

The Meeting Announcement

Our next meeting will be held on Tuesday, January 25, at the Olin Hall of Science. We will have a film on the Palomar Observatory in addition to other features of interest. Of course we will have refreshments.

At our last meeting Dr. Donald Taylor, formerly of Arizona University and now a professor of astronomy at the University of Nebraska, gave a talk on amateur research projects which would yield information of interest to the professional astronomer as well as provide a challenge to the amateur.

Our club has recently purchased a 24-inch refractor with a German equatorial mount and slow motion controls. This is a fine piece of equipment optically and mechanically and is for the use of the club's membership as they wish to do so.

If, some clear night, you'd like a tour around the sky, or merely want to see this fine telescope, please give me a phone call and come on over.

Lawrence Pilgram
1836 So. 58th
489-7651

Here are times for the lunar eclipse which will take place on January, 30:

Moon enters umbra...3:11
Totality begins....4:35
Mid-eclipse.....4:53
Totality ends.....5:12
Moon leaves umbra..6:35

All times are a.m. CST.

On the morning of March 8, there will be a grazing occultation visible from Lincoln.

In this issue, I have included an article of a technical nature based on an idea submitted by Steve Haack. Technical articles will gladly be accepted by your newsletter editor.

Notes and Comments

Now that I have put out three issues of The Prairie Astronomer, perhaps I should say something concerning my own philosophy about the newsletter. It is my wish that the newsletter be a forum for the exchange of ideas and information concerning the club and amateur astronomy. To this end, I am very interested in getting as many articles and suggestions as possible, and from as many sources as possible. Of course any club member may submit want ads to be published for free, as well as any other material, articles, book reviews, announcements, or other features. The deadline for publication is one week before the meeting; anything after that will be printed in the next month's newsletter.

Thanks to Lawrence Pilgram, Jess Williams, Donn Baker, and Brian Rugg for their contributions to the newsletter these past two issues. Remember, your editor is:

Ed Woerner
4530 Adams St.
466-9234

Must Reading:

Time, Jan. 24, p. 67-
"Of Mars and the Moon"

Space World, Febr. 72-
Mariner and Apollo 15.

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.

Sorry meteor watchers but no showers listed for February.

The President's Report

It has been nearly eleven years since the formation of the Prairie Astronomy Club, and I thought it best to write up a club history at this time, before some of the vital information is lost in the dark ages of years past.

I got my information from some of the charter members and other long time club members. Most of the information, however, was gleaned from dozens of back issues of our club newsletter. The oldest copy is dated April, 1962. Using the club library, and Jess Williams, and my own

collections I came up with 92 copies of the newsletter from April, 1962 till December, 1971.

There are 25 copies, missing yet. They are the months of June, September, and November, 1962; all of 1963 except February, October, and November; January through April, June, July, and November of 1964; May, 1965; July, 1968; September, 1969; November, 1970; and July, 1971. Perhaps there was no newsletter in some of those months, but some of you out there may have some of these missing copies. I would like to hear from you and perhaps we can have some duplicates made.

The dates of important events concerning the club are as complete and accurate as I can recall. If there are any missing or incorrect dates let me know and I will have the corrections noted in a future newsletter. The lists of charter members and club officers are open for corrections too, so let me know if any are needed. In the list of club officers, the date noted is that of the year and approximate month in which the year's election was held. A "?" indicates that I forgot who held that particular office and can't seem to find out.

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Officers of the Prairie Astronomy Club

April, 1961

President--Tom Pansing
Secretary--Jess Williams
Program Chairman--Pete Schultz; Jim Hoskins

May, 1962

President--Jess Williams
Vice-president--Werner Klammer
Secretary--Pete Schultz; Jim Hoskins
Treasurer--John Howe
Program Chairman--Richard Hartley
Publications Chairman--Pete Schultz

March, 1963

President--Jess Williams
Vice-president--Earl Moser
Secretary--Harlan Franey
Treasurer--John Howe
Program Chairman--Richard Hartley
Publications Chairman--?

September, 1964

President--Richard Hartley
Vice-president--Eugene Robertson
Secretary--Jess Williams
Treasurer--Harlan Franey
Program Chairman--Earl Moser
Publications Chairman--?

