



(Updated Notes 1/11/2000) – Diagrams not updated

This is intended to promote discussion of what members actually record. We will do this at the end.

How many of the members are active observers ?

How many actively keep an observing logbook ?

Look back on some events that I wish I had recorded including the Bovedy Meteorite which I saw crossing South London 25th April 1969. This being a rare & very impressive event encouraged my interest in Astronomy.

Observing Logbooks are the subject of lots of discussion & good intent but few actions !

Most people agree that they should keep one, but few do. Lots of books recommend that you keep one but out of all the Astronomical books & magazines that I have I can only find one reference in **Sharing The Sky by David Levy** - he started his observing log book in 1961 & recorded his 10,000th observation in 1997.

One interesting use of logbooks is an example from Climatology rather than from Astronomy is the use of ships logbooks from Whaling ships in the 1800's to determine the extent of Ice in the Southern Ocean. The captains of the ships could hardly have imagined this use for their log books.

We must not forget that Messier's observations still live on in the form of Messier numbers & people still examine his logbooks to try to clarify the duplication of M101 & M102.

Another application are the observations collated by Halley of the English Eclipses of 1715 & 1724 this data has been reanalysed recently to determine if the diameter of the Sun has changed.

What is an Observing Log ?

- ▾ It's a contemporary record of your observations
- ▾ Usually a book but must be durable to survive the damp at night
- ▾ Standard forms available from sections of the BAA in standard format to allow submission
- ▾ Computer programmes are also available

Computer programmes tend to enforce fairly rigid formats - you need to choose a system that is flexible enough to allow sketches. Some advantages are that you can edit the text to include new information & paste in pictures however will the data format be readable in 10 - 20 or 300 years ?

A computer may be the best tool to use to create an index of your log books but you need to think if/ how you intend to use the index in the field.

Indexes are easy to do if kept up to date but need lots of dedication to update it if you let it slip !

Why keep an Observing Log ?

- ▾ Provides a permanent record that you can use as a basis for similar observations
- ▾ Recording the results helps train the Eye Brain Combination
- ▾ Provides a solid basis for the preparation of formal reports
- ▾ Allows you to discuss your results with other - more reliable than memories !
- ▾ Helps prompt your memories of your successes
- ▾ Allows you to improve your technique by learning from your failures

For instance when taking a photograph of an Astronomical Object you may have another record of a similar object in your logbook that you can use as a basis for the exposure. To be useful you need to have recorded both the 'visual description of the object and the equipment & film used as well as details such as the sky condition.

If you are a CCD & computer fan a record of filenames of the flat fields , dark frames and picture files used will be very useful if you want to rework a picture.

What should the Log Contain ?

- ▾ There are no definitive rules - you need to develop a system that works for you !
- ▾ It must contain sufficient information so that the observation could be repeated
- ▾ Leave spare space for additional notes in the future
- ▾ Use a tape recorder or video if it helps

It's very difficult to add the details latter due to the imperfections in human memory.

However keep it brief & concise

A tape recorder may help but it may take a long time to transcribe the details

Some Suggestions for Contents

- ▾ Sequential Number
- ▾ Date & Time Started
- ▾ Date & Time finished
- ▾ Location
- ▾ Observing Conditions
(Clouds, Seeing, Limiting
Magnitude)
- ▾ Others Present
- ▾ Telescope & other equipment
used
- ▾ Temperature - Dewpoint
- ▾ Moon Phase

These are the page headings

Date & Time in UTC (GMT) of course !

Limiting Magnitude includes Transparency & the effect of Light Pollution

The names of others present are useful so that you can compare their notes
at a future date or perhaps they will share in the naming of your new comet !

Typical Observation Records

- ▼ RA/Dec or Name of Object
- ▼ Equipment Settings
- ▼ Exposure Time / f Number
- ▼ Photographic Frame No.
- ▼ Filenames & locations
- ▼ Description
- ▼ Sketch of the object
- ▼ Size of Object
- ▼ Problems found & solutions

These are the records per observation

The sketch just helps recognise the image when it comes back from the processor.

If you are using the sketch to record visual observations it is interesting to come back to it latter and see if it still looks the same.

Are there any rules about filling it in ?

- ▾ Should be filled in while observing
- ▾ Information added from tape in another colour
- ▾ Any additional information added later in another colour
- ▾ Remember you may want to read it by Red light
- ▾ No marks for neatness but it must be readable
- ▾ Use codes for frequent items but put a key in the book

While you should fill it in while observing. However it may not be practicable to carry your logbook all the time, the use of a small pocket notebook to record chance observations is OK. When you transcribe the observation you should add a note that this was transcribed from contemporary notes. Leave space for additional notes latter - one option is to write on the right hand page only adding additional notes on the left

Discussion

- ▾ What do members of this society believe is the best format for an observing log ?
- ▾ Should we have a separate log (book?) for each type of observation ? Solar, Meteorite, Variable Star, Comets etc. ?
- ▾ Do we use paper notebooks or a computer ?

New slide for discussion:

Slides 5 & 6 will give us some ideas to start from