concessions by preying on its adversaries' fear of a wider conflict.

143. Amir Vahdat, “Azerbaijan reopens its embassy in Iran as the countries try to ease tensions,” *Associated Press*, July 15, 2024. (<https://apnews.com/article/iran-azerbaijan-embassy-tehran-reopen-84e1e5ad59763f0507de4cd469468e75>); “Iran and Bahrain agree to talk about how they might resume diplomatic relations severed since 2016,” *Associated Press*, June 4, 2024. (<https://apnews.com/article/iran-bahrain-diplomatic-ties-saudi-relations-4760151af427467171ef53c25e8b3de4>); Seth Frantzman, “Iran is seeking closer ties to Egypt,” *The Jerusalem Post* (Israel), May 15, 2024. ([https://www.fdd.org/analysis/op\\_ed/2024/05/15/iran-is-seeking-closer-ties-to-egypt](https://www.fdd.org/analysis/op_ed/2024/05/15/iran-is-seeking-closer-ties-to-egypt)); Henry Austin, “Regional rivals Iran and Saudi Arabia agree to restore their ties after years of tensions,” *NBC News*, March 10, 2023. (<https://www.nbcnews.com/news/world/iran-saudi-arabia-agree-restore-diplomatic-relations-china-rcna74314>)

144. Michael Eisenstadt, “Denial or Punishment? The U.S.-Israel Debate About How Best to Deter Iran,” *The Washington Institute for Near East Policy*, April 26, 2024. (<https://www.washingtoninstitute.org/policy-analysis/denial-or-punishment-us-israel-debate-about-how-best-deter-iran>)

145. George Shultz, “Address by Secretary of State Shultz,” April 3, 1984. (<https://history.state.gov/historicaldocuments/frus1981-88v01/d191>)

146. U.S. Joint Chiefs of Staff, “Joint Warfighting,” August 27, 2023. (<https://keystone.ndu.edu/Portals/86/Joint%20Warfighting.pdf>)

147. Michael Eisenstadt, “Iran's Gray Zone Strategy: Cornerstone of its Asymmetric Way of War,” *National Defense University Press*, March 19, 2021. (<https://ndupress.ndu.edu/Media/News/News-Article-View/Article/2541911/irans-gray-zone-strategy-cornerstone-of-its-asymmetric-way-of-war>)

Due to its greater array of interests, its fundamentally different approach to war and peace, and general risk aversion, the United States has often responded with military inaction (responding only with economic sanctions and verbal condemnations) when Iran undertakes irregular warfare or engages in graduated escalation.<sup>148</sup>

By contrast, Israel has repeatedly wielded irregular warfare against Iran's nuclear weapons program — including sabotage, unacknowledged assassinations and other overt attacks, and cyber operations. Israel has done so in a way that has imposed costs on the regime and hindered its operations while enabling Tehran to save face by denying the attack has occurred.

**If Iran continues escalating its nuclear program, the United States should strongly consider employing irregular warfare operations to both impede and deter Iranian nuclear weapons program advances.** Such operations that are not acknowledged by the United States can achieve key objectives while providing Tehran the option of not escalating without losing face.

### **U.S. Can Strengthen its Deterrence by Holding Iran Responsible for Its Proxies**

The United States rarely attacks Iranian forces in response to attacks on U.S. forces by Iranian proxies. One exception was the U.S. military strike on February 2, which struck more than 85 targets at seven facilities in Iraq and Syria utilized by the IRGC and its proxies.<sup>149</sup> It reportedly killed dozens of militants (and was followed by the killing of a commander of the Iranian-backed Kata'ib Hezbollah militia group).<sup>150</sup> The relatively rare February 2 attack on an IRGC

facility (rather than merely that of an Iranian proxy) had an effective deterrent effect, with Iranian proxies launching only two attacks in the subsequent 23 weeks on U.S. forces in Iraq and Syria.

**The United States should more readily strike Iranian targets in response to Iranian proxy attacks. Washington should do so with strike packages that are more powerful than any launched by Iran's proxies.**<sup>151</sup> **This could have a deterrent effect that is both longer-lasting and also broader (e.g., potentially deterring Iranian nuclear advances rather than solely attacks on U.S. forces).** Depending on the severity of the Iranian attacks, targets could include not only IRGC installations and personnel in Iraq and Syria but could also potentially be scaled up to include Iranian naval assets supporting attacks on civilian vessels in and near the Red Sea.

### **Iran Derives Lessons From Both U.S. Responses and Failures to Respond**

Reflecting on his time at U.S. Central Command, Gen. Kenneth F. McKenzie, Jr., deemed the decision by the Trump administration to cancel a strike on Iran in response to the downing of an American drone in June 2019 a “mistake.” He noted, “Had we executed it, it's possible that the escalatory trajectory we were on could have been suppressed. Instead, the Iranians drew a lesson: the United States was feckless. Our friends in the region drew similar conclusions. This would shape Iranian behavior in the following months.”<sup>152</sup> **U.S. policymakers must think carefully not only about the impact of every U.S. response but also of every failure to respond to Iranian escalation, including nuclear escalation.**

148. Michael Eisenstadt, “Deterring Iran in the Gray Zone,” *The Washington Institute for Near East Policy*, April 14, 2021. (<https://www.washingtoninstitute.org/policy-analysis/deterring-iran-gray-zone-insights-four-decades-conflict>)

149. The White House, “On-the-Record Press Call on U.S. Military Operations in the Middle East,” February 2, 2024. (<https://www.whitehouse.gov/briefing-room/press-briefings/2024/02/02/on-the-record-press-call-on-u-s-military-operations-in-the-middle-east>)

150. Lara Seligman, “Iran proxy attacks on US troops in Iraq, Syria drop off as Red Sea heats up,” *Politico*, March 6, 2024. (<https://www.politico.com/news/2024/03/06/proxy-attacks-iraq-syria-red-sea-00145428>)

151. Jerry Hendrix, “How to Stop Iran,” *Hoover Institution*, February 26, 2024. (<https://www.hoover.org/research/how-stop-iran>)

152. Gen. Kenneth F. McKenzie Jr., *The Melting Point: High Command and War in the 21st Century* (Annapolis: Naval Institute Press, 2024), page 37.

## The U.S. Must Prepare for Iranian Counterpunches

**Whenever Washington uses force to signal resolve and deter Tehran, it must also prepare for an Iranian response (including a face-saving one).**<sup>153</sup>

The United States should not be deterred by potential Iranian responses, particularly kinetic ones, once the United States manages to land a blow against a core regime interest or asset. In fact, it would be highly irregular for the regime not to contest the use of force in initial rounds of a conflict or crisis.<sup>154</sup> Iranian counterpunches are core elements of Iran's propensity to threaten, and prey on its adversaries' fear of, a wider conflict. The regime also constantly tests its adversaries' persistence and resolve.

One example of a U.S. lack of preparedness for an Iranian response came in January 2020 after the United States killed Qassem Soleimani, the head of the IRGC-Quds Force, in Iraq. According to McKenzie, the idea that Iran would absorb the strike was born out of a faulty belief of "advisors at the national level that Iran

would not retaliate. No one at CENTCOM or in the intelligence community shared that view."<sup>155</sup>

The strike against Soleimani did not achieve "deterrence" *per se* in its immediate aftermath — Tehran responded with the largest ballistic missile barrage against U.S. forces in history.<sup>156</sup> More than 100 U.S. servicemembers suffered brain injuries from the attack because their bases lacked ballistic missile defenses.<sup>157</sup> Following that strike, Iran-backed militias in Iraq escalated their attacks on the U.S. force presence in that country, making January the second most dangerous month for U.S. forces in Iraq that year.<sup>158</sup>

However, the attack on Soleimani made it more difficult for Tehran to manage its militia network in the short term. The attack also landed a psychological blow against Tehran given the surprise nature of the strike and the high value of the target, shaping Iranian thinking regarding the American will to use force. These factors, when combined with the Trump administration's strategy of maximum pressure on Iran, are widely viewed to have played a contributing role in preventing wider Iranian nuclear escalation

153. J. Matthew McInnis, "The Future of Iran's Security Policy: Inside Iran's Strategic Thinking," *American Enterprise Institute*, May 2017, pages 62-63. (<https://www.aei.org/wp-content/uploads/2017/05/The-Future-of-Irans-Security-Policy.pdf>)

154. During the Tanker War in the Persian Gulf in the 1980s, the United States responded kinetically against Iran several times to get Tehran to back down. There were three different U.S. military operations: Operation Prime Chance, Operation Nimble Archer, and Operation Praying Mantis. For more, see: David Crist, *The Twilight War: The Secret History of America's Thirty-Year War With Iran* (New York: Penguin Books, 2012).

155. Gen. Kenneth F. McKenzie Jr., *The Melting Point: High Command and War in the 21st Century* (Annapolis: Naval Institute Press, 2024), page 88.

156. David Martin and Mary Walsh, "Who would live and who would die: The inside story of the Iranian attack on Al Asad Airbase," *CBS News*, February 28, 2021. (<https://www.cbsnews.com/news/iranian-attack-al-asad-air-base-60-minutes-2021-02-28>); Behnam Ben Taleblu, "Iran is increasingly using missiles in its military operations — that's a problem," *The Hill*, January 21, 2020. (<https://thehill.com/opinion/international/479076-iran-is-increasingly-using-missiles-in-its-military-operations-thats-a>)

157. Bradley Bowman, Andrew Gabel, and Mikhael Smits, "Iran attack highlights US missile defense vulnerability," *Defense News*, January 13, 2020. (<https://www.defensenews.com/opinion/commentary/2020/01/13/iran-attack-highlights-us-missile-defense-vulnerability>)

158. Behnam Ben Taleblu, "Collecting and analyzing Shiite militia attacks against the U.S. presence in Iraq," *FDD's Long War Journal*, May 5, 2020. (<https://www.longwarjournal.org/archives/2020/05/collecting-and-analyzing-shiite-militia-attacks-against-the-u-s-presence-in-iraq.php>); John Hannah and Behnam Ben Taleblu, "The Trump Administration's High-Stakes Gambit to Curtail Rocket Attacks in Iraq," *Foundation for Defense of Democracies*, October 22, 2020. (<https://www.fdd.org/analysis/2020/10/22/the-trump-administration%E2%80%99s-high-stakes-gambit-to-curtail-rocket-attacks-in-iraq>)

at the time.<sup>159</sup> According to McKenzie, “They didn’t think we would take bold and aggressive action. Because we did so, they were forced to recalculate.”<sup>160</sup>

## The Impact of a U.S. Deterrent Act Fades Over Time

The impact on Iran of a U.S. deterrent act evidently fades over time. For example, after 23 weeks of almost entirely refraining from attacks on U.S. troops in Iraq and Syria, Iranian proxies began to mount attacks again starting in mid-July 2024.

On July 16, two drones attacked al-Asad Air Base in Iraq, where U.S. forces are stationed.<sup>161</sup> On July 25, three rockets were launched at al-Asad,<sup>162</sup> injuring four U.S. servicemembers and one U.S. contractor.<sup>163</sup> A U.S. troop location in Syria was attacked successively on July 25, 26, and 27.<sup>164</sup>

Similarly, notwithstanding the 1988 and 2012 U.S. deterrent acts described above, Iran eventually resumed

**“According to General Kenneth F. McKenzie, Jr., ‘They didn’t think we would take bold and aggressive action. Because we did so, they were forced to recalculate.’”**

its harassment of U.S. surveillance aircraft and naval vessels.<sup>165</sup>

**The impact on Iran of a particular deterrent act can be short-lived in large part because of the regime’s fundamentally revisionist nature.** Unlike status quo states, revisionist states such as Iran seek to change their current place in the international order.

