

The Night Sky

Jupiter and Mars Meet in the Morning Sky

We have two exciting astronomical events that will occur in the month of August 2024. On the morning of August 14th, the red-planet Mars and the “King of the Planets” Jupiter will have a close conjunction in the constellation of Taurus. These two planets will only be ½ degree apart right between the horns of the celestial bull. At around 2:30 a.m. EDT, the pair can be seen in the east-northeast sky. Jupiter will be the brightest thing in the sky, and Mars will be bright too, so it will be impossible to miss this conjunction if the sky is clear.

The other exciting celestial event is the annual Perseid Meteor Shower which peaks the night of August 11-12th. Since the Moon will be near first quarter, it will have set by midnight providing for a dark sky when these meteors are best seen. The Perseids are a very long-lasting meteor shower, typically starting in mid-July and lasting until late August. Meteor showers result from the Earth passing through a band of debris scattered along the orbit of a comet. In the case of the Perseids, the comet in question is Comet 109P/Swift-Tuttle. This meteor stream often produces bright meteors and a few fireballs. One can expect to see anywhere between 50 to 100 meteors during the morning hours of August 12th, assuming the sky is clear and dark. One does not need any special equipment to view meteors, just look up with your naked-eyes! You don’t need to look in any specific direction to see these meteors, though you might be able to spot a few more looking towards the east. So, get out your folding lawn chair and a warm blanket – it can be cool during August nights, and keep looking up!

There are other night sky sights visible this upcoming month. The brightest planet in the night sky, Venus, still sits low after sunset at the beginning of the month in the western sky. Venus sets an hour after sunset, so you will need to get out quick once the sky starts to darken. During the first few days of August, you might be able to catch our two innermost planets, Mercury and Venus, paired just above the western horizon 20 minutes after sunset. You will likely need binoculars to see this pair in the bright twilight. If you spot a third star between these two planets, just to the left of Venus, that is the brightest star in Leo, Regulus. A few days later on the 5th, a thin waxing crescent Moon will be located just above Venus.

On the evening of August 20th, watch the waning gibbous Moon make a close encounter with the ringed-planet Saturn. At 10:07 p.m. EDT on this date, these two celestial objects will be separated by only half a Moon diameter in the east-southeastern sky. Saturn is bright enough to clearly be seen next to the bright lunar glare.

The Moon will reach full phase on August 19th at 2:26 p.m. EDT. The August full Moon was often called the Full Sturgeon Moon by Native Americans in the Great Lakes region due to abundance of sturgeon fish in the lakes around this time.

The ETSU Powell Observatory open houses and the monthly planetarium shows are on hiatus until September. Later this summer, the 2024-2025 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>.

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