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# Iranian National Security Policies under the Islamic Republic: New Defense Thinking and Growing Military Capabilities

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## **About the Project**

The Henry L. Stimson Center is studying factors contributing to regional demand for advanced conventional weapons, on the assumption that the canonical principles of arms control (to reduce the likelihood of war, the costs of war preparation, and the destructiveness of conflict) cannot be applied effectively to regions of tension without addressing the sources of demand for armaments. Any efforts to prevent or to mitigate regional conflicts that address the tools of war must take demand factors explicitly into account, even if they seek primarily to constrain arms supplies, because unmodified demand will seek, and inevitably find, alternative channels of supply.

Some demand for arms is driven by perceptions of external threats and some by desires to *pose* external threats in the service of any number of personal, national, or ideological agendas. When those threats abate, demand can safely plummet and may well do so (as it has in Europe since 1989).

Where demand is internally-driven, by a quest for prestige or a struggle for power, the policies, perceptions, and circumstances that must change to mitigate conflict and encourage arms restraint are internal as well, but parties to civil war can and often do have outside support, and their struggles have regional consequences. External and internal motivations for arms both coexist and interact.

Their commingling is particularly complex in states that emerge from the wreckage of empires; states that must sort out the sometimes-violent claims to political power or self-determination of racial, religious, or ethnic groups. Nowhere do more old imperial paths cross than in the part of the world stretching from the Balkans through South Asia, encompassing, since late 1991, what were the southern republics of the former Soviet Union.

This part of the Stimson Center's project on conventional weapons, supported by a grant from the Ploughshares Fund, examines the policies and perceptions of Turkey and Iran, two key players in this troubled region. Our objective is to describe and evaluate these countries' security perceptions and policies, using local and other primary sources of information where possible, as a contribution to a realistic assessment of the utility of conventional arms control and confidence-building measures in the region. This paper covers Iran. The companion paper is "Turkey's Political and Security Interests and Policies in the New Geostrategic Environment of the Expanded Middle East," by Professor Duygu B. Sezer. The project is directed for the Stimson Center by Dr. William J. Durch.

## About the Author

Dr. Ahmed Salah Hashim is a research associate at the International Institute for Strategic Studies in London. A close student of Persian Gulf security, focusing on the security policies and perceptions of Iraq and Iran, Dr. Hashim served as an infantry officer with the US Army in Saudi Arabia during the second Gulf War. He holds a doctorate in political science from the Massachusetts Institute of Technology.

#### Introduction

Since the end of the Iran-Iraq War, and particularly since the defeat of Iraq in the Gulf War, Western observers have periodically gestured with alarm at the rearmament program of the Islamic Republic of Iran (IRI). Some have addressed the potentially adverse consequences for the West of the flow of dual-use technology into Iran and worry that the West is abetting the rise of another Iraq. 2

The United States is clearly worried by the prospect of resurgent Iranian military power. In 1991, the Bush Administration launched a diplomatic effort aimed at preventing other Western states from giving Iran the wherewithal to develop a sophisticated defense industrial base. In 1993, Clinton Administration National Security Council staffer Martin Indyk articulated a policy of "dual containment," which classifies both Ba'thist Iraq and Islamic Iran as threats to US national security and to regional stability in the Middle East. As Iranians view it, the policy is not only designed to thwart the reconstruction of the country's military capabilities but also to ensure that Iran does not get Western technology or resources needed to modernize and develop its economy. Moreover, they contend, dual containment will weaken the hand of Iranian technocrats and strengthen the hands of ideological purists like the radicals and conservatives, who want no links with the West.

The author would like to thank the following for their insights and comments over the course of this project: Shahram Chubin, Patrick Clawson, William Durch, Michael Eisenstadt, Patrick Garrity, Bernard Hourcade, Kenneth Katzman, Geoffrey Kemp, Robert Swartz, Henry Sokolski, and others who prefer to remain anonymous. For the limitations of the work, the author alone is responsible.

<sup>1.</sup>See, for example, Philip Finnegan, "Fractured Cooperation May Dash Gulf Security: Iranian Rearmament Poses New Threat to Mideast Nations," *Defense News*, 16 March 1992, pp. 6–7; Charles Miller, "Iranian Buildup May Spark Mideast Sales, King Says," *Defense News*, 27 January 1992, pp. 4, 45; Jack Nelson, "Arms Buildup Making Iran Top Gulf Power," *Los Angeles Times*, 7 January 1992, pp. 41, A6; Kenneth Timmerman, "Iran Poised to Become Regional Superpower," *Mednews*, 20 January 1992, pp. 1–2; Tony Banks and James Bruce, "Iran Builds Its Strength," *Jane's Defence Weekly*, 1 February 1992, pp. 158–159; R. Jeffrey Smith, "Gates Warns of Iranian Arms Drive," *Washington Post*, 28 March 1992, pp. A1, A17; ABC Nightly News story about the Iranian buildup, 31 July 1992; and Patrick Clawson, *Iran's Challenge to the West: How, When, and Why*, Washington Institute Policy Papers, No. 33 (Washington, D.C.: Washington Institute for Near East Policy, 1993).

<sup>2.</sup> Steve Coll, "Technology From West Floods Iran," Washington Post, 10 November 1992, pp. A1, A28–A29; Christopher Drew, "High-tech sales to Iran called into question," Chicago Tribune, 15 September 1993, p. II-1.

<sup>3.</sup> Coll, "Technology..."; Youssef M. Ibrahim, "Rebounding Iranians Are Striving for Regional Leadership in Gulf, New York Times, 7 November 1992, p. 1.

<sup>4.</sup>Iranians also contend that dual containment is not only motivated by the Democrats' fear of getting embroiled once more with Iran, but is intended to advance Israeli strategic interests while glossing over President Ali Akbar Hashemi-Rafsanjani's policy of relative pragmatism and moderation. (Based on conversations with Iranians during a visit by the author to Tehran in June 1993.) For a discussion of policy from the United States' perspective, see Martin Indyk, Phoebe Marr, Graham Fuller, and Anthony Cordesman, "Symposium on Dual Containment: US Policy Toward Iran and Iraq," *Middle East Policy*, issue 47, vol. 3, no. 1 (1994), p. 1.

Is Iran building a military establishment for offensive purposes, or to ensure a deterrent and retaliatory capability against potential enemies? Iran's leaders contend that Iran is acquiring arms in order to modernize its forces and to replenish a war-depleted inventory. They claim that their defense budget is lower than that of their neighbors and note the Gulf Arabs' purchases of large amounts of high tech weaponry. They note that the West has several motives for making Iran's arms imports appear controversial: to increase sales to Iran's neighbors (because Western economies are in depression and need the infusion of capital); to heighten tension between Iran and its neighbors (so that the USA can expand its military presence in the Persian Gulf); and to keep the Gulf Arabs dependent on the West (thereby maintaining Western dominance of a region containing a critical energy resource).

Faced with what they see as a hostile West, Iranians have espoused a conspiracy theory remarkably similar to the one abroad in Iraq between 1988 and 1990. Tehran believes that it is being set up as the regional bogeyman of the 1990s; a likely target of attacks intended to destroy its scientific and industrial infrastructure. Iranian officials believe that the USA, in particular, is orchestrating a range of efforts intended to undermine the integrity of the country as a whole and the Islamic Republic as a polity. Officials and academics point to certain policies as indications of an increasingly hostile Western attitude toward the IRI: the controversy over its rearmament program; the recurrent tensions in bilateral relations with NATO-member Turkey; the exaggerated fears of Iranian influence in Central Asia; and the dispute over the island of Abu Musa with the United Arab Emirates in the summer of 1992, which the West and other Arab states "used" to make Iran appear an expansionist power.

The Islamic Republic of Iran is clearly still an anti-status-quo power whose ideology is at odds with that of its neighbors. But the radical "export of revolution" faction that supported acts of subversion in the region in the revolution's name, and that prolonged the Iran-Iraq War in a costly, futile effort to destroy Saddam Hussein, was sharply set back by Iran's 1988 defeat. The war and its outcome forced the Islamic Republic's officials and defense planners to pay heed to traditional Iranian national security interests, to address their strategic mistakes, and to absorb the war's military lessons. By 1989, it was clear that failures, not only in war-fighting strategy but in foreign and domestic economic policy, had helped to discredit the radical faction of the clergy that until then had controlled the government.

This paper attempts to give an objective analysis of Iranian national security policy. The first section deals with Iranian national security perceptions, and actions based on

<sup>5.</sup>See, "Niru'i darya'i zamen manafe' ma dar khalij fars," ("The Navy: guardian of our interests in the Persian Gulf"), SAFF no. 155, 1371 (1992). (SAFF is the official military journal of the political-ideological directorate of the Iranian officer corps.) See also, "West Seeks 'Rift' Between Iran, Others," Ettela'at (Tehran), 19 November 1992, p. 16, cited in United States, Foreign Broadcast Information Service, Daily Report for Near East and South Asia [hereafter, FBIS-NES], vol. 92, no. 233, 3 December 1992, p. 37.

<sup>6.</sup> This belief came out in discussions with Iranians during the author's trip to Tehran in mid-June 1993; see also "New Plots to Seek Iran's Annihilation," *Tehran Times*, 15 November 1992, p. 2, cited in *FBIS-NES-92-225*, 20 November 1992, p. 48.

those perceptions, from the 1970s to the present. The second section deals with Iran's rearmament program, sector by sector, while the third addresses Iran's motivations and activities with respect to unconventional weapons. The final section offers conclusions. Overall, the paper concludes that the dictates of state interest and the quest to make Iran the preeminent power in the Persian Gulf (a dream of the current rulers shared by the late Shah), coupled with a pronounced nationalistic resurgence—and not a religious-ideological crusade—are the principal driving forces behind Iran's weapons program. This conclusion does not mean, however, that the West can expect to find Iran's policies congenial to its interests. The return of Iranian nationalism has been paralleled by the rise of a technologically-oriented approach to national military power, championed by technocrats and conservatives, that calls for the acquisition of sophisticated conventional weapons and weapons of mass destruction. Together, these developments suggest continuing tension between Iran and the West, and between Iran and its neighbors.

## **Iranian Security over Three Decades**

To assess contemporary Iranian security perceptions and policies, one needs a sense of history, if only recent history. This section starts with a brief review of Iran's arms buildup under the Shah in the 1970s. It then turns to the Islamic Republic's experience of war with Iraq in the 1980s, a trial by fire that caused it to jettison some of its precepts—especially those concerning military forces and operations—while reinforcing others. The section ends with an assessment of Iranian leaders' perceptions of contemporary external and internal threats to national security.

## The 1970s: Imperial Buildup

Before the Iranian Revolution, the vast bulk of Iran's weaponry came from the West, with the United States and Britain providing the lion's share. In his quest to

<sup>7.</sup> Despite their belief that their revolution has universal appeal to all Muslims, the clerics of Iran have never doubted their own patriotism. Ayatollah Khomeini did distinguish between patriotism and nationalism, saying that the former is a legitimate love of country, while the latter is ideology, contrary to the teachings of Islam because it accentuates differences between peoples. But in reality it becomes difficult to distinguish the two and in the Iranian context almost impossible. The Iranians have traditionally been an intensely nationalistic people who have viewed all their neighbors with disdain. Their ancient civilization and distinct status as Shi'as in a sea of Sunnis have reinforced this sense of separateness. Their feeling of victimization in contemporary times—"neo-colonialist domination," the Iran-Iraq War, the negative image of Iran seen perpetuated abroad—accentuates this nationalism. (On Iranian nationalism under the clerical regime see Andre Mabon, "Un foyer de contagion, sous l'oeil vigilant des grandes puissances," Le Monde Diplomatique (April 1984), pp. 12–14; and Pierre Metge, "Le rempart du nationalisme dans l'Iran," Le Monde Diplomatique (December 1987), pp. 18–19.)

<sup>8.</sup> This brief section on Imperial Iran's threat perceptions, national security policies, and force structure is derived from the following sources: U.S. Congress, Senate, Committee on Foreign Relations, Subcommittee on Foreign Assistance, U.S. Military Sales to Iran: a staff report, 94th Cong., 2nd sess., 1976; Maqsud ul-Hasan Nuri, "Iranian Armed Forces Under the Shah: A Retrospective View," Regional Studies IV:2 (Spring 1986), pp.98–110; R.D.M. Furlong, "Iran, a power to be reckoned with," International Defense Review 6:6 (December 1973), pp.719–729; New York Times, 2 August 1976; Bard O'Neill and Paul Viotti, "Iran and American Security Policy in the Middle East," Naval War College Review XXVII: 4 (January–February 1975), pp. 55–65; K.R. Singh, Iran: Quest for Security (New Delhi: Vikas Publishers,

achieve regional superpower status with the blessing of the United States, Shah Mohammed Reza Pahlavi spent billions of dollars on some of the most sophisticated arms in the American arsenal. Indeed, the Shah's arms purchases resulted in "the most rapid buildup of military power under peacetime conditions of any nation in the history of the world." By 1978, Iran had succeeded in building one of the most technologically advanced military establishments in the Third World.

Threat Perceptions. Imperial Iran faced several threats to its national security. The Shah feared the USSR, which in 1941, in conjunction with the British, launched an unexpected onslaught that destroyed Iranian forces in a quick offensive. Imperial planners knew that no matter how powerful Iran became, it would never be able to defend against a contemporary Soviet attack. The best its forces could do was to act as a trip-wire and delay invading Soviet forces until US help arrived.

At the height of the Cold War, Imperial Iran added Ba'thist Iraq to its list of concerns. In conjunction with its holding strategy against Soviet attack, Tehran contemplated lightning offensives against Iraq along the central border region, whose terrain can support armored warfare. <sup>10</sup>

The Shah was also determined to secure Iranian national interests in the Persian Gulf region and the Middle East at large, where Iran felt threatened not only by radical Arab states like Iraq, but by forces of subversion, in particular, groups that were Marxist-oriented. Thus, Iranian air, naval and ground forces intervened on the side of the Sultan of Oman against a Marxist rebellion in the province of Dhofar in the early 1970s.

Imperial Iran was also concerned about potential threats to freedom of navigation in the Persian Gulf, which was a critical life-line for Iranian oil exports and industrial imports.

Military Programs. The air force was the Shah's favorite service, and as such, the Iranian monarch (who was an avid pilot himself) ensured that it received the greatest attention in terms of resources and qualified personnel. But the Shah was not merely building a prestige service, he was seeking to make the air force Iran's premier deterrent capability. By 1979, the Imperial Iranian Air Force was the most advanced in the Middle East in terms of equipment, and included almost 200 F-4 Phantom fighter-bombers, 77 technologically advanced F-14 Tomcat interceptors, over 150 F-5 short-range interceptors, one squadron of Boeing 707 aerial refueling tankers, and a transport fleet consisting of 64 C-130E/H Hercules, six Boeing 747s, and a variety of other, lighter transports.

<sup>1980);</sup> Steven Canby, "The Iranian Military: Political Symbolism Versus Military Usefulness," in Hossein Amirsadgehi (ed.), *The Security of the Persian Gulf* (New York: St. Martin's Press, 1981), pp. 100–130; Major Ronald Bergquist, *The Role of Airpower in the Iran-Iraq War* (Maxwell Air Force Base, Alabama: Air University Press, 1988).

<sup>9.</sup> Michael Klare, American Arms Supermarket (Austin: Texas University Press, 1984), p. 108.

<sup>10.</sup> Conversation with a former Imperial Iranian military officer who asked to remain anonymous. In reality, Iran would have had great problems undertaking such offensives in part because it had insufficient ability to maintain its sophisticated new weaponry in combat.

Additional equipment on order at the start of the revolution included another squadron of Tomcats, 160 F-16 fighter-bombers, sophisticated Airborne Warning and Control System (AWACS) aircraft, and 50 heavy-lift troop transport helicopters. The Imperial Iranian Air Force—an overwhelmingly American creation—was a high quality force with both offensive and defensive capabilities. <sup>11</sup>

The Iranian ground forces under the Shah were equipped with almost 900 British Chieftain main battle tanks, one of the best and most powerful tanks of its day. Iran also possessed a large quantity of US-made tanks, giving it the most powerful armored and mechanized forces in the Persian Gulf. Iran's Army Aviation Command had the largest helicopter fleet in the Middle East; between it and the Iranian Air Force, Iran had a fleet of almost 800 mostly American-made helicopters.

