

FOR: Immediate Release

FROM: Lake Afton Public Observatory

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RE: Perseid Meteor Shower

# Celebrate a Celestial Light Show!

The Perseid Meteor shower occurs annually when Earth passes through material left behind by comet Swift-Tuttle. As the month of August begins, you may notice more "shooting stars" than usual streaking across the night sky appearing to radiate from the constellation Perseus, but appearing anywhere in the sky. The meteor shower activity will peak during the early morning hours of Thursday, Aug. 13. In the dark skies of outlying areas around Wichita or other Kansas cities, peak activity should reveal as many as 60 to 80 meteors/hour; in other words, an average of one meteor every minute or so can be seen in some part of the sky.

The best way to observe the meteor shower is to go somewhere away from city lights where it gets really dark, go outside and look for meteors in the Northeastern part of the sky. As the night progresses, look for them to appear anywhere in sky. Also remember that the darker the observing site, the easier it will be to spot meteors. The best time to go out is after midnight. Essential meteor observing equipment includes a reclining lawn chair or blanket, bug spray, and patience. The best advice for meteor watchers is just to lay back and watch the sky.

If you would like to observe the Perseid meteor shower in a dark location with other meteor watching enthusiasts, the Lake Afton Public Observatory will be open for the shower in the early morning hours of Thursday, August 13<sup>th</sup> from 12:00 - 3:00 am. Feel free to watch for meteors from north or west of the Observatory building. When you're not outside looking for meteors, you can come inside to see star clusters, clouds of interstellar gas and dust, and distant galaxies through the Observatory's telescope. There is no charge for watching the meteor shower outside but if you decide to join us inside the Observatory, regular admission charges will apply. As an added bonus, in honor of the meteor "shower", anyone who comes in the Observatory with some form of appropriate shower attire – a rain coat, an umbrella, a bar of soap, a towel, etc. – will receive \$1 off the regular admission.

#### **Background**

Almost everyone has looked up at the sky and seen a "falling star". Of course you are not actually seeing a star that's falling. What you are seeing is a meteor. On any given clear, dark

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night, away from the lights of the city, a person may see up to a half-dozen meteors every hour. The meteors you see are just bits of rock that burn up when they run into Earth's atmosphere. Most of them are no larger than a grain of sand and they burn up in a fraction of a second. If you happen to see a bright meteor that lasts for more than a fraction of a second, you've probably seen something that is pebble-sized. A meteor that is fist-sized or larger will not only put on a spectacular light show but will likely survive the trip to the ground.

A couple of dozen times each year, you can go out and see anywhere from a dozen to a few dozen meteors per hour. These are considered meteor showers. The best known and usually most intense of these is the Perseid meteor shower which occurs each year around August 12<sup>th</sup>.

To understand where the particles that make up meteor showers come from we have to understand a little bit about comets. The easiest way to describe a comet, especially when it is in the frigid depths of the solar system, billions of miles away from the sun, is to think of a dirty snowball that's 10 miles across. This dirty snowball is the nucleus of the comet. As this comet nucleus approaches the sun, the sun's heat warms its surface, and it begins to boil. As the ice boils off, gas and dust particles are released and pushed away from the comet's nucleus by sunlight and the solar wind to form a tail. If this particular comet orbits the sun, then the dust particles that form the tail will continue to orbit the sun in roughly the same orbit as the comet from which they came. When Earth passes through one of these particle streams, the dust particles run into our atmosphere and we have a meteor shower. Every year, in the middle of August, Earth passes through the trail of dust particles left by the comet Swift-Tuttle, giving us the Perseid meteor shower.

### Location

The Lake Afton Public Observatory is located about 20 miles southwest of downtown Wichita on MacArthur Road at 247th Street West in Lake Afton County Park. It is immediately north of the lake, just off MacArthur Road.

#### Admission

Admission to the Lake Afton Public Observatory is \$6.00 for adults and \$4.00 for children ages 6-12; children under 6 are admitted free. The Observatory also has a special family admission where 2 adults and their immediate minor children or grandchildren get in for just \$18.00.

## **Program Information**

Current evening programs and times along with events taking place in the sky are available in a recorded message at WSU-STAR (978-7827) or by going to our website at <a href="http://webs.wichita.edu/lapo">http://webs.wichita.edu/lapo</a>. You may also want to "friend" the Lake Afton Public Observatory on Facebook.

The Lake Afton Public Observatory is operated by the Fairmount Center for Science and Mathematics Education, a part of the Fairmount College of Liberal Arts and Science at Wichita State University. Additional support is provided by Sedgwick County.