



The Armed Forces of the Islamic Republic of Iran: An Assessment

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Iran has been engaged in a major military buildup but has carefully chosen where and how to spend its resources. For Iran, obtaining missiles and Weapons of Mass Destruction is a way of projecting its power while making up for its weaknesses in the conventional arsenal. Self-reliance and deterrence are two major goals of Iranian decisionmakers. The armed forces are also divided along institutional lines in a way intended to maximize military backing for the regime. This article provides a detailed analysis of Iran's military capabilities and goals.

In 1989, following a costly eight-year-long war with Iraq, Iran initiated an ambitious military buildup to rebuild, expand, and modernize its war-ravaged armed forces and transform itself into a regional military power. As part of this effort, it has tried to acquire the air and naval forces needed to dominate the Persian Gulf; to develop missiles and non-conventional (chemical, biological, and nuclear) weapons to enable it to intimidate neighbors, bolster deterrence, and counter U.S. influence in the Gulf, and; to create--in conjunction with the Lebanese Hizballah--an infrastructure capable of supporting terrorist operations in the Middle East, Europe, and South America.

Iran's economy, however, has been its Achilles' heel. Its economic woes--the legacy of war, ruinous policies, fluctuations in international oil prices, and U.S. sanctions--forced Iran to reduce defense spending following the Iran-Iraq War, cut procurement of key items since 1989 by half, and prioritize the allocation of scarce financial resources among the various services.(1) During the 1990s, Iran lacked the funds for a sustained, across-the-board military buildup. Instead, it had to content itself with selectively enhancing its military capabilities, focusing on naval forces, missiles, and non-conventional weapons. This happened in a decade when several of Iran's Arab neighbors

purchased large quantities of advanced Western arms, and the United States dramatically increased its forward military presence in the region.

However, thanks to a disciplined effort to repay its short-term debt obligations during the second half of the 1990s and the turn around of world oil prices in the year 2000, Iran's short-term economic circumstances have improved substantially. As a result, Iran is now spending significantly more on defense than in prior years. Its defense budget for 2000-2001 was 50% higher than in the previous Iranian fiscal year, though it is not clear whether the additional funds went to arms imports, purchases from domestic arms suppliers, investments in the country's military infrastructure, or various classified programs (such as non-conventional weapons).(2) The Russian decision in November 2000 to continue arms transfers to Iran (in contravention of a 1995 commitment to the United States that it would fulfill only existing contracts by the end of 1999 and not sign any new ones) may indicate major future deals are in the works.(3)

Iran's defense policies have shown remarkable constancy in the decade following the end of the Iran-Iraq War--and even after the 1997 election of reformist President Muhammad Khatami. Iran has continued its

plodding efforts to expand and modernize its conventional military forces--increasingly through domestic procurement--though the main emphasis has been on the development of missiles and non-conventional weapons. Work on these latter systems has continued unabated with Iran enjoying a number of breakthroughs in its missile program, due largely to Russian assistance. Experience has shown that one thing Iran's liberal reformers and their hardline conservative rivals agree on, is the need for a strong military that will enable Iran to play a dominant role in the Gulf and an influential role in the greater Middle East region.

IRANIAN DEFENSE PLANNING: THE STRATEGIC CONTEXT

Defense planning in the Islamic Republic has been driven by three major factors: First, a desire to achieve self-reliance in all areas of national life as a fundamental goal of the Islamic revolution. Second, a determination to transform Iran into a regional power capable of projecting influence throughout the Middle East and beyond. Third, the need--in the wake of its war with Iraq, which was seen as the result of a tragic failure of deterrence--to strengthen its ability to deter and deal with various perceived threats in order to avoid a repetition of that experience.

Self-Reliance

Revolutionary Iran has placed a strong emphasis on military self-reliance. Under the Shah, Iran depended on the United States and Britain for nearly all its arms. Following the 1979 revolution, Tehran was isolated internationally and faced Baghdad virtually alone during the Iran-Iraq War. Tehran's sense of isolation and abandonment was heightened by the apathetic international response to Iraq's use of chemical weapons in that war--an experience that has left deep wounds in the Iranian national psyche to this day. In addition, a U.S.-led arms embargo

during the war greatly complicated Iran's efforts to replace its losses and sustain its war effort.

The bitter legacy of the war has bred a determination in Iran that these experiences should not be repeated. Iran has thus sought to develop its own military industries in order to reduce its dependence on foreign arms suppliers, minimize the impact of future embargoes, and create the foundation for a modern military capable of dealing with a range of potential missions.(4) It has also sought non-conventional weapons (particularly nuclear weapons) as a means of realizing self-reliance in the military field, and enhancing its ability to independently secure its vital interests.

Status and Influence

Since 1979, Iran's foreign and defense policies have reflected the tension between two competing (though not necessarily contradictory) orientations: Islamic universalism and Persian nationalism.(5) These have, at different times and in different places, exerted varying degrees of influence over Iranian policy. The Islamic tendency generally dominated in the 1980s, while Persian nationalism prevailed in the 1990s, though geopolitics, economics, and ethnicity have played in increasingly important role in shaping Iran's foreign and defense policies in recent years.(6)

Iran's clerical leaders believe that the Islamic Republic plays a key role in world affairs as standard bearer of revolutionary Islam and guardian of oppressed Muslims everywhere. Accordingly, they believe that the fate of the worldwide Islamic community depends on Iran's ability to transform itself into a military power that can defend and advance the interests of that community. This perception also leads Tehran to support radical Islamic movements in the Middle East and elsewhere, in order to undermine U.S. influence, to make the regional and international environment more amenable to

Iranian interests, and to burnish the regime's Islamic credentials at home and abroad.

Most Iranians also believe that their country is a regional power by dint of geography, demography, and natural resource endowments (gas and oil). In their view, destiny and geopolitics dictate that Iran be the dominant power in the Persian Gulf. It is the largest Gulf state, it has the longest coastline, and it has vital oil and gas interests there. This translates to a desire to dominate developments in the region, and to defend Iran's vital interests there against the United States, Iraq, and Saudi Arabia.

Because of Iran's economic problems, and its corollary desire to attract foreign investment in its oil and gas sector, Iran has worked to improve relations with the West (particularly Europe), and it has made tentative gestures toward the United States in the hope that this might lead to renewed economic ties (which are much more important to Tehran than the resumption of political ties with Washington). Many among the clerical leadership realize that Iran's weak economy is a threat to stability, and a major obstacle to realizing their goal of transforming Iran into a regional power, and that the country's economic problems can no longer be ignored.

