PERSEID METEORS VS. THE SUPERMOON

Every year sky watchers and summertime campers circle on their calendars a few key August nights—the 11th, 12th and 13th. These are the dates of the annual Perseid meteor shower, which rarely fails to please those who see it.

This year they're adding a note: "supermoon." During the second week of August, the biggest and brightest full Moon of the year will face off against everyone's favourite meteor shower—and the outcome could be beautiful.

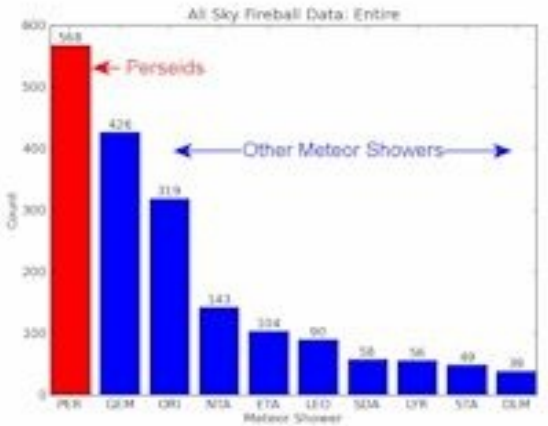
The source of the Perseid meteor shower is Comet Swift Tuttle. Every 133 years the huge comet swings through the inner solar system and leaves behind a trail of dust and grit. When Earth passes through the debris zone, **specks of comet-stuff hit the atmosphere at 140,000 mph and disintegrate in flashes of light. These meteors are called Perseids because they fly out of the constellation Perseus.**

In a normal year, dark-sky observers typically count more than 100 Perseids per hour. But this is no normal year. On August 10, 2014, just as the Perseids are set to peak, the Moon will become full. Moreover, it will become full just as it reaches the place in its orbit (perigee) that is closest to Earth. The perigee full Moon of August 10th –also known as a supermoon– will be as much as 14% closer and 30% brighter than other full Moons of the year.

This is bad news for Perseids as lunar glare wipes out the black-velvety backdrop required to see faint meteors, sharply reducing counts.

But there's good news, too. Since 2008, the Perseids have produced more fireballs than any other annual meteor shower. The Geminids are a close second. The fireballs can be as bright as Jupiter or Venus. These will definitely be visible in spite of the glare.

Using a network of meteor cameras distributed across the USA, the team has been tracking fireball activity since 2008, and they have built up a database of hundreds of events to analyse. Their data show the Perseids are the undisputed 'fireball champion' of annual meteor showers.



A warm summer night, a moonlit landscape, and an occasional fireball cutting past a supermoon: that's an ensemble with a special beauty all its own.

Enjoy the show.

AK from NASA Notes