

Observing The S.M.A.R.T. Way

By Mike Hotka

You have a telescope and take it out under dark skies, those skies that are full of stars. You look up in awe and then start trying to find something to look at. You may start out by viewing the solar system objects. The Moon is cool to see. So are the brighter planets.

You may progress to things you've heard called Messier objects. These objects are pretty easy to find and cool to look at in your telescope. For the next few outings, you may revisit these same objects, or add newer Messier objects you did some research on.

There may become a point where you wonder if this hobby is really for you? You are not having any fun using your telescope. If you are not having fun, you are questioning, "Why am I doing this?"

For me, this question came shortly after I had started to consistently use my telescope under dark skies. I built a telescope with the help from my Dad, so I had invested quite a bit of time in the hobby already. But the satisfaction of seeing celestial objects was not there for me.

I was fortunate enough to find a mentor who helped guide me past this point and show me there was so much more to see than what I had been observing up to this point. He set me on the path I walk today.

Initially, I enjoyed the variety of objects in the Astronomical League's Messier Observing Program. After completing this program, I completed the Double Star Observing Program and some of the binocular Observing Programs.

Along the way, I met a good astro-friend, Brad Young, from Tulsa, Oklahoma at an Okie-Tex Star Party. In talking with him, I found out he had set himself a goal of observing 5,000 unique celestial objects. The unique aspect of this observing goal was the fact that no matter how many times you have seen M57, it only counts as one unique celestial object observation.

I was excited about this goal and adopted this same observing goal for myself. This one goal is the driving force that keeps me observing. Many years ago, I had to double this 5,000 object count goal because I had achieved 5,000 unique object observations. As I am writing this article, I have observed 7,534 unique celestial objects.

What Brad had introduced me too was goal setting. This is the concept that if you have clearly defined goals, that are realistic to achieve, your mind takes over to find creative ways to achieve those goals.

There is a goal setting philosophy called S.M.A.R.T., which stands for **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-Bound. S.M.A.R.T. goals are easily applied to our hobby. Whether you want to see 10,000 unique celestial objects, or image all the Abell Galaxy Groups, these kind of goals will drive you to getting your telescope out, month after month, and observing/imaging the wonders of the universe.

My Observing 10,000 Unique Celestial Objects goal fits the S.M.A.R.T. paradigm as follows:

- Specific – 10,000 unique objects need to be observed.
- Measurable – It is a count. I use an astronomy database program to keep track of what I've observed and generate the statistics I need to support this goal.
- Achievable – My initial goal was observing 5,000 unique objects which I surpassed many years ago.
- Realistic – I had found a love for the sky by the time I heard Brad's goal and adopting this goal seemed very real to me.
- Time-Bound – This is the one part of this goal setting process that is vague, with respect to our hobby. Looking at the idea behind Time-Bound another way, I get out as often as I can to view objects I have yet to see. I make *time* to observe.

Once this goal was defined, my mind took over to find objects to observe I have not seen before. There is a simple solution to my search for objects and that is the variety of Astronomical League Observing Programs, with each program having its own list of objects to view I had not seen.

Satisfying the observing 10,000 unique celestial objects goal had a side benefit that was not initially obvious. It has allowed me to complete so many Astronomical League Observing Programs. When I complete one, I immediately start the next. I am always viewing new objects I have never seen before. Each new object I logged increments the unique object observed count, always inching closer to the end goal.

