
An Analysis of Iraqi WMD Strategy

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When Saddam Hussein launched the Iraqi weapons of mass destruction (WMD) program in the early 1970s, he aimed primarily to develop a deterrent capability. As the program advanced, however, the Iraqi leader came to view these weapons as a tool that could be used “to re-shape the map of the Middle East” through nuclear threats and coercion. Saddam apparently hoped to elevate Iraq to regional superpower status through the use of such threats, which escalated as Iraqi WMD capabilities increased. Analysts have long debated to what extent these threats were merely rhetoric, and to what extent they were an integral part of Iraqi WMD strategy. While some leaders in the Arab world, including Saddam Hussein, have been prone to extravagant oratory, their political practice has also been at times dramatic. In some instances, leaders have been forced by their own rhetoric into actions that they might not otherwise have taken. A close examination of Saddam’s rhetoric, then, is an important element in analyzing the development of Iraqi WMD strategy.

After coming to power in 1968, for example, Saddam and his lieutenants frequently pledged to eliminate Israel. From then until the end of the 1980s, such periodic promises were mere rhetoric, although they set a trend. Iraq lacked the capability to implement them. Iraqi calls to “liberate Palestine” intensified after the end of the 1980-88

Iran-Iraq War, by which time Iraq had acquired a substantial arsenal of medium-range ballistic missiles, potentially armed with unconventional warheads.¹ These threats grew even stronger in the period immediately preceding the 1990-91 Gulf War and were combined with other threats against states neighboring Iraq. Even though Baghdad’s rhetoric remained familiar, it carried with it a different significance in the changed political-strategic context. Such pledges coming from a state armed with chemical and possibly biological weapons could be shrugged off as pure bravado by a nuclear power such as Israel. However, had they come from a nuclear power, such statements would probably have triggered a major crisis. As has now been revealed, Iraq was on the verge of becoming the owner of a rudimentary nuclear arsenal at the time Saddam made these threats, raising questions about Iraqi WMD strategy and Saddam’s views on the strategic and political utility of WMD. In particular, Saddam’s threats—combined with what is now known about his plans for the possible use of WMD during the Gulf War—strongly suggest that he does not view WMD merely as a means of deterring an enemy from attacking Iraq with WMD. Rather, it appears that he views those weapons as tools of coercion and a potential method to ensure the survival of his regime in Baghdad. If one considers his rhetoric and the pre-delegated authority he granted to his missile

force commanders as an aspect of his political practice, then this position contradicts the views of those who argue that Saddam acted with restraint during the Gulf War. If the more pessimistic view of Saddam's WMD strategy is correct, the acquisition of a nuclear capability by Iraq may hurl the Middle East into an era of great strategic instability.

This article will review the development of Iraqi WMD programs and strategy from inception to the present, with particular attention to public statements by the Iraqi leadership regarding the political and strategic utility of WMD. First, the origins and initial motivations of the Iraqi WMD program will be analyzed. Second, the article will review Iraqi efforts to establish a deterrent relationship with Israel in the 1990s, in which Iraqi chemical and possibly biological weapons were balanced against Israeli nuclear capabilities. The article will also demonstrate, however, that at certain points the Iraqi president threatened to use WMD as an instrument of compulsion against Israel and other countries in the Middle East. Finally, the article will provide a new analysis of the instructions and orders that Saddam issued to Iraqi missile unit commanders armed with WMD during the Gulf War. New details about these orders suggest that Saddam was not only ready to risk the future of his country in a last-ditch gamble, but that he may have been prepared to actually use Iraq's chemical and biological arsenal.

IRAQ'S MILITARY NUCLEAR PROGRAM: INITIAL MOTIVATIONS

According to the Iraqi physicist Dr. Khidir Hamza, in November or December 1971, he met with Drs. Maysir al-Malah and Husham Sharif, two leaders of the Iraqi Atomic Energy Commission (IAEC)—both graduates of U.S. universities as well as members of the ruling Baath party. The two men explained to Dr. Hamza that the IAEC budget would remain extremely limited unless the scientists could gain the attention of Saddam Hussein. Saddam was then vice president, deputy chairman of the Revolutionary Command Council (RCC), and deputy secretary general of the Iraqi Baath Regional Leadership (RL). He was, however, already considered the Baath regime's "power behind the throne." The only way to draw Saddam Hussein's attention, they argued, was to convince him that the IAEC planned to embark on a military nuclear program. At first, the idea was to acquire a civilian nuclear fuel cycle, which would later go through a quantum leap and initiate "...a fully fledged plan for the construction of

nuclear weapons." Dr. Hamza added that "...apparently this was Saddam Hussein who initiated this plan to start with." Indeed, beginning sometime in 1972, all progress reports were sent directly to Saddam's office in the presidential palace and not, as required by protocol, to the office of the minister of higher education, who was officially in charge of all activities of the IAEC. According to Dr. Hamza, the initial willingness to cooperate with Saddam on the part of the scientists was driven by their wish to provide Iraq with a deterrent against Israeli nuclear weapons. They believed that three or four nuclear bombs would suffice to create a "balance of terror."²

In 1973, supervision of the IAEC was secretly shifted from the Ministry of Higher Education to Saddam's office. In September 1973, Iraqi nuclear scientists, including Dr. Hamza, participated in an annual conference of the International Agency of Atomic Energy (IAEA). Iraq subsequently developed a good relationship with the IAEA that resulted in the transfer of extremely useful nuclear information from the IAEA to Iraq, led by a regime that secretly aspired to acquire nuclear weapons. Having signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968 and ratified it in 1969, Iraq was eligible to receive support from the IAEA. Disdainfully, Iraq took full advantage of the opportunity in order to develop its nuclear weapons program.³ Many years later, Iraq again received valuable information for its military nuclear program from a most unexpected source—the U.S. government.⁴

In analyzing Iraq's decision to weaponize, the question arises: what drove the Iraqi leadership to seek a nuclear weapon capability at the end of 1971? The stated reason makes relatively little sense. Incurring such a huge expense to deter Israel would have been a sensible decision for a large state like Egypt or Syria in the wake of the Arab defeat in the 1967 Six Day War. But neither state embarked on such a project, apparently for a combination of political, strategic, and economic reasons. Iraq had no common border with Israel, and thus the fear of an Israeli nuclear threat was less relevant unless, by offering the Arabs a nuclear umbrella, Saddam hoped to become the dominant Arab leader. Financially, Iraq could ill afford such a venture, unless it was a matter of sheer survival. Relations in 1970-1972 with the foreign oil companies managing Iraq's oil resources reached rock bottom, and oil revenues were very low.⁵

Despite these factors, there seem to be two reasons for Saddam's ambitious initiative to acquire nuclear weapons.

First, by 1971, Saddam Hussein finally possessed enough sole authority within Iraq to launch such a project. By 1970, he had eliminated his most formidable opponents within the Baath regime, Generals Hardan Abd al-Ghafar al-Tikriti and Salih Mahdi Ammash. After that, he was the most powerful man in Iraq and could authorize and finance basically any projects he wished. Second, in November 1971, Iran invaded and occupied two strategic islands at the mouth of the Persian Gulf, the Greater and Lesser Tunbs, and it expanded its control over a third one, Abu Mussa. Great Britain turned a blind eye to this activity, because it considered this expansion as compensation to Iran for its renunciation of its historic claim to Bahrain. The Gulf states were clearly unhappy but unwilling to confront Iran. Only Iraq objected publicly.

The Iranian occupation was perceived in Baghdad as a major threat to Iraq's access to the oceans. In addition, Iraq and Iran had been locked in a major conflict over sovereignty and control of the Shatt al-Arab waterway, a key access route to the Persian Gulf, since the spring of 1969. It is true that even before seizing the three islands, Iran could have blocked the Iraqi navigation route via the Shatt al-Arab to the Persian Gulf, but doing so would have immediately triggered an Iraqi response and therefore restricted access to the waterway from both sides. Having seized the three islands, however, Iran could seriously limit Iraqi navigation through the straights without providing Iraq with a straightforward pretext to retaliate in the Shatt.

