

## CHAPTER 6

### IS THE BEGIN DOCTRINE STILL A VIABLE OPTION FOR ISRAEL?

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#### THE BIRTH OF THE PREEMPTION DOCTRINE

##### **A General Israeli Proclivity towards Preemption and Prevention.**

Preemption and prevention were an important part of the security discourse in Israel since the inception of the state of Israel. The development of such a discourse was natural because of the unique geo-strategic situation of the state of Israel; a small state with a small population surrounded by much larger Arab states determined in these years to reverse the results of the 1948-49 Independence War and put an end to the existence of the Jewish state. When the Israeli defense doctrine was formulated by its first prime minister, David Ben-Gurion, it was evident that Israel could not afford a major invasion of its very limited territory. Two major principles were included in this doctrine to prevent the occurrence of such invasion. The first was “early warning” and the second was “transferring war to the enemy’s territory as soon as possible.”

“Early warning” was supposed to enable taking effective countermeasures against an invasion by the establishment of an efficient intelligence system that would be capable of giving accurate and timely warning of an approaching invasion. If time allowed and the necessary reserve forces could be mobilized, a preemptive strike could be launched. If time did not allow such a strike, then it was envisaged that a very short defensive battle would be utilized to gain enough time to mobilize the reserve forces that would carry the battle to the enemy’s territory.

In this discourse sometimes the notion of *preemptive* war was mixed with the notion of *preventive* war, and there was no real distinction between them. The first example of an implementation of these doctrines was in the Sinai Campaign of 1956. The Israeli

leadership that was following the large weapons deals of Egypt in the Soviet Union and the Eastern Block suspected that these weapons deals served as preparation for an approaching Egyptian strike against Israel. They also decided to exploit the conflict that developed between Egypt and France and the United Kingdom (UK) following the nationalization of the Suez Canal; Israel formed an alliance with France and the UK that led to an attack on Egypt by the three powers. From the point of view of Israel, this operation was highly successful. It led to the de-facto demilitarization of the Sinai Desert separating Israel from Egypt, to a stoppage of terrorist attacks from Egypt, and to a substantial improvement of Israel's strategic situation.

In 1967 the same scenario repeated itself, but this time with a more concrete threat. Egypt forced the United Nations (UN) peacekeeping force to leave the Sinai and deployed massive forces on Israel's border. This was interpreted by Israel as preparation for an all out attack. Israel preempted and attacked the Egyptian army in the Sinai before it had a chance to attack Israel. Once again, it was perceived that preemption saved Israel from an imminent threat to its existence.<sup>1</sup>

In 1973 the government of Golda Meir considered a preemptive strike when it had reliable information about the approaching Egyptian-Syrian attack but decided not to take this step because of concern for the possibility of political repercussions, coupled with too much confidence in the Israeli Defense Force's (IDF) capabilities.

In 1982 Israel initiated the war in Lebanon. This war is very controversial in Israel because many Israelis were not convinced that it was really necessary. But its saliency for the understanding of Israel's security doctrine stems from the fact that the arguments of the supporters of the war, arguments that succeeded in convincing the Israeli cabinet to approve it, were based on the need to preempt the terrorist threat from Lebanon.

## **Weapons of Mass Destruction and Preemption/Prevention.**

Early in the Israeli preemption discourse, weapons of mass destruction (WMD) played an important role because, for Israel, such threats touch raw nerves. First, they roused holocaust memories. The

Nazis tried to exterminate the Jews with the use of poisonous gas. The talk about chemical and biological weapons creates among Jews an association with the darkest time in Jewish history. At the same time, these weapons were posing an existential threat on a nation that was already highly aware of the opposition of its neighborhood to its existence. The first time these considerations played a major role was at the end of the 1950s, when Nasser's Egypt was leading the Arab opposition to the existence of Israel and initiated projects for the development and production of ballistic missiles and chemical weapons. For that purpose, German World War II scientists and engineers were mobilized by the Egyptians. They moved to Egypt and started to play a major role in these projects. German technology based firms were also used to supply components and technology for the Egyptian projects.<sup>2</sup>

In the years 1960-64, Israel made a concerted effort to preempt the Egyptian missile project by a combination of covert action by the Israeli external intelligence agency, the Mossad, against the German personnel that were involved in the project, and political action aimed at the German government. In this framework the means adopted were covert assassination attempts and intimidation. The combination worked and eventually the German assistance stopped, leading to the collapse of the Egyptian indigenous program.<sup>3</sup>

In the beginning of the 1970s, Saddam Hussein, already the de-facto ruler of Iraq, initiated a military nuclear program. The Iraqis decided to get fissile material through the production of plutonium in a reactor and its separation. The plutonium producing reactor was procured from France in the framework of a nuclear cooperation agreement concluded in 1975. The separation instrumentation was acquired in Italy.

Aware of the Iraqi program, Begin's government decided to preempt it by preventing the construction and operation of the French-built reactor. First, the well-proved combination of covert action and political action in France was attempted, but it failed to stop the project. Israeli agents succeeded in sabotaging the core of the reactor while it was stored in France prior to its shipment to Iraq. That only delayed the shipment, and the French government refused to acknowledge the real nature of the Iraqi project and stop French

involvement. In the next stage, Israel decided to attack the reactor and destroy it before it started operation. On June 7, 1981, eight Israeli F-16 aircraft attacked the Iraqi Osiraq reactor in Tuweitah, near Baghdad, and destroyed it completely.<sup>4</sup>

At first, world opinion reaction to the attack was hostile. It was described as a violation of acceptable norms in international relations. The U.S. administration condemned the action and decided to suspend the supply of military aircraft to Israel. The UN Security Council condemned Israel for this action as well. Ten years later, after the war on Iraq and the exposure of the Iraqi military nuclear program by the UN Special Commission (UNSCOM), there was general recognition that the attack on Osiraq was justified.<sup>5</sup>

