



National Security Project

Meeting the Challenge: Stopping the Clock

Bipartisan Policy Center Report
on U.S. Policy toward Iranian
Nuclear Development

Senator Charles S. Robb and
General (ret.) Charles Wald, Co-Chairs



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Foreword

This is the Bipartisan Policy Center's (BPC's) fourth report on the most immediate national security challenge facing our nation: Iran's continued progress towards nuclear weapons capability. Despite perceived setbacks, including the Stuxnet cyber attack and the bite of increased sanctions, the danger of a nuclear Iran has not diminished.

Yet, for much of this past year there was a dearth of serious public discussion about the Iranian threat, its proximity and viable policy options for confronting it. While many other events dominated discussion about the Middle East, the relative silence about Iran is a matter of real concern. It is important, especially at a time when many Americans and government officials are wary of intense global engagements after years of war and the pressing economic situation, that our nation understand the dangers it faces, the choices it must confront and the consequences of inaction.

In this report we examine Iran's rapid nuclear progress and its implications for U.S. economic and strategic interests, explain why containment will not work, and propose ways for the United States to prevent a nuclear Iran. After deliberations with a new, expanded task force, we have arrived at a bipartisan, fact-driven consensus that largely echoes our past reports: the best chance for successfully meeting the Iranian nuclear challenge is a robust and comprehensive triple-track strategy, involving the simultaneous pursuit of diplomacy; sanctions; and visible, credible preparations for a military option.

This strategy is consistent with President Obama's February 2009 pledge at Camp Lejeune "to use all elements of American power to prevent Iran from developing a nuclear weapon." However, given the increasing chance that Israel might launch a preemptive military strike, we also address how the United States might achieve the best possible outcome under that scenario.

Cognizant of the fiscal challenges facing our nation and the burdens of war, we do not make these recommendations lightly. Looking to history, however, we are confident that Americans can rise to the challenge. This is not the first time we have faced down vital strategic threats, despite war-weariness and economic challenges. Now, as in the 1930s, we must be conscious of the long-term costs in blood and treasure of the actions we take today. If we are, the choice is clear.

Sincerely,



Senator Charles S. Robb



General (ret.) Charles Wald

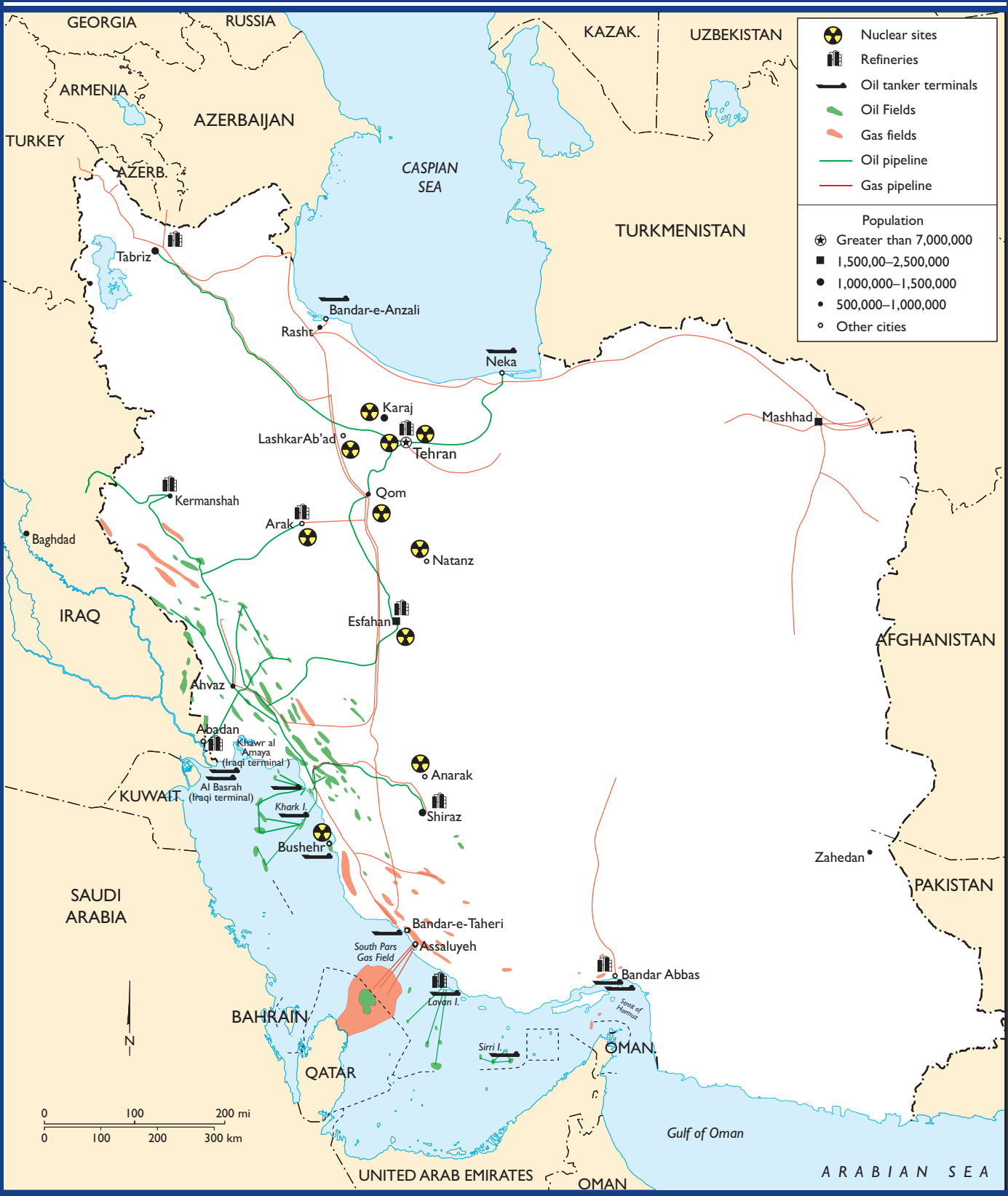


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National Security Project



Executive Summary

Preventing Iran from achieving nuclear weapons capability is the most urgent national security challenge facing the United States. Despite enduring 15 years of sanctions, a cyber attack on its nuclear facilities and other setbacks, Iran is approaching the nuclear threshold. Successive U.S. administrations, including Obama's, have declared a nuclear weapons-capable Iran "unacceptable." Indeed, since its establishment in 1979, the Islamic Republic of Iran has continually threatened U.S. strategic and economic interests. Led by messianic, extremist revolutionaries, the country terrorizes both its own people and its enemies abroad, subverts neighboring governments and America's regional allies, and works to drive up oil prices as a mechanism of economic warfare. The Islamic Republic of Iran cannot be allowed to obtain nuclear weapons capability.

If it did, containing it would prove a gravely challenging and costly task. An Iran with nuclear weapons, which the ideologically fervent Islamic Revolutionary Guard Corps (IRGC) would control, will trigger severe strategic and economic consequences, and create an unstable situation that could lead to a nuclear conflict between Iran and Israel, almost certainly drawing in the United States. Moreover, Iranian possession of nuclear weapons would trigger a spike in oil prices for a sustained period, further undercutting the global economy. And even though current policies have failed to reverse Iran's nuclear progress, until recently there was almost no discussion of fresh policy options. The Obama administration has yet to make the toughest choices and has appeared increasingly more focused on isolating Iran than preventing it from achieving nuclear weapons capability. Unless the United States soon takes a more assertive leadership role, Iran could develop nuclear weapons capability in 2012 and Israel is likely to feel compelled to take unilateral military action against Iran. We must stop the clock.

Doing so will require demonstrating resolve to do whatever it takes to prevent a nuclear Iran. While we hope for a peaceful

settlement, we recognize that additional leverage is required to enable it. For that reason we endorse the triple-track approach called for in previous BPC reports: diplomacy, robust sanctions, and credible, visible preparations for a military option of last resort. To augment the latter we call on U.S. leaders to enhance Israeli military capabilities so as to put additional pressure on the Iranian regime. At this late date, it is only the threat of force, combined with sanctions, that affords any realistic hope of an acceptable diplomatic resolution. We recognize, however, that ultimately the rise of a democratic, responsible and peaceful regime in Tehran will be the only way to resolve this challenge.

Rising Threat of a Nuclear Iran

From its very inception the Islamic Republic has employed terror to achieve its strategic and religious aims. It has killed American soldiers, directly or by proxy, in Lebanon, Iraq and Afghanistan, supported terrorist groups such as Hezbollah, Palestine Islamic Jihad and Hamas that attack civilians in Israel and elsewhere, aided Syria's al-Assad regime in suppressing peaceful demonstrators, and repeatedly undermined the stability of our Arab allies. Most recently, American authorities revealed that elements of Iran's IRGC had planned a terrorist attack on U.S. soil, marking a new level of provocation, while Iranian military leaders threatened to close the Strait of Hormuz, a critical energy shipping lane. An Iran with nuclear weapons capability, overconfident behind its own perceived nuclear deterrent, can only be expected to act even more aggressively.

The prospect of such a scenario has grown dangerously close. Analysis of IAEA reports and other available information demonstrates that Iran has advanced dramatically in its quest for a nuclear weapon – overcoming technical hurdles to double its uranium enrichment rate since 2009, enriching uranium to ever higher levels, testing new, more effective centrifuge models, beginning additional enrichment work on

a previously undisclosed, underground facility near Qom, and continuing its weaponization program. Our calculations suggest that, given Iran's stockpile of enriched uranium and the advances it has made in centrifuge efficiency, it could have the capacity to produce enough highly enriched uranium (HEU) for a nuclear device in as little as two months. If allowed to proceed unchecked, however, that window could close to just two weeks by the end of 2012.

If Iran is allowed to produce HEU, American policymakers must assume that Iran has become a nuclear weapons-capable state. If it passes this threshold, Iran would threaten U.S. and regional security and set off a proliferation cascade across the Middle East, effectively ending the international nonproliferation regime. Iran and Israel could be locked into an unstable confrontation resembling a perpetual Cuban Missile Crisis – each with nuclear weapons, each unsure of the other's intentions, each with strong incentives to strike first. As recent senior Obama White House official, Ambassador Dennis Ross, stated in December 2011, "The potential for miscalculation would be enormous." This would almost certainly end only one way: in a regional conflict that threatens ultimately to draw in the United States.¹

Moreover, as the world's chief sponsor of terrorism, Iran would then be in a position to transfer nuclear materials to its terrorist allies. Further, Iran would seek to dominate the energy-rich Persian Gulf emirates and the Organization of Petroleum Exporting Countries (OPEC), threaten Israel's existence, destabilize moderate Arab regimes, subvert U.S. efforts in Iraq and Afghanistan, embolden radicals, violently oppose the Middle East peace process, and increase support for terrorism and proxy warfare across the region. Indeed, if Iranian leaders already believe they can get away with the killing of American soldiers in Iraq, sending arms to Afghanistan and planning a terrorist attack on American soil, then a nuclear Iran will be able to unleash violence on a much greater scale.

Inaction has its own economic costs. The consequences detailed above would add greater risk to the secure supply of oil from the Persian Gulf, sparking a long-term rise in oil, gasoline and heating fuel prices that would have serious negative implications for the fragile U.S. economy. Indeed, every \$10 rise in annual oil prices equates to a nearly 0.5 percent decline in U.S. Gross Domestic Product (GDP).

American administrations have long sought stability in the Persian Gulf. In early 1980, President Carter declared, "Let our position be absolutely clear: An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force." While Carter was addressing an audience in the Kremlin, the Carter Doctrine is as relevant today as it was three decades ago. The United States has repeatedly, by its actions, made clear that domination of this crucial region by a local power is inimical to our vital national interests. The Persian Gulf's oil production capacity as a proportion of global demand is roughly the same today – about 28 percent – as it was in 1980. The U.S. Fifth Fleet and our other military assets in the region guarantee the free flow of oil through the Persian Gulf. But a nuclear-armed Iran would gain *de facto* immunity from conventional attack, significantly limiting the ability of U.S. forces to ensure a secure supply of oil from the Persian Gulf.

Our allies in the region have made clear that they share this dire assessment and depend on us to avert the dangerous consequences of a nuclear Iran. Israel has conveyed its fears in private and in public. But the WikiLeaks revelations made public what officials and experts already widely understood – that our Arab allies have been just as adamant in private that they want America to use all means to prevent a nuclear Iran. For instance, according to one leaked cable, United Arab Emirates Crown Prince Mohammed bin Zayed

told a senior U.S. official that Iranian President Mahmoud Ahmadinejad “is Hitler” and “all hell will break loose” if Iran went nuclear. Another cable recounts Bahraini King Hamad bin Isa al-Khalifa telling another senior U.S. official, “The danger of letting it [Iran’s nuclear program] go on is greater than the danger of stopping it.” And the Saudi ambassador to the United States, whom Iran plotted to assassinate, stated that Saudi King Abdullah, referring to Iran’s nuclear program, asked the United States “to cut off the head of the snake.” Our position with our regional allies will significantly erode if we do not prevent a nuclear Iran.²

In short, a nuclear weapons-capable Iran would be so dangerous that it must be prevented.

Isolation and its Discontents

The Obama administration entered office focused on Iran, combining tough rhetoric with an “extended hand.” On June 4, 2008, presidential candidate Obama declared, “We will also use all elements of American power to pressure Iran. I will do everything in my power to prevent Iran from obtaining a nuclear weapon.” On November 7, 2008, then President-Elect Obama called a nuclear Iran “unacceptable,” and, on February 27, 2009, at Camp Lejeune, President Obama used similar language when he pledged “to use all elements of American power to prevent Iran from developing a nuclear weapon.”³

Once in power, the Obama administration focused on diplomatic outreach to the Iranian regime, even at the expense of supporting the Green Movement protests in mid-2009, but was rebuffed. It then pivoted to support a dual track policy combining diplomacy with economic sanctions. Despite the administration’s sincere intentions and the most vigorous round of sanctions to date – adopted by the United Nations Security Council, the European Union (E.U.) and our own Congress in 2010 – negotiations ended in January 2011 with no progress at all. This suggests that

The Obama administration has yet to make the necessary tough choices and appears increasingly more focused on isolating Iran than preventing it from achieving nuclear weapons capability. Unless the United States soon takes a more assertive leadership role, Iran could develop nuclear weapons capability in 2012. We must stop the clock.

Iran did not feel under sufficient pressure to engage in good faith negotiations. Recent reports suggest Iran might now be interested in resuming talks. We remain skeptical of Tehran’s intentions; historically the regime has used such negotiations to stall and defuse pressure before international consensus for more drastic action can be reached. We see these latest reports as evidence of the need to apply much greater pressure to the regime.

Since additional sanctions were imposed 18 months ago, the Obama administration has focused rhetorically on isolating Iran. President Obama on November 21, 2011, pledged to “continue to find ways... to isolate and increase the pressure upon the Iranian regime.” In a speech the next day, National Security Advisor Thomas Donilon echoed this theme, using some form of the word “isolate” 17 times. He summed up the administration policy thusly: “We will continue to build a regional defense architecture that prevents Iran from threatening its neighbors. We will continue to deepen Iran’s isolation, regionally and globally.” Meanwhile, despite repeated assertions that they are keeping “all options on the table,” administration officials seem to be conditioning the American public not to expect a military strike. Secretaries of Defense Robert Gates and Leon Panetta, as well as the former Chairman of

the Joint Chiefs of Staff, Admiral Michael Mullen, seem to have effectively ruled out U.S. military action by constantly highlighting its risks. Former Secretary of Defense Robert Gates contrasted repeatedly the impact of U.S. and allies' sanctions with the "unpredictability and uncertainty" of a military strike. Late last year Panetta twice emphasized the many "unintended consequences" of a military strike, and also repeatedly referred to Iran's "isolation."

After some criticism the administration backtracked. In December, President Obama reiterated that "we are determined to prevent Iran from acquiring nuclear weapons... And that's why, rest assured, we will take no options off the table. We have been clear." Panetta subsequently also declared a nuclear Iran "unacceptable" and said about the military option, "If we have to do it we will deal with it." Still, the thrust of the administration's remarks over past few months and years suggest it is not likely to use military means to prevent a nuclear Iran. Indeed, it has shown few credible preparations, such as military exercises and deployments. It has also repeatedly publicly highlighted, and privately warned Israeli leaders of, the risks of an Israeli military strike.⁴

Calls for containing Iran proceed from the assumption that the negative consequences of permitting Iran to obtain a nuclear weapons capability could be minimized by pursuing a strategy of containment and deterrence, such as that employed against the Soviet Union. But the situations are not analogous. American credibility, the bedrock of deterrence in the Cold War, would be diminished if, after repeatedly issuing warnings to the contrary, we permitted Tehran to cross the nuclear threshold. Restoring U.S. credibility would then require extraordinary action. Moreover, our Arab allies, though eager for our assistance, are not as politically stable, militarily robust or reliable as European allies were during the Cold War. Then, we entered into collective security arrangements and permanently stationed U.S. troops in European territory as a tripwire.

Today, the notion of a more robust stationing of permanent U.S. troops in the Persian Gulf as a tripwire is all but infeasible, but without it containment is virtually impossible. Indeed, the departure of U.S. forces from Iraq and their impending drawdown in Afghanistan, coupled with overall force reduction and defense spending cuts necessitated by the rising national debt, translates into a declining ability to project force in the region and pose a credible deterrent threat to Iran. Precisely because containment will not work, a strategy of acquiescence would lead to even more reckless behavior by an emboldened, nuclear Iran and, ultimately, a dangerous regional conflict, one that would inevitably involve the United States at great cost in blood and treasure.

Another analogy that policymakers pursuing isolation might hope to draw is to North Korea. If we have managed to live with a nuclear North Korea, perhaps we will be able to tolerate a nuclear Iran. This line of thinking neglects the major dissimilarities between the geostrategic positions of North Korea and Iran. North Korea borders China, a much larger and stronger neighbor that has the capability to keep the smaller country's more aggressive tendencies in check, and a large contingent of U.S. and South Korean troops are stationed just across the well-fortified Demilitarized Zone. In the case of Iran, there is neither a larger regional power that can exert influence over Tehran, nor the prospect of a significant U.S. military presence at the border. More telling, however, are precisely the ways in which North Korea continues to threaten international peace. Not only has it acted aggressively against South Korea – including sinking ships without provocation, bombarding civilian populations, kidnapping civilians and launching cyber attacks against government and civilian networks – but it is also an egregious proliferator of missile and nuclear technology to rogue regimes around the globe. Indeed, North Korea's ongoing nuclear program, far from being contained, is one of the reasons that Iran is so close to a nuclear weapons capability of its own. Once it attains that capability, Iran will likely follow in North Korea's footsteps: taking a belligerent

Hope that sanctions will bring Iran to the table for serious negotiations, hope that deterrence will work, hope that Iranians will overthrow their radical regime, or hope that perhaps the regime will self-destruct are not viable strategies. Tehran moves ever closer to attaining nuclear weapons capability. In the face of hard evidence, the United States cannot put off hard decisions about Iran's nuclear program.

stance towards its neighbors and sharing dangerous secrets with the enemies of international order.

Syria & the Arab Awakening

The Arab Awakening has so far forced three longtime dictators from power, and ushered in a new Islamist wave. Some of the deposed leaders were foes of Iran, and their removal has weakened and strained the anti-Iran coalition. The persistent protests against the al-Assad regime in Damascus, however, are increasingly problematic for Tehran, a close ally that funnels aid and personnel through Syria to the Hezbollah terrorist group in Lebanon. The unrest in Syria has already contributed to Turkish Prime Minister Recep Tayyip Erdoğan's turning against his former ally and friend, Bashar al-Assad becoming one of his leading foes. The growing regional consensus against al-Assad provides the United States an opportunity to mend relations with regional partners and to deal Iran's geostrategic aspirations a critical blow.

Regime Change Won't Happen in Time

Hopes that this political upheaval in the Arab world would spread to Iran, replacing it with a more liberal and responsible government, have thus far not materialized. While, ultimately, only the arrival of true democracy in Iran will resolve its standoff with the international community, there is little to suggest this will take place before the current clerical regime acquires nuclear weapons capability. A large segment of the population despises the regime but the Green Movement remains amorphous and disorganized. The regime has imprisoned reformist leaders and killed protestors. Regardless, there is no evidence that even reformist elements in Iran will abandon the country's nuclear quest. On the contrary, many Green leaders opposed a possible deal in the fall of 2009 that might have led Iran to swap out some of its HEU. Nevertheless, U.S. leaders should remain committed to supporting Iranian aspirations for freedom.

Another hope is that the rift between President Mahmoud Ahmadinejad and the Supreme Leader Ali Khamenei might tear apart the regime. But history is filled with autocratic regimes that persist despite occasional internal cleavages. Disputes between the Supreme Leader and second-term presidents are a consistent feature of Iranian politics. Indeed, even if Ahmadinejad is dismissed as president, it appears unlikely to result in any destabilizing internal conflict. Although Ahmadinejad grabs most of the headlines, Khamenei is the ultimate power in the country. The IRGC – which controls the nuclear program, the main means of oppression and a large section of the economy – as well as the parliament, clerics and large swaths of the ruling elite have lined up squarely behind him. Ahmadinejad, on the other hand, has little, if any, significant institutional backing left with which to challenge Khamenei.

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Israeli Strike

Israel has made clear for years that it views a nuclear Iran as an existential threat, and has warned that it could strike Iran's nuclear facilities if the world does not do enough to prevent a nuclear Iran. Defense Minister Ehud Barak suggested in a November 2011 interview that the window could close in 2012 for a viable military strike. He said that "it's not two or three years," but "probably three quarters [of a year] – before no one can do anything practically about it because the Iranians are gradually, deliberately entering into what I call a zone of immunity, by widening the redundancy of their plan, making it spread over many more sites."⁵ The Israelis have always conveyed that they have the capacity and the will to launch a military strike against Iran's nuclear facilities. Some experts disagree, believing that such a venture would be too risky and unlikely to succeed. However, it is already the case that the end of the United States' direct military role in Iraq – specifically, its protection of Iraqi air space – will diminish some of the operational difficulties that might have previously complicated an Israeli strike. Thus, we believe U.S. policymakers must plan as if Israel is prepared to strike, even though we do not think an Israeli strike is the best way to address the Iranian threat.

Way Forward

In previous reports, the BPC has recommended a three-pronged U.S. strategy to deal with the Iranian nuclear threat: the simultaneous pursuit of diplomacy, sanctions, and the credible threat of military force. We endorse this approach and believe it in keeping with the policy articulated by President Obama as a candidate and early in

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his presidency. We urge him to remain ardent – despite the pressures of election year politics – in his commitment to preventing a nuclear Iran.

The best way to prevent a nuclear Iran is for the United States to lead and demonstrate its resolve to do whatever is necessary, including taking military action. This offers the best hope for garnering support from other nations for tough sanctions and for convincing the Iranian regime that negotiating a diplomatic solution best serves its interests. As President Obama's sincere diplomatic outreach to Tehran has made clear, negotiations will not solve the problem; the time has come for the United States and our allies to dramatically increase the pressure on the Iranian regime.

Sanctions

Sanctions can be a useful tool in pressuring Iran and demonstrating resolve. However, they can also be counter-productive if they are too weak to be effective, or are not enforced, yet lull policymakers into the false belief of progress, thus wasting more time as Tehran gets closer to its nuclear goal.

We support tough sanctions as long as the United States enforces them completely and sets a near-term deadline for them to be effective. Our model for sanctions should be the international measures imposed on the Qaddafi regime during the Libyan civil war in March 2011, when the U.N. Security Council froze assets and banned financial transactions with Libya's Central Bank and National Oil Corporation.⁶

Additionally, we agree with the view of all 100 Senators in a December 1, 2011, vote that the United States should sever connections with financial institutions that do business with the Central Bank of Iran. This could severely circumscribe the country's trade, particularly its oil exports which provide more than half of state revenue. The legislation that Congress finally passed on December 15, 2011 – and the president signed on December 31, 2011 – weakened some of the sanctions and offered the president significant flexibility on enforcement. Such sanctions would be most effective if internationally supported, which means the Obama administration would need to either use the leverage that comes from threatening to cut off access to the U.S. financial system to persuade foreign financial institutions to stop doing business with the Central Bank, or be prepared to enforce the sanctions against those that do not heed them. We should work with our North Atlantic Treaty Organization (NATO) allies to impose such sanctions, which they supported in the case of Libya. China's reaction has been telling.

Since the United Nations Security Council imposed additional sanctions in June 2010, Chinese imports of Iranian oil have surged, growing to account for over one-quarter of Iran's oil exports in the first half of 2011. And it has refused to cooperate with these new sanctions against Iran's Central Bank. The other top buyers of Iranian crude are India, South Korea and Japan. The latter two of these countries have promised to try to lower their oil imports from Iran, but are unlikely to do so in significant quantities or in a timely fashion. Europe is relatively less important - Italy was the fifth largest buyer of Iranian crude oil at only eight percent – and on January 23, 2012, the European Union announced a ban on Iranian oil imports to take full effect by July 1.

