

# Background

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## Iran's Nuclear Program: What Is Known and Unknown

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**Abstract:** *The Obama Administration's engagement policy toward Iran has failed to defuse the nuclear standoff. Instead, Iran has continued to conceal and lie about its nuclear weapons program in an attempt to stall until it can present the world with a nuclear fait accompli. A nuclear-armed Iran not only will have a dramatically increased ability to threaten its neighbors and U.S. interests, but will also trigger a destabilizing nuclear arms race in the already volatile Middle East. The Administration's best option is to press both its allies and the U.N. Security Council to impose the strongest possible sanctions on Iran to increase the costs to Iran of continuing its nuclear weapons program.*

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Iran's hard-line President Mahmoud Ahmadinejad celebrated the anniversary of Iran's 1979 revolution on February 11 by proclaiming that Iran is a "nuclear state."<sup>1</sup> Iran's radical Shia Islamist regime clearly sees its nuclear program as a means of bolstering its sagging legitimacy and popularity, while expanding its prestige and global influence. It also sees nuclear weapons as a potent equalizer that could deter external attack and ensure its own survival. Tehran has spurned aggressive diplomatic offers from the Obama Administration to resolve the outstanding nuclear issue, just as it spurned efforts by the Bush Administration and by Britain, France, and Germany. As Ahmadinejad said in 2007, Iran's nuclear program is like a train "with no brakes and no reverse gear."<sup>2</sup> Despite five U.N. Security Council resolutions and three rounds of U.N. sanctions, Iran's nuclear train speeds onward.

### Talking Points

- Iran is continuing its pattern of concealing and lying about its nuclear efforts, which are much more extensive than a civilian nuclear power program could justify.
- Iran rejected a proposed deal that would have helped its civilian nuclear program, which it claims is its only motivation.
- The amount of nuclear assistance Iran has received from North Korea, the A. Q. Khan nuclear proliferation network, and other foreign sources is unknown.
- The Obama Administration should update the flawed 2007 National Intelligence Estimate and establish a team of non-government experts to review intelligence on Iran's nuclear program and to issue an independent report.
- The United States should not only push for the strongest possible sanctions against Iran in the U.N. Security Council, but should also press its allies to impose even stronger sanctions outside the U.N. framework, free from the Russian and Chinese vetoes.

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Iran has forged ahead on its nuclear program despite growing international pressure to comply with its nuclear safeguard agreement with the International Atomic Energy Agency (IAEA). Since the discovery of its secret uranium enrichment facility at Natanz in 2002, Tehran has failed to keep its repeated pledges to cooperate fully with the IAEA to demonstrate that it has not used its civilian nuclear program as a fig leaf to mask a nuclear weapons program. Tehran has refused to fully disclose its nuclear activities and to stop its uranium enrichment efforts, which can produce fuel for nuclear reactors or, with further enrichment, the fissile material for a nuclear weapon. Iran has also pushed ahead on its ballistic missile program and building a nuclear warhead that can be delivered by a missile.

The Obama Administration has sought to engage Iran diplomatically to defuse the nuclear standoff, but with little success. Instead, over the past year, Iran has spurned Western proposals to resolve the nuclear issue, insisted that it will continue to expand its nuclear program, installed hundreds more centrifuges to enrich uranium, been caught secretly constructing another uranium enrichment facility, and pledged to build 10 more.

Moreover, on December 14, 2009, *The Times* of London reported that Western intelligence agencies had uncovered Iranian documents indicating that Iranian scientists had tested a neutron initiator, the component that triggers a nuclear weapon. A neutron initiator has no peaceful application. This discovery directly contradicts the U.S. intelligence community's position that Iran halted nuclear weapons-related work in 2003.<sup>3</sup> On December 18, Iran announced that it was testing more advanced centrifuges, which could enrich uranium faster.

Since 2002, the IAEA has bent over backwards to give Iran the benefit of the doubt, in large part due to the politicized leadership of IAEA Director General Mohammed ElBaradei, who was an outspoken critic of the Bush Administration and often acted as an apologist for Iran. In November 2009, ElBaradei was replaced by Yukiya Amano of Japan.

Under Director General Amano's leadership, the IAEA appears to be taking a more objective look at the Iranian nuclear program. On February 18, it issued a confidential report that warned for the first time of evidence that Tehran is working on a nuclear warhead for its missiles.<sup>4</sup> This warning contradicts the controversial 2007 U.S. National Intelligence Estimate (NIE), which concluded that Iran had stopped working on a nuclear weapon in 2003.<sup>5</sup>

It is time for the Obama Administration to acknowledge that its engagement policy has failed to budge the dictatorship in Tehran on the nuclear issue or on any other issue. As the history of Iran's nuclear program makes clear, Tehran has resisted multiple opportunities to defuse mounting tensions over its nuclear program.

## What Is Known

Tehran claims that Iran's nuclear program is devoted solely to civilian nuclear power and research purposes. This contention is contradicted by many facts and by a series of recent revelations.

