

Counting Meteors

If you have been out at a TAAA star party - either at TIMPA or La Cienega - you have almost certainly experienced the 'almost saw a meteor' effect. This is when, with your eye glued to the eyepiece while trying to tease a bit of detail out of a faint nebula, people around you all shout "Wow, did you see *that one*?" You quickly look up, but of course the gleaming fireball that caught everyone else's eyes is gone and you see only the silent and unchanging stars.

Including meteor observations in a program such as this is more than a challenge, it's a problem! Meteors are ephemeral, blink-of-the-eye phenomena, and even the well-known meteor "showers" can only be predicted as a range of most likely best nights. On top of that, the best and most predictable of them often coincide with seasons when the weather is least reliable and frequently require being up well past midnight on a weeknight, leaving out those working for a living or going to school. Never mind for the moment the meteor showers that take place at or near the Full Moon! Using major meteor showers for a BSIG group activity is, obviously and unfortunately, not an option. And yet, ignoring such a dramatic phenomenon as a stone from outer space incinerating itself in that final plunge through the Earth's atmosphere would not be right. Rather than leave out shooting stars entirely, we have concocted the following exercise.

Sooner or later it will be you yelling "Wow!" as that tracer of light crosses the sky. When it happens get a fix on the part of the sky through which it traveled and look at your watch for the time to the nearest minute. (If you fear you will lose track of the location by looking away, ask a nearby observer for the time.) Now, what constellation did the meteor slice through? Are there any bright stars around there, and where did the streak show up in relation to them? Go to your atlas or star chart and while the experience is still fresh in your mind, make note of where the meteor passed and try to estimate how long the trail seemed to be. Note also whether or not it seemed very bright, really faint, and any colors that appeared visible. Did it split apart? Did the trail persist? The easiest way to record such sightings would be to have in your log a sheet of paper ready and waiting on which to record the date, the time, the constellation (or which part of the constellation), and brief comments suggested by the questions above. No charting or sketching is required, just a basic record of when, where, and what it looked like.

As with all other sections of the program, you can of course be as elaborate in your records as you like. If it suits you to draw a plot of the tracks of the meteors you record along with the stars around them, the naked eye observation form included as an example would work nicely. If you know you will be out on a night when a meteor shower is known to occur, you could (if you have suitable star chart software) print a copy of the relevant chart and have it handy on which to chart the meteors you see. It is possible that, on such an occasion, you could complete this portion of the program in a single night. You can also record as many meteors as you wish, with a minimum of 10 being required for the program.