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**Iran's Strategic Culture and
Weapons of Mass Destruction**
Implications of US Policy

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Foreword

Since 1979 the relationship between the United States and the Islamic Republic of Iran has mirrored aspects of the ideological tensions that characterized the Cold War of the twentieth century's latter half. The revolution that ejected the shah emerged from a consensus within the Iranian community that favored social reform founded upon Islamic values. Ayatollah Ruhollah Khomeini, the charismatic imam whose vitriolic sermons helped to polarize relations between Tehran and Washington, established a theocracy in which the faithful could prosper.

In this study, Lt Col Anthony C. Cain, PhD, analyzes the relationship between Iran's strategic culture and weapons of mass destruction. Following the Iranian Revolution in 1979, foreign policy experts in the West had trouble comprehending the cleric's politicized Shi'i ideology and reacted with alarm when Khomeini, energized by the revolution's success, acted to export his ideology to other communities in the Middle East—sponsoring terrorism, if necessary, to combat regimes that supported US policies and interests. Consequently, the United States focused on containing Iran until the regime changed enough to allow for less ideologically charged dialogue to occur on the one hand while, at times, pursuing active measures to overthrow the revolutionary regime on the other. This range of policies resulted in economic sanctions and an arms embargo against Khomeini's Islamic republic. Moreover, when war broke out between Iran and Saddam Hussein's Iraq, the United States opportunistically backed the Iraqi dictator in the hope that a military defeat would usher in moderate leaders in Tehran. At times the relationship flared into military confrontation. US forces bombed Iranian targets in the Persian Gulf, and Iranian leaders launched missile attacks against shipping in the same waters. Beneath the surface of Middle Eastern power politics, Iran became a touchstone for religiously charged revolutionary movements across the Middle East. Perhaps the low point for US-Iranian relations occurred on 3 July 1988 when a US Navy Aegis cruiser shot down an Iranian Airbus, killing all 290 passengers aboard.

Colonel Cain describes how, in the aftermath of the 1991 Gulf War, the United States adopted a one-size-fits-all policy toward Iran and Iraq, the twin rogue states of the

Middle East, under the rubric of "dual containment." Since the landslide election of Seyyed Mohammad Khatami to the presidency in 1997, however, signs emanating from Iran point to possibilities for altering the tension that has plagued relations between the two states for more than 20 years. This study concludes by analyzing options available to US policy makers should they choose to help Iran's transition from pariah state toward a more moderate role in the Persian Gulf. President George W. Bush demanded in his January 2002 State of the Union Address that Iran abandon proliferation and terrorist-related activities as a precondition for easing tensions with the United States. Colonel Cain argues that US decision makers must understand the social and economic challenges that confront leaders in Tehran as they attempt to guide their nation toward the future. For its part, the Islamic republic must develop a consensus between its citizens and the ruling elite regarding Iran's legitimate role within the region and the world.

As with all Maxwell Papers, this study is provided in the spirit of academic freedom, open debate, and serious consideration of the issues. We encourage your responses.

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About the Author

Lt Col Anthony C. Cain graduated from Georgia State University in 1980 and was commissioned upon completing Officer Training School in 1981. After earning his navigator wings at Mather Air Force Base (AFB), California, in 1982, he served as a B-52G navigator, radar navigator, instructor, and evaluator at Wurtsmith AFB, Michigan; Barksdale AFB, Louisiana; and Castle AFB, California. In 1984 he won the William J. Crumm Linebacker Memorial Trophy for high-altitude bombardment during the Strategic Air Command's (SAC) annual bombing and navigation competition. As the senior standardization and evaluation radar navigator at Barksdale AFB, he launched several missiles and helped draft crew procedures and tactics during the initial operational test and evaluation of the AGM 142/A precision-guided munition weapon system. In 1991 he deployed in support of Operation Desert Shield and flew 26 combat missions in support of coalition objectives during Operation Desert Storm, earning the Distinguished Flying Cross and two Air Medals. In 1992 his crew won the Bartsch Memorial Trophy for electronic countermeasures performance during SAC's last bombing and navigation competition. After graduating as a distinguished graduate from the Air Command and Staff College (ACSC), he served at ACSC as a faculty member and director for the Theater Air Campaign Studies Course. In 1995 the commander, Air Education and Training Command, selected Colonel Cain as the command's Educator of the Year. He earned his doctorate in military history at Ohio State University and returned to the faculty at ACSC where he served as the director for the Airpower Studies Course before being selected to attend Air War College. In May 2002 the Smithsonian Institution will publish *The Forgotten Air Force*, Cain's study of French airpower doctrine in the interwar years. He is a Master Navigator with more than 3,000 hours in the B-52. He and Mechieal, his wife of 21 years, have three children, Jessica, Micah, and Ryan.

Iran's Strategic Culture and Decision Making

Since the 1979 Iranian Revolution and the subsequent hostage crisis, popular perceptions of a society dominated by “irrational” Islamic fundamentalists have colored US policy toward Iran. Michael Eisenstadt notes:

Because Shi'ite religious doctrine exalts the suffering and martyrdom of the faithful, and because religion plays a central role in the official ideology of the Islamic Republic, Iran is sometimes portrayed as a “crazy” or “undeterrable” state driven by the absolute imperatives of religion, not the pragmatic concerns of statecraft. . . . Experience has shown, however, that the perception of Iran as an irrational, undeterrable state is wrong.¹

Conflict will tend to characterize US policy toward Iran, in part, in proportion to the degree that US leaders fail to comprehend the Islamic republic's struggle to reconcile tensions between the faith and the economic, diplomatic, and military functions of state power.² Similarly, coping with Iran's efforts to acquire nuclear, chemical, and biological weapons, coupled with the potential proliferation of those weapons to other “rogue” states and terrorist organizations, requires a sophisticated understanding of Iranian decision-making processes.³ The challenge to US policy makers will center on modifying the prevailing paradigm that emphasizes the irrationality of the Iranian government in favor of one based on understanding the synergies—and the conflicts—between the various segments of the Iranian polity that help to shape relations between the two states.

The first step in developing a more sophisticated understanding of Iranian decision-making processes requires distinguishing between the Shi'ism espoused by the clerics who share power in the Iranian government, the politicized Islamism that threatens moderate Muslim regimes and their non-Muslim counterparts in the Middle East, and Islamic tenets to which most peaceful Muslims adhere. Shi'ism is, by definition, a millenarian sect of Islam that relies on imams, holy men, to mediate between God and the Islamic community.⁴ The basic distinction between Shi'i and Sunni branches of Islam derives from a conflict over the right to govern the *ummah*, the community of the faith-

ful. Sunni Muslims attempted to reconcile religious and secular communities within the *ummah* by creating the caliphate to provide political leadership while vesting spiritual leadership in the clergy. Followers of Shi'i Islam believe that political and religious leadership derives from the prophet's bloodline (through his son-in-law Ali ibn Abi Talib). This doctrine worked well until the twelfth generation (the Twelfth Imam) when, according to Shi'i doctrine, Allah caught up the imam (technically the imam was *occulted* or hidden from view)—unfortunately before he could appoint a successor to govern the *ummah*. Iranian Shi'ism follows the "Twelver's" sect because of its anticipation of the Hidden Imam's return.

Iranian religious leaders relied upon this doctrine to justify their political ambitions in Iran as they found themselves pushed to the margins of political authority under Shah Reza Mohammad Pahlevi's regime. The clergy resented this marginalization and developed a view that society—the *ummah*—would remain flawed as long as Iran's leaders maintained the separation between secular and religious communities. They encouraged opposition groups to adopt increasingly militant tactics designed to usher in a utopia in which the imamate would govern religious and political aspects of the community according to Koranic precepts.⁵

Shi'i religious doctrine produced a divided power structure in post-revolutionary Iran. During the years when Ayatollah Khomeini dominated the government (1979–89), the combination of his charisma, his religious authority as imam, and a brutally efficient internal security apparatus discouraged dissent and opposition. Additionally, Khomeini's focus on expanding Islamist influence struck a responsive chord spawning radical sects throughout the Middle East, North Africa, and elsewhere that came to rely on Iranian resources for ideological and logistical support.⁶ The virulent distrust with which Khomeini viewed the West contributed to the rise of Islamism in Iran and throughout the Muslim world as he consolidated his leadership and exported his ideology within the context of the Iranian Revolution.⁷ Thus, the revolution's apparent success encouraged disenfranchised, pious, and militant individuals and groups to campaign to overturn the status quo in such diverse states as Algeria, Egypt, Lebanon, Syria, Israel, and

the Philippines, often using terrorist tactics, in the name of a brand of Islamism that has only existed for a brief time in Iran.⁸