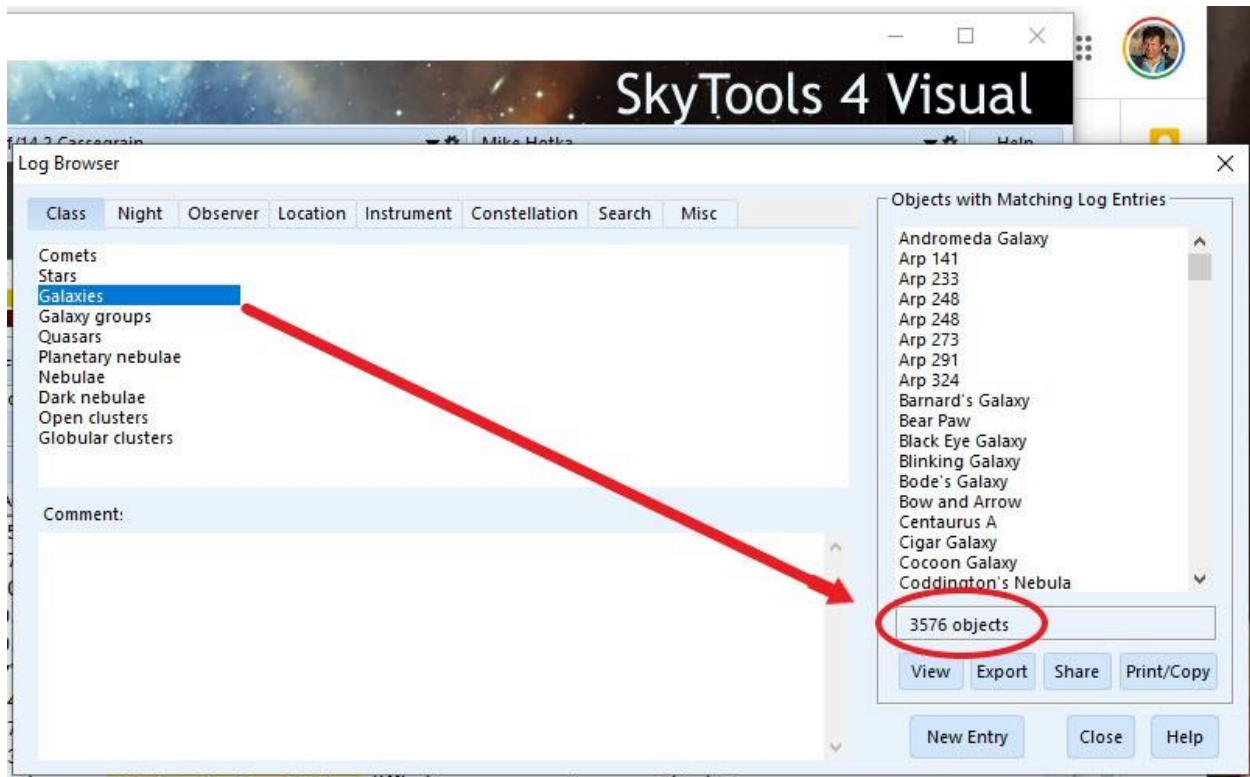
Make sure your goals are **S**pecific. For me, a goal of taking my telescope out every month was too vague. The goal I adopted infers that. A fine goal might be to observe all the Astronomical League's Observing Programs. Another might be to observe from all the National Parks in the continental United States. Be careful with a goal like this because a goal, as related to our hobby, should be designed to get your telescope out more often. Visiting National Parks to observe might only happen twice a year. But if that is all you have time to for observing, then that would be a good goal.

With my specific goal, the progress can measure one of the two ways. You could create an Excel spreadsheet of the objects you will observe. Then have a column that is the date and another,

the time of the observation. Create a COUNTA equation to count the number of cells of the date column that have a value in it and voila, there is your observed object count. The rows list a unique objects, ergo, the count is the number of unique celestial objects observed.

I use an astronomy database program called SkyTools 4 (ST4) to keep track of what I've observed. I've purchased the Standard Edition, which aligns with my observing goal nicely. More on how I use ST4 for my astronomy hobby in next month's article.

To measure my 10,000 unique celestial object observation count, ST4 has the ability to count the different *class* of objects, those I've observed and logged into the database. There is a user interface to search database for objects with an observing log created for them. The following picture is this ST4 interface. You can see the number if galaxies I've seen and logged into the ST4 database is 3576:



You can separately search all the other classes of objects you've logged into the database. In an Excel spreadsheet, add a row per object class to a spreadsheet containing the count of these objects observed. Use the SUM function to create a total sum the individual counts. This allows me to measure my progress towards my 10,000 unique object observations goal after all the observed objects for that observing outing have been logged into the ST4 database.

If you find you have lost the fun of our hobby, try setting a near-term, achievable goal to rekindle your flame. I am proof that setting my S.M.A.R.T. goal made all the difference for me. I

have fun observing and cannot wait for the next New Moon cycle, so I can get my telescope out under dark skies and find objects I've never seen before.