

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

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Summertime, and the living is easy. So easy in fact, that the earth slows down in its orbit during the summer. Because we are over three million miles *farther* from the sun on July 3rd (aphelion -or farthest from the sun) than on January 4th (perihelion - or closest to the sun), the earth slows down by 1,100 miles per hour in its orbit around the sun.

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Saturn is still in the western sky after sunset, but the earth is moving farther away from the ringed planet and it will soon be lost in the sun's glare. Meanwhile, Jupiter will be rising at ten o'clock by mid-month as the earth's orbit brings us closer to the giant planet. The planets and stars rise approximately four minutes earlier each day, so Jupiter will be an evening object by month's end.

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The full moon is on July 7th and if you're out before it sets at 5:20 in the morning, you will notice a slight discoloring on one edge of the moon. We will have a penumbral eclipse of the moon, which means that part of the moon will be in the outer shadow of the earth - very difficult to see.

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Venus and Mars are in the early morning sky - visible anytime after 2 AM. They appear close together - about one hand's width apart at midmonth.

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The three bright stars that are high in the eastern sky are the Summer Triangle of Vega, Deneb, and Altair. If you look between them with binoculars, you will see the stars of the Milky Way. The Milky Way extends through the Triangle down to the horizon and the constellation of Sagittarius. Sagittarius will be visible at the end of the month and it looks like a teapot.

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Near the southern horizon at mid-month is Scorpio. Scorpio is fairly easy to find with its two large claws reaching upward. In Scorpio's tail is Antares, a bright red star that is about to go super nova. Antares is the largest star we can see with the naked eye. It is 2,700 times the width of our sun. Look just to the right of Antares with your binoculars and see if you can find the globular cluster.

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The Big Dipper is overhead and to the west in the evening sky and below it is the backward question mark that is the head of Leo the Lion - marked by the bright star, Regulus. Follow the arc of the Big Dipper's handle and you come to Arcturus in the constellation of Bootes. Arcturus is the fourth brightest star in the sky. To the east of Bootes, and between Bootes and the bright star Vega, is Hercules. Hercules has no really bright stars, but the brightest of all the globular star clusters is on its eastern edge. You need binoculars to see it.

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The Delta Aquarids meteor shower is on July 28th. The moon will have set by the best viewing time which is after midnight.

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The International Space Station will be visible in the evening sky starting July 7th. On July 11th, the Space Shuttle will launch to rendezvous with the Space Station. This means we will have the opportunity to watch as the Space Shuttle catches up with the Space Station. To get the times of crossings, go to - Heavens-Above.com. When you get the website, under "configuration" click on "from database". Then click on "U", and then click on "United States". Type in the name of your town and pick your town from the list and click "submit". If you have problems, e-mail me your town's name and I'll send the website back to you set to your skies.

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The Joliet Historical Museum will be opening an exhibit in mid-July to honor John Houbolt, a Joliet native who is credited for successfully arguing the use of Lunar Orbital Rendezvous to bring astronauts back from the moon. Call the museum at 815-723-5201 for more details.

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NASA has just launched a mission (LACROSS) to the moon in search for new landing areas. We received an excellent program on the mission from the Jet Propulsion Laboratory and, if there is enough interest, we might use it for a special show in September.

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July 20th is the fortieth anniversary of man's first landing on the moon. It is still amazing that it took less than one lifetime to go from the first flight in a motorized kite at Kitty Hawk to landing a man on the moon - only 65 years, 7 months and 3 days! On July 20, 2009, it will be 36 years 7 months and 6 days since we last stepped on the moon.

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Here Men from The Planet Earth

First Set Foot upon The Moon

July, 1969 AD

We Came in Peace for All Mankind.

-- Plaque left behind on the moon's surface by the crew of Apollo 11.

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