

Ahead of 2nd moon shot, a timeline of India's space program

July 12 2019



An employee playfully hugs a cut-out of a crescent moon at the Nehru Planetarium in New Delhi, India, Thursday, July 11, 2019. India is looking to take a giant leap in its space program and solidify its place among the world's spacefaring nations with its second unmanned mission to the moon, this one aimed at landing a rover near the unexplored south pole. (AP Photo/Altaf Qadri)



Amid a new global space race, India is preparing to launch a second mission to the moon. Here is a timeline of its space program:

Feb. 16, 1962—The Indian National Committee for Space Research is formed under the leadership of Vikram Ambalal Sarabhai, known as the father of India's space program, and physicist Kalpathi Ramakrishna Ramanathan.

Nov. 21, 1963—The first sounding rocket, used for probing upper atmospheric regions and <u>space research</u>, is launched from Thumba Equatorial Rocket Launching Station in Kerala, marking the beginning of the Indian <u>space program</u>.

Aug. 15, 1969—The Indian Space Research Organization, the nation's <u>space agency</u>, is created to "harness space technology for national development, while pursuing space science research and planetary exploration."

April 19, 1975—India's first satellite, Aryabhata, is launched from the former Soviet Union. Named after a famous Indian astronomer, it is designed and built in India and launched by a Soviet rocket.

June 7, 1979—Bhaskara-I, the first experimental remote-sensing satellite built in India, is launched. Images taken by its camera are used in hydrology and forestry and data sent by it are used for oceanographic studies.





An Indian woman takes a photograph of her son as he poses in a cut-out of an astronaut at the Nehru Planetarium in New Delhi, India, Thursday, July 11, 2019. India is looking to take a giant leap in its space program and solidify its place among the world's spacefaring nations with its second unmanned mission to the moon, this one aimed at landing a rover near the unexplored south pole. (AP Photo/Altaf Qadri)

July 18, 1980—Satellite Launch Vehicle-3, India's first experimental satellite launch vehicle, is launched, making India the sixth space-faring nation. The success of the project opened the way for more advanced launch vehicle projects.

April 10, 1982—The Indian National Satellite System is launched for communications and broadcasting but is abandoned a year later when its



altitude control propellant is exhausted.

April 2, 1984—A joint India-Soviet Union manned mission is launched, putting the first Indian national in space. Rakesh Sharma, a former Indian air force pilot, flies on the Soyuz T-11 <u>space</u> craft to the Salyut 7 Orbital Station.

Oct. 22, 2008—India's first lunar mission, Chandrayaan, or moon craft in Sanskrit, is launched. It orbits the moon but does not land there. It performs high-resolution remote sensing of the moon using visible, near infrared, low energy X-rays and high-energy X-rays. One objective is to prepare a three-dimensional atlas of both the near and far sides of the moon.

Nov. 5, 2013—The Mars Orbiter Mission is launched. Also called Mangalyaan, it has been orbiting Mars since Sept. 24, 2014. It is India's first interplanetary venture and is studying Mars' <u>surface features</u>, morphology, mineralogy and atmosphere.







This July 2019, photo released by the Indian Space Research Organization (ISRO) shows its Geosynchronous Satellite Launch Vehicle (GSLV) MkIII-M1 being prepared for its July 15 launch in Sriharikota, an island off India's southeastern coast. India is looking to take a giant leap in its space program and solidify its place among the world's spacefaring nations with its second unmanned mission to the moon, this one aimed at landing a rover near the unexplored south pole. (Indian Space Research Organization via AP)

© 2019 The Associated Press. All rights reserved.

Citation: Ahead of 2nd moon shot, a timeline of India's space program (2019, July 12) retrieved 12 July 2024 from <u>https://phys.org/news/2019-07-2nd-moon-shot-timeline-india.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.