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DHRUVA SPACE'S TECH DEMONSTRATION PAYLOAD FUNCTIONING WELL

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The team of Dhruva Space with ISRO Chairman S. Somanath.

Hyderabad-based Dhruva Space has announced that its 'P30 Satellite Platform' launched as 'Launching Expeditions for Aspiring Payloads - Technology Demonstrator' (LEAD-PD) payload onboard ISRO's PSLV-C58 Orbital Experimental Module 3 (POEM-3) mission is functioning well.

The launch took place at 9.10 a.m. on January 1 from Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh. LEAP-TD mission featured a derivative of the Dhruva Space P-30 satellite platform integrated to ISRO's PSLV which enabled in-orbit scientific experiments using the spent PS4 stage as an orbital platform, said an official release on Wednesday.

A hosted payload service comprises a portion of a satellite, such as a sensor, instrument or a set of communications transponders that are owned by an entity other than the primary satellite operator. This operates independent of the main spacecraft, but shares the satellite's power supply, transponders, and in some cases, ground systems.

The current mission has validated the P-30 platform and its various subsystems in-orbit including an on-board computer, Ultra High Frequency (UHF) TT&C Module, Beacon in UHF, Attitude Control System with a Reaction Wheel from Comat, and Power Distribution Board.

The mission success was also confirmed by the way of reception of telemetry and beacon data at the ground station of Indian Institute of Space Science & Technology (IIST), Trivandrum, and through the data received from the POEM platform itself as well.

The space 'qualification' of LEAP-TD has paved the way for hosted payload solutions for space missions, signifying Dhruva Space's readiness to offer these services to the global market through its LEAP initiative. The first LEAP satellite mission (LEAP-1) has already been conceived and is slated to be launched soon.

"Our hosted payload offering enables reduced timelines, rapid access to space, shared operations, development and launch, cost savings, risk reduction and various levels of payload command and control through Dhruva our TT&C ground facilities. We are proud to be delivering this vital capability, and welcome a new era of hosted payload missions capability," said CEO Sanjay Nekkanti. COO Krishna Teja Penamakuru said the firm had worked diligently to

indigenously develop and test the P-30 nanosatellite technology.

PSLV's Orbital Experimental Module or POEM has standard interfaces and packages for power generation, telemetry, tele-command, stabilisation, orbit keeping and orbit manoeuvring and hence, can be used to design, develop and validate experimental payloads. IN-SPACe (Indian National Space Promotion and Authorisation Centre, in collaboration with ISRO, had announced the opportunity to host payload on POEM missions, the release added.