The Night Sky

Close Encounters in the June Evening Sky

The warm evening skies in the month of June 2025 will be graced with three bright planets. The brightest of the three will be the "King of the Planets," Jupiter, hanging very low in the west-northwestern sky shortly after sunset. However, you will have to catch this bright planet early in the month before it gets "buried" in the solar glow of evening twilight. Jupiter reaches conjunction with the Sun on June 24th.

On the first day of the month, we get our first "close encounter" of two celestial objects, when the Moon and Regulus, Leo's brightest star, have a close conjunction. Looking west, halfway up an hour after sunset, you should be able to spot Regulus just below the Moon. The Moon will be just two days before first quarter for this conjunction.

On June 7th and 8th, Jupiter has a close conjunction with our innermost planet Mercury. Both planets are relatively bright on these dates, with Mercury being just a little fainter than Jupiter, however since they will both be located low in the bright evening twilight, you will likely need binoculars to spot these two planets.

The third planet in the evening sky is the Red-Planet Mars, located in the constellation of Leo this month. Mars has lost quite a bit of its luster since its opposition last January, However, this planet still has first-magnitude brightness, so it is easy to spot. This will especially be true on June 16th, when Mars has a close encounter with Leo's brightest star, Regulus. Both of these celestial objects are of similar brightness and will look like a "double star" with quite a difference is color hue – Regulus looks bluish-white whereas Mars will look quite reddish in comparison.

Throughout the month, Mercury has continued to increase its altitude in the western sky and become easy to spot low above the west-northwest horizon one-half hour after sunset later in the month. On June 26th, the thin, waxing-crescent Moon sits just to the right of Mercury. Binoculars will help you spot the Moon in the evening twilight.

We now need to wait until the early morning to see the other bright planets. The brightest planet in the night sky, Venus, shines in the constellation of Aries during the first part of the month, then moves into Taurus for the rest of the month. At the beginning of the month, Saturn rises in the east at 2:54 a.m. EDT, then by month's end, the ringed planet rises at 1:04 a.m. Saturn's rings have just gone through their "edge-on" orientation earlier this year (which occurred on March 23rd). This occurs approximately every 15 years. During these "edge-on" orientations, Saturn appears to have no rings in small telescopes. The rings are now starting to "open up."

The longest day of the year in the northern hemisphere occurs on June 20th. At 10:42 p.m. EDT, the Sun will be located at the summer solstice on the celestial sphere, the northern-most point on the ecliptic. This marks the beginning of the summer season in the northern hemisphere.

The Moon will reach full phase on June 11th at 3:44 a.m. EDT. The June full Moon is often called the Full Strawberry Moon since strawberries are harvested in this month.

The ETSU Powell Observatory open houses and the monthly planetarium shows are on hiatus until September. Later this summer, the 2025-2026 schedule for our Astronomy open houses can be found on the web at https://www.etsu.edu/cas/physics/observatory/starparty.php, and planetarium shows posted 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 https://www.etsu.edu/cas/physics/ by selecting the Public Outreach pull down menu on the lower-left side of this web page.