

ASTRONOMY NEWSLETTER

APRIL 2010

From the Trackman Planetarium at Joliet Junior College

The sun appears higher as it crosses the sky, and it is also moving further to the east in relation to the stars. The winter constellations of Orion, Taurus and Canis Major are about to disappear behind the sun, to return to the evening sky next October. Meanwhile, Ursa Major with its major star group - the Big Dipper - is now high in the sky after dark. The bright stars of Pollux and Castor are close to each other in the western sky after dark. They mark the heads of the Gemini twins in the constellation of Gemini. The summer constellations of Bootes and Virgo are in the eastern sky after sunset.

Arcturus, the fourth brightest star in the sky, is in the constellation of Bootes. It is a red star easily found by following the curve of the Big Dipper's handle down through Bootes. Prehistoric Polynesian navigators knew that Arcturus was the "zenith star" in Hawaii, meaning that when it was at its highest in the sky (true south), it would be directly overhead when you were at the latitude of Hawaii. When the Polynesians sailed their double-hulled canoes from Tahiti to Hawaii, they sailed north until Arcturus was overhead in the sky and then west on the Trade Wind until they would land at the big island of Hawaii. On their return trip to Tahiti, they used Sirius in Canis Major as the navigation star. Sirius is the "zenith star" in Tahiti. There is no major star that could be considered a "Navigation Star" for Joliet. The closest major star to being a "Navigation Star" at Joliet is Vega, one of the summer triangle stars, but that is a "Navigation Star" for the latitude 185 miles south of Joliet. (Almach, in Andromeda, is closer to our latitude, but not an easy star to find.)

Supposedly, the light from Arcturus was used to cut the ribbon to open the Chicago World's Fair in 1933. Arcturus was then believed to be 40 light years from Earth. It has been 40 years since the Century of Progress - also held in Chicago - and the promoters thought it would be a great publicity stunt if they used Arcturus' light that started traveling toward Earth at the close of the Century of Progress, to open the World's Fair. We now know that Arcturus is 37 light years from Earth. Arcturus is 34 times larger than our sun. If you continue following the curve of the Big Dipper's handle, you come to Spica in Virgo, the sixteenth brightest star in our skies.

On April 8th, or a couple of days either side of April 8th, look to the western sky after sunset. You will see the very bright planet Venus in the sky near the horizon, and next to it will be the less conspicuous planet, Mercury. (Use binoculars if you have them, but only after the sun has set.) Mercury is always difficult to see because it is close to the sun, but Venus will be a good guide point. Mercury's orbit will begin to bring it closer to the sun and Mercury will cross in front of the sun on the 28th. Meanwhile, Venus will move to the east and remain a bright object in the evening sky through the summer.

Mars is high in the sky in early evening. Our orbit is moving us away from Mars and at mid-month it will be 107 million miles from Earth. Mars was only 62 million miles from

Earth at the end of January. Saturn is in Virgo and it appears as a yellow “star” below and to the east of Mars. Mars will continue to orbit toward Saturn, and in the first week of August Mars, Saturn and Venus will appear in a tight group in the western sky, right after sunset.

The sun begins April in Pisces and it will move into Aries on the 19th, where it will remain for the remainder of April. The full moon is on the 28th.

The Lyrids Meteor Shower is on the 22nd. The Lyrids is not a very active meteor shower and the moon will make meteor viewing even more difficult.

Our public shows aimed toward young astronomers during April are:

April 1st - 6:30 PM, “What’s in the Sky”;

April 15th - 6:30 PM, “Spring Skies for Kids”

April 29th - 6:30 PM, “Are There Aliens?”

Our public shows for general audiences during April are:

April 6th - 7:30 PM, “The Seasonal Skies for April“

April 20th 7:30 PM, “Wonders in the Sky”

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