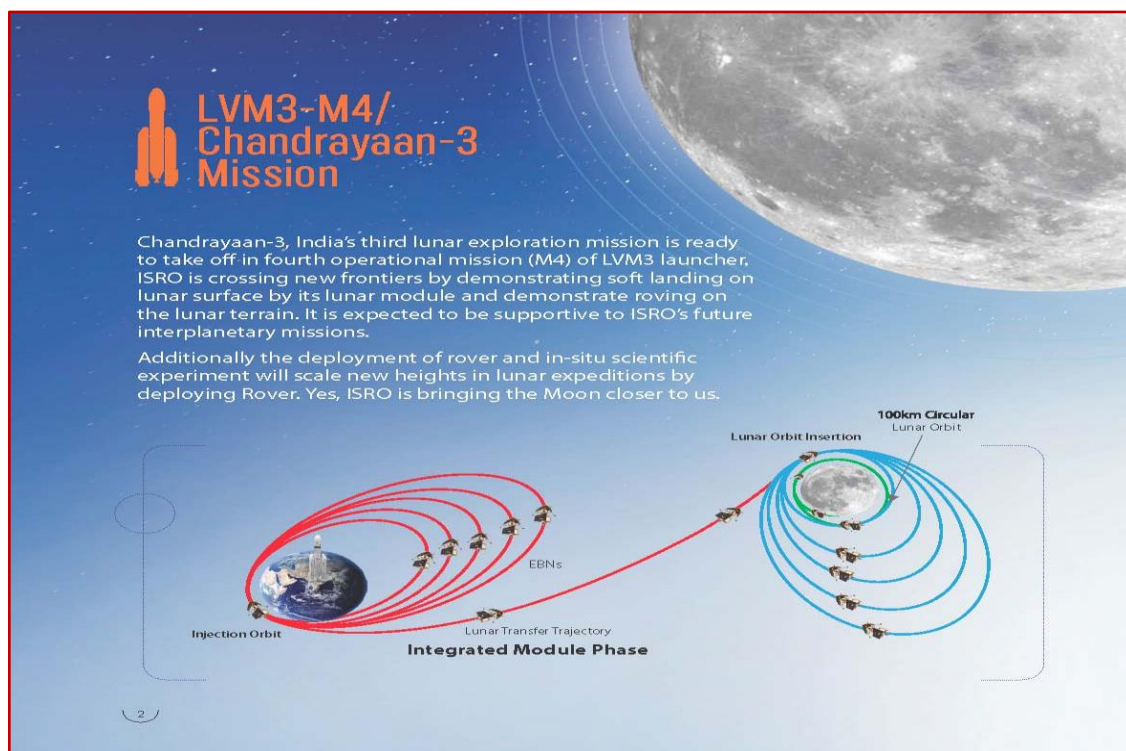


ISRO's Chandrayaan-3 Mission



Chandrayaan-3 is a follow-on mission to Chandrayaan-2 to demonstrate end-to-end capability in safe landing and roving on the lunar surface. It consists of Lander and Rover configuration. It will be launched by LVM3 from SDSC SHAR, Sriharikota. The propulsion module will carry

the lander and rover configuration till 100 km lunar orbit. The propulsion module has Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload to study the spectral and Polari metric measurements of Earth from the lunar orbit.



Chandrayaan-3 consists of an indigenous Lander module (LM), Propulsion module (PM) and a Rover with an objective of developing and demonstrating new technologies required for Inter planetary missions. The Lander will have

the capability to soft land at a specified lunar site and deploy the Rover which will carry out in-situ chemical analysis of the lunar surface during the course of its mobility. The Lander and the Rover have scientific payloads to carry out experiments on the lunar surface. The main function of PM is to carry the LM from launch vehicle injection till final lunar 100 km circular polar orbit and separate the LM from PM. Apart from this, the Propulsion Module also has one scientific payload as a value addition which will be operated post separation of Lander Module. The launcher identified for Chandrayaan-3 is LVM3 M4 which will place the integrated module in an Elliptic Parking Orbit (EPO) of size ~170 x 36500 km.

Mission sequence

The various mission phases are classified as follows:

- 1. Earth Centric Phase (Phase-1)**
 - Pre-launch Phase
 - Launch and Ascent Phase
 - Earth-bound Manoeuvre Phase
- 2. Lunar Transfer Phase (Phase-2)**
 - Transfer Trajectory Phase
- 3. Moon Centric Phase**
 - Lunar Orbit Insertion Phase (LOI)-(Phase-3)
 - Moon-bound Manoeuvre Phase (Phase-4)
 - PM and Lunar Module Separation (Phase-5)
 - De-boost Phase (Phase-6)
 - Pre-landing Phase (Phase-7)
 - Landing Phase (Phase-8)
 - Normal Phase for Lander and Rover (Phase-9)
 - Moon Centric Normal Orbit Phase (100 km circular orbit) - For Propulsion Module (Phase-10)

Source : ISRO, Department of Space