

Artemis lunar-exploration programme

November 19, 2022

In news– After 50 years of NASA's Apollo mission, NASA launched the next-generation Artemis mission to the moon that took off recently.

What is the Artemis mission?

- The **three-week Artemis I mission marks the first flight of the combined SLS rocket and the Orion capsule together**, built by Boeing Co and Lockheed Martin Corp, respectively, under contract with NASA.
- After decades with NASA focused on low-Earth orbit with space shuttles and the International Space Station, Artemis I also signals a major change in direction for the agency's post-Apollo human spaceflight program.
- **Named for the ancient Greek goddess of the hunt and Apollo's twin sister – Artemis aims to return astronauts to the moon's surface as early as 2025.**
- As part of the mission a rocket was attached with an empty crew capsule and sent into a wide orbit around the moon; it will return to Earth in December if everything goes well.
- **The Artemis I mission entails a 25-day Orion flight bringing the capsule to within 97 km** of the lunar surface before flying 64,400 km beyond the moon and looping back to Earth. The capsule is expected to splash down at sea on December 11.
- The space agency is **aiming to send four astronauts around the moon on the next flight, in 2024**, and land humans there as early as 2025.

- **The 322-foot (98-meter) Space Launch System (SLS) is the most powerful rocket ever built by NASA,** with more thrust than either the space shuttle or the mighty Saturn V that carried men to the moon.
- After coming within 80 miles (130 kilometers) of the moon, the Orion capsule will enter a far-flung orbit stretching about 40,000 miles (64,000 kilometers) beyond.
- NASA has hired Elon Musk's SpaceX to develop Starship, the 21st-century answer to Apollo's lunar lander.
- Starship will carry astronauts back and forth between Orion and the lunar surface, at least on the first trip in 2025.
- The plan is to station Starship and eventually other companies' landers in orbit around the moon, ready for use whenever new Orion crews pull up.