The Night Sky

Venus Returns to Morning Sky

After dominating the evening sky for many months, Venus is at inferior conjunction with the sun on June 3rd, then quickly rises before the sun in the morning as the month progresses. By the end of June, Venus rises two hours before then sun. Meanwhile in the evening sky, the solar system's innermost planet Mercury is the only planet visible in the western sky during the evening hours. Mercury reaches greatest eastern elongation from the sun on June 4th, when it will be 24 degrees of arc from the sun. Mercury hangs low above the western horizon setting nearly 2 hours after the sun during the first week of the month. Sharp eyed observers should be able to spot Mercury in the bright evening twilight during this time. During the first 2 weeks of June, Mercury drops in altitude until by mid-month, Mercury gets lost in the solar glare.

Jupiter and Saturn have been hanging out together in the southern sky since they escaped the solar glare earlier this year. During the first week of the month, these two gas giants rise around 11 p.m. EDT low in the southeastern sky, with Jupiter rising about 15 minutes prior to Saturn. Both of these gas giants slowly brighten during this first summer month. By the end of the month, our two Jovian twins rise only an hour after sunset.

The red planet Mars has been racing eastward on the celestial sphere over the past few months, and continues to do so as the earth tries to catch Mars as we both orbit the sun. The red planet rises a little before 1:45 a.m. EDT as June opens, and shortly after 12:30 a.m. as the month closes. Mars continues brighten during June as the distance between earth and Mars decreases. Mars now dominates all other celestial objects (excluding the moon) in brightness in the southern sky. On the night of June 13th, Mars make a close pass with Neptune, with the two planets being less than two degrees from each other on that date. One will need a telescope to spot our farthest-most planet Neptune on that date. Note that the moon will be just a few degrees east of the red planet on this date.

The sun reaches the summer solstice at 5:44 p.m. EDT on June 20th, ushering in the summer season. On this date, we will have the most daylight of the year with the sun setting at 8:49 p.m. EDT on that date. Note that the farther north you go, the later the sun sets. Should you find yourself in one of the northern states, the sun doesn't set until after 9 p.m. on this summer solstice date.

The moon will be at full phase at 3:12 p.m. EDT on June 5th. This full moon happens a little more than a day after perigee (closest approach to the earth), so this full moon is nearly "supermoon". Full moons in the month of June are known as the "Full Strawberry Moon" by Native Americans since strawberries are typically harvested in the northern states during this month.

The ETSU Powell Observatory open houses are on hiatus until further notice. Once the current health crisis is over, the 2020-2021 schedule for our Astronomy open houses can be found on the web at https://www.etsu.edu/cas/physics/observatory/default.php.

The ETSU Planetarium Shows are also on hiatus until further notice. Once ETSU returns to normal operations, the 2020-2021 schedule for the ETSU Planetarium Shows will be posted on the web at https://www.etsu.edu/cas/physics/outreach/planetarium.php.

This month's Night Sky was written by Dr. Donald G. Luttermoser, Chair of the Department of Physics and Astronomy at ETSU. He can be reached at lutter@etsu.edu. Any students wishing to pursue a career in Physics or Astronomy are encouraged to contact him at this email address. Astronomy-related information for the public, including a link to the ETSU Powell Observatory, can be found at http://www.etsu.edu/cas/physics/ by selecting the Public Outreach pull down menu at the top of this web page.