
IRAN'S NUCLEAR WEAPONS OPTIONS:

ISSUES AND ANALYSIS

WITH PAPERS BY

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Iran's Nuclear Weapons Options: Issues and Analysis
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INTRODUCTORY NOTE

The Nixon Center is pleased to release this monograph, *Iran's Nuclear Weapons Options*. It draws upon papers prepared for a number of Nixon Center workshops on Iran's nuclear programs organized and supervised by the Center's Director of Strategic Programs, Geoffrey Kemp. The programs associated with these workshops have been supported by grants from the United States Institute of Peace and the Ford Foundation.

In view of the growing importance of proliferation as an issue facing the United States in the new century, this monograph is both timely and relevant. It would be followed by two more detailed texts that focus in greater detail on the military and political consequences of alternative Iranian nuclear forces and their effect on the regional strategic balance. These studies are part of a broader program at The Nixon Center to examine Americans' interests in the Persian Gulf and Caspian region, including the continuing significance of the region's energy supplies. Forthcoming monographs include papers by Peter Rodman on National Missile Defense and Paul Saunders on Russian foreign policy.

Dimitri K. Simes
President
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INTRODUCTION

The possibility that Iran will eventually join Israel and Iraq as a nuclear or near-nuclear power is one of the top issues facing the new U.S. administration. Slowly, but surely, a new strategic balance is emerging in the Middle East that could have far reaching implications for U.S. interests in this vital region. The immediate cause for concern is the parallel breakdown of the Arab-Israeli peace process and the beginnings of the rehabilitation of Saddam Hussein throughout the Arab world and beyond. In this regard two issues are particularly relevant. First, the possibility that escalating violence between Israel and the Palestinians could get out of hand and precipitate a wider Arab-Israeli war. Second, the erosion of United Nations (UN) sanctions, and the absence of UN inspectors in Iraq, together with higher oil prices, have increased Saddam Hussein's capacity to reconstitute his weapons of mass destruction (WMD) programs, including the nuclear weapons program.

These events increase the likelihood that Iran will accelerate its own plans for a nuclear weapons option. The most effective way to delay or prevent an Iranian nuclear weapons program is for the international community to make sure that Iraq never seriously reconstitutes its nuclear or biological programs. In his paper in this monograph Shahram Chubin makes a persuasive case that the only serious military threat to Iran that would justify a nuclear weapons program is that posed by Iraq. Unfortunately there is sufficient evidence that Iraq is still determined to build a nuclear weapon. Therefore Iran's concerns must be taken very seriously. Two recent books, one by the last UNSCOM commissioner, Richard Butler, and the second by Khidhir Hamza, an Iraqi nuclear physicist who worked on Iraq's nuclear program, paint a vivid portrait of an Iraqi leadership determined to pursue nuclear and other WMD programs in defiance of the United Nations treaties to which it is a party, resolutions imposed on it by the United Nations Security Council, and the International Atomic Energy Agency (IAEA), the institution tasked with monitoring Iraq's nuclear activities.¹

Since one assumes Iranians read these books, Iran has good reason to be worried and therefore open to a number of alternative countermeasures, including a nuclear weapons option. Butler argues that

¹ Richard Butler, *The Greatest Threat: Iraq, Weapons of Mass Destruction and the Crisis of Global Security*, (Public Affairs: New York, 2000). Khidhir Hamza with Jeff Stein, *Saddam's Bombmaker: The Terrifying Inside Story of the Iraqi Nuclear and Biological Weapon Agenda*, (Scribner: New York, 2000).

“weapons of mass destruction are central to Saddam’s claim to be fit and able to lead the Arab world.”² He states that “the failure of the world community to deal effectively with Saddam Hussein—a man determined at all costs to attain, stockpile, and if possible make use of weapons of mass destruction in pursuit of his personal and political goals—is a profound one, constituting a crisis in the management of global security.”³

Khidhir Hamza’s story of Saddam Hussein and his desire for the bomb makes compelling reading and presents an extraordinarily scary description of Saddam Hussein’s determination to get nuclear weapons and the ruthlessness with which he pursued this goal. There is every reason to believe that Iraq has continued to maintain a nuclear weapons program following its defeat in 1991 and the imposition of UN Security Council resolutions punishing it. The fact that there have been no inspectors in Iraq since 1998 suggests that the progress Saddam may be making is sufficient that, with a relaxation of the sanctions regime and rising oil prices, his revenues may give him more opportunities to purchase on the black market the necessary fissionable material to assemble one or two bombs. Dr. Hamza is convinced that once Saddam has more than one bomb he will probably want to test it.⁴ Ironically an Iraqi nuclear test, whether in Iraq itself or in a third party country such as Pakistan, would arouse great cheers of support through much of the Muslim world at this time. Even close American allies such as Egypt and Jordan would find their streets crowded with people welcoming this development as a way to offset Israel’s nuclear capability and America’s support for Israel.

All these events would have a profound and destabilizing impact upon Iran. Though the Iranians are also leading the chorus against the United States and Israel as the Arab-Israeli conflict remains unresolved, they know that this is primarily for them a political and ideological issue, not an existential one, i.e. not one that involves their fundamental security. Iraq, however, does pose an existential threat to Iran and any major developments in Iraq are taken most seriously by any Iranian regime no matter what the nature of its leadership. Thus it is clear that even if the moderate forces in Tehran led by President Khatami were to eventually succeed in achieving control over all key instruments of power, including the armed forces, the police, the judiciary, and the intelligence agencies, it is unlikely their attitudes to Iraq would be any different than their more conservative brethren. In fact, most reformers show a remarkable

² Butler, p. xix.

³ Butler, p. xix.

⁴ Khidhir Hamza, On the Record Remarks at Carnegie Endowment for International Peace, *Issue Brief*, vol. 111, no. 34, November 21, 2000.

congruence with the conservatives in their assertion of Iranian nationalism. This is reflected in the fact that some of the staunchest critics of Iran's participation in international arms control regimes have moderate reformist perspectives on domestic politics.

If the mood in Iran increases pressures on the regime to consider nuclear options, the real challenge for the regime will come if and when it must proceed to the point where it will clearly cross red lines and violate its NPT commitments. At that point it will either have to formally, and legally, withdraw from the treaty and thereby indicate to the world that it is on the path to nuclear weapons, or it will have to proceed with a covert program with a danger that it will be discovered and then face the full wrath of the international community, including international sanctions. Uncertainty about Iraq will likely be key in determining Iranian decisions. If the Iraqi threat were removed, Iran would pay a major price for going nuclear either overtly or covertly and might not achieve the type of prestige or power that it hoped for. The downsides of an Iranian nuclear weapons program are very considerable, as spelled out by both Shahram Chubin and Farideh Farhi. Furthermore, developing the necessary missile backup to deliver such nuclear weapons is not an easy task either, as Richard Speier's paper points out.

It is against this backdrop that The Nixon Center has embarked on a number of activities designed both to seek a better understanding of Iranian security needs and concerns while at the same time exploring ways to dissuade Iran from opting for a nuclear weapons program. While there is concern also about Iranian activity in the chemical and biological field, and Iran's missile program is well-established, the nuclear issue is the most important one. Nuclear weapons are the one class of weapons systems that would truly change the balance of power in the region, and therefore it is the key to the studies we are undertaking.

This is the first monograph on this subject. It will be followed by others that focus more specifically on the range of options realistically open to Iran if it were to pursue a nuclear weapons program and how that program would relate to the regional security balance, including the likely reactions of neighboring states such as Israel and the Arab Gulf countries. The four papers cover a range of issues.

In the first paper, *Iran's Nuclear Options*, Geoffrey Kemp argues that the Iranian regime faces a number of acute dilemmas concerning its nuclear options. On the one hand it has genuine reason to fear Iraq. On the other hand it is a states' party in good standing to the Nuclear Non-Proliferation Treaty (NPT). Yet most U.S. intelligence agencies believe it is embarked on a covert—and illegal—nuclear weapons program. To violate the NPT runs the risk of international sanctions. To formally and

legally withdraw from the treaty signals nuclear intent and therefore likely strong responses from the U.S. and the region. The level and nature of response would be dependent on the nature of the regime. For the time being Iran is likely to pursue a covert program and be careful not to cross definitive red lines that would trigger international sanctions.

In his paper, *Iran's Strategic Environment and Nuclear Weapons*, Shahram Chubin examines the utility of nuclear weapons in terms of their applicability to Iran's current security situation. He argues that proponents of Iranian nuclear weapons use generalist arguments that overlook the specifics of Iran's strategic environment. Through an analysis of the strategic issues Iran faces in relations with bordering states, Chubin concludes that with the exception of Iraq, Iran faces no threats that would be mollified through the development of a nuclear weapons program. Chubin argues that Iran will probably keep open its nuclear option in the case of a renewed threat from Iraq, but that otherwise nuclear weapons will be harmful to Iran's interests.

Farideh Farhi's paper, *To Have or Not To Have?: Iran's Domestic Debate on Nuclear Weapons*, examines the growing public dialogue in Iran concerning the possible development of a nuclear weapons program and what this debate means for Iranian foreign policy. She argues that while public dialogue may not directly influence the behind-the-scene decision making process, it nevertheless sheds light on the "marketplace of ideas" with which Iran's decision-makers are dealing. Along with citing economic costs and technological restraints, those who argue against a nuclear weapons program base their case on the idea that security is reduced when international relations are damaged. Proponents of a nuclear program argue on the basis of a realist theory of international relations and hold that Iran's foreign policy should be less about public relations and more about bargaining power. Both viewpoints believe that Iran has not been successful in gaining a fair deal for its compliance with international treaties such as the NPT and CWC.

Richard Speier's paper, *Iranian Missiles and Payloads* discusses the technical aspects of Iran's missile programs and the options and limitations that these entail. He examines the difference between ballistic and cruise missiles in terms of range, payload and other variables. He then considers Iran's conventional, biological, chemical and nuclear payload options.

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IRAN'S NUCLEAR OPTIONS

Geoffrey Kemp

BACKGROUND

It is widely accepted in most circles in the United States government and the analytic community that the Islamic Republic of Iran is supporting a number of programs, some overt, some covert, that will provide it with the option of developing and deploying a nuclear weapons capability in the not too distant future. Concern about Iran's nuclear programs can be broken down into four components: the civilian research and power reactors that are operating, are under construction or are planned; efforts by Iran to clandestinely develop a centrifuge uranium enrichment program and possibly a facility for plutonium separation (reprocessing); attempts by Iranian agents to illegally purchase fissile material and "dual use" items that can be used for nuclear weapons development from foreign sources, primarily, but not exclusively, in Europe and the former Soviet Union; and Iran's surface-to-surface missile program, which is likely being developed to deliver weapons of mass destruction.⁵ The debate about Iran's nuclear weapons also relates to Iran's political-military intentions and the scope, magnitude, timing, financial cost, and strategic benefits and liabilities of a nuclear program.

A decision by Iran to procure and deploy nuclear weapons would have far-reaching and unsettling consequences for the security and stability of the greater Middle East. Its impact would be felt far beyond the Persian Gulf and would influence events in the Eastern Mediterranean, the Caucasus, South and Central Asia. In extremis, fears that Iran will introduce nuclear weapons into its arsenal could lead to preemptive military action by countries such as Israel, or even the United States. Iranian nuclear weapons mounted on medium-range surface-to-surface missiles would have much greater strategic significance than the deployment of chemical or biological weapons. Therefore, how to prevent an Iranian nuclear weapons program must be a high priority for the United States. Whether this objective is attainable and, if so, whether it is best

⁵ The first three of these issues are covered in great detail in Rodney W. Jones, Mark G. McDonough, Toby F. Dalton, Gregory D. Koblenz, *Tracking Nuclear Proliferation: A Guide in Maps and Charts, 1998*, (Washington, DC: Carnegie Endowment for International Peace, 1998), pp. 169-182.

achieved by conciliatory or confrontational policy, or a mixture of both, is an important factor in the debate about U.S. policy towards Iran.

There are several analytical and political realities that must be acknowledged when reviewing Iran's nuclear weapons options. First, without access to highly classified intelligence data, there are limits to how far analysts can speculate about the precise nature of Iran's activity. Second, there is an increasingly vigorous debate in the Iranian press and among Iranian policy analysts concerning the wisdom of Iran's current posture on nuclear weapons. Third, the substance of the Iranian debate is primarily about how nuclear weapons relate to the vicissitudes of Iranian foreign policy rather than technical or military issues. Fourth, there is little public discussion in Iran concerning a number of reports and statements in the West stating that the Islamic Republic has initiated a number of covert initiatives to procure technology that has direct utility in the construction of a nuclear weapons device.

Iran's proclivity to consider a nuclear weapons option has been present since the 1960s when the pro-American regime of the Shah had great expectations for Iran's role in the region and the world. However, it was the bloody war with Iraq from 1980-1988, including Iraq's use of chemical weapons and Iran's sense of isolation from the world community that gave rise to the most intense discussions within the regime as to the merits of a nuclear capability. The nuclear tests conducted in May 1998 by India and Pakistan have reinforced the arguments of those in Iran who consider nuclear weapons to be an essential ingredient for national defense. Furthermore, the existence of Israel's nuclear capability and long-range missiles adds to Iran's sense of vulnerability.

IRAN'S INTERNATIONAL TREATY OBLIGATIONS

Iranian WMD activity has four major components: nuclear, chemical, biological, and missile systems. Each requires different interpretations and responses. Iran's putative weapons programs must be examined within the context of broader universal and regional arms control considerations. Unlike Israel, Pakistan, and India, which have never signed and are therefore not obligated to the Nuclear Non-Proliferation Treaty (NPT), Iran is a treaty member in good standing. Iran has been one of the key advocates of the non-proliferation regime at various international forums including the Committee on Disarmament in Geneva and the review conferences of the NPT held every five years in New York. Iran has argued strongly on these occasions—and with considerable support from other developing countries—that there is a double standard in U.S. policy concerning the non-proliferation regime. The United States, for instance, never raises the problem posed by Israel's

nuclear program despite the persistent rhetoric from the Arab world that Israel's nuclear weapons are a stimulant to Iraqi and Iranian nuclear ambitions.

The five existing nuclear powers—the United States, Russia, United Kingdom, France and China—were grandfathered into the NPT, meaning they could keep their nuclear weapons. They were obligated under the terms of the NPT, however, to make serious efforts to reduce their own nuclear arsenals and at the same time agree to provide nuclear civilian technology to non weapon states' parties to the treaty to assist them in their civilian nuclear programs for energy and research. Herein lies the dilemma.

Four of the official nuclear weapons states are also members of another organization called the Nuclear Suppliers Group that is designed to prevent the export of nuclear technologies to countries who have not signed the NPT, including civilian nuclear technologies. There is an inherent contradiction in the language of the NPT and the unilateral actions taken by the nuclear supplier group to limit transfers. This has become a North-South issue with Iran leading the argument, as the Indians have done for many years, that the North countries are trying to deny technology to the Southern countries. Compounding Iranian anger over treatment on the nuclear issue is the double standard the United States applies. The U.S. reached an agreement with North Korea to provide it with light water reactors in exchange for giving up its nuclear capabilities that could contribute to the manufacturing of nuclear weapons, however, the U.S. refuses to consider a similar deal for Iran.

The United States has insisted that Iran should not be supplied with civilian nuclear technology, and has put great pressure on other members of the supplier groups to conform. Russia does not agree with this policy and argues that its nuclear supply relationship with Iran is perfectly legal under the NPT. The Western response is that, although Iran is still technically in compliance with its NPT commitments, it is nevertheless undertaking a covert nuclear weapons program that, as yet, has not crossed any significant red lines that have been detected by the International Atomic Energy Agency (IAEA). In other words, Iran has a long-term program to build the bomb. This is confirmed by the intelligence services of at least four countries—the United States, the United Kingdom, Germany, and Israel. There is some debate as to what the purpose of the Iranian program is and when it will actually come into service, but there is no debate about the fact that Iran is undertaking activities that contribute to the development of nuclear weapons.

