

# PSLV-C10 Mission

## Commercial Satellite Launch

21 January, 2008

### THE MISSION

PSLV-C10 carrying on-board the TECSAR Satellite lifted-off from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota on January 21, 2008. TECSAR was a 295 kg weighing commercial payload, launched into an Elliptical Orbit with a perigee of 450 km and an apogee of 580 km, inclined at an angle of 41° to the Equator. This was the first flight of PSLV to launch a satellite into an Elliptical Orbit with medium inclination. This was the 25<sup>th</sup> satellite launch mission from SDSC, SHAR.

### PSLV - C10

#### THE LAUNCH VEHICLE

PSLV-C10 was the 2<sup>nd</sup> commercial launch of India's Polar Satellite Launch Vehicle. For this mission, PSLV-CA 'Core Alone' configuration had been chosen considering the orbit required for the payload and capability of the vehicle. In this configuration, PSLV did not have six strap-on motors that surround the first stage in its standard configuration.

In its 'Core-alone' configuration, the 44 m tall PSLV has a lift-off mass of 295 tonne. It is a four stage launch vehicle. PSLV's first stage is one of the largest solid propellant boosters in the world. Its second and fourth stages use liquid propellants. PSLV's bulbous payload fairing has a diameter of 3.2 m. The vehicle employs S-band telemetry and C-band transponders for enabling vehicle performance monitoring, tracking, range safety / flight safety and Preliminary Orbit Determination (POD). It also has sophisticated auxiliary systems like stage and payload fairing separation systems.



#### SPECIFICATIONS

<b>Height</b>	44 m
<b>Lift-Off Mass</b>	230 t
<b>No of Stages</b>	4
<b>Payloads</b>	TECSAR
<b>Inclination (deg)</b>	41°
<b>Apogee</b>	580 km
<b>Perigee</b>	450 km

