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Polarimetry mission set for Dec launch: Isro chief

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NEW DELHI: India's first dedicated polarimetry mission to study dynamics of bright astronomical X-ray sources in extreme conditions that could provide vital information on the nature and behaviour of celestial objects will be launched in December, the chairman of Indian Space Research Organisation (Isro) said on Tuesday.

"The satellite is built and kept ready, but we are expecting to launch it by December this year," Isro chief S Somanath said at an event organised by the Indian National Space Academy in Delhi.

HT reported last week on



S Somanath

plans of launching the XPoSat (X-ray Polarimeter Satellite) later this year. The Isro chairman said that the XPoSat was "ready for launch in December this year".

XPoSat is India's first and the world's second space mission to measure the polarisation of light.

Polarimetry is a tool that allows astronomers to infer information about celestial objects, from passing comets to distant galaxies.

The mission is unique and crucial because it will help scientists understand and measure emissions from various astronomical sources—black holes, neutron stars, active galactic nuclei and pulsar wind nebulae— that are otherwise challenging to study, Isro scientists said.

Such emissions are mostly tracked by studying the chemical make-up (using a spectroscope) and the time it takes them to travel a distance.

Speaking at a separate event, the foundation day of the Council of Scientific and Industrial

Research at the Bharat Mandapam, Somanath said that after the first test flight to demonstrate the abort capabilities for Gaganyaan in October, the unmanned mission for the orbital spacecraft can be expected by early 2024.

"Gaganyaan work is progressing well. We will have the launch of the first test flight vehicle of the Gaganyaan crew module for demonstrating the abort capabilities in October itself," he said.

The Gaganyaan project would demonstrate human space flight capability by launching a crew of three to an orbit of 400km above earth's surface for three days and bring them back safely by landing in Indian sea waters.