Finally, Iran's navy was the largest and most modern in the Persian Gulf. With its destroyers, frigates, corvettes, and amphibious capability (consisting of hovercraft, landing craft, and three battalions of marines), it had an impressive capability to project power, theoretically, anywhere on the shores of the Persian Gulf. The Shah's plans for a blue-water navy, which included first-line destroyers, diesel submarines, and logistics support ships, attested both to Iranian concerns and Iranian ambitions. <sup>12</sup>

**Political and Operational Vulnerabilities.** The Shah's forces could not effectively use the sophisticated weapons they had purchased, however, without substantial operational and technical assistance. The Imperial Iranian Armed Forces were quite dependent on support provided by American personnel and contract workers. This dependency became an operational and political liability when the old regime fell.

Moreover, in the eyes of many Iranians, the Shah's military was loyal not to the country or the people, but to the monarchy. It was seen to be designed less to defend the country against foreign aggression than to enhance the prestige of the Shah, keep him in power, and serve Western strategic interests as a regional counter to Soviet influence and the activities of pro-Soviet "radicals" like Iraq. Consequently, when the revolution came, the Shah's forces lacked the institutional strength to withstand the mass appeal of the revolutionaries and their strategy of subverting the military. <sup>14</sup> The revolutionaries knew that the military could be decisive in either hindering or furthering the revolution, thus their strategy in 1978–79 was to destroy the Imperial military as an effective counterrevolutionary force. In this they largely succeeded. Soon after the Shah left the country, his armed forces crumbled.

<sup>11.</sup> Robert Pranger and Dale Tahtinen, "American Policy Options in Iran and the Persian Gulf," in *American Enterprise Institute Foreign Policy and Defense Review* 1:2 (1979), pp. 12–14. See also International Institute for Strategic Studies, *The Military Balance*, 1978–79 (London: IISS, 1978), p. 37.

<sup>13.</sup> U.S. Congress, U.S. Military Sales to Iran.

<sup>14.</sup>On the institutional weaknesses of the Shah's military see, Nicole Guez, "Radioscopie de l'armee iranienne," Strategique Afrique/Moyen Orient (January-March 1981), pp. 14–16; "Too Many Swords, too little spirit," The Economist, 24 February 1979, p. 57; and Nader Entessar, "The Military and Politics in the Islamic Republic of Iran," in Hooshang Amirahmadi and Manouchehr Parvin (eds.), Post-Revolutionary Iran (Boulder: Westview Press, 1988), pp. 56–74.

### The 1980s: Trial by Fire

Iran's revolution radically altered the country's domestic politics, foreign policy, and attitude toward the military. <sup>15</sup> The initial, secularist regime of Mehdi Bazargan that attempted to rule after the Shah's departure found the institutions of government crumbling around it and basic government functions being assumed by the mosques. <sup>16</sup> Seizure of the US Embassy in Tehran on 4 November 1979 by the "revolutionary idealist" faction of the revolution marked the start of the ascent to power of the radical Islamists and the adoption of a confrontational foreign policy that soon worked to isolate Iran diplomatically from most of the world and poisoned US-Iranian relations through the 1980s. <sup>17</sup>

With its new ideological orientation, Iran would no longer protect Western interests. Tehran's hostility to and fear of dependence on the United States also implied much lower reliance on American arms, The seizure of the embassy caused Washington, in turn, to refuse sales of spare parts to Iran when war with Iraq broke out.

The Revolution and the Military. No revolutionary government has ever felt at ease without a powerful military force at its disposal, because a revolution must often be consolidated in the face of violent opposition, whether from diehard members of the old regime or from external powers. The clerical government in Tehran understood better than the Shah that military effectiveness is more than a technical or material phenomenon. In the words of then Hojjatolislam 'Ali Khamene'i, "What is important for the new Islamic military is to become part and parcel of the *larger society within which it operates*. It should transform itself into a people's armed forces." <sup>18</sup>

This transformation entailed a steady decline of the Iranian military from a high-technology to a medium- and low-technology establishment. After they seized power, the revolutionaries canceled several billion dollars worth of equipment from the West, sought to return all of Iran's advanced F-14s to the United States, and cut the already reduced military budget by one-third. The new regime argued that Iran had more than enough arms for its self-defense. The revolutionaries were highly suspicious of the Western-equipped regular armed forces, which they regarded as a creature of both the Shah and the Americans. Not only were the clerics not about to lavish the same attention on the military as had the Shah, they set out to purge the military of suspect elements, including many competent and capable officers. This had a devastating impact on operational readiness.

<sup>15.</sup> This section is derived primarily from Ahmed Hashim, "Third World War: The Iran-Iraq War in Historical, Political, and Military Perspective" (Ph.D dissertation, Massachusetts Institute of Technology, 1990), Chapter 10.

<sup>16.</sup> Richard Cottam, "Inside Revolutionary Iran," in R. K. Ramazani (ed.), Iran's Revolution: The Search for Consensus (Bloomington, IN: Indiana University Press in association with the Middle East Institute, 1990), p. 5.

<sup>17.</sup>R. K. Ramazani, "Iran's Foreign Policy, Contending Orientations," in Ramazani (ed.), Iran's Revolution, pp. 53, 58.

<sup>18.</sup> Ettela'at (Tehran), 18 August 1979, p. 11 (author's emphasis).

<sup>19.</sup> For a detailed analysis of the impact of the purges, see Nikola Schahgaldian, The Iranian Military

Indeed, after the outbreak of the war with Iraq, high-ranking Iranian officials like the country's first president, Abol Hasan Bani-Sadr, pointed out on numerous occasions that Iran's military disorganization and lack of readiness contributed greatly to Iraq's decision to attack Iran, and to the relative ease with which it seized parts of oil-producing Khuzestan. Conversely, in a speech during the war, then-Speaker of the Majlis Hashemi-Rafsanjani blamed the Shah for building an army not designed to protect Iran. Yet Rafsanjani also noted that the revolutionary hiatus between 1979 and 1980 left the border regions with Iraq substantially un-monitored. Government officials found at one point that there were no more than fifty to sixty tanks at the front. In short, said Rafsanjani, Iran was caught by complete surprise.

The War with Iraq. For a time after fighting began, at least some of Iran's US-made arms were maintained by shipments from Vietnam, which had huge stocks of some American arms, and from European states, which, despite their denials, provided spare parts for American weapons as well as arms they themselves produced. The black market on which Iran also relied was characterized by inefficiency, corruption, fraud and delays. Iran was unable to replace war losses of major weapon systems like aircraft, tanks, artillery, and surface-to-air missiles on a regular and reliable basis. Its opponent had no similar problems, especially after 1982, when France and the USSR, in particular, supplied it with all kinds of weapon systems.

Iran's losses increased after 1982, when the tempo of the war picked up considerably. By 1984, the Iranian Air Force had no more than 55 operational F-5s, 50 or so F-4s, and 12 F-14s. <sup>22</sup> After 1986, the Iraqi Air Force could roam at will through Iranian airspace, attacking economic and industrial targets, and causing severe damage to Iran's industrial and petroleum infrastructure. On the ground, Iran's periodic "human-wave" assaults resulted in horrific casualties that could not be offset by the capture of territory from the Iraqis, and Iran tended to lose few mechanized and armored battles.

By mid-1987, Iran's war aim—to overthrow Saddam Hussein and his Ba'thist regime—was no longer tenable, given declining Iranian military capabilities and national morale. The country did not have the wherewithal to dig out the entrenched Iraqi army. It had suffered heavy casualties in trying to do so, and its people were exhausted, their enthusiasm for war declining with each bloody "final offensive." Many of the country's

Under the Islamic Republic, R-3473-USDP (Santa Monica, CA: RAND Corporation, March 1987), pp. 17–27.

<sup>20.</sup> See the long speech by Hashemi-Rafsanjani at a seminar of government and military officials, "Matn bayanat janeshin farmandeh kul ghova va raisati mohtaram Majlis Shura'i Islami" ("The Speech of the second in command and Speaker of the Majlis"), *SAFF* no. 108, 1364 (1985).

<sup>21.</sup> Anthony Cordesman and Abraham Wagner, *The Lessons of Modern War, Volume II: The Iran-Iraq War* (Boulder: Westview Press, 1990), p. 52. For a list of some of Iran's suppliers see "Iran: Making it Work," *Middle East Strategic Report* (Nicosia, Cyprus), No. 13, 29 June 1984, pp. 14–16.

<sup>22.</sup> Anoushiravan Ehteshami, "The Military balance in the Gulf and its Chequered Career," in Charles Davies (ed.), After the War: Iraq, Iran and the Arab Gulf (Chichester, England: Carden Publishers, 1990), pp. 358–359.

<sup>23.</sup> Signs of popular distress with the war could be seen in the declining number of volunteers for the front and in anti-war demonstrations even by members of the lower classes—the staunchest supporters

seasoned veterans were either killed or maimed in Iran's last large-scale, make or break offensive in front of Basra in January 1987. In the last year of war, Iran had difficulty finding enough volunteers to go to the front and those who were sent were of very low quality and no match for the Iraqi units.

Then, between April and July 1988, the Iraqi army launched a series of offensives in which, for the first time, the Iranians felt the full impact of Iraq's superior firepower. They suffered immense losses. Iran sued for peace, and on 20 July it accepted UN Security Council Resolution 598, which called for an end to the war. On 2 August 1988, a UN-monitored cease-fire came into effect.

Aftermath of War and Lessons Learned. For the Iranians, the most important outcome of the "imposed war" (jang-e-tahmilli) was that neither the Islamic Republic nor the revolution had been destroyed. According to the Iranian world-view, the Iraqi attack was not motivated by boundary differences, nor by alleged Iranian interference in Iraqi domestic affairs, but was part of a global and regional conspiracy to extirpate the Islamic regime. <sup>24</sup> In an extensive sermon shortly after the war ended, then-President 'Ali Khamene'i assessed Iraq's war aims, as viewed by the IRI:

Their military objective was to capture Khuzestan through a military invasion. Khuzestan... is the center of the oil industry, which is the greatest source of our nation's wealth.... Their political objective...was to weaken the Islamic Republic and then to destabilize it. If possible, they intended to overthrow it. 25

But Saddam was incapable of carrying out this strategy by himself. Rather, "[t]he world's economic, political, and military establishments united against this nation. Saddam...was set up by them to attack the Islamic Republic...." Saddam became trapped in Iran and, in this view, Iran could have defeated him except that every time he was on the verge of succumbing, the rest of the region and "global arrogance" (the USA in particular) came to his aid, increasing not only their military aid but also their financial and political support, while turning a blind eye to Iraq's use of chemical weapons and ballistic missiles. Thus the correlation of forces was consciously and actively tipped

of the Islamic Republic—who bore the brunt of casualties in the battlefield and on the home front.

<sup>24.</sup> Nothing can disabuse the Iranians of the idea that the Iraqi attack was part of a global and regional conspiracy to destroy the revolution and overthrow the Republic itself; for detailed analyses of this Iranian view, see Khatt-e-tote'eh dar sheshomin va haftomin sal jang (The Lines of Conspiracy in the Sixth and Seventh Year of the War) (Tehran: Political Office of the Sepah Pasdaran, 1366 [1987]); Tahlil siyasi hashtomin sal jang (Political Analysis of the Eighth Year of the War) (Tehran: Political Office of the Sepah Pasdaran, 1368 [1989]); Eric Rouleau, "Iran: la guerre consacrée, la defaite impossible," Le

Monde, 9 January 1981, p. 6; "President Khamene'i Admits Iran's 'Shortcomings, Wasted Opportunities'," Tehran Home Service, 1230 GMT, 1 July 1988, cited in British Broadcasting Corporation, Summary of World Broadcasts, Part 4, subpart A. The Middle East [hereafter, SWB], ME/0194/A/1, 4 July 1988.

<sup>25. &</sup>quot;Second Sermon" (by President 'Ali Khamene'i at Tehran University), *Tehran Domestic Service*, 1303 GMT 12 August 1988, cited in *FBIS-NES-88-157*, 15 August 1988, pp. 61.

<sup>26.</sup> Ibid.; see also Khamene'i, "Shortcomings."

against Iran throughout most of the war. Nonetheless, not only had the IRI survived, it had been consolidated as the people rallied around it and around their nation. The war had led to the development of Iran's military power: When the war began, Iran was militarily unprepared and weak; now, after eight years of warfare, it had a large and trusted military establishment with great combat experience.<sup>27</sup>

President Khamene'i also noted some major shortcomings that hurt Iran's ability to achieve its war aims: lack of preparedness, poor organizational work, inadequate and inefficient use of resources, and poor logistics. Concerning the home front, he noted that indifference, apathy, the fractious nature of Iranian politics, corruption and indolence, and the tendency of certain groups to engage in "treasonous" behavior—such as circulating rumors and questioning Iran's determination to prosecute the war—all had had a negative impact on the front line. <sup>28</sup>

In the early years of the war, the revolutionaries were adamant that the most important elements of military power were the human elements—ideological commitment, spiritual faith, and the fervor generated by a nation in arms. By the end of the war, the ruling elite's one-dimensional view of military power had been rudely shattered and it began to recognize the importance of the material and technical elements. The Iranians began noting that professionalism, technical expertise, elimination of waste, efficient logistics, large-scale acquisition of advanced weaponry, and thorough and extensive training in its use, are of paramount importance in modern war. They came to realize that a truly effective military needs the human, the organizational, and the material elements working together in balance.

By the late 1980s, although it could once again trust its armed forces, Iran needed weapons and materiel to improve its operational capabilities and readiness. The need for day-to-day military preparedness was one of the most important lessons learned by Iran from the war with Iraq, and Iran's rulers decided that the way to ensure such preparedness was to build up the military. As Hashemi-Rafsanjani said in August 1988, "...our armed forces must reach a level suitable for protecting the revolution so that no one will dare attack us."

**Threat Assessment, 1988–90.** In the eyes of Iran's leadership, the primary enemy remained Iraq. Iran did not see the war as having ended, since Resolution 598 was merely a cease-fire and not a peace treaty. Iraq was a "mischievous" and "dastardly"

<sup>27.</sup> President Khamene'i, "Second Sermon," p. 62.

<sup>28.</sup> Khamene'i, "Shortcomings." The Iranians themselves can of course be faulted for much of the unfavorable correlation of forces directed against them both globally and regionally. Their ideological viewpoints, their criticism of unsavory "satanic" powers, and their subversive diplomacy alienated most of the regional powers, as well as the western and eastern blocs. Furthermore, Iran's demands for the overthrow of the Iraqi regime were not then such as to gain it much outside support.

<sup>29.</sup> For very good discussions of these issues see Shahram Chubin, "Iran and the Lessons of the Gulf War 1991," Center for National Security Studies, Los Alamos National Atomic Laboratory, 1991, mimeo. 30. Ibid.

<sup>31. &</sup>quot;Hashemi-Rafsanjani Addresses Defense Conference," IRNA (Tehran), 11 August 1988, cited in FBIS-NES-88-155, 11 August 1988, p. 62.

enemy that could re-start the war at any time. In fact, even after the cease-fire, Iraq continued to buy arms and to build its military industry, while Iran had no comparable options. By the end of the war in 1988, Iran had fewer than 200 operational planes and around 500 tanks, compared with about 700 planes and over 5,000 tanks for Iraq. 32

Iran also feared the United States, which had given Iraq wartime intelligence and had helped swing the tide against Iran in the last stages of the war. In the Iranian strategic mindset, the "Great Satan" played a devious and important role in dissipating Iran's energy during the war. Indeed, both superpowers provided weaponry and material support to Iraq, while the Arabs provided financial support and advisers. When it seemed that Iraq would lose, and the conflict threatened the oil flow out of the Gulf, the "international community" decided that Iran would not be allowed to win the war. Western naval presence in the Gulf increased and the United States accepted a Kuwaiti "request" to escort oil tankers out of the Gulf. In the course of these escort operations in 1987 and 1988, the US Navy confronted both Pasdaran-e-Enghelab (Revolutionary Guards) and regular Iranian naval forces, sinking one frigate, severely damaging another, and destroying other smaller vessels.

