Asteroids missed us–comets next

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Did you see asteroid 2012 DA14 last week? I think I did. It was quite a news event.

Combining the very close pass of DA14 with the explosion of a possible asteroid over Siberia injuring more than 1,000 people the day before made for some real headlines.

Even from the heavily light-polluted skies of Denver I was able to locate the Big Dipper. Using the planetarium software on my computer I was able to locate just where D14 would be and when.

Using binoculars I was able to examine the area and there was a tiny spot of light where the asteroid was supposed to be.

Now, down to business. In the coming months there will be two comets that will make a pass through the inner solar system to grace our skies. One in March and the other in November.

As with most things like this, just after their discovery, astronomers started making predictions as to just how bright they think the comets will be–a lesson I thought they would have learned with the fiasco of Comet Kohoutek several years ago.

With both comets being “discovered” so far out in the solar system thoughts began to range toward just how bright they would be.

However, now the words, “might,” “perhaps,” “could,” and “may” are starting to spring up when discussions of the comets appear in internet postings.

For our discussion about comets, Astronomy Class 101 will now come to order.

Comets are basically just icy, frozen clumps of dirt, water, and gas often described as “dirty snowballs.”

There are two possible areas of origin for them.

The first is a spherical cloud of icy planetesimals that is located nearly a light-year from the Sun (you do remember that a light-year is almost six trillion miles).

It is called the “Oort Cloud” after Dutch astronomer Jan Oort who first theorized it in 1950.

This sphere surrounds the entire solar system and is thought to be the place where long period comets–those with orbit length in the hundreds if not thousands of years.

The other possible location is a flat, disc-like belt of similar icy bodies that is roughly parallel with the galactic plane called the Kuiper Belt. It was proposed by astronomer Gerald Kuiper in 1951.

The Kuiper belt is thought to be the origin of short-period comets like Haley’s Comet. It is also the area where the former planet Pluto resides as well as where the other dwarf planets are located.

Not much is known about either the Oort Cloud or the Kuiper Belt which is why astronomers are eagerly awaiting the arrival of the New Horizons space craft on its way to examine Pluto then beyond into the Kuiper Belt.

SKY WATCH: Full moon, Monday, Feb. 25. Tonight, about an hour after local sunset the bright planet Jupiter can be found just to the left of the tiny open star cluster Pleiades located almost overhead. The pair are just above Aldebaran, the brightest star of Taurus, the Bull. Use binoculars to examine the Pleiades cluster as well as the Hyades star cluster–the “V” shaped face or horns of the bull. This week is your last chance for a while to catch a glimpse of tiny Mercury just above the western horizon after sunset.

NEXT WEEK: Astronomy 101 class Part II, the difference between comets, asteroids, and meteors.