One way for Iran to improve its standing in international eyes would be to agree to ratify two additional protocols to the IAEA which

were introduced following the disastrous IAEA experiences with Iraq prior to the 1991 war. It was discovered that Iraq, while in good standing with IAEA inspections, initiated a major covert nuclear weapons program and deceived IAEA inspectors. The two new provisions of the IAEA protocol, sometimes known as Program 93+2, is designed to close this loophole and to make it much more difficult for state parties to hide suspicious activity from IAEA inspectors. Iran has refused to ratify the 93+2 provisions on the grounds that it is still being denied civilian nuclear technology for its Bushehr power reactor. Hence, a vicious circle: Without compliance with 93+2, the IAEA inspections of Iran's existing facilities are not taken seriously by Western intelligence agencies, yet Iran will not sign the 93+2 unless it gets full commitment to provide it with civilian nuclear technology. U.S. officials do not believe that this tradeoff is presently worthwhile, because they do not trust the Iranian government. They believe that if Iran ratifies 93+2 and then can receive open-ended supplies of civilian nuclear technology, it will further reduce the time it takes to build the bomb. The only way to break this logjam would be for the United States and its allies to disclose more details of Iranian violations of the NPT. Yet this would compromise important intelligence sources and put at risk the entire spectrum of counter-intelligence operations.

Iran has also signed and ratified the Chemical Weapons Convention (CWC). This has inspection provisions far more intrusive than any other international arms control treaty. All countries that have ratified the CWC have to submit a statement to the Organization to Prohibit Chemical Weapons (OPCW), indicating what chemical weapons capabilities it had in the past and in the present, as well as what steps it is taking to get rid of them. Iran has disclosed that it had a chemical weapons program in the closing months of the Iraq-Iran war, but claims that it currently has no chemical weapons and that all the facilities developed during the war have been destroyed. Many Western observers dispute this statement. Iran has not yet been subject to surprise inspection, which is allowable under the terms of the CWC, primarily because several other countries are still not fully in compliance with the ratification requirements, including, until recently, the United States. Iranians argue with great emotion that they, more than any other country, have an interest in seeing the CWC succeed since they were subject to intense chemical attacks by Iraq during the war. On the other hand, few analysts believe Iran will forgo a chemical weapons option as long as Iraq remains a maverick state with a chemical weapons capability.⁶

In the case of the Biological Weapons Convention (BWC), Iran is

⁶ It should be noted that several Arab countries, notably Syria and Egypt, have not signed, let alone ratified the CWC.

a signatory but, because the biological convention has not yet been revised nor has agreement on its protocols been reached, it has no binding effect. Nevertheless, Iran claims, like everyone else, that it is in compliance. Few U.S. analysts believe this to be the case.

When it comes to the Iranian missile program, a different set of problems emerge. There is no international treaty to which Iran is a party that limits its capacity to develop missiles. Although there is a Missile Technology Control Regime (MTCR), which is designed to prevent the transfer of technology from the advanced powers to the aspiring missile powers, this does not apply to the recipients of such technology. Thus, Russia and China, both members of the regime, may have supplied Iran with missile technology, but it is they who may not be in compliance with the regime rather than Iran.

Iran regards its missile programs as an important adjunct of both its political and security policy. Two categories of missiles are relevant: the cruise missile program, which is based on a design originally provided by China, the Silkworm anti-ship missile; and the SSM program, derived from variants of the Soviet Scud and the North Korean No-Dong. The latest SSM, the Shahab IV, has been tested twice and is believed to have a range sufficient to reach Israel. Iran has publicly displayed these missiles on several occasions with interesting political statements literally painted onto the missile. Clearly written in English for the world to see, they have referred to the impending destruction of Israel and that Iran will “trample upon the USA.”⁷ There is a debate among Western analysts regarding how advanced the missile program is. Certainly the Russians have been helping with propulsion and guidance systems, but Iran is a long way from achieving a fully-fledged missile production capability. Nevertheless, if all Iran wants is one or two missiles that could, with nuclear warheads, threaten virtually anyone in the neighborhood, this might well serve their purposes. Although it would have minimal military utility, it would, in the case of Israel or a smaller neighbor, be an existential weapon. The reliability of such a missile may be very low, but this is no consolation to the potential addressee. Hence, countries such as Israel take such programs extremely seriously.

The other issue is that Iran, like other developing countries, sees missiles, particularly SSMs, as a substitute for advanced combat aircraft. U.S. allies such as the United Arab Emirates and Saudi Arabia have many more sophisticated advanced combat aircraft than Iran due to the unwillingness of key Western producers to sell advanced aircraft to the

⁷ Amin Tarzi, “Iran’s Missile Test Sends Mixed Messages,” Center for Nonproliferation Studies, Monterey Institute of International Studies, August 26, 2000, <www.cns.miis.edu>.

Islamic Republic. Hence, from an Iranian point of view, one can see a case for developing missiles that have both conventional and unconventional warheads for an array of military options against different adversaries.

All this suggests that it is going to be difficult for the United States to stop the Iranian missile program, even if relations improve. What one would hope is that Iran will forgo any efforts to build intercontinental ballistic missiles that could theoretically threaten the United States. Because Iran is not violating international law by developing its missiles, this issue falls into a different category of concern than activities in the nuclear, chemical, and biological arena.

Withdrawing from the NPT

Legally, Iran could withdraw from the NPT having given three months notice and proceed with a nuclear weapons program. Given the dangerous neighborhood Iran finds itself in, including tensions with Afghanistan, the continuing regime of Saddam Hussein in Iraq, and a hostile American fleet deployed in the Persian Gulf and adjacent waters, prudent observers should assume that there are circumstances when Iran would be prepared to pay the price necessary for what it perceives to be a vital national security interest.

It must be emphasized that though the language of the NPT that permits withdrawal appears to put a big onus on the party seeking withdrawal, it is logical to see how any Iranian government might make a persuasive case for such action. A state's party must demonstrate that "*extraordinary events, related to the subject matter of the Treaty, have jeopardized the supreme interests of its country.*" It must also provide notice of withdrawal three months in advance, and "*include a statement of the extraordinary events it regards as having jeopardized its supreme interests.*"⁸ These conditions are of necessity very vague; hence it is not difficult to think of specific examples the Iranians might present. For instance, the re-emergence of an Iraqi nuclear weapons program despite prevailing UN Security Council resolutions prohibiting such action, would surely qualify as a "extraordinary event" that would jeopardize the interests of the Iranian regime. The same arguments could be made if there were a marked deterioration of relations with India, Pakistan, or Israel, the three existing regional nuclear powers. It is also possible that a more explicit American policy regarding the use of nuclear weapons in the Gulf could be interpreted by the Iranian regime as inimical to its interests, especially if they were announced during a period of active U.S.-Iranian confrontation in the Persian Gulf.

⁸ Treaty on the Non-Proliferation of Nuclear Weapons, Article X.

If Iran formally withdraws from the NPT and follows the prescribed procedures, it will not be in violation of international law. Nevertheless, in anticipating the conditions, as well as the costs and the benefits that might compel an Iranian regime to withdraw from the NPT, it is important to distinguish between those conditions that might seem justified according to strategic logic and those that would be more related to Iran's sense of importance and its desire for international status, and the wish "to be taken seriously." How the external world, including Iran's regional neighbors, would react to an Iranian withdrawal would be significantly influenced by the state of relations between Iran and the rest of the world at the time such a decision was made. For instance, it could be argued that it would be easier for Iran's neighbors to accept an overt nuclear force developed by a cooperative nationalist Iranian regime for prestige purposes, rather than a force developed by a militant Iranian regime in the face of serious strategic threats.

In this context, it is instructive to view the international responses to evidence that Iraq, North Korea, India, Pakistan and Israel were developing nuclear weapons. The extremely hostile reaction to Iraq and North Korea's behavior can only in part be explained by the fact that they violated their NPT commitments. The reaction was also conditioned by the belligerent behavior of these two regimes and the fear that either regime was capable of using nuclear weapons against one or more of its neighbors. In other words, the fierce reactions to the Iraqi and North Korean weapons programs would have been equally intense had they not been signatories of the NPT.

Different international reactions have accompanied evidence that Israel, India, and Pakistan are nuclear powers. Though Israel has never formally acknowledged its capability, it has been known for many years that it has the bomb, though there has been a debate about how many weapons are in the inventory and where they are deployed, as well as their means of delivery. Nevertheless, although the Israeli bomb causes great political anxiety in several Arab capitals, notably Cairo, and is perhaps cause for genuine concern in Baghdad and Teheran, the rest of the world has been unprepared to sanction Israel in view of its security problems and the unresolved Arab-Israeli conflict.

There has been a more visceral and proactive reaction to the India and Pakistani bombs, but less than would have been anticipated a decade ago. When both countries detonated nuclear devices in May 1998, national laws demanded that sanctions be applied by the United States and Japan, but this was seen in retrospect to be overly penalizing Pakistan who is less able to withstand the impact. Furthermore, it removed much of the United States' bargaining power with Pakistan. It would have to be said that today, while there is great concern about the stability of the sub-

continent, there is no desire or will to impose global sanctions on either country and this attitude is unlikely to change anytime soon.

Given these examples, into which category would Iran fall? Clearly a great deal would depend on the international political circumstances under which Iran emerges as a nuclear power. If Iran had announced a nuclear weapon at the height of the war with Iraq and its crisis with the United States when Ayatollah Khomeini was still talking about exporting revolution, the international response would likely have been extremely punitive even if Iran had announced its formal withdrawal from the NPT. In contrast, if the forces of moderation were to gain more power in Teheran and show that they are willing to be cooperative with the West and to resolve their outstanding differences with the United States over terrorism and the Arab-Israeli peace process, then it might be easier to tolerate some form of legal nuclearization of Iran, particularly if other aspects of the relationship are going well.

The dilemmas and reactions that would develop if Iran developed a nuclear weapon can be examined using the following matrix:

MATRIX I

Reactions to an Iranian Nuclear Weapons Program

	MODERATE REGIME (Improved relations with U.S. and West)	RADICAL REGIME (Very bad relations with U.S. and West)
OVERT PROGRAM (Iran formally withdraws from NPT)	Major effort, including incentives to dissuade regime but unlikely force or international sanctions would be used.	Extremely serious crisis likely, especially with U.S., Israel, and Arab moderates.
COVERT PROGRAM (Iran violates NPT commitments)	Extremely serious crisis. Strong possibility of UNSC sanctions.	Most unacceptable outcome. Major crisis inevitable, including UNSC sanctions and possible use of force.

Matrix I lays out four alternative conditions under which Iran might develop a nuclear weapons program and the possible international reactions to such a development. For purposes of analysis it is assumed that Iran either has a moderate regime in control of its key national security decisions, i.e. someone similar to President Khatami who has succeeded in gaining control over the military establishment, the intelligence establishment, and the judiciary and has thereby ousted the leading conservative opposition. This regime, it is assumed, is primarily focussed on rebuilding Iran's economy and reestablishing its relations with the rest of the world including the United States. While one would not expect relations with the United States to be normal, they would probably be more cordial than they are today and would probably have worked to remove the major obstacle of Iran's attitude and behavior towards Israel. This is the type of regime that the United States hopes will evolve in Iran, a regime that it could work with and cooperate on a number of issues, particularly in the economic arena.

The second political condition would be a radical regime. That is to say a regime where voices of moderation had been muted or even ousted and hard-line attitudes as expressed by Supreme Leader Khamenei and his more conservative followers hold sway. This regime is implacably hostile to the United States and to Israel and would continue its harsh rhetoric and material support for Hizbollah and Palestinian terrorist organizations such as Hamas and Islamic Jihad. While this regime might have pragmatic relations with its key neighbors, its hostility to the West would arouse great suspicions in the capitals of nearby countries such as Turkey and Saudi Arabia, and, most significantly, Israel.

Likewise, there are two basic nuclear programs that can be analyzed, an overt program and a covert program. The overt program assumes that Iran formally withdraws from its NPT treaty obligations, having given three months notice and presented a formal case for withdrawal. Given the neighborhood Iran lives in and the unanswered questions about Saddam Hussein's nuclear capability, this is an event that could well happen. It would assume that Iran has calculated all the risks involved with withdrawal but is determined to follow the letter of the law and thereby avoid being in violation its treaty obligations. The second condition, the covert program, is exactly the reverse. It assumes that Iran, in violation of its NPT treaty obligations, has gone ahead with a nuclear weapons program and has disguised and hidden from IAEA inspectors illegal activity. This would be analogous to the behavior of North Korea and Iraq, both of whom developed covert programs in violation of NPT treaty obligations.

With these four conditions it is possible to speculate about how the international community would react to an overt Iranian weapons program

with a moderate or radical regime in power and likewise a covert nuclear weapons program with a moderate or radical regime in power. In the first case—a moderate regime formally withdrawing from the NPT—while Iran would not be in violation of international law, there would be extreme concern throughout the international community, particularly in the West and within the region. It could be anticipated that there would be a major effort to dissuade Iran, having withdrawn from the treaty, from going ahead with a program. The dissuasion could include positive incentives including security cooperation, economic cooperation, and a number of other measures to convince the Iranian regime, with whom better relations have been established, that the international community is still concerned about its security situation and will do whatever it can to help short of supporting an Iranian nuclear program. In the event that this failed, it is unlikely that force or multilateral sanctions would be used. Presumably the argument would be made that a friendly regime has as much right to security as anybody else, particularly if it is not in violation of any laws. While countries like Israel and Saudi Arabia would be concerned about such a development, primarily because the regime could change and be replaced by a more hostile one, it is unlikely they would be able to take any overt action against such a development. They would, instead, have to rely on strategies of deterrence.

On the other hand, if a radical regime formally withdrew from the NPT under similar circumstances, it is likely that a serious crisis would develop, especially with the United States, Israel, and the Arab moderates. By definition a radical Iranian regime would be considered hostile to major Western interests and whatever the circumstances for withdrawing from the treaty, there would likely be extreme measures brought to bear to prevent the regime from going ahead with the program even if it had not violated its NPT commitments. This would include enhanced and intensified restrictions on dual-use technology and under certain circumstances could involve considerations of the use of force, although this would be a controversial and potentially dangerous option.

In event that a moderate regime was discovered to be developing a covert program the situation would be almost as serious as that if a radical regime developed an overt program. Violating the NPT after the experience of Korea and Iraq would be regarded by most Western countries and many others as the death knell for the NPT unless the violator were stopped and punished. Hence a serious crisis would develop with strong possibility of international sanctions, though whether there would be sufficient support on the UN Security Council to mandate them would be problematic. Nevertheless, even the Russians would have to be concerned about yet another covert program in strict violation of treaty obligations, and the United States and the West would probably unite to punish Iran for such a development.

Clearly the most unacceptable outcome and most dangerous would be a covert program developed by a radical regime. This would inevitably lead to a major crisis. Again it is likely that there would be great pressure for UN Security Council sanctions but also the use of force could not be ruled out and certainly would be considered very seriously by a number of countries, particularly Israel and the United States. This is the worst of all circumstances for Iran to emerge as a nuclear power and one that would have the most dangerous and destabilizing implications.

TAKING IRAN'S SECURITY NEEDS SERIOUSLY

To consider practical steps that can be taken to help convince Iran that its adherence to the NPT remains in its interest, means taking into account Iran's legitimate security needs, including its fears about American, Israeli and Iraqi military potential, its sense of grievances over attempts to limit its development of nuclear power infrastructure for peaceful purposes, its long standing objections to the so-called "double standard" applied to its membership of the NPT, and the close relationship to Russia.

Iran's regional threat perceptions—the U.S. military presence perhaps aside—are likely to continue no matter who is in power in Tehran. In other words, a successor government, however friendly toward the United States and better disposed toward Israel, might still want to pursue many of the same programs that the current regime has initiated. Today Iran's security is primarily focused on a defensive strategy -- unlike the early days of the revolution when Khomeini talked about overrunning the Arabian peninsula and toppling the traditional monarchs.

The regional problems facing Iran are serious. Iran must deal with unrest and civil war in several of its neighboring states, most notably in Afghanistan. Afghanistan has been torn apart by a seemingly endless civil war that has increasingly involved Iran. Iran is worried that Pakistan is becoming increasingly unstable and under the influence of radical Sunni Muslims similar to the Taliban. Although Saddam Hussein remains firmly in control of most of Iraq, many Iraqi Kurds operate in an autonomous safe haven in northern Iraq. A crisis in Iraq could lead to violence and instability in the country which would inevitably spill over into Iran. The Caucasus is also a hotbed of civil strife, with the Armenian and Azerbaijan conflict over Nagorno-Karabakh, the continuing conflict in Georgia over Abkhazia, and Russia's struggles within its own southern regions, most notably Chechnya. Farther to the east, Iran has become diplomatically caught up in the chaos and fighting in Tajikistan, the one Central Asian country whose population is predominantly Persian speaking and of Shi'a faith.

These developments point to the fact that the region contains numerous unresolved conflicts that have important military dimensions and are likely to encourage the further proliferation of weapons of mass destruction and their delivery systems. In view of the increased range and accuracy of the latter, the inter-regional linkages between theaters of conflict are becoming more apparent. For instance, longer-range missiles deployed in Israel, Saudi Arabia, and possibly soon to be deployed in India and Iran extend each country's strategic reach far beyond their immediate neighborhood.

