

ISRO's Mars Orbiter Mission (MOM)

September 28, 2021

In news- India's Mars Orbiter spacecraft has completed seven years in its orbit. It was made for mission life of six months, and the spacecraft has already covered three Martian years (one Martian year is about two earth years).

About Mars Orbiter Mission (MOM)-

- Mars Orbiter Mission was launched with the help of the **Polar Satellite Launch Vehicle (PSLV) C-25- XL** from Satish Dhawan Space Centre, Sriharikota on **November 5, 2013.**

Primary Objectives:

1. Study of Martian atmosphere
2. Study of Martian Surface Features
3. Morphology
4. Mineralogy.

5 different scientific payloads carried are:

1. Mars Color Camera (MCC)
2. Methane Sensor for Mars (MSM)
3. Lyman Alpha Photometer (LAP)
4. Thermal Infrared Imaging Spectrometer (TIS)
5. Mars Exospheric Neutral Composition Analyser (MENCA)

MOM achievements-

- India is the 1st country in the world to achieve Mars Orbit Insertion in the very 1st attempt.
- MOM is the cheapest Interplanetary Space Mission in the world, the cost of this mission was \$ 74 million, less than a famous Hollywood movie named Gravity.

- It is the 1st Interplanetary Space Mission of India.
- It is the 1st Indian spacecraft to survive the Van Allen Belt, by crossing it 39 times.
- Before ISRO only 3 other different Space agencies were able to successfully carry out space missions to Mars, ROSCOSMOS of Russia, NASA and European Space Agency (ESA).
- It won the Indira **Gandhi Prize for Peace, Disarmament, and Development** for its contribution to strengthening international cooperation for the peaceful use of outer space.