Can Israel strike Iran successfully?

written by Elie Klutstein | 15.06.2024

Around 1,500 kilometers (930 miles) more or less, separate Israel from the sites of Iran's nuclear program. These facilities are scattered across the distant enemy nation, fortified and protected. In recent weeks, reports have repeatedly surfaced that the nuclear program continues to progress: The International Atomic Energy Agency warned in late May that Iran possesses enough material to produce at least three nuclear warheads. On the other hand, senior Israeli officials assert that the IDF knows how to deal with this threat. The claim that Israel is capable of preventing Iran from acquiring nuclear weapons has been heard for many years, including from the country's prime ministers.

"A big clock is ticking over us," said Prime Minister Menachem Begin in June 1981, during the cabinet meeting that approved the destruction of Iraq's nuclear reactor. Even today, a big clock is ticking over us. Military experts estimate that in recent years, the Israeli Air Force has been training for long-range missions, among other things, to prepare for traversing the vast distance; but from a technical and operational standpoint, it's unclear whether an effective strike on the nuclear program is indeed a feasible mission. Destroying Iran's nuclear program requires simultaneously hitting numerous fortified sites, an unparalleled complex challenge. Is there substance to Israel's assertions? Former Israeli Prime Minister Ehud Olmert estimated just four months ago that Israel cannot destroy Iran's nuclear program because it lacks suitable bombs and aircraft with sufficient operational range.

The question of whether it is possible remains relevant, as the Iranians are also preparing for the US presidential election. In Tehran, they remember the tense relations with the Republican candidate Donald Trump during his presidency and understand that if he is elected, it may be more difficult for them to continue developing their nuclear program. Perhaps they will decide that now is the time to break out for the bomb. Experts estimate that the breakout time is a matter of just a few months or even weeks. If Tehran wants to present the next American president with a fait accompli, it may act now. Accordingly, if Israel wants to thwart the nuclear program, these very days could be the last opportunity.

Iran's plan to acquire an atomic bomb is not an end in itself but a means. It is part

of Tehran's vision of wiping Israel off the map. Along the way, Iranian proxy forces, an existential threat in every respect, are being deployed. A lack of Israeli initiative will only bring us closer to war.

Much is hidden from view on this sensitive issue. Israel does not disclose its capabilities, so one can only assess the situation based on informed individuals, publicly available data, and analyses of the mission requirements. In a sense, one can also consult the Iranians: The IAEA chief reported in April, shortly after the Iranian missile attack on Israel, that fearing an Israeli response, Tehran had closed its nuclear facilities – an indication that from an Iranian perspective, Israel may be able to attack them, perhaps even successfully. One can always hope that Israel has a few cards up its sleeve that we don't know about and that there are more surprises in store.

An Israeli strike on Iran's nuclear facilities, in any case, would not be the result of a spur-of-the-moment decision. It is reasonable to assume that all preparations for such a large-scale operation cannot be completed in a short time. Moreover, since such an attack could only be the opening salvo of a much larger war, Israel will likely want to improve its defenses ahead of the moment of truth. Perhaps precisely now, with the IDF already on high alert, is a good time for such an attack.

What might it look like? In general, one can assume that we will need to send dozens, perhaps hundreds, of aircraft into the air to successfully hit targets deep behind enemy lines. To do so, we must have accurate and up-to-date intelligence on all of Iran's nuclear sites and the locations of equipment and materials; reach Iran undetected, without being shot down by other countries en route or having the attack exposed; deploy aircraft capable of making the entire distance or refueling them in the air and on the way back, and provide the pilots with a support and protection envelope; and also use bombs capable of causing damage deep underground. Such an operation would require coordination with several countries, including the United States, so that Israel does not receive a "Don't" while the planes are in the air or a cold shoulder after the attack.

A senior officer who previously discussed the issue noted that preparations for such an operation require a high level of secrecy, and it's unclear whether Israel's security forces can indeed keep such a secret for an extended period.

