

**Oxford Research Group Briefing Paper – July 2010**

## **MILITARY ACTION AGAINST IRAN: IMPACT AND EFFECTS**

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### **EXECUTIVE SUMMARY**

This report concludes that military action against Iran should be ruled out as a means of responding to its possible nuclear weapons ambitions. The consequences of such an attack would lead to a sustained conflict and regional instability that would be unlikely to prevent the eventual acquisition of nuclear weapons by Iran and might even encourage it.

Oxford Research Group's (ORG) analysis in its last report on the issue in 2006 (*Iran: Consequences of a War*) examined the capabilities and intentions of the United States and Israel to carry out military action. While US action against Iran may now be unlikely, given the policies of the Obama administration, Israel's potential for action against Iran has increased. This report examines the improvements in Israeli strike capabilities in the past four years and points to Israel's newly developed ability to conduct major attacks on Iranian nuclear and missile programmes. Long-range strike aircraft acquired from the United States, combined with an improved fleet of tanker aircraft, the deployment of long-range drones and the probable availability of support facilities in north-east Iraq and Azerbaijan, all increase Israel's potential for action against Iran.

Many sections of the Israeli political elite regard the Iranian nuclear and missile programme as an existential threat to Israel. If there is no progress to curtail Iran's nuclear ambitions by other means, there is significant Israeli support for military action. This might also extend to renewed action by Israel in southern Lebanon to counter the progressive re-arming of Hezbollah militias by Iran.

Iran regards a civil nuclear programme as a technological right, and sees its missile force as primarily defensive, however this might be viewed in Israel. While there is little evidence of a nuclear weapons programme, there are indications that Iran is moving towards the means to acquire that capability, even if it does not plan to take the final steps and withdraw from the Non-Proliferation Treaty (NPT).

While an Israeli military strike could not be initiated entirely without the knowledge of the United States, it could avoid over-flying US-controlled airspace. The operation would target a wide range of nuclear and missile facilities and would also be aimed at the technical support, including factories, research centres and university facilities that would underpin the rebuilding of the facilities after attack. There would be significant civilian casualties.

An Iranian administration under attack would experience considerable national unity and would work rapidly to redevelop its weapons programmes, withdrawing from the NPT and prioritising nuclear weapons. This would lead to further Israeli military strikes, resulting in prolonged conflict – the start of a long war with potential regional and global consequences. Iran could, if it chose, take many other actions, including operations to affect world oil markets and to increase instability in Iraq and Afghanistan. Prospects for regional stability and wider global security would be very seriously damaged.

The report concludes that military action against Iran should be ruled out in responding to its possible nuclear ambitions.

## INTRODUCTION

In November 2002, four months before the Iraq War started, Oxford Research Group published a report, *Iraq: Consequences of a War*, (1) that examined the possible outcomes of a military operation to terminate the Saddam Hussein regime. Two of its main conclusions proved accurate - that regime termination was certainly feasible but that the occupation of Iraq by coalition troops would increase support for radical elements in the region and also incite an insurgency.

Following this work, in February 2006, Oxford Research Group published a study, *Iran: Consequences of a War*, which analysed the possible outcomes of a military attack on Iran, either by the United States or Israel. (2) At that time, the prospect of a war with Iran was generally considered to be fairly low, but there were many opinion-formers close to the Bush administration who were advocating such a course of action, primarily because of fears of an Iranian nuclear weapons programme, but also because of claimed Iranian interference in Iraq.

That paper took as an assumption:

“...that any military action by the United States or Israel would have as its function the inflicting of severe damage on Iran’s nuclear installations and medium-range missile programmes, while, in the case of the United States, endeavouring to pre-empt any damaging Iranian response.” (3)

It also assumed that such military action would not extend to any attempt to terminate the Iranian administration, but would be primarily focussed on an attack using strike aircraft and stand-off missiles, including sea-launched cruise missiles. The main elements of that report were summarised as follows:

An air attack would involve the systematic destruction of research, development, support and training centres for nuclear and missile programmes and the killing of as many technically competent people as possible. A US attack, which would be larger than anything Israel could mount, would also involve comprehensive destruction of Iranian air defence capabilities and attacks designed to pre-empt Iranian retaliation. This would require destruction of Iranian Revolutionary Guard facilities close to Iraq and of regular or irregular naval forces that could disrupt Gulf oil transit routes.

Although US or Israeli attacks would severely damage Iranian nuclear and missile programmes, Iran would have many methods of responding in the months and years that followed. These would include disruption of Gulf oil production and exports, in spite of US attempts at pre-emption, systematic support for insurgents in Iraq, and encouragement to associates in Southern Lebanon to stage attacks on Israel. There would be considerable national unity in Iran in the face of military action by the United States or Israel, including a revitalised Revolutionary Guard.