There is a large gap, however, between the self-image and the aspirations of the regime, and the reality of Iran's military weakness. Tehran's efforts to expand and modernize its armed forces and enhance its military capabilities are intended to bridge this gap. Iran's financial problems, however, have prevented it from achieving its goal of building a large, capable military. Consequently, it has devoted much of its available resources to missiles and non-conventional weapons, which potentially provide the biggest "bang" for Iran's limited defense "bucks." And given its financial problems, nuclear weapons may be the only way for Iran to become a military power without destroying its economy. While a

nuclear weapons' program could cost billions of dollars, rebuilding its conventional military would cost tens of billions of dollars.(7)

Deterrence and Defense

Iranian defense planning is also motivated by a desire to enhance its deterrent capability. At various times, the Islamic Republic has perceived or faced threats from Iraq, the Soviet Union, the United States, Israel--and more recently Turkey, Afghanistan and Azerbaijan. During the 15 years of the Islamic Republic the main threats were seen as coming from the west (Iraq and Israel), and then the south (U.S. naval forces in the Persian Gulf). The subsequent emergence of new threats to the north and east (Turkey, Azerbaijan, Afghanistan and--by extension--Pakistan) have greatly complicated Iranian defense planning.

The defeat of Iraq in the 1991 Gulf War temporarily removed Iraq from the roster of states threatening Iran. However, Iraq still possesses the largest armed forces in the Gulf region (though greatly weakened by war and sanctions) and retains a chemical and biological warfare (CBW) and missile capability. Accordingly, Iran sees a revitalized Iraq as the greatest long-term threat to its interests.

The demise of the Soviet Union was a mixed blessing. While it eliminated the only real threat to Iranian independence, the creation of new independent republics along Iran's northern border created new fears that instability in the Caucasus and Central Asia would spill over into Iran. Due to these fears, Tehran has successfully worked with Moscow to maintain stability in these regions.

Since the 1991 Gulf War, the United States has greatly increased its forward military presence in the Gulf region. Iran sees this presence as a threat, and it would therefore like to see an end to the US presence there. This would also enhance Iran's political and military freedom of action in the region. Iranian officials also believe

(not without reason) that the United States is attempting to create an anti-Iranian bloc to their north and northeast, while it is encouraging the building of regional oil and gas pipelines that bypass Iran. Thus, Tehran fears what it perceives to be American efforts at encirclement intended to harm its economy, reduce its diplomatic margin of maneuver, and complicate its security situation.

Whereas Iraq and the Persian Gulf were the main focus for Iran's foreign and defense policies in the decade following the Iran-Iraq War, developments in Afghanistan have increasingly held the attention of Iran's leaders. Iran fears that the Pakistani-supported Taleban government could stir unrest among the two million Afghans in Iran, and exacerbate Sunni-Shi'i tensions in eastern Iran, where the Sunni minority constitutes one-third of the population. In addition, some Iranians suspect that a series of assassinations and terrorist attacks by the opposition Mojahedin-e Khalq in 1998-1999 originated from Afghanistan. Finally, Islamabad's support for the Taleban has been a source of tension between Iran and Pakistan. Tensions with Afghanistan (and by extension Pakistan) are likely to be a feature of Iran's threat environment for years to come.

Relations with Azerbaijan have also become strained. Iran tacitly supported Armenia in its war with Azerbaijan (which ended with a shaky cease-fire in 1994). Furthermore, Tehran is concerned that Azerbaijan might become a magnet for Iran's Azeris, who comprise about one-third of its population. Senior Iranian officials also fear that Azerbaijan is increasingly aligning itself with American and Israeli interests.

Finally, with Iran implacably opposed to the existence of Israel, the Jewish state has looked askance upon the Islamic Republic's efforts to develop non-conventional weapons and missiles capable of reaching Israel. Iranian decisionmakers have been alarmed by past threats by senior Israeli politicians and

military officials directed at Iran's missile and nuclear infrastructure--undoubtedly with Israel's June 1981 air strike on Iraq's Osiraq nuclear reactor in mind. Moreover, as a result of growing military cooperation with Turkey, Israel now effectively has a presence on the Turkish border with Iran; it reportedly operates intelligence-collection facilities there, and Israeli reconnaissance or strike aircraft could overfly Turkey en route to Iran.

Iranian force deployments reflect these threat perceptions. Most of Iran's ground forces are deployed near the border with Iraq, while most of its air force is deployed toward Iraq and the Persian Gulf region. Its navy is almost exclusively deployed in the Gulf.⁽⁸⁾ Moreover, since the end of the Iran-Iraq War, Iran has devoted the lion's share of its limited defense dollars to enhancing missile and non-conventional capabilities and expanding and modernizing its navy, with the ground and then air forces receiving the lowest funding priority. These deployment patterns and spending priorities reflect Tehran's preoccupation during the last decade with perceived threats from Iraq, the United States, and Israel, and the fact that Iran's most important economic asset—its oil and gas industry--is concentrated largely in the vicinity of the Persian Gulf.

To bolster defense, Iran has sought to create its own deterrent triad, consisting of:

- 1) The ability to disrupt oil exports from the Persian Gulf should it desire to do so;
- 2) The ability to launch terror attacks on several continents in conjunction with the Lebanese Hizballah, and;
- 3) The development of non-conventional weapons and the means to deliver them throughout the Middle East, if not beyond--by missiles and various non-traditional means such as saboteurs, unmanned aerial vehicles, and boats.

It has sought to bolster its deterrent capability by cultivating the image of Iran as an undeterrable state, whose soldiers seek martyrdom, and whose society is willing and

able to absorb heavy punishment. While this image may have bore some relationship to reality during the heady days of the revolution in the early 1980s, it is certainly no longer the case. Years of revolutionary turmoil and a bloody eight-year-long war with Iraq have made Iranians weary of war and political violence, and transformed the Islamic Republic into a more "normal" state--at least in terms of its ability to absorb casualties.(9)

THE STRUCTURE OF THE ARMED FORCES AND CIVIL-MILITARY RELATIONS

According to the Constitution of the Islamic Republic, The Supreme Leader, Ayatollah 'Ali Khamene'i is commander-in-chief of the armed forces, which today consist of three main components: 1) the regular military; 2) the Islamic Revolutionary Guard Forces (IRGC)--with its paramilitary Basij militia; and 3) the Law Enforcement Forces (LEF).(10)

The regular military and IRGC are subordinate to the Ministry of Defense and Armed Forces Logistics (MODAFL), which is headed by Admiral 'Ali Shamkhani (an IRGC officer who is considered sympathetic to the country's conservative hard-liners). These organizations are responsible for defending Iran's borders and providing for internal security. The LEF are formally subordinate to the Ministry of Interior, and play a key internal- and frontier-security role. While Interior Minister 'Abdolvahed Musavi-Lari is an ally of reformist President Mohammad Khatami, the senior leadership of the LEF consists of IRGC officers who remain loyal to the supreme leader and his hardline conservative supporters. As a result, Interior Minister Musavi-Lari has complained that he in fact does not control the LEF.(11)

Parallel Structures, Military Professionalism, and the Problem of Unity of Command

The division of Iran's combat forces between the regular military and IRGC dates

to the 1979 Islamic Revolution, when the IRGC was formed in order to maintain internal security, safeguard the ideological purity of the revolution, and counterbalance the regular military.(12) The new clerical regime distrusted the regular army because of its association with the deposed Shah and saw it as a potential counterrevolutionary force.(13) For this reason, relations between the regular military and the IRGC have been characterized by ambivalence, mistrust, and at times outright hostility. This distrust was also a major factor behind large-scale purges of the military after the revolution and the formation of a political-ideological directorate which ensures clerical oversight of the military by placing personal representatives of the supreme leader in all major commands. These activities and organizations are all part and parcel of the regime's efforts--dating to the early days of the revolution--to "Islamicize" the armed forces.

