USING THE VISUAL METEOR DATA FORM

There are numerous forms available for recording meteor activity. The AMS will accept any of them. The form provided here is a basic form that is suitable for beginners and experienced observers alike. There may be some details that are unclear to beginners so I will attempt to explain them below.

The **date** and **times** of your observations are important and must be entered on every form. Universal time is preferred but local time is acceptable as long as clearly labeled.

Enter the **geographical coordinates** of your observing site if it is known. This is not an absolute necessity.

Obviously we need your **name** and the name of your **observing location**.

The **limiting magnitude** is important as it reveals the condition of your sky. The LM is the faintest star visible in the center of your field of view. Values will range from +3.0 to +7.5. Stellar magnitudes can be obtained from any star atlas. Values lower than +5.0 will rarely offer worthwhile viewing since most meteors are faint. Values higher than +6.5 are only available far from urban areas. A great majority of the data submitted to AMS has LM's between +5.0 and +6.5. Those who watch in darker skies will obviously see more meteoric activity. It is advisable to list the LM for each hour of observing, as the LM tends to change during the night.

The **percent cloudy** (within your field of view) is also important as it tells us the amount of obstruction during each hour. If this percentage exceeds 50 it is advisable to suspend observing and to wait for clearer skies.

Direction facing and altitude tells us your approximate center of field of view. This data is not absolutely necessary but certainly helpful in analyzing your data. It is suggested that your face slightly away from any radiant (20 to 40 degrees) and at least halfway up in the sky to avoid wasting any of your field of view.

Any **breaks** taken during your observing session must be listed or we will be wondering why you saw no activity during these periods.

List any **comments** you feel may be important. Suggestions include the temperature, humidity, and time of moonrise or moonset.

Now for the actual data columns on the lower half of the page:

The **number** is not important and may be skipped beyond page 1. It was provided should the observer be curious as to how many meteors were seen each hour or session.

The actual **time** of each meteor seen is helpful but not absolutely necessary.

The **magnitude** of each meteor is again helpful but not absolutely necessary.

The **color** of each meteor is interesting but again not absolutely necessary. This column was included as it is one of the easier aspects to record.

The **type** of meteor seen is very important. It's one of the reasons that you are out watching! The observer needs to classify each meteor observed. This is easier than it sounds. During a normal night a majority of the activity seen will be totally random, meteors which are called sporadic. During a major shower such as the Geminids a majority of the activity will occur from Gemini. Meteors are normally separated into shower and non-shower (sporadics) classifications and listed as such on the data sheet.

Speed or velocity can be included but is not absolutely necessary. It must be remembered that speed alone cannot determine shower association. Meteors from the same shower can have different speeds. Shower members that appear close to the radiant or close to the horizon will appear to travel slower than those seen high in the sky or far from the radiant. The velocity is used in conjunction with the actual path of the meteor to help determine the correct shower association.

Some swift meteors possess persistent **trains**. It is often interesting to keep track of just how many and how long they last. Extremely bright fireballs can leave trains lasting minutes instead of seconds. While interesting, train data is not absolutely necessary.

Accuracy is how well a meteor was seen. This is important but not absolutely necessary.

As you can see it really takes a minimum of effort to provide a good observing report. Be sure to complete the top half of the form as thoroughly as possible. As for the actual data entry one could just record the types of meteors seen within a certain period and still provide useful data. Of course we would hope that you would try to record more as it provides a more complete record of the observing session.