

## HEAVENLY NEWS

“Don’t Miss the Leonids Meteor Shower!”

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The Leonids (*lee-uh-nids*) are a wonderful meteor shower associated with the Comet Tempel-Tuttle. The Leonids get their name from the location of their radiant in the constellation Leo; that is, the meteors appear to come from a point within the constellation of Leo. An observer might see such a meteor anywhere in the sky but the direction of motion, when traced back, will point to the radiant. Meteor showers are caused by the columns of dust and debris left in the path of a comet. This dust continues to move along the path of the comet, and when the Earth moves through such debris, a meteor shower results. Because the debris is all moving in roughly the same direction, the meteors which strike the atmosphere all "point" back to the direction of the comet's path.

Leonids have been reported as far back as A.D. 902, when Chinese astronomers reported that "stars fell like rain" and Egyptians declared it "the year of the stars." However, the night of November 12-13, 1833, not only marks the scientific "discovery" of the Leonid meteor shower, but it marks the actual birth of meteor astronomy. During the hours following sunset on November 12, some astronomers noted an unusual number of meteors in the sky, but it was the early morning hours of the 13th that left the greatest impression on the people of eastern North America. During the 4 hours which preceded dawn, the skies were lit up by meteors.

Reactions to the 1833 display varied from the hysterics of the superstitious claiming Judgment Day was at hand, to just plain excitement by the scientific community, who estimated that a thousand meteors a minute emanated from the constellation Leo. Newspapers of the time reveal that almost no one was left unaware of the spectacle, for if they were not awakened by the cries of excited neighbors, they were usually awakened by flashes of light cast into normally dark bedrooms by the fireballs.

The Leonids generally begin on November 13 and end on November 21, with maximum activity generally occurring during the night of November 17/18. The Leonids are barely detectable on the beginning and ending dates, but observers are generally treated to displays of about 10 meteors per hour on the night of maximum. About every 33 years, the Leonids enter a phase of enhanced activity that accompanies the return of its parent comet. During these periods, rates can amount to hundreds and even thousands of meteors per hour. The last such enhanced period occurred during the period of 1998-2002 and the Leonids have since been winding down.

Just to put this in perspective, in an average Leonid meteor shower, one might expect to see about 15 to 20 meteors per hour. In peak years, like 1966 and 1999, observers have documented seeing anywhere from 5,000 to 150,000 meteors per hour.

The Community Observatory behind the El Dorado Center of Folsom Lake College (off of Green Valley Road in Placerville) will be hosting a **Leonids Meteor Shower Special Event on Saturday evening, November 15, 2008 from 6:00 PM – 10:00PM**. Please join us and learn more about meteor showers, how to best observe them and view many other heavenly sites on our two 14-inch telescopes. For more information about the Observatory and driving directions go to [www.communityobservatory.com](http://www.communityobservatory.com)