

PSLV-C54 successfully places nine satellites in multiple orbits

Earth observation satellite EOS-06 and eight nanosatellites, including one for Bhutan and a few commercial entities, were part of the payload

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In one of its longest missions, the Indian Space Research Organisation (ISRO) successfully placed nine satellites, including an Earth Observation Satellite (EOS-06) in multiple orbits with the help of the space agency's Polar Satellite Launch Vehicle (PSLV-C54). The vehicle took off precisely at 11.56 a.m. on Saturday from the first launch pad (FLP) at the Satish Dhawan Space Centre (SDSC), SHAR.

The eight nano satellites include ISRO Nano Satellite-2 for Bhutan (INS-2B), Anand, Astrocast (four satellites), and two Thybolt satellites. Notably, EOS-06 is the Oceansat series' third-generation satellite. This is the 56th flight of the Polar Satellite Launch Vehicle (PSLV) and the 24th flight of the PSLV-XL version with 6 PSOM-XLs.

Collaborative mission
EOS-06 is envisaged to observe ocean colour data, sea surface temperature and wind vector data to use in oceanography, climatic and meteorological applications. The satellite also supports value added products such as potential fishing zone using chlorophyll, SST and wind speed, and land based geophysical parameters.

Satellites carried
9

Primary payload:
Earth Observation Satellite (Oceansat) EOS-06 (1,117 kg)

PASSENGER SATELLITES

- INS-2B is an India-Bhutan satellite (18.28 kg)
- Anand* is from Pixxel India Ltd. (16.51 kg)
- Thybolt* 1 and 2 from Dhruva Space Ltd. (1.45 kg)
- Astrocast* 1-4 from Spaceflight, U.S. (17.92 kg)

* commercial satellites

IN A FIRST

- Scientists used **two orbit change thrusters** in the rocket to change orbits
- After placing the **EOS-06 at 732 km**, the **passenger satellites were placed sequentially after lowering the altitude of the rocket to about 528 km**

Blazing a trail: PSLV-C54 lifting off from the Sriharikota spaceport. B.JOTHI RAMALINGAM

ISRO Chairman S. Somnath said that the mission is accomplished and all the satellites have been injected into their intended orbits. "For us, the India-Bhutan satellite is an important milestone in the history of collaboration of Indian and Bhutanese scientists."

A collaborative mission between India and Bhutan, the INS-2B satellite has two payloads namely NanoMx, developed by SAC, and APRS-Digipeater, which is jointly developed by DITT-Bhutan and URSC.

INDIA-BHUTAN TIES
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