



Sun Images Captured by Aditya-L1

[Source: TH](#)

Recently, the [Indian Space Research Organisation \(ISRO\)](#) released images captured by its [Aditya-L1 solar mission](#) during a significant [solar \(geomagnetic\) storm](#) that occurred in May 2024.

- The remote sensing payloads **Solar UltraViolet Imaging Telescope (SUIT)** and the **Visible Emission Line Coronagraph (VELC)**, along with other payloads captured these images from the [Lagrange point](#) in space.
- These images will help in studying [solar flares](#), **energy distribution**, **sun spot**, understanding and predicting **space weather**, **monitoring solar activity and UV radiation** over a wide wavelength range, and also aid in the study of **long-term solar variations** and its **impact on the Earth's** environment.

[Aditya L1:](#)

- It is India's **first dedicated solar mission**, developed by the **ISRO**, in collaboration with international partners.
- It will **study the Sun and its corona and provide valuable data** and insights into the Sun's behaviour, which is crucial for **understanding the impact of solar activity** on the Earth's climate and space weather.

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ADITYA-L1 MISSION



ABOUT

- India's 1st scientific expedition to study the Sun
- To be placed at halo orbit around L1 Lagrange point
- Launch date - 02 Sept, 2023
- Time to reach - 4 months; Mission Life - 5 years

FIELDS OF STUDY:

- Sun's corona (Visible and Near-infrared rays), photosphere (soft and hard X-ray) and chromosphere (UV)
- Solar emissions, solar winds and flares and Coronal Mass Ejections (CMEs)
- Carry out round-the-clock imaging of Sun

SIGNIFICANCE

- Solar weather/environment affects the weather of entire solar system
- Solar events help understand space weather
- Tracking Earth-directed storms can help predict their impact

LAUNCH VEHICLE

- PSLV-C57

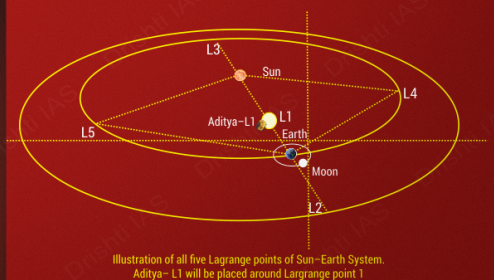
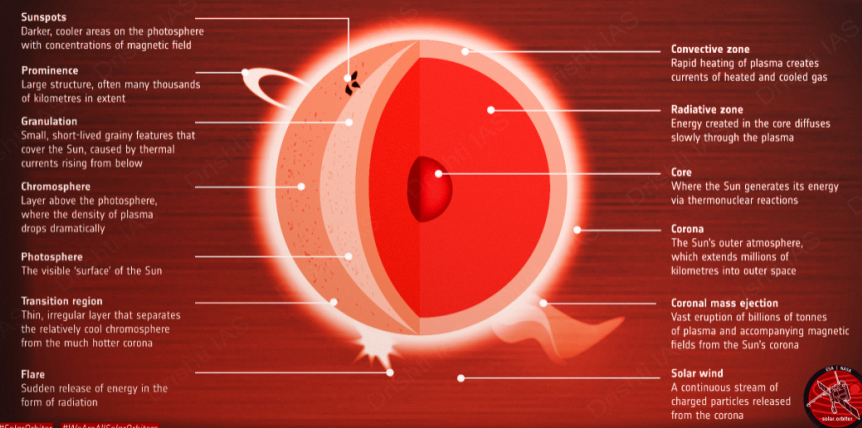
PAYLOADS:

- Visible Line Emission Coronagraph (VLEC) (primary payload)
- Solar Ultraviolet Imaging Telescope (SUIT)
- Solar Low Energy X-ray Spectrometer (SoLEXS)
- Aditya Solar wind Particle Experiment (ASPEX)
- High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)
- Plasma Analyser Package for Aditya (PAPA)
- Advanced Tri-axial High Resolution Digital Magnetometers

What are Lagrange Points?

- Named after Italian-French mathematician Joseph-Louis Lagrange
- Positions in space where gravitational forces of a two-body system (e.g. Sun & Earth) produce enhanced regions of attraction and repulsion
- Spacecrafts placed at L points consume lower fuel to remain in position
- L1 will provide ISRO continuous view of Sun without any occultation/ eclipses

ANATOMY OF THE SUN



Read more: [Solar Storms](#), [Indian Space Research Organisation \(ISRO\)](#)

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