

Asteroids passing near Earth

January 7, 2021

In news

Recently, NASA has cautioned about six asteroids, including two which are as big as the Eiffel Tower to pass near the earth

What are asteroids?

- Asteroids are small, rocky objects that orbit the Sun. Although asteroids orbit the Sun like planets, they are much smaller than planets.
- There are lots of asteroids in our solar system. Most of them live in the main asteroid belt a region between the orbits of Mars and Jupiter.

Origin of Asteroids

- Asteroids are leftovers from the formation of our solar system about 4.6 billion years ago when a big cloud of gas and dust collapsed.
- After this phenomena, most of the material fell to the center of the cloud and formed the sun.
- Some of the condensing dust in the cloud became planets. The objects in the asteroid belt never had the chance to be incorporated into planets. T
- hey are leftovers from that time long ago when planets formed. As of now the main asteroid belt lies between mars and Jupiter.
- Objects in the belt are divided into eight subgroups named after the main asteroids in each group

Key updates on Asteroids that are approaching earth

- **2021 AC:** It is the first one of the asteroids. It has already passed the earth just in the beginning of the year. It has an average diameter of 73.5 metres and

moved at a speed of 50,652 kmph

- **2016 C0247:** It is the second asteroid to pass. It has an average diameter of 340 metres. It went past Earth soon after the 2021 AC at a speed of 60,228 kmph. It was 7.4 million km away from our planet.
- **2021 AJ:** It is the smallest of the six asteroids which are not more than 20 metres in diameter will go past the planet in the evening (5 PM IST approx).
- **2018 KP1:** Almost two hours later, the 32-metre 2018 KP1 will follow which is can be 41 metres in diameter and will be 3.1 million km away from Earth at a speed of 15,948 kmph.
- **2021 AU:** It will be just 1.42 million kms away from Earth. The estimated diameter is around 60 metres
- **2008 AF4:** It is the last one and the largest to approach the earth. It will go past Earth around 2:30 AM on January 7.
 - It is nearly 500 metres in diameter and if it was to hit Earth, its impact would be the equivalent of the largest nuclear bombs (but is 15 million km away from Earth).
 - It is travelling at a speed of 39,654 kmph.