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September, 1965

President--Earl Moser
Vice-president--Richard Johnson
Secretary--Jess Williams
Treasurer--Richard Hartley
Program Chairman--George Lyberis; Ed Woerner
Publications Chairman--Steve Kunkee; Ed Woerner
Recording Secretary--Steve Kunkee

September, 1966

President--Earl Moser
Vice-president--Felix Cavosie
Secretary--Jess Williams
Treasurer--Richard Johnson
Program Chairman--?
Publications Chairman--Scott Coatsworth; Monte Cole; Steve Kunkee;
Recording Secretary--Ed Woerner Larry Stepp

October, 1967

President--Earl Moser
Vice-president--Larry Stepp
Secretary--Jess Williams
Treasurer--Richard Johnson
Program Chairman--Larry Stepp
Publications Chairman--Monte Cole; Steve Kunkee
Recording Secretary--Ed Woerner

October, 1968

President--Earl Moser
Vice-president--Monte Cole
Secretary--Jess Williams
Treasurer--Richard Johnson
Program Chairman--Carroll Moore
Publications Chairman--Monte Cole; Roger Severns; Ed Woerner
Recording Secretary--Ed Woerner

October, 1969

President--Earl Moser
Vice-president--Ed Woerner
Secretary--Jess Williams
Treasurer--Richard Johnson
Program Chairman--Monte Cole
Publications Chairman--Brian Dodson; Larry Stepp
Recording Secretary--Roger Severns

October, 1970

President--Earl Moser
Vice-president--Robert Manthey
Secretary--Jess Williams
Treasurer--Brian Dodson
Program Chairman--Richard Shellhouse
Publications Chairman--Lawrence Pilgram
Recording Secretary--Monte Cole

October, 1971-Present

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

A History of the
Prairie Astronomy
Club of Lincoln, Neb.
1961--1971

It seems to have begun about the time of the November 7, 1960 transit of Mercury. An item in the newspaper prior to the event was noted by several interested people in the area near Lincoln. I must have seen the news item myself as I recall observing the transit from Hickman on November 7. The news item also mentioned that Prof. Carroll Moore was going to observe the transit from the Wesleyan Observatory. Several of the astronomy enthusiasts joined Prof. Moore for the event and afterwards decided to have a meeting in the near future. Wide-spread publicity by the news media called the attention of others interested in astronomy to the up-coming meeting and the possibility of forming a club. Informal meetings were held at first in the basement of the Van Fleet Hall of Science at Wesleyan.

In April of 1961 a constitution was adopted by the 13 charter members, and the Prairie Astronomy Club of Lin-

coln made its official debut.

The charter members:

Phillip Johnson
Richard Johnson
Tom Pansing
Jess Williams
Pete Schultz
Carroll Moore

Werner Klammer
Dick Hartley
Eugene Robertson
Walter Erbach
Harlan Franey
Jim Hoskins
Faun Fritz

The meeting place moved from the basement to the upstairs lecture hall of the Van Fleet Building sometime in 1961. The club held its meetings for a while in 1963 at the University of Nebraska museum; in 1964 and 1965 the club met at Union Loan & Savings at 56 and "O" St.

Since then all meetings have been at Wesleyan, in Van Fleet Hall till January, 1969, and then into the new Olin Hall of Science where the club is presently meeting.

The club was first affiliated with Sky and Telescope on October 16, 1962.

The first newsletter was published April 6, 1962 by Pete Schultz.

In August, 1962, it was first suggested that the club join the Astronomical League.

June 30, 1962 -- The first private star party was held at the home of Dick Hartley.

August 9, 1962--First Gateway show.

July, 1965--Club ob-

servatory plans first discussed.

December 20, 1965-- The club was incorporated thanks to Phillip and Richard Johnson.

June 9, 1967 -- Club members first attended a Mid-states Region Astronomical League con-

vention. The first national convention attended by club members was August, 1968.

August, 1967--The club bought a 12 $\frac{1}{2}$ -inch f/6 reflector telescope.

In late 1967 the club joined the Astronomical League and changed eastern Nebraska from North Central to the Mid-states region.

August, 1968 -- First club family picnic and star party.

June 5, 6, 7, 1970--Our club is host to the Mid-states convention. The convention was held at Olin Hall where the club regularly meets.

In the summer of 1973, the Lincoln and Omaha clubs are to co-host the national convention of the Astronomical League in Omaha.

