Managing Proliferation Issues with Iran

C. Richard Nelson and David H. Saltiel

Policy Paper
January 2002
The Atlantic Council is a nonpartisan network of leaders who are convinced of the critical importance of effective U.S. foreign policy and the cohesion of U.S. international relationships. The Council promotes constructive U.S. leadership and engagement in international affairs based on the central role of the Atlantic community in the contemporary world situation. To this end, the Council:

• stimulates dialogue and discussion about critical international policy issues, with the intention of enriching public debate and promoting consensus in the administration, the Congress, the corporate and nonprofit sectors and the media in the United States, and among leaders in Europe, Asia and the Americas;

• conducts educational and other programs for successor generations of U.S. leaders who will value U.S. international engagement and have the formation necessary to develop effective policies.

Through its diverse networks, the Council builds broad constituencies to support constructive U.S. international leadership and policies. By focusing on critical issues, choices can be illuminated, priorities established, and possibilities for consensus explored. Important contributions by the Council include:

• identifying major issues facing the future of the Atlantic Alliance, transatlantic economic relations, and the integration into European structures of the countries of central and eastern Europe, including Russia;
• building consensus on U.S. policy towards Russia, China, Japan, Korea, and Taiwan;
• balancing growing energy needs and environmental protection in Asia;
• drafting roadmaps for U.S. policy towards the Balkans, Cuba, Iran, and Panama.

In all its programs, the Council seeks to integrate the views of experts from a wide variety of backgrounds, interests and experience.
Managing Proliferation Issues with Iran

C. Richard Nelson and David H. Saltiel

Policy Paper
January 2002
For further information about the Atlantic Council of the United States and/or its Program on International Security, please call (202) 778-4968.

Information on Atlantic Council programs and publications is available on the world wide web at http://www.acus.org

Requests or comments may be sent to the Atlantic Council via Internet at info@acus.org
Table of Contents

Foreword............................................................................................................................................. v

Key Judgments ..................................................................................................................................... vii

I. International Context...................................................................................................................... 1

   After 11 September ......................................................................................................................... 1
   Axis of Evil..................................................................................................................................... 1
   The View From Tehran .................................................................................................................... 2
   Extra-Regional Actors .................................................................................................................... 3
   Regional Neighbors ....................................................................................................................... 8
   Building International Consensus ................................................................................................. 10

II. Stages of Proliferation .................................................................................................................. 10

III. Nuclear Weapons Proliferation .................................................................................................. 10

   Background .................................................................................................................................... 10
   Options .......................................................................................................................................... 12

IV. Chemical Weapons Proliferation ............................................................................................... 14

V. Missile Proliferation ..................................................................................................................... 15

   Table 1: Iran’s Major Missile Systems ........................................................................................ 16

VI. Biological Weapons Proliferation .............................................................................................. 17

VII. Iran’s Calculus and U.S. Influence ............................................................................................ 18

   Addressing Iran’s National Security Concerns .......................................................................... 18
   Confidence-Building Measures in the Persian Gulf ..................................................................... 20

VIII. The Status Quo Case ................................................................................................................ 23

IX. Principles and Recommendations ............................................................................................. 24

Annex A: Working Group On Iran ................................................................................................... 27

Annex B: Senior Review Group on Proliferation .......................................................................... 30

Annex C: Acronyms .......................................................................................................................... 30
Foreword

Of the so-called rogue states believed to be pursuing weapons of mass destruction (WMD) and advanced missile programs, Iran poses unique dilemmas for policy-makers. Iran has serious and legitimate concerns with neighbors like Iraq and Afghanistan. At the same time, Iranian calls for the destruction of Israel and reports of efforts to acquire long-range delivery capabilities for WMD suggest motivations beyond homeland defense.

In response to these apparent Iranian aspirations and to Iran’s support for violent opposition to the Middle East peace negotiations, the United States has relied on a policy of isolation and sanctions – a policy an Atlantic Council working group headed by Lee Hamilton, James Schlesinger and Brent Scowcroft argued was generally counterproductive in a report issued in May 2001.

This paper offers recommendations on how the United States can best hope to influence Iranian decisions regarding the acquisition of WMD and missile delivery systems if the United States decides to pursue more direct engagement with Tehran. Such engagement would probably focus initially on expanding economic relations, to be followed by political dialogue and, eventually, some military-to-military relations. Broader engagement would contribute to a better mutual understanding on the part of leaders in both countries, and could serve to provide more direct access for U.S. governmental, private and NGO views on key bilateral issues, including WMD proliferation. The analysis also considers the case in which there are no significant changes in U.S.-Iranian relations.

This report builds on the Atlantic Council’s three-year study on the future of U.S.-Iranian relations and draws on the diverse and collective expertise of the working group on Iran listed in Annex A and a senior review group on proliferation listed in Annex B.

In addition, the report draws on the contributions of many other individuals. We particularly want to thank Elaine Morton, the rapporteur and principal author of the earlier working group study. Ed Fei, Steven Kramer, Bernard Lynch, Wayne Merry, Kori Schake, Gary Sick, Alexia Suma and Amin Tarzi all made significant contributions to the original Iran working group’s consideration of the problem of proliferation and regional security. The final report, however, reflects the views of the authors and not necessarily those of individual project participants.

Although they bear no responsibility for the content, this work would not have been possible without the generous support of the Department of Energy and the W. Alton Jones Foundation Fund of the Rockefeller Family Fund.

Christopher J. Makins
President, Atlantic Council of the United States
Key Judgments

Any government in Tehran will be inclined to seek weapons of mass destruction (WMD) and missile delivery options given the realities of its strategic environment. These weapons might help Iran to deter potential external threats, to achieve equality with other major regional powers armed with WMD, and to attain self-reliance in national security, given the isolating experience of arms embargoes. A more pluralist leadership in the future, however, may examine broader choices and trade-offs, and perhaps be less likely to cross key thresholds in WMD acquisition. In any event, Iran’s WMD behavior is likely to be determined by both external factors, mainly the availability of crucial components, and internal factors, including calculations of costs, risks, and benefits. Among the benefits, psychological factors, such as prestige, will play an important role. Other important factors that might well shape Iran’s WMD behavior include developments in Iraq, relations with the United States and other Gulf states, Israeli-Palestinian relations and the future price of oil.

Iran is likely to be a very different country in five to ten years. Islam will likely become less important as a governing principle and the state will become more pluralistic. This, however, will not necessarily diminish the incentives for pursuing weapons of mass destruction. A reduced role of religion in foreign policy could, however, enable Iran gradually to distance itself from Middle Eastern political struggles and to seek a more positive role that is not designed to confront the United States.

The campaign against al Qaeda and the Taliban regime in Afghanistan provides opportunities for cooperation between the United States and Iran. Building on this cooperation, nonproliferation initiatives would be conceived best as efforts to create new incentives and to emphasize likely disincentives that will make the costs of WMD programs prohibitive. As cooperation expands, so too will opportunities to understand better the incentives for and nature of Iran’s WMD programs and to provide appropriate responses. Attitudes toward the outside world are changing among a young population in Iran that is less hostile toward the United States and increasingly frustrated with an intolerant leadership responsible for a badly mismanaged economy and political repression.

An engagement-nonproliferation strategy should involve at least three types of parallel efforts: public, private and indirect. Public efforts should seek to create a more positive, less-threatening image of the United States among opinion leaders in Iran. Private efforts should seek to determine the purposes, nature and extent of Iran’s efforts to develop WMD and missiles and to suggest better alternatives for Iran’s security and prestige needs. Indirect efforts should involve key third countries and organizations in an attempt both to address Iran’s security concerns and to deny Iran access to critical WMD and missile technology and components. Russian policy, in particular, will continue to play a vital role in determining the extent to which Iran is able to pursue WMD options.

The new spirit of cooperation between the United States and Russia in the wake of the 11 September terrorist attacks provides opportunities for more effective collaboration on nonproliferation. One promising possibility is for the United States to support the Bushehr project, provided Russia and Iran agree to limitations similar to those on the North Korean
nuclear reactor program. Russia might even become an appropriate storage site for spent fuel from both programs. For their part, Russian leaders could make clear that Iran’s continued access to military equipment, nuclear technology and international investment capital are all conditioned on foregoing efforts to develop a full nuclear fuel cycle and long range missiles.

Beyond the mutual benefits of cooperating on Afghanistan, the strongest incentives for Iranian cooperation with the United States are economic, particularly the prospect of foreign investment that would aid the critical oil and gas sector that constitutes more than 90 percent of the Iranian economy. Thus, the key incentives the United States could provide would be to relax sanctions initially on areas related to the terrorism/Afghan campaign, and then on investment and trade, especially for energy, and to end opposition to pipelines that could carry oil and gas through Iran from the Caspian region to the Gulf. Such incentives would be mutually beneficial because they also serve U.S. energy security, economic and geopolitical interests.

Also, on the assumption that Iran’s primary security concerns will be driven by Iraq for the foreseeable future, there are some things the United States could do to assuage these concerns. First, the United States could continue to monitor closely Iraq’s military developments, even during a post-sanctions period. Significant Iraqi movements toward an operational nuclear weapons capability will be difficult to hide. Just as the United States was willing to share sensitive intelligence data with Iraq during the Iran-Iraq War, the United States could consider sharing selected intelligence data about Iraq with Iran.

Because Tehran will be influenced by the costs, including associated risks, of WMD and missile development, U.S. policy also should seek to increase those costs and risks, as well as increasing the benefits of decisions to forego these systems, and to propose better alternative solutions for Iran’s security needs. Among the risks Iran faces is the prospect that Saudi Arabia and perhaps other neighbors will be compelled to develop nuclear weapons should Iran do so. Iranian leaders need to be convinced that proliferation will provoke a costly and dangerous arms race—including possible preemptive strikes. In addition, Iranian pursuit of WMD and missile capabilities risks public exposure of violations of its treaty commitments not to develop nuclear, chemical or biological weapons. However, to be effective such public exposure must provide evidence of specific acts sufficiently threatening to warrant strong international sanctions, including an embargo on oil exports and arms imports.