The circle of those privy to the secret is relatively wide: the IDF and Mossad, members of the Israel Atomic Energy Commission, cabinet members, and perhaps even the opposition leader. This was the case in the past with the attacks on the reactors in Iraq and Syria. The legitimacy challenge, both domestically and internationally, is also particularly significant: Most nations will not look favorably upon such an attack, and even some Israeli citizens may not support it. These days, everything is political; it's hard to see how even this issue could escape being divided into "pro-Bibi" and "anti-Bibi" camps. Our strength lies in our unity, and our weakness in its absence. To prepare for such a major move, which could drag Israel into a protracted and difficult war, we must do much to increase our shared sense of destiny at home.

Bunkers inside the mountain

The targets Iran's nuclear program, unlike Iraq's reactor and Russia's, is not located at a single facility. Iran has disclosed to the IAEA 21 sites related to the nuclear program, and there are also other sites where the agency has reported finding traces of highly enriched uranium. It is almost certain that there are additional sites that Iran does not declare. It is also possible that Iran has transferred some of the technology or materials to secret, fortified sites, which Israel needs to use its intelligence capabilities to uncover. Preserving some of the equipment and materials would allow Iran to restart the nuclear program at a relatively advanced stage, even if Israel achieves more success than anticipated.

The large number of sites raises the possibility that Israel may only be able to preemptively attack some of the most critical facilities, which form the core of Iran's nuclear program and its nuclear strike capabilities. The best-known sites are Natanz and Fordow, and others that can be listed include the conversion facility in Isfahan, the heavy water reactor in Arak (ostensibly closed under the 2015 nuclear deal), and the testing site in Parchin.

Even if focusing solely on the most critical sites, attacking them is a formidable challenge. The facilities are located in fortified bunkers: Satellite imagery showed that in Natanz, an underground uranium storage facility was built at a depth of around 100 meters (320 feet) – a depth that even bunker-busting bombs may not be able to penetrate, it seems. Since the above-ground portion of the site was damaged in an explosion in 2021, Iran has accelerated the construction of the underground facility there. The enrichment center in Fordow was built from the

outset into the side of a mountain to protect it from attack. At the Parchin research center too, concrete trenches and bunkers lead into the mountain's side, where testing is conducted. This site, too, appears to be protected from a simple attack.

Getting there is also a complex matter. There are three main routes from Israel to Iran: through Turkey, through Jordan and then Iraq, or through Saudi Arabia. The last option would extend the route and fuel requirements. The first option does not seem feasible, given Turkey's defense capabilities; the Turks would not cooperate with Israel on a security issue, even though Ankara, too, fears Iran's ascendancy. A fourth possibility is to take off from Azerbaijan, which borders Iran. According to foreign reports, Baku cooperates with Israel in many areas, including intelligence and security, but the likelihood that it would allow a large-scale operation against its neighbor's nuclear facilities from its territory is not high. It would not want to get embroiled in such an adventure, which would invite great Iranian wrath – and perhaps even the risk of war.

The aircraft not only need to reach the target but also return from it. In other words, they must exit Iran, even if not through the same route. Additionally, it is impossible to dispatch bombers alone on the mission. An escort envelope is required, including aircraft to attack Iran's air defenses; fighter jets to accompany the bombers and protect them from airborne threats; jamming and electronic warfare aircraft; reconnaissance and signal intelligence, relay, and command aircraft; and of course, rescue forces in case of casualties. To attack just a few sites would require dozens to hundreds of aircraft, all operating at a distance of over a thousand kilometers from the State of Israel.

This entire operation must pass through or near the airspace of foreign countries or enemy states, and the entire force must return safely. The assessment is that the air force knows how to reach the target undetected, but it must still be vigilant.

Moreover, countries that are in direct contact with us (unlike Iraq, for example) would need to receive advance warning – even if brief – that Israel is using their airspace for an attack, to prevent severe diplomatic damage, and also to eliminate the possibility of our planes being shot down if detected. Even the US, Russia, and even Turkey have intelligence assets and radar stations across the Middle East, and they too could detect Israel and expose the attack prematurely.

