

MARCH 2009 ASTRONOMY

From the Trackman Planetarium at Joliet Junior College.

The first day of Spring, the Vernal Equinox, is March 20th. That is the day the sun appears to cross the celestial equator and starts shining on the Northern Hemisphere. The celestial equator is an imaginary line through the sky that is directly above the terrestrial equator here on earth. At our point on earth, the celestial equator is about 48 degrees above the horizon when facing south, or very close to half way to the zenith. The day is called the equinox because night and day should be equal. Because of the earth's speed in its orbit, the equal day and night is on the 17th and the 18th. As anyone who has to drive east in the morning or west in the evening can attest, the sun rises directly to the east and sets directly to the west on the equinox.

There is an old axiom that you can stand an egg on its end on the equinox. This is true. But you can stand an egg on its end any other day in the year. More interesting is that we receive as much warmth from the sun, and for just as long, on March 20 as we do in mid-September. The ground and water are still frozen and that's what keeps it so cold.

On March 8th we change the time. That's the earliest the time change can occur. If we didn't make this change, the sun would rise at 4:17 AM in mid-June and daybreak would be at 3:15 AM! Unfortunately, sunrise is pushed back until after seven in the morning for a couple of weeks. And, because daylight lasts longer into the evening, astronomy viewing doesn't start until almost 8 PM.

Comet Lulin will be visible with binoculars during the first week in March. Go to Heavens-above.com to get a star map showing Lulin's location. It is the first comet we have been able to see in seventeen months.

Venus is still very bright in the western sky after sunset, but it is orbiting toward the sun and we'll lose it in the sunlight before the end of the month.

Daylight Savings Time has pushed all the planet rising times back one hour so Saturn isn't rising until after 8:00 PM. Look for Saturn directly above the moon on March 10th. Unfortunately, we won't be seeing much of Saturn's rings until next year. Saturn will be at its closest for 2009 on March 8th when it will be 780,600,000 miles from earth. Take a jet and you'll be there in 162 years.

Jupiter and Mars rise before the sun in the morning. After we change the time, many of us will once again be up before the sun in the morning! Jupiter is very bright and easy to spot. Mars is a little closer to the sun and is not bright enough to easily spot in the morning twilight. Both Jupiter and Mars appear to be moving to the west. Jupiter will be in the evening sky later in the year and Mars will be in the evening sky next fall.

Orion is the major constellation in the sky during March. If you haven't taken a look at the Orion Nebula - a cloud below the belt - get out your binoculars and view the cloud that is new stars being formed. If you follow Orion's belt down to the left, you will find the brightest star in the night sky - Sirius.

The two bright stars to the left and above Orion are Castor and Pollux. They mark the heads of the Gemini twins. The very bright star above Orion is Capella in the constellation of Auriga. The Big Dipper is high in the eastern sky on March evenings. It is one of the easiest star groups to find. The Big Dipper is actually an asterism in the constellation of Ursa Major or the Big Bear. The two stars in the outer side of the dipper are the "pointer stars" and you can follow them up to Polaris and the Little Dipper. Polaris is easy to spot but only three of the stars in the Little Dipper are easy to see. Under the Big Dipper you can find a backward question mark that is sometimes called "the sickle". This group of stars is the head of Leo the Lion. The bright star at the bottom of the sickle is Regulus, the star we highlighted during our Christmas show.

If the weather is cooperative, we will have a telescope set up before the 2:30 PM show on Sunday, March 1st so we can view Venus. The show is a young people's show on the solar system.

We are putting together some new shows for the planetarium. One show that is close to complete is titled, "The World Will Not End on December 21, 2012". If you haven't yet heard of this forecast, you will in the next year or two. The whole idea is poppycock and this show will demonstrate why.

I am also putting together a show on Native American astronomy. This will be our planetarium show on April 9th. If any of you have information you would like to share about Native Americans and their astronomy, please e-mail it to me at amaurer@jjc.edu.

We still haven't seen a real beginning to the new sunspot cycle. If nothing big starts to show in the next few months, speculation on what is happening to the sun will begin.

Art Maurer - Director
The Trackman Planetarium at Joliet Junior College
amaurer@jjc.edu