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# Iran's Weapons of Mass Destruction



## The Real and Potential Threat

Anthony H. Cordesman and Khalid R. Al-Rodhan

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# CONTENTS

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List of Tables, Figures, and Maps	x
Acknowledgments	xiii
<b>1 INTRODUCTION</b>	<b>1</b>
The Problem of Uncertainty versus Credibility	2
Uncertain Options for Dealing with Uncertain Proliferation	5
The Problem of Sanctions	5
The Problem of Military Options	7
<b>2 IRAN'S MOTIVATION FOR ACQUIRING WEAPONS OF MASS DESTRUCTION</b>	<b>10</b>
Key Motives	11
National Statements about Tehran's WMD Programs	14
The Balance of Power in the Region	18
<b>3 IRAN'S CHEMICAL WEAPONS</b>	<b>26</b>
Iran's Chemical Warfare Claims	26
History of Iran's CW Program	27
Assessing Iran's CW Capabilities	32
Official Estimates of Iranian Capability	32
Arms Control Estimates of Iranian Capability	35
NGO Estimates of Iranian Capability	35
Iran's Possible War-fighting Capability	37

<b>4</b>	<b>IRAN'S BIOLOGICAL WEAPONS</b>	<b>49</b>
	Possible Early Indicators that Iran Might Have a BW Program	50
	The Uncertain Nature of Iran's BW Program since the Mid-1990s	51
	Continuing Alarms and Excursions	52
	The Possible Role of Outside Suppliers	52
	Assessing Iran's BW Capabilities	54
	Possible War-fighting Capability	56
	Detecting Biological Weapons	61
<b>5</b>	<b>"GUESSTIMATING" IRAN'S NUCLEAR WEAPONS CAPABILITIES</b>	<b>66</b>
	Problems in Analyzing Iran's WMD Program: A Case Study	67
	Uncertainty and Credibility of Sources	70
	Key Uncertainties in Iran's Nuclear Developments	72
	Plutonium Production	73
	Uranium Enrichment	75
	The Uncertain Nature of Iran's Centrifuge Designs	86
	A Continuing Process of Discovery	89
<b>6</b>	<b>THE HISTORY OF IRAN'S NUCLEAR PROGRAMS</b>	<b>99</b>
	Iran's Nuclear Program under the Shah	100
	Post-Revolution Uncertainties: The 1980s and 1990s	107
	The "Lost Years": 2000-2002	121
	Nuclear Revelations: 2002-2003	125
	Tehran Invites the IAEA	126
	The October 2003 Ultimatum	128
	Iran's Concealment Efforts in 2004	130
	Revelations of Foreign Assistance	131
	The Paris Agreement: November 15, 2004	134
	The Pivotal Role of the EU3 in 2005	136
	Changing of the Guard: Iran's Presidential Elections	142
	A Turning Point in the EU3-Iran Negotiations	144

EU3 Patience Runs Out: Early 2006	147
The EU3 Declaration of January 12, 2006	148
Referral to the UN Security Council	150
What the IAEA Inspections Did and Did Not Prove	153
No “Smoking Gun”	154
An Expert Summary of the Impact of the IAEA’s Inspections and Reports	155
<b>7 THE UNCERTAIN CHARACTER OF IRAN’S NUCLEAR FACILITIES</b>	<b>171</b>
Anarak	172
Arak	173
Ardakan	177
Bushehr	177
Esfahan (Isfahan)	181
Kalaye Power Plant	185
Karaj	187
Lavisian-Shian	188
Natanz	190
Parchin	194
Tehran Nuclear Research Center	197
Uranium Mines and Facilities	201
Other Suspected Sites	203
Assessing Iran’s Nuclear Sites	204
<b>8 POSSIBLE DATES FOR IRAN’S ACQUISITION OF NUCLEAR WEAPONS</b>	<b>210</b>
A Past History of Uncertain and Wrong Judgments	210
The Difficulty of Estimating Possible Dates	213
Independent Estimates	216
Israeli Estimates	219
U.S. Estimates	221
Assessing Iran’s Nuclear Weapons	237
<b>9 DELIVERY SYSTEMS</b>	<b>247</b>
U.S. Assessment of Iranian Missile Capabilities	248
Iran’s Missile Arsenal	251