**Fact #1: Iran has built an extensive and expensive nuclear infrastructure that is much larger than what would be necessary to support a civilian nuclear power program.**

Iran's nuclear weapons program, cloaked within its civilian nuclear power program, has made steady

1. Nasser Karimi and Ali Akbar Dareini, "Iran Proclaims New Success in Uranium Enrichment," Associated Press, February 11, 2010, at <http://apnews.myway.com/article/20100211/D9DPTTKO0.html> (March 15, 2010).
2. BBC News, "Iran Defiant on Nuclear Program," February 25, 2007, at [http://news.bbc.co.uk/2/hi/middle\\_east/6395203.stm](http://news.bbc.co.uk/2/hi/middle_east/6395203.stm) (March 15, 2010).
3. Catherine Philp, "Secret Document Exposes Iran's Nuclear Trigger," *The Times* (London), December 14, 2009, at [http://www.timesonline.co.uk/tol/news/world/middle\\_east/article6955351.ece](http://www.timesonline.co.uk/tol/news/world/middle_east/article6955351.ece) (March 15, 2010).
4. George Jahn, "U.N. Nuke Agency Worried That Iran May Be Working on Arms," Associated Press, February 18, 2010, at <http://www.google.com/hostednews/ap/article/ALeqM5j9EVzzCsT-QwKFtWDzgF6ZLue6BgD9DUNOS81> (March 15, 2010).
5. See James Phillips, "The Iran National Intelligence Estimate: A Comprehensive Guide to What Is Wrong with the NIE," Heritage Foundation *Backgrounder* No. 2098, January 11, 2008, at <http://www.heritage.org/Research/Reports/2008/01/The-Iran-National-Intelligence-Estimate-A-Comprehensive-Guide-to-What-Is-Wrong-with-the-NIE>.

advances. Iran operates a large uranium enrichment facility at Natanz, which it illegally sought to conceal until 2003, and it is building up a stockpile of enriched uranium that is of no current use in its civilian nuclear energy program.<sup>6</sup> Iran's only nuclear power plant, which Russian technicians have almost finished testing at Bushehr, does not need domestically produced nuclear fuel because Moscow has agreed to provide all the enriched uranium that Iran needs to operate it for the first 10 years of operation. Moreover, Iran does not have a fuel fabrication plant that can produce reactor fuel for the Bushehr facility.

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***The Iranian nuclear program cannot be justified on strictly economic or energy grounds.***

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Iran has pursued virtually every possible technology for producing nuclear fuel and did so covertly and in violation of its treaty obligations to keep the IAEA informed. This includes laser separation, a costly and complex technology to enrich uranium that is ill suited to producing fissile fuel for a reactor. Iran has also conducted plutonium experiments and is building a reactor that appears intended for the large-scale production of plutonium.<sup>7</sup>

The Iranian nuclear program cannot be justified on strictly economic or energy grounds. Iran lacks

sufficient uranium reserves to run power reactors for more than 10 years and would eventually be forced to import either uranium yellowcake or finished fuel rods to operate them. Moreover, harnessing Iran's enormous natural gas reserves to generate electricity would be far less expensive, given that Iran is currently flaring and burning off natural gas as a byproduct of oil production.<sup>8</sup>

Iran had produced approximately 1,400 kilograms (kg) of low enriched uranium (LEU) metal at Natanz by January 31, 2010.<sup>9</sup> The LEU is enriched to the level of about 3.5 percent, and Tehran claims that it will be used for fuel rods for civilian nuclear reactors. Approximately 1,900 kilograms of LEU is needed to produce enough highly enriched uranium (20 kilograms) to build a nuclear weapon.<sup>10</sup> At its current rate of production, Iran will have enough LEU by the end of July to produce a nuclear weapon if it were further enriched. Once the decision is made, the uranium processing and weapon manufacturing could take as little as six months.<sup>11</sup> Experts quoted by *The New York Times* in December 2009 claimed that Iran's centrifuges could probably produce enough LEU for two weapons per year.<sup>12</sup>

Tehran is also building a heavy water reactor at Arak, which it tried to build secretly in violation of its treaty obligations. If this reactor is brought online, the plutonium that it produces can be accessed at any time. Once a state has acquired a

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6. See Mark Fitzpatrick, "The Iranian Nuclear Crisis: Avoiding Worst Case Outcomes," International Institute of Strategic Studies *Adelphi Paper* No. 398, November 2008.
  7. See U.S. House of Representatives, Permanent Select Committee on Intelligence, Subcommittee on Intelligence, "Recognizing Iran as a Strategic Threat: An Intelligence Challenge for the United States," August 23, 2006, at <http://intelligence.house.gov/Media/PDFS/IranReport082206v2.pdf> (March 15, 2010). See also John Bolton, "Iran's Continued Pursuit of Weapons of Mass Destruction," testimony before the Subcommittee on the Middle East and Central Asia, Committee on International Relations, U.S. House of Representatives, June 24, 2004, at <http://2001-2009.state.gov/t/us/rm/33909.htm> (March 15, 2010).
  8. U.S. House of Representatives, "Recognizing Iran as a Serious Threat," pp. 11–12.
  9. Gregory S. Jones, "Iran's Increasing Progress Towards a Nuclear Weapons Capability: Centrifuge Enrichment and the IAEA February 18, 2010 Update," February 23, 2010, p. 4, at [http://npec.xykon-llc.com/files/20100223-Jones\\_Iran\\_Enrichment\\_Update.pdf](http://npec.xykon-llc.com/files/20100223-Jones_Iran_Enrichment_Update.pdf) (March 15, 2010).
  10. *Ibid.*
  11. David Albright, Jacqueline Shine, and Paul Brannan, "IAEA Iran Report: Enrichment at Natanz Improving; Entire LEU Tank Moved to PFEP; No Progress on Weaponization," Institute for Science and International Security, February 18, 2010, at [http://www.isisnucleariran.org/assets/pdf/IAEA\\_Iran\\_Report\\_Analysis\\_18Feb2010.pdf](http://www.isisnucleariran.org/assets/pdf/IAEA_Iran_Report_Analysis_18Feb2010.pdf) (March 15, 2010).
  12. See David E. Sanger and William J. Broad, "U.N. Nuclear Agency Calls Iran Inquiry 'Dead End,'" *The New York Times*, November 26, 2009, at <http://www.nytimes.com/2009/11/27/world/middleeast/27nuke.html> (March 15, 2010).

