

# Old Faithfuls of the Night Sky

## Winter and Spring Meteor Showers

There are 11 separate meteor showers visible every year, each reappearing on the same unique date. This article describes those meteor showers that occur between November and June. People are always asking “When’s the next meteor shower?” and now you will have the dates, constellations to find them in or near and a brief description of each.

Meteor showers are best viewed between midnight and dawn, in a dark location away from light pollution. You can try viewing through binoculars, a telescope or a camera but experts recommend just looking up with your eyes to be sure you will not miss the shower display. Meteor showers are best known for the speed with which they radiate through a constellation and the number of meteors displayed per hour. Many new comets are being discovered annually but none of them have, as of yet, been added to the “Old Faithfuls of the Night Sky” list.

**Leonids** – Nov 17 – 18. The debris trail associated with comet 55P Tempel-Tuttle radiates from the constellation Leo, and peaks every 33 years showing with a rate of 100 meteors per hour (the last peak was in 2001). The Leonids are the only annual meteor shower to be described as a “storm”, earning their fame in 1833 with estimated counts of over 100,000 meteors per hour! In 1966 there was a spectacular shower over America and in recent years there have been showers of up to 3,000 Leonid meteors per hour.

**Geminids** – Dec 13 – 14. The debris trail associated with asteroid 3200 Phaethon’s radiates from the constellation Gemini, traveling at a medium speed of 22 miles per second, producing a multi-colored display of white, yellow, blue, red and green at a rate of 120 per hour. The Geminids were first observed only 150 years ago.

**Quadrantids** – Jan 3 - 4. The debris trail associated with asteroid 2003 EH1’s originates from between Bootes and Draco in an obsolete constellation called Quadrans Muralis with about 40 meteors per hour, and the peak duration is no more than one hour. The Quadrantids speed is 25.5 miles per second, producing a blue meteor shower that is viewable in an 8 hour span, and they are seldom viewed due to bad weather. If you can see the Big Dipper, then you just might catch a glimpse of the Quadrantids.

**Lyrids** – Apr 21 – 22. The debris trail associated with comet C/1861 G1 Thatcher’s radiates from the constellation Lyra with 20 meteors per hour, and is known for extremely rare outbursts of 100 per hour. The Lyrids meteors move at a moderate speed of approximately 30 miles per second.

**Eta Aquarids** – May 5 – 6. The debris trail associated with comet 1P Halley’s radiates from the constellation Aquarius an hour or so before morning twilight begins and displays 10 to 40 meteors per hour in the east-southeastern sky.

**Lyrids** – Jun 14 – 16. The Earth again passes through the debris trail associated with comet C/1861 G1 Thatcher. Meteors again appear to radiate from the constellation Lyra with 10 meteors per hour, which is a lower rate than the April viewing.

For more excitement in meteor shower watching, there is National Meteor Day on June 30<sup>th</sup> and you can search for different meteor showers throughout the year. Check the Internet for the meteor shower you wish to see for its exact date, location, peak time and other interesting facts.

Visit the Cameron Park Community Observatory for more information regarding meteor showers and let the docents show you the night sky. The observatory is open free to the public Friday, Saturday and Sunday evenings weather permitting. Please visit our website, [www.communityobservatory.com](http://www.communityobservatory.com) for more details.