#### The 1990s: the Gulf War and After

Although the Iran-Iraq War was the critical event in shaping revolutionary Iran's national security thinking, the Gulf War and the collapse of the Soviet Union also had a major impact on its foreign and national security policies.

**Dealing with Iraq.** The Iraqi invasion of Kuwait heightened considerably Iran's sense of threat, a perception that persists despite Iraq's crushing defeat in 1991. Iraq's actions in Kuwait convinced the Iranians that they must maintain military preparedness to foil potential Iraqi threats against the revolution and Iranian national interests.<sup>34</sup>

Iran at once fears, respects, and despises Iraq. Iranians are not impressed by Iraq's conduct of foreign policy, nor by its failures to exploit military opportunities during the time of Desert Shield, when the US-led coalition in Saudi Arabia was still building its forces. Yet Iranian analysts are impressed by the ability of Saddam Hussein and his Ba'th party to survive not just the Iran-Iraq War but the Gulf War and two severe insurrections. That Saddam still remains in power is a source of wonderment to the Iranians, who remain anxious about Iraq's intrinsic capabilities and powers of regeneration. The UN's disarmament of Iraq does not inspire long-term confidence in Iran because it is seen as a temporary solution imposed on a defeated country. Like the rest of the world, the Iranians have been impressed by the extent of Iraq's military-industrial complex and by

<sup>32.</sup> International Institute for Strategic Studies, *The Military Balance*, 1990–1991 (London: Brassey's Publishers, 1990), pp. 103–106.

<sup>33.&</sup>quot;[Deputy Foreign Minister Dr. Javad] Larijani Speaks on Threats from US, Iraq," Resalat (Tehran), 22 April 1990, p. 2, cited in FBIS-NES-90-084, 1 May 1990, p. 30.

<sup>34.</sup> See, for example, "Rafsanjani Condemns Iraq, Notes Army Readiness," *Tehran Domestic Service*, 1030 GMT 12 August 1990, cited in *FBIS-NES-90-158*, 15 August 1990, p. 52.

the tremendous ingenuity displayed in its construction. Not surprisingly, Iran has cited the threat from Ba'thist Iraq as a reason for its build-up. 35

The 1991 war between Iraq and the US-led coalition did not involve Iran directly but had significant repercussions for Iran. The destruction of so much Iraqi military capability corrected a regional power imbalance that had sharply favored Baghdad since 1988. Tehran is determined never to allow such an imbalance to arise again. It believes that Baghdad harbors a deep-seated desire for vengeance deriving from Iran's alleged "back-stabbing" role during the insurrections that convulsed Iraq in March and April 1991.

Iraq's defeat in the Gulf War by better-equipped and better-trained troops demonstrated dramatically not only the importance of technology in modern warfare but also the need for coherent military organization, combined arms operations, extensive use of air power, and large-scale use of firepower. Iran was also profoundly impressed by the coalition's use of electronic and psychological warfare. <sup>36</sup>

Relations with the Gulf Arabs. After Iraq's invasion of Kuwait, there was a brief warming trend in Gulf Arab-Iranian relations. Suddenly, it seemed that Rafsanjani's efforts since 1989 to improve relations with the Arab monarchies had at last borne fruit but the good will on both sides did not last long. The decision of Iran's neighbors not to include it in their plans for Gulf security raised hackles in Tehran. As Iranian Foreign Minister Ali Akbar Velayati observed, "our most important and strategic border is our southern coastline, the Gulf, the Straits of Hormuz and the Sea of Oman. This region is vital to us....We cannot remain indifferent to its fate." Reinforcing Iran's determination to address threats to its interests in the Gulf is the deeply ingrained Iranian view that the Persian Gulf is *Persian*, whatever the "upstart" Arabs might say or do. Thus an Iranian naval and military build-up on the Gulf would not only be designed

<sup>35.</sup> Observations of the author after talking with Iranian analysts at the Center for Strategic Research, Tehran, June 1993; and Andre Borowiec, "Iranian defends arms build-up, cites Iraqi threat," Washington Times, 20 February 1992, p. 9.

<sup>36.</sup> For a representative Iranian view see Armored Colonel (Ret.) Behzad Tirdad, "Darshaye az jang niruhaye gharbe va Iraq" ("Lessons from the war between the West and Iraq"), SAFF no. 137, 1370 (1991)

<sup>37.</sup> Nora Boustany, "Iran Seeks Wider Mideast Role," Washington Post, 12 October 1992, pp. A25, A28. The Gulf Cooperation Council (GCC) includes Saudi Arabia, Kuwait, Bahrain, Qatar, the UAE, and Oman. At a meeting in Damascus in March 1991, the GCC, Syria, and Egypt issued a joint communique suggesting that the two non-Gulf powers would provide a deterrent to future aggression in the Gulf region. The plan failed to materialize and most of the GCC states turned to the United States for protection, signing bilateral defense accords, buying Western weapons, and greatly irritating Iran. International Institute for Strategic Studies, Strategic Survey, 1991–1992 (London: Brassey's for the IISS, 1992), pp. 102–104; also Strategic Survey, 1992–1993, pp. 123; and Strategic Survey, 1993–1994, pp. 142–143.

<sup>38.</sup> Quoted in Mohammed Ziarati, "Iranian National Security," *Middle East International*, 3 April 1992, p. 18.

to protect vital and tangible national interests but also to "show the flag" and impress upon the Arabs that they must learn to live with Iran's presence in the region.<sup>39</sup>

Iran has vehemently opposed the involvement of non-littoral regional powers like Egypt and Syria in Gulf security, as well as involvement by Western powers. <sup>40</sup> Iranian concerns about Gulf security and, naturally, its own national security are heightened by the now-permanent presence of Western (primarily American) forces in the Persian Gulf and the close strategic relations that the United States has established with Kuwait. Although this presence is currently directed at Iraq, Iranian officials see it as a long-term threat to their national interests, their territorial integrity, and the security of their revolution, because of the West's rising fear of Iran and Islam. <sup>41</sup>

Another setback for Arab-Iranian relations occurred in mid-1992, when Iranian officials denied foreigners access to the island of Abu Musa, where sovereignty is shared by dint of an agreement between Imperial Iran and the Sheikh of Sharjah, now a part of the United Arab Emirates. This action caused widespread protest in Arab countries, who feared that Iran was about to annex the whole island, reverting to the "expansionist" and irredentist policies of the Shah, who had sent the Iranian military in 1971 to assert Iranian sovereignty over the island. Tehran was clearly taken aback by the vehemence of the Arab response and concluded that the issue was magnified by non-littoral Arab powers in order to impress upon the Gulf Arabs their need for outside protection. By the end of 1993, the issue remained unresolved.

Iran was not impressed by Western calls for arms control in the Middle East following the Gulf War. They were and are seen as plans by the West to funnel large quantities of sophisticated weaponry to their regional allies and "puppets" while keeping potential enemies of the West disarmed. The Iranians feel that they must keep pace with their neighbors' military building plans.

Relations with Turkey and the Transcaucasus. Iran also faces momentous changes on its northern flank. Officials of the IRI have admitted that decades of Soviet control over these areas left them with little knowledge or understanding of their northern neighbors despite shared cultural, ethnic, and religious values in most

<sup>39.</sup>On the importance of the *Persian* Gulf in Iranian nationalist thinking, see Hooshmand Mirfakhraei, "The Imperial Iranian Armed Forces and the Revolution of 1978–1979" (Ph.D dissertation, State University of New York at Buffalo, 1984), pp. 136–137.

<sup>40.</sup> For example, Mohammed Ali Besharati, the Iranian Foreign Ministry's Under-Secretary, stated in early 1992 that "the region does not need foreign military forces of any sort. This was our position before the Iran-Iraq war and before the occupation of Kuwait, and it remains our position today," in *Mideast Mirror*, 10 January 1992, p. 13.

<sup>41.</sup> For example, see the interview with Major General Mohsen Rezai, commander of the Iranian Revolutionary Guards Corps, in *Jane's Defence Weekly*, 16 November 1991, p. 980.

<sup>42.</sup>IISS, Strategic Survey, 1992–1993, p. 121; and Strategic Survey, 1993–1994, p. 141.

<sup>43.</sup> As the *Tehran Times* editorialized: "It's our right to prepare the defense of our territorial integrity at a time when the US is selling some of the Gulf countries the most sophisticated weapons." Cited in Claude van England, "Iran Steps Up Arms Purchases to Prop Military," *Christian Science Monitor*, 20 April 1992, p. 4.

instances. The end of the Soviet era has given Iran an opportunity to expand political and economic relations in this region. However, continued instability, the spill-over effects of ethnic conflict, and the possibility of Turkish success in establishing influence in the area are also cause for alarm in Tehran. Matters were much simpler and straightforward when there was just one sovereign power to deal with. 44

Iran's worries are compounded by the fragility of the new Muslim republics in Central Asia, which are being courted by Turkey, the West, and Israel; by civil war in Georgia; and by the war between Azerbaijan and Armenia over the enclave of Nagorno-Karabakh.

The latter conflict is the most troubling for Iran. The Azeris—who have an unstable government and poorly-trained forces—have lost control not only of the enclave but of one-fifth of Azerbaijan itself. Turkey, which supports its Turkic Azeri kinsmen, is increasingly worried. Iran, which has been supporting Christian Armenia against Muslim Azerbaijan, has become worried about the impact of this runaway Armenian victory on the security of its border regions—it certainly does not want any more foreign refugees straining its meager resources—and about the impact on its own large Azeri population.

Iran's large and powerful secular Muslim neighbor, Turkey, is a member of the North Atlantic Treaty Organization. No longer preoccupied by the Soviet threat, it is now able to pay more attention to its southern flank, directing many of its forces to this area where Kurdish nationalists have been in armed revolt since 1984. In 1986, the Turkish General Staff instituted a ten year program to transform a technologically backward, infantry-based Turkish army into a smaller, more sophisticated and potent armored and mechanized army with more firepower and mobility. The air force is in the process of integrating scores of modern F-16 fighter-bombers into its order of battle, and is acquiring air refuelling tankers. During the Gulf War, southern Turkish bases were launching points for coalition air attacks against Iraq. Nonetheless, Iranians profess not to be unduly worried by any Turkish military threat to their country.

The Socio-political and Economic Dimensions of Security. While acquiring lethal and sophisticated armaments may help Iran address external threats, to deal with internal threats to its security Iran relies primarily on its para-military security

<sup>44. &</sup>quot;Deputy Foreign Minister on Policy in Central Asia," *Tehran Times*, 22 February 1993, cited in *FBIS-NES-93-042*, 5 March 1993, pp. 59–60; and observations from the Center for Strategic Research, Tehran, June 1993.

<sup>45.</sup> This does not mean that Turkey is complacent about threats from Russia, which maintains forces in the Caucasus and remains heavily involved in the southern republics of the former Soviet Union. See Mohammed Ziarati, "Turkish security policy after the Cold War," *Middle East International*, 5 February 1993, p. 19.

<sup>46.</sup> Ziarati, "Turkish security policy," p. 19; also Bruce George and Mark Stenhouse, "Turkey comes to terms with its vulnerability," *Jane's Defence Weekly*, 2 July 1988, pp. 1377–1379; Giovanni de Briganti, "Turkish Defense: Modernization plan Is at Crossroads," *Defense News*, 31 August–6 September 1992, p. 6; Michael McNamara, "Turkey's Modernization Serves the West," *Defense News*, 18 November 1991, pp. 22–23.

<sup>47.</sup> Conversations with Iranian analysts in Tehran, June 1993.

forces, the intelligence services, and the Pasdaran. But even these forces cannot overcome hazards to national security that have their roots in economics.

Dealing with Dissidence. Iran believes that foreign governments seek to undermine its stability and legitimacy by various means short of direct military violence, for example, via psychological warfare, hostile propaganda, and the infiltration of "anti-Islamic" cultural values and mores intended to weaken the moral fibre of the country. Thus, the government is concerned about the so-called "cultural onslaught" directed by "global arrogance" that allegedly is flooding the country with narcotics, pornography, and other so-called American value systems that will undermine Iran's own religious and cultural heritage. <sup>49</sup> The aim of the West is supposedly to return the country to its former role as a "subservient puppet of the West."

It is clear that the IRI's rulers and the clerical establishment are mesmerized by the threat posed by "cultural aggression/assault" (tahajjom-e-farhangi) perceived to be emanating from the West. <sup>50</sup> A recent article in an Iranian military journal argued that Westerners know Iran cannot be subdued by war, economic embargoes, or sanctions. Consequently, they are striking at its faith, values, and beliefs in order to undermine the ideological foundations of the country.

The IRI is particularly concerned with the infiltration of the regular army and the Pasdaran by hostile forces. It has expended a great deal of effort since the revolution trying to ensure control over these two military groups. The attempted assassination of President Rafsanjani in early 1993 by Pasdaran soldiers who were members of a shadowy group called Babak Khorramdin came as a nasty shock and has prompted high-level meetings of Iranian politicians and security officials and a purge within the ranks of the Pasdaran. <sup>52</sup>

The IRI is also concerned with dissident political and ethnic groups. The Intelligence Ministry has categorized such movements into three "mini-groups":

(a) *leftist*, of which there are various groups, including the communist Tudeh party, which has seen both its superpower patron (the USSR) and the ideological foundations of Marxism wither away;

<sup>48.</sup> See, "Islam va jang ravani" ("Islam and Psychological Warfare"), SAFF no. 100, 1367 (1988), pp. 26–27, 37.

<sup>49.</sup> See the fascinating interview with the Intelligence Minister Hojjatolislam Ali Fallahian in  $Iran\ Focus$  (October 1992), pp. 8–10.

<sup>50.</sup> Observations made to the author by Iranians in Tehran, June 1993. See also, "Khamene'i Warns of 'Cultural Assault'," IRNA (Tehran), 1609 GMT 11 December 1991, cited in FBIS-NES-91-239,

<sup>12</sup> December 1991, p. 55; and "Namaz, mustahkumtarin sangar muqabeleh ba tahajjom-e-farhangi" ("Prayer, the strongest pillar against cultural aggression"), SAFF no. 161, 1372 (1993), pp. 28–29.

<sup>51.&</sup>quot;Namaz, mustahkamtarin...," pp. 28–29.

<sup>52.</sup> See Safa Haeri, "Amaliyat tathir fi haras al thawra ba'ad ikhtiraq al mardiya sufufaha" ("Purges within the ranks of the Revolutionary Guards after opposition group penetrates its ranks"), Al Hayat, 5 March 1993, p. 3.

- (b) rightist, presumably meaning "counter-revolutionary" monarchist elements, but the IRI no longer fears them much;  $^{53}$
- (c) "eclectic," like the Mujahedin-e-Khalq, who presumably combine elements of both leftist and rightist values.

The IRI is concerned about two aspects of the Mujahedin organization. First, the Mujahedin are based in neighboring Iraq and have built a relatively large and well-equipped military establishment. It is a group that can be used by Iraq to enlist Iranian good behavior at a time when the Ba'thist regime is particularly weak. Second, the group has been politically active throughout the West—seeking greater recognition by the Clinton Administration, for example—and is trying to improve its image at the expense of the IRI. The Mujahedin have devoted considerable resources to demonizing the Tehran government, rousing antipathy toward it in the West, and exposing its arms build-up. So worried was the IRI that it launched an airstrike in April 1992 against a Mujahedin base in eastern Iraq along the border with Iran, and several more attacks from March to July 1993.