Iraqi calls for support from other Arab states yielded little. To add insult to injury, Egyptian President Anwar al-Sadat sent a message to the Shah of Iran congratulating him on his achievement. These reactions were hardly surprising. By late 1971, the Baath regime in Baghdad had already turned itself into the pariah of the Arab world. Baghdad had publicly attacked nearly every Arab regime and deeply offended most Arab leaders, blaming them for their defeat in the Six Day War of June 1967. Al-Sadat had a special account to settle with Baghdad: in May 1971, his closest ally, the Sudanese leader General Numeiri, was toppled by a communist *coup d'état*. The Iraqi Baath regime openly supported the revolutionaries even before they seized power. Within a few days, the coup failed and Baghdad found itself in a most embarrassing political situation. Sadat could not forgive Baghdad for this incident, and when Baghdad needed Egyptian support against Iran, Cairo turned a cold shoulder. The political atmosphere in Baghdad in November-December 1971 was thus one of impotent rage and isolation.⁶

Baghdad's isolation intensified, owing to its failure to topple the existing regimes in Jordan and Syria and replace them with pro-Iraqi Baath regimes. As a result, Iraq could not expect any Arab support against a potential enemy that was three times its size in area, population, and resources. Furthermore, while Iran could rely on U.S. assistance at the time in case of a major confrontation, Iraq could not rely on the Soviet Union for support. Under Saddam Hussein's guiding hand, the Baath regime brutally repressed Iraq's communist party, beginning in July 1968. In crushing domestic enemies, real or perceived, Saddam overlooked potential consequences in foreign relations. From his perspective, domestic considerations were primary. The repression of the communists created a deep rift between Iraq and the only outside power that could extricate it from total disaster in the event of a confrontation with Iran.

Furthermore, Saddam and his strategic planners probably suspected that Iran had nuclear ambitions as well. It is not surprising that at this precise juncture, Saddam Hussein, the chief strategic mind of the Baath regime in Baghdad, started to work towards turning Iraq into a nuclear power. With neither Arab allies nor superpower support, Iraq was on its own. Only a nuclear arsenal could serve as an equalizer. As Dr. Hamza noted in his interview with the author, Iraqi scientists recognized that becoming a nuclear power could take as long as two decades. However, Saddam was never one to avoid long-term planning. He proved to be a patient man, and in 1971 he was only 34 years old and had many years before him.

Still, in the meantime, it was necessary to secure the survival of the regime. Saddam's solution was to initiate a military nuclear program, while simultaneously making major concessions to both the Soviet Union and Iran. Hence, in 1972, the persecution of Iraqi communists was halted, and in 1973 they were co-opted into the National Front. The communists were allowed to appear in public under their own banners in exchange for total submission to Baath hegemony. In addition, Iraq signed a Treaty of Friendship and Cooperation with the Soviet Union in April 1972, which allowed Iraq to receive arms and financial assistance from the Soviet Union. In March 1975, Saddam signed a treaty with the Shah of Iran in Algiers, conceding to Iran sovereignty over the eastern part of the Shatt al-Arab from the *thalweg* line, in exchange for an Iranian commitment to cease all assistance to the Iraqi Kurds and Shiites and to establish good neighborly relations. However, the most important element of Saddam's strategic

plan was the Iraqi nuclear program. It is impossible to determine, however, whether Saddam's goals went beyond defensive calculations at this point.

Beginning in 1973, the Center for Nuclear Research in Tuwaitha received generous injections of funds. In that year, Dr. Hamza was sent to the United States with a long shopping list and a very large budget for that era—\$3.5 million. The expenditures for the nuclear program were approved directly by Saddam. During the 1970s, however, progress was very slow. The next jump-start occurred immediately following Saddam's rise to the presidency in July 1979.⁷

Iraq was again in conflict with Iran, which was now after the overthrow of the Shah under the leadership of Ayatollah Ruhollah Khomeini. The need for an Iraqi deterrent was again urgent, and Saddam's ambitions underwent a quantum leap. He began to call in the nuclear scientists for "motivational" discussions. Dr. Hussein Shahrastani, the nuclear program's chief of chemical development, claims that he was asked to cooperate but refused. As a result, in December 1979 he was arrested and tortured. In the summer of 1980, about one month or so before Iraq invaded Iran, Shahrastani met with Barazan Ibrahim Hasan al-Tikriti, Saddam's younger half-brother, while he was in prison. Barazan presented Saddam's vision of the new Middle East to Shahrastani: "...we want a strong hand in order to redraw the map of the Middle East..." He argued that Iraq needed nuclear weapons to accomplish this goal. Barazan did not elaborate on Saddam's vision of the new Middle East, but Shahrastani had little doubt that it included territorial expansion.⁸ Bearing in mind Saddam's long-term pan-Arab ambitions, as reflected in his speeches, and his ambition to be seen as a military commander and strategist on a par with historical figures like Sargon the Akkadian, Hammurabi, Nebuchadnezzar, and the Tikrit-born Islamic warrior Salah al-Din al-Ayyubi (Saladin),⁹ one may surmise that, even if he did not actually intend to conquer other Arab lands by military force, he likely intended to use his nuclear status in his quest for hegemony in the Arab world.

By 1979, the first link in Iraq's nuclearization was already in place: the French-built 40-megawatt reactor at Tuwaitha. According to Dr. Hamza, the decision to acquire this reactor was made in 1973. The intention was to exploit both the knowledge accumulated through the operation of the reactor and the reactor infrastructure itself, in order to produce weapons-grade plutonium.¹⁰ After a 1981 Israeli air raid destroyed the reactor known famil-

iarly in the West as the "Osirak" reactor, which the Iraqis had named Tammuz for the month of the Baath 1968 revolution and the Sumero-Akkadian god of fertility and re-birth, Iraq chose a new acquisition path. Rather than seeking a bomb based on plutonium, Iraqi scientists decided to produce weapons-grade uranium (over 90 percent uranium-235) as the basis of their new bomb program. They intended to distill it from natural uranium by employing two different processes: calutrons, or electromagnetic isotopic separation (EMIS), and gaseous diffusion.¹¹

THE GENESIS OF IRAQI WMD STRATEGY

Two weeks after the destruction of the Tammuz reactor and Israeli Prime Minister Menachem Begin's speech, in which he announced that Israel would not allow any Arab country to produce nuclear weapons, the Iraqi reply came in a speech made by Saddam Hussein to his cabinet ministers.¹² Such a long delay in responding and the special forum implied a great degree of consideration on the part of the Iraqi leadership. Saddam called upon all nations who opposed the subjugation of one nation to another and were committed to "security and peace" to help the Arabs acquire nuclear weapons. Only this way, he argued, would a "balance of terror" be created, and only this way would Israel be prevented from employing nuclear extortion against Arabs. Saddam argued that in the absence of an Arab nuclear capability, Israel would use nuclear threats to force the Arabs not only to withdraw from territories acquired in past wars, but also to introduce major changes in their education and culture. He claimed that Israel would even threaten to use its nuclear weapons unless the Arabs changed their holy scripture, so as to present the Jews in a more positive light.

Saddam concluded that without the establishment of a mutual deterrence relationship, Israel would prevent the Arabs from achieving any scientific progress. With its own nuclear deterrent, however, the Arabs could stabilize the Middle Eastern arena just as the United States and the Soviet Union had stabilized their relationship. Even though the Iraqi leader spoke in terms of an Arab bomb, he implied that Iraq had achieved the necessary scientific level to become a responsible nuclear power. He also implied that his nuclear program would continue, telling his "technicians" that the responsibility for the defense of Iraq and the Arabs laid upon their shoulders. The Arab "nation," he announced, would continue, "...to charge forward towards its goals..." in science and technology:

What they destroyed today, we are capable of acquiring tomorrow...until they are no longer able to demolish the edifice of our civilization...We always turn every lesson into a program...that will add to the greatness of Iraq in the service [read: leadership] of the Arab nation.¹³

These words cannot be understood as anything less than a promise to build an Iraqi nuclear arsenal, one that Israel would not be capable of destroying again. The speech also implied that Saddam believed that Iraq was destined to lead the Arabs. Saddam even disclosed that in early 1979 he turned to “friendly countries” with a request to provide Iraq with weapons that would have forced Israel to reconsider its attack on the Iraqi reactor but, he said, this request was turned down.¹⁴

It may be assumed that Saddam’s request, most probably directed to the Soviet Union, included ballistic missiles that could reach Israel. Indeed, nine years later in April 1990, Saddam threatened to “burn half of Israel” if it attacked Iraqi installations. In January 1991, Iraq launched 39 missiles against Israel, though not in retaliation for an Israeli attack, but rather as part of a wider strategic approach to defeating the Allied coalition in the Gulf War. Nevertheless, in 1981, Iraq was already at war with Iran, and it is quite possible that the Iraqi president was thinking of nuclear weapons not only in relation to Israel, but perhaps primarily in the context of the Iran-Iraq War.