While Israel chose to stop the above two programs by the use of force, either covertly or overtly, other ballistic missile programs and WMD programs were dealt with differently. The salient examples are:

- Egypt had an extensive chemical and biological weapons program from the end of the 1950s. Israel chose not to do anything against this program.
- Syria initiated a chemical weapons program after the 1973 war. Once again, Israel chose not to act against this program. When Syria started a program for the indigenous production of ballistic missiles in the 1990s, the same approach was adopted.
- In 1981-83, Iraq, with the support of European companies, built a large scale facility for the production of chemical weapons at Al-Muthana, and nothing was done by Israel. The Iraqi missile production projects received the same Israeli attitude.<sup>6</sup>
- The most interesting example is that of the renewed Iraqi nuclear project after the destruction of Osiraq. This time, Iraq chose the track of enrichment of uranium for acquisition of military grade fissile material. Different methods were tested and developed; enrichment by gas centrifuges, electromagnetic isotope separation (EMIS), chemical enrichment, and gaseous uranium diffusion enrichment. In parallel, much work was invested in the technologies of the production of a

warhead based on enriched uranium (explosives, electronics, and metallurgy). Israel had good information about important parts of these projects, but it chose, until the 1991 Gulf War, not to use force in any way and preferred to focus on political pressure directed at European governments to prevent assistance to the Iraqi program by companies that operated in these states, mainly, Germany, UK, Italy, and Switzerland.<sup>7</sup>

- Israel also did not make any real attempt to stop the Pakistani nuclear program during the 1970s and 1980s, although it was perceived as an “Islamic bomb” and a threat to Israel.<sup>8</sup> At the time, there were some rumors and suspicions that Israel was involved in acts against the Pakistani program, but they were never confirmed.

### **Developing a General Theory.**

Following the Israeli attack on Osiraq, there was a tendency among researchers to propose that Israel had adopted a comprehensive and all encompassing preventive counterproliferation doctrine sometimes referred to as “the Begin Doctrine.” This was based to a great extent on Israeli government statements. Shai Feldman, for example, describes how, in its June 9 announcement of Osiraq’s destruction, Israel’s government articulated its belief that, had Iraq’s President Saddam Hussein acquired nuclear bombs, he would not have hesitated to drop them on Israeli cities and population centers. The Israeli government then went on to a general preventive doctrine: “under no circumstances would we allow the enemy to develop weapons of mass destruction against our nation; we will defend Israel’s citizens, in time, with all the means at our disposal.”<sup>9</sup> Feldman adds that this theme soon was crowned as a “doctrine,” not only because it was immediately viewed as such by numerous observers worldwide, but also because Israel’s leaders have since repeated it on numerous occasions. One example is a major policy address given by Israel’s then Minister of Defense and present Prime Minister Ariel Sharon:

The third element in our defense policy for the 1980s is our determination to prevent confrontation states from gaining access to nuclear weapons.

Israel cannot afford the introduction of the nuclear weapon. For us, it is not a question of balance of terror but a question of survival. We shall therefore have to prevent such a threat at its inception.<sup>10</sup>

Feldman, however, doubts the long-term feasibility of the doctrine.<sup>11</sup>

Other scholars argue that Israel is more prone to launch preventive strikes against other proliferators because of its specific posture as the only Middle Eastern state that lives in a hostile environment, is perceived as a nuclear power, but keeps an “ambiguous nuclear policy.” Etel Solingen proposes that “opaqueness” (that is the term she prefers for what is named elsewhere as “ambiguity”) may include the use of compellence by actively preventing an adversary from achieving a nuclear capability, presumably because the power that chose opaqueness did it as a way of retaining its nuclear monopoly.<sup>12</sup> Scott D. Sagan sees a wider risk of preventive wars among proliferators when he refers to the perils of proliferation. He uses evidence from the U.S.-USSR, India-Pakistan, and Ukraine cases to argue that this evidence does suggest strongly that military officers have strong proclivity towards preventive war. His main concern, of course, is preventive nuclear wars and not conventional surgical strikes against nuclear installations. Strangely enough, Sagan does not discuss the Israeli case perhaps because he believes Israel succeeded in developing stable civil-military relations and therefore it is more likely to adopt a prudent policy.<sup>13</sup> Bruce Berkowitz is raising a similar concern when he says that, considering the expected costs of acquiring an opponent armed with nuclear weapons, a prospective nuclear power would present other countries with a temptation to conduct the ultimate “preemptive strike”--attacking the state’s nuclear reactors or weapons fabrication plants before a bomb is tested. He adds that the Israelis did this to Iraq in 1981 with fighter-bombers armed with conventional bombs, but it would not be outlandish to argue that the Israelis would have been willing to consider using nuclear weapons on the mission if such weapons were available and if they were deemed necessary for success.<sup>14</sup> The ease with which Berkowitz describes Israel’s resort to a nuclear preemptive strike looks quite outlandish, but it reflects a popular belief that Israel would do anything to prevent nuclear proliferation in the Middle

East. Frank Barnaby sees the Middle East as particularly unstable because of the danger of preemptive strikes against nuclear-weapons sites. "A large-scale Israeli deployment of nuclear weapons could provoke a preemptive Arab attack against production sites, arsenals, and command centers. Israel would almost certainly respond to any Arab attempt to acquire nuclear weapons with a military strike such as the one on Iraq's reactor."<sup>15</sup> This kind of almost automatic response to an Arab nuclear or other WMD program does not reflect the actual Israeli policies as describes in the previous chapter, and that raises the question: Under what circumstances is Israel willing to take violent preemptive action against an adversary's nuclear program?