One key response from Iran would be a determination to reconstruct a nuclear programme and develop it rapidly into a nuclear weapons capability, with this accompanied by withdrawal from the Non-Proliferation Treaty. This would require further attacks. A military operation against Iran would not, therefore, be a short-term matter but would set in motion a complex and long-lasting confrontation. It follows that military action should be firmly ruled out and alternative strategies developed. (4)

The 2006 report attracted considerable attention, was translated into Turkish, Farsi and German, and was widely read in Iran and the United States. During the months that followed, there was further pressure from neo-conservative circles in the United States to take action against Iran, but the Bush

administration was preoccupied with a major insurgency in Iraq and increasing instability in Afghanistan. Israel, meanwhile, became involved in a brief but very violent confrontation with Hezbollah in southern Lebanon in a war that resulted in considerable international criticism of its actions, especially of the effects of the war on Lebanese civilians and the Lebanese economic infrastructure.

The inability of the Israeli Defence Forces (IDF) to defeat Hezbollah in 2006, in the face of rocket attacks which continued throughout the war, caused considerable concern. In one sense, this reduced attention on Iran because of a perceived need for Israel to re-think its more immediate security posture, but in another sense, Iran was seen as the primary supporter and indeed armourer of Hezbollah and therefore a continuing long-term threat to the security of Israel. This added to the belief across much of Israeli political opinion that, if Iran was ever to develop nuclear weapons, it would constitute an existential threat to Israel, in spite of its own nuclear forces.

The earlier (2006) Oxford Research Group analysis of the consequences of a war with Iran (cited above) concentrated on the impact of a US operation. Although contingency war plans for strikes on Iran may exist within US Central Command, the greater current risk is of an Israeli action, specifically intended to limit Iran's ability to develop a nuclear weapons programme. While noting the US context, this paper therefore concentrates on Israeli capabilities and possible Iranian responses to such an attack.

## THE US CONTEXT

Since January 2009, the Obama administration has sought to resolve the vexed question of Iran's potential to develop nuclear weapons by negotiation. In the face of turbulent political circumstances within Iran, this has proved difficult, in spite of support from many western European countries. In February 2010, negotiations aimed at limiting Iran's capacity to enrich uranium to beyond standard reactor grade (around 4%) appeared to have ended as President Ahmadinejad announced plans to commence enrichment to 20% at a 164-machine enrichment cascade at Natanz. (5) This was broadly legitimate under the terms of the Non-Proliferation Treaty in that such enrichment is appropriate for a nuclear research reactor in Tehran that is used, among other functions, for producing radio-isotopes for medical use. The problem was that this level of enrichment would take Iranian nuclear technicians closer to the experience and capabilities necessary for them to enrich uranium to the 85%+ level required for a nuclear weapon.

More than a year into the Obama administration, and with the mid-term Congressional elections approaching, there is still a dominant view in neo-conservative and other right-wing circles that Iran is, and always has been, a much greater threat to US regional and global interests than Iraq ever was. A common view before the start of the Iraq War in March 2003 was that "if we get Iraq right, we won't have to worry about Iran". In other words, if military force proved easily able to terminate the Saddam Hussein regime and replace it with a stable client government supported by permanent US bases, then Iran would bow to US policy in the region, causing little trouble. The fact that Iraq was not "got right" is one consequence of the decision to terminate the Saddam Hussein regime.

The perception of Iran as the major threat to US interests in the Middle East stems, in part, from the long-term consequences of seeing the apparently secure, authoritarian and pro-American regime of the Shah so easily deposed in a matter of weeks in 1979. The Shah's Iran had been seen as the linchpin of US security interests in the Gulf during the Cold War – a bulwark on the eastern flank against Soviet interference in the oil-rich Persian Gulf. The sudden regime collapse, followed by the traumatic impotence of the United States at the time of the 444-day hostage crisis, and the subsequent and bitter antagonism to the US demonstrated by the Islamic Republic under Ayatollah Khomeini, meant that Iran was seen as a direct and persistent obstacle to US regional interests.

These were, and are, centred on the Gulf region's immense oil reserves, exacerbated by the trend of the United States becoming increasingly dependent on imported oil. If the oil factor was important at the start of the 1990s, it is far more so 20 years later, with US oil import dependency increasing year by year, with China in a similar position, and with Gulf fossil fuel resources likely to make the region of profound geopolitical significance over the next twenty years or more.