How should one interpret Saddam’s unusual plea to the “peace and freedom loving nations” to provide Iraq (or “the Arabs”) with nuclear weapons? On the surface, one could argue that his idea was a sound one. Creating an environment of mutually assured destruction (MAD) between Israel and Iraq (or Israel and the Arabs) made some sense in terms of traditional deterrence theory. After all, it is widely believed that owing to the establishment of MAD, there have been no wars among the great powers since 1945. It would appear that by publicly voicing support for this idea and giving it a high international profile, Saddam intended to begin legitimizing an Iraqi/Arab nuclear arsenal. And while it is very unlikely that the Iraqi president truly believed that Western and communist governments would fully accept his approach, even winning some Iraqi and Arab hearts and minds to this idea could be seen as an achievement. As was mentioned above, at least some Iraqi nuclear scientists were won over by this argument.

Obviously, a military nuclear program also involved serious risks: it could fail, and huge resources would be

lost. It could also turn Iraq into a target of preventive actions on the part of Iran and Israel, or perhaps Turkey. It would not be surprising if some more cautious senior Iraqi officials objected. It was rumored that in the 1980s, Minister of Defense General Adnan Khayr Allah, Saddam’s maternal cousin, objected to nuclearization for these reasons. But Saddam proved to be a gambler.

IRAQI WMD STRATEGY DURING THE IRAN-IRAQ WAR

As is well documented, in 1983 or 1984, Iraqi troops began using chemical weapons (CW) against the Iranian army.¹⁵ It is quite clear, however, that Iraq began this CW campaign because Iran initially lacked the capability to retaliate. Surprisingly, the international community kept essentially silent. It may be argued that while clearly violating the Geneva Convention, to which Iraq was a signatory, this strategy was rational. In the first place, it caused mass demoralization among Iranian forces and gave Iraq a winning edge. Secondly, Iraq did not pay any significant international price. Military support continued to flow from the Soviet Union and France, as well as a few other countries. From the end of 1984, intelligence information started to flow to Iraq from the United States and, eventually, while still using poison gas, Iraq even received significant U.S. loan guarantees. Indeed, even after Iraqi forces used CW against the civilian population of Halabja in March 1988, the international community did not punish Iraq in any way.

Toward the end of the Iran-Iraq War, Saddam reportedly considered escalating Iraqi use of CW. According to Major-General Wafiq al-Samarra’i, the former head of Iraqi military intelligence, sometime in late 1987 or early 1988, Saddam planned to compel Iran to stop the war by using al-Hussein missiles with chemical warheads. Had Iran not agreed to a cease-fire, the plan was to begin by bombing Tehran with conventional bombs and missiles, in order to shatter windowpanes throughout the Iranian capital. Then a barrage of missiles with chemical warheads would follow, the result being that the poison gas would penetrate easily into homes.¹⁶ At about the same time, the Baath party branch in Baghdad ordered a large-scale exercise of the evacuation of two city quarters, apparently in preparation for an Iranian CW attack. The press reported that the exercises were a “total success” and announced that they would be continued soon.¹⁷ There is little doubt that the most central component in Saddam’s calculation was Iran’s inability to respond in kind. At the

time, Iran did not have chemically-tipped missiles that could reach Baghdad, even though Iranian missiles with conventional warheads could. Nevertheless, by the end of 1987, the Iraqis assumed that Iran had chemical bombs that could be dropped from airplanes.¹⁸

Considering the rudimentary level of Iranian CW, the great limitations of its air force, and the massive air defenses around Baghdad, Saddam could calculate that only very few such bombs would actually reach their targets, and the casualties would be far fewer than in Tehran. After all, the Iranians had no anti-missile defenses at all. The casualties would be further reduced if the evacuation of Baghdad started prior to launching the chemical attack on Tehran: before the Iranians realized what was happening, much of Baghdad would be evacuated (starting, apparently, with families of the ruling elite), and Iraqi chemical missiles would be falling on Tehran. Still, this plan meant that Saddam was ready to risk the lives of many Baghdad civilians in order to stop the war that, until he achieved his first meaningful victories in April-July 1988, was threatening his regime.

How could Saddam justify to his people the loss of Iraqi lives as a result of an Iranian chemical retaliation against Baghdad? Judging by Saddam's track record, this should not have been difficult. To date, Iraqis have been told that the Iran-Iraq War was launched by Iran on September 4, 1980, rather than by Iraq on September 22, 1980, as is commonly believed internationally. Saddam's propaganda machine could always claim that the Iranians were the first to launch their chemical attack. The views of foreign observers have never prevented this well-oiled machine from carrying out the leader's instructions. It may also be assumed that, in the face of international equanimity, Saddam reached the conclusion that he could use CW against Tehran essentially with impunity. Khomeini had by then managed to isolate himself so effectively from the rest of the world that Iran could expect little sympathy from East or West. It may be summed up, then, that Saddam's strategic decision to use CW against Iran was not only rational but, even though cruel and immoral in the extreme, highly intelligent.

IRAQI WMD STRATEGY ON THE EVE OF THE INVASION OF KUWAIT¹⁹

On April 2, 1990, at a meeting with his army officers, President Hussein threatened that if Israel dared to "...strike at any [Iraqi] metal industries...I swear to God that we shall burn half of Israel if it will try [to do some-

thing] against Iraq."²⁰ In this speech, Saddam also referred vaguely to the Iraqi duty to help other Arab states, but it was sufficiently clear that Israel would be the target of retaliation with chemical (or possibly biological) weapons only if it attacked Iraqi territory. There is no reason to doubt reports that the main reason for the president's threat was fear that Israel was about to attack Iraq's nuclear facilities again.²¹ Just some six weeks earlier, a calutron facility was inaugurated in Tarmiyah.²² The immediate source of the Iraqi panic is not clear. But it may be assumed that their high regard for the Israeli intelligence capability led them to believe that Israel had obtained information about Saddam's new uranium enrichment facility and that Prime Minister Menachem Begin's pledge from 1981 remained credible. The skill of Israel's Air Force for precision bombing raids became sufficiently clear to the Iraqi leaders and military in 1981, and fear of a repetition was surely inevitable. Iraqi military intelligence could hardly afford a repetition of the June 1981 debacle and may have been inclined to sound the alarm even when information was insufficient.

The response of the Israeli government under Prime Minister Yitzhak Shamir was extremely cautious. Israel was fully aware, of course, that CW were not comparable to nuclear ones, but some Israeli officials feared that Iraq had a few missiles armed with biological weapons (BW). As a senior retired Israeli army officer involved in national security decisionmaking at that time revealed to the author, the Israeli leadership was concerned that the expression "burn" meant bacteriological contamination of some Israeli population centers, rendering them uninhabitable.²³ Anthrax came to his mind then. According to this retired officer, Israeli caution resulted from fear that a highly publicized and strongly worded declaration intended to deter Iraq could backfire and push Saddam over the edge. Clearly, the Israeli government had little regard for Saddam's mental balance. As a result, Israel assured Iraq, mainly through third parties but also through the public media, that it had no intention to attack, while at the same time warning in carefully measured terms against any Iraqi attack on Israel.

Saddam seems to have attained his goal in this case. If Israel had planned any raid on Iraqi nuclear facilities, it was called off. If Israel had never planned a strike, Saddam could still claim that it had and argue that Israel had been forced to cancel its planned raid, thanks to his high profile warning. Indeed, a European journalist who was visiting Iraq at this time stated that Iraqi army officers, who

had never had much respect for their president's strategic thinking, began to admire his strategy for the first time after this incident. As they saw it, with his declaration to burn half of Israel, he created instant yet effective mutual deterrence, even though it was not exactly along the lines of classical MAD. After all, they knew that while Israel was capable of destroying Iraq—at least if their assessment of its nuclear capability was correct—Iraq was in no position to destroy Israel. Still, they believed that the damage Iraq could inflict on Israel was sufficient to dissuade the latter once and for all from any attack on Iraq. The Iraqi press expressed admiration for Saddam's strategic ingenuity.²⁴

Unexpectedly, however, Saddam's defiant warning introduced a far more profound change in the Arab-Israeli arena. Following his speech, in which he placed Iraq on par with Israel, his popularity in the Arab world reached an unprecedented peak. Many Arabs saw him as a great supra-national hero.²⁵ It would seem that this newly found admiration in the Arab world had an intoxicating influence on Saddam. For eight years he had been engaged in an excruciating war against a great Islamic leader, Ayatullah Ruhollah Khomeini, and a revolutionary Islamic regime. To survive, Saddam had to rely on both the Soviet Union and the West. His popularity in the Arab world was far from impressive, but now, thanks to his declaration, things took a promising turn, and he was quick to exploit it.