functioning heavy water reactor like the one at Arak—or even a light water reactor like the one at Bushehr—and it is reprocessing spent fuel rods to extract the plutonium, it gains access to a much easier and more plentiful source of weapons-grade fissile material than is produced in most uranium enrichment facilities. Plutonium also offers the advantage of having a smaller critical mass (the minimum amount needed to produce a nuclear explosion) than uranium-235. Using plutonium allows construction of smaller and lighter nuclear warheads, which are more easily delivered by missiles.

Tehran claims that it needs the Arak facility to produce isotopes for medical purposes. In late October, IAEA inspectors discovered 600 barrels that Iran said contained heavy water, which is used in heavy water reactors as a neutron moderator and coolant.<sup>13</sup> Producing heavy water is very difficult and a major obstacle to operating a heavy water reactor. The heavy water discovered in October may have been secretly imported and is evidence of yet another failure of Tehran to disclose relevant information to the IAEA.<sup>14</sup> Moreover, the provision of heavy water to Iran would be an alarming case of nuclear proliferation, given its weapons-related applications.

Iran's Revolutionary Guards control key sectors of the nuclear program. Nuclear installations are concealed on military bases, dug into hardened sites built underground, and defended with anti-aircraft missiles. Tehran's continued claims that it is building only a civilian nuclear power program appear increasingly ludicrous in light of these facts and each new revelation.

**Fact #2: Iran sought to buy technology from A. Q. Khan's nuclear weapon proliferation network,**

**which also provided assistance to Libya and North Korea.**

Concrete evidence has confirmed long-held suspicions that Iran advanced its nuclear weapons program in close cooperation with A. Q. Khan's proliferation network, which dealt in weapons-related nuclear technologies.<sup>15</sup> After initially denying this cooperation, Tehran eventually admitted that it had contacts with the network, but maintains that it broke off contact long ago.

Khan, the father of Pakistan's nuclear weapons program, has proudly admitted his role in helping Iran's nuclear program. He admitted in a televised interview in August 2009 that he and other senior Pakistani officials had helped to advance Iran's nuclear weapons program.<sup>16</sup> If Iran's nuclear efforts were exclusively focused on civilian uses, as it maintains, it would have had no reason to collude with A. Q. Khan's nuclear smuggling operation, which specialized in the proliferation of nuclear weapons technologies.

**Fact #3: Iran continues to conceal and lie about its nuclear weapons efforts.**

Iran has a long record of denial and deceit on the nuclear issue.<sup>17</sup> The Iranian regime ordered covert research and development on nuclear weapons and built secret pilot projects on uranium conversion and uranium enrichment in violation of its safeguards agreement with the IAEA, and it lied about these activities for years. In 2003, after the U.S. military overthrew Saddam Hussein's regime in neighboring Iraq, in part because of Hussein's lack of cooperation with U.N. inspectors, Iran admitted some of these activities and agreed to cooperate more fully with the IAEA investigators. However, Tehran reneged on its promise to cooperate and

13. Joby Warrick, "Evidence of Iran's Nuclear Arms Expertise Mounts," *The Washington Post*, December 15, 2009, at <http://www.washingtonpost.com/wp-dyn/content/article/2009/12/14/AR2009121403729.html> (March 15, 2010).

14. David Albright and Jacqueline Shire, "IAEA Report on Iran," Institute for Science and International Security, November 16, 2009, at [http://www.isisnucleariran.org/assets/pdf/ISIS\\_Analysis\\_IAEA\\_Report\\_16Nov2009.pdf](http://www.isisnucleariran.org/assets/pdf/ISIS_Analysis_IAEA_Report_16Nov2009.pdf) (March 15, 2010).

15. Douglas Jehl, "CIA Says Pakistanis Gave Iran Nuclear Aid," *The New York Times*, November 24, 2004, at <http://www.nytimes.com/2004/11/24/politics/24weapons.html> (March 15, 2010).

16. R. Jeffrey Smith, "Pakistani Scientist Cites Help to Iran," *The Washington Post*, September 9, 2009, at <http://www.washingtonpost.com/wp-dyn/content/article/2009/09/08/AR2009090803731.html> (March 15, 2010).

17. See James Phillips, "U.S. Policy and Iran's Nuclear Challenge," Heritage Foundation Lecture No. 942, June 2, 2006, at <http://www.heritage.org/Research/Lecture/US-Policy-and-Irans-Nuclear-Challenge>.

reverted to a hard-line policy after Mahmoud Ahmadinejad became president in 2005.

