India shoots down a weather satellite, declares itself a “space power”

Enlarge / Indian Prime Minister Narendra Modi addresses the nation on a local news channel in New Delhi on March 27.
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India announced Wednesday that it successfully fired an anti-satellite weapon and intercepted an unidentified Indian satellite at an altitude of 300km. This test, named “Mission Shakti,” gives India the prestige of becoming only the fourth nation to shoot down a satellite, but it raises serious questions about orbital debris and the on-going militarization of space.

The country’s prime minister, Narendra Modi, announced the anti-satellite test in a televised speech Wednesday, which he characterized as an, “important message for our nation.” Later, on Twitter and in English, he added of this mission that it “was a highly complex one, conducted at extremely high speed with remarkable precision. It shows the remarkable dexterity of India’s outstanding scientists and the success of our space programme.”

Modi stressed that the technology used to bring down the missile was entirely developed in India, and he said the test was an important demonstration of the country’s prowess in

space.”India stands tall as a space power!” he wrote. “It will make India stronger, even more secure and will further peace and harmony.”

Whether such an act makes space more secure, however, is another question. Until now only three countries had demonstrated such an offensive capability in space—the United States, Russia, and China.

Security concerns

One significant concern here is orbital debris. In 2007, when China demonstrated this satellite intercept capability, it shot down a weather satellite and produced more than 2,000 pieces of debris that threatened other satellites. Because that test took place at an altitude of 800km, debris from the Chinese test still threatens satellites in low-Earth orbit today. It likely will for decades.

India’s test occurred at a lower altitude, some 300km, so its effects may be shorter lived as debris from the test is pulled into Earth’s atmosphere. Also, it appears the target was the relatively small Microsat-r satellite, with a mass of about 700kg. This means there should be less debris.

This test demonstrates India’s capability to shoot down satellites and some key technologies needed for ballistic missile defense. Although the test will be seen within India as a show of strength, it likely will lead to international concerns about the ongoing militarization of space. US military officials are already very concerned about the security of their communications and observation assets in space, and those concerns will only be further heightened after this announcement.

India has garnered much international praise for space efforts such as the Mars Orbiter Mission, launched in 2013. But now it has clearly stated its intent to be a military player in space

as well.

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