Beginning in mid-April 1990, he openly committed Iraq to retaliate against Israel "with everything we have," not only in the case of an Israeli attack against Iraq, but also in the case of such an attack against "any Arab state" requesting Iraqi protection. At this point, at least on the declarative level, Saddam presented himself and his country as the defender of all Arabs, offering them an Iraqi non-conventional umbrella. For example, in a speech in one of the Ramadan fast-breaking dinners (*ma'dabat al-iftar*), addressing the Revolutionary Command Council and the Iraqi General Staff, Saddam came very close to admitting that Iraq actually possessed biological bombs or warheads that could make the Israeli population very sick:

If anyone anywhere on the globe, whatever his size, will try to attack any Arab who wishes to accept our help we shall retaliate against the aggressor...If we can we shall throw stones; if we can we shall launch missiles; if we can we shall strike with all our missiles, bombs, and all our abilities...We shall make them very sick...the Iraqis will tell them when to breathe.²⁶

It may be argued that CW also make people "sick," but the view in the Israeli military, at least, was that Saddam could have meant biological weapons.²⁷

It was fairly clear, however, that Saddam did not really mean that Iraq would defend the whole Arab world: Israeli forces were, at the time, maintaining a "security zone" inside Lebanon, and no Iraqi attempt using either the threat of CW or BW was made to compel them to withdraw. It is very likely that in real terms the Iraqi WMD umbrella was extended only as far as Jordan, a country closely associated with Iraq since the late 1970s. Still, one can attempt to extrapolate from these speeches what Saddam would do once he truly became a nuclear power. It does not seem too far-fetched to infer from this speech that in Saddam's mind there was an intimate connection between the ownership of nuclear weapons and Arab leadership. It may also be suggested that this connection was not born in April 1990, but most likely when Saddam Hussein initiated the quest for a nuclear arsenal in the 1970s.

In 1990, however, there was an opportunity the Iraqi president could not resist; even though he was not fully prepared for it, as Iraq was still at least one year and possibly a few years from becoming a nuclear power. During 1989-1990, the Soviet Union began to disintegrate and recede from the Middle Eastern horizon. Indeed, in his speech at the summit of the Arab Cooperation Council (ACC) in February 1990, Saddam implied that he was prepared to offer an Iraqi umbrella to the Arabs as a replacement for the vanishing Soviet one.²⁸

Immediately following the April 2, 1990, speech, in which he threatened to "burn" half of Israel, Saddam performed a policy reversal in response to growing international concern. After the United States and Egypt expressed concern that the situation could get out of hand, Saddam announced that he would use CW only in retaliation for an Israeli nuclear attack on Baghdad. However, in an April 10, 1990, conversation with five U.S. senators in Baghdad, he exposed another layer in his non-conventional strategy. Saddam reported to them that he had already created an Iraqi version of a doomsday machine:

I instructed the commanders of the air bases and of...the missile units that it is sufficient that [if] you [the air commanders] hear that Israel dropped a nuclear bomb on some place in Iraq then [it] will be your duty to take everything that can carry a binary [chemical weapon] to Israel and send this to their territory. This, because I may be in Baghdad when I am

convening a leadership meeting and [Israeli] nuclear bomb will fall on us [and we shall be unable to order retaliation].²⁹

In early May 1990, Saddam's WMD strategy took another leap. In a meeting with Palestine Liberation Organization (PLO) Chairman Yasir Arafat on April 19, 1990, the minutes of which were published only three weeks later, Saddam promised the Palestinian leader nothing short of "the liberation of Jerusalem" (apparently also meaning the West Bank and the Gaza Strip) single-handedly. Apparently, he stated that if it were not feasible through actual war, then WMD would be a potential tool of coercion. In exchange for this protection and assistance, he demanded that Arafat not make any political concessions to Israel:

Brother Chairman [Arafat], from now on we shall not need any more concessions or political efforts because you and I know that they are useless: they only increase the enemy's haughtiness...from now on...no peace, no recognition and no negotiations [all three "no's" of Khartoum]...we shall support it [the Palestinian Intifada] by our air force and accurate missiles in order to deal a blow on the enemy and defeat it even without ground fighting...we have not cut down our military forces [after the Iraq-Iran War] and we have even beefed them up.³⁰

This promise could have been interpreted as a leap from deterring Israel to an attempt to compel it to withdraw from Jerusalem, the West Bank, and the Gaza Strip under the threat of WMD use.

There is no doubt in the author's mind that the meeting with Arafat was genuine. In the first place, the language in the Arabic text of the meeting reflected Saddam's typical style. Second, the news source *al-Muharrir* usually had, during that period, good information on Iraq that appeared to originate from high places in Baghdad. Also, it is not very likely that an Arabic-language magazine generally sympathetic to both Arafat and Iraq would issue such a sensitive transcript without checking it first with Baghdad, if it had not received it from Baghdad in the first place. If the text was received from Arafat's men, it is highly unlikely that the Palestinian leader would falsify what his great benefactor had said in such an important conversation. Furthermore, in 1992 Arafat gave an interview to the Italian newspaper *La Repubblica*, in which he complained bitterly: "In 1990 the Iraqi President Saddam Hussein deluded the Palestinians [read: "me"]... that his

missiles would liberate them from the [Israeli] occupation, but now the situation is totally different."³¹

One must point out that Saddam never repeated this promise. Rather, he called upon the Arabs to unify and build their "power factors" that would enable them, in an unspecified way at an unspecified moment, to liberate Palestine and Jerusalem from the Israeli occupation.³² Still, the conversation with Arafat demonstrated how easily Saddam could be swept off his feet by the prospect of Arab leadership. It is quite possible Saddam also decided to invade Kuwait in April 1990. Having realized that his popularity in the Arab world was reaching an unprecedented peak—something that had eluded him for so long—he may have decided to exploit the situation and become the superpower of the Persian Gulf region. Indeed, immediately following the occupation of Kuwait, the Iraqi propaganda machine described it as the first step towards the liberation of Palestine, the most important pan-Arab goal.³³

It should be emphasized that Iraqi WMD programs were not driven solely, and probably not even primarily, by the Palestine question or the prospect of acquiring pan-Arab leadership. Iraq has two traditional enemies, Iran and Turkey, each of them three times its size in territory and manpower. After the experience of the Iran-Iraq War, Iraq felt it needed a missile force in order to keep Iran at bay. Significant disagreements also divided Iraq and Turkey. In May 1990, Turkish Prime Minister Yeldirim Akbulut made a state visit to Baghdad, and the Iraqi president kept him waiting for a long time before receiving him. When the meeting began, Saddam launched into a harsh critique of Turkish policy regarding the Euphrates River, which had, earlier that year, denied Iraq much needed water. "What will happen to your country now?" he asked the prime minister in a harsh tone, "NATO has dispersed, it is no longer important. The [United States] will not help you. What will happen to you now?"³⁴ Akbulut later commented that Saddam's remark was not "very innocent." He concluded: "...it would be good to put an end to the dictatorial rule of Saddam." According to the same source, on another occasion, the Turkish prime minister said, "Iraq wants to establish superiority in the region. Its relations with Turkey have not been so sincere."³⁵

SADDAM'S WMD STRATEGY DURING THE KUWAIT CRISIS

Soon after the invasion of Kuwait, Iraq warned that because Israeli fighter aircraft were participating in the preparation of the international coalition, Iraq would attack Israel if war broke out.³⁶ At this time, though, Iraq did not threaten the use of WMD against Israel. However, Iraqi policy changed after the beginning of the Allied air offensive on January 17, 1991. After about two weeks of air attacks, an Iraqi spokesman announced that Iraq would use all weapons in its arsenal, including WMD, and that it would not give up one inch of its territory "...from Zakhu [in northern Kurdistan] to Kuwait."³⁷ The Iraqi supreme command also threatened to make use of a new and secret kind of weapon that would decide the outcome of the war. Likewise, a few days before the Allied ground offensive started, when Iraqi military intelligence could possibly already identify the preparations, Saddam dramatically asked for the forgiveness of "people of justice" around the world for "every action" that Iraq might be compelled to undertake.³⁸ Starting in early February 1991, Western newspapers reported that Saddam had authorized his field commanders to use WMD on the battlefield, relying on their own judgment. The British papers, the *Sunday Times* and the *Sunday Express*, claimed that British intelligence had reported to the British cabinet that "...the question is no longer whether but, rather, when" Iraq would use CW in the Kuwait arena. These reports were apparently confirmed by U.S. intelligence.³⁹ There were some additional indications that Iraq was considering the use of CW against Allied forces once the ground offensive had begun. A senior Israeli military officer, who was one of the main decisionmakers during the Gulf War, reported that on the eve of the ground offensive, Israel received reports that Saddam's voice had been heard on the Iraqi military radio system ordering his officers to "...prepare the dirty ones."⁴⁰