But despite the incredible suffering that adherents of the Mujahedin have undergone in Iran—including torture and summary executions of children—the organization is not popular among Iranians because it sided with Iraq during the eight-year war. For the intensely nationalistic Iranian population this was an unforgivable sin. The Mujahedin have also committed widespread acts of terror, and for many Iranians, including those not particularly religious, the Mujahedin are "munafiqin" (hypocrites) who would be far worse than the clerics in their abuse of power. <sup>55</sup>

Rebuilding the Economy. In addition to rebuilding Iran's military power, President Hashemi-Rafsanjani is concerned with economic modernization, development, and post-war reconstruction. He is well aware that the long-term well-being of the Islamic Republic depends on meeting the economic needs of a rapidly growing population, and that failure in this realm would undermine the stability of the regime and ultimately de-legitimize it. Thus, the biggest internal security threat to the clerical regime stems from the parlous state of Iran's economy. In the last decade—because of economic mismanagement, corruption and war—Iran has suffered the greatest drop in national production of any country in the Middle East. <sup>56</sup>

By 1990, Iran was suffering from inflation, unemployment, decaying socio-economic infrastructure and lack of investment in the economy. The ruling elite was divided.

<sup>53.</sup>In the early years of the revolution, the IRI was very concerned by the attempts of exiled royalist groups to foment coups within the armed forces, but with the consolidation of regime authority in the military over the years such a danger has receded. Furthermore, the vast majority of royalist exiles are living in exile in Europe and the USA and have no idea how much their country has changed in the last fifteen years. Nearly half of Iran's population has been born since the revolution.

<sup>54.</sup> Strategic Survey, 1993-1994, p. 141.

<sup>55.</sup> Enmity for the Mujahedin came across in conversations with several Iranians in Tehran in June 1993. 56. Yahya Sadowski, *Scuds or Butter: The Political Economy of Arms Control in the Middle East* (Washington, D.C.: Brookings Institution, 1993), p. 61.

Pragmatists, Western-educated technocrats, and economists with whom Rafsanjani was sympathetic wanted an economic opening to the West so that Iran would be eligible for foreign credit, investment, and technology in order to rebuild and modernize the economy. The so-called radicals who favored a state-controlled and egalitarian economic system were determined to keep Iran from being drawn into such a web of subservience to the West. As a further complication, the conservative clerical faction, which was hostile to the radicals' socialistic socioeconomic agenda, shares with the radicals a fear of Western domination. Moreover, the conservatives are worried by the potentially adverse (from their perspective) social impact of economic reforms on the population. Consequently, they have obstructed the technocrats' economic agenda.

Another obstacle to economic reform is the poor state of Iran's relations with the outside world, particularly the West. In January 1990, the Iranian Parliament approved a five-year economic plan that called for substantial borrowing from overseas. In making this bid to join the Western-dominated global economy, Iran did have several things in its favor: First, it did not have the large debt that Iraq had accumulated by the end of the Iran-Iraq War (in 1988, Iran owed only \$6 billion, while Iraq owed anywhere between \$60 and \$80 billion). Second, after the war, Iran was weak militarily and needed substantial economic help. It was potentially a huge and lucrative market (so was Iraq, but Saddam was unwilling to decrease military expenditures in order to focus on the economy). Third, Iran was showing increased moderation, reflected in its responsible and neutral stance during the Kuwait crisis.

Not long after the end of that crisis, however, Iran's economic plans began to run into trouble. The West's defeat of Iraq in 1991 left Iran the strongest regional power, creating unease abroad over Iranian arms purchases that allegedly exceeded its legitimate defense needs. Some questioned whether the West should allow Iran to acquire dual-use technology. In the dispute over Abu Musa, Iran was seen as reverting to its old habit of "bullying" the smaller Gulf Arabs. And although Iran feels that the West is applying moral double standards in judging Iran's conduct, from the West's perspective, Iran's abysmal human rights record, its assassination edict against the British author Salman Rushdie for blasphemy, and its alleged support for Islamic fundamentalist groups that are destabilizing secular governments from Algeria to Egypt do not help its case at all.

President Rafsanjani and his supporters face a dilemma regarding how best to allocate limited national resources between reconstruction and development on the one hand, and military modernization and rearmament on the other. Rafsanjani knows that popular frustration with the state of the economy is increasing (there were outbreaks of serious violence in major urban centers in mid-1992). He and his supporters know that the future of the system depends on satisfying the needs of the population

<sup>57.</sup> Ibid., pp. 63-66.

<sup>58.</sup> For a good analysis of President Rafsanjani's modus operandi see Faycal Jalloul and Gilbert Khalife, "Hashemi-Rafsanjani, mode d'emploi," *Arabies* (July-August 1993), pp. 22–27.

and rebuilding the economy, and that they do not need to convince the people of the need for such a strategy.

The radicals present a different set of problems. Despite President Rafsanjani's victory in the April 1993 elections, the radicals still have enough strength to ensure a rocky road for the Iranian leader's reform programs. But all that the radicals have to offer the populace is a revolutionary and confrontational policy with the rest of the world, statist economic policies, and repressive social mores. <sup>59</sup> Although it is difficult to get an accurate and scientifically quantifiable measurement of a people's feelings, there is growing evidence that the vast majority of Iranians are increasingly fed up with revolutionary excesses and turmoil, the negative image of their country, and declining economic conditions. They are weary of war, sacrifice, and martyrdom, and would like a share of the good life. <sup>60</sup>

Iranian technocrats, like many of their counterparts in the rest of the Middle East, are beginning to recognize that excessive armaments are economically wasteful. <sup>61</sup> They also realize that threats to national security emanate not only from external sources but from poverty and underdevelopment as well.

## **Iranian Thinking on Force Structure**

What do Iranian defense planners feel they have to do in order to rebuild, reorganize and revitalize their armed forces? Given the Islamic Republic's need to spend a tremendous amount of money on economic reconstruction and development, some military spending must wait. What military areas has the government decided to give the highest priority? This section reviews the organization of Iran's defense industry, and then analyzes each of the services in turn, with a final segment that examines Iran's ballistic missile programs.

## The Defense Industries Organization

In 1986, Iran's defense minister emphasized that the country's defense industries have priority over other industries because they protect Iran's political, economic, and military independence. <sup>62</sup> In creating a defense industrial infrastructure, Iran's defense planners can build on the legacy of the old regime. The Shah had wanted to make Iran self-sufficient in military production as part of his ambitious long-range strategy of

<sup>59.</sup>On Rafsanjani and the radicals see Scherazade Daneshku, "Iran makes the most of it," *Middle East* (December 1990), pp. 5–7, and Vahe Petrossian, "Iran: Resisting Reform," *Middle East Economic Digest*, 15 May 1992, p. 8.

<sup>60.</sup> Based on author's observations during a trip to Iran in June 1993. See also, Edward Desmond, "A Revolution Loses its Zeal," *Time*, 6 May 1991, pp. 32–33.

<sup>61.</sup> See the comments of the Central Bank Governor, Mohammed Adeli, in Geraldine Brooks, "The New Revolution in Iran Is Taking Place on an Economic Front," *Wall Street Journal*, 16 September 1991, p. A15,; also Sadowski, *Scuds or Butter*, p. 63.

<sup>62.&</sup>quot;Vazir-e-defa' va 'amaliyat Val Fajr-8" ("The Defense Minister and Val-Fajr-8 Offensive"), SAFF no. 81, 1365 (1986), p. 18.

industrialization. By 1979, the Imperial Iranian defense industries could assemble artillery pieces, small arms, large-calibre weapons, rockets, and spare parts for armored vehicles. Iran Aircraft Industries built spare parts for the F-5s, while Iran Helicopter Industries, a joint venture with Bell Helicopter, assembled and maintained the country's huge fleet of helicopters. The current Iranian government believed that the defense industries built by the Shah were too dependent on Western experts and technicians who were loath to transfer any real skills to Iranians. Consequently, they decided to develop Iran's production capacity so as to reduce dependence on foreigners and conserve foreign exchange. They knew that there is no such thing as complete military autarky, but adopted a two-pronged strategy intended to move Iran in that direction.

First, through the "self-sufficiency jihads" that exist in each branch of the military, Iran learned the tricks of repair and maintenance of foreign weapon systems and how to build spare parts for these weapons. For example, according to the Iranians, the self-sufficiency jihad of the ground forces have built field telephones, communications equipment for M-60 and Chieftain tanks, and vehicle/personnel chemical decontamination equipment. <sup>64</sup>

Second, Iran plans to build a military industrial infrastructure, closely tied to civilian industry, that will build components for weapons obtained from foreign suppliers and simple weapons based on indigenous designs. Over the longer term, the Iranians intend to establish an infrastructure capable of assembling weapons, of absorbing technology from outside sources, and of reverse-engineering a wide variety of weapons. They are very proud of their achievements in the defense industrial sector and claim to produce reconnaissance cameras, laser range-finders, artillery fire control systems, armored personnel carriers, gravity bombs, light aircraft (the Fajr and Parastu), small naval vessels, and remotely-piloted aircraft. They have also repaired radar systems and produced ammunition and spare parts for Soviet-built weapons captured from the Iraqis. 65

To build Iranian expertise, former president and current Supreme Leader 'Ali Khamene'i and others have pointedly stressed the need for Iran to spend greater sums of money on scientific research and development in order "to put Iran on the road to technological progress and advancement." In early 1992, President Rafsanjani stated that Iran was

<sup>63.</sup> On the Shah's defense industrial program see Anoushiravan Ehteshami, "Iran's Revolution: fewer ploughshares, more swords," *Army Defence Quarterly Journal* 20:1 (January 1990), pp. 41–50, and Eckehart Ehrenberg, *Rustung und Wirtschaft am Golf: Iran und seine Nachbarn* 1965–1978 (Hamburg: Deutsches Orient Institut, 1978). See also, Tony Banks and James Bruce, "Iran builds its strength," *Jane's Defence Weekly*, 1 February 1992, p. 158.

<sup>64.&</sup>quot;Jihad khodkafa'i niru'i zamini sazmaneh portalash amma gomnam" ("The Self-Sufficiency Jihad of the Ground Forces: a little-known but important unit"), SAFF no. 106, 1365 (1986), pp. 31–33.

<sup>65. &</sup>quot;Sazman Sana'i defa'i" ("Defense Industries Organization"), SAFF no. 92, 1366 (1987), pp. 35–38; "Jalali Outlines Defense Industry Progress," IRNA (Tehran), 1825 GMT, 21 September 1988, cited in FBIS-NES-88-184, 22 September 1988, p. 41; and Kenneth Timmerman, "Weapons of Mass Destruction: The Cases of Iran, Syria, and Libya," A Simon Wiesenthal Center Special Report from Middle East Defense News (1992), pp. 14–19.

<sup>66.</sup> Defense and Foreign Affairs Weekly, 20-26 February 1989, p. 5.

satisfied with the state of its political and cultural independence, and that now it sought "economic, scientific, technical and technological [sic] independence..." <sup>67</sup>

The biggest problems Iran faces in this field involve duplication and waste. For a long time, the regular military and the Pasdars maintained parallel but separate weapons production efforts. When he was appointed Minister of Defense and Armed Forces Logistics in August 1989, Akbar Torkan moved to integrate these separate plants.

Remaking Iran's defense industry will require large amounts of capital. When the revolution occurred, thousands of qualified professionals fled, and the country still lacks sufficient technical, scientific, and engineering cadre in both the military and civilian sectors. Existing research centers and centers of higher education like universities and technical institutes have been deemed sub-standard by the government for many reasons, among them a stifling and obstructive bureaucracy with an archaic university examination system that is insensitive to student needs, wishes, and educational aspirations. There is a lack of creativity, initiative, and research ability among the student body, since many are forced into fields in which they have no interest. Moreover, there is no "culture of research," and educational resources have been scarce. <sup>68</sup>

#### The Air Force

Some observers of Iranian rearmament are most worried about the program's implications for Iranian air power. The current problems of the air force are considerably more complicated than an overly technological force or too few qualified technicians and pilots. As noted above, the Shah had devoted a considerable portion of the defense budget to the air force and had consciously striven to build a force capable of projecting power beyond Iran's borders. History is now repeating itself as the Islamic Republic devotes considerable attention both to enhancing its air defense capabilities and to developing an air power projection capability.

Iran's air force reached its nadir in the early 1980s. At the onset of the revolution, hundreds of technical warrant officers joined the anti-Shah movement and American experts withdrew. Operational readiness declined precipitously, hundreds of its best pilots were imprisoned, the computerized inventory system collapsed, and so did command and control. The air force was a shadow of its former self when the war with Iraq commenced. Yet Iranian sources claim that, despite its problems, the air force was the most prepared branch of the regular military at the time. In a 1983 interview with SAFF,

<sup>67. &</sup>quot;[Rafsanjani] Vows to Reconstruct 'Defensive Power'," IRNA (Tehran), 1431 GMT, 2 February 1992, cited in FBIS-NES-92-022, 3 February 1992, p. 47.

<sup>68. &</sup>quot;Commentary on Research, Development, Education," *Tehran Domestic Service*, 0330 GMT, 22 October 1988, cited in *FBIS-NES-88-208*, 27 October 1988, p. 54.

<sup>69.</sup> Anthony Tucker, "The Gulf Air War," *Armed Forces* (June 1987), pp. 270–271, and Bergquist, *The Role of Airpower*, pp. 25–26. For representative Iranian views see "Goftegu ba baradar Sarhang-khaliban Hushang Sadegh, farmandeh niru'i hava'i artesh jumhuriyeh islami Iran" ("Interview with Air Colonel Hushang Sadegh, commander of the air force of the armed forces of the Islamic Republic of Iran"), *SAFF* no. 74, 1364 (1985), pp. 14–16, 62–72; and "Goftegu ba framandeh niru'i hava'i artesh jumhuriyeh islami" ("Interview with the commander of the air force of the armed forces of the Islamic Republic"), *SAFF* no. 107, 1367 (1988), pp. 32–36.

then-Speaker of the Majlis Hashemi-Rafsanjani noted that the air force played an important role in supporting Iran's ground forces at the front, in defending Iran's territorial waters, and in halting Iraqi armored thrusts into Khuzestan. <sup>70</sup>

In 1986, the Iranians instituted a 15-year post-war plan for long-term recovery and reconstruction of the offensive capabilities of the air force under the direction of the current commander, Mansur Sattari, who was given a mandate to rebuild and reorganize the shattered force. One of the first steps was the creation of an Aeronautical University in 1987, designed to meet the pressing need for pilots, warrant officers, technicians, ground crew, and engineers. <sup>71</sup>

The modernization plan involves keeping the inventory of American-built fighter planes airworthy for as long as possible. The country still has a large inventory of American-built fighter-bombers, transport aircraft, and helicopters. Due to a lack of spare parts, degraded avionics, and inoperable weapon systems, many of these planes are not combat capable, yet Iran desperately wants to keep them flying, hoping to get another twenty years utility out of them. The People's Republic of China may have taught Iran how to reverse engineer some spare parts for its F-4s and F-14s. And Iran has made some effort toward establishing electronic repair depots in Isfahan for its F-14s based there. These are all essentially holding actions, however.

The only potentially willing supplier of high-performance fighters is Russia. The first significant arms deal with the former Soviet Union was struck in mid-1989 when the latter agreed to sell Iran a squadron of MiG-29 air superiority fighters and to provide help in establishing an advanced air defense radar network. In late 1990, the Soviets exhibited the MiG-31, a long-range interceptor equipped with a large phased-array radar and a shoot-down/look-down capability, and the SU-27, an advanced air superiority fighter.

Much has been made of the Soviet-built Iraqi warplanes that fled to Iran at the height of the coalition aerial assault on Iraq in January 1991. Obsolescent planes like the Su-20/22 constitute nearly half of the aircraft thus acquired by Iran. Only four were MiG-29s; seven were Su-25 ground attack and close air support aircraft; and 24 were Su-24s, twin-seat, long-range strike and interdiction craft with the capability to carry a large bomb-load. Thowever, all these planes were flown to Iran without logistical

<sup>70.</sup> See "Deedgahaye riyasat majlis shura'i islami darbareh naqsh artesh" ("The Speaker of the Majlis views the role of the military"), SAFF no. 50, 1362 (1983), pp. 8–12, 18–19.

<sup>71.</sup> See, "Goftegu ba farmandeh niru'i hava'i" ("Interview with the Air Force Commander"), SAFF no. 98, 1366 (1987), p. 12.