Such parallel structures are characteristic of the Islamic Republic, where throughout the government the authority of conventional political and military institutions is checked by that of revolutionary Islamic institutions. Thus, the powers of the president are circumscribed by those of the supreme leader; that of the parliament (Majlis) by the Council of Guardians; and those of the regular military, by the IRGC. Paradoxically, this arrangement has been a source of both stability and tension within the Islamic Republic,(14) though the existence of parallel military structures has sometimes undermined unity of command and posed major obstacles to creating a modern, effective military.

The dichotomy between the regular military and IRGC initially reflected divergent approaches to modern warfare. The regular military embraced a traditional approach to war, with a balanced emphasis on hardware, technology, and the human element. Its force structure--which resembled those of most Western armies--reflected this

fact. By contrast, the IRGC elevated the human factor above all others in the belief that faith, ideological commitment, and morale would be sufficient to bring victory.⁽¹⁵⁾ Accordingly, the IRGC originally consisted of poorly trained, irregular mass infantry forces that specialized in human wave attacks. The IRGC's approach came to dominate Iranian thinking during the Iran-Iraq War, even though the IRGC eventually established quasi-conventional infantry, armor, and artillery formations, as well as naval and air arms during the war.⁽¹⁶⁾ The IRGC was also put in charge of Iran's missile forces and non-conventional weapons programs (which it still controls today).

In light of lessons learned from the Iran-Iraq and Gulf wars, the armed forces developed a greater appreciation of the relative importance of modern arms, technology, and the human factor in modern warfare. Its exercises have moved away from the static attrition warfare practiced in the war with Iraq to combined arms operations and maneuver warfare.⁽¹⁷⁾ As part of this trend toward greater professionalism, the IRGC adopted new uniforms and rank structures, similar to those used by the regular military.

The regime has tried to resolve some of the unity-of-command problems created by this dual military structure. In June 1988, following several major battlefield reversals during the latter stages of the Iran-Iraq War, it created a joint Armed Forces General Staff that brought together the upper echelons of the regular military and the IRGC to ensure greater unity-of-command. Shortly after the war, however, Supreme Guide Khamene'i approved the reestablishment of a separate IRGC headquarters in an apparent bid to curry favor with the Guard.⁽¹⁸⁾ Under this arrangement, the supreme commander of the IRGC reported directly to Khamene'i, whereas the commanders of the various branches of the regular military (ground, air, and naval forces), reported to the Chief of Staff of the Armed Forces, General Hasan

Firuzabadi (a physician with no professional military credentials who is close to Khamene'i).

In October 1998, however, at the height of the crisis with Afghanistan, Khamene'i created a new position, that of supreme commander of the regular military. This step put the regular military on a par with the IRGC for the first time (the latter has had a supreme commander since 1981), and represented an upgrading of the importance of the regular military. It derived from a recognition of the fact that in the event of a war with Afghanistan, the regime could not rely on the IRGC alone but would have to rely on the regular military to bear the brunt of the fighting. The interests of the state thus made such a step imperative.⁽¹⁹⁾ The dual structure of the armed forces, however, remains intact, and is likely to do so as long as the current regime survives, as it reflects a fundamental organizational principle of the Islamic Republic, rooted in the political logic of the regime.

The Military, IRGC, and LEF: A Changing Division of Labor

According to the constitution of the Islamic Republic, the regular military is responsible for defending Iran's borders and maintaining internal order, while the IRGC is responsible for protecting the regime (and to this end, IRGC garrisons are located near all major cities). In practice, however, matters are not so clear-cut. During the Iran-Iraq War, military exigency required that the IRGC (and the Basij) be committed to the front, where they fought side-by-side with regular military units. Since the war, this ambiguity has been preserved: while the regular military and IRGC routinely hold joint military exercises, the regular military, IRGC, and Basij have together participated in exercises that hone their ability to deal with domestic unrest. Thus, while the regular military retains a minor internal security role, the IRGC continues to have a conventional military

role. The LEF, which were created in 1991 by uniting the urban police, rural gendarmerie, and revolutionary committees (komitehs), initially assisted the IRGC and Basij in maintaining domestic order.

The unrest that has racked Iran since 1991, however, has exposed latent tensions between the country's political and military leadership, as well as political differences between the senior echelons of the armed forces and the rank-and-file, and called into question the prevailing organizational division of labor. The first sign of trouble was the refusal of regular army and IRGC units garrisoned near Qazvin (a major town northwest of Tehran) to obey orders to quash riots there in August 1994. The commanders of these units apparently refused to turn their weapons on the Iranian people. The regime was forced to airlift in special IRGC and Basij anti-riot units from elsewhere to put down the violence.

The May 1997 election of reformist candidate Mohammad Khatami to the presidency, put further stress on civil-military relations. Though senior IRGC officers had endorsed his conservative opponent (Majlis Speaker 'Ali Akbar Nateq Nuri), credible post-election press reports indicate that IRGC personnel voted for Khatami in even greater proportions than did the general population (73% versus 69%).(20) This indicates that the IRGC--a military organization long thought to have been a bastion of support for conservative hardliners--is in fact riven by the same divisions as Iranian society, and divided into highly antagonistic reformist and conservative camps. This raises questions about the political reliability of these units should they be needed to quell popular violence between supporters of the reformist and conservative hardline factions. The student riots of July 1999 provided the backdrop for the next crisis in civil-military relations. These riots were put down by the LEF (often aided by the thugs of the Ansar-e Hezbollah, a shady

vigilante group sponsored by senior hard-line clerics), who were relieved by the Basij once the situation had stabilized. These events highlighted the fact that by July 1999, a new division of labor had emerged: the LEF had become the regime's first line of defense against domestic unrest, with the Basij providing backup. When necessary, they might be reinforced by the IRGC's "Special Units," followed by the IRGC's ground forces. The regular military's ground forces would be deployed only as a last resort.

