# The Iranian-Backed Aerial Threat: More Than Just an Israeli Problem

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In the ongoing war in Gaza, Israel continues to be attacked by various actors using Iranian weapons. These include weapons with particular capabilities that dramatically change the nature of the aerial threat Israel faces. The range of weapons displayed during the fighting, alongside new capabilities and the involvement of new actors in the conflict, are a red flag for Israel's force buildup, which will demand the procurement of equipment and a change of doctrine in this context. In addition, Israel is presented with new opportunities for cooperation and for strengthening existing joint ventures. Israel must highlight how the global aerial threat has changed under Iranian auspices, in order to underscore that this is more than just an Israeli problem.

The Swords of Iron war has seen a variety of weapons used against Israel, including aerial weapons, such as: ballistic and cruise missiles; rockets; mortar shells; anti-tank missiles; intelligence-gathering and suicide UAVs; and drones for intelligence, guides, arms and ammunition drops, and suicide missions. A large proportion of these weapons are manufactured by Iran or are based on Iranian technology; the people operating them were trained by Iran to use, assemble, and maintain these weapons. How should Israel deal with this threat?

On October 18, 2023, Iranian television reported about the nature of a multi-front attack, and Supreme Leader Ayatollah Ali Khamenei was quoted as saying the forces of opposition could not be held back if the war continued. Indeed, in the weeks since the Hamas attack of October 7, Israel has come under attack not only from the Gaza Strip. There have been missiles and suicide UAVs launched at Israel from Yemen by the Houthi rebels, which are an Iranian proxy; rockets, anti-tank missiles, UAVs, and drones launched from Lebanon, and even an explosive-laden UAV launched from Syrian territory, which hit Eilat. Behind all of these, in various ways, is Iran.

Israel's aerial defense system has provided an excellent response to these threats. Most of the launches have been intercepted. and thus far, among the most lethal weapons (apart from the October 7 attack itself) have been the anti-tank missiles fired at Israel from both the Gaza Strip and from Lebanon. Their damage has somewhat colored the confidence in Trophy, Israel's active protection system for armored vehicle, installed on tanks and armored personnel carriers and which has an extremely high rate of successful interceptions. The system was even sold recently to the United Kingdom. These attacks, in addition to attacks using drones, could indicate that Israel is less well prepared to deal with short-range aerial threats compared to the various layers of protection that are in place to deal with longer-range threats. Indeed, when it comes to long-range interceptions, Israel has been successful. This is the first conflict in which Iron Dome, David's Sling, Yahalom, and Arrow have all worked together, including the first operational use of the Arrow 2 and Arrow 3 systems, which intercept missiles outside of the earth's atmosphere. At the same time, despite the successful interceptions, the ballistic missile that was fired from Yemen at Israel on October 19 should be of major concern to Israel – and for other countries – since it was launched by a non-state actor. The Houthis have also fired ballistic missiles in the past that were intercepted by the United Arab Emirates.

That missile was fired as part of a barrage that included other weapons, which were intercepted thanks to a cooperative framework that should be adopted as part of addressing these threats in the future. Among those participating in the effort to thwart that barrage were US warships (the USS *Carney* was deployed to the Red Sea just one day earlier and played an active role in intercepting many of the missiles), apparently based on intelligence that was collected by US radar located in Israel; and Israeli navy vessels, equipped with the Barak 8 aerial defense system. In addition, one missile was intercepted by Saudi Arabia, which shares radar intelligence with Israel via the United States. This was an illustration of how the Middle East Air Defense Alliance (MEAD) works; Israel joined MEAD in June 2023,.

And still, the launch of a ballistic missile by a non-state actor highlights the change in the proliferation of advanced technology and long-range, lethal weapons. States no longer have a monopoly on the use of advanced technology and Iran is one of the main elements responsible in this respect. Over the years, Iran has provided UAVs, rockets, and missiles, as well as manufacturing knowhow to a large range of non-state actors, including Hamas, Iraqi Shiite militias, Syrian factions, and in particular, Hezbollah in Lebanon.

## Iran Exports Advanced Weapons

Over recent years, Iran has boasted of its ability to manufacture UAVs. It first started manufacturing them in the mid-1980s during the Iran-Iraq War, when it unveiled the Ababil-1 and Mohajer-1 for use as a loitering munition or for surveillance and reconnaissance. The Iranian UAV industry thrived and developed and manufacture has expanded significantly since 2014, when production of the new Shahed 129 model began, which is now the most common UAV in the Iranian army.

