

PSLV-C53 to launch DS-EO, 2 other co-passenger satellites on June 30

OUR BUREAU

Chennai, June 22

The Indian Space Research Organisation (ISRO) will undertake the PSLV-C53/DS-EO mission on June 30. The launch is scheduled at 1800 hrs from the second launch pad at Satish Dhawan Space Centre, Sriharikota.

The countdown of 25 hours leading to the launch begins at 1700 hrs on June 29, said a release from the space agency.

PSLV-C53 is the second dedicated commercial mission of NewSpace India Limited (NSIL), designed to orbit DS-EO satellite, along with two other co-passenger satellites, from ST Electronics, Singapore.

PSLV-C53 will carry three satellites. DS-EO, a 365 kg satellite, and NeuSAR, a 155 kg satellite, both belonging

to Singapore and built by Starec Initiative, Republic of Korea. The third is a 2.8 kg Scoob-1 of Nanyang Technological University (NTU), Singapore.

PSLV's 55th mission

This is the 55th mission of PSLV and 15th mission using the PSLV-Core Alone variant. It is the 16th PSLV launch from the second launch pad.

The mission proposes to demonstrate the utilisation of the spent upper stage of the launch vehicle, as a stabilised platform for scientific payloads subsequent to the separation of the satellites, said a release from ISRO.

A four-stage, 44.4 m tall PSLV-C53 has a lift-off mass of 228.433 t. It will inject DS-EO satellite into an orbit at an altitude of 570 km measured

from the equator. PSLV Orbital Experimental Module (POEM) DS-EO carries an electro-optic, multi-spectral payload, with 0.5 m resolution imaging capability. The POEM activity performs in-orbit scientific experiments using the spent PS4 stage as an orbital platform.

NGC system

It is the first time the PS4 stage will orbit the Earth as a stabilised platform. Attitude stabilisation is achieved using a dedicated NGC system.

POEM derives the power from the solar panels mounted around the PS4 tank and Li Ion battery. It navigates using four sun sensors, a magnetometer, gyros and NavIC. It carries dedicated control thrusters using Helium gas storage and is enabled with telecommand feature.