

# 2020 CD3, a mini-moon

April 25, 2020

**Context:** Astronomers have observed a small object orbiting Earth, which they have dubbed a “mini-moon” or the planet’s “second moon”

- It is actually an asteroid, about the size of a car;
- Its diameter is about 1.9-3.5 m.
- It is temporary; it will eventually break free of Earth’s orbit and go off on its own way.
- Discovered by NASA-funded Catalina Sky Survey (CSS)
- 2020 CD3 was captured into Earth’s orbit over three years ago.
- For CSS, it is only the second such discovery. It previously discovered 2006 RH120, which orbited Earth for some time that year, before it escaped in 2007
- 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 our permanent Moon as well as that of the Sun. Once caught in Earth’s orbit, such objects usually remain for a few years before they break free and go into independent orbit around the Sun.
- 2020 CD3 has been flung out yet again and is back on a journey to enter an orbit around the sun