In such circumstances, it is fundamentally unacceptable to the "political right" in the United States for a "rogue" state, such as Iran, to be allowed to get even remotely near having its own nuclear capability. Such a "deterrent" would greatly limit US options in the region, and would provide a threat to its closest ally – Israel. While the Obama administration may have persisted with the diplomatic option, many others in Washington believe that the destruction of the suspected nuclear weapons infrastructure and associated facilities is going to have to be undertaken at some stage. One influential commentator has argued that a direct US military strike on Iran must be considered and has cited polling evidence to show that there would be majority domestic support for this. (6)

The powerful Israel lobby that is centred on the American-Israel Public Affairs Committee (AIPAC) continues to advocate much firmer action on Iran than is currently contemplated. While the Obama administration seems unlikely at present to consider military action, its rhetoric has certainly become far tougher. The Secretary of State Hillary Clinton, in a speech to the US-Islamic World Forum on 14 February 2010, called for a fourth round of sanctions against Iran, and sought Saudi support in persuading China to agree to such sanctions in the UN Security Council. (7)

## THE ISRAEL MILITARY POSTURE

Israel has maintained a nuclear capability since the late 1960s and is believed to have up to 200 nuclear warheads, principally for delivery by aircraft or the Jericho series of surface-to-surface missiles. It may also be developing nuclear warheads for submarine-launched cruise missiles – Israel currently has three German-built *Dolphin*-class submarines with two more due for delivery in 2012. Israel believes it essential to its security that it is the only state in the region with a nuclear capability. Since the Iranian Revolution at the end of the 1970s, successive Israeli governments have regarded Iran as the greatest long-term regional threat to its security.

Units of the Israeli Air Force destroyed the Iraqi experimental Osiraq reactor near Baghdad in 1981, limiting Iraq's potential to take the plutonium route to nuclear weapons. More recently, on 6 September 2007, Israeli strike aircraft attacked a facility in Syria that was a suspected nuclear site, possibly a nuclear reactor involving North Korean personnel in the early stages of the construction. (8) The 1981 Baghdad target was within range of Israeli aircraft whereas the Iranian facilities were, until recently, at the limit of Israeli Air Force capability. That has now changed with the deployment of long-range versions of the US F-15 and F-16 strike aircraft – the F-15I *Ra'am* and the F-16I *Sufa*. 25 of the F-15I are now in squadron service together with a force of 102 F-16I aircraft in four squadrons. (9) Deliveries of the planes started in 2003 and are now complete. The Israeli Air Force is also acquiring 500 earth penetrating bombs from the United States for use against underground facilities.

There are unconfirmed reports that some or all of the F-15I strike aircraft have been fitted with conformal fuel tanks to increase range, but the Israeli Air Force does in any case have a fleet of tanker aircraft. The most significant of these are the KC-707 *Re'em* aircraft. Although based on the elderly Boeing 707 airframe, these have been substantially upgraded and an eighth plane was recently added to the fleet, following a \$23-million contract with Israeli Aerospace Industries. (10)

Israel has been a leading developer of unmanned aerial vehicles (UAVs). The standard Israeli UAVs are the *Shoval I (Heron)*, broadly equivalent to the US *Predator*, and the *Hermes 450*, the latter having been in service for about a decade. Although primarily used for intelligence, surveillance, target acquisition

and reconnaissance (ISTAR), the *Hermes 450* is reported to be deployable in an armed variant, with weapons including two *Hellfire* missiles. It has an endurance of up to 20 hours. A larger version, the *Hermes 900*, has been developed for the Israeli Air Force by Elbit Systems and is due to enter service during the latter part of 2010. (11) A further UAV, which has been deployed since February 2010, is the *Eitan*, the largest of the current Israeli UAVs. It is a 4,000 kg high-altitude drone with a range of over 7,400 km, an endurance of 36 hours and a maximum payload of 2,000 kg.

Israeli military units have been involved in a range of operations in Iraq, especially in the Kurdish north-east of the country, close to the Iranian border, where, among other activities, they have been training Kurdish commando units. Israel also has diplomatic relations and close military connections with Azerbaijan to the north of Iran. In the event of a conflict with Iran, it is possible that Israel would be able to deploy military facilities in both countries, especially Azerbaijan. These might include ISTAR capabilities, Special Forces and search and rescue aircraft.

The close relationship between the US military and the Israeli Defence Force has been greatly strengthened in recent years as a result of US experiences in Iraq. Foreign Military Assistance from the United States currently accounts for about one-fifth of Israel's entire annual military budget, and in January 2010 the Pentagon concluded an agreement with Israel that allows up to \$800 million of war reserves to be stored there, with these being available for Israeli use in an emergency. (12) There has been a substantial exchange of expertise, especially between the IDF and the US Army's Training and Doctrine Command (TRADOC), with this exchange greatly expanded because of problems experienced by the US in Iraq. (13) Israeli arms companies have also provided the US armed forces with a wide range of specialist counter-insurgency weaponry and equipment for use in Iraq, much of it developed as a result of Israeli experience in controlling the occupied Palestinian territories. Although not commonly covered in the western media, this relationship is well known across the Middle East and would contribute to an assumption that any Israeli attack on Iran would be undertaken with the knowledge, approval and assistance of the United States. It is certainly the case that an Israeli air attack on Iran would involve flights through air space currently under surveillance, if not completely controlled, by the United States.