Barry Schneider deals more generally with the question of the necessary specific set of conditions for any head of state to order a preemptive counterproliferation strike. He assumes the nuclear aspirant would have to be approaching the nuclear threshold and be led by a hostile government that appeared ready to take extreme risks. The developing scenario would have to directly and immediately threaten a vital interest of the country considering the preemptive strike. It would require information on important nuclear target locations of the adversary and the ability to achieve tactical surprise. The adversary should not be able to threaten the preemptor with nuclear arms or other WMD or have a strong ally who is likely to do so on its behalf. All other reasonable options should have been exhausted before such a strike is undertaken. The head of state should also have adequate domestic and international political support for the action and for bringing any military campaign to a successful conclusion before choosing this type of nonproliferation activity.<sup>16</sup>

Evidence suggests that in the Israeli case some modifications of this model are necessary. First, there is a need to define the meaning of approaching the nuclear threshold. In the Israeli case, it seems that this point is defined as the point of irreversibility, namely the time in which the proliferator stops being dependent on external assistance; it controls all the necessary technologies and knowledge; and it cannot be denied these capabilities through pressure over the states and private elements that supply assistance. Thus, Israel decided to attack Osiraq when it was clear that all the equipment of

the reactor and the separation cells was already supplied by France and Italy, respectively.

Second, there is a wider question of the feasibility of the military operations against the nuclear installations. It is not only a matter of having the necessary intelligence about their locations and having the capability to achieve tactical surprise.

Third, it is not true in the case of Israel that when the adversary can threaten the preemptor with any WMD, preemptive action will not be undertaken. Israel attacked Qsiraq although it was already argued at this stage that Iraq had chemical weapons, and there already were Iranian allegations, not corroborated, that Iraq used these weapons in the war.<sup>17</sup> It did not deter Israel from carrying out the attack.

Fourth, international support is not a must. Israel launched its 1981 attack without international support. The United States launched its recent war on Iraq without international support. The real issue is what is at stake and is it worth international condemnation. It seems that, in many cases, leaders are willing to take the risks.

Fifth, the proposition that the developing scenario is directly and immediately threatening a vital interest of the country considering the preemptive strike, is highly dependent on the perception of the preemptor. There is no objective way of measuring it. In Israel, there is high propensity to see any Arab and Iranian nuclear capability as an existential threat for Israel.<sup>18</sup>

The modified Israeli model that explains the differences in Israeli reaction to different ballistic missiles and WMD programs in the Middle East should include the following set of considerations that are taken during the decisionmaking process by the Israeli leaders:

*The magnitude and severity of the threat.* In Israel's case, the immediacy of a WMD threat does not play an important role. Israel destroyed Osiraq in 1981 when Iraq was embroiled in a long and difficult war with Iran and when it was clear that Iraq could not afford another conflict with Israel. On the contrary, Iraq started some gestures towards Israel at that time. The severity of the threat is dependent on the type of WMD and their delivery means. The term "weapons of mass destruction" is misleading. The destructive power of nuclear weapons surpasses significantly the other categories of WMD, and biological weapons are considered more destructive than chemical

weapons. It is dependent also on the availability of countermeasures. There are no countermeasures against nuclear weapons, while it is possible to acquire protection from chemical and biological weapons, whether by protective clothes or suitable building codes. There are also post-attack medical treatments for the victims of chemical and biological attacks. It is not surprising that in the 1980s and 1990s, the Israeli decisionmakers felt that they could deal with chemical weapons and possibly biological weapons, and therefore there was no acute need to take preemptive action. The availability of countermeasures is changing through time. In the 1960s, there was a feeling in Israel that there were no countermeasures against ballistic missiles, and hence preemptive actions were undertaken against the Egyptian missile program. Twenty years later, technological advancements made it possible to develop effective countermeasures. The severity of the threat is also linked to the level of animosity in the relationship between Israel and the proliferators. Thus Israel did not see Pakistan's nuclear capability as having a direct bearing on its security, while a nuclear Iraq presided over by megalomaniac Saddam was considered an existential threat.

*Feasibility.* Can use of force stop the program or at least delay it for a substantial time? The answer depends on the character of the program and on the availability of operational capabilities that can be used against the program. The decision to attack Osiraq was relatively easy because the entire nuclear project was dependent on this one facility, a Plutonium producing reactor. It was clear that the destruction of the reactor would lead to the stoppage of this nuclear project, and indeed after the attack the Iraqis abandoned the Plutonium track, and when they decided to resume the nuclear program, they based it on enrichment of uranium by a number of methods. The same thing was true for the Egyptian missile program in the 1960s. It was clear that the program was totally dependent on the assistance of the German personnel, and they provided an easy and soft target.

In comparison, it was difficult to find one link in the research, development, and production chain of the Iraqi chemical weapons that, when attacked, would have caused a stoppage or a substantial delay of the program. These programs were much more dispersed and redundant than the initial Iraqi nuclear program.

A good example was the Iraqi main chemical weapons production facility at Al Muthana. It was a huge facility, covering tens of acres, with several dozen buildings in which there were hundreds of equipment items. None of these buildings or equipment items was unique or irreplaceable.<sup>19</sup>

The same thing was true for the post-1981 Iraqi nuclear program. The Iraqis learned the lessons of the 1981 attack, and their new program was much less vulnerable and included many redundancies. They worked in parallel on several methods for the enrichment of uranium. When they started to build fully operational plants, they constructed two different plants at different areas of Iraq for the enrichment of uranium with EMIS. They also planned to build several facilities for gas centrifuges enrichment. The new system was dispersed and could not be destroyed with one surgical strike. One can assume that this added difficulty contributed to the Israeli decision not to attack these facilities.

