



# AERO TIMES

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STUDENT CO-ORDINATOR'S  
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## Major Aeronautical and Space Achievements – 2023



### Chandrayaan-3 Lunar South Pole Landing (ISRO)

India became the first nation to soft-land near the Moon's south pole in August 2023. The mission confirmed in-situ lunar science and rover mobility in extreme conditions.



### **LVM3 Successful Heavy-Lift Launches (ISRO)**

ISRO's LVM3 demonstrated reliable heavy-lift capability during multiple 2023 missions. It strengthened India's readiness for future human spaceflight.



### **Gaganyaan TV-D1 Crew Escape Test (ISRO)**

ISRO successfully tested the crew escape system for the Gaganyaan mission in 2023. This validated astronaut safety during ascent emergencies.



## SpaceX Record Falcon 9 Launches

SpaceX completed a record-breaking number of Falcon 9 launches in a single year. Reusable rockets dramatically reduced launch costs and turnaround time.



### Starship Integrated Flight Tests (SpaceX)

SpaceX conducted the first integrated flight tests of the Starship system in 2023. This marked a major step toward fully reusable super heavy-lift launch vehicles.



### OSIRIS-REx Asteroid Sample Return (NASA)

NASA successfully returned pristine samples from asteroid Bennu to Earth. This mission provided insights into early solar system materials.



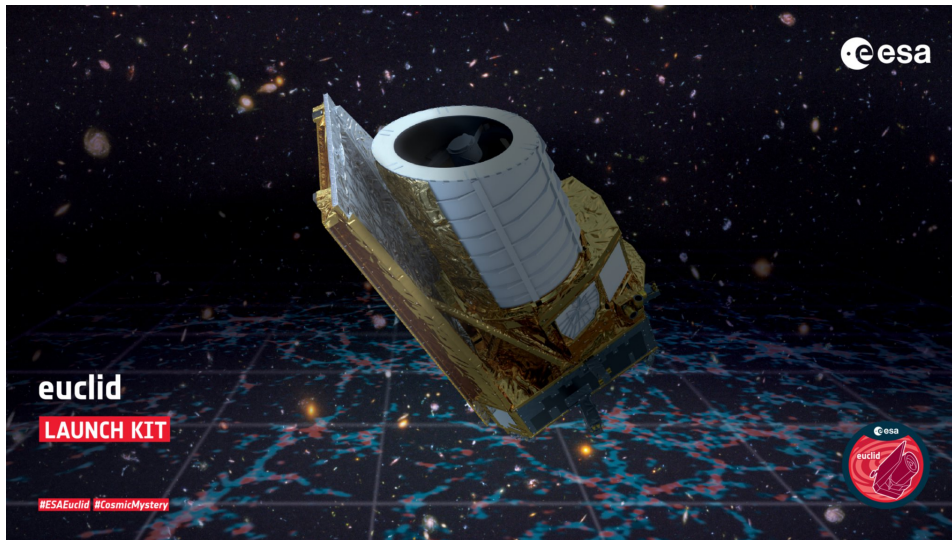
## NASA Psyche Mission Launch

NASA launched the Psyche spacecraft to study a metal-rich asteroid. The mission explores planetary core formation processes.



## ESA Ariane Program Transition Milestones

ESA completed critical 2023 milestones preparing Ariane 6 for inaugural flight. This ensured Europe's independent access to space.



### ESA Euclid Dark Universe Mission Launch

ESA launched Euclid to study dark matter and dark energy in 2023. It aims to map the large-scale structure of the universe.



### Aditya-L1 Solar Observatory Launch (ISRO)

ISRO launched Aditya-L1, India's first solar observatory, in 2023. It studies the Sun's corona, solar winds, and space weather.