One final doctrinal point figures significantly in the evolution of Shi'i belief toward radical Islamism—the doctrine of *jihad*. In the early years of the faith, *jihad* was necessary both to protect and to expand the community of the faithful. As long as the imams ruled the community, their authority to declare *jihad* remained a fundamental symbol of their right to rule in Allah's name. Technically, until the return of the Twelfth Imam, the authority to declare *jihad* has lapsed. However, because the Iranian clerics derive their authority based upon the legitimacy of their *imamate*, they assumed the authority to declare *jihad*. The Iranian community's tacit recognition of this authority harbors significant implications for conflict with the Islamic republic and its surrogates. Competitors could face combatants motivated by religious fervor that stems from their anticipation of rewards in paradise for their sacrifice (and corresponding torments in the afterlife should they fail) if they answer the imam's call to wage holy war.⁹

It is impossible to separate the Iranian government's policy choices from its religious precepts. Religion governs every aspect of social, political, and economic life for citizens of Iran in ways that rarely apply to most Western societies.¹⁰ One analyst observes, "Islam also encompasses the material and spiritual aspects of the followers' lives from the time of birth, throughout life to death, and even after death throughout the spiritual experience."¹¹ Thus, for contemporary Iranian politics, reconciling the demands of international statecraft and domestic consensus building with the principles of religious dogma remains difficult and, at times, nearly impossible. Western society resolved the secular-religious dilemma over the course of several centuries of religious wars that culminated with the conflicts that accompanied the Protestant Reformation. Islam has yet to undergo a similar reconciliation—and Iran, in particular, has erected institutional barriers to prevent this development by establishing an Islamic theocracy.¹²

Iran's decision-making process remains clouded in mystery to most Western observers. The Islamic Revolutionary Council vested supreme authority in the *vali al faqih* (a re-

ligious leader who combines political and religious authority in the executive branch of government).¹³ Between 1979 and 1989, the Ayatollah Khomeini steered the country and consolidated the revolution. His nearly unimpeachable religious authority constrained the boundaries of dissent and debate over economic and political issues. Economic stresses stemmed from Iran's nearly total dependence on the oil industry for foreign exchange. Thus, decisions by other petroleum-producing nations to regulate prices and supplies severely constrained Iran's economic potential. Moreover, the Iran-Iraq War, coupled with economic and political sanctions sponsored by the United States and the United Nations, placed severe strains on the Iranian government and population. Khomeini's regime pushed aside moderates like former President Abol Hassan Bani-Sadr as it reacted to the war with Iraq and perceptions of political and economic attacks against the Islamic republic from the US-led international community.¹⁴ Since Khomeini's death, tensions within a rising middle class and students who campaign for democratic reforms aimed at reconciling Iran with Western cultures have threatened to shatter the fragile unity that governs Iran.¹⁵

Ayatollah Ali Khamenei, Khomeini's successor, wields power as the *vali al faqih* in the post-Khomeini era. Rather than following the archconservative policies of his predecessor, the tensions outlined above forced Khamenei to accommodate popular demands for reform. President Seyyed Mohammad Khatami, who rose to office on the wings of a landslide victory in 1997, carefully pushed the conservative clerics to implement moderate governmental and economic reforms. As one analyst notes, however, the signals emanating from Tehran are often difficult to sort out: "Since Khatami's election, there have been many signs that Iran has a complex political structure that is in the midst of an uncertain transition. . . . Moderates must talk like hard-liners to survive, and this helps explain why one day's new moderate initiative may be followed by the next day's hard-line speech."¹⁶ Consequently, some nations have reacted cautiously to Khatami's influence by easing restrictions on trade and diplomatic contacts with Iran. Also, Khatami has made public statements of regret to the United States for the hostage episode in an apparent at-

tempt to ease tensions between the two countries. Thus, those who seek to discern Iran's propensity to pursue moderate foreign and domestic policies must sort through the rivalries between Khamenei and the clerics and between Khatami and the political elite.

The Iranian theocracy filters its interaction with the international community through the lens of Koranic law. This constitutional requirement means that the elite clergy will formulate moderate policies slowly, if at all. Despite the mullahs' inherently conservative approach, instances of policy shifts have occurred that, on the surface, appear to contradict religious dogma. Perhaps the most significant, and ominous from a weapons of mass destruction (WMD) proliferation perspective, was the Ayatollah Khomeini's reversal of his policy, based upon the Koran's prohibition against using poison, during the Iran-Iraq War that condemned the use of chemical weapons (and by extension, nuclear and biological weapons). This decision came after Iranian forces suffered horrific losses from Iraqi chemical weapons attacks.¹⁷ Significantly, however, the decision emerged only after the international community failed to take action to condemn or curb Iraq's use of such weapons and after intense debates within Iran between Khomeini, the military, and the clerics. Thus, a fundamentally secular decision based upon military effectiveness calculations had to pass through the filter of Islamic law to acquire the mantle of legitimacy. With the debate settled, however, the republic's leaders relied upon the new religious precedent to justify future nuclear, chemical, and biological weapons proliferation. This example illustrates the difficulty that moderate leaders will encounter as they attempt to reshape Iran's foreign or domestic policies—without a catalyst to prompt clerical review of established policies, there will be little rationale for proposing new interpretations merely to justify liberal reforms.

The characterization of Iran as an "Islamic democracy" conceals serious flaws within the functioning and the fabric of the society. In the first place, the clerics jealously guard their prerogatives as the interpreters of the revolutionary agenda. In terms of governmental structure, this translates into a dual system of government with a weak presidency that operates under the close supervision of the

supreme leader (*vali al faqih*) and the Assembly of Experts. Second, the military operates within a dual chain of command with the Iranian Revolutionary Guard Corps serving a praetorian function as the protectors of the revolution while the nominally “regular” armed forces act in reserve capacities. Finally, great personal risk accompanies dissent and freedom of expression for the average Iranian citizen. The clerics monitor media and press outlets to detect instances of nascent counterrevolutionary thought. Even with these overarching controls, however, spontaneous demonstrations have occurred that have forced the regime to act decisively to prevent a replay of the mass uprisings of the late 1970s as the public clamors for reform.¹⁸

The twin social upheavals of revolution and interstate war exerted harsh effects on Iran’s social infrastructure. Presently in Iran, age groups cluster around the less than 30-year-old and more than 50-year-old sectors as a result of the flight of many citizens from the country in the immediate aftermath of the revolution and the tragic casualties sustained in the war with Iraq. This clustering means that few of Iran’s nearly 66 million citizens have memories of any but the present form of government. Those who remember Shah Pahlevi’s regime likely do so with resentment stemming from the corruption and inequality that characterized the regime in its waning days. Thus, the current regime in Tehran enjoys modest popular support that draws its strength from the population’s ignorance of viable alternatives on one hand and a determination not to return to the monarchy’s flawed structures on the other.¹⁹

Despite the current regime’s popular revolutionary agenda of establishing equality for all members of the society, urban and rural poverty continue to characterize life in Iran. This stems in part from a 3 percent annual population growth that will outstrip the nation’s economy if left unchecked. The government recently acted to stave off the potentially disastrous effects that could occur from unsustainable population growth by relaxing its interpretation of the Koran’s encouragement of large families. The large urban population has resulted in unequal and inefficient food distribution reflected in a 20 percent malnourishment rate for children under five years of age.²⁰ These and other

demographic trends portend a troubling and challenging future for Iran's leaders.

Iran's isolation under the mantle of Islamic purity and the wasteful 10-year war with Iraq left the nation's infrastructure in decline. Rural areas remain isolated from government services owing to the lack of serviceable roads. The airline and rail industries have also suffered profound neglect from insufficient maintenance. Consequently, Iran's leaders now must invest in concentrated infrastructure re-capitalization strategies to prevent further decay and its negative effects on the economy.

The economy Iran's leaders will rely upon to pull their nation into the twenty-first century is founded on a single commodity—oil. As a member of the Organization of Petroleum Exporting Countries (OPEC), Iran's economic fortunes remain tied to the consensus of its partners. Since 1997 those fortunes have fluctuated wildly as oil prices ranged between \$10 and \$35 per barrel. For the average Iranian, these fluctuations have translated into inflation rates that hover around 15 percent, an unreliable currency, and an uncertain standard of living.²¹ Recent US State Department estimates place the Iranian gross domestic product at \$413 billion—which translates into a per capita income of \$1,500.²² One source quotes a disgruntled Iranian citizen's comment on the economy. "There are many who remember the corrupt days of the Shah: 'At least then you could get a chicken to put on the family table without having to do three different jobs to pay for it.'"²³

Although Western states continue to rely on Middle Eastern oil, OPEC does not enjoy the freedom to hold them hostage as it did in the early 1970s—nor is there a consensus among member-states that such a policy is consistent with their individual state's economic and security interests. New oil sources coupled with dramatically altered relationships between the West and major Persian Gulf oil states (Saudi Arabia, United Arab Emirates, and Kuwait) have dampened Iranian influence at OPEC price-setting councils.²⁴ These developments have combined to cause the Iranian economy to stagnate. Debt stands near \$12 billion in an economy in which annual imports exceed exports by approximately \$1 billion.²⁵ Therefore, the Iranian economy's myopic concentration on vast oil and natural

gas reserves has placed the country paradoxically in thrall to the demands of the global oil economy by preventing diversification and modernization of other such vital sectors as computing, banking, attracting foreign investment, and communications.