Feasibility is also dependent upon the level of intelligence available to Israel. It should know the location and function of the different facilities, and be certain the intelligence at its disposal is complete enough to ascertain that, once these installations are destroyed, the WMD program will be stopped or delayed for a substantial time. In the case of the post-1981 Iraqi nuclear program, the findings of the IAEA Iraq action team show clearly that the intelligence that was available to Israel and its Western allies about the Iraqi nuclear program was partial,<sup>20</sup> and it is doubtful whether it allowed for an effective preventive strike.

Last, feasibility is dependent upon the operational capabilities needed for the desired effects in the targets. The Israeli Air Force (IAF) has formidable capabilities and enjoys unchallenged supremacy vis-à-vis the other Middle East air powers, but Israel has no aircraft carriers and it cannot use airbases in other Middle East states; therefore its operational capabilities are reduced when the targets are located far from its territory. Based on the past performance of the IAF, its order of battle that includes only F-15I and F-16C/D aircraft capable of long range strike, and the deployment of its aircraft,<sup>21</sup> it is possible to determine that at long ranges (more than 600 km), the IAF is capable of a few surgical strikes, but it is not capable of a

sustained air campaign against a full array of targets. The operational capability is dependent also on the expected opposition to the attack by the adversary's air defense system. Targets that are well-defended by ground air defense and interceptors have to be attacked by a larger aerial force composed of the attack aircraft, interceptors that protect them, and other support aircraft (for air refueling, electronic countermeasures [ECM] support, communication, and rescue).

Covert action demands other kind of operational capabilities. The intelligence needed for these kinds of operations is usually more detailed and necessitates a better penetration of the adversary's program. The covert sabotage options are linked to the adversary's program's dependence on other states' assistance. Usually it is easier to operate covertly outside the adversary's territory. The proliferators in the Middle East are usually states that are ruled by authoritarian regimes with strong control of their security services, and very limited freedom of movement for foreigners. The locations that are part of the WMD program are high security installations and are well-protected. The only vulnerable point is the connections with the outside world in states in which Israel's security services have better operational capabilities.

Israeli leaders, like other leaders, resort to use of violent means when other means are exhausted. Osiraq was attacked after many attempts to convince the French government not to supply the reactor to Iraq.<sup>22</sup> Israel acted against the German experts that helped the Egyptian missile program only when it seemed that the German government was not doing anything to prevent this assistance, and stopped its actions when it became clear that Germany was willing to take decisive action against these experts. This decision of Prime Minister Ben Gurion led to the resignation of Director of the Mossad Issar Harel who objected and argued for the continuation of the covert operations.<sup>23</sup>

An Israeli leader that considers preventive action has to take into account the cost of the action, externally and domestically. He has to consider two scenarios; a scenario of failure and a scenario of success. In case of failure, the cost is mainly in the loss of domestic support. Present Prime Minister of Israel Ariel Sharon suffered a real blow to his political career because he initiated a preventive war in

Lebanon in 1982 that was perceived by many in Israel as a failure. Nevertheless, it seems that because of the high sensitivity in the Israeli public to the acquisition of WMD by its adversaries, an Israeli leader may assume that the public will not punish him, even for a failed attempt of prevention. The external cost of a failure is smaller because the powers that would have objected to the action will feel that Israel was punished enough by the failure. In a case of success, the domestic opposition will be silenced, while Israel may pay a cost in its external relations. The attack on Osiraq is an interesting test case. Domestically, there was some opposition to the operation; some by opposition leaders and some by officials that knew about its preparations, but it subsided a short time after the successful implementation.<sup>24</sup> The external reactions were much harsher and included sanctions by the United States.

The discussion of the domestic cost raises the question whether the Israeli doctrine of preemption/prevention is affected by partisanship. Generally, one can argue that right-wing governments are more inclined to exhibit tough policies towards Israel's adversaries, and therefore it can be assumed that they will be more inclined to adopt preemptive/preventive policies. Nevertheless, it is not possible to reach this conclusion from the few cases of Israeli implementation of preventive action against WMD programs in the Middle East. A left-center government initiated violent preventive actions against the Egyptian ballistic missiles program, while a right-wing government decided on the destruction of Osiraq. In this latter case, there was opposition and support for the operation among opposition persons and among persons that were part of the right-wing administration. The operation became a highly contested political issue only because it was executed a short time before the general elections, and it was argued that it was a kind of elections campaign spin.<sup>25</sup> Therefore, it seems that usually such matters of national security are not considered a partisan subject as long as they are not perceived as something that is going to serve the domestic political agenda of the ruling party.

Another part of the perceived cost is the possible violent reaction of the attacked proliferators. The Israeli leader has to weigh the utility of the planned operations, especially in cases where it is clear that only a delay will be achieved, against the possible cost

in life and property as a result of the adversary's reprisals. There are several explanations for Saddam's decision to launch ballistic missiles against Israeli cities in 1991, but one of the simplest and most probable explanations is that Saddam used the opportunity of the war to settle the account of the 1981 attack by Israel. In considering the risk of reprisal, the Israeli leader will have to weigh the military capabilities of the adversary, the record of its regime, the potential of reprisal by nonmilitary means, e.g., terror, and the efficacy of Israel's defenses against these challenges.

## **THE IRANIAN CASE**

Any estimation of a possible Israeli preemptive attack on the Iranian nuclear program should be based on the specific parameters of the Iranian case.

### **Israeli Perception of the Threat.**

There are two schools of thought in Israel that have different perceptions of the Iranian threat. The first one is represented by persons like member of Knesset (the Israeli parliament) Ephraim Sneh and by the Military Intelligence community who perceive Iran as a bitter ideological enemy that is determined to bring about the physical annihilation of Israel. This school does not believe that a regime change in Iran is possible in the foreseeable future. The clear conclusion is that Israel cannot live with an Iran that has military nuclear capabilities, because sooner or later Iran will use them against Israel.

