



## Aditya L1 Mission

# ADITYA-L1 MISSION



### ABOUT

- India's 1<sup>st</sup> 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

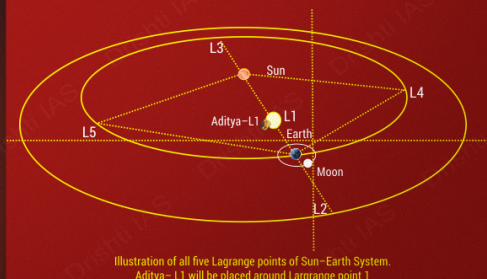
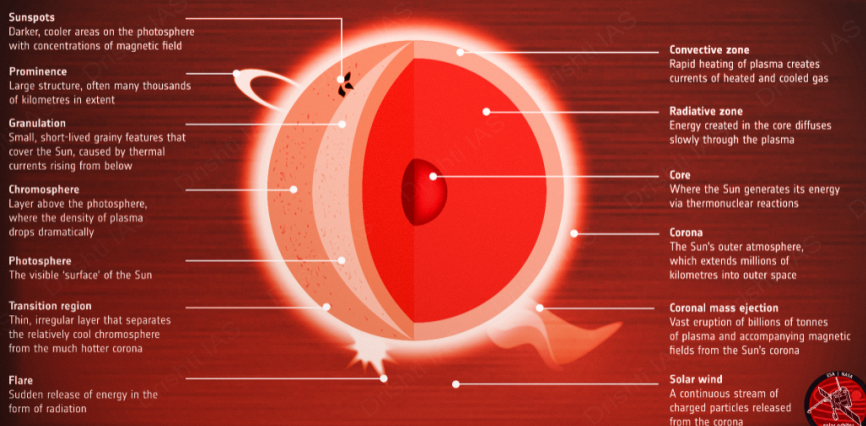
### PAYLOADS:

- 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



#SolarOrbiter #WeAreAllSolarOrbiters

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