The United States should also encourage wide-ranging dialogues on regional security between Iran and its neighbors, ultimately including Israel. These dialogues, which might consist of military-to-military exchanges, could help persuade Tehran that conventional weapons provide a better alternative than WMD in meeting Iran’s security needs. Dialogues also should explore agreements on practical issues such as limiting missile ranges and the longer-term goal of establishing a WMD-free zone with an appropriate inspection regime. The dialogues should illustrate both the costs and the dangers of a regional arms race and suggest alternative approaches.

Nevertheless, we should not overestimate the ability of the United States to influence key national security decisions in Tehran such as those about nuclear weapons or other WMD
capabilities. Regardless of U.S. views, if Iranian leaders perceive a severe external threat, they are unlikely to back away from their pursuit of a nuclear weapons option. This makes it imperative that the intelligence community seek to identify additional vulnerabilities that could be exploited to dissuade Iranian efforts to pursue WMD and long-range missiles.

Should various efforts to prevent proliferation fail, other options need to be identified. The possibility of preemptive efforts to neutralize WMD facilities needs to be reviewed in the new context of the war on international terrorism, especially as a means of preventing terrorists from acquiring WMD. Short of covert action or the use of direct military force, the strongest leverage on Iran available to outside powers is a regime of tight and effective multinational sanctions. To be effective, the European Union and Japan in addition to the United States would need to make clear to Iran that their trade and investment are conditioned on Iran’s compliance with its nonproliferation agreements.
Managing Proliferation Issues with Iran

I. International Context

After 11 September

The context of relations between the United States and Iran changed significantly with the 11 September terrorist attacks on the United States. From the U.S. perspective, Iran and other countries will now be judged mainly by the extent to which they are either “with us or against us” in combating the perpetrators of the attacks. Russia, Sudan and other countries seized the opportunity to try to transform strained relations with the United States. However Iran faced this challenge at a time when the leadership is divided on important issues, including political reform and relations with the United States. As a result, about the best Iranian leaders could offer is that Iran will be neither an ally nor an enemy. They did, however, hold out the prospect for cooperation against terrorism under United Nations (UN) or multinational auspices. Subsequently, the UN Security Council, in Resolution 1373, provided a mandate for cooperation to prevent and suppress terrorist acts. This could be construed by Iranian leaders as sufficient basis for quiet cooperation with the United States. On the other hand, this may be another missed opportunity. In any event, terrorism will be a key issue in the relationship for the foreseeable future.

While providing the possibility of increased cooperation between the United States and Iran, increased attention to terrorism also highlights some critical differences that continue to pose major obstacles to better relations and could even result in a more adversarial relationship. Unelected Iranian leaders and organizations, such as autonomous foundations (bonyads), have supported violent Palestinian groups such as Hizbollah, and the extent, if any, of official support for these activities remains unclear. Iran thus continues to be on the U.S. Department of State’s list of state sponsors of terrorism and could well become a target of U.S. efforts to punish countries that support or harbor terrorists. Such a U.S. response would probably result in Iran’s placing a higher priority on developing missiles and weapons of mass destruction.

Axis of Evil

By labeling Iran as part of an “axis of evil” in his State of the Union address, President Bush linked concerns about terrorism and proliferation—clearly signaling that the United States now attaches the highest priority to curtailing these activities. Furthermore, by indicating
that “time is not on our side,” he imparted a new sense of urgency in dealing with these problems. This also carried the implied threat that preemptive action may be necessary.

The speech caught Iranians by surprise. Previously, attention had been focused on Afghanistan where American-Iranian cooperation had led to expectations of improving relations. The speech shattered such images and resulted in strong nationalistic reactions in Iran against the United States. For some, it recalled other setbacks in U.S.-Iranian relations. For example, Iranian assistance in gaining the release of U.S. hostages in Lebanon was accompanied by the expectation that “good will begets good will.” However, this initiative was short-lived and followed by the “dual containment” of Iran and Iraq by the United States.

Many Iranians are skeptical of U.S. intentions and fear that suspected facilities will be attacked. Some military authorities now consider the United States, rather than Iraq, as their main threat, according to Iranian officials. They also suggest that this threat has united Iranians who were formerly divided and will encourage closer Iranian relations with Iraq and Russia. Furthermore, the perceived U.S. threat provides a stronger incentive for Iran to pursue acquisition of missiles and weapons of mass destruction (WMD), thus likely fueling a vicious cycle of proliferation in the Gulf—Saudi Arabia, for example, may be tempted to develop nuclear weapons if Iran acquires such weapons.

**The View From Tehran**

Aside from the issue of terrorism, Iran is surrounded by rivals and adversaries, many of them armed with nuclear weapons. Eight years of debilitating war with Iraq demonstrated the rough balance of conventional military capacity of the two countries, thereby making Baghdad’s interest in acquiring WMD all the more disturbing to Iranian leaders, who can hardly believe that Saddam Hussein’s quest for territorial gains has faded.

Developments relating to Afghanistan are also problematic for Iran. Concerns about existing U.S. military bases in the region have been exacerbated by the base network being established in Afghanistan, Pakistan, Uzbekistan, and Kyrgyzstan, in addition to the Gulf. The precedent established by the positive role of the exiled king in facilitating a new political regime in Afghanistan, coupled with more aggressive critiques of the clerical regime in Iran by the son of the former shah, are also noticed by Iranians. Additionally, Iranians are aware of the possibility that oil and gas pipelines through Afghanistan could link Caspian energy resources with the large markets in South and East Asia, bypassing Iran’s pipelines.

Israel is both the most well armed nuclear weapons state in the region and the country Iran’s hard-line leaders view with the most unrestrained hostility. (Some Iranian leaders advocate the destruction of Israel, something they do not seek even for Iraq; presumably, they believe the hostility is mutual.)

Russia remains a formidable nuclear weapons state and, while for the time being a tactical partner of Iran to counter U.S. influence in the Caspian region, is an historical rival and sometimes enemy of Iran. Pakistan and India pursue their nuclear weapons programs
primarily with each other in mind, but their emergence as WMD states highlights Iran’s position as a non-nuclear power. Finally, the pre-eminent nuclear power in the world, the United States, remains an active and, from the perspective of the Iranian hard-liners, adversarial political and military presence in Iran’s immediate vicinity. Overall, Iran faces a dangerous strategic environment.

In recent years, Iran has sought to break out of its previous international isolation. Since President Khatami was elected in 1997, Iran has improved relations with its Arab neighbors in the Persian Gulf, particularly with Saudi Arabia. Relations with Gulf Cooperation Council (GCC) members also have improved, with the exception of the United Arab Emirates due to an unresolved territorial dispute. Iran also has improved relations with European countries through high-profile visits by President Khatami to Italy, France and Germany, while reestablishing diplomatic relations with the United Kingdom. Similarly, Khatami visited China and Japan to encourage cooperation that Iran hopes will help offset the influence of the United States. Iranian relations with Russia are now at the level of a “strategic partnership”, symbolized by President Khatami’s visit to Moscow, and include a range of military and technical cooperation programs.

**Extra-Regional Actors**

U.S. efforts to prevent Iran from acquiring WMD and missile delivery systems must increasingly rely on participation by other states. The United States cannot succeed alone. As Iran develops better and more diversified relations, any real hope for success will require at least the acquiescence, and more likely the active cooperation, of those countries with important relationships with and influence on Iran.

**Russia**

Russia is the country of foremost concern and the keystone of any effective strategy to block Iranian WMD development. The collapse of Soviet power was followed by a political entente between Russia and Iran, reflecting their shared concern about the dominant role of the United States in world affairs and their more concrete opposition to the growing U.S. presence in the Caspian region. Cooperation between Moscow and Tehran was based on economic and geopolitical considerations. They followed the classic oriental formula, “the enemy of my enemy is my friend” and shared the sentiment of being outsiders in the United States-led world order. There is, however, no broader “organic” relationship joining the two countries, which have a very long legacy of rivalry and hostility. In Russian society there is no love lost for Iran. Distinctions of race and religion alone would suffice to alienate most Russians from Iran, even those of the policy elite, while a centuries-long history of rivalry and conflict infuse Moscow’s perceptions of Iran as a competitor in the southern Caucasus and in Central Asia.

During most of the Cold War, Iran was a U.S. ally and surrogate, while Moscow developed relations with Iraq and Syria. The coming of the Iranian revolution strengthened the Soviet preference for Baghdad, as the Iranian theocracy regarded the officially atheist Soviet Union as little better than the U.S. “Great Satan”. The end of Soviet Communism and the conclusion of the Iran-Iraq war set the stage for a new relationship between Moscow and
Tehran, which became firmly grounded as each saw an increasing U.S. presence in the southern Caucasus, Caspian, and Central Asia as a challenge to its own regional interests. The creation of independent states in the Caucasus and Central Asia literally redrew Tehran’s geostrategic map, presenting some opportunities, but re-introducing the United States to the regional equation in a new and unexpected role, as a challenge from the north.

Russia’s strategic client in the Caucasus, Armenia, has also enjoyed excellent political and economic relations with Iran (to the fury of Azerbaijan), while Iranian trade has largely compensated for the Turkish economic embargo of Armenia. Russia and Iran have similar if separate initiatives on the Nagorno-Karabakh dispute (reflecting, in part, Iranian ire at Azerbaijan’s relations with Israel). Iran and Russia each support elements of the political opposition in Azerbaijan, while awaiting opportunities to alter that country’s pro-United States orientation. Both supported efforts to overthrow the Taliban regime in Afghanistan. Iran and Russia do not, however, agree on Caspian seabed and fishing issues and their pipeline policies are competitive.

More to the point, in spite of improved U.S.-Russian relations, both Iran and Russia seek to restrain, and ultimately to reduce the U.S. presence in their mutual “near abroad.” Both governments see Turkey as the U.S. spearhead and as a restored regional competitor in its own right. Russia and Iran strongly resist U.S. attempts to apply sanctions to third-country business activity in Iran and thus, in Russian eyes, to deny Russia a potentially lucrative market where it can effectively compete. Russian weapons production firms seek sales in Iran to help keep the cash-strapped Russian industries alive, while re-establishing a Russian presence in the region to replace its depreciated position in Iraq.