Shahab-1/Scud-B	253
Shahab-2/Scud-C	256
Shahab-3	258
<i>Missile Description</i>	259
<i>Uncertain Performance</i>	260
<i>Mobility and Deployment</i>	264
Shahab-3A/3M/3D/IRIS	265
Shahab-4	267
Shahab-5 and Shahab-6	268
Ghadr 101 and Ghadr 110	269
Raduga KH-55 Granat/KH-55/AS-15 Kent	270
Alternative Delivery Options and Counterthreats	271
Air Force	271
The Islamic Revolutionary Guards Corps (Pasdaran)	274
<i>The Air Branch</i>	274
<i>The Naval Branch</i>	274
<i>Proxy and Covert CBRN Operations</i>	275
<i>The Quds Forces</i>	276
<i>The IRGC's Role in Iran's Industries</i>	277
The Basij and Other Paramilitary Forces	278
Assessing Iran's Delivery Options	278
<b>10 IRAN'S OPTIONS AND POTENTIAL RESPONSES</b>	<b>287</b>
The Uncertain Future of Iran's WMD Capabilities	288
Iran's Options for Riding Out Military Strikes or Coercive Diplomacy	288
The "CBR" Option, with or without the "N"	291
Iran's Uncertain Nuclear War-fighting Doctrine and Capabilities	292
The Risk of Iranian Proliferation without Meaningful Planning	293
The Challenges of Actual Possession	293
Outside Help to Iran's WMD Program	295
Iranian Efforts to Acquire Technology and Expertise	296
The Role of Pakistan	296

The Role of Russia	298
The Role of North Korea	300
The Role of China	302
Possible Economic Sanctions	304
The Nature of Effective Economic Sanctions	306
The Difficulty of Enforcing Sanctions	307
The Nature of U.S. Sanctions against Iran	312
The Problems of Oil Sanctions	315
Refined Products Sanctions	319
Travel Restrictions	320
Financial Sanctions	321
Arms Embargo	323
The Uncertain Effect of Economic Sanctions	327
Possible Military Options	329
The Problem of Targeting	330
Iranian Defense against U.S. Strikes	332
Iranian Retaliation against U.S. Strikes	339
U.S. Military Options	343
The Consequences of an Israeli Strike	350
Strategic Implications	355
About the Authors	365

## TABLES, FIGURES, AND MAPS

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### Tables

2.1	Iran's CBRN Efforts in a Global Context: Nations with Weapons of Mass Destruction (WMDs)	22
3.1	Scenarios for Iranian Covert or Proxy Use of Chemical, Biological, Radiological, and Nuclear Terrorism	40
3.2	Comparative Effects of Biological, Chemical, and Nuclear Weapons Delivered against a Typical Urban Target	44
4.1	Potential Biological Agents for State and Non-state Use	55
4.2	Area Coverage and Estimated Casualty Impact of Various Types of Biological Attacks	57
4.3	Lethality and Stability of Soviet Biological Weapons in the Late 1990s	58
6.1	General Framework for Objective Guarantees between Iran and the EU3, May 3, 2005	140
7.1	Relevant Nuclear Locations in Iran Designated by the IAEA	174
8.1	Thermal and Blast Effects of Nuclear Weapons	240
9.1	Estimated Iranian Missile Profiles, 2006	252
10.1	Iran's Key Trading Partners, 2000–2004	308

### Figures

10.1	Iran's Net Oil Export Revenues, 1971–2007	314
10.2	Iran's Oil Production and Exports, 1971–2006	316
10.3	Arms Deliveries to Iran by Supplier, 1993–2004	324
10.4	New Arms Agreements with Iran by Supplier, 1993–2004	325

## **Maps**

Map of Iran	xiv
7.1 Key Known Iranian Nuclear Sites	172
9.1 Estimated Ranges of Iran's Current and Potential Missiles	250
10.1 Strait of Hormuz	341



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## Map of Iran



Source: CIA, Map of Iran, 2001, available at [http://www.lib.utexas.edu/maps/middle\\_east\\_and\\_asia/iran\\_pol01.jpg](http://www.lib.utexas.edu/maps/middle_east_and_asia/iran_pol01.jpg).

