

# PSLV-C46 / RISAT-2B Mission

22 May, 2019

## THE MISSION

PSLV-C46 carrying on-board the RISAT-2B Satellite lifted-off from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota at 05:30 PM (IST) on May 22, 2019. About 15 minutes and 25 seconds after lift-off, the PSLV-C46 placed RISAT-2B into a Low Earth Orbit of 555 km at an inclination of 37° to the Equator. RISAT-2B is advanced Radar Imaging Earth Observation Satellite and it is intended to provide services in high-resolution spot imaging to places of interest in Agriculture, Forestry and Disaster Management domains.

The piggyback payload namely, Vikram Processor and low-cost MEMS based Inertial Navigation System (INS) was also carried on-board this mission.

## PSLV - C 4 6

### THE LAUNCH VEHICLE

In this mission, the 'Core-Alone' configuration of PSLV was flown without the use of solid strap-on motors. PSLV-C46 was the 48<sup>th</sup> flight of PSLV and the 14<sup>th</sup> flight in 'Core-Alone' version.

### SPECIFICATIONS

<b>Height</b>	44.4 m
<b>No of Stages</b>	4
<b>Payloads</b>	RISAT-2B
<b>Orbit Height</b>	555 km
<b>Inclination (deg)</b>	37°
<b>Launch Azimuth</b>	140°
<b>Launch Pad</b>	First Launch Pad (SDSC, SHAR)





# RISAT-2B

## THE SATELLITE

RISAT-2B is an advanced Radar Imaging Earth Observation Satellite with advanced technology of 3.6 m Radial Rib Antenna (RRA). The Antenna was folded and stowed during launch, and later, successfully unfurled and was deployed in orbit. Development of light weight structure, hinge mechanism, design of newer mesh, actuators etc, were some of the challenges involved in the realisation of this Antenna. All such key technological elements require very high level of expertise in handling space based antenna system, excellent workmanship and building redundancy apart from managing the deployment in-orbit.

This Antenna was realised indigenously by ISRO team in a record time of 13 months. Alternate import option would have taken about 3-4 years. Successful deployment of (RRA) in RISAT-2B establishes the combination of all skills mastered by ISRO indigenously.

The satellite is intended to provide services in high-resolution spot imaging to places of interest in Agriculture, Forestry and Disaster Management domains.



### SPECIFICATIONS

<b>Weight</b>	615 kg
<b>Altitude</b>	557 km
<b>Type of Satellite</b>	Earth Observation
<b>Payloads</b>	X-band Radar
<b>Mission Life</b>	5 Years