For the purposes of this paper, it is assumed that, if the IDF was to engage in actions to seriously damage Iran's nuclear weapons developments, it would therefore do so with the tacit support of the United States, and would have access to facilities in north-east Iraq and possibly Azerbaijan. The action would aim to set back any nuclear programme for several years, and would also target Iranian missile developments. It would not extend beyond these aims, whereas US action, if that should ever arise, would need to do so, not least because of the need to try and pre-empt immediate Iranian retaliation against US and allied facilities in western Gulf States.

## THE IRANIAN CONTEXT

Iran's self-perception is of one of the world's historic powers. There is a widely-held belief that a high-technology future is an essential part of its place in the world, but this is coupled with a strong feeling of current vulnerability (14). Iran looks back to several thousand years of history and believes that major power status is feasible, given the combination of massive fossil fuel resources, a large, well-populated and youthful country and a geographical position that puts it at the heart of an immensely significant region. While Iran's oil and gas reserves are not fully developed and there are many problems of poor-quality equipment, the reserves themselves are remarkably large. On most estimates, Iran's oil reserves amount to around 11% of the world total, approximately four times the size of US reserves including Alaska and the offshore reserves of the Gulf of Mexico. Iran's natural gas reserves are even larger, comprising around 15% of the world total.

Although the Iranian socio-political environment is complex and markedly changeable, there is a general belief in the value of advanced technology, and a perception of nuclear power as a symbol of modernity.

When faced with the argument that a country so well endowed with oil and gas does not need nuclear power, Iranian analysts respond that a fifth of electricity is already generated by hydro-electric power, and that oil and gas are too valuable to be used for electricity generation, especially given Iran's indigenous reserves of uranium ores. In terms of public attitudes, it is clear that a range of opinion formers from across the political and religious spectra in Iran believe that the country has every right to develop a nuclear fuel cycle. It is also the widespread view that Iran has the right to develop nuclear weapons, or at least develop the capability to do so, should the country's security require it.

### ***The Nuclear Programme***

Where exactly Iran is in terms of such a capability, is very much open to question. The basis of the overall nuclear programme is officially directed at enriching supplies of domestically-mined uranium ore for civil nuclear power purposes. Some Israeli sources insist that Iran may be only a year or two away from producing a nuclear weapon, but there has been a tendency to claim this for several years. (15) Other sources suggest a much longer time-scale, (16) including a US National Intelligence Estimate published in 2007 that was heavily criticised in Israel. (17) What is known is that Iran has built a facility near the city of Natanz to house up to 50,000 first-generation IR1 gas centrifuges. Those already installed have been used to enrich up to two tonnes of uranium to about a 4% content of Uranium-235. This fissile isotope is normally present in uranium ore at about 0.7% and enrichment is technically very demanding since U-235 is so close, chemically and physically, to the dominant but largely inert U-238 isotope.

In theory, the low-enriched uranium could be run repeatedly through centrifuge cascades to enrich it towards the 85%+ level of weapons grade uranium and, as noted earlier, Iran has announced that it is enriching samples to 20% to supply a specialised nuclear reactor located in Tehran that is used to produce medical and other isotopes. If this enrichment capability exists, then it would imply that Iran could be close to a very limited nuclear weapons potential - perhaps one or two devices within two years - but there are other issues. For a start, there have been a number of reports that the enrichment programme has proved problematic. When IAEA inspectors visited the Natanz plant in January 2010, there were reported to be 3,800 functioning centrifuges compared with 5,000 functioning some nine months earlier, out of an installed total of 8,700. (18) Against this, Iran has admitted to working on the construction of a deeply buried nuclear facility at Fardow near the city of Qom, although recent reports suggest that construction has temporarily ceased. Perhaps more indicative is a report that Iran is now attempting to produce the much more advanced IR5 gas centrifuge, considered five times as efficient as the IR1. (19)

In summary, all that can be said is that Iran is slowly developing the technologies and personnel to enable it to handle a range of nuclear-related systems. If at any stage a clear decision is taken to develop a small arsenal of nuclear weapons, then a timescale of three to seven years from now might be an appropriate estimate, the seven-year period being the time required to produce perhaps six useable weapons. There is no firm evidence that such a decision has been taken, but the nature of recent construction projects, especially those underground, suggests that the leadership at least wants the option of a capability, even if it is held in reserve rather than implemented. (20)

It is worth noting one other more immediate option. Iran might take a decision to use a clandestine facility to further enrich most of its stock of 4% reactor-grade uranium to weapons grade and then configure a crude nuclear device and detonate it. While this would not remotely mean that Iran had any kind of serious nuclear weapon capability, it might be attempted in order to suggest what amounted to a phantom deterrent capability. Such a project is unlikely yet possible. While it might give the regime domestic popularity, it might well prompt an early Israeli military strike. It should also be noted that Iran's fuel cycle is still under safeguards, so it would either have to break its safeguards on its enrichment material, which would set off a major international alert many months before Iran would be

able to convert the material into a weapon, or have to successfully reproduce shadow elite facilities handling large quantities of fuel through all the fuel cycle stages – mining, milling, uranium conversion, enrichment, fabrication and weaponisation.