## CHAPTER ONE

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# INTRODUCTION

There is no simple or reliable way to characterize Iran's ability to acquire weapons of mass destruction and the means to deliver them. Iran is clearly attempting to acquire long-range ballistic missiles and cruise missiles, but it has never indicated that such weapons would have chemical, biological, radiological, or nuclear (CBRN) warheads. Iran has never properly declared its holdings of chemical weapons, and the status of its biological weapons programs is unknown.

There have been strong indications of an active Iranian interest in acquiring nuclear weapons since the time of the shah, Mohammad Reza Pahlavi, and strong indications that Ayatollah Ruhollah Khomeini revived such efforts after Iraq invaded Iran and began to use chemical weapons. There is, however, no reliable history of such efforts or "smoking gun" that conclusively proves their existence.

The Iranian leadership has consistently argued that its nuclear research efforts are designed for peaceful purposes, although various Iranian leaders have made ambiguous statements about acquiring weapons of mass destruction and Iranian actions strongly suggest that the country is trying to acquire nuclear weapons. Whether such deniability is plausible or not is highly questionable. Still, Iran has been able to find some alternative explanation for even its most suspect activities, and there is no present way to disprove its claims with open source material.

The EU3 (the United Kingdom, Germany, and France) have actively negotiated with Iran to bring a halt to such suspect activities,

but Iran has consistently refused to reach meaningful agreements with the EU3 despite the incentives it has been offered. At times, Iran has refused Russian offers to provide nuclear fuel on a much cheaper basis than it can possibly produce such fuel. The fact that the United States has supported such negotiations could mean that Iran's compliance would eliminate the threat of U.S. and Israeli military action or preemption.

Much more is involved than the issue of whether Iran does or does not have the bomb. Iranian efforts to acquire nuclear weapons interact with the ongoing struggle to prevent proliferation of weapons of mass destruction (WMDs) in the Middle East. Israel has nuclear weapons; Syria has a chemical and biological weapons program; and there is uncertainty regarding Egypt's WMD program. In addition, Pakistan and India are both nuclear powers. The region as a whole is drifting into further proliferation and a nuclear Iran may expand the efforts to go beyond the usual suspects. It remains uncertain how key countries such as Saudi Arabia, Jordan, Egypt, and Turkey would respond to a nuclear-armed Tehran.

Any crisis over Iranian proliferation could have a major impact on the evolving balance of power in the region. The United States, the UK, Iraqi Sunnis, and many regional powers have expressed their concerns about Iran's involvement in Iraq's internal affairs. Key Arab states, such as Saudi Arabia and Jordan, have expressed their anxiety about the creation of a new Shi'ite block that could include Iran, Iraq, Syria, and Lebanon and that could redefine the balance of power in the region across sectarian lines.

## **THE PROBLEM OF UNCERTAINTY VERSUS CREDIBILITY**

A long chain of indicators suggest that Iran *is* proliferating. Iran's missile development programs make sense only if the missiles are equipped with CBRN warheads. There have been numerous confirmed disclosures of suspect Iranian activity. Iran's nuclear program has been under intense scrutiny by the International Atomic Energy Agency (IAEA) in recent years, and the IAEA reports disclose a pattern of activity that makes little sense unless it is tied to a nuclear weapons program.

Yet the data on Iranian nuclear weapons efforts remain uncertain. The summary reporting by the IAEA has not stated that there is decisive evidence that Iran is seeking such weapons, even though the detailed disclosures in IAEA reporting since 2002 strongly indicate that it is likely that Iran is continuing to covertly seek nuclear technology. Neither the United States nor its European allies have yet released detailed white papers on their intelligence analysis of Iranian efforts, and there have been several press reports that the U.S. intelligence community believes that its knowledge of the Iranian nuclear program is less than adequate to make the case for where, when, and how the Iranians will acquire a nuclear weapon.<sup>1</sup>

Under the terms of the Nuclear Non-Proliferation treaty (NPT), which it is a signatory to, Iran does have the right to acquire a full nuclear fuel cycle for peaceful purposes, and the Iranian government has found ways to justify all of its activities to date as research, or related to nuclear power, or minor mistakes, or the result of importing contaminated equipment. It has claimed that its concealed and secret efforts are the result of its fears that the United States or Israel might attack what it claims are legitimate activities.

