

**Congratulations**

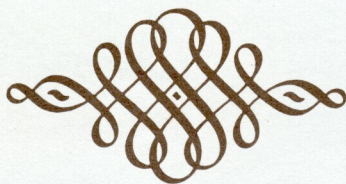
~ EARL ~  
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**P.A.C.**

**LIFE ACHIEVEMENT AWARD**

**RECIPIENT**

**MARCH 26, 1985**

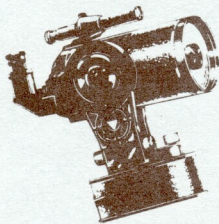


# Presidents' Message

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This month marks a very special time for the Prairie Astronomy Club. On March 26th we will be presenting Mr. Earl Moser with the first Prairie Astronomy Club Life Achievement Award. This award is the highest honor that our club presents to one of its members, and the deep feelings it conveys to the recipient are of the highest order. Everyone who has ever been a member of the Prairie Astronomy Club knows Earl, and therefore knows there could be no better person to receive the Life Achievement Award in its first offering. Few members have given the PAC the support, guidance, and time that Earl has unselfishly given over the many years since the club's creation, and I doubt that anyone will ever match his accomplishment. On the evening of March 26th we will present Earl with the award and with a banquet in his honor. This is just a small outward reward for what he deserves, but with it goes a deep rooted expression of thanks that we all feel inside. Thank you Earl...

John Lortz



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The Prairie Astronomer is published monthly by the Prairie Astronomy Club and is free to all club members. Membership expiration date is always listed in the right corner of the newsletter mailing label. Address all membership renewals to: PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501.

For further club membership information or suggestions contact one of the following: John Lortz (Pres.) 572-1451(Omaha), Ron Veys (V.Pres) 464-1449, Bev Hetzel (Sec.) 435-7881, Lee Thomas (Tres.) 483-5639, or Andy Corkill (Prgm. Chair.) 488-1096. All articles for the newsletter should be sent to newsletter editor, JOHN LORTZ 3119 MAPLEWOOD BLVD. #41, OMAHA, NE 68134, no later than 10 days before each club meeting date.

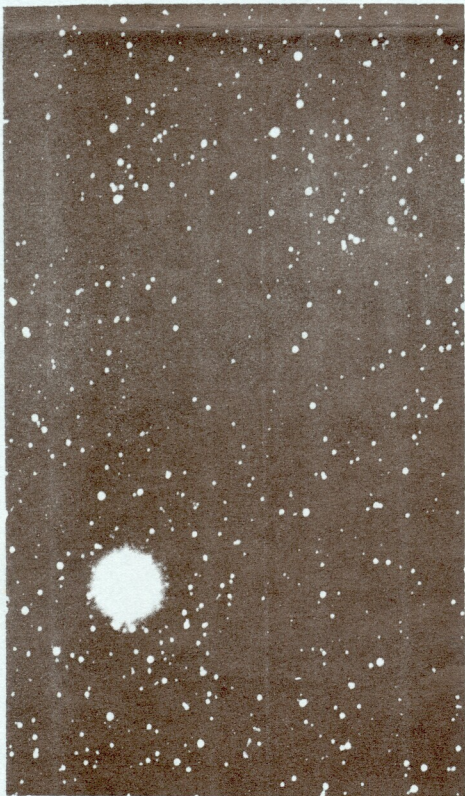
Jerry Workman wants to sell his home-built 10" f/5.6 reflector. It has a Coulter mirror, sonotube design, 1 1/4" Sky Micro focuser, 8 x 50 right angle Meade finder scope, and a 3" pipe fitting equipment mount (which, by the way, is very smooth and easy to use).

Jerry is also including the following: 2x Meade Barlow, red eyepiece filter, star catalog, and 6 eyepieces...30mm, 24mm, 18mm, 12mm, 9mm, and 6mm.

He will sell all of the above for only \$400...you can call him at 464-4256. (WHAT A DEAL!!!)

Don't forget to be at Lee's Restaurant early this Tuesday night. We will have a very short business meeting starting at 7pm to discuss Astronomy Day which is hitting us next month. We have little time and lots to do! Also, Russ wanted to pass along to everyone that separate checks will be handed out for the diner, and an automatic 15% tip will be added to your total. From the looks of things there will be a great turnout for the event. We hope you can make it! (The address for Lee's Restaurant is 1940 West Van Dorn)

## DEFINING ASTRONOMY



### RETROGRADE MOTION

The 'backwards' (ie. east to west) apparent motion of a planet against the background of stars. When a planet is moving retrograde, its Right Ascension is decreasing. A superior planet, which, being further from the Sun than is the Earth, moves more slowly than the Earth, will exhibit retrograde motion during the period around Opposition when the Earth is overtaking it. The planet appears to be moving backwards only because it is dropping behind the Earth. Conversely an inferior planet is seen to move retrograde while it is overtaking the Earth.

