

The Iranian Satellite Launch

James A. Lewis
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Q1: Why did Iran launch a satellite?

A1: Spaceflight is a way to assert national power and independence. Iran is sending a signal to its neighbors and to the United States that it is the power in the region. Space launch can be a powerful nationalist symbol for domestic audiences as well, and this launch was tied to the 30th anniversary of the founding of the Islamic Republic. A satellite launch is also a way to test launch vehicles and gain experience in launching that can be directly applied to a missile program. Many countries are building or acquiring satellites, but only a few have their own space launch capabilities.

When China put a man into orbit, President Hu Jintao said that it showed that China could “surmount the peak of the world’s science and technology.” Interestingly, Iran’s Foreign Ministry spokesman said that the satellite launch shows that Iran’s revolution was succeeding in “the conquest of high peaks of science and technology.” The similar phrasing may be a coincidence, but it shows the use of spaceflight to reinforce a regime’s claim to legitimacy and power.

Q2: Did Iran build the satellite and launcher on its own?

A2: Iran’s space program had significant help from Russia, North Korea, and China. The launch vehicle is probably based on a modification of the North Korean Taepodong missile. Russia launched a satellite for Iran in 2005, and China and Iran cooperated (with Thailand) in building a research satellite that China launched in 2008. Without this foreign help, it would have taken Iran much longer to develop a space launch vehicle.

The same is not true for satellites, however. Although Russia and China have helped Iran develop its satellite programs, satellites are getting easier to build as components become smaller and cheaper. The “small-sat” revolution has opened space to many countries. We should not underestimate Iranian technical capabilities. Iran has the ability now to build relatively basic communications and earth observation satellites, and if it can continue to afford the expense of a space program, it will learn to build more sophisticated spacecraft.

Q3: What are the security implications?

A3: If you can put a satellite in orbit, you can deliver a nuclear weapon or other warhead to a target thousand of miles away. The space launch also gives Iran a rudimentary antisatellite capability (particularly when combined with nuclear weapons). The “Omid” satellite launched this week on the Shafir-2 rocket was not military, but the capabilities that it demonstrated are military in both practice and intent.

James A. Lewis directs the Technology and Public Policy Program at the Center for Strategic and International Studies in Washington, D.C.

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