An Iranian perspective on how deterrence fades over time was colorfully expressed by Brig. Gen. Amir Ali Hajizadeh, who has served since 2009<sup>166</sup> as commander of the IRGC Aerospace Forces: “Maintaining deterrence is like riding a bicycle. When riding a bicycle, you have to keep pedaling all the time, or else, the bicycle will fall. Therefore, deterrence does not mean that you reach a certain point, and then you frame it, put it in some corner,

**159.** For a timeline of Iranian nuclear escalation, see: Behnam Ben Taleblu and Andrea Stricker, “Exploiting America’s Declining Pressure: Iran’s Nuclear Escalation Over Time,” *Foundation for Defense of Democracies*, February 2024. (<https://www.fdd.org/wp-content/uploads/2024/02/fdd-visual-exploiting-america-declining-pressure-iran-nuclear-escalation-February2024.pdf>). For more on Iran’s strategy of incremental nuclear escalation at the time, see: Behnam Ben Taleblu, “Making sense of Iran’s nuclear moves,” *The Hill*, October 8, 2019. (<https://thehill.com/opinion/international/464601-making-sense-of-irans-nuclear-moves>)

**160.** Gen. Kenneth F. McKenzie Jr., *The Melting Point: High Command and War in the 21st Century* (Annapolis: Naval Institute Press, 2024), page 98.

**161.** Jeff Schogol, “US bases in Iraq and Syria targeted in strong of rocket attacks,” *Task & Purpose*, July 29, 2024. (<https://taskandpurpose.com/news/us-military-iraq-syria-attacks>)

**162.** Deputy Pentagon Press Secretary Sabrina Singh, “Deputy Pentagon Press Secretary Sabrina Singh Holds a Press Conference,” *U.S. Department of Defense*, August 8, 2024. (<https://www.defense.gov/News/Transcripts/Transcript/Article/3867296/deputy-pentagon-press-secretary-sabrina-singh-holds-a-press-conference/>)

**163.** Ibid.

**164.** Jeff Schogol, “US bases in Iraq and Syria targeted in strong of rocket attacks,” *Task & Purpose*, July 29, 2024. (<https://taskandpurpose.com/news/us-military-iraq-syria-attacks>)

**165.** Lucas Tomlinson, “Iran threatened to shoot down US Navy spy planes in the Persian Gulf,” *Fox News*, September 13, 2016. (<https://www.foxnews.com/world/iran-threatened-to-shoot-down-us-navy-spy-planes-in-the-persian-gulf>); Jonathan Swan, “Inside Trump’s obsession with Iranian gunboats,” *Axios*, April 24, 2020. (<https://www.axios.com/2020/04/24/trump-iran-gunboats>)

**166.** “Amir Ali Hajizadeh: Commander of the IRGC’s Aerospace Force,” *United Against a Nuclear Iran*, April 2023. (<https://www.unitedagainstnucleariran.com/amir-ali-hajizadeh-commander-of-irgcs-aerospace-force>)

and say that you have deterrence. No. You have to preserve it," he said.<sup>167</sup>

**To successfully deter Iranian nuclear advances, the United States must regularly employ and re-employ its relevant deterrent toolkit.**

## Deterrence by Denial Must be Combined With Deterrence by Punishment

Deterrence by denial works by convincing the adversary that its attempts will not succeed. By contrast, deterrence by punishment works by convincing the adversary that its attempts will incur unacceptable costs.<sup>168</sup>

As Michael Eisenstadt has explained, the United States has "increasingly relied on deterrence by denial" to counter Iran.<sup>169</sup> The United States has strengthened air and missile defenses, and organized maritime task forces, to persuade Iran that its attacks or other actions will be blocked or otherwise frustrated.<sup>170</sup> By contrast, Washington has increasingly avoided military actions that would impose costs on Iran for fear of escalation.

This approach is exemplified by the U.S. response to the over 300 drones, cruise missiles, and ballistic missiles Iran launched at Israel on April 13-14.<sup>171</sup> This was the first time in the history of the Islamic Republic that the regime directly attacked Israel from Iranian territory.

U.S. forces helped Israel intercept most of the drones and missiles.<sup>172</sup> President Biden and other U.S. officials reportedly urged Prime Minister Benjamin Netanyahu to "take the win"<sup>173</sup> and not impose costs on Iran by retaliating for the strike. Israel subsequently limited itself to a targeted counterstrike on an Iranian air defense radar site, for which Israel did not take public credit.<sup>174</sup>

Eisenstadt argues persuasively that "America's own experience shows that a balanced strategy that blends both denial and punishment—to thwart Iranian activities and hold at risk or destroy assets that it values—is a more effective way to deter and contain the Islamic Republic."<sup>175</sup> Deterrence strategies that rely only on denial enable Iran "to wager only those assets it considers expendable" and to "set the terms

167. "IRGC Aerospace Force Commander General Amir-Ali Hajizadeh: We Do Not Need To Build Missiles That Can Reach U.S. Soil Because There Are Numerous American Assets In The Region; Today's Iranian Youth Will Live To See The Annihilation Of The Zionist Regime," *Middle East Media Research Institute*, November 22, 2021. (<https://www.memri.org/reports/irgc-aerospace-force-commander-general-amir-ali-hajizadeh-we-do-not-need-build-missiles-can>); "سردار حاجی زاده: دشمن را در فاصله بیش از هزار کیلومتری با" [Commander Hajizadeh: We defeated the enemy at a distance of more than a thousand kilometers with artificial intelligence], *Borna News Agency* (Iran), September 7, 2022. (<https://borna.news/fa/news/1374254/سردار-حاجی-%E2%80%8Cزاده-%E2%80%8Cدشمن-را-در-فاصله-بیش-از-هزار-کیلومتری-با-هوش-مصنوعی-از-پای-درآوردیم>)

168. Michael Eisenstadt, "Denial or Punishment? The U.S.-Israel Debate About How Best to Deter Iran," *The Washington Institute for Near East Policy*, April 26, 2024. (<https://www.washingtoninstitute.org/policy-analysis/denial-or-punishment-us-israel-debate-about-how-best-deter-iran>)

169. *Ibid.*

170. *Ibid.*

171. Josef Federman and Jon Gambrell, "Israel says Iran launched more than 300 drones and missiles, 99% of which were intercepted," *Associated Press*, April 14, 2024. (<https://apnews.com/article/strait-of-hormuz-vessel-33fcffde2d867380e98c89403776a8ac>)

172. *Ibid.*

173. Barak Ravid, "Scoop: Biden told Bibi U.S. won't support an Israeli counterattack on Iran," *Axios*, April 14, 2024. (<https://www.axios.com/2024/04/14/biden-netanyahu-iran-israel-us-wont-support>); Alexander Ward, "No one wants to escalate things," *Politico*, April 19, 2024. (<https://www.politico.com/news/2024/04/19/bidens-plan-to-avoid-larger-israel-iran-war-keep-calm-and-carry-on-00153358>)

174. Raphael S. Cohen, "The Iran-Israel War Is Just Getting Started," *Foreign Policy*, April 22, 2024. (<https://www.rand.org/pubs/commentary/2024/04/the-iran-israel-war-is-just-getting-started.html>)

175. Michael Eisenstadt, "Denial or Punishment? The U.S.-Israel Debate About How Best to Deter Iran," *The Washington Institute for Near East Policy*, April 26, 2024. (<https://www.washingtoninstitute.org/policy-analysis/denial-or-punishment-us-israel-debate-about-how-best-deter-iran>)



*Remains of a missile that landed on the shore of the Dead Sea, a week after the missile barrage fired by Iran on April 13, 2024. (Photo by Menahem Kahana/AFP via Getty Images)*

of engagement and impose costs on its enemies with impunity.<sup>176</sup>

Successfully intercepting a missile or drone is often much more expensive than the cost of the missile or drone itself. For example, the United States has reportedly been using interceptors, which cost up to \$2.1 million each,<sup>177</sup> to destroy drones fired by Iran's Houthi proxies, which cost only a few thousand dollars each.<sup>178</sup>

Israel, the United States, and their allies are estimated to have spent some \$1.1 billion intercepting the missiles and drones Iran launched at Israel on April 13-14.<sup>179</sup> This likely far exceeded the cost to Iran of the missiles and drones it launched.

Thus, **the United States should not limit itself to attempting to block malign Iranian activities, or to responding in a precisely proportionate manner to whatever damage Iran is able to cause.** The current

U.S. focus on blocking Iranian activities, and responding in a proportionate manner if and only if Iran happens to draw American blood, allows Iran to define the rules of the game. The United States should instead respond unpredictably, including by attacking regime targets beyond those that Tehran chooses to employ in a particular exchange.<sup>180</sup> **Iran is more likely to halt its malign activities if they result in greater costs than benefits.**

It is essential to ensure that the Islamic Republic fears U.S. escalation, because the United States' superior military power constitutes one of Washington's most important advantages when confronting Tehran.<sup>181</sup> A U.S. strategy that better supplements deterrence by denial with deterrence by punishment would go a long way toward deterring Iranian nuclear advances. America's reflexive unwillingness to counter Iran dangerously makes the United States, its interests, and its allies a far more tempting target.

### **Deterrence by Early Detection Can Usefully Supplement Deterrence by Denial and Punishment**

A major reason Iran has not yet succeeded in building a nuclear weapon is the continued detection, exposure, disruption, and punishment of its illicit procurement, construction of nuclear facilities, undeclared research, and more. Detecting an Iranian nuclear advance before it is completed can help deter by providing the United States time to spur international condemnation, to

176. Ibid.

177. Lara Seligman and Matt Berg, "A \$2M missile vs. a \$2,000 drone: Pentagon worried over cost of Houthi attacks," *Politico*, December 19, 2023. (<https://www.politico.com/news/2023/12/19/missile-drone-pentagon-houthi-attacks-iran-00132480>)

178. The Islamic Republic understands this dynamic and has even bragged about it during a previous Gaza war (May 2021). See references to this by *Fars News Agency* and *Mashregh News Agency*: Behnam Ben Taleblu, "Redefining Iran's Role in its Latest 'Shadow War' Against Israel," *The National Interest*, May 24, 2021. (<https://nationalinterest.org/feature/redefining-iran%E2%80%99s-role-its-latest-%E2%80%98shadow-war%E2%80%99-against-israel-185947?page=0%2C1>)

179. Galit Altstein, "Foiling Iran's Missile Attack Probably Cost More Than \$1 Billion," *Bloomberg*, April 17, 2024. (<https://www.bloomberg.com/news/articles/2024-04-17/foiling-iran-s-missile-attack-probably-cost-more-than-1-billion?embedded-checkout=true&sref=3OIZCXOE>)

180. Michael Eisenstadt, "Deterring Iran in the Gray Zone," *The Washington Institute for Near East Policy*, April 14, 2021. (<https://www.washingtoninstitute.org/policy-analysis/deterring-iran-gray-zone-insights-four-decades-conflict>)

181. Ibid.

disrupt, and to threaten punishment for the impending Iranian nuclear advance.

