WHAT TO ENTER INTO YOUR TELESCOPE OBSERVING LOGBOOK

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The reason for the object description requirement is to educate the observer to be a more detail-oriented observer—to actually "observe" the object and not just "see" it. In the end, you wlll become a better observer. You cannot learn to "observe" from a book. It can only be mastered with eyeball to eyepiece. All of your logbook entries should include information that could be helpful when you go back to what you observed: date, time, telescope, sky conditions, etc.

The description should tell someone what makes that object different from all the rest. This is possible in any size of optical instrument. You can't say that M70 looks like M13 even though both are globular clusters. You wouldn't describe the Great Orion Nebula M42 the same as the Crab Nebula M1, even if they both are nebula and appear as fuzzy clouds in the eyepiece. M31 looks nothing like M65 even though both are spiral galaxies seen at a fairly similar angle.

The intent of the requirement of the object descriptions is to have you pick out details to the best of your ability. These details are what make the object unique.

Things such as:

- Is the object round, oval, or irregular shaped?
- If the object is oval shaped, how stretched out, or oval, is it; ie. 2 times longer than wide, 4 times longer than wide, even more? Is it basically just a little streak?
- Does the galaxy or nebula have sharp edges or does it fade gradually away to nothing? If it fades away to nothing, does averted vision seem to increase its size?
- Does the galaxy have a brighter core area, or is it an even brightness across the entire surface? Is the brighter core a large area, or does it come to a stellar point?
- In globulars, is the central area large and full, or very pointed and stellar-like?
- In open clusters, are all the stars the same magnitude? Can you guess at the number of stars visible?
- Does the open cluster stand out well against the starry background, or does it blend in making it difficult to determine the edges?
- In nebula, are there any denser or lighter areas? are there any stars involved in the nebula?
- What else is in the field of view that is interesting? other deep sky objects? a nice double star? any colorful stars? Is the field of view densely packed with stars? Did a satellite just pass through? Etc.
- And of course, any other thoughts you have while viewing the object that might make it personal to this observation. After all, this is **your** observing log.

Yes, it seems like a lot of work and very tedious, but after a dozen or so observations, it becomes second nature to ask yourself these things. What you end up doing is training your eye to see detail in the objects. And after doing this, each object does indeed become unique in its own way.

Also, remember that sky conditions are not the same as Seeing and Transparency.

Seeing is how steady the atmosphere is. A good indicator of this is the twinkling stars. If stars are rock solid near the horizon, the Seeing is excellent. If the stars overhead are twinkling, then the Seeing is horrible. Seeing is what makes stars appear bloated and shimmery at higher magnifications. Seeing is also what makes very close double stars easy or difficult to separate.

Transparency is how dark the sky actually is. Looking at nebula, galaxies, and planetary nebula are all affected by transparency. When you look at one of these objects, it appears gray. If the background sky is also gray (because of light pollution, water vapor, etc.), there is very little contrast between the object and the background sky and the object is difficult to see. If the background sky is black, you are looking at a gray object against a black sky and the contrast between the two is higher making it easier to see the object and pick out details. Most people determine how dark the sky really is by looking at the zenith and finding the faintest star they can pick out with their naked eye. They then look up the magnitude of that star and use that as their transparency rating.