Oil from Saudi Arabia is comparable to and could replace Iranian oil; in contrast, Libyan crude exports, because of their high quality, were effectively irreplaceable. But the

Saudis' implicit public (but explicit private) offer to replace Iranian crude to China and some others has so far not been enough, by itself, to convince reluctant countries to go along with these sanctions. The most effective way to do so would be for the United States to make clear its determination to prevent a nuclear Iran at all costs. Only then might the Chinese understand that their third-largest supplier of crude oil – fully 10 percent of total imports – could be lost in a conflict if Iran does not abandon its nuclear program. Whatever the short-term cost to the global economy of significantly reducing Iranian crude exports, it pales in comparison to the long-term economic impact of higher oil prices that would result from a nuclear Iran.

We also support other efforts before Congress that could impact Iran's economic position. Existing U.S. sanctions target Iran's energy sector and its refined petroleum imports. Enforcement by the administration has been less than complete, but the threat of enforcement has convinced major Western companies to forswear further business with Iran, costing Tehran an estimated \$50-60 billion in potential energy investment as well as critical technology.⁷ Companion bills currently in the House and Senate would expand these measures to include Iran's energy exports involving the IRGC or its affiliates. The IRGC has increased its control over Iran's energy sector, including exports, which account for the lion's share of the regime's revenue. Thus, enforcement or the threat of enforcement of these tougher sanctions, while likely not as costly as action against the Central Bank, will intensify Tehran's economic predicament and help signal U.S. resolve.

Pressure on the Islamic Republic could also be increased through sanctions on Bashar al-Assad's regime in Syria. Damascus has long been Tehran's sole Arab state ally, and a primary link from Iran to Hezbollah and Hamas. Tehran's longstanding support for al-Assad has deepened Iran's isolation from the Arab world, just as the Syrian regime's crackdown has isolated it from the Arab and Western worlds.

Encouraging the aspirations of the vast majority of Syrians for regime change could also benefit the United States and its allies by removing Tehran's principal strategic partner. To this effect, U.S. and E.U. oil embargoes and the Arab League trade embargo against Syria are important steps to undermining the regime's main domestic pillars of support.

While we support tough sanctions, we remain skeptical at this late date that the Obama administration will be able to convince other nations to observe them. Moreover, without tough enforcement, such sanctions will do little to pressure Iran to cease its nuclear program when it is so close to success. Time is of the essence and it could run out before sanctions take effect. For that reason, we urge Congress to assess and report at regular intervals the progress of Iran's nuclear program to determine whether sanctions are forcing Iran to slow down or cease nuclear development, or whether greater pressure needs to be applied.

Making Credible the U.S. Military Option

With the impact of additional sanctions questionable, additional pressure on the Iranian regime to negotiate in good faith can come from the credible threat of military action against Iran's nuclear program. Realistically, that threat can come only from the United States or Israel. Regrettably, senior Obama administration officials have suggested that there is little or no likelihood that the United States would ever actually use force, and they have conveyed opposition to an Israeli strike as well.

There is strong evidence, however, to suggest that it is precisely the threat of military action that actually enables peaceful, diplomatic solutions. Fear of military action apparently led Iran to briefly halt its nuclear program after the United States toppled Iraq's Saddam Hussein in 2003. It also led Moammar Qaddafi of Libya to halt his country's nuclear program. Had Qaddafi instead continued the program and acquired nuclear weapons, it is unlikely NATO would have intervened in Libya's civil war in 2011; a lesson not lost on Iran's leaders.

There is also a lesson in this history for U.S. policymakers: the threat of force can often lead to peace. For this reason we also call on the president and his administration to engage the American public during this election year in a frank discussion about both the risks of a nuclear-capable Iran and of what it will take, realistically, to thwart it. Congress can assist by holding hearings discussing the viability of the military option, as well as its costs and dangers. Many who condemned the Bush administration's lack of transparency prior to the invasion of Iraq today discourage public discussion of military options concerning Iran. But we ought not shirk this debate or dismiss it as warmongering; it is precisely a public recognition of a viable military option that could reduce or even preclude its need. Specifically, we believe there are four steps the United States needs to take to make credible its military option in the pursuit of a peaceful resolution to Iran's nuclear program.

First, the United States must strengthen its declaratory policy, making clear its willingness to use force rather than permit Iran to acquire nuclear weapons, and it must require all U.S. officials to adhere to that policy in their public statements.

Second, the U.S. intelligence community, with proper authorization from the president, should intensify covert activities – and support such activities of other countries – designed to disrupt Iran's nuclear program. Given the attention devoted to the Stuxnet computer attack, President Obama's release of an International Cyber Strategy that, for the first time, articulates cyber weapons as a means of U.S. defense and offense, and the creation of Cyber Command, such a policy should embrace the use of cybernetic, informational and kinetic means.

Third, the United States has to take concrete steps to underscore the seriousness of its declaratory policy, such as naval deployments to the region, military exercises and

prepositioning of supplies. Specifically, we recommend that the United States: augment the Fifth Fleet presence in the Persian Gulf and Gulf of Oman, including deploying an additional carrier battle group and minesweepers to the waters off Iran; conduct broad exercises with its allies in the Persian Gulf; preposition supplies; initiate a “strategic partnership” with Azerbaijan to gain enhanced regional access; and work with the Saudis and Iraqis to improve their capacity to ship oil out of the region without using the Strait of Hormuz.

Finally, we should also intensify our ongoing enhancement of the defensive and offensive military capabilities of our Persian Gulf allies. Already the United States has agreed to a weapons deal with Saudi Arabia worth at least \$60 billion, which may be increased by an additional \$23 billion. Similar arms transfers to Kuwait, Oman and the United Arab Emirates could total another \$55 billion by 2014, and the Pentagon has announced plans to build up the Lebanese Armed Forces and the Iraqi Air Force to counter Iran. But too many of these sales are focused on defensive weaponry – better for containing the regional ambitions of a nuclear Iran than preventing it.

If such pressure fails to persuade Iran’s leadership, the United States and its allies should also consider a quarantine that would block refined petroleum imports into Iran, sending a clear signal and ensuring the effectiveness of sanctions on gasoline imports. Effectively, this would be considered an act of war and the United States and its allies would have to prepare for its consequences.

Should these measures – in conjunction with diplomatic and economic pressures already being pursued – not compel Tehran to terminate its nuclear program, the U.S. military is capable of launching an effective surgical strike against Iran’s nuclear program. An air campaign would last several weeks and target both key military and nuclear installations. It would not target civilian facilities, and ought to initially

limit ground troops to Special Forces. Such action would only set back Iranian nuclear development, but not destroy Iranian nuclear knowledge. Still, it might persuade Tehran that the costs of continuing its nuclear program are too high. The fallout of Israel’s strike on Iraq’s Osirak nuclear facility in 1981 may be instructive; although it was estimated that the attack would set back Iraq’s nuclear program three years, Baghdad never rebuilt the reactor, though it did continue a covert nuclear program. Thus, taking military action would require continued vigilance in the years that follow, both to retain the ability to strike previously undiscovered sites and to ensure that Iran does not revive its military nuclear program.

It is also important that military leaders plan simultaneously for the period immediately following any military action, both providing food and medical assistance within Iran, as well as protecting regional allies from either direct or indirect Iranian response. Because there will be political, diplomatic and strategic fallout from military action, it is important that plans be in place to contain such fallout as much as possible.

Indeed, we fully recognize the risks of a strike against Iran: U.S. and allied casualties; rallying Iranians around an unstable and oppressive regime; reprisals against us and our allies; Iranian-instigated unrest in the Persian Gulf states; a temporary shutdown of the Straits of Hormuz through which roughly 33 percent of all seaborne traded oil and 17 percent of total traded oil flows; and damage to oil facilities in the region that could reduce the supply of oil beyond the cessation of hostilities.⁸ Oil prices would certainly spike higher, though the extent and duration would depend on which of these risks materialized. A significant and/or sustained oil spike would threaten the fragile global economy. We do not minimize such a serious consequence, though a timely release of oil from the Strategic Petroleum Reserve, in coordination with the release of strategic reserves from other nations, would partially mitigate the oil

price spike for a period of time. The resulting economic impact, however, would be much smaller and of shorter duration than the longer-term economic consequences of a nuclear Iran.

Bolstering Israel's Military Option

The United States needs to recognize the interest it has in the credibility of the Israeli military threat to Iran's program. Iran will be under maximum pressure to negotiate in good faith when it believes that not just the United States, but also Israel, is capable of and prepared to deliver a crippling blow to its nuclear program.

The threat from Israel remains real, and Israel's prime minister and defense minister have maintained their determination to prevent a nuclear Iran. Israel retains the ability to inflict significant damage on Iran's nuclear program but not nearly as much as the United States can. We believe that one of the least acceptable outcomes would be a failed or incomplete military strike by Israel against Iran. While we do not advocate an Israeli military strike, we believe a more credible Israeli threat can only increase the pressure on Iran to negotiate. Enhanced military capabilities to strike Iran would improve Israeli credibility and might help convince the Iranians that a diplomatic solution serves its interests as well.

We applaud the Obama administration for reportedly providing Israel with a limited number of GBU-28 bunker buster bombs.⁹ However, in order to increase pressure on the Iranian regime, the United States needs to do more to bolster Israel's strike credibility and capability. Thus, we support providing Israel with 200 of the more advanced and more precise GBU-31 bunker busters. The United States has thousands of such weapons, and could provide 200 to Israel. Similarly, the United States could draw from its supply of 550 aerial refueling tankers – to provide two or three KC-135 tanker aircraft – to extend the effective

range of Israeli aircraft for bombing Iran's nuclear facilities. The U.S. could sell or lease these weapons, or pre-position them in Israel, as we already do with other armaments, thereby retaining ownership of them but allowing Israel to use them in time of need. We urge Congress to mandate the delivery of such weapons to Israel under the most workable mechanism.

We do not minimize the downside of an Israeli attack. It would not be as dangerous as a nuclear Iran, but it would pose serious risks. The United States could not remain neutral in an Israeli-Iran conflict. If Israel attacked and Iran retaliated strongly, the United States would have to respond, meaning that we could be dragged into a conflict at a time not of our choosing. We are not encouraging Israel to attack, but the United States must make clear that our country will never abandon Israel. To this end, we also recommend that U.S. military leaders begin to take steps now, such as de-confliction of air space and communications, geared towards ensuring minimal interference with Israel in such an event. Indeed, we expect the United States to stand by our Israeli and Arab allies threatened by Tehran and remain focused on the overarching strategic objective of preventing a nuclear Iran, thereby assuring our continued commitment to the security and stability of the region. Reaffirming that commitment now would help ease the strain in the United States' relationships with our Israeli and Arab allies following the Arab Awakening.

Conclusion

Our recommendations generally fall under the responsibility of the executive branch, but Congress should also initiate, press for and support such measures. In making these recommendations, we are cognizant of the nation's war weariness, following the conflicts in Iraq, Afghanistan and Libya. It is also imperative that we reduce the budget deficit, which has ballooned beyond sustainable levels. We do not minimize these concerns,

though we recognize that polls have indicated the majority of Americans support military action against Iran's nuclear program if all other methods fail.

This is not the first time a war-weary country with economic challenges faced vital strategic threats. In the 1930s, for example, the United States, Britain and many European countries, beset by the Great Depression and fatigue following the First World War, did not face up to the threat posed by Nazi Germany, only to incur far greater costs during the Second World War. The Iranian regime does not pose the same threat as the Third Reich, but neither does defeating it require such a herculean effort. The principle, however, is the same: avoiding short-term pain can lead to significantly greater long-term costs in blood, treasure and strategic interests. We must be conscious of the consequences of the choices we make today.

We must also, especially in a time of austerity, with budget cuts needed to address our nation's ballooning deficit, be mindful of their costs. We recognize that the costs associated with preparing a credible military option for

preventing a nuclear weapons capable Iran – the highest, immediate national security priority in our minds – will require sacrifices in other parts of our defense budget. That is why this administration needs to actively engage in a reasoned and public discussion to build political consensus for and make clear its resolve to employ the military option as a last resort.

We are under no illusion that there exist any easy or risk-free solutions. Our approach is complicated and challenging, without a guarantee of complete success. The stakes are too high, however, to rely on containment and regime change. We cannot wish this problem away, nor should we fall prey to the inertia of resignation. The administration needs to develop a policy that intensifies pressure on Iran. Sanctions and diplomacy have a chance to work only if backed by a credible military option. The United States needs to make clear that Iran faces a choice: it can either abandon its nuclear program through a negotiated arrangement or have its program destroyed militarily, by the United States or Israel. Bold U.S. leadership is required. The risks of inaction are too high. We must stop Iran's nuclear clock.



Chapter 1: Recent Developments

Iran's Nuclear Program Advances

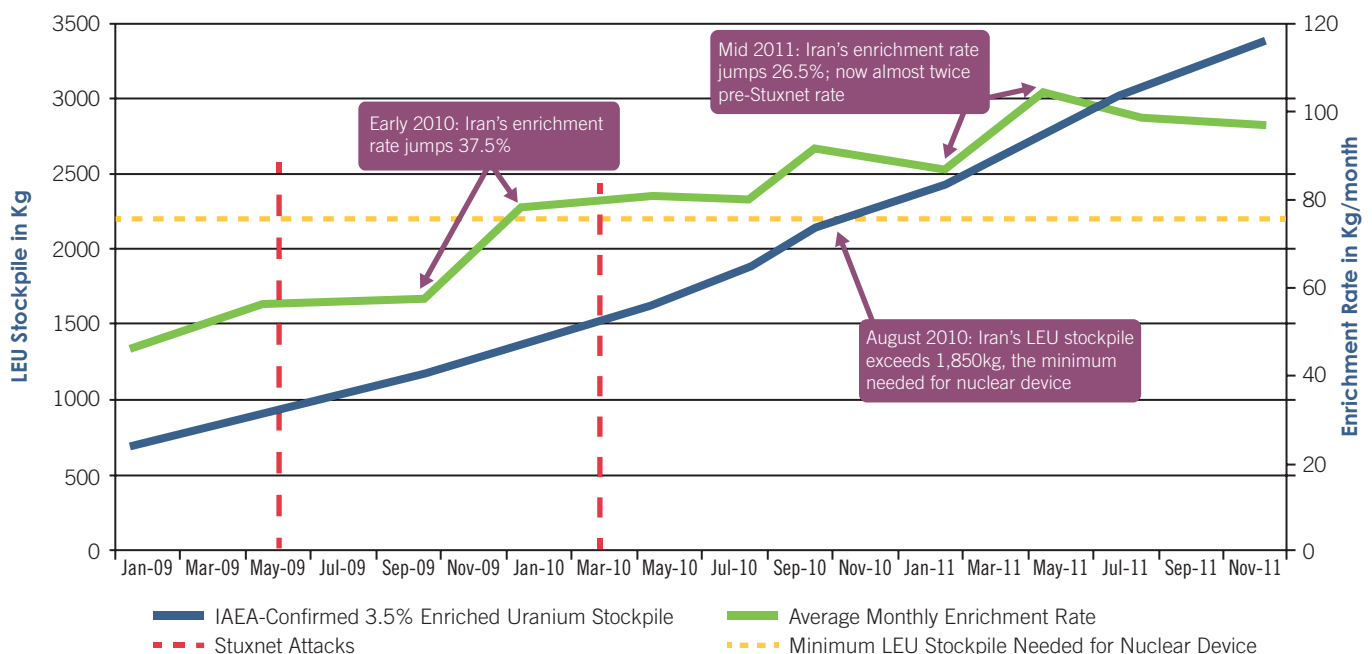
For the past year and a half, reports of deliberate sabotage have dominated discussion of the Islamic Republic of Iran's nuclear program. A computer worm dubbed Stuxnet, which infected several Iranian industrial sites, captivated world attention. It appears to have been designed specifically to target the computers controlling Iran's centrifuges. Assassinations and attempted hits on Iranian nuclear scientists added to the perception that Iran's nuclear program had suffered setbacks.¹⁰ These stories, however, obscured the fact that Iran's nuclear program, far from slowing, had actually accelerated.

Indeed, although Iran's main enrichment facility at Natanz did experience centrifuge problems in 2010, the rate of uranium enrichment at that site has grown steadily; by May 2011, that rate had almost doubled from 2009 (see figure 1).

Several recent developments portend Tehran's advancement toward nuclear weapons capability. These changes include (a) Tehran's continued production of 19.8 percent enriched uranium; (b) Iran's testing and installation of advanced centrifuge models which could enrich uranium as much as six times faster than the model currently in use; (c) installation of centrifuges and start of enrichment at the previously undisclosed underground Fordow facility near Qom, with the stated purpose of tripling the 19.8 percent enriched uranium output; and (d) evidence that Tehran never ceased its nuclear weapons program.

Such activities underscore Iran's hostile intent and facilitate a potential Iranian "breakout" from its obligation "not to manufacture or otherwise acquire nuclear weapons" under the Nuclear Nonproliferation Treaty (NPT) and Iran's Safeguards Agreement with the International Atomic Energy Agency (IAEA). Such a breakout would constrain options

Figure 1: Iran's LEU Stockpile and Enrichment Rate



to prevent the threat of a nuclear Iran. Indeed, once Iran acquires fissile material, U.S. policymakers, military leaders and strategic planners should assume that Tehran has a nuclear weapons capability, even if it chooses not to test its device.

Every day that Iran’s centrifuges spin shortens the time Tehran requires to produce a nuclear weapon. Already it has produced more than 3,000 kilograms (kg) of low-enriched uranium (LEU) – more than one-and-a-half times the amount of LEU it needs to produce the 20 kg of highly enriched uranium (HEU) that is the minimum needed to produce a crude nuclear bomb. Iran might be able to conduct this enrichment in as little as two months. Thus, the Islamic Republic of Iran could be a *de facto* nuclear power before 2012 is over.

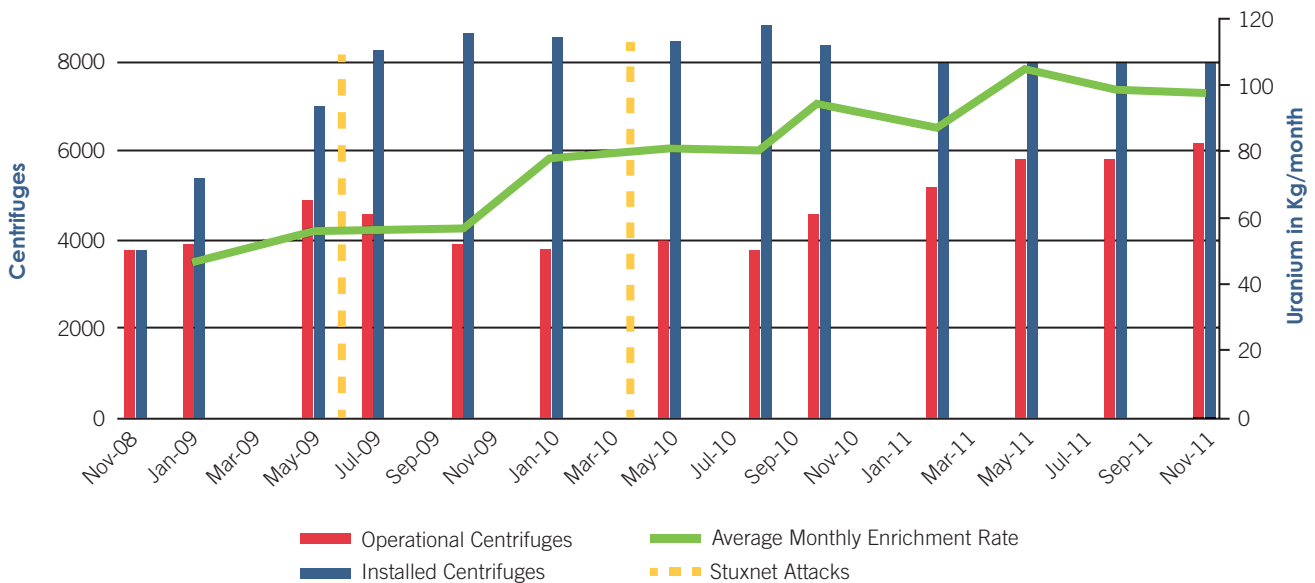
Enrichment Activities

Advances in Enrichment Rate

Despite the attention devoted to the Stuxnet cyber attack, the reality is that Iran’s nuclear program has made great advances since mid-2009. Iran now produces three-to-five percent enriched uranium at Natanz at one of the fastest rates ever, and it did so without a significant increase in the number of centrifuges installed there, demonstrating that it has learned how to enrich uranium more efficiently.

Using IAEA data, we have calculated that between February and May 2011, Iran produced an average of almost 105 kg of LEU per month. While that rate fell slightly over the next several months,¹¹ it still represents a nearly twofold increase over Iran’s average production rate in 2009 (see figure 2).

Figure 2: Enrichment Rate vs. Operational Centrifuges at Natanz FEP



Astoundingly, much of this increase in Iran's enrichment rate occurred as the number of operational centrifuges at the Natanz Fuel Enrichment Plant (FEP) dropped dramatically, perhaps because of the Stuxnet computer worm or other sabotage efforts. By January 2010, the number of operating centrifuges had fallen almost 25 percent, but the rate of enrichment rose almost 50 percent. In November 2010, the number of centrifuges enriching uranium began to rise again.¹²

It is possible that this sustained decrease in operational centrifuges was the result of damage sustained because of the Stuxnet computer worm. First detected in June 2010 by a Belarusian computer security firm, Stuxnet appears to find, spread and infect Supervisory Control and Data Acquisition systems that meet very specific criteria: (a) they had to be a particular Siemens model which the IAEA had reported was used in Iran's nuclear program; and (b) the Siemens systems, in turn, had to be attached to a particular model of frequency converters – devices used to control the speed at which centrifuges spin.

Once it gained access to those systems, Stuxnet issued a series of commands to the frequency converters:

1. Raise rotational speed nearly 40 percent above normal operating frequency for a period of 15 minutes.
2. Return rotational speed to normal operating frequency.
3. Wait 27 days.
4. Lower rotational speed to almost a complete standstill for 50 minutes.
5. Raise rotational speed to normal operating frequency.
6. Wait 27 days and repeat sequence.

By creating such fluctuations in the speed at which centrifuges spin, Stuxnet seems to have been designed to disrupt their normal operation or cause them to fail. It is

thus entirely possible that the Stuxnet cyber attack resulted in the significant drop in centrifuges enriching uranium at Natanz between May 2009 and November 2010, when there was a week's cessation as Iran apparently took its system offline.

Alternative explanations exist, however. The IR-1 gas centrifuges currently used at Iran's enrichment plants are based on an antiquated design which has a high rate of mechanical failure – perhaps as much as 10 percent in the first year of operation.¹³ Imprecise manufacturing and assembly compounds the problem. Indeed, some have suggested that the centrifuges that failed *en masse* at Natanz could have been the first batch domestically manufactured in Iran, rather than centrifuges provided by the Pakistani nuclear scientist A.Q. Khan's network.¹⁴

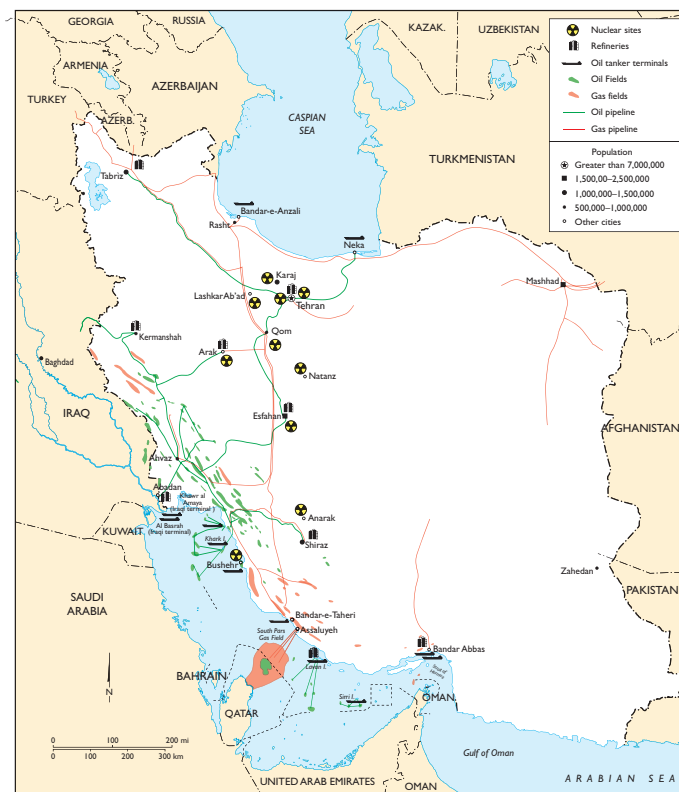
Regardless of the cause of these failures, they did not slow the growth of Iran's enriched uranium stockpile. To the contrary, it accelerated precisely during the period in which the technical problems were taking place and by May 2011, Iran had overcome whatever difficulties it might have faced in 2009 and 2010. On May 14, 2011, the IAEA found nearly 8,000 centrifuges installed at Natanz, of which 5,860 centrifuges were under vacuum and spinning, although inspectors noted that possibly not all of them were being fed uranium. In November 2011, about the same number of centrifuges was found to be installed, but the number of operating centrifuges had increased to 6,208.¹⁵

Production of 19.8 Percent Enriched Uranium

On February 8, 2010, Iran told the IAEA that it would begin producing 19.8 percent enriched uranium to fuel the Tehran Research Reactor, used to produce isotopes for medical uses. In the nearly two years since then, Iran has not only produced about seven years worth of fuel for the Tehran Research Reactor but also begun to move its production of 19.8 percent enriched uranium to a previously covert facility near Qom – a reinforced, underground location – with the announced intention of tripling its output.¹⁶

Those actions, which have been met by almost no international protest, have effectively legitimized Iran's production of 19.8 percent enriched uranium and are allowing Iran to move one step closer to acquiring fissile material while seemingly remaining compliant with the NPT and IAEA safeguards. Because enriching uranium to low levels is much more time-consuming than going from a low level to a higher one, Iran can reduce the time it will need to produce HEU by as much as two-thirds if it enriches its stockpile of 3.5 percent enriched uranium to 19.8 percent. Although it still lacks a sufficient stockpile to produce the 20 kg of HEU needed for a nuclear device using solely 19.8 percent feedstock, if Iran does devote the Qom facility to the production of 19.8 percent enriched uranium, as it plans, this development could prove even more dangerous than the acceleration of enrichment at Natanz.