Iran presents a picture of a state with vast human and economic potential—possibly the preeminent leader among the Gulf states. The social and economic challenges outlined above, however, dramatically constrain Iran's leaders. Moreover, the apparent unyielding adherence to the tenets of Shi'i doctrine complicates foreign relations while simultaneously adding a layer of complexity to domestic policy making. The international community, led by the United States, has exacerbated some of Iran's social and economic problems by treating the Islamic republic as a pariah state. For its part, Iran has thumbed its nose at the international community by supporting extremist movements throughout the Muslim world. Perhaps the most serious policy barriers to improved relations between the United States and Iran, however, are Iran's support of terrorism and its pursuit of chemical, biological, and nuclear weapons programs along with associated delivery systems technologies.

Iran's Chemical and Biological Weapons Programs

As outlined earlier, advancing along the path toward détente between the United States and Iran will require significant cultural accommodation from both parties. Since Khatami's election to the presidency in 1997 and again in 2001, the message from Tehran has remained ambiguous—hard-line rhetoric often has followed conciliatory overtures. Iran's policies regarding terrorism, WMD, and missile technologies give ample reason for US policy makers to remain cautious. But increasing trends toward globalization coupled with a temporary international consensus centered on fighting terrorism may provide the levers needed to ease tensions between the two countries. While the challenges remain great for US policy makers, the initiative and the paths to improving relations remain clear

for Iran. The mullahs have proven that they can reconcile their religious ideology with the needs of international statecraft—perhaps their egos and quest for personal power present the only barriers to channeling their efforts toward improving relations with the West in the future.

Most observers agree that the Iran-Iraq War was the catalyst for Iran's ambitions to acquire chemical and biological weapons. One analyst notes, "Iran was never a regional leader in the effort to acquire biological and chemical weapons until the Iran-Iraq War. . . . Iran only revitalized its nuclear program and gave its chemical and biological programs high priority after Iraq made extensive use of chemical warfare against Iranian troops."²⁶ More recently, Tehran has intensified its efforts to develop an indigenous capability to produce and weaponize chemical and biological agents. A 2001 Central Intelligence Agency (CIA) report noted that "Tehran was seeking production technology, training, expertise, equipment, and material that could be used as precursor agents—the ingredients for chemical weapons—from Russia and China."²⁷ Thus, the Islamic republic's status with respect to chemical and biological weapons has shifted from one of reluctance or indifference to active and aggressive pursuit of chemical and biological weapons capabilities.²⁸

Since the end of the Iran-Iraq War in 1989, the Iranian armed forces have developed capabilities to produce a wide range of chemical agents including blood and blister agents. Additionally, the Iranian arsenal includes a limited ability to produce nerve agents. Beyond this growing chemical stockpile, Iranian scientists pursue research that focuses on developing biological weapons that include mycotoxins, anthrax, hoof-and-mouth disease, and botulinum toxin. Although Iran currently has a limited capability to employ such weapons, analysts fear that ongoing efforts to acquire long-range ballistic missiles could result in the ability to threaten Asia, Europe, and most of Africa.²⁹

Surveillance efforts can give a generally accurate picture of the technical outlines of Iran's chemical and biological weapons program, however, determining how and under what conditions the government would elect to employ its arsenal is less clear. First, in the post-Khomeini era, power relationships within the government remain far from

transparent. Second, interest groups within Iranian society appear to influence the government's decision-making processes, resulting in often contradictory signals that complicate US policy formulation toward Iran. Finally, it is difficult to distinguish how the Iranian military command functions with respect to chemical and biological weapons employment doctrine.

The tension between religious and political leaders apparently does not extend to relations between the government and military commanders. One report concludes, "The military remains largely depoliticized since the mid-1990s."³⁰ Observers describe the military institutions as more inclined to support conservative policies within the Iranian hierarchy, thus making the military a loyal servant to the Islamic republic's evolving revolutionary ideals. The requirement to balance decisions to use chemical or biological weapons between the government's hard-line clerics, who control the military in a general sense, and the reform-minded moderates has produced a compartmentalized command structure. Conceivably, the government (represented by the *vali al faqih* and the military high command) could decide to launch a chemical or biological strike without presidential knowledge or approval.

The military's operational composition and tactical abilities, however, create a dangerous mix owing to the general weakness of its conventional forces. Chemical and biological weapons offer obvious force enhancement options that bolster the Islamic republic's brittle conventional weapons infrastructure. As the Iranians discovered in the Iran-Iraq War, chemical and biological weapons are remarkable equalizers when employed against massed ground troops.³¹ Moreover, chemical and biological arsenals are cheaper to procure and maintain than the high-tech weapons Iran would require in a confrontation with Western powers. The combination of weak conventional forces, hard-line political domination of military decision-making processes, and an uncertain knowledge of Iranian chemical-biological weapons doctrine complicates the problem of assessing the likelihood of chemical-biological use by the Islamic republic.

Iranian doctrine is, perhaps, less opaque than other aspects of the chemical-biological weapons problem. Two

likely scenarios suggest conditions in which the Iranian government would resort to chemical-biological attack. One reflects the defensive posture that has characterized most Iranian military operations since the revolution. The second is more intimidating and reflects the possibility of offensive operations designed to energize a global or, at least, a regional Islamist bid for power.

Although Tehran has not abandoned Ayatollah Khomeini's vision of becoming the dominant force in the Muslim world, domestic economic pressures and a generally inferior posture vis-à-vis regional competitors dictate a defensive strategy. The most likely conditions for Iranian chemical or biological weapons use against regional competitors would conform to the pattern established in the Iran-Iraq War. In this role, "Iran views Iraq as the primary threat to its security, and is a key factor . . . in the development of an indigenous WMD and missile capability."³² The Iranians would use chemicals in a tactical role, and probably only in retaliation against a first strike by their adversaries, to reinforce or stabilize conditions for troops in contact with the enemy. This scenario conforms to the general view held by Iranian leaders that chemical and biological weapons are deterrent weapons with devastating combat potential. Viewed this way, chemical and biological weapons arsenals become critical national security policy tools that support the constitutional mandate to "safeguard the complete independence and integrity of the territory."³³

Barring state-sponsored threats to Iranian sovereignty, however, the revolutionary doctrine offers a rationale for Iranian *sponsorship and support* of chemical or biological weapons attacks designed to further the Islamic republic's cause. Anthony Cordesman argues, "The possibility that Iran has biological weapons gives it an enhanced capability to deter and intimidate . . . it has incentives to make covert use of biological weapons because they are particularly well-suited to unconventional warfare or 'terrorism.'"³⁴ The plausible deniability the veil of terrorism offers state sponsors affords the Iranians wide latitude in selecting methods and targets for chemical or biological attacks of this nature. Trends toward moderation, the need to obtain economic assistance to bolster the sagging economy, and the fear of overwhelming retaliation are likely to cause

Iranian leaders to weigh their actions carefully before choosing this offensive option in the near future. Moreover, the overwhelming support for US actions following the 11 September 2001 terrorist attacks may cause Iran's leaders to shift their emphasis away from chemical and biological weapons because of their potential association with terrorist strategies in favor of enhanced nuclear capabilities.

Iran's Nuclear Program

The specter of a nuclear confrontation in the Middle East has replaced fears of a Cold War nuclear showdown between the United States and the Soviet Union. This view has emerged for several reasons. In the first place, deterrence and positive control mechanisms that characterized the bipolar world are largely absent in the Middle East. Competing interests, weak state structures, a post-colonial legacy of deep-seated mistrust of the West, and dramatic cultural differences heighten concerns over regional nuclear proliferation. Second, some states pursue nuclear acquisition programs with overt intentions of radically altering the regional balance of power. State-sponsored threats against Israel usually reflect this aspect of the Middle Eastern security equation. Finally, Islamist movements that rely upon terrorism to advance politico-social agendas could acquire nuclear or radiological materials to use against regional and Western powers in attempts to eradicate unwanted influences, thereby, setting the stage for regional hegemony.

Iran figures prominently in each of the instances listed above. Most assessments of the Iranian nuclear program characterize the Islamic republic as relatively far from developing a credible nuclear threat.³⁵ However, the Iranians have, haltingly at times, pursued nuclear research and development since before the 1979 revolution that toppled the shah's regime and gave the reins of government to the ultraconservative Shi'i clerics.³⁶ One analyst notes Iran's importance to regional stability, "Iran is the largest country in the region and has the potential to play the most important role there, for good or ill."³⁷ Tehran's desire to restore Iran to its rightful place within the larger Islamic

community and as a regional power coupled with its robust intermediate-range missile resources makes Iran a potent nuclear “proliferator” that bears careful watching.³⁸

The roots of the current Iranian nuclear program reach back to the shah’s regime. The United States supported the monarch’s ambitions to modernize the country by offering education for Iranian students and by supporting his efforts to use nuclear power plants to electrify the country. With Pahlevi’s support, nuclear power and nuclear research became a conspicuous symbol of modernization while they simultaneously bolstered his bid for regional hegemony.