An example of deterrence by early detection in the nuclear arena is the revelation in August 2002, by Iranian dissidents, that Iran had clandestinely built nuclear facilities at Arak and Natanz and that it had not reported them to the IAEA.<sup>182</sup> Another is the announcement of the United States and the E3 (France, Germany, and the UK) about the Fordow facility in 2009.<sup>183</sup> There are also several examples in recent years of Iran canceling conventional attacks when its adversaries announced that they were impending, thereby depriving Iran of deniability and surprise.<sup>184</sup>

The Islamic Republic is more likely to make a future dash for a bomb the less it assesses its chances are of getting caught. Therefore, **the United States and its allies must maximize Iran's fear of getting caught making nuclear advances.**

The United States must expose Iranian vulnerabilities through public disclosures, prosecutions, cyber-attacks, network penetration, espionage, sanctions, and evidence of Western capacity to co-opt everyone from Iranian scientists to procurement agents. All of this can decrease the confidence Tehran might have in the security of its nuclear weapons program. Such covert and overt activities can also force the regime to expend its finite resources on hiding its activities, potentially reducing the resources available for advancing those same activities.

While deterrence by detection alone — just like deterrence by denial alone — is insufficient to deter Iranian nuclear activities such as weaponization, it is a necessary component in the overall deterrence campaign.

## Recommended Adoption of Whole-of-Government U.S. Strategy to Identify and Deter Individual Significant Iranian Nuclear Advances

**The United States should internally identify the full range of unacceptable Iranian nuclear activities, including the “Key Steps for Potential Iranian Nuclear Advancement” listed in this monograph, and develop a set of U.S. and allied military and non-military responses to be employed.**

**Responses should not merely seek to reverse the advance but also impose additional costs on Iran.** The United States cannot depend on its ability to detect — and head off — each potential advance when it occurs. If the cost to Iran of a foiled Iranian advance is simply that Iran does not reap the benefit of the advance, Iran will be incentivized to try again. Thus, Washington needs to persuade the regime that Iran will pay such a high price if it is caught attempting an advance that it is not worthwhile for the regime to attempt that advance again.

**The United States should also consider which advances the United States should declare a red line, either publicly or in private messaging to the Islamic Republic.** It is often preferable to provide advance notification to the Iranians that a step would cross a red line (to deter them from crossing it) rather than relying on detecting the activity and then attempting to compel them to halt or reverse it. Detection may not occur in a timely manner, and many steps are largely or entirely irreversible (e.g., activity undertaken by Iran while it

<sup>182</sup>. Paul K. Kerr, “Iran’s Nuclear Program: Tehran’s Compliance with International Obligations,” *Congressional Research Service*, April 2, 2024. (<https://sgp.fas.org/crs/nuke/R40094.pdf>)

<sup>183</sup>. The White House, “Statements By President Obama French President Sarkozy And British Prime Minister Brown On Iranian Nuclear Facility,” September 25, 2009. (<https://obamawhitehouse.archives.gov/the-press-office/2009/09/25/statements-president-obama-french-president-sarkozy-and-british-prime-mi>)

<sup>184</sup>. Michael Eisenstadt, “Denial or Punishment? The U.S.-Israel Debate About How Best to Deter Iran,” *The Washington Institute for Near East Policy*, April 26, 2024. (<https://www.washingtoninstitute.org/policy-analysis/denial-or-punishment-us-israel-debate-about-how-best-deter-iran>)

bars IAEA inspectors or weaponization knowledge that Iran gains). It is important to factor in that the Islamic Republic might treat as yellow-lighted or green-lighted any activity that the United States does not communicate is red-lighted. It is also important to declare a red line only if there is a willingness to enforce it. Each red line that is established and then not enforced would deal a blow to America's already tattered deterrence of Iran.

## Recommended U.S. Military Steps to Deter Significant Iranian Nuclear Advances in the Coming Weeks

The Biden administration will be more successful in deterring Iran from advancing its nuclear weapons program if the regime believes that Washington has both the military means and the political will to stop Iranian advances. For deterrence to be effective, it must be clear to Iran that the costs of pursuing a nuclear advance are significantly greater than the potential benefits. It must also be clear that the United States understands and is politically willing to incur the costs of military operations to prevent a nuclear advance. This section recommends steps in six categories that the Biden administration could implement in the next few weeks and months.

This list of steps will contribute significantly to more effectively deterring a full-scale Iranian dash to a bomb. However, the United States also needs to become far more effective at deterring the individual smaller-scale advances that Iran is currently undertaking or might undertake if not deterred.

The United States should strongly consider how it can use U.S. military steps, in the categories set forth below, to deter or respond to such individual smaller-scale Iranian nuclear advances. Even if a U.S. military step comes too late to reverse a particular smaller-scale advance, the response can help deter future advances by making clear that Tehran will incur costs that outweigh benefits.

### Build Consensus

The unclassified version of the ODNI report on Iran's nuclear weapons program, dated July 23, strongly implies (including by removing a sentence that had appeared in prior reports) that Iran is currently undertaking key nuclear weaponization activities necessary to produce a testable nuclear device.<sup>185</sup> But the unclassified version does not say so directly. Nor does it provide any examples of such activities.

Based on Sen. Graham's strong public response to the classified version of the report, however, the ODNI apparently possesses concerning information on Iran's recent nuclear weaponization advances.

In the days prior to Russia's invasion of Ukraine on February 24, 2022, the Biden administration declassified intelligence assessments that Russian President Vladimir Putin had made the decision to invade Ukraine.<sup>186</sup> This proactive step helped expedite and solidify international support for Ukraine once Putin launched his invasion. But the administration's decision to declassify intelligence was belated. More benefit could have been derived if the administration had declassified relevant intelligence when indications and warnings of an invasion first emerged in 2021.

<sup>185</sup>. Office of the Director of National Intelligence, "Iran's Nuclear Weapons Capability and Terrorism Monitoring Act of 2022- Assessment Regarding the Regional and Global Terrorism of the Islamic Republic of Iran," July 23, 2024. (<https://www.odni.gov/files/ODNI/documents/assessments/ODNI-Unclassified-Assessment-Regarding-the-Regional-and-Global-Terrorism-of-the-Islamic-Republic-of-Iran-202407.pdf>)

<sup>186</sup>. Koichiro Takagi, "How the US Conquered Information Warfare in Ukraine with Open-Source Intelligence," *World Insight, Hudson Institute*, March 1, 2024. (<https://www.hudson.org/information-technology/how-us-conquered-information-warfare-ukraine-open-source-intelligence-koichiro-takagi>)

**The administration should consider declassifying intelligence assessments related to Iran's nuclear weapons program advances in order to help build domestic and international support for necessary deterrent strategies.** Declassification could also help signal to Iran that the administration is preparing to back up its warnings with actions, if necessary. That could impact Tehran's decision on whether to pursue additional significant nuclear advances or conduct a nuclear breakout.

## Deployments

The deployment of U.S. forces can have positive deterrent effects by underscoring that the United States has the means to prevent Iran from advancing toward a nuclear weapon. But the type, scope, and timing of deployments impact their effectiveness.<sup>187</sup> If not properly designed and implemented, some types of deployments will be seen by Tehran as worthy of little more than a shrug — a deployment that is perceived as all muscle and no punch. That's especially true because Iran has strengthened and diversified its

lethal and non-lethal options against U.S. assets in the region since 2015.<sup>188</sup>

In the aftermath of the October 7 terror attack, the Biden administration deployed significant U.S. military forces to the region, including two carrier strike groups, a marine expeditionary unit, strike aircraft, and additional air defenses.<sup>189</sup> As Secretary of Defense Lloyd Austin confirmed during his October 13 trip to Tel Aviv, "I ordered additional assets to the region to bolster deterrence."<sup>190</sup> In his July 24 address to the U.S. Congress, Israeli Prime Minister Netanyahu lauded the administration's October decision to deploy two carrier strike groups, which likely helped dissuade Hezbollah from launching a full-scale assault on Israel while the Israel Defense Forces was still conducting clearing operations to remove Hamas terrorists from its borders.<sup>191</sup> Open debates in Congress signaled that the United States was considering the commitment of forces.<sup>192</sup>

Subsequent deployments to the region, such as those of the USS *Abraham Lincoln* Carrier Strike Group and USS *Wasp* Amphibious Ready Group, signal the

**187.** Erik Gartzke and Jon Lindsay, eds. *Elements of Deterrence: Strategy, Technology, and Complexity in Global Politics* (New York, NY: Oxford University Press, 2024).

**188.** Michael Eisenstadt, "Iran's Gray Zone Strategy: Cornerstone of its Asymmetric Way of War," *National Defense University Press*, March 19, 2021. (<https://ndupress.ndu.edu/Media/News/News-Article-View/Article/2541911/irans-gray-zone-strategy-cornerstone-of-its-asymmetric-way-of-war>); Michael Singh, "Iran's Nuclear Endgame Warrants a Change in U.S. Strategy," *The Washington Institute for Near East Policy*, February 28, 2023. (<https://www.washingtoninstitute.org/policy-analysis/irans-nuclear-endgame-warrants-change-us-strategy>)

**189.** "U.S. Surges Additional Combat Forces to the Middle East," *Foundation for Defense of Democracies*, October 18, 2023. (<https://www.fdd.org/analysis/2023/10/18/u-s-surges-additional-combat-forces-to-the-middle-east>); "U.S. Deploys Additional Air and Missile Defenses to Middle East," *Foundation for Defense of Democracies*, October 25, 2023. (<https://www.fdd.org/analysis/2023/10/25/u-s-deploys-additional-air-and-missile-defenses-to-middle-east>); Secretary of Defense Lloyd J. Austin III, "Statement from Secretary of Defense Lloyd Austin III on Deployment of USS Eisenhower Carrier Strike Group to the Eastern Mediterranean," October 14, 2023. (<https://www.defense.gov/News/Releases/Release/Article/3557560/statement-from-secretary-of-defense-lloyd-j-austin-iii-on-deployment-of-uss-eis>); Heather Moniglio, "Gerald R. Ford Carrier Strike Group Heading to Eastern Mediterranean to Deter Hezbollah, Iran," *USNI News*, October 9, 2023. (<https://news.usni.org/2023/10/09/gerald-r-ford-carrier-strike-group-stationed-in-mediterranean-to-deter-hezbollah-iran>)

**190.** "Secretary of Defense Lloyd J. Austin III Joint Press Conference With Israel Minister of Defense Yoav Gallant in Tel Aviv, Israel," *U.S. Department of Defense*, October 13, 2023. (<https://www.defense.gov/News/Transcripts/Transcript/Article/3556642/secretary-of-defense-lloyd-j-austin-iii-joint-press-conference-with-israeli-def>)

**191.** Orla Guerin, "Hezbollah steps back from all-out war on Israel over Gaza- for now," *BBC (UK)*, November 3, 2023. (<https://www.bbc.com/news/world-middle-east-67317454>); "Israeli Prime Minister Delivers Speech to Joint Meeting of Congress," *C-Span*, July 24, 2024. (<https://www.c-span.org/video/?536521-1/israeli-prime-minister-delivers-speech-joint-meeting-congress>)

**192.** Rebecca Kheel, "Lawmakers Mull Deeper Military Role in Israel as 'Dozens' of Americans are Held Hostage by Hamas," *Military News*, October 11, 2023. (<https://www.military.com/daily-news/2023/10/11/lawmakers-mull-deeper-military-role-israel-dozens-of-americans-are-held-hostage-hamas.html>)

administration's willingness to use force to deter regional escalation.<sup>193</sup> But those deployments are insufficient. **To deter significant nuclear advances or a full-fledged Iranian nuclear sprint, the administration should consider deploying select U.S. military forces affiliated with strategic targeting missions to the region, at least on a temporary basis, to signal the administration's political will to stop an Iranian nuclear breakout, if necessary.**

