

Monocerotis is the large rich open star cluster M46. The stars are faint in a 2.4 inch, and are spread fairly evenly over a 30 minute of arc field of view. The group is spectacular in a six inch, with over fifty stars being visible. Users of six inch and larger apertures should also see the faint planetary nebula NGC 2438 on the north edge of the cluster. It appears as a small faint fuzzy disk with a darker center and an eighth magnitude star just off center when viewed in an eight inch.

Membership Card???

Ok, so here's a first try at coming up with a PAC membership card. I tried to keep things simple this time out. Please let me know if you have any suggestions, etc. If we can agree on a format, I can send out the blank 'paper' cards in next month's newsletter, and each member can laminate it as they see fit.... Let me know what you think!!! John Lortz

 Official Member of <i>The Prairie Astronomy Club</i>	
Signature _____	Date _____

The Prairie Astronomer

c/o The Prairie Astronomy Club, Inc.

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Lincoln, NE 68501

First Class Mail

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Next Meeting January 30, 1990

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THE Prairie Astronomer

Creationism vs. Astronomy

by Rick Johnson

I don't know why, but everywhere I turn I am running into some creationist who is absolutely amazed I am unphased by his "pseudo-arguments" for a 6000 year old universe, etc. Finally they always end with something like "Why can't you people have an open mind?" Laughing in their face isn't a good idea and they won't take "But I do, it is you who don't" for an answer. Recently I came across a good article on the subject in SKEPTICAL INQUIRER magazine. I quote from page 190 of the Winter 1990 issue.

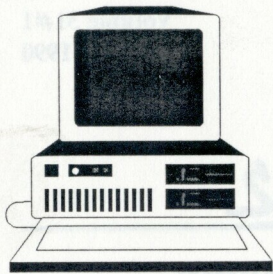
..."creation scientists" abdicate the right to call themselves scientists when they join the Creation Research Society, one of the country's largest creationist organizations, because they must sign an oath dictating what they will and will not believe.

And they have the nerve to say we don't have an open mind. I don't know about you, but I have certainly never signed such an oath and never will. I reserve the right to change my mind. They don't! End of discussion!!

By the way, I heartily recommend this magazine. It comes out only 4 times a year so it doesn't strain the reading time budget and is full of mind jarring things. The power of the pseudoscientists is ever growing in ways I wasn't aware of before subscribing a few years ago. Their polls of what people believe is really scary and shows we have made little progress from the dark ages. Some recent polls taken by the Inquirer have shown that as many as 48% of science teachers and newspaper editors can't separate pseudoscience from the real thing.

I know this to be true from my contact with teachers at Hyde. They teach astronomy using the Astrologic Zodiac rather than the astronomical one. The astronomical Zodiac (a path several degrees wide along the ecliptic that the planets may be found along) contains some 16 or more constellations. While the one taught by the Lincoln School System only has 12. Ignoring the planets, the sun passes through 13 constellations. The 12 has to be a hold over to astrology! None of the teachers even knew what the ecliptic was or how it related to the Zodiac. If kids were taught the right sky they'd know astrology's 12 wasn't right and a president wouldn't use astrology as one basis for running the country's highest office!

For those interested a subscription is \$25 a year or \$59 for three years. There is no advertising so it costs more than ad supported magazines. Call 1-800-634-1610 to subscribe.



Computers In Astronomy

by Rick Johnson

SKY, the planetarium program I have been working on for sometime now is finally finished (for now anyway). It requires an IBM computer with at least 256K of memory and a graphics board. Versions are available for CGA, Hercules, EGA and VGA. By far the best rendition of the sky with the most stars is the VGA version. CGA shows only the main stars in the major constellations. Hercules and EGA show 87 constellations (Mensa is missing) and twice as many stars as CGA. VGA shows the sky as seen from a dark site. All versions give the planets' (moon and sun too) positions in Alt-Azimuth as well as equatorial coordinates, rise and set time and distance from the earth. You can view from anyplace on the earth for any time between 1900 and 2100.

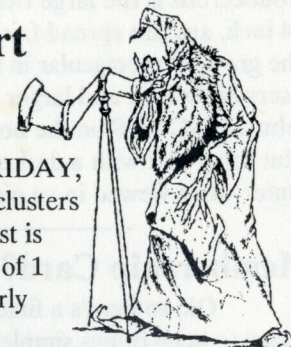
All versions have been recently revised and features have been added (and bugs removed) so if you have an old version you may want the new one. I can supply the programs on any IBM disk format. Just bring me a disk (three for 360K disks if all versions are wanted) at the meeting and I'll get them back to you the next meeting. Or just drop by my house with your disk and I'll copy it over for you. Modem transfer is possible too.