The 1979 revolution curbed nuclear research for several years owing to the ruling Islamic council’s characterization of nuclear (and chemical and biological) weapons as incompatible with Islamic law. However, the war with Iraq forced Khomeini and his fellow clerics to alter their assessments of nuclear weapons. As tensions with the Iraqis moved from open war toward uneasy truce after the Iran-Iraq War, Iranian leaders concluded that they could ill afford to allow regional competitors to gain again the upper hand in the nuclear, chemical, or biological weapons arena. Moreover, the ruling council of clerics retained a vision of Iran as the bearer of Islamic purity. Michael Eisenstadt concludes that the clerics “believe that the fate of the Islamic community at large depends on Iran’s ability to transform itself into a regional military power that can defend and advance the interests of that community.”³⁹

Ayatollah Khomeini authorized nuclear research to commence in 1985 in violation of the Nuclear Non-Proliferation Treaty (NPT) that the shah’s government had ratified in 1970. This marked the renewal and acceleration of Iranian clandestine efforts to acquire nuclear weapons in violation of NPT terms.⁴⁰ In the late 1990s, such events as the arms race between Pakistan and India, which came to a head in May 1998 with the detonation of Pakistani and Indian nuclear devices, compelled Iran’s leaders to move to balance several emerging security challenges.⁴¹

The Iran-Iraq War left a lasting imprint on Iranian foreign policy that provided added impetus to violate the NPT. On one hand, Iraq’s aggressive pursuit of nuclear capability coupled with the US-led coalition’s apparent difficulty

in dismantling the Iraqi program during and after Operation Desert Storm left the Iranians with little confidence in international collective security mechanisms. The conspicuous failure of the international community to act against Iraq's overt use of chemical weapons in the war served as a catalyst for the Iranian chemical and biological weapons program.⁴² The net result of this unfortunate failure on the part of the international community was to convince the Iranians that they could not look to others for support or defense where weapons of mass destruction were concerned. On the other hand, Iranian leaders do not trust the international community to act in accord with their country's interests. In other words, "The lessons of international sanctions imposed on Iran during the Iran-Iraq War suggest that self-reliance must be one of Iran's long-term goals, if only to avoid future humiliations. This objective would entail increased domestic production of arms and support items and decreased dependency on foreign supplies."⁴³ Thus, the foreign policy legacy of the tragic war with Iraq was a strengthening of the Iranian's leaders tendency to view themselves as martyrs in a global conflict between Islam and the rest of the world.

Although the nuclear program's details are difficult to discern, Iranian scientists apparently conduct research and weapons development at eight known facilities scattered throughout the country. Agreements signed with Russian officials in 1992 to provide two 440 megawatt reactors in 1992 form the foundation for current weapons research programs.⁴⁴ Other countries, such as China, North Korea, France, Germany, and Great Britain, have contributed specific and dual-use technologies to the burgeoning Iranian nuclear capability.⁴⁵ For such countries as China and North Korea, trade with Iran bolsters domestic arms industries and provides much-needed oil while simultaneously equipping an emerging counter to Western influence in the Middle East. Western countries acquire tangible foreign trade benefits coupled with increased access to Iranian oil and natural gas resources by dealing in the shadowy world of nuclear and dual-use technology trade. Between 1995 and 1997, the value of total arms deliveries of all types to Iran exceeded \$1.5 billion with China

and Russia leading all other nations at \$725 million and \$480 million respectively.⁴⁶

Ballistic missile technologies represent another important facet of the nascent Iranian nuclear weapons program. The inaccurate Scud B presently forms the backbone of Iran's ballistic missile force. But Iran has made incremental improvements in the Scud's accuracy and range while simultaneously moving to equip its forces with the Shahab 3, an indigenous variant of the North Korean Nodong (1,500 km) intermediate-range ballistic missile. The relationship with North Korea appears strong, thus, giving rise to fears that Iran could eventually acquire the 3,000 km Taepo-Dong missile that could be modified to accommodate multistage boosters. Should this occur, the Iranians would be able to threaten most of Western Europe with nuclear, biological, or chemical warheads.⁴⁷

Although the above facts certainly provide ample reason for US officials to express concern about the Iranian nuclear program, there also are reasons to be somewhat optimistic about US-Iranian relations in the near term. In the first place, the list of nuclear-capable suppliers who could rapidly accelerate Iran's progress toward developing a nuclear bomb is relatively short. Such states as China and Russia would seriously jeopardize their relationship with the United States and its allies if they provided fissile material to the Islamic republic. International monitors have recently thwarted illicit attempts to supply Iran with such materials.⁴⁸

The Iraqi attempt to develop a Hiroshima-type atomic device could provide a reasonable yardstick against which to measure the likely timelines that would characterize the Iranian program. Beginning in the early 1970s, Saddam Hussein sponsored an all-out effort to produce a bomb—that effort has proved unsuccessful to date. Despite relatively loose controls on technology imports and dual-use policies, the Iraqi effort was still 8 to 12 months short of fielding its first atomic weapon when the Gulf War began in January 1991. The research and development effort behind Iraq's program occurred with relatively few fiscal restrictions on procurement—a situation that does not prevail in present-day Iran. Moreover, during the Iran-Iraq War, the West (particularly the United States) viewed Iraq

as an acceptable proxy in its efforts to contain the tide of Islamic fundamentalism that appeared to originate in the Ayatollah Khomeini's Islamic republic. This proxy status eased many import restrictions, and Hussein's nuclear scientists clearly turned it to their advantage.⁴⁹ Iran does not enjoy such sponsorship for its research efforts.

A final reason for optimism regarding Iran's nuclear weapons research program lies within the Islamic republic's borders. The Iran of the twenty-first century is not the Iran of 1979—or of 1989 for that matter. The wave of fundamentalism that swept the mullahs into power has somewhat subsided leaving Iranians yearning for better social and economic conditions. The landslide election of Khatami and his reelection indicate the degree to which the mullahs must pay attention to popular desires for reform. Khatami has made hesitant public overtures to the West in general and to the United States in particular. He treads a fine line, however, between loyalty to revolutionary principles and the mandate to ease Iran toward a more moderate form of Islamic republicanism. He addressed this issue before the Assembly of Experts on 4 February 1998 saying, "I have chosen elimination of tension as the core of our foreign policy. . . . Elimination of tension, however, does not mean giving up our principles . . . and forsaking our integrity and independence in return for such things as, for example, rapprochement with the United States."⁵⁰ Consequently, the United States should remain cautious regarding Iran's nuclear weapons research programs. While Iran's leaders will probably continue to pursue nuclear weapons and long-range missile programs to complement their robust chemical and biological programs, competing factions within the Islamic republic will likely delay progress toward developing a fully functioning nuclear device for several years.

Implications for US Policy

The hypothesis that describes the Iranian strategic culture as more akin to a rational state actor rather than as an irrational and unpredictable religiously fanatic state appears valid. This statement does not imply that a peculiar brand of Islamic fundamentalism has no bearing on

Iranian governmental decisions regarding the utility of WMD. On the contrary, the power wielded by the clerics and Ayatollah Khamenei, in the proper religious context, could make a decision to launch chemical, biological, nuclear, or radiological attacks more likely. As discussed above, however, the Iranians appear to prefer to act covertly through surrogates to advance their Islamist agenda abroad while simultaneously preserving the territorial integrity of the Iranian state by adopting a strategic defensive posture.⁵¹

Economic conditions within Iran appear to be the primary vehicle for encouraging or constraining moderate influences within the government. The economy's overwhelming dependence on oil production for growth gives state competitors a significant lever to shape dialogue with the Islamic republic. Iran's leaders are aware of this fundamental weakness and tend to resent the Gulf states and their trading partners when they enact policies that constrain the Iranian economy. Once again, the clerics tend to view their state's economic weakness as an assault by the West against the revolutionary Islamic utopia. Therefore, the United States and its allies should use economic sanctions carefully with an understanding of the paranoia that haunts the powerful clergy—at any time, the imams could invoke *jihad* using covert WMD attacks against competitors to alleviate economic strains brought on by perceived Western intervention in the Iranian economy.

Iran's deteriorating conventional military capabilities tend to encourage WMD proliferation. The expense of creating indigenous conventional weapons industries within the context of a faltering economy has forced Iran to look to China, the former Soviet states, North Korea, and other proliferators to recapitalize its conventional force. Tactical and operational effectiveness, coupled with the relative ease of producing chemical and biological agents, has encouraged the Iranians to procure large stocks of unconventional weapons along with advanced missile technology for delivering them against strategic targets.⁵² As for nuclear and radiological weapons, the respect India and Pakistan gained after demonstrating their nuclear capabilities is unlikely to have escaped notice in Tehran. Although Iran's normal military posture focuses on defense and de-

terrence, analysts do not discount the possibility that the Iranians would resort to WMD attacks should they perceive their deterrent posture as weakening.