The other school of thought looks at Iran as a more complex entity with a policy that is influenced by many considerations, the ideological consideration being only one of them. According to this line of thinking, Iranian policies are motivated more by national interests and preservation of the regime considerations than by ideology. In the case of the Iranian policy vis-à-vis Israel, Iran is pursuing its ideological agenda because it serves its national interest of getting influence in the Arab world and a status of leadership in the Moslem world, and it helps the regime to retain its revolutionary

image and thus keep its *raison d'être* for being a legitimate regime. This school of thought is represented in the Israeli intelligence community by the Mossad, Israel's foreign intelligence agency,<sup>26</sup> and has supporters in the Ministry of Defense and the National Security Council.

Different perceptions lead to different conclusions. While the first school assumes no political pressure can force Iran to stop its military nuclear program, the other school believes that political pressure can be effective in at least delaying the nuclear program significantly. The second school believes that a nuclear Iran with a different regime will not pose a high risk to Israel and can be easily deterred. Furthermore, they believe that, if the nuclear program is to be deferred sufficiently, regime change eventually will occur in Iran, and it will diminish substantially the risk to Israel of an Iranian nuclear program. The first school believes that Israel cannot accept Iran being nuclearized under any political circumstances. These differences of view between those that can be defined as Iran hawks and those that can be defined as Iran doves imply that the first will be more prone to recommend proactive and preemptive/preventive violent operations against the Iranian nuclear program. The dividing line is not partisan. One of the most vociferous Iran Hawks is Labor (left-wing) Member of Knesset and ex-minister Ephraim Sneh, while the present Likud (right-wing) Minister of Defense Shaul Mofaz sometimes preaches for restraint in Israel's approach to Iran, even when he points at the danger of Iran's nuclear program.

### **The Nature of the Iranian Nuclear Program and Its Vulnerabilities.**

The Israeli attack on the Iraqi reactor, Osiraq, had a deep impact on the evolution of other nuclear programs in the Middle East. States that were determined to continue with such programs learned the lessons of the attack and concluded that they should strive to decrease the vulnerability of their program by adding more protection and more redundancy. The new nuclear projects are much more dispersed and well-protected. That is also true for the Iranian nuclear program. The most essential part of every military

nuclear program is the production of fissile materials. According to recent revelations concerning the Iranian nuclear program, Iran intends to produce fissile materials in two tracks; the uranium track and the plutonium track. First, using the excuse of a plan to produce fuel for nuclear power plants, Iran is building uranium enrichment capabilities. Iran is also pursuing different methods of enrichment to ensure redundancy. It is vigorously building an industrial size facility for uranium enrichment with gas centrifuges in Natanz, and it pursued also LASER enrichment of uranium. In parallel, it is striving to control technologies that will enable it to build a plutonium production heavy water reactor. In this context, it was recently discovered that Iran is building a heavy water production facility in Arak, and also has an intention to build at the same location a heavy water so-called "research reactor," which will probably be used for irradiating of uranium, and later separation of plutonium from the irradiated uranium rods.<sup>27</sup> Uranium enrichment specifically enables dispersion of the production facilities in a relatively large number of small facilities. It is very difficult to assure that there are no additional facilities other than those that were already traced. According to one estimate, there are 19 traced suspected nuclear facilities in Iran without assurance that this number is finite.<sup>28</sup>

The nuclear facilities that Iran is constructing are also well-defended. The centrifuge plant built at Natanz is underground, and it is defended by an extensive ground air defense system.<sup>29</sup>

It is very difficult to find in the Iranian nuclear program one vulnerable point that, once it is attacked and destroyed, the Iranian program is stopped or stalled for a long time. The Bushier nuclear power plant, which is relatively vulnerable to attacks, is not really a part of the military nuclear program, and it mostly serves as an excuse for an Iranian wish to have control over the full fuel cycle, namely building a capacity for uranium enrichment. Its attack would not have a real effect on the military program. The net effect is that any attempt to attack the Iranian nuclear program would necessitate sustainable attacks on a relatively large number of targets that are well-defended, passively and actively.

## **Israeli Operational Capabilities vis-à-vis Iran.**

Iran is situated more than 1,000 kms from Israel. It is a vast country, and all the meaningful nuclear targets are, and most probably will continue to be, situated far from its Western borders. That means that once Israel decides to attack Iran's nuclear facilities, it will have to plan a sustainable attack on a number of targets that are situated 1,500-1,700 kms from Israel. For that purpose, Israel can use only its air force. The targets usually are far from the Indian Ocean, and Israel has no significant seaborne air power assets. Although Israel has some military relationships with friendly states that are situated closer to Iran, most notably, Turkey and India, these states also are keeping a friendly relationship with Iran, and it is highly unlikely that they would let Israel use their territories for the purpose of attacking Iran's nuclear infrastructure. This means that the Israeli attack aircraft would have to take off from air bases in Israel, fly 1,500-1,700 kms to the targets, destroy them, and then fly back 1,500-1,700 kms. It is also possible that the flight would be even longer for the Israeli planes because they would have to fly through the air space of Jordan and Iraq to use the direct shorter route to Iran. Flying through Jordan without the explicit or implicit permission of the Jordanians would hurt relations with a friendly Arab state. Flying over Iraq without coordination with the United States would lead to a clash with U.S. interceptors. Any attempt at coordination with the United States or asking permission from Jordan might compromise the operation. It is also very doubtful whether Jordan and the United States would be willing to be involved in such Israeli operations. As a result, the Israeli planes would have to use the longer route over the Indian Ocean, with minimal penetration of the air space of other states.