At the height of the July 1999 unrest, 24 senior IRGC commanders sent President Khatami a letter that in effect threatened a coup should he not restore order quickly.(21) Such a threat was unprecedented in the history of the Islamic Republic, though given the political divisions in the armed forces, it is unclear whether a coup would have succeeded. The result could well have been bloody street violence, perhaps even civil war. In the end, Iran's clerical leadership was able to restore calm, thereby preempting a coup, though the threat of overt military intervention was an unsettling new development.

In fact, however, hardline elements in the security services and armed forces had already covertly intervened in the political arena, through their participation in the murder of dissident and reformist intellectuals starting in the autumn of 1998 (and continuing, at least, through the spring of 2000).(22) Through these actions, the senior leadership of the security services and armed forces have, in effect, thrown their weight behind the conservative rivals of President Khatami. This development not only raises doubts about the prospects of the reform movement, but also the impact of the growing politicization of the armed forces on discipline and effectiveness.

IRAN'S MILITARY CAPABILITIES: AN ASSESSMENT

Conventional Forces

While the regular military and IRGC each have ground, air, and naval components, the regular military is, by all measures, a much larger and better-equipped organization than the IRGC. The regular military has about 400,000 men on active duty, the IRGC about 120,000. IRGC ground formations are much smaller and lightly armed than corresponding regular army formations, and the best equipment is generally fielded by the regular army. As for the IRGC air force, it consists of no more than a few dozen trainer aircraft; most of Iran's 200 or so operational "high performance" combat aircraft are owned by the regular air force. Likewise, the IRGC navy consists mainly of 10 Chinese Houdong class missile boats and more than 100 small boats, shore-based antiship missile batteries, and a large combat swimmer (naval special warfare) force. Iran's dozen major surface combatant ships and three submarines are controlled by the regular navy.⁽²³⁾ Despite its relatively small size, the IRGC is a key institution in Iran today due to its role as guardian of the revolution, and due to the fact that many senior Revolutionary Guard officers have close personal and family ties to key members of Iran's clerical establishment. In addition, the IRGC plays a crucial role in the selection, ideological indoctrination, professional development, and advancement of future senior officers.⁽²⁴⁾

Iran's conventional military capabilities are relatively limited. Nearly a decade of war and revolution and two decades of financial hardship have taken their toll. Iran's operational equipment inventories are relatively small, given the size of the country, and the magnitude of its security problems. It would take tens of billion of dollars--which Iran simply does not have--to make it a major conventional military power.

Major transfers between 1989 and 2000 include at least 104 T-72 tanks from Poland, 422 T-72s from Russia, 413 BMP-2 IFVs from Russia, self-propelled artillery from Russia and 106 artillery pieces from

China; small numbers of SA-2 SAMs from China and SA-5 and SA-6 SAMs from Russia; five Mi-17 helicopters, twelve Su-24 strike aircraft, and twenty-four MiG-29 fighters from Russia, and twenty older F-7 fighters from China; ten Houdong-class fast attack craft and C-802 anti-ship cruise missiles from China, three Kilo-class submarines from Russia, and large numbers of wake-homing torpedoes from Russia and advanced naval mines from Russia and China.⁽²⁵⁾ While these numbers may seem impressive, they constituted only a fraction of the weapons on Iran's military wish list (see Appendix A), and pale in comparison to transfers over the same timeframe to many of its Arab Gulf neighbors. Nonetheless, despite these constraints, Iran has invested wisely, building on its strengths, attempting to redress its most critical weaknesses, and procuring weapons that could have the greatest impact on its own capabilities, and those of potential adversaries.

Iran's offensive options are limited. It does not pose a ground threat to any of its neighbors, due to the small size and poor condition of its ground forces, although it can launch limited air strikes into neighboring countries (and has done so several times in recent years in Iraq). The main conventional threat from Iran is in the naval arena; specifically, the threat it poses to the flow of oil from the region, the security and stability of the southern Gulf states, and the ability of the United States to project force in the region. Iran could disrupt maritime traffic in the Persian Gulf using its submarines, coastal missiles, and mines, and it could temporarily close the Strait of Hormuz, were it willing to use chemical or biological weapons against shipping. It cannot, however, block the strait (as it claims it can), which is too wide and too deep to be obstructed. Moreover, although the Gulf itself is a significant barrier to major acts of aggression against the southern Gulf states, Iran could conduct limited amphibious operations to seize and hold lightly defended

islands or offshore oil platforms in the Gulf. Finally, its naval special forces could sabotage harbor facilities, offshore oil platforms and terminals, and attack ships while in ports throughout the lower Gulf, disrupting oil production and maritime traffic there.

It is unclear, however, what policy objective could be served by an Iranian attempt to block the Strait of Hormuz. Even if Iran could do so, this action would harm Iran as much as any other state since it has no other way to bring its oil to market. This is an option of last resort for Iran, to be played only in extremis, if its vital interests were threatened or if denied use of the Gulf itself. In the near term, Iran is more likely to use the implied threat of disrupting shipping or closing the strait to intimidate its neighbors or deter its adversaries. Nonetheless, the United States must plan to deal with Iran's growing ability to disrupt the flow of oil from the Gulf, even if it seems unlikely for now that Iran will use this capability in the foreseeable future.

Iran's defensive capabilities are also limited, although the military weakness of its neighbors, its strategic depth, and its non-conventional retaliatory capability offset--to some degree--its conventional weakness. In the event of a conflict with the United States, Iran's air and air defense forces could do little to oppose U.S. airpower, which would roam Iran's skies at will, while its navy (which has been routed by the U.S. Navy in the past) would be rapidly defeated. However, it might succeed in inflicting some losses on U.S. forces and disrupting shipping in the Gulf. Perhaps the most effective weapon in Iran's hands in such a scenario, would be its ability to strike directly at the United States and its interests in the region through subversion and terror.

Non-conventional Forces

Iran's non-conventional weapons programs are among the regime's top

priorities, and Tehran continues to devote significant resources to acquiring such capabilities, despite severe economic constraints and efforts to reduce tensions with its neighbors and the West. Its current efforts focus on the stockpiling of chemical and biological weapons, acquiring the means to produce nuclear weapons, and the acquisition and production of missiles (and perhaps other means) to deliver these. Because of the politically sensitive nature of these programs and capabilities, they come under the purview and control of the IRGC.