Iran has argued that in view of its experience with missile attacks during the Iran-Iraq War and the reality that many states around its borders deploy missiles and long-range strike aircraft, it is natural that it would want a similar capability. Unable to afford the most expensive long-range strike aircraft (and unable to buy Western models), surface-to-surface missiles provide a modicum of deterrence whether armed with conventional or unconventional warheads. Since there is presently no assured defense against missile attacks even in the battlefield, such weapons also pose a threat to U.S. and allied forces based in the Persian Gulf.

Iran's conventional force structure suffers from significant weaknesses and is hampered by a lack of financial resources. Therefore, it continues to pursue what has been called a "niche strategy." For instance, by procuring Kilo-Class submarines from the Russians and purchasing cruise missiles from China, the Iranian Navy has gotten the attention of the U.S. Navy in the Gulf. Iran is capable of using its maritime power to challenge the United States in the Gulf rather than defeat it. Iran is also developing the capability to disrupt the Gulf with mines and shore-based missiles. According to CENTCOM analysts, Iran has been getting "stealthier" in its mining capability and can use submarines as mobile platforms for deep-water mining. However, since Iran's own oil exports must go to international market through the Strait of Hormuz, it is unlikely that they would ever attempt to close down the Strait except in a dire emergency. Iran is more interested in the ability to control the Strait.

The Importance of Russia

Russia not only supplies Iran with critical ingredients for its nuclear and missile program, it also sells Iran advanced conventional weapons including submarines and ship-borne surface-to-surface missiles. Russia and Iran also share common strategic interests in the Caspian region, especially at a time when it is U.S. policy to deny Iran access routes for energy pipelines through its territory and to marginalize Russia's ability to market Caspian energy.

Nevertheless, over time there could be potential conflicts of interest between Russia and Iran. Since both countries are natural egress routes for Caspian Basin oil and gas, if Iran and the U.S. were to repair their relationship and Iran was to become a key egress route, it would run into direct competition with Russia. This will be especially intense if production levels of the Caspian oil and gas fields fall short of some of the more exaggerated expectations. Even with its current system of pipelines, Iran claims that it could shift up to 700,000 b/d in the form of swaps from the Caspian countries through its own pipeline network, exporting its own oil from the Persian Gulf while using Caspian oil for its refineries and market in the north.

Similarly, a buildup in Iranian military capabilities, particularly if it involves long-range missiles and weapons of mass destruction, could eventually pose a threat to Russia. Hence, the question arises, why is Russia helping Iran in its military acquisitions? The answer is to be found in the confused and conflicting state of affairs in Moscow. As on other foreign policy issues, including relations with China, Russian policies seem to contradict each other. The Foreign Ministry and the Ministry of Defense are often at odds with aggressive lobbies pushing for arms sales and technology transfers. Russia's huge oil and gas companies (Lukoil and Gazprom) have great clout in Moscow and in many ways operate their own foreign policies. This issue comes up frequently in the context of individual Russians and small Russian companies that have been aiding Iran in the development of its missile program. On each occasion, when approached by American officials, the Russians deny that there is any formal government policy in favor of such help; this would be a violation of the Missile Technology Control Regime (MTCR) which Russia has signed. Yet Russia seems to be incapable or unwilling to effectively enforce its own laws which either reflects the weakness of Moscow or a deliberate attempt to undermine American interests by building up Iranian capabilities. Whether President Putin will be able to bring some discipline to Russian policy in the Caspian region remains to be seen. One of the first initiatives by the new Russian president had been to end its agreement with the U.S. on restraints on conventional arms sales to Iran.

Yet Russia is susceptible to U.S. pressures for halting assistance to Iran's missile development programs since it continues to be interested in cooperating with American companies. If Russian cooperation with Iran stopped, Iran's missile program would be delayed. However, since the Iranians want to develop missiles for strategic reasons, they will undoubtedly continue the program with or without Russian support.

IRAN'S LIKELY NUCLEAR STRATEGY

Against this backdrop of insecurity Iran will most likely continue to pursue a nuclear insurance strategy. That is to say, seek to develop the infrastructure and personnel to permit it to develop weapons grade material if and when "extraordinary events" convince Iran that it has no option but to produce the bomb. Of course, how its leaders would decide to define or interpret "extraordinary events" is a key question. Because a decision by Iran to proceed with a major nuclear weapons program would put great strains on the Iranian economy and its relations with neighbors and the international community, it would probably only be taken under the most dire circumstances. What could these circumstances be? Several come to mind, listed below in likely order of importance:

- The re-emergence of a nuclear armed Iraq free from international sanctions and UN weapons inspections.
- A sharp deterioration in relations with the United States and Israel accompanied by reciprocal and escalating military threats and rhetoric.
- A crisis with a nuclear-armed Pakistan triggered by conflict over Afghanistan or Sunni-Shiite rivalry.
- A new, belligerent and anti-Iranian regime in Saudi Arabia.
- A prolonged crisis with Azerbaijan and Turkey over minority and energy related issues.
- A possible crisis with a more nationalist, anti-Islamic leadership in Moscow.

It is also useful to consider some of Iran's choices for exploiting its nuclear weapons potential. Alternatives include:

- An announcement that Iran *might consider withdrawing* from the NPT if its security needs are ignored.
- An announcement that Iran would formally withdraw from the Nuclear Non-Proliferation Treaty after the pre-requisite three month waiting period and would then *consider* whether or not to proceed with a nuclear weapons program.
- An announcement that Iran will withdraw from the NPT in three months and *proceed* to develop a nuclear weapons program.

- An ambiguous deployment of nuclear weapons, neither confirmed nor denied – equivalent to Israel's opaque nuclear weapons policy.
- A surprise nuclear test, paralleled by a statement that Iran possessed a small arsenal of warheads and missiles.

CONCLUSIONS

A review of Iran's nuclear force options suggests a number of preliminary conclusions:

- The political, economic and strategic costs to Iran of violating its NPT commitments or formally withdrawing from the treaty could be considerable. *This would be a clear red line.* Absent a real and present danger from an adversary such as Iraq, the Iranian leadership would need to think long and hard about the risks of such a venture. This suggests that the most prudent policy would be to continue to develop the infrastructure for a weapons capability but to avoid crossing the red line in the hope that a more stable regional security environment emerges.
- If, nevertheless, Iran were to cross the red line it would then need to weigh carefully the costs and benefits of developing alternative forces. A small force will be easier and cheaper to develop than a medium-sized force but its utility against major adversaries would be more questionable. On the other hand, if the primary purpose of the force is status, it might suffice.
- Perhaps the more important variable in the equation is the nature of the Iranian regime. A moderate regime that has repaired relations with the United States would be more likely to be part of regional security discussions and might be less in need of a nuclear force. A hard-line regime, antagonistic to the United States and Israel, would likely continue to be isolated and feel a greater need for a deterrent. Yet the risks of counter measures against the regime would be much greater were it to undertake such a project.
- A political rapprochement between the United States and Iran would probably provide a breathing space for any regime in Teheran to re-evaluate the benefits of exercising a nuclear weapons option. Clearly, its decision on this issue would be influenced by improvements in the regional security environment and the reduction of U.S. economic sanctions and Iran's inclusion in Caspian energy projects.

IRAN'S STRATEGIC ENVIRONMENT AND NUCLEAR WEAPONS

Shahram Chubin

INTRODUCTION

At a time when many argue that nuclear weapons play an increasingly irrelevant role in international security and states possessing them are either reducing their inventories or, in some cases renouncing them altogether, others are doing the reverse. The short and undistinguished list includes Iraq and North Korea. At the same time, China, Russia, India, and Pakistan are putting greater rather than less emphasis on the importance and utility of nuclear weapons.

Western thinking often extrapolates from its own experience and assumes the diminished need for nuclear weapons based on greater security arising from the end of the Cold War. However, the states most likely to proliferate and develop missile programs, are situated in an arc from the Middle East, through the Gulf, the subcontinent, and into East Asia. This area has been the locus of interstate wars, tensions, interventions and repeated crises; few of the issues fueling these conflicts have disappeared. That said, it is not clear that continued conflict makes the case for developing nuclear weapons.

Iran is considered a leading candidate for acquiring nuclear weapons. Allegations persist of a covert weapons program characterized by determination rather than urgency, and is a contravention of Iran's obligations under the Nuclear Non-Proliferation Treaty (NPT). Some observers point to the logic of Iran going down the nuclear path noting Iran's "rough neighborhood," its nuclear neighbors and its experience on the receiving end of Iraq's chemical weapons, etc. Some consider Iran's acquisition only a matter of time, possibly sooner than we might anticipate. Most observers also consider Iran a likely proliferator and focus either on ways to delay it, or on assessing the implications an Iranian nuclear weapon program would have for Western interests.

This paper seeks to show that while Iran lives in an unstable region, its motives for developing nuclear weapons appear more general than specific. With the important exception of Iraq, the instabilities on Iran's periphery are national security problems that do not require nuclear weapons, which would be ill-suited to dealing with them. The paper

considers the utility and disadvantages of nuclear weapons, including the problems posed for Iran and consequences for Iran's security if they are developed. Even with considerable uncertainty about the role, functions, and the utility of nuclear weapons in general, as well as their applicability or "transplantability" to other regions, there remains much room for debate.

Such a nascent debate is evident in Iran and should be nurtured and encouraged. Decisions about national security need to be aired especially when they involve questions that involve assumptions about technology and politics that are not entirely understood. This is especially the case where, while politics are relatively open, the culture of secrecy on national security remains the enemy of open and informed discussion. In this area the costs of policies that are based on false assumptions or poorly integrated planning can be high and damaging. This paper seeks to contribute by focussing the debate within Iran and clarifying some of the issues. At least it hopes to provide a framework for subsequent research and analysis.

The paper takes a position on the issue of whether Iran should develop nuclear weapons. It argues that Iran would be prudent to develop an option in the case of a renewed threat from Iraq, but that absent a clear nuclear threat, Iran's interest would be ill-served by an open nuclear posture.



An analysis of the potential role of nuclear weapons in Iran's security presupposes a discussion of both the role and function of nuclear weapons and some clarification of Iran's security. First Iran's security is a function of current threat perceptions and definitions of interest, which are in turn influenced by historical, and especially recent, experience. In its broadest terms, Iran's interests are encompassed by the following: territorial integrity, influence (and status), and economic well-being. These in turn are influenced by recent experience which attaches a high value to independence, self-reliance, preparedness, and cultural self-expression. Other feelings of being historically wronged and not being accorded the status it deserves are also notable. (So is a tendency to being risk averse, over-subtle, and not very confident of military solutions).

Perceptions of threats stem from the same sources, history, experience, and ideology or selective perception. Threats to Iran stem from the fact that Iran has many neighbors, that these neighbors are either unstable or have mutually bad relations, and that their instabilities spill over into Iran or drag the Islamic Republic into their affairs. Iran's relations with Iraq remain adversarial; with Afghanistan, tense; and with

Pakistan strained. Relations with Turkey have been correct without having been warm since the advent of the Islamic Republic. In none of these cases, save Iraq, has Iran resorted to the use of force. With other regional states, including the northern states and Russia and the Gulf states, relations are good or improving.

Iran domestically is an island of stability, conservative about border changes and faces no existential threats. How might existing instabilities become military threats?

1. Crisis with a nuclear-armed neighbor (Iraq)
2. Conventional war with a neighbor (Iraq)
3. Subversion and incidents with a neighbor (Iraq, Turkey, Pakistan, and Afghanistan)
4. Spillover from regional disputes (Armenia, Azerbaijan, Afghanistan, and Iraq)
5. Intimidation by neighbors (Turkey)
6. Conventional threats from external powers (Israel and the U.S.)
7. Nuclear ambiguity by external threats (Israel and the U.S.)

How might nuclear weapons be useful?

1. Nuclear weapons may deter other states' nuclear weapons programs. (Iraq, Pakistan).
2. Nuclear weapons may deter intervention by external states (Israel, U.S.).
3. Nuclear weapons could compensate for conventional deficiencies or disparities.
4. Nuclear weapons could serve as a diplomatic tool (for intimidation purposes, status enhancement, or to compensate for domestic weaknesses).

While nuclear weapons may deter other nuclear weapons, and have done so even if there are disparities between the two possessors, it must be over an issue seen as vital and legitimate for the state seeking to deter the other. Defense of the homeland, for example, is a relatively undemanding

task for deterrence. However, extending deterrence beyond core interests is much harder. This suggests that Iran could deter an Iraqi nuclear weapons threat to Iran or similar threat by Israel or the U.S., although it would be a lengthy process. It could not necessarily do so automatically, however. To be effective Iran would need to have a capability that is operational and effective rather than announced and inert. Using nuclear threats to deter external powers' use of conventional forces would depend on the particular scenario, but it would be risky to attempt to drastically lower the threshold of nuclear use. The question in such a case would be: who would be deterred—Iran from early use of nuclear weapons against a much stronger adversary or the notional adversaries from any level of involvement?

What of nuclear weapons against conventional threats? This is riskier. While nuclear weapons on two sides (e.g., Iraq and Iran) are thought to inject restraint on every level of encounter, the evidence from the last clashes between India and Pakistan in 1999 do not bear this proposition out. Conventional clashes risk escalation into full-scale conflict, if the losing party seeks to recapture the initiative. At the same time a doctrine and posture that depends on early use of nuclear weapons against a conventional threat threatens to transform any incident into a full-scale war.

Similarly, nuclear weapons are relatively useless against spillovers of instability from neighboring states, subversion, and cases of intimidation. In such cases threats of nuclear use are inherently disproportional, lack credibility, and threaten to lower the threshold of use and to make these weapons all-purpose rather than exceptional instruments of conflict.

A nuclear weapons capability does not entail automatic deterrence. Credible deterrence *inter alia* is achieved by the creation of an effective operational force. Nor is it an all-purpose tool. Nuclear weapons cannot substitute for conventional weapons. They may detract from conventional capabilities which are more flexible and relevant to most of the contingencies faced by Iran and would compete for scarce funds for defense expenditures. In addition, aside from not being flexible, nuclear weapons are not cheap and their life-cycle costs will have to be borne alongside conventional military expenditures. If this occurs, these more flexible weapons will be degraded leaving Iran to choose between early use of nuclear weapons and little else. Also, it has been difficult to find a case where a country possessing nuclear weapons was able to convert these into usable diplomatic leverage against determined resistors. It is also not clear that Iran's acquisition of nuclear weapons could be achieved independently or indeed enhance its independence. Whether Iran would find its influence extended or its status increased as a result of becoming a

nuclear weapon state is also unclear. The link between great power status and nuclear weapon status is always suspect, and has weakened rapidly ever since Pakistan's acquisition of nuclear weapons.

Finally, since the aim of acquiring nuclear weapons is to enhance security, it must be shown that this is in fact their *net effect*. To do this, nuclear weapons must be seen as an essential remedy to Iran's security problems, and not aggravate them. As inflexible instruments nuclear weapons could at best deal with a very small fraction of Iran's security problems, what about their negative side? Putting aside the diplomatic reaction of other states to an Iranian withdrawal from the NPT after clandestine production of nuclear weapons, what would such an event mean for regional states? It would place Turkey and Saudi Arabia in a position of greater dependence on the U.S. security umbrella, or possibly increase their incentives to follow suit. Iraq, if not already nuclear, would have an excuse for developing nuclear weapons of their own. Also Israel and Pakistan would have to factor Iran's new capabilities into their own planning. The reactions of the U.S., the European Union, and Russia would not be favorable.

It is not the case that only states without a serious security problem or those covered by a security umbrella can afford to opt out of a nuclear capability. Egypt, which has had a palpable motivation to do so, has renounced the acquisition of nuclear weapons. Iran's situation is comparable in that it too is a large power faced by a smaller one (Iraq), and that it too can consider alternative methods of dealing with the threat regional nuclear weapons pose, by diplomacy or otherwise. In this respect Iran's diplomacy vis-a-vis Iraq and the debate over nuclear weapons is caught between wanting to reduce a serious threat and wanting to benefit from it as justification for its own program.

