

# ASLV-D4 / SROSS-C2 Mission

05 May, 1994

## THE MISSION

ASLV-D4 carrying on-board the SROSS-C2 lifted-off from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota on May 05, 1994. SROSS-C2 was the fourth satellite in the Stretched Rohini Satellite Series. The SROSS-C2 spacecraft is one of the satellites included in the Interplanetary Network. Besides providing a space platform for carrying out meaningful scientific experiments, it also provided opportunity for indigenous development of some new generation technologies that later fed into IRS and INSAT satellites.

## ASLV - D 4

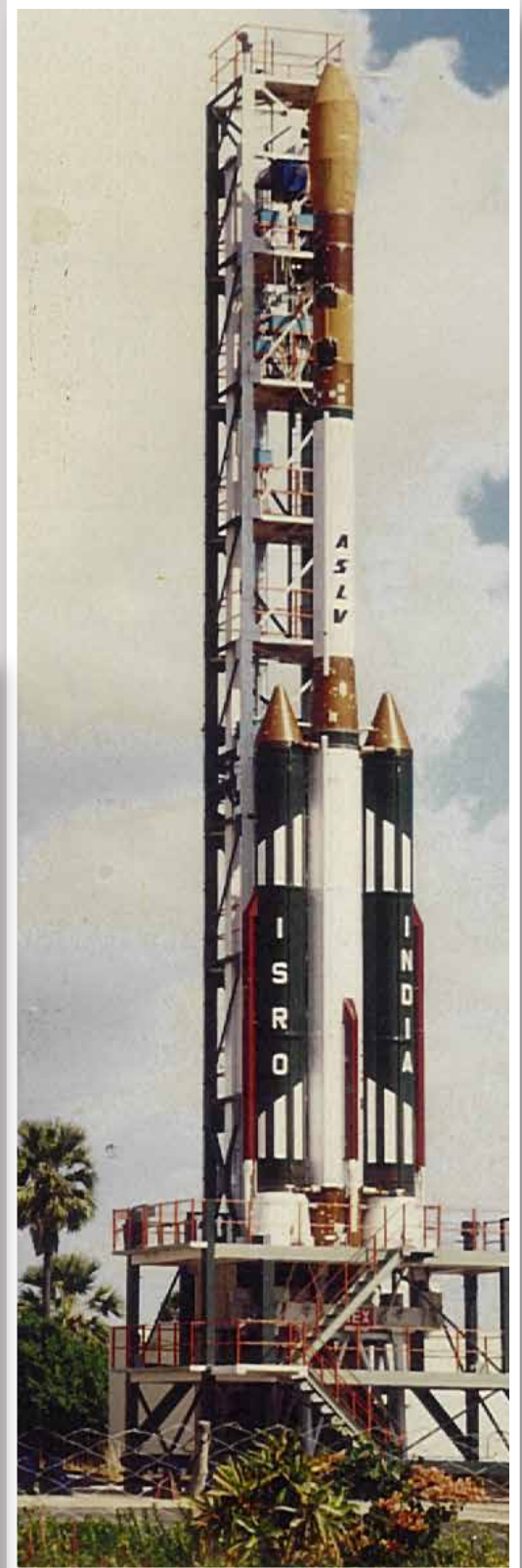
THE LAUNCH VEHICLE

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-D4 was the fourth 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

<b>Height</b>	24 m
<b>Lift-Off Mass</b>	40 t
<b>No of Stages</b>	5
<b>Payloads</b>	SROSS-C2



# SROSS - C 2

## THE SATELLITE

SROSS-C2 was an experimental satellite designed with a power handling capability of 45 W. It was successfully launched into an orbit of 430 x 600 km with an inclination of 46°. It carried a Gamma-Ray Burst (GRB) Experiment to measure the celestial Gamma Ray Bursts in the energy range of 20 Kev to 3000 Kev and a Retarded Potential Analyzer (RPA) experiment to study the characteristic features of the equatorial and low latitude Ionosphere. The GRB experiment on board SROSS-C2 was an improved version of the GRB payload flown successfully on the SROSS-C satellite. The improvements included enhancements of the on-board memory and a better measurement of the background spectra after a burst event. These improvements led to the discovery of twelve candidate events detected up to February 15, 1995, out of a total of 993 triggers. Majority of the electronic systems used microprocessor based design and hybrid microcircuits for miniaturization.

### SPECIFICATIONS

<b>Weight</b>	115 kg
<b>Power</b>	45 W
<b>Stabilization</b>	Spin-stabilized with a Magnetic Torquer and Magnetic Bias Control
<b>Type of Satellite</b>	Science & Exploration
<b>Payloads</b>	<ul style="list-style-type: none"><li>• Gamma Ray Burst (GRB)</li><li>• Retarding Potential Analyser (RPA)</li></ul>
<b>Mission Life</b>	6 months (nominal)

