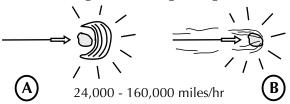


## The cause of a meteor's glow is uncertain.

A The favored theorized mechanism is that the hypersonic meteoroid grain pushes a bow front that compresses the air in front, causing the air to heat, which, in turn, heats the grain, causing it to glow.

**B** Another possible mechanism is friction with molecules in the upper atmosphere heating the meteoroid grain causing it to glow.



**Meteoroid:** while traveling in space.

**Meteor:** while falling through the atmosphere.

**Meteorite:** after striking the ground.

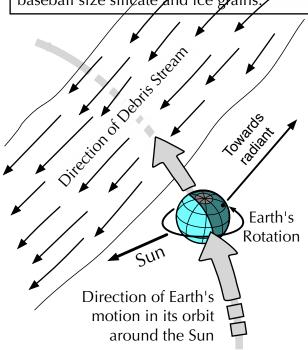
## How to observe meteors

- lie on a blanket or comfortable reclining chair.
- observe in a dark location and extinguish all white lights.
- face the radiant for the most meteors.
- observe when no moon is present.
- tend to be best a few hours after midnight.

The zenithal hourly rate (ZHR) of a meteor shower is the number of meteors visible if the radiant were directly overhead, and if the sky conditions were perfect. The actual meteor count will be lower due to ...

- interfering moonlight,
- obscuring atmospheric haze,
- unseen meteors behind the observer,
- and sky glow from light pollution.

A meteor shower occurs when Earth passes through a stream of debris left by a passing comet, possibly from over 100 years ago. The debris consists of sand to baseball size silicate and ice grains.



**Meteor showers** are named for the constellation or area of the sky from which they seem to emanate.

Dates & times listed are approximate
Quadrantids: Jan. 3, after 3 a.m., 120 ZHR
Lyrids: Apr. 22, after 11 p.m., 20 ZHR
Eta Aquarids: May 6, after 3 a.m., 20 ZHR
Perseids: Aug. 13, after 11 p.m., 50 ZHR
Draconids: Oct. 9, after 8 p.m., 0-20 ZHR
Orionids: Oct. 21, after 1 a.m., 20 ZHR
Leonids: Nov. 17, after 2 a.m., 10-20 ZHR
Geminids: Dec. 14, after 8 p.m., 60 ZHR