<sup>72.</sup> According to Anthony Cordesman, Iran's inventory of operational US-built planes includes forty to sixty F-4D/E Phantoms; forty to forty-five F-5E/F Freedom Fighters; sixty F-14 Tomcats; five RF-5; five to ten RF-4E; and five P-3F Orion maritime reconnaissance aircraft. See *Armed Forces Journal International* (November 1992), p. 35.

<sup>73.</sup> Akbar Torkan, Iranian Minister of Defense and Logistics, interview, *Financial Times*, 8 February 1993, pp. 5,7.

<sup>74.</sup> Banks and Bruce, "Iran builds its strength," p. 158.

<sup>75.</sup> See Ahmed Hashim, "Threat or Threatened: Security in Iraq and Impact on its Neighbors," in Steven

support, spare parts or maintenance manuals. At the time, Iran had one squadron of modern Soviet planes that it was just beginning to integrate into its force structure, and few trained pilots or ground crews.

When Iranian Air Force Commander Sattari visited Moscow in July 1991, Iran and the USSR reportedly concluded a multi-billion-dollar arms deal designed to re-equip the Iranian Air Force and the ground forces. The air force segment of the agreement allegedly called for the delivery of 48 additional MiG-29s and a squadron of Su-24s to supplement the squadron that Iran "inherited" from Iraq and, in the future, the construction of a MiG assembly plant. Moscow and Tehran were also said to have agreed on sales of 24 MiG-31 interceptors, two airborne warning and control aircraft, An-72 maritime reconnaissance aircraft, and 24 MiG-27 ground-attack aircraft. Despite denials by Moscow, some reports also asserted that the same arms deal included a squadron of 12 Tu-22M Backfire supersonic bombers, an airplane with an unrefueled combat radius that allows it to strike targets in the entire Middle East, South and Central Asia, much of North Africa, and southeastern and central Europe. Such capabilities make Russian denials credible. The same arms deal included a squadron of North Africa, and southeastern and central Europe. Such capabilities make Russian denials credible.

The military links established between Iran and the USSR clearly were not severed following the Soviet Union's collapse. Indeed, Russia needs to sell arms now more than ever to gain hard currency for its strapped economy, and has indicated that it will continue to play an instrumental role in rebuilding the Iranian Air Force and in training its personnel. Still, having Russia as a principal arms supplier poses some problems for Iran. Continuing instability in Russia implies that it cannot be relied upon for timely delivery of weapons, spare parts, and technical advice. Second, Russia may be susceptible to pressure from the West and persuaded to renege on at least some contracts. Third, Russo-Iranian relations could deteriorate because of political differences in Central Asia and instability in the Caucasus.

#### Air Defense Systems

The Shah of Iran had an ambitious air defense program called "Peace Sentry" that would have created a ground-based radar system to cover the whole country, linked army and air force HAWK surface-to-air missiles, and established point defense of critical and

Dorr and Neysa Slater (eds.), Balance of Power in Central and Southwest Asia (Washington, D.C.: Defense Academic Research Support Program, Research Center of the Defense Intelligence College, 1992), p. 26.

<sup>76.</sup>Of these reported sales, as of early 1993 only 14 MiG-29s were reported to have been delivered. Clifford Beal, "Fighters Vye for Funds," International Defense Review 2/1993, p. 153. See also, "Tupolev Design Bureau to sell Tu-22 Backfire bombers to Iran," Flight International, 21 July 1991, p. 13. For reportage on development of an export version of the Backfire, and Russian denials of a deal with Iran, see Bill Sweetman, "Backfire' bomber for export soon," Jane's Defence Weekly, 17 October 1992, p. 19. See also Glen Howard and Bob Kramer, "Backfires to Iran: Increased Combat Potential or Headache?" in Notes on Russia and Central Eurasia (Denver, CO: Foreign Systems Research Center, Science Applications International Corporation, 20 August 1992), p. 3; and Norman Friedman, "Iranian Air Threat Emerging," USNI Proceedings (September 1992), p. 123. Estimates of the size of the arms deal—which was said to include other weapon systems—ranged from a low of \$2.5 billion to a high of \$11 billion. It is difficult to see how a financially-strapped Iran could spend the latter sum of money on its armed forces.

vulnerable installations like airbases and oil refineries. Iranian F-14 fighters also would have been linked into the network.  $^{77}$ 

Little of this program had been implemented when the revolution occurred. The Americans left behind partially installed ground radar systems and poorly-trained technicians. Poor radar coverage facing Iraq contributed to Iranian vulnerability to air attack during the Iran-Iraq War. Iran's air defenses were so bad that Iraqis were able to use their slow Soviet-built Tu-16 and Tu-22 bombers at high altitude with impunity. As the war progressed, Iraq acquired more sophisticated planes like the French-built Mirage F1, as well as in-flight refueling capabilities, making more Iranian territory vulnerable to attack. Ultimately, Iraq's economic war of attrition damaged Iran's ability to export its oil and hurt its ability to prosecute the war.

According to 1992 reports, Iran was planning to buy the Russian SA-5, a fixed-site, high altitude anti-air missile, and the SA-11 and SA-13 mobile surface-to-air missiles. It was also said to be exploring the acquisition of the Czech-built Tamara air-defense surveillance system, which reportedly can track stealth aircraft. 81

## **Army Aviation**

One of the most successful arms of the Iranian military has been its army aviation corps. Iranian writings point to the necessity of an effective helicopter force for a large, rugged country like Iran. <sup>82</sup> The old regime had invested a great deal in such a force: in 1969 it established Iran Helicopter Industries, and four years later, with Italian help, it opened a huge logistical and maintenance center, called PENHA, which employed hundreds of Americans who left following the revolution. By 1985, however, PENHA personnel were said to be able to repair and maintain helicopters and to rebuild and repair major components of damaged helicopters. PENHA also maintained a fully operational computerized inventory system of all parts needed for helicopters. Its long-term plans included the design and manufacture of more complex helicopter sub-systems. <sup>83</sup>

<sup>77.</sup> See Eckehart Ehrenberg, Rustung und Wirtschaft am Golf, pp. 31-33.

<sup>78. &</sup>quot;Pas az far amerika'i, radarhaye niru'i hava'i cheguneh amadeh kar shod" ("How the air defense radar systems were made operational following the departure of the Americans"), *SAFF* no. 53, 1363 (1984), pp. 28–33.

<sup>79.</sup> The new government claimed that much of the Shah's program would have left gaps in coverage of the southern and southwestern parts of the country, and naturally blamed the United States for focusing the program on the Soviet threat. "Iran's Military Preparedness Crucial at This Time," *Tehran Times*, 31 December 1990, p. 2.

<sup>80.</sup> See Eliyahu Kanovsky, *The Economy of Iran: Past, Present, and Future*, Final Report SPC 1415, prepared for the Office of the Director of Net Assessment (Arlington, VA: Systems Planning Corporation, April 1992), p. 14.

<sup>81.</sup> See Flight International, 15 July 1992, p. 15, and Brendan McNally, "Czechs Ponder 'Stealth Tracker' Sale to Iran," Defense News, 12–18 July 1993, pp. 1, 21.

<sup>82.</sup> See "Hava niruz baraye 'amaliyat dar khalij fars" ("The Army Aviation Corps is ready to conduct operations in the Persian Gulf"), SAFF no. 65, 1364 (1985), pp. 14–17.

<sup>83. &</sup>quot;Ravand khodkafa'i dar sana'i poshtibani va nosazi helikopteri" ("The Way to Self-Sufficiency in the Maintenance and Building of Helicopters"), SAFF, no. 65, 1364 (1985), pp. 14–17.

In the 1980s, Iran's largest army aviation unit was the 43rd Army Aviation Brigade, equipped with UH-1D Iroquois general purpose helicopters, AH-1G Huey-Cobra gunships, the Ch-47 Chinook heavy transport, and several models of Bell Huey-derived transports. Its tasks during the war included dropping reconnaissance and assault/infiltration teams behind enemy lines, airlifting combat equipment and infantry, providing logistical support, conducting tactical reconnaissance, providing fire support for artillery, working as anti-tank gunships, and evacuating the wounded. The Iranians were particularly impressed by the role of helicopters in stemming the advance of enemy armor. <sup>84</sup>

Iran's fleet of largely American-made helicopters is getting old, and much of it is grounded. <sup>85</sup> The Iranians will soon have to consider re-equipping themselves with a more modern fleet. Russia may be the source of new helicopters, as the Iranians seem impressed with the new Mi-28 Havoc attack helicopter. <sup>86</sup>

#### **Naval Forces**

Like its predecessor, the current government in Tehran sees the Persian Gulf as a waterway critical to its economic well-being and so intends to rebuild its navy. The Iranian Navy received a beating at the hands of the US Navy in 1988 as the Iran-Iraq War was winding down. Nonetheless, the navy contributed to Iranian war aims by protecting Iran's merchant marine, defeating Iraq's navy, and shutting down that country's ports. To prove that their navy had some fight left in it after the brush with the United States in May 1988, the Iranians undertook their largest naval exercise to date. Zolfaqar-3 involved more than 50 warships, including missile destroyers, frigates, minesweepers, logistics vessels, and landing ships. Marines, naval commandoes, army special forces, and the air force also participated in an exercise that included underwater operations, sweeping channels clear of mines, electronic warfare, and landings on "hostile" territory.

Zolfaqar-3 set the stage for further intensive Iranian naval exercises between 1989 and 1993. These exercises sought to improve the operational readiness, training levels, and coordination of the regular and the Pasdar naval forces, and their facility with

<sup>84.</sup> Ibid.

<sup>85.</sup>Of Iran's 425 remaining helicopters, almost a third were reportedly inoperative as of mid-1992. See, *Flight International*, 15 July 1992, p. 60.

<sup>86. &</sup>quot;Mi-28, tarkibi az tajrubeh va teknologi" ("Mi-28, a combination of experience and technology"), Majallah Parvaz (Flight Magazine) nos. 17–18, 1371 (1992).

<sup>87.</sup> Irina Hetsch, "Die islamische Republik Iran im Konfliktfeld des Nahen und Mittleren Ostens-Aussen und Sicherheitspolitik wahrend der letzten Golfkrise" ("The Islamic Republic of Iran in the conflict environment of the Near and Middle East—Foreign and National Security Policies"), Asien, Afrika, Lateinamerika (Berlin), no. 19 (1991), p. 940.

<sup>88. &</sup>quot;Goftegu ba farmandeh taktiki niru'i darya'i" ("Interview with the Operations Commander of the Navy"), SAFF no. 53, 1363 (1984), pp. 64–68.

<sup>89.</sup> See, "Naval Commander Warns of Iran's Combat Readiness in Persian Gulf," *IRNA* (Tehran), 1740 GMT, 24 May 1988, cited in BBC, *SWB*, ME/0161/A/1, 26 May 1988.

electronic warfare, night operations, mine-clearing, maritime chokepoint interdiction, amphibious and naval commando assaults, and replenishment at sea.<sup>90</sup>

In the last two years, and for the first time since the revolution, Iran has extended the operational radius of its naval forces into the Indian Ocean; however, Iran is unlikely to implement a conventional naval strategy against potential enemies like the US Navy. Rather, it is likely to adopt a strategy of sea denial intended to seal the Straits of Hormuz against hostile naval forces. If such forces nonetheless gain entry to the Gulf proper, Iran would plan to hit them with a spectrum of forces, ranging from conventional naval forces, to aircraft, naval guerrilla units, land-based missiles, and artillery. Iran has had Chinese Silkworm surface-to-sea missiles for a long time and did use them during the war with Iraq. 91

Iran has also invested heavily in mine-warfare capabilities over the past several years. Iranian mine warfare caused great anxiety in the 1980s and Iran may still believe in their nuisance value in the confined and shallow waters of the Persian Gulf. <sup>92</sup> Iran is also determined to build up its fleet of fast attack craft, as its original fleet of ten Kaman (French Combattante II) missile boats has become obsolescent. North Korea has delivered three Chaho gun-armed fast attack craft (called the Zafar class by the Iranians), while the People's Republic of China has offered twelve Hegu-class missile boats. <sup>93</sup>

Iran is laying the foundations for a submarine force with the purchase of Russian-built Kilo-class submarines. Officials of the Islamic Republic note that it was actually the previous regime that initially considered purchasing submarines (German Type 209s), and that they are just completing an important military modernization plan. The Kilos may be based at Bandar-e-Abbas on the Straits of Hormuz, at Jask, roughly 100 miles east of the Straits, or at Chah Bahar naval base near the border with Pakistan. Naturally, as big ticket items, submarines both enhance prestige and provide leverage in peacetime (vis-a-vis neighbors) and in war, when the naval forces of major powers would be forced to devote time and resources to deal with them. On the other hand, because mastering a submarine and submarine tactics are difficult tasks, it may well be many years before Iran's submarines present an operational threat to anyone. Russian

<sup>90.</sup> See, "Maneuvre 'azim Zulfaqar-5" ("The Large Zulfaqar-5 maneuvers"), SAFF no. 87, 1368 (1989); "Gozareshe az maneuvre foghol'adeh peykan yek" ("Report on the large Peykan-1 exercises"), SAFF no. 107, 1369 (1990); "Maneuvre moshtarek Sahand namayesh qodrat dar abhaye shomal khalij fars" ("Sahand Combined Arms Maneuvers: a show of force in the north of the Persian Gulf"), SAFF no. 127, 1369 (1990); and Michael Collins Dunn, "Iran's Amphibious Maneuvers Add to Gulf Neighbors' Jitters," Armed Forces Journal International (July 1992), p. 23. See also, "Amphibious Exercise Begins in Persian Gulf," Tehran Voice of the Islamic Republic of Iran, 1630 GMT, 6 December 1992, cited in FBIS-NES-92-238, 10 December 1992, p. 50; "Military Exercises Begin in Northern Persian Gulf," Tehran IRIB Television, 1430 GMT, 26 April 1993, cited in FBIS-NES-93-079, 27 April 1993, p. 64; and "Victory-4' Naval Maneuvers Discussed," Tehran Voice of the Islamic Republic of Iran, 4 May 1993, cited in FBIS-NES-93-084, 4 May 1993, p. 60.

<sup>91.&</sup>quot;Iran builds new Silkworm base," Jane's Defence Weekly, 11 June 1988, p. 1143.

<sup>92.</sup> See Philip Finnegan, et al., "Iran Pursues Chinese Mine To Bolster Gulf Clout," *Defense News*, 17–23 January 1994, pp. 1, 29.

<sup>93.</sup> IISS, The Military Balance, 1993-94, p. 116.

reports in the newspaper *Izvestia* have suggested that whereas a professional submarine crew can keep a Kilo submerged for several weeks, the newly trained Iranian crews were having trouble keeping their submarines submerged for more than a few hours. <sup>94</sup>

#### **Ground Forces**

Iran's current ground-force plans reflect the multi-tiered military forces used to fight the Iran-Iraq War. In the initial invasion battles the army was largely absent from the front. Many of its units were either still in a state of disorganization, were fighting counter-revolutionaries in Kurdistan, or were on the borders with the Soviet Union. Thus, Iranian guerrilla forces, other irregulars, and the Pasdaran bore the brunt of Iraq's mechanized offensives. These forces slowed down the Iraqis and fought heroically in cities like Khorramshahr and Abadan. Created in early 1979 as an internal security force, the Pasdars quickly emerged as the most powerful and most important of the irregular forces at the war front, providing light training and support to volunteers like the Bassidjis (the Mobilization of the Oppressed).

One high-ranking revolutionary official, Mustapha Chamran, described the essential difference between the regular army and the Pasdars as the difference between an institution possessing "technical power" and steeped in conventional methods of warfare, and one whose volunteers possessed a stronger spirit of faith and devotion. <sup>97</sup> Given the clerical regime's suspicion of the regular armed forces in the early stages of the war, the clerics promoted the Pasdars, but despite their fanatical courage, the Pasdars were not very good at conventional operations. There was little love lost between them and the regular army, and even less cooperation, as regular army units arrived at the front.

