

THE PRAIRIE ASTRONOMER

Our next meeting will be Tuesday, October 26 at, as usual, 7:30 p.m. in the Olin Hall of Science on the Nebraska Wesleyan campus. Professor Moore will start his series of planetarium lectures on the movements of the planets. We will discuss, among other things, the 1973 national convention of the Astronomical League which we will be hosting in conjunction with the Omaha club. In addition we will have a film and an informal swap-shop and auction. Any member with any unwanted items such as eyepieces, finders, mechanical parts, atlases, photographic equipment, and the like should bring them to the meeting. Certainly anything any member wants to bring up can be discussed and, of course, there will be refreshments afterwards.

At our last meeting, officers for the coming year were elected. Those elected were:

- President.....Earl Moser
- Vice-President.....Dr. Robert Manthey
- Secretary.....Jess Williams
- Treasurer.....Monte Cole
- Program Chairman.....Larry Stepp
- Publications Chairman....Ed Woerner
- Recording Secretary.....Brian Dodson

Let's hope that this group can do as well as the previous officers.

THE PRESIDENT'S REPORT

In recent months I have received several suggestions to have the day and the time of our monthly meeting changed. Several years ago our club was changing its meeting time and place quite frequently, in order to best satisfy the majority of club members. We finally settled on the last Tuesday of the month, at 7:30 p.m., at Nebraska Wesleyan, and it's been there ever since. Now, it seems that perhaps Saturday even-

ing or Sunday afternoon would work out better. There is getting to be more and more conflicts with other meetings on Tuesday nights for some of our members and also prospective members.

A weekend meeting will in addition give out of town friends from other clubs in the area a chance to visit us.

I will bring this up Tuesday night, and I would like to hear from those who can't make it to the meeting.

We will let this matter "brew" for a couple of months before any change is made, if any

change is to be made at all.

On October 5th, there appeared in the Lincoln Journal a story about our club and some of its activities. A photo of sunspots was included with the article.

Thanks to Jess Williams for his efforts, and accomplishments in publicizing our club. If any others get a chance to publicize the club and its activities, go right ahead. We need all the publicity we can get ahold of.

Earl Moser

GATEWAY SHOW

There will be a Gateway show on Wednesday, October 27. We will be on the mall. We will plan to start around sun down, so bring your telescope and come on out.

WANT ADS

For Sale:

RV-6 with accessories in perfect condition. Also, 5 years Sky and Telescope. Call Scott Coatsworth--488-0091.

Four-inch refractor, without mount. Call Monte Cole--4881652.

7 X 50 finder, in fair condition--4669234.

## THE SKY FOR NOVEMBER

Mercury--An evening star, reaches greatest eastern elongation on the 23.  
Venus--Low in the south-west for about an hour after sunset, mag. -3.3.  
Mars--Well up at sunset, it sets around midnight, mag. -0.4, in Aquarius.  
Jupiter--Very low, it sets within an hour of the sun.  
Saturn--Rises just after sunset, in Taurus near the Pleides, mag. -0.2.  
Uranus and Neptune--Neither are favorably placed for observation.

The asteroid Pallas is in opposition on November 19 in Eridanus. For more information see The Observer's Handbook.

The Leonids reach maximum on November 17; at maximum there should be around 30 per hour.

### OCCULTATIONS

Quite simply, an occultation is the passing of one celestial body in front of another. The most commonly observed type of occultation is that of the moon passing in front of a star. When this happens, the event is known as a total occultation. Such events are frequently observed and if timed accurately can have real scientific merit.

A special type of such an occultation is that in which the moon passes tangent to the star in question, this is called a grazing occultation. Since the limb of the moon is not smooth, frequently the star will be seen to undergo repeated disappearances and reappearances as it goes behind mountains and reemerges in valleys. Since much of the lunar limb is poorly mapped, these observations obviously possess scientific value. In addition, since the star's position can be determined very accurately, they aid in further refinements in our

knowledge of the moon's orbit.

Such occultations are visible only along a line on the earth's surface. This line may be determined and observers set up along it at various distances on either side. Each observer times each disappearance and reappearance by calling "one" for each disappearance and "two" for each reappearance into a tape recorder which is simultaneously recording WWV. The precise time of each event may then be determined to within 0.1 second by playing the tape back and timing each "one" and "two" with a stop watch.

Anyone interested in observing total or grazing occultations should contact Ed Woerner for further information.

### Notes And Comments

An interesting object in binoculars is omicron Cygni. This star is easily located from the maps in Sky and Telescope magazine, is a sharply contrasted double with one component gold, and the other blue. Together

at low power they look much like Alberio. If you look for omicron, see if you can split it without optical aid.

As a reminder, your membership in the club confers simultaneously membership in the Astronomical League. Among the benefits of League membership is a 10% discount on all Astronomy books. For further details see the Reflector.

Anyone who would like to present a program, or has an idea for a program he would like to see presented, should talk to our program chairman, Larry Stepp.

The club library contains five years of back Sky and Telescope and a number of star atlases, and other references.

Anything anyone would like to submit for publication in the newsletter--ads, articles, announcements, comments, etc.--will be most happily received by the editor of your newsletter.

The following is a list of articles relating to astronomy. All can be found in current popular magazines. They are listed in order of increasing difficulty with the hardest being on the order of Sky and Telescope's technical articles.

Space World, Oct. 71, "On the Moon with Apollo 15". A lengthy article discussing this recent manned space effort.

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Science Digest, Oct. 71, Page 9, "They live in Skylab" by Bruce Frisch. A discussion of the Skylab program emphasizing planned experiments, the Skylab itself, and life on board. Page 55, "A New Family of Tektites". Discovery in Australia of tektite material believed to have fallen about four million years ago from the moon. Page 64, "Hunt for Meteorites". It reviews the nature of meteorites, their detection, and recognition.

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Aviation Week and Space Technology, Oct. 11. Reports the state of the Soviet space program and on manned flights after Skylab.

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Science News, Sept. 18, Page 195, "The Far Side of the Moon". This article discusses what Apollo space flights have learned about the back side of the moon and its many surprising contrasts with the near side.

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Science News, Sept. 25, Page 210, "The Mystery of the Missing Neutrinos". The solar neutrino detection experiment in South Dakota shows that the sun appears to produce fewer neutrinos than theory predicts. This article discusses the experiment and suggests possible explanations.

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Spaceflight, Sept. 71. This issue is devoted almost entirely to the problem of building and maintaining orbiting space stations and a discussion of its solution.

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Scientific American, Oct. 71, Page 49, "The Lunar Rocks" by Brian Mason. A discussion of the chemical composition and the structure of lunar rocks brought back by the first three manned moon-landings. Emphasis is placed on how these rocks differ from earth rocks with various inferences drawn.

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Electronics World, Nov. 71, Page 34, "Electronic Image Tubes in Astronomy" by Robert Heiserman. A discussion of the development of image-intensifier tubes and their use in astronomy with emphasis on modern designs.

## MEMBERSHIP LIST

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\*Family membership