

ASLV-D3 / SROSS-C Mission

20 May, 1992

THE MISSION

ASLV-D3 carrying on-board the SROSS-C lifted-off from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota on May 20, 1992. Stretched Rohini Satellite Series - Continuation (SROSS-C) was the third satellite in the Stretched Rohini Satellite Series carrying scientific instruments to conduct experiment on Gamma-Ray Burst and to study ionosphere electrons and ions.

ASLV - D 3

THE LAUNCH VEHICLE

The Augmented Satellite Launch Vehicle (ASLV) Programme was designed to augment the payload capacity, thrice that of SLV-3 for Low Earth Orbits (LEO). While building upon the experience gained from the SLV-3 missions, ASLV proved to be a low-cost intermediate vehicle to demonstrate and validate critical technologies that would be needed for the future launch vehicles like strap-on technology, inertial navigation, bulbous heat shield, vertical integration and closed-loop guidance.

ASLV-D3 was the third developmental flight configured as an all-solid propellant vehicle, with a payload capability of 150 kg class satellites into 400 km circular orbits. The strap-on stage consisted of two identical solid propellant motors of 1 m diameter.

SPECIFICATIONS

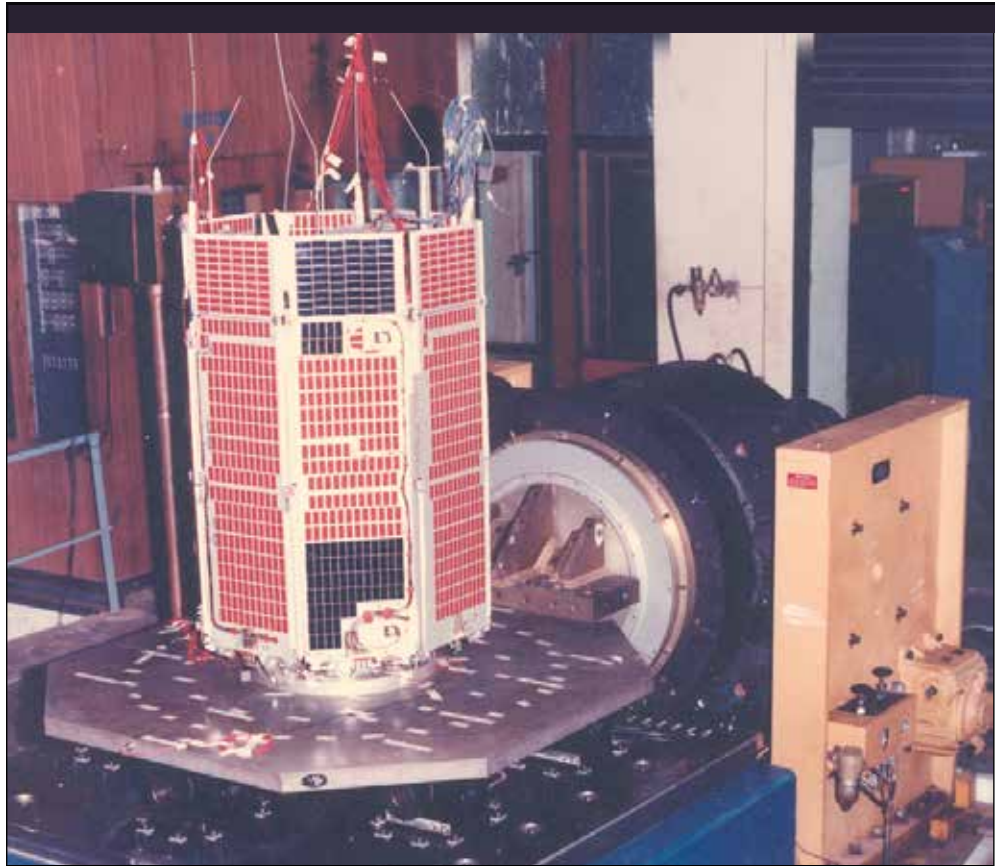
Height	24 m
Lift-Off Mass	40 t
No of Stages	5
Payloads	SROSS-C
Apogee	391 km
Perigee	267 km



SROSS - C

THE SATELLITE

SROSS-C was a 106 kg experimental spin-stabilized satellite designed with a power handling capability of 60 W. It carried a Gamma-Ray Burst (GRB) Experiment to measure the celestial Gamma Ray Bursts in the energy range of 20 Kev to 3 Mev with different time resolutions of 2 ms, 16 ms and 256 ms and a Retarded Potential Analyzer (RPA) experiment to measure the density, temperature and flux of the ionosphere electrons and ions. It was successfully launched into an orbit of 267 x 391 km.



SPECIFICATIONS

Weight	106.1 kg
Power	60 W
Stabilization	Spin-stabilized with a Magnetic Torquer and Magnetic Bias Control
Type of Satellite	Science & Exploration
Payloads	<ul style="list-style-type: none">• Gamma Ray Burst (GRB) Experiment• Retarding Potential Analyser (RPA) Experiment
Mission Life	2 months (re-entered Earth's atmosphere on July 15, 1992)