### PERIHELION

The point of closest approach to the Sun in the orbit of a body, e.g. one of the planets. In the case of the Earth, this point is reached on January 1 each year, when the distance to the Sun is 147,000,000 km, some 5 million kilometers less than the distance six months later when Earth is at aphelion.

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## AN EAST COAST MESSIER MARATHON

One of the astronomy clubs that the PAC keeps in close contact with is the Westminster Astronomical Society founded by an old PAC member many of you know, Curt Roelle. Although only started a little over a year ago, the club is progressing by leaps and bounds as indicated by its monthly newsletter.

An especially interesting idea popped up in this month's letter. On March 23rd the WAS plans on having its first Messier Marathon. Why a Messier Marathon? Curt puts it this way in his newsletter...

"Around the time of the vernal equinox it is possible to observe nearly all of the objects in Charles Messier's famous catalog in one night. This year the moon also cooperates, being only three days old on Saturday night, March 23-24....Observing begins once darkness descends. Twilight will end at 7:47pm EST on March 23rd; morning twilight comes at 4:27. Nature allots eight hours and forty minutes of darkness for completion of the list. The objects will be observed at a rate of 12-13 per hour, and practicing before the marathon is advisable..."

Included with the WAS newsletter was an impressive list of all the Messier Objects, their rise and set times, RA, DEC, and magnitude. The list was generated from computer using a TIM IV data base of nearly 700 deep sky objects, and the Pascal programming language. (copies of the list will be available at the PAC meeting, compliments of the Westminster Astronomical Society!)

We have to take our hats off to the WAS on this ambitious undertaking. We also should seriously consider a marathon of our own in the future. It sounds like a great idea. We'll let you know in the next couple of months how the WAS marathon worked out...but for now, the best of luck to them.

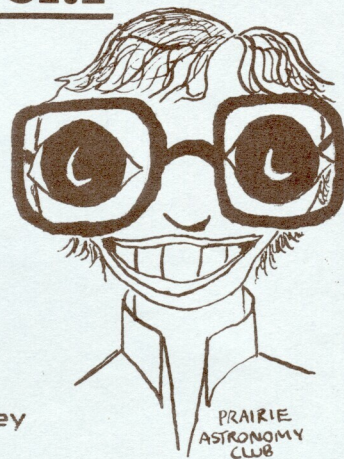


# OBSERVING CHAIRMAN'S REPORT

Star parties are scheduled for April 12th and 19th so get your telescopes ready because the Realm Of Galaxies is up! Deep sky objects are not as affected by optical performance as are planets or the moon, and yet they still lose valuable detail and contrast when the optics of the telescope are not first rate. One very useful way of assessing the performance of a telescope without extensive test equipment is the star test. All you need is your telescope, a good high power eyepiece (one that yields 30 power per inch of telescope or more), and a bright star that is nearly overhead. Adjust the eye piece so the image is a bit out of focus. It should be round with a brighter edge and possibly (if the seeing is good) several rings near the stars edge. Now adjust the eyepiece so that it is on the other side of the focus. It should appear the same as it did on the previous side of focus. If it's fuzzy or dim at the edge of the image when observed on one side of focus and bright at the edge when observed on the other side of focus, your objective may be showing signs of being over or under corrected. If the difference in appearance inside and outside focus is just perceptible, you probably have nothing to worry about, but if it is obvious, your objective needs refiguring.

by

David Knisley



Another star test is for astigmatism (people with glasses should keep them on for this test). Again observe the star image's appearance inside and outside of focus. If the image appears elliptical inside focus and elliptical in a different

direction when observed outside of focus, there is astigmatism present in the optics of the telescope. There are several possible causes including mirror clips that are too tight or a warped diagonal mirror, so don't panic if you see this. It could mean that the mirrors need some refiguring, but it can also mean that the tester's eyes need glasses! The telescope should be properly collimated for the tests to be accurate.



## IMPORTANT DATES

- 5th Full Moon 6:32 UT
- Good Friday
- A 7th Easter
- 11th Last Quarter 23:41 UT
- F 12th Messier's Death 1817
- STS Columbia 1st
- R Launch
- 18th Einstein's Death 1955
- I 20th New Moon 00:22 UT
- 21st Lyrid Meteor Shower
- L 27th First Quarter 23:25 UT
- 28th Daylight Savings Time Begins
- 29th PAC Meeting, 7:30pm

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

FIRST CLASS MAIL