Iran is pursuing the acquisition of nuclear weapons, despite being a signatory of the Nuclear Non-proliferation Treaty (NPT). Iran's civilian nuclear infrastructure is, at present, still rather rudimentary. However, it is believed to be trying to acquire fissile material by various means--including diversion from facilities in the former Soviet Union--and its procurement activities in the past decade indicate an interest in acquiring both overt and clandestine capabilities to indigenously produce plutonium or highly enriched uranium.(26)

Of greatest concern have been its attempts, during the past decade or so, to acquire: enriched uranium from a poorly guarded facility in Kazakhstan; fuel fabrication and reprocessing capabilities from Argentina; research reactors from Argentina, India, China, and Russia; nuclear power plants from Russia and China; gas centrifuge enrichment technology from Switzerland and Germany, and a gas centrifuge enrichment plant from Russia; a uranium conversion plant from China or Russia; and a laser enrichment plant from Russia.(27)

Nearly all these known efforts have been thwarted by U.S. diplomatic efforts and political pressure. Of abiding concern, however, are possible procurement activities that may not have come to the attention of Western intelligence agencies. Moreover, in addition to trying to acquire fissile materials and nuclear fuel-cycle related technologies,

Iran may be trying to acquire the components needed for weapons work. In 1999, an Iranian student in Sweden was caught trying to smuggle thyratrons to Iran. Though a dual-use item, these may be used in the explosive package of a nuclear weapon, and may indicate that Iran is conducting work in the area of weaponization as well.(28)

Were Iran to acquire diverted fissile material today, it might be able to produce a nuclear weapon within a year or two. Should such diversion efforts fail, it could take years to acquire the means to produce fissile material at home. Progress will depend greatly on the amount of foreign assistance obtained. Thus, there is a broad margin of uncertainty regarding the potential timeline for Iran's acquisition of nuclear weapons. There is no question, however, that the acquisition of civilian research reactors, nuclear power plants, and nuclear technology from Russia will ultimately aid this effort. Without significant outside help, Iran would face significant obstacles to realizing its nuclear ambitions.

How Iran would employ a nuclear capability, should it acquire one in the coming decade, is unclear. Iran faces a dilemma; to acquire the perceived benefits of nuclear weapons, it needs to declare its capabilities. However, doing so while remaining a member of the NPT, might subject it to painful economic sanctions. Thus, Tehran has several options that could influence the political utility of an Iranian bomb:

- 1) Remain silent about its nuclear capabilities until it becomes absolutely necessary to unveil them, meanwhile using its missile force as a symbolic surrogate for the range of non-conventional capabilities Iran possesses but cannot brandish, due to its various arms control commitments;
- 2) Withdraw from the NPT and then declare itself a nuclear weapon possessor state;

- 3) Pursue a policy of opacity by leaking hints to the foreign press that raise questions about Iran's true nuclear status.

In the event of a military crisis, however, all bets are off. Because Iraq's CBW capabilities did not deter the United States during the Gulf War, Tehran may believe that, in the event of a military confrontation with Washington, only a nuclear capability could enable it to avert defeat. In such circumstances, it would likely reveal its capabilities, if it had not already done so.(29)

Iran has a significant chemical warfare capability. It is believed to have stockpiled several hundred tons of chemical agents in bulk and weaponized form, including nerve, blister, choking, and blood agents. It produces bombs and artillery rounds filled with these agents, and probably has deployed chemical missile warheads.(30) While Iran has signed and ratified the Chemical Weapons Convention--obligating it to destroy its stocks of chemical weapons within 10 years of accession--it is hard to believe that Iran would give up the pillar of its strategic deterrent when Baghdad may still retain CBW capabilities.

Thus, it might be pursuing several options:

- 1) clandestinely retaining stocks of CW while ostensibly complying with its treaty obligations;
- 2) considering its options during the 10 years it is allowed to retain CW, while perhaps seeking an extension at the end of the ten-year period (it would probably not be alone were it to do so);
- 3) destroying its CW capabilities while retaining a rapid breakout capability.

Iran is also developing biological weapons.(31) It probably is researching such standard agents as anthrax and botulin toxin and it has shown interest in acquiring materials that could be used to produce various toxins. At this time, Iran has probably

deployed biological weapons, which it could deliver via terrorist saboteurs, spray tanks mounted on aircraft or ships, or via missiles. It is unclear, however, whether Iran has overcome the various technical problems related to the efficient dissemination of BW agents.

Biological weapons can be produced quickly and cheaply, and are capable of killing thousands in a single attack. Moreover, no early warning capability for biological weapons exist, and vaccines are not stocked by the U.S. in sufficient numbers or variety to be of use in an emergency. Thus, Tehran's biological warfare program provides Iran with a true mass destruction capability for which the U.S. currently lacks an effective counter--beyond deterrence. In light of the uncertainties confronting its nuclear effort, Iran's biological warfare program assumes special importance, since it could provide Tehran with a strategic weapon whose theoretical destructive potential approaches that of a low-yield nuclear weapon.

The backbone of Iran's strategic missile force consists of 300 North Korean produced Shahab-1 and 100 North Korean produced Shahab-2 missiles (with ranges of 320 km and 500 km respectively) a handful of locally assembled or produced Shahab-3 missiles (with a range of 1,300 km), and some 200 Chinese CSS-8 missiles (with a 150 km range), armed with conventional, and perhaps chemical warheads.(32) Iran is also reportedly working on a Shahab-4 missile (reportedly based on the Soviet SS-4, it is said to have a range of 2,000 km) and a Shahab-5 (reportedly a paper design with an estimated range of 5,000-10,000 km).(33) Iran's missiles can reach major population centers in Israel, Turkey, Iraq, Saudi Arabia, and the smaller Arab Gulf states. Many of the technical and financial problems that have long plagued the program seem to have been overcome, at least in part due to significant Russian assistance since about 1994. However, Iran still seems to be dependent on

foreign technology inputs from Russia, North Korea, and China; for instance, it is not clear whether Iran can locally produce the rocket motor for the Shahab-3, and it may still depend on North Korea for this component.(34)

From Iran's perspective, the Shahab-3 (and subsequently the Shahab-4) will provide a variety of new capabilities. The Shahab-3 will enable Iran to target Israel, Turkey, and Egypt, and in the now unlikely event of an Iranian-American confrontation, the knowledge that they are within range of Iranian missiles could influence decisionmakers in Cairo and Ankara during a crisis. Moreover, American missile defenses could have problems intercepting a Shahab-3 flying a depressed (low-level) or lofted (high-altitude) trajectory against targets in the Gulf region. Likewise, the Shahab-4, if and when it becomes operational, will be capable of flying depressed or lofted trajectories against Israel, Turkey, and Egypt, complicating the defense of these countries, and it will be able to reach southern Europe by following a maximum-range medium-level trajectory.

For now, however, the main value of these missiles is political. They serve as a symbolic surrogate for Iran's non-conventional capabilities, while the fact that Iran possesses missiles capable of hitting targets throughout the region will alter the risk calculus of potential adversaries. And while these missiles are of uncertain reliability and accuracy, prudent policymakers will have to assume that the Iranian missiles will perform in wartime as intended, and will act accordingly.