Although Iran was in breach of some aspects of its safeguards agreement with the International Atomic Energy Agency (IAEA) (a requirement under the Non-Proliferation Treaty) in the 1990s, it is, at the time of writing, largely abiding by their safeguards, although there are significant unresolved issues in its relationship with the IAEA. Critics of Iran point to these issues, to which Iranians typically respond that Egypt and South Korea have also had differences with the IAEA in recent years. In broad terms, Iran is allowed - under the terms of the Non-Proliferation Treaty - to develop a civil nuclear power programme, including uranium enrichment activities, and could remain within the terms of the treaty until such time as a decision was taken to develop nuclear weapons, in which case, as with North Korea, it could withdraw. Given the US view of Iran during the Bush era as part of the “axis of evil”, this was not acceptable to that administration. The Obama administration has taken a more accommodating view while remaining strongly opposed to any possible Iranian nuclear weapons programme, but its most recent activities have been directed towards a substantial enhancement of the sanctions process.

### **Iranian Ballistic Missiles**

In parallel with its nuclear programme, Iran has sought to develop a substantial ballistic missile force, ranging from short-range solid-fuel systems to medium-range liquid-fuel systems. (21) The latter are essentially developments from the *Scud* series of Soviet missiles of the Cold War era, with Iran using extensive help from North Korea. Until recently, Iran’s longest-range deployable ballistic missile was the *Shahab-3* with a range of 800-1,000 km. Deployed at or close to known bases near Tabriz and Khorramabad in western Iran, the *Shahab-3* does not have the range to hit targets in Israel. Of greater concern in this context is a development of the *Shahab* into a longer-range *Ghadr-1* missile with a range of up to 1,600 km, sufficient to reach Israel. The *Shahab/Ghadr* missiles are liquid-fuelled and can be launched from mobile transporter-erector-launcher (TEL) vehicles, but the liquid fuel system involves quite extensive pre-launch procedures. There are various estimates of the numbers of missiles and launchers, but 25-100 *Shahab-3* and *Ghadr-1* missiles and six TELs would represent a western view, with Israeli sources giving much higher figures. Of the *Shahab-3/Ghadr-1* missiles, the great majority would be the former, suggesting that Iran has very few ballistic missiles capable of reaching Israel.

This, however, is the current situation, and what is of much greater concern to Israel, is Iran’s longer-term commitment to developing more powerful ballistic missiles, especially those using solid fuel, which have much more rapid pre-launch procedures. Iran already has extensive experience of casting solid fuel propellants for short-range missiles such as the *Zelzal* and *Fateh-110*, and in November 2008 a new and very much larger solid fuel two-stage missile, the *Sajjil* was test-fired. This is reported to have a range of 2,200 to 2,400 km and have a payload capacity broadly similar to the *Ghadr-1*. Since the first test-firing, there have been two more tests of the *Sajjil*, but there are no reliable reports that it has yet been deployed. From an Israeli perspective, apart from the solid fuel aspect, the main significance of the *Sajjil* development is that it appears to have been undertaken with a large element of indigenous Iranian capability. On present rates of progress, Iran may be capable of deploying numerous *Sajjil* missiles within five years.

## **IRANIAN SECURITY PERSPECTIVES**

On the question of Iranian perceptions of security, while there is considerable self-belief in the capabilities of Iran, there is also a certain sense of insecurity. In the past nine years, Iran has seen the regimes to the east and west of it terminated by large-scale military action by a superpower that has in the past implied that regime termination in Iran is also a desirable option.

Immediately to the west of Iran, the United States maintains a large military presence in Iraq. Whatever the long term future of those forces, there is an assumption in Iran that the United States will maintain considerable political influence there. It also has extensive military deployments in Kuwait, Bahrain and Qatar and has its Fifth Fleet that controls the waters of the Persian Gulf and the Arabian Sea and is overwhelmingly powerful in contrast with the small Iranian Navy. The Obama administration is stepping up its military sales to western Gulf States, including \$25 billion in arms sales to Saudi Arabia and the United Arab Emirates in 2008-09. According to a recent report:

“The initiatives, including a U.S.-backed plan to triple the size of a 10,000-man protection force in Saudi Arabia, are part of a broader push that includes unprecedented coordination of air defences and expanded joint exercises between U.S. and Arab militaries (...). All appear to be aimed at increasing pressure on Tehran.” (22)

To the east, Iran sees the United States firmly ensconced in Afghanistan, with two permanent bases now established at Bagram near Kabul and at Kandahar. Moreover, a large new military base has been developed near the western Afghan city of Herat, close to Iran’s eastern border with that country. Finally, the United States has developed close military links and, in some cases, basing facilities in a number of countries to the north and east of Iran, especially those close to the Caspian Basin oil fields or pipelines that bring such oil through to Black Sea or Mediterranean ports.

