

Indian Satellite Launch Vehicle

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In news

SD Sat is a 3U cube satellite named after the former Chairman and one of the founding fathers of the Indian space programme Professor Satish Dhawan.

Introduction Satellite Launch Vehicle

- The **primary instruments for space applications** are satellites but they must be placed in carefully determined orbits in order to be useful.
- **Launch vehicles that send satellites and other spacecraft into space** must be far more powerful than other types of rockets, because they carry more cargo farther and faster than other rockets.

Indian Satellite Launch Vehicles

- A **launch vehicle is a rocket-powered** vehicle used to transport a spacecraft beyond Earth's atmosphere, either into orbit around Earth or to some other destination in outer space.
- The launch vehicles have been **used to send crewed spacecraft, uncrewed space probes, and satellites** into space since the 1950s.
- Launch Vehicles are used to transport and put satellites or spacecraft into space.
- In India, the launch vehicles development program began in the early 1970s. **The first experimental Satellite Launch Vehicle (SLV-3)** was developed in **1980**.
- An Augmented version of this, **ASLV**, was launched successfully in **1992**.
- India has made tremendous strides in launch vehicle

technology to achieve self-reliance in the satellite launch vehicle program with the operationalization of Polar Satellite Launch Vehicle (**PSLV**) and Geosynchronous Satellite Launch Vehicle (**GSLV**).

Satellite Launch Vehicle (SLV)

- Satellite Launch Vehicle or SLV was a small-lift launch vehicle project started in the early 1970s by the Indian Space Research Organisation to develop the technology needed to launch satellites.
- SLV was intended to reach a height of 400 kilometres (250 mi) and carry a payload of 40 kg (88lb).
- The first experimental flight of SLV-3, in August 1979, was a failure. The **first successful launch SLV-3** on July 18, 1980 from Sriharikota Range (SHAR), when **Rohini satellite, RS-1**, was placed in orbit, thereby making India the **sixth member of an exclusive club** of space-faring nations .
- The successful culmination of the SLV-3 project showed the way to advanced launch vehicle projects such as the Augmented Satellite Launch Vehicle (ASLV), Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous satellite Launch Vehicle (GSLV).

List of SLV Launches

SN	Title	Launch Date	Payload	Remarks
1	SLV-3E1	10Aug,1979	Rohini Technology Payload(RTP)	Un successful
2	SLV-3E2	18Jul,1980	Rohini Satellite RS-1	successful
3	SLV-3D1	31May,1981	Rohini Satellite RS-D1	successful
4	SLV-3	17Apr,1983	Rohini Satellite RS-D2	successful