Terror and Subversion

Terrorism has been a key instrument of Tehran's foreign policy since the Islamic revolution in 1979. Because of its military weakness, the Islamic Republic has favored ambiguity, indirection, and covert action through surrogates, over direct confrontation, as means of dealing with its enemies.

Moreover, Iran's use of terrorism as an instrument of foreign policy appears to be a corollary to the use of shadowy violent pressure groups in the Islamic Republic's domestic politics, and may therefore represent a manifestation of the political culture of the Islamic Republic.(35)

Iran's involvement in terrorism was most intense in the decade following the 1979 revolution. During this time, Tehran's preferred methods included kidnapping, assassination, and bombing. Its arena of operations spanned the Middle East, Western Europe, and Asia. After peaking in the mid-1980s, the number of Iranian sponsored terrorist incidents declined in response to changes in Iran's regional and international environment.

However, Iran continues its efforts to hunt down dissidents abroad, to support groups that use terrorist violence to undermine the Arab-Israeli peace process, and to use terrorist groups as a lever against some of its neighbors (e.g. the Kurdish Workers' Party, PKK, against Turkey). In recent years, Iran has generally restricted attacks on oppositionists to those based in northern and central Iraq. This marks a continued evolution in Iranian policy since the early- to mid-1990s away from high profile terrorist actions in the heart of Europe (which harmed Tehran's ties with countries such as France and Germany) toward less conspicuous acts in less politically sensitive locations. Iran also supports various groups violently opposed to the Arab-Israeli peace process--such as Hamas, the Palestinian Islamic Jihad (PIJ), as well as its longstanding ally, the Lebanese Hizballah--which it continues to arm, train, and finance. In 2000, Tehran has redoubled its efforts to encourage these groups to work together and coordinate their activities in order to undermine Israeli-Palestinian peace talks.(36)

Several organs of the Iranian state--the intelligence services, the IRGC, the Foreign Ministry, and the Islamic Culture and

Guidance Ministry--play important roles in Tehran's sponsorship of terrorism. The Ministry of Intelligence and Security (MOIS) plays the lead role in organizing and conducting terrorist operations abroad, and it runs operations out of Iranian embassies, consulates, and Islamic cultural centers overseas. It is sometimes helped in these efforts by IRGC intelligence personnel based in Iranian embassies, overseas branches of Iranian-owned businesses, and charitable foundations. The IRGC Qods (Jerusalem) Force is responsible for training foreign personnel in Iran and abroad (in the past, Lebanon or the Sudan) to organize and participate in terrorism and subversion, and the export of the revolution. The Ministry of Foreign Affairs plays an important supporting role by providing logistical assistance to Iran's agents overseas through Iranian embassies and consulates. MOIS and IRGC personnel often travel and serve overseas under diplomatic cover, and weapons and explosives are sometimes transported to them by diplomatic pouch via regularly scheduled Iran Air flights. Finally, Iranian bonyads (quasi-official charitable foundations) play an indirect role in the sponsorship of terrorism by funneling money to radical Islamic groups and organizations overseas.

In terms of advancing its national interests, Iran's involvement in terrorism has yielded mixed results. On the one hand, Iranian terrorist successes in the early 1980s burnished the regime's popular image in the first years of the revolution and helped it to consolidate its domestic power base. Moreover, Hizballah hostage-taking also facilitated secret deals between Iran and the United States, France, and others, that enabled Tehran to recover financial assets impounded abroad, and to trade hostages for arms from the United States.

On the other hand, Iran's involvement in terrorism has sullied Tehran's image and contributed to the country's isolation, straining its relations with key Western

countries and leading many of these to adopt a pro-Iraqi tilt during the Iran-Iraq War. Moreover, Iran's attempts in the 1980s to use terrorism to subvert the Arab Gulf states have prompted these states to rely more heavily on the United States for their security, thereby complicating Iranian efforts to achieve a key goal: ending the U.S. military presence in the Gulf.

The Lebanese Hizballah is Tehran's biggest success story. But even here, Iran's success is mixed. While Hizballah succeeded in evicting Israel from south Lebanon, it has so far failed in its efforts to establish an Islamic Republic in Lebanon. On the other hand, Hamas and PIJ terror (supported by Iran) helped complicate implementation of the Israel-PLO Declaration of Principles of September 1993, thus contributing to the eventual breakdown of Israeli-Palestinian negotiations and the subsequent outbreak of the "Al-Aqsa Intifada" in September 2000. While Iran certainly is not the primary moving force behind these organizations, Tehran can claim indirect credit for their successes.

Finally, Iran has succeeded in killing a number of key expatriate opponents of the regime. While these acts have hurt the opposition and may have bolstered the self-confidence of the clerics, most of the individuals killed by Tehran never were a serious threat to the rule of the mullahs. In the long run, the regime's corruption, inefficiency, and repressive policies--which have produced growing popular disenchantment and widespread unrest--will pose a greater threat to clerical rule than exiled opposition members.

Iran's capacity for terror and subversion remains one of Tehran's few levers in the event of a confrontation with the United States, since--barring the use of non-conventional weapons--it otherwise lacks the ability to challenge the United States on anything near equal terms. In the event of such a confrontation, Iran might sponsor

terrorism in Kuwait, Bahrain, Qatar, the UAE, and Oman--all of which host important U.S. military facilities--in order to intimidate them and thereby undercut U.S. power projection capabilities in the region. Further, due to its ties to the Lebanese Hizballah, it has the means to launch a destructive terrorist campaign spanning several continents that would be very difficult for the United States to counter. Although neither Iran nor Hizballah are known to have targeted U.S. personnel or interests since 1991, Iran is keeping its options open: Iranian agents have continued to surveil U.S. missions and personnel from time to time, and Iran could resume attacks on U.S. interests in the Middle East, Europe, South America, and elsewhere should it decide to do so. And while funding for Iran's intelligence services have been cut in recent years due to the country's financial woes, their ability to carry out terrorist spectacles has probably not been hampered, since these operations cost relatively little to carry out.

CONCLUSIONS

Iran's military capabilities are most robust on the two extremes of the conflict spectrum: Tehran's capacity for terror and subversion on the one hand, and its non-conventional capabilities on the other. Iran has in the past shown it is able to use terrorist surrogates to strike painful blows against the interests of the United States and its allies, while obscuring its involvement in order to escape retribution. Moreover, an Iran armed with non-conventional (particularly nuclear) weapons could, at the very least, raise the potential risks and stakes of U.S. military intervention in the Gulf, and reduce the freedom of action of the United States and its allies in the region.

The United States faces a secondary threat to its interests in the form of Iran's naval buildup in the Persian Gulf. While the United States and its allies in the region are reasonably prepared to deal with this threat,

Iran could nonetheless disrupt the flow of oil from the Gulf and inflict losses on U.S. naval forces there, if it desired to do so. And, if it were willing to use chemical or biological weapons against U.S. forces, American casualties could potentially be heavy (particularly should it use biological weapons).