US policy makers should concentrate intelligence-gathering efforts on emerging democratic movements within the Islamic republic. According to several reports, "There are growing signs that Iran may evolve a more tolerant approach to defining the Islamic state, one that emphasizes the humanitarian and moral strength of Islam, rather than the effort to force other nations into accepting its concept of repressive and outdated theological rules and social customs."⁵³ Ill-considered diplomatic initiatives based upon general perceptions of Iran as an "irrational and unpredictable" actor could reinforce conservative power at the expense of emerging moderate trends. This type of mistake could encourage Iran's predilection toward WMD proliferation while simultaneously making their use more likely.

While there are compelling reasons for US policy makers to look toward Iran with optimism, several realizations must take hold before relations between the two countries can thaw. In the first place, Iran will continue to pursue its revolutionary agenda to its logical conclusion. This pursuit will likely mean a continuation of the theocratic governmental model with its inherent conservatism and resistance to accommodation with the larger international community. This trend works at cross-purposes to traditional US preferences for rapid, decisive action in international affairs, but American policy makers must learn to distinguish between Iranian intransigence and the struggle within the governing community to reconcile religious principles with the demands of international and domestic affairs. For the present, US policy offers an olive branch to Tehran—but at arm's length.⁵⁴

While the above mentioned trend may require more accommodation and patience from US policy makers than it does from Iranian leaders, Iran's leaders must decisively abandon their historic support of radical Islamist and terrorist groups that threaten governments in the Middle East and elsewhere. The events of 11 September 2001 have greatly stiffened US resolve to combat terrorism, especially state-sponsored terrorism. The State Department

reported in April 2001, "Iran remained the most active state sponsor of terrorism in 2000. It provided increasing support to numerous terrorist groups, including the Lebanese Hizballah, Hamas, and the Palestinian Islamic *Jihad* (PIJ) which seek to undermine the Middle East peace negotiations through the use of terrorism."⁵⁵ Since 11 September, Iranian leaders have condemned the al-Qaeda-sponsored attacks against the United States, but they also leveled muted criticism at the US actions against the Taliban regime in Afghanistan. President Khatami's policy of "eliminating tension without neglecting principles of the Revolution" must change substantially to reflect the new strategic circumstances of the ongoing war against terrorism if Iran is to realize détente with the United States.⁵⁶

US policy makers can encourage Iranian actions with regard to changing policies about terrorism by acknowledging the Islamic republic's legitimate aspirations to regional leadership. Iran has the economic potential, geographic position, and a sense of cultural destiny to garner respect as a constructive regional power; however, such a position comes with responsibilities. Iranian leaders must acknowledge that their efforts to acquire weapons of mass destruction and long-range missile technologies work at cross-purposes to their visions of regional leadership. International trends point to arms limitations as a preferred stabilizing mechanism that paves the way for economic and cultural development. Tehran's efforts to acquire advanced weaponry while its economy declines and its people labor under high inflation rates makes little sense—especially in the context of a global economy that is projected to amplify differences between developed and undeveloped nations.

Finally, Iran must adopt domestic policies that lead to social reform. With nearly 440,000 students enrolled in higher education, Iranian society is destined to undergo dramatic change. While the managers of the revolution in the post-Khomeini era are to be commended for promoting such high levels of education, they also must realize that education will cause their revolution to evolve in unforeseen ways. Rather than suppressing the exchange of ideas through surveillance, control of the media, secret police, and thinly veiled state-sponsored assassinations, Iran's leaders should recognize the consensus that exists among

their constituents for the theocratic form of government. As that government reconciles itself with the international system, the citizens can become a potent engine for social development, economic growth, and cultural advancement. This, after all, is the vision that President Khatami outlined for Iranian civilization.⁵⁷

Despite Khatami's apparently contradictory call for easing tensions within a context of revolutionary independence, Iran's leaders must take positive action to ease the suffering of their people. Gary Sick notes, "The demonstrations in Iran are not about clerical rule or a return to the monarchy or even about democracy and human rights. They are about quality of life, drinking water, inflation, housing, and jobs. The demonstrations are serious—not because they threaten to overturn the government, but because they force the government to confront its failure to keep promises and to deal with fundamental economic issues."⁵⁸ The emerging schism in Iranian domestic politics gives some observers reason to believe that a dialogue could evolve that would ultimately reverse Iran's pursuit of nuclear weapons. The Clinton administration's policy of treating Iran and Iraq as essentially twin sides of the same rogue-state coin under the rubric of dual containment has failed to make Iranian WMD programs more transparent. On the contrary, US officials know disturbingly little about the scope and progress of chemical, biological, and nuclear weapons research in the largest state in the Persian Gulf region.

Even before Khatami's rise to the presidency, analysts in the United States called for easing of the rhetoric and the tensions between Iran and the world's remaining superpower. Kenneth Timmerman wrote as early as 1996, "Containment is no longer enough. Iran has been too successful in procuring nuclear weapons technologies, in spite of our entreaties to our allies. When we have been successful and have blocked a problematic sale, Iran has simply gone shopping in Russia, China, and India."⁵⁹ Some observers point to the fact that Iran boasts the only democratically elected government in the Persian Gulf region and that the Islamic republic enjoys broad support among its constituents. Those who adhere to this view suggest that using an approach similar to the one used to alter the di-

rection of North Korea's nuclear program may provide a foundation for better US-Iranian relations while reducing the nuclear threat.⁶⁰ Using this model, US leaders would no longer characterize Iran as a rogue state, but would recognize the legitimate right of the Iranian people to adopt a theocracy as their chosen form of government.⁶¹

There are, however, several obstacles to the conciliatory approach. Iranian clerics and the Revolutionary Guards who control the WMD and missile programs will probably be reluctant to forgo the research and development progress achieved to date. In addition, the fiercely independent Iranian leaders will most likely refuse to submit to the invasive inspections that would be necessary to verify compliance with international demands to rollback nuclear research. Ideologically, the clerics continue to express support for radical Islamist movements throughout the Middle East. Western fear that Hizbollah or Hamas operatives could employ an Iranian nuclear or radiological device remain a powerful bargaining chip in the Iranian arsenal. The obvious advantage of such a tactic lies in the covert advancement of Iranian policies toward Israel or in the Persian Gulf. The events of 11 September also complicate matters as long as the United States identifies Iran as a state that sponsors global terrorism.⁶² Finally, US leaders must recognize the fundamental utility that Iran gains from possessing WMD—strategic advantage vis-à-vis its principal regional rival, Iraq. As long as Saddam Hussein, or leaders with his proclivities, rule in Iraq, Iran will pursue a security policy that includes aggressive pursuit of nuclear, chemical, and biological weapons and their associated delivery systems.

By all accounts, the Iranian nuclear program is several years from producing its first practical weapon. The aggressive research programs that center on chemical, biological, and missile development more than compensate for the Islamic republic's nascent capability in the nuclear arena. Iran's central place, however, in the Persian Gulf and within the larger Islamic world will continue to draw US attention and efforts to ease the Islamic republic away from proliferation. While trust between the two governments remains low, US policy makers will have a difficult time gaining enough credible information with which to

formulate effective strategies to mitigate the Iranian proliferation threat. The longer this process takes, the more difficult it will be to discover common interests upon which to thaw the cold war that has characterized US-Iranian relations since 1979. This should motivate US negotiators to move quickly and carefully to maintain an acceptable level of instability amid the tensions of Middle Eastern politics.

Notes

1. Michael Eisenstadt, *Chemical and Biological Weapons and Deterrence: Iran* (Alexandria, Va.: Chemical and Biological Arms Control Institute, 1998), 17.

2. Rouhollah K. Ramazani, "Reflections on Iran's Foreign Policy: Defining the 'National Interests,'" in *Iran at the Crossroads*, eds. John L. Esposito and Rouhollah K. Ramazani (New York: Palgrave, 2001).

3. A recent Central Intelligence Agency (CIA) report contained the observation that "Iran remains one of the most active countries seeking to acquire weapons of mass destruction and advanced conventional weapons technology from abroad. In doing so, Tehran is attempting to develop a domestic capability to produce various types of weapons—chemical, biological, and nuclear—and their delivery systems." See *Unclassified Report to Congress on the Acquisition of Technology Related to Weapons of Mass Destruction and Advanced Conventional Munitions* (CIA, 2001), n.p., on-line, Internet, 1 October 2001, available from http://www.cia.gov/cia/publications/bian/bian_sep_2001.htm#1.

4. Seyyed Hossein Nasr, Hamid Dabashi, and Seyyed Vali Reza Nasr, eds. *Expectation of the Millennium: Shi'ism in History* (Albany, N.Y.: State University Press of New York, 1984), 2–6; I. P. Petrushevsky, *Islam in Iran*, trans. Hubert Evans (Albany, N.Y.: State University Press of New York, 1985).

5. Mehran Tamadonfar observes, "Muslims agree that the establishment of an Islamic state requires the implementation of Islamic principles and laws. In Iran, Ayatollah Khomeini and his supporters developed doctrinal justifications for uncontested clerical rule to ensure political order and social conformity." Mehran Tamadonfar, "Islam, Law, and Political Control in Contemporary Iran," *Journal for the Scientific Study of Religion* 40, no. 2 (2001).

