

WHAT TO DO ON THOSE CLOUDY NIGHTS

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As amateur astronomers we have all shared the experience of having too many cloudy nights and not enough viewing sessions. I personally find it frustrating to have made plans to view an historical celestial event only to be thwarted by Mother Nature's impetuous moods. So what does one do to maintain their enthusiasm for studying and observing the night sky? That all depends on what you intend to get out of the hobby. If however, the clouds don't bother you, then you indeed are a special breed of astronomer.

The Casual Observer

To some, observing the night sky may be as simple as stepping out the front door and looking up. They may be interested in identifying the various constellations. The easy ones, such as Ursa Major (The Big Dipper), Orion or Leo may be child's play to them, but so many constellations exist that may not be readily identifiable. Leo Minor, Boötes, Canis Minor and Lepus are some that come to mind. The point is that looking at a star chart, planisphere, or planetarium program can increase your knowledge of what is over head in the night sky. Maybe following the procession of the planets is your thing. You can create charts that show the movement of the brighter planets relative to the surrounding background stars. This will be more fun when tracking Mercury, Venus or Mars, as the gas giants, Jupiter and Saturn, do not move quite as quickly through the sky.

The Binocular Observer

I have a pair of 15 x 70 binoculars and I never go observing without them. They give quick wide views of the night sky and their aperture brings out so much more detail than my tired old eyes can see by themselves. Many deep sky objects (DSO's) can be observed with them. Living in St Andrews, I have observed many a Messier object, Globular Clusters and Open Clusters among my favorites. I love the challenge of finding them. On those nights that I can't observe I try to identify potential targets by looking at sky charts and computer software. My limiting magnitude due to light pollution in St Andrews runs 3.0 to 4.3 depending on transparency. Keeping that in mind I then select my targets. Observers may want to maintain some sort of objects-observed logbook. This is invaluable in keeping track of what you have seen, as well as the time and conditions that were present when you observed.

The Telescope Observer

The different types of telescopes available to the amateur open up many avenues to those that are handy with tools. Many items fabricated by an individual may enhance the observing pleasure of the night sky. Newtonian reflectors on Dobson mounts (Dobs) are notorious for being a bit difficult to keep an object in the FOV during observation. Making a Poncet-mount tracker can simplify the tracking of objects for this type of scope. Scopes with large apertures sometimes will bring so much light to an observer that a planet's details and contrast may be washed out. Constructing a simple aperture mask can vastly improve contrast on planetary detail. Setting circles and a simple protractor for elevation can be made and added to a dob base. These can make finding deep-sky objects much easier when software is used as an adjunct. Many filters can be made using colored acetate sheets. Making a collimating tool from a 35mm film canister is also a very rewarding project. If you are into astrophotography, some home projects may include construction of a focusing mask or a knife-edge focuser. A barn-door tracker makes a handy accessory for wide-field imaging. Astrophotography also requires a great deal of enhancement using software such as Adobe Photoshop, ImagesPlus or Maxim DL. The learning curve for astrophotography is exponential (as can be the costs) but so are the rewards. Learning how to fully use planetarium software like SkyMap Pro or MegaStar¹ will entertain you for many evenings. If home projects are not for you, then read, read, read. If you are like me then the more you learn about this hobby the more you will want to learn.

Conclusion

Depending on your interest level, boredom from lack of clear skies can be replaced with many home projects that will improve your observing experience. Projects can be as simple or as complex as one chooses. Don't let clouds detract from the rewards of this great hobby. I'll leave you with this one thought. When the hobby becomes more work than fun, put it away for a sunny day. Clear and Dark Skies to all.

¹ or *Stellarium*. Added 2017.