

# Iran's Continued Push for a Nuclear-Ready Missile Capability

by [Farzin Nadimi \(/experts/farzin-nadimi\)](#)

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## ABOUT THE AUTHORS



[Farzin Nadimi \(/experts/farzin-nadimi\)](#)

Farzin Nadimi, an associate fellow with The Washington Institute, is a Washington-based analyst specializing in the security and defense affairs of Iran and the Persian Gulf region.

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Brief Analysis

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**The latest test launch represents a potential technological milestone for Iran—and a wakeup call for Europe.**

On January 3, Secretary of State Mike Pompeo warned Iran not to conduct any planned satellite launches using rockets that share commonalities with intercontinental ballistic missiles. The warning followed his December 1

revelation that Iran had test-fired a ballistic missile “designed to be capable of delivering nuclear weapons” to the entire Middle East and parts of Europe. Those words were carefully chosen—UN Security Council Resolution 2231 calls on Iran “not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons, including launches.” Yet the resolution does not expressly prohibit such activities, a point well taken by Iran.

The characteristics Pompeo referred to on December 1 match those of the Khoramshahr, a relatively new medium-range ballistic missile (MRBM) unveiled in September 2017 and test-fired on at least three occasions. Although **[known details \(https://www.washingtoninstitute.org/policy-analysis/view/irans-new-ballistic-missile-may-have-north-korean-icbm-links\)](https://www.washingtoninstitute.org/policy-analysis/view/irans-new-ballistic-missile-may-have-north-korean-icbm-links)** of the missile are scarce, it is believed to be Iran’s first departure from the generic Scud-B design, and more similar to the North Korean BM-25/Hwasong-10 first delivered to Iran around 2005.

Iranian officials quickly dismissed Pompeo’s remarks and emphasized that their missile program is defensive and deterrent in nature, does not violate Resolution 2231, and will continue despite international objections. The commander of the Islamic Revolutionary Guard Corps Aerospace Force (IRGCASF), Brig. Gen. Amir Ali Hajizadeh, characterized the U.S. reaction as “anxious and selective,” claiming that Iran “conducts over forty to fifty missile tests a year.”

Evidence from various sources indicates that Hajizadeh’s claim could be an exaggeration, however. In a December 9 report, German newspaper *Die Welt* noted that Iran had test fired only seven MRBMs and three short-range missiles in 2018, according to “documents from Western intelligence sources.” Similarly, the Foundation for Defense of Democracies cataloged only four test launches in the first seven months of 2017. If these numbers are accurate, Iran is more likely to fire its missiles in offensive operations than in “defensive” test launches—last fall alone, it fired six of them **[against Kurdish groups in northern Iraq \(https://www.washingtoninstitute.org/policy-analysis/view/irans-missile-attack-in-iraqi-kurdistan-could-backfire\)](https://www.washingtoninstitute.org/policy-analysis/view/irans-missile-attack-in-iraqi-kurdistan-could-backfire)** (September 28) and six more **[against Islamic State targets in Syria \(https://www.washingtoninstitute.org/policy-analysis/view/for-a-second-time-iran-fires-missiles-at-is-targets-in-syria\)](https://www.washingtoninstitute.org/policy-analysis/view/for-a-second-time-iran-fires-missiles-at-is-targets-in-syria)** (October 1).

## PRECISION VS. PAYLOAD

On December 5, Foreign Minister Mohammad Javad Zarif argued that Iranian missiles “are only designed for a conventional role because they have precision strike capability,” echoing his claim in a *New York Times* op-ed a year earlier: “Nuclear weapons do not need to be precise—conventional warheads, however do.” Yet such claims do not hold water because there is ample precedent for high-precision, nuclear-capable ballistic missiles. For example, the Pershing II of the 1980s could deliver a reduced-yield nuclear warhead to targets with an accuracy of less than 50 meters.

Zarif’s “precision” claim also seems odd given the specifications of the test missile that spurred his remarks. The Khoramshahr can reportedly carry a far heavier payload than would be required for a weapon whose purpose is pinpoint accuracy—its claimed 1,800 kg warhead would make it the largest in Iran’s arsenal.