In addition to geopolitical interests, Russia has important economic interests at stake in Iran. Iran is a major market for Russian arms and nuclear technology. This results in two strong institutional proponents for close relations with Iran within the Russian government: the Ministry of Defense and the Ministry of Atomic Energy (MINATOM). MINATOM argues that the Nuclear Nonproliferation Treaty (NPT) and International Atomic Energy Agency (IAEA) safeguards are sufficient to permit expansion of the Iranian nuclear power industry with lucrative Russian participation. Both ministries have a large and receptive domestic audience for their assertion that U.S. efforts to impede this relationship are based more on a desire to reduce the status of both Russia and Iran (while seeking its own hegemony in the Caucasus and Central Asia) than on genuine proliferation concerns. U.S. arguments on this subject have, thus far, persuaded few in Moscow, while the application of unilateral sanctions on Russia in 1997 and later have been seen as a challenge to its sovereignty and its sense of self-esteem.

The obvious asymmetry is that the United States maintains important ties with Russia while Iran remains at arm’s length. Russian authorities must constantly balance their equities to the west and to the south, and often accommodate the United States rather than Iran. There is no question, however, that the Iranian relationship remains important for the Russians. Russia’s policy toward Iran is inherently more complex and difficult than is Iran’s policy toward Russia. The dynamic factor in the relationship is the United States.
Finding incentives for better Russian cooperation on nonproliferation is critical for the United States. Russia gains financially from the sale of arms and nuclear technology to Iran, as well as benefiting geopolitically from closer relations. This, combined with the new spirit of cooperation between Russia and the United States, suggests the utility of exploring a new initiative on the Bushehr reactor project.

**European Union**
Most U.S. allies currently pursue economic engagement with Iran, but with the continued use of selective export controls on sensitive technologies and materials. In tandem with economic ties, most U.S. allies also pursue regular political dialogue on a range of issues of ongoing concern, such as human rights and proliferation matters. Since the election of Khatami, most western allies have moved to upgrade political contacts with Iran, both as a manifestation of their support for his reform agenda and as a response to his policies of détente and engagement. Such contacts are intended to encourage Iran to become a more responsible regional and international player. While allies are not unresponsive to U.S. concerns and pressures, they would require compelling evidence of Iranian involvement in a terrorist act against U.S. or western interests or a manifest violation of nonproliferation obligations to cause them to scale back their political contacts.

The absence of U.S. firms in the Iranian economy has certainly generated considerable commercial opportunities for other countries, enabling their companies to gain a foothold in the Iranian market at the expense of previous U.S. competitors. Indeed, many non-U.S. corporations might be happy to see a perpetuation of the exclusion from the market of U.S. companies. At the same time, U.S. sanctions have hurt Iran economically and limited its potential as a business partner. U.S. economic reengagement would generate Iranian economic growth and improved access to international financing. This in turn would lead to more opportunities for other countries to expand their commercial activities across a broad range of sectors.

The United States and the European Union have major common interests with regard to Iran, notably oil and regional security, but different historical experiences and different views on Iran’s role in international affairs, which lead to divergent and even clashing policies. The United States was far more tied to the Shah’s regime than was any European state except Britain. The Iranian Revolution was a major blow to U.S. regional policy and interests, while European governments sought to maintain low-key relations even at the height of the Iranian anti-western hysteria. The prolonged hostage crisis made U.S. policy towards Iran more a matter of popular emotions and domestic politics than of geopolitics. As a result, it has been more difficult for the U.S. public or Congress to accept normal relations with Iran than for any of the European countries.

The U.S. hard-line position was further reinforced by Iranian support of terrorism and rejectionist movements among Palestinian groups and in Lebanon, which led to the U.S. sanctions against Iran that further complicated prospects for normalizing relations. These sanctions, in turn, constitute a serious source of disagreement with our European allies, who do not accept the policy they embody, the unilateralism they reflect, and the exercise of extra-territoriality of U.S. law.
Another difference between the United States and European countries lies in the U.S. pursuit of “dual containment” in the Gulf, a policy European governments widely regard as contradictory in purpose and unachievable in practice. In addition, many Europeans are unwilling to treat a long-established nation of 65 million people as a “rogue state” in the same category as regimes such as those in Libya and North Korea.

A basic dispute of principle between Europe and Iran was settled when Iran withdrew the fatwa against Salman Rushdie, although European states did temporarily interrupt their “critical dialogue” with Iran over the Mykonos convictions, while generally viewing improved relations with Iran as the best means of preventing Iranian support for terrorism on European soil.

Today the European and U.S. analyses of what is happening in Iran are not far apart – both see a conflict between entrenched clerical conservatives and a more moderate reforming presidential party. Our policies differ, however, because of the widely different experiences noted above. Europeans generally believe closer engagement between the West and Iran will strengthen the moderates as well as provide economic benefits for both sides. The strengthening of the Iranian moderates would, most Europeans believe, lead to the eventual reduction or elimination of the kinds of Iranian behavior to which both Europe and the United States object. In European perceptions, the Iranian moderates represent the rising tide whose ultimate success will be speeded by Iran’s inclusion in the international system. From the European point of view, continuing to treat Iran as a pariah serves the interests only of the reactionaries in Tehran. Accordingly, the European Union has engaged Iran on a host of issues including human rights, the Middle East peace process and proliferation. These dialogues are also a way for the United States to pass messages informally to the Iranian government.

For Europeans, the disagreement with the United States is similar to that on U.S. policy toward Cuba. In both cases prevailing European opinion believes domestic lobbies that influence Congress overly affect U.S. policy. But because European economic interests in Cuba are more limited than in Iran, Europe has avoided a full-scale dispute over Helms-Burton legislation. The situation is different with respect to Iran, where Europe is far more likely to follow its own substantial economic interests regardless of U.S. policy or legislative hurdles. This lack of a transatlantic consensus on Iran certainly diminishes prospects for achieving common goals on nonproliferation.

The European Union can, however, play a useful role if it negotiates a Trade and Cooperation Agreement (TCA) with Iran clearly linked to nonproliferation. Such an agreement would ensure that trade be suspended between the EU and Iran should the latter fail to comply with its nonproliferation pledges. If, then, the United States were able to coordinate its policy with this initiative of the European Commission (and perhaps convince the Japanese to adopt a similar stance), it might substantially increase the costs to Iran of continued proliferation.

---

1 In September 1992, four Iranian opposition leaders were assassinated in the Berlin restaurant, Mykonos. In 1997, a German court convicted four individuals with ties to the Iranian government.
To reduce the chances of an unwanted confrontation with the EU – and to nurture the possibility of cooperation – the United States recently decided to continue to waive sanctions against European companies that invest in Iran’s oil sector as called for under the Iran and Libya Sanctions Act (ILSA). An official communiqué from the 14 June 2001 U.S.-EU summit in Sweden indicated that the United States would continue to honor the understanding reached at the 1998 London summit to waive sanctions against European companies.

**Canada, Australia & Greece**

Canada and Australia acknowledge genuine grounds for concern over aspects of Iranian behavior, such as involvement in terrorism and proliferation. However, they believe U.S. concerns are exaggerated and that the U.S. government fails to take sufficiently into account Iranian perspectives and security interests. These allies argue that U.S. efforts at containment of Iran feed an atmosphere of tension and distrust, strengthening the hand of the hard-liners in Iran, who are the principal proponents of those policies of most concern to the United States.

Greece is a special case because, although a member of NATO and the EU, it raised the possibility in July 1999 of joining a tripartite military cooperation arrangement with Iran and Armenia. This proposal came after the Greek Defense Minister visited Tehran in June 1999, the first visit of a NATO defense minister to Iran since 1979. The agreement was not overtly directed against any other country, but obviously would have important implications for Turkey. The extent and potential of real defense cooperation among Greece, Armenia and Iran is unclear, but cannot be ignored, particularly due to the very close military links between Russia and Armenia. This development also suggests NATO will not easily achieve the necessary unanimity for future restrictive policies with regard to Iran.

**Japan**

Japan has a history of trying to maintain dialogue and unrestricted trade with Iran – it did so even after the Iranian revolution because Iran was Japan’s leading source of energy. Iran remains a high priority for Japan as a source of oil and gas and as a market and a hub in the region. Japan is Iran’s largest customer, importing 485 thousand barrels per day in 1998, 22 percent of Iran’s total crude oil exports. Because the Asian energy market is less competitive than that of Europe, Iran enjoys greater profit from crude oil exports to Japan. Iran could become an important market for Japanese goods, particularly if oil prices are at high levels. Iran also badly needs foreign investment, modern technology and strong management. The Iranian authorities often boast that Iran is an important market with good, cheap labor, that it has attractive special economic zones and that it is well-located as a hub for Central Asia, Pakistan and Afghanistan, a region with a total population of around 300 million.

In general, Japan has been reluctant to get too far ahead of the United States in pursuing better relations with Iran. Recently, however, a Japanese consortium has been negotiating a deal worth approximately $8 billion to explore part of Iran’s Azadegan oil field. In November 2000, Iran granted Japan first rights to develop this field and the Japanese consortium subsequently involved a European partner in the project. This may well be Japan’s largest oil field development and reflects the Japanese need to expand oil supplies.
Regional Neighbors

Geostrategic considerations have a large influence on the policies of Iran’s regional neighbors. Iran’s size and strategic location make it important for all its neighbors to have working relations with Tehran, if possible. Including maritime borders, Iran shares borders with twelve other states.

Iraq

Iraq and Iran are traditional competitors for regional influence and were so long before the current regimes came to power. There will always be an element of mistrust between them, even after Saddam Hussein leaves power. Currently there are a number of residual issues (including POWs) stemming from the eight-year war. Relations remain poor, and cross border raids continue. On the other hand, Iran is a useful channel for undeclared Iraqi oil exports and other licit and illicit trade under the UN sanctions regime. Both countries have made public their intention to improve relations. Hussein cannot afford renewed conflict with Iran, particularly while his military machine remains crippled.

