

Sept. 25

This month's meeting will be held Tuesday, September 30, at 7:30 p. m. at Olin Science Hall, Nebraska Wesleyan University. We will have an interesting program of Apollo 11 slides and pictures of the national convention of the Astronomical League in Denver. Also we will elect officers for the coming year. The following have been nominated thus far:

- President.....Earl Moser
- Vice President.....Larry Stepp
Ed Woerner
- Secretary.....Jess Williams
- Treasurer.....Rick Johnson
- Program Chairman.....Monte Cole
- Publications Chairman.....Larry Stepp
- Recording Secretary.....Eric Rudd
Roger Severns

Nominations will still be accepted at the meeting.

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The President's Report

A partial eclipse of the sun on September 11 was viewed by the public at Gateway. Our club had the honor of putting on this show for a large number of interested spectators. Three of the scopes were reflectors and used the projection method for viewing the eclipse. The other two scopes were questars, and they used their own sun filters and direct viewing. Ten club members were on hand to help in giving the public a safe view of the sun. Thanks to our public relations chairman this event was well covered by the radio, television, and newspapers.

Although the eclipse show was well attended by club members, some of the evening sky shows in the past were not. There were times when as few as three or four showed up for a sky show at Gateway, even on clear nights. Our club was presented with another \$50 check a few weeks ago. If we want to keep receiving this money for the club, the least we could do is have a decent number of members on hand for these sky shows. So come to the Gateway shows whether you have a telescope or not. We need the extra help for answering questions and setting up equipment. You may not receive this newsletter in time for the September 18 Gateway show, but let's have a real good turn-out in October.

Earl Moser

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In his article this month, Roger Severns mentions test double stars for various telescopes. But many doubles can be split with very small apertures. Alpha and Beta Capricorni, Epsilon Lyrae, Psi Aquarius (a triple), and Omicron Cygni can all be split without a telescope. In a 2.4-inch refractor, Monte Cole and Ed Woerner have split Antares (magnitudes 1 and 7--separation 2".9) and in a similar instrument Rick Johnson has split Epsilon Lyrae into four components.

This is just a reminder that club dues must be paid by the end of September. As Sky and Telescope magazine is included in the dues payment it is important that they be promptly paid to avoid missing an issue. Dues are \$8.00 for a regular membership, \$10.00 for a family membership, and a junior membership open to those under 18 is \$3.00. The junior membership does not include Sky and Telescope. All memberships do include membership in the Astronomical League. For those who do not want to be an official club member but want to receive the newsletter the cost is \$2.00.

If you do not plan to pay at the next meeting Sept. 30, please mail a check or money order to me by the meeting date. My address is: Richard Johnson, 1860 Pawnee St., Lincoln, Nebr. 68502. If you have any questions feel free to give me a call any evening after 5:00 P. M. My phone number is 423-6726. Make the check or money order payable to the Prairie Astronomy Club.

Richard P. Johnson
Treasurer

Testing Your Telescope By Observation

An accurate test of a telescope is often attempted by amateurs, however without an optical bench other means must be found.

Resolving power is the acid test of any telescope. For a 6-inch in summer Zeta Herculis is a good test. This is a double of about 1 second of arc separation, the stars being of 3.0 and 6.5 magnitudes. In winter Eta Orionis, magnitudes 4.0 and 5.0 at 1 second is an equally good test. The ultimate test for a 6-in. is Gamma Coronae Borealis, 4.0 and 7.0 magnitudes at 0.7 second. For all of these use about 250-300 power for best results.

Center your telescope on Epsilon Lyrae using about 100x. Any instrument 4-in. or larger should show you two images, split cleanly and without difficulty. If you can't do this check all of the various causes of astigmatism.

Try observing Jupiter or Saturn at about 100x. By examining the detail on the planets surface, looking for zones and belts visible, as well as spots and other markings you can learn about how good your telescope is in the way of color and spherical correction. Remember that any color effect with a reflector must be caused by the ocular, or because the planet is low in the sky.

Next, using a low power ocular of about 25x to 35x, with a field of over 1° look at some rich star fields. In summer look east or west of Gamma Cygni, in winter the field near Iota Orionis is good. Note the number of stars you see, watch for dimming of stars near the edges as you move your telescope slightly, also watch for distortion of the star images as they reach the edge of the field. This test will indicate the field size and vignetting qualities of your telescope, important in observation and photography.

While these tests are not definite and do not separate imperfections in the objective from imperfections in the eyepieces they have proved themselves practical. Try these tests on several nights and if you have a good instrument you will have the satisfaction of having proved its worth by direct observations.

Roger Severns