Even in the absence of a specific or urgent security threat, a state that perceives itself embattled or friendless may seek nuclear weapons to take out a hedge against the possible deterioration of its security environment. It should be emphasized that Iran is not in a position comparable to Israel, or to India and Pakistan before the 1998 tests. These states were not signatories of the NPT and though undeclared nuclear weapons states, were recognized "threshold states". This allows Israel to play on the ambiguity of its status to achieve certain benefits, using its capability as a last resort deterrent without admitting the extent of its capability. Iran, as a member of the NPT, cannot exploit such an ambiguity; as a treaty member it has renounced the right to develop nuclear weapons. Tehran would find it difficult to use its possible clandestine capability for diplomatic effect for fear of international sanctions. Therefore Iran's hedge or option would have to be geared to a specific threat with an idea under what conditions it might want—or

need—to withdraw from the treaty. (This raises another series of questions as to the probable catalyst for such a withdrawal, the reaction of the Security Council members and others, and above all what kind of an “option” Iran can achieve *within* the treaty).

As a final introductory comment, it is worth recalling that Iran is not the only state that complains about the inequality enshrined in the NPT. Perhaps as a relatively new revolutionary state it feels more passionately about the issue. Nevertheless, it is not clear that further proliferation would right this particular injustice. This is a case where the values of order and justice (equality) may conflict and the moral choice is by no means clear as these values, in this context, are incommensurable.⁹

IRAN'S SECURITY ENVIRONMENT

It is difficult to resist the thought that there is a disconnection between Iran's security perceptions and their formal articulation. Leaders often observe that relatively speaking Iran is, in the cliché, an island of stability in a sea of troubles.¹⁰ At the same time, reflecting Iran's location, the fluidity of regional politics, and the experience of war and isolation, the same leadership conjures up an adverse environment necessitating extreme measures. Iranian leaders often point to cultural threats, indicative, one might infer, of Iran's sense of general insecurity in contrast to specific threats. This is evident in a report of a discussion among experts on Iran's national security. The discussion focused on the fluidity of regional politics, the importance of border security and their stabilization, and Iran's cultural attachments in the region. Most attention was paid to the problems of the north and the south as opposed to either Iraq or Afghanistan. In the north the issue of the possible extension of NATO was raised, and in the east the problem of an unfriendly neighbor. Generally, the major concern was about regional issues rather than outside powers.¹¹

Iran is often depicted as living in a dangerous part of the world characterized by endemic instability, conflicts, and the legacies of wars.¹² This is not inaccurate. Yet these instabilities are largely internal and constitute threats of unintended spillover into Iran (or of diplomatic

⁹ Bull, 1997.

¹⁰ For citations see Chubin, 2000.

¹¹ *Discourse*, Vol. 1. No.1. Summer 1999 Roundtable: “New Regional Geopolitical developments: Iran's National Security”, pp. 5-48.

¹² *The Economist*, “The Iranian Opportunity,” Feb. 26, 2000, pp. 23-24.

entanglement) rather than major threats. Compared to them Iran is in a fortunate position.¹³ With the important exception of Iraq, Iran is fortunate in its security environment. It has no historical enemies, no contested frontiers, no longstanding irredenta, no “Kashmirs” to burden it. True, it is surrounded by states that are in varying degrees of decomposition or civil war, uncertain of their identity and even survival. But Iran, in contrast, has a distinct identity with little in common with failing states.

Iran’s security problems revolve around its minorities and especially around its economy and the efficient functioning of the state itself. Iran has reasonable relations with Turkey, the strongest of its seven land neighbors. Economic cooperation between the two states should be complemented by improved political relations as no bilateral issues divide the two states. In the Persian Gulf, Iran is naturally the most significant power by virtue of demographic size and geographic location. In the north and east, states are weak, susceptible to collapse, and in conflict; none of them constitutes a serious or direct threat to Iran. For none of them does Iran need nuclear weapons.

Iraq

The potential threat from Iraq is the most persuasive reason for Iran to consider acquiring a nuclear deterrent. Iraq is known to have sought a nuclear weapons capability and to have attributed its conflict with Iran as the reason for doing so.¹⁴ Iraq has sought to retain as much of this capability as possible and to add to it, and has sought to evade or falsify inspections under UNSCOM and IAEA auspices.¹⁵ Much of that capability, particularly scientific and engineering knowledge, remains intact suggesting that a nuclear weapons program is likely to be resumed in the future. In the meantime financial constraints are unlikely to be a major impediment, given the revenue earned from both oil sales through the evasion of the sanctions regime and the “oil for food” arrangements.

Iraq’s incentives to acquire nuclear weapons may also be undiminished. Though not specifically targeted, Iraq’s conventional military has suffered from restrictions and sanctions, lack of access to

¹³ Cf. Supreme National Council Secretary, Dr. Hasan Rowhani in BBC SWB 6 February, in ME3759MED/12-13, 9 February 2000.

¹⁴ See for example Tim Trevan, *Saddam’s Secrets*, (Harper Collins; London, 1998), pp. 36, 45, 326, 334; and Richard Butler, *The Greatest Threat*, (Public Affairs; New York, 2000), p. 118.

¹⁵ See esp. Gary Milhollin, “Saddam’s Nuclear Shopping Spree,” *The New Yorker*, 13 December 1999, p. 44.

spares, and training and operational deficiencies. The result is likely to be a greater dependence on WMD, at least initially. At the same time, Iraq has been "singularized" in that it has been legally denied missiles having a range beyond 150 km. Iran, Saudi Arabia, and others have access to missiles with at least twice that range. Finally, the nature of the current regime, for which there is no obvious replacement in sight, makes it improbable that the quest for nuclear weapons and other WMD will be dropped. Ambitious and frustrated after two wars, Iraq under Saddam is more likely to resort to threats and blackmail for revenge than to accept Iraq's reduced position as a defeated power.

Iran has reason to be doubtful about responses other than deterrence against the threat of a nuclear Iraq. Iraq, after all, has shown its willingness to develop and use chemical weapons, and only when it did not face the risk of retaliation. Chemical weapons and biological weapons have been retained and Saddam continues to develop his missile forces, (the Al-Sammoud) whose range can be easily increased if its payload is reduced.¹⁶

Iraq remains determined to retain its WMD capabilities and UNSCOM has shown that even with intrusive inspections, some programs can be hidden (cf. the BW program which was unearthed in 1995 only via a defector) and residual capabilities maintained in all fields. This can give little confidence to Iran which must consider the risks of an Iraqi breakout whether due to "policy drift" or fatigue on the part of the UNSC, or to a decision simply to rely on deterrence rather than continue to pursue an ineffective and politically stressful disarmament.

Issues dividing Iran and Iraq are not lacking. The question of exchange of prisoners of war, war reparations, the demarcation, and agreement on the border itself as well as mutual support for opposition groups, have continued to poison relations. Periodic terrorist attacks by each states' proxies has led to Iranian air, artillery, and missile strikes on eastern Iraq since 1994. These clashes could intensify and lead to more serious hostilities. Iraq still feels disadvantaged and vulnerable by its lack of strategic depth vis-a-vis Iran (its capital being close to the border while Tehran is several hundred kilometers distant). (Similarly, Iraq has reason to be dissatisfied with its lack of significant access to the Gulf's waters, and agitates to improve this situation in the future vis-a-vis Kuwait).

Iran thus has serious reasons for considering a prudent response against a potentially serious threat whether nuclear or biological or

¹⁶ On this see the recent report, Steven Lee Myers, "Iraq is Said to Test Ballistic Weapon," *The International Herald Tribune*, 3 July 2000, pp. 1, 6.

chemical.¹⁷

Iran insists that it prefers non-proliferation to “reciprocal” acquisition as a response to proliferation. However, apart from formal support for the non-proliferation regime, Iran spends much energy on denouncing the inequality of the NPT and above all the issue of Israel’s threshold status, which the U.S. does little to condemn. Tehran’s diplomacy does not match the apparent urgency of the problem posed by Iraq’s obdurate insistence on keeping its WMD potential. For example, Iran’s collaboration with Iraq in circumventing sanctions by selling Iraqi oil (and profiting as a middleman) only makes it easier for Iraq to continue its purchases to buttress its WMD. Similarly Iran’s pro forma support for UNSCOM and its potential successor UNMOVIC, do not suggest a sense of urgency about Iraq’s potential as a nuclear threat. Iran’s repeated call for the U.S. forces’ departure from the Persian Gulf, however understandable politically, does not reflect the fact that it is due to that very presence that UNSCOM has been able to function at all and the U.S. presence has acted as a deterrent to further Iraqi adventurism.

Iraq is unlikely to renounce its WMD programs or desist from seeking nuclear weapons. Saddam Hussein’s removal may change this policy but there will remain strong reasons for Iraqi nuclear weapons in order to cultivate its means of defense and influence as long as it has disputes with Iran and Kuwait, senses itself vulnerable, and harbors a fractured society that propels it into an activist regional role. In its programs it has a headstart over its neighbors, and as Iraq sees it, incentive enough to cultivate these weapons as equalizers.

Iran should consider what measures could affect this. Greater support for UN disarmament efforts would be a start. Resolution of some of the bilateral issues through compromise would be another avenue. Attempts to convince Kuwait to give Iraq greater access to the Gulf’s waters is another necessary approach. Integration of Iraq into the Gulf’s politics and institutions should also be considered as an incentive for better Iraqi behavior.

On the military side, Iran should seek to develop mobile forces that can be deployed quickly from one frontier to another and train for these contingencies. Its common border areas should be demilitarized by joint agreement but policed. Defenses beyond the zone should be improved and intelligence integrated. Second, Iran should increase its overall military intelligence efforts. Third, Iran should improve coordination among its

¹⁷ See Mohammad Javad Zarif and Mohammad Reza Alborzi, “Weapons of Mass Destruction in Iran’s Security Paradigm: The Case of Chemical Weapons,” *Iranian Journal of International Affairs*, Vol. XI No. 4, Winter 1999, pp. 511-523.

three services and improve its air defense. Fourth, its missile forces could be used to mount a conventional deterrent against an Iraqi conventional attack. And finally, Iran should develop as much of a nuclear weapons option as is compatible with the letter of the NPT regime.

The Iraqi issue is the most difficult and sensitive for Iran: How to counter a possible nuclear threat without aggravating it or accelerating the erosion of norms associated with the treaty renouncing these weapons (and Iran's own solemn commitments).

Israel

Israel is often depicted by Iranians either as a direct threat or as a state with imperial motivations. The Palestine conflict is seen by many Iranians as a deep injustice visited on the Muslim people by Israel, a creation of the West and especially supported by the U.S. The Iranian government has therefore taken a hostile position toward Israel and has sponsored and aided those groups opposing the "peace process," depicting negotiations as a "sell-out". Iran's rhetoric and policies have in turn made Israel deeply suspicious of Iran's various alleged WMD programs. At times this suspicion has seen statements by Israeli air force officers suggesting the need for pre-emptive strikes against Iran's suspected facilities (e.g. 1994). Israel's cooperation with Turkey on defense issues since 1998 has fed the belief in Iran that Israel is seeking to use Turkey's air space to reach Iran with fighter planes to stage a repeat of its raid on Osirak against Iraq in 1981. At times, Iranians see the cooperation between Turkey and Israel and the cooperation of both with Azerbaijan as an attempt to extend NATO or at least an alliance of pro-western states to Iran's north. Iranian scholars believe this would act to contain Iran and complement the U.S. presence in the south. Israel has put considerable pressure, with mixed success, on the U.S., Russia, and China to stop the transfer of technology that might be useful for Iran's defense programs.

Despite this persistent hostility, the fact is that there are no important bilateral issues separating the two states. (Some economic matters relating to the Shah's period still have to be sorted out. Iran's treatment of the Jewish community in Iran until recently, however, has not been a source of discord). Iran's support for fellow-Shi'a in Lebanon, the Hezbollah, has not so far seen it extend to direct attacks on Israel. Even Iran's support for rejectionist Palestinians has been qualified by statements from President Khatami, who argues that they themselves must determine their future. In brief there are simply no issues worthwhile enough for either state to go to war. Rhetoric and limited investments in opposition to the other and the amplification of purported aims on either side has created an atmosphere of alarm and belligerence on both sides.

Iran and Israel have no differences or occasions for getting into active hostilities, let alone a nuclear exchange.

Iran has no reason to extend support to terrorists threatening Israel itself, or to underwrite groups that the Palestinian authorities themselves reject. Iran has no reason to develop long-range missiles that cause Israelis to fear that they may be armed with WMD warheads or aimed at Israel. For example, Iran has no reason to think that if it developed nuclear weapons it could extend deterrence to Lebanon, enabling conventional attacks across the border. Iran has to consider that if it continues its hostility toward Israel, a much stronger state with an ample supply of nuclear weapons, strong friends, and a growing economy, there must be some over-riding interest in doing so. There is none. Iran should support the Palestinians, if it wishes, through diplomacy. After all, as the Supreme Leader Ali Khamenei said in 1995, the Palestinian issue it is simply “not Iran’s Jihad.” At the same time Iran should give greater thought to devising a doctrine of the use of missiles that reassures its neighbors, not just as to their probable warheads, but to the occasions for their use. In brief, Iran should consider that longer-range weapons require greater attention to the diplomatic and political ramifications of arms policies.

Absent a direct threat to Israel, that country does not pose a threat to Iran, and certainly none that would justify Iran’s acquisition of nuclear weapons.

Turkey

Relations with Turkey, while cordial under the Shah, were never warm. Under the Islamic Republic they have been cold but not as bad as they could be. This is because Turkey has chosen to act with restraint to Iran’s provocations. Another explanation is that the two states have no significant bilateral dispute, territorial or otherwise. Iran’s distrust of NATO member Turkey is balanced by the fact that both states share common interests vis-a-vis Iraq. Much heralded rivalry in the north has been muted and indirect. The past glue of common distrust of the USSR has not survived the end of the Cold War. Now Iran treats Russia as a possible “strategic ally” although so far without conviction and not aimed against Turkey explicitly. It is a fact that Iran does not focus enough on Turkey, probably its most important neighbor. (A major lacuna of Iran’s foreign policy is the absence of knowledge or study of the EU and its dynamics. In the not-so-distant future Iran may find itself one border away from the EU.) If the relationship with Turkey is one of muted competition without any major dispute, what are the areas where it may deteriorate?

- *Iranian subversion in Turkey.* This is unlikely to grow and may have passed. The exception is the Iranians' alleged support for the PKK (see below).
- *Turkey's support for an irridentist Azerbaijan vis-a-vis Iranian Azerbaijan.* This has to some extent already happened in the Elchibey period of the early 1990's. Iran's sensitivity to this will vary with its economic performance and social stability.
- *Iran's alignment with Syria and Turkey's with Israel.* Turkey's military cooperation with Israel together with Iran's relations with Syria have fed the idea that there are two regional alliances which may eventually clash, whether over Palestine, water issues, or the north. This brings in the Israel-Turkey-Azerbaijan axis that some Iranians see as an attempt to ring or contain Iran with a new alliance linked to NATO. Iranian support for the PKK may be seen as a response and as an attempt to increase leverage over Turkey. (However Syria's similar attempt, which did not work, is not a hopeful precedent).

How might any of these scenarios lead to an Iran-Turkey military confrontation? Support for the PKK may see some border incursions (cf. 1999) bombings and escalation. It may lead to the kind of ultimatum from Turkey that Iran delivered to Syria in 1998. It is difficult to see Iran getting involved militarily with a Turkey that is a respectable military power and NATO member.

Similarly, Iran-Turkey military conflict arising from rivalry in the Caucasus appears far-fetched.

Perhaps it is better to reverse the question and ask: what role would Iranian nuclear weapons play in Iran's relations with Turkey? A deterrent of what? To defend against what? To match what? To compensate for what? Iran and Turkey have no disputes in which the military instruments need to figure at all. Diplomatic maneuvering by both states has not calmed their relations and has linked each with other states' interests, with a consequent loss of control over perceptions and the management of crises. Even this has not demonstrated the remotest need or justification for acquiring nuclear weapons.

Pakistan and the East

In recent years some of the discussion about the strategic threats facing Iran has focused on Pakistan. Some commentators refer to Iran stuck "between Saddam Hussein and the Taliban," others refer to the possibility of a "Pakistani Saddam Hussein." Compared to these neighbors Iran indeed looks both moderate and stable.

However, if uncertain neighbors were a criterion for acquiring nuclear weapons, surely Turkey would be heading the queue. Iran's relationship with Pakistan has traditionally been good. In the Cold War both states were oriented toward the West. The Shah made a point of supporting Pakistan in its disputes with India in 1965 and 1971. In the mid-1970's this was balanced by improved relations with India, which was seen as a long-term commercial and strategic ally. Relations remained good with Pakistan throughout the 1980's despite the sectarian clashes that took place in that country. Common support for the Mujahedin did not translate into common visions of the future of Afghanistan. Iran sought a multi-ethnic coalition government as the best formula for order in its neighbor, while Pakistan for its own ethnic reasons pursued a strategy of supporting the largely Pashtun Taliban. The Taliban are also Sunni fundamentalists, hostile to the Shi'a in Afghanistan and hence also to Shi'a dominated Iran and its interests in protecting its co-sectarian constituency. Pakistani support for the Taliban and the repression of Afghan Shi'a together with increased sectarian violence in Pakistan itself has been at the root of a changed view of Pakistan in Iran.