To date there is no evidence that Iraq used WMD in the Gulf War, although U.S. military officials have said that some Iraqi CW were stored in the Kuwait area. One may conclude that all the warnings of possible Iraqi WMD use issued in the West during the Gulf War were the result of a deliberate Iraqi disinformation campaign designed to deter the Allied forces from launching a ground offensive. But the Allies were not deterred. Instead, U.S. spokesmen initiated a deterrence campaign of their own. For example, U.S. Secretary of Defense Dick Cheney announced that Iraqi use of WMD against Israel might

lead Israel to "...retaliate with unconventional weapons as well..."⁴¹ The Israeli Chief of Staff, Lieutenant General Dan Shomron, announced during the second half of the Gulf War that Israel would not be the first state to use nuclear weapons in the conflict.⁴² This announcement represented a quantum leap in the Israeli approach to the issue of "the bomb in the basement." Prior to this statement, Israeli spokesmen were careful to say that Israel would not be the first party "to introduce" nuclear weapons to the Middle East. By declaring now that it would not be the first one to "use" such weapons, it admitted by implication that it was already in possession of nuclear weapons. The retired senior Israeli military officer interviewed for this article stated that this change in wording was intentional and designed to deter Iraq from using WMD.

If Saddam ever seriously contemplated the use of WMD during the Gulf War against armed forces or states that possessed, or were believed to be in possession of, far more potent WMD arsenals than that possessed by Iraq, he clearly reconsidered. At least as long as his own life and rule in Baghdad were not directly threatened, there was little sense in using such weapons. Saddam probably realized that any use of chemical or biological weapons against the Allied troops, Saudi Arabia, or Israel, would trigger two categories of response, both highly undesirable for Iraq. First, the Allies could retaliate using tactical nuclear weapons that would wipe out his entire army as well as the Iraqi Republican Guard, which was crucial for his personal protection and regime survival. Secondly, had Iraq attacked Israel with chemical and biological weapons, Saddam could not rule out Israeli nuclear retaliation. The Iraqi leader had to consider the possibility that a WMD strike on Israel could lead to the destruction of Baghdad, Mosul, Basra, and his own hometown, Tikrit, and environs. There was no reason to take such a huge risk, as long as there was no immediate danger that Baghdad would be occupied and the regime toppled. Furthermore, Saddam must have considered that Iraqi use of WMD could provoke the Allied coalition into seizing and occupying Baghdad, in order to eliminate the Baath regime itself. In short, as long as there was a good chance that the Allied ground offensive would end once Kuwait was liberated, not all was lost, and thus there was no point in employing doomsday weapons.

Saddam did, however, notably ignore U.S. attempts to deter him from taking certain actions. A letter from President Bush to Saddam delivered to Tariq Aziz by

Secretary of State Baker on January 9, 1991, warned that the United States "...will not tolerate..." the destruction of Kuwaiti oil fields and threatened "...the strongest possible response..." in the event the fields were destroyed. The letter also cautioned Iraq that any terrorist action against members of the Allied coalition would entail "...a terrible price." Nevertheless, Saddam did destroy the oil fields and attempted (with very little success) terrorist acts. Perhaps Aziz never told Saddam about the warnings contained in this letter. Having read it at the meeting with Baker, Aziz refused to take it with him to Baghdad, arguing that it was far too offensive to be delivered to his president. More likely, however, Aziz told Saddam about the warnings. It is rumored that, at times, Aziz did not report some proposals to Saddam, such as U.S. proposals during the Iran-Iraq War for open talks with Israel. He would have, however, almost certainly reported a U.S. warning of massive retaliation for certain Iraqi actions. Otherwise he risked being blamed if Iraq took such actions and later suffered U.S. retaliation. Saddam once noted that he knew about threats made against Iraq by Baker (apparently in Geneva), and that he knew of the "declared and undeclared objectives" of the United States.⁴³ This statement suggests that he was aware of the deterrent threats made in Bush's letter.

It would seem, then, that Saddam decided to risk destroying the Kuwaiti oil wells, but that perhaps the risk was limited, despite U.S. threats. In the first place, Tariq Aziz had long experience dealing with the United States and may well have advised Saddam that the U.S. public would not accept the use of tactical nuclear weapons in retaliation for Iraqi damage to Kuwaiti oil fields or even the detonation of a car bomb in a U.S. city. Killing tens of thousands of Iraqi soldiers and civilians (many army units were encamped near population centers) to avenge damage to Kuwaiti oil wells and/or a few U.S. citizens killed was not likely to be favored by U.S. public opinion. Furthermore, in these public warnings, the oil fields and terrorist attacks were not placed on the same level as the possible Iraqi use of WMD. Saddam could reasonably draw the conclusion that Bush's letter notwithstanding, the threats of retaliation for the destruction of Kuwaiti oil fields or the sponsoring of terrorist attacks did not carry the same credibility as the threat to retaliate if Iraq used WMD.

IMPLICATIONS OF IRAQI PREDELEGATION DURING THE GULF WAR

If recently revealed information regarding Saddam Hussein's WMD doctrine during the Gulf War is correct, there is reason for grave concern. After his 1995 defection to Jordan, Iraqi General Hussein Kamil (Saddam's son-in-law), who had established the Iraqi Special Security Organization (SSO), the force responsible for Iraqi missiles armed with WMD warheads in the 1980s, spoke with United Nations Special Commission on Iraq (UNSCOM) officials. He claimed that Saddam had ordered the SSO to act as he had once described in his conversation with U.S. senators in April 1990. According to General Kamil's account, Saddam declared that if contact with him was severed (SSO units possessing non-conventional warheads were based deep in the deserts of western Iraq), and if SSO officers believed that communications had been broken because of a nuclear attack on Baghdad, they should mate the chemical and biological warheads in their custody with missiles in the possession of the regular missile force and launch them against Israel.⁴⁴

From the point of view of deterrence, this predelegation makes sense. After all, no one could expect Iraq to retaliate for a WMD attack with anything but WMD in return. Furthermore, even though he mentioned only chemical warheads, Saddam had warned the U.S. Senators that he would retaliate in kind against a WMD attack, fulfilling the most fundamental requirement of public mutual deterrence. Starting in late September 1990, as war seemed increasingly likely, the Iraqi leadership also worried that Israel or the Allied coalition might flood Baghdad by destroying the large dam of Darbandikhan in the Kurdish mountains. It remains unclear how Iraq would have responded to such an attack, but it could have triggered WMD retaliation, although Saddam did not publicly use WMD to deter an attack on the dam.

However, the predelegation orders were not limited to retaliation for a WMD attack on Iraq. As Scott Ritter, former chief inspector of UNSCOM, claimed, the missile commanders were ordered to strike "...heavily populated regions of Israel if the order to launch came down or, of even greater concern, if the missile force commander lost communications with the Iraqi High Command."⁴⁵ Ritter describes the presence of the missiles in Western Iraq under the predelegation instructions as part of a "hair-trigger" system. A more detailed picture emerges from inter-

views with other former UNSCOM officials. As they were told by one of the two generals who were still in Iraq in 1995, Saddam demanded that if communications with “the national command authority” in Baghdad were severed, and missile unit commanders believed that Allied forces were besieging or attempting to occupy Baghdad, these officers together with the SSO officers who had custody of chemical and biological warheads, should launch WMD-armed missiles against Israel.⁴⁶

One general offered a slightly different version of events. Since the chemical and biological warheads were the responsibility of the SSO, SSO officers had the ultimate responsibility to decide if the predelegation conditions had been met. If the SSO lost communication with Baghdad, it would mate the warheads with the missiles of a regular army missile unit and launch an attack on Israel. That general argued that a breach of communication between Baghdad and the SSO units could happen only if Baghdad was under nuclear attack. Otherwise, he contended, redundant communications systems including radio, telephone, and messengers were foolproof.⁴⁷ This assumption, though, is questionable. Events other than a nuclear attack that could have led to a communications breakdown included: occupation of Baghdad by Allied forces; a bombing raid that killed Saddam and other top Iraqi leaders; or perhaps even an effective siege of the city. Any of these events could have led to the implementation of the predelegation orders to attack Israel.