Saddam Hussein will not want a thaw in relations between Iran and the United States as this only will lead to greater pressure on Baghdad. Moreover, if he can survive sanctions intact, Hussein will increasingly try to play a spoiling role for Iran in the Gulf region, stressing Arab solidarity and attempting to reassure his Gulf Cooperation Council neighbors that Iraq is no longer a threat. If Saddam Hussein were to fall and be replaced by a pro-Western regime, it would probably be careful to reassure Iran that it had no hostile intentions. It would look to maintain and develop cooperative working relations with Iran, avoiding provocations.

Gulf Cooperation Council (GCC)

Iraq’s invasion of Kuwait and subsequent international isolation underscored the importance of improved relations with Iran for the GCC states. The GCC was also encouraged by the election of a reformist president in Tehran. While wary of Iranian hegemonic tendencies and Iranian links to Shiite populations in their respective countries, GCC states see good relations with Iran as in their best strategic interest. Iran is a large and powerful neighbor, which cannot be ignored. While paying some lip service to the need for greater regional self-reliance in security, GCC states will remain committed to maintaining strong defense links with the United States and other western countries, largely as an insurance policy against the potential threat of Iran and Iraq. The recent improvement in relations between Iran and Saudi Arabia might result in emerging support for Iran to be included in regional security arrangements, particularly if Saddam Hussein remains at the helm in Baghdad.

Economic and trade interests also have played a large role in bringing the GCC states closer to Iran. The 1999 Saudi deal with Iran on OPEC oil production levels indicates the importance of economic factors to GCC-Iran relations. Iran also is the natural transit route for overland trade with Central Asia, an important consideration for GCC states like the United Arab Emirates.

2 The Gulf Cooperation Council states are: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and The United Arab Emirates.
However, the dispute over the Gulf islands will continue to cloud the atmosphere. These islands, Greater Tunb, Lesser Tunb and Abu Mussa, are situated at the entrance to the Gulf and are in a position to dominate access to the major oil route in the area. Although they are claimed by the UAE, Iran has controlled all three for the past twenty-eight years. The only inhabited island, Abu Mussa, was held jointly by the emirate of Sharjah and Iran until 1992, when Iran reasserted sole control. Iran has repeatedly rejected international arbitration to settle this issue. Bilateral talks with the Emirates in Qatar in 1995 were unsuccessful in leading to a satisfactory resolution. There is little prospect of an Iranian compromise on the key question of sovereignty over the Gulf islands at this time.

**Turkey**

At first glance, secular Turkey and theocratic Iran would appear likely to be bitter enemies. Certainly many in the West view Middle Eastern alignments this way, and the recent record of tensions over Turkish overtures toward Israel and alleged Iranian support for Kurdish (PKK) activity inside Turkey would reinforce this view. However, the Turkish-Iranian relationship is based more on rivalry than on enmity, and its antecedents date further back than 1979.

Like their Persian and Ottoman imperial predecessors, Iran and Turkey are regional and cultural competitors. Each occupies a large territory with a heterogeneous population and numerous land borders. Each sees its interests as best guaranteed through a carefully nurtured balance of power among its neighbors. Occasionally each has pursued military action against those neighbors, or against populations in neighboring territory. The key factor bearing on the stability of both, at least in their common neighborhood, has been relations with the Arab states – most importantly Iraq, Syria and Saudi Arabia, in roughly that order.

Recent trends suggest that a quiet and tolerable rivalry between Turkey and Iran may be ending. Now that Syrian support for the Kurdish Workers’ Party (PKK) has ended, Turkey has identified Iran as the PKK’s principal supporter. Iran also fears the worst type of collusion following Turkey’s 1996 military agreement with Israel, and it has long feared Turkish intentions vis-à-vis Azerbaijan and the large Azeri minority in Iran. Turkey’s vocal support of U.S.-sponsored anti-Iran pipeline initiatives in the Caspian region also fuels this perception.

Yet in the longer term there may be room for Turkish-Iranian collaboration. So long as the Kurdish issue does not explode, there is reason to believe that Turkey and Iran will see it in their mutual interest to keep the issue contained. They also know that they represent the two largest economies in the region (Turkey’s GNP is roughly twice Iran’s, but the disparity only dates from the late 1980s and is in part the result of the Iran-Iraq war), and each would gain by an expansion of economic relationships. Nor are their political systems as incompatible as their stereotypes would suggest, and this should not be a permanent obstacle to bilateral cooperation. Turkey is less secular than most outsiders believe, while Iran is likely to become progressively less theocratic.
Building International Consensus

Given an international context with so many divergent interests, the challenge for U.S. policy will be to find sufficient common ground to develop a multilateral strategy among the key countries on proliferation concerns. The G-7 states generally agree on the nature of the Iranian problem and are willing to impose tight restrictions on the export of WMD and dual-use technologies. They are not, however, in agreement on the continued use of economic sanctions on trade and investment unless there is clear evidence of treaty violations.

Limiting the availability of WMD and missile technology cannot be managed successfully without multinational cooperation, especially among the G-7 states, Russia, China and North Korea, to control exports, expose violations and enforce prohibitions. Russia, in particular, will continue to play a critical role in determining the extent to which Iran is able to pursue WMD options.

II. Stages of Proliferation

Iran’s WMD and missile efforts are at different stages and pose different concerns. Based on open source information, we believe some programs are in the preliminary stages and provide an option to develop an operational capability as well as the ability to export weapons and production technology. We judge that Iran is most advanced in chemical weapons, with a capability to use these weapons in war and also to export them. Nuclear weapons programs are probably still in the options stage, while biological weapons are somewhere in between.

Nevertheless, Iran claims to be in full compliance with its treaty obligations. Iran ratified the Nuclear Weapons Nonproliferation Treaty (NPT) in 1970, the Biological and Toxin Weapons Convention (BWC) in 1973, the Comprehensive Test Ban Treaty (CTBT) in 1996 and the Chemical Weapons Convention (CWC) in 1997. Iran’s treaty obligations are thus clear and they prohibit the development, production, stockpiling and use of these WMD.

III. Nuclear Weapons Proliferation

Background

In addition to the stated goal of greater power production capacity, the Iranian motivation to pursue a nuclear infrastructure was probably also driven by the discovery, following the end of Operation Desert Storm, of how far Saddam Hussein had progressed in developing an operational nuclear weapon. Iran has every reason to believe it would be the target for such a weapon. Under those circumstances, Iran may have concluded that it had to be prepared to counter a renewed Iraqi nuclear program. That would require, at a minimum, a nuclear infrastructure sufficient to permit Iran to keep pace with Iraq in a future nuclear arms race.

Iran may have other rationales for a nuclear weapons program, including some that date back to the Shah’s time. Having observed the ease with which the allied forces in 1991
defeated the Iraqi military – the same military that Iran had failed to defeat in eight years of bloody combat – Iran may have concluded that it needed a non-conventional deterrent to Western military intervention. Iran has been identified as a potential target for U.S. strategic forces for many years. It also may wish to have a counterweight to Israel’s nuclear arsenal and may believe a nuclear program would bolster Iran’s position as a regional power. In the view of some in Iran, the atomic weapons capacity of Muslim countries in the Middle East and Israel should be at par.

Iran has taken initial steps toward the creation of a nuclear infrastructure that would provide the option to build nuclear weapons. It remains unclear how far Iran is willing to go and how the leadership views relative priorities and trade-offs. Iran’s long-standing effort to obtain a nuclear infrastructure is indicated by the kinds of nuclear technology purchases it has made, the attempts to keep some of these purchases secret, and the absence of a compelling rationale for an expensive nuclear power program in a country rich in conventional energy sources. On the other hand, Iran’s pursuit of nuclear energy is arguably consistent with a large country seeking to modernize and wanting to develop an alternative energy supply for the longer term. Furthermore, Iran has a right of access to nuclear energy technology as a member of the NPT and now ranks as the fifth largest recipient of IAEA technology support.

Iran’s effort to develop nuclear infrastructure is a direct continuation of the program begun under the Shah prior to the Islamic Revolution. Beginning in the 1960s the Shah developed a plan to build up to twenty nuclear power stations, each with more than 1,000-megawatt capacity. Iran has a small research reactor that it purchased from the United States. It signed a contract with China in 1993 for two 330-megawatt nuclear power stations (rescinded in 1997), and with Russia for a VVER-440-213 nuclear power station with two pressurized water reactors. Iran also has expressed interest in three additional Russian reactors. It purchased a mini-calutron and an electronic isotope separation unit from China. Iran also attempted to acquire more capable research reactors from Argentina and China, but the United States intervened to prevent both deals. Although China pledged in October 1997 not to embark on new nuclear projects with Iran, Tehran claims that China has committed to constructing a small research reactor and a zirconium production facility at Esfahan. Iran is attempting to persuade its exiled nuclear scientists to return home, and Iranian delegations have visited nuclear weapons production sites in Russia and other countries of the former Soviet Union.

Part of the controversy about Iran’s nuclear program is focused on the Bushehr reactor. Bushehr, begun by the German corporation Siemens, is a key part of Iran’s goal of using nuclear power for 20 percent of the country’s electrical requirements. The partially constructed reactor was damaged during the Iran-Iraq war, and in 1995 Tehran sought the assistance of Russia to bring Bushehr on-line. Scheduled for completion in 2003, the reactor will combine an original German design with Russian engineering and technology. Fearing that nuclear assistance of any kind will hasten the development of a weapons program, the U.S. government pressured Moscow not to provide Iran with the technology and assistance Iran requested. U.S. opposition only strengthened Iran’s determination to proceed with the Bushehr project. In October 2001, Russia’s Minister of Atomic Energy said that more than 1,000 Russian specialists were working on Bushehr. According to Radio Free Europe
reporting, the hardware would be in place by early 2002 and construction would be completed in 2003, with another 18 months required for fuel delivery and testing.

The Bushehr plant is more than twenty years old and has been subjected to environmental degradation and possible damage from the war with Iraq, which could affect its structural integrity. Also, the change in design from a German to a Russian reactor poses special integration problems. Finally, the site may be located near a geological fault line and could be endangered by earthquakes.

Furthermore, Iran's access to the nuclear fuel cycle may not be very far advanced. This suggests that, if Iran should decide to proceed toward the development and production of nuclear weapons, the difficulties of mobilizing the financial, technical and human resources required for such a program will offer some warning time in which to explore diplomatic and other alternatives.