Other strategic issues also have soured the relationship. One of these is the fact that Pakistan is said by some Iranians to treat Iran in a more high-handed way than in the past. (Some Iranians ascribe this to its possession of nuclear weapons.)¹⁸ Pakistanis counter that Iran is resentful that Pakistan refused to share its nuclear technology with Tehran¹⁹. Another issue is the possibility of Pakistan-Saudi nuclear cooperation. It is well known that Pakistan in the past has had military and security cooperation with the Saudi regime. This was enhanced in the period of support for the Mujahedin against the USSR. Since then there has been continued cooperation supporting the Taliban. Iranians suspect that the (unprecedented) visit of the Saudi Defense Minister Sultan to Pakistan's enrichment facility in 1999 indicated continued and more extensive cooperation. Iran in turn has continued its cultivation of India and sought to consolidate its ties with the subcontinent's dominant power. To the extent that Iran's national interests take precedence over its ideological interests, Tehran will find more common interests with secular India than with a riven Pakistan. As an Indian scholar noted:

“India and Iran are joining hands to link South Asia to Central Asia by land through Bandar Abbas and Tehran.”²⁰

¹⁸ Private interviews with Iranians, 1999/2000.

¹⁹ Interviews with Pakistani officials, 1999.

²⁰ Bahbani Sengupta, “India in the 21st Century” *International Affairs*. April 1997, vol. 73 no. 2, p. 309.

The greatest threat that Pakistan today constitutes is that of disintegration and failure as a state. Extremism must be controlled, taxes and reforms instituted, corruption and nepotism ended, and a sound economic policy with reduced military expenditures implemented. At the same time Pakistan faces an India that is confident economically and dominant militarily, both conventionally and in nuclear weapons. Pakistan's nuclear weapons program is clearly a reflection of its rivalry with India. It could be argued that they assure, in Pakistan's mind, the survival of the state and hence are against an existential threat. Given the strategic disadvantages under which it labors (including lack of depth), Pakistan will have its hands too full dealing with its internal problems and India to venture out looking for more enemies.

Where does this leave the threat from the East for Iran? An unstable Afghanistan is unwelcome for Iran. A hostile neighbor, especially one persecuting the Shi'a, is a permanent reproach to Shi'a Iran, and one that could lead to frontier incidents and the like. Iran, however, has shown it has no desire either to become entangled in Afghanistan's politics or to resort to "wars of punishment," or to "teach the Taliban a lesson." Pakistan's support for the Taliban is bound to weigh on relations. It is unlikely to lead to war let alone require nuclear weapons. Pakistan is and will be concerned with its East as a priority. Strategic rivalry with Iran is most unlikely.

The greatest threat to Iran from this region is of state disintegration and/or complicity in transnational crime including drug running. Drug smuggling is already having serious social and economic costs for Iran and its neighbors. These are not issues for which nuclear weapons have any utility but they are security issues that are urgent.

The Persian Gulf

In the Persian Gulf, save Iraq, Iran has no indigenous rivals or threats. As the largest state Iran's interest is in conserving its strategic advantages of demographic size, long coastline, and strategic depth. Any proliferation in the region risks providing the smaller states with equalizers that offset Iran's natural advantages. Iran's difference with its southern neighbors are in any case minor and revolve more around the smaller states' perceptions of weakness than from concrete territorial issues. That said, Iran's differences with Abu Dhabi over Abu Musa and the Tunbs islands has made improvement of relations and the creation of trust more difficult. It has also increased these states' reliance on the U.S. and its military presence in the region.

The U.S. presence in the Persian Gulf is sometimes depicted as a threat. Iran clearly sees the U.S. military presence as a means of offsetting

whatever influence Iran might otherwise have in the region due to its proximity. This containment policy is considered hostile. In addition, the U.S. presence is seen as an implicit warning to Iran of U.S. willingness under certain conditions to take military action against it. What are the conditions under which the U.S. and Iran might clash militarily and under what conditions might possession of nuclear weapons by Iran be necessary?

- *U.S. attacks on Iranian infrastructure as punishment for terrorist actions.* This seems less likely now than in the past. Iranian nuclear weapons might deter attacks against the regime itself, but not necessarily against Iranian assets.
- *U.S. attacks on Iranian nuclear facilities.* This seems both technically and politically infeasible. Even when the threat of a response was small, this option has been rejected.²¹
- *U.S.-Iran conventional exchanges in the shadow of nuclear capabilities.*

Short of conventional war between Iran and a neighbor protected by the U.S., it is difficult to envisage a direct Iran-U.S. clash. Would the U.S. be deterred from responding to Iranian aggression because it had nuclear weapons? Would Iran be able to count on this in face of the overwhelming U.S. conventional and nuclear capabilities and escalation-dominance? Nuclear weapons may deter threats to Iran itself, but how useful would they be for providing an umbrella for acts of Iranian aggression? To extend deterrence to less than vital areas with nuclear weapons is demanding and inherently risky.

- *Nuclear weapons to intimidate the GCC states and detach them from the U.S.* It is possible to argue that rather than impressing the smaller states, Iranian nuclear weapons would convince them more emphatically of the need to find shelter under the U.S. umbrella.

Iran's current policy of normalization with its Gulf neighbors through increased contact and confidence building measures has had some success. It has given Iranian diplomacy a basis for cooperation with the GCC by reducing but not eliminating their security concerns. In addition there is little in current policy trends to suggest that Iran seeks confrontation with the U.S. or vice versa.

²¹ See especially, Jim Mann, "U.S. Weighed Bomb Raid on China in '64," *International Herald Tribune*, 28 September 1998, p. 6.

It is in sum difficult to see much use for nuclear weapons in the context of the southern Gulf.

Russia

This leaves the north. Russia is for the moment a state that Iran considers a friend. If Moscow's relations with the West deteriorate and Iran's do not improve, the stage may be set for a broader, strategic relationship. Iranian-Russian differences on the division of the Caspian have not weakened a similarity of approach toward Turkey (and NATO), the Taliban, and Tajikistan. Iran has been restrained about Russia in Chechnya, and Russia has been legalistic about its role in supplying Iran with nuclear and other technology. No longer land neighbors, Iran has no outstanding territorial issues with Russia. Tehran's security problems in the north revolve around conflicts that might lead to refugees spillover (Azerbaijan/Armenia), or civil wars which might spread (Tajikistan), or states that might clash over resources or territories (Central Asia).

In general Iran's policy here has been conservative, supporting existing frontiers and peaceful settlement of disputes. There are no major security threats on the horizon.

It is difficult to escape the conclusion that with the exception of Iraq, Iran has no urgent or serious security problems. Further, given the trends in Iran, its own willingness to take risks to extend its influence or to support extraneous elements on ideological grounds is declining. Discussion of the need for nuclear weapons appears to be distorted, a leftover from a period when the regime felt embattled, wronged, misunderstood and without a voice. None of these conditions now exist.

Access to conventional arms are still a problem. This could be rectified as economic reforms are undertaken and relations are improved with neighbors and Europe. Defense considerations would argue for the continued improvement of the conventional forces, especially in their mobility and in joint operations. Expenses devoted to a nuclear weapons program will ensure that capabilities important for security will remain deficient. At the same time, a nuclear weapons program may detract from the kind of military professionalism that Iran still lacks. It may also pose problems of control and raise issues of doctrine that the military so far at least have shown little sign of comprehending. It will be no easy matter to develop a nuclear weapons program and develop a conventional capability together. Any tendency to substitute the former for the latter would be extremely dangerous. A related question worth only posing here is what would constitute a "capability": one, three, a dozen weapons? How could a national capability be created without a broad program *within the Nuclear Non Proliferation Treaty*? And what about the costs of leaving

the treaty, in terms of the reactions of the European and other states? Similarly, Iran's leaders have to ask themselves whether if they choose to acquire nuclear weapons, other states may not also do so and what *the net effect* of this chain reaction might be on Iran's security?

Arguments for an Iranian nuclear weapons capability boil down to the need to counter an uncertain Iraq. This is a valid concern. These arguments consist of calls for a clear effort to keep Iraq under controls, the development of a weapons option that is within the treaty, cultivation of the major powers for security guarantees, and efforts at finding ways to assure a future Iraqi regime whose interests will be respected.²²

CONCLUSION

Nuclear weapons are not militarily useful. They deter other nuclear weapons and possibly the major use of force against core interests. They are not flexible or all-purpose; they cannot substitute for conventional weapons. They are not credible against low-level threats. Nuclear weapons have no military utility other than deterrence. They are not politically useful either. Uncertainty about other states' reactions, especially those of nuclear weapons states, can only limit the possible uses of nuclear weapons.

Nuclear weapons create as many problems as they may be intended to address. They are costly and detract from conventional military capabilities that are more relevant to the contingencies facing Iran. They raise complicated issues of doctrine and control, including civil-military relations—witness the contrasting difficulties of India and Pakistan. The state seeking nuclear weapons has to consider the overall results: the military reactions of other regional states and the diplomatic response of the major powers. Withdrawal from the NPT, so far unprecedented, will have major costs and few benefits. Absent a major threat from a nuclear neighbor, Iran would be prudent to simply maintain an option that is not too developed. The ultimate illusion for Iran's leaders would be that nuclear weapons, by providing them with a spurious form of status or legitimacy, can help in avoiding the major domestic reforms necessary to put the country back on course.

²² The dangers of developing a short option, one that is only slightly removed from an actual capability, is that in such a case only a small impulse is required to cross the threshold; this might make a decision captive to internal politics and pressures rather than strategic imperatives.

TO HAVE OR NOT TO HAVE? IRAN'S DOMESTIC DEBATE ON NUCLEAR OPTIONS*

Farideh Farhi**

BACKGROUND

In April 1998, the Iranian newspaper *Jame'eh* ran a remarkable article about a closed-door speech given by the Islamic Revolutionary Guard Corps (IRGC) commander, Yahya Rahim Safavi, to a group of IRGC officers in the city of Qom. The speech was stunning in a variety of ways. Most importantly, it drew the attention of the public in the weeks that followed for the threats it issued to the burgeoning press in Iran. But hidden in the speech was another point that related to the way the Khatami Administration²³ had been handling Iran's foreign policy. Safavi asked his audience:

Can we withstand America's threats and domineering attitude with a policy of détente? Can we foil dangers coming from America through dialogue of civilizations? Will we be able to protect the Islamic

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²³ Although Safavi did not mention anyone by name, the reference to the notion of dialogue of civilizations clearly suggested that his criticism was directed against President Khatami and his supporters inside and outside of government who have collectively come to be identified as reformists. Yet as close observers of Iranian politics have pointed out, the division of Iranian political landscape into reformists and hard-liners does not necessarily do justice to the complexity and diversity of forces generally lumped together. For the purposes of this paper, I will try to stay away from an analysis of the forces and instead focus on the arguments that have been offered. This is especially important to do at this point regarding the nuclear debate because persons from the opposing sides of the political reform issue may not necessarily be on the opposing side of the nuclear weapons development and deployment issue, even if the reasons for the positions taken may be entirely different.

Republic from international Zionism by signing conventions banning the proliferation of chemical and nuclear weapons?²⁴

For some outside observers, Safavi's remarks raised "unsettling questions about the willingness of at least some conservative hard-liners to adhere to Iran's arms-control commitments."²⁵ To them such utterances suggested the existence of an undercurrent in Iran that would like to ignore the country's arms control obligations. Such remarks were of course made more significant because the person who uttered these words was the head of an organization assumed to be in charge of Iran's chemical, biological, and nuclear programs as well as ballistic missile development.

As is usually the case, however, in Iran's fluid and raucous political atmosphere the reactions to these particular comments were diverse and reflected different concerns. For many in the burgeoning independent press, which was the most interested in these remarks because of the threats he issued against it, Safavi's words suggested an unhappiness about the way foreign policy was being run by President Mohammad Khatami's administration. This particular leak merely revealed yet another point of fissure, not a plot. In an editorial published on the next day in his paper, Mashallah Shamsolvaezin, *Jame'eh's* editor, pointed out how improper the remarks had been within the context of the constitutional role afforded to the head of IRGC.²⁶ Safavi, Shamsolvaezin suggested, had both the right and the obligation to relay his views on foreign policy to the president, but only in private and within the context of the constitutionally afforded advisory role to which the head of IRGC is entitled.²⁷ Mohsen Sazegara, a founding member of IRGC and one of the authors of IRGC's original and still operating mission statement, was much more direct a few days later. He considered Safavi's words a clear violation of the organization's own institutional commitment to remaining non-political.

In retrospect, it is clear that comments like Safavi's can be interpreted in a variety of ways, often contradictory, depending on point of

²⁴ Safavi's remarks were first reported in *Jame'eh*, April 27, 1998.

²⁵ See Michael Eisenstadt, "Living with a Nuclear Iran?" *Survival*, Autumn 1999.

²⁶ *Jame'eh*, April 28, 1998. Shamsolvaezin's words were echoed for many days to come in *Salaam*, a newspaper closely identified with President Khatami. *Salaam* criticized the official news agency IRNA for not carrying the details of Safavi remarks and said: "These remarks are in contradiction with the main mission of the Guards...and lead in practice to the Guards getting embroiled in internal politics and siding with a particular faction." *Reuters*, April 4, 98.

²⁷ Safavi and IRGC of course claimed that the meeting was private, which *Jame'eh* refused to buy, claiming that this was not a secret meeting of top brass.

view. If the underlying belief is that Iran has enough motivation to pursue the nuclear weapons option because of the dangerous neighborhood in which it resides and its nationalistic aspirations, the comments of the IRGC commander was sufficient to connote a behind the scene governmental network pursuing some sort of a concrete nuclear agenda or design.²⁸ Of course, the dynamics of this network and precisely how it relates to those institutions responsible for making sensitive security-related decisions, particularly the Supreme National Security Council, are never made clear.²⁹ Some contend that this network consists of elements within the IRGC as well as the Information Ministry, which may have some sort of ill-defined relationship with the office of the spiritual leader, Ayatollah Ali Khamenei, and that the alleged existence of such a network gives sustenance to Iran's nuclear agenda.

To some others, the comments may hint at a completely opposite conclusion. Why should the commander of the IRGC bitterly protest against the president's decision to conform to Iran's international obligations if the pro-nuclear position had been secretly agreed upon within the Supreme National Security Council, a body that the president presumably chairs? Furthermore, Commander Safavi's comments make even less sense within the context of the possibility of secret agreements or programs outside the purview of the Supreme National Security Council. If indeed there is a secret program that presumably operates without the knowledge of the reformist president, why should the commander bemoan the direction the country is taking? Unless, of course,

²⁸ Such an argument about Iran's "logical" positioning in favor of pursuit of nuclear weapons given the neighborhood in which it operates is implicit in the arguments of outsiders opposed to Iran's nuclear weapons program. In fact, in the absence of "hard" data about an actual nuclear weapons program, the argument about Iran's perceived threats (along with Iran's regional aspirations) is the only link to the argument that Iran has sufficient motive, and hence intention, to develop a nuclear program. For a recent, and very confusing, statement of this type of position see recent CIA statements as reported in *New York Times*, January 17, 2000. According to the NYT article, "the more ominous evaluation of Iran's nuclear capacity...is apparently not based on evidence that Iran's indigenous efforts to build a bomb have achieved a breakthrough. Rather, it seems to be based on the fact that the United States cannot track with great certainty increased efforts by Iran to acquire nuclear materials and technology on the international black market, mainly from the former Soviet Union."