Today, Iran continues to stonewall IAEA efforts to investigate its suspect nuclear program. It refuses to answer questions about the mounting evidence of its past nuclear weapons development efforts, contending that documents indicating that it has carried out weapons design and testing work are forgeries. It has illegally neglected its treaty obligations to provide advance notice of new nuclear facilities and allow IAEA inspectors to have regular access to facilities under construction. The IAEA has also discovered that Tehran engaged in clandestine nuclear activities that violated its nuclear safeguards agreement, such as plutonium separation experiments, uranium enrichment and conversion experiments, and importing uranium compounds.<sup>18</sup>

Iran continues to play a cat and mouse game with IAEA inspectors by hiding facilities, equipment, and materials from them and by refusing to give them timely access to other facilities. In September, Tehran was forced to admit the existence of a clandestine uranium enrichment facility near the city of Qom. President Barack Obama announced its discovery shortly after Western intelligence agencies had identified it.

Further stoking suspicions about Iran, *The Times* reported on December 14, 2009, that Iran was working on a trigger mechanism for a nuclear weapon as recently as 2007,<sup>19</sup> four years after American intelligence agencies assessed that Iran had suspended its weaponization efforts. The documents describe a four-year plan to test a neutron initiator, a sophisticated trigger that is one of the final hurdles

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for building a nuclear weapon. Significantly, the documents described the same type of neutron initiator that Pakistan received from China in the early 1980s and then passed on to Libya in the early 2000s.<sup>20</sup> The IAEA also found evidence of work with polonium-210 in 2004, which suggests that Iran may have been working on a neutron generator. Iran has not adequately explained the discovery.<sup>21</sup>

Mark Fitzpatrick, a former State Department official who focused on Iranian nuclear issues, reacted to the discovery of the documents by saying: “Is this the smoking gun? That’s the question people should be asking. It looks like the smoking gun. This is smoking uranium.”<sup>22</sup>

There are also worrisome signs that Iran has made advances in uranium metallurgy, heavy water production, and the high-precision explosives used to detonate a nuclear weapon.<sup>23</sup> Iran already claims to produce four kinds of centrifuges used for enriching uranium. The fact that Iran’s centrifuge output remained basically level in 2009 despite a high breakdown rate suggests Iran has improved its centrifuge designs and may be using more advanced designs.

A 2009 trial in Germany revealed that the German intelligence agency (BND) assesses that Iran is still pursuing a nuclear weapons program. The trial

18. Paul Kerr, “Iran’s Nuclear Program: Status,” Congressional Research Service *Report for Congress*, August 11, 2009, p. 4.

19. Philp, “Secret Document Exposes Iran’s Nuclear Trigger.”

20. Institute for Science and International Security, “New Document Reopens Question on Whether Iran’s Nuclear Weaponization Work Continued Past 2003,” December 14, 2009, at <http://www.isis-online.org/isis-reports/detail/new-document-reopens-question-on-whether-irans-nuclear-weaponization-work-c> (March 15, 2010).

21. See Hans Blix, “Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran,” International Atomic Energy Agency, February 24, 2004, at <http://www.iaea.org/Publications/Documents/Board/2004/gov2004-11.pdf> (March 15, 2010), and Hans Blix, “Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran,” International Atomic Energy Agency, September 1, 2004, at <http://www.iaea.org/Publications/Documents/Board/2004/gov2004-60.pdf> (March 15, 2010).

22. Philp, “Secret Document Exposes Iran’s Nuclear Trigger.”

23. Warrick, “Evidence of Iran’s Nuclear Arms Expertise Mounts.”

was interesting because the accused—Mohsen Vanaki, a German–Iranian arrested in 2007 for brokering the transfer of dual-use nuclear equipment to Iran—attempted to use the 2007 NIE as a defense. A lower German court ruled in Vanaki’s favor and against the BND based on the NIE’s conclusion that Iran had halted its nuclear weapons program in 2003. However, a higher German court sided with the BND’s position that Iran’s nuclear weapons program is active and provided a report that noted the similarities between Iran’s procurement efforts and those of countries with known nuclear weapons programs, such as North Korea and Libya.<sup>24</sup>

More recently, the IAEA issued a confidential report to its Board of Governors on February 18 stating for the first time that it had received extensive information from a variety of sources that “raises concerns about the possible existence in Iran of past or current undisclosed activities related to the development of a nuclear payload for a missile.”<sup>25</sup> The report also noted that Tehran has not cooperated in confirming that all nuclear material in Iran is in peaceful activities. Tehran has failed to adequately address IAEA concerns on a wide spectrum of issues including: activities involving high precision detonators; studies on the initiation of high explosives and missile reentry engineering; the “green salt project,” which involves the conversion of UO<sub>2</sub> to UF<sub>4</sub>; and various procurement-related activities.<sup>26</sup>

The report also confirmed that Iran has begun to enrich uranium to 19.8 percent using a small number of centrifuges, supposedly for the Tehran Research Reactor, a source of medical isotopes. The IAEA reported that Iran already has moved centrifuges from the Natanz uranium enrichment facility

to the new facility at Qom. Centrifuges may also have been moved to other, unknown facilities. This is a major cause for concern because IAEA safeguards apply only to nuclear material, not to equipment such as centrifuges.<sup>27</sup>

**Fact #4: Iran rejected a nuclear deal that would have advanced its civilian nuclear efforts, belying its claims that civilian purposes are its only motivation.**

Tehran has walked away from an offer brokered by the IAEA to enrich Iranian uranium in facilities outside Iran to refuel the Tehran Research Reactor. On October 1, 2009, Iran reached an “agreement in principle” at the Geneva talks that would have sent roughly 80 percent of Iran’s LEU stockpile to Russia for processing and then to France for fabrication into fuel rods. The uranium would then be returned to Iran to power its research reactor, which will run out of fuel at the end of 2010. This deal would have benefited Iran by extending the operational life of its Tehran Research Reactor and aiding hundreds of thousands of medical patients. It would also have temporarily defused the nuclear standoff by reducing Iran’s steadily growing LEU stockpile and postponing Iran’s ability to build a nuclear weapon.

