

# The Night Sky

## Planets Still Grace the Morning Sky

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Unfortunately, we still need to wait until the early morning hours to view the other planets of the solar system. One can still catch a glimpse of all of the planets in the solar system in the morning sky ½ hour before sunrise during the first week of July. Of the naked-eye planets, Saturn is furthest to the west and rises around 11 p.m. EDT in the southeast. As the night progresses into morning, the following planets rise in progression: Neptune, followed by Jupiter, then Mars and Uranus, and finally Venus and Mercury just prior to sunrise. Mercury has been sinking in the morning sky and will be lost in the solar glare after the first week of July.

Throughout the month, the Moon visits with each planet. On July 15<sup>th</sup>, the Moon is to the lower right of Saturn and due east of the ringed-planet the following night. On July 19<sup>th</sup>, a waning gibbous Moon lies to the lower-left of Jupiter. Then on July 21<sup>st</sup>, a just past third-quarter Moon lies to the right of Mars. On the morning of July 26<sup>th</sup>, we will see a quite beautiful pairing of a waning crescent Moon to the upper-left of brilliant Venus.

The Earth is at aphelion, farthest from the Sun for the year, at 3:10 a.m. EDT on July 4<sup>th</sup> when the Earth will be 94,509,598 miles from the Sun at this time. This is some 3.4% farther from the Sun than it was at perihelion on January 4<sup>th</sup>, when the Earth was 91,406,842 miles from the Sun.

The Moon will be at full phase on July 13<sup>th</sup> at 2:37 p.m. EDT. This is only 9 hours after the Moon is at perigee, closest point of its orbit about the Earth. As such, July marks the 3<sup>rd</sup> month in a row where we will have a “supermoon” at full phase. The Moon appears notably bigger and brighter in the sky than normal full moons. Native Americans called the July Full Moon the “Full Buck Moon” since July is normally the month when the new antlers of buck deer push out of their foreheads in coatings of velvety fur. It was also often called the Full Thunder Moon, for the reason that thunderstorms are most frequent during this time.

The ETSU Powell Observatory open houses are on hiatus for the summer. Later this summer, the schedule for our Astronomy open houses can be found on the web at <https://www.etsu.edu/cas/physics/observatory/default.php>.

Also, the ETSU Planetarium Shows are also on hiatus during the summer months. Please check the Planetarium web page at <https://www.etsu.edu/cas/physics/outreach/planetarium.php> for further information.

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