6. John Esposito writes: "Iran's export of revolution served as a catalyst in the emergence of Hizballah and Islamic *Jihad* in Lebanon; support for radical organizations and movements across the Muslim world resulted in kidnappings and hostage taking and contributed to uprisings and protest demonstrations in Saudi Arabia and the Gulf. . . . Iran, in fact, proved more effective as a symbol and exemplar of revolution than an effective model." John L. Esposito, "Introduction: From Khomeini to Khatami," in *Iran at the Crossroads*, 1.

7. Graham Fuller distinguishes between Islam (the religion) and Islamism (the radical philosophy that turns the tenets of Islam to political

purposes). Graham E. Fuller, "Islamic Fundamentalism," in *Conflict after the Cold War: Arguments on Causes of War and Peace*, ed. Richard K. Betts (New York: Macmillan, 1994).

8. Cyrus Vakili-Zad notes that "the ideology of the revolution, and those who carried the heavy burden of often bloody confrontations with government troops, were, in general, religiously oriented and linked to traditional values from the rural past . . . the blueprint for future society was an Islamic Republic modeled on the one created by the Prophet Muhammad more than 1,400 years earlier." Cyrus Vakili-Zad, "Continuity and Change: The Structure of Power in Iran," in *Modern Capitalism and Islamic Ideology in Iran*, eds. Cyrus Bina and Hamid Zangeneh (New York: St. Martin's Press, 1992), 29.

9. Some principles of *jihad* will illustrate how compelling the doctrine is for motivating Iranian and militant Islamic soldiers. "People against whom *jihad* should be carried out are three categories: (1) Those who rebel against the Imam, (2) protected minorities such as Jews, Christians, and Zoroastrians, if they violate the conditions of protection; and (3) whoever is hostile, among the various kinds of unbelievers. The Muslims must bring all of these into submission, either by subjecting them or converting them to Islam. . . . It is permissible to fight the enemy by any means which will lead to victory." S. H. Nasr, Dabashi, and S. V. R. Nasr, 62.

10. One obvious exception may be the struggles between Catholic and Protestant factions in Northern Ireland. If the infusion of leftist political ideology in the conflict between the parties had not occurred, the conflict in Ulster may have revolved solely around religious differences.

11. Mehran Tamadonfar, *The Islamic Polity and Political Leadership: Fundamentalism, Sectarianism, and Pragmatism*, Westview special studies on the Middle East (Boulder, Colo.: Westview Press, 1989), 36.

12. "The intense factional struggle that has come to characterize virtually all aspects of life in contemporary Iran has its roots in the ambitious proposition put forward at the birth of the Islamic Republic two decades ago—that it be both an Islamic state run by clerics and a republic ruled by popular consent. Failure to resolve this tension in a lasting and profound way had badly weakened the cohesion of the clerical class, undermined the legitimacy of the Islamic system, and left the state increasingly paralyzed in the face of mounting internal pressures." Geneive Abdo, "Re-Thinking the Islamic Republic: A 'Conversation' with Ayatollah Hossein 'Ali Montazeri,'" *The Middle East Journal* 55, no. 1 (2001). Olivier Roy writes, "What we are witnessing since Khatami's election is the unfolding of a contradiction which already existed in the text of the Constitution: in a religious revolution such as the Iranian Islamic Revolution, the status and role of religion is nevertheless defined by political institutions, not religious ones. Politics rule over religion. The crisis of religious legitimacy is leading to the supremacy of politics, and subsequently to a de facto secularization. There is a growing tendency . . . to separate religion and politics, this time in order to save Islam from politics, and not, as was the case in most of the processes of secularization in Western Europe, to save politics from religion." Olivier Roy, "The Crisis of Religious Legitimacy in Iran," *The Middle East Journal* 53, no. 2 (1999).

13. *Iran, Jane's Sentinel Security Assessment: The Gulf States* (Alexandria, Va.: Jane's Information Group, Inc., 2000), 72.

14. "By late 1987, the United States had some thirteen naval ships in the gulf, supported by another twelve to fifteen in the Gulf of Oman and a substantial allied force. American forces several times attacked small Irani ships. Iranian-laid naval mines posed the gravest threat to gulf shipping. On 18 April 1988, in retaliation for a mine attack on the frigate *Samuel B. Roberts*, the navy fought its largest surface action since World War II. Operation Praying Mantis destroyed two oil platforms, a frigate, a fast attack craft, and two armed speed boats." Mark H. Lytle, "US Military Involvement in Iran," in *The Oxford Companion to American Military History*, ed. John Whiteclay Chambers II (Oxford: Oxford University Press, 1999).

15. "In July 2000 amidst a heat wave that has seen water shortages and no improvements in living standards, thousands of protesters from poorer areas joined with prodemocracy students to demonstrate their frustration at the lack of political liberalization and harsh economic conditions. The protesters specifically singled out President Khatami for his inability to improve the plight of ordinary Iranians, but directed most of their anger at the conservatives who have stalled the president's reforms. . . . Khatami warned his conservative opponents that the growing restlessness of the Iranian people could no longer be contained by force." Iran, 51.

16. Anthony H. Cordesman, *Iran's Military Forces in Transition: Conventional Threats and Weapons of Mass Destruction* (Westport, Conn.: Praeger, 1999), 3.

17. Leaders in Tehran transported several casualties to Vienna for examinations by United Nations officials. UN investigators identified conclusive evidence that Iraq used mustard gas and the nerve agent tabun against Iranian troops in 1984. Investigators also alluded to evidence that some Iranian casualty patients may have suffered exposure to mycotoxins as well as mustard and nerve agents. The Iranian decision to pursue chemical and biological arsenals came as a result of the failure of the international community to act decisively on the evidence that stemmed from the casualty investigations. Julian Perry Robinson and Jozef Goldblat, *Chemical Warfare in the Iraq-Iran War*, Stockholm International Peace Research Institute, 1984, n.p., on-line, Internet, 16 January 2002, available from <http://projects.sipri.se/cbw/research/factsheet-1984.html>.

18. "When the Shah relaxed censorship laws in 1977, Iran erupted into a series of demonstrations and dissents. There were two distinct revolutionary movements. The first was the religious movement headed by the *ulama*; this movement demanded the return to a society based on the *Shari'ah* and *ulama* administration. The second movement was a liberal movement that wanted Westernization, but also demanded greater democracy, economic freedom, and human rights. As the revolution proceeded, these two groups gradually merged to form a united front." Richard Hooker, *Shi'a: The Iranian Revolution*, 1996, n.p., on-line, Internet, 18 January 2002, available from <http://www.wsu.edu:8000/~dee/shia/rev.htm>.

19. President Seyyed Mohammad Khatami observed, "For many centuries, we lived under regimes which drew their power and authority not from public support but from other sources and ruled over our people not by relying on public will and aspiration but on their own military might . . . and since they did not derive their authority from a popular basis, they felt no responsibility to people and had no need of their participation in running the country. . . . As a result of their revolution, our people managed to regain their highly constructive mood of building a civilization and culture." Seyyed Mohammad Khatami, *Outlooks of President Seyyed Mohammad Khatami: Religion, Culture, and Civilization*, 1998, n.p., on-line, Internet, 9 December 2001, available from <http://www.gov.ir/outlooks/civiliz.htm>.

20. *Iran*.

21. In an address to the Assembly of Experts in 1998, President Khatami made this observation: "We must undertake fundamental rebuilding of this country so that there will be neither inflation and high prices, nor unemployment and underemployment in the long run, instead of merely administering short-term 'sedatives' to our economy. We are currently examining our state-owned companies to decide which are essential and vital for the economy and should, therefore, remain under government control and which can be turned over to the private sector." Seyyed Mohammad Khatami, *Outlooks of President Seyyed Mohammad Khatami: Economic Problems*, 1998, n.p., on-line, Internet, 9 December 2001, available from <http://www.gov.ir/outlooks/economic.htm>.

22. Department of State, *Background Note: Iran*, Bureau of Near Eastern Affairs, 2001, n.p., on-line, Internet, 16 January 2002, available from <http://www.state.gov/r/pa/bgn/index.cfm?docid=5314>.

23. *Iran*, 142.

24. Patrick Clawson documents recent efforts to tap the oil reserves in the Caucasus region via a pipeline that terminates along the Caspian Sea. If such measures prove successful, isolated states like Iran could be forced to take drastic action to avoid social and economic catastrophe. Patrick L. Clawson, "Oil Resources: Markets, Politics, and Policies," in *The Global Century: Globalization and National Security*, eds. Richard L. Kugler and Ellen L. Frost (Washington, D.C.: National Defense University [NDU] Press, 2001).

25. *Iran*.

26. Cordesman, 269.

27. Anwar Iqbal, *Iran Seeks Weapons of Mass Destruction*, United Press International (UPI), 2002, n.p., on-line, Internet, 16 January 2002, available from <http://www.upi.com/view.cfm?storyid=09012002-035338-8224r>.

