



2020 CD3: Mini-moon

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- In Arizona (USA), the astronomers of the **National Aeronautics and Space Administration (NASA)-funded Catalina Sky Survey (CSS)** have observed a small object orbiting Earth. It is actually an **asteroid** with a **diameter of about 1.9-3.5 m.**
- It has been named **2020 CD3**. It is also called “**mini-moon**” or the planet’s “**second moon**”. It is orbiting at a distance farther from Earth.

Unlike earth’s permanent Moon, the mini-moon is **temporary.**

- When an asteroid’s orbit crosses Earth’s orbit, it can sometimes be captured into the latter orbit. Such an asteroid is called a **Temporarily Captured Object (TCO)**.
 - The **orbit of such objects is unstable.**
 - They have to contend with the gravitational influence of the existing permanent natural satellite (Moon in earth’s case) as well as that of the Sun.
 - Once caught in a planet’s orbit, such objects usually remain for a few years before they break free and go into an independent orbit around the Sun.
- According to the researchers, 2020 CD3 was captured into Earth’s orbit over three years ago. CSS previously discovered **2006 RH120**, which orbited Earth for some time in 2006 and escaped its orbit in 2007.

Catalina Sky Survey

- It is a **NASA funded project to discover and track near-Earth objects (NEOs)**. It is based in **Arizona** in the United States of America.
- NEOs are **asteroids or comets** with sizes ranging from metres to tens of kilometres that orbit the Sun and whose orbits come close to that of Earth’s.

Source: IE