After reaching the agreement in principle, the Iranian regime backpedaled and made an unacceptable counterproposal in mid-December that would have greatly reduced the amount of uranium that would leave Iran. U.S. officials say that Ahmadinejad initially accepted the deal, but was rebuked by Iranian Supreme Leader Ayatollah Ali Khamenei and pulled back from it.<sup>28</sup> On November 3, Ayatollah Khamenei warned Iranian political leaders to be

24. David Albright and Christina Walrond, “The Trials of the German–Iranian Trader Mohsen Vanaki: The German Federal Intelligence Service Assesses That Iran Likely Has a Nuclear Weapons Program,” Institute for Science and International Security, December 15, 2009, at [http://www.isisnucleariran.org/assets/pdf/MohsenCaseStudy\\_update\\_15Dec2009.pdf](http://www.isisnucleariran.org/assets/pdf/MohsenCaseStudy_update_15Dec2009.pdf) (March 15, 2010).

25. Yukiya Amano, “Implementation of the NPT Safeguards Agreement and Relevant Provisions of Security Council Resolutions 1737 (2006), 1747 (2007), 1803 (2008) and 1835 (2008) in the Islamic Republic of Iran,” International Atomic Energy Agency, February 18, 2010, p. 9, at <http://www.iaea.org/Publications/Documents/Board/2010/gov2010-10.pdf> (March 15, 2010).

26. *Ibid.*, p. 9.

27. Jones, “Iran’s Increasing Progress Towards a Nuclear Weapons Capability.”

28. Farnaz Fassihi and Jay Solomon, “Defiant Iran Beefs Up Nuclear Plans,” *The Wall Street Journal*, November 30, 2009, at <http://online.wsj.com/article/SB125951013703368439.html> (March 15, 2010).

wary of dealings with the United States, which could not be trusted, and said that negotiating with the United States was “naïve and perverted.”<sup>29</sup>

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The Iranian regime’s initial acceptance and subsequent rejection of the nuclear deal is consistent with its long-established pattern of cheat, retreat, and delay on nuclear issues. When caught cheating on its nuclear safeguards obligations, Tehran has repeatedly promised to cooperate with the IAEA to defuse the situation and to halt the momentum for imposing further sanctions. Then, after the crisis is averted, it reneges on its promises and stonewalls IAEA requests for more information. These delaying tactics consume valuable time, which Iran has used to press ahead with its nuclear weapons research.

### **What Is Unknown**

Many important things about Iran’s nuclear program are simply not known because of Iran’s systematic efforts to conceal and lie about its activities.

#### **Unknown #1: How close is Iran to attaining a nuclear weapon?**

It is not known when Iran will take the final steps to build a nuclear weapon. The uranium enrichment facility at Natanz is producing LEU at a rate that will give Tehran enough LEU by the end of July to build one nuclear device if the LEU is enriched further to weapons-grade levels.<sup>30</sup> Tehran could then finish the enrichment process and amass enough highly enriched uranium for a nuclear weapon by the end of the year.<sup>31</sup> Natanz subsequently could produce enough LEU to permit construction of two bombs

per year.<sup>32</sup> Iran is also constructing a research reactor at Arak, which could begin producing weapons-grade plutonium as early as 2013.

Vice President Ali Akbar Salehi, the head of Iran’s nuclear program, said on December 18 that Iran has been testing more advanced centrifuge models that will be installed in early 2011. These new models will be faster and more efficient than the old centrifuges, allowing Iran to accelerate the pace of its nuclear program. Salehi claimed that more than 6,000 centrifuges were enriching uranium, which is 2,000 more than the IAEA’s November report indicated.<sup>33</sup>

Some, including the U.S. intelligence community, believe that the Iranian leadership has not yet made the strategic decision to pursue nuclear weapons. This position has always been controversial given Iran’s huge economic investment in the nuclear program, longstanding willingness to defy sanctions, and well-established pattern of confrontational behavior. It is now nearly impossible to defend this proposition after press reports of Iranian work on neutron initiators, the revelation of the clandestine Qom enrichment facility, and the IAEA’s recent finding that Iran was working on a nuclear warhead for a missile.

#### **Unknown #2: How extensive is Iranian–North Korean nuclear cooperation?**

North Korea and Iran share a common hostility to the United States and have a long history of military and economic cooperation. Iran’s ballistic missile force, the largest in the Middle East, is largely based on transferred North Korean missiles and weapon designs. North Korea has also sold Iran conventional weapons, including rocket launchers, small arms, and mini-submarines. The two countries are known to have close intelligence ties and to exchange intelligence regularly.<sup>34</sup>

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29. Thomas Erdbrink and William Branigin, “Iran’s Khamenei Rejects U.S. Outreach,” *The Washington Post*, November 4, 2009, at <http://www.washingtonpost.com/wp-dyn/content/article/2009/11/03/AR2009110301397.html> (March 15, 2010).

30. Jones, “Iran’s Increasing Progress Towards a Nuclear Weapons Capability,” p. 4.

31. *Ibid.*, p. 6.