Deploying a single weapon system capability does not necessarily signal the administration's willingness to use that capability. Because policymakers and military planners understand that the United States would

incur costs in the event of a direct confrontation with Iran over nuclear weaponization, the most resonant deterrent message requires deploying offensive capabilities and simultaneously deploying the defensive capabilities necessary to mitigate Iran's retaliatory options.<sup>194</sup> Temporarily deploying and exercising bomber task forces,<sup>195</sup> fighter squadrons,<sup>196</sup> air and missile defense formations,<sup>197</sup> aerial refuelers,<sup>198</sup> guided-missile submarines (SSGN),<sup>199</sup> and minesweepers,<sup>200</sup> are all examples of what U.S. Central Command has demonstrated and published for public knowledge. Such moves communicate to Iran that the United States can hold its nuclear program at risk and has the capability to address follow-on retaliation both by

193. Sam LaGrone, "USS Wasp Now In Mediterranean Sea," USNI News, June 26, 2024. (<https://news.usni.org/2024/06/26/uss-wasp-enter-the-mediterranean-sea>); Sam LaGrone, "Carrier USS Abraham Lincoln Arrives in U.S. Central Command," USNI News, August 21, 2024. (<https://news.usni.org/2024/08/21/carrier-uss-abraham-lincoln-arrives-in-u-s-central-command>)

194. Kayse Jansen, "New Strategic Deterrence Frameworks for Modern-Day Challenges," *Joint Force Quarterly*, February 15, 2024. (<https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3679127/new-strategic-deterrence-frameworks-for-modern-day-challenges>)

195. U.S. Strategic Command, "US B-52s bring region together through Middle East Presence Patrol," March 29, 2022. (<https://www.stratcom.mil/Media/News/News-Article-View/Article/2990608/us-b-52s-bring-region-together-through-middle-east-presence-patrol>); MSgt. Amanda Sampson, "USAFCENT Flexes Air-to-Ground Capabilities in Historic First for BTF," *U.S. Air Forces Central Public Affairs*, June 8, 2023. (<https://www.afcent.af.mil/News/Article/3421639/usafcent-flexes-air-to-ground-capabilities-in-historic-first-for-btf>); "B-1 Lancer Reinforces Security Commitment in CENTCOM," *U.S. Air Forces Central Public Affairs*, November 8, 2023. (<https://www.afcent.af.mil/News/Article/3583663/b-1-lancer-reinforces-security-commitment-in-centcom>)

196. "USAF Participates in Desert Flag 2024," *U.S. Air Forces Central, 380th Air Expeditionary Wing Public Affairs*, May 10, 2024. (<https://www.afcent.af.mil/News/Article/3771289/usaf-participates-in-desert-flag-2024>); "F-16s Take Off to Support Combat Operations," *U.S. Air Forces Central*, April 30, 2024. (<https://www.afcent.af.mil/News/Article/3760162/f-16s-take-off-to-support-combat-operations>); "New F-16 squadron arrives, bolstering US defense posture in the Middle East," *U.S. Air Forces Central Public Affairs*, October 24, 2021. (<https://www.af.mil/News/Article-Display/Article/3567640/new-f-16-squadron-arrives-bolstering-us-defense-posture-in-middle-east>); "F-15E Strike Eagles bolster U.S. Defense Posture in the Middle East," *U.S. Air Forces Central Public Affairs*, October 14, 2023. (<https://www.afcent.af.mil/News/Article/3557471/f-15e-strike-eagles-bolster-us-defense-posture-in-the-middle-east>)

197. "U.S. Deploys Additional Air and Missile Defenses to Middle East," *Foundation for Defense of Democracies*, October 25, 2023. (<https://www.fdd.org/analysis/2023/10/25/u-s-deploys-additional-air-and-missile-defenses-to-middle-east>)

198. "Additional Refuelers Arrive in USCENCOM," *U.S. Air Forces Central Public Affairs*, October 25, 2023. (<https://www.afcent.af.mil/News/Article/3567863/additional-refuelers-arrive-in-uscentcom>); "U.S. Air Force and Israel partner to enhance operational capabilities," *U.S. Air Forces Central*, July 10, 2023. (<https://www.afcent.af.mil/News/Article/3453021/us-air-force-and-israel-partner-to-enhance-operational-capabilities>)

199. "Pentagon Deploys Ohio-Class Guided Missile Submarine to the Middle East," *Foundation for Defense of Democracies*, November 7, 2023. (<https://www.fdd.org/analysis/2023/11/07/pentagon-deploys-ohio-class-guided-missile-submarine-to-the-middle-east>)

200. Arie Egozi, "Houthi Lay Sea Mines in Red Sea; Coalition Boasts Few Minesweepers," *Breaking Defense*, June 14, 2021. (<https://breakingdefense.com/2021/06/houthi-lay-sea-mines-in-red-sea-coalition-boasts-few-minesweepers>); Tuqa Khalid, "First time in 7 years: US minesweepers enter Red Sea amid increased Houthi aggression," *Al-Arabiya English* (UAE), October 21, 2021. (<https://english.alarabiya.net/News/gulf/2021/10/21/First-time-in-7-years-US-minesweepers-enter-Red-Sea-amid-increased-Houthi-aggression>); "US and UK Forces Conducted a Bilateral Mine Countermeasure Exercise, Poseidon's Chalice," *U.S. Naval Forces Central Command*, April 7, 2024. (<https://www.cusnc.navy.mil/Media/News/Display/Article/3733252/us-and-uk-forces-conducted-a-bilateral-mine-countermeasure-exercise-poseidons-c>)

Iran and its threat network.<sup>201</sup> Demonstrating many of these capabilities simultaneously sends a more resonant message than in isolated events or in iterations.

Policymakers must consider that the Iranian integrated air defense system (IADS) continues to improve, and its complex lattice of networks includes both fixed, long-range strategic surface-to-air missile (SAM) systems and a growing number of difficult to track medium- to long-range mobile air defense systems whose pop-up operational model poses a significant challenge to U.S. airborne assets.<sup>202</sup> The long-range strike capabilities of SSGNs, strategic bomber aircraft, and fighter aircraft, communicate the ability to defeat Iran's IADS so that subsequent missions can destroy hardened targets, including Iranian nuclear facilities and missile bases.<sup>203</sup> Minesweepers and other maritime forces demonstrate the ability of the United States to re-open the Strait of Hormuz and other maritime chokepoints if Iran and its proxies attempt to close them. The difficulty that the United States and its partners have had in responding to Houthi actions in and near the Red Sea since October indicates that this could be a considerable challenge.<sup>204</sup>

Currently, many U.S. bases that would be used in a direct confrontation with Iran are within range of

Iranian ballistic missiles, cruise missiles, and drones. This endangers the lives of U.S. servicemembers and makes it more likely that the United States may incur significant costs to conduct a campaign against Iran. Both smaller forward operating locations and larger airbases within the CENTCOM footprint require improved and more efficient indirect-fires protection and counter-unmanned aerial systems (UAS) capabilities and capacity. This includes kinetic and non-kinetic capabilities as well as hardened sheltering.<sup>205</sup> Deploying sufficient counter-rocket, artillery, mortar systems, and the panoply of counter-UAS systems is critical to a full deterrence posture, including both offensive and defensive capabilities. Assuming sufficient air and missile defense capabilities are available for a more dispersed system of airfields to support military operations, this could reduce the effectiveness of any Iranian retaliatory strike directed at a single base. That would create dilemmas for Iranian military planners and make them think twice about either additional significant nuclear advances or a full-fledged sprint to a nuclear weapons capability.<sup>206</sup>

U.S. military personnel and assets are finite, and there are opportunity costs associated with increasing deployments. Short-term deployments

**201.** "U.S. collaborates with allies, partners at Saudi-led Spears of Victory exercise," *U.S. Air Forces Central, Ninth Air Force Public Affairs*, February 15, 2024. (<https://www.afcent.af.mil/News/Article/3677758/us-collaborates-with-allies-partners-at-saudi-led-spears-of-victory-exercise>); TSgt Megan Floyd and SrA Sara Williams, "U.S. Air Forces and Royal Bahraini Air Force Participate in joint Ballast Cannon exercise," U.S. Air Forces Central Public Affairs, January 8, 2024. (<https://www.afcent.af.mil/News/Article/3635307/us-air-force-and-royal-bahraini-air-force-participate-in-joint-ballast-cannon-e>)

**202.** Bradley Bowman, "Interview with Lt. Gen. Gregory Guillot, CENTCOM Deputy Commander," *Foundation for Defense of Democracies, Foreign Policy*, February 6, 2023. (<https://www.fdd.org/podcasts/2023/02/06/junipers-oaks-and-killer-tomatoes>)

**203.** Joseph Dempsey, "Silo mentality – Iran's Haji Abad missile base," *International Institute for Strategic Studies*, May 4, 2021. (<https://www.iiss.org/en/online-analysis/military-balance/2021/04/iran-haji-abad-missile-base>); Unshin Lee Harpley, "USAF F-16 Fighters Fly with Bahrain in Training Exercise," *Air & Space Forces Magazine*, January 9, 2024. (<https://www.airandspaceforces.com/usaf-f-16-fighters-bahrain-training-exercise>)

**204.** Heather Mongilio, "Houthi Resume Near Daily Red Sea Activity, Claim to Hit Israel-Linked Ship in Indian Ocean," *USNI News*, April 30, 2024. (<https://news.usni.org/2024/04/30/houthis-resume-near-daily-red-sea-activity-claim-to-hit-israel-linked-ship-in-indian-ocean>)

**205.** D. Max Ferguson and Russell Lemler, "Understanding the Counter-drone Fight: Insights from Combat in Iraq and Syria," *Modern War Institute*, May 14, 2024. (<https://mwi.westpoint.edu/understanding-the-counterdrone-fight-insights-from-combat-in-iraq-and-syria>); Nakissa Jahanbani, Muhammad Najjar, Benjamin Johnson, Caleb Benjamin, and Muhammad al-Ubaydi, "Iranian Drone Proliferation is Scaling Up and Turning More Lethal," *War on the Rocks*, September 8, 2023. (<https://warontherocks.com/2023/09/iranian-drone-proliferation-is-scaling-up-and-turning-more-lethal>)

**206.** Bradley Bowman and Lydia LaFavor, "The US needs more pop-up air bases worldwide to keep enemies guessing," *Defense News*, August 16, 2024. (<https://www.defensenews.com/opinion/2024/08/16/the-us-needs-more-pop-up-air-bases-worldwide-to-keep-enemies-guessing>)

that demonstrate the U.S. ability to rapidly surge forces to the region with little to no notice can effectively demonstrate U.S. capability, while mitigating some of the costs associated with lengthier or permanent deployments.

## Military Exercises

In addition to deployments, military exercises can send a positive deterrent message by displaying U.S. combat and logistics capabilities necessary to target Iran's nuclear program. Military exercises can also demonstrate the ability to operate with allies and partners and to respond to any Iranian retaliation.

While in the region, **U.S. forces should regularly take part in military exercises that demonstrate targeting capabilities against hardened and deeply buried targets. The United States should also expand the number of ground, air, and naval exercises that include the military forces of Israel, Jordan, Saudi Arabia, the United Arab Emirates, Bahrain, Qatar, Kuwait, Oman, and Iraq. These exercises should incorporate available assets deployed for deterrence against regional escalation.** The United States should seek to expand the complexity of the exercises and the number of participants over time to increase the readiness of individual forces, their ability to operate together, and their deterrence against the Islamic Republic of Iran, including its terror proxies. The goal is to create the most unified and capable combined military coalition possible.<sup>207</sup> While U.S. Arab partners would

be unlikely to help with offensive operations against Iran, exercises with Arab partners focused on air defense and maritime security can generate positive deterrent messages and rehearse defensive capabilities for a potential conflict. Over time, these exercises and interactions can facilitate a multilateral security architecture, previewed in the successful response to Iran's April 13-14 attack on Israel.