The range of Iranian UAV s is based primarily on the reverse engineering of Israeli and American UAV s. It is argued, for example, that the Shahed 129 model is almost identical to the Hermes-450, which is manufactured by Elbit Systems. The Shahed 171 model is seen as an almost exact replica of the American RQ-170 UAV, which fell in Iranian territory in December 2011. Over the past few decades, Iran has managed to expand its weapons portfolio – both in terms of size and capability. Occasionally, there will be reports about UAV parts – some of them from the West – that have been found in UAV s and reach Iran from other countries by means of straw companies set up by the Islamic Republic to bypass sanctions imposed by Western governments. However, most of Iran's success in this field stems from the availability of "off-the-shelf technology" in the world of commercial and civilian content, including navigation devices, encryption tools, and even engines. All of these, along with the massive domestic investment in engineering, have allowed Iran to close the technological gaps, manufacture, and export large quantities of UAV s at attractive prices to a variety of customers, many of which are currently attacking Israel and American interests in the Middle East.

A turning point in the export of Iranian weapons came in the aftermath of the Russian invasion of Ukraine, when the Islamic Republic became the dominant actor in the export of UAV s and the Russian army's largest supplier. Iran reportedly provided Russia with three models of its UAV s: Shahed 131, Shahed 136, and the offensive Mohajer-6 UAV, which is used as a loitering munition or for surveillance and reconnaissance. All of these Iranian UAV s, which are simple and cheap to assemble, could win the war for Russia against Ukraine: they help the Russians close the operational gap – the most significant of which is its difficulty in building an overall picture. Following the experience these Iranian UAV s gained during the war in Ukraine, other countries have expressed an interest in purchasing them. Last year, there were several reports that Iran found it hard to meet the increased demand from Moscow for suicide UAV s and so it turned to a factory in Syria for help. Now, however, the manufacturing process is expected to

be relocated to a factory in Russia that was built with Iranian help, where it is expected to manufacture around 6,000 UAV s. In addition, on October 18, 2023, the embargo imposed on Iran by the United Nations Security Council – barring the Islamic Republic from trading in advanced missiles, including UAV s – expired. This will make it easier for Iran to export UAV s not only to Russia, but to other countries that until now were concerned about doing business with Iran or were having trouble continuing their procurement: Venezuela, Sudan, and Ethiopia, all of whom have purchased the Ababil-2 UAV from Iran in the past.

This development is a challenge for Israel, since part of its efforts to prevent the spread of Iranian weapons was based in recent years on attempts to prevent such weapons being transported to neighboring countries. The most obvious of these efforts was aerial attacks on weapons convoys, as part of Israel's "campaign between wars." Iranian weapons manufactured in Russia will require the Israeli security establishment to take appropriate measures and perhaps also change its approach. At the same time, however, it is evident that even if the existing method prevented certain weapons from reaching Israel's enemies, is not enough in light of the range of weapons and armed groups that Israel is already confronting – let alone in the event of a war on the northern front.

Thus far, the barrages that Israel has faced have not exceeded the capacity of its aerial defense systems, but there is no guarantee that this will remain the situation if war breaks out on the northern front. The variety of weapons that have been deployed in this war, which would be augmented by more weapons and new capabilities in any multi-front war, should be seen as a red flag for Israel's future force buildup, regarding weapons and a revised doctrine when it comes to aerial threats. Given this expectation, it is worth engaging with other countries that are under similar threats. Among them are pragmatic Sunni states in the Persian Gulf, some of which, such as Saudi Arabia – e.g., the attack on Aramco oil facilities in 2019 – have already been significantly harmed by Houthi attack UAV s. The United States too, which has rallied to Israel's side, has also sustained attacks on its troops by Iranian-backed militias in Iraq and Syria. (The US has reportedly identified a number of similarities between the UAV s used in the Aramco attack and the Iranian IRN-05 UAV. Similarly, a spokesman for the Saudi Defense Ministry said that UAV parts recovered at the site of the attack prove Iranian involvement.)

## Conclusions

Figures published by the IDF Spokesperson's Unit on November 9 revealed that since the start of the war against Hamas, 9,500 rockets and dozens of UAV s have been launched at Israeli territory – 3,000 of them in the first hours of the conflict.

While some of the launches fail or head for what the aerial defense systems defines as open areas, Israel's defenses have intercepted some 2,000 launches of high-trajectory missiles and dozens of hostile UAVs and drones of various kinds. Alongside the relative success, there have been some cases of failed identification, including when a civilian structure in Eilat was hit by an explosives-laden UAV launched from Syria. In addition, Israel will have to deal more thoroughly with short-range threats, with the emphasis on various kinds of drones.

The barrages of rocket, UAV, and drone attacks from the Gaza Strip and Lebanon, and the attacks from Yemen, Syria, and Iraq highlight how Iran has reduced the threat involved in a direct confrontation with Israel by waging a decentralized war via non-state actors. In addition to protecting itself with a variety of technologies provided by the country's defense industries, Israel should expand its involvement in the coalition of countries with shared interests. Alongside cooperation with the United States, which also provides Israel with many resources, including the missiles that the Iron Dome system uses to intercept incoming projectiles, Israel should seriously consider cooperating with Saudi Arabia and the United Arab Emirates, especially when it comes to intelligence, technology, and interception. Those countries, which have extensive resources and advanced defense industries, share many interests with Israel – at least when it comes to the Iranian threat.

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