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# THE PRAIRIE ASTRONOMER

Volume 18, Number 9

August 29, 1978

## ODDS AND ENDS ABOUT NEWSLETTER, ASTRO LEAGUE, MEMBERSHIPS

If you got the last issue of *THE REFLECTOR* (newsletter of the Astronomical League), you may have noticed an item regarding a change in the handling of the computer mailing list for that publication. The entire list is being shifted from Atlanta, Georgia, to Peoria, Illinois. Some of our members have had difficulty receiving *THE REFLECTOR*, even though your ALCOR (Astronomical League Correspondent), the Editor of this newsletter, has sent updates every six months, and we have received back confirmation that correct addresses have been added to the computer list.

We are due for another updating November 1. This will be the first time around for the new computer, an outfit called Timesharing Resources. Be sure to let Lee Thomas know if you did not receive the last *REFLECTOR*, dated August, 1978, and you are not a new member who joined the club since May 1, 1978. (Club members who placed new memberships after that date will automatically be added to the *REFLECTOR* mailing list with the November 1 update.)

Please try to get your renewals in at first notice from Sky & Telescope. (Normally, the magazine sends two cards-- the first 2 months prior to expiration, the second during the

month of expiration, but sometimes only one card is sent.) It can take as much as six weeks to get renewals processed, so if you wait, there may be a suspension of delivery on your magazine. We cannot guarantee that Sky Publishing Co. will backtrack and make good on lost issues. If you cannot make it to the first meeting after receiving your renewal notice, drop the card and a check or money order made out to PRAIRIE ASTRONOMY CLUB (not to any individual club officer, and not to Sky & Telescope) for the dues amount (\$12.00 regular member, \$14.00 family) in an envelope addressed to PRAIRIE ASTRONOMY CLUB, P.O. Box 80553, Lincoln, Nebraska 68501. Do not send it to any individual club officer -- that merely slows things down.

### AUGUST MEETING NOTICE

The August meeting of the Prairie Astronomy Club will be held at Hyde Memorial Observatory, Tuesday, August 29, at 7:30 p.m. (A meeting for the Observatory Steering Committee will precede the club meeting at 6:30 p.m.)

This month's program will be presented by Ed Epp, who will talk

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## OBSERVING CHAIRMAN'S REPORT:

This month presents perhaps the best sights of the entire year as far as deep sky objects are concerned. Binoculars or rich-field telescopes are most useful in Sagittarius, especially near the stars Gamma and Delta Sagittarii, as many dark lane-like features cross the star clouds there.

Use at least an 8-inch telescope and look on a very good night near RA 17h58m, DEC -25°00m, or about 3 degrees north and a bit west of Gamma. Here, you will find a rich star field with one important difference. If you look very carefully, you will find a round spot where there are no stars. It looks as if someone blotted them out with a black hole. This is an example of a dense cloud of obscuring matter known as a Bok globule and it appears more striking as the telescope gets larger, or as the magnification gets lower.

There are globular clusters all through this area, so sweeping here should yield some interesting sights. Look 1½ degrees north and 1-3/4 degrees east of Lambda Sagittarii for

M22, a beautiful globular which should resolve under fairly low power. If it were located a bit farther north, it would rival M13 for beauty. Those with 3- or 4-inch telescopes may even see a few of the cluster's stars.

Look slightly more than two degrees north of Mu Sagittarii and you will find a fairly rich star field containing a globular cluster and several open clusters. A beautiful open cluster is M23 located 2 degrees north and 3½ degrees west of Mu Sagittarii. It is a splendid object for small telescopes, as it contains many bright stars, and it is rather spread out.

Looking farther north into Scutum, take in M11, just about 1½ degrees west and ½ degree south of Eta Scuti. Will someone look at this beautiful cluster and tell me what color the bright star near the center is?

In Ophiuchus, look at the large open cluster NGC 6633, located 5-3/4 degrees east and 4 degrees north of Rho Ophiuchi. It is seen best at very low power and shows up fairly well in small telescopes.

--David Knisely

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THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club, and is free to club members. Yearly subscription without club membership is \$4.00. Regular membership (includes one-year subscription to Sky & Telescope, club newsletter, and four quarterly issues of the Astronomical League newsletter), is \$12.00. Family membership (includes all regular privileges, plus one additional vote in club elections) is \$14.00. Newsletter Editor, Lee Thomas (489-3855). Address all correspondence to PRAIRIE ASTRONOMY CLUB INC., P.O. Box 80553, Lincoln, Nebraska 68501.