In fact, however, Iran may have advanced to the point where it can covertly develop nuclear weapons even if it agrees to the terms proposed by the EU3 and Russia and appears to comply with IAEA inspection. As the experience of the United Nations in Iraq has shown all too clearly, there are severe limits to even the most advanced inspection regime. Iran might well be able to carry out a covert research and development effort, make major advances in weapons development, and improve its ability to produce fissile material. It might well acquire a “breakout” capability to suddenly make weapons or be able to produce small numbers of weapons without detection.

The problems in addressing Iran’s capabilities go beyond the ability to determine the facts. Since 2002, the Bush administration and the EU3 have consistently argued that Iran’s efforts to acquire nuclear weapons are real and must be stopped. The ability of the United States, the IAEA, and the EU3 to halt the Iranian nuclear program is complicated, however, by the mistakes the United States and the UK made in characterizing Iraq’s efforts to acquire weapons of mass destruction.

The United States in particular has problems in convincing the international community that Iran is a grave threat to global security. Credibility is a precious commodity, and one sometimes worth more than gold.

It is also impossible to deny that Iran is being judged by a different standard because of its regime association with terrorism, its efforts to export its Shi'ite revolution, and its reckless political rhetoric. There is nothing wrong with a "dual standard." Nations that present exceptional risks require exceptional treatment. The fact remains, however, that Iran was under missile and chemical attack from Iraq, and it seems to have revived its nuclear programs at a time that Iraq was already involved in a major effort to acquire biological and nuclear weapons. In addition, three of Iran's major neighbors—India, Israel, and Pakistan—have already proliferated. It also must deal with the presence of two outside nuclear powers: Russia near its northern border and the United States in the Gulf.

The situation is further confused by an increasingly thin line between the technology needed to create a comprehensive nuclear fuel cycle for nuclear power generation and dual-use technology that can be used to covertly develop nuclear weapons. A nation can be both excused and accused for the same actions. This can make it almost as difficult, if not impossible, to conclusively prove Iran's guilt as to prove its innocence, particularly if its programs consist of a large number of small, dispersed efforts and larger "dual-use" facilities.

Some efforts at proliferation have been called a "bomb in the basement"—programs to create a convincing picture that a nation has a weapon without any open testing or formal declaration. Iran seems to be trying to develop a "bomb in a fog"—to keep its efforts both covert and confusing enough that there will be no conclusive evidence that will catalyze the UN into cohesive and meaningful action or justify a U.S. response. Such a strategy must be made more overt in the long run if it is to make Iran a credible nuclear power, but the long run can easily stretch out for years: Iran can break up its efforts into smaller, research-oriented programs or pause them; focus on dual-use nuclear efforts with a plausible rationale; permit even intrusive inspection; and still move forward.

## UNCERTAIN OPTIONS FOR DEALING WITH UNCERTAIN PROLIFERATION

The options for dealing with Iranian proliferation are as uncertain as the nature of Iran's actions. Some observers have argued that it may be impossible for the United States, the West, or the international community to stop Iran from acquiring nuclear capabilities. In this case, some have argued, the cost of action may be far greater than the cost of inaction. This argument is based on the lack of credible military or diplomatic options for the international community.

Foreign policy specialists have argued that, looking at the energy market, one can conclude that the global economy cannot afford further disruption of oil supply. European experts such as Michael Emerson of the Center for European Policy Studies have argued, "The success of sanctions is doubtful. A military strike isn't on the table from a European perspective. The alternatives to success are dire."<sup>2</sup>

Other experts have argued that there are no good or lasting military options. They feel that too little is known about Iran's nuclear facilities to target them effectively, that many are dispersed or hardened, and that Iran could reconstitute a better hidden and more covert program and step up its biological weapons efforts. They argue that military options, even if they did slow down Iran's efforts, would unify Iranian support for a nuclear program and push Iran toward a higher level of risk taking. They also argue that Iran could respond asymmetrically to military attacks by indirect attacks on energy facilities and exports in the Gulf, pushing Afghanistan and Iraq toward further instability and increasing support for violent Palestinian militant movements and Hezbollah, as well as returning to an aggressive effort to build support from outside Shi'ites and other Islamists.