Against this, Tehran also recognises that the United States has encountered major problems in the region. For example, as the US progressively withdraws from Iraq, there is every sign that Iran can increase its own influence to an extent unthinkable during the Saddam Hussein era. Also, the miring of US forces in Afghanistan has been accompanied by early signs that the Obama administration sees the current surge of military personnel into Afghanistan as a prelude to a substantial withdrawal before the 2012 Presidential Election.

In terms of Iranian domestic politics, three issues are relevant to the current analysis. One is that the Ahmadinejad government has, to an extent, regained control of public order in the wake of extensive opposition after last year’s election, but there is no guarantee that this will last in the long-term, in spite of repressive methods being used. (23) A second is that the economy remains in deep trouble with even the current high price of oil having little effect. The third is that the Iranian Islamic Revolutionary Guard Corps (IRGC) is operating increasingly as a state within a state and would almost certainly benefit from any major external crisis. (24) There is thus a sense, in which an attack on nuclear and related facilities by Israel would be of real political value to the Iranian leadership, and especially the leadership of the IRGC. Whatever the unpopularity of the Ahmadinejad government, most political analysts within Iran are convinced that an attack on the country would result in a high degree of political unity right across the spectrum of opinion, however unpopular the government of the day.

## **ISRAELI MILITARY ACTION**

If Israel decides in the coming months to take military action in order to pre-empt Iran developing nuclear weapons, it is like to have to inform the United States government in advance. It would be technically possible for Israel to avoid US-controlled airspace by circumventing Iraq, but this would be difficult. Furthermore, support facilities in the Kurdish region of north-east Iraq would greatly aid effective action. Given tacit US approval, and bearing in mind the relatively small number of long-range strike aircraft available, Israel might also use conventionally-armed land-based ballistic missiles (versions of the Jericho series) and submarine-launched cruise missiles, and quite possibly armed UAVs staging from north-east Iraq or Azerbaijan. Both of these territories neighbouring Iran could also be used for helicopter assaults, insertion of Special Forces and the mounting of rescue missions.



There have been occasional media suggestions that Israel might use low-yield tactical nuclear earth-penetrating warheads to destroy those Iranian underground facilities that are too hardened to be affected by conventional earth-penetrating weapons. (25) This is a very remote possibility which would, if utilised, have immensely serious long-term consequences for global security. Even so, the temptation might be there with the Natanz facility specifically, given its relatively remote location, as it is more than 25 km from the town of Natanz and nearly 40 km south of Kashan.

The military action itself would pay only limited attention to the suppression of Iranian air defences, given the weak state of these systems and the need to concentrate limited air power resources on the nuclear and missile facilities. The main targets would be in the following categories:

- Uranium enrichment plants, especially those near Natanz. There would be an emphasis on destroying the centrifuge cascades but also a sustained attempt to kill as many of the scientific and technical staff as possible. Living quarters and above-ground laboratories and other facilities would therefore be prime targets.
- The uranium conversion facility at Esfahan, a large target that underpins the whole nuclear programme.
- Nuclear research and development facilities, including those in Tehran and near Arak. The new reactors at Bushehr would be targeted, not necessarily the reactors themselves, given the risk of radioactive contamination affecting other countries in the Gulf region, but control systems, laboratories and living quarters would be likely targets.
- Factories manufacturing equipment in support of the programme. There would be an emphasis on those plants directly involved in centrifuge construction, but targeting would extend to a range of factories directly connected with the programme.
- Bases housing missiles capable of hitting targets in Israel and personnel associated with them, together with research, development and production facilities for Iran's missile programme and the staff working in them.
- Those university departments of physics, engineering, electronics and related subjects most closely related to the nuclear and missile programmes. One of the main intentions would be to do as much damage as possible to any Iranian technical expertise, including advanced training facilities that were in any sense useful to a nuclear weapons programme, present or future, as well as the ballistic missile programme.

While these would be the main targets, there might also be attempts to kill elements of the technocratic leadership, especially those experienced technocrats who are responsible for planning and even leading Iran's nuclear and missile programmes. While some might be based in locations close to the nuclear and missile facilities, such as Natanz, Tabriz and Khorramabad, many would be based in Tehran. It follows that one consequence of the need to target such people as well as factories, research centres and university departments, is that war would come directly to the capital of the country for the first time since the "war of the cities" (the exchange of Scud missile attacks during the Iran-Iraq War of the 1980s). With many civilian casualties, Iran would have the feel of a country at war, rather than one receiving specific, if substantial, attacks in relatively remote localities.

