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ISRO TO CONDUCT TRUSTED WORKHORSE PSLV'S 60TH FLIGHT BY END OF DECEMBER

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Indian Space Research Organisation's (ISRO) Aditya-L1, India's maiden solar mission, on board PSLV-C57 lifts off from the launch pad at Satish Dhawan Space Centre, in Sriharikota, on Sept. 2, 2023. | Photo Credit: PTI

The Indian Space Research Organisation (ISRO), which is celebrating the 60th anniversary of the first sounding rocket launch from Thumba this week, is preparing for another 'big 60.'

The Polar Satellite Launch Vehicle (PSLV), often dubbed the "reliable workhorse" of the space agency given its sparkling success rate, is set to have its 60th flight soon.

ISRO is hoping to have the 60th PSLV launch by December end this year, according to S. Unnikrishnan Nair, Director of Vikram Sarabhai Space Centre (VSSC), the lead ISRO unit for launch vehicles at Thumba here.

This mission will have as payload the XPoSAT, short for X-ray Polarimeter Satellite. This, according to ISRO, is the country's "first dedicated polarimetry mission to study various dynamics of bright astronomical X-ray sources in extreme conditions." ISRO will employ a PSLV variant which uses two strap-on motors for the 60th flight.

A four-stage expendable launch vehicle, the PSLV stands 44.4 metres tall and is powered by two solid propellant and two liquid propellant stages. The PSLV had its first developmental flight — PSLV-D1 — 30 years ago on September 20, 1993, but it was unsuccessful.

The commercial launches began after two more developmental flights, both of which were successful. The PSLV has been used to launch several high-profile ISRO missions, including the Chandrayaan-1 moon mission, the Mangalyaan Mars Orbiter Mission, and the more recent Aditya-L1 solar probe. The PSLV-C37 mission is credited with placing 104 satellites in orbit. The 50th PSLV launch took place on December 11, 2019, with the PSLV-C48 mission. The PSLV-C57/Aditya-L1 mission on September 2, 2023, marked the 59th flight of the launch vehicle.

If ISRO had not avoided numbering a mission 'C13' (PSLV-C12 was followed by C14!)- the C57 mission in September would have been the 60th flight of the launch vehicle.

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