There definitely are no perfect or risk-free options, and there may not even be any particularly good ones, but there are options.

### **The Problem of Sanctions**

International censure is a useful tool in diplomacy, but only if a nation is sensitive to such censure and willing to negotiate. Sanctions can have more impact, but a determined proliferator may choose to ride them out, and it is unclear whether there are reliable enforcement

mechanisms to stop Iran from moving ahead on its nuclear weapons research and bringing important aspects of development to the prototype or production-ready stage.

Broad economic sanctions can hurt a population more than a regime, and they can be exploited as attacks on a nation. Iraq under Saddam Hussein is a case in point—regime loyalists exploited UN sanctions and made billions while Iraqi civilians suffered both economically and sometimes physically, from lack of medicines and malnutrition. Even if the UN could agree on sanctions for Iran—and then enforce them with the integrity and concern for the people it lacked in dealing with the sanctions on Iraq and administering the Iraqi “oil for food” program—the end result could cause humanitarian suffering and strengthen the hand of the regime by allowing it to charge that the West was attacking Iran and thus exploit nationalist resentment.

Technical sanctions might slow the inflow of technology and fissile materials, but Iran may well have moved beyond the point where it needs overt imports of technology and equipment. Many dual-use imports would almost certainly continue, and firms in nations like China, North Korea, and Pakistan would probably continue to be covert suppliers. This particular technological genie is probably out of the bottle, at least in Iran.

Sanctions on Iran’s petroleum exports, and on its imports of petroleum products, might put serious pressure on the regime. Such sanctions would affect Iran’s entire economy, however, and have a serious humanitarian impact. They also would almost certainly raise the price of petroleum products throughout the world, not only by cutting Iranian exports but because they would lead to a higher “risk premium” on all Gulf exports due to the fear of war.

It is equally worth remembering that any effective economic or diplomatic sanctions would have to mean stopping Iran’s oil revenues from being diverted into rebuilding its military and WMD capabilities. Stopping energy exports from Iran, however, can do grave damage to the global economy. The energy market is tight, with virtually no spare capacity. In 2005–2006, OPEC’s total oil production spare capacity was 1.0–1.6 million barrels a day (mmbpd); and in 2005, the U.S. Energy Information Administration (EIA) estimated that Iran

produced 4.1 mmbpd—nearly 5 percent of the world’s total oil supply and 11 percent of OPEC’s oil production capacity.<sup>3</sup>

During the current war in Iraq, Saudi Arabia and other countries covered the shortages in exports due to instability in Venezuela and Nigeria and disruptions caused by Hurricanes Katrina and Rita. In a tight world oil market, however, there is no way to make up for oil production capacity of 3.9–4.2 mmbpd (or average production levels of 4.1 mmbpd) and average export levels of 2.1 mmbpd. Sanctioning some 5 percent of the world’s oil supply may well lead to massive smuggling and violation. In addition, those sanctions almost certainly will have a greater effect on the price of oil than a 5 percent increase. Estimates about the global economic impact of disruptions in Iranian oil supply differ, but virtually all estimates agree that energy prices will increase to unprecedented levels, including exceeding the \$100 per barrel mark.

These problems scarcely rule out sanctions. However, they show that sanctions have clear drawbacks as well as advantages. It is also all too possible that even if sanctions did appear to work to the extent that Iran complied with the terms proposed by Russia and the EU3, it could still carry out a covert research and development effort, make major advances in weapons development, and improve its ability to produce fissile material. If it had months (or years) to conceal its existing efforts while it was under sanctions, Iran would be even more able to acquire a covert “breakout” capability to suddenly make weapons of mass destruction or produce small numbers of weapons without detection. “Building a bomb in a fog” may be difficult, but it is far from impossible.

### **The Problem of Military Options**

In addition to the lack of effective diplomatic mechanisms to enforce sanctions, many experts believe that there are no military options with lasting effectiveness. Besides the military targeting issues discussed throughout this analysis, they argue that the United States is preoccupied in Iraq; and while the presence of more than 130,000 U.S. troops in Iraq may seem a deterrent to Iran, the difficulties the United States faces in Iraq make a military conflict all too unlikely.

