

The Prairie Astronomer

How To Find Things Without Getting Lost...

by Dave Knisely

AARGH!!! I CAN'T FIND THIS STUPID OBJECT WITH MY STUPID TELESCOPE!!

If you say this more than once during a star party, you may need a little help. Many people marvel at the way the veteran observers in our group can swing their scopes from faint object to fainter object in seconds without even batting an eye. The reason behind this is simple: **EXPERIENCE!** It took me two years of frustrating observing sessions with my 2.4 inch refractor before I could find much with it. You have to learn the sky by observing it often, and you will run into problems from time to time. However, there are a few short cuts that can help you get away from the frustration I experienced as a beginner.

The first tip I have is **LEARN THE CONSTELLATIONS**. This may sound a bit mickey-mouse, but I assure you, it is essential. You don't have to learn all of them at once, but you should devote at least some of your time to observing and recognizing them. One good reference is the **FIELD GUIDE TO THE STARS AND PLANETS**, by Donald Menzel. In it are maps of the night sky for each month of the year drawn with and without the lines and names of the constellations. A north facing and south facing view are provided to give you some idea of the way things should look when facing those directions. Use this book and get out to a star party with only a flashlight and maybe a pair of binoculars. **DO NOT USE YOUR TELESCOPE YET!!** It will only distract you (I'll leave mine in my car if you want help). Several members of our club are already doing this, so seek them out and stay away from the big guns for a while. The newest Field Guide edition also contains a compressed version of the Tirion Star Atlas, but try not to look at this initially.

The second tip I have is **GET A GOOD ATLAS OF THE SKY**. The one that comes to mind immediately is Will Tirion's **SKY ATLAS 2000.0**, available from Sky Publishing. Get the **BOUND ADDITION**, because the black and white version can seem a bit cluttered. The old color edition of Skalnate Pleso Atlas of the Heavens is a good substitute if you can find a copy cheaply.

The third tip I have is **GET A GOOD FINDERSCOPE AND/OR THE TELRAD FINDER**. The finder should have a lens between 30mm and 50mm in aperture and should have a true field of view of from about four degrees to a maximum of six degrees. Too small a finder won't show you all the stars on the atlas, and too large a finder will show you far too many, resulting in confusion and frustration. The Telrad finder allows you to see the sky with a sort of bull's-eye superimposed on it. Using it can be easier than using a normal finder.

The last tip I have is **PLAN AHEAD**. If you are trying to locate something, look at the atlas before you go out to the site. You may want to sketch the field around the object from a binocular view or from your atlas, but get familiar with the star patterns around it. Then, you can use the overlays in the atlas and the Right-Angle-Sweep method to quickly locate even faint deep-sky objects fairly quickly. This is the method I usually use, and most of the locations of objects in the Observing Chairman's Report are given in the right-angle-sweep directions. And above all, **DON'T GIVE UP!** Half the enjoyment in amateur astronomy is finding and observing things that few people on this planet will ever see. It may take some time, but you **WILL** see them.

President's Message

by Del Motycka

Will the person who borrowed the Atlas Missile Site plans at the July meeting please return the plans at the September meeting? Others wish to see them and they belong to the permanent file of the Club.

The drouth has taken six of the cedar trees planted last spring. I'm continuing to take water to them and hope to save the rest. We will plant replacement trees next spring at the annual clean-up.

Remember, the September meeting is the time nominations are made for next years officers of the Prairie Astronomy Club. Everyone is encouraged to participate.

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Junior Members and Newsletter Only Subscribers...\$10/yr; Regular Members... \$24/yr; Family Memberships...\$27/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following officers: Del Motycka (Pres)489-2520, Ron Veys (V.Pres)464-1449, Kim Ellen Owen (Sec)423-7440, Dan Neville (Tres)476-7772, Ron Debus (2nd V.Pres)435-5688. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 9255 CADY AVE #14, OMAHA, NE 68134 no later than 7 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory in Lincoln, NE.

Observing Chairman's Report by Dave Knisely

THE NEXT SCHEDULED START PARTY IS ON FRIDAY, OCTOBER 7TH AT THE ATLAS SITE. Autumn skies offer the best of views of things both inside and outside our galaxy. M52 is a fine open cluster for most instruments. It can be found about 5.5 degrees west and 2.5 north of Beta Cassiopeiae. This cluster is a little hard for small telescopes to resolve, but moderate sized scopes show it as a fairly rich medium sized group of about 50 stars. The brighter stars seem to be on the west side of the cluster, and in my 10 inch it almost looks like there is a dark nebula over the east side. Also in the area is the faint nebula NGC 281, located 1.5 degrees east of Alpha Cassiopeiae. A four inch rich-field may pick it up as a small hazy area around a faint star, but to get a good look at it requires at least a six inch and a nebular filter. In a 10 inch with the Lumicon OIII filter, the nebula shows much detail and looks like a kidney with some interesting dark detail.

Up near the north celestial pole is a famous but little observed open cluster, NGC 188. Located about a degree south and a bit west of the star 2 UMi (in Cepheus), NGC 188 is a moderate sized group of rather faint stars that should be a challenge for a six inch. This cluster is thought to be one of the oldest open star clusters known in our galaxy with an 8 inch showing about 50 of its ancient members.