## HELPFUL HINTS ON EYEPIECE SELECTION (PART 6)

*(Editor's note: This is the final part in a series of articles by club President Rick Johnson. The series began in Volume 18, Number 4, March, 1978.)*

### Miscellaneous Hints:

In Nebraska skies the normal maximum useful magnification seems to be about 25-30 power per inch or 250 power, whichever is lower. Thus, for a 6" telescope 150-180 power is about optimum. An 8" seems to top out at about 200-240 power and all larger perform best when limited to 250 power. Two or three nights a year you might be able to use powers of 30 to 60 per inch. In selecting eyepieces or eyepiece and barlow lens combinations you should strive for high quality but few optical elements at this optimum power level. Thus, in an f/8 telescope an 8mm f.l. movie camera objective (if you can find one) is the best choice. Next best is a 16mm plus 2x barlow or 20mm and the dakin 2.4x barlow or a 24mm and a 3x barlow. Plössl or orthoscopic design are best for these focal lengths though some good symmetricals might also be available. Other types of eyepieces are not really recommended for use at this optimum power level.

### Eyepieces I Personally Can't Stand

**ZOOM EYEPIECES:** These come in both Orthoscopic and Kellner systems but all seem to suffer from the same problems: Over-correction and narrow field of view at low power and wide field of view at high power. Eye relief is lousy at most powers. At no

power level does the image begin to be as good as a standard eyepiece of the same optical design. Unfortunately, I bought one and don't have the guts to even give it away.

**KONIG:** These offer an even wider field of view than erfle eyepieces, usually 80°!! Even at f/8 image quality falls rapidly toward the edge of the field of view. When used with a barlow lens it does perform well though still some degrading of image quality at the field's edge is evident. The eyepiece does have good contrast. Eye relief is lousy, you must have your eye pressed against the lens of the eyepiece in order to see the full field of view. If you wear glasses while viewing you will be lucky to see a 30° field. Those who do not have astigmatism and don't mind the eyepiece stuck in their eye will find it a good eyepiece if they can ignore the outer 20° of the field of view.

**LARGE SURPLUS ERFLES:** These usually are 32-38mm in focal length. At one time they could be purchased for \$25-\$30, but now most cost over \$80! They do have a very wide field of view if mounted in a 2" focuser. They perform adequately at low power but do not work well with a barlow lens so are restricted as to usefulness. When they were inexpensive, they were worth the cost, but they

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**EYEPIECES (CONTINUED)**

seem way overpriced at today's prices. If all you have is an inch and a quarter focuser, then the 32mm Jaegers plössl has almost the same field of view and forms a brighter image with higher contrast.

With all the eyepieces on the market today I've been able to sample only a few of them, usually at conventions and other get-togethers. There are probably many other excellent eyepieces out there at inexpensive prices. I hope this series has given you some ideas about what to look for when hunting these eyepiece bargains down. I'd like to hear your comments on your experiences while wading through the eyepiece jungle.

--Rick Johnson

**AUGUST MEETING NOTICE (From Page 1)**

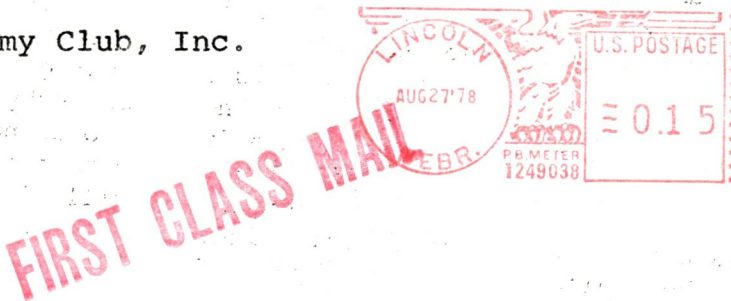
about a calculator program he has written to simulate a rocket launch from any planet.

Rick Johnson will also report on the national convention of the Astronomical League that he attended in Madison, Wisconsin, last month.

**NEXT MONTH'S ISSUE WILL BE LATE**

*Your next issue of THE PRAIRIE ASTRONOMER will not be mailed prior to the club meeting scheduled September 26. Your newsletter editor is planning a combined business/vacation trip during the period when the newsletter would normally be prepared.*

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