The Night Sky

Saturn at Opposition

Both Mars and Mercury hang very low, just above the west-northwest horizon during the first few days of July, though they will be tough to spot in the bright evening twilight. Following these first few days, they will be impossible to spot in the solar glare. You may be able to spot a thin waxing crescent moon below these pair of planets on July 3rd, and just to the upper-right of these two planets on July 4th.

Jupiter, the largest planet in the solar system, reached opposition on June 10th. This upcoming month, Saturn reaches opposition on the night of July 9th. Opposition is the point on the sky that is opposite to the sun's position. On this date, Saturn rises above the southeastern horizon just as the sun sets on the northwestern horizon. As such, Saturn will be visible all night long throughout the month of July. Unfortunately, as is always the case for planetary oppositions in July, Saturn will be very low in the southern sky residing in the eastern portion of the constellation of Sagittarius. Jupiter will already be visible in the southeastern sky as the sky darkens after sunset. Jupiter will be the brightest "star-like" object in the evening sky. On the night of July 13th, a nearly full moon will be just to the left of Jupiter.

As Venus approaches superior conjunction with the sun in August, it rises less than an hour before sunrise and will be virtually impossible to spot in the early morning twilight. Some of you might be able to spot it with binoculars popping up above the northeastern horizon if it is unobstructed at your location. By July 22nd, Venus will be lost from view in the solar glare.

The earth reaches aphelion at 6:11 p.m. EDT on July 4th. Aphelion is the farthest point from the sun as we orbit our star. The moon will be at full phase on July 16th at 5:39 p.m. EDT. July full moons were refer to as the "Full Buck Moon" by early Native Americans since July is normally the month when the new antlers of buck deer push out of their foreheads in coatings of velvety fur.

The ETSU Powell Observatory open houses are on hiatus until September. Later this summer, the 2019-2020 schedule for our Astronomy open houses can be found on the web at https://www.etsu.edu/cas/physics/observatory/default.php. In addition, the monthly planetarium shows will be on hiatus until September as well. Check the Planetarium web site at https://www.etsu.edu/cas/physics/outreach/planetarium.php in August to get the schedule for the 2019-2020 Academic Year.

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