²⁹ Article 176 of the Iranian Constitution specifies that the Supreme National Security Council as the institution in charge of 1) determining Iran's defense-security policies within the context general policies delineated by the spiritual leader; 2) coordinating political, intelligence, social, cultural, and economic activities in keeping with the general defense-security considerations; and 3) utilizing the material and spiritual resources of the country to defend against domestic and foreign threats. The Council is headed by the president and includes the leaders of other branches of government, chief of staff of armed forces, the head of the Planning and Budget Organization, representatives of the spiritual leader, foreign, interior and information ministers as well as high ranking members of the military and IRGC.

the commander didn't know about the program either, which undercuts the whole proposition that the commander's comments carry a special weight because of his position as the head of IRGC. Finally, the argument that Commander Safavi and President Khatami may be working together to lay an elaborate net of deception is further discredited by the fact that Iran's competitive factional politics preclude such an overt display of disagreements as a means to deceive the public. In this context, the 2000 parliamentary election which led to the clear victory of reformist forces, and the subsequent maneuvering on the part of forces that lost to make sure that the new parliament would not have too much power, is seen as yet another example of the competitive nature of Iranian politics.³⁰

Of course, the argument about the government's public position and its covert intentions and behavior can go on forever. It is not the intention of this paper to shed light on the possible discrepancies between the public debate and the behind the scene decision-making processes. This paper, however, does argue that a limited, yet expanding public debate about Iran's nuclear options has been taking shape and that understanding the terms of this debate may give clues about the kind of arguments with which the Iranian decision makers have been dealing. While this debate about a previously taboo topic may not shed light on the dynamics of behind the scene decision-making processes in Iran, it does hint at the broader tool-kit of ideas utilized by both proponents and opponents of the nuclear option inside and outside of the government to make their cases. As such, this expanding public debate is important for understanding the marketplace of ideas and options available to present and future leaders of Iran.

DYNAMICS OF THE DEBATE

In the midst of a highly contested and rapidly expanding public conversation about the nature of politics and the rules of the political game in Iran, it is not surprising that the discussion of nuclear issues is still relatively limited. Thus, in order to make sense of the debate on the nuclear option, it is important to note that even Commander Safavi's comments could not generate an open and extended discussion about the role of nuclear weapons in assuring Iran's security. In fact, for the most part, the press continued to report or affirmatively comment on the official anti-nuclear position of the Iranian government and its public commitment

³⁰ A month after the reformer's parliamentary victory, the Expediency Council headed by former president Hashemi Rafsanjani, upholding the decision of the Guardian Council, ruled that the parliament couldn't investigate organizations supervised by the supreme leader, including the armed forces. The decision drew immediate protest and its actual implementation is yet to be decided. Associated Press, April 10, 2000.

to remain faithful to the international conventions to which it had become a party. It reiterated that Iran has the best arms control and norm-building record in the Middle East. It is a party to the Nuclear Non-Proliferation Treaty (NPT) and the Biological Weapons Convention (BWC). It has unilaterally signed and ratified the Chemical Weapons Treaty (CWC), contributed to negotiations on the Comprehensive Test Ban Treaty (CTBT),³¹ unilaterally capped its ballistic missile program, participates in the UN arms register, and has taken initiative in promoting regional confidence-building measures. The press also remained critical of the outside scrutiny of and meddling in what was deemed as Iran's peaceful nuclear energy program.³²

A more open and contested discussion of the issue had to await the event that took place just 30 kilometers from Iran's eastern border.³³ In fact, Pakistan's nuclear testing in Baluchistan even prompted a parliamentary deputy and several Friday prayer leaders to call publicly for the development of nuclear weapons, provoking *Gol Agha*, the preeminent satire weekly in Iran, to run a cartoon depicting a peasant trying to goad a nuclear mule into movement.³⁴ As far as the parliamentary deputy was concerned, the issue was simple and Iran could not remain behind Pakistan. *Gol Agha*, on the other hand, was wondering whether the parliamentary deputy thought if nuclear bombs, like mules, could be simply be whipped into action.

³¹ Iran signed the treaty in 1996, but has yet to ratify it. On 4 January 2000 Iran's parliament postponed for 6 months discussion of a bill providing for the country to join the international preparatory commission for CTBT. The government had asked the parliament to accept Iran's membership of the commission. The decision to postpone came after the October refusal of the U.S. Senate to ratify the treaty.

³² For clear statement of such a position see an article written prior to Safavi's comment by Jalil Roshandel and Saideh Lotfian "Iran's Atomic Programs and Foreign Propaganda," *Hamshahri*, April 22 and 25, 1996). For similar positions taken after Safavi's comments see Javad Zarif "Zarourat tahaghigh-e khavermianeye ari az selah-haye hasteyee" (The Necessity of a Nuclear Free Zone in the Middle East), *Ettela'at*, (3 Khordad 1377/23 May 1999) and Farzad Samadli, "United States, and Double Standard Policy," *Resalat*, July 25, 1999, FBIS translated text. Also see Scott Peterson, "Is Iran Next Power on Nuclear Stage." *Christian Science Monitor*, July 8, 1998. Peterson reports on a cartoon, in a Tehran paper, that captures what to many Iranians seems an irony: "Uncle Sam peers at Iran through a magnifying glass, looking for evidence of nuclear activity. Unnoticed, mushroom clouds billow from recent tests in India and Pakistan."

³³ Proximity was a concern noted in the press. For instance, *Gol Agha* ran a cartoon with an Iranian telling a Pakistani man "Sahib! We have a patient who is resting. Fire it up a few kilometers farther." August 27, 1998.

³⁴ *Gol Agha*, September 17, 1998.

But while not all exchanges on nuclear weapons are as the above example, an open, extended, and rigorous discussion of Iran's nuclear policy options has yet to happen. The precise answer to the question of why this is so must be found in the intense domestic politics of Iran as well as the strong belief of most reformers and journalists, who should be unearthing Iran's nuclear program if there is any, that Iran is not engaged in the development of such programs. In the words of Hamid Reza Jalaeipour, one of the leading reformists/journalists, "the only thing nuclear in Iran is civil society and political development."³⁵ At the same time, there are signs that serious thought is being given to the issue in the public realm. As we shall see, however, the little debate that exists in Iran is about policy options and not existing programs, if there are any.

South Asia's atomic tests sparked debate over whether the Islamic Republic was too far behind the regional arms race. Motivated in part by demands that Iran should resume its historic leading role in the region, many Iranians, in public and private, found it difficult to categorize Iran below its newly nuclear neighbors. Accordingly, public discussions began not only regarding the implications of the nuclear tests in Pakistan and India for Iran, but also about policy options Iran must seriously consider. *Payam-e Emrouz*, a monthly respected for its independent positioning and strong opinions on Iran's foreign policy, laid the Iranian dilemma in following terms:

The most important concern is the assessment of the effect of this event on Iran and the reaction of our country to this development in the region. On the one side we share a border with Russia and Pakistan, both of which have actual nuclear capability. On the other side there is Iraq, which according to experts has a potential nuclear capability, and, once it has the opportunity, it will pursue the necessary efforts for achieving it. Farther away, there are also the two countries of Israel and India, which are both equipped with nuclear weapons...Such a picture is reflective of the dangerous regional situation in which our country exists and reminds us that more than at any other time we have to be thinking about our national interest.³⁶

National interest is indeed at the core of the public debate on nuclear weapons. However, given the fact that Iran has been a party to NPT since pre-revolutionary times and that the decision to abide by other conventions related to weapons of mass destruction has followed suit in post-revolutionary times, the public discussion of nuclear weapons could not only be a debate about options and their implications for Iran's national interest. Another aspect of the discussion is Iran's international obligations and what the decision to go nuclear will portend for Iran given

³⁵ Personal communication, January 2000.

³⁶ "Dar hamsayegi etefaq oftad" (It Happened in the Neighborhood). *Payam-e Emrouz* 24 (tir 1377/June-July 1998), 92.

the previous decisions to support the relevant conventions. Finally, the discussion about Iran's international obligations has brought forth important critiques of the way Iran has conducted its foreign policy in recent years from both sides of the political spectrum. In what follows, I will argue that this debate about the conduct of foreign policy will perhaps be the most important legacy of the current debate about nuclear weapons.

TO HAVE OR NOT TO HAVE?

Interestingly, the opponents of nuclear weapons have claimed a larger space in the public arena for their position. I say interestingly because many outside observers believe that, given its encirclement by nuclear-capable states, Iran has no other choice but to pursue the nuclear option and play into the same "mutual assured destruction" doctrine that ensured nuclear peace between the U.S. and the Soviet Union, and now with Russia.³⁷ But inside Iran the dominance of anti-nuclear argument in the public sphere has been buttressed by the government's stated and emphatic position on the need to create a nuclear weapons-free zone in the Middle East. With the South Asian testing, however, pro-nuclear voices seem to have lost their timidity and become willing to stake a position in public, a situation that hardly existed before. This in turn has created a need for anti-nuclear voices to clarify and think through their position, further igniting the debate. Since the anti-nuclear voices seem to have developed a more elaborate argument, I will begin with them and then move to the counter-argument.

ANTI-NUCLEAR ARGUMENT

The argument against a nuclear weapons program has been multi-dimensional, encompassing political, economic, and technological aspects.

The Political Argument

Part of this argument can also be considered a pragmatic reaction based on Iran's international predicament. The argument goes something

³⁷ See Guive Mirfendereski, *The Iranian*, January 20, 2000. Mirfendereski goes on to argue that the solution to "the issue of Iran's search for the means to nuclear deterrence will not lie in U.S.-Iran dialogue but in a comprehensive approach based on universal principles of nonproliferation, safeguards, test ban, and international inspections for all, including Israel." Coming from an opposing point of view, Eisenstadt, *op. cit.*, also explicitly acknowledges "the national-security risks Iran could face if it were to adhere strictly to its NPT commitments."

like this: In a situation in which the outside world is carefully monitoring and publicizing every "wrong" move of Iran, the pursuit of a nuclear weapons strategy, which has to be clandestine, is simply too dangerous. To be sure, others have done it and, so to speak, have gotten away with it. But these countries capitalized on different circumstances which included the effective assent of one superpower or superpower rivalry itself. The chaotic context of contemporary world politics may have opened the way for the transfer of nuclear technology and know-how. However, it has not created the tacit but firm political support or suitable environment needed.³⁸

Indeed it was this type of political concern that led to criticisms of Foreign Minister Kamal Kharrazi's off the cuff remarks regarding the positive implications of the Pakistan's nuclear tests for Islamic countries.³⁹ According to Davood Hermidas Bavand, a former diplomat and professor of international relations at Imam Sadeq University:

Iran is accused of the intent to deploy nuclear weapons and possibly use [them] against the regional countries. Under such circumstances, the expression of the view by some Iranian officials that Pakistan's success can be considered a guarantee against Israel, without Pakistan itself making such a claim, unwillingly intensifies the propaganda against Iran. This is while we have accepted the control of International Atomic Energy Agency as well as the supervision of Russia, our nuclear partner, over the peaceful use of nuclear energy, and in effect are without them [nuclear weapons]. Under these circumstances why should others deploy these weapons while we are the ones that are vilified by the propaganda against us. Of course some have approached the issue from an ideological standpoint, maintaining that the strengthening of the position of every Islamic country in international relations...is something that must be considered

³⁸ This argument was stated as early as 1995 by Sohrab Shahabi and Farideh Farhi in "Security Considerations and Iranian Foreign Policy," *The Iranian Journal of International Affairs*, Summer 1995. Also translated into Persian and published in *Siasat-e Khareji* (Fall 1995). The argument was reiterated again after the Pakistani testing by others. Note that in this type of argument, the possibility of an open nuclear weapons program, presumably after Iran's withdrawal from NPT, is not even considered simply because it is considered as too dangerous to entertain. At the same time, some proponents of such a view, certainly not all, might consider the possibility of pursuing the nuclear option as something that can be entertained if there is improvement of relations between Iran and the U.S. I am thankful to Jalil Roshandel for pointing out this implication.

³⁹ As reported in *Payam-e Emrouz*, op. cit., Kharrazi said: We are following the current developments and as a friendly country understand Pakistan's security concerns....Muslims feel more confident with the nuclearization of Pakistan since this development can play a deterring role vis-a-vis Israel's nuclear power." p. 92. The Foreign Ministry spokesman, however, rejected the notion of Islamic bomb the week after Kharrazi's remarks and reiterated Iran's position in favor of a nuclear-free Middle East and South Asia. A few days later, Kharrazi himself told a disarmament conference in Geneva that "this was one genie that was much better to have stayed confined in a bottle." Reported by Elaine Sciolino, *New York Times*, June 7, 1998.

propitious. But we must consider that such an ideological view does not guarantee real security for us. We must not forget that all the physical and material costs incurred during the war was from a country claiming to be Muslim and many countries that played a role in that war by giving all sorts of aid to Iraq also had such a claim.⁴⁰

Beyond the call for pragmatism within an international context that is perceived to be hostile towards Iran's nuclear weapons program, there are also questions regarding the strategic utility of nuclear weapons in enhancing Iran's security, as expressed in this anti-nuclear weapons article published in *Farda*, a conservative daily:

The question is in order to declare war against which country or countries does Iran need to possess nuclear weapons? Does the deployment of nuclear weapons—if possible and of the weak kind such as those of Pakistan—bring us security or insecurity against large countries such as the U.S.? Certainly the answer is insecurity since Iran does not have the superior military technology of the U.S. and these weapons cannot even play a deterrent and security role against the U.S. On the other hand, Iran has befriended the small countries of the region and at least for now has no critical problems. Even if this was not the case, it does not need such weapons for deterrence and creating balance vis-a-vis countries like the Emirates and Iraq. Deploying such weapons not only cannot solve any problems for Iran; it will further add to its problems.⁴¹

The Economic Argument

Again this argument is shaped by Iran's predicament in relation to other countries as well as its stated desire to improve its economy with the help of outside resources.⁴² It is argued that if Iran is to build nuclear weapons with the aid of foreign technology either to separate or to enrich uranium, this effort will clearly need an extensive and yet clandestine scientific and technical infrastructure with huge investments of material resources. To do this in the midst of an attempt to rebuild a war-damaged economy will undoubtedly be counterproductive. A clandestine nuclear

⁴⁰ "Iran va shamshirhaye hasteyee dar piramoonash" (Iran and Its Surrounding Nuclear Swords). *Payam-e Emrouz*, Ibid., 95.

⁴¹ "Azmayesh-haye hasteyee hend va pakistan va chalesh-haye siyasat-e khareji-ye iran" (Nuclear Tests in India and Pakistan and Challenges for Iran's Foreign Policy), *Farda* no. 101 (17 Khordad 1377/27 May 1999). The author of this piece is not identified but the piece is printed as part of an exchange on the pros and cons of nuclear weapons for Iran. *Farda*, which was later closed because of financial problems, was a daily run by Ahmad Tavakoli, a former presidential candidate and presumably one of the main leaders of modern conservative movement in Iran.

⁴² For an example of this argument see Shahabi and Farhi, op. cit. This is also a position held by Jalil Roshandel who heads a project on the impact of nuclear weapons at IPIS. Personal communication, December 1999.

defense industry can only soak up resources from the economy without much of the positive effects defense industries presumably have, in terms of, for instance, unemployment. The option of buying more sophisticated technology is also considered not viable economically as it is bound to affect Iran's stated desire and need to attract foreign capital. Moreover, it is said, there is an added reality that buying nuclear technology is easier said than done. Pakistan, for instance, has every reason not to share its technology with Iran. As a de facto nuclear power located between two extremely volatile areas of the world, it does not want to be seen as behaving irresponsibly and hence risk the possibility of further sanctions. Kazakhstan, the name of which has come up in relation to the purchase of tactical nuclear weapons or components of such weapons, simply has too much at stake economically (in terms of its need for foreign capital) to venture into this area.

The Technological Argument

This argument is a more sophisticated version of the above-mentioned criticism expressed in *Gol Agha's* satire of a peasant riding on a mule bomb. Simply stated, for many critics of the nuclear option, the state of Iran's scientific and technological capabilities is itself a deterrent against the pursuit of such an option. Reza Mansoori, a physicist writing in *Payam-e Emrouz*, gives the most sophisticated technological argument against the development of nuclear weapons in Iran. Beginning his argument with an analysis of events that led to the reported existence of plutonium and enriched uranium in the El Al plane that crashed near Bijlmer, Netherlands, in October 1992, he acknowledges not only Israel's nuclear prowess but also the international support that country has had in developing its program. He does this as a means to make a distinction between countries like Israel and India, which have managed to have a renewable nuclear weapons program and can survive direct attacks on key nuclear and infra-structural facilities, and programs of countries like Pakistan that have been reactive and have developed their programs at tremendous political and economic cost. Both India and Israel, Mansoori argues, not only have had long-term planning for the development of nuclear technology, but also more importantly have taken great pains to develop a scientific and technological foundation to give it sustenance.⁴³ In its utilization of nuclear capability, Pakistan, on the other hand, while

⁴³ According to Mansoori, "it is enough to know that the number of articles published last year by the researchers of this country (Israel) in reputable international scientific journals was almost equal to all the publications of researchers from Islamic countries. Because of the combination of these scientific, financial, logistic, and political capabilities, Israel is not only a nuclear power but is among countries that is endowed with renewable nuclear capability. In other words, in case of an attack against its nuclear or other infra-structural facilities, Israel can reconstruct its nuclear capability and engage in a counter-attack "

relying heavily on the financial support of Islamic countries, does not seem to have reached "sufficient maturity" in scientific, social, political and technological spheres.

