

New crater on the Moon

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In news- Recently, a leftover piece of a spacecraft flying through space reportedly hit the surface of the moon creating a new crater that may be around 65 feet wide.

About recent impact –

- **The object which created the crater reportedly weighs around four tonnes and was racing towards the moon at a speed of 9,300 km an hour.**
- The piece of space junk was **earlier believed to be a SpaceX rocket, but was later said to be the third-stage booster of Chang'e 5-T1** – a lunar mission launched by the China National Space Administration in 2014.
- **This is the first recorded unintentional case of space junk hitting the moon.**
- The location of the impact – on the far side of the moon – has made it difficult for the crater to be pictured and studied immediately.
- **NASA's Lunar Reconnaissance Orbiter and ISRO's Chandrayaan-2 orbiter are two active lunar missions that are capable of observing the crater and picturing it.**

About Lunar craters-

- Lunar craters are impact craters on Earth's Moon.
- Both the earth and the moon have been hit by multiple objects like asteroids throughout their existence, but **craters on the moon are of a more permanent nature than those on earth.**
- Processes like erosion, tectonics, and volcanism keep the surface of the earth crater-free and remove traces of collisions that have happened in the past.
- **An absence of atmosphere means there is no wind system**

and no weather on the moon, and hence no cause for erosion of existing craters.

- Currently, the earth has less than 200 known craters while the moon has thousands.
- The word crater was adopted from the Greek word for “vessel” (a Greek vessel used to mix wine and water).
- Galileo built his first telescope in late 1609, and turned it to the Moon for the first time on November 30, 1609.
- He discovered that, contrary to general opinion at that time, the Moon was not a perfect sphere, but had both mountains and cup-like depressions.
- These were **named craters by Johann Hieronymus Schröter (1791)**, extending its previous use with volcanoes