Figure 3: Iran Oil, Gas and Nuclear Installations



Enrichment Facilities

Fuel Enrichment Plant – Natanz. The Fuel Enrichment Plant (FEP) is a below-ground enrichment facility located at Natanz. Since 2002, it has been the hub of Iran's enrichment program. It consists of two underground halls designed to hold a total of 50,000 centrifuges.

According to the IAEA's November 8, 2011, report, between August 13, 2011, and November 1, 2011, Iran produced an additional 256 kg of 3.5 percent enriched uranium hexafluoride (UF₆) at Natanz, bringing Iran's total LEU stockpile to just more than 4,920 kg of UF₆, which is equivalent to about 3,327 kg of LEU. However, because Iran has been enriching its 3.5 percent enriched uranium to yield 19.8 percent enriched uranium, its actual stockpile of 3.5 percent enriched uranium is roughly 2,810 kilograms.¹⁷

During its November 2, 2011, inspection, the IAEA found about 8,000 centrifuges installed at Natanz, of which 6,208 centrifuges were under vacuum and spinning. Some sources have estimated that the number of centrifuges actually enriching uranium has remained steady at 5,184 since February 2011. Nevertheless, this marks a sharp rise from a low of 3,772 in August 2010.¹⁸

Both the increased uranium production at Natanz and the upswing in operational centrifuges has a drastic impact on the timing of a potential nuclear breakout.

Pilot Fuel Enrichment Plant – Natanz. Iran notified the IAEA of its intent to begin producing 19.8 percent enriched uranium at the above ground Natanz Pilot Fuel Enrichment Plant (PFEP) on February 8, 2010. Despite the IAEA's insistence that Iran not undertake enrichment there until the installation of additional safeguards, inspectors who examined the facility in February 2010 found the centrifuges spinning. This activity likely violated Article 45 of its IAEA Safeguards Agreement and prompted the IAEA to remark that "additional measures

need to be put in place to... verify the non-diversion of the nuclear material” at the plant.

A research facility, the PFEP is designed to hold only six cascades of 164 centrifuges each. Currently, only two cascades are installed and being used to enrich 3.5 percent enriched uranium to levels of 19.8 percent. To date, Iran has produced 54 kg of 19.8 percent enriched uranium, with a production rate that has reached about 3.2 kg of 19.8 percent enriched uranium per month.¹⁹

The annual fuel consumption of the Tehran Research Reactor, for which the PFEP is purportedly producing fuel, is only about seven kg of 19.8 percent enriched uranium.²⁰ If Iran were interested in ensuring an ample supply of fuel for the reactor, it would need to run the PFEP centrifuges for only three months out of the year and to introduce no more than 100 kg of LEU into the centrifuges. As it stands, Iran has already stockpiled almost seven years worth of fuel for the Research Reactor, and appears ready to speed up production.

In January 2011, Iran submitted plans to the IAEA indicating that it planned to install two new, advanced cascades at PFEP: one each of IR-4 and IR-2m centrifuge models.²¹ Iranian scientists declared that they had fully tested and were ready to deploy these new models, which outside experts suggested could raise production rates as much as six times higher than the current IR-1 model. On July 19, 2011, Iran’s Foreign Ministry announced that “the installation of new centrifuges with better quality and speed is ongoing.” And in its inspection on November 2, 2011, the IAEA found that Iran had installed 164 IR-2m and 66 IR-4 centrifuges at the PFEP. While the latter model had not yet been fed uranium, it was unclear from the IAEA’s reporting whether the IR-2m centrifuges were being used for enrichment or not.²²

Fordow Fuel Enrichment Plant – Qom. Speaking to the G20 summit in Pittsburgh on September 25, 2009, Presidents Barack Obama and Nicolas Sarkozy along with Prime Minister Gordon Brown revealed the existence of a secret Iranian nuclear facility near Qom. The announcement sparked allegations that the plant could be part of a weapons program and was constructed in contravention of the NPT. Not only is the facility dug into the side of a mountain and thus heavily fortified, but is also located near the largest center in the world for Shia scholarship and the spiritual center of Iran’s Islamic Revolution.

IAEA inspections of the site suggest the facility – technically known as the Fordow Fuel Enrichment Plant (FFEP) – is designed to hold 2,624 centrifuges. When its existence was first revealed, Iran told the IAEA that the Fordow plant was intended for the production of LEU at up to five percent enrichment. However, on June 8, 2011, Fereidoun Abbasi, then Iranian vice president, announced that “soon, we will install 164-machine centrifuge cascades of the new generation” at Qom in addition to plans to “transfer the 20 percent-uranium enrichment ... to the Fordow plant” from Natanz and would “triple its [production] capacity.”²³

Abbasi, now head of Iran’s Atomic Energy Organization, was true to his word, declaring on August 22, 2011, that “the site is being made ready and a series of centrifuges have already been transferred.” Indeed, Iran has installed 412 centrifuges there, already more than the 328 centrifuges currently enriching to 20 percent at the PFEP, and connected the main power supply to the site. More importantly, Iran has moved one large cylinder of 3.5 percent enriched uranium from Natanz to Fordow. It is unclear how much uranium that cylinder – which was sealed by the IAEA for the move – contains, but the IAEA planned to remove the seal and install the container at Fordow on November 8, 2011. Media reports in December 2011 suggested that Iran was “ready to start feeding” uranium into Fordow’s centrifuges.²⁴ “These reports,”

according to Victoria Nuland, spokesperson for the State Department, “are troubling.” She went on to state that:

The Iranian nuclear program offers no plausible reason for its existing enrichment of uranium up to nearly 20 percent, nor ramping up this production, nor moving centrifuges underground. And its failure to comply with its obligations to suspend its enrichment activities up to 3.5 percent at nearly 20 percent have given all of us in the international community reason to doubt its intentions.

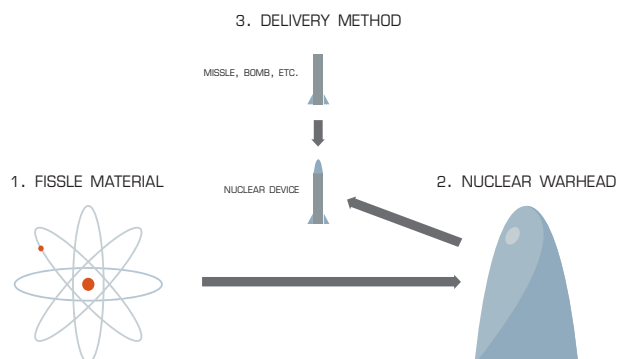
Nevertheless, on January 9, 2012, the IAEA confirmed that Iran had begun enriching uranium at the fortified Fordow plant.²⁵

Nuclear Weapons Capability

A nuclear weapon consists of three main components (see figure 4):

1. Fissile material: either highly enriched uranium (HEU) or plutonium;
2. A device, usually referred to as the “weapon,” designed to force the fissile material into a supercritical mass, thereby unleashing a nuclear chain reaction, most commonly done using spherically arranged high explosives; and
3. A delivery mechanism.

Figure 4: Three Components of a Nuclear Device



MINIMUM: ~20KG, OR LESS, OF 93.1% ENRICHED URANIUM U-235
-6KG, OR LESS, PLUTONIUM P-239

Because Iran already possesses (a) ballistic missiles capable of carrying nuclear payloads and (b) an extensive network of terrorist organizations that could deliver a nuclear weapon by other means, we will here consider only the first two of these components.

Given Iran’s operational centrifuges, their efficiency and the size of its LEU stockpile, Iran might be able to produce enough HEU for a nuclear weapon within two to six months, should it choose to do so. It is important to understand, however, what this estimate does not signify. Although we note IAEA revelations about Iran’s ongoing weapons program, we *do not* estimate (a) whether Iran currently possesses the technology to construct a working nuclear weapon, (b) how long it might take to attain that technology or (c) how long the construction of such a weapon might take. Moreover, we *do not* suggest that Iran will produce a weapon’s worth of HEU two months from now, merely that it might possess the capability to do so.

Acquiring HEU is the foremost technical hurdle for any country seeking to become a nuclear power. Once Iran surmounts it, U.S. policymakers, military leaders and strategic planners should assume Tehran has a nuclear weapons capability, even if it does not test the device. Indeed, we believe that Iran is most likely to amass the components of a nuclear device without assembling them or conducting a test explosion, thus remaining “a screwdriver’s turn” away from a weapon while promoting ambiguity about its true intentions and status. In this way, Tehran can gain the benefits of a *de facto* nuclear deterrent without incurring legal and political repercussions.

Weapons Design

In late 2007, the U.S. intelligence community released a National Intelligence Estimate that asserted “with high confidence that in fall 2003, Tehran halted its nuclear weapons program.” However, the IAEA reports possessing

extensive information relating to a possible military dimension to Iran's nuclear program in the period after 2004.²⁶

In prior reports, the IAEA has repeatedly voiced worries about possible military dimensions of Iran's nuclear program. In its latest report, it also took the extraordinary step of providing a special annex detailing information it has gathered about Iran's military nuclear program. It took this step because, in its own words:

The Agency has serious concerns regarding possible military dimensions to Iran's nuclear programme. After assessing carefully and critically the extensive information available to it, the Agency finds the information to be, overall, credible. The information indicates that Iran has carried out activities relevant to the development of a nuclear explosive device. The information also indicates that prior to the end of 2003, these activities took place under a structured programme, and that some activities may still be ongoing.²⁷

In that annex the IAEA specified some of the military-related activities it believes Iran to have been involved in, including:

- Procurement activities;
- Nuclear materials acquisition;
- Nuclear components for a nuclear device;
- Detonator development;
- Initiation of high explosives and associated experiments;
- Hydrodynamic experiments;
- Modeling and calculations;
- Neutron initiator;
- Conducting a test;
- Integration into missile delivery vehicle; and
- Fusing, arming and firing system

This evidence is convincing enough that even Iranian officials, when presented with it, "agreed ... that, if the information upon which it was based were true, it would constitute a programme for the development of a nuclear weapon." Moreover, the report notes, *contra* the 2007 National Intelligence Estimate, that "some activities ... were resumed" after 2003 and that "some of the activities undertaken after 2003 would be highly relevant to a nuclear weapon programme." As the Director of National Intelligence, General (ret.) James Clapper, told Congress, "Iran is keeping open the option to develop nuclear weapons in part by developing various nuclear capabilities that better position it to produce such weapons, should it choose to do so."²⁸

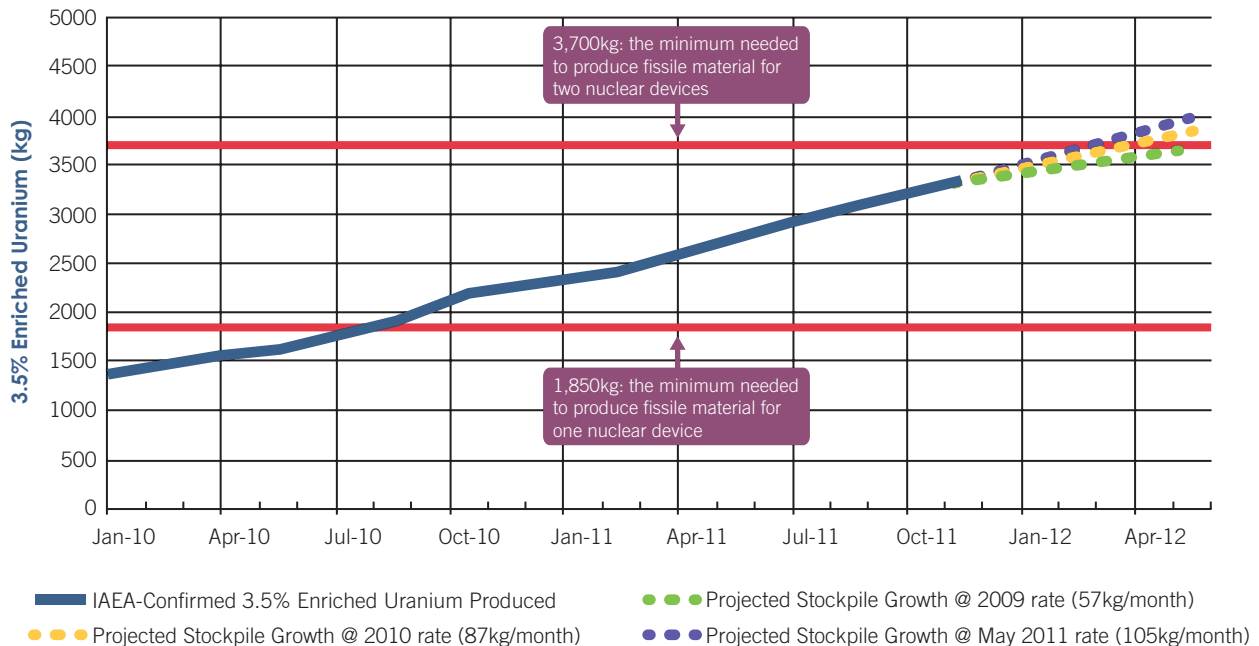
Breakout Timing

Although continued IAEA revelations about Iran's nuclear military program show that Iran has made more progress in developing a weapons design than the U.S. intelligence community previously admitted, acquiring a weapons-worth of HEU remains Iran's primary hurdle. Once Iran successfully acquires sufficient fissile material – 20 kg of HEU – policymakers must assume Tehran has a nuclear weapons capability.

Iran could obtain 20 kg of HEU in three ways. First, it could enrich its own LEU stockpiles in Natanz. It has already stockpiled enough 3.5 percent enriched uranium to produce the necessary amount of HEU and could have two bombs-worth of LEU in 2012 (see figure 5). Second, it could produce HEU at a covert facility. Third, it could acquire the necessary material from abroad from countries such as North Korea, Pakistan or even rogue elements in Russia.

Because the second and third options are necessarily covert and open source analysis is unfeasible, we will focus on evaluating the timeline of a potential "breakout" at Natanz. The term "breakout" signifies any action by Iran that would

Figure 5: Growth of Iranian 3.5% Enriched Uranium Stockpile



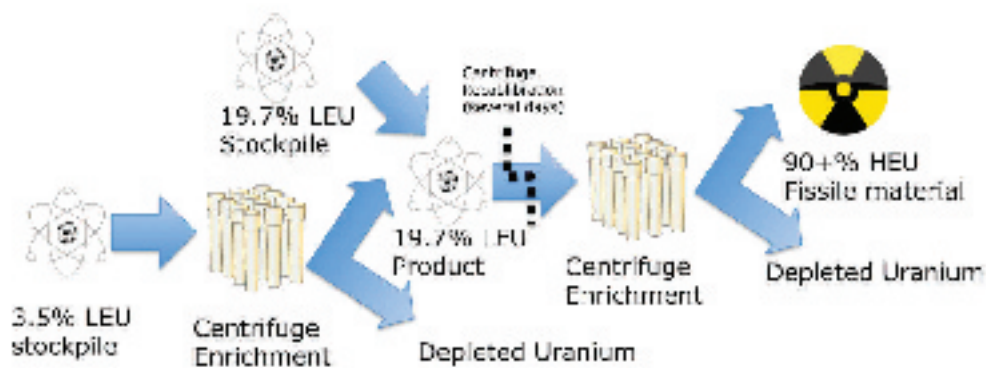
contravene its IAEA Safeguards Agreement. Producing HEU or diverting nuclear materials to an unknown facility would constitute a breakout; thus the term is used here to refer to an Iranian attempt to produce enough HEU for a nuclear device. IAEA inspections of Iranian nuclear facilities occur approximately every two months; if Iran were able to produce 20 kg of HEU in 60 days or less, the breakout would be undetectable by the international community until too late.

Although there has been some disagreement between experts about the procedure by which Iran might seek to produce HEU at Natanz, we believe it most likely that Tehran would resort to a two-step process known as “batch recycling.” This process requires running uranium through the centrifuge cascades twice: once to enrich from 3.5 percent to 20 percent and a second time to go from 20 percent to 90 percent. Using this process requires a larger

initial feedstock of 3.5 percent enriched uranium than do other methods; however, it is faster and less readily detectable because it requires no reconfiguration of the centrifuges. Because some doubt has been cast on the feasibility of this two-step process, we also consider a more onerous three-step batch recycling process: going from 3.5 percent to 19.8 percent, 19.8 percent to 55.4 percent, and finally 55.4 percent to 86.3 percent.²⁹ An advantage of both these processes is that they would allow Iran to leverage its stockpiles of both 3.5 percent and 19.8 percent enriched uranium (see figure 6).

Indeed, the continued production of 19.8 percent enriched uranium at the Pilot Fuel Enrichment Plant and Iran’s declared intent to increase those efforts at Fordow are particularly troubling (see figure 7). Tehran appears determined to push the boundaries of nuclear activities tolerated by the IAEA, the United

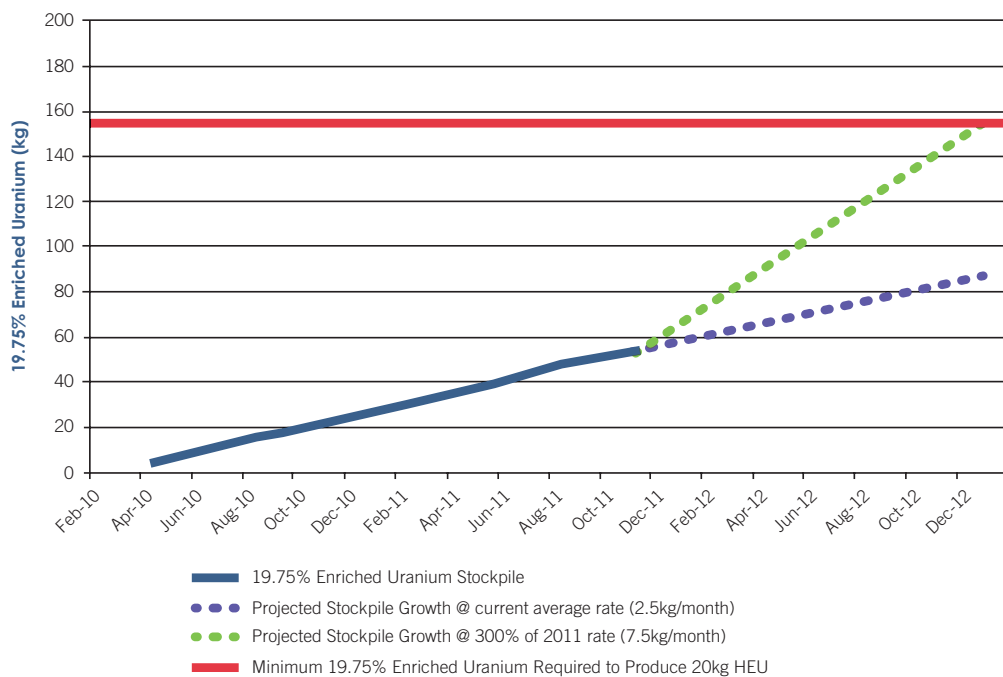
Figure 6: Batch Recycling Process



States and the international community, despite four rounds of United Nations Security Council sanctions demanding a cessation to all enrichment activity. These latest developments are most troubling because

Iran is effectively conducting one of the steps in the batch recycling process needed to produce HEU while remaining within safeguards, thus significantly reducing the time it needs to break out and legitimizing its nuclear

Figure 7: Projected Growth of 19.75% Stockpile



program. It is also possible that Tehran might even seek to produce HEU under the eyes of the IAEA and with some civilian pretext.³⁰

Ultimately, the amount of time Iran will require to break out depends on three variables: (a) the enrichment process used, (b) the enrichment level of the feedstock and (c) the overall efficiency of the Natanz enrichment plant. Keeping the last of these constant at the current level we can describe four possible scenarios: two each using either the two- or three-step batch recycling enrichment process.

Using two-step batch recycling and its existing stockpile of 3.5 percent and 19.8 percent enriched uranium, Iran could produce enough highly enriched uranium for a nuclear device in as little as 62 days. With the same process but using only 19.8 percent enriched uranium feedstock, Iran's breakout horizon could, once it acquires 155 kg of 19.8 percent enriched uranium, which might occur by late 2012, fall to less than two weeks (see figure 8).

Figure 8: Two-Step Batch Recycling

Time to Produce 20 kg HEU at Natanz Using Two-Step Batch Recycling (assuming 4,300 SWU/ year)					
Cycle	Feedstock Enrichment	Feedstock Quantity	Product Enrichment	Product Quantity	Time
First	3.5%	1,415 kg	19.7%	119.9 kg	46 days
Second	19.7%	153.2 kg (119.9 kg from 1st cycle + 38.3 kg from stockpile)	90%	20 kg	12 days
Total					62 days

If Iran were to use the three-step batch recycling process, however, not only would their breakout take more time but also they would need significantly more feedstock – more than they currently possess. In the first scenario, Iran would need to have 4,220 kilograms of 3.5 percent enriched uranium feedstock to begin with, in addition to the 54 kg of 19.8 percent enriched uranium it currently possesses. Producing 20 kg of HEU would then take roughly six months. However, if Iran were to produce 561 kg of 19.8 percent enriched uranium, it could shrink that time to about a month (see figure 9).

Figure 9: Three-Step Batch Recycling

Time to Produce 20 kg HEU at Natanz Using Three-Step Batch Recycling (assuming 4,300 SWU/ year)					
Cycle	Feedstock Enrichment	Feedstock Quantity	Product Enrichment	Product Quantity	Time
First	3.5%	4,220 kg	19.8%	358 kg	146 days
Second	19.8%	407 kg (358 kg from 1st cycle + 54 kg from stockpile)	55.4%	71.4 kg	22 days
Third	55.4%	71.4 kg	86.3%	21 kg	7 days
Total					181 days

Perhaps the most ominous development in Iran's nuclear program is the activation of the previously covert Qom enrichment facility buried beneath a mountain. Because enriching uranium to levels of 20 percent consumes about four-fifths of the time needed to produce weapons-grade uranium, if Iran succeeds in its stated goal of tripling its current production of 20 percent enriched uranium at Qom it will effectively be going 80 percent of the way towards a nuclear weapon under the watchful eye of the

international community, thereby reducing its breakout timing to somewhere between two weeks and a month. In other words, enrichment at Qom portends a significant leap towards nuclear weapons capability.

Transformations in the Middle East

The Arab Awakening is altering the decades-old political map of the Middle East and North Africa. These changes have affected Iran's strategic position in the region. Not only have the upheavals ousted or destabilized several pro-U.S. regional partners, but Washington's attempt to navigate these shifts has also antagonized traditional allies in the Persian Gulf and Israel. Events in Arab states have also overshadowed revelations about Iran's pursuit of nuclear weapons capability. Escalating protests in, and growing regional consensus against, Syria, however, have the potential to undermine Iran's most important partner.

American administrations have consistently tried to prevent the emergence of any hegemonic power in the Middle East which might challenge U.S. interests. To this end, the United States has sought enhanced diplomatic and military cooperation with and between Egypt, Israel, Saudi Arabia and others to confront the growing Iranian threat. The Arab Awakening has destabilized those partnerships.