<sup>94.</sup> Cited in Glen Howard, "Russian Press Examines Operational Limitations of Iranian Kilo Subs," *Notes on Russia and Central Eurasia* (Denver, CO: Foreign Systems Research Center, Science Applications International Corporation, 23 March 1993), p. 4.

<sup>95.</sup> See, "Situation at Dezful Airbase," *Le Monde* (Paris), 14 October 1980, cited in *FBIS-South Asia*, 15 October 1980, pp. I13–I15; "Partisans' Anger at Absence of Regular Forces," idem., 16 October 1980, cited in *FBIS-SA*, 17 October 1980, pp. I8–I9; and "Chamran Interviewed on Makeup of Fighting Forces," *Keyhan* (Tehran), 30 November 1980, p. 3, cited in *FBIS-SA*, 11 December 1980, pp. I3–I5.

<sup>96.</sup> There is some literature in English on the Pasdaran. See Iran Press Digest, 15 June 1982, pp. 17–20; "The Islamic Revolutionary Guards Corps," Echo of Islam (Tehran) 5:7 (February-March 1986), pp. 15–16; "Iran's Revolutionary Guards: Evolution and Prospects," Royal United Services Institute News Brief 7:10 (October 1987), pp. 1–3; Jane's Defence Weekly, 16 November 1991, p. 980; "On the occasion of the Islamic Revolutionary Guards Corps Day," Message of Revolution (Tehran), no. 18 (May 1983), pp. 8–12; "Mohsen Rezaie and IRGC Background," Arab Press Service Organization 21:4, 8 April 1991; James Bruce, "IRGC—Iran's shock troops," Jane's Defence Weekly, 24 October 1987, pp. 960–961; Ronald Perron, "The Iranian Islamic Revolutionary Guards Corps," Middle East Insight (June—July 1985), pp. 35–39; "Revolutionary Guard accepts new role," Iran Focus (November 1991), pp. 8–9; Kenneth Timmerman, "Iran's Pasdaran," Israel and Palestine (April 1988), pp. 9–10; Susan Merdinger, "A Race for Martyrdom: The Islamic Revolutionary Guards Corps" (M.A. thesis, Naval Postgraduate School, Monterey, CA, December 1982); the most detailed analysis in English is Kenneth Katzman, The Warriors of Islam: Iran's Revolutionary Guard (Boulder, CO: Westview Press, 1993).

<sup>97. &</sup>quot;Chamran Interviewed on Makeup of Fighting Forces," Keyhan (Tehran), 30 November 1980, p. 3.

Over a period of eighteen months between 1981 and 1982, the Iranian regime built a three-tiered ground force consisting of the regular army, the Pasdars, and the irregular and generally ill-trained Bassidjis. As the technical service, the army provided much needed firepower, artillery and armored support and helicopter mobility, as it was slowly and grudgingly rehabilitated.

Eventually, the Pasdars became a well-trained, infantry-intensive organization equipped with low- to medium-technology weaponry of Soviet, Chinese, and North Korean origin. To enhance the skills of small-unit commanders, the Pasdaran established professional military schools and sent cadre to China for advanced training. By the mid-1980s, small-unit infiltration at night or under adverse weather conditions against relatively soft Iraqi targets such as lines of communication and listening posts became a Pasdar specialty. The Bassidjis, however, remained cannon-fodder for human wave assaults designed to create maximum psychological shock.

Iran's ground forces came under increasing strain as the war dragged on. The three-tiered structure designed to harness Iran's nationalistic fervor and existing capabilities did not have the logistical and organizational capacity to support or sustain large-scale Iranian offensives into Iraq or to breach Iraqi fortifications. The army was less than enthusiastic about going into Iraq than were the Pasdars, and the old animosity between the two organizations re-emerged as problems of front-line coordination and doctrinal differences. Dissension also grew within the country over the level of casualties suffered by the Bassidji forces in every successive offensive. Even the Pasdars were not immune to a decline in morale. By 1987, fully eighty-eight percent of their ranks were conscripts, and the force had lost much of its zeal.

Iran's ground forces totally collapsed in 1988. Many of its units, including combatexperienced army and Pasdar divisions, simply fell apart or fled. Between February and July 1988, Iraq captured or destroyed forty to fifty percent of Iran's armor and tons of weapons and munitions. Thus, even though Iran suffered fewer casualties in 1988 than in prior years, its losses of equipment were substantial.

Iran's post-war priorities included replacing all the equipment lost in 1988, building inventory levels to meet current force structure needs, and acquiring modern systems. It imported a modest quantity of artillery, tanks, and armored vehicles between 1989 and 1992. Iran also wants more modern systems, including sophisticated artillery fire control and target acquisition systems, self-propelled artillery, and armored infantry fighting vehicles rather than armored personnel carriers.  $^{100}$ 

<sup>98.</sup> See Anthony Tucker, "Iran's Armed Forces," Armed Forces (May 1989), p. 208.

<sup>99.</sup> In 1989, Iran ordered about 180 T-54 and T-55 tanks from Czechoslovakia, 150 T-55s and 200 armored personnel carriers from Rumania, and 500 more-modern T-72 tanks from the USSR. Iran turned again to the Czechs for another 300 T-55s in 1991. That same year, the Soviet/Russian order started delivery at a rate of about 100 tanks a year. Stockholm International Peace Research Institute, SIPRI Yearbook 1991, World Armaments and Disarmament (London and New York: Oxford University Press, 1991), p. 287; 1992 edition, p. 338; and 1993 edition, p. 505.

<sup>100.</sup> Tucker, "Iran's Armed Forces," pp. 204-205.

It seems that Iran is currently focusing most of its effort on military reorganization, on intensive training of its ground forces, and on formulating new doctrine in light of the war with Iraq. The biggest problems faced by Iran's ground forces in that war involved command and control of three different forces with three philosophies of war, and especially establishing reliable coordination between the Pasdaran and the regular army.

A late attempt to improve coordination came with Rafsanjani's appointment as acting commander-in-chief of the armed forces in June 1988, following Iran's severe defeats in the ground war. Rafsanjani was tasked with establishing a general command headquarters, eliminating waste and duplication of effort, and consolidating the logistical capabilities of the armed forces and the military industries. <sup>101</sup> But attempts to amalgamate or merge the regular army and the Pasdars into one force were unsuccessful. Neither organization was amenable to the idea, and the Pasdaran, in particular, feared the loss of their privileges and elite status. However, the Pasdars have been forced to professionalize themselves at least to the extent of accepting a hierarchical rank structure, like the regular army. <sup>102</sup> The Pasdars will continue to protect the internal security of the country and support the army in the event of attack by foreign forces. The army itself is becoming a smaller, more professional force capable of conducting combined arms warfare under all kinds of conditions, including chemical attack.

#### **Ballistic Missile Programs**

Although ballistic missiles made their appearance in the Third World in the 1960s when the USA and the USSR supplied client states with short-range Honest John and Frog missiles, such missiles became a specific focus of concern after their use in the Iran-Iraq and Gulf Wars, with potential for further use in future Third World conflicts.

Ballistic missiles were not very important in the early stages of the Iran-Iraq War. Iraq had Soviet Frog missiles with a 65-kilometer range that it tried to use initially against Iranian military targets, but the missiles were wildly inaccurate. Consequently, it reverted to using them against Iranian border towns. Iran did not have the means to retaliate with missile attacks of its own. Although Iraqi missiles devastated small towns and created many refugees, the attacks were not so important strategically as to merit an immediate Iranian riposte.

When Iraq began to use longer-range Scud-Bs, however, particularly from 1982 onwards, Iran was forced to obtain a retaliatory capability in the form of Scud-Bs from Libya and North Korea. Iran began using them in 1985 against Iraqi cities, including

<sup>101.&</sup>quot;Iran: Khomeyni Decree Appoints Rafsanjani as Armed Forces' Acting C-in-C," *Tehran Home Service*, 1030 GMT, 2 June 1988, cited in BBC, SWB, ME/0169/A/6, 4 June 1988.

<sup>102. &</sup>quot;Revolutionary Guard accepts new role," Iran Focus (November 1991), pp. 8-9.

<sup>103.</sup> The Shah's reportedly had secret plans to co-produce missiles with Israel, but no missiles were acquired. See *Asnad-e-Lanee Jasusi* (Documents of the Nest of Spies [the US Embassy]), vol. 19 (Tehran: Intisharat-e-Danishjuyan-e-Piruyi Khatt-e-Imam [Published by the Student Followers of the Imam's Line], nd), pp. 5–18; and Elaine Sciolino, "Documents Detail Israeli Missile Deal With the Shah," *New York Times*, 1 April 1986, p. A17.

Baghdad. That same year, Iran apparently decided to make a large investment in its own missile production capability, and Hashemi-Rafsanjani stated that the ultimate goal was to make Iran "a missile power… second to [the superpowers]." With Chinese help, it started producing the 65-kilometer Oghab and the 130-kilometer IRAN-130. The former was used extensively from 1986 onwards, but the latter was a less successful experiment.

Iran had much more strategic depth than Iraq. With unmodified missiles, Iran could hit politically important cities like Basra and Baghdad, which were, respectively, 15 and 145 kilometers from the Iranian border. Iran's ability to hit Baghdad with Scud-Bs, which have a range of 275 to 300 kilometers, forced Iraq to devise a means of reaching Tehran and other potential targets like the holy city of Qom, 450 kilometers inside Iranian territory. For two years Iraq worked on enhancing its retaliatory capability. In the final "war of the cities," between February and April 1988, Iran was stunned to find that Iraqi-modified Scud-Bs called "Al-Husayn," with a range of 640 kilometers, could hit many of Iran's important urban centers. Between 160 and 200 Iraqi missiles were launched against Tehran, Isfahan, and Qom, and as a result, Iran suffered 2,000 deaths, 8,000 injuries, and considerable property damage. The missile attacks caused hundreds of thousands of residents of Tehran to flee the city in a wave of mass terror. The direct military significance of the Al-Husayn attacks was negligible but they had considerable impact nonetheless, terrorizing a war-weary population and highlighting the lack of an effective defense or deterrent.

At the same time, Iran launched about 60 Scud-Bs against Baghdad (most landed in the sparsely populated southeast areas of the city) and against other cities. But Iraq had an apparently inexhaustible supply of missiles and could control the escalatory and retaliatory process in a way Iran could not. This humiliating situation gave an added impetus to Iran's attempts to develop or otherwise acquire long-range ballistic missiles.

Iran's appetite for ballistic missiles was further whetted by continued Iraqi developments in the field and by the general proliferation of ballistic missiles in the Middle East. Until its defeat in the Gulf War, Iraq had the largest ballistic missile program in the region. The Iranians assumed as early as 1988 that the Iraqis were capable of putting chemical warheads on their ballistic missiles. Currently, under the provisions of the UN disarmament agreement, Iraq has been stripped of ballistic missiles with a range greater than 150 kilometers. This will prevent Iraq from striking Israel, but it can still hit Iranian border areas with short-range missiles.

The Iranians also point to the presence of ballistic missiles in Saudi Arabia, Pakistan, Afghanistan, Syria, and Israel. There is very little joint regional development

<sup>104.&</sup>quot;Hashemi-Rafsanjani Comments on Missile Capability," Tokyo NHK Television, 1200 GMT, 11 June 1985, cited in *FBIS-SA-88-201*, 12 June 1985, p. I1.

<sup>105.</sup> The impact of the missile attacks was vividly described to me by an Iranian defense official in June 1993 who witnessed the entire war of the cities; see also Elaine Sciolino, "On the Iranian Home Front, a Time of Turmoil," *International Herald Tribune*, 22 April 1988, p. 2.

<sup>106</sup>."'Ayn Muravi, "Khvarmeyaneh dar astaneh yek 'jang ballistik" ("The Middle East on the eve of a ballistic missile era"), SAFF no. 108, 1367 (1988).

or production of ballistic missiles, partly because of the sensitivity of the issue and partly because of acute mutual hostility. However, in late 1991, it was reported that Iran and Syria—which have been de facto allies since the early 1980s—had agreed to pool their resources to develop ballistic missiles. <sup>107</sup>

By 1994, the broad outlines of Iran's ballistic missile program could be ascertained. It is the outcome of two separate but interrelated initiatives. First, there has been outright acquisition from North Korea, China, Libya, and Syria. The North Koreanaided program, which is the most important, relates to the SCUD series of missiles and originated in a 1985 agreement to transfer missile technology to Iran. This program reportedly assisted Iran with its production of indigenous artillery rockets. In early 1990, Iran received 100–200 missiles from North Korea and help in setting up missile production facilities and training programs for Iranian missile technicians. In mid-1991, Iran received shipments of the Scud-C missile from North Korea. These missiles are more accurate than the Scud-B, have double the range, and carry a warhead that is three times more powerful. In early 1992, it was reported that Iran and North Korea were cooperating to produce the long-range, liquid-propelled No-Dong missile, which will carry an 800-kilogram conventional warhead. This missile would be more powerful than anything currently in Iran's arsenal. It is not clear how much help Iran could give North Korea in this project, because its indigenous ballistic missile production program is limited. However, recent reports suggest that the Iranian desert may be used as a testing range for the North Korean missile.  $^{108}$ 

Iranian collaboration with China has led to the transfer of technology that was used in the development of artillery rockets like the Oghab, which has the characteristics of a Chinese 273-mm artillery rocket. In 1988, Iran and China apparently concluded an agreement to produce a variety of missiles with ranges between 700 and 1,000 km. These include the Iran-700 and the Tondar-68, but neither missile has been confirmed to be in development.

Iran's extensive relationship with the world's two biggest exporters of ballistic missiles stems not only from the fact that they represent an easy source of missiles and their related technologies, but from the structural weaknesses of Iran's own ballistic missile programs. Although Iran has been making claims about the sophistication of its

<sup>107. &</sup>quot;Syria and Iran pool SRBM resources," Flight International, 16 October 1991, p. 131; The Sunday Telegraph (London), 31 May 1992, p. 20, referred to the deaths of four Syrian army officers in Iran who were helping the Iranians with their SCUD program, cited in FBIS-NES-92-105, 1 June 1992, p. 61.

108. Deliveries of North Korean Scuds, meanwhile, have continued, with 200–300 Scud-Bs and 150 Scud-Cs delivered by mid-1994. Funding for the No-Dong project was said to come from Libya, but there has been as yet no hard evidence that Iran will purchase the missile. See, "North Korea Outfits Iranian Military," Defense Electronics (February 1990), p. 16; Steven Emerson, "The Postwar Scud Boom," Wall Street Journal, 10 July 1991, p. A12; "N. Korea, Iran join in developing long-range missiles, sources say," Rocky Mountain News, 17 February 1992, p. 30; "Iran to test North Korea's No-Dong," Flight International, 3–9 November 1993, p. 17; "News in Brief: No-Dong Delivery," Flight International, 8–14 December 1993, p. 14; and Martin Sieff, "N. Korean missiles may be tested in Iran this year," Washington Times, 16 June 1994, p. 13. Iran denied initial reports about the test flights (see Middle East Intelligence Report, 23 October 1993, citing reports from IRNA [Iran] and Sharq Alawsat [Saudi Arabia]; referenced in Arms Transfer News (Bradford, UK) vol. 93, no. 18, 29 October 1993, p. 7).

efforts in this area since the mid-1980s, time has shown these claims to be overblown. They may have reflected domestic political and military rivals' jockeying for advantage and efforts to shore up national morale in the end stages of the Iran-Iraq War.

In January 1991, as the Gulf War was breaking out, Iran announced that it would start mass-production of long-range, surface-to-surface missiles with great destructive power. Such a project would not prove easy for Iran. Its missile program was very disorganized and uncoordinated when it was in the hands of the Pasdars in the 1980s and has yet to recover. Also, as many analysts have pointed out, Iran's program continues to face severe shortages of skilled technicians and specialists, critical technologies, and financial resources. 110

Yet Iran will continue to invest in the acquisition and development of ballistic missiles, aided both by its experience in the Iran-Iraq War and by what transpired during the Gulf War. Although the direct military effectiveness of Iraqi ballistic missile attacks during the Gulf War was not great, Iran may have been impressed by the psychological impact and urban damage they caused in Israel, and by the inordinate amount of time that coalition aircraft spent unsuccessfully looking for Scud launchers. After the war, Iranian commentators urged more investment in short-, medium-, and long-range surface-to-surface missiles to deter future enemy air or missile strikes against economic or urban centers. Ill In other words, Iran may have drawn the lesson that mobile surface-to-surface missiles are potentially useful retaliatory weapons, in part because they are survivable: How much harder would it be to find and destroy them in a country the size of Iran, which is three times larger than Iraq?