The IAF does not have any bombers. Its air fleet consists only of fighter-bombers with limited range of action. Israel has 25 F-15I and 137 F-16C/D fighter-bombers. It is going to improve its long range capability in 2004 with few operational F-16I aircraft with greater range of action than the F-15I, but the burden of the attacks would be laid mostly on the F-15I aircraft that have better capabilities at longer ranges. F-15I has a radius of action of 1,270 kms. The corresponding

one for F-16C/D is 925 kms and for F-16I, 2,100 kms (but Israel will have only few of them at the relevant time).<sup>30</sup> The real operational radius is even shorter because for parts of the route, the planes would have to fly at low altitude to avoid radar detection. That shortens the range of flight because of higher fuel consumption at low altitudes. It means that the attack aircraft would need to be refueled at least twice, on their way to the targets and from the targets. That adds complication to the operation because Israel has only a few air refuelers based on Boeing 707 aircraft platforms. Such aircraft are very vulnerable, and therefore air refueling cannot take place in hostile air space.

Assuming that the attack aircraft succeeded in entering the Iranian air space, they would have to avoid early detection and be capable of dealing with Iranian interceptors. Iran is a vast country, and the radar assets available to the Iranian air defense system are limited. If the Israeli planners had good information about their location, it would be possible to plan approach routes to the targets that would avoid early detection. If the attacking aircraft were detected and intercepted, the Israeli F-15s and F-16s enjoy vast superiority over the Iranian interceptors and would probably defend themselves successfully. The problem is that such long range attacks are very sensitive to interferences, and therefore the intercepted attack formation might have to abort its mission.

If the Israeli attack aircraft succeed in avoiding early detection and interception, it can be safely assumed that they would be capable of avoiding the surface to air missile defenses and the anti-aircraft artillery (AAA) defenses deployed closer to the targets and destroy the targets by use of a combination of tactics, ECM, and smart munitions.

In any case, any Israeli attack on an Iranian nuclear target would be a very complex operation in which a relatively large number of attack aircraft and support aircraft (interceptors, ECM aircraft, refuelers, and rescue aircraft) would participate. The conclusion is that Israel could attack only a few Iranian targets and not as part of a sustainable operation over time, but as a one time surprise operation.

Even if Israel had the attack capabilities needed for the destruction of the all elements of the Iranian nuclear program, it is doubtful

whether Israel has the kind of intelligence needed to be certain that all the necessary elements of the program were traced and destroyed fully. Israel has good photographic coverage of Iran with the Ofeq series of reconnaissance satellites, but being so distant from Iran, one can assume that other kinds of intelligence coverage are rather partial and weak.

Covert action demands different kinds of operational capabilities and intelligence. There is no indication that Israel has capabilities of covert operations in Iran. The recent information about the development of the Iranian program indicated that it reached a status of being independent of external assistance. Moreover, the assistance Iran got was mostly from Pakistan, another place which is not a traditional area of operations for the Israeli secret services, like Europe or South America. It seems that there is no real potential for covert Israeli operations against the Iranian Nuclear program.

### **Were Other Options Exhausted?**

So far, Israel has no reason to believe that the political negotiated option was exhausted. Developments uncovered since the new advances in the Iranian nuclear program indicate that a coordinated action of the United States, the EU, and IAEA succeeded in forcing the Iranians to suspend their uranium enrichment activities and accept the additional protocol that will tighten monitoring of their nuclear program. It seems that this success is also a byproduct of the war in Iraq. It is feasible that the United States can deter Iran from continuing its military nuclear program, especially when Europe is cooperating with the United States and not letting Iran exploit the differences of views between them.

In the meantime, the Israeli government doubts whether Iran will, indeed, keep its commitments to stop the enrichment project and adopts a “wait and see” policy, keeping all options open.<sup>31</sup>

### **The Domestic Cost of Action.**

Iran is on a clash course with Israel since Humeini’s revolution. It is leading a flagrant anti-Israeli policy. It supports terror groups that operate against Israel; Hezbollah in Lebanon, and the Islamic

Palestinian terror groups.<sup>32</sup> It was directly involved in the terrorist bombings of the Israeli embassy and the Jewish community center in Buenos Aires, Argentina. It is no wonder that at present Iran has a very negative image in the eyes of the Israeli public. Israelis constantly are bombarded with anti-Iranian declarations by political leaders and the media. They hear the director of the General Security Service (GSS)<sup>33</sup> saying at an open conference on December 16, 2003, that Iran is the number one terror state in the world and a strategic threat to Israel, and that it operates against Israel and its interests everywhere.<sup>34</sup> The director of the Mossad said that Iran is a threat to world peace and is an existential threat to Israel when he appeared in the Knesset's Security and Foreign policy committee.<sup>35</sup> It can be safely assumed that any Israeli action against the Iranian nuclear program would enjoy vast support by Israeli public opinion. Even a failure of the operation would not erode the support because of the almost general consensus of the public. Most probably, such an action would not become a matter of partisan debate because there are supporters and opposers of proactive action against the Iranian nuclear program among the coalition and opposition parties.

### **Iranian Possible Responses as a Constraint.**

Although presently Israel enjoys vast superiority in long range strike capabilities in comparison with Iran, Iran is succeeding in maintaining a balance of mutual deterrence with Israel. Until recently, Iran's deterrence was based on the use of proxies, terror groups that operated from areas close to Israel or in the global arena. Iran could balance Israel's ability to strike at targets in its territory with the ability of these proxies to attack Israeli towns in northern Israel or Israeli interests all over the world, using the infrastructure that these terror groups have established in many states. The most salient of these groups is Hezbollah in Lebanon. It succeeded, with the support of Iran, in building a large array of surface to surface rockets in South Lebanon that presents a constant threat over the civilian population in a large part of Israel. In recent years, Hezbollah has acquired from Iran longer range rockets (Fajr 3 and 5) and expanded its strike capability to a larger part of Israel.<sup>36</sup> Iran also demonstrated

its ability to hurt Israeli interests in others states when its agents were involved in the bombing of the Israeli embassy and the Jewish community center in Buenos Aires.