Rapidly flowing forces into the region should be a part of these exercises. Specific capabilities include long-range strike, electronic attack, suppression/destruction of enemy air defenses, defending against fast attack craft, maritime interdiction, and counter-air. Live-fire exercises with bunker-busting munitions would send a particularly pointed message to Tehran. Several of these missions were practiced in the recent Juniper Oak 2023, Inspired Union 2024, Spears of Victory, and Eager Defender 24 exercises.<sup>208</sup>

**Building on the success of the January 2023 Juniper Oak bilateral exercise with Israel (the largest in history) the administration should work with Israel to conduct a Juniper Oak 2024 exercise as soon as possible.** That exercise should match or exceed the scope and scale of the 2023 iteration.<sup>209</sup> Though Israel is already busy with combat operations, it may have the military capability and political will to support such an exercise in the coming months, assuming the conflict with Hezbollah does not devolve into a full-scale war. The exercise could take place in Israel and in the eastern Mediterranean near Lebanon. U.S. forces could simultaneously

207. Bradley Bowman and Ryan Brobst, "Expand Israel-Arab-US military drills to counter Iran and its proxies," *Defense News*, November 12, 2021. (<https://www.defensenews.com/opinion/commentary/2021/11/12/expand-israel-arab-us-military-drills-to-counter-iran-and-its-proxies>)

208. "U.S., Pakistan Forces Complete Exercise Inspired Union 2024," *U.S. Central Command, U.S. Naval Forces Central Command Public Affairs*, May 2, 2024. (<https://www.centcom.mil/MEDIA/NEWS-ARTICLES/News-Article-View/Article/3767439/us-pakistan-forces-complete-exercise-inspired-union-2024>); "U.S. collaborates with allies, partners at Saudi-led Spears of Victory exercise," *U.S. Air Forces Central, Ninth Air Force Public Affairs* February 15, 2024. (<https://www.centcom.mil/MEDIA/NEWS-ARTICLES/News-Article-View/Article/3692104/us-collaborates-with-allies-partners-at-saudi-led-spears-of-victory-exercise>); SSG Victor Mancilla, "U.S. Military and Kuwait Armed Forces Collaborate in Exercise Eager Defender 24," *U.S. Central Command*, January 29, 2024. (<https://www.centcom.mil/MEDIA/NEWS-ARTICLES/News-Article-View/Article/3659294/us-military-and-kuwait-armed-forces-collaborate-in-exercise-eager-defender-24>)

209. Bradley Bowman and Ryan Brobst, "How to increase deterrence messaging to Iran with the next US-Israel military exercise," *Breaking Defense*, July 26, 2023. (<https://breakingdefense.com/2023/07/how-to-increase-deterrence-messaging-to-iran-with-the-next-us-israel-military-exercise>)

conduct exercises in the Arabian Sea and even the Persian Gulf. Incorporating the USS *Abraham Lincoln* Carrier Strike Group, the USS *Wasp*, and the USS *Georgia*, as well as U.S. Air Force F-15 and F-35 fighter aircraft, B-2 bombers, and KC-46 air refuelers, could strengthen the exercise and enhance its deterrence messaging. Israel could, among other things, also rehearse some UAS operations from U.S. naval vessels operating in the Arabian Sea.

Such an exercise could send a powerful deterrent message to Hezbollah and Iran, demonstrating that the United States and Israel have the capability to conduct complex, simultaneous, combined, and joint operations in different areas on short notice. The general blueprint for such an exercise already exists and could be organized in a matter of weeks as the Department of Defense and Israel's Ministry of Defense did with Juniper Oak 2023.

## Employment of Forces

Even if the administration adopts the recommendations above, those steps are unlikely to have a deterrent effect if Tehran believes the administration lacks the will to use military force.

Attacks by Iranian proxies in Iraq and Syria against U.S. forces may provide an opportunity to address this fundamental challenge for the administration. U.S. military forces are in Iraq, Syria, and Jordan to support partners and secure core American interests. However, if Washington is going to keep U.S. troops in harm's way, it must provide them with the military means and political permission to defend themselves and impose consequences that make adversaries think

twice before they try to attack Americans.<sup>210</sup> If Iran assesses that the Biden administration is reluctant to use force even to protect U.S. forces, deployments and exercises in the region will not change Tehran's nuclear calculus.

Recent history provides an instructive lesson on what happens when such political permission is withheld and then belatedly granted. Between October 17, 2023, and February 4, 2024, Iranian proxies attacked U.S. forces approximately 165 times. The United States only responded with approximately nine limited airstrikes before the fatal Tower 22 attack in Jordan on January 28.<sup>211</sup> That American "restraint," accompanied by regular statements from Washington that it sought to avoid a regional war, was seen by Iran as a green light for additional attacks on U.S. forces. Following the deaths of three Americans in the Tower 22 attack, the United States finally responded forcefully by striking 85 targets across Iraq and Syria.<sup>212</sup> Less than a week later, the United States killed a Kata'ib Hezbollah commander in a drone strike in Baghdad.<sup>213</sup> In the ensuing 23 weeks, there were only two additional attacks on U.S. forces by Iranian proxies.

Unfortunately, on July 16, an Iranian proxy attacked al-Asad Air Base in Iraq, which houses U.S. personnel.<sup>214</sup> It is likely that attacks on U.S. forces will increase in frequency over the next several weeks as the deterrent effect of the February retaliatory strikes dissipates. The probability of attacks on U.S. forces will significantly increase if the conflict between Israel and Hezbollah escalates and if the administration is once again indecisive in responding to attacks on U.S. forces in Iraq and Syria.

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**210.** Bradley Bowman and Cameron McMillan, "The consequences of US weakness in Iraq and Syria," *FDD's Long War Journal*, April 10, 2024. (<https://www.fdd.org/analysis/2024/04/10/the-consequences-of-us-weakness-in-iraq-and-syria>)

**211.** Cameron McMillan and Bradley Bowman, "American Forces Under Attack by Iran and its Proxies," *Foundation for Defense of Democracies*, July 18, 2024. (<https://www.fdd.org/iranattacksusforces>)

**212.** U.S. Central Command, Press Release, "CENTCOM Statement on U.S. Strikes in Iraq and Syria," February 2, 2024. (<https://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/3665602/centcom-statement-on-us-strikes-in-iraq-and-syria>)

**213.** Alexander Ward and Lara Seligman, "US drone strike kills senior Iran-backed militia leader in Baghdad," *Politico*, February 7, 2024. (<https://www.politico.com/news/2024/02/07/us-iran-backed-militia-members-drone-attack-00140211>)

**214.** Noah Robertson, "Iranian proxies attack US base in Iraq for the first time in months," *Military Times*, July 18, 2024. (<https://www.militarytimes.com/news/your-military/2024/07/18/iranian-proxies-attack-us-base-in-iraq-for-the-first-time-in-months>)

**The administration should learn from the outcomes from February 2024 and respond more quickly and forcefully to attacks on U.S. forces. That will better protect deployed U.S. troops and increase concerns in Tehran that the United States might be willing to use military force to stop a sprint to a nuclear weapon.** If Tehran believes the administration's top priority is avoiding escalation, that will encourage Iranian risk-taking and more aggression — not just when it comes to attacks on U.S. forces but also potentially with respect to its nuclear program.

## Actions and Announcements

**The administration should also formally announce a major effort to systematically deepen and expand U.S.-Israel intelligence sharing.**

Deepening already significant intelligence sharing and cooperation with Israel, specifically regarding, at a minimum, Iranian smuggling in Syria/Lebanon, Iranian arms smuggling to the Houthis in Yemen, Iran's nuclear program, and cooperation between Iran and China, could serve the interests of both countries. Such an announcement would also increase concern in Tehran regarding its ability to conceal malign activities or escape the consequences. That could discourage Iranian adventurism and risk-taking.

U.S.-Israel intelligence sharing was reportedly expanded shortly after October 7 to help locate Hamas military leaders, find hostages, and monitor Israel's borders.<sup>215</sup> This increased cooperation reportedly included airborne intelligence, surveillance, and reconnaissance collection, satellite imagery, communications intercepts, and data analysis.<sup>216</sup> Deepening cooperation in other areas would send a message to Iran that, despite some bumps in the U.S.-Israel political relationship, both countries are focused on the threat from Iran and its

proxies. A public announcement of cooperation would enhance that message.

In addition, building on the progress<sup>217</sup> of the U.S.-Gulf Cooperation Council (GCC) Working Group, the administration should make an announcement as soon as possible regarding the construction of a regional security architecture focused on air and missile defense, maritime security, and counterterrorism. The announcement could highlight progress achieved so far and set milestones for the near future. Building on the multilateral response to Iran's attack on Israel in April, particular emphasis should be paid in the announcement to cooperation related to air and missile defense and regional radar sharing. To the degree relations and regional politics permit, the administration should also seek to incrementally include Israel in these U.S.-GCC discussions and regional security architecture.

**“If Tehran believes the administration's top priority is avoiding escalation, that will encourage Iranian risk-taking and more aggression — not just when it comes to attacks on U.S. forces but also potentially with respect to its nuclear program.”**

## Security Assistance to Israel

To empower American diplomacy and discourage Tehran from pursuing additional nuclear advances or a nuclear breakout, the administration should look for opportunities to expedite and expand the delivery of key weapon systems and munitions to Israel that are relevant to Iran's nuclear program. Some in the administration may oppose such efforts, but the more Tehran believes Israel can strike Iran's nuclear program and mitigate the response, the more it might empower American diplomacy and deter Tehran.

215. Warren P. Strobel and Nancy A. Youssef, “U.S. and Israel's ‘Unprecedented’ Intelligence Sharing Draws Criticism,” *The Wall Street Journal*, March 31, 2024. (<https://www.wsj.com/politics/national-security/u-s-and-israels-unprecedented-intelligence-sharing-draws-criticism-a85979b4>)

216. Shane Harris, “In the search for hostages, U.S. is Israel's key intelligence partner,” *The Washington Post*, June 14, 2024. (<https://www.washingtonpost.com/national-security/2024/06/14/us-israel-intelligence-cia-hostages>)

217. “Eyeing Tehran, U.S. and GCC Partners Seek to Develop Regional Security Architecture,” *Foundation for Defense of Democracies*, February 15, 2023. (<https://www.fdd.org/analysis/2023/02/15/eyeing-tehran-u-s-and-gcc-partners-seek-to-develop-regional-security-architecture>)

A critical capability for Israel to successfully conduct a strike on Iran's nuclear program is air refueling aircraft. Israel's current fleet is old and insufficient in size to conduct extended operations over Iran. Israel decided to purchase four KC-46s from the United States in 2020, and a contract has been awarded, but the aircraft are not scheduled to arrive until at least 2025.<sup>218</sup> This delay is costly to Israeli readiness and unhelpful to deterring Tehran.