For the Middle East's other major powers, ballistic missiles remain important military assets, and as long as countries in the region view them as instruments of deterrence, retaliation, and strategic bombing, it is unlikely that Iran would want to do without. The principal unknown is whether Iran believes that the value of such weapons would be increased if they were armed with unconventional warheads.

## Iran's Unconventional Weapons Programs

An October 1988 speech by Speaker Hashemi-Rafsanjani, who was then acting commander in chief of the Iranian military, has often been quoted as indicating Iran's determination to acquire weapons of mass destruction:

<sup>109. &</sup>quot;Mass Production of Long-Range Missiles Planned," IRNA (Tehran), 1101 GMT, 29 January 1991, cited in FBIS-NES-91-019, 29 January 1991, p. 51.

<sup>110.</sup> See W. Seth Carus and Joseph Bermudez, "Iran's Emerging Missile Forces," *Jane's Defence Weekly*, 23 July 1988, pp. 126–131; and Henry Sokolski, "Iran: Willing To War, Still Wanting the Way," mimeograph, 10 January 1994, p. 21.

<sup>111. &</sup>quot;Daily Urges Upgrading Missile Defense Systems," IRNA (Tehran), 1804 GMT, 17 March 1991, cited in FBIS-NES-91-052, 18 March 1991, p. 81.

<sup>112.</sup>On the importance of ballistic missiles in the thinking of Arab strategic analysts and officers see, for example, *Al Hawadess*, 17 June 1988, pp. 1, 11.

With regard to chemical, bacteriological, and radiological weapons training, it was made very clear during the war that these weapons are very decisive. It was also made very clear that the moral teachings of the world are not very effective when war reaches a serious stage and the world does not respect its own resolutions and closes its eyes to the violations and all the aggressions which are committed on the battlefield. We should fully equip ourselves both in the offensive and defensive use of chemical, bacteriological, and radiological weapons. From now on, you should make use of the opportunity and perform this task. 113

In the speech, Rafsanjani already makes reference to two reasons that may motivate a country to acquire such weaponry: they are decisive military factors in war, and international moral sanctions cannot ultimately be relied on to prevent either the proliferation of such weapons or their use on the battlefield and against civilians. But Rafsanjani is alluding not only to their use but also to the deterrent value conferred by mere possession of such weapons. 114

#### **Nuclear Program**

It is very difficult to get information about Iran's activities in the nuclear field that is uncontested or uncolored by partisan view. The account that follows has been carefully culled from the media and official statements in an effort to present a balanced picture.

Imperial Iran had extensive plans in the nuclear field. In 1957, it signed an agreement with the USA to cooperate in the peaceful use of nuclear energy and, in 1970, Iran signed the Nuclear Non-Proliferation Treaty. In 1974, Iran lent its support to a call for making the Middle East a zone free of weapons of mass destruction. That same year the Shah established the Atomic Energy Organization of Iran (AEOI) and began the most ambitious commercial nuclear energy program in the Middle East, a program that would have provided Iran with 23 nuclear power stations by the mid-1990s. In 1976, the Federal Republic of Germany agreed to build two 1,300 megawatt plants at Bushehr, which were 60 and 75 percent complete, respectively, when the Shah fell from power. Like its neighbor Iraq, Iran sent thousands of students to study nuclear physics and technicians to receive advanced training in the West, and it tried to implement agreements for the long-term provision of non-weapon-grade uranium for the project. Imperial Iran argued that it needed civilian nuclear power for long-term modernization, for development, and to supplement limited oil reserves. 115

Analysts were divided about whether Imperial Iran had a clandestine nuclear weapons program. In the 1970s, Alvin Cottrell, an American analyst sympathetic to the

<sup>113. &</sup>quot;Hashemi-Rafsanjani Speaks on Future of IRGC," *Tehran Domestic Service*, 0935 GMT, 6 October 1988, cited in *FBIS-NES-88-195*, 7 October 1988, p. 52.

<sup>114.</sup> It is very curious he does not mention ballistic missiles, which played an important role in the last year of the Iran-Iraq war.

<sup>115.</sup> K. R. Singh, Iran: Quest for Security (New Delhi: Vikas Publishing House, 1980), p. 326.

Shah, dismissed speculations about Iranian nuclear-military ambitions as "premature and exaggerated." <sup>116</sup> After all, Iran was a signatory of the NPT and a fervent advocate of a nuclear-free Middle East. Although the Shah stated that he had no intention of acquiring nuclear weapons, he also made it very clear that Iran's non-acquisition of such weapons depended a great deal on the extent of non-proliferation in the region. As he told the noted Egyptian journalist Mohammed Hasanein Heykal: "I tell you quite frankly that Iran will have to acquire atomic bombs if some upstart in the region gets them." <sup>117</sup>

Other analysts like Leonard Spector believed that the Shah was ultimately working to get the bomb. <sup>118</sup> Imperial Iran's incentives included: (i) the potential for a nuclearized Arab-Israeli conflict; (ii) the nuclearization of the Indian sub-continent in 1974 with India's so-called peaceful nuclear explosion; and (iii) prestige and regional influence. The Shah had embarked on a long-term strategy to make Iran a political, economic, industrial, and military powerhouse in regional and global affairs. Would the Shah have continued to believe that an awesome conventional military capability would have sufficed?

The years between 1979 and 1984 were a period of turmoil as the revolutionary hiatus and the war with Iraq shut down the nuclear power program and as thousands of Iranian technical experts and scientists fled the country. <sup>119</sup> The new regime has conceded that this period was a low point in the development of the Iranian nuclear program. <sup>120</sup> Furthermore, the country had no money to spare. As a so-called pariah state, no country wanted to help Iran with its nuclear program. However, nuclear research at the Tehran Research Center went ahead using a small research reactor. Around 1984 or 1985, the Pasdaran were reportedly put in charge of research at a number of AEOI installations including the newly opened Isfahan Research Center. <sup>121</sup>

In the mid-1980s, Iran also began seeking renewed nuclear cooperation with countries that had nuclear expertise. In 1986, it was reported that Pakistan offered to train Iranian scientists in return for financial aid to Pakistan's own nuclear program. In 1987, Pakistan and Iran signed an agreement on technical cooperation in the military-nuclear field that included the dispatch of 39 Iranian nuclear scientists to Pakistani installations for training. Meanwhile, Iran signed a large agreement with

<sup>116.</sup> Alvin Cottrell, "Iran's Armed Forces under the Pahlavis," in George Lenczowski (ed.), Iran under the Pahlavis (Stanford: Hoover Institution Press, 1978), p. 428.

<sup>117.</sup> Keyhan International, 16 September 1975, quoted in K.R. Singh, Iran: Quest for Security, pp. 329–330.

<sup>118.</sup> Leonard Spector, Going Nuclear: The Spread of Nuclear Weapons 1986–1987 (Cambridge: Ballinger Publishing Company, 1987), pp. 45–57.

<sup>119. &</sup>quot;Iran: Nuclear Journey," Issues (Paris), (March 1992), p. 8.

<sup>120.</sup> The newspaper Ettela'at (Tehran) carried a detailed analysis of the development of the Iranian Atomic Energy Organization beginning 3 April 1993, cited in FBIS-NES-93-067, 9 April 1993, pp. 44–45. 121. "Iran: Nuclear Journey," p. 8.

<sup>122. &</sup>quot;Pakistan, Iran Nuclear Cooperation Revealed," Defense and Foreign Affairs Weekly, 21-27

Argentina that called for the supply of twenty-percent-enriched uranium to the small Tehran research reactor, and for the training of Iranian scientists at an Argentine nuclear center. 123

Some accounts suggest that between 1987 and 1991 Iran's efforts to acquire nuclear-related technology gathered momentum. A report that is very hard to verify claims that in February 1987, at a meeting of members of the AEOI, then-President Khamene'i allegedly called upon Iran's scientists to "work hard and at great speed" to obtain atomic energy for Iran. 124

After the war with Iraq ended in 1988, Iran issued a call for the return home of exiled scientists and technicians. Some analysts believe that Iran may have moved to obtain-often in a clandestine manner through fronts and dummy companies-the equipment and technology that would ultimately give it the bomb. 125 Iran has also moved, with mixed results, to obtain further aid from advanced nuclear powers for its nuclear program. It attempted to purchase German nuclear technology that was transferred to Brazil in the mid-1970s; specifically, Iran wanted to buy millions of dollars worth of equipment incorporated in the now obsolete Angra III nuclear power station. Both the United States and Germany as well as the Brazilian Foreign Ministry, which does not want Brazil to be blacklisted as a source of proliferation, objected to the proposed sale. 126 Iran has tried unsuccessfully to lure Germany into finishing the still dormant reactors at Bushehr, which were severely damaged by the Iraqi air force on three separate occasions during the Iran-Iraq War. The German refusal to finish the project angered Iran. A tremendous amount of money already has been sunk into the project and its completion would be a visible sign of post-war reconstruction success. An Indian offer to sell Iran a 10-megawatt research reactor has been dropped apparently because of strong pressure from the United States, with whom India wants to improve historically luke-warm relations. 128

November 1988, p. 2.

<sup>123.</sup> Leonard Spector, *The Undeclared Bomb* (Cambridge, MA: Ballinger, 1988), p. 221–222; and Spector, *Nuclear Ambitions* (Boulder, CO: Westview Press, 1990), pp. 207, 218.

<sup>124.</sup> David Segal, "Atomic Ayatollahs," Washington Post, 12 April 1987, p. D2. Segal relied on a usually unreliable source, Nameh Mardom, the newspaper of the opposition communist Tudeh party. Another source that must be treated with some caution is the People's Mujahedin, which have often provided contradictory information about massive Iranian defense expenditure and secret locations for nuclear weapon-making. To say that these sources must be treated with caution is not to deny the possibility that some information might be true, but these groups, caught in a mortal struggle with the clerics, have every reason to embarrass the Tehran regime.

<sup>125.</sup> See, "Iran: Nuclear Journey," p. 8; and Spector, "Threats in the Middle East," in *Going Nuclear*, pp. 197–198. The former source states that the Iranian Foreign Ministry set up a special office for the acquisition of nuclear-related technology.

<sup>126.</sup> For details see Mednews 5:7, 6 January 1992, p. 4.

<sup>127.</sup> For the Iranian view of this controversy see United States, Department of Defense, Joint Publication Research Service (hereafter "JPRS"), *Nuclear Developments*, 24 July 1991, pp. 16–18, and 30 December 1991, p. 29.

<sup>128.</sup>On the Indian reactor see *Mednews* 5:7, 6 January 1992, p. 4; Steve Coll, "Iran Reported Trying to Buy Indian Reactor," *Washington Post*, November 15, 1991, p. A33; "A Bomb for the Ayatollahs?"

As of the mid-1990s, Iran's activities in the nuclear field and its relationship with China in this area continue to cause concern. <sup>129</sup> US officials believe that Iran is receiving help from the PRC that will ultimately aid it in nuclear weapons development. In 1990, Iran and the PRC signed a 10-year agreement for scientific cooperation. That same year, Hashemi-Rafsanjani met with a visiting official from the Chinese Council of Science and Technology, a center in charge of China's nuclear program. The PRC is training Iranian scientists who may eventually work at a nuclear research reactor to be built by the Chinese at Isfahan.

What caught the attention of analysts and the media, however, was the PRC's sale of an electromagnetic isotope separator, or calutron, which is an antiquated method of separating the weapons-grade uranium-235 from its natural matrix of hard-to-fission uranium-238. Calutrons recently gained notoriety because of Iraq's massive, calutron-based enrichment installations at Tarmiya. In reality, it is unlikely at this stage that Iran would use the calutron method for uranium enrichment because: (i) the calutron China supplied is small and used solely for the separation of medical isotopes and for research purposes; (ii) this method of enrichment needs a huge scientific and technical infrastructure, which Iran currently lacks; (iii) calutrons use a large amount of electrical power and Iran has a chronic shortage of electricity; and (iv) electromagnetic isotope separation and sales of the components it requires are currently receiving close scrutiny by the international community. However, Iran could use this one small calutron to help it in developing larger and more advanced models.

Iran clearly has not yet developed a nuclear weapons capability and reports of secret locations being built or already built and camouflaged are unsubstantiated, as are reports in Middle Eastern newspapers that Iran has acquired three to five tactical nuclear weapons or the "components" for such weapons from Kazakhstan. More plausible are reports that Iran and other Middle Eastern countries have recruited or tried to recruit former Soviet scientists to work in various fields of military research and development. <sup>131</sup>

Iran's activities and agreements in the field of nuclear energy have been a cause of concern not only in the West but among Arabs and Israelis. The latter have stated that Iran's nuclear infrastructure could become the target of what one could euphemistically call "coercive non-proliferation" (as happened in 1981, when Israel destroyed Iraq's

Middle East (October 1992), p. 23; and Spector, "Threats in the Middle East," in Going Nuclear, p. 188. 129. See Iran Focus (December 1991), p. 3; and Jim Mann, "Iran Determined to Get A-Bomb, U.S. Believes," Los Angeles Times, 17 March 1992, p. A1.

<sup>130.</sup> David Albright and Mark Hibbs, "Nuclear Proliferation: Spotlight Shifts to Iran," Bulletin of the Atomic Scientists 48:2 (March 1992), p. 10. This method of isotope separation is very well described in the following books, Richard Rhodes, The Making of the Atomic Bomb (New York: Simon and Schuster, 1988), pp. 486–492; and Henry Dewolf Smyth, Atomic Energy for Military Purposes: The Official Report on the Development of the Atomic Bomb under the Auspices of the United States Government 1940–1945 (Stanford: Stanford University Press, 1989; first published by the US Government, 1945), pp. 164–165, 187–205.

<sup>131.</sup> Bill Gertz, "Nuclear emigres work in Libya," Washington Times, 24 February 1992, p. A1.

Osirak nuclear reactor), if the international community is unable to exert political pressure to stop Iran.  $^{132}$ 

It is very difficult to say what Iran ultimately intends to do or what its achievements in the field have been. However, the revelations about Iraq's enormous program by the United Nations Special Commission have led analysts and officials outside of Iran to err on the side of caution and to believe that Iran's ultimate goal is nuclear weapons. The inspection by the International Atomic Energy Agency of Iranian nuclear installations early in 1992, which gave Iran a clean bill of health, should not be construed as conclusive proof that Iran is not working on nuclear weapons, because the Iranians only took the inspectors to selected sites. Iran is not a nation defeated in war and subject to international sanctions. Even if the International Atomic Energy Agency (IAEA) manages to increase its intrusive powers to detect covert or undeclared nuclear facilities, it is unlikely to have the powers of the UN-IAEA Special Commission in Iraq. <sup>134</sup>

Iran, naturally, has vehemently denied that it is seeking nuclear weapons but has stated that it has the right to acquire nuclear power for peaceful civilian purposes. This was bluntly stated by Hashemi-Rafsanjani in early 1992: "We seek nuclear technology for peaceful aims and consider this path to be right for all countries which have the potential to acquire it." Various Iranian newspapers have castigated the United States for arrogating to itself the right of unilaterally deciding who can or cannot have nuclear technology. Still, Iran's statements of the late 1980s concerning the desirability of nuclear weapons have disappeared from public discourse. No doubt the country's leaders see as counterproductive their early strategy of insisting on the right to acquire nuclear weapons. Iranian officials have been taking pains to emphasize that Iran is not seeking to acquire a nuclear weapons capability, but instead a nuclear energy infrastructure. They have also insisted that they consider nuclear weapons immoral and in contravention of international norms, and that nuclear weapons would not contribute much to enhancing Iran's national security.

