

## 2016 PERSEID METEOR SHOWER

This is primarily a Northern Hemisphere event, but you may catch some stragglers here too.

In 2016, astronomers expect an outburst of Perseid meteors! The prediction is for 200 meteors per hour seen on the peak night, August 11-12 (evening of August 11, morning of August 12). That's about double the usual rate. From southerly latitudes in the Southern Hemisphere, you'll enjoy the shower, too, with about a third as many meteors expected. In 2016, the waxing gibbous moon sets before the predawn hours. So if the outburst occurs before dawn for you, the moon won't be in the way. Will you see the outburst? Maybe. The peak rates are predicted to last about half a day, from late August 11 to mid-August 12 UTC. But, outburst or no outburst, the Perseids are always a treat.

The ZHR is the rate of the shower at its peak, when the radiant point is overhead (before dawn from all parts of Earth).

**Every time comet Swift-Tuttle warms up as it goes around the sun, it deposits a trail of particles, which is called a meteor stream. The comet orbits the sun about every 133 years.** Comet Swift-Tuttle has last come in December 1992 and will do so next in July 2126. Over time, the gravitational influence of Jupiter and other giant planets changes the particle orbits, and as a result, their close approach distances to Earth will vary. If the change for a given stream is towards Earth's orbit, we may see greater than normal activity when our planet passes the trail's nodal crossing.

**Jupiter's influence has moved the 1079, 1479 and 1862 meteor streams closer to Earth, so all forecasters are projecting a Perseid outburst with double normal rates on the night of August 11-12.**

**The peak rates are expected to last about half a day.** And predictions vary for the actual time of the peak rates. In a typical year, although the meteor numbers increase after midnight, the Perseid meteors still start to fly at mid-to-late evening from northerly latitudes. South of the equator, the Perseids start to streak the sky around midnight.

Give yourself at least an hour of observing time, for these meteors in meteor showers come in spurts and are interspersed with lulls. Remember, your eyes can take as long as 20 minutes to adapt to the darkness of night. So don't rush the process.

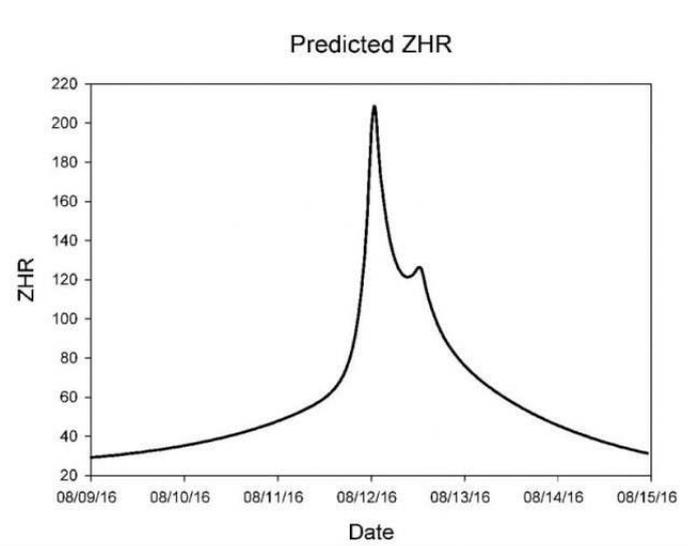
**If you trace all the Perseid meteors backward, they all seem to come from the constellation Perseus. It is called the radiant point.** But remember, meteors will be flying in all parts of the sky. Most meteors burn up about 100 kilometers above the Earth's surface. If any meteor survives its fiery plunge to hit the ground intact, the remaining portion is called a meteorite. Meteorites are usually the remains of asteroids.

In ancient Greek star lore, Perseus is the son of Zeus and the mortal Danae, Princess of Argos. **The Perseid shower commemorates the time when Zeus visited Danae in a shower of gold.**

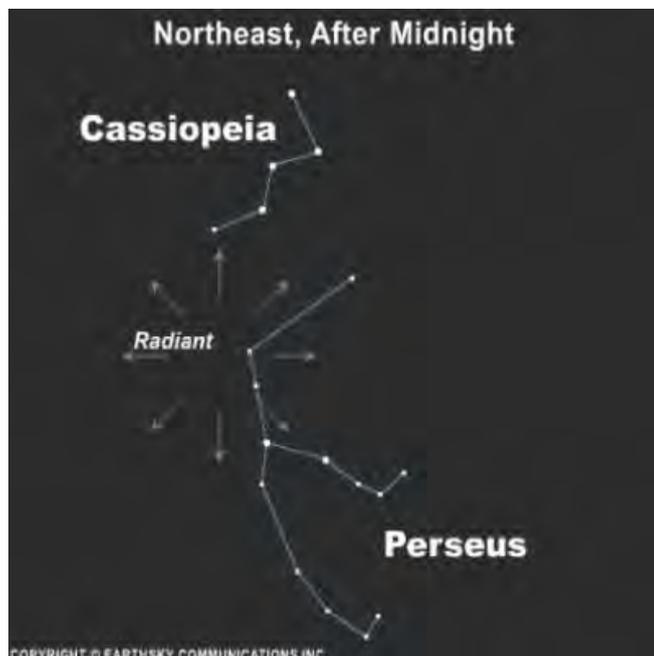


Path of particle dust left behind by previous passages of the comet

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Predicted Zenithal Hourly Rate (ZHR) for Perseids in 2016.



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