SPACE RESEARCH

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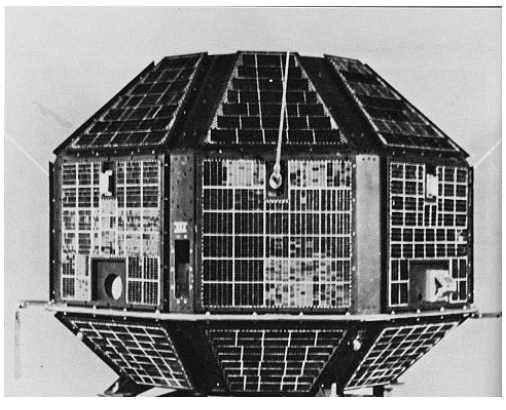
INDIAN SATELLITE LAUNCHES - AT A GLANCE

“If you want to shine like the Sun, first burn like the Sun.”

– Dr APJ Abdul Kalam

FROM HUMBLE BEGINNINGS IN THE 1970S AND 80S . . .



In the 1970s, ISRO was a fledgeling space agency with a limited budget and no launch capability. India's first satellite, Aryabhata(seen in the picture) was launched by the USSR in 1975.

It was not until 1980 when Rohini became the first satellite placed in orbit by the first Indian SLV(Satellite Launch Vehicle).

Despite the immense challenges, ISRO managed to launch India's first communication and meteorological satellites with help from Western Countries in the 1980s. To increase its launch capabilities, ISRO began developing a specialized Polar Satellite Launch Vehicle(PLSV).

. . . TO ACHIEVING INTERNATIONAL COMPETENCY IN THE LAST THREE DECADES . . .

In 1993, the PLSV was completed which allowed India to become self-reliant in launching most of its remote sensing satellites. Satellites like SCROSS-C were launched to conduct research in fields such as Astronomy, Earth Sciences and Space Physics.

Another series called IRS satellites focused on Earth Sciences, with IRS-P4(OceanSat-1) built specifically for Ocean applications.

However, for heavy geostationary systems, India continued to remain dependent on countries such as Europe entirely. Capability to launch geostationary satellites would only arrive in the next decade. Despite this hindrance, India launched a number of geostationary satellites.

The geostationary satellites mainly consisted of the INSAT series, which were used primarily for Communications purposes.

. . . AND REACHING EVEN GREATER HEIGHTS IN THE TIMES TO COME.

In the 2000s, India successfully launched 11 geostationary or geosynchronous satellites, which was equal to the total number of similar launches in the previous 2 decades put together.

The Geosynchronous Satellite Launch Vehicle (GSLV) began to be used, followed by the GSLV Mk III in the 2010s. Both of these vastly increased India’s launch capability.

India's first unmanned mission to the moon - Chandrayaan-1 - also took place in 2008. An incredible Mission to Mars - Mangalyaan-1 - was launched a few years later followed by Chandrayaan-2 in 2019.

The future of the Indian Satellite program seems brighter than ever, with an aim of over 50 launches between 2020 and 2024. The video below shows the impressive GISAT-1, a geostationary Indian satellite for geographic imaging, which aims to be launched in 2020.

0:00 / 5:00

CITATION

Video: isro.gov.in, Press release, GSLV-F10 / GISAT-1 Mission Curtain Raiser video (English). Images: Aryabhata (ISRO - Aryabhata) ; PSLV-C35 (Indian Space Research Organization (GODL-India)) ; PSLV-C11 Lift Off (https://www.isro.gov.in/). Content adapted from the Wikimedia Foundation and isro.gov.in.

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