It should be noted that, as one former UNSCOM official stated, some Iraqi officials have disputed the existence of these predelegation orders. Some felt that these orders, rather than strictly instructional, were part of a more general psychological preparation by Saddam. However, this particular UNSCOM official was convinced that the information he and his colleagues received from the Iraqi senior officers was reliable, and that the predelegation orders were clear and dangerous.⁴⁸ Indeed, in view of the seniority of the officers who reported the predelegation of launch authority, their place in the hierarchy of Iraqi strategic decisionmaking, and the clarity of their reports, it seems highly likely that their account is accurate.⁴⁹

Theoretically, it is possible that these orders were not actually given during the Gulf War, but that the whole story was concocted in 1995 in order to warn the United States against exploiting the chaos in Baghdad following General Kamil’s defection. This explanation lacks credibility, however, because General Kamil had already defected to

Amman when the two other senior Iraqi officers in Baghdad reported to UNSCOM about the predelegation orders.⁵⁰ Having already defected, he could not have easily conspired with these other officers, although his account of the predelegation orders closely matched theirs. In 1995, many suspected that Kamil defected as part of a conspiracy orchestrated by President Hussein, intended to flush out officers disloyal to the Baath regime. However, Kamil’s violent death on February 23, 1996, upon his return to Baghdad—along with the murder of his sister, brother, father, and other family members⁵¹—renders this theory improbable.

Saddam’s second predelegation order raises a number of questions. First of all, it was never publicized, so the Allied forces may have been unaware of it. As a result, the Allies could have attempted an advance on Baghdad, not realizing that besieging the city could precipitate the destruction of Tel-Aviv or, though much less likely, of Riyadh. Second, the Allied forces, Saudi Arabia, and Israel were not certain about Iraq’s biological warfare potential, even though they strongly suspected it. This uncertainty was yet another hole in Saddam’s public deterrence strategy. A leader trying to create a MAD or quasi-MAD deterrence system should make his capabilities and retaliation strategy absolutely clear to the opponent. Most importantly, there seems to be a sinister strategic calculation behind Saddam’s predelegation orders regarding WMD retaliation in response to a seizure of Baghdad. Whatever the actual Israeli or U.S. response to a chemical or biological attack on Israel, Saudi Arabia, or Allied forces in the Kuwait arena, Saddam had to anticipate that it would very likely trigger nuclear retaliation against Iraq. Such retaliation would cause a nuclear holocaust in Baghdad and the surrounding area.

Therefore, it appears that if Baghdad was about to fall into the hands of Allied forces, Saddam was ready, even willing, to provoke Israel and the United States into destroying the city and killing its inhabitants, or at least a good percentage of them. In other words, it seems that his approach was that if he were to lose Baghdad, no one else would have it either: Baghdad was better destroyed altogether than conquered. This sinister approach of “after me the deluge” is the only one that truly explains the unpublicized predelegation authority given to the Iraqi missile officers. The reason why these orders were not made public seems to be that, had the population of Baghdad known about them, it would have generated chaos. People may have done everything in their power

to escape from the doomed capital city while they still could. It is possible that neither the Republican Guard nor Special Republican Guard would have been able to contain the turmoil. Even though the population of Baghdad proved resilient and not easily given to panic under conventional Allied bombings, this resilience was partly due to the realization that the Allies were aiming at specific military and political targets while trying to avoid collateral damage. Baghdad in 1991 was not Dresden in 1945.

A nuclear attack, however, was something totally different, and there seems to be no reason to doubt that the inhabitants of Baghdad would have been able to fully appreciate this difference. Indeed, Dr. Hamza stated that he and his colleagues were terrified (even though they knew nothing of the predelegation orders) when, following the invasion of Kuwait, Saddam ordered them to build one nuclear missile warhead. "We were petrified," he told his listeners, "because we knew what the Israeli answer would be: the complete annihilation of Iraq."⁵² In addition, giving publicity to these orders would have created panic in the rest of Iraq and throughout the Arab world. Alternatively, Saddam could have communicated a confidential warning to the Allied forces through an intermediary, such as the Soviets, but there is no indication that he did so. There is no obvious explanation for this omission.

It would be wrong, however, to view the predelegation orders as a sign that Saddam Hussein was ready to commit suicide. "Let me die with the Philistines" is as far from Saddam's style as one can imagine. Saddam may have believed that while his missile officers were pushing the buttons, he could smuggle himself out of the capital city to one of his underground shelters in the northern part of the country or enter a similar shelter in downtown Baghdad. If the United States or Israel had retaliated against Baghdad with nuclear weapons, Saddam could later emerge from the rubble to declare victory. The civilized world would be repulsed by the punishment wreaked on the millions of innocent inhabitants of Baghdad. Regardless of what happened in Tel Aviv, the Arab world would be in a state of shocked outrage, the war would come to an abrupt end, the coalition would immediately disintegrate, and Saddam and his regime would survive. Some Arab and Islamic radicals would even see him as a new Saladin, having destroyed a large part of Israel and rendering it uninhabitable.

An important question, although one that is difficult to answer, is whether or not Iraq's missile officers, stationed hundreds of kilometers west of Baghdad in the desert,

would have followed Saddam's predelegated orders, especially after all communications with Baghdad had been severed. After all, they would have to consider that launching WMD strikes on Israel and Saudi Arabia could trigger the death of their families and the total destruction of their homes. All one can say in this respect is that Saddam made every effort to guarantee that his orders would be followed to the letter. While the Iraqi conventional missile force (units 224 with Soviet constructed missiles and launchers, and 223, with Iraqi-built ones) was commanded by General Hazim Abd al-Razzaq al-Ayyubi, who received his orders from the General Staff, WMD warheads—and possibly some missiles and launchers—were under the direct command of the SSO.

The SSO is the organization responsible for the protection of Saddam Hussein. It was established in the mid-1980s by General Kamil. Since its inception, the SSO has been the most feared unit in the Iraqi security forces. After the Gulf War, the SSO was also charged with supreme responsibility for the concealment of Iraq's non-conventional weapons. Most of the officers and soldiers in this force belonged to Saddam Hussein's tribe, Al bu-Nasir, or at least came from Tikrit and its environs. Along with the alarming authority of the SSO, is the total discipline and loyalty to the president that members of the SSO are expected to demonstrate. Any neglect, let alone disobedience, is punishable by death. Thus, traditional tribal and regional loyalty, which is usually far from absolute, is buttressed by sizeable rewards (i.e., high salaries, cash gifts, cars, homes, and prestige) and by fear.

No doubt, the SSO could force the regular missile force to launch, but would they do so knowing what this could mean for their families and region of origin? In the first place, people who are for years subject to such a potent combination of whips and carrots may find it difficult to disobey an order given by a president who might survive the siege of Baghdad, only to wreak revenge on them and their kin. In addition, to make it easier for them to obey his orders, Saddam may have taken precautions and evacuated SSO families or provided them with special shelters. Seen from the viewpoint of an SSO missile officer, his death and that of his family would be more certain if he disobeyed the predelegated orders than if he implemented them. Furthermore, the missile officers were certainly aware of the fact that in the past there had been exercises simulating the evacuation of Baghdad.⁵³ The SSO officers could assume that if allied forces advanced on Baghdad, the government would order the inhabitants

to evacuate and deny Israel and the United States their main target in a retaliatory strike.

CONCLUSION

It is quite possible that when Saddam Hussein embarked on his military nuclear effort, his main motivation was defensive. The main threat to Iraq and to the Baath regime in the early 1970s was Iran, and a nuclear arsenal may have simply been an equalizer. As was clearer after he assumed the presidency in 1979, however, a nuclear arsenal in his eyes represented the promise of regional superpower status. It could enable Saddam to fulfill his dream of becoming the hegemonic power in the Arab, and possibly in the entire Islamic, world. He could then potentially annex some Gulf states or parts thereof with impunity and control the oil production of the rest of the Gulf.

