Observing Tips

Written by Administrator Sunday, 22 May 2011 12:31 - Last Updated Saturday, 31 May 2014 21:56

Article 1

Andy Devey's Observing tips – Updated 29 May 2012. There are lots of books and web resources for you to read up on this subject but here are a few quick and easy pointers for you to consider:

How much time do I have today? Prior to retiring in August 2011, I personally had very few time opportunities due to work commitments. This is one of the reasons that I made my portable triple solar telescope set up and the additional support frame for my pocket digital camera. This was featured in the November 2009 issue of Astronomy Now
 I always

have it set up ready to take out and do a full disc drawing within just a few minutes.

 What are the weather conditions, are they favourable to do a drawing, get a few video sets to get some nice stills or is it clear enough to get some decent video sets for an animation run? I always start by checking the cloud conditions on www.Sat24.com and also the

local weather forecast

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 Make an assessment of the seeing conditions, favourable seeing allows higher resolution and greater magnification while poor seeing can make photography a complete waste of time! How much does that limb appear to be boiling? For a hint at the seeing conditions then check the

Jet Stream over Europe

Jet Stream Over Europ

Check the current solar features. I always use my <u>Hydrogen Alpha PST</u> and 80mm
 Williams Optics

<u>Baader</u>

-filtered refractor to check the Sun and produce my daily drawings. These are dated and marked with the correct Universal Time (UT) as these will later be used to produce and then submit my monthly report sheets to the BAA Solar Section Director – Lyn Smith.

- * Is there an explosive event occurring? If so, there is no time to set up the tracking mount! Just get the lap top out and stick the video camera straight in to your scope [PST] on the Alt azimuth mount. Center the object and then let the scope steady for a couple of seconds and then record for 7 seconds at a high frame capture rate. You can always rotate the image and correct for field rotation in Photoshop later, so just make sure that you capture it!
- Set the angle of your video camera to get the correct orientation of the image. The easiest way I have found to do this is firstly check out the full disc image on the left side of www.spaceweather.com make a sketch of this in your note book. Put your video-camera into you CaK or white light telescope and rotate the camera until the sunspots are at the same orientation as the

Remember that you will later be able to flip or rotate images in Photoshop to match the NASA

image orientation if needed!

- Make sure that you can see the live video image on your laptop. I have made an observing box that sits on top of my workmate, it is black lined and has an observing blanket Velcro fitted to the front of it.
- Adjust your focus. I have pencil marks on my draw tubes for normal focus or with a 2xBarlow. If necessary use a ruler to measure the focus point and record this in your book. Adjust the focus in and out several times until you are happy with it. Remember to keep checking focus as the telescope temperature changes throughout your observing session.
- Grab that valuable data! Set the video camera to automatically capture say 2000 frames and number each set with the date and time!
- Place every video into a file named after that same date.

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- Remember to back your data up into a separate hard drive as you can easily get 100gb of data in a photography session.
- Make a written record of everything that you do in the observing/photo session. I even
 make a note of the time of every video set, and record any seeing condition changes or
 cloud out losses at the time. Do a review at the end of your session noting what went
 well and what went wrong and any improvements that could be incorporated into your
 next session.
- There is an excellent Observing Guide to the Sun published by the British Astronomical Association

that can be purchased in paperback or electronic format.