Of course, most people will be taking a look at M31 this month. Located about a degree and a half west of Nu Andromedae, this giant galaxy is seen especially well in 11x80 binoculars. It does not show much detail unless large telescopes and low power are used. A six inch will show the star-like nucleus, while under good conditions an eight will show some patchy detail in the south-west arm. A ten inch will show two of the dark lanes on the north-west side of the galaxy and several of the star clouds in the south-west arm. None of these details are very bright or high in contrast, so the observer must use averted vision to the fullest.

M33 is another galaxy that will show detail to the patient observer. Located about 3.5 degrees west and one north of Alpha Triangulae, this object is easy to see in even small binoculars. However, its size and low surface brightness make its details very difficult to see unless low power and large aperture are used. Its spiral form can be glimpsed with an eight inch under good conditions, and many of its star clouds can be seen with a 10 or 12 inch. Especially notable is a small area of nebulosity known as NGC 605, located near the north-east edge. It is a diffuse nebula that should just be visible in a six inch, but it is actually in another galaxy!

The third brightest galaxy in the fall sky can be found in Sculptor. NGC 253, located about four degrees north and two west of Alpha, is a bright and highly tilted spiral that appears as a small faint streak of light in binoculars. A six inch will show the brighter center, while an eight or ten inch will show some mottling across the face of the galaxy. This object

responds well to the use of the Lumicon Deep-sky filter, especially when large telescopes are used to view it.

As a final target, try the large but interesting planetary nebula NGC 246, located about 1.25 degrees south and 3/4 east of Psi 1 Ceti. It should be visible in a four inch as a hazy patch of light around a faint star. The view with larger scopes doesn't improve much until you use the Lumicon OIII filter. The nebula then shows some mottling and some holes inside that make it look very much like its photograph.

Notes From a Club Member...

My interest in Astronomy goes as far back as I can remember or at least as far back as I could pronounce it. The planets have always fascinated me, and I'm a loyal Star Trek fan! I always wanted to become an astronomer, but instead I became a computer programmer. I put my love of the planets and stars on the 'back-burner' for awhile, but the interest was always there. I decided to renew that interest recently by joining the Prairie Astronomy Club. Now that I've gotten my love of astronomy back in my system, I'd like to do something meaningful with it by combining it with my programming skills somehow. If anyone has any ideas or advice or 'connections', they would be most appreciated.

Deb Cohn

At The Last Meeting...

by Kim Ellen Owen

The meeting was called to order at 7:34, and a welcome was extended to all visitors.

President Del Motycka extended an invitation to the manager of the Firth COOP and one of the property owners adjacent to the Atlas Site to visit the next star party on September 9. He wanted to make sure he had cub approval for the invitation (which he does). He has also obtained the name of the Superintendent of the Norris schools, and the Superintendent and members of the Gage County Board of Supervisors will be invited also. Officers of

the Board of Directors of the Firth COOP will be invited at a later date.

Ron Veys asked Del to announce the Open House to be held at the Observatory on Wednesday, September 21 from 8:00 until 11:00. Russ Ginzmer will supervise and the names of volunteers to work that evening were taken to be given to Russ.

Jake Winemiller, a Pound Junior High School science teacher, asked the club for permission to bring his Astronomy Class to the Atlas Site. Discussion was deferred, but no objections were raised to the proposal.

Ron Veys and Dave Owen will be beginning work on the Site Outhouse. They plan to use donated materials, but need to purchase some of the lumber. Ron Presented some tentative ideas.

Dan Neville explained that renewal notices are out: \$8.00 for Deep Sky, \$14.00 for Astronomy, \$8.00 for Telescope Making, and \$10.00 for Odyssey. Money must be given to Dan by the October meeting.

Del has tentatively lined up someone to cut down the rest of the trees.

Dan Neville presented the Treasurer's Report. There is a \$2080.00 balance in the savings account, and \$452.00 in checking. The report was approved. The Secretary's Report was approved as corrected.

Under Old Business, plans for the outhouse at the Site were discussed further. Del would like us to go ahead with the project, and suggested that \$100.00 be appropriated for initial expenses. Dave Knisely moved to allocate \$100.00 immediately. The motion carried.

Russ Copple reminded members of a General Observing Class offered through Continuing Education a UNL. It is a 3 hour course offered on Thursday with Dr. Don Taylor instructing.

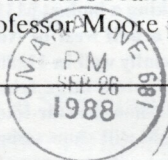
Under new business, Del read a letter from McDonald Observatory offering their "Star Date" bimonthly magazine. An individual subscription is \$10.00; 10-49 issues are \$49 per issue. See Ron Veys if you are interested. A weather page in the Des Moines Register has moon and planetary information. It was suggested that the club try to interest the Journal or Star in publishing such information. Carroll Moore remarked that the Observatory has sent calendars to the paper in the past, and that nothing came of it. Lee Thomas indicated that the papers can be somewhat difficult to work with--but he will try again with the Journal. Praise was offered on Ron Debus's article in last month's Prairie Astronomer. Good idea Ron! A motion was made to adjourn; the motion carried. Professor Moore presented a program on the last Solar Eclipse.

The Prairie Astronomer

c/o The Prairie Astronomy Club, Inc.

P.O. Box 80553

Lincoln, NE 68501



First Class Mail

Earl Moser
Hickman, NE
68372

Expr: 9/88F

Next PAC Meeting September 27, 1988