

Israel's drone industry becomes global force

November 28 2019, by Guillaume Lavallee



The Orbiter 3, a small tactical unmanned aerial vehicle (STUAV), made by Israeli company Aeronautics

In a fierce battle for market share against world superpowers China and the United States, Israel's drone industry likes to say it has a secret weapon—military experience.

Unmanned aerial vehicles (UAVs) are used daily by Israel's military in and around its borders, whether dropping tear-gas canisters on Palestinian demonstrators, monitoring Hezbollah positions in Lebanon or striking Islamic Jihad bases in Gaza.

The senior echelons of the country's industry are populated by former military and [intelligence officials](#), many of whom became founders or engineers in local startups.

Israel's first rudimentary drone dates back to 1969: it was a remote-controlled plane with an attached camera to spy on neighbouring rival Egypt.

Drones became more common, though not much more technically advanced, during the war in Lebanon from 1978.

But half a century later, tiny Israel is now a global force in the multibillion-dollar UAV industry, competing against China and the US.

It trades on its unique selling point: enemies at its borders and therefore plenty of opportunities to test and fine-tune its UAVs.

Ronen Nadir was a military commander specialising in missile development before establishing his company, BlueBird Aero Systems.

It sells combat drones across the globe, including the WanderB VTol that takes off and lands vertically like a helicopter, but has wings to improve speed.



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These drones can take off and land in a town, a jungle or the deck of a boat.

"You will not believe it, but it took only four and a half months" from the first concept, scribbled on paper, "until this UAV was demonstrated to the first customer," Nadir said.

Hundreds have been sold since October 2018, he added.

Real-time feedback

"When an American company develops a mini-UAV and then it is used by the Marines in Iraq or Afghanistan, it takes a few years from the development of the system until it is used on the battlefield," Nadir said.

"In Israel all the people (in the industry) are ex-army soldiers, officers. The engineers who work on the development of the systems are actually operating the UAVs in the (military) reserves, in actual service. Then they come back to the office with actual and real-time feedback."

Development cycles are therefore short, he said, ensuring that Israel is at the "cutting edge" of the industry.

One study often cited by [local authorities](#) put Israel as the world's largest exporter of drones, but it dates to 2013.

Since then, the US has vastly increased exports of its Global Hawk, a higher cost and performance drone, as well as the Predator. These have sold particularly in European markets, pushing the country ahead of its ally Israel.



BlueBird's WanderB is an Israeli military drone that takes off and lands like a helicopter

China, which offers cheaper, lower-quality solutions, is perhaps also ahead of Israel now, often selling to countries the Jewish state has no relations with, said Philip Finnegan, director of corporate analysis at the American firm Teal Group.

"The difficulty with ranking Israeli companies in the market is that they are very secretive over what they are selling and to who, as are the Chinese," he said.

Teal estimates the global [drone](#) market to be worth around \$12 billion in 2019, with that expected number to double in a decade.

"They (Israel) are certainly in the top three, if not the top two."

'A stage ahead'

At a recent conference for Israeli drones at Airport City, an [industrial zone](#) close to the airport in Tel Aviv, a discreet guest sneaked in: Nadav Argaman, head of the Shin Bet internal intelligence services.

His message was clear: "We buy Israeli technologies before anything else."

The technology, he said, helped allow Israeli civilians to live "comfortable daily lives, without knowing what happens under the surface" -- or in this case above it.

"In order to be alive we have always to be a stage ahead, including in drones," said Zohar Dvir, the former deputy police chief reported to have inspired the Adam Sandler film "You Don't Mess with the Zohan".



The BlueBird ThunderB on show at the recent International Conference and Exhibition on Unmanned Systems at Israel's Airport City

Today Dvir is a board member at Gold Drone, which specialises in agricultural drones.

Even here, military expertise comes in handy.

"The biggest place for opportunity now is agriculture," said Ben Alfi from BWR Robotics, which specialises in agricultural drones.

He says drones play an increasingly pivotal role in revolutionising agricultural practice, whether it be spraying, harvesting or pollination.

When it comes to "cost-effective, efficient" engineering, he said, "Israel is the best".

Though not, he cautioned, in creating more traditional vehicles.

"The last vehicle we tried to make was 40 years ago," he said, referring to the infamously bad Israeli-made Sussita cars from the 1960s.

"It was made out of fibreglass and could be eaten by a camel."

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