Technical challenges: fuel, munitions, and defense

We have already mentioned the need for refueling. Except for taking off from Azerbaijan, any other flight path would require the Israeli Air Force aircraft to refuel in the air. The maximum weight limitation that a plane can carry would even force F-35s to refuel if they carry their full munitions load and take off with full fuel tanks, making the whole story much more complex. After considerable delays, Israel has acquired the KC-46 refueling tankers from the US, but they are only supposed to arrive in Israel next year. Israel has asked to expedite their delivery; it is unclear if this has indeed happened. In any case, the air force has older refueling tankers, and it can also use externally carried fuel tanks, but using them would make the already complex mission even more intricate and risky.

Upon reaching Iran, our pilots would encounter the air defense forces. Iran is not an air defense superpower, and according to foreign reports, Israel has managed to overcome its defenses in the past. Nevertheless, Iran does use the advanced Russian S-300 surface-to-air missile system, which could make things difficult for the pilots and perhaps even down our planes. Iran is also seeking to acquire the more advanced S-400 systems from Russia, but for now it does not appear to have them, and their deployment would also require additional time.

The same applies to the Iranian air force. Currently, it has outdated aircraft such as the MiG-29 or F-14s purchased before the revolution, and it is unclear how successful it has been in maintaining their operational readiness given the international sanctions, the arms embargo, and the fact that this is aging technology suffering from a shortage of spare parts and technicians. A few weeks ago, Tehran announced that it had completed a deal to purchase advanced Sukhoi-35 jets from Russia: This would increase the airborne threat to our planes, but they would likely be able to overcome it, and in any case, it would take time to fully integrate the modern aircraft into operational service.

The most technically challenging component is the bombs. To strike sites like Fordow or Natanz, and especially the deep bunker that Iran has begun building there, Israel needs the most powerful bunker-busting bombs – and even those may not suffice. We are referring to the GBU-57 type bombs, which weigh over 13 tons and are capable of penetrating to a depth of up to 60 meters, according to the US military. Israel has other types of bunker-busting bombs, the GBU-72 and GBU-28, which are much lighter – around 2,000 to 2,500 kilograms (4,000 to 5511

lbs) – and have lower penetration capabilities. During the war, the US supplied some additional bombs, and Israel's defense establishment has also developed its own bunker-busting bombs weighing hundreds of kilograms each, but it is unclear whether they would cause damage at great depth.

Another problem is that even if Israel had the heaviest bunker-busting bombs, it would be difficult to deliver them to the target. According to estimates, Israel may be able to modernize F-15s to carry GBU-57 bombs, along with additional fuel and munitions. This is a technically complex task, but sometimes even the impossible gets done. Other aircraft, in any case, would likely be unable to carry these large bombs, and the F-15s too would need aerial refueling to do so.

Even if we overcome all the obstacles mentioned here, it must be remembered that this is a high-risk mission for the lives of dozens or hundreds of pilots, and an unprecedented logistical challenge. The economic cost of such an operation would also be immense, although it would probably be just a fraction of the total cost of the war that could ensue.

In addition to an air strike, Israel is estimated to have other potential courses of action. According to foreign reports, Israel could use conventionally armed ballistic missiles like the Jericho 2, which can carry 750 kg (1650 lbs) warheads over a range of 2,500 km (1500 miles). These missiles are highly accurate. A Turkish researcher previously estimated that using several dozen such missiles could destroy or severely damage the above-ground facilities at Natanz, Arak, and Isfahan. The logistical and safety advantages are clear, but there are also downsides: The accuracy is not perfect, and it's unclear whether the missiles can cause damage to the deeply buried sites.

Another possibility, according to a *Financial Times* report, is firing missiles from Israeli submarines or using drone swarms for the attack. It is unclear whether these vectors would achieve the objective, and it was previously noted that Israel may not have enough submarines for such an attack. Of course, an air strike, ballistic missile launches, submarine missile attacks, and drone swarms could be combined, but the bulk of the mission would fall on Israeli pilots' shoulders. In any comprehensive attack of this nature, Israel would expose most of its strategic arsenal, depleting the element of surprise; on the other hand, if it is not used to neutralize the greatest threat facing us, what is its purpose?

