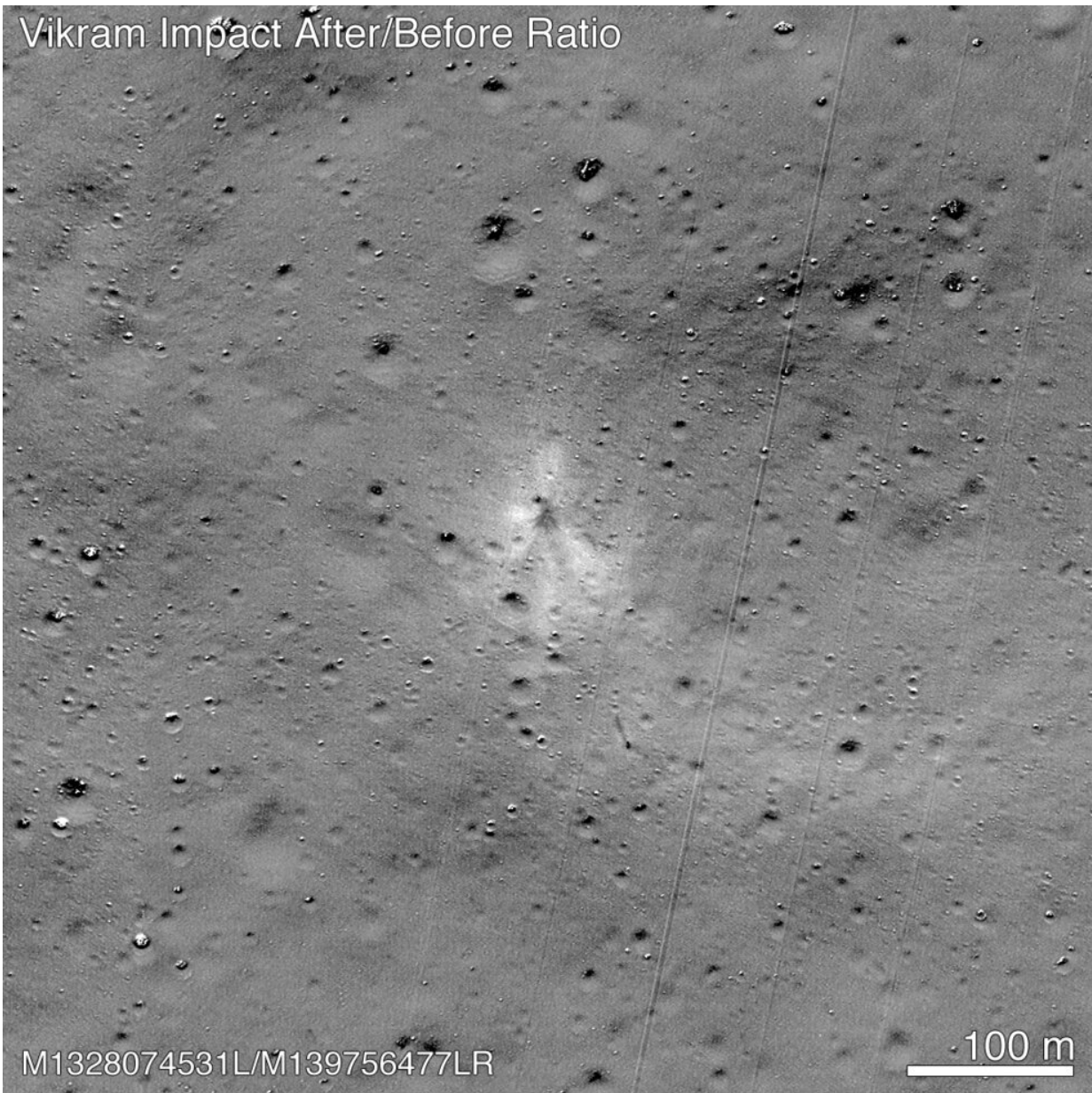


NASA finds Indian Moon lander with help of amateur space enthusiast

December 3 2019



NASA released an image taken by its Lunar Reconnaissance Orbiter that showed the site where India's Vikram lander crashed on the lunar surface in September 2019

India's Vikram lunar lander, which crashed on its final approach to the Moon's surface in September, has been found thanks in part to the sleuthing efforts of an amateur space enthusiast.

NASA made the announcement on Monday, releasing an image taken by its Lunar Reconnaissance Orbiter (LRO) that showed the site of the spacecraft's impact (September 7 in India and September 6 in the US).

A version of the picture was marked up to show the associated debris field, with parts scattered over almost two dozen locations spanning several kilometers.

