

sort of information about magnitude, colour and other details. Large meteoroids can give rise to sound effects which are, of course, only heard after the event, and may take several minutes to travel to the observer after the fireball has been seen. The time at which such sounds are heard must be noted as it can be used to derive the distance from the observer to the closest part of the track. National organizations will frequently send someone to check upon details reported by members of the general public, such is the importance of these major events. Such reports are useful material to add to the more detailed information provided by amateur astronomers, and indeed, may sometimes be the only information available.

Some amateurs are working in a very difficult field in trying to obtain spectra of meteors. As only the very brightest will give sufficient light to expose the film adequately after being dispersed by a prism or grating, very few meteor spectra have ever been obtained, but a few amateurs are achieving quite considerable success. Similarly, one or two advanced amateurs have constructed equipment which will

record meteors and fireballs photoelectrically. With the general growth in expertise in electronics, doubtless more observers will be making such observations in future.

One fairly simple, but strangely and regrettably neglected, aspect of meteor observing concerns telescopic meteors – i.e. those seen when using any form of instrument, even binoculars. Some observers undertake special telescopic meteor watches, but many events are seen when other objects, especially variable stars, nebulae and galaxies, are being observed. As they form part of faint streams, the study of these meteors is difficult and requires a large number of observations. They should always be recorded and reported.

Finally a word about what could be regarded as the visual observer's most important piece of equipment – a piece of string! If this is held up along the meteor's path it makes the task of determining the position relative to the stars much easier and more precise. A stick, suitably graduated in degrees, is a more sophisticated version, rather better and easier to use, but less portable.

On this type of chart the paths of meteors should actually appear curved, but if the start and end points are accurately marked the true paths may be calculated. Meteors are taken to belong to a particular stream if they appear to come from anywhere within a small circular area around the theoretical radiant position.