In advance of delivery, **the United States could lease to Israel a number of its own KC-46s**, similar to what was done with the U.S. Army's Iron Dome batteries after October 7.<sup>219</sup> An accelerated course for Israeli pilots, ground crew, and maintenance personnel could accompany the lease. Depending on how aggressively the United States and Israel initiate training and complete the leasing, KC-46s could perhaps arrive in Israel by November 2024. Moreover, if the United States and Israel conduct a Juniper Oak 2024 or a similar military exercise this fall, the United States should send American KC-46s to provide Israeli pilots opportunities to practice refueling from the new tanker.

In addition to these steps related to the KC-46, **the administration should announce in the next couple months, and implement as quickly as possible, steps to expedite the delivery of Israel's order for new F-15IA fighter aircraft and the modernization of its existing F-15Is.**<sup>220</sup> These aircraft will provide Israel with additional capacity to deliver the large munitions needed to destroy hardened, deeply buried targets within Iran, including some of its nuclear facilities. The Defense Security Cooperation Agency finally delivered the required certification notifying

Congress of this possible sale on August 13.<sup>221</sup> Even though the new aircraft would not arrive in Israel for years, announcing this decision prominently sends a message that this administration stands with Israel and is determined to ensure it can defend itself. But delivering the new aircraft and upgrading the existing aircraft sooner would send an even stronger message.

Moreover, and most immediately, **the Biden administration should lift its hold on the shipment of 2,000-pound bombs (MK-84) meant for Israel.** These munitions are needed for a potential major war with Hezbollah, one that would likely accompany any military actions against Iran's nuclear program. Moreover, the administration's continued refusal to deliver the 2,000-pound bombs risks leaving Iran with the impression that tension in the U.S.-Israel relationship provides a window of opportunity to pursue additional nuclear advances or a nuclear breakout.

**The administration should also ensure that there are no delays in delivering hundreds of the BLU-109 Penetrator Bomb, which can help Israel destroy modestly hardened targets while minimizing civilian casualties.**

**More broadly, the administration should ensure that any air-launched munitions, guidance kits, and fuses requested by Israel since October 7 that require congressional notification are sent to the Hill and delivered to Israel without delay.** Given the urgent threats Israel confronts and the American interest in deterring an Iranian sprint to a nuclear weapon, it should not take the administration months to process foreign military sales or direct commercial sales requests

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218. Defense Security Cooperation Organization, "ISRAEL – KC-46A AERIAL REFUELING AIRCRAFT," March 3, 2020. (<https://www.dsca.mil/press-media/major-arms-sales/israel-kc-46a-aerial-refueling-aircraft>); Bradley Bowman and Ryan Brobst, "Pentagon Announces Contract for Israeli KC-46s but Has More Work To Do," *Foundation for Defense of Democracies*, September 2, 2022. (<https://www.fdd.org/analysis/2022/09/02/pentagon-announces-contract-for-israeli-kc-46s>)

219. "US leasing Iron Dome to Israel for 11 months," *Janes*, November 9, 2023. (<https://www.janes.com/osint-insights/defence-news/weapons/us-leasing-iron-dome-to-israel-for-11-months>)

220. "U.S. Considering Major Military Package for Israel," *Foundation for Defense of Democracies*, April 3, 2024. (<https://www.fdd.org/analysis/2024/04/03/u-s-considering-major-military-package-for-israel>)

221. "U.S. Approves Major Arms Sale to Israel," *Foundation for Defense of Democracies*, August 14, 2024. (<https://www.fdd.org/analysis/2024/08/14/u-s-approves-major-arms-sale-to-israel>)

before they are sent to Congress. Ensuring Israel has these capabilities in sufficient quantities as soon as possible will impact Iran's assessment of Israeli military capabilities and potentially decrease the chances that Tehran decides to sprint to a nuclear weapon or undertake another significant nuclear advance.

## Recommended Non-Military U.S. Steps for Detering Significant Iranian Nuclear Advances in the Coming Weeks

### Reiterate and Strengthen Declared U.S. Commitment to Prevent an Iranian Nuclear Bomb

Presidents George W. Bush, Barack Obama, Donald Trump, and Joe Biden have all implied a commitment to use force to prevent Iran from acquiring a nuclear weapon. Bush declared that “the United States and Israel are united in our objective to make sure that Iran does not have a [nuclear] weapon ... all options are on the table.”<sup>222</sup>

In a March 2012 speech, Obama stated:

I have said that when it comes to preventing Iran from obtaining a nuclear weapon, I will take no options off the table, and I mean what I say. That includes all elements of American power: A political effort aimed at isolating Iran; a diplomatic effort to sustain our coalition and ensure that the Iranian

program is monitored; an economic effort that imposes crippling sanctions; and, yes, a military effort to be prepared for any contingency.

Iran's leaders should understand that I do not have a policy of containment; I have a policy to prevent Iran from obtaining a nuclear weapon. And as I have made clear time and again during the course of my presidency, I will not hesitate to use force when it is necessary to defend the United States and its interests.<sup>223</sup>

In a March 2013 speech, Obama similarly said:

I've made the position of the United States of America clear: Iran must not get a nuclear weapon. This is not a danger that can be contained, and as President, I've said all options are on the table for achieving our objectives. America will do what we must to prevent a nuclear-armed Iran.<sup>224</sup>

Trump formally declared in a presidential memorandum that “[i]t is the policy of the United States that Iran be denied a nuclear weapon” and that “[t]he Department of Defense shall ensure that the United States develops and retains the means to stop Iran from developing or acquiring a nuclear weapon.”<sup>225</sup>

President Biden and his administration have also repeatedly implied a commitment to use force to prevent Iran from acquiring a nuclear weapon. The strongest formal expression of that is in the U.S.-Israel Strategic Partnership Joint Declaration adopted by President Biden and Prime Minister Yair Lapid in Jerusalem on July 14, 2022.<sup>226</sup>

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**222.** “Interview of the President by Israeli Television Channel 1,” *Channel 1* (Israel), August 11, 2005. (<https://georgewbush-whitehouse.archives.gov/news/releases/2005/08/text/20050812-2.html>)

**223.** President Barack Obama, “Remarks by the President at AIPAC Policy Conference,” March 4, 2012. (<https://obamawhitehouse.archives.gov/the-press-office/2012/03/04/remarks-president-aipac-policy-conference-0>)

**224.** Ibid.

**225.** “Ceasing U.S. Participation in the JCPOA and Taking Additional Action to Counter Iran's Malign Influence and Deny Iran All Paths to a Nuclear Weapon,” *Trump White House Archives, Presidential Memoranda*, May 8, 2018. (<https://trumpwhitehouse.archives.gov/presidential-actions/ceasing-u-s-participation-jcpoa-taking-additional-action-counter-irans-malign-influence-deny-iran-paths-nuclear-weapon>)

**226.** The White House, “The Jerusalem U.S.-Israel Strategic Partnership Joint Declaration,” July 14, 2022. (<https://www.whitehouse.gov/briefing-room/statements-releases/2022/07/14/the-jerusalem-u-s-israel-strategic-partnership-joint-declaration>)

The declaration includes that “[t]he United States stresses ... the commitment never to allow Iran to acquire a nuclear weapon, and that it is prepared to use all elements of its national power to ensure that outcome.” When asked, during an interview that same week, whether he would “use force” to ensure Iran does not acquire nuclear weapons, Biden replied that he would so if “that was a last resort.”<sup>227</sup>

Biden’s strongest statement was weaker than Obama’s strongest statement on the same topic, which explicitly referenced the use of force and of the U.S. military. Obama’s formulation strongly implied that, if faced with a choice between the use of U.S. military force and Iran obtaining a nuclear weapon, he would choose the use of force.<sup>228</sup>

Statements by Secretary of State Antony Blinken have been noticeably weaker than Biden’s strongest statement. For example, Blinken said in June 2023 that “[i]f Iran rejects the path of diplomacy, then — as President Biden has repeatedly made clear — all options are on the table to ensure that Iran does not obtain a nuclear weapon.”<sup>229</sup> Secretary Blinken has also on several occasions used even weaker variants of the “all options are on the table” and “commitment that Iran never acquire a nuclear weapon” formulations.<sup>230</sup>

Implying that a military option “is on the table” is not the same as stating that the option will, if necessary, be used. Technically, the “all options are on the table” phrase merely indicates that a military option has not

been removed. “Saying that ‘every option remains on the table’ ... impresses no one, least of all the Iranians,” wrote Dennis Ross in March 2023.<sup>231</sup>

In addition, the “commitment that Iran never acquire a nuclear weapon” formulation leaves unclear the parameters of the undesirable result. Does the “commitment that Iran never acquire a nuclear weapon” include a commitment only to prevent Iran from building a fully assembled nuclear weapon? Or does it also include a commitment to prevent Iran from producing all the elements of an unassembled nuclear weapon, or all the elements except those, such as weapons-grade uranium, that could be produced currently in a matter of days and eventually in a matter of hours?

This question was underscored by March 2023 congressional testimony by General Mark Milley, then Chairman of the Joint Chiefs of Staff, who declared that “[t]he United States remains committed as a matter of policy that Iran will not have fielded nuclear weapons.”<sup>232</sup> Milley’s formulation suggests that if Iran produces weapons-grade uranium and builds all necessary components for a nuclear explosive device, it would not run afoul of the U.S. commitment unless Iran actually assembles a bomb and fields the weapon.<sup>233</sup>

Yet Iran need not actually assemble the components, let alone deploy the bomb, to achieve the benefits of a nuclear weapon, including providing an umbrella

227. Yonit Levi of Channel 12 in Israel Interviews Joe Biden in Washington,” Channel 12 (Israel), July 12, 2022. (<https://rollcall.com/factbase/biden/transcript/joe-biden-interview-yonit-levi-channel-12-israel-july-12-2022>)

228. Dominic Tierney, “What ‘All Options Are on the Table’ With Iran Actually Means,” *The Atlantic*, August 10, 2012. (<https://www.theatlantic.com/international/archive/2012/08/what-all-options-are-on-the-table-with-iran-actually-means/260928>)

229. Antony J. Blinken, “Secretary Antony J. Blinken at the 2023 American Israel Public Affairs Committee Policy Summit,” June 5, 2023. (<https://www.state.gov/secretary-antony-j-blinken-at-the-2023-american-israel-public-affairs-committee-policy-summit>)

230. “U.S. Comments: Flashpoints with Iran in 2023,” *United States Institute of Peace, The Iran Primer*, December 14, 2023. (<https://iranprimer.usip.org/blog/2023/dec/14/us-comments-flashpoints-iran-2023>)

231. Dennis Ross, “Iran Needs to Believe America’s Threat,” *The Atlantic*, March 5, 2023. (<https://www.theatlantic.com/ideas/archive/2023/03/iran-united-states-nuclear-bomb-weapon-israel/673268>)

232. “U.S. Comments: Flashpoints with Iran in 2023,” *United States Institute of Peace, The Iran Primer*, December 14, 2023. (<https://iranprimer.usip.org/blog/2023/dec/14/us-comments-flashpoints-iran-2023>)

233. Blaise Misztal and Jonathan Ruhe, “A Joint American-Israeli Redline on Iran’s Nuclear Program,” *The Jerusalem Strategic Tribune*, September 2023. (<https://jstribune.com/misztal-ruhe-a-joint-american-israeli-redline-on-irans-nuclear-program>)

for Iranian regional aggression conducted using conventional weapons. Iran can achieve these benefits as a nuclear threshold state while remaining several screw turns away from a completed nuclear bomb.<sup>234</sup>

Generally, U.S. officials prefer to preserve flexibility by avoiding specific statements as to what actions by adversaries would trigger U.S. military strikes. However, it seems unlikely that Iran will halt its nuclear advances unless it is convinced that proceeding with the program will result in a military strike sufficient both to destroy the program and impose additional costs on the regime in Iran.

