

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

UNSTARRED QUESTION NO. 918

TO BE ANSWERED ON WEDNESDAY, FEBRUARY 07, 2024

ADITYA-L1 SATELLITE

918. SHRI VINOD KUMAR SONKAR:

SHRI BHOLA SINGH:

SHRI RAJA AMARESHWARA NAIK:

DR. SUKANTA MAJUMDAR:

Will the PRIME MINISTER be pleased to state:

- (a) whether India's Aditya-L1 satellite has reached its designated orbit on January 6th, 2024 where it will stay for the next five years;**
- (b) if so, the details thereof;**
- (c) whether the satellite will study the outer atmosphere of the Sun and gather data to understand the dynamics of the Sun and its effects on the Earth; and**
- (d) if so, the details thereof?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC
GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

(a) & (b)

Yes. On January 6th, 2024, Aditya-L1 satellite reached its designated orbit, which is a halo orbit around first Lagrange point 1 (L1) of the Sun-Earth system, situated approximately 1.5 million kilometer away from Earth along the Earth-Sun line. The nominal mission life is five years.

During the mission phase, the Aditya-L1 spacecraft will study the Sun from the halo orbit around the vantage point of the first Sun-Earth Lagrange point – L1. The data will be archived at the Indian Space Science Data Centre (ISSDC). In this orbit, the Aditya-L1 spacecraft will have continuous visibility of the Sun.

(c) & (d)

Yes. The Aditya-L1 spacecraft will study the outer atmosphere of the Sun (called the solar corona), as one of its scientific objectives. The data gathered from on-board instruments will contribute to the study of the outer atmosphere / layer of the Sun, as well as the solar emissions / eruptions, including the ones directed towards the Earth.

The different instruments on-board Aditya L1 are equipped to study the solar corona both with imaging and spectroscopic techniques; image the solar disc at ultra-violet wavelengths; study the solar wind ions and electrons, as well as the Interplanetary Magnetic Field (IMF) associated with them.

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