

What missiles does Iran have to launch against Israel, and how far can they go?

Depending on the effectiveness of Israeli strikes on missile sites, Iran's ballistic capability may still be its most effective option for striking back.

By [Ralph Savelsberg](#) on June 13, 2025 at 2:46 PM

Editor's Note: As this analysis was being published, [reports emerged](#) that Iran had launched ballistic missiles in response to Israel's attack.

In the wake of Israel's wave of strikes targeting Iranian military officers and scientists as well as its nuclear and ballistic missile capability, Tehran has vowed revenge. But beyond a relatively small drone operation, it has yet to be seen exactly how Iran will respond. That could depend significantly on how effective Israel's strikes were to begin with, and what part of Iran's not unsubstantial ballistic missile capability has been left standing.

Israel's attack reportedly included hitting targets in Tabriz, which was one of the launch sites of an Iranian ballistic missile attack on Israel in October 2024. Israel is also said to have killed Mohammad Hossein Bagheri, the chief of staff of Iran's armed forces, and Hossein Salami, head of the Islamic Revolutionary Guard Corps (IRGC). This is the organisation responsible for Iran's ballistic missile program.

Prior to the attack, ballistic missiles were, and still mostly likely are, Tehran's most potent means of striking Israel. Reaching Israel from Iran requires missiles with ranges of more than 1,000 km (621 miles), also known as Medium-Range Ballistic Missiles (MRBMs). Iran has a large variety. This includes liquid-propellant missiles based on collaborations with North Korea, such as the Ghadr and Khorramshahr, but also advanced solid-propellant ballistic missiles.

Some of these missiles, such as the Kheibar Shekan, are fitted with maneuverable re-entry vehicles with control fins and satellite navigation, to increase precision and to allow them to maneuver inside the atmosphere. Iran claims to have developed a variant of the Kheibar Shekan, called the Fattah, that can fly hypersonic (non-ballistic) trajectories through the atmosphere, which would make it harder to intercept.

In addition to these MRBMs, Iran has a large arsenal of short-range ballistic missiles (SRBMs, with ranges between 300 and 1,000 km). Some of these (based on Soviet Scuds) use liquid propellant but most use solid propellant. Many of these are also fitted with control fins and satellite navigation systems.

In Iran's April 2024 attack on Israel, called operation "True Promise," Iran used 110 ballistic missiles, in combination with unmanned aerial vehicles and cruise missiles. This was in retaliation for Israel assassinating Mohammad Reza Zahedi, commander of the IRGC Quds force, in an attack on the Iranian embassy complex in Damascus.

Type	name	range [km]	warhead mass [kg]
solid-propellant SRBM	Fateh-110	300	448
	<u>Khalij Fars</u>	300	450
	Fateh-313	500	380
	Zoheir/ Raad-500	500	320
	<u>Zolfaghar</u>	700	579
liquid-propellant SRBM	Shahab-1	300	950
	Shahab-2	500	750
	Qiam-1	700	650 or 750
liquid propellant MRBM	Shahab-3	1150	670
	<u>Rezvan</u>	1400	unknown
	<u>Ghadr-H</u>	1750	650
	<u>Ghadr-F</u>	1950	650
	Emad	1700	750
	Khorramshahr	2000	1500
Solid-propellant MRBM	<u>Qassem Bassir</u>	1200	unknown
	Haj Qassem	1400	500
	<u>Kheibar Shekan</u>	1450	500
	<u>Kheibar Shekan-2</u>	1800	unknown
	<u>Sejil</u>	2000	650

Table 1: Iranian ballistic missiles, with performance data from Iranian press reports and television broadcast. Table compiled by the author.

Iranian ballistic missile information based on Iranian press and TV. (Ralph Savelsberg)

Most of the ballistic missiles were intercepted by Israel's missile defense systems, using Arrow 2 and Arrow 3 interceptors. These were supported by US Navy destroyers, operating off the Israeli coast, armed with Standard Missile 3 ballistic missile interceptors. During a second attack, in October 2024, called "True Promise II," Iran attacked Israel with approximately 150 ballistic missiles. Again, most were intercepted, but several struck Nevatim and Tel Nof Air Bases, as well as the area near Israel's intelligence headquarters.