Iran is developing a 1,330 kms range ballistic missile, *Sheab-3*, that will give Iran the capability to strike directly at targets in Israel's territory. The missiles have reached initial operational capabilities.<sup>37</sup>

Iran admitted after signing the Chemical Weapons Convention (CWC) that it developed and stockpiled chemical weapons, probably mustard gas and nerve agents. It was supposed to destroy these weapons in accordance with the provisions of the CWC, but there is no report that this was done and Iran is suspected of continuing its activities in this area.<sup>38</sup>

If Israel decides to attack Iran's nuclear installations, it will have to take into account a response in kind. Iran may use its ballistic missiles to attack Israeli nuclear installations. Such attacks will not be effective because of the inaccuracy of its missiles. The probability of an attempted Iranian attack with aircraft is lower, although strike aircraft may be more accurate. Iran has a very small number of long range SU-24 strike aircraft and some air-refueling capability, but such a long range attack with the challenge of the Israeli air defense system is a formidable task for its air force. It is possible that Iran would follow the example of Iraq, and, being aware of the ineffectiveness of the missile attack on nuclear installations, it would launch its missiles against Israeli cities.

Iran would probably use its proxies to hit at Israeli targets and interests in Israel and elsewhere. Under the present circumstances, striking Israel from Lebanon would be difficult because Israel probably would react harshly against Syria, Iran's ally, which is in a position of weakness; and that does not serve Iran's Interests. Hitting Israeli and Jewish targets abroad may look to the Iranians as less risky.

If an Israeli strike in Iran caused some radioactive contamination, Israel would have to take into account Iranian use of chemical weapons. In all other circumstances, such use is highly improbable because an Iranian chemical attack would be a blatant violation of the CWC, and might lead to international action against Iran.

It is not possible to ascertain accurately what would be the Iranian response, but the experience of the Israeli- Iranian relationship in

the last 2 decades and the declarations of the Iranian leadership<sup>39</sup> indicate clearly that there would be a violent Iranian reaction to any Israeli attack in Iran.

### **Global and Regional Responses as Constraints.**

The Israeli leadership will have to assess the ramifications of such an attack on its foreign relations when it weighs arguments for and against the preemptive action. Israel enjoys the position of a state that already has been through such an experience, attacking the Iraqi reactor, absorbing general international condemnation, and being vindicated later. It seems that the Israeli leadership can only be encouraged by this experience. First, the political price it had to pay eventually was insignificant; U.S. sanctions were limited and stopped after a short time, and the negative effect on its relations with other states also subsided very quickly. Second, the environment is more conducive today for an Israeli preemptive action, because in 1991 Iraq was considered an ally of the West, while Iran is a member of the "Axis of Evil," and because after 9/11 and the war on Iraq, the concept of preemption is not rejected by everyone as it was in 1991; at least the only global superpower, the United States, adopted it as part of its doctrine. Third, after the experience of Iraq, one can assume that some states will be more cautious in their reaction to the Israeli action.

From Israel's point of view, the ramifications of such an action would be in three arenas; the Middle East, the United States, and Europe. Israel can assume that the reactions in the Middle East would be mixed. On the one hand, the Arab States would look on the Israeli operation as another example of Israel's intransigence and aggressiveness, and would object to the manifestation of Israel's wish to retain a nuclear monopoly. But on the other hand, they would feel relieved, because the Iranian nuclear posture is a threat to them as well. It is quite probable that they would condemn the Israeli action but would not take any other steps.

Assuming that the preemptive operation took place when it was clear that the Iranian program could not be stopped in any other way, it would be difficult for the United States to condemn an action

that suits perfectly its own positions. Israel can be assured that the action would not harm its relationship with the United States.

The EU is composed of a majority of states already voicing their opposition to the U.S. preemption doctrine and the war on Iraq as a manifestation of this doctrine. They would most probably condemn Israel. Nevertheless, Israel can assume that such an attack that came after an European failure to make Iran stop the nuclear program would not lead to sanctions other than verbal condemnation.

## CONCLUSION

The Iranian decision to suspend its uranium enrichment activities and to sign the additional protocol with the IAEA implies to Israel that Israel does not yet have to decide on a violent preventive action against the Iranian nuclear program, and can postpone this difficult decision. As long as it is possible to stop the Iranian program and roll it back without resort to violence, Israel will prefer it because it will minimize risks and the price it would have to pay for this objective.

The decision is difficult because the probability of success is not high, the risks are high, and the cost is certain. The probability of success is not high because, on one hand, the Iranian nuclear installations are dispersed, well-defended and have much redundancy; and on the other, the Israeli operational capabilities for sustainable operations, and not a one of its kind surgical strike, are limited. It is not certain at all whether any Israeli operation will stop the Iranian nuclear program or delay it substantially. The risks are high because the operational difficulties may lead to a high casualty rate and because of the high probability of failure. The cost is certain, because an Iranian violent reaction is almost a certainty. The Israeli leadership will have to consider whether it is willing to take the risks and pay the costs for an operation with doubtful results. On the other hand, there are no real political constraints domestically or in Israel's foreign relations that should prevent it from making such a decision. The conclusion is that eventually the two parameters that will be decisive in the Israeli decision will be the assessment whether the Iranian program can be stopped by other means and the assessment of the operational feasibility.