32. “Understanding the Nuclear Negotiations: Interview with Mark Fitzpatrick,” *Middle East Bulletin*, November 10, 2009, at <http://middleeastprogress.org/?p=4507> (March 15, 2010).

33. Ali Akbar Dareini, “Iran Making New Model Centrifuges for Nuke Program,” Associated Press, December 18, 2009.

The extent of North Korean cooperation with Iran on nuclear issues remains unknown. However, both are known to have received help from A. Q. Khan's proliferation network.<sup>35</sup> Iran helped to finance North Korea's nuclear program in exchange for nuclear technology and equipment, according to CIA sources cited in a 1993 *Economist Foreign Report*.<sup>36</sup> Increased visits to Iran by North Korean nuclear specialists in 2003 reportedly led to a North Korea–Iran agreement for North Korea either to initiate or to accelerate work with Iranians to develop nuclear warheads that could be fitted on the North Korean No-Dong missiles, which North Korea and Iran were developing jointly.<sup>37</sup>

North Korea has also threatened to transfer a nuclear weapon. According to Michael Green, former Senior Director for Asia at the National Security Council, the head of the North Korean delegation to the nuclear talks confirmed in March 2003 that North Korea had a “nuclear deterrent” and threatened that North Korea would “expand,” “demonstrate,” and “transfer” the deterrent if the United States did not end its hostile policy.<sup>38</sup> Senior U.S. officials warned the North Koreans that transfer would cross a red line, but Pyongyang evidently brushed aside the warning and cooperated extensively with Syria in building a nuclear reactor, which could have advanced a nuclear weapons program. Green noted that the al-Kibar reactor site, which Israel bombed on September 6, 2007, provided ample evidence of North Korean collusion on nuclear proliferation: “U.S. intelligence officials later confirmed that the reactor was being built on

North Korean specs, with North Korean technicians on-site.”<sup>39</sup>

Since Pyongyang risked nuclear cooperation with Syria, similar nuclear cooperation with Iran is easy to envision given their much closer ties. The Syrian nuclear project also may have involved Iran, which could greatly benefit from secret facilities located outside its own territory. *Der Spiegel* reported that North Korean and Iranian scientists

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were working together at the Syrian reactor when Israel bombed it. Some of the reactor's plutonium production was reportedly designated for Iran, which perceived the Syrian reactor as a “reserve site” to produce weapons-grade plutonium to supplement Iran's production of highly enriched uranium.<sup>40</sup> In late February, Western officials leaked the fact that before the nuclear reactor was attacked North Korea had delivered 45 tons of unenriched uranium concentrate known as “yellowcake” to Syria and that the North Koreans subsequently moved the material to Iran via Turkey.<sup>41</sup>

Another worrisome link between North Korea and Iran involves illegal arms transfers. In August 2008, the U.S. invoked the Proliferation Security Ini-

34. Ken Moriyasu, “Is Iran Spying on S. Korea for Pyongyang?” *Nikkei.com*, December 7, 2009.

35. BBC News, “Khan ‘Gave N. Korea Centrifuges,’” August 24, 2005, at [http://news.bbc.co.uk/2/hi/south\\_asia/4180286.stm](http://news.bbc.co.uk/2/hi/south_asia/4180286.stm) (March 15, 2010).

36. “An Israeli Lesson for North Korea?” *Economist Foreign Report*, April 22, 1993, quoted in Christina Y. Lin, “The King from the East: DPRK–Syria–Iran Nuclear Nexus and Strategic Implications for Israel and the ROK,” *Korea Economic Institute Academic Paper Series*, Vol. 2, No. 7 (October 2008), p. 196, at <http://www.keia.org/Publications/AcademicPaperSeries/2008/APS-Lin.pdf> (March 15, 2010).

37. Douglas Frantz, “Iran Closes In on Ability to Build a Nuclear Bomb,” *Los Angeles Times*, August 4, 2003, at <http://articles.latimes.com/2003/aug/04/world/jg-nuke4> (March 17, 2010).

38. Michael J. Green, “The Perilous Case of Kim Jong Il,” *National Interest*, August 25, 2009, at <http://www.nationalinterest.org/Article.aspx?id=22030> (March 15, 2010).

39. *Ibid.*

40. “Assad's Risky Nuclear Game,” *Der Spiegel*, June 23, 2008, at <http://www.spiegel.de/international/world/0,1518,561409,00.html> (March 17, 2010).



tiative (PSI) to convince India to prevent the overflight of its country by a North Korean flight from Burma to Iran. Although not a member of the PSI, India complied and blocked the flight.<sup>42</sup> What the cargo plane was carrying is not known, but the PSI applies only to missiles and nuclear weapons (e.g., components, technology, and materials). Any North Korean attempt to transfer such items would violate U.N. Security Council Resolutions 1695 and 1718.