Egyptian President Hosni Mubarak's government saw "Iran as its greatest long-term threat, both as it develops a nuclear capability and as it seeks to export its 'Shia revolution'," according to a leaked 2009 U.S. diplomatic cable. Cairo was one of two Arab states to formalize peace with Israel and also participated in economic sanctions against Iran. It also opposed Hamas, an Iranian-supported militant group.³¹ Mubarak's replacement by an Islamist regime will undermine Arab-Israeli relations and embolden forces backed by Tehran, principally Hamas and Hezbollah. It could also unravel U.S.-Egypt military ties that ensure U.S. regional access and form the bedrock of U.S. partnership with the largest Arab country.

The Arab Awakening has also shaken key U.S. partners Saudi Arabia and Bahrain. In March 2011, Saudi troops helped bolster Bahrain's Sunni-led monarchy, which hosts the U.S. Fifth Fleet, after violent protests by elements within the Shia-majority population. Meanwhile, Riyadh has preempted any serious upheaval at home by announcing massive domestic spending packages and loosening some of the country's restrictive social policies. However, the Saudi-led GCC intervention in Bahrain and protests in the country's Shia-majority Eastern Province – home to most of Saudi Arabia's energy reserves and infrastructure – have sharpened tensions with Iran and allowed the latter to deflect attention from its nuclear program and internal repression.³²

Washington's decision to call for Mubarak's departure in February has further aggravated differences between the United States and key partners against Iran, making it more difficult for the United States to present a unified diplomatic front against Iran's ambitions. Israel feared the effects of the loss of a pivotal ally in the Arab-Israeli peace process as well as a major player in the informal Arab coalition against Iran, while many Arab leaders were aghast that the United States would cast aside such a long-time ally, though it has also impacted Iran negatively.

Syria remains Tehran's staunchest ally, and it represents an irreplaceable link in an Iranian sphere of influence stretching to Lebanon. The Islamic Republic's outspoken support for Syrian President Bashar al-Assad, even against the backdrop of torture and massacres of peaceful protestors, has eroded its credibility among the broader Arab public.³³ The growing regional consensus against al-Assad provides the United States with an important opportunity to mend relations with regional partners and deal a blow to Iran's geostrategic aspirations.

Perhaps the least appreciated effect of the Arab Awakening's tribulations has been how it has distracted policymakers from the Iranian nuclear challenge. Tehran's enrichment rates have not slowed during 2011, as indicated

by the data and analysis in the previous section. In fact, the Islamic Republic is cynically capitalizing on the regional unrest to try to delegitimize its rival Arab regimes in the Gulf, insinuate itself with successor regimes and divert attention from its own internal divisions and domestic unpopularity.

Iranian Politics

Even as the Islamic Republic advances its nuclear quest, Iranian politics may present vulnerability at home. Election fraud during Iran's June 2009 presidential elections sparked the largest protests in three decades, and exposed fissures among Iranian politicians. Yet, there is no evidence these rifts have threatened Iran's theocracy. Iran's leadership has shown no hesitation in using the harshest tactics in dealing with dissent. The Supreme Leader and his allies may have managed to sideline Ahmadinejad, but such tension between the Supreme Leader and a second term president is nothing new in Iran.

Political Repression and Human Rights Violations

Over the past two years, Tehran has expanded civil repression – barring Iran's citizens from basic freedoms of expression, assembly and association – while continuing to repress minorities and arbitrarily imprison, torture and kill its own citizens.

The government's sensitivity to potential catalysts of civil revolt increased in the wake of the popular uprisings in Tunisia and Egypt. While Iran's leaders voiced support for the Arab revolutions, claiming that the wave of unrest was part of an "Islamic Awakening" whose roots traced back to the 1979 Islamic Revolution, the government moved swiftly to crack down on any Iranians seeking to express their dissatisfaction with their own regime. In February 2011, IRGC officials accused Green Movement leaders Mir Hossein Mousavi and Mehdi Karroubi of anti-revolutionary conduct for having called for a rally in Tehran

to show support for the events in Tunisia and Egypt. IRGC Commander Hossein Hamedani said, "The seditionists are nothing but a dead corpse and we will strongly confront any of their movements." Shortly after, the government placed both Mousavi and Karroubi under house arrest.³⁴ While Mousavi and Karroubi still await formal charges, their spouses also suffer under house arrest.

Protests against the regime occurred sporadically throughout the country during spring 2011. The government again arrested hundreds of demonstrators and used deadly force against its own citizens. The detention of Mousavi and Karroubi, together with strict censorship, have largely prevented opposition groups from mobilizing *en masse* on the same scale as in 2009. The Committee to Protect Journalists has stated that at least 34 journalists have been held since the end of 2010 and many have alleged abuse, rape and torture at the hands of their captors.³⁵

Discrimination against women, as well as ethnic, religious and sexual minorities, remains widespread and is embedded in the structure of the legal system. A woman's testimony in court is worth half of a man's; men have absolute rights in divorce; and a woman can inherit no more than a quarter of her husband's estate. The government has specifically targeted women's rights workers for vague offenses such as "propaganda against the state," with advocacy leaders falling victim to warrantless detention and imprisonment. Members of the "One Million Signatures" campaign, which actively advocates for women's rights, are routinely targeted, held in solitary confinement, threatened with expulsion from university and denied access to legal counsel. Parliament has drafted laws intended to further curb women's freedom of expression, while Khamenei recently launched a campaign to boost "chastity and modesty," calling for greater enforcement of a 2005 law that imposed an obligatory public dress code for women. Furthermore, individual violations of the strict public dress code have been upheld as a legitimate justification for sexual crimes, including rape.³⁶

Religious minorities and converts continue to suffer. The government discriminates against members of the Bahai religion both professionally and in education, and at least 100 are now in prison on spurious charges. Converting from Islam is illegal, and Protestant groups, whose members include large numbers of converts, have been forced underground. Yousef Nadarkhani, a Christian pastor from the evangelical Church of Iran, is facing execution for apostasy, having converted from Islam to Christianity at age 19. While he has refused to recant his religious beliefs in front of the court, a loophole in the law does allow his life to be spared if, according to Islamic law, he wasn't officially a Muslim at the age of maturity (age 15 in Iran).³⁷

Meanwhile, the regime has maintained an appetite for pre-trial torture, public amputations and capital punishment, in addition to arbitrary arrest and detention, mass trials and severe prison sentences for minor offenses. In 2011, Iran executed more than 100 accused criminals, often in public squares. In 2010, the government acknowledged 252 executions, while Amnesty International reports there might have been over 300 more. As of 2008, Iran boasted the highest execution rate per capita in the world; in 2010, it was second only to China in overall executions.³⁸

Divisions Within the Regime

History is filled with autocratic regimes that persist despite internal cleavages; Iran is no exception. The revolution has been in flux from its very inception, with the bounds of acceptable political discourse shrinking consistently with time. The public schism between President Ahmadinejad and Supreme Leader Khamenei may be remarkable for its color – including allegations of “black magic” and multibillion-dollar embezzlement – but it is not unprecedented. Revolutionary leader Ayatollah Khomeini and his successor Khamenei have previously faced down Presidents Abulhassan Banisadr, Rafsanjani and Khatami when the power of each grew enough to pose a challenge.

In every factional struggle, the Supreme Leader comes out on top.

Still, the struggle between Ahmadinejad – whose background and ideological upbringing rest in the IRGC – and the Supreme Leader, Iran's chief cleric, portends a deeper struggle about the character of the Islamic Republic. The Supreme Leader has long relied on the IRGC as his Praetorian Guard, but it is possible that his dependence upon the group has thrown the system permanently out of balance and forced him to become, in effect, their subordinate.

The struggle between the two climaxed when, on April 17, 2011, Ahmadinejad unilaterally dismissed Intelligence Minister Heydar Moselehi, the only clerical member of his cabinet, only to have Khamenei reverse the decision days later with full parliamentary support. Ahmadinejad protested Khamenei's decision by refusing to attend cabinet meetings for 10 days, but grudgingly accepted Moselehi's reinstatement when offered the choice to acquiesce or resign.³⁹

Ahadinejad may be on the defensive – with the Supreme Leader and Khamenei's proxies undercutting his policies and personnel – but that only enhances the power of the Supreme Leader who has repeatedly threatened the West, and called Israel “a cancerous tumor [that] must be uprooted from the region.”⁴⁰

Iranian Aggression

Even without a nuclear shield, Iran has long acted inimically to the interests of the United States. It has attempted to subvert U.S. efforts in Iraq and Afghanistan, supported groups violently opposed to the Middle East peace process and encouraged terrorism and proxy warfare across the region.

Iraq

Iran began trying to undermine the U.S.-led operation in Iraq even before it began, establishing an Arabic language broadcasting outlet to incite Iraqis against the United States. Despite pledges of non-interference made by Iranian officials to American and British diplomats, Iran began to infiltrate IRGC personnel and their trained militias into Iraq as Operation Iraqi Freedom began. It has used militias, special groups and the IRGC's Qods Force to murder Americans and other coalition forces in Iraq.⁴¹ Furthermore, Tehran has spared no effort to thwart Washington's plan for an independent, democratic and stable Iraq.

There have been two phases in Tehran's active and lethal support for attacks on U.S. and coalition forces in Iraq. From the fall of Baghdad until mid-2008, the IRGC-QF set up the Ramadan Corps to coordinate, fund and train a collection of Special Groups to carry out attacks on U.S. and Iraqi soldiers, as well as other opponents of Iran. Organized under the auspices of Moqtada al-Sadr's Jaish al-Mahdi, these Special Groups utilized a variety of Iran-supplied weapons to kill coalition forces, including explosively formed penetrators that are more lethal and technically complex roadside bombs than the improvised explosive devices used against the coalition by radical Sunni and other groups.

A joint U.S.-Iraqi summer 2008 offensive against radical Shia militias, combined with al-Sadr's decision to disband Jaish al-Mahdi, inflicted heavy losses on these Special Groups and forced many remaining operatives to retreat into Iran. Afterward, Tehran temporarily curtailed its support for anti-U.S. operations in Iraq, but since 2010 the Qods Force began training and equipping three major Jaish al-Mahdi splinter groups to reinvigorate attacks on U.S. forces in anticipation of the U.S. withdrawal in December 2011. These factions – Iraqi Hezbollah, Promise Day Brigades and League of the Righteous – have been implicated in a series of deadly attacks on U.S. forces in the past year. As

Chairman of the Joint Chiefs of Staff Admiral Mullen stated in July 2011, "Iran is very directly supporting extremist Shia groups which are killing our troops.... The forensics prove that." U.S. Ambassador to Iraq James Jeffrey and Secretary of Defense Leon Panetta have expressed similar concerns.⁴²

In addition to directing attacks on U.S. forces in Iraq, Iran has simultaneously pursued a multifaceted political, economic and religious strategy to discourage the consolidation of an independent, democratic Iraqi state. Special Groups have undermined the Iraqi government through assassination campaigns against high-level officials, and by providing funding and political support for competing sectarian political parties and religious organizations. A leaked 2009 U.S. diplomatic cable stated Iran's influence bluntly:

Iranian efforts are driven by a clear determination to see a sectarian, Shia-dominated government that is weak, disenfranchised from its Arab neighbors, detached from the U.S. security apparatus and strategically dependent on Iran. Neither of these objectives is in the U.S. interest.⁴³

The Iranian regime has also sought to keep post-Saddam Iraq divided internally and thus susceptible to Tehran's influence by running sectarian death squads and targeting leaders of the Sons of Iraq, a collection of Sunni tribal leaders attempting to cooperate with U.S. and Iraqi security forces against radical Sunni groups. Finally, Iran's rejuvenated Special Group attacks on U.S. forces are intended, at least in part, to gain support from Iraqi Shias by allowing Tehran to claim responsibility for driving U.S. forces out of Iraq.

The drawdown of U.S. forces in Iraq – the geostrategic fulcrum of the region and the buffer between Iran and the Arab world – will afford Tehran a level of political, economic and military predominance it was unable to achieve either under the Shah or through the final six years of the Iran-

Iraq War, when Iranian war aims shifted from regaining lost territory to ending Saddam Hussein's rule. This shifting dynamic was captured by Iran's largely symbolic occupation of an Iraqi oilfield in December 2009: the unopposed incursion captured territory which Iran sought unsuccessfully and at great cost to capture in 1983, and signaled Tehran's ability to threaten Iraq's oil independence.

Afghanistan and Pakistan

Iran has pursued a similar overall strategy in Afghanistan, although its influence and ability to undermine U.S. interests is somewhat limited relative to Iraq. According to the U.S. State Department's *Report on Terrorism 2010*:

Iran's Qods Force provided training to the Taliban in Afghanistan on small unit tactics, small arms, explosives and indirect fire weapons, such as mortars, artillery and rockets. Since at least 2006, Iran has arranged arms shipments to select Taliban members, including small arms and associated ammunition, rocket propelled grenades, mortar rounds, 107mm rockets and plastic explosives. Iran has shipped a large number of weapons to Kandahar, Afghanistan aiming to increase its influence in the country.⁴⁴

Despite the Taliban's ideological hostility to Shia Iran, Tehran has nonetheless sought to aid the group's attacks on ISAF and Afghan National Forces personnel and curry favor with political and tribal figures opposed to the U.S.-backed Afghan government. In August 2010, then ISAF commander General David Petraeus labeled Iran's support for armed groups in Afghanistan "modest," the same month the U.S. Treasury Department designated two Qods Force officers for providing funding and materiel to the Taliban.⁴⁵

The Iranian regime has also reached out to other radical groups, up to and including al-Qaeda. It has transferred al-Qaeda operatives from Iranian prisons and the Arab Middle East to Pakistan. In its July 2011 designation of

six Iran-based individuals for sanctions, the U.S. Treasury Department called Iran the "core pipeline" for al-Qaeda personnel and financial support moving from the Middle East to Pakistan.⁴⁶

Support for Terrorism, Opposition to Peace

Iran has consistently opposed U.S. interests outside Iraq and Afghanistan as well. Since the creation of the Islamic Republic, Tehran's strategic objectives to expand its influence, export revolution and undercut the Middle East peace process have threatened longstanding U.S. efforts to maintain a regional balance of power, defend key allies and support Arab-Israeli peace.

Tehran's staunch support for Damascus, despite its brutal crackdown and widespread international condemnation, recalls Iran's own severe internal repression. By sharpening the divisions between Syria and its Arab neighbors, Iran has also deepened the decades-old informal alliance between the two regimes, both of whom support terrorist groups in Iraq, Lebanon and Palestine. Foremost among these is Lebanese Hezbollah, created and trained by the IRGC. Syria has traditionally played an important intermediary role, transshipping Iranian weapons to Lebanon and coordinating with Hezbollah against more moderate parties in Beirut. Syria and Hezbollah have also been crucial players in Iran's violent opposition to the Middle East peace process, either through direct acts of terrorism against Israeli targets or indirectly through material and moral support for Hamas, Palestinian Islamic Jihad and other extremist groups designated as "Foreign Terrorist Organizations" by the U.S. State Department.⁴⁷

The Islamic Republic's lack of nuclear capability has provided a significant check on its power-projection capabilities. Even with these constraints, however, Tehran supported an aggressive campaign of terrorism and proxy warfare against the United States and its regional allies. From 1983 to 1999, Hezbollah engaged in and

supported an extensive suicide bombing campaign in Lebanon, most notably the 1983 Beirut U.S. embassy and barracks bombings. During this same period Hezbollah also kidnapped and murdered U.S. officials, hijacked a commercial airliner and provided training to Hamas and Palestinian Islamic Jihad in Lebanon.

Between 1992 and 2005, Iran provided military training to Hezbollah and supplied the group with thousands of surface-to-surface, surface-to-air and anti-ship missiles and rockets. Much of this arsenal was fired indiscriminately against Israeli civilians in the 2006 Lebanon War, during which the Qods Force assisted Hezbollah's military operations against the Israel Defense Forces. Iran and Syria have intensified security ties and integrated military planning and training with Hezbollah since the war – in violation of U.N. Security Council Resolution 1701 – primarily by ramping up funding and providing increased numbers of longer-range rockets and missiles: in April 2010 Defense Secretary Robert Gates said, “We are at a point now [where] Hezbollah has far more rockets and missiles than most governments in the world.”⁴⁸

Iran has supported Palestinian extremist groups in a similar manner. As the U.S. State Department stated in 2011, “Hamas receives the majority of its funding, weapons and training from Iran.” At the same time it was resupplying Hezbollah, Iran smuggled hundreds (perhaps thousands) of mortar shells, short-range rockets and anti-tank guided missiles to Hamas and possibly Palestine Islamic Jihad. Hamas members received anti-tank training in Iran following their ineffective use of such weapons in the 2009 Gaza War, and have since employed them against civilian targets in Israel.⁴⁹

Iran has also worked with Hezbollah to attack Israeli targets abroad, most notably bombings in Buenos Aires of the Israeli embassy in 1992 and the Jewish community center in 1994. Iran's current Defense Minister and former IRGC commander, Ahmad Vahidi, is wanted by INTERPOL for his role in the

Figure 10: Israel: Rocket and Missile Threats



1994 attack. Hezbollah affiliates have also carried out deadly attacks on U.S. targets in Saudi Arabia including the Riyadh military complex (1995) and Khobar Towers (1996) bombings, which together killed 24 Americans among others. Hezbollah also established contact and training with al-Qaeda operatives in Sudan prior to the latter's 1998 suicide attacks

on U.S. embassies in Kenya and Tanzania. Finally, Iranian agents attempted to hire a Mexican drug cartel to assassinate the Saudi ambassador to the United States on American soil in a foiled October 2011 plot.

Altogether, these campaigns underscore the National Counterterrorism Center director's statement in September 2011 that "Iran is still the foremost state sponsor [of terrorism], and since 9/11 the regime has expanded its involvement with terrorist and insurgent groups ... that target U.S. and Israeli interests."⁵⁰

A contiguous Iran-aligned bloc stretching to the Mediterranean could be created for the first time in modern history through the progression of Iran's nuclear program, the projected expansion of Iranian influence in Iraq, its deep-seated alliances with Syria and Lebanese Hezbollah, as well as the Qods Force presences in each country. An empowered Iran would not only threaten U.S. interest in a stable, independent Iraq, but could also undermine regional energy security by increasing Iranian leverage against major U.S.-allied Persian Gulf producers like Kuwait and Saudi Arabia. Moreover, a nuclear-capable Iran could feel emboldened to maintain – and quite possibly escalate – its support for terrorism and proxy warfare against the United States and its security partners across the Middle East.

WikiLeaks

The November 2010 WikiLeaks publication of secret U.S. diplomatic cables revealed the existential threat the United States' Arab and Israeli allies perceive from a nuclear Iran. The leaked cables also unearthed not only the extent to which these allies have urged stronger U.S. policies toward Tehran, but the level of mistrust between each other. In very blunt language, Saudi Arabia's King Abdullah and senior Egyptian military and Kuwaiti leaders expressed fears about growing Iranian influence in Iraq and Lebanon and Tehran's ability to stoke sectarian violence across the region. Israeli

Defense Minister Ehud Barak and Abu Dhabi Crown Prince Mohammed bin Zayed compared Ahmadinejad to Adolf Hitler and warned of a proliferation cascade by Saudi Arabia and Turkey if Iran gained nuclear capability.

The cables also showed how U.S. allies have exhorted the United States to increase pressure on Tehran. Bin Zayed called on the United States to communicate red lines to Iran and warned that sanctions would be insufficient. Moreover, U.A.E. Chief of Staff of Armed Forces said, "If I was in the Israelis' shoes, I would attack," but Bin Zayed believed only a U.S. strike could take out Iran's nuclear program. Kuwait's Interior Minister told the U.S. ambassador there that Iran could only be stopped by force. Saudi King Abdullah concurred, urging Americans to "cut off the head of the snake."⁵¹

Diplomacy Fails

Iran returned to the negotiating table with the five permanent U.N. Security Council members, plus Germany (the so-called P5+1), in Geneva on December 6-7, 2010, after a six-month hiatus. Over the course of negotiations from October 2009 to May 2010, the two sides tentatively reached a deal for Iran to transfer 1,200 kg LEU abroad where it would be turned into reactor fuel and then returned. Iran's negotiators repeatedly altered the terms of the agreement and then abandoned the deal after new unilateral and U.N. sanctions were passed in summer 2010. Because the P5+1 in effect pursued a single-track policy during this period, Tehran felt no compulsion to negotiate in good faith, and instead dragged out negotiations as a delaying tactic to continue uranium enrichment. The United States and European countries deemed a compromise brokered with Turkey and Brazil to fall short, however, because it did not take into account the enrichment which Iran had undertaken over the course of months of negotiation.

By the time of the December 2010 talks in Geneva, sanctions by P5+1 countries and others had begun to hurt foreign investment in Iran's energy sector, but Tehran had used the lapse in negotiations to continue enrichment. Plus, the sanctions, while having financial and technological effects on Iran's energy sector, were insufficient in their provisions and enforcement to convince Tehran of the West's willingness to prevent a nuclear Iran at any cost. Finally, Washington had not undertaken any visible, credible military preparations to underscore its declaratory policy that all options remained on the table for halting Iran's nuclear weapons program.

It is not surprising, therefore, that the Geneva talks – in addition to follow-on discussions in Istanbul in January 2011 – were unproductive. The United States expressed its willingness to revive the reactor fuel swap proposal on the condition that Iran transfer more than the previously-agreed 1,200 kg LEU, given the Islamic Republic's enrichment progress since mid-2010. Iranian negotiators refused to slow or even discuss their country's enrichment to 20 percent LEU, and made clear they would not transfer any LEU abroad until the United Nations and Western states dropped sanctions.⁵² With Iran refusing to negotiate in earnest, diplomatic efforts were suspended after the Istanbul meetings.

Sanctions

The United States, U.N. Security Council and others have sought to use sanctions to punish Iran for its WMD programs for years. In December 2011, they passed their toughest sanctions to date. These measures and the threat of their enforcement have hurt the Iranian economy, but have not yet impacted Iran's willingness or ability to advance its nuclear weapons program. This is compounded by Tehran's active countermeasures to evade penalties.

The lack of diplomatic progress during the past year stems largely from the weakness of the P5+1's negotiating position. The United States and its partners repeatedly extended an open hand to Tehran while declining to pursue sanctions and military preparation with similar fervor. The international sanctions regime has proven insufficient without a robust military option to convince Iran of the costs of further defiance. While we believe sanctions alone are not enough for diplomacy to succeed, their pursuit and enforcement are necessary to set the right circumstances for the West to negotiate from a position of strength. If implemented properly, sanctions might signal resolve to prevent Iran from achieving nuclear capability. We support additional sanctions and improved enforcement by the United States and its partners, as a complement to but not a substitute for the credible threat of military force.

Existing Sanctions

Sanctions against Iran's regime were on the books long before the P5+1 and Iran began direct negotiations. The sanctions are essentially of two types: those applied unilaterally by the United States and other countries, and those applied multilaterally, typically after a binding decision of the U.N. Security Council. The Security Council has always aimed its sanctions directly at Iran's nuclear weapons program; U.S. and other unilateral measures have targeted both the program itself and other key pillars of the Iranian regime, in an effort to weaken it domestically and hinder its ability to finance its nuclear ambitions.

U.S. Unilateral Sanctions

The United States long ago imposed most of the sanctions it could apply to persons subject to U.S. jurisdiction. Direct U.S. investment and trade with Iran has been prohibited by executive order since 1995. The 1996 Iran-Libya Sanctions Act expanded the president's authority to penalize *foreign* firms that invest \$20 million annually in Iran's energy sector or sell WMD technology to Iran.⁵³ The prohibition on U.S.

trade with Iran has been much more effective than the Iran-Libya Sanctions Act, for several reasons. First, most of the parent countries of major violators are in the P5+1. Second, many of these same countries host companies with extensive business interests in the United States or deep ties to U.S. firms. Finally, the absence of trade bans or similarly robust sanctions by other countries limits the incentives for foreign companies to adhere to U.S. unilateral sanctions.

