

Israeli nuclear weapons capability

[Overview]

As of April 2017, Israel is estimated to possess a total of 80 nuclear warheads (Kristensen, Hans M. & Norris, Robert S. 2017). As of late 2014, Israel has around 300 kg of high enriched uranium (HEU) and approximately 860 kg of weapons-grade plutonium (IPFM 2016). To manufacture a nuclear bomb, it requires 12-18kg of HEU or 4-6kg of plutonium. Accordingly, Israel possesses nuclear fissile material equivalent to 159-240 warheads. With higher levels of technical sophistication, however, it is possible to obtain a bomb from 2-4kg plutonium, in which case the same Israeli stockpile would suggest an arsenal of 232-455 warheads (Union of Concerned Scientists 2004). Kristensen and Norris suggest that Israel has not converted all its fissile material into nuclear warheads, and estimate the number of warheads in conjunction with the intelligence on their nuclear weapons delivery capabilities (Kristensen, Hans M. & Norris, Robert S. 2014).

Israel maintains its 'ambiguity policy', neither confirming nor denying that it has nuclear weapons. It is said that Israel and South Africa tested a nuclear bomb in the air over the southernmost part of the Indian Ocean on September 22, 1979. On December 6, 2013, Avraham Burg, ex-Speaker of the Knesset, delivered a speech in which he acknowledged Israel's possession of nuclear and chemical weapons (The Times of Israel 2013).

It is thought that Israel, as India and Pakistan do, separately maintain their nuclear warheads and ground-launched missiles. It is possible that nuclear warheads are carried by submarines operating outside Israeli waters (McDonnell 2013). Refer to Note 3.

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● Nuclear warheads	80
Breakdown 1)	
Ground-launched ballistic missile	50
Airborne weapons	30

● Nuclear weapons delivery vehicles 2), 3)

Type / designation	Range (km)	Payloads (kg)	Year first deployed	Remarks
Ground-launched ballistic missile				
Jericho 2	1,500–1,800	750–1,000	1990	4)
Jericho 3	< 4,000	1,000–1,300	In development	5)
Airborne bomb 6)				
F16A/B/C/D/I	1,600	5,400	1980	7)

[Notes]

- 1) Kile and Kristensen estimate unguided airborne bombs to number 30, with the remainder to be carried by the medium-range Jericho missile (Kile, Shannon N. & Kristensen, Hans M. 2016).
- 2) Unless specifically stated, the source for information on nuclear weapons delivery range and payloads is Kile & Kristensen (Kile, Shannon N. & Kristensen, Hans M. 2016).
- 3) Israel is set to deploy six German-made Dolphin-class attack submarines and five of these had been delivered to Israel by late 2015 (Kile, Shannon N. & Kristensen, Hans M. 2016). The German newspaper Spiegel reported on its website in 2012 that Israel has equipped its operational submarines with nuclear cruise missiles (Speigel Online 2012). Israel is reportedly planning to procure three more submarines (The Times of Israel 2016).
- 4) Solid-propellant. Two-stage. Road-Mobile (Missile Threat 2017). Fifty missiles (Kile, Shannon N. & Kristensen, Hans M. 2016). Expected to be replaced in phases by the Jericho 3 variant through 2026 (Missile Threat 2017).
- 5) Solid-propellant. Test launch was conducted on November 2, 2011 (SIPRI 2012).
- 6) It is believed that part of the 25 F15 Strike Eagle aircrafts (called Lahm in Israel) carry out nuclear missions (Schell, Phillip Paton & Kristensen, Hans M. 2014).
- 7) It is believed that part of the 205 aircraft carry out nuclear missions (Schell, Phillip Paton & Kristensen, Hans M. 2014).

[Source]

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