Whether Iran chooses to pursue the nuclear option to the weapons stage will depend on several factors: the political and military trajectory of Iraq once sanctions are removed; the willingness of outside powers to provide Iran with a reprocessing or enrichment capability and other key technologies; the state of U.S. relations with Iran and the other Gulf states; the status of Arab-Israeli relations and the future price of oil. Each of these factors, and probably many others, will affect the decision-making process in Tehran. In particular, Iranian leaders should understand the proliferation consequences of their actions. Saudi Arabia, for example, would likely feel pressure to develop nuclear weapons should Iran do so.

Options

Successful management of the nuclear energy issue will require satisfying important interests for Iran, Russia and the United States. The core interest for the United States is in reducing the motivations for and chances of proliferation of nuclear weapons as much as possible. For Iran, it involves acquiring nuclear energy technology and possibly nuclear weapons. Russia is interested in selling nuclear energy technology and should be interested in preventing the proliferation of nuclear weapons.

The current U.S. approach to the problem of trying to prevent Iran from gaining weapons-useful technology and materials from its civilian nuclear program has been to try to deny Iran all forms of nuclear reactors, including civilian nuclear power reactors, which are permitted by the NPT. This includes civilian light water nuclear power reactors, even though the United States has promoted the use of this kind of reactor by North Korea in return for Pyongyang's agreement to give up its program based on graphite reactors. To date, all of the countries that have successfully used their civilian nuclear programs to develop plutonium for a nuclear weapons capability have done so by using nuclear research reactors, rather than nuclear power reactors. Nevertheless, power reactors provide training, know-how and supply contacts that are potentially useful in pursuing a weapons program.
In addition to prohibiting U.S. companies from selling Iran light water nuclear power reactors, the United States has been successful in persuading France and Germany to agree to a similar prohibition. This has left Russia as Iran’s primary supplier, and the United States has put heavy pressure on Russia to cease providing Iran with civilian nuclear reactors once the two reactors at Bushehr have been completed. Russia has thus far been adamant in refusing, and the combination of Russian recalcitrance and U.S. pressure has served to complicate U.S.-Russian relations.

By preventing Western reactor sales to Iran, the United States has contributed to a situation in which Iran is completely dependent on Russia for its supply. This situation has weapons proliferation implications in and of itself. Iran’s interaction with Russian nuclear experts during the construction of the Russian plants brings it into contact with a network of Russian nuclear scientists, some of who have nuclear weapons expertise. Many of the latter are now unemployed because the Russian nuclear weapons program has been curtailed. The possibility that Russian nuclear scientists might participate in clandestine nuclear weapons programs in other countries has been a cause for concern among U.S. policy makers. This concern is so strong that the United States has given Russia financial assistance to train these people for other lines of work in order to keep them employed. Although this approach can reduce the problem, it does not resolve it.

Russia clearly wishes to maximize its ability to earn money from its nuclear expertise. In doing so, Russia may be willing to provide Iran with some of the civilian applications of nuclear technology that have weapons proliferation potential, but are allowed by the NPT. This would respond to Iran’s desire to have independent access to the entire nuclear fuel cycle. Iran is entitled to this under the NPT, but it would involve acquiring reprocessing, uranium enrichment and fuel fabrication capabilities, which the United States would see as constituting a serious proliferation risk. Russia may be willing to provide Iran with some of these capabilities, and private discussions between Russia and Iran are reported to be already underway.

Furthermore, Russia has expressed a strong interest in providing storage for spent fuel from foreign nuclear reactors. This could amount to a $20 billion business for Russia. Providing these storage sites are secure and the spent nuclear fuel is accounted for, the United States should encourage such arrangements. By removing plutonium-bearing spent fuel from their territories, these might be particularly useful in dealing with Iran, North Korea and other countries with which the United States has proliferation concerns.

In looking toward the future, the United States government needs to determine the conditions under which it would no longer oppose Russian or others’ involvement in Iran’s nuclear energy development and even lift restrictions on U.S. companies. Such expanded participation would probably give the United States much better access to Iran’s nuclear infrastructure and understanding of Iranian policy motivations.

One such early condition would be for Iran to sign the IAEA Additional Safeguards Protocol. Close to two dozen countries have already signed the Additional Protocol. The Protocol was devised after the discovery of Iraq’s clandestine nuclear weapons program and contains
measures designed to permit IAEA inspection of undeclared nuclear sites, as well as the declared sites that are already the subject of the basic IAEA inspection regime.

If Iran were to adhere to the protocol, the extension of IAEA safeguards to undeclared nuclear facilities would provide a significant mechanism for detecting unwanted activities and preventing potential clandestine transfers of nuclear material from civilian to weapons-related purposes. Tehran has said it would not be the first country in the Middle East to do so, nor would it be the last. In informal conversations in a Track II setting, Iranian participants have said that Iran would be willing to sign the protocol in exchange for an ability to acquire civilian nuclear technology without U.S. opposition.

In addition, the Protocol contains language that enables the IAEA to conduct inspections in the signatory country in order to investigate the accuracy of suspicions that have been brought to the attention of the IAEA by any IAEA member state. This means that, for example, if U.S. intelligence uncovered troublesome activity in Iran, it could ask the IAEA to investigate to ascertain whether the suspicions were well founded. Under the terms of both the basic IAEA agreement and the new Protocol, if the IAEA discovers that an NPT adherent is engaged in activities in violation of its NPT commitments and is attempting to produce undeclared nuclear materials, it is obligated to bring this fact to the attention of the UN Security Council. Although the NPT does not have a sanctions provision, the UN Security Council has the ability to impose sanctions under such circumstances.

Another condition may be to require Iran to forego its right to pursue fuel cycle technologies such as enrichment and reprocessing in exchange for adequate assurances of the supply of fuel cycle services from external sources. Without its doing so, it would not be easy for the U.S. government in anything like the current situation in Iran and the region to agree to liberalize its policy on nuclear cooperation.

It can be argued that Iran would have no incentive to agree to such a condition so long as Russia remains willing to sell nuclear technology without imposing the safeguards that adherence to the new regime would entail. On the other hand, Iran has been eager to assert that it is not engaged in a clandestine nuclear weapons program and that it is therefore in full compliance with the NPT. By agreeing to go even further than required by the NPT with respect to limits on its fuel cycle activities, Iran would be reinforcing its nuclear nonproliferation bona fides. In addition to this motivation, Iran may prefer access to U.S., French, and German civilian nuclear technology, rather than depending exclusively on Russian sources. Iran may well believe this technology to be superior in quality and safety; and, at a minimum, competition among multiple potential suppliers would tend to reduce the price and increase assurance of supply.

IV. Chemical Weapons Proliferation

Iran’s chemical weapons (CW) program is the most advanced of its WMD efforts. According to a recent unclassified report to Congress by the Director of Central Intelligence (DCI), Iran has manufactured and stockpiled several thousand tons of chemical weapons, including blister, blood, and choking agents, and the bombs and artillery shells for delivering them.
Iran has first-hand experience with chemical weapons in war. After being exposed to Iraqi CW attacks, Iranian officials publicly touted that they had also developed a significant CW capability, but they deny ever using it. Regardless of the extent of their experience in employing CW, they developed a large, self-sufficient production capability. Furthermore, Iran reportedly has exported chemical weapons to Libya.

Publicly, Iran is playing an active role in shaping the international debate on chemical weapons, presenting itself mainly as a victim. According to Iranian officials, about 60,000 Iranian soldiers were exposed to Iraqi chemicals and eventually more than 12,000 died from this exposure, among total Iranian losses during the war of more than 200,000. These chemical casualty figures are much higher than estimates by other sources. Nevertheless, Iran must be credited with vast experience in dealing with chemical weapons in war, and it has offered to share its knowledge and establish a research center for the treatment of victims of chemical weapons.

Chemical weapons are a major challenge for nonproliferation policy because of the relative ease with which the necessary components can be acquired and the uncertainty as to whether the international community is more likely now to take strong actions to deal with future CW use than it was in the 1980s, when Iraq employed them on several hundred occasions during its war with Iran.

While evidence exists of Iranian violations of the CWC, no nation has yet presented information to the Organization for the Prevention of Chemical Weapons (OPCW) alleging as much. If Iran is thus permitted to violate its CWC obligations with impunity, it may be more willing to take risks regarding its NPT obligations. The 1993 CWC, of which Iran is a state-party, entered into force in 1997. It requires that members destroy existing chemical weapons within ten years and bans production, stockpiling, transfer, future development and use. Iran has acknowledged that it once produced chemical weapons, but declares that it destroyed its CW stockpiles. However, monitors from the OPCW did not verify this destruction, as required by the CWC.

Unfortunately, the United States is not in a strong position to be critical of those not complying with the CWC. Congress passed legislation in 1998 that prohibits OPCW inspectors from removing samples collected at U.S. chemical plants for analysis outside U.S. territory. The legislation also contains provisions whereby the U.S. president can block challenge inspections on national security grounds and it limits the scope of chemical industry sites subject to inspection. These actions effectively undermine U.S. credibility vis-à-vis the CWC verification regime.

**V. Missile Proliferation**

Iran has one of the largest missile inventories in the region, consisting mainly of Russian-designed Scud rockets produced by plants of North Korean design. These provide Iran with a less expensive and more viable alternative to long-range strike aircraft. Moreover, the dramatic psychological impact of Iraqi missile attacks during the war convinced Iranian leaders of the value of such weapons. Table 1 highlights Iran’s major missile inventory.
Table 1

Iran’s Major Missile Systems$^3$

<table>
<thead>
<tr>
<th>System</th>
<th>Range</th>
<th>Number of Launchers</th>
<th>Number of Missiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS-8</td>
<td>150 km</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>Scud B/C</td>
<td>300/500 km</td>
<td>10</td>
<td>300</td>
</tr>
<tr>
<td>Shahab-3 (tested, not fully deployed)</td>
<td>1,300 km</td>
<td>&lt;5</td>
<td>Not operational</td>
</tr>
</tbody>
</table>

There are two concerns with Iran’s missile programs: potential development of longer-range missiles that could threaten the region, Europe and eventually the United States; and the prospects that Iran may become a secondary proliferator, exporting missile technology restricted under the Missile Technology Control Regime (MTCR), of which Iran is not a member.