However, the costs of a major confrontation with the United States could be devastating for Iran, resulting in the destruction of much of its military and civilian infrastructure, and leaving it without the ability to defend itself by conventional means. Moreover, hard experience over the past decade has shown Iran that it has neither the funds needed to replace significant combat losses, nor a reliable supplier capable of doing so. And an open provocation by Iran could generate international support for economic sanctions on Tehran. Having seen what happened to Iraq after it invaded Kuwait

in August 1990, the mullahs are unlikely to make the same mistake Saddam Husayn did. Consequently, Iran will continue trying to avoid a major confrontation with the United States that could lead to losses it cannot afford to replace, while it will continue its efforts to expand and modernize its armed forces, reduce U.S. influence in the Middle East through anti-peace process terrorism, and woo the Gulf Arabs from the U.S. embrace through a diplomatic charm offensive.

The greatest threat posed by Iran in the coming years is that of a nuclear breakout, which--if Iran were to succeed in diverting fissile material from the former Soviet Union--could happen without warning, at anytime. Accordingly, even as Washington continues its efforts to forestall such an eventuality, the United States and its allies have to consider how they will respond, if and when this happens.

APPENDIX A
IRAN: MAJOR WEAPONS DESIRED AND ACQUIRED, 1989-2000

	<u>Quantity Desired</u>	<u>Quantity Acquired</u>
Tank	1,000-1,500	526
IFVs	1,000-1,500	413
Artillery	200-300	108+
Combat Aircraft	100-200	72
Warships	10-15	13

Sources: Estimates are based on: United Nations, Register of Conventional Arms, 1992-1999; Brom and Shapir, The Middle East Military Balance, 1999-2000, pp. 182-183; International Institute for Strategic Studies, The Military Balance: 1999-2000, p. 125; and other sources.

APPENDIX B
THE PERSIAN GULF MILITARY BALANCE: 2000

<u>Country</u>	<u>Personnel</u>	<u>Tanks</u>	<u>APCs</u>	<u>Artillery</u>	<u>Aircraft</u>	<u>Warships</u>
Iran	500,000	1,500	1,500	2,000	220	25
Iraq	400,000	2,000	2,000	1,950	200	2
S. Arabia	165,000	1,000	3,000	300	250	17
UAE	46,500	335	800	425	55	12
Oman	34,000	150	150	130	30	6
Kuwait	20,000	400	650	100	60	6
Qatar	12,000	44	200	50	14	7
Bahrain	7,400	180	250	50	24	7

Sources: Figures have been rounded off, and are derived from Brom and Shapir, *The Middle East Military Balance, 1999-2000*; International Institute for Strategic Studies, *The Military Balance: 1999-2000*; and other sources.

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NOTES

1. Following the Iran-Iraq War, Iran's Majlis (parliament) announced plans to spend \$2 billion a year over five years for weapons

purchases. Actual spending during most of the 1990s, however, fell far short of this target. According to Iran Central Bank figures, actual spending on arms imports reached \$1.625 billion in 1989-90; \$1.6 billion in 1990-91; \$1.678 billion in 1991-92; \$808 million in 1992-93; and \$850 million in 1993-94 - the last year Tehran published such figures (International Monetary Fund, *Islamic Republic of Iran: Recent Economic Developments*, 19 September, 1995, p. 74, and 5 October 1993, p. 38). These figures are roughly consistent with U.S. Government estimates that Iranian foreign-exchange expenditures on arms dropped from a high of \$2 billion in 1991 to less than \$1 billion in 1997. Bruce Riedel, "U.S. Policy in the Gulf: Five Years of Dual Containment," *The Washington Institute for Near East Policy, Policy Watch* no. 315, (8 May 1998), p. 2.

2. According to statistics compiled by the International Monetary Fund, Iranian current expenditures on defense have increased dramatically in the last year or two. Tehran spent about 10,440 billion rials on defense in 1998-99, and budgeted 11,240 billion rials for defense in 1999-2000, and 16,939 billion rials

for 2000-2001. (These figures do not include capital expenditures in the defense field, which are incomplete for the 2000-2001 fiscal year.) International Monetary Fund, *Islamic Republic of Iran: Recent Economic Developments*, 12 July, 2000, pp. 112-113.

3. For details about the original Russian commitment, and the recent decision to renege on it, see: John M. Broder, "Despite Secret '95 Pact by Gore, Russian Arms Sales to Iran Go On," *New York Times*, 13 October, 2000, p. A1; Jim Hoagland, "From Russia, With Chutzpah," *Washington Post*, 22 November, 2000, p. A27.

4. Shahram Chubin, *Iran's National Security Policy: Capabilities, Intentions, and Impact* (Washington, DC: Carnegie Endowment for International Peace, 1994), pp. 17-28.

5. David Menashri, *Revolution at a Crossroads: Iran's Domestic Politics and Regional Ambitions* (Washington, DC: The Washington Institute for Near East Policy, 1997), pp. 69-82.

6. Daniel Byman, Shahram Chubin, Anoushiravan Ehteshami, and Jerrold Green, "Iran's Security Policy in the Post-Revolutionary Era," (Santa Monica, CA: RAND, forthcoming). For a more detailed treatment of these issues see Michael Eisenstadt, *Iranian Military: Capabilities and Intentions* (Washington, DC: The Washington Institute for Near East Policy, 1996), pp. 2-7, and "Living with a Nuclear Iran?" *Survival*, vol. 41, no. 3, (Autumn 1999), pp. 125-129.

7. Conventional arms are extraordinarily expensive: a tank may cost \$1-3 million, a combat aircraft \$25-50 million, while a warship may cost anywhere from \$50 million for a fast attack craft to \$500 million for a modern frigate. These sums do not include associated weapons, training, and maintenance costs. Thus, creating a large, modern military could cost tens of billions of dollars. By contrast, a well-planned, well-managed nuclear program might require an initial investment of a few billion dollars.

8. Anoushiravan Ehteshami, "The Armed Forces of the Islamic Republic of Iran," *Jane's Intelligence Review*, February 1993, pp. 76-80.

9. For a more detailed elaboration of this argument, see Eisenstadt, "Living with a Nuclear Iran?" pp. 134-137.

10. The responsibilities of the supreme leader are set forth in Article 110 of the Constitution of the Islamic Republic of Iran. See: Hamid Algar, *Constitution of the Islamic Republic of Iran* (Berkeley: Mizan Press, 1980), pp. 67-68. For subsequent amendments to the 1979 constitution made in 1989, see: *Tehran Times International*, 3 August, 1989, pp. 4-11, in *Foreign Broadcast Information Service Daily Report*, FBIS-NES-89-181, 20 September, 1989, pp. 63-64.

