

JULY 2010 ASTRONOMY

From the Trackman Planetarium at Joliet Junior College



On July 6th, we will be at the farthest from the sun in our annual orbit. The point farthest from the sun is called aphelion and we will be 94.5 million miles from our star. Next January 3rd we will be at our closest - 91.4 million miles from the sun. (perihelion)



Venus, Mars and Saturn are still the visible planets in the evening sky. Venus is climbing higher in the western sky after every sunset. It will continue to climb higher and set later each evening until August 19th when its orbit will bring it back toward the sun. Venus is the third brightest object in the sky after the sun and moon and very easy to see in the evening sky. Mars is now 176 million miles from earth and we continue to pull away from Mars as we orbit faster than Mars around the sun. Mars is slightly west of Venus and appears as a star with a red tint. Saturn is to the west of Mars in the evening sky and appears as a star with a yellow tint. Like Mars, we have passed Saturn in our faster orbit and we are now moving away from the ringed planet. On the evening of July 15th, Mars and Saturn will be above the crescent moon. At the end of July, Jupiter will be rising at 10:30 pm.



On July 31st, Venus, Mars and Saturn will be in a tight group in the western sky. The trio will set two hours after sunset. Between the trio of easily seen planets and the sun will be the elusive Mercury. Mercury is too close to the sun to be seen.



The Big Dipper is still high in the evening sky. Follow the stars in the handle down to the very bright star, Arcturus in the constellation of Bootes. To the west of Arcturus is the constellation of Coma Berenices - The Hair of Bernice. This is a nice cluster of stars and a good binocular object. To the east of Bootes are three stars that make up the summer triangle. They are Vega, Deneb, and Altair. Vega is in Lyra and the closest to Bootes, Deneb is in Cygnus and further east and above Vega, and Altair is in Aquila and to the east and lower than Vega. The Milky Way runs through Cygnus and Aquila. If you live in fairly dark skies, you can see the Milky Way with your naked eye. If the lights in your area are bright, look at the area between the Summer Triangle with binoculars to find the stars of the Milky Way. The Milky Way continues down toward the horizon where it thickens as it meets Sagittarius. Sagittarius is more easily recognized as the "Teapot" than the Archer it is supposed to represent.



The sun starts the month in Gemini and on July 20th, it crosses into Cancer. The full moon in July is on the 25th.



The Japanese have successfully launched a satellite that uses the sun's photons as a propellant. The "sail" on the satellite is 65 feet across. The sail material is only .0003 inches thick and is kept extended by the rotation of the spacecraft. The spacecraft receives electricity from solar cells imbedded in the sail.



It has been 37 years and 6 months since Eugene Cernan climbed back into a Lunar Module and left the moon. He was the last person to have walked on the moon. We were hoping to go back to the moon within the next 10 years, but the economy has

resulted in cancellation of the project. Hopefully times will eventually change, the program will be reinstated, and the first woman on the moon will be an American.

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The 2010 - 2011 schedule for Public Shows at the Trackman Planetarium is being printed and should be available online in August. I am happy and grateful to say that I have been kept on as the Planetarium Director. We are still taking reservations for private shows for schools, day camps, scout groups, etc. To make a reservation or for information, call Christine McKittrick at 815-280-NOVA between 7:00 am and 12:30 pm on Monday through Thursday.

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