The Obama administration, like its predecessors, has avoided penalizing major violators for fear of fracturing the coalition against Tehran. This reticence is aided by the Act's waiver authority for companies whose parent countries are "closely cooperating" with U.S. policy on Iran. As a result, no companies were sanctioned under the renamed and revised Iran Sanctions Act until September 2010, and as of June 2011 only two minor firms (one Swiss and one Belarusian) with no U.S. ties have been penalized. Major companies from U.S. diplomatic partners like Russia (Gazprom) and France (Total) have received waivers even though their investment in Iran was substantial.⁵⁴

On July 1, 2010, President Obama signed the Comprehensive Iran Sanctions, Accountability and Divestment Act (CISADA). Spurred by the Iran Sanction Act's inability to affect Iran's continued enrichment, 2009 post-election crackdown and bad-faith negotiating, CISADA was designed to perform three functions. First, it expands the scope of sanctionable activities to include refined petroleum exports to Iran and involvement in the regime's domestic repression. The inclusion of refined petroleum imports allows the United States to target Islamic Republic of Iran Shipping Lines and its foreign subsidiaries for purchasing refined petroleum abroad and shipping it to Iran. The Islamic Republic of Iran Shipping Lines was designated previously by the U.N. Security Council for its role in weapons proliferation. Second, CISADA broadens and stiffens punishments for violators. Finally, it seeks to strengthen enforcement with clearer and stricter guidelines for the president to identify violations and impose penalties.

CISADA and other unilateral sanctions have impacted Iran more in one year than the Iran-Libya Sanctions Act and its successors had in 15 years, but the effects of both are

Figure 11: U.S. Sanctions Against Iran

Companies Sanctioned Under ISA/CISADA			
Company	Country	Violation	Date Sanctioned
Naftiran Intertrade Company	Iran/Switzerland	Investment in Iran's energy sector; refined petroleum imports	September 30, 2010
Belarusneft	Belarus	Investment in Iran's energy sector	March 29, 2011
Associated Shipbroking	Monaco	IRISL front company	May 24, 2011
Ofer Brothers Group	Israel	Business with IRISL	May 24, 2011
Tanker Pacific	Singapore	Business with IRISL	May 24, 2011
Speedy Ship aka Sepahan Oil Company	Iran/U.A.E.	Supplied refined petroleum products to Iran	May 24, 2011
Royal Oyster Group	U.A.E.	Supplied refined petroleum products to Iran	May 24, 2011
Petrochemical Commercial Company International	Iran/Jersey	Supplied refined petroleum products to Iran	May 24, 2011
Petróleos de Venezuela SA	Venezuela	Supplied reformato to Iran	May 24, 2011

still minimal and enforcement is lax. Many European firms diminished their operations voluntarily from 2008 to 2010 as tensions over Iran's nuclear program rose. Excepting major energy companies, divestment was largely painless because Iran represented a minuscule fraction of these companies' revenues. Meanwhile, key energy companies like ENI, Inpex, Royal Dutch Shell, Statoil and Total exploited a CISADA loophole by pledging to leave Iran once their current contracts are fulfilled.

On March 10, 2011, 10 U.S. senators sent a letter to Secretary of State Hillary Clinton listing 12 Chinese, German, Turkish and Venezuelan entities that were "sanctionable" under CISADA. Of these, only *Petróleos de Venezuela SA* (PDVSA) was penalized, and then only mildly. The U.S. State Department has penalized eight other companies under CISADA, none of which have significant economic ties to the United States or Iran. The State Department banned PDVSA from U.S. government contracts (as per CISADA), but did not prevent it from continuing crude oil imports to the United States (987,000 barrels per day in 2010). Neither was its U.S. subsidiary *Citgo* targeted.⁵⁵

Asian companies have taken advantage of this low enforcement to backfill the void left by departing Western companies. China's state-owned CNOOC, CNPC, Sinopec and Zhuhai Zhenrong have increased their involvement in Iran's oil, natural gas and refined petroleum industries, despite also doing business in the United States.⁵⁶ IRGC affiliates have assumed control over many remaining energy and construction projects.

Most of those penalized by the United States are individuals within the Iranian regime, who have had their assets frozen. The U.S. Treasury Department has enacted similar punishments against the IRGC and IRISL and their affiliates for their roles in Iran's WMD program, international terrorism and post-June 2009 human rights abuses.⁵⁷

Non-U.S. Sanctions

Beyond U.S. efforts, the U.N. Security Council has largely led the effort to sanction Iran over its nuclear program since 2006. In turn, these multilateral sanctions have allowed the European Union and individual countries to enact their own measures over the past year. Because multilateral measures are the product of consensus-building by partners with varied interests, the prohibitions are usually softer than U.S. unilateral sanctions while enforcement is often more stringent.

Between 2006 and 2008, the U.N. Security Council passed three resolutions banning the transfer of enrichment and missile technologies to Iran, and froze the assets of entities involved in such transactions. The Obama administration worked during its first year-and-a-half in office to secure a fourth resolution. It succeeded in June 2010 with Resolution 1929 but, as in the past, Russia and China diluted the final text. Unlike the three previous Security Council sanctions resolutions (all of which were adopted without dissent), two non-permanent members of the Council – Brazil and Turkey – voted against it. Nevertheless, UNSC Resolution 1929 significantly expanded existing resolutions by: (a) banning all arms imports to Iran, (b) demanding the freezing of some IRGC and the Islamic Republic of Iran Shipping Lines assets for their proliferation activities (similar to measures already on the books in the United States) and (c) sanctioning additional entities.⁵⁸ It also provided diplomatic cover for U.S. allies to enact their own sanctions against various elements of the Iranian regime.

Unlike unilateral U.S. measures, our partners' unilateral sanctions are not blanket bans on trade with Iran, nor do they target foreign firms or bar petroleum exports to Iran. Instead, they expand existing UNSC resolutions, including 1929. Nevertheless, in the last six months of 2010, Australia, Canada, the European Union, India, Japan, Norway, the Republic of Korea and others imposed

trade and investment restrictions primarily on arms sales, shipping and banking, and widened the list of sanctioned Iranian entities. They often also prohibit investment in Iran's energy sector. Most of their penalties involve asset freezes and transaction bans against Iranian entities.⁵⁹

Effect on Iran

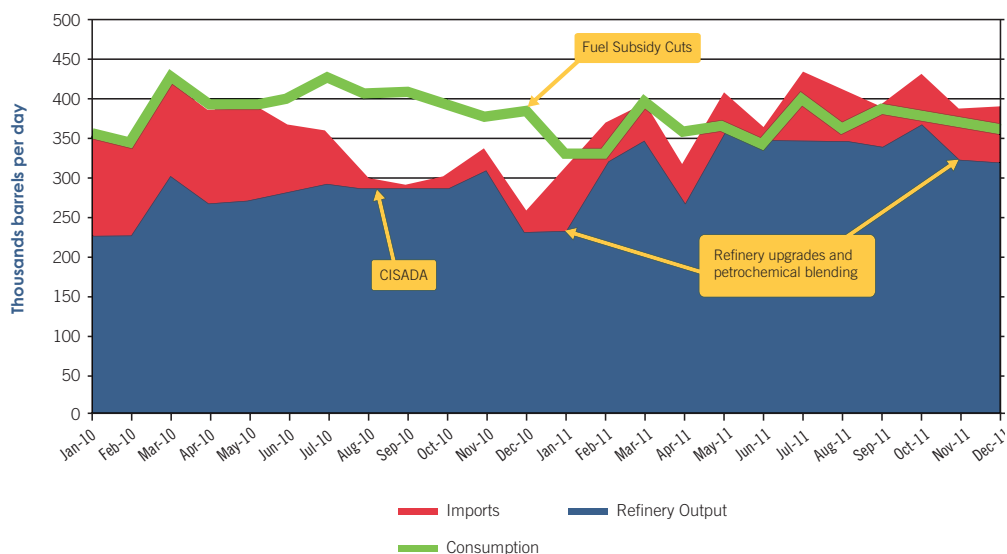
The ultimate measure of sanctions' effectiveness is whether or not Iran gives up its nuclear weapons program. By this standard, the sanctions regime is applying noticeable but insufficient pressure. The threat of sanctions has prompted many Western companies to abandon or pledge to abandon critical sectors of Iran's economy, and the singling out of IRGC and other regime entities for their crackdown in the wake of the 2009 presidential election has compounded Iran's economic and diplomatic isolation. This has increased financial and domestic pressure on the regime, and signals a moderate level of international concern over Iran's continued enrichment, but not to the extent that Tehran feels compelled either to return to the negotiating table or suspend enrichment.

Energy Sanctions

CISADA and other countries' sanctions against Iran's energy sector have not been successful: Tehran does not feel pressured to negotiate in earnest. It has used Venezuelan and Chinese firms to replace lost European investment, and has been taking advantage of Chinese assistance to upgrade and expand several major refineries. Tehran has also bought time for new refinery capacity to come online by drawing from fuel reserves and blending petrochemicals with standard gasoline. This is an effective stopgap measure but would be unsustainable as a long-term strategy.

Since April 2011, the Oil Ministry has claimed that Iran imports no gasoline, and that production will quadruple by 2016 – from 260,000 to 1.17 million bpd – as refinery upgrades come online. Four months later, Oil Minister Rostam Qassemi said this would allow Iran to become “one of the major gasoline exporters in the world.”⁶⁰ These pronouncements fall into a pattern of unverified and unrealistic claims (see figure 12).

Figure 12: Iran Gasoline Sector



Combined with U.S. allies' new sanctions against investment in Iran's energy sector, CISADA has perhaps had a more significant impact on Iran's ability to export oil and liquefied natural gas (LNG) by deterring new Statoil and Total projects and convincing the IRGC to evict Shell and Repsol. CNOOC and CNPC have yet to master advanced liquefaction technologies, and IRGC-led projects are often plagued by cost overruns and production delays.⁶¹ However, because U.S. allies' sanctions do not prohibit oil imports from Iran, Tehran has been able to maintain the core of its strongest bilateral trade relations.

Sanctions Against Regime Entities

The United States, its allies and the U.N. Security Council have also targeted various entities in and beyond Iran for their involvement in Iran's WMD programs, terrorist activities and domestic repression. Although these penalties affect key bases of power, they have not inflicted the necessary pressure on the regime largely because few, if any, of the sanctioned individuals or entities have substantial holdings in the United States or Europe.

The IRGC, the Islamic Republic of Iran Shipping Lines and other regime entities have evaded penalties through extensive use of countermeasures to avoid detection from creating front companies and renaming or reflagging ships in China (primarily Hong Kong), Cyprus, Germany and Malta, to employing third-country intermediaries for financial transactions and the transshipment of refined petroleum exports to Iran from Chinese and European suppliers.⁶²

New Sanctions

The real but limited effect of existing sanctions is generating momentum for even stronger measures, particularly in Congress, that would cut more deeply at the regime's ability to finance its WMD programs. This impetus was reinforced by the failed Iranian assassination plot against the Saudi ambassador, and by the November 2011 IAEA report.

Amid these growing pressures, the Obama administration has sharpened its rhetoric. In October 2011, the president vowed not to take "any options off the table in terms of how we operate with Iran," and Under Secretary of the Treasury David Cohen said the administration is "looking quite intensively at how to ratchet up the pressure."⁶³

Targeting Iran's Central Bank is widely seen as the most effective, and most difficult, option to accomplish this goal. It is effectively the banker to the Iranian regime; it implements the government's five-year development plans and annual budgets, and conducts financial transactions for Iranian exports, primarily crude oil. In a country where oil exports account for half to two-thirds of government revenue, the Central Bank is the economic lifeline of the regime. This has become increasingly true as the IRGC increased its control over Iran's energy, industrial and defense sectors in recent years. A second, more direct, option would be to sanction Iran's crude oil exports. Targeting the Central Bank would make it exceedingly difficult to finance trade with Iran, but leaves open the alternative for countries to barter for Iranian oil. Designating Iran's oil exports would amount to an oil embargo against the Islamic Republic.

Executive or legislative branch sanctions that would bar any foreign firms dealing with the Central Bank and/or Iran's oil sector from access to U.S. financial institutions are informally referred to as "the nuclear option," since they would make it much more difficult for countries to finance or even conduct trade with the Islamic Republic. Iran could continue to pump oil, but could face strong challenges selling it. These sanctions would not affect U.S. trade, which has been prohibited with Iran since 1995. However, implementing and enforcing them could damage relations with important U.S. partners in East Asia, Europe and the Middle East. Less intense measures include the expansion of current sanctions against Iran's energy sector, as well as stricter penalties and enforcement mechanisms.

Congress is advocating all these options. The Obama administration has designated several entities under the Iran Sanctions Act, CISADA and the USA PATRIOT Act, partly under pressure from Congress for more stringent measures, but has also sought to soften many of Congress' proposed measures. Canada and Great Britain enacted bans on their own financial institutions from dealing with Iran's Central Bank in November 2011, but the prospects for additional multilateral sanctions are uncertain.

New Bills in Congress

There is a series of bills under consideration in Congress that would expand sanctions against Iran. In May 2011, each house introduced legislation to expand existing measures against the Iranian regime and energy sector. In late 2011, the Kirk-Menendez Amendment introduced sanctions against Iran's Central Bank.

Expanding Sanctions Against Regime and Energy Sector

Each house is considering legislation to amend CISADA and tighten sanctions against Iran's nuclear program, refined petroleum sector and regime elements. Companion bills in the House (H.R. 1905: Iran Threat Reduction Act; H.R. 2105: Iran, North Korea, and Syria Nonproliferation Reform and Modernization Act) and Senate (S. 1048: Iran, North Korea and Syria Sanctions Consolidation Act) would modify existing measures by sanctioning companies involved with exporting energy from Iran if that activity "directly and significantly" involves the IRGC or its affiliates. They also include a prohibition on U.S. transactions with any entity conducting business with the IRGC. Moreover, these bills are designed to stiffen punishments against violators, and strengthen enforcement – much as CISADA was intended to strengthen the Iran Sanctions Act.

The Iran Sanctions Act targeted outside energy investment *in* Iran and CISADA included refined petroleum imports *to* Iran; the new bills would add petroleum and liquefied natural gas

exports *from* Iran. The Senate bill also targets oil exports from Iran, and amends the Iran Sanctions Act by targeting joint ventures *outside* Iran in which Iran is a substantial partner or through which Iran could gain technology for developing petroleum resources back home.⁶⁴

The Senate bill's inclusion of energy exports would require the president to penalize anyone providing refining, shipping or insurance services to IRGC-related energy projects. This is significant because the state-owned National Iranian Oil Company and its subsidiaries are responsible for the country's entire oil production and export infrastructure. Therefore, the Senate bill leaves open the possibility for sanctioning all physical trade with Iran's oil sector, whereas Central Bank sanctions only target efforts to purchase oil. This is meant to attack even more deeply the regime's main source of revenue for its nuclear program, especially since the IRGC has entrenched its influence across the Iranian regime and economy in recent years.

First, the bills would freeze assets of Iranian entities promoting instability in Iraq and Afghanistan, and of foreign entities receiving or providing military technology or goods to Iran. Both houses are considering legislation to increase U.S. pressure on elements in Iran's regime, including President Ahmadinejad, involved in domestic repression of the Green Movement and similar groups since 2009.

Second, these new sanctions would broaden the penalties spelled out in CISADA, by denying entry to the United States by corporate officers and shareholders in companies committing violations. Third, these bills contain amendments to the Iran Sanctions Act and CISADA that would impose stricter and more clearly defined requirements for the executive branch to investigate and report this widened range of violations and enforce these broader penalties. The amended Iran Threat Reduction Act also designated Iran's Central Bank for sanctions if the president determines it aided Iran's WMD programs. This

strengthens the language in CISADA, which “urges” the president to consider sanctions on any Iranian financial institution engaged in proliferation activities or supporting terrorism, although it falls short of the Kirk-Menendez Amendment’s provisions for sanctions against foreign financial institutions that transact with the Central Bank. Finally, the Iran Threat Reduction Act would also oblige the president to submit to Congress an annual “National Strategy to Counter Iran.”⁶⁵

Kirk-Menendez Amendment and Iran’s Central Bank

The companion bills did not initially spell out sanctions against the Central Bank, but only called for the executive branch to keep Congress apprised of the bank’s role in Iran’s nuclear proliferation activities. Congress instead pressured the president to escalate measures against the Central Bank: in August 2011, 90 U.S. senators sent a letter to President Obama calling for “crippling sanctions on Iran’s financial system by cutting off the Central Bank.” The administration steadily sharpened its rhetoric but did not enact new penalties, even after the failed Iranian assassination plot against the Saudi ambassador and the November 2011 IAEA report. In November 2011, Senators Mark Kirk (R-IL) and Robert Menendez (D-NJ) introduced amendments to the FY 2012 defense authorization bill to include the Central Bank under CISADA. The Senate voted 100-0 in favor of this measure in December, and the House passed the conference report containing much of the substance of the Kirk-Menendez Amendment.⁶⁶

The final version of the Defense Authorization Act for FY 2012 requires the president to penalize foreign financial institutions that conduct financial transactions with Iran’s Central Bank. The president would be required to do so by prohibiting those entities from opening new accounts in the United States, and by prohibiting or imposing strict conditions on maintaining existing accounts. Finally, it requires the president to inform Congress every 60

days, based on a report produced by the administration, whether there is sufficient non-Iranian oil supply to allow foreign buyers of Iranian oil to significantly reduce their purchases.⁶⁷

New Measures by the Obama Administration

The administration remains reticent to enact harsher measures, for fear of fracturing the international coalition against Iran’s nuclear ambitions. It also worries that Central Bank sanctions might trigger sharp oil price increases, since such measures could effectively remove much of Iran’s oil exports from the global market. Iranian exports accounted for roughly two percent of global oil consumption in 2010.

Thus, the Obama administration has not matched its tough language on new sanctions with concrete measures to target the Central Bank or oil exports. On November 21, it announced only that it was declaring Iran a “money laundering concern” under the USA PATRIOT Act – a symbolic gesture since U.S. banks are banned from business with Iran – and targeting additional entities involved in Iran’s energy sector, though not its oil exports.

In addition, the administration lobbied against the Kirk-Menendez Amendment imposing such sanctions. After it passed the Senate, the State and Treasury departments requested changes before it went to conference. As a result, the final bill for presidential consideration softened the penalties for foreign banks, extended the grace period before implementing sanctions from 60 to 180 days, allowed exceptions for companies reducing (but not ending) their purchases of Iranian oil and broadened the president’s waiver authorities, including an exception for banks whose parent countries are cooperating with the United States against Iran. These are similar to the loopholes in the Iran Sanctions Act and CISADA.⁶⁸

Prospects for More Non-U.S. Sanctions

Western allies have passed or are considering passing major new measures similar to those suggested in the United States, while Asian partners and the Security Council show little interest in more stringent measures to follow last year's unilateral and multilateral sanctions.

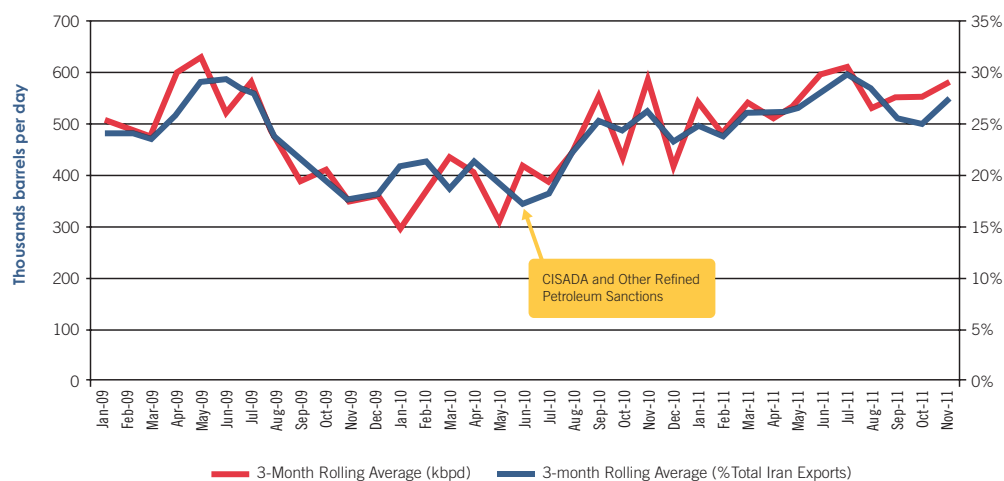
Britain and Canada led the way by unilaterally sanctioning the Central Bank in November 2011 in the wake of the IAEA's report on Iran's nuclear progress. Unlike the United States, neither country has a pre-existing ban on trade with Iran. Therefore, these measures do not have extraterritorial application, but only prohibit British and Canadian companies from conducting business with the Central Bank. France is encouraging the European Union to adopt similar measures as well as an oil embargo.⁶⁹

China, India, Japan and South Korea, however, have less appetite for such measures. Washington was able to convince these countries to support UNSC Resolution 1929 and unilateral sanctions on Iran's energy sector in 2010 only by agreeing not to sanction oil exports in the future. They worry the nuclear option will impact their ability to buy Iranian oil; while major E.U. economies like Britain,

France and Germany import primarily from Europe, Russia and Middle Eastern producers other than Iran, Asia relies on Iran for significant supplies. Iran's largest European consumer, Italy, receives roughly five percent of its imports from Iran, while China, India, Japan and South Korea each depend on Iran for at least 10 percent of crude oil imports. Furthermore, many Western companies are drawing down or have terminated their business in Iran, while China and to a lesser extent other Asian countries maintain such ties.⁷⁰

The willingness of the Security Council to impose additional sanctions on Iran may have reached its limits. Because of unprecedented opposition by some Council members, no serious effort is underway to move a fifth sanctions resolution through the Council. Nonetheless, there are recent precedents for multilateral sanctions similar to those that could be enacted against Iran's Central Bank and National Iranian Oil Company. In March 2011, the Council imposed an asset freeze and banned financial transactions with Libya's Central Bank and National Oil Corporation. In addition, the United States and European Union have imposed bans on imports of Syrian oil since August 2011.⁷¹ However, U.S. and E.U. imports from Syria were marginal, and while Libya had extensive

Figure 13: Iran Crude Oil Export to China



trade relations with Europe, its commercial footprint in Asian markets was minimal at best.

Potential Effect on Iran

Even if passed, any combination of new measures offers little hope of deflecting Iran’s pursuit of nuclear weapons capability. Even new “crippling” sanctions are unlikely to threaten the viability of the Iranian regime – the one motivation for Tehran to negotiate in good faith. There are three other reasons it is doubtful these particular sanctions will have the “enormous bite” President Obama has already claimed.⁷²

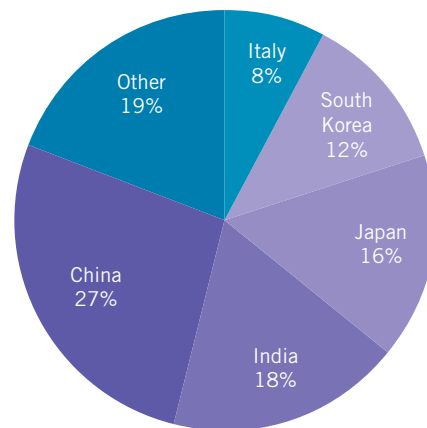
First, although the new bills in Congress are intended to remove loopholes allowing for lax enforcement of existing sanctions, shortcomings remain. Any new sanctions would maintain the president’s substantial waiver and exemption authorities originally spelled out in the Iran-Libya Sanctions Act and CISADA. This makes it highly unlikely any European companies would face U.S. penalties for importing IRGC-tied energy products, even though Europe is Iran’s second-most lucrative export market after Asia. Rather, the penalties would have to originate from E.U.-member governments themselves.⁷³ The stipulation for IRGC involvement – as opposed to a broader ban on Iranian energy exports – further limits the sanctions’ potential impact. The IRGC’s poor track record with major energy projects combined with rapidly growing Asian energy demand, suggests a significant amount of Iran’s future crude oil, liquefied natural gas and refined petroleum production will be headed by Chinese companies and much of its exports will be destined for Asian markets.

Second, existing measures have done little to undermine Tehran’s ability or willingness to further its nuclear weapons program, even considering some of the demonstrable effects U.S. and other countries’ penalties have had on Iran. Many of the individual regime officials targeted for asset freezes have little or no assets in the United States. More broadly, the Iranian regime has used correspondent banks, shell

companies, barter and other methods to sidestep existing sanctions, and would likely be able to transfer Central Bank accounts to new institutions, rely more heavily on bartering or simply rename existing accounts if the United States and its international partners were to enforce tougher sanctions. These inconveniences have pushed Tehran to try to impose tighter credit terms and higher prices on future oil contracts with Asian customers, causing Japan and South Korea to look elsewhere for supplies.⁷⁴ All such countermeasures impose costs on Iran, but are not unbearable.

