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As Israel Targets Iran's Nuclear Program, It Has a Secret One of Its Own

Since shortly after it was founded in 1948, Israel has been intent on building a nuclear program to ensure its survival.



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By Lara Jakes

Lara Jakes writes about weapons and global conflicts.

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The war that Israel launched against Iran seeks to take out its nuclear program, which much of the world views with alarm and experts say is growing to the point that it could make an atomic weapon within months.

Israel has its own secretive nuclear weapons program, one that it doesn't publicly acknowledge but that, some experts believe, is also expanding.

"From an official diplomatic posture perspective, the Israelis will not confirm or deny" their nuclear arsenal, said Alexander K. Bollfrass, a nuclear security expert at the International Institute for Strategic Studies in London.

Instead, Israel has said it will not be the first country to "introduce" nuclear weapons to the Middle East. That deliberately vague wording amounts to what Mr. Bollfrass called an "obfuscation over what is clearly an established nuclear weapons program."

Here's what you need to know:

- How big is Israel's nuclear arsenal?
- How long has Israel had nuclear weapons?
- · Has Israel used its nuclear weapons in war?
- Where does Israel build its nuclear weapons?

How big is Israel's nuclear arsenal?

Israel is widely believed to have at least 90 warheads and enough fissile material to produce up to hundreds more, according to the Center for Arms Control and Nonproliferation and the Nuclear Threat Initiative.

The International Atomic Energy Agency, the nuclear watchdog for the United Nations, has assessed that 30 countries are capable of developing nuclear weapons but only nine are known to possess them. Israel has the second-smallest arsenal among the nine, ahead only of North Korea, according to a Nobel Prize-winning advocacy group, the International Campaign to Abolish Nuclear Weapons. Israel could fire warheads from fighter jets, submarines or ballistic missile ground launchers, experts said.

Israel is one of five countries — joining India, Pakistan, North Korea and South Sudan — that is not a signatory to the U.N. Nuclear Nonproliferation Treaty. The agreement, which came into force in 1970, generally commits governments to promoting peaceful uses of nuclear energy and preventing the spread of nuclear weapons.

(Iran is a signatory to the treaty, although Israel and world powers have accused Tehran of violating it by unnecessarily enriching uranium at high enough levels to build a nuclear weapon.)

Israel would have to give up its nuclear weapons to sign the treaty, which recognizes only five countries as official nuclear states: Britain, China, France, Russia and the United States — the permanent members of the U.N. Security Council. All had detonated a nuclear weapon by 1967, the cutoff date in the treaty to qualify for the designation.

How long has Israel had nuclear weapons?

Israeli leaders were intent on building a nuclear arsenal to safeguard the country's survival soon after it was founded in 1948 in the wake of the Holocaust, historical records indicate.

The Israel Atomic Energy Commission was established in 1952, and its first chairman, Ernst David Bergmann, said that a nuclear bomb would ensure "that we shall never again be led as lambs to the slaughter," according to the Jewish Virtual Library.

Israel began building a nuclear weapons development site in 1958, near the southern Israeli town of Dimona, researchers believe. A recently declassified U.S. intelligence report from December 1960, by the Joint Atomic Energy Intelligence Committee, stated that the Dimona project included a reprocessing plant for plutonium production. The report concluded that the project was related to nuclear weapons.

Part of the nuclear power plant near Dimona, Israel, in 2014. The site has long been a symbol of fascination and, to some, anger over Israel's nuclear weapons program. $_{\sf Jack}$ Guez/Agence France-Presse — Getty $_{\sf Images}$

Around 1967, Israel secretly developed the ability to build nuclear explosives, according to the Arms Control Association. By 1973, the United States "was convinced Israel had nuclear weapons," the Federation of American Scientists later wrote.

Israel is not among the three dozen countries — all in Europe or Asia — considered to be protected by the United States' so-called nuclear umbrella. That protection not only serves as an American deterrent against adversaries but also aims to encourage the countries not to develop their own nuclear weapons.

Experts said that the fact that Israel was not part of the American nuclear umbrella was another unspoken acknowledgment that Israel had its own atomic weapons and did not need protection or deterrence.

"Ultimately, there is a sense of responsibility that Israel's security rests with Israel, and they will do what is necessary to provide for that," Mr. Bollfrass said.

Has Israel used its nuclear weapons in war?

No.

The Jewish Virtual Library, which is considered among the world's most comprehensive Jewish encyclopedias, has cited reports that Israel prepared its nuclear bombs during the Arab-Israeli wars of 1967 and 1973, but the weapons were not used.

There have been a few reports over the past 50 years that Israel has tested its nuclear weapons at underground sites, including in the Negev desert in southern Israel.

The most prominent episode — and one that remains under debate — was in September 1979, when an American satellite designed to detect nuclear explosions reported a double flash near where the South Atlantic and Indian oceans meet. Some scientists believed that the double flash was likely to have been the result of a nuclear test, by Israel or South Africa, or possibly by both.

The International Atomic Energy Agency headquarters in Vienna, Austria. There is no agreement with Israel that would allow the U.N. watchdog agency to monitor the nuclear site in Dimona, according to experts. Joe Klamar/Agence France-Presse — Getty Images

Israel denied involvement in what is known as the Vela incident, for the satellite's name. Former President Jimmy Carter's White House diaries, published in 2010, cited "growing belief" at the time that Israel had tested a nuclear explosion near the southern tip of South Africa. But that was never proven, and "relevant documents for the Vela incident are still classified," the scientists Avner Cohen and William Burr wrote in 2020, citing the diaries.

Where does Israel build its nuclear weapons?

It's widely believed that Israel's nuclear weapons program is housed in Dimona.

Experts said it appeared that inspectors from the International Atomic Energy Agency had never been to the site, and that there was no agreement with Israel that would allow the U.N. watchdog agency to monitor it. American scientists visited Dimona in the 1960s and concluded that the nuclear program there was peaceful, based on increasingly limited inspections, historical records show. But there is no public evidence that American inspectors have been back since.

Satellite photos show new construction at Dimona over the past five years. At a minimum, experts said, the facility is undergoing repairs and much-needed modernization.

There is also a growing belief among some experts that Israel is building a new reactor in Dimona to increase its nuclear capability. A report released this week by the Stockholm International Peace Research Institute said Israel appeared to be upgrading a reactor site there to produce plutonium, which can be used both for nuclear weapons and some peaceful purposes, like in space.

Because of its secrecy, Dimona has long been a symbol of fascination and, to some, anger over Israel's nuclear weapons program.

In a rare public event at the site in 2018, Prime Minister Benjamin Netanyahu of Israel used it as a backdrop to warn enemies that "those who threaten to wipe us out put themselves in a similar danger — and in any event will not achieve their goal."

Lara Jakes, based in Rome, reports on diplomatic and military efforts by the West to support Ukraine in its war with Russia. She has been a journalist for nearly 30 years.