In assessing Iran's scientific and technological prowess, Mansoori is even harsher in his judgement. He argues:

Our scientific community, in addition to being weak quantitatively, is an uncoordinated mass that lacks any plans. Our scientific policy planners, as well as our political officials, have so far been unable to offer a framework for the effective role of this community. Neither society has given researchers a question for which to find an answer, nor has this collection visualized any role beyond aimless education for itself. Perhaps one can only say that the goal of policy makers has been quantitative expansion of education. Such an objective, even if it has been chosen on the basis of planning and reasoning, can only encompass part of our experts. The ability to solve problems, which is the main capability of experts in the modern world, is still unknown among our political officials and as such it remains unused....In such a situation talking about Iran's nuclear capability, as espoused by one of the newspapers, is crude and elementary talk. Even if we are after nuclear capability, we should not make Pakistan our model. Fortunately it doesn't seem that our politicians are giving much attention to the words of those offering the solution of "buying" the nuclear bomb. Our path, for maintaining independence and security, is increasing in our scientific, technological, economic, and political capabilities. The increase in these capabilities, along with the necessary infrastructures, will gain the respect of other countries, preventing the thought of attacks against us. This should be our sacred objective, and not deploying the bomb.

In short, the situation described by Mansoori regarding the state of Iran's scientific community is very similar to the state described by Shahram Chubin in his analysis of the process of arms procurement in Iran: marred by "ad hoc decision making and ambivalent decision makers."⁴⁴ In such a state, a nuclear weapons program of any kind, clandestine or otherwise, is perceived as having neither utility nor feasibility. According to Mansoori, national security must be defined in broader terms than having the right weapons to fight against possible attacks.

PRO-NUCLEAR ARGUMENT

The case for maintaining a nuclear option rests solidly on the politics of operating in a dangerous neighborhood. In fact, hardly any

⁴⁴ "Arms Procurement in Iran: Ad Hoc Decision Making and Ambivalent Decision Makers," in Eric Arnett (ed.), *Beyond Threat Perception: Military Technology and Offensive Capacity in Southern Asia*, (Oxford University Press, 1999).

argument has been offered as a counter to the technological and economic aspects of the case against the development of nuclear weapons. The focus has emphatically been political. Offering what is stated as a realist understanding of international politics, the proponents focus on what they consider to be two important aspects of the issue:

- The specific function of nuclear weapons; and
- Understanding the position and situation of Iran in the international and regional systems.

Regarding the special function of nuclear weapons, the proponents argue that the function of nuclear weapons is not necessarily declaration of war against a particular country. Hence in justifying the pursuit of nuclear weapons, there is no need for specifying a country as enemy. Their utility is in fact found elsewhere, as a deterrent and equalizer:

If we give attention to the history of nuclear deterrence during the Cold War and the dominance of the bipolar system, we see that deploying nuclear weapons is not necessarily for attacking or finding enemies. Rather, given the credibility these weapons have had and continue to have at the global level, [their importance is] in the support they give to bargaining in international negotiations and advancement of the country's national interests.⁴⁵

Deterrence and strengthening of Iran's bargaining position are hence seen as two sides of the same coin. This position is bolstered by the threats to attack sites associated with Iran's civilian nuclear program that according to proponents of nuclear weapons further justifies a stronger emphasis on deterrence in Iranian military doctrine.⁴⁶

As to the question of Iran's regional and international position, the proponents of nuclear weapons reject the argument that a nuclear weapons program like that of Pakistan will bring nothing but further insecurity in Iran's relations with the United States. As far as they are concerned, the U.S. already considers Iran its enemy and U.S.-Iran relations, like other international relations, are in constant state of competition, conflict, or even cooperation at times depending on circumstances. Besides, relations with the U.S. constitute only a part of Iran's foreign relations:

⁴⁵ "Pasokh beh yek soal" (Answer to a Question), *Farda*, no. 101, (17 Khordad 1377/27 May 1999).

⁴⁶ This position is also echoed, not as a case for nuclear weapons but as a concern, by more impartial observers of Iran's military like Eric Arnett, who see a real danger of the threats of attacks pushing Iran in the direction of deterrence theory. Op. cit. Also see Eric Arnett, "Iran Is Not Iraq." *The Bulletin of the Atomic Scientists* 54, 1, January/ February 1998.

Certainly part of the threat comes from the U.S. But if we look realistically at the politics that surrounds us...we realize that we are situated in a region called the Middle East in which Israel, as Iran's number one enemy, has 200 hundred nuclear warheads. Iraq also, in spite of the disarmament pursued by the UN, still has potential nuclear capability. Pakistan, Kazakhstan, and Russia, although in friendly and warm relations with Iran...invariably on the basis of the nature of international relations will have conflicts of interests. Hence, if we assume that a conflict arises between Pakistan—our friend in the region—and the Islamic Republic of Iran, which side will have higher bargaining capability in negotiations? The answer to this question is clear and not in need of elaboration.⁴⁷

In other words, Iran's playing field is the region and it is in that arena that Iran has to play a more important role—a role which would be made possible by the deployment of nuclear weapons. Any doubts about this are dispelled by the current prevailing conditions in international relations that also turn nuclear weapons into a must for Iran in the eyes of proponents. In their words, these conditions make regional regimes the best regimes for regional security. But only countries with high economic, political, and military capabilities can present themselves as active and important players in this arena. As such, in order to play an important role in the region, Iran has no other option but to pursue nuclear weapons, particularly since in the Middle East the nature of power continues to be politically and militarily based.⁴⁸ Deployment of nuclear weapons will endow Iran with a kind of "social mobility," giving it prestige as well as more security.⁴⁹

⁴⁷ "Pasokh beh yek soal." *Op. cit.*

⁴⁸ In their position on Iran's need to deploy nuclear weapons in order to gain regional importance, the proponents of nuclear weapons again get support from unexpected corners. According to Michael Eisenstadt, for instance, "nuclear weapons would transform Iran into a regional military power, provide it with means to intimidate its neighbors, and enable it to play the role that its leaders is rightfully its due... Nuclear weapons may also be the only way for Iran to become a military power without destroying its economy. While a nuclear weapons program could cost billions, rebuilding its conventional military would cost tens of billions of dollars." *Op. cit.* As far as I know, this type of economic argument given for the deployment of nuclear weapons is the only public retort to the economic argument of the opponents of nuclear weapons. The irony of such arguments being developed by outsiders and presumed opponents of Iran's nuclear weapons program should of course not be lost.

⁴⁹ The language of social mobility and prestige is from a speech given by Hahib Askarkhani at a panel on India and Pakistan's nuclear tests in Majlis' Research Center on 9 June 1378. Proclaiming a Realist stance, Askarkhani also rejects the notion of an Islamic bomb and argues that according to a realist understanding "if the power of a neighbor is increased, your security is lowered not increased." Askarkhani speech was reported in the report of the session by Majils' Research Center.

THE DEBATE OVER IRAN'S EXISTING INTERNATIONAL OBLIGATIONS

The debate about the merits and drawbacks of nuclear weapons has been quite general in discussing options. However, there is one aspect of the debate that has been more focused on Iran's current predicament. This aspect of the discussion has not centered on whether or not to give up the option to have weapons of mass destruction but the implications of Iran's international obligations for its national interest. More specifically, the debate has focused on whether or not joining the NPT (an act not initiated by the Islamic leadership) and other WMD conventions (adhered to by the current leadership) has served Iran's interests. In response to this question, two opposing positions have been offered. On the one hand, some have argued that current leadership's decision to officially forego the option of developing WMD, has been one of the biggest mistakes made in the diplomatic history of the Islamic Republic. They believe that the decision to adhere to WMD conventions has been the result of an idealistic foreign policy generated in the Foreign Ministry. The signers are deemed deficient in their understanding of realist theories in international relations and hence ignorant of deterrence theories as well as modes of bargaining in international negotiations. Accordingly, they have committed themselves to something without gaining anything for it, hence reducing Iran's bargaining position as well as its role in international and regional equations. From the point of view of these "realist" theorists:

In the contemporary chaotic world, given the sensitive strategic situation, our country should not have trusted and submitted to this discriminatory treaty [CTBT]. For this reason, Iran has taken a very large risk, the least cost of which [for now] is the loss of bargaining power in international and regional negotiations. Ultimately, like North Korea, we could have received a series of concessions in return for signing this discriminatory treaty and not giving it up for free.⁵⁰

Interestingly those speaking from the self-proclaimed realist position, who come from both sides of the political spectrum, say very little about precisely how Iranian negotiators could have managed to get a better bargain within the context of a broader Iranian foreign policy that does not allow for negotiations with the main protagonists in the negotiations over nuclear weapons (i.e., the United States).⁵¹

⁵⁰ "Azmayesh-haye hasteyee." Op. cit.

⁵¹ I say both sides of political spectrum because foreign policy positions have been very fluid in Iran. For instance, until the election of Khatami it was groups generally considered as "traditional left" that effectively prevented any kind of discussion about Iran-U.S. relations by labeling it as "appeasement". Since May 1997 it is the conservative right that talks about the desire to establish such relations as "conspiracy."

Nevertheless it is important to note the lessons some Iranians have learned from the seeming success North Korea has had in refusing to denounce the use of nuclear weapons, in the process gaining an agreement and promise of \$4 billion in energy aid.

Those criticized of course reject their idealist label and again make their point on the basis of pragmatism. They argue that in adhering to a variety of WMD conventions Iran had no other choice. After all, every foreign policy decision must be evaluated within its context. They argue that the position of Iran is very different from those of either India or Pakistan. Iran is a country whose revolutionary rhetoric calling for the export of revolution has been perceived as threatening to the region as well as the world. The result has been the imposition of a variety of unprecedented pressure mechanisms, ranging from economic to political, military (war) and even cultural. It is argued that under these circumstances:

Perhaps the only accusation that Iran, a country that has been accused of everything from terrorism to human rights abuses to meddling in the peace process...has been less confronted with is having nuclear weapons. And in the case of not joining the treaty or even claiming to have one [like North Korea], it would have been perceived as a unilateral declaration of international war with all the heavy costs and dangers that can be imagined that [such a decision] would have had for Iran.⁵²

Indeed, they argue, any attempt to violate its stated international obligations will be construed as an aggressive act with dire consequences for Iran. Proponents of the nuclear weapons option, on the other hand, point to the inconsistencies and discriminatory language within the NPT itself as well as articles within it that have already been ignored relative to Iran (i.e., denying it peaceful use of nuclear energy). They argue that the division between the haves and have-nots within the NPT has made the prospects of gaining social mobility quite appealing to countries that can identify a known enemy. And Iran should also be thinking about nuclear weapons in similar terms sooner than later:

In my view, if Iran currently has nuclear [weapons] it has to test them now since their usefulness as a deterrent is right now. When the CTBT is fully in place and five of its six mechanisms in Tehran and Masjed Soleiman are operational, and national instruments are behind them as well, defection, dragging our feet, violation, or cheating will be very difficult and the consequences are also very problematic.⁵³

⁵² "Azmayesh-haye hasteyee." Op. cit.

⁵³ Habib Askarkhani, op. cit. Askarkhani, a Tehran University professor, at a gathering at IPIS at a seminar on Defining Threats against Iran, 9 October 1999, reiterated this position again. This is the only reference I could find in which the possibility of Iran

Legally, they argue, Iran could withdraw from the NPT and proceed with a nuclear program provided it gives three months notice, and cites extraordinary threats. But, once Iran announces its intentions to withdraw from the treaty, it would be vulnerable to a number of punitive actions that may include military force. This is why the time to act is now. But if this is not possible, presumably because Iran doesn't have ready-made weapons, then the least that can be done is some sort of preliminary analysis of what the withdrawal from NPT would entail. Given the recent testing, as well as the dangerous neighborhood within which Iran finds itself, they argue, the official foregoing of the nuclear option is a dangerous policy for Iran.

NUCLEAR OPTIONS AND CRITIQUES OF IRAN'S FOREIGN POLICY

A closer look at the public debate about Iran's nuclear options suggests that the discussion is as much about the direction of Iran's foreign policy as it is about the desirability of a nuclear weapons program. In fact, one can easily argue that the public debate is too general to contribute much to a more detailed understanding of the impact of nuclearization.⁵⁴ In fact, the most that one can find even among the pro-nuclear writings and discussions is a call for maintaining the option, without much analysis of exactly what that means for Iran's international obligations. At the same time, the nuclear weapons debate reveals interesting criticisms of the way Iran's foreign policy has been run from at least two perspectives.⁵⁵ Here it is again important to note that the Iranian domestic political context is simply too raucous and fluid to allow for the correlation of these perspectives with the current ideological views vying for domestic political dominance. People of vastly different perspectives on domestic reform may agree on their criticisms of Iran's foreign policy in general, even if they do not agree on the arguments used to reach similar critiques.

actually having a nuclear weapons program is entertained. Of course, Askarkhani's statement can also be read in another way. It may suggest that even a proponent of a nuclear weapons program thinks that in a few short years, after the window of opportunity created by the Pakistani test has been closed, defections and violations of NPT will be too dangerous for Iran.

⁵⁴ A more detailed debate may still develop later. For instance, the Institute for Political and International Studies (IPIS) has just commissioned a project on "The Impact of Nuclearization in the National Security of the Third World Countries" with special emphasis on Iran, Iraq, and North Korea. The head of the project, Jalil Roshandel, has been a solid opponent of nuclear weapons for pragmatic as well as economic reasons. He does, however, foresee the possibility of recommending to keep "the option open as a political move and nothing more." Personal communication, December 1999.

⁵⁵ Note that these criticisms are not directed merely against the Khatami Administration. They involve the Rafsanjani/Velayati conduct of foreign policy as well.

The important point is that these criticisms exist and they are bound to affect the way foreign policy is conducted in the future.

From one perspective, the main problem in Iran's foreign policy has to do with inconsistencies. The international community, it is argued, cannot be fully satisfied with Iran's stated anti-nuclear position because irresponsible statements as well as actions either by the Foreign Ministry or other bodies in the Islamic Republic have often contradicted this constructive stance. According to Bavand, this is caused by continued entanglement in ideological conflicts, resulting in an outcome that requires heavy investment in foreign policy without many positive results.⁵⁶ As far as he is concerned, given the hostile international environment, irresponsible statements undermine Iran's non-nuclear record. Furthermore, the problem will not be fully solved until these fundamental conflicts are set aside, at least at the level of foreign policy implementation. Movement toward reform, more control over foreign policy decision-making by the Foreign Ministry, and a deeper commitment to the idea that genuine security comes from improved international relations are the only steps that can assure more consistency in Iran's foreign policy.

On the other hand, others, some of whom are proponents of nuclear weapons, see the problems not as fundamental conflicts of values and interests, but as a fundamental flaw in the way Iran's foreign policy establishment conceives its role. They object to a foreign policy that is based on a position of weakness and is excessively concerned about improvement of Iran's image abroad. As far as they are concerned, Iran's foreign policy should be less about public relations and more about bargaining power. For the proponents of nuclear weapons, along with its deterrence role, this is precisely where nuclear weapons find their value. And of course with Iran's record on the signing and abiding by international conventions and the rather aloof response on the part of the main protagonist in the nuclear weapons scene (i.e., the U.S.), they have managed to develop a case.

What these critics may have missed is that the excessive attention the Foreign Ministry has given to "public relations" may indeed have been the result of the involvement of other institutions in foreign activities. Accordingly, too often the Foreign Ministry has been forced to explain or put a good face on the activities of others. Hence, the call for consistency and more control of foreign affairs by the Foreign Ministry, as expressed by the first set of critics, may actually be a good complement to the call for more experienced negotiators and better understanding of the role of

⁵⁶ Bavand, *op. cit.*

negotiation and bargaining in international relations by the second set of critics.