Figure 14: Iran Crude Oil Export

(January – October 2011)



Third, those countries most responsible for lining Tehran’s coffers are the least likely to support “crippling” sanctions. The energy sector accounts for 80 percent of government revenues, mostly in the form of oil exports. Over the past two years, China, India, Japan and South Korea combined for nearly three-quarters of Iran’s oil exports by volume. These countries agreed to support sanctions in 2010 on the assumption that stricter sanctions targeting Iranian crude oil exports would be off the table. While reticent to support measures against the Central Bank, U.S. allies Japan and South Korea have proven receptive to U.S. proposals to

cut petrochemicals imports from Iran (a small fraction of crude oil imports) and reduce purchases of Iranian oil, if only to earn exemptions from new U.S. sanctions. Indeed, the Western countries which attract the fewest Iranian exports are the most eager to implement potentially harsh measures: France, Canada, Germany and Great Britain

combined for less than four percent of Iran's crude oil exports in the first half of 2011, while Greece, Italy and Spain accounted for four times that amount. France, which is leading the calls for an E.U.-wide oil embargo, would need to convince these hard-hit Mediterranean economies to come onboard.⁷⁵



Chapter 2: It's Different This Time

Of course, Iran is not the first state seeking a nuclear weapon, or the first deeply inimical to the United States. Whether it was the Soviet Union during the Cold War or North Korea today, U.S. leaders have been able to manage these nuclear threats. Such examples are tempting. For a United States that is weary of war and economically fragile, another conflict in the Middle East is not an attractive option. Drawing an analogy from past experiences to a potentially nuclear weapons-capable Iran might lead policymakers to believe that this threat could also be managed. Such analogies, however, are false and ignore the wide-ranging threats a nuclear Iran would pose, from a proliferation cascade to an unstable nuclear brinkmanship with Israel. This time, it really is different.

Failed Analogies

The analogies some wish to draw between Iran and current nuclear states have limits in their usefulness for policymaking. The rivalry with a nuclear Iran would not resemble that between the United States and the Soviet Union because the geostrategic realities are vastly different. Today, the United States lacks the credibility and allies it enjoyed during the Cold War, and the nature of the Iranian threat is different. Meanwhile, a nuclear Iran would resemble North Korea in more ways than many imagine. Just as North Korea does today, it would harass its neighbors and sell arms and technology to rogue states and terrorist groups. Without a larger regional power – like China in the case of North Korea – to keep it in check, however, a nuclear Iran would be far more aggressive than North Korea is today.

Containment

After two tumultuous decades filled with civil war, genocide, state failure and terrorism, many yearn for the imagined stability of the Cold War years. In hindsight, the nuclear standoff between the United States and the Soviet Union provided, if not true peace, then at least a predictable

structure to international relations. Reasoning by analogy, many in Washington believe a U.S.-guaranteed “nuclear shield” could offer the same stability to the Middle East, should Iran acquire a nuclear weapons capability.⁷⁶

Unfortunately, this conclusion is faulty; the analogy between the Soviet Union and Iran does not hold. The U.S. lacks the key elements of a successful containment strategy – credibility; robust, reliable and coordinated allies; and a deterrable enemy. Even if executed effectively, containment, however, could not limit the negative eventualities sparked by an Iranian breakout. Containment was designed to protect allies, not prevent proliferation or the transfer of nuclear technology to terrorist groups.

What Would We Contain?

During the Cold War, the United States sought to protect its allies from the aggression and influence of the Soviet Union. If the U.S. fails to prevent Iran from going nuclear, our aim will be not just to protect ourselves from Iran, but also from terrorists.

To stave off the proliferation cascade that a nuclear Iran would precipitate, the United States would have to both deter Tehran and police its own allies. Yet these nations are not interested in mutual defense agreements with the United States, let alone the permanent basing of U.S. troops on their soil. Whereas the allies that joined with the United States to form the North Atlantic Treaty Organization (NATO) not only received U.S. protection but were also willing to commit to come to our defense, such mutuality is not true of our Middle Eastern partners. Already, Saudi Arabia has declared it would seek a nuclear weapon if Iran obtains one. Other countries in the region, especially Egypt and Turkey would not be far behind.

Even as these countries sought to develop or purchase a nuclear weapon, Iran would immediately encounter another nuclear state – even if undeclared – in the region: Israel. The stalemate between these two states would be

precarious at best. As former Under Secretary of Defense Eric Edelman and his colleagues concluded in *Foreign Affairs*: “The greatest concern in the near term would be that an unstable Iranian-Israeli nuclear contest could emerge, with a significant risk that either side would launch a first strike on the other despite the enormous risks and costs involved.” Iran, which would for the foreseeable future have much fewer nuclear weapons than Israel, would face a “use them or lose them” predicament that could lead it to unleash its nuclear arsenal before Israel has a chance to destroy it. Conversely, Israel, well-versed and successful in the use of preventive strikes, might decide to eliminate Iran’s nuclear capability before its leadership makes good on threats to destroy Israel.⁷⁷ Dennis Ross, the White House former point person on Iran, explained this scenario:

If you’re Israel – and we’ve already said, from Israel’s standpoint, an Iran with nuclear weapons represents an existential threat – can Israel wait? If there’s the slightest indication that Iran would be changing readiness, can Israel wait? You know, you’re talking not about a Cold War situation, where even in the Cold War we came much closer to nuclear war with the Soviets than we realized over the Cuban Missile Crisis – when we had different forms of communication with the Soviets. Iran and Israel have no communication. The potential for miscalculation would be enormous. The potential for false positives would be great.⁷⁸

The United States would have an extremely limited ability to influence the incentives that would drive an Israeli-Iranian nuclear standoff and thus to contain and prevent a conflict in the region. The sort of “defense shield” suggested by U.S. officials, even if it was a “nuclear shield,” would not in any way change the calculus that might drive Iranian leaders to use their nuclear weapon for fear of losing it in a preemptive or retaliatory strike. Similarly, Israel’s small geographic size means it could not absorb a nuclear attack, and thus would not be assuaged by U.S. promises of a

retaliatory strike. The nuclear dynamic in the region would be far too unstable to be contained by U.S. assurances.

During the Cold War, our adversary was a nuclear-armed state. But Tehran is also the world’s largest state sponsor of terrorism. Should Iran acquire nuclear weapons capability, the United States will have to contend with the very real possibility that it might transfer nuclear materials or technologies to its terrorist proxies. Classic containment strategy, however, is not adequate to deter non-state actors. Without easily targetable political, social or economic interests, such entities are not susceptible to the logic of mutually assured destruction. Even if executed properly, containment was never meant to persuade unreliable allies to forgo proliferation or to deter terrorists.

During the Cold War, our adversary was a nuclear-armed state. But Tehran is also the world’s largest state sponsor of terrorism. Should Iran acquire nuclear weapons capability, the United States will have to contend with the very real possibility that it might transfer nuclear materials or technologies to its terrorist proxies.

Credibility Deficit

Containment advocates argue that Washington should clarify and enforce redlines for a nuclear Iran: no conventional war; no use or transfer of nuclear weapons, materials, or technology; and no support for terrorism or subversion. To deter any Iranian transgressions, Washington might establish a regional defense umbrella, and state its willingness to retaliate with conventional and/or nuclear

weapons.⁷⁹ However, advocates of this approach tend to overlook the credibility deficit the United States now suffers.

Lack of Certain Response – Credibility is the bedrock of deterrence. Achieving it can be painstaking, involving a serious commitment of resources and an ironclad commitment to punish transgression of redlines.⁸⁰ Cold War containment policy required successive U.S. administrations to maintain bases around the world with tens of thousands of soldiers, sailors and airmen; prepare in earnest for conventional and nuclear war; engage in costly proxy conflicts; and even weather nuclear crises.

U.S. officials have not demonstrated similar resolve toward a potential nuclear Iran. In 2003, President George W. Bush stated that his administration would not “tolerate the construction of a nuclear weapon” by Iran. The current administration has warned Tehran repeatedly of the potential costs of its noncompliance, with President Obama committing to use “all the elements of our national power” to prevent Iran from developing nuclear weapons.⁸¹

Neither the United States nor its allies, however, have backed up any of these threats. Iran has crossed multiple redlines – converting yellowcake into uranium, spinning centrifuges, refusing diplomatic proposals – without significant punishment while Washington officials continue to downplay the military option.⁸²

Lack of Tools – Containment advocates stress the need for Washington to detect transgressions and ensure that Iran abides by U.S. redlines, principally through forensics and intelligence. However, the United States lacks precise intelligence and has never successfully predicted a nuclear breakout. The Soviet Union’s nuclear test in 1949, France’s test in 1960, China’s acquisition of nuclear bombs in 1964, India’s tests in 1974 and 1998, and advanced Libyan, Syrian and Iraqi programs all caught U.S. intelligence off guard.

The Islamic Republic’s successful record of hiding facilities for years suggests we may be surprised again. The revelation of the secret facility at Qom and the November 2011 IAEA report – which contradicted the 2007 National Intelligence Estimate by claiming Tehran continued weapon development after 2004 – further demonstrates the difficulty of determining Iran’s nuclear intentions and capabilities.⁸³

Few Reliable Allies

Containment advocates argue that the United States can maintain a balance of power through missile defense, arms transfers and regional security cooperation.⁸⁴ But they overlook the importance of collective defense organizations like NATO as well as mutual defense alliances with Australia, Japan, New Zealand, Philippines, South Korea and Taiwan to the success of Cold War containment. Deterring Iran would require similar regional alliances, which require years to establish interoperability before they become stable and effective instruments for containment. Creation of such a network in the Middle East is infeasible. The Middle East is not Western Europe.

Lack of Unity – With the exception of Israel, the United States’ Middle Eastern allies are not strong enough to deter aggression with any certainty. The United States has been selling its Gulf Cooperation Council (GCC) allies billions of dollars in advanced aircraft, all-weather precision-strike weapons, air-to-air missiles, helicopters, cruise missiles and air refueling tankers. Specifically, in October 2010 the U.S. signed the largest arms deal in its history when it agreed to sell Saudi Arabia more than 250 advanced aircraft and upgrade another 70 already in service – at least \$60 billion total. In April 2011, Riyadh inquired about broadening the deal to include an additional \$23 billion to expand its surface fleet and ballistic missile defenses. Similar arms transfers to Kuwait, Oman and the United Arab Emirates could total another \$55 billion by 2014, and the Pentagon has announced

plans to bolster the Lebanese Armed Forces and the Iraqi Air Force to counter Iran. Procuring, integrating and training, however, could take the better part of a decade, if not longer. Therefore, even offensive platforms like new and upgraded Saudi F-15S strike aircraft and refueling tankers will likely come online only after Iran is projected to acquire nuclear capability, thus relegating them to deterrence and other defensive missions.⁸⁵

In addition to massive arms sales, the Obama administration hopes to leverage alarm about Iran's nuclear program to foster a stronger, more cooperative regional security architecture by promoting the GCC's Gulf Security Dialogue and emplacing multi-layered ballistic missile defenses systems in Israel and the Persian Gulf. According to a senior U.S. military official who spoke in November 2011, "We are seeing a NATO-formation period. There is a unity within the GCC that has not been seen for ten or twenty years."⁸⁶

Unfortunately, the analogy does not hold. While the GCC today may be more united around the shared threat perception of a nuclear-capable Iran, unlike NATO it is not a collective defense treaty among its members, let alone with the United States or other pivotal regional states like Egypt, Iraq, Israel or Turkey. The GCC lacks anything resembling NATO's integrated central command, operational-level military structures or even standardized equipment to optimize collective defense planning and readiness. In fact, U.S. joint planning with GCC members is only on a bilateral basis, and the Gulf Security Dialogue is mainly a mechanism to coordinate arms transfers. Concerning NATO, within three years of its formation, it undertook alliance-wide military exercises, while the Pentagon has engaged in serious defense planning only with Israel.

Finally, in its early stages, NATO's military power was formed around nuclear-equipped U.S. and British ground, naval and air forces bolstered by France and, later, West

Germany—many of whose units had combat experience within the previous decade. Despite lavish spending on latest-generation platforms, the Persian Gulf countries have *no* record of military success in battle – and little experience in general – while Iraq has many years to go before it can field significant military forces. Israel, the only U.S. partner in the region with significant proven military capabilities and recent experience, is geographically separated from Iran and disconnected from military ties with the rest of the region, save Egypt and Jordan. Indeed, U.S. regional partners remain almost as suspicious of one another as of Iran. Without a common defense policy, and without the historical Iraqi bulwark between Tehran and the Arab world, the United States' regional partners would be unable to contain a nuclear Iran.⁸⁷

Lack of Tripwires – Unlike the Cold War, the U.S. is not able to bolster its credibility or compensate for disunity by creating tripwires. Beginning in the 1950s, the U.S. adopted what military planners referred to as a "forward defense" strategy: U.S. troops were placed on allies' soil in the path of any potential Soviet-bloc aggression, rendering an attack on any U.S. ally an automatic attack on the United States as well.⁸⁸ The U.S. military now has bases in Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, Turkey and the United Arab Emirates, but compared to the 1990s, maintains no substantial forward-deployed combat forces in the region.

The U.S. decision to draw down its forces in the Iraq theater of operations, including many support troops in Kuwait, from 103,000 at the end of 2010 to roughly 5,000 by 2012, reflects a larger trend across the region. The Clinton administration's policy of "dual containment" against Iran and Iraq in the mid-1990s was predicated in large part on significant U.S. troop deployments in Kuwait, Saudi Arabia, Turkey and the Persian Gulf – rising above 30,000 in the late 1990s. Excluding U.S. forces devoted to operations in Iraq, that number fell to 10,000 by mid-2011, and involved shifting deployments away from ground forces in

the Persian Gulf toward naval and counterterrorism forces, including more distant locations like Djibouti. While the Obama administration has mooted plans for a modest increase in troop levels in Iraq and Kuwait in 2012, placing tripwires with substantial U.S. personnel around Iran would be difficult, given both Congressional wariness of permanent bases and local hostility to U.S. presence in predominantly Muslim countries.⁸⁹

The Pentagon is therefore opting for offshore and over-the-horizon force postures rather than forward defense and explicit security guarantees. The Obama administration is reorienting missile interceptors to counter Iran's growing long-range missile capabilities and, to deal with Iran's short-range ballistic missiles and cruise missiles, the Pentagon has provided additional Patriot interceptor batteries to Bahrain, Kuwait, Qatar and the United Arab Emirates. Simultaneously, the U.S. Navy is expressing doubts about its ability to maintain two carrier strike groups in the Fifth Fleet area of operations, which includes the Persian Gulf and Gulf of Oman. The current Fleet Response Plan was adopted after 9/11 to make the Navy more capable of short-notice surge deployments to crisis areas such as the Middle East, and 2010-11 marked the first time two carrier strike groups were routinely on station in the Fifth Fleet AOR. In practice,

The messianic leadership of the Islamic Republic may not be ideological to the point of national suicide, but historically it has pursued expansive regional aspirations, which have proven difficult enough to contain even when Iran lacked a nuclear deterrent and its regime was not dominated by hardliners.

the Fifth Fleet has included an Amphibious Readiness Group to project U.S. forces onshore and support carrier strike group operations.

Chief naval officers, however, have warned that maintenance, personnel and shipbuilding constraints mean they cannot meet these deployment requirements longer than two more years, and only then if additional surge forces are not required by other U.S. fleets.⁹⁰ Combined, these trends create a less credible defense posture for containment. While a multifaceted missile shield may provide some measure of self-defense to U.S. partners in the region, it does not commit Washington to come to their defense if attacked. Maintaining two carrier strike groups in the Fifth Fleet area of operations on a regular basis bolsters the credibility of U.S. military readiness activity and signals American resolve, but does not constitute a physical or psychological tripwire that could discourage a nuclear-capable Iran from threatening its U.S.-allied neighbors across the region.

Lack of Stability – Adding uncertainty to any containment regime is the domestic impact which Iranian nuclear capability would have on U.S. regional allies. When France and Britain developed their own nuclear weapons during the Cold War, this enhanced regional security. However, if our Middle Eastern allies launch nuclear programs in response to Iran's nuclear capability, it will only further destabilize the region. Containment advocates note U.S. successes in preventing West Germany and Japan from seeking nuclear weapons during the Cold War, but fail to mention that Bonn and Tokyo only agreed to forego nuclear weapons after receiving concrete and credible U.S. security commitments.⁹¹

The Iranian Regime Is Not Deterrable

Rationality – understood as the instinct of self-preservation – is a necessary precondition for mutually assured destruction to be effective. Thus, proponents of containment contend

that while Iran's military regime is ruthless, it is also pragmatic, and concerned primarily with self-preservation, just like the Soviet Union, People's Republic of China and North Korea before it. Proponents of the Islamic Republic's rationality argue that Tehran has exercised restraint against U.S. interests in Iraq and elsewhere, its foreign policy is generally risk-averse and it seeks nuclear weapons more for prestige and self-protection than for power projection. Accordingly, a nuclear Iran would be a status quo power.⁹²

This conjecture may turn out to be true; but it also may not. The messianic leadership of the Islamic Republic may not be ideological to the point of national suicide, but historically it has pursued expansive regional aspirations, which have proven difficult enough to contain even when Iran lacked a nuclear deterrent and its regime was not dominated by hardliners. Rationality must be accompanied by transparency. Maintaining the delicate balance between two nuclear-armed adversaries requires that both fully know each other to be rational. Yet, the intentions and motivations of the Iranian regime – and especially those individuals who would maintain custody, command and control of any Iranian nuclear weapon – remain opaque.

Even if Iran's clerical regime were wedded to self-preservation, a regime collapse for unrelated purposes, perhaps precipitated by internal protests such as occurred in 2009, might lead those controlling Iran's nuclear weapon to launch for ideological reasons, believing that neither Israel nor the United States would retaliate against a regime that had already collapsed.

Ultimately, containing a nuclear-armed adversary is not an inherently straightforward task under the best of circumstances. Given the unique challenges a nuclear weapons-capable Iran would pose, it would be all but impossible.

North Korea

Another analogy that policymakers might hope to draw is to North Korea. If we have managed to live with a nuclear North Korea, perhaps we will be able to tolerate a nuclear Iran. This line of thinking neglects the major dissimilarities between the geostrategic positions of North Korea and Iran. More important, however, this analogy dismisses the many ways in which North Korea continues to make the world less secure – through aggression towards its neighbors, support for terrorism, arms sales and proliferation of missile and nuclear technology – despite the isolation imposed on it. A nuclear Iran is likely to follow in these dangerous footsteps.

North Korea's ongoing nuclear program, far from being contained, is one of the reasons that Iran is so close to a nuclear weapons capability of its own. Once it attains that capability, Iran will likely follow in North Korea's footsteps: taking a belligerent stance towards its neighbors and sharing dangerous secrets with the enemies of international order.

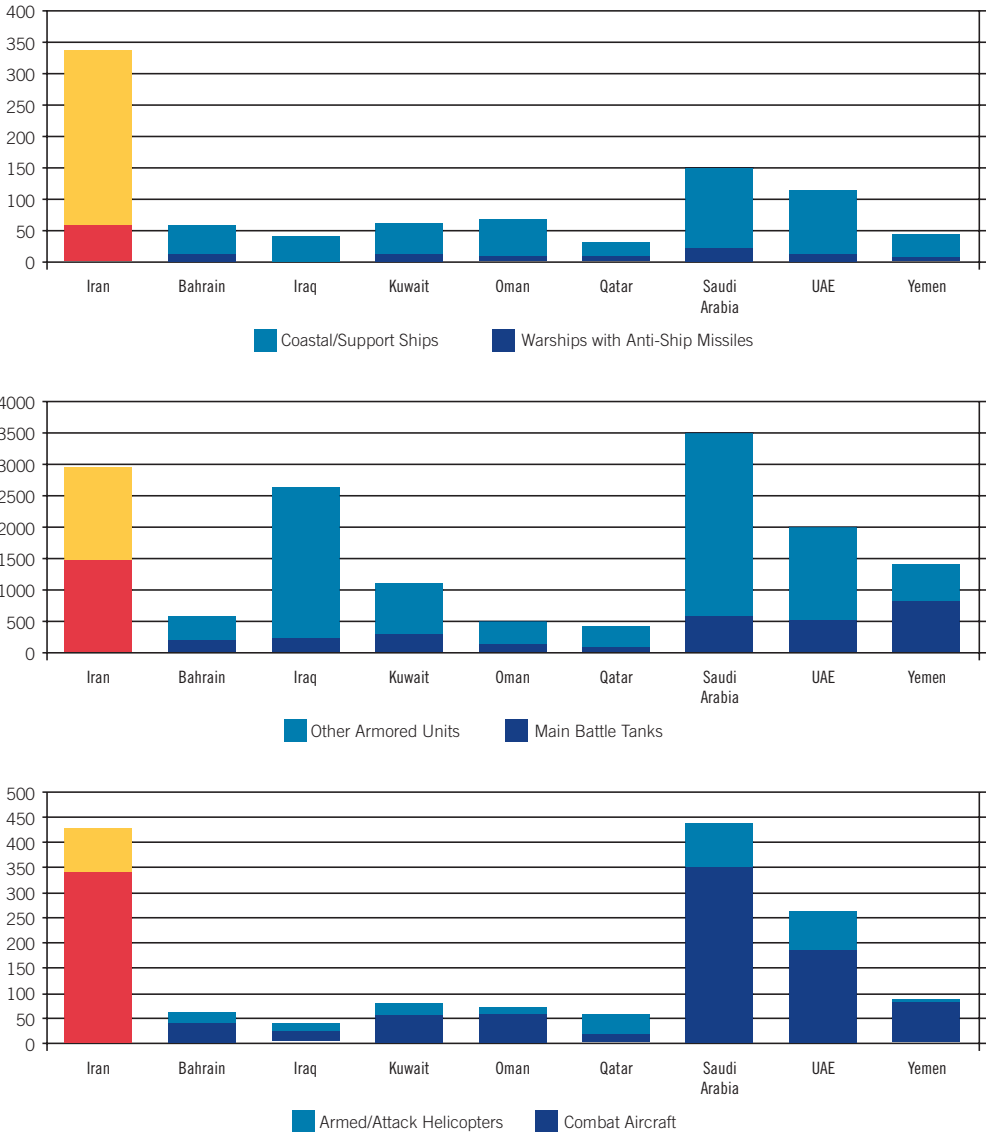
North Korea's Isolation

That North Korea might appear, at first blush, successfully contained and a minimal threat to international security, despite its nuclear weapons, is a result of its geostrategic position. Sandwiched between the much larger and stronger China and a large contingent of U.S. and South Korean troops stationed across the well-fortified Demilitarized Zone, North Korea's possibilities for aggression are severely constrained.

Although China is an ally of North Korea – providing it with critical economic and food aid, which keeps the country afloat – it also has incentives to keep its client in check. Though Beijing has an interest in maintaining an ideological buffer against U.S. influence in South Korea, it also prefers

the status quo to a confrontation that escalates into conflict. By preserving this sort of stalemate along the 38th parallel, China is free to focus its foreign policy aspirations and military might elsewhere, such as Taiwan and the Pacific. For this reason, China has been willing, however grudgingly,

Figure 15: Military Balance



to rebuke Pyongyang for its more egregious aggressions and impose additional sanctions on the already isolated nation.

Another check on North Korea aggression is the military power arrayed against it along the Demilitarized Zone. The United States still keeps about 18,000 troops from the Army's Second Infantry Division in South Korea. There are about 300 fixed wing combat aircraft in the immediate vicinity of the Korean Peninsula. Additionally, though President George H. W. Bush ordered that all U.S. nuclear weapons be removed from Korean territory, the United States maintains a nuclear strike capability through the ability to launch nuclear-armed submarine launched cruise missiles in the event of a conflict. All this is in addition to the 686,000-strong South Korean army.

Iran, however, has a much more central and strategic geographic position, especially given its position on the economically critical Persian Gulf. There is neither a larger regional power that can exert significant influence over Tehran, nor the prospect of a significant U.S. military presence in the region – especially now that U.S. forces have withdrawn from Iraq and are winding down their mission in Afghanistan – nor another regional military power that approaches Iran's in size. As a result, there will be fewer impediments to aggression by a nuclear-armed Iran. Without the ability to credibly impose costs on Tehran, it will be much less constrained, regardless of its isolation, than Pyongyang.

North Korea's Proliferation

Even as constrained and isolated as North Korea is, it still continues to threaten international peace. It is this analogy that is more telling for how a nuclear Iran might behave. Not only does it take aggressive action against South Korea – including sinking ships without provocation, bombarding civilian populations, kidnapping civilians and launching cyber attacks against government and civilian networks – but it is also an egregious proliferator of missile and nuclear technology to rogue regimes and terrorist groups around the

globe. It was only in 2008 that North Korea was removed from the State Department's list of state sponsors of terrorism. Ever since, there has been evidence and pressure for relisting it.