Gaining status through recognition from Israel and the West as a nuclear power was essential in order to prevent those states from intervening in this process. After all, if Iraq possessed nuclear weapons publicly, it would have been highly unlikely that under such circumstances Israel or the United States would have dared confront him when he moved to conquer and annex Kuwait, or even the al-Hasa oil zone in Saudi Arabia. Saddam may have believed that the combination of Gulf money and superpower status could be so overwhelming that Arabs and Muslims would flock to his camp voluntarily. Indeed, even before Iraq had a nuclear capability (overtly), Saddam, in a conversation with U.S. Chargé d'Affaires Joseph Wilson four days after the occupation of Kuwait, behaved as if he could dictate oil production quotas and prices. In this meeting, he suggested to the United States that Iraq would guarantee an undisturbed flow of oil from the Gulf at a price of \$25 per barrel. By this gesture, he hoped to avert a U.S. attack and win U.S. recognition of Iraq as the *de facto* hegemonic power in the Gulf.⁵⁴

It would seem, however, that the Iraqi president made a grave mistake when he jumped the gun before becoming an overt nuclear power and tried to create a MAD deterrence system with Israel. The threat "to burn half of Israel" did not damage Saddam, and, in fact, even turned him into a local and regional hero. But the occupation of Kuwait placed his regime in jeopardy and ultimately postponed his military nuclear program by at least a decade.

Saddam's WMD strategy until mid-April 1990 was rational, if somewhat risky. After all, threatening a power

that he believed to have nuclear weapons, before he himself acquired a similar capability, represented a leap of faith. It did not, however, have major negative consequences. Saddam correctly decided that he could rely on Israeli restraint and rationality. By threatening Israel with WMD retaliation in 1990, Saddam believed that he had prevented an Israeli attack on Iraqi nuclear installations. On the other hand, by firing conventional missiles at Israel during the Gulf War, Iraq's leader demonstrated that he did not expect the converse to hold true: Saddam understood that a conventional attack on Israel would not trigger Israeli retaliation with WMD. Since mid-April 1990, however, Saddam embarked on an adventurous and highly risky path, threatening to attack Israel with WMD even if Israel did not touch Iraqi territory in any way. In doing so, he exposed an important feature of his WMD strategy, which involved a combination of: an ideological commitment to the physical destruction of the enemy; a public atmosphere favoring such destruction; an unstable regime in trouble; and an overly ambitious risk-acceptant leader. This recipe can very easily lead to the brink of disaster. Under such circumstances, the balance of terror can easily be tipped in favor of war.

Saddam Hussein's predelegation orders to his missile commanders also represented a major deviation from the commonly accepted theory of MAD. By refraining from publicly announcing his predelegation plans, Saddam left his enemies guessing, when he should have provided them with very accurate information. Finally, by ordering his missile officers to launch WMD strikes if communications were severed, which could certainly have happened in the event that Allied forces effectively besieged Baghdad, Saddam made it clear that he preferred the destruction of Baghdad to occupation. It stands to reason that to the vast majority of Baghdadis, occupation by the Allied forces was far more acceptable than death. One conclusion is that, as long as Saddam holds the seat of power and has missiles armed with WMD, any country considering the occupation of Baghdad should take into account this Iraqi version of the "doomsday machine." This applies to all of Saddam's enemies, from Iran to the United States; but it also applies to his domestic enemies.

Saddam has at least one more defensive motivation to continue his military nuclear program: the Iranian threat. It is widely believed that Iran is developing nuclear weapons. Whether true or not, Saddam cannot ignore such a possibility. Finally, if his speeches between 1992 and 2000, as well as Iraqi military maneuvers that began in October

2000—purportedly to convince the Palestinians that Iraq was ready to go to war to “liberate Palestine”—may serve as evidence, then Saddam has not yet given up his strategic goal of becoming a pan-Arab hero, if not the leader of the Arab world. He still appears to believe that a nuclear capability is necessary to achieve such status. For all these reasons, he was unwilling to fully cooperate with UNSCOM, and he is still unwilling to allow any United Nations weapons inspectors into Iraq.

It may be argued that despite the WMD threats he issued from April 1990 to February 1991, President Saddam Hussein demonstrated his prudence by refraining from any use of WMD before and during the Gulf War. Having realized that he faced enemies who could retaliate in kind, it appears that he decided not to risk it. If this assessment is correct and if Iraq becomes a nuclear power, some WMD saber-rattling notwithstanding, there is every reason to believe that Saddam will continue to exercise the same kind of restraint. Thus, as long as his enemies have the apparent ability to retaliate, he will not risk a first strike with WMD.

This conclusion may well be too sanguine, however. If U.S. ground forces leave the Persian Gulf area, Saddam may attempt to again send his troops into Kuwait, or maybe even Saudi Arabia or the United Arab Emirates. By threatening to use his nuclear capability, he could prevent the West from intervening as it did in 1990-91. Saddam's public promise to Yasir Arafat to liberate Jerusalem with his missiles and air force also suggests that the Iraqi president may be prone to make dangerous gambles when he smells the intoxicating aroma of Arab leadership, which would put his greatest dream within reach. The same may be said about his inflated promises to those Arabs who might seek his protection to defend them against any foreign incursion. Under the best of circumstances, such threats coming from a nuclear power are sure to hurl the Middle East into an era of great strategic instability. Finally, his predelegation orders during the Gulf War suggest that when desperate, Saddam will stop at nothing. If Iraq becomes a nuclear power, Saddam may prove dangerous to both his neighbors and his own people.

¹ See, for example, the leading article in *al-Thawra*, January 4, 1990; Sakhr Jasim, *al-Jumhuriyya*, April 4, 1990; Karim Sayyid, *al-Jumhuriyya*, November 25, 1989; *al-Thawra*, May 16, 1990. Note: Certain information in this article appeared, though in a different context, in Amatzia Baram, “Israeli Deterrence, Iraqi Responses,” *Orbis* 36 (Summer 1992), pp. 397-410.

² Khidir Hamza, lecture to the Middle East Forum, April 2, 2001, as summarized in Middle East Forum Wire, April 24, 2001.

³ See Khidir Hamza, “Inside Saddam's Secret Nuclear Program,” *Bulletin of the Atomic Scientists* 54:5 (September-October 1998), pp. 26-28; and Khidir Hamza, interview by author, Washington, D.C., February 26, 1999. See also Khidir Hamza with Jeff Stein, *Saddam's Bombmaker: The Terrifying Story of the Iraqi Nuclear and Biological Weapons Agenda* (New York: Scribner, 2000).

⁴ Two Iraqi nuclear scientists, S. Ibrahim and H. Mahdi, from the al-Qaqa State Establishment, participated in a conference in Oregon, United States. The conference was dedicated to detonation and organized by several U.S. governmental bodies. See Los Alamos National Laboratory, Sandia National Laboratories, U.S. Office of Naval Research, U.S. Air Force Armament Laboratory, U.S. Army Armament Research Development and Engineering Center, U.S. Army Ballistic Research Laboratory, and Lawrence Livermore National Laboratory, The Ninth Symposium (International) on Detonation, Portland, Oregon, August 28 – September 1, 1989, pp. 393, 395.

⁵ Between 1970 and 1972, oil revenues were \$521 million (m), \$840 m, and \$575 m respectively. Between 1973 and 1975, they rocketed to \$1,843 m, \$5,700 m, and \$7,500 m respectively. See Richard F. Nyrop, ed., *Iraq: A Country Study* (Washington, D.C., The American University and Department of the Army: 1979), p. 265.

⁶ See *al-Thawra*, December 1-7, 1971.

⁷ Khidir Hamza, interview by author, February 26, 1999.

⁸ “Interview with Husayn Shahrastani,” *al-Majalla* (London), January 28 - February 3, 1996.

⁹ See Amatzia Baram, *Culture, History and Ideology in Baathist Iraq, 1968-1989* (Oxford and London: St. Anthony's College and Macmillan, 1991), pp. 15, 17-19, and 29 for the military aspect of his leadership, and p. 21 for his Arab leadership. On the media campaign designed to portray Saddam as a latter-day Saladin, see the report about the Hittin Conference in Baghdad, marking Saladin's victory over the Crusaders and equating that victory with Iraq's war against Iran, *al-Jumhuriyya*, July 4, 1987.

¹⁰ Hamza, “Inside Iraq's Secret Nuclear Program,” p. 28.

¹¹ *Ibid.*, and Khidir Hamza, interview by author, February 26, 1999.

¹² Saddam Hussein, “Speech to the Iraqi Cabinet,” Baghdad Radio, June 23 1981, in FBIS-NES-DR, June 24, 1981, pp. E1-7.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume II: The Iraq-Iran War* (Boulder, CO: Westview Press, 1991), pp. 177, 185.