As a result, **President Biden should make an unambiguous statement such as the following: “If Iran takes additional decisive steps toward producing a nuclear bomb, I will use military force to destroy Iran’s nuclear program and impose crippling costs on the regime, including by destroying other targets important to it.”** The additional decisive steps,<sup>235</sup> which need not be publicly specified, could include the most important of the potential Iranian advances, such as enriching uranium to 90 percent, expelling IAEA inspectors, or undertaking significant additional weaponization activities.

With Iran now closer than ever to a nuclear bomb, the United States should issue a crystal clear message to

Iran’s leaders that it is futile for them to continue to seek nuclear weapons — fielded or unfielded, tested or untested, assembled or disassembled — because U.S. military action will ultimately prevent them from succeeding.<sup>236</sup> **The message will resonate more if it is not just a line or two in a presidential speech but is instead embedded in a policy address explaining why it is essential to U.S. national security that Iran not acquire nuclear weapons.**<sup>237</sup>

Obama did this in his 2012 and 2013 speeches.<sup>238</sup> A similar explanation by President Biden or one of his cabinet secretaries would signal<sup>239</sup> to Iran that the administration is beginning to “condition the environment,” internationally and with the American people, for possible U.S. or Israeli military action against Iran’s nuclear program.<sup>240</sup>

**Given the current political climate in the United States, it is important to deterrence that several other top U.S. officials and candidates also issue strong messages of U.S. commitment to use force if necessary against Iran’s nuclear program. Those officials and candidates should include: Vice President Harris, Governor Walz, Secretaries Austin and Blinken, former President Trump, Senator Vance, and leading members of Congress from both parties.**

234. Ibid.

235. “Bridging the U.S.-Israeli Gap on Iran,” *The Washington Post*, September 7, 2012, [https://www.washingtonpost.com/opinions/bridging-the-us-israeli-gap-on-iran/2012/09/07/c679e128-f90b-11e1-8b93-c4f4ab1c8d13\\_story.html](https://www.washingtonpost.com/opinions/bridging-the-us-israeli-gap-on-iran/2012/09/07/c679e128-f90b-11e1-8b93-c4f4ab1c8d13_story.html)

236. Blaise Misztal and Jonathan Ruhe, “A Joint American-Israeli Redline on Iran’s Nuclear Program,” *The Jerusalem Strategic Tribune*, September 2023. (<https://jstribune.com/misztal-ruhe-a-joint-american-israeli-redline-on-irans-nuclear-program>)

237. Dennis Ross, “A New Iran Deal Won’t Prevent an Iranian Bomb,” *Foreign Policy*, September 9, 2022. (<https://foreignpolicy.com/2022/09/09/a-new-iran-deal-wont-prevent-an-iranian-bomb>)

238. Barack Obama, “Remarks by the President at AIPAC Policy Conference,” March 4, 2012. (<https://obamawhitehouse.archives.gov/the-press-office/2012/03/04/remarks-president-aipac-policy-conference-0>); Barack Obama, “Remarks of President Barack Obama To the People of Israel,” March 21, 2013. (<https://obamawhitehouse.archives.gov/the-press-office/2013/03/21/remarks-president-barack-obama-people-israel>)

239. Dennis Ross, A New Iran Deal Won’t Prevent an Iranian Bomb, *Foreign Policy*, September 9, 2022. (<https://foreignpolicy.com/2022/09/09/a-new-iran-deal-wont-prevent-an-iranian-bomb>)

240. Dennis Ross, “Iran Needs to Believe America’s Threat,” *The Atlantic*, March 5, 2023. (<https://www.theatlantic.com/ideas/archive/2023/03/iran-united-states-nuclear-bomb-weapon-israel/673268>)



*U.S. President Joe Biden (L) and Israeli Prime Minister Yair Lapid (R) on July 14, 2022, signing the U.S.-Israel Strategic Partnership Joint Declaration, which includes a U.S. “commitment never to allow Iran to acquire a nuclear weapon.” (Photo by Atef Safadi/Pool/AFP via Getty Images)*

## **Reiterate and Strengthen the U.S. Commitment to Support Israeli Action to Prevent an Iranian Nuclear Bomb**

Because Israel perceives Iran’s acquisition of nuclear weapons to be a potential threat to Israel’s very existence, Prime Minister Netanyahu and other senior Israeli officials repeatedly have underscored that Israel is prepared to strike Iran’s nuclear facilities if necessary. While the U.S. military’s capacity to strike Iran’s nuclear facilities is far stronger than Israel’s, Iran likely perceives Israel as more motivated to do so.

Iran also recognizes that Israel is more likely to strike if it has a green or yellow light from Washington. The Iranian regime, wrote Dennis Ross in March 2023, “is under two misapprehensions: It does not believe that we will act militarily against Iran, and it thinks we will also stop the Israelis from doing so.”<sup>241</sup>

The Biden administration has already committed not to block Israeli action to prevent Iran from acquiring a nuclear bomb. That was expressed by National Security Advisor Jake Sullivan in May 2023:

[W]e have made clear to Iran that it can never be permitted to obtain a nuclear weapon. As President Biden has repeatedly reaffirmed, he will take the actions that are necessary to stand by this statement, including by recognizing Israel’s freedom of action.<sup>242</sup>

In addition, in February 2023, U.S. Ambassador to Israel Tom Nides stated:

As President Biden has said, we will not stand by and watch Iran get a nuclear weapon, number one. Number two, he said, all options are on the table. Number three, Israel can and should do whatever they need to deal with and we’ve got their back.<sup>243</sup>

<sup>241</sup>. Ibid.

<sup>242</sup>. Jake Sullivan, “Keynote Address by National Security Advisor Jake Sullivan,” *Keynote address before The Washington Institute for Near East Policy*, May 4, 2023. (<https://www.washingtoninstitute.org/policy-analysis/keynote-address-national-security-advisor-jake-sullivan>)

<sup>243</sup>. Carrie Keller-Lynn, “US envoy Nides: Israel ‘can do whatever they need’ on Iran, ‘and we’ve got their back,’” *The Times of Israel* (Israel), February 19, 2023. ([https://www.timesofisrael.com/liveblog\\_entry/us-envoy-nides-israel-can-do-whatever-they-need-on-iran-and-weve-got-their-back](https://www.timesofisrael.com/liveblog_entry/us-envoy-nides-israel-can-do-whatever-they-need-on-iran-and-weve-got-their-back))

**President Biden should reiterate and strengthen the existing U.S. commitment to support Israeli action to prevent an Iranian nuclear bomb. In light of the current election cycle, it is important that other top U.S. officials and candidates also express strong support for Israel's freedom of action to prevent Iran from acquiring a nuclear bomb. Those officials and candidates should include: Vice President Harris, Governor Walz, Secretaries Austin and Blinken, former President Trump, Senator Vance, and leading members of Congress from both parties.**

### **Strengthen the Use of Economic Sanctions to Deter Iranian Nuclear Advances**

The Biden administration's insufficient use of economic sanctions against Iran has been discussed extensively in other publications.<sup>244</sup> The Biden administration could employ sanctions far more effectively to deter Iran from advancing its nuclear weapons program.

In January 2023, FDD published a monograph titled "Strategy for a New Comprehensive U.S. Policy on Iran," which suggested dozens of steps the U.S. could take to tighten and expand economic sanctions on Iran.<sup>245</sup> Many have yet to be implemented.

Iran has typically only changed tactics, including curtailing its nuclear program, when faced with meaningful risks to its top priority: staying in power. The United States need not pose a direct or immediate threat to end the regime.

But efforts to shape the regime's choices will only succeed when they credibly threaten to impose costs that would, if continued, pose an existential threat to the regime. As noted above, CIA Director John Brennan stated that Iranian Supreme Leader Ayatollah Ali Khamenei had become more flexible in nuclear negotiations with the West because he was persuaded that sanctions would hammer Iran's economy unless a deal was reached with the West and sanctions were lifted.

**The Biden administration should immediately and massively increase economic sanctions on Iran until Tehran curtails its nuclear weapons program. If the administration is unwilling to do so, it should at least make clear to Iran that any additional nuclear advances would incur severe economic (and other) consequences.** This would be consistent with the analysis, set forth above, that U.S. deterrence by denial must be combined with deterrence by punishment. By expanding the U.S. retaliatory target set to the economic sanctions domain, the United States can better incentivize Iranian restraint by ensuring that each attempted Iranian advance results in greater costs than benefits for Tehran.

### **Trigger or Credibly Threaten to Trigger Snapback of UN Security Council Sanctions on Iran**

**The United States should work with the United Kingdom, France, and Germany to trigger the snapback process<sup>246</sup> by which pre-JCPOA UN sanctions and restrictions can be re-imposed on Iran in accordance with UN Security Council Resolution**

<sup>244</sup>. See, e.g., "Iran Touts More Than \$15 Billion of Oil Revenue," *Foundation for Defense of Democracies*, July 30, 2024. (<https://www.fdd.org/analysis/2024/07/30/iran-touts-more-than-15-billion-of-oil-revenue>); Janatan Sayeh, Behnam Ben Taleblu, Saeed Ghasseminejad, "Why the Biden Administration's Iran Sanctions Waivers are Futile," *The National Interest*, May 10, 2024. (<https://nationalinterest.org/feature/why-biden-administrations-iran-sanctions-waivers-are-futile-210976>); Javier Blas, "The US Should Enforce, Not Increase, Iranian Oil Sanctions," *Bloomberg*, April 23, 2024. (<https://www.bloomberg.com/opinion/articles/2024-04-23/the-us-should-enforce-not-increase-iranian-oil-sanctions>)

<sup>245</sup>. Mark Dubowitz and Orde Kittrie, eds. "Strategy for New Comprehensive U.S. Policy on Iran," *Foundation for Defense of Democracies*, January 10, 2023. (<https://www.fdd.org/analysis/2023/01/10/strategy-for-a-new-comprehensive-us-policy-on-iran>)

<sup>246</sup>. Richard Goldberg, "FAQ: The 'Snapback' of UN Sanctions on Iran," *Foundation for Defense of Democracies Backgrounder*, July 9, 2020. (<https://www.fdd.org/wp-content/uploads/2020/07/fdd-backgrounder-faq-the-snapback-of-un-sanctions-on-iran.pdf>)

2231.<sup>247</sup> **Resolution 2231, which endorsed the JCPOA, terminated the numerous sanctions and restrictions imposed on Iran by several prior Security Council resolutions. The threat of a snapback thus constitutes significant leverage over Iran.** The ability to trigger snapback is scheduled to expire in October 2025, 10 years since the JCPOA came into effect.<sup>248</sup>

**“[I]t is not sufficient for the United States to merely block or reverse attempted Iranian nuclear weapons advances ... the United States can better incentivize Iranian restraint by ensuring that each attempted Iranian advance results in greater costs than benefits.”**

A snapback would trigger the re-imposition of sanctions and restrictions imposed on Iran by pre-JCPOA Security Council Resolutions 1696 (2006), 1737 (2006), 1747 (2007), 1803 (2008), 1835 (2008), and 1929 (2010). This would include reinstatement of:

- indefinite obligatory suspension by Iran of “all enrichment-related and reprocessing activities, including research and development”;<sup>249</sup>
- an obligation that Iran “shall not begin construction on any new uranium-enrichment, reprocessing, or heavy water-related facility and shall discontinue any ongoing construction of any uranium-enrichment, reprocessing, or heavy water-related facility”;<sup>250</sup>