The development of Iranian missile programs appears to be more opportunistic than planned. Unlike U.S. acquisition programs driven by systematic, linear plans to achieve threat-related capabilities, the nature and pace of Iranian missile programs reflect opportunities for access to resources and technologies. They therefore often appear sporadic and disjointed, combining aspects of Russian and North Korean systems. Some programs may also be intended mainly for psychological purposes and political ends. In addition, some of the work may be more for research and education than for full-scale operational capabilities. The Shahab 4, for example, is based on the 1950s Soviet SS-4 liquid-fueled missile. When deployed, this system required a fleet of about twenty vehicles for transport and launch. With such a large signature, it is not suitable for tactical use on the battlefield, nor is it well suited to silo deployment.

Nevertheless, with more than thirty years’ experience, Iran has mastered shorter range solid fuel rocket production quite well. It has also made considerable progress toward its goal of self-sufficiency in missile production. Iran can produce Scud 1s and 2s in large numbers and at relatively low cost. During the war with Iraq, Iran fired more than 100 missiles against Baghdad and other cities. More recently, Iran fired Scuds at anti-Iranian mujahadeen forces in 1994.

Iran claims that the Shahab 4 missile and the prospective Shahab 5 are space launch vehicles with no military applications. Their capabilities, however, are similar to intercontinental ballistic missiles, and according to some estimates, Iran could have an ICBM capability by 2015. Certainly, continued Iranian cooperation with Russian, Chinese, and North Korean organizations implies a goal of further long-range missile development.

The main factor pacing the development of advanced Iranian missile programs is warhead and reentry vehicle technology. Guidance and propulsion are somewhat less important at

---

this stage. Iran has mastered solid fuel quite well, but has yet to advance to composite solid fuels needed for longer-range missiles.

The principal operational target for Iranian missiles is Iraq, though Iran also probably seeks to deter any U.S. attack by threatening U.S. allies in the region. In addition, Iranian planners may seek some capability to threaten shipping and naval combatants in the Persian Gulf. Iran is already reasonably well equipped for both purposes. In addition to the Scuds, cruise missiles represent an attractive option for rapid development of useful capabilities.

Beyond the psychological and political value of missiles, full operational capabilities require extensive flight-testing. With less than ten successful tests, reliability will probably not be high, especially in understanding how effective the missiles may be to deliver nuclear, chemical or biological weapons, each of which requires sophisticated arming, fusing, and dispensing technologies. The testing of longer-range missiles may also pose overflight and booster disposal problems.

It follows from this analysis that limiting Iran’s missile development will require that Russia, China and even European powers be persuaded to be more diligent in preventing technology transfers. Moreover, some way must be found to stop North Korean missile technology exports to Iran.

### VI. Biological Weapons Proliferation

The anthrax attacks in the United States raised the profile of biological and toxin weapons. Their psychological impact is substantial, though they are admittedly difficult to employ and may have relatively uncertain effects. Furthermore, they are quite low in cost and difficult to detect in production, which may be hidden in medical, pharmaceutical and research facilities. Also, foreign assistance and participation in biological weapons (BW) development can be difficult to identify and more difficult to prevent, given the dual-use character of many of the materials.

However, developing an operational BW capability requires surmounting several problems. Most agents are not readily available, are not easy to produce and are difficult to dispense effectively, especially by aerosol. Quality control is difficult. The virulence of cultured pathogens and the toxicity of extracted toxins can vary considerably over time, making their effectiveness uncertain.

Iran has probably produced and “weaponized” biological warfare agents, according to John Bolton, Undersecretary of State for Arms Control and International Security, at the December 2001 Biological and Toxin Weapons Convention Review Conference. The evidence includes expanded efforts by Iran to seek dual-use biotechnical materials, equipment and expertise from abroad – primarily from entities in Russia and Western Europe. Of course, Iran is not alone in such efforts. Iraq also has sought BW technology and Israel is believed to have BW research underway, which probably factors into Iran’s calculations.
As a presumptive violator of the BWC, Iran actively sought to undermine efforts to establish a strong verification regime for the convention. Iran called for both an end of export controls on BW-related equipment and for the disbanding of the Australia Group of 30 countries that collaborate on establishing export controls on chemical or biological weapons-related products or technologies. At the same time, Iran pressed for expanded technology transfer benefits under Article 10 of the Convention and has been by far the most active claimant for the transfer of biotechnology. These efforts are unlikely to meet with much success following the biological weapons attacks in the United States.

The United States is not, however, in a strong position to generate international support against Iran’s BW efforts. In July 2001 the United States rejected the BW verification protocol that was the result of a six-year effort and enjoyed the support of most of the 143 members of the treaty. In rejecting the protocol, the United States argued that it would not stop the spread of BW, nor would it enhance verification, while putting U.S. bio-defense activities and proprietary commercial interests at risk. Unfortunately, the “defensive/offensive” distinction in BW activities is not useful. Iran, for example, may claim that its BW efforts are similar in nature to the bio-defense programs of the United States and other countries.

Whatever pressure Iran may have felt to accept international verification of suspect biological warfare facilities has been greatly reduced by the United States’ rejection of the BWC verification protocol. As a result, Iran probably will not be subject to obligatory on-site visits and challenge inspections. Furthermore, by insisting on the adjournment of the 2001 BWC review conference without approving the draft protocol, the United States probably foreclosed any prospects for multilateral cooperation on BW verification for the indefinite future.

**VII. Iran’s Calculus and U.S. Influence**

After more than twenty years without relations, many in the United States have difficulty understanding Iran and how its leaders think about WMD. Closer U.S.-Iranian relations could improve our understanding of Iranian thinking through dialogue and even help shape it to some extent. In the meantime, we can analyze what are likely to be the main considerations influencing Tehran’s decisions and hypothesize how the Iranians weigh the issues of costs, risks, and benefits in reaching WMD and missile decisions. The calculus is likely to be different in important ways for nuclear, chemical and biological weapons, because each carries quite different costs, risks and benefits. The resulting hypotheses can then be tested and updated as circumstances change.

**Addressing Iran’s National Security Concerns**

One should not overestimate the ability of the United States to influence key national security decisions in Tehran such as those about nuclear weapons or other WMD capabilities. If Iranian leaders perceive a severe external threat, they may not back away from either pursuit of a nuclear weapons capability or an ability, at a minimum, to move quickly to develop a nuclear weapons program regardless of U.S. views.
The desire to pursue WMD does not appear to be unanimous among the senior leadership in Iran. There is an awareness that Ayatollah Ruhollah Khomeini ruled out the pursuit of nuclear weapons, even while Iran was undergoing conventional missile attacks and attacks with chemical weapons during the Iran-Iraq War. Khomeini argued that because nuclear weapons are by their very nature indiscriminate in the casualties they inflict, killing civilians and combatants alike, their use is counter to the teachings of Islam. This argument still has power in Iran’s Islamic society. In addition, some Iranian decision-makers may want to retain Iran’s international respectability, as reflected in its signing of major arms control treaties and cooperating fully with the IAEA inspection regime.

Iran may eventually prefer an approach of regional arms control to limit further arms races with its neighbors. Such an approach would, however, require the kind of restraint and reciprocity on Iran’s part that has not been characteristic of the clerical regime. After a regime change in Iraq, regional dialogues could consider a wide range of confidence-building measures (CBMs) and even address ambitious proposals like a WMD-free region.

On the nuclear dimension, Iran’s religiously-inspired hesitancy about the use of nuclear weapons, along with its desire to maintain its bona fides as a good international citizen, indicate it may be worthwhile for the United States to explore non-nuclear alternatives to Iran’s national security concerns during bilateral discussions undertaken in the context of an improving relationship. One potential approach would be a dialogue about a regional security framework after the current campaign against al Qaeda and the Taliban. Although difficult to reconcile with the competing interests of Pakistan and others, and subject to the same vulnerabilities as other collective security systems, such a regional approach may respond to some of Iran’s key concerns about remaining a non-nuclear weapons state in a nuclear-armed region.

Another factor is the role Israel plays in Iran’s national security calculations. The current Iranian leadership perceives Israel as a threat. Some, like Supreme Leader Khamenei, give expression to the goal of ultimately driving Israel from the Middle East and reallocating the land that Israel now occupies to its former Palestinian inhabitants. The Iranian leadership is well aware of hostile Israeli attitudes toward Iran and this awareness gives rise to concern that Israel might use its undeclared nuclear weapons capability against Iran at some future date. Iran also has reason to be concerned by Israel’s increasingly close defense cooperation arrangements with Turkey. Nevertheless, Israel and Iran have enjoyed close and in many ways natural strategic relations in the past and, at least after a more democratic regime takes full control in Iran, both may see benefits in the resumption of such a relationship. There is a minority within the Israeli defense establishment that believes it will be impossible for Israel either to deter possible aggression from Iran or to mount an effective defense. Therefore, the reasoning goes, there is no alternative but to seek Israeli-Iranian rapprochement.

In any renewed U.S.-Iranian dialogue the United States must be willing to listen to Iran’s own description of its national security concerns. Less clear is what the United States should be prepared to do in order to help Iran address these concerns. Preliminary discussions can be held during a period of improvement in the U.S.-Iranian bilateral relationship, but more
serious efforts to deal with security problems will probably require the establishment of a normalized diplomatic relationship.

On the assumption that Iran’s primary security concerns will be driven by Iraq for the foreseeable future, there are some things the United States could do to assuage them. First, the United States will continue to monitor Iraq’s military developments closely, even during a post-sanctions period. Significant Iraqi movements toward an operational nuclear weapons capability will be difficult to hide. Just as the United States was willing to share sensitive intelligence data with Iraq during the Iran-Iraq War, the United States could share selected intelligence data about Iraq with Iran. In addition, high-ranking U.S. officials have indicated the United States would find the existence of a nuclear weapons capability under the control of Saddam Hussein intolerable.