28. Efforts to acquire nuclear capabilities date back to the shah's regime. The Islamic republic has continued and expanded efforts to procure nuclear weapons technology and delivery vehicles. Gregory F. Giles, "The Islamic Republic of Iran and Nuclear, Biological, and Chemical Weapons," in *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*, eds. Peter R. Lavoy, Scott D. Sagan, and James J. Wirtz (Ithaca, N.Y.: Cornell University Press, 2000); "Proliferation: Threat and Response" (Washington, D.C.: Office of the Secretary of Defense, 1996), *Unclassified Report to Congress on the Acquisition of*

Technology Related to Weapons of Mass Destruction and Advanced Conventional Munitions.

29. "Proliferation: Threat and Response," 17; "Special: A Bigger Punch," *The Economist* 359, no. 8223 (2001).

30. *Iran*, 80.

31. The first allegation of chemical weapons use by Iraq against Iranian troops occurred in November 1980, approximately two months after the war began. By the war's end—in 1988—an estimated 5 percent of Iranian casualties resulted from chemical weapons attacks. Jeffery K. Smart, "History of Chemical and Biological Warfare: An American Perspective," in *Medical Aspects of Chemical and Biological Warfare*, eds. Frederick R. Siddell, Ernest T. Takafuji, and David R. Franz (Washington, D.C.: Office of the Surgeon General, Borden Institute, Walter Reed Army Medical Center, 1997).

32. *Iran*, 101.

33. Ramazani, 223.

34. Cordesman, 357.

35. Department of Defense analysts conclude, "Iran is seeking fissile material and technology for weapons development through an elaborate system of military and civilian organizations. . . . Iran's success in achieving a nuclear capability will depend, to a large degree, on the supply policies of Russia and China or on Iran's successful illicit acquisition of adequate quantities of weapons-useable fissile material." "Proliferation: Threat and Response." Barry Schneider writes, "In the mid-1990s, CIA officials in public testimony estimated Iranian production of a nuclear weapon to be 'unlikely before the end of the decade without foreign assistance.'" Barry R. Schneider, *Future War and Counterproliferation: US Military Responses to NBC Proliferation Threats* (Westport, Conn.: Praeger, 1999), 32. Geoffrey Kemp also reports, "CIA director James Woolsey said on 23 September 1994 that 'Iran is 8-10 years away from building such weapons and that help from the outside would be critical in reaching that timetable.'" Geoffrey Kemp, "Assessing the Iranian Threat," in *Fighting Proliferation: New Concerns for the Nineties*, ed. Henry Sokolski (Maxwell Air Force Base [AFB], Ala.: Air University Press, 1996), 217. See also Cordesman; Paula A. DeSutter, *Denial and Jeopardy: Deterring Iranian Use of NBC Weapons* (Washington, D.C.: NDU Press, 1997); and Giles.

36. Gregory Giles writes, "In 1979, Iran had no offensive or defensive chemical warfare program to speak of and no biological warfare program. As a part of the civilian nuclear program, however, the Shah had undertaken nuclear weapons-related research, including paper and computer studies." Giles, 81.

37. Shahram Chubin, "The Persian Gulf: Security, Politics, and Order," in *The Global Century: Globalization and National Security*, eds. Richard L. Kugler and Ellen L. Frost (Washington, D.C.: NDU Press, 2001), 931.

38. "Given the limitations of Iran's conventional forces . . . efforts to acquire weapons of mass destruction are probably the most threatening aspect of Iran's present and future military capabilities." Cordesman, 222.

39. Eisenstadt, 12.

40. Iranian leaders take issue with the structure and terms of the NPT. "Underlying Iran's resentment, however, is a simple fact; NPT is a discriminatory treaty, with two classes of states. Unlike other multilateral arms control conventions such as the Chemical Weapons Convention, where all states are prohibited a category of weapons—in NPT—states are given different rights and privileges. NPT is an unequal treaty that also is selectively enforced and adhered to. Iran, as a revolutionary state, would not have adhered to the treaty if it had not inherited membership. A nationalist Iran will find the inequality of the treaty and double standards it implies no less chafing." Chubin, 941.

41. *Iran*, 106.

42. "The weak international response to Iraqi violations of the Geneva Protocols greatly disappointed Iran's leaders and encouraged Tehran to consider military responses. . . . The mullahs even reversed themselves and began to resurrect Iran's nuclear program. . . . As the war dragged on, Iran increasingly fulfilled realist expectations by developing its own nuclear, biological, and chemical weaponry capabilities to offset those of Iraq." Giles, 82.

43. Kemp, 215.

44. The eight facilities are located at Bandar Abbas, Bushehr, Darkhovin, Gorgan, Isfahan, Banab, Qazvin, and Yazd. Disturbingly, Iran has indigenous sources of uranium ore thus dramatically simplifying the weapon construction equation. *Iran*, 105.

45. "Since 1982, Germans have sold on average \$2.5 billion worth of high technology goods to Iran. What they have gotten in return is a well-funded Iranian intelligence network implanted on German soil, infiltrating the Muslim immigrant population, assassinating Iranian opposition figures in public restaurants, and using private German airports and German front companies to purchase technology so sensitive for the Iranian nuclear weapons program that even the German government would not authorize its sale to Iran." Kenneth R. Timmerman, "Opportunities for Change in Iran," in *Fighting Proliferation: New Concerns for the Nineties*, ed. Henry Sokolski (Maxwell AFB, Ala.: Air University Press, 1996), 231.

46. *Iran*, 136.

47. "After over 25 years of rocketry research, Iran has a considerable technical endowment. The essential equipment to create long-range missiles of mid- to late 1950s vintage appears to be largely in hand. If Iran decides to give the program higher national priority, making the leap from dabbler to a determined proliferator, it could have a long-range system sufficiently advanced for flight testing to begin within two years, although key technologies still would have to be mastered. The pacing technology no longer appears to be propulsion or guidance. It is more likely to be warheads and re-entry vehicles." Iqbal, *Iran Seeks Weapons of Mass Destruction*. Iqbal, see also "Proliferation: Threat and Response."

48. The editors of *Jane's Security Sentinel* write, on 5 July 2000, "Security forces in Kazakhstan detained three people who were allegedly smuggling un-enriched Uranium 235. Moscow's NTV reported that it was believed that the substance was en route to Afghanistan and then to Iran. There were previous reports of uranium allegedly bound for Iran being intercepted. It was claimed that such seizures were made in Georgia in

April 2000 and September 1999. In early April 2000 Uzbek customs officers seized a cargo of radioactive materials in an Iranian truck driven by an Iranian citizen." *Iran*, 105. See also, "Proliferation: Threat and Response," 34-36.

49. For a riveting account of the Iraqi nuclear weapons program see, Khidhir Hamza, *Saddam's Bombmaker: The Terrifying Inside Story of the Iraqi Nuclear and Biological Weapons Agenda* (New York: Scribner, 2000).

50. Seyyed Mohammad Khatami, *Outlooks of President Seyyed Mohammad Khatami: International and Regional Issues*, 1998, n.p., on-line, Internet, 9 December 2001, available from <http://www.gov.ir/outlooks/issue.htm>.

51. "Iran remained the most active state sponsor of terrorism in 2000. Its Revolutionary Guard Corps (IRGC) and Ministry of Intelligence and Security (MIOS) continued to be involved in the planning and execution of terrorist acts and continued to support a variety of groups that use terrorism to pursue their goals." Department of State, *Patterns of Global Terrorism, 2000*, Office of the Coordinator for Counterterrorism, 2001, n.p., on-line, Internet, 18 September 2001 available from <http://www.state.gov/s/ct/rls/pgtrpt/2000>.

52. *Jane's Security Sentinel* includes this assessment: "The U.S. claims that Iran already has stocks of up to 2,000 tons of chemical weapons which include choking, blister, and blood agents. . . . What evidence is available suggests that Tehran has taken the decision to concentrate its available resources on WMD rather than conventional military programs." *Iran*, 107.

53. Cordesman, 1.

54. "The U.S. believes that normal relations are impossible until Iran's behavior changes. However, the United States has offered to enter into dialogue with authorized representatives of the Iranian Government without preconditions. The Iranian Government has not accepted this offer. The United States has made clear that it does not seek to overthrow the Iranian Government but will continue to pressure Iran to change its behavior." Department of State, *Background Note: Iran*.

55. Department of State, *Patterns of Global Terrorism, 2000*.

56. Khatami, *Outlooks of President Seyyed Mohammad Khatami: International and Regional Issues*.

57. Khatami, *Outlooks of President Seyyed Mohammad Khatami: Religion, Culture, and Civilization*.

58. Gary Sick, "The Stalemate in US-Iran Relations," in *Fighting Proliferation: New Concerns for the Nineties*, ed. Henry Sokolski (Maxwell AFB, Ala.: Air University Press, 1996), 243.

59. Timmerman, 232-33.

60. "Denial and punishment strategies do not deal with the motives of these states. A policy based more on the North Korean model of mixing inducements with deterrence might lead to better technology offered with the degree of transparency the target state accepted may be more productive. Thus, the United States should consider offering Iran appropriate nuclear technology in exchange for increased transparency." Chubin, 945-46.

