

Heavenly News

“Old Faithfuls of the Night Sky - Summer and Fall Meteor Showers”

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Did you know that there are 11 meteor showers visible every year, each reappearing on the same unique dates? That's right! These falling heavenly bodies are frequently called “shooting stars” or “falling stars” and always get a “wow” from night sky viewers. These are not “stars” but are composed of icy, dusty debris scattered along a comet's path. When the Earth travels through this debris stream, we see it as a meteor shower. Meteor showers get their names from the constellation they appear to originate from. This point in the sky, where the meteor appears to originate, is called the radiant. Best meteor viewing is when the highest number of meteors can be seen. This is referred to the peak rate per hour and can vary from year to year for each meteor shower depending on the density of the stream as the Earth passes through it. Most meteors appear white but other colors are visible due to certain chemicals when they enter the earth's atmosphere. Meteors containing concentrations of sodium display orange/yellow light, iron ones exhibit yellow, magnesium ones present blue/green, calcium ones are violet, while nitrogen and oxygen reveal a fiery red. Below are 5 meteor showers that can be observed from July to October...look for a description of other meteor showers in the November 21st publication of Heavenly News.

Delta Aquarids – July 28 – 29 Comets Marsden and Kracht debris trails radiate from the constellation Aquarius at a peak rate of 20 per hour, producing bright yellow meteors at a moderate speed of 25.2 miles per second, and they are best viewed in the pre-dawn hours.

Capricornids – July 29 -30 Comet D/1978 R1 (Haneda-Campos) debris trail radiates from the constellation Capricorn, moving slowly at 15 miles per second and showing 15 meteors per hour. Capricornids are noted for their brighter-than usual meteors called fireballs, yellow coloration and frequent brightness bursts.

Perseids – August 12 -13 Comet 109P Swift-Tuttle debris trail radiates from the constellation Perseus, producing 60 meteors per hour. Its performance is fairly consistent from year to year and can last for 2 full days. Most of the debris in this showy shower is around a thousand years old and is one of the most reliable night sky performers. After this comet passed in 258 A.D. it became known as the “Tears of Saint Lawrence” for Pope Sixtus II, and the folklore of making a wish when you see a “shooting star” is tied to Saint Lawrence.

Draconids – October 8 – 9 Comet 21P Giacobini-Zinner debris trail radiates from the constellation Draco at slow peak rate of 10 meteors per hour.

Orionids – October 21 – 22 Comet 1P Halley's debris trail radiates from the constellation Orion at a peak rate of 20 yellow and green meteors per hour. Orionids are moving fast at 41 miles per second and can produce fireballs for spectacular viewing.

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 for more details.