All versions but CGA support a math co-processor if you have one installed (not required). I can supply a co-processor only version in CGA if desired. Source code is included for those who wish to play. CGA requires any BASIC compiler while the other version require QUICKbasic 4.0 or higher if you wish to recompile the programs with your changes.

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.

Observing Chairman's Report

by Dave Knisely



THE NEXT SCHEDULED STAR PARTY IS FRIDAY, FEBRUARY 23RD AT THE ATLAS SITE. Open clusters still dominate the mid-winter skies, and one of the best is M35, located one degree north and 1.25 degrees east of 1 Geminorum. It is a large and fairly rich cluster of fairly bright stars that is pretty in small instruments and spectacular in moderate apertures. Less than a half degree to the south-west of M35 lies the small cluster NGC 2158. Visible as a granular hazy patch in a four inch, this group has rather faint component stars and usually takes a good six inch aperture to show many of its members. Also in Gemini is the Eskimo Nebula, NGC 2392, located about 1.5 degrees east and a half north of 56 Geminorum. This two-shell planetary can be seen in fairly small apertures as a fuzzy star, but larger instruments will show the faint central star in a small fuzzy ball of haze with a faint outer ring. An eight inch aperture sometimes makes the outer shell seem patchy, while a twelve inch and the UHC filter bring out interior detail. In northern Gemini is another planetary nebula, NGC 2371, located 2.3 degrees south and 3/4 degree west of Rho. A good six inch will show this object as a pair of small faint fuzzy patches, while larger instruments and nebular filters show the hazy connection between the spots.

If you want a break from open clusters, take a look at the diffuse spiral galaxy NGC 2403. This object is visible in binoculars as a small fuzzy spot about one degree west of the faint star 51 Camelopardalis. Small instruments will show little detail in the galaxy, but eight or ten inch apertures reveal some vague mottling and hints of one of the spiral arms.

One of the more interesting nebulae in the sky can be found about two degrees east and a bit north of Epsilon Monocerotis, namely NGC 2244, the Rosette Nebula. On a dark night, this object can be glimpsed in binoculars as a faint haze surrounding a small open star cluster. This nebula is best seen in rich field instruments and with nebular filters, appearing as a large elongated cluster of bright stars in a dark "hole", surrounded by an irregular hazy region. In a ten inch with the OIII filter, the nebula becomes highly detailed, showing much of what can be seen in some photographs. Also in Monoceros is the interesting open cluster NGC 2301 located two degrees south and one east of the star 18 Monocerotis. It appears as an elongated group of 15 to 20 stars in a "Y" shaped formation with many fainter members showing up in large instruments.

Down south in Canis Major right on top of the bright star Tau is the interesting stellar group NGC 2362. In small telescopes it appears as a cluster of 15 to 20 faint star grouped around Tau like fireflies around a yard light. Larger instruments add a few stars and bring out a little color in Tau.

In puppis just over five degrees south and a quarter east of Alpha

PRAIRIE ASTRONOMY CLUB, INC. FINANCIAL STATEMENT
November 30, 1989

Beginning balance 12/03/88.....\$619.07
Ending balance 11/30/89\$1,004.54
Savings Account balance 11/30/89\$2,769.34

Income

Membership dues.....\$1,413.00
Sales to club members..... 812.88
Sales at Hyde Observatory..... 507.23*
Sales Tax collected at Hyde Obs..... 27.90*
Donations To Hyde Observatory..... 311.82*
Donations to Prairie Astronomy Club... 245.00
Subscriptions to:
 Astronomy Magazine 176.19
 Telescope Making Magazine 64.00
 Deep Sky Magazine 40.00
Atlas Site Key Fees 195.00
Miscellaneous Income 101.09

TOTAL INCOME \$3,893.91

Cash Disbursements (Expense)

Sky & Telescope Subscriptions\$ 864.00
Hyde Observatory Trust Fund 413.26*
Sales Taxes 29.98*
Postage 25.00
Newsletter Expenses 00.00**
Purchases of Hyde Observatory stock... 234.11
Purchases of Items for sale to members.. 607.38
Astronomical League dues..... 112.65
P.O. Box Rental 28.00
Subscriptions to:
 Astronomy Magazine..... 210.17
 Telescope Making..... 72.00
 Deep Sky Magazine 48.00
Atlas Site Property Taxes..... 61.20
Atlas Site Insurance..... 160.00
Miscellaneous Site Expenses..... 20.00
Miscellaneous Expenses & Adjustments.. 122.69
Transfers to Savings Account 500.00

TOTAL CHECKING ACCOUNT DISBURSEMENTS.....\$3,508.44

*Sum of Hyde Observatory Income items less disbursements to Hyde Trust Fund and Sales Taxes = Net club cash income on Observatory sales: \$403.71, an unknown amount of which was inventory.

**All newsletter expenses donated by John Lortz.