11. Wilfried Buchta, *Who Rules Iran?* (Washington, DC: The Washington Institute for Near East Policy, 2000), p 143.

12. The missions of Iran's armed forces are formally defined in Articles 143 and 150 of the Constitution of the Islamic Republic of Iran. Whereas the role of the army is defined as "guarding the independence and territorial integrity of the country, as well as the order of the Islamic Republic," the role of the IRGC is defined as "guarding the Revolution and its achievements." Algar, *Constitution of the Islamic Republic of Iran*, pp. 79, 81.

13. For more on civil-military relations in Iran, see: Nader Entessar, "The Military and Politics in the Islamic Republic of Iran," in Hooshang Amirahmadi and Manoucher Parvin (Eds.), *Post-Revolutionary Iran* (Boulder, Colorado: Westview Press, 1988), pp. 56-74; Sepehr Zabih, *The Iranian Military in Revolution and War* (London: Routledge, 1988); Kenneth Katzman, *The Warriors of Islam: Iran's Revolutionary Guard* (Boulder, CO: Westview Press, 1993); Ahmed Hashim, *Civil-Military Relations in Iran: A Case Study*, study prepared for the Central Intelligence Agency Office of Near Eastern, South Asian and African Analysis, January

1999; Byman et al, *Iran's Security Policy*, (forthcoming).

14. Buchta, *Who Rules Iran?*, p. 3.

15. Chubin, *Iran's National Security Policy*, pp. 17-18, 20.

16. Katzman, *Warriors of Islam*, pp. 86-91.

17. Ahmed Hashim, "Iranian National Security Policies Under the Islamic Republic: New Defense Thinking and Growing Military Capabilities," Henry L. Stimson Center, Washington, DC, July 1994, p. 9; Glen E. Howard, "Zohd-1: An Iranian Combined Arms Exercise," Foreign Systems Research Center of Sciences Applications International Corporation (FSRC) Analytical Note A92-007/UL, Greenwood Village, CO, March 9, 1992.

18. Katzman, *Warriors of Islam*, p. 105.

19. Buchta, *Who Rules Iran?* p. 147.

20. *Ibid.*, p. 125. The IRGC has traditionally recruited from the same social base as the universities: poor families with solid revolutionary credentials (i.e., participation in the revolution, Iran-Iraq War service, and the like). In light of the fact that the universities are a hotbed of support for reformist President Khatami, it should come as no surprise that most members of the IRGC would share the politics of the students. This trend may have been reinforced by the fact that in recent years the IRGC has increasingly come to rely on conscripts to meet its manpower needs, due to a drastic decline in volunteers.

21. For more on this episode, see: Buchta, *Who Rules Iran?* pp. 187-192.

22. For more on these events, see: *Ibid.*, pp. 156-170.

23. Figures are from Shlomo Brom and Yiftah Shapir (Eds.), *The Middle East Military Balance: 1999-2000* (Cambridge, MA: The MIT Press, 2000), pp. 181-198.

24. Byman et al, *Iran's Security Policy*, (forthcoming).

25. These figures are drawn mainly from the UN Register of Conventional Arms, 1992 and *passim*, and have been cross-checked with the International Institute for Strategic Studies

Military Balance, and the Jaffee Center for Strategic Studies, Middle East Military Balance, various years. In addition, some figures are from Igor Korotenko, "Russia and Iran Renew Collaboration: Tehran May Take Third Place in Volume of Russian Arms Purchases," *Nezavisimoye Voyennoye Obozreniye*, January 12, 2001. They are at best rough approximations, however, as not all countries contributed entries to the UN Register of Conventional Arms for every year in which the register has been in existence since 1992, and some surmise is necessary in order to identify the model of weapon referred to in the Register.

26. Testimony of A. Norman Schindler, Deputy Director, DCI Nonproliferation Center, before the International Security, Proliferation and Federal Services Subcommittee of the Senate Governmental Affairs Committee, 21 September, 2000; Testimony of Robert J. Einhorn, Assistant Secretary of State for Nonproliferation, before the Senate Foreign Relations Committee, 5 October, 2000.

27. For more details on Iran's nuclear procurement activities, see Eisenstadt, *Iranian Military Power*, pp. 9-25, 108-109.

28. For more on this episode, see: Susanna Loof, "Swedish Student Suspected of Smuggling Nuclear Weapon Technology to Iran," *AP Worldstream*, October 11, 1999.

29. For more on the various considerations that will influence Iranian nuclear decision making, see Eisenstadt, "Living with a Nuclear Iran?" pp. 132-137.

30. Schindler, *op cit.*; Einhorn, *op cit.*

31. Schindler, *op cit.*; Einhorn, *op cit.*

32. Brom and Shapir (Eds.), *The Middle East Military Balance: 1999-2000*, p. 186. The Shahab-1 is reportedly the North Korean Scud-B, the Shahab-2--the North Korean Scud-C, and the Shahab-3-- a locally produced version of the North Korean Nodong-1, presumably with some Russian content. For more on North Korea's missiles, see: Joseph S. Bermudez Jr., *A History of*

Ballistic Missile Development in the DPRK, Monterey Institute of International Studies, Center of Nonproliferation Studies, Occasional Paper No. 2 (November 1999).

33. Clifford Beal, "Iran's Shehab 4 is Soviet SS-4, says U.S. Intelligence," *Jane's Defence Weekly*, 17 February 1999, p. 5; and Donald H. Rumsfeld, Report of the Commission to Assess the Ballistic Missile Threat to the United States: Executive Summary (Washington, DC: Government Printing Office, 1998), pp. 12-13.

34. Bill Gertz, "North Korea Sells Iran Missile Engines," *Washington Times*, 9 February, 2000, p. A1; Andrew Koch and Steve Rodan, "Concern as Test Boosts Iranian Missile Development," *Jane's Defence Weekly*, 26 July 2000, p. 3; Testimony of Robert D. Walpole, National Intelligence Officer for Strategic and Nuclear Programs before the International Security, Proliferation and Federal Services Subcommittee of the Senate Governmental Affairs Committee, 21 September, 2000.

35. Violent pressure groups have played a key role in Iranian politics since the Constitutional Revolution of 1906, and have been a feature of modern Iranian politics under both the monarchy and the Islamic Republic. Michael Rubin, *The Role of Pressure Groups in Iranian Politics* (Washington, DC: The Washington Institute for Near East Policy, forthcoming). The use of terrorist "pressure groups" as an instrument of Iranian foreign policy is, however, unique to the Islamic Republic, and may derive from the rejection of "foreign" norms and standards of interstate behavior as a fundamental element of the regime's revolutionary legitimacy.

36. John Lancaster, "Iran Gives Terrorists More Aid, U.S. Says," *Washington Post*, 4 December 1999, pp. A1, A16.