This may be at variance with accepted opinion. In the public mind, there is the idea that a military strike on Iran, like that on Iraq in 1981, would consist primarily of a series of bombing attacks on nuclear infrastructure - it would, in effect, be a "war against military real estate", the aim being to destroy physical targets such as centrifuge cascades. While these would indeed be hit, at least as important

would be the requirement to do as much damage as possible to Iranian attempts to resuscitate a nuclear research and development programme after the attack. It is for this reason that so much attention would be focused on technical personnel, with a determined effort to kill as many such people as possible. Since this would include university facilities and other research centres, the end result would be an attack with a very broad effect.

Israel did not stage wide-ranging attacks on Iraq in 1981, quite probably because of a limited strike capability, and one consequence of this was that the Iraqi rapidly reconstituted a nuclear weapons programme, using the uranium rather than the plutonium route since it could be more easily dispersed. The Iranian nuclear programme is already dispersed, making it more necessary to destroy the more basic infrastructure and people that underpin the programme and its potential for producing nuclear weapons. It should be noted that Israel's targeting of broadly based facilities in the West Bank in 2002, Lebanon in 2006 and Gaza in 2008/9, all show evidence of this approach.

In attacking Iranian nuclear and missile facilities, Israel would recognise the risk of an indirect response from Hezbollah in Lebanon. In order to pre-empt this, Israel might act first in order to destroy as much of Hezbollah's missiles as possible, especially in view of the rapid increase in the missile armaments since the 2006 war. (26) There have been reliable reports that the Israeli Defence Forces have developed comprehensive plans for a large-scale campaign that would see "an all-out assault on the party's arsenals, command centres, commercial assets and strongholds throughout the country." (27) Given that Hezbollah will have planned to counter such an operation, it should be assumed that the resulting conflict will be protracted.

## IRANIAN RESPONSES

The effect of the attacks on Iran would almost certainly not be the wholesale destruction of Iranian nuclear capabilities, yet there would be considerable damage done in terms of physical infrastructure. There would also be many civilian casualties, both directly in terms of civilians working on Iran's nuclear programme, but also their families as their living quarters were hit, and secretaries, cleaners, labourers and others in research stations, university departments and factories. These more general impacts would be common knowledge within Iran and also widely reported across the Middle East, not least by the 24-hour *Press TV* Iranian News Channel.

In terms of Iranian responses, there are two areas in which these can be confidently expected, together with a number of options that may be utilised over a range of timescales. The first immediate response would be a withdrawal from the Nuclear Non-Proliferation Treaty, a process requiring ninety days notice. This would be a clear signal that Iran no longer felt bound by the Treaty, especially having been attacked by a country that has never signed the Treaty. Iran could claim justification for the decision since *Article X* of the Treaty requires that a state intending to withdraw gives reasons for that decision, such as if "extraordinary events related to the subject matter of this treaty have jeopardized the supreme interests of its country."

The second, and closely related, response would be an immediate decision to prioritise the development of nuclear weapons to deter further attacks. Such development might use deeply-buried facilities that are reported to be under construction. Indeed, it is probable that the Iranian nuclear planners have long assumed that a military assault was likely and that plans have been made to ensure survival and reinvigoration of a core part of any potential weapons capability.

NPT withdrawal and determined development of nuclear weapons would almost certainly have considerable domestic support, part of a process of political unity transcending current political barriers. As part of this unity the Iranian Revolutionary Guard Corps would be expected to increase its status as it

took a firm hold on future nuclear developments, working with other states and sub-state actors to speed the process.

Iran would also have the potential to act in a number of areas, not all of them directly related to Israel, but many of them targeting the United States and its western partners considered to be so markedly pro-Israeli. Given that the strike aircraft used in the attack would be of US origin, and the closeness of the US/Israel military relationship cited earlier, one should expect that a narrative of US involvement (e.g. “US warplanes in Israeli markings” and an assumption of active US permission and support, whether true or not) would be common and widely accepted.

Spheres of action could include any or all of the following.

- Missile attacks on Israel using conventionally-armed systems might be carried out primarily to demonstrate the survival of a capability after an initial Israeli attack. These would be intended principally to undermine Israeli morale rather than have any serious military effect.
- Closure of the Straits of Hormuz, however brief, would cause a sharp rise in oil prices and be a reminder of Iran’s leverage over Gulf shipping routes. Any sustained price rise would have a potentially catastrophic impact on the global economy.
- Paramilitary and/or missile attacks on western Gulf oil production, processing and transportation facilities would be of very deep concern to the producer states, especially Saudi Arabia, Kuwait and the United Arab Emirates. While such facilities have much more intense security than a decade ago, they remain essentially soft targets.
- Action in Iraq and Afghanistan in support of those groups opposing western involvement could be tailored to discourage further attacks on Iran.

