The Night Sky

An Exodus of Planets in the Evening Sky

Venus left the evening sky in early October, now it is Jupiter's turn to leave the evening sky. Jupiter sets about an hour after sunset as the month begins. By the second week of November, Jupiter is only just a few degrees high one-half hour after sunset and will be difficult to spot in the bright twilight. After that, the "king of the planets" is lost from view as Jupiter swings behind the sun. It reaches superior conjunction on November 26th. During the first week of the month, the innermost planet Mercury hangs low along the southwestern horizon one-half hour after sunset, but it will be very difficult to spot in the bright evening twilight. Mercury reaches inferior conjunction with the day after Jupiter reaches superior conjunction as Mercury moves between the earth and sun.

Saturn shines low in the southwestern sky one hour after sunset. At the beginning of November, the ringed planet set 3 hours after the sun. By the time December starts, Saturn sets 2 hours after the sun. On November 11th, a thin crescent moon will be to the upper-left of Saturn, it should be a nice sight.

Though its brightness has been fading since midsummer, Mars is still relatively bright hanging low in the southern (early November) and southwestern (late November) sky throughout the month. From November 3rd through the 5th, Mars makes a close pass to Delta Capricorni, a 3rd magnitude star in Capricornus. If we have clear nights during these dates, it will be very easy to notice Mars' motion with respect to the background stars. On November 15th, the first-quarter moon will be just to the lower right of the red planet.

Venus has now officially returned to the early morning sky. Venus rises only 35 minutes before the sun on November 1st, but difference between Venus-rise and sunrise quickly increases throughout the month. By the end of the month, Venus rises a little over 3 hours before the sun. During the first part of November, look at Venus through binoculars and you easily be able to see the thin crescent of Venus at relatively low power. From November 12th through 17th, Venus will appear close to the brightest star in Virgo, 1st-magnitude Spica. Spica will be to the upper right of Venus on the morning of September 17th.

The moon will be at full phase at 12:39 a.m. EST on November 23rd. Full moons that occur in November are known as the "Full Beaver Moon" by Native Americans, since beavers are actively preparing for winter during this month. Daylight Savings Time ends in the early morning of November 4th. As such, make sure you "fall back" one hour with your clocks before you go to bed on November 3rd.

The November astronomy open house at the ETSU Powell Observatory will occur on Saturday the 10th 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. Note that the open houses are cancelled if the sky is cloudy. Further information about these open houses and directions to the observatory can be found on the web at https://www.etsu.edu/cas/physics/observatory/default.php.

For those of you who would rather explore the night sky indoors, a planetarium show will be given on November 15th at 7:00 p.m. at the ETSU Planetarium in Hutcheson Hall. A location map of the

Planetarium on the ETSU campus can be found on the web at https://www.etsu.edu/cas/physics/outreach/planetarium.php.

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