There is extensive reporting on North Korea providing military assistance in training and arms to Hezbollah over the past 15 years. Two reports from a French policy journal indicated that Iran operates as a facilitator between North Korea and Hezbollah. The report went on to state that North Korea deployed advisors to Southern Lebanon to provide training and assist in building underground facilities that were used to store the rocket launchers targeting Israel. *Intelligence Online* reported that Hassan Nasrallah himself, as well as Mustafa Badreddine, the organization's counter espionage chief during the Summer War, and Ibrahim Akil spent months training in North Korea in the 1990s. There has been further reporting that Hezbollah's increased signal intelligence capability was due to North Korea's 110 Research Center.⁹³

It is unclear what extent North Korea has played in Iran's nuclear weapons program besides that both countries were clients of the Pakistani A.Q. Khan nuclear proliferation network. In 2009, the United Nations Resolution 1874 stated, "IAEA reports, research papers, and media reports indicate continuing DPRK involvement in nuclear and ballistic missile related activities in certain other countries including Iran, Syria, and Myanmar." Arms shipments originating from North Korea to Iran have been interdicted in 2009 and 2010. The shipments included various small-arms, electronics and missile components.⁹⁴

In December 2009, a shipment of 35 tons of North Korean arms was intercepted en route to Iran. The shipment included shoulder-fired missiles, rocket launchers, air-to-air missiles and various forms of rockets. Reporting at the time cited government sources that stated that the arms were intended for the Iranian-backed terrorist group

Figure 16: Iran Missile Ranges



Hezbollah. In July 2009, three North Korean ships were intercepted in Dubai and found to be shipping various missile components, including 122mm rockets, detonators and rocket propellant. These are the type of rockets most often used by Hezbollah in their attacks against Israel.⁹⁵

In 2010, American intelligence assessments concluded that Iran had procured an arsenal of ballistic missiles

capable of reaching Western Europe. According to an official U.S. cable, Iran obtained 19 of the ballistic missiles from North Korea. The cable, which was obtained by WikiLeaks, detailed the North Korean version of the ballistic missile, known as the BM-25. The report went on to state, "Iran wanted engines capable of using more-energetic fuels," and the shipments allowed Iran to reverse engineer the missiles to facilitate domestic production

and modification to possibly carry nuclear warheads. In December 2010, Iranian diplomat Reza Heydari defected to the West and confirmed reports of North Korean scientists visiting the Islamic Republic from 2002-2007.⁹⁶ In June 2004, John Bolton testified to the House International Relations Committee:

North Korea is one of the main suppliers of ballistic missiles, missile equipment, and production technology to Iran. North Korea provided Iran with the technology to produce the SCUD B (300 km range) and SCUD C (500 km range) missiles. In addition, the Shahab-3 medium-range ballistic missile is based on the North Korean No Dong missile.⁹⁷

North Korea's ongoing nuclear program, then, far from being contained, is one of the reasons that Iran is so close to a nuclear weapons capability of its own. Once it attains that capability, Iran will likely follow in North Korea's footsteps: taking a belligerent stance towards its neighbors and sharing dangerous secrets with the enemies of international order.

Dangers of a Nuclear Iran

A nuclear weapons-capable Iran would threaten U.S. and regional security and set off a proliferation cascade across the Middle East, effectively ending the international nonproliferation regime. As one of the world's chief sponsors of terrorism, Iran would be in a position to transfer nuclear materials to its terrorist allies. In addition, Iran would seek to dominate the energy-rich Persian Gulf, threaten Israel's existence, destabilize moderate Arab regimes, subvert U.S. efforts in Iraq and Afghanistan, embolden radicals, violently oppose the Middle East peace process and increase support for terrorism and proxy warfare across the region. Indeed, if Iranian leaders already have the confidence to kill American soldiers in Iraq, send arms to Afghanistan and plan a terrorist attack on American soil, the violence that a

nuclear-armed Iran will feel safe in unleashing should scare all Americans and their allies.

An Emboldened Iran

Uncertainty over Iranian capabilities and intentions will make Iran more immune to conventional deterrence and give the Islamic Republic a *de facto* nuclear deterrent, which could embolden it to reinvigorate its export of revolution and escalate support for terrorist groups.

If Iran were allowed to break out and obtain a nuclear weapon, the size and advancement of its arsenal would pale in comparison to that of the United States. The logic of assured destruction, some may argue, would thus keep Iran from ever using a nuclear weapon. Regardless of the validity of this argument – and there are good reasons to doubt it – a nuclear weapon would also provide Iran with its own deterrent against the sort of international action that has removed other murderous regimes, such as Saddam Hussein's in Iraq and Moammar Qaddafi's in Libya. Thus shielded and secure in its reign, Iran's ayatollahs would be free to export their revolution to surrounding countries more aggressively through the use of terror.

The Iranian leadership has a long history of acting through proxies. The Soviet Union and its proxies tested U.S. commitment in a series of crises and proxy conflicts before settling into a nuclear equilibrium. Events could quickly spiral out of control should a nuclear Iran attempt to

similarly test U.S. resolve. That Tehran has already been developing asymmetric capabilities and strategies increases the potential for miscalculation, escalation and conflict.⁹⁸

Additionally, it is difficult to say with certainty that Tehran would resist the temptation to transfer technology. Uncertainty over Iranian capabilities and intentions will make Iran more immune to conventional deterrence and give the Islamic Republic a *de facto* nuclear deterrent, which could embolden it to reinvigorate its export of revolution and escalate support for terrorist groups.

Proliferation Cascade

The longer Iran's nuclear program proceeds, the more likely it is that other Middle Eastern states will initiate their own nuclear weapons programs. Many Arab states would eschew an American offer of a nuclear umbrella because the United States would have diminished its credibility by violating its pledge never to allow Iran to achieve nuclear capability in the first place. Because key U.S. allies like Egypt, Saudi Arabia, Turkey and others fear a nuclear-armed Tehran, and yet also worry the United States may be unable or unwilling to provide ironclad security assurances, they would almost certainly pursue their own nuclear weapons programs.

Nowhere is this more likely than in Saudi Arabia. Riyadh feels as threatened as any Arab state by Tehran's intentions and capabilities. It also possesses intermediate-range ballistic missiles and the financial wherewithal to support a nuclear program, as well as historical ties to Pakistan's nuclear weapons program. In 2006, it led the GCC in developing plans for a joint civilian nuclear power program. A 2008 report to the Senate Foreign Relations Committee concluded, "Any future Saudi decision regarding nuclear weapons would be primarily based upon the Saudi assessment of the reliability of the U.S. security guarantee." In December 2011, former intelligence director Prince Turki al-Faisal told a Persian Gulf security forum it was

Riyadh's duty "to consider all possible options, including the possession of these [nuclear] weapons."⁹⁹

After suspending its civilian nuclear program after the Chernobyl disaster in 1986, in 2008 Egypt restarted its efforts to build four reactors by 2025. While it has so far adhered to all IAEA safeguards, future cooperation is never a certainty. Turkish Prime Minister Erdoğan has also announced his country would move ahead with plans to build three nuclear reactors, despite domestic and international opposition to nuclear power in the immediate aftermath of the Fukushima Daiichi disaster in Japan. A future Saudi nuclear program could provide additional impetus to Egypt and Turkey.¹⁰⁰

The possibility of a multi-polar nuclear arms race in the Middle East is not analogous to Europe in the Cold War, where the United States' nuclear-armed allies were stable democracies linked through a collective defense treaty organization (NATO) united by the shared threat of the Soviet Union. Over time, NATO and the Warsaw Pact developed a set of confidence-building and information-sharing processes and mechanisms to prevent and defuse crises before they could spiral beyond control. This was aided by clearly defined redlines, reinforced by highly visible tripwires and survivable second-strike capabilities on each side. None of these elements are present in the Middle East.

Imminent Conflict

Long before its centrifuges spun at current rates, the Islamic Republic's regional ambitions repeatedly brought it into conflict with U.S. interests, and at times its military. With the U.S. shifting its regional force posture from ground troops in Iraq and Afghanistan toward a strategy of extended deterrence built upon carrier strike groups and offshore missile defense, a nuclear-capable Iran could well feel emboldened to pursue more aggressive aims and strategies toward U.S. allies in the region.

Most importantly, Baghdad's traditional role as a balance against Tehran has been degraded: since 2003, its military manpower dropped from 80 to 40 percent of Iran's, while simultaneously, its 40 percent edge in main battle tanks fell to one-fifth Iran's level.¹⁰¹ In the wake of the U.S. withdrawal, Iraq will also lack necessary airpower, air defense and artillery capabilities for years to come. Iran's own conventional ground and air forces are in need of extensive modernization, but Tehran has already demonstrated its ability to exert political and military influence over Iraq with more than 100,000 well-armed coalition troops in the country.

Iran's naval capabilities are more advanced than its army or air force, and increasingly active outside of the Persian Gulf. As Iran modernizes its navy, it might hamper U.S. naval operations or threaten seaborne energy exports in the Strait of Hormuz, either as an act of aggression or in retaliation for an oil embargo. Tehran's confidence in its ability to inflict unacceptable damage on U.S. forces and the global economy – likely without having to win any military engagement outright – stems from its pursuit of asymmetric capabilities and tactics in the face of U.S. conventional sea and air power in the region.

The U.S. Fifth Fleet's carrier strike groups and amphibious readiness group are designed to project U.S. military power ashore and maintain command of the sea, including the open ocean and the region's vital chokepoints. Iran's conventional navy would struggle to prevent the U.S. Navy from carrying out these missions. Centered on a handful of small surface

warships and submarines complemented by missile patrol boats and support aircraft, Iran's fleet lacks the necessary vessels, personnel, training and technology to seriously threaten the United States in a conventional confrontation. During the Iran-Iraq War on April 18, 1988, the U.S. Navy routed Iranian naval forces in the Persian Gulf in the largest U.S. surface engagement since World War II.¹⁰²

Since paying a very high price for confronting U.S. ships in the late 1980s, Iran has steadily shifted its naval warfare doctrine, capabilities and command structure from a surface fleet controlled by the traditional navy toward an unconventional force dominated by the IRGC. This redirected focus seeks to threaten U.S. interests and forces by disrupting shipping and creating prohibitive costs to U.S. naval units operating in-theater. This new approach also relies on the Iranian military's relative strengths – large numbers of anti-ship mines, cruise missiles, and swarming high-speed patrol and light attack craft – to threaten tanker traffic, overwhelm individual U.S. and allied vessels, and deny access to the Iranian littoral. In an August 2002 U.S. simulation, this cost the United States unacceptable damage to a carrier strike group.¹⁰³

As the balance within Tehran has shifted in recent years, Iranian naval forces have swarmed U.S. Navy ships in the Strait of Hormuz and arrested British sailors in the Persian Gulf. In the past two years, the IRGC and navy have held war games in the Persian Gulf and Arabian Sea practicing offensive naval operations and simulating attacks on larger, more static enemy ships.

Chapter 3: Recommendations

The United States must negotiate from a position of strength to maximize the possibility of a peaceful resolution to the Iranian nuclear threat. It is only through a comprehensive and robust three-pronged strategy of diplomacy, sanctions and the credible threat of military force that the United States can hope to compel Iran to negotiate in earnest over its nuclear weapons program. However, Iran has failed repeatedly to reciprocate U.S.-led diplomatic efforts, due to the limited effectiveness of sanctions and the lack of a credible U.S. military commitment.

Given the constraints of sanctions, credible military readiness activity is becoming increasingly important. Israel has been transparent and outspoken regarding its own preparations, even as it has allowed time for sanctions. The Obama administration, however, has done little in word or deed to convey its determination to resort to force if necessary. In fact, senior U.S. officials have publicly downplayed the military option and instead argued that sanctions alone may be sufficient. Nor has the United States undertaken the necessary military preparations to convince Iran of its seriousness. This undermines U.S. credibility and hampers the effectiveness of U.S. diplomacy.

Therefore, we recommend the following:

First, the United States must strengthen its declaratory policy by making explicit its willingness to use force rather than permit Iran to acquire nuclear weapons. The Obama administration must also require all U.S. officials to adhere to this policy in their public statements.

Second, the United States must take concrete steps to underscore the seriousness of its declaratory policy through a number of visible, credible military readiness activities, such as naval deployments to the region, military exercises and prepositioning of supplies.

Third, the United States must recognize the interest it has in the credibility of the Israeli military threat to Iran's program. Specifically, we recommend the United States augment Israel's strike capability by selling it two or three KC-135 aerial refueling tankers and 200 GBU-31 bunker buster munitions.

Adopt a Declaratory Policy

Since additional sanctions were imposed 18 months ago, the Obama administration has rhetorically focused on isolating Iran. President Obama on November 21, 2011, pledged to “continue to find ways ... to isolate and increase the pressure upon the Iranian regime.” In a speech the next day, National Security Advisor Thomas Donilon echoed this theme, using some form of the word “isolate” 17 times. He summed up administration policy thusly: “we will continue to build a regional defense architecture that prevents Iran from threatening its neighbors. We will continue to deepen Iran's isolation, regionally and globally.”¹⁰⁴

Meanwhile, despite repeated assertions that they are keeping “all options on the table,” administration officials seem to be conditioning the American public not to expect a military strike. Secretaries of Defense Robert Gates and Leon Panetta, as well as the former Chairman of the Joint Chiefs of Staff, Admiral Michael Mullen, seem to have effectively ruled out U.S. military action by constantly highlighting its risks. Then-Secretary of Defense Robert Gates contrasted repeatedly the impact of U.S. and allies' sanctions with the “unpredictability and uncertainty” of a military strike. Twice late last year Panetta emphasized a strike's “unintended consequences,” and also repeatedly referred to Iran's “isolation.”¹⁰⁵ This suggests that the administration is no longer prepared to use military means to prevent a nuclear Iran. Indeed, it has shown no credible preparations, such as military exercises and deployments. It has also repeatedly highlighted the risks of an Israeli military strike.

Such statements by U.S. policymakers, which exaggerate the efficacy of sanctions and current strategies, have been met with frustration by regional allies. Chief of the Israeli General Staff Lieutenant General Gabi Ashkenazi, for example, has publicly questioned Mullen's confidence in the effectiveness of sanctions, and Minister for Strategic Affairs Moshe Yaalon called for "joint action to avert the nuclear threat posed by Iran, even if it would be necessary to conduct a pre-emptive strike." In November 2010, Prime Minister Benjamin Netanyahu told Vice President Joseph Biden that "the only way to ensure that Iran is not armed with nuclear weapons is to create a credible threat of military action against it, unless it stops its race to obtain nuclear weapons." That same day, Secretary Gates publicly acknowledged that all options remained on the table, but said he "disagrees [with Netanyahu] that only a credible military threat can get Iran to take the actions that it needs to end its nuclear weapons program."¹⁰⁶ These open disagreements between key allies further undermine the credibility needed to pressure Iran.

There have also been significant disagreements within Israel's cabinet over the urgency of the threat, with some senior officials revising timelines for Iran to achieve nuclear weapons capability. In January 2011, Meir Dagan, the outgoing Mossad director, said Iran was now three to four years from developing a nuclear weapon, implying Stuxnet and other covert measures had a significant effect. Addressing the Knesset shortly thereafter, incoming Military Intelligence Director Major General Aviv Kochavi said it would take Iran one to two years to enrich enough uranium from 19.8 percent LEU to 90 percent HEU. However, he qualified by saying Iran was unlikely to take this step within a year, in large part due to the costs created by sanctions.

Since late 2010, Defense Minister Ehud Barak has continued asserting all options remain on the table for Israel, but he has also softened Israeli declaratory policy by questioning both the urgency and unacceptability of Iran's nuclear

weapons program.¹⁰⁷ By injecting such uncertainty, Iranian leaders may no longer be clear that their actions will have consequences which are beyond their ability to bear.

For this reason it is important for President Obama and all senior officials to explicitly and repeatedly declare that the United States will use its overwhelming military force to prevent Iran from acquiring nuclear weapons. Regardless of the administration's willingness to undertake such a strike or their calculations about its feasibility, emphatically and publicly stating that President Obama is committed to using "all means of U.S. power" (as promised in 2009) is the last remaining way to build the leverage that could make a diplomatic solution to this crisis possible. At this late date, it is only the threat of force, combined with sanctions, that affords any hope of an acceptable diplomatic resolution.

Undertake Military Readiness Activities

The United States has done little by way of military deployments, exercises or other visible, concrete military readiness activities to underscore its declaratory policy that all options remain on the table. Specifically, we recommend, as we have in previous reports, that the United States:

Augment U.S. Fifth Fleet Presence in the Region

Historically, the United States has underpinned the credibility of its commitments by bolstering its military presence in strategic regions. The U.S. Navy regularly maintains one carrier strike group and often a smaller expeditionary strike group in the Fifth Fleet's area of responsibility, which includes the Persian Gulf and Gulf of Oman offshore Iran. In addition to signaling U.S. resolve, deploying a second carrier strike group and a Mine Countermeasures Squadron to the Fifth Fleet bolsters U.S. capabilities to launch a sustained sea and air campaign against a range of Iranian nuclear and military targets, protect seaborne shipping and deny Iranian retaliation against U.S. interests in the region.

In previous times of heightened regional tensions or joint military exercises, a second carrier strike group has been deployed to the region, including much of late 2010 and early 2011 to support U.S.-led operations in Afghanistan. Multiple carrier strike groups were deployed offshore Iran in 2007 and 2008 amid rising tensions over Iran's nuclear program and other provocations.¹⁰⁸ Of the Navy's 10 potential carrier strike groups not deployed in the Fifth Fleet at any given time, one or two are usually available to conduct joint exercises or support operations, as well as an additional expeditionary strike group, as needed.

Conduct Broad Exercises with Allies in the Persian Gulf

Military exercises underscore U.S. declaratory policy in two ways. First, they enhance the readiness and capabilities of U.S. and allied forces to conduct a range of joint offensive and defensive operations against Iranian nuclear and military targets. Second, they signal to Tehran the willingness of the United States to defend its vital national security interests.

The United States and Israel have conducted several military exercises since the publication of our last report: (a) in August 2010 the largest joint infantry exercise in the two countries' history, and (b) in February 2011 a test of air defenses against potential missile attacks by Iran and its proxies. In addition, the two countries are planning another large joint exercise for 2012 code-named "Austere Challenge 2012" to improve regional missile defense coordination and test new weapons systems.¹⁰⁹ However, these drills enhance readiness against only one major aspect of Iran's and its proxies' retaliatory capabilities – ballistic missile forces – without addressing the military threat to the Persian Gulf and Strait of Hormuz.

Iran threatened seaborne energy exports during the Iran-Iraq War (1980-88), and the IRGC Navy has been adapting modernized asymmetric tactics and capabilities, including the use of anti-ship missiles and swarming high-speed boats.¹¹⁰

Bolstered by the U.S. military's existing superiority over Iran's regular navy, U.S. military exercises to counter these shifting tactics and test new countermeasures – including the Mk-182 KE-ET round against IRGC Navy swarm tactics – would communicate the seriousness of U.S. commitments and its ability to deny Iranian retaliatory capabilities in the Persian Gulf.

The U.S. military should also undertake exercises to improve readiness and underscore the credibility of the military option against Iranian nuclear and military facilities. Israel carried out such a drill in June 2008, sending 100 F-15 and F-16 fighter aircraft as well as refueling tankers and rescue helicopters 900 miles and back over the Mediterranean Sea to simulate a strike on the Natanz enrichment facility. The U.S. Fifth Fleet performed a major exercise with two carrier strike groups in the Persian Gulf in March 2007 to demonstrate U.S. naval superiority and its ability to keep the Strait of Hormuz open. Many of the platforms involved, including minesweepers, guided-missile destroyers and F/A-18 strike Super Hornet aircraft, would perform key roles in any kinetic conflict with Iran. However, the United States has not conducted any similar show of force since, despite the steady progress of Iran's nuclear weapons program.¹¹¹

Intensify Enhancement of Persian Gulf Allies' Military Capabilities

U.S. declaratory policy should be further underpinned by bolstering our allies' military posture against growing Iranian ambitions in the Persian Gulf, especially in light of Tehran's attempts to gain regional influence by exploiting the Arab Awakening. Augmenting the offensive strike capabilities of key GCC allies like the United Arab Emirates and Saudi Arabia increases the credibility of the U.S. commitment to keep all options on the table; strengthening our Persian Gulf allies' self-defense capabilities limits the potential downsides and negative effects of the military option alluded to by Admiral Mullen and Secretary Gates.

As detailed in our previous report, the Obama administration has adopted a defensive regional military posture aimed at deterring or denying Iranian aggression or retaliation. The United States focused on latest-generation conventional weaponry and missile defense systems to defend in-theater U.S. forces and allies in the Gulf, as well as Israel and NATO. In addition, the United States sold GCC countries billions of dollars in advanced aircraft, all-weather precision-strike weapons and air refueling tankers.¹¹²

The Obama administration has accelerated this trend in the past year. Worried that the Arab Awakening may tip the regional strategic balance further in Iran's favor, key allies like Saudi Arabia have redoubled their purchases of U.S. conventional weaponry. This is part of a larger GCC buying spree over the next decade to defend the Persian Gulf against Iranian naval forces, upgrade base infrastructure, counter Iran's growing missile capabilities and subdue internal uprisings that Tehran might foment or exploit.¹¹³

Despite the magnitude of these outlays, they are not enough to underscore the seriousness of U.S. and its allies' declaratory policy toward Iran's nuclear program. First, while the new radar systems, missile defense batteries and warships, helicopters and ground forces would be suited for denying Iranian power projection and counterattack capabilities in the Persian Gulf, they are better for containing the heightened regional ambitions of a nuclear Iran, not augmenting the viability of the military option. Second, the proposed extensive upgrades and purchases of F-15 and possibly F/A-18 attack aircraft – capable of striking Iranian nuclear sites – would take place at a much slower pace than Iran's nuclear enrichment. GCC countries have yet to place orders for bunker buster munitions for these aircraft.

Finally, Iraq – traditionally the primary Arab bulwark against Iran – will likely remain weak militarily for years after the U.S. military withdrawal. While the United States has

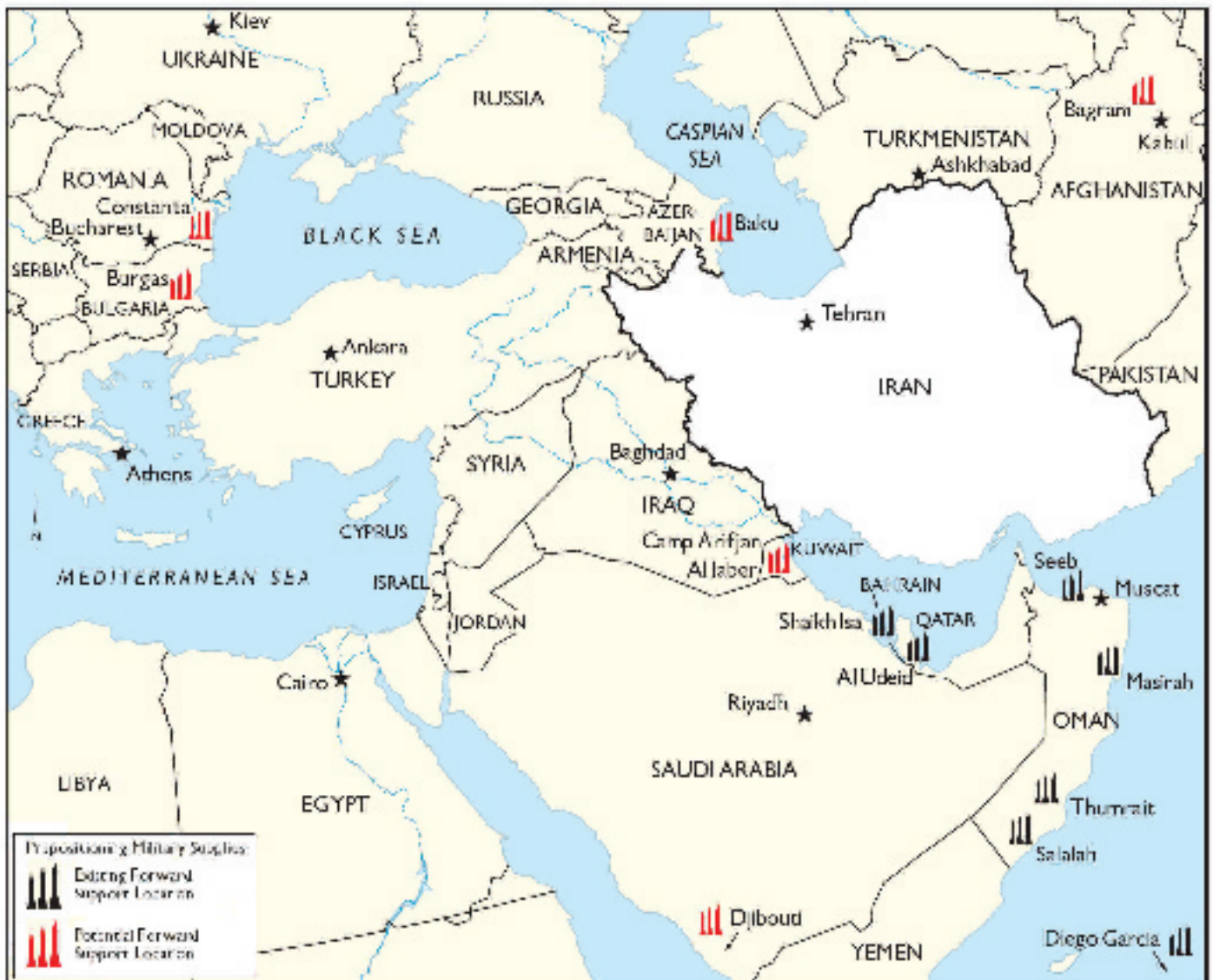
agreed to sell Iraq billions of dollars worth of advanced strike aircraft and armor, the Iraqi military's ability to absorb this equipment in the foreseeable future is uncertain.¹¹⁴ Taken together, these arms deals may alter the region's conventional military balance in the coming decade and negate, to some extent, Iran's capacity for retaliation, but the United States (and to a lesser extent, Israel) will remain the only forces with a credible military option.

