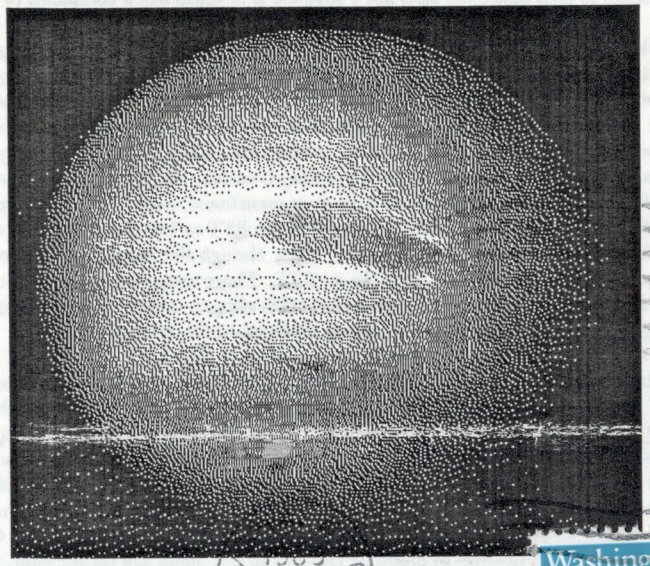
## Books For Sale:

Bluestem Books, a used and out-of-print bookstore, has recently purchased a collection of newer astronomy books. They are offering an introductory offer to members of the Prairie Astronomy Club of a 10% discount on all astronomy books from now through the month of November. Bluestem Books is located at 712 'O' street in Lincoln and is open Tuesday through Saturday, 11:00 to 6:00. You need only to remind the person at the desk that you are a member of the club to get your discount.



**The Prairie Astronomer**
**c/o The Prairie Astronomy Club, Inc.**
**P.O. Box 80553**
**Lincoln, NE 68501**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**Next Meeting October 24th, 1989**

Volume 30 #10
October 1989

# The Prairie Astronomer

## Next Meeting 1 Week Early!!!

## Club Officer Elections

**IMPORTANT NOTICE TO ALL PRAIRIE ASTRONOMY CLUB MEMBERS: The next scheduled regular meeting of the Prairie Astronomy Club will be held on TUESDAY, OCTOBER 24th (not the 31st) at 7:30 pm at Hyde Observatory. The meeting date was changed to prevent it from falling on Halloween when most parents will be helping their little ones trick-or-treat, and when the rest of us may be attending parties that have little to do with Astronomy. PLEASE COME, since the annual election of officers will be taking place. If you are at all interested in the future of our organization, please come and vote. These elections tend to be a lot of fun, so don't miss it!!**

## A Note from "Old Iron Fist"...

A substantial number of club members failed to respond to the request for Astronomy, Deep Sky and Telescope Making renewals by the deadline. Your treasurer would like to keep the paperwork down to a small avalanche. Each late renewal causes a lot of unnecessary communications with Kalmbach Publishing Company, and increases the chances of mishandling. It's so much easier to send all the subscriptions in at once instead of dribbling them across months. PLEASE! If you want to renew any of these magazines, please get your money to Lee Thomas no later than October 24. The following members have subscriptions for which I have received no renewal instructions as of Press Time:

| | | |
|---|---|---|
| Russ Alberts A/D | Steve Bornemeier A | Debra Cohn A |
| Brendelyn Hartwig A | Dave & Jean Kiple A/D | Keith May A |
| Johnson Winemiller D/S | | |

Also, orders will be taken at the October 24th meeting for Guy Ottewell's ASTRONOMICAL CALENDAR 1990. (That's the big book with the hand-drawn charts, not a wall calender). This year's price, if we order 10 or more, is $8.40 each. Money in advance please.

# Observing Chairman's Report

## *by Dave Knisely*

THE NEXT SCHEDULED STAR PARTIES WILL BE ON OCTOBER 27th AND NOVEMBER 24th AT THE ATLAS SITE. The star party on September 29th was a real winner with clear skies, at least 40 people, and eight or nine telescopes being present. Let's keep it up! Galaxies and open clusters tend to dominate the fall skies with a open cluster M52, located about five and a half degrees west and two and a half north of Beta. It is a moderate sized group of fairly bright stars with brighter stars on the west side of the cluster. In large instruments, the cluster appears to have a dark area on the east side with a group of four stars in a sub-cluster near the north edge. Another striking cluster in NGC 457, located half a degree north-west of Phi Cassiopeia. It is a moderate sized group of fairly bright stars that shows some scattered strings of stars running out from the center. Also in Cassiopeia is the diffuse nebula NGC 281, located 1.5 degrees east of Alpha. It appears as a faint hazy area in a poor open cluster when viewed in an eight inch, but using the Lumicon UHC or OIII filter, the object becomes well defined with some interesting dark detail being visible.

Of course, the best spiral galaxy in the sky is visible now, namely M31, located near Nu Andromeda. Surprisingly, it is a better binocular object than a telescopic one. One good night, I managed to see indications of the first dark lane on the north side of the nucleus, as well as the haze from the arms with a pair of 10x50 binoculars. Large instruments must have fields greater than two degrees to take it all in. Some of the star clouds in the south-west arms can be seen with averted vision in an eight inch aperture.

The third best spiral galaxy visible in small instruments can be found about four degrees north and two west of Alpha Sculptoris, namely, NGC 253. Visible in small binoculars as a small fuzzy streak, this galaxy will show some vague detail in a six or eight inch aperture, especially if the Lumicon Deep-Sky filter is used. In a ten inch, the galaxy appears to be very mottled especially near the center, with hints of the spiral arms being visible south-west and north-east of the nuclear region. A fainter but still interesting barred spiral galaxy is NGC 613, located about half a degree north and half west of Tau Sculptoris. It appears as a dim elliptical patch in a six inch, with an eight showing the central bar running through the nuclear region. A ten inch will make the bar rather obvious and also will reveal a few faint patches off each end of the bar.