Finally, the United States might assuage some of the Iranians’ national security concerns by reminding them of its commitment not to use nuclear weapons against NPT parties. This “negative security assurance” would carry the additional benefit of reiterating our insistence that Iran be an NPT party in good standing.

**Confidence-Building Measures in the Persian Gulf**

As a littoral state with more than 1,400 kilometers of coastline, Iran’s economic and physical security is critically tied to the Gulf. According to former Iranian Foreign Minister Ali Akbar Velayati, “Our most important and strategic border is our southern coastline: the Gulf, the Strait of Hormuz, and the Gulf of Oman.” Iran’s maritime policies – whether under the imperial or Islamic regimes – have consistently sought to maximize control of the waters off its coast. At the same time, Iran depends on oil exports shipped through the Gulf for more than 90 percent of its revenue, so it shares important stakes in keeping the Gulf open.

The United States views with concern any claim or perceived restriction on maritime activity in the Gulf or through the Straits of Hormuz. The U.S. Navy has a more than fifty-year history of continuous presence in the Gulf. During this period, U.S.-Iranian naval relations have passed through several distinct stages, ranging from cooperation to confrontation. From 1949 to 1979, the two navies engaged in a variety of cooperative activities and the U.S. Navy called regularly at Iranian ports. Even after the Iranian revolution U.S. naval forces continued to operate in the closed confines of the Gulf, despite the increasingly hostile political atmosphere. Tensions heightened further during the Iraq-Iran war, and from 1987 to 1989 U.S. and Iranian naval forces engaged in what some observers have called an undeclared war. Relations reached a new low in 1988, when the U.S. Navy cruiser Vincennes, believing itself under attack by Iranian patrol boats, mistakenly shot down an Iranian Airbus and killed almost 300 people. In the 1990s, however, hostilities with Iraq dominated U.S. naval operations, and U.S.-Iranian naval relations became less confrontational. A wary professionalism came to characterize most interactions.

After the May 1997 election of President Khatami, the political atmosphere began to thaw and working level relations between the two navies have improved considerably. Should this improvement continue, and the two governments decide to cooperate against terrorism, the
naval relationship could evolve as well. It may therefore be useful to examine the obstacles to improving naval relations, and to identify potential opportunities for interaction.

**Obstacles**
The presence of U.S. military (most notably naval) forces in the Gulf is one of the primary points of contention between Iran and the United States. For U.S. policymakers, there is little debate about the need for a military presence in the Gulf. Access to the Gulf’s energy resources has been recognized as a vital interest by every U.S. president since Franklin D. Roosevelt. Additionally, U.S. defense cooperation with the Gulf Arab monarchies is likely to remain a feature of the regional security environment. Finally, the United States has a strong interest in protecting freedom of navigation around the globe in general.

Iran has long opposed the presence of foreign forces in the Gulf. This policy did not originate with the Islamic revolution; it has been a consistent feature of Iranian policy since the Shah was in power. The policy corresponds with the Iranian view that regional states should be responsible for regional security, and that Iran should have a leading role in any security arrangements.

Another obstacle is the U.S. policy to discourage the use of Iran to bring Caspian Basin energy resources to market. Iranian pipelines or “swaps” provide the shortest route for exporting energy to East Asia, where the demand is greatest. Instead of letting the market determine the most efficient routes, the United States strongly discourages the use of Iranian routes.

**Opportunities**
Though cognizant of the aforementioned obstacles, U.S. officials may wish to emphasize that Iran and the United States have common interests, such as regional search-and-rescue, preventing incidents at sea, and interdicting illegal drugs.

Although traditional confidence-building measures are not now feasible because the government of Iran refuses direct government-to-government relations, the United States should review them to determine which might be most appropriate once it decides that moving forward serves U.S. interests. Such a review should establish criteria and priorities. For example, transparency should be an important consideration in determining appropriate CBMs.

Maritime confidence-building measures might be promising and serve to reduce tensions and promote regional stability by reducing the potential for conflict caused by misperception or overreaction. Both navies will presumably continue to issue notices-to-mariners (NOTAMs) under certain operational conditions. Other appropriate measures include notification of naval exercises, establishing common procedures and frequencies for communications, and initiatives to promote transparency about the disposition of naval forces. Establishing a hotline between naval commanders in the region could reduce the chances of a military accident or miscalculation.
Although sometimes suggested as a model, it is not clear that the Incidents-At-Sea (INCSEA) agreement between the United States and the Soviet Union would be appropriate for the Gulf. The original INCSEA agreement involved two blue-water navies, operating on the high seas. The situation is quite different in the Gulf, where naval forces operate in confined waters subject to overlapping resource claims and territorial disputes. However, U.S. commanders have an interest in averting incidents; their Iranian counterparts may share this view. An agreement modeled on the one with China—which has similar concerns about the presence of U.S. naval forces in the South China Sea—may be more suitable for the Gulf. Another approach may be to use applicable Law of the Sea procedures for defining and resolving maritime issues.

In the mid-term, the two navies—and perhaps the U.S. Coast Guard—could cooperate more closely on issues of mutual interest. Such cooperation could take place directly or under the auspices of a multilateral institution such as the UN. Specific areas might include:

- **Regional search-and-rescue (SAR)**. SAR initiatives are often the first form of naval cooperation. The U.S. Navy has conducted bilateral SAR exercises with such former adversaries as Russia and Vietnam. Such cooperation typically involves airspace and ship-to-ship cooperation.

- **Humanitarian assistance and disaster relief**. Iranian and U.S. naval forces may find themselves working side-by-side in the event of a maritime or other natural disaster in the Gulf. Coordination of efforts would be a desirable goal; such coordination could take place directly in the event of a crisis, or under multilateral auspices as a planning mechanism.

- **Environmental issues**. The Department of Defense has an extensive international environmental security program involving cooperation with other states’ militaries. A regional conference on environmental issues facing Gulf states may provide a suitable venue for interaction and a platform for the U.S. Navy to assuage any regional concerns about marine pollution.

- **Counter-narcotics**. Both Iran and the United States have an interest in interdicting the illegal flow of drugs in the Gulf. Counter-narcotics cooperation could make use of naval aviation platforms, such as both navies’ P-3s.

In the longer term, should the two governments choose to pursue further engagement in the maritime arena, their naval forces could participate in bilateral military-to-military activities similar to those the United States conducts with other Gulf states. These might include invitations for Iranian naval officers to attend naval conferences and symposia; port and airfield visits by U.S. naval aircraft and ships; a humanitarian de-mining program similar to those the United States contributes to in Egypt, Jordan, and Yemen; and joint exercises. U.S. decision-makers may also eventually wish to consider multilateral maritime cooperation, with regional partners that have a history of cooperation with Iran, such as the Royal Omani or Pakistani navies.
VIII. The Status Quo Case

Although this report is based on the assumption that improved U.S.-Iranian relations are essential to any real progress toward dealing with the problem of Iranian WMD and missile programs, it is uncertain that the two states’ mutual interests in ending Taliban rule in Afghanistan will result in a fundamental change in the adversarial, stalemated relationship or that other obstacles can be overcome. One obstacle in the way of better relations remains the differences of policy toward the conflict between Israel and the Palestinians. The United States may well take additional steps against Iran because of Iran’s support of violent Palestinian groups.

In addition, strong emotional reactions have precluded Iranian officials from hearing early efforts by the United States to clarify just what is meant by the “axis of evil.” The Secretary of State was quick to point out important differences between Iran, Iraq and North Korea. Iraq is clearly in a different category, military operations against Iran are not imminent, and the United States is open to negotiations.

Recent developments increased animosity and raised the degree of uncertainty in U.S.-Iranian relations, at least in the short term. Given these circumstances, public negotiations between the two governments are probably out of the question. This leaves both sides entrenched in the status quo.

Without a fundamental change in the regional security environment, there is little reason to expect changes in Iranian WMD and missile policies, and the United States, acting alone and short of war, cannot prevent Iran from ultimately developing WMD and delivery systems. Furthermore, U.S. policies that take a tougher line with Russia, China and North Korea are not likely to lead to more restraint among these potential sources of WMD and missile technology. By contrast, improved U.S. relations with Russia could help curb the flow of WMD technology to Iran.

In the absence of engagement with Iran, unilateral U.S. economic sanctions will remain the principal, if flawed, U.S. policy tool for seeking to prevent Iran from acquiring WMD. The rationale is that by discouraging trade and investment, particularly in Iran’s energy sector, the government of Iran will have less revenue to pursue proliferation. Without broad international support for economic isolation, however, such an effort may hinder Iran’s WMD programs, though it cannot block them. Moreover, some economists suggest that sanctions, because they distort the market and thus result in higher energy prices, may in fact have precisely the opposite effect, potentially providing more funds for proliferation efforts.4

Supply side efforts to limit exports to Iran remain available regardless of changes in the U.S.-Iranian relationship. While they should be pursued, without a concurrent reduction in demand, such initiatives are likely to yield more frustration than success. Multilateral cooperation is also hindered, to some degree, by the fact that those countries with which

---

cooperation is required for effective supply side efforts do not support current U.S. policy toward Iran.

In the absence of direct relations with Iran, the United States has to rely heavily on multilateral nonproliferation efforts. This suggests that the United States should try to strengthen further the International Atomic Energy Agency and its efforts to deter and detect the diversion of civilian nuclear technology to weapons programs. A regional missile limitation agreement, including Israel, might also be considered.

Public exposure of Iran’s failure to abide by its treaty commitments could provide important leverage to dissuade Iran from further developing operational WMD capabilities and, perhaps more so, to convince third countries of the need for effective restrictions on exports likely to contribute to these capabilities. To be effective, however, such public exposure must include unmistakable evidence of specific acts that would justify the political action necessary among various governments to impose strong international sanctions.

Much work remains to be done in building international consensus, however. The record on international responses to the use of chemical weapons by Iraq during the war with Iran and nuclear weapons testing by India and Pakistan is not encouraging for deterring future violations. In each area of proliferation concern, the United States and its allies need to determine what Iranian behavior will trigger multinational responses.