Apart from NPT withdrawal and determined, if clandestine, attempts at a nuclear “break-out”, all of the other options could remain available but not necessarily implemented in the short term. An assumption of immediate military and paramilitary responses is mistaken in that the Iranian government might well feel that it has time on its side, because it will know that an initial major assault on targets other than Israel will mean it might lose the political “high ground” garnered from being attacked by Israel in the first place.

From an Iranian perspective, it will be recognised that the leaderships of a number of Arab countries would publicly condemn Israel but would actually be privately content with any action that limited Tehran’s nuclear ambitions, even if it was undertaken by Israel. At the same time, the reaction of public opinion in the region would be different, notwithstanding that Shi’a communities are in the minority in western Gulf States apart from Iraq. At a general level, Arab public opinion would be strongly opposed to the Israeli action and would see it as essentially a joint US/Israeli action against a Moslem country. This would be the case, however much Washington denied involvement – the perception of Israel as a wholly client state of the United State is deeply embedded across the region. Furthermore, there are substantial Shi’a minorities in eastern Saudi Arabia, Bahrain and the United Arab Emirates, many of them with close family and business relations with Iran that would be deeply antagonised by the attack and the presumed US support.

Perhaps the most important aspect of an Israel attack on Iranian nuclear and missile facilities is that it would almost certainly be the beginning of a long-term process of regular air strikes to further prevent the development of nuclear weapons and delivery systems. From Israel’s perspective, there will already be recognition that an Iranian response would be an attempted nuclear break-out, rather than a

termination of the programme. Hence, once Israel had started to limit Iranian nuclear and missile developments, it could not easily stop.

At some stage Iran might calculate that high levels of international support stemming from being at the receiving end of repeated Israeli raids would mean that it could consider some of the other responses cited above, even if they were to involve a widening conflict. The key point here is that the immediate consequences of an Israeli attack on Iran might not be massive and might not result on a wider regional conflict, with the likely exception of southern Lebanon. The longer-term consequences, however, might be very different.

## THE UNEXPECTED

The analysis undertaken here is based on the assumption of unwise behaviour by Israel, which from its own perspective is rational, followed by responses by Iran. It does not take into account unexpected events leading to crises, either before or after an Israeli attack. For example, a new conflict with Hezbollah in southern Lebanon might start through an untoward incident and leading to rapid crisis escalation, including Israeli attacks on supply lines then inciting Syrian and even Iranian responses. The latter could lead, in turn, to a wider war between Israel and Iran beginning with Israeli air assaults against Iranian missile deployments and then to attacks on nuclear facilities. After an attack, while Iranian response might be limited, as indicated above, there would be very high states of tension in the Persian Gulf. In such circumstances, irregular Iranian forces, perhaps acting outside the national command structure, might take action against US forces or against international shipping, leading to responses from western Gulf States or the United States itself, with this quite possibly escalating into a regional conflict.

These are added, but frequently forgotten, elements that should further encourage non-military approaches to the issue of the Iranian nuclear programme. This paper has sought to examine the risk and consequences of war stemming from foreseeable and analysable factors. It always has to be remembered that it is the unexpected and unpredictable that can so readily complicate matters.

## CONCLUSION

On the basis of this analysis, an Israeli attack on Iran would be the start of a protracted conflict that would be unlikely to prevent the eventual acquisition of nuclear weapons by Iran and might even encourage it. This would be in addition to the extensive instability and unpredictable security consequences for the region and the wider world. If these dangerous consequences are sufficient to militate against military action, then there remain two paths open to western states:

- One is to redouble efforts to get a diplomatic settlement, a process more likely to achieve results, if prospects for an Israeli/Palestinian peace process are greatly increased, if relations between Iran and western Gulf States improve and if there is the beginning of a prospect of a regional nuclear-free zone. There was some modest progress on the latter issue at the recent Non-Proliferation Treaty Review Conference in New York.
- The other is to accept that Iran may eventually acquire a nuclear capability and use that as the start of a process of balanced regional denuclearisation. There should be no pretence that this would be easy, given Israel's position and the possibility that an Iranian nuclear weapon capability could encourage regional proliferation.

A detailed assessment of these options is beyond the scope of the current paper. The point to be stressed here is that this analysis indicates that the consequences of a military attack on Iran are so serious that they should not be encouraged in any shape or form. That may be an uncomfortable conclusion, given that some of the more robust diplomatic approaches may carry with them an implicit

threat of military action, but it is realistic. Put bluntly, war is not an option in responding to the difficult issue of Iran's nuclear ambitions.

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