

What is Luna-25?

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About Luna-25

- It is also designated as the **Luna-Glob-Lander** which is a **Russian lunar lander mission**.
- It is targeted to the south polar region of the Moon.

- There are two primary **scientific objectives of the mission**: to study composition of the polar regolith, and to study the plasma and dust components of the lunar polar exosphere.
 - It will take off from the **Vostochny cosmodrome**.
 - **Lander structure**:
 - Luna 25's lander features a four-legged base **housing landing rockets and propellant tanks**.
 - An upper compartment contains **solar panels, communication equipment**, onboard computers, and scientific instruments.
 - **Payloads**:
 - It carries **eight science instruments**, including gamma-ray and neutron spectrometers, infrared spectrometers, mass spectrometers, and imaging systems.
 - **Landing Site**:
 - The primary landing site for Luna 25 is near the lunar south pole, with a reserve site **located southwest of the Manzini crater**.
 - **Mission duration**:
 - It is expected to operate on the lunar surface, **studying regolith and exospheric** dust and particles, for approximately one year.
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Q1) What is plasma?

Plasma is the fourth state of matter, distinct from solid, liquid, and gas. It consists of ionized gas particles that have been heated to extremely high temperatures, causing them to break apart into charged particles such as ions and electrons. Plasma is often referred to as the “ionized gas” state because of this high level of energy.

Source: Russia to launch first moon lander Luna-25 days ahead of Chandrayaan-3 landing

Source: <https://vajiramandravi.com/current-affairs/what-is-luna-25/>

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