Strategic Considerations: Failure risks, success, and inaction

Our military and political leadership is aware of all these considerations and is deeply familiar with the capabilities, advantages, and shortcomings. Even after the construction of the deep tunnels in Natanz was revealed, Prime Minister Benjamin Netanyahu stated that Israel would know how to deal with the threat. "We are confident and sure that we can deal with any threat on our own, and by other means as well," he said exactly a year ago. Netanyahu has committed many times that Israel will not allow Iran to obtain nuclear weapons. Since this seems to be of paramount importance to the prime minister, these statements should not be dismissed or taken lightly. Perhaps Israel will ultimately pull the rabbit out of the hat. But even if we succeed in the mission, before setting out we must add strategic dimensions to the tactical and operational considerations.

An Israeli strike on Iran's nuclear facilities would almost certainly mean a broad, regional all-out war. Hezbollah – Iran's proxy – would undoubtedly attack with all its might in such a scenario, launching hundreds and thousands of missiles and rockets towards Israel daily, especially in areas adjacent to the Lebanese border, some 40 km away. And how would the world's nations react? Would they defend Israel, or would it face even more severe international isolation? Would sanctions be imposed on it? Another possibility is that the "aggressive action" would grant legitimacy to Iran's nuclear program, this time with approval rather than a wink.

The worst-case scenario is a failed attack. In such a case, Israel would not only expose its capabilities but also lose assets and lives while failing to achieve its objective. It would lose its deterrence, and could even provide the Iranians with justification to accelerate the program, saying that no one can stop them now. We would eat the rotten fish, get whipped, and be banished from the city.

Even a success would not necessarily achieve the ultimate goal of the attack. If Israel manages to destroy all facilities and fissile materials, the Iranian know-how would likely be preserved. The facilities would go up in flames, but the plans stored on numerous Iranian computers would remain intact, and many scientists (who have not been eliminated) could restart the program – with much more knowledge and experience. At most, Israel would delay the completion of Iran's nuclear project by a few years; and next time, Iran would be more prepared and poised, building all capabilities with much higher security levels from the outset.

What is the point of such an attack?

One could consider the deterrent and psychological aspects. An attack would show that Israel is willing to go to the brink and do whatever it takes to prevent the threat. It is a statement of casus belli, a red line, an act that must not be committed. This is what Israel has declared for years would happen, and if at the moment of truth it does not act – it would be caught with its pants down. Its deterrence, already severely eroded these days, would be further damaged. It is even possible that the declarations were intended from the outset to entrap ourselves, leaving us no choice but to fulfill our statements, whatever may come.

On the other hand, one could argue that a successful strike on the nuclear sites would shift the international community's attention to Iran's actions, strengthen global recognition of Israel's commitment to preventing an Iranian bomb, and of course bolster Israeli deterrence. The air force would demonstrate its capabilities and resolve, making absolutely clear what Israel's red line is. In the Iranian attack on Israel on the night of April 13-14, Tehran spoke of a "new equation" it had created vis-a-vis Israel; a successful strike on the nuclear program would erase any other precedent and truly set a new equation regarding Iran and Israel's tolerance for its actions.

There is also the matter of the alternative cost. If Israel does not attack, it is likely that within a few years it will face the existence of an Iranian bomb. This would ostensibly mean a nuclear arms race in the Middle East, and perhaps the loss of Israel's policy of nuclear ambiguity.

Above all looms the existential threat to the State of Israel: A nuclear umbrella for the array of terrorist organizations that Iran supports in the region. It is important to remember that Iran's plan to acquire an atomic bomb is not an end in itself but a means. It is part of Tehran's grand vision of war against Israel and the West, and an important part of that vision is wiping Israel off the map. Along the way, Iranian proxy forces surrounding Israel, an existential threat in every respect, are being deployed. The more Israel waits and does not act, even out of fear of a regional war, the more it indirectly boosts the Iranians' self-confidence, making them believe they are immune. A lack of Israeli initiative will only bring us closer to the very regional war – at a time when Iran is getting ever closer to a rapid nuclear breakout.

It is clear that deciding to bomb is not easy. The implications are fateful, the demands enormous, the preparations extensive. It is no wonder that such an attack has not materialized so far. It poses a logistical, operational and diplomatic challenge of the highest order, and entails the risk of many lives. But if not now, when Israel's leaders see this program as an existential threat to the State of Israel, then when?

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