### **Unknown #3: How much foreign assistance has Iran's nuclear program received?**

A critical question is how much foreign help Iran has received, in addition to assistance from North Korea and the A. Q. Khan network. The timeline for Iran's nuclear weapons program could be dramatically shortened if it has received substantial foreign assistance in acquiring nuclear technologies, knowledge, or fissile material. The assistance of former Soviet nuclear scientists has long been a subject of speculation and Israeli Prime Minister Benjamin Netanyahu reportedly delivered a list of Russian scientists suspected of helping Iran's nuclear program during a mysterious visit to Moscow to meet with Russian Prime Minister Vladimir Putin.<sup>43</sup> The *Sueddeutsche Zeitung* recently reported that Western intelligence agencies have confirmed that Iran has been assisted by a former Soviet scientist who had worked on advanced nuclear warheads in a Soviet nuclear weapons laboratory.<sup>44</sup> There are also longstanding concerns that Iran could accelerate its nuclear efforts by secretly acquiring weapons-grade fissile material from foreign sources.<sup>45</sup>

### **Where Are We Now?**

Iran has relentlessly made steady progress on its nuclear weapons program and soon could acquire nuclear weapons. It continues to violate its IAEA

safeguards agreement, refuses to comply with five U.N. Security Council Resolutions on the nuclear issue, and has repeatedly been caught red-handed building secret nuclear facilities and violating U.N. Security Council resolutions that prohibit supplying arms to Hezbollah, its terrorist client group in Lebanon. Meanwhile, it has periodically tested missiles to trumpet its defiance, while systematically repressing and intimidating its own people after they objected to the fraudulent presidential elections in June.

On November 27, 2009, the IAEA Board of Governors passed a resolution demanding that Iran stop construction of the newly exposed uranium enrichment facility near Qom and referred the issue to the U.N. Security Council. This paves the way for expanded U.N. sanctions. Iran responded not only by refusing to halt enrichment efforts, but also by

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***Iran has consistently concealed and lied about its nuclear program and cannot be trusted to abide by any agreements it signs.***

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proclaiming its intention to undertake a massive expansion of its enrichment facilities. President Ahmadinejad unveiled plans to build 10 more enrichment plants at a cabinet meeting on November 29. Ali Larijani, the speaker of Iran's parliament who formerly led Iran's nuclear negotiations, warned that Iran may decide to withdraw from the Nuclear Non-Proliferation Treaty.

Iran has consistently concealed and lied about its nuclear program and cannot be trusted to abide by any agreements it signs. British Foreign Secretary David Miliband complained that "Instead of engaging with us, Iran chooses to provoke and dissem-

41. Leonard Spector, "Can Iran's Accelerating Nuclear Program Be Stopped?" Yale Global Online, March 10, 2010 at <http://yaleglobal.yale.edu/content/can-iran%E2%80%99s-accelerating-nuclear-program-be-stopped> (March 24, 2010).

42. Agence France-Presse, "U.S. Persuaded India to Deny Clearance to N. Korean Flight: Report," Google News, November 4, 2008, at <http://afp.google.com/article/ALeqM5ho-GTBZPcWcn4aClDoTDx5O9Wwag> (March 15, 2010).

43. Uzi Mahanimi, Mark Franchetti, and Jon Swain, "Israel Names Russians Helping Iran Build Nuclear Bomb," *The Times*, October 4, 2009, at [http://www.timesonline.co.uk/tol/news/world/middle\\_east/article6860161.ece](http://www.timesonline.co.uk/tol/news/world/middle_east/article6860161.ece) (March 24, 2010).

44. Michael Ledeen, "Iran Has Nuclear Warhead Says Soviet Physicist," Pajamas Media, February 5, 2010, at <http://pajamasmedia.com/michaelledeen/2010/02/05/iran-has-nuclear-warhead-says-soviet-physicist> (March 24, 2010).

45. See Robert Joseph, testimony before the Committee on Foreign Relations, U.S. Senate, February 9, 2006.

ble.”<sup>46</sup> On December 14, 2009, Secretary of State Hillary Clinton remarked:

We have reached out. We have offered the opportunity to engage in meaningful, serious discussions with our Iranian counterparts. We have joined fully in the P-5+1 process. We’ve been at the table. But I don’t think anyone can doubt that our outreach has produced very little in terms of any kind of positive response from the Iranians.<sup>47</sup>

Ahmadinejad’s regime has made a mockery of the Obama Administration’s engagement policy, which was based on the assumption that Iran’s ruthless regime sought better relations with the United States and the West. Yet Iran’s rulers fear Washington’s friendship more than they fear its enmity. Their power and legitimacy is based on resistance to the United States (“the Great Satan”) and enforcing Ayatollah Khamenei’s harsh vision of God’s will, not carrying out the will of their own people.<sup>48</sup>

The Obama Administration’s nuclear engagement strategy was also based on the assumption that Iran’s unscrupulous Islamist regime could be trusted to come clean on the nuclear issue. This expectation was shattered on September 25, 2009, when President Obama announced in a joint press conference with British and French leaders that Western intelligence agencies had discovered another secret Iranian nuclear facility hidden inside a mountain near Qom.

**“Crippling Sanctions.”** The Obama Administration needs to make good on its promise to ratchet up international pressure to dissuade Iran from continuing to pursue its goal of acquiring nuclear weap-

ons. If Tehran builds a nuclear weapon, it will not only increase Iran’s ability to threaten its neighbors and U.S. interests, but also trigger a destabilizing nuclear arms race in the already volatile Middle East.<sup>49</sup> Since 2006, 15 other Middle Eastern states have announced their intentions to begin or expand civilian nuclear energy programs, possible precursors to nuclear weapons programs.