Farther north in Cetus is the fairly large planetary nebula NGC 246, located one and a quarter degrees south and three quarters east of the faint star Psi 1. Visible in a four inch, this object appears as a dim hazy disk with a couple of stars inside. A ten inch equipped with the OIII filter will show some interest P53 ing light and dark detail inside giving the interior a scalloped look. If you want to see a close relative of a quasar, look one degree east and a half south of Delta Ceti for the Seyfert galaxy M77. Visible in fairly small instruments, this galaxy shows its active star-like nucleus in a six inch aperture. A ten inch at moderate to high power will show hints of the object's spiral structure, although it is far from obvious.

As a final target, you may want to take another look at M74, the fairly bright but small face-on spiral galaxy that lies 1.4 degrees east and a half north of Eta Piscium. While visible in a three inch as a small hazy spot of light, this galaxy does not reveal detail easily, even in fairly large instruments. A six inch will show the brighter nuclear region, while an eight will make the outer haze seem irregular. A ten under excellent conditions may show some vague patchy detail in the outer haze, but it takes larger instruments to give the observer any indications of the overall spiral structure.

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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: Ron Debus (Pres)435-5688, Dave Knisely (V.Pres)223-3968, Kim Ellen Owen (Sec)423-7440, Lee Thomas(Tres)483-5639, Jack Dunn (2nd V. Pres)475-3013. 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.

# The Reviewer *by Dave Knisely*

## Deep-Sky Observing With Small Telescopes

by David J. Eicher and Editors of Deep-Sky Magazine
1989, Enslow Publishers, Inc., Hillside N.J., 336pg, $24.95

The number of books on Deep-Sky objects has been increasing of late, and David Eicher's latest entry "DEEP-SKY OBSERVING WITH SMALL TELESCOPES" is an interesting entry in the race for good observing manuals. It is a compilation of the data and thoughts of six different observers concerning everything from double and variable stars to clusters, nebulae, and galaxies. What size instrument the authors mean when they say "small" is never firmly established, but it seems to be an aperture of six inches or less. I consider six inches to be a moderate size, but I suppose it is small when compared to an 18 inch Dobsonian.

The book is organized into eight chapters and four appendices containing a great deal of information for such a small book. The introductory chapter provides the beginner much needed information on selection of instruments, objects, and the star atlases. It also extols the virtues of small instruments, especially their low cost, portability, and relative ease of operation. I do take issue with the way refractors are treated in the book. They do not necessarily have "narrow fields of view", nor are they restricted too long f/ratios. True, they do tend to be expensive, but the three element apochromat isn't even mentioned, even though it is probably the best optical performer of all. The authors also slight the RFT as being "not a good scope for small objects like galaxies and planetary nebulae" even though the largest two objects of those classes, M31 and NGC 7293, are BEST seen in an RFT. There are a number of other slight misstatements and oversimplifications which do hurt this chapter a bit. Still, the beginner probably won't go wrong if he follows the recommendations in this part of the book.

The succeeding chapters are: Double Star, Variable Stars, Open Clusters, Globular Clusters, Planetary Nebulae, Bright and Dark Nebulae, and Galaxies. Each chapter begins with a brief history of the observation of the chapter's subject, followed by some helpful hints on observing and a brief catalog of interesting targets for the interested amateur. I especially liked the chapter on double stars, as it provides a concise reference on those double stars which are really worth observing with small instruments. The chapter on variable stars did leave out a couple of good colorful variables, V Aquilae, and TX Piscium, which are two of the reddest stars in the sky. And somebody actually mentioned one of my favorite open clusters Collinder 399 (the Coathanger)! The drawings of globular clusters in the book are rather poor, making them all look like fuzzy blobs. The photographs of them are fairly good, so that makes up a bit for the drawings. The chapters on planetary nebulae unfortunately fails to mention the use of Lumicon's UHC and OIII filters for "blinking" or viewing planetaries (they are NOT "polarizing light pollution filters").

The chapter on Bright and Dark Nebulae also fails to mention the beneficial use of nebular filters (do they have something against Lumicon?). These filters turn objects the authors term "difficult" into things that are easily seen in rather small instruments. The authors also make a few mistakes on the classifica p73 tion of some nebulae, notably NGC 6888 (Cygnus Bubble). They claim it is a supernova remnant, but it is more likely an emission "bubble" of gas blown by the extremely strong stellar winds from the Wolf-Rayet central star.

The chapter on galaxies is fairly good, although the authors misuse the term "nebulosity" slightly. They also give a few galaxies a "greenish" color which is probably a psychological effect rather than true color. I also object to their excessive use of the term "bright". Very few deep-sky objects appear bright in a six inch, especially galaxies. The drawings of galaxies are also not very good, except for the one of M31, which accurately depicts the view through a ten or twelve inch on a good night. Also, some of the descriptions of galaxies tend to be a bit too optimistic as to how much detail can really be seen.

The appendices contain a brief bibliography, a Messier catalog listing, and a very limited list of telescope manufacturers. No mention is made of astronomy clubs or the Astronomical League, so beginners are left out on their own as far as contacting others with similar interests. Still, DEEP-SKY OBSERVING WITH SMALL TELESCOPES does provide the beginner with a good starting list of things to look for in the night sky and would be a good addition to the average amateur's bookshelf.