¹⁶ Patrick Cockburn, “Interview with Major-General Wafiq al-Samarra'i,” *Independent* (London), March 13, 1998.

¹⁷ *Al-Thawra* (International Edition), March 5, 1988, p. 1.

¹⁸ See Cordesman and Wagner, *The Iran-Iraq War*, pp. 358, 512-518.

¹⁹ Some of the findings in this section appeared in Baram, “Israeli Deterrence, Iraqi Responses,” pp. 397-410.

²⁰ This speech was broadcast on Iraqi Radio and TV, April 2, 1990. For an English version see FBIS-NES-DR, April 3, 1990, pp. 32-38. Furthermore, Saddam held a conversation with Egyptian President Hosni Mubarak on April 10, 1990, in which he implied that he would use CW against Israel even in response to a conventional attack against Iraq. See *Iraqi News Agency*, April 10, 1990.

²¹ “Interview with Tariq Aziz,” *New Yorker*, June 24, 1991, p. 65; Khidir Hamza, interview by author, February 26, 1999. Dr. Hamza insisted that there was widespread fear that Israel was indeed going to strike Iraqi nuclear facilities at this time. In early March 1990, Deputy Chairman of the Iraqi Revolutionary Command Council Izzat Ibrahim met with Iraqi scientists and told them that such an attack was impending. See also the reports of Staff Lieutenant General Hazim Abd-al-Razzaq al-Ayyubi, commander of the Iraqi surface-to-surface missile corps during the Gulf War, “Forty-Three Missiles on the Zionist Entity,” *al-Arab al-Yawm* (Amman), October 27, 1998, p. 12, in FBIS-NES-DR JN2211083998, November 22, 1998. Ayyubi claimed that Iraqi Military Intelligence alerted him to impending Israeli attacks a few times before Saddam's speech of April 2, 1990, and a few times afterward. He also claimed that Israeli Deputy Chief of Staff at the time, Ehud Barak, publicly threatened to attack. The author was unable to find a record of any such threat by Barak.

²² U.N. Security Council, *Note by the Secretary*, New York, July 25, 1991, pp. 7-8; Khidir Hamza, February 26, 1999.

²³ Retired Israeli military officer (name withheld by request), interview by

author, Herzlia, Israel, August 29, 1997.

²⁴ See, for example, *Hurras al-Watan* (the magazine of the Iraqi Ministry of Defense), April 8, 1990; and *Al-Thawra*, April 4, 1990.

²⁵ Western diplomats stationed in Cairo, Damascus, and Amman in 1990 (names withheld), interviews by author; see also, *Middle East Economic Digest*, April 13, 1990, pp. 2, 8.

²⁶ Iraqi News Agency (INA), April 17, 1990. For a slightly different English translation, see FBIS-NES-DR, April 18, 1990, pp. 1-15. See also Saddam's speech at an Islamic conference in Baghdad, Baghdad Radio, June 18, 1990, in FBIS-NES-DR, June 19, 1990, p. 21; and the speech of the commander of the Iraqi Air Force, Major-General Muzahim Sab Hasan in Radio Monte Carlo, April 22, 1990, in FBIS-NES-DR, June 19, 1990, p. 21; see also Saddam's speech at the Baghdad Summit on May 28, 1990, in FBIS-NES-DR, May 29, 1990, p. 5; and an interview with Saddam in the *Wall Street Journal*, June 28, 1990.

²⁷ Retired Israeli military officer (name withheld by request), August 29, 1997. Note also that at a meeting with five U.S. senators in Baghdad in mid-April 1990, Saddam said: "[w]e have no biological weapons...[but], when it comes to scientific circles [in Iraq], they have studies concerning this or that sort of microbes and I am not providing any assurances in this realm, nor am I denying it," INA, April 16, 1990.

²⁸ INA, February 24, 1990; Jordan TV, Feb. 24, 1990; in FBIS-NES-DR, February 27, 1990, p. 2.

²⁹ *Al-Thawra*, April 17, 1990. One day after he spoke to the U.S. senators, however, President Saddam Hussein again implied that Iraq would use its entire arsenal against Israel if the latter launched even a conventional attack on Iraq. See INA, April 18, 1990.

³⁰ *Al-Muharrir* (Paris), May 8, 1990. At the time, *Al-Muharrir* was an Iraqi-supported Arabic language newspaper.

³¹ See *al-Hayat* (London), September 20, 1992, p. 3.

³² See, for example, Saddam's speech at the Baghdad Arab Summit of May 1990: "[w]e shall guarantee a present of glory without weakness...capable of...returning every right that had been lost, first and foremost dear Palestine that is awaiting impatiently that the banners of the Arabs would fly above it, [and] foremost the banner of Palestine at the Dome [of the Rock]'s square in holy Jerusalem," INA (in Arabic), Baghdad, May 28, 1990.

³³ For details see Amatzia Baram, "Calculation and Miscalculation in Baghdad," in Alex Danchev and Dan Keohane, eds., *International Perspectives on the Gulf War, 1990-1991* (Oxford and London: St. Antony's College and Macmillan, 1994), pp. 34-35.

³⁴ Ankara TRT TV Network, December 20, 1990, in FBIS-WEU-DR TA2012191490, December 21, 1990; Anatolia News Agency (Ankara), January 19, 1991, in FBIS-WEU-DR TA1901164991, January 22, 1991; Reuters, January 19, 1991.

³⁵ *Ibid.* (both sources).

³⁶ See for example, the announcement of the Iraqi supreme command on August 8, 1990, as quoted in *Haaretz*, August 9, 1990.

³⁷ See *Haaretz*, February 3, 1991, quoting various news agencies that cited

al-Qadisiyya, the daily paper of the Iraqi Ministry of Defense.

³⁸ *Haaretz*, February 22, 1991; see also Communiqué No. 25 of the Iraqi General Command as quoted in *Haaretz*, January 28, 1991.

³⁹ *Haaretz*, February 3 and 6, 1991.

⁴⁰ Retired Israeli military officer (name withheld by request), interview by author, August 29, 1997.

⁴¹ U.S. Secretary of Defense Dick Cheney, Interview with *CNN* correspondent Rowland Evans, broadcast on *CNN*, February 2, 1991. See also *Haaretz*, February 3, 1991. See also the remarks by U.S. Secretary of Defense Dick Cheney and U.S. Vice President Dan Quayle, cited in *Haaretz*, February 4-5 and 12, 1991.

⁴² Retired Israeli military officer (name withheld by request), August 29, 1997.

⁴³ Speech by Saddam Hussein on the occasion of the Gulf War anniversary, Baghdad Republic of Iraq Radio Network, January 17, 1994, in FBIS-NES-DR, January 19, 1994, p. 37.

⁴⁴ Three UNSCOM officials (names withheld by request), interviews by author: (1) a senior field operator, New York, January 27, 1998, and Washington, D.C., September 4, 1998; (2) a more senior official, Washington, D.C., April 28, 1999; (3) the most senior official of the three (though by then retired from his UNSCOM post), Washington, D.C., May 4, 1999, and July 16, 1999. An earlier interview, in which the issue of predelegation was only mentioned in passing, took place in New York on October 16, 1995. The three Iraqi officers included: General Kamil, former Iraqi Minister of Industry and Military Industries and the person who established and directed the SSO until shortly after the Gulf War; a senior missile officer; and a senior officer who was involved in the development of Iraqi missile technology. There were slight differences between the accounts of the Iraqi officers, but the overall picture was essentially the same.

⁴⁵ Scott Ritter, *Endgame: Solving the Iraq Problem – Once and For All* (New York: Simon and Schuster, 1999), p. 102.

⁴⁶ *Ibid.* General Kamil corroborated this account while he was a political refugee in Jordan.

⁴⁷ *Ibid.*

⁴⁸ UNSCOM official (name withheld by request), interview by author, New York, January 27, 1998, and Washington, D.C., September 4, 1998.

⁴⁹ See Ritter, *Endgame*.

⁵⁰ UNSCOM officials (names withheld by request), January 27 and September 4, 1998; April 28, May 4, and July 16, 1999.

⁵¹ A cable was sent to Saddam by his extended family announcing that they killed the Kamil brothers to redeem the family's honor. See *al-Jumhuriyya*, February 24, 1996.

⁵² Middle East Forum Wire, April 24, 2001.

⁵³ See, for example, *al-Thawra*, March 5, 1988.

⁵⁴ "Meeting Between President Saddam Hussein and the American Charge d'Affaires Wilson on 6 August 1990," Iraqi Embassy, Washington, D.C., September 1990.