As part of a larger strategy to raise the costs Iran associates with acquiring a nuclear capability, the United States would be well served by greater international agreement on how to deal with violations of the NPT. While building such agreement is difficult, it should focus on achieving the fewest nuclear weapons in the fewest hands. A strong consensus is necessary to develop a pre-determined international response to any state’s decision to cross certain red lines such as testing or use. While this kind of initiative should be pursued among U.S. allies, the ultimate goal would be agreement among the permanent members of the UN Security Council. The likelihood of a certain response would help those in Iran who argue against the acquisition of nuclear weapons.

IX. Principles and Recommendations

The foregoing analysis suggests some principles and recommendations for consideration in developing a U.S. engagement-nonproliferation strategy.

The overall concept for this strategy should be a long-term regional security dialogue in which the United States uses as many channels as possible to persuade Iranian leaders that the costs and risks of pursuing WMD and long-range missiles outweigh the benefits. As relations improve, increased direct access to Iranians will provide opportunities to engage in dialogues on the benefits of closer cooperation and the risks of not abiding by their treaty commitments. Also, the more the United States is directly engaged with Iran, the better the understanding of Iranian security calculations.
Those Iranians born after the revolution, who are now a majority in the population, should be an important target audience. They are the next generation leaders, and they seem to have a less hostile attitude toward the United States and are increasingly frustrated with an intolerant leadership that is also responsible for the badly mismanaged economy.

The strategy should involve simultaneous and integrated efforts in at least four areas; first, the United States should relax the principal unilateral economic sanctions in ways that serve U.S. interests. The U.S. executive orders could be modified to fit cooperative efforts to defeat al Qaeda and the Taliban—these could include aid to Afghan refugees in Iran, establishing U.S. non-governmental organizations in Iran, closer cooperation among financial institutions, border security and other efforts. This could open more choices for the Iranian government. More engagement also may empower those in Iran who favor restoring the full range of relations with the United States. In essence, the easing of largely ineffective sanctions carries little cost for the United States, while offering potentially significant benefits.

Second, every opportunity, both public and private, could be taken to engage Iranian officials in discussions to promote the establishment of normal diplomatic relations. This would help create a more positive image of serious U.S. interests in improving relations with Iran. It may also help gain cooperation from other countries on nonproliferation issues.

Third, private efforts, through NGOs and individuals, to engage Iranian citizens in dialogues on regional security could be helpful. These exchanges should seek to illuminate alternative choices for Iran to achieve its national security objectives. Eventually these dialogues would need to include Israel. These dialogues should explore possible agreements on practical matters, such as maritime CBMs and limiting missile ranges, as well as longer-term possibilities, such as establishing a WMD-free zone with an appropriate inspection regime.

The fourth area of engagement involves efforts aimed at key third countries and organizations to deny Iran access to WMD and missile technology, or at least to raise the costs of pursuing such acquisitions. Russia is crucial to such efforts. Closer Russian cooperation with the United States could result in Russian storage of Iranian spent fuel and Iran foregoing efforts to develop a nuclear fuel cycle. Furthermore Russia should be urged to manage the Bushehr project using a turn-key approach, without extensive provisions for Iranian involvement in the construction of the facilities and the fabrication of components. In addition, the United States must also work with the EU and Japan to raise the costs of Iran’s proliferation pursuits. As mentioned earlier, the EU and Japan must be encouraged to make clear to Iran that their trade is conditioned upon Iranian fulfillment of its nonproliferation commitments.

The pace and stage of Iran’s different WMD and missile programs affect the potential policy instruments. They need to be placed in the broader perspective of estimated trends in Iran’s defense spending, the nature of Iran’s force posture, Iran’s national security and military strategy, and the regional military balance. The intelligence community should be tasked to prepare an analysis of the broader security context along with relevant trends and
developments in the regional military balance. Proliferation red lines must be established for Iran that, if crossed, will trigger responses by the United States and others.

Finally, options are needed to deal with major failures in nonproliferation efforts. These options include measures to deter Iranian use of WMD, to defend against their use if deterrence fails, and to destroy Iranian WMD capabilities should the need arise. To help with this, the intelligence community could be charged with producing in-depth studies of Iranian strategy, plans, programs and vulnerabilities.
Annex A: Working Group On Iran

Co-Chairs
Lee H. Hamilton, Woodrow Wilson International Center for Scholars
James Schlesinger, Lehman Brothers. Director, Atlantic Council
Brent Scowcroft, Forum for International Policy. Director, Atlantic Council

Principal Policy Advisor
Roscoe Suddarth, Middle East Institute

Author - Rapporteur
Elaine L. Morton, Consultant, Atlantic Council

Project Director
C. Richard Nelson, Atlantic Council

Assistant Project Director
David H. Saltiel, Atlantic Council

Members
Hooshang Amirahmadi, Rutgers University; American-Iranian Council
Jahangir Amuzegar, International Economic Consultant
Robert Copaken, Middle East Institute
Jack Copeland, Copeland Consulting International
Curtis M. Coward, Trident Investment Group LLC. Director, Atlantic Council
Patrick Cronin, United States Institute of Peace
Donald A. Deline, Halliburton Company
Dieter Dettke, Friedrich-Ebert Foundation
Walter Fauntroy, National Black Leadership Roundtable
Edward Fei, Department of Energy
Frederick W. Flott, International Consultant
Chas. W. Freeman, Jr., Middle East Policy Council. Vice Chair, Atlantic Council
Graham Fuller, RAND Corporation
Lincoln Gordon, The Brookings Institution. Director, Atlantic Council
Sherry Gray, The Stanley Foundation
Donald L. Guertin, Director, Atlantic Council
Paul B. Henze, Historian
Kenneth Katzman, Congressional Research Service, U.S. Congress
Geoffrey Kemp, The Nixon Center
Steven Kramer, ICAF, National Defense University
Habib Ladjevardi, Harvard University Center for Middle Eastern Studies
Bruce Laingen, American Academy of Diplomacy
William Lane, Caterpillar, Inc.
Rodney J. MacAlister, Conoco Inc.
Suzanne Maloney, The Brookings Institution
Dana M. Marshall, Verner, Liipfert, Bernhard, McPherson & Hand
Robert C. McFarlane, *Energy and Communications Solutions, LLC; former National Security Advisor.*
David E. McGiffert, *Covington & Burling. Director, Atlantic Council*
E. Wayne Merry, *Atlantic Council*
Michael J. Metrinko, *Foreign Service Officer, Retired*
William Green Miller, *Woodrow Wilson International Center for Scholars; Search for Common Ground*
Hedieh Mirahmadi, *Islamic Supreme Council of America*
Richard Murphy, *Council on Foreign Relations*
Julia Nanay, *The Petroleum Finance Company*
J. Daniel O’Flaherty, *National Foreign Trade Council*
Robert Oakley, *INSS, National Defense University*
George Perkovich, *Secure World Program, W. Alton Jones Foundation*
Nicholas Platt, *Asia Society*
Henry Precht, *former Iran Desk Officer, U.S. Department of State*
A. John Radsan, *Afridi, Angell & Pelletreau*
Monica M. Ringer, *Georgetown University*
Richard N. Sawaya, *Research-able, Inc.*
Gary G. Sick, *Middle East Institute, Columbia University*
C.J. Silas, *Retired Chairman, Phillips Petroleum Company. Director, Atlantic Council*
Joseph J. Sisco, *Sisco Associates; former Under Secretary of State for Political Affairs*
Helmut Sonnenfeldt, *Director, Atlantic Council*
S. Frederick Starr, *Central Asia–Caucasus Institute, Johns Hopkins University, SAIS*
Jeremy J. Stone, *Catalytic Diplomacy*
Paul Sullivan, *ICAF, National Defense University*
Alexia Suma, *Stratfor*
Amin Tarzi, *Center for Nonproliferation Studies, Monterey Institute of International Studies*
Michael H. Van Dusen, *Woodrow Wilson International Center for Scholars*
Lawrence R. Velte, *Strategic Plans and Policy Directorate, The Joint Staff*
This report reflects the views of the authors and not necessarily those of individual project participants.
Annex B: Senior Review Group on Proliferation

Thom Burke USN, OJCS, J-5, Middle East Division
Joe Cirincione, Senior Associate and Director, Carnegie Endowment for International Peace
Scott Davis, Deputy Director, NN-42, Office of Nonproliferation Policy, Department of Energy
William J. Dircks, Director, Nuclear Non-Proliferation, Program on Energy and Environment, Atlantic Council
Michael Eisenstadt, Washington Institute for Near East Policy
Edward Fei, Office of Nonproliferation and International Security, Department of Energy
Rose Gottemoeller, Senior Associate, Carnegie Endowment for International Peace
Geoffrey Kemp, The Nixon Center
E. Wayne Merry, Atlantic Council
Gayle Meyers, Counter Proliferation Policy, Office of the Secretary of Defense
Elaine L. Morton, Consultant, Atlantic Council
George Perkovich, Former Director, Secure World Program, W. Alton Jones Foundation
Gary G. Sick, Middle East Institute, Columbia University
Amin Tarzi, Center for Nonproliferation Studies, Monterey Institute of International Studies
Vic Utgoff, Institute for Defense Analysis
Michael Yaffe, Bureau of Nonproliferation, Department of State
Carolyn Ziemke, Research Staff Member, Institute for Defense Analysis
This report reflects the views of the authors and not necessarily those of individual project participants.
Annex C: Acronyms

BW – Biological Weapons
BWC – Biological and Toxin Weapons Convention
CBMs – Confidence Building Measures
CW – Chemical Weapons
CWC – Chemical Weapons Convention
DCI – Director of Central Intelligence
GCC – Gulf Cooperation Council
IAEA – International Atomic Energy Agency
ICBM – Intercontinental Ballistic Missile
ILSA – Iran and Libya Sanctions Act
INCSEA – Incidents-At-Sea
MINATOM – Ministry of Atomic Energy of Russia
MTCR – Missile Technology Control Regime
NGO – Non-governmental Organization
NOTAMS – Notices-To-Mariners
NPT – Nuclear Nonproliferation Treaty
OPCW – Organization for the Prevention of Chemical Weapons
PKK – Kurdish Worker’s Party
SAR – Search and Rescue
TCA – Trade and Cooperation Agreement
UN – United Nations
WMD – Weapons of Mass Destruction