A Question Of Quantity

Fending off such large attacks will have taxed Israeli's defenses. The number of launchers for the interceptor missiles is limited. Furthermore, sorting through all the incoming missiles, identifying where they are heading and which interceptor should be allocated to which missile, will have strained the command-and-control structure, as well as radar resources.

That some missiles came through may have been the result of Israel having to prioritize the defense of certain targets. It is also possible that some missiles may not have been engaged at first,

because they appeared to be aimed at unbuilt areas, but subsequently maneuvered to hit targets anyway.

These attacks will have depleted Israeli stocks of interceptor missiles. They have been further depleted by [dozens of Houthi missile attacks on Israel](#) since October 2023. After the second Iranian attack, the missile defenses were beefed up by the US deploying a THAAD missile defense system to Israel, which has already been used to defend against Houthi attacks.

At the time of writing, it is unclear how much of the Iranian ballistic missile infrastructure has been destroyed. However, to protect against such attacks, for years Iran has been building underground missile facilities.

These are hardened against air strikes, although their entrances may be vulnerable. Iran has also shown footage of missiles being launched from such underground facilities. Alternatively, their tunnels can be used to store and prepare missiles, to then disperse them to their launch locations using trucks.



Missiles and UAV's are showed for the people on the side of the road in Tehran, Iran, on February 11, 2024. (Photo by HOSSEIN BERIS/Middle East Images/AFP via Getty Images)

For transporting, erecting and launching their missiles, Iran mainly uses commercial trucks or trailers pulled by commercial trucks, based on footage from parades, exercises and their underground facilities. The trailers are often fitted with frames that allow the launch equipment and the missile, lying flat, to be covered by a tarp, effectively disguising them as commercial vehicles.

Launch vehicles for smaller shorter-range missiles also have similar covers, but their launchers can also be disguised as shipping containers.

To prevent their remaining missiles from being destroyed in Israeli follow-on attacks, Iran may disperse its missile forces. Once the transporters have left their base, they will be hard to identify and track. The solid-propellant missiles are more mobile than Iran's liquid-propellant missiles and their launch preparations are shorter.

So even if the launch preparations were to be observed by Israel (or the US), there will be little time to destroy the missiles on the ground. Furthermore, given the distances involved and the IDF's limited number of air-to-air refueling aircraft, Israeli aircraft will not be able to linger in Iranian airspace to respond to the threat of a missile launch.

However, for Iran, communications with such a dispersed force may be difficult and it is also unclear to which extent any potential military response will be hamstrung by the deaths in its military command structure.

Iran's smaller short-range ballistic missiles are not a direct threat to Israel, so Israel will not have prioritized their destruction. They can reach US facilities in the region, however. This would not be without precedent.

In 2020, in retaliation for a US drone strike in which IRGC General Qassem Soleimani was killed in Iraq, Iran [attacked](#) American facilities on Al Asad AB in Iraq. This is less than 300 km from the Iranian border. At the time of the Al Asad attack, the only missile defenses at the base were aimed at the rockets, artillery and mortars that were occasionally launched against at the base by local (Iran-supported) militias. Unsurprisingly, these were not effective against longer-ranged ballistic missiles launched from Iran. The first Trump administration chose not respond militarily, avoiding a further escalation.

Al Udeid Air Base in Qatar, which is a major hub for US Middle East operations, is also less than 300 km from Iran, as are facilities in Bahrain and Kuwait. In response to the rising tension in the region, the US recently deployed a Patriot missile defense battalion to the Middle East, suitable for defending bases against short-range ballistic missiles.

However, if Iran were to launch a large-scale attack on US facilities, this could potentially overwhelm their defenses, further escalating the conflict.

Ralph Savelsberg, a member of the Breaking Defense Board of Contributors, is associate professor at the Netherlands Defence Academy in Den Helder, specializing in missile defense.