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THE PRAIRIE ASTRONOMER

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Meeting to Feature Help for New Telescope Owners on New Day

The December meeting of the Prairie Astronomy Club will not be held on the last Tuesday of the month because that day is Christmas. Instead, the club will hold its regular meeting the following day, Wednesday, December 26, at 7:30 p.m. at Hyde Observatory.

The club prepared and distributed a pamphlet, "SO YOU'RE BUYING YOUR FIRST TELESCOPE...SOME PRACTICAL SUGGESTIONS TO CONSIDER BEFORE YOU BUY!" before Christmas.

Anyone who received a telescope for Christmas, club member or not, is invited to bring his instrument to the club meeting Wednesday night, for some practical suggestions on how to assemble it correctly and use it to get the most out of the investment in time and money. If you have any friends or relatives that will be receiving a telescope as a Christmas gift, be sure they attend the meeting.

THE CASE OF THE WAYWARD HANDBOOKS:

A TALE OF CRUSHING DISAPPOINTMENT

The RASC Observers Handbooks which we hopefully reported would be available at last month's meeting -- weren't, as anyone who attended in the hope of receiving one learned,

Naturally, they arrived the very next day--sort of.

We ordered 18. Seventeen showed up in a box that looked as if the Army had conducted tank maneuvers on it. It had been liberally sprinkled with Customs Inspection stamps, and, since the squashed box had several large, obvious openings, the Post Office had applied their usual solution to leaky parcels-- they covered it with Saran Wrap.

Inside this partially renovated shipping carton were 10 copies of the Handbook that survived the trip in fairly good shape, though most bore scuffs and scars of one sort or another. The remaining 17 had apparently been routed past a frustrated strongman who mistook them for telephone books and attempted to rip them in half. Failing this, he removed their covers, leaving a few rattling around loose in the box to remind us what they looked like, but discarding the rest.

In short, we have 10 usable handbooks which will be sold on a first-come, first-served basis at the December meeting (please, no pushing or shoving). We have notified the RASC that we do not intend to pay for the remaining 8 missing or mutilated copies, but how this experience in destructive shipping will end is anybody's guess.

MESSAGE FROM THE PRESIDENT:

I'd just like to take this opportunity to say thanks to all the members of the club. I've really enjoyed working with all of you this past year. We've done a lot together: the Solar Eclipse trip, Astronomy Day at Gateway, Lincolnfest display, formation of the Messier Group, star parties, public nights at the observatory, rebuilding the club's telescope, just to mention a few.

Our membership has been steadily increasing (from 48 in December, 1978 to 58 in December, 1979). We've gained alot of new members and lost a few old ones. I've made alot of new friends and deepened my friendship with some old ones. We really have an excellent club here, and it's all because each individual member does his part in making the club the dynamic group that it is. I am privileged to be associated with such people. Thank you all, and I promise to keep doing my best for you and our club in the coming year.

Wishing you all a very Merry Christmas, and all the best in 1980.

-- Ron Veys

TELESCOPE NAME DEADLINE

A name for the club telescope will be selected at the December meeting by vote of the club members. Suggestions must be submitted in writing or by telephone to Ron Veys (along with an explanation of the name) before Wednesday, December 26. Written submissions only

will be accepted at the meeting. Winner of the Name The Telescope Contest will receive a copy of T.W.Webb's reference book, *CELESTIAL OBJECTS FOR COMMON TELESCOPES, VOLUME I: THE SOLAR SYSTEM*.

At press time, six entries had arrived for consideration. So, there is still time to get yours in.

THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club, and is free to club members. Yearly subscription without club membership is \$5.00. Regular membership (includes one - year subscription to Sky & Telescope, club newsletter, and four quarterly issues of the Astronomical League newsletter), is \$14.00. Family membership (includes all regular privileges, plus one additional vote in club elections) is \$16.00. Newsletter editor, Lee Thomas, 489-3855. Address all correspondence to PRAIRIE ASTRONOMY CLUB, INC., P.O. Box 80553, Lincoln, Nebraska 68501.

