Artemis II Mission

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Why in News?

NASA's Artemis II crew has arrived at Kennedy Space Center as final preparations proceed for the first crewed lunar mission.

- **Mission name –** Artemis II.
- **Mission type –** Crewed lunar flyby (translunar loop and return).
- **Crew Size** – 4.
- **Launch vehicle –** Space Launch System (SLS).
- **Launched by -** National Aeronautics and Space Administration (NASA).
- **Launch Site -** Kennedy Space Center, Florida.
- **Crew capsule –** Orion.
- **Scheduled to launch on–**April 1, 2026.
- **Mission Duration –** 10 days.
- It will be the *first crewed mission* to the Moon's vicinity since Apollo 17 in 1972.
- **Primary objective –** Validate crewed operations, life-support, navigation, communications, and re-entry systems in deep space with humans aboard.
- **Technical and Operational Details**
- **Trajectory** - Orion will follow a "hybrid free-return trajectory," looping around the Moon and using Earth's gravity to pull it back home.
- **Distance -** The crew will travel roughly 4,700 miles (7,600 km) beyond the far side of the Moon, making them the humans who have ventured farthest into deep space.
- **Deep-space Testing -** Life-support and environmental control, radiation monitoring, deep-space navigation and communications, Orion heat-shield performance under crewed re-entry conditions.
- **Risk and contingency -** Abort modes, alternate splashdown sites, search and rescue coordination and medical evacuation protocols.

References

1. News on AIR | Aretmis II
2. Indian Express | Artemis II