SOME CONCLUSIONS

- The conversation about the nuclear weapons option in Iran is not a very extensive one. Furthermore, it is about whether to have a nuclear option and not about existing nuclear weapons programs. This is not necessarily because the discussion of the current nuclear program, if it exists, remains taboo. It is because the way the debate is conducted is based on the assumption, strongly held by most players in the Iranian public realm, that at least for now the decision has been made not to pursue the nuclear option, irrespective of whether there was such a pursuit earlier on.
- The understanding of this limited public debate is nevertheless important because it gives clues not only about the marketplace of ideas on the issue that exists in Iranian society, but also the options that are available to the present and future leaders.
- The debate is as much about Iran's foreign policy as it is about the need to keep the nuclear option. It is also about the process that led to the choice to publicly give up the option to pursue nuclear weapons and test them, and the costs and benefits of such a choice.
- Proponents of maintaining the nuclear option support it on the basis of what they consider to be the demands of a realist understanding of international relations. Enhanced prestige, possibility for social mobility, and increased bargaining power at the regional level are considered to be some of the fruits of maintaining the option.
- Opponents of even maintaining a nuclear option object out of concerns over international reactions, which to them will further erode Iran's security.
- The domestic critics of Iran's continued adherence to relevant international conventions argue that Iran's decision is reflective of the Foreign Ministry's lack of understanding of international relations and the role of bargaining in international negotiations, and lack of skill in the art of bargaining on the part of Iranian negotiators.
- The proponents of international conventions support Iran's adherence on pragmatic grounds and essentially argue that Iran has no other choice but to adhere, given the danger lack of adherence would entail. At this point, they argue, the only security guarantee for Iran is

improvement in its international relations. This is why they have been critical of the Foreign Ministry for careless statements and actions that are perceived as contradictory to Iran's stated international obligations.

In short, the critiques coming from both sides of the nuclear issue ultimately focus on two publicly perceived weaknesses of Iranian foreign policy in general: inconsistency and lack of negotiating know-how and skills. These two criticisms can be considered complementary in so far as they converge on a scattered foreign policy process run by diplomats and negotiators with unextraordinary skill.

IRANIAN MISSILES AND PAYLOADS

Richard Speier

Science fiction writers in the 1930's and science writers in the 1940's wrote of the "pushbutton war." The "pushbutton war" would not require armies, navies, or air forces. It would be conducted by technicians sending missiles with vast destructive power into the heart of the enemy. The "pushbutton war" is a seductive vision for a proliferator nation with constrained budgets and infrastructures that limit the possibilities for a modern defense establishment. Iran is such a nation.

MISSILE BASICS

Ballistic missiles are guided rockets that are powered only for the first part of their flight. Thereafter, they coast (on a ballistic trajectory) to their targets.

Cruise missiles generally look like small airplanes and may be powered by rockets or air-breathing engines. Unlike ballistic missiles, cruise missiles are powered (that is, they cruise) all the way to their targets.

Although the layman tends to be fascinated by ballistic missiles, the military planner recognizes major advantages in cruise missiles. Cruise missiles generally cost less, are more flexible with respect to launch platforms, and are generally more accurate than ballistic missiles. In the Gulf War the coalition used three times as many cruise missiles as Iraq used ballistic missiles, and the military effects of the cruise missiles were far greater. In the payload section of this paper we shall discuss additional advantages of cruise missiles.

The most frequently cited parameter of ballistic missiles is range. However, there is a tradeoff between range and payload—as Iraq demonstrated by reducing its Scud payload by half and doubling its range to create the Al Hussein, capable of reaching both Tehran and Israel.

Similar tradeoffs can be made with cruise missiles. However, because air-breathing cruise missiles need not be encumbered with oxidizer, the range-payload tradeoff with cruise missile is different—with a small sacrifice of payload (to be replaced by fuel) resulting in a large

increase in range. Moreover, because of their flexibility with respect to launch platforms, cruise missiles can strike targets beyond those that would be covered if they were fired from national territory. Air-launched, and especially ship-launched cruise missiles can reach far-flung parts of the world.

Ballistic missiles are temperamental and unforgiving. They consist of tens or hundreds of thousands of components that must work right the first time under conditions of extreme heat, cold, acceleration, vibration, and pressure change. Statistics available for space launch vehicles (ballistic missiles with non-weapon payloads and special trajectories) demonstrate the unreliability of new types of such vehicles. The first 10 launches typically are successful only about one-third of the time. Dozens of launches and an average of six years of development are necessary to attain 75% reliability.⁵⁷

As a consequence, ballistic missile development and testing is time-consuming, expensive, and fraught with uncertainties as to the reliability of the final system. As ballistic missiles reach ranges in excess of 1,000-1,500 km, they require multiple stages—creating additional uncertainties and expense. Generally, a government will be able to afford far fewer long-range ballistic missiles than short-range ones.

Cruise missiles pose fewer of these problems because they operate in a more benign flight environment. They tend to be easier and quicker to develop, especially for a nation with an aeronautical industry. And it is more difficult for outsiders to know about cruise missile developments than about ballistic missiles. Cruise missile tests resemble airplane flights; they can follow circuitous routes, never leaving national territory. Ballistic missile test flights go into space, readily visible to appropriate sensors.

The disadvantage of cruise missiles used to be the difficulty in guiding them accurately. In the case of the German V-1 cruise missile of World War II, the missiles were forced to fly straight at medium altitude, making it possible for the Royal Air Force to shoot down the vast majority of them. Even so, the German cruise missiles—because of their low cost and consequent greater numbers—caused many times as many fatalities as did the German V-2 ballistic missiles. Today, with the universal availability of Global Positioning System (GPS) guidance, cruise missiles are able to be guided cheaply, accurately, and reliably over unpredictable flight paths at low levels that challenge defenses.

⁵⁷ Brian G. Chow, *Emerging National Space Launch Programs: Economics and Safeguards*, RAND/R-4179-USDP, (The RAND Corporation: Santa Monica, CA, 1993), pp. 43-46.

Ballistic missiles are difficult to defend against. But as ballistic missile defenses are improved, the predictable trajectory of the missiles will reduce their penetrability while modern cruise missiles continue to be difficult to intercept.

IRAN'S MISSILES

Iran possesses—and can manufacture—both ballistic and cruise missiles. To appreciate the significance of these missiles it is necessary to look at a map.

The shortest distance from Iranian territory to Baghdad is 130 km. During the Iran-Iraq war, and particularly the early 1988 "War of the Cities," Iran fired 300 km range, 1,000 kg payload Scud B missiles at Baghdad and other Iraqi cities. After the war Iran attempted to develop solid fuel Mushak series missiles with ranges of 130 to 200 km, with the express purpose of targeting Baghdad.⁵⁸ However, Iran was apparently unable to master the technology for these rockets. Late in 1989 Iran imported 200 Chinese CSS-8 missiles with a range of some 150 km and a payload of 190 kg, with Baghdad being the most obvious target.

Since the war Iran has purchased North Korean Scud series missiles with ranges up to 500 km. In 1998 Iran tested the Shahab 3, a derivative of the North Korean Nodong 1, with a range of 1,300 km and a payload of about 750 kg. This can reach Israel (nearest point in Iran to Tel Aviv: 1,020 km) with range to spare. The extra range has raised questions whether Iran would fire the Shahab 3 in a "lofting" (unnecessarily high) trajectory so that its reentry velocity would complicate interception by Israel's Arrow defensive missiles.

The Shahab 3 has only been tested three times in Iran—Once in 1998 and twice this year (2000). The first and third tests were reportedly failures and the second a success. This illustrates the unreliability of missiles early in a test series. Although the Shahab 3 must now be considered a threat to nations as far away as Israel,⁵⁹ it cannot be

⁵⁸ Unless otherwise cited, the data on Iran's missiles comes from the excellent website maintained by the British Centre for Defence and International Security Studies, <www.cdiss.org>.

⁵⁹ The bipartisan "Rumsfeld Commission" warned in 1998 that proliferator missile development might not follow the patterns of the major powers and points out instances in which missiles may be deployed after a single successful test. See *Report of the Commission to Assess the Ballistic Missile Threat to the United States*, Executive Summary, July 15, 1998, pp. 21-22. This warning was taken to heart in the September 1999 National Intelligence Estimate on ballistic missile threats. The estimate states that proliferator missiles "need not be highly reliable, because their strategic value is derived

considered a reliable threat until there are more successful tests. However, Iran's reported technical assistance from experienced missile builders in China, North Korea and Russia can considerably shorten this development process.

Iran is reportedly developing a Shahab 4, with a range of 2,000 km and a payload of 1,000 kg. This may be an Iranian derivative of North Korea's two-stage Taepo-Dong 1, tested in 1998 in North Korea as a three-stage "space launch vehicle" (SLV). If so, its capabilities would explain why the Iranian defense minister calls the Shahab 4 a "space launch vehicle."⁶⁰ It may also be a derivative of the Russian SS-4 MRBM, or it may combine features of both. Used as a ballistic missile the Shahab 4 will definitely have the capability of operating in trajectories that stress the Israeli Arrow missile defense. Used with a lighter payload (see below) and possibly a third stage, the Shahab 4 could target all of Western Europe.

The Shahab 5, also sometimes described as an SLV, has sometimes been attributed with features similar to North Korea's Taepo-Dong 2. That North Korean missile, in a two-stage configuration, is projected to be capable of delivering a 1,000 kg payload to a range of 6,000 km. Such a missile could deliver its full payload to London (3,700 km from the nearest point in Iran) and, of course, to any other point in Western Europe. The 1999 National Intelligence Estimate (NIE) on ballistic missile threats (see footnote 3) projects the possibility that Iran could test, in the "next few years" a three-stage version of the Taepo-Dong 2. The NIE does not make clear precisely which Iranian missile it is discussing when it says that Iran could test an ICBM capable of delivering "a several-hundred kilogram payload to many parts of the United States in the latter half of the next (i.e., this) decade, using Russian technology and assistance....Iran is likely to test an SLV by 2010 that—once developed—could be converted into an ICBM capable of delivering a several-hundred

primarily from the threat (implicit or explicit) of their use, not the near certain outcome of their use....With shorter flight test programs—perhaps only one test—and potentially simple deployment schemes, the time between the initial flight test and the availability of a missile for military use is likely to be shortened. Once a missile has performed successfully through its critical flight functions, it would be available for the country to use as a threat or in a military role. Thus, we project the year for a first flight test rather than the projected date for a missile's 'deployment' as the initial indication of an emerging threat." See Statement for the Record to the Senate Foreign Relations Committee, "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015" by Robert D. Walpole National Intelligence Officer for Strategic and Nuclear Programs, 16 September 1999, available at www.cia.gov/cia/public_affairs/speeches/archives/1999/walpole.htm.

⁶⁰ Reuters, "Iran Test-Fires Controversial Shahab Missile," 2:35 PM ET, July 15, 2000.

kilogram payload to the United States." Note that the distance from the nearest point in Iran to New York City is approximately 9,000 km.

Iran is also producing cruise missiles. The most capable in terms of range and payload is the Chinese Silkworm series, produced near Bandar Abbas. Iran is attempting to extend the range of the Silkworm to 400 km, presumably with its full 500 kg warhead. Some simple modifications can extend this range beyond 700 km with the same payload.⁶¹ With a lighter payload of biological agent that would still be lethal over a wide area (see next section), this modified Silkworm could have a far longer range. And, launched from a ship, it could cover much of the world's land areas.

MISSILE PAYLOADS

Ballistic missile payloads can consist of conventional explosives (as unitary explosives, submunitions to deliver smaller packages of explosive over a wider and better-patterned area, or fuel-air explosives), chemical or biological agents (again, in unitary or submunition form), or nuclear weapons.

Cruise missiles can deliver lethal payloads in all these forms. But cruise missiles have another option for the delivery of chemical or biological agents: spraying. By flying in a line at right angles to the wind and delivering a steady spray of chemical or biological agents, a cruise missile can be lethal over a much greater area than a ballistic missile with the same payload.

Standard computations can illustrate the impact of missile type on the lethal coverage of mass destruction payloads.

For instance, one can compare a cruise missile spraying 500 kg of anthrax and a ballistic missile delivering the same payload with a unitary release. For an anthrax dose that is lethal to at least 50% of unprotected people, the cruise missile covers an area 30 times as great as does the ballistic missile. Nonetheless, the ballistic missile covers nearly 1,500 square kilometers with 50% lethality.

For proliferator nations such as Iran over the next decade chemical and nuclear weapon effects cover a far smaller area for the same 500 kg payload than biological weapons. A ballistic missile with 500 kg in

⁶¹ See Dennis Gormley's remarks at a 1998 roundtable sponsored by the Carnegie Endowment for International Peace, available at www.ceip.org/programs/npp/cruise4.htm.

submunitions containing the nerve agent VX is lethal over about one square kilometer. This is only slightly smaller than the lethal (roughly 5 psi) area for a 10 kiloton nuclear weapon, the approximate yield that might be weaponized in an early attempt to fit a nuclear weapon into a 500 kg payload.

It is easy to draw the conclusions that (1) nuclear weapons and chemical weapons are approximately equally effective for the sort of capabilities states such as Iran might develop in the near term and (2) biological agents (especially sprayed from cruise missiles) are far more lethal. But some caveats are in order.

Biological agents depend very much on the weather for their successful delivery. And, even with weather that favors the lethality of biological agents, it is difficult to deliver them. They must be inserted below the inversion layer (a few hundred meters altitude more or less) at night and dispensed in particle diameters of 1 to 10 microns so they will be absorbed by an individual's lungs. This is difficult to achieve—especially with ballistic missiles, for which it is difficult to control the precise altitude of agent release. Moreover, the effects of biological agents can be greatly reduced by vaccinations, antibiotic treatment, simple face masks, and rooms with controlled ventilation.

Chemical agents also depend for their lethality on the weather—but not on the time of day or the particle size. They are thus less difficult to deliver successfully than biological agents. Passive defenses against chemical weapons are generally more difficult than against chemical agents. For example, against nerve agents, which can be lethal on the skin, it is necessary to have full body protection and not just a simple face mask. But antidotes, individual body suits, and controlled-ventilation shelters can considerably reduce the lethal area of chemical agents.

That is why military planners prefer nuclear weapons. They produce a much higher confidence effect, regardless of weather or simple passive defenses.

And military planners might well consider cruise missiles to be a better delivery system than ballistic missiles. Not only is there a major efficiency advantage for delivering biological agents (for chemical agents the advantage is not as great), but cruise missiles can deliver their biological payloads far upwind of the target—avoiding local defenses. And with their lower cost, far more payload can be delivered by cruise missiles on a given military budget.

IRAN'S MISSILE PAYLOADS

Conventional weapons, delivered by ballistic missiles against a populated area, can be terrifying. During the "War of the Cities" the scores of Al Hussein conventional warheads drove nearly a quarter of Tehran's population to flee the city—an experience similar to that of London during the V2 attacks. But the effect was terror, not great destruction.

As relatively unsophisticated ballistic missiles reach greater ranges, their inaccuracy grows from hundreds of meters to kilometers; and the probability that conventional warheads will damage a target (or even part of an urban area) diminishes. Moreover, because ballistic missiles with greater ranges are more expensive than those with shorter ranges, the available number of these increasingly ineffective conventional missiles diminishes as the range increases.

Iran may have a conventional ballistic missile force suitable for attacking Baghdad and other nearby targets with its Scuds and its cheaper 150 km range Chinese missiles. But, if it targets Israel and beyond, it increasingly strains credibility to argue that its ballistic missile force will have conventional warheads.

On the other hand, conventional payloads on Iran's cruise missiles—if they are equipped with easily-available accurate guidance—could pose a military or a terror threat to all targets within range. And, because they are relatively inexpensive, many of them could be used.

Iran could deliver chemical agents by ballistic missile. This is indeed the most likely payload for its long range missiles—at least until nuclear weapons are available in suitable numbers. Chemical agents, if delivered in sufficient numbers against a military target or an urban area, have a high probability of causing some damage. Submunitions, by spreading the chemical payload more efficiently over the target, can increase this damage; but they are difficult to employ—especially against missile defenses.⁶² Cruise missiles armed with chemical agents could also be effective both against military and population targets.

Iran is also reported to have a biological weapon program. Biological agents have an advantage when payloads or numbers of missiles are severely limited. But the uncertainties and difficulties of biological agent delivery are likely to make them minor players in a ballistic missile force. Biological agents, mated to cruise missiles, could

⁶² For a discussion of the difficulty of using "early release" submunitions against modern missile defenses, see *Defense News*, June 19, 2000, page 19, and *Defense News*, July 24, 2000, page 36.

be a far more significant threat. Indeed, if Iranian cruise missiles could not penetrate Israel's formidable air defenses by using ground-hugging, irregular flight paths, large numbers approaching from different directions, and the inherent stealthiness of their small sizes, then they could spray biological agents upwind of Israel, avoiding the air defenses entirely.

Nuclear weapons, until available in significant numbers and yields, are likely to be less important Iranian missile payloads than are chemical weapons. This is particularly true if Iran must sacrifice payload in its missiles in order to reach long ranges. Nuclear weapons require a minimum payload -- perhaps 500-1,000 kg for a nation with Iran's capabilities. Such payloads are likely to stretch the limits of Iran's missiles and leave little room for additional options.