

**JUNE 2008 ASTRONOMY**  
*From the Trackman Planetarium at Joliet Junior College.*  
*Art Maurer, Director*

You are receiving the June Newsletter a couple of days early so we can remind you about our final children's show of the season on Thursday, May 29th. The show is about the summer sky and the things you can look for with your eyes or binoculars. The show will probably run about ninety minutes and guests will receive maps of the summer sky along with lists of dates of special events.

The planetarium will be open during the summer for private shows (no charge) for scout groups, libraries, summer camps, etc., but we will have to schedule around our planetarium chamber upgrades. We are installing new chairs, new carpeting and new computer software over the summer. We will also be painting.

Mars and Saturn are still the dominant planets in the early evening sky. Mars has orbited further to the east and is now about one hand's width to the west of the Saturn and Regulas combination - an easy combination to find. They all appear as bright objects high in the western sky after dark. On June 8th, the moon will be next to Saturn and Regulas. By the end of June, Jupiter will be rising around nine o'clock.

The summer solstice - first day of summer - is on June 20th. On that day, the sun crosses at the highest point in the southern sky (72 degrees) and at the top of the loop called the ecliptic. The ecliptic is an imaginary loop that goes from 23 degrees above the equator (Tropic of Cancer) to 23 degrees below the equator (Tropic of Capricorn). The sun is always above the ecliptic. The ecliptic is a result of the earth's tilt combined with the earth's orbiting the sun.

Earliest sunrise this summer is on June 16th and latest sunset is on June 30th. The full moon is on June 18th. This full moon is known as the Strawberry or the Rose Moon.

If you look to the northeast after the middle of the month, you will see three very bright stars that make up the summer triangle. They are Vega, Deneb, and Altair. The Milky Way is in the background behind Deneb and Altair and to the east of Vega.

The International Space Station crosses the evening sky through June 9th. To get a list of everything flying over your house, go to: [Spaceweather.com/flybys/](http://Spaceweather.com/flybys/).

Some trivia. You are familiar with the standard classroom globe that is 12 inches in diameter. Let's suppose the solar system was on the same scale as the globe:

The moon would be 3 inches wide and 30 feet away.

The sun would be 109 feet wide and 2 miles away.

The earth's orbit would be 14 miles in circumference around the sun.

Pluto would be 2 inches wide and 68 miles away.

The nearest star would be 966,000 miles from our 12-inch wide earth.

Light would travel at 23 feet per second.

And finally, our Milky Way Galaxy would be 12.6 BILLION miles wide!

Pluto will make its closest approach to the earth for the year on June 19th when it will be 2,835,000,000 miles away. Contrary to a lot of thinking, Pluto is still a planet - it is just a dwarf planet. Our sun is a dwarf star and yet it is still very much a star. I explain to the children visiting the planetarium that Pluto is a planet but it has been put on the "B" team of planets.

The controversial decision to send Pluto to the minors was made after the discovery of Eris, a planet slightly larger than Pluto and 6.3 billion miles from the sun. Because of this new planet, the proposal to start a list of "dwarf" planets was passed at the International Astronomical Union meeting. So Pluto, Eris, and an asteroid named Ceres, were sent down to the newly formed minor planet team.

Ironically, NASA has a spaceship (New Horizons) headed to Pluto. New Horizons was launched in January of 2006 and will arrive at Pluto in July of 2015. Meanwhile, we have also found two new moons orbiting the distant planet. They have been named Nix and Hydra.

On May 25th, NASA landed the spacecraft "Phoenix" in the northern polar region of Mars. Phoenix will remain where it landed and dig into the frozen surface to find traces of life that may have existed in the frozen water around Mars, north pole.

June 30th is the one-hundredth anniversary of the earths' last big "hit" from outer space. On that date, either a comet or an asteroid exploded about 5 miles over Tunguska, now known as Krasnoyarski Krai in Siberia. The resulting explosion was the equivalent of a 30 megaton hydrogen bomb. The blast was heard over 700 miles away and trees were destroyed for 120 square miles. No death count was ever compiled.

The Trackman Planetarium at Joliet Junior College  
E-Mail: [amaurer@jjc.edu](mailto:amaurer@jjc.edu)