Born in 1961, the club is now eleven years old. Thanks to its early guardians it has spent very little time in infancy, but it has developed fast and strong. By the time it graduates from the 1973 League convention it will really have come of age.

Earl Moser

A note of thanks goes out to Earl Moser for

the work he put in on the compiling of the above. Now, let us work so that when Earl (or somebody else) writes the next installment of our history at some future date, it will be a job worth doing.

...Ed

Observing in February

In early January John Bruce and I went out to Earl's to do some observing and photographing of the sky. When we arrived and began to set up our equipment, we were greeted by a big surprise--the 12 $\frac{1}{2}$ -inch club telescope was in action, equipped with a clock drive that really worked. The scope was trained on M-42, the great nebula in Orion. As we looked into the eyepiece we saw M-42 as a great cloud of swirling gas that filled the whole field. I hope this will serve as an incentive for club members to go to Hickman and enjoy the view.

This month I will attempt to once more a-

gain list some objects to view. Three of the four are very bright and easy to find, even in town.

M45--A large and very bright cluster in Taurus. This cluster is known better as the Pleiades or the Seven Sisters and is easily found this time of year by simply looking straight up in the sky and then moving towards the southern horizon. It will appear first as a fuzzy patch of light; once found, however, about five stars can be seen with averted vision. Averted vision is using the edge of the eye to observe; that is, looking slightly away from an object instead of directly at it, for the edge of the eye is more sensitive to light. Thus

objects that are dim or impossible to see suddenly brighten up. In binoculars the Pleiades consist of about 20 stars forming a mug or cup with a handle.

M42--The great nebula in Orion, and in my opinion, the most spectacular sight in the sky through a telescope. Also, it is one of the few diffuse objects which looks the same in a six-inch as it does in much larger instruments. This is also easy to find: locate the middle star in Orion's belt and go a little south until you come upon three fainter stars that point straight down towards the horizon. M42 is the middle star. After appreciating the nebulosity, try to locate the Trapezium, a

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Velikovsky Continued

A couple of newsletters ago, I wrote an article on the theories of Dr. Immanuel Velikovsky. One of his tenets is that in the past, gravitational forces have temporarily halted the earth's rotation. Steve Haack has since pointed out that this is in violation of the principle of conservation of angular momentum. If \underline{T} is the torque applied on the earth; \underline{L} is the earth's angular momentum; and t is time, then:

$$\underline{T} = d\underline{L}/dt = \underline{R} \times \underline{F}$$

\underline{R} the vector between the centers of mass, \underline{F} the acting gravitational force

But this must equal 0, since the gravitational force is central and hence \underline{R} and \underline{F} act along the same direction. This leaves us with:

$$d\underline{L}/dt = 0, \text{ which implies } \underline{L} = \text{Constant.}$$

Thus we have established the conservation of angular momentum under the circumstance of an external gravitational field.

Now, the angular momentum of the earth's rotation is proportional to the rate of rotation. Obviously, then, a non-rotating earth has zero angular momentum; a rotating earth has non-zero angular momentum. Therefore we see that if the earth did encounter a massive object in the past; no rotational changes were experienced, and at least on this point Dr. Velikovsky's thesis is discredited.

group of faint stars very close to each other and imbedded in the center of the nebula. In small scopes or on poor nights the Trapezium is very apparent but on good nights it disappears in the haze of the nebula.

M37—One of the best clusters in the sky. The reason this is such a beautiful cluster is its density. It consists of many dim stars which are quite close to each other and of about equal brightness. This is a very fine cluster. The word "fine" refers to its coarseness. Coarse

clusters are usually large in size, have stars of different magnitudes, and are not very condensed. A fine cluster is just the opposite. M-37 is quite bright, being about sixth magnitude, and found by sweeping the area between second magnitudes Beta and Theta Auriga, with your finder scope. Auriga is a large constellation consisting of five bright stars that form what looks like a deformed pentagon. Auriga is right at the zenith this time of the year.

This month's tough one is N.G.C. 891--a large edge-on spiral in Andromeda. It's over 12 minutes long and only a minute wide and is listed at tenth magnitude. On a very clear night in the country this galaxy was seen with averted vision but disappeared with direct vision in my six-inch reflector. It appeared as a sliver of light, and looked at least eleventh magnitude. Just go four degrees straight eastward from second magnitude Gamma Andromeda.

Brian Rugg