Yet, one could argue that the country could be following in the footsteps of covert proliferants like India, Pakistan, Israel, and Iraq, which always denied any intention of producing nuclear weapons, particularly when their nuclear programs were in their infancy. Iran would clearly have every reason to camouflage its own activities, particularly in light of what happened to Iraq's program once it was uncovered.

<sup>132.</sup> See *Mideast Mirror*, 31 May 1992, p. 2, and 16 June 1992, pp. 3–4; and Hugh Carnegy, "Israel worried over Iran's nuclear plans," *Financial Times*, 29 January 1992, p. 4.

<sup>133.</sup> For such a position see the article by Leonard Spector, "Nuclear Proliferation in the Middle East," Orbis 36:2 (Spring 1992), pp. 181–190.

<sup>134.</sup> The head of the IAEA, Hans Blix, wants to form a unit of the IAEA that would evaluate intelligence supplied by member countries of the IAEA, and also wants to tighten cooperation between the UN Security Council and the IAEA (Leonard Spector, "Is Iran Building a Bomb?" *Christian Science Monitor*, 31 December 1991, p. 18).

<sup>135. &</sup>quot;President Speaks on Foreign, Nuclear Policies," *Tehran Voice of the Islamic Republic of Iran*, 1030 GMT, 10 February 1992, cited in *FBIS-NES-92-029*, 12 February 1992, p. 55.

<sup>136.</sup> See for example Keyhan International, 9 November 1991, p. 2; and Steve Coll, "Tehran Ambiguous On Its A-Arms Plans," Washington Post, 17 November 1992, p. A30.

Moreover, Iran may have certain motivations for acquiring nuclear weapons. First, there is the factor of enhanced prestige that comes from possession of nuclear weapons. Prestige was a particularly important element in the case of the British and French decisions to build a nuclear arsenal. Second, nuclear weapons may be thought to have both strategic and political value, both providing deterrence against nuclear threats or attempted intimidation by other powers, and reducing the military options of the United States and its allies in the region.

Third, the nuclearization of the larger region has proceeded apace since the mid-1970s. <sup>137</sup> In 1991, the head of the AEOI stated that throughout the 1980s Iran had constantly pointed out the dangers of proliferation in the region, but nobody paid attention. <sup>138</sup>

Finally, Iran might choose to go nuclear in order to bring about a regional nuclear balance between Israel and the Islamic world, arguing that the Arab failure to do so makes it the responsibility of the "wider Islamic world." This has been the line of thinking espoused by Deputy President Ata'ollah Mohajerani, who has stated on a number of occasions that, if Israel continues to have nuclear arms, then the Muslim states should cooperate to arm themselves with such weapons. Otherwise, he asserted, Israel would use its nuclear weapons to maintain regional superiority. The only alternative to further regional nuclearization, he argued, is to deprive the Israelis of such weapons, although Mohajerani's tough rhetoric seems to indicate that he believes Israeli de-nuclearization to be unlikely.

## **Chemical Weapons Program**

The Iran-Iraq War was the first conventional war since World War I to see extensive use of lethal chemical weapons. Although Iraq was the first side to use these weapons, Iranian allegations that Iraq made use of them from the very outset cannot be substantiated and are presumed to be propaganda. Iraq's first substantiated use of chemical weapons occurred in 1982 when its forces used non-lethal tear gas in an assault that may have caused an Iranian division to think that it was under lethal chemical attack. It This event may have led the Iraqis to believe that more lethal chemicals could be militarily significant. But it was more Iraq's battlefield difficulties from 1982 onward, and concern that its national existence was at stake, that propelled it to use chemicals as defensive weapons of last resort against Iranian offensives between 1983 and 1985. Iraq's use of chemical weapons blunted attacks by troops who were generally poorly equipped and

<sup>137.</sup> For a brief analysis of nuclearization in the 1980s see Joseph Yager, *Nuclear Proliferation Strategy in the Middle East and North Africa*, occasional paper, vol.1, no.1, Center for National Security Negotiations, SAIC, Fairfax, Virginia, 1989.

<sup>138.</sup>JPRS, Nuclear Developments, 18 November 1991, p. 13.

<sup>139.</sup> See JPRS, Nuclear Developments, 7 November 1991, p. 23. Given the fractious nature of Iranian politics, it is not altogether clear whether Mohajerani represents an official line of thinking.

<sup>140.</sup> Gordon Burke, "The Geneva Protocol: Selective Enforcement," in Eric Arnett (ed.), Lessons of the Iran-Iraq War: Mediation and Conflict Resolution (Washington, D.C.: American Association for the Advancement of Science, 1990), p. 15.

<sup>141.</sup> Andrew Terril, "Chemical Weapons in the Gulf War," Strategic Review XIV:2 (Spring 1986), p. 53.

poorly trained to deal with such weapons. By 1986, chemical weapons had been integrated into Iraqi counter-attacks, and by 1988, such use had become more professional, systematic, and routine, playing a significant role in panicking already demoralized Iranian troops. 142

Iran's response to chemical weapons was two-pronged. First, Iran took the moral high ground and condemned and exposed chemical use by Iraq in the hope that the world would pressure Iraq to stop. The United Nations investigated and confirmed the use of chemical weapons, but the resulting international outcry was not sufficient to bring it to a halt, partly because Iran was not popular in international circles. In June 1988, Iranian Foreign Minister Ali Akbar Velayati urged the UN to take measures to prevent the sale of the materials necessary for the production of chemical weapons and to establish a mechanism for inspecting Iraqi chemical weapons facilities. Iran also stated that its moral and religious beliefs prohibited it from using chemical weapons even though it had the capacity.

Second, Iran developed its own chemical defense and decontamination capability, and produced its own chemical weapons for use against Iraq. The purchase of defensive equipment may have helped reduce chemical casualties (there were 50,000 total, of which ten percent were fatal). However, Iranian forces, and particularly the huge infantry forces on which it relied, never fully mastered the use of chemical decontamination equipment nor became very proficient in the quick and correct use of masks and chemical suits. Nor did the Iranians develop much proficiency in conducting operations under chemical attack. Although Iran began to use chemicals, such use was sporadic, because the country lacked technical sophistication in their manufacture, handling, and employment. Iran's old regime had shown some concern about chemical weapons, but the Imperial Iranian military did not receive any training in aspects of chemical warfare from the Americans. 144

Iran's greatest fear became the use of chemical weapons by Iraq against Iranian civilian centers, especially after their use by Baghdad against the village of Halabja in Iraqi Kurdistan. The massacre of thousands in Halabja caused no major international outcry and, in Iranian eyes, this showed that nothing stood in the way of Iraq's committing greater crimes, that is, chemical weapon attacks against Iranian cities. <sup>145</sup> Rafsanjani claimed that Iraq, in the event, dropped chemicals on the town of Oshnoviyeh killing 2,000 people. <sup>146</sup>

<sup>142.</sup> Lee Waters, "Chemical Weapons in the Iran/Iraq War," Military Review LXX:10 (October 1990), pp. 61–62.

<sup>143.</sup> "Further Reportage on Velayati's UN Address, " IRNA (Tehran),  $1000~\mathrm{GMT}$  2 June 1988, cited in  $FBIS\text{-}NES\text{-}88\text{-}107,}$  3 June 1988, p. 53.

<sup>144.</sup> Rafsanjani, "Matn bayanat janeshin...," p. 24.

<sup>145.</sup> There is a detailed analysis of Iranian views in *Tahlil Siyasi Hashtomin Sal Jang (Political Analysis of the Eighth Year of the War)* (Tehran: Political Office of the Sepah Pasdaran, 1368 [1989]), pp. 96–97.

<sup>146. &</sup>quot;Hashemi-Rafsanjani Addresses Defense Conference," Tehran Domestic Service, 0910 GMT,

<sup>11</sup> August 1988, cited in FBIS-NES-88-158, 16 August 1988, p. 50.

In light of these factors, Iran had decided by the end of the war: (i) to develop a retaliatory capability to equal that of an enemy like Iraq for use on a future battlefield; ii) to develop a strategic deterrent to prevent an enemy from even considering using chemicals against civilians in cities; and (iii) to intensify the preparation and training of its soldiers to function with confidence on the chemical battlefield. Rafsanjani has pointed out that chemical and biological weapons are relatively easy to acquire, stressing that Iran needs to acquire chemical weapons as a deterrent. He added, however, that Iran would never use chemical weapons first. In the future, the Iranians do not intend to be at a technological disadvantage in such weapons. By 1989, reports indicated that the country seemed to have enhanced considerably its chemical weapons capability. A 1991 report suggested that Iran was seeking German aid to build a plant for the production of pesticides that may entail the manufacture of the precursors for the nerve agent VX. 149

The Gulf War reinforced some lessons from the Iran-Iraq War and added some new ones. Iraq's non-use of chemicals against coalition forces suggested prudent restraint in the face of overwhelming firepower. One may speculate that, even though Iran continues to conduct tactical field exercises wherein its forces repel and neutralize chemical attacks, the country may be reconsidering the value of chemical weapons. After the Gulf War an Iranian officer, Hussein Firuzabadi, stated that there was a need for studies explaining how to avert the use of chemical weapons and to neutralize their effects if used. <sup>150</sup> Iraq's caution also may have suggested to Iran that use of chemical weapons on the battlefield against the armies of advanced powers may not be worth the cost. Iran's signature, in early 1993, of the Chemical Weapons Convention, which prohibits the development, production, stockpiling, and use of chemical weapons, may indicate a genuine desire on Iran's part to see these weapons disappear from the Middle East.

#### **Conclusions**

This paper has examined the evolution of Iranian national security, with emphasis on 1988 to 1993, looking at Iran's policies vis-a-vis neighbors and states farther afield, and at its defense procurement program. Iran's policies were heavily influenced by the country's experiences in the Iran-Iraq War, which pre-occupied the IRI's leadership for almost a decade. Those leaders focused first on strategies to survive and then on strategies for winning the war in the face of weapons inferiority and near-total regional and international isolation. The pursuit of national security since 1989, under the more pragmatic, realpolitik-oriented regime of Hashemi-Rafsanjani, has proved to be a more difficult task than under the ideologically unbending "first republic," which was able to

<sup>147.</sup> Rafsanjani, "Matn bayanat janeshin...," pp. 24-26.

<sup>148.</sup> Michael Gordon and Steven Engelberg, "Iran is Expanding Chemical Stocks Used in Poison Gas," New York Times, 29 January 1989, pp. 1, 10.

<sup>149.</sup> See JPRS, Nuclear Developments, 8 August 1991, p. 30.

<sup>150.</sup>Iran Focus 4:4 (April 1991), p. 7.

focus its attention on one clear-cut and definite threat—the war with Iraq—and which used that threat to build national cohesion and legitimacy for the regime.

Since 1988, Iranian policy makers have faced an extremely fluid and uncertain domestic, regional, and international environment. At the same time, they have been trying to revitalize military capabilities devastated in the Iraq-Iran War. Iran started the process with very modest levels of arms acquisitions and later accelerated to keep pace with Iraq's post-war arms build-up. The war taught Iranians that technology mattered in warfare, and that demographic strength and commitment were not enough.

The outside world did not view Iran's defense procurement effort with much alarm through 1990 because Iran's efforts were completely overshadowed by Iraq's across the board acquisition programs. Furthermore, Iran was still scrambling to find stable sources of weapons. At the end of the Gulf War, however, the Iraqi military initially seemed devastated and the country seemed on the verge of disintegration. Suddenly, by default, Iran emerged as the strongest power in the Persian Gulf. Within weeks of the February 1991 cease-fire between Iraq and coalition forces it became clear that Iraq's military still had substantial combat capabilities and that Iran lagged behind its neighbor in inventories of tanks and other armored vehicles. Nonetheless, the UN arms embargo on Iraq kept it from rebuilding its forces to 1990 levels and, by 1992, Iran had found relatively reliable sources of arms such as Russia and other states of the former USSR and Soviet bloc. What caught the attention of the world was the seemingly massive nature of Iran's subsequent acquisition program, but a close reading of Iran's strategy shows that, with limited financial resources, it has focused on rebuilding critical sectors of national defense such as the air force, air defense, and naval forces. In other words, Iran is concentrating on areas where it will get the most "bang for the buck" in the short term. Troublesome to outside observers is the inclusion of ballistic missiles among these areas of concentration.

The Iranians view ballistic missiles as effective instruments of war, especially because of their ability to create mass psychological terror on the home front. Given the regional trend toward acquisition of more and more sophisticated and longer-range ballistic missiles, it would be the height of folly, from the perspective of Iran's leaders, not to keep pace in this technology.

Iranian missile programs, and Iran's acquisition of strike aircraft like the Russian Su-24, are particularly troubling given international uncertainties about Iran's activities in the field of unconventional weapons. In Iran's case, most of the outside attention had been focused on its alleged nuclear weapons program. Given the politically charged and potentially destabilizing nature of chemical and nuclear weapons programs, countries tend to be very secretive concerning their activities in these fields and, as a result, it is extremely difficult to reach any solid conclusion about the Iranian nuclear program. Given the immense difficulties standing in Iran's way, such as lack of finances, infrastructure, and R&D culture, as well as international scrutiny, it would be years before Iran could become a nuclear weapons state. But the difficulties in finding sufficient financial resources for a large conventional weapons program may drive the ruling elite, or at least segments of it, toward a nuclear weapons program. Given the highly factionalized nature of Iranian politics, domestic political or military factions who believe

that their stature may be enhanced if they clamor for development of nuclear weapons could have the strength to force the government as a whole to go along. <sup>151</sup>

Iran's approach to chemical weapons can be addressed with somewhat greater confidence. Iran suffered tremendously from chemical weapons use during the Iran-Iraq War. In light of the difficulty of equipping large but poorly disciplined infantry forces for offensive chemical warfare, Iran has probably decided to focus its attention on equipping its forces with defensive means against chemical weapons. Any offensive chemical weapons retained for purposes of deterrence would remain in the hands of trained regular forces.

On the other hand, Iran has signed the Chemical Weapons Convention, which prohibits the possession of even "deterrent" weapons. When Iran ratifies the treaty, its on-site inspection provisions will give the outside world much clearer insight into Iranian capabilities and intentions.

Whether Iran's rebuilt and restructured forces will be used in the future as the spearhead of an "imperialistic" Islamic ideology cannot be answered one way or the other with any degree of finality. However, a heavily armed Iran would most likely fight as a result of the unresolved dispute with Iraq. Iran shares the determination of the West and its local Arab allies to see the downfall of Saddam Hussein and to hobble Iraqi military power. This attitude is not conducive to improved Iraqi-Iranian relations.

Competition with Turkey for influence in Central Asia also could conceivably produce a clash, but one must not overestimate the influence of secular Muslim Turkey or of theocratic Muslim Iran in the newly independent Central Asian republics. Turco-Iranian rivalry in the region has been greatly exaggerated. There are two undeniable political facts in the region: one is the continued domination of the region by Russia, and other is the region's pressing need for the most modern technology and infusions of capital. Neither Turkey nor Iran can compete with Russia on political-military grounds, nor can they provide the desperately needed economic resources. Furthermore, Iran and Turkey seem to be making efforts to improve bilateral ties because of a perceived commonality of interests in certain areas: concern about the integrity of Iraq and about Kurdish ambitions; fears that their mutual rivalry could be manipulated by outsiders into something dangerous; and recognition by each that nothing could be gained by excluding the other from Central Asia.

Finally, economic failure coupled with depressed oil prices could lead to Iranian threats or pressures against the resource-rich but weak Gulf states. <sup>153</sup> The severe socioeconomic crisis that has crippled Iran as of the mid-1990s makes it a potentially destabilizing actor in the Persian Gulf. Indeed, one might draw parallels between a

<sup>151.</sup> This paragraph is derived from debates that took place during a US Department of Energy Conference on Nuclear Proliferation, Washington, D.C., April 1994, in which the author was a participant.

152. Conversation with US expert on the Middle East who had recently visited Central Asia, July 1993.

<sup>153.</sup> A brief discussion of this scenario may be found in Sadowski, Scuds or Butter, p. 62.

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