

How to Observe Leonid Meteors

Astronomy

Next Wednesday night, November 14, is the night when amateur stargazers may help the professional astronomers by staying up late and watching for meteors. After midnight will come the greatest display of the Leonid shower, when dozens of meteors, or "shooting stars," will be seen to radiate from the constellation of Leo, the lion.

The map on the cover shows the part of the sky from which the meteors seem to come, the way it will appear if you look to the northeast at midnight. At that hour you will not see all the faint stars shown, but the sickle of Leo will be easily seen if it is clear. As the night grows later, this region of the sky will rise higher, until dawn, when it will be in the south. As it rises higher, the fainter stars will come into view, and if the sky is very clear and one is away from the lights of a city, then practically all the stars shown will be visible.

Meteor hunting is a game that requires late hours. There is no use hunting for the Leonids before midnight, while the greatest display comes about 3:00 to 4:00 a. m. The nights of the 14th and 15th both bring them, but the greater number can be seen on the night of the 14th; that is, the early morning of the 15th.

If you want to hunt meteors, then, get out after midnight where you have a clear view of the northeastern horizon. Look for the stars shown on the map. Have a pencil and paper handy so that you can take down notes, also a watch set as nearly to the correct time as you can get it. A flashlight will be helpful, but as the flashing of it on and off against the white paper would make your eyes less sensitive to the meteors, it would be a good idea to cover it with several thicknesses of tissue paper, held with a rubber band.

Now start watching. If two people can watch together, so much the better, then one can be sure to be watching all the time. Identify the stars on the sky with those of the map. Whenever you see a meteor try to mark its path on the map. Even if you can't mark it on the map, make a record of it. It is not necessary to note the time of every individual meteor, unless it is unusually bright, but count the number every half hour. It would be well to mark off your paper "12:00 to 12:30,

12:30 to 1:00, 1:00 to 1:30," etc., and then mark the meteors seen during each of these periods with a tick.

Observe and note the colors of the meteors and their brightness. You can do this by referring them to different stars on the map, for astronomers know the brightness of all of these. Notice whether they simply flash across the sky and then are gone, or whether they leave trails behind. Notice whether there are any fire-balls—meteors that are unusually brilliant.

As for the numbers. Astronomers never know just how many meteors will appear in a shower until they actually see it. Fifteen an hour is pretty good, while ten an hour should be seen easily.

After you have this record, don't forget that the astronomers want to see it. Dr. Charles P. Olivier, at the

Flower Observatory of the University of Pennsylvania, Upper Darby, Pa., is president of the American Meteor Society, and operates the chief clearing house for meteor observations. Send him your records. The American Meteor Society is a group of amateur astronomers, who watch meteors in November as well as at other times of the year, and so aid scientists in studying these visitors from outer space. If you prefer, send in your reports to the SCIENCE NEWS-LETTER and we shall forward them to Professor Olivier.

In case you are reticent about tearing this page out of your SCIENCE NEWS-LETTER, let us know when you send in your report, and as long as our supply lasts, we will send you a duplicate copy with our compliments.

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