OBSERVING CHAIRMAN'S REPORT:

Orion commands attention this month as we look at a spur of the Cygnus-Carina spiral arm of our galaxy. The great Orion Nebula in the sword of Orion deserves a long, careful look. The detailed central structure is easily seen in a 4- or 6-inch telescope with the group of stars known as the Trapezium deserving special attention.

This group of stars was formed out of the nebula and presents an interesting optical illusion. To most observers, the group appears to be located in a dark "hole" in the nebula, while photographs and the use of averted vision show no trace of such a "hole". The illusion is caused by the fovea of the eye not responding to the faint light of the nebula when the eye is concentrating on the four stars of the Trapezium. There are many small puffs of nebulosity near the sword, so those with large telescopes should sweep the area.

Just east of Zeta Orionis is a faint nebula, NGC 2024. It is best seen with an 8-inch or larger telescope by placing Zeta just outside the field of view. The gas cloud shows bright and dark details, and looks a bit like a bushy tree.

About one degree south of Zeta is the famous Horsehead Nebula, a dark, tiny inclusion into a faint band of nebulosity, NGC-I 434. Most telescopes won't show the Horsehead unless conditions are unbelievably good. Try using the club's 12½-inch reflector to find the inclusion, but

be prepared to see something very tiny and poorly defined.

About two degrees north and 1½ degrees east of Zeta Orionis is a small group of nebulae highlighted by M78, a faint fan of light surrounding an 8th magnitude star. Moving far south into Lepus we find M79, a dense globular cluster located about 4 degrees south and 1½ degrees west of Beta. It is easy to see in small to moderate telescopes, but it is difficult to resolve. I can see stars on the fringes at 240 power with my eight-inch, but the center remains unresolved.

One final object is M41, an open cluster located 4 degrees south of Sirius in Canis Major. It is large and has stars of contrasting color in a dark field.

--DAVID KNISELY

LAST CALL FOR RENEWALS AT OLD PRICE!

If your membership is up for renewal, as indicated by your receipt of renewal notice from SKY & TELESCOPE, be sure to attend the December meeting and renew at the old prices.

AFTER DECEMBER 31, REGULAR MEMBERSHIPS WILL BE \$14, RATHER THAN THE OLD PRICE OF \$12, AND FAMILY MEMBERSHIPS WILL BE \$16, RATHER THAN \$14.00.

Renewals in our hands as of December 31 will be honored at the old rates. So, don't procrastinate! Attend the meeting, or send a check!

CLOSED VS. OPEN UNIVERSE ARGUMENT GETS MORE EVIDENCE FOR OPEN

Most astronomers accept the notion that the universe was born in a great cosmic fireball called the "big bang" and has been expanding ever since. But they have not resolved the question of whether the universe is open--expanding forever--or closed and destined eventually to collapse. A group of astronomers has reported evidence that the universe is open.

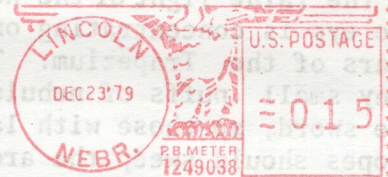
The work was done by Amos Yahil of the State University at Stony Brook, N.Y., Allan Sandage of the Hale Observatories in California and Gustav A. Tammann of Basel University in Switzerland. They studied an unusually dense region of nearby galaxies, called the Virgo Cluster, and

measured how fast our own Milky Way galaxy was flying apart from that cluster and from other nearby galaxies.

Even under the locally strong gravitational effects of the Virgo Cluster, the researchers found that the outward movement of the Milky Way was slowed only a fraction--10 to 20 percent--of what is considered the ideal outward expansion rate of the universe.

Traditionally, scientists have sought to answer the question by looking at things far away. By looking at the most distant objects, they look back in time. The light received has taken billions of years to reach earth.

THE PRAIRIE ASTRONOMER
c/o The Prairie Astronomy Club, Inc.
P.O. Box 80553
Lincoln, Nebraska 68501



FIRST CLASS MAIL

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Mr. Earl Moser
Hickman,
Nebraska 68372