



Peregrine Mission One

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Why in News?

The United States embarked on the **Peregrine Mission One**, its first attempt to land on the Moon in over 50 years. However, the landing attempt was seemingly doomed after the spacecraft developed a **“critical” fuel leak just hours after launch.**

- The mission is spearheaded by private space enterprises, **Astrobotic Technology and United Launch Alliance**, this collaborative mission, signals a shift towards leveraging private sector capabilities for space exploration.

What are the Key Highlights of Peregrine Mission One?

- The **Peregrine Lander** is expected to be one of the first American spacecraft to land on the Moon **since the [Apollo program](#).**
 - The Peregrine Lunar Lander, also known as Peregrine Mission One, is a lunar lander built by Astrobotic Technology.
- It is part of the [National Aeronautics and Space Administration \(NASA\)'s Commercial Lunar Payload Services \(CLPS\) programme](#), which aims to stimulate a broader lunar economy.
 - NASA is partnering with diverse American companies under the CLPS initiative to **transport science and technology payloads to the lunar surface.**
 - The CLPS contracts aim to facilitate lunar exploration, experimentation, and technology demonstrations in preparation for upcoming human missions.
- It is expected to touch down on a **mid-latitude region of the Moon called Sinus Viscositatis, or Bay of Stickiness.**
- This mission will also help prepare for [Artemis](#), the NASA-led programme to **return astronauts to the Moon** later this decade, in preparation for missions to Mars.
 - Artemis is NASA's ambitious initiative named after the **moon goddess in Greek mythology.** With a **mission to land humans on the Moon by 2024**, including the first woman and person of colour on the lunar surface.
 - The program envisions an **Artemis Base Camp on the lunar surface** and a strategic Gateway in lunar orbit.

Note

- Until now, a **soft landing on the Moon** has only been accomplished by a handful of national space agencies: the **Soviet Union was first, in 1966**, followed by the **United States**, which is still the **only country to put people on the Moon.** China has successfully landed three times over the past decade, while India with [Chandrayaan-3](#) is the most recent to achieve the feat on its second attempt, in 2023.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. What is the purpose of the US Space Agency's Themis Mission, which was recently in the news? (2008)

- (a) To study the possibility of life on Mars
- (b) To study the satellites of Saturn
- (c) To study the colourful display of high latitude skies
- (d) To build a space laboratory to study the stellar explosions

Ans: (c)

Q. Consider the following statements: (2016)

The Mangalyaan launched by ISRO

1. is also called the Mars Orbiter Mission
2. made India the second country to have a spacecraft orbit the Mars after USA
3. made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (c)