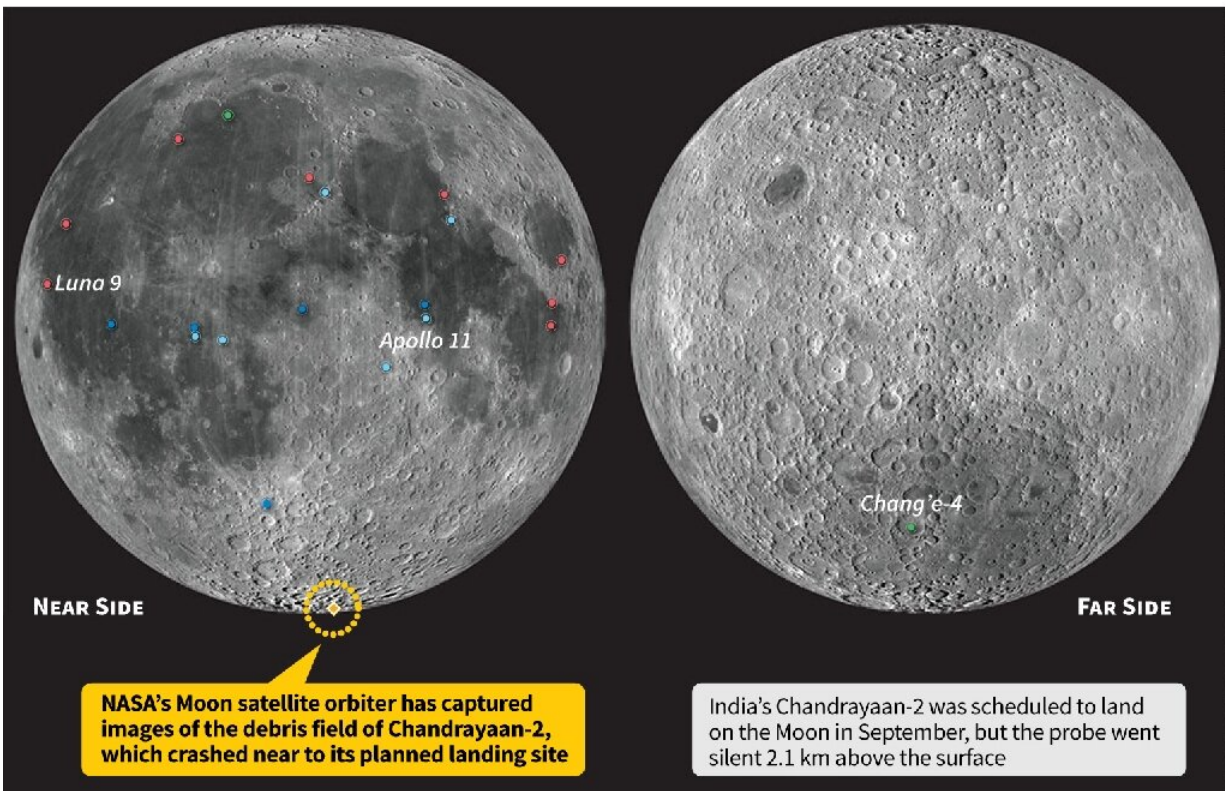
In a statement, NASA said it released a mosaic image of the site on September 26 (but taken on September 17), inviting the public to compare it with images of the same area before the crash to find signs of the lander.

The first person to come up with a positive identification was Shanmuga "Shan" Subramanian, a 33-year-old IT professional from Chennai, who told AFP that NASA's inability to find the lander on its own had sparked his interest.

"I had side-by-side comparison of those two images on two of my laptops... on one side there was the old image, and another side there was the new image released by NASA," he said, adding he was helped by fellow Twitter and Reddit users.

India Moon lander site

● Ex-USSR ● US ● Manned Apollo missions ● China ● India



NASA's Moon satellite orbiter has captured images of the debris field of Chandrayaan-2, which crashed near to its planned landing site

India's Chandrayaan-2 was scheduled to land on the Moon in September, but the probe went silent 2.1 km above the surface

● *Luna 9* Feb 3, 1966
 ● *Apollo 11* Jul 20, 1969
 Sources: NASA, GSFC, ASU

1st lunar soft landing
 Armstrong, 1st human step on Moon

● *Chang'e-4* Jan 3, 2019 1st lander on the far side

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Landing sites for probes and crewed missions on the Moon, including the planned landing point of Indian lunar lander Chandrayaan 2 Vikram, which crashed in September.

"It was quite hard, but (I) spent some effort," said the self-professed space nerd, finally announcing his discovery on Twitter on October 3.

NASA then performed additional searches in the area and officially announced the finding almost two months later.

"NASA has to be 100% sure before they can go public, and that's the reason they waited to confirm it, and even I would have done the same," said Subramanian.

Blasting off in July, emerging Asian giant India had hoped with its Chandrayaan-2 ("Moon Vehicle 2") mission to become just the fourth country after the United States, Russia and regional rival China to make a successful Moon landing, and the first on the lunar south pole.

The main spacecraft, which remains in orbit around the Moon, dropped the unmanned lander Vikram for a descent that would take five days, but the probe went silent just 2.1 kilometers above the surface.

Days after the failed landing, the Indian Space Research Organization said it had located the [lander](#), but hadn't been able to establish communication.

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