

AUGUST 2009 ASTRONOMY
From the Trackman Planetarium at Joliet Junior College.

August brings two good things to the amateur astronomer - shorter evenings and the Perseids Meteor Shower.

By the end of August, the sun is setting at 7:25 pm which is not good for golfing but it gives us stargazers an extra hour or two of viewing each evening. Meanwhile the Perseids meteor shower on August 12th is one of the three best meteor showers of the year. The other two are the Leonids in November (cold viewing) and the Quadrantids in January (darn cold viewing). The Perseids meteors are remains from the tail of Comet Swift-Tuttle. As the earth orbits through the tail's rocky debris, the small rocks become meteors that seem to radiate from the sky near the constellation of Perseus. Perseus rises in the northeast at about 10:15 pm. Unfortunately, there is a last quarter moon throughout the night of August 12th/13th.

Jupiter will be at its closest to the earth on August 14th - 373,700,000 miles away. Look at Jupiter with a strong pair of binoculars and you will see the four Galilean moons, named after Galileo, who discovered them. In fact, if you look about 12:37 am on August 7th, you will see the moon named Io (eye-o) pass directly in front of the moon Europa. Jupiter is the only planet easily visible in August's night sky. Jupiter and the moon will be only four degrees apart when they rise at 9:00 pm on August 6th.

Most of you probably read about the comet strike on Jupiter last month. The scar it left in the clouds is getting larger and might be visible in smaller telescopes soon. This is not the first major comet strike on Jupiter. On July 22, 1994 the fragments of Comet Shoemaker-Levy machine-gunned into the Southern Hemisphere of Jupiter, leaving a series of large holes in the clouds. Here on earth, on June 30, 1908 parts of a comet (possibly Comet Elcke) exploded over Siberia. Trees were flattened for over 100 miles and a large booming sound could be heard over 300 miles from the explosion. Google Earth "Lake Checko Siberia" to see the area the comet hit. Lake Checko is thought by some scientists to be a crater dug by the comet.

The full moon is on August 5th. NASA has a spacecraft orbiting the moon and sending back information about the moon's surface as we search for a site for the permanently manned outpost we hope to begin constructing in 2020. Meanwhile the LCROSS spacecraft is orbiting back from the moon and around the earth, after which it will return to the moon and impact the moon's surface with enough speed to blow a hole in the surface material. Hopefully the impact will also blow out some water ice that is hidden in the shadows of the craters. The impact is scheduled for October 27th.

The sun starts the month of August in the Constellation of Cancer. On August 10th it moves into Leo where it remains for the rest of the month.

If you look low in the southern sky about nine in the evening, you will see one of the easier to find constellations - Sagittarius. Sagittarius is supposed to be a man on a

horse shooting an arrow, but just about everybody calls it the teapot. It is very easy to make out the teapot with the spout going to the west and the handle to the east. The Milky Way crosses the sky from between the stars of the summer triangle - Vega, Deneb and Altair - down past the western edge of Sagittarius. The center of our galaxy is right at the end of the Teapot's spout. One of the reasons the "sky is falling" legion says the earth will end on December 21, 2012 is because the sun will be right between us and this center of the galaxy on that day. They are right; the sun will be in Sagittarius on December 21, 2012 - just as it has been on every December 21st for five billion years!

In the mid-evening the constellation of Pegasus is in the southeastern sky. Pegasus is known for the big square it presents in the sky. If you look above and slightly to the left of the big square with binoculars, you should be able to find the Andromeda Galaxy, the closest galaxy to the earth. The Andromeda Galaxy is 2.25 million light years away from us (That's 13 followed by 18 zeros - miles!) and it is the farthest we can see with the naked eye. (It can be seen without binoculars in very dark skies.)

We kick off the new season at the planetarium on September 9th at 7:30 pm with a show on the "Skies of September". We have some new and interesting shows this season. The schedule will be posted on our website by the end of August.

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