Israeli F-35s

With stealth and electronic capabilities far surpassing Israel’s other aircraft, the F-35 will introduce massive advances for the IAF.

In December, Israel took delivery, through the foreign military sales program, of its first two of a planned 50 F-35s. It was nearly 14 years after the Middle Eastern democracy first got involved in the fifth generation fighter program.

What exactly this advanced aircraft is going to do for the Israeli Air Force (IAF) is, well, open to speculation. Some things are obvious. The F-35 will be expected to secure Israeli airspace and accurately attack ground targets, for example. But according to defense experts and the IAF officer in charge of the F-35 program, the fighter’s capability and capacity are so new and untested in the region (or elsewhere, really) that time will show exactly what else the F-35 is able to offer.

IAF is certain the F-35’s impact will be mighty. So much so, in fact, that the Israelis named the F-35I (for Israel) Adir. It translates as “mighty” from Hebrew and is derived from the biblical book of Psalms. Accordingly, when the first two aircraft landed Dec. 12, 2016, at Nevatim Air Base, Israeli Prime Minister Benjamin Netanyahu proclaimed, “Our long arm has now become longer and mightier.”

In a January interview with Air Force Magazine, IAF Major Moti (the Israeli Air Force does not typically release the last names of its airmen), the air force’s program officer for the F-35, explained the service’s mood regarding the F-35: “There’s a lot of excitement.”

While the IAF flies an arsenal of advanced fourth gen F-15s and F-16s, “this is the first fighter [that will offer Israel] stealth capability,” Moti said, and F-15s and F-16s simply don’t have the type of sensors the F-35s have.

Compared to legacy fighters, F-35s will be able to safely enter threat arenas guarded by more advanced defenses and weapons. Moti said, “We need the advantage,” a reasonable necessity considering dangers such as those lurking to Israel’s north and east, including Hezbollah and Russian-armed Syria and Iran.
There are 12 national customers of the F-35. Nine original partner nations had a role in setting up the specifications and procurement policies: Australia, Canada, Denmark, Italy, the Netherlands, Norway, Turkey, the UK, and the US. The three foreign military sales partners so far are Israel, Japan, and South Korea.

Of the 12, some observers say Israel is the only country whose variant is unique.

According to Lockheed Martin spokesperson Eric Schnaible, the company modified the F-35 for Israel in three main areas: command, control, communications, computers, and intelligence (C4I), electronic warfare, and weapons integration.

Initially, the US refused to allow Israeli modifications to the F-35. The compromise reached involved not changing anything inside the aircraft, but allowing the Israelis to add capabilities on top of the existing infrastructure.

State-run Israel Aerospace Industries, for example, is working on a C4I overlay for the F-35, with Lockheed Martin.

“It’s open architecture, which sits on the F-35’s central system, much like an application on your iPhone,” Benni Cohen, general manager of IAI’s Lahav Division, told Defense News last year.

“The F-35 Adir aircraft has also been provisioned to allow updates to EW and weapons interfaces,” Schnaible said. “The design of aircraft installations, power, and cooling have been modified to provide IAF the ability to incorporate indigenous weapons.”

The types of weapons Israel will be adding to the F-35 are either classified or not yet known, and Moti wouldn’t confirm either.

“It’s like a view to the future. We know we want to fly with Israeli weapons in this aircraft,” he said. “Because it’s so complex, we started working today on understanding how we can integrate future weapons.”

The same goes for communications, the challenge being figuring out a way for the F-35 to communicate with the F-15s and F-16s it’s going to fly alongside.

“We need to have Israeli communications,” Moti said. “The aircraft are supposed to speak in the same proto-

WHAT’S IN A NAME?

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The Israeli Air Force’s Major Moti explained how the name was chosen.

In 2013, the military asked the public for ideas on what to name the variant. Officers took the approximately 1,700 suggestions they got and categorized them under headers such as “nature, animals, objects, and others. ‘Adir’ was in ‘others,’” Moti said.

Once the list of names were whittled down, IAF commanders considered final possibilities, among them words—but not necessarily actual names, Moti emphasized. These included “storm, power, boulder, lion.”

From such finalists, Adir came out on top because “of the strength [the F-35] brings with it,” as Moti put it. And so a name was born.
A Russian S-300 surface-to-air missile fires during a training exercise in Russia on Sept. 8, 2016. The missile system was recently deployed in Iran, posing a danger to Israel.
Israel the first country outside the US to have operational F-35s.

“The level of uncertainty is very high,” Segoli said. “It’s very difficult to understand the real potential of this system.”

The amount of information the F-35 is designed to gather and disseminate to the rest of IAF and IDF may also change the way IAF operates within the IDF. “In my opinion, the air force has a very unique part in any campaign planning,” said Segoli.

“It was not done and it is not done,” he told Air Force Magazine in a January interview, referring to IAF’s role in holistically advising on military campaigns. “The air force must understand [the F-35] is not just there to improve one, two, or three capabilities.”

While the F-35 can allow IAF to penetrate threats now being developed, Segoli emphasized he sees no current threats the F-35 is capable of attacking alone. Rather, he emphasized the role of the aircraft in deterring those rising threats. If Iran is considering rolling out nuclear capabilities, the F-35’s ability to fly past the country’s surface-to-air defense system may affect such plans.

THE COST QUESTION

US President Donald Trump implied in a December 2016 tweet he may reduce the number of US F-35 purchases, and if that happens, Segoli explained, the value of the F-35 will be further scrutinized in Israel.

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Many countries operating common equipment such as the F-35 “engenders common defense strategies” that then encourage those nations to partner and work closer together, Deptula noted. He called this an “enormous value” and an intangible—but said that if he had to think of it in dollars, it’d be in the trillions.

Still, at nearly $100 million a pop, the $5 billion price tag for 50 aircraft is a sticking point for many Israeli civilians. The populace is aware that the agreements in place to allow Israel to perform its own maintenance on the aircraft will raise Israeli sustainment costs.

It may be years before the F-35 program settles into enough of a routine for today’s questions about unit costs and planned inventories to be resolved. But whatever quantities and capabilities the F-35 ends up offering later, within the IAF there is considerable agreement that it’ll be “adir.”

FIFTY F-35ls BY 2024

The Israeli Air Force is scheduled to receive its 50 F-35 strike fighters on the following schedule:

- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024

Source: Lockheed Martin