The Night Sky

Venus and Jupiter Dazzle in the Evening Sky

During the month of March, Venus and Jupiter dominate the evening sky. Venus continues to gain altitude in the western sky after sunset. By the end of March, Venus sets 3 hours after the sun sets. On the evening of March 4th, planet Uranus will appear just below Venus, though it will be 10,000 times fainter than bright Venus. Those of you with binoculars will easily spot Uranus on that evening. Meanwhile Mars continues to sink in the western sky as the month progresses. It will be 4-degrees south of Venus during the first week of the month, though by the end of the month, Mars will be hard to see in the bright evening twilight. A week after the close conjunction of Venus and Uranus, Mars and Uranus will be close together on the evening of March 11th. Ten days after this on March 21st, a thin crescent moon will be just to the left of Mars which will help you spot Mars in the twilight. The next evening will find the crescent moon just to the left of Venus.

Swinging to the other side of the sky during the March evenings, Jupiter shines brightly roughly halfway up from the eastern horizon at nightfall as the month begins. On moonless evenings, Venus and Jupiter will be the two brightest objects in the sky. A waxing gibbous moon shines near Jupiter on the night of March 2nd. Some of you may note another stellar object shining brightly in the south. This is the star Sirius which is the brightest star in the sky. It is not as bright as Venus or Jupiter, but it is dazzling none-the-less. Sirius is relatively nearby in the local stellar community, being only 8.6 light years from the solar system. At two solar masses, this star is hotter than the sun, being about 9,900 K (K for the Kelvin temperature scale which corresponds to 17,000 ^{o}F) as compared to the sun's temperature of 5,800 K (or 10,000 ^{o}F). Sirius has a faint companion star called Sirius B, which is a white dwarf star. A white dwarf represents the final stage of stellar evolution of low mass stars. They no longer produce light through nuclear fusion, but instead shine due to their high temperature. Sirius B is the closest white dwarf to the solar system.

The ringed planet Saturn rises around midnight. Saturn continues to reside just to the northeast of Beta Scorpii, the northern most star in the three stars that make up the head and claws of this constellation.

The moon is full on March 5th at 1:05 p.m. EST. The full moon in March has many names including the Full Worm Moon, the Full Crow Moon, the Full Crust Moon, the Full Sap Moon, and the Full Lenten Moon. On March 20th, the sun moves from the southern hemisphere on the sky into the northern hemisphere at 6:45 p.m. EDT. At this point, the sun is on the vernal equinox, directly over the Earth's equator and marks the beginning of the spring season in the northern hemisphere. Daylight Savings Time returns at 2:00 am on March 8th – make sure to move you clocks forward by one hour when you go to bed on the 7th.

The month of March offers the best time of year to catch the zodiacal light. This soft glow on the sky is caused by sunlight scattering off of dust in the inner solar system. It is best seen when the moon is absent or at an early crescent phase. As such, look for the zodiac light about 80 minutes after sunset from dark locations anytime from March 8th through the 23rd. It should be visible for up to 3 hours after sunset.

Should the sky be clear the night of March 28th, there will be a free public astronomy open house at the ETSU Powell Observatory from 8 to 10 p.m. At these open houses, the public can view objects in the sky through telescopes and hear talks by faculty of the Physics and Astronomy Department. Make sure you dress warmly for these open houses since evening temperatures can still be low in March. Note that the open houses are cancelled if the sky is cloudy. Further information about these open houses can be found on the web at http://www.etsu.edu/cas/physics/observatory/default.aspx.

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