One possibility is that this extra capacity is designed to carry multiple warheads. When Khoramshahr was first unveiled, Hajizadeh claimed that a single missile could hit “several targets.” If Iran has in fact successfully tested such a capability for the first time, it would be an alarming milestone, since multiple warheads have a better chance of defeating missile defenses.

The Khoramshahr’s large payload would also make the job of mating it with a first-generation nuclear warhead relatively easy, at least in theory. One rule of thumb among experts is that any missile capable of carrying a 500-1,000 kg warhead can be mounted with a nuclear device. Khoramshahr reportedly offers twice that capacity—a troubling figure given the fact that miniaturizing a warhead is arguably one of the most daunting tasks in nuclear

weapons design.

Aside from its theoretical nuclear capability, Khoramshahr could also fill a distinct place in Iran's missile doctrine. Assuming its claimed specifications are true—2,000 km range, 1,800 kg warhead—it can offer either a multi-warhead configuration with the potential capability of defeating missile defenses, a unitary conventional warhead to cause very significant damage over a wide area (without precision guidance), or the ability to defeat some hardened targets (with precision guidance).

## THREAT TO EUROPE

Iran has made clear that it has the potential to continue extending the reach of its ballistic missiles, raising questions about the 2,000 km range limit set by Supreme Leader Ali Khamenei and other officials in the presumed hope of assuaging Western fears and forestalling additional sanctions. During his remarks last month, Hajizadeh declared, “We can build longer-range missiles, 2,000 is no magic number for us. We face no technical or legal hurdles with regard to the range of our missiles.” This mindset has been in place for some time—in a November 2014 interview, for example, acting IRGCASF commander Gen. Seyed Majid Mousavi admitted that Iran's Space Research Center had developed satellite launch rockets “mainly to advance missile technologies under the guise of a civilian space program, especially to circumvent the self-imposed 2,000 km limitation on range.”

Iran's 2,000 km missiles may already pose a threat to the southeastern margins of Europe, while longer-range versions of the Khoramshahr could expand that threat to the entire continent (presumably at the expense of payload weight). On November 27, IRGC deputy commander Brig. Gen. Hossein Salami spoke of the “strategic logic” behind such range extensions, warning that “the Europeans will become a threat if they try to meddle in our missile affairs and do not recognize our defensive missile power. We will then increase the range of our missiles to reach Europe.” In fact, the liquid-fuel Khoramshahr may have been developed with the European theater in mind; according to Hajizadeh, Iran prefers solid-fuel missiles like the Sejjil for the Israeli theater (perhaps due to their superior survivability).

## UPCOMING PROVOCATIONS?

Western countries should prepare for the possibility of more Iranian MRBM tests or the unveiling of new designs, especially if hardliners decide to muster a defiant stance during next month's celebration of the Islamic Revolution's fortieth anniversary. According to deputy defense minister and IRGC general Ghasem Taghizadeh, Iran is also expected to launch a satellite into orbit by February, a plan that Hajizadeh has alluded to as well. Although Tehran may view this option as less confrontational than a ballistic missile test, it would undoubtedly raise further international outcry against the missile program, as Secretary Pompeo made clear this week.

More broadly, the international community should not forget that the program remains a central pillar of Iran's strategy for dominating the region. Although Tehran became less public about its missile advancements following the nuclear deal, there has been no substantive halt in the program's progress. Most troubling, the latest test indicates that the IRGC is moving forward with the Khoramshahr, a ballistic missile design that may already have the capability of lifting a heavy payload to targets anywhere in the Middle East or southern Europe.

*Farzin Nadimi is an associate fellow with The Washington Institute, specializing in the security and defense affairs of Iran and the Gulf region. ❖*

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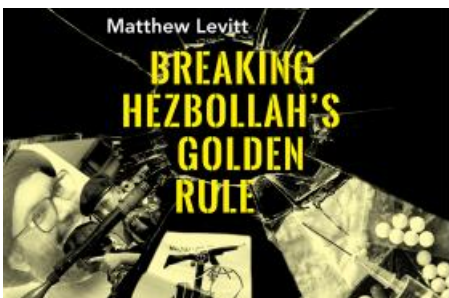
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