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## Aditya-L1 captures 1st X-ray glimpse of solar flares: Isro

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**NEW DELHI:** India's first space-based solar observatory - Aditya-L1 - has captured its first high-energy X-ray glimpse of solar flares nearly two months after its launch, the Indian Space Research Organisation (Isro) said on Tuesday.

The X-ray glimpse of the solar flare - massive explosions of electromagnetic radiation from the Sun's atmosphere - was captured using Aditya-L1's HELIOS payload even as the spacecraft is still on its way to its final destination around 1.5 million kilometres from Earth, Isro said. "HELIOS captures first high-energy X-ray glimpse of solar flares during its first observation period from approximately 12:00 to 22:00 UT on October 29, 2023. The High Energy L1 Orbiting X-ray Spectrometer (HELIOS) on board Aditya-L1 has recorded the impul-



**Isro launches solar mission Aditya-L1 on September 2.** ISRO

sive phase of solar flares. The recorded data is consistent with the X-ray light curves provided by NOAA's GOES," a statement from the space agency said.

US' National Oceanic and Atmospheric Administration (NOAA) conducts an integrated programme of research, technology development, and services to improve the understanding of Earth's atmosphere, oceans and inland waters, and to describe and predict changes occurring to

them. Its Geostationary Operational Environmental Satellites (GOES) is considered the among most sophisticated satellites deployed in providing advanced imagery and measurements to better understand Earth's weather, solar activity and space weather.

"Commissioned on October 27, HELIOS is currently undergoing fine-tuning of thresholds and calibration operations. The instrument is set to monitor the Sun's high-energy X-ray activity with fast timing and high-resolution spectra. HELIOS data enables researchers to study explosive energy release and electron acceleration during impulsive phases of solar flares," the statement added.

HELIOS, along with Solar Low Energy X-ray Spectrometer and (SoLEX), was designed to study the X-ray flares from the Sun over a wide X-ray energy range. They were developed at the UR Rao Satellite Centre in Bengaluru.