It is not surprising that, based on these assessments, Israel believes that the key to the fight against the Iranian nuclear program is in the hands of the United States, especially after the war in Iraq. On November 8, 2002, Israeli Prime Minister Ariel Sharon said, in an interview given to the *New York Post*, that the U.S. war on terror should not end with Iraq. He added, “as soon as Iraq is dealt with, I will push for Iran to be at the top of the ‘to do’ list . . . Iran makes every effort to possess weapons of mass destruction . . . and ballistic missiles . . . That is a danger to the Middle East and a danger to the world.”<sup>40</sup>

Israel’s preferred policy is to let the United States and the European states help deal with Iran. It believes that keeping the ambiguity concerning possible Israeli reactions in case the attempts to stop Iran fail may help the U.S.-European effort because it may induce some actors – those who wish to prevent Israeli operations that may lead to further destabilization of the Middle East (especially the Europeans) – to increase their pressures on Iran, and it also may have a deterring effect on Iran. An examination of Israeli statements on the Iranian nuclear program shows a constant emphasis on the danger to the civilized world of this program; concern that the Iranians are using deceitful tactics; and threats of an Israeli action against the nuclear installations as a last resort, combined with declarations that Israel prefers peaceful solutions.<sup>41</sup>

The United States has to take into account the possibility of an Israeli preemptive strike against the Iranian nuclear facilities when considering its policy options. First, such an attack, especially if it did not achieve its planned objectives, would have a destabilizing effect on the Middle East. It could lead to acceleration of the Iranian program and to a chain of violent clashes between Iran and Israel. The United States should prepare contingency plans for such an event that include actions aimed at deterring Iran from destabilizing the Middle East, and the necessary political reactions, including prevention of initiatives aimed at a show of support for Iran internationally from such organizations as the UN. The United States has an interest in knowing the Israeli intentions and affecting them. That can be achieved only through an open, detailed, and continuous dialogue between the two nations.

Second, if the United States is considering preemptive strikes against Iran, it should weigh the pros and cons of cooperation with Israel in such attacks. The main argument against such cooperation is that it would fortify the existing perception in the Moslem world of an anti-Islamic Judeo-Christian conspiracy. That could be balanced only by very convincing and clear operational advantages of such an alliance.

Last, the United States should make use of the threat of a preemptive Israeli strike in its deliberations with its other allies, mostly its European allies. It may help convince them to take a more robust stand against the Iranian nuclear program. The Europeans most probably will consider an Israeli preemptive strike a disaster and will be ready to invest in an effort to induce Israel to avoid it.

## ENDNOTES - CHAPTER 6

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3. *Ibid.*; Amikam Shapira, "The German Scientists in Egypt," *Mabat*, Vol. MLM, No. 34, October 2003, in Hebrew, pp. 14-15.

4. Shlomo Nakdimon, *Tammuz in Flames*, Tel Aviv: Edanim, 1993, pp. 49-258, in Hebrew.

5. A very detailed description of world reaction appears in Nakdimon, pp. 268-339, 414-426.

6. UN Monitoring, Verification and Inspection Commission (UNMOVIC) working document, March 6, 2003, [http://nti.org/db/profiles/iraq/unmovic\\_jan6.pdf](http://nti.org/db/profiles/iraq/unmovic_jan6.pdf), pp. 139-141.

7. Nakdimon, pp. 439-447.

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17. See <http://projects.sipri.se/cbw/research/factsheet-1984.html>.

18. See, for example, *Globes*, Israel, August 28, 2003, p. 40.

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20. See <http://www.iaea.org/worldatom/Programmes/ActionTeam/nwp2.html>.

21. The Jaffe Center for Strategic Studies, *Middle East Military Balance*, <http://www.tau.ac.il/jcss/balance/Israel.pdf>, pp. 17,21.

22. Nakdimon, pp. 57-122.

23. Shapira, pp. 14-15.

24. Nakdimon, pp. 167-179, 191-199, 210-214, 216-225.

25. Nakdimon, pp. 353-379.

26. The debate between Military Intelligence and the Mossad is described in Yitzhak Latz, "A Nuclear Problem," *Globes*, August 28, 2003, pp. 36-41, in Hebrew; and in Ben Kaspi, "Israeli Assessment: The Regime in Iran is Developing Nuclear Weapons Because it is Concerned about the Approaching End of the Regime," *Maariv*, June 12, 2003, in Hebrew.

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31. *Maariv*, November 16, 2003; *Ha'aretz*, October 28, 2003, in Hebrew.

32. See, for example, a long story that appeared in *The Israeli Daily (Maariv)*, January 18, 2002, and covered in detail the Iranian involvement in the Palestinian terror war against Israel.

33. Israel's internal security organization.

34. *Maariv*, December 17, 2003, in Hebrew.

35. *Ibid.*, November 18, 2003, in Hebrew.

36. Brom and Shapir, p. 229.

37. *Ibid.*, p. 148.

38. *Ibid.*

39. For example, in December 24, 2003, Iranian Minister of Defense Admiral Samhani said, "if the Zionist regime will attack our nuclear installations, we will strike back with all the means available to us . . . the Zionist entity will pay a heavy price . . . its leadership will not have any safe place." *Maariv*, December 25, 2003, in Hebrew.

40. Another example is a statement by then Israeli Minister of Defense Binyamin Beib Eliezer who said on the eve of a visit in the United States that he intends in this visit to focus on the accelerated efforts of Iran to acquire nuclear weapons and long range missiles. "His aim is to convince the U.S. administration that it is not only a threat to Israel, but a threat to all the world. Such strategic capabilities at the hands of the Ayatullahs in Teheran will threaten the whole Gulf and even Europe." *Maariv*, January 18, 2002.

41. One example is the Israeli Minister of Foreign Affairs' statement during a meeting with his Austrian colleague on November 19, 2003, in which he said that Israel does not have plans to attack Iran's nuclear installations and it intends to use only peaceful means. *Reuters*, Vol. 16, November 19, 2003, p. 57.