61. Robert S. Litwak, *Rogue States and U.S. Foreign Policy: Containment after the Cold War* (Washington, D.C.: Woodrow Wilson Center Press, 2000), 189–92.

62. The continuing existence of Israel remains the central issue for Iranian support of terrorist groups. According to the State Department, “Iran’s involvement in terrorist-related activities remained focused on support for groups opposed to Israel and peace between Israel and its neighbors. Statements by Iran’s leaders demonstrated Iran’s unrelenting hostility to Israel. Supreme Leader Khamenei continued to refer to Israel as a ‘cancerous tumor’ that must be removed; President Khatami, labeling Israel an ‘illegal entity,’ called for sanctions against Israel during the intifadah; and Expediency Council Secretary (MOSEN) Rezai said, ‘Iran will continue its campaign against Zionism until Israel is completely eradicated.’ Iran has long provided Lebanese Hizballah and the Palestinian rejectionist groups—notably HAMAS, the Palestinian Islamic *Jihad*, and Ahmad Jibril’s PFLP-GC—with varying amounts of funding, safe haven, training, and weapons. This activity continued at its already high levels following the Israeli withdrawal from southern Lebanon in May and during the intifadah in the fall. Iran continued to encourage Hizballah and the Palestinian groups to coordinate their planning and to escalate their activities against Israel. Iran also provided a lower level of support—including funding, training, and logistics assistance—to extremist groups in the Gulf, Africa, Turkey, and Central Asia.” Department of State, *Patterns of Global Terrorism, 2000*.

Bibliography

- Abdo, Geneive. "Re-Thinking the Islamic Republic: A 'Conversation' with Ayatollah Hossein 'Ali Montazeri.'" *The Middle East Journal* 55, no. 1 (2001).
- Chubin, Shahram. "The Persian Gulf: Security, Politics, and Order." In *The Global Century: Globalization and National Security*, edited by Richard L. Kugler and Ellen L. Frost. Washington, D.C.: National Defense University (NDU) Press, 2001.
- Clawson, Patrick L. "Oil Resources: Markets, Politics, and Policies." In *The Global Century: Globalization and National Security*, edited by Richard L. Kugler and Ellen L. Frost. Washington, D.C.: NDU Press, 2001.
- Cordesman, Anthony H. *Iran's Military Forces in Transition: Conventional Threats and Weapons of Mass Destruction*. Westport, Conn.: Praeger, 1999.
- DeSutter, Paula A. *Denial and Jeopardy: Deterring Iranian Use of NBC Weapons*. Washington, D.C.: NDU Press, 1997.
- Eisenstadt, Michael. *Chemical and Biological Weapons and Deterrence: Iran*. Alexandria, Va.: Chemical and Biological Arms Control Institute, 1998.
- Esposito, John L. "Introduction: From Khomeini to Khatami." In *Iran at the Crossroads*, edited by John L. Esposito and R. K. Ramazani. New York: Palgrave, 2001.
- Fuller, Graham E. "Islamic Fundamentalism." In *Conflict after the Cold War: Arguments on Causes of War and Peace*, edited by Richard K. Betts. Boston: Allyn and Bacon, 1994.
- Giles, Gregory F. "The Islamic Republic of Iran and Nuclear, Biological, and Chemical Weapons." In *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*, edited by Peter R. Lavoy, Scott D. Sagan, and James J. Wirtz. Ithaca, N.Y.: Cornell University Press, 2000.
- Hamza, Khidhir. *Saddam's Bombmaker: The Terrifying Inside Story of the Iraqi Nuclear and Biological Weapons Agenda*. New York: Scribner, 2000.

- Hooker, Richard. *Shi'a: The Iranian Revolution*, 1996. On-line. Internet, 18 January 2002. Available from <http://www.wsu.edu:8000/~dee/shia/rev.htm>.
- Iqbal, Anwar. *Iran Seeks Weapons of Mass Destruction* UPI, 2002. On-line. Internet, 16 January 2002. Available from <http://www.upi.com/view.cfm?storyid=09012002-035338-8224r>.
- Iran, Jane's Sentinel Security Assessment: The Gulf States*. Alexandria, Va.: Jane's Information Group, Inc., 2000.
- Kemp, Geoffrey. "Assessing the Iranian Threat." In *Fighting Proliferation: New Concerns for the Nineties*, edited by Henry Sokolski. Maxwell Air Force Base (AFB), Ala.: Air University Press, 1996.
- Khatami, Seyyed Mohammad. *Outlooks of President Seyyed Mohammad Khatami: International and Regional Issues*, 1998. On-line. Internet, 9 December 2001. Available from <http://www.gov.ir/outlooks/Issuse.htm>.
- . *Outlooks of President Seyyed Mohammad Khatami: Economic Problems*, 1998. On-line. Internet, 9 December 2001. Available from <http://www.gov.ir/outlookseconomic.htm>.
- . *Outlooks of President Seyyed Mohammad Khatami: Religion, Culture, and Civilization*, 1998. On-line. Internet, 9 December 2001. Available from <http://www.gov.ir/outlooks/civiliz.htm>.
- Litwak, Robert S. *Rogue States and U.S. Foreign Policy: Containment after the Cold War*. Washington, D.C.: Woodrow Wilson Center Press, 2000.
- Lytle, Mark H. "US Military Involvement in Iran." In *The Oxford Companion to American Military History*, edited by John Whiteclay Chambers II. Oxford: Oxford University Press, 1999.
- Nasr, Seyyed Hossein, Hamid Dabashi, and Seyyed Vali Reza Nasr, eds. *Expectation of the Millennium: Shi'ism in History*. Albany, N.Y.: State University Press of New York, 1984.
- Petrushevsky, I. P. *Islam in Iran*. Translated by Hubert Evans. Albany, N.Y.: State University Press of New York, 1985.
- "Proliferation: Threat and Response." Washington, D. C.: Office of the Secretary of Defense, 1996.

- . Washington, D.C.: Office of the Secretary of Defense, 2001.
- Ramazani, R. K. "Reflections on Iran's Foreign Policy: Defining the 'National Interests.'" In *Iran at the Crossroads*, edited by John L. Esposito and R. K. Ramazani. New York: Palgrave, 2001.
- Robinson, Julian Perry, and Jozef Goldblat. *Chemical Warfare in the Iraq-Iran War*. Stockholm International Peace Research Institute, 1984. On-line. Internet, 16 January 2002. Available from <http://projects.sipri.se/cbw/research/factsheet-1984.html>.
- Roy, Olivier. "The Crisis of Religious Legitimacy in Iran." *The Middle East Journal* 53, no. 2 (1999): 201-16.
- Schneider, Barry R. *Future War and Counterproliferation: US Military Responses to NBC Proliferation Threats*. Westport, Conn.: Praeger, 1999.
- Sick, Gary. "The Stalemate in US-Iran Relations." In *Fighting Proliferation: New Concerns for the Nineties*, edited by Henry Sokolski, Maxwell AFB, Ala.: Air University Press, 1996.
- Smart, Jeffery K. "History of Chemical and Biological Warfare: An American Perspective." In *Medical Aspects of Chemical and Biological Warfare*, edited by Frederick R. Siddell, Ernest T. Takafuji, and David R. Franz. Washington, D.C.: Office of the Surgeon General, Borden Institute, Walter Reed Army Medical Center, 1997.
- "Special: A Bigger Punch." *The Economist* 359, no. 8223 (2001): 28.
- State, Department of. *Background Note: Iran*. Bureau of Near Eastern Affairs, 2001. On-line. Internet, 16 January 2002. Available from <http://www.state.gov/r/pa/bgn/index.cfm?docid=5314>.
- . *Patterns of Global Terrorism, 2000*. The Office of the Coordinator for Counterterrorism, 2001. On-line. Internet, 18 September 2001. Available from <http://www.state.gov/s/ct/rls/pgtrpt/2000>.
- Tamaddonfar, Mehran. "Islam, Law, and Political Control in Contemporary Iran." *Journal for the Scientific Study of Religion* 40, no. 2 (2001): 205-19.
- . *The Islamic Polity and Political Leadership: Fundamentalism, Sectarianism, and Pragmatism*. Westview

- special studies on the Middle East. Boulder, Colo.: Westview Press, 1989.
- Timmerman, Kenneth R. "Opportunities for Change in Iran." In *Fighting Proliferation: New Concerns for the Nineties*, edited by Henry Sokolski. Maxwell AFB, Ala.: Air University Press, 1996.
- Unclassified Report to Congress on the Acquisition of Technology Related to Weapons of Mass Destruction and Advanced Conventional Munitions*. Central Intelligence Agency, 2001. On-line. Internet, 1 October 2001. Available from http://www.cia.gov/cia/publications/bian/bian_sep_2001.htm#1.
- Vakili-Zad, Cyrus. "Continuity and Change: The Structure of Power in Iran." In *Modern Capitalism and Islamic Ideology in Iran*, edited by Cyrus Vakili-Zad and Hamid Zangeneh Bina. New York: St. Martin's Press, 1992.