From last month's article, you have an idea of what is possible, but cannot figure out how to get started. You look at the equipment some club members own, and are overwhelmed as to how to get started. The great thing about our hobby is you can start simple and add on.

One item an amateur must possess is a good pair of binoculars. It does not matter the size, although 7x35 or 10x50 are the most common sizes used. 7x35 show a larger area of the sky than 10x50, which magnify more. Either size would be a good choice to own.

I often use my 10x50 binoculars to find the star field I wish to swing my telescope to. So, purchasing a good set of binoculars is a nice starting purchase to get into our hobby.

A red flashlight is the second must have item. Either a red LED light, or red cellophane rubber banded over the front of a regular flash light will work. Red light does not affect your night vision as much as a white light will. Once your eyes become night adapted, the red light will help keep them in this desired state.

Third is a notebook and a pen or pencil. This is to record your observations. I prefer a pencil, for I can draw items I see a lot easier than with a pen.

Last, some form of star charts. These can be either a formal star atlas, or printed star charts from a computer star charting program. I found this online Deep Sky Browser on the internet at <u>http://messier45.com/cgi-bin/dsdb/dsb.pl</u> which is a great charting program.

These four items are all you need to do either the Astronomical League's Binocular Messier or Deep Sky Binocular Observing Clubs, two excellent programs to get you introduced into our hobby without spending a lot of money. The Astronomical league's web site for these observing clubs will list the rules and objects of these clubs.

Starting our hobby in this way will allow you to determine if this is your cup of tea. If it is not, you have a nice pair of binoculars to use outdoors for other hobbies, like bird watching.

Say you want to start observing the sky with a telescope, but are not sure about whether you want to spend the money to purchase a good one. No problem. Our club has a fine 10 inch telescope, with a finder scope and eyepieces that you can borrow for your viewing enjoyment. It's lightweight and easily ported to a darker location in almost any vehicle.

Why a darker location, you might ask? Other than looking at the Moon or the Sun, deep sky objects are best seen when your eyes are fully dark adapted. That cannot happen in your backyard, unless you live in a rural area. Second, the man-made sky glow, called light pollution, can make even the brightest deep sky objects very hard to see. Many club members like to go to places like the Pawnee Grasslands (Cactus Flats), east of Ft Collins or Kim's Place, just east of Longmont, to get away from city lights. Once you start observing the sky, whether you are doing one of the Astronomical League's Observing Clubs, or just looking at objects that you have heard are great to look at, consider settling on a standard format to record your observations. There are many "observing forms" that one can use. Look at the advantage of each and decide what works best for you.

I use Microsoft word documents to capture my evening's observations. I transpose my pencil notes and drawings in my college ruled, spiral bound notebook, onto a nice piece of paper, which I 3-hole punch and put in a notebook. These notes include the date of the outing, where I went, when I arrived, the conditions of the sky at sunset, the time and description of the object that I see in the eyepiece. I record the magnification used and the affect any filters have on the object. If what I see in the eyepiece impresses me, I try to make a sketch of it, which is added in the margins of my typed log report. About every half an hour throughout the observing session, I will note the sky conditions. I record the seeing, transparency and the current temperature. I also indicate if a wind is present and from what direction.

At last count, I have observed somewhere in the neighborhood of 800 objects. Each observation is in my 3 ring notebook, nicely typed. To index this information, I use a computer program called Deepsky Astronomy Software, developed by Steve Tuma. I really like this program, for you can input observing lists of objects you wish to observe and print star charts associated with these objects.

This software package has an observation log interface, which is very nice and very easy to use. By calling up an observing list into the program's memory, you can select an object that you recently observed, and enter all the information about when and where you observed the object. You could use this log interface to capture your description also. I choose not to do this, for I want a "hard copy" of my observing report. I just log the data and time I observed an object in this log interface. I then use the report utility, which prints a report for the objects you observed. I use this report as an index into my 3 ring notebook to find the corresponding observation and the description of the object.

This might seem like a backward way of doing it, but I don't trust computers to store my observing reports. So I just use the computer to maintain my observing lists, print star charts and keep an index of the objects I observed.

A website where you can download these kinds of programs is at <u>http:://www.astrotips.com</u>. This site was talked about in a recent Sky and Telescope. Try several of these programs and determine if any are right for you. Most are free. Some have a fee associated with them.

What is important is to log what you see and be able to access the information at a later date. How you achieve that is completely up to you.