Efforts to hold Iraq together and forge an inclusive government with support from Sunni Arabs, Shi'ite Arabs, Kurds, and other minorities are already tenuous. For one thing, Iran has great influence with several leading political groups and militias among Iraq's Shi'ites. Moreover, the division between Shi'ites and Sunnis in Iraq is fueled by terrorist elements such as Abu Musab al-Zarqawi who wish to recast the war against the West as a war also against the Shi'ites. Efforts by al-Zarqawi to start an Iraqi civil war and his declaration against the Shi'ites, along with the fear of a spillover of Iraq's insurgency into neighboring states, compound the ongoing struggle against terrorism. In addition, Iran has had long-term relations with extremists and militant groups such as Hezbollah and with dissident groups in Bahrain, Saudi Arabia, and Kuwait.

The mix of proliferation and asymmetric warfare is changing the nature of threat in the region. Saddam Hussein is gone, yet Iran's possible nuclear weapons, the asymmetric capabilities of its Islamic Revolutionary Guards Corps (IRGC), the threat from transnational terrorist groups such as al-Qa'ida, and the ongoing internal stability issues in the Middle East complicate the strategic options for regional powers and key power projectors such as the United States, the UK, and NATO.

Afghanistan remains equally fragile and has its own Shi'ite factions. Iran can tighten its relations with Syria (with a governing Alawite minority elite) and exploit Lebanon's Shi'ites and its own ties to Hezbollah. Iran also has links to Shi'ite movements in Bahrain and Yemen and to other non-Sunni groups in the Gulf. Its submarines, mine warfare capabilities, 20,000-man naval branch of the IRGC, and strategic position near the Strait of Hormuz and main shipping channels in the Gulf enable it to indirectly or covertly attack or threaten the world's key source of oil exports.

At the same time, Iran is a highly vulnerable state. Its air force and surface-to-air missile systems are largely worn, and most elements are obsolete or obsolescent. The fact that targeting cannot be perfect does not mean that many known, probable, and possible facilities cannot be destroyed at great cost to Iran. Iran's key conventional military assets, bases and facilities for its asymmetric forces, and military pro-

duction and missile facilities are all hostages to a high-level U.S. attack. Such an attack might not halt Iran, but it would certainly slow its efforts. It is also unclear what a few covert nuclear weapons would be worth over time in the face of massive U.S. military, deterrent, and retaliatory superiority, the deployment of antiballistic missiles into the region, and the buildup of other Gulf defenses.

The wild card remains the Israeli response. Israel has argued that Iran must not be permitted to acquire nuclear weapons, but has also argued that the problem is an international, not an Israeli, problem. The election in 2005 of Mahmoud Ahmadinejad to the presidency in Iran and his statements about wiping Israel off the map, however, make Iran's nuclear program an existential threat to Israel. Iran has also made its position clear: an attack by Israel on Iranian nuclear facilities will be met with total retaliation. Iran's minister of defense, General Mostafa Mohammad Najjar, has been quoted as saying, "Any attack against Iran's peaceful nuclear facilities will meet a swift and crushing response from the armed forces."<sup>4</sup> Iran's foreign minister, Manouchehr Mottaki, expressed a similar sentiment, asserting that Iran would respond to such an attack "by all means" at its disposal.<sup>5</sup>

## Notes

<sup>1</sup> Dafna Linzer, "Iran Is Judged 10 Years from Nuclear Bomb," *Washington Post*, August 2, 2005, sec. A-1.

<sup>2</sup> Matthew Schofield, "Analysts: Iran Will Make Atomic Bomb," *Miami Herald*, January 30, 2006, available at <http://www.mercurynews.com/mld/miamiherald/news/world/13744571.htm>.

<sup>3</sup> Energy Information Administration (EIA), *Short-Term Energy Outlook* (Washington, D.C.: EIA, January 2006), table 3a, available at <http://www.eia.doe.gov/emeu/steo/pub/3atab.html>.

<sup>4</sup> Ali Akbar Dareini, "Iran Says It Will Resist 'Bully' Nations," Associated Press, February 1, 2006.

<sup>5</sup> Ewen MacAskill and Simon Tisdall, "Iran's Message to the West: Back Off or We Retaliate," *Guardian*, February 2, 2006, available at <http://www.guardian.co.uk/iran/story/0,,1700266,00.html>.