Preposition Supplies

The United States should also signal its willingness and ability to resort to the military option by ensuring sufficient supplies of aircraft, munitions, fuel and other materiel for air- and sea-based missions are maintained at key forward support locations in the Middle East and Indian Ocean. This would not only send a clear message to Tehran, but would also limit the logistical challenges and response times of any actual military operations. Thus far, the Obama administration has prepositioned 387 precision-guided bunker busters at Diego Garcia in the Indian Ocean in March 2010, which would make it easier for these to be used by B-2 stealth and B-52 U.S. Air Force strategic bombers against Iran. However, this shipment was diverted from more proximate Israeli Air Force storage sites, likely because political relations between Washington and Jerusalem had soured over Israeli settlement building.¹¹⁵

The U.S. Air Force should also expedite deployment of the Massive Ordnance Penetrator bunker buster. This bomb unit (originally scheduled to be outfitted for the B-2 by December 2010) is reportedly capable of penetrating 200 feet of reinforced concrete – sufficient to neutralize any of Iran's known hardened underground nuclear sites. The first 20 of the bombs – 10 times greater in explosive power than their largest bunker buster predecessor – were delivered to the U.S. Air Force in November 2011, and can be used by B-2s and B-52s.¹¹⁶

Figure 17: Prepositioning Military Supplies



The U.S. military has ample in-theater forward support locations to preposition these and other necessary assets. In addition, there are several other sites in proximity to Iran that would bolster the credibility and capability of U.S. military preparations.

Initiate “Strategic Partnership” with Azerbaijan

The United States can further increase pressure on Iran by giving its forces the broadest possible access to Iran from all directions. Currently, the United States is able to position its

forces and support staff for military action on Iran's eastern, southern and western frontiers. This posture should be bolstered by enhanced U.S. access to military facilities on Iran's northern flank. Turkey has been a NATO ally, but its partnership is unreliable at best; Russian military forces are too deeply embedded in Armenia for that country to coordinate significantly with U.S. planning; and the Central Asian republics have suspended U.S. basing rights in the past. Azerbaijan, on the other hand, cooperates with the United States on Caspian Sea security and energy issues. It also borders Iran close to nuclear sites near Tehran and Qom. Thus, the United States should build on the strength of its current relationship with Azerbaijan to reinforce the credibility of the military option.

Limit Iran's Negative Effects on Global Energy Market

Develop Alternatives to Iranian Exports

Iran is one of the largest crude oil exporters in the world, and harbors ambitions of becoming a major liquefied natural gas exporter over the next decade. However, the potential disruptions to international energy markets resulting from new sanctions or military conflict with Iran are smaller than many might imagine. In terms of oil, global production growth from a variety of countries has made up for falling Iranian exports in recent years, even with rising global demand and disruptions from Libya and Yemen. The United States is prohibited from importing Iranian energy, and major Iranian oil consumers in East Asia and Europe are beginning to consider alternative import sources. Cultivating these alternative supplies is crucial to isolating the Iranian regime, easing the enforcement of sanctions on Iran's Central Bank and oil sector and preparing for the disruption in oil supply that might come from a possible conflict in the region.

China, India, Japan and South Korea combine for nearly three-quarters of Iran's oil exports by volume, and each depends on Iran for approximately 10 percent of total imports.

Viable alternatives to Iranian supplies exist for these countries, primarily in the Arab countries in the Persian Gulf. First, Saudi spare crude production capacity is at least 1.5 million barrels per day – roughly the same as Iran's total exports to Asia – and could be brought online in one or two months' time. Second, Saudi officials have strongly implied their willingness to utilize this spare capacity to pressure Tehran and make up for any drop-offs in Iranian production. In June 2011, Riyadh urged fellow OPEC members to boost production in order to suppress rising global prices. The members that concurred – Kuwait, Qatar and United Arab Emirates – combine with Saudi Arabia for three-quarters of OPEC's total spare production capacity, nearly 2.8 mbpd (million barrels per day). These four countries already represent 67 percent of Japanese and 63 percent of South Korean crude oil imports.¹¹⁸

Third, Saudi Arabia, Kuwait and United Arab Emirates increased production to offset the loss of Libyan exports in 2011, over the objections of other members, including Iran. Unlike Libya, which generally produces higher-quality "light sweet" crude oil, Iran mostly produces lower-grade "sour heavy" crude oil. Because the majority of global spare crude production capacity is in sourer and heavier grades, Iran's oil is much easier than Libya's to replace on the global market. This is particularly true for East Asia, where Libya was a minor supplier even before the 2011 disruptions.

Fourth, Saudi and U.S. officials have consulted on measures to deal with recent supply disruptions, for instance in May 2011 when a plan was floated for Saudi Arabia to sell discounted crude to the United States in exchange for the United States selling crude from its Strategic Petroleum Reserve to make up for decreased Libyan production. Finally, Iran's future exports are uncertain. In the short term, sanctions are raising transaction costs by forcing Iran to engage in subterfuge and barter. In the longer term, the backfilling of Iran's energy sector by state-owned Chinese companies and IRGC affiliates in the wake of CISADA could limit future Iranian production, and thereby exports, given

Figure 18: Middle East Oil and Gas Installations



the poor track record of projects headed by these companies compared to Western energy companies. This reflects Iran's preference for higher prices over higher output, given that it faces such difficulties increasing its exports. This contrasts directly with Saudi Arabia, whose preference for higher production is much more appealing to consumers.¹¹⁹

There is greater interest in Europe than in Asia for tougher sanctions, in part because the European Union is less reliant on Iranian crude oil. There are viable options to Iranian imports here as well. E.U. economic advisers say publicly they can source alternative supplies from Iraq, Saudi Arabia and the former Soviet Union. This benefits from the extensive pipeline infrastructure linking the former Soviet Union to Europe, as well as the fact that southern Europe's hard-hit economies, which import more Iranian oil than their northern neighbors, can substitute Iranian heavy crude with similar-grade Saudi and Russian imports at cost. In addition, Iraq's lighter crude can help substitute for lost Libyan supplies to Mediterranean countries, especially if Baghdad's exports continue to increase (Iraq exported more oil than Iran every month of 2011). Beyond this, overall European demand may be softened by E.U. economic uncertainties in the foreseeable future.¹²⁰

Even if Saudi Arabia and other producers increase production to provide alternative sources for Iran's existing customers, sanctioning Iran's Central Bank could increase the risk of supply disruptions, and therefore the price of oil, by decreasing global spare production capacity. However, the costs of such actions should not be measured in terms of the potential for higher oil prices in the short term, but in the deeper costs of inaction. On top of a regional arms race and the potential for imminent conflict, a nuclear-capable Iran could also heighten the risk of supply disruptions with its increased ability to threaten vital Persian Gulf energy chokepoints.

If U.S. allies in Asia and Europe merely decrease supplies from Iran to avoid possible U.S. sanctions, without severing ties completely, Iran will remain a global oil supplier, particularly to China. Beijing is Iran's largest consumer and the least likely to reduce imports, given the two countries' growing energy ties and China's rapidly-growing oil demand.¹²¹ However, the loss of European and Asian consumers would increase Iran's dependence on China as an export market. This would strengthen Beijing's leverage in future contract negotiations with Tehran, thereby forcing Iran to sell its oil at a discount. This could assuage, if not eliminate, the costs associated with implementing new sanctions or increasing military pressure on Iran.

Develop Alternatives to the Strait of Hormuz

The United States and its allies will be better able to pressure Iran if they can limit Tehran's ability to threaten vital energy exports in the Strait of Hormuz, a chokepoint through which one-third of global seaborne traded oil passes daily. Iran pursued this exact strategy during the so-called "Tanker War" phase near the end of the Iran-Iraq War. Not only did this force the U.S. Navy to escort Kuwaiti oil tankers through the Persian Gulf for more than a year in Operation Earnest Will (the largest naval convoy operation since World War II), but it led to multiple direct clashes between the U.S. and Iranian surface fleets.¹²²

The United States and its regional partners have done very little to insulate themselves from a recurrence of a struggle for control of the Persian Gulf. Roughly 80 percent of Iraq's 1.8 mbpd of oil exports transit the Strait of Hormuz, with the remainder going through Turkey. Iraq could account for potentially 40 percent of global oil production growth over the next four to six years, with exports from Persian Gulf terminals rising proportionately.

Options for bypassing the Strait of Hormuz are limited at the moment. The 1.65 mbpd Iraq-Saudi Arabia Pipeline

was built during the Iran-Iraq War to avoid Iranian attacks on shipping in the Persian Gulf, but it has remained offline since Iraq invaded Kuwait in 1990. Deep-seated geopolitical, sectarian and economic rivalry between Saudi Arabia and Iraq could continue to obstruct vital cooperation between these two U.S. partners on developing this and other overland export routes via Saudi Arabia. Furthermore, energy revenue-sharing legislation between Iraqi Kurds and Baghdad has stalled progress on expanding export routes through Turkey.

Whether or not the Iraq-Saudi Arabia Pipeline becomes a viable Hormuz bypass, using Saudi Arabia's East-West Pipeline to the Red Sea at full capacity could decrease Saudi and/or Iraqi oil exports through Hormuz by as much as 2.5 mbpd. An additional, complementary option would be an Iraqi export pipeline through Jordan to the Red Sea

If All Else Fails

Quarantine of Refined Petroleum Imports

If such pressure fails to persuade Iran's leadership, the United States and its allies should also consider a quarantine that would block refined petroleum imports into Iran, sending a clear signal and ensuring the effectiveness of sanctions on gasoline imports. Undertaking such a quarantine without approval from the United Nations, however, would constitute an act of war. The United States and its allies would therefore have to seek international support or prepare for the consequences.

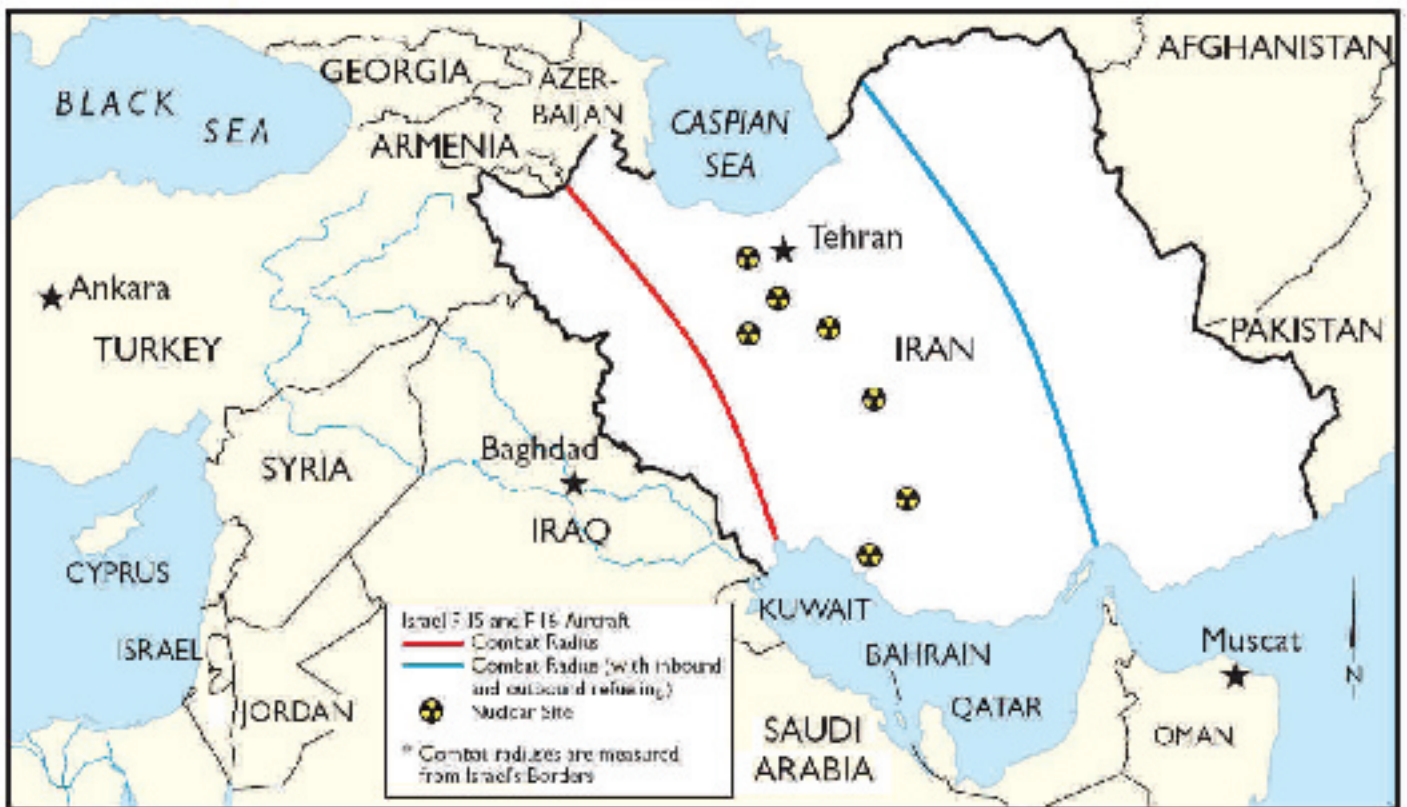
Kinetic Action

Should all else fail, the U.S. military is capable of launching an effective surgical strike against Iran's nuclear program. A ground invasion of Iran is widely discounted among experts. The size and complexity of the operation are daunting, the Iranian population would resist and U.S. forces are already overstretched. Instead, military action would center on

air and naval operations against Iranian targets, although Special Forces would play some role.

If the Commander-in-Chief decided to strike Iran, the United States would benefit from preexisting diplomatic and capacity-building efforts. The U.S. military already has forces deployed permanently within striking distance of Iran, giving the Pentagon greater advantage than many people – and the Iranian leadership – realize. Moreover, U.S. forces could enjoy tactical surprise, at least in an initial strike. Still, any military strike would be risky. Iran's nuclear facilities are dispersed and buried, and some may be unknown to foreign intelligence. Iranian authorities could retaliate against U.S. military installations in the Middle East, order terrorist operations against U.S. interests elsewhere and perhaps attack key infrastructure facilities in Iraq and elsewhere. While the Iranian public is apathetic, if not antagonistic, toward its leadership now, the prospect of a foreign power striking at Iran would likely rally the larger Iranian population around the flag. Moreover, a military strike would delay Iran's acquisition of nuclear capability but not eliminate it: its nuclear program appears to be past the point where it can be eliminated by air strikes alone. Still, policymakers need to consider whether delaying Iran's program in the short-term would allow Washington to take advantage of that space to stop Iran's nuclear program altogether. It is also possible that the delays and increased costs that a devastating strike would impose on Iran's nuclear program might be followed by a different set of dynamics that would cause or compel the Iranian leadership to change course. Finally, while any action could increase energy costs and aggravate economic difficulties and fuel shortages – perhaps offset with the release of stockpiles from the Strategic Petroleum Reserve – such effects must be weighed against an alternative future in which Tehran gains a nuclear weapons capability, thereby threatening the Western economic outlook anyway.

Figure 19: Israel Strike Ranges



What U.S. Military Action Would Look Like

The objective of any military campaign to end the threat posed by Iran's nuclear program would be either to destroy key elements of the program or to compel Tehran to dismantle these elements in a verifiable manner. Military action would not seek to change the Iranian regime, although civil unrest or regime change may be an unintended consequence.

Initial target selection would prioritize:

- Iranian communications systems and air defense and missile sites, including mobile cruise missile batteries;
- Other Iranian retaliatory capabilities, such as IRGC facilities;
- Sites related to Iran's ballistic missile, biological, chemical and nuclear weapons programs;
- Munitions storage facilities, including those containing sea mines;
- Airfields, aircraft facilities and helicopters, both airborne and on the ground;
- All Kilo class submarines, midget submarines, destroyers and Hudong missile boats, and as many minelayers and IRGC Navy patrol and attack craft as possible.

Ground armor, including tanks, need not be targeted in the initial phase of major strike operations.

Munitions used in the initial assault would include all those in the U.S. arsenal, including ship- and air-launched cruise missiles, as well as precision-guided munitions such as the Joint Standoff Weapon and Joint Direct Attack Munition (JDAM) carried by F-15, F-16, F-18, F-117 and F-22 attack aircraft, as well as larger JDAMs carried by the B-1B, B-2 stealth and B-52 strategic bombers. A-10 Warthog support and attack aircraft might also participate, depending on target selection.

The Pentagon can maintain tactical and even strategic surprise by bringing troops and material to the region under the cover of ongoing operations in Afghanistan. Special Forces and intelligence personnel already in-theater can easily move to protect key assets or perform covert operations. Conflict may reveal previously undetected Iranian facilities as Iranian forces move to protect them. Moreover, nuclear sites buried under mountains may survive sustained bombing, but their entrances and exits will not.

Iranian retaliation could damage major U.S. naval vessels or cause unexpected military setbacks. Iran would likely attack U.S. military targets in the Middle East (most likely through proxy forces), commit terrorist actions in the region or abroad, launch ballistic missiles against Israel and U.S. allies in the Persian Gulf, launch cruise missiles at Persian Gulf energy and desalination installations, assist Hezbollah in launching rockets at Israel and commit attacks on neutral shipping. If and when they occur, these counterattacks can be defended against or responded to using the forces emplaced in the region during the buildup to any initial strike. Iranian retaliation will also be countered by U.S. escalation, as required.

If escalation is necessary, the U.S. might expand its targeting to include:

- Iranian ground armor, including tank and artillery units;
- Power generation plants and electrical grids;
- Transportation facilities, including seaports and bridges;
- Manufacturing plants, including steel, automobiles and refineries.

U.S. plans would not include targeting of civilians. A U.S. or coalition ground invasion is not likely due to military constraints and the domestic pressures that would result in any operation with high U.S. casualties. While not expected, it is possible the U.S. campaign could lead to local uprisings against a weakened Iranian regime, or to major civil unrest in response to deteriorating living standards and goods shortages. The United States is not likely to have enough “on-the-ground” information about the state of the regime’s grip on power to influence internal events one way or the other. If such information is acquired, however, and U.S. air power is perceived as able to shift events in Iran to the United States’ advantage, such operations could be considered.

Post-Kinetic Action

Planning for a military strike must include preparation for post-kinetic action. This would include a shift to a long-term monitoring mission to determine the future status of Iran’s WMD programs. The United States would need to be prepared to conduct additional military strikes if it concluded Iran was seeking to reconstitute its nuclear capability. In addition, the United States would need to implement long-term measures to prevent or contain Iran’s retaliatory capabilities.

Should Iran retaliate by attempting to attack Persian Gulf energy installations or fulfill its threat to close the Strait of Hormuz, oil prices would spike, imperiling a global economic recovery. The United States and other International Energy Agency countries should be prepared

to release oil from their strategic reserves, and Saudi Arabia would need to be encouraged to pump more oil to help make up for the loss of regional oil exports.

Policymakers and the intelligence community would also need to watch for signs of regime dissolution and decide whether to intervene to shape political outcomes. Policymakers would also need to plan for humanitarian relief to counter any crisis that could result from kinetic action. The United States would lose international support for military action against Iran – or for future action against other states – if it neglected to address the humanitarian consequences of a military strike. U.S. activities might include prolonged airdrops of food and medical supplies to Iran, as well as the need to protect and, if necessary, resettle refugee populations. These activities could last years or perhaps even decades.

Augment Credibility of Israeli Threat

As detailed in our previous report, *Meeting the Challenge: When Time Runs Out* (June 2010), we believe Israel possesses sufficient, but not ideal, capabilities to launch a preventive strike on Iran's nuclear facilities. The Israeli Air Force has the capability to set back Iran's nuclear program, but not to decimate it. Furthermore, an Israeli strike would put the United States in a difficult position strategically and diplomatically, compelling us to stand by our regional allies in a conflict at a time not of our choosing.¹²³ Despite, or because of, this, the United States must recognize the interest it has in the credibility of the Israeli military threat to Iran's program. The pressure on Iran to negotiate in good faith will be maximized to the extent Iran believes that not just the United States, but also Israel, is capable of and prepared to deliver a crippling blow to its nuclear program.

Therefore, we recommend that the United States augment Israel's strike capability by selling it two or three KC-135 Stratotanker aerial refueling tankers and 200 GBU-31 bunker buster munitions.

Selling these aircraft and weapons to Israel would not alter the regional strategic balance. Nor would it allow the Israeli Air Force to pass the threshold for launching a preventive strike – it already possesses this basic capability. Rather, they would reinforce U.S. and Israeli credibility by supplementing Israel's extant ability to inflict significant damage on Iran's nuclear facilities. Israel's aerial refueling fleet already includes five KC-135 tankers in addition to roughly half a dozen modified Boeing 707 airliners. Given the sheer distances and number of aircraft required for a potential operation against Iran, the Israeli Air Force would likely have to press the vast majority, if not all, of these tanker aircraft into service. Israeli planners could confront a single point of failure without a reserve fleet, since Israeli Air Force strike and support aircraft would need to refuel both on the inbound and outbound legs of every sortie. If Israel lacks redundant capabilities, its attack planes could face severe challenges reaching their targets and returning home, let alone launching any follow-on strikes.

The Israeli military option would also be more credible with additional bunker buster munitions. The Israeli Air Force already possesses sufficient F-15 and F-16 strike aircraft and GBU-28s to severely damage, though likely not completely destroy, Iran's known underground nuclear sites in a single well-executed operation. However, the Israeli Air Force is estimated to have only approximately 100 GBU-28s, the majority of which would likely be used to set back Iran's nuclear program sufficiently to justify such an extensive operation in the first place.¹²⁴ Additional bunker busters could effectively provide the Israeli Air Force with an operational reserve, allowing it to allocate extra aircraft to its strike package and/or retain the capability to launch follow-on sorties if the initial wave failed to cause sufficient damage against specific targets.

Thus the effectiveness of any Israeli Air Force strike could be bolstered by sales of the GBU-31 bunker buster. This unit uses the same BLU-113 penetrator warhead as the

GBU-28 and can be deployed by the same aircraft. The actual bomb unit, however, utilizes a GPS tailkit allowing for improved precision. The GBU-31 would augment the IAF's existing capabilities, in this case by increasing the likelihood that any given sortie would score a direct hit on its target.¹²⁵ It would not provide Israel with the capability to launch a strike in the first place, but would rather reduce some of the uncertainties associated with such a complex and risky undertaking. Taken together, these measures would reinforce Israel's already-credible threat to Iran's nuclear program.

Sales of these weapons would continue longstanding U.S. policy toward maintaining Israel's qualitative military edge over its regional competitors, primarily Iran. Israel purchased its current fleet of fighter and tanker aircraft, as well as bunker busters, from the United States. Because the current U.S. tanker fleet includes 550 aircraft, transferring the recommended quantity would not degrade the U.S. tanker fleet in any respect. Moreover, in June 2009 the United States agreed to sell advanced bunker busters to the Republic of Korea – another key ally also confronting an aggressive neighbor with an illegal nuclear weapons program.¹²⁶

There is a clear opportunity and precedent for Congress to play a leading role in bolstering the credibility of the military option to force Iran back to the negotiating table and, if necessary, execute a successful strike. Congress should call for transferring these weapons to Israel, similar to its efforts to lift the arms embargo against the former Yugoslavia during the Bosnian War (1992-95). During 1992-93, as conditions on the ground worsened, Congress called to end a U.N. Security Council-imposed embargo, which *de facto* prevented Bosniacs from being able to defend themselves against Serbs.¹²⁷ Though opposed by the Clinton administration as well as France, Russia and Great Britain, Congress pressured the executive branch and forced a change in U.S. policy. No weaponry was transferred, but President Clinton and U.S. NATO allies were moved to conduct a three-week air campaign against Bosnian Serb units that helped terminate the conflict. It will ultimately be the decision of the executive branch to bolster Israel's self-defense against Iran, but the Bosnia example illustrates the importance of leverage from Congress in allowing the U.S. to operate from a position of strength in foreign policy.

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