2012 Perseid Meteor Shower

August 10 2012

On the nights of Aug. 11th through 13th, the best meteor shower of the year will fill pre-dawn skies with hundreds of shooting stars. And that's just for starters. The brightest planets in the solar system are lining up right in the middle of the display.

The Perseid meteor shower peaks on the nights around August 12th as Earth passes through a stream of debris from Comet Swift-Tuttle.

"We expect to see meteor rates as high as a hundred per hour," says Bill Cooke of NASA's Meteoroid Environment Office. "The Perseids always put on a good show."

Perseids can be seen any time after 10 to 11 pm. The best time to look, however, is during the dark hours immediately before dawn. Also, advises Cooke, avoid city lights if possible. Faint meteors are easily lost in the urban glare. A visit to the countryside will typically triple the number of meteors you see.

This year's display is extra-special because of the planets. Jupiter, Venus, and the crescent Moon are gathering together just as the Perseid meteor shower reaches its peak. The alignment occurs in the eastern sky before sunrise on the three mornings of highest meteor activity.

On August 11th, a 33% crescent Moon will glide by Jupiter, temporarily forming a bright pair directly above brilliant Venus. Red-giant star Aldebaran will be there, too, adding a splash of color to the gathering.

August 12th, the narrowing 24% crescent Moon will drop down between Jupiter and Venus. Together they make a bright 3-point line in the sky, frequently bisected by shooting stars.

On August 13th, with the shower just beginning to wane, the planets put on their best show yet: The 17% crescent moon will pass less than 3 degrees from Venus as Jupiter hovers overhead. Sky watchers say there's nothing prettier than a close encounter between the slender crescent Moon and Venus--nothing, that is, except for the crescent Moon, Venus and a flurry of Perseids.

It's only natural, while you're watching a meteor shower like the Perseids , to count the number of shooting stars you see. It turns out those numbers in your head are valuable. NASA wants them. Meteor tallies gathered by amateur sky watchers can be used by NASA's Meteoroid Environment Office to study and model the Perseid debris stream.

"We've developed an app for Android and iPhones to help amateur sky watchers count meteors in a scientific way and report the results to us," says Cooke. "It's called the 'Meteor Counter' and it's available for free in the Android Marketplace and Apple's App Store."

More information: NASA's Meteor Counter app helps citizen scientists contribute to authentic research. Pick Android or Apple

Provided by NASA

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