Yet the Obama Administration has resisted congressional efforts to provide it with more sanctions leverage over Tehran. On December 11, Deputy Secretary of State James Steinberg wrote a letter to Senator John Kerry, chairman of the Senate Foreign Relations Committee, requesting that the committee postpone consideration of sanctions legislation against Iran.<sup>50</sup> Steinberg asked for the delay “so as not to undermine the Administration’s diplomacy at this critical juncture.”<sup>51</sup>

Despite this request to the Senate, the Iran Refined Petroleum Sanctions Act passed the House (H.R. 2194) on December 15, 2009, by an overwhelming bipartisan vote of 412 to 12. On March 11, 2010, the Senate passed the bill by unanimous consent after amending it. This bill would penalize companies that help Iran to import gasoline and other refined petroleum products by denying them access to U.S. markets. The Senate passed its own Iran sanctions legislation (S. 2799) on January 28, which would impose similar penalties on companies that export gasoline and other refined petroleum products to Iran, add sanctions on leading officials of the ruling regime, and tighten export controls. It is difficult to understand why the Administration now opposes the kind of “crippling sanctions” that it

46. Fassihi and Solomon, “Defiant Iran Beefs Up Nuclear Plans.”

47. Hillary Rodham Clinton, “Remarks with Spanish Foreign Minister Miguel Angel Moratinos After Their Meeting,” U.S. Department of State, December 14, 2009, at <http://www.state.gov/secretary/rm/2009a/12/133526.htm> (March 15, 2010).

48. Shahram Chubin, “The Iranian Nuclear Riddle After June 12,” *The Washington Quarterly*, January 2010, p. 163, at [http://www.twq.com/10january/docs/10jan\\_Chubin.pdf](http://www.twq.com/10january/docs/10jan_Chubin.pdf) (March 15, 2010).

49. See Heritage Foundation Iran Working Group, “Iran’s Nuclear Threat: The Day After,” Heritage Foundation *Special Report* No. 53, June 4, 2009, at <http://www.heritage.org/Research/Reports/2009/06/Irans-Nuclear-Threat-The-Day-After>.

50. Josh Rogin, “State Department Letter to Kerry Outlines ‘Serious Substantive Concerns’ with Iran Sanctions Bill,” *Foreign Policy*, December 11, 2009, at [http://thecable.foreignpolicy.com/posts/2009/12/11/exclusive\\_state\\_department\\_letter\\_to\\_kerry\\_outlines\\_serious\\_substantive\\_concerns\\_wi](http://thecable.foreignpolicy.com/posts/2009/12/11/exclusive_state_department_letter_to_kerry_outlines_serious_substantive_concerns_wi) (March 15, 2010).

51. James B. Steinberg, letter to Senator John Kerry, December 11, 2009, at [http://www.foreignpolicy.com/images/091211\\_200912110001.pdf](http://www.foreignpolicy.com/images/091211_200912110001.pdf) (March 15, 2010).

promised to impose and that Barack Obama promised as a presidential candidate if Iran continued to drag its feet on the nuclear issue.

The United States cannot afford to rely solely on the U.N. Security Council to impose sanctions on Iran. Russia and China have repeatedly weakened and delayed any action there. Therefore, Washington should push for the strongest possible sanctions that it can squeeze out of the Security Council, but press its allies and other countries to impose even stronger sanctions outside the U.N. framework, such as freezing foreign investment in Iran, banning gasoline exports to Iran, banning the travel by Iranian officials abroad, and generally raising the price that the regime must pay to continue its nuclear program.

**Fixing the NIE.** The Obama Administration should also update and correct the flawed 2007 NIE on Iran's nuclear program.<sup>52</sup> In 2009, Director of National Intelligence Dennis Blair reaffirmed the 2007 NIE's finding that Tehran had shut down its nuclear weapons and covert uranium enrichment activities in the fall of 2003. Since then, more evidence has come to light, indicating that Iran has continued its nuclear weapons efforts or restarted them.<sup>53</sup> The governments of Britain, France, Israel, and Germany have publicly disagreed with the 2007 NIE's assessment.

A new look at the controversial NIE is long overdue. Representative Pete Hoekstra (R-MI), the Ranking Member on the House Intelligence Committee, has called for the establishment of a "red team" of non-government experts to review intelli-

gence on Iran's nuclear program and issue an independent report.<sup>54</sup> Representative Hoekstra is right.

## Conclusion

Iran's strategy remains clear: to hide and lie about its nuclear program, feign cooperation with the IAEA to delay any sanctions, depend on its Russian and Chinese friends to block any effective sanctions in the Security Council, and eventually present the world with a nuclear *fait accompli*.

Regrettably, the Obama Administration remains wedded to its engagement policy, which unrealistically seeks to strike a deal with the implacably hostile regime whose self-defined ideological legitimacy is unceasing antagonism to the United States. Even if a diplomatic agreement could be reached on the nuclear issue, it would be foolhardy to expect Iran's unscrupulous dictatorship to permanently abide by such an agreement. Yet the Administration continues to seek such a deal over the bloodied heads of Iranian opposition forces.

Iran is the world's foremost sponsor of terrorism and cannot be allowed to obtain the ultimate terrorist weapon: an atomic bomb. Yet Ahmadinejad's nuclear train rumbles onward. Unless the Obama Administration alters its Iran strategy and moves rapidly to mobilize support for effective sanctions, there will eventually be a nuclear train wreck.

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52. See Phillips, "The Iran National Intelligence Estimate."

53. See Warrick, "Evidence of Iran's Nuclear Arms Expertise Mounts."

54. Press release, "Hoekstra Calls for Independent Red Team on Iran Nuclear Issue," Office of U.S. Representative Pete Hoekstra, October 6, 2009, at <http://hoekstra.house.gov/News/DocumentSingle.aspx?DocumentID=148567> (March 15, 2010).