- an indefinite prohibition on Iran undertaking “any activity related to ballistic missiles capable of delivering nuclear weapons” and on international support for such Iranian activities;<sup>251</sup> and
- an indefinite embargo on the transfer of specified conventional arms to,<sup>252</sup> and of any conventional arms from, Iran.<sup>253</sup>

The snapback process begins when a “JCPOA participant State” — as defined in UNSCR 2231 — notifies the UN Security Council of an issue that constitutes “significant non-performance of commitments under the JCPOA.” Since July 2019, the IAEA has consistently reported that Iran is violating a wide range of its commitments under the JCPOA.<sup>254</sup> Since at least January 2020, France, Germany, and the United Kingdom have repeatedly declared that Iran is not meeting its JCPOA commitments.<sup>255</sup> As a result, they could join the United States in making the case that **Iran is in significant non-performance of its JCPOA commitments and thus subject to snapback.**

Unless the Security Council then adopts a resolution within 30 days to continue the termination of the provisions of UNSCRs 1696 (2006), 1737 (2006), 1747 (2007), 1803 (2008), 1835 (2008), and 1929 (2010) that had been terminated by UNSCR 2231, those provisions come back into force. This process is called “snapback” because prior sanctions and restrictions on Iran snap back into place. The

247. United Nations Security Council, Resolution 2231, July 20, 2015. (<https://documents.un.org/doc/undoc/gen/n15/225/27/pdf/n1522527.pdf>)

248. United Nations Security Council, “Background on Resolution 2231,” accessed August 14, 2024. (<https://main.un.org/securitycouncil/en/content/2231/background>)

249. United Nations Security Council, Resolution 1737, December 23, 2006. (<https://main.un.org/securitycouncil/en/res/1737-%282006%29>)

250. United Nations Security Council, Resolution 1929, June 9, 2010. (<https://main.un.org/securitycouncil/en/s/res/1929-%282010%29>)

251. Ibid.

252. Ibid.

253. United Nations Security Council, Resolution 1747, March 24, 2007. (<https://main.un.org/securitycouncil/en/res/1747-%282007%29>)

254. Paul K. Kerr, “Iran’s Nuclear Program: Tehran’s Compliance with International Obligations,” *Congressional Research Service*, April 2, 2024. (<https://sgp.fas.org/crs/nuke/R40094.pdf>)

255. Ibid.

resolution to continue terminations can be vetoed by any permanent member of the Security Council, in which case the snapback will come into force at the end of the 30 days.

## Strengthen the Use of Cyber to Deter Iranian Nuclear Advances

The United States has reportedly been more willing to engage in cyber-attacks on Iran than to engage in kinetic attacks. Cyber can play a very useful role in deterring Iranian nuclear advances.

First, cyber exploitations can be used to facilitate deterrence by achieving detection before an attempted Iranian nuclear advance is completed (perhaps even before the attempt is commenced). Detecting an attempted Iranian nuclear advance before it is completed can provide the United States time to spur international condemnation, disrupt the advance, and threaten punishment of the impending Iranian nuclear advance.

Second, cyber exploitations can heighten Iran's fear of getting caught. Cyber penetrations can decrease the confidence Tehran might have in the security of its nuclear weapons program.

Third, cyber-attacks both inside and outside the nuclear arena can be used to benefit U.S. deterrence by serving as a means of punishment. It is not sufficient for the United States to merely block or reverse attempted Iranian nuclear weapons advances. By expanding the U.S. retaliatory toolkit to include cyber activity, both within and outside the nuclear arena, the United States is better able to incentivize Iranian nuclear restraint by ensuring that each attempted Iranian advance results in greater costs than benefits for Tehran.

Fourth, the United States can benefit by engaging in irregular warfare activities, including cyber, which can create plausible deniability for the United States, thereby reducing escalation risk. If Iran conducts a nuclear advance with a modicum of plausible deniability, the United States can respond with a cyber-attack (for which Washington does not take credit). Iran will incur a cost, which could help deter other advances, even if Iran can save face and claim the cyber-attack did not occur.

In addition, cyber-enabled disruption or destruction can increase the cost to the regime of its nuclear activity. A prime example of this is Stuxnet, a cyberweapon developed by the United States with Israeli assistance, which reportedly destroyed some 1,000 of Iran's 6,000 centrifuges at the time.<sup>256</sup> U.S. government experts reportedly estimated that Stuxnet set Iran's nuclear program back by up to two years.<sup>257</sup>

The United States should initiate or refine an offensive cyber campaign against Iran. The Trump administration issued — and the Biden administration has largely reaffirmed — National Security Presidential Memorandum (NSPM) 13, delegating certain authorities to the secretary of defense to conduct time-sensitive military operations in cyberspace.

Plans developed under NSPM-13 authorities are highly classified. If it has not already, the Biden administration should develop or enhance offensive cyber operation plans to disable or disrupt Iran's nuclear, military, and other strategic capabilities.

**The United States should be prepared to deploy cyber capabilities to disrupt and disable Iran's nuclear weapons-related infrastructure. This includes not just the operations of Natanz and Fordow themselves but also the civilian critical**

<sup>256</sup>. Ellen Nakashima and Joby Warrick, "Stuxnet Was Work of U.S. and Israeli Experts, Officials Say," *The Washington Post*, June 2, 2012. ([https://www.washingtonpost.com/world/national-security/stuxnet-was-work-of-us-and-israeli-experts-officials-say/2012/06/01/gJQAlnEy6U\\_story.html](https://www.washingtonpost.com/world/national-security/stuxnet-was-work-of-us-and-israeli-experts-officials-say/2012/06/01/gJQAlnEy6U_story.html))

<sup>257</sup>. David E. Sanger, "Obama Ordered Wave of Cyberattacks Against Iran," *The New York Times*, June 1, 2012. (<https://web.archive.org/web/20170225103053/https://www.nytimes.com/2012/06/01/world/middleeast/obama-ordered-wave-of-cyberattacks-against-iran.html>)

infrastructure and the physical security of those facilities.

**The United States should prepare to deploy cyber capabilities to deter and respond to relevant nuclear advances by attacking the command-and-control capabilities of the IRGC and degrading Iran's capabilities to mobilize and direct its paramilitary forces.** Notably, the operation of military bases and the movement of troops rely on civilian critical infrastructure to provide power, water, and transportation. This is all susceptible to cyber penetration.

**The United States should enhance plans and prepare to deploy cyber capabilities to deter and respond to relevant nuclear advances by disrupting or degrading the operation of Iran's military facilities.** The United States should also conduct operational preparation of the environment — that is, preposition cyber assets — to enable its future operations.

As one of Iran's most significant regional adversaries, Israel has faced significant cyber-attacks from Iran and has (reportedly) conducted offensive cyber operations against the Islamic Republic. Israel has significant intelligence and cyber capabilities of its own. As part of America's NSPM-13 process (as well as through ongoing military-to-military and diplomatic processes), **the United States should enhance its cyber engagement and collaboration with Israel. Given the significant reported impact on Iran's nuclear program of the U.S.-Israeli partnership via Stuxnet, announcements of relevant new U.S.-Israeli cyber partnerships (phrased as vaguely as necessary to protect secrecy) could helpfully add to the deterrent pressure.**

## Implement Offensive Information Warfare Against the Islamic Republic

The Islamic Republic of Iran is waging an information warfare campaign to oppress the Iranian people, threaten dissidents, magnify anti-American voices, manipulate Western opinions, threaten Israel, and enfeeble U.S. foreign policy. Despite this fact, the U.S. government is barely playing defense in the information domain and is reflexively avoiding implementing effective offensive information warfare measures inside Iran out of fear of "provoking" the regime. This is the equivalent of a kinetic war in which one combatant is relentlessly firing mortars, rockets, and missiles and the recipient of the strikes assiduously refuses to respond for fear of provoking an aggressor already launching salvos.<sup>258</sup>

The failure of Washington to go on the offense in the ongoing information war with Iran has left the regime with the impression that it can wage information warfare openly on Americans, our security, and our democracy with few consequences. A more effective deterrent strategy against Tehran should also include an aggressive new campaign of offensive information warfare inside Iran. **The administration should implement, without delay, a graduated offensive information war campaign inside Iran that systematically exposes the Iranian people to the corruption, hypocrisy, lies, and oppression of regime leaders and ensures the Iranian people know the truth regarding their regime's foreign and domestic policies.** The administration could make clear to Tehran that Washington will escalate this campaign inside Iran each time Tehran takes specific steps in its nuclear program and will continue until those steps are reversed and Tehran halts its information warfare activities in the United States.

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258. Bradley Bowman, ed., "Cognitive Combat: China, Russia, and Iran's Information War Against Americans," *Foundation for Defense of Democracies*, June 28, 2024. (<https://www.fdd.org/analysis/2024/06/28/cognitive-combat>)

## Press Iran at the IAEA

**The United States should strongly encourage and assist the IAEA to continue pressing Iran to address the IAEA's doubts that Iran's nuclear program is peaceful.**<sup>259</sup>

This will continue to underscore that Iran's violations are unacceptable.<sup>260</sup> IAEA pressure can also complicate Iranian efforts to advance its nuclear weapons program.<sup>261</sup>

There is a long list of issues on which the United States can press Iran at the IAEA. As Laura Holgate, the U.S. envoy to the IAEA, stated in March: "After five years of only limited, last-minute cooperation by Iran; five years of failure by Iran to follow through on its commitments; and five years of unresolved questions related to the presence of nuclear material at undeclared locations in Iran, we cannot allow Iran's current pattern of behavior to continue."<sup>262</sup>

## Conclusion

The ramifications of a failure to deter Iran from acquiring a nuclear bomb are so dire that preparation for such a campaign should be among the administration's highest priorities. Not taking steps to bolster deterrence now could result in far higher costs in the future if the world's most prolific state sponsor of terrorism acquires the world's most dangerous weapon. Each of these recommended steps will help, but the fundamental challenge for the administration is to convince Tehran that this administration has the political will to employ all elements of American power to stop Iran from advancing towards nuclear weapons.

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<sup>259</sup>. David Albright, "Iran Building Nuclear Weapons," *Institute for Science and International Security*, December 5, 2022. ([https://isis-online.org/uploads/isis-reports/documents/Iran\\_Building\\_Nuclear\\_Weapons\\_December\\_2022.pdf](https://isis-online.org/uploads/isis-reports/documents/Iran_Building_Nuclear_Weapons_December_2022.pdf))

<sup>260</sup>. Ibid.

<sup>261</sup>. Ibid.

<sup>262</sup>. Laura S.H. Holgate, "U.S. Statement – Agenda Item 6c – IAEA Board of Governors Meeting – March 2024," *U.S. statement before the IAEA Board of Governors*, March 7, 2024. (<https://vienna.usmission.gov/u-s-statement-agenda-item-6c-iaea-board-of-governors-meeting-march-2024>)



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## **About the Foundation for Defense of Democracies**

The Foundation for Defense of Democracies (FDD) is a Washington, DC-based, nonpartisan policy institute focusing on foreign policy and national security. For more information, please visit [www.fdd.org](http://www.fdd.org).

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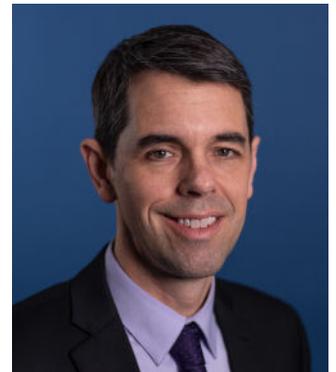


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