2014 UN271

June 23, 2021

In news- Astronomers have discovered a new object, bigger than a comet, on the outskirts of the Solar System and is coming near us.

Key updates-

- The object is likely to make a close pass by the Sun, **bringing it into Saturn's orbit in 2031.**
- The object was observed in data from the Dark Energy Survey conducted between 2014 and 2018.
- Estimated to be between 100 to 370 kilometres in width, the object is bigger than the normal specification of a comet and is **likely to be a dwarf planet.**
- When first observed in 2014, the mega comet was about 29 Astronomical Units (AU) away from the Sun.
- Since then, the 2014 UN271 has travelled nearly 7 AU and is now nearly 22 AU away from the Sun.
- This distance brings it closer to us than Neptune.
- At its closest approach to planets in our Solar System, it is expected to pass by just 10.9 AU of the Sun, almost reaching the orbit of Saturn.
- The massive orbit of this mega comet extends between the inner solar system and the Oort cloud on the boundary of interstellar space spanning around 6,12,190 years.
- Interstellar space is the region beyond the heliosphere where the Sun's influence wanes and solar winds slow down.
- Astronomers expect that before it reaches Saturn and gets closer and closer to the Sun, the **object will develop the typical characteristics of a comet that includes a tail, and the coma** formed as the material on the surface evaporates from the heat and radiation of the Sun.
- In 2017, a cigar-shaped object named **'Oumuamua**', which

means “visitor from afar arriving first” in Hawaiian, was the first visitor from interstellar space to be detected by Earth.