

# **The Prairie Astronomer**

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## **Club Elections For 1989 Held At October Meeting**

Elections for the 1989 Prairie Astronomy officers will be held at this month's meeting. The following club members were nominated for office at the September PAC meeting:

**PRESIDENT:** Ron Debus

**VICE PRESIDENT:** Dave Kniseiy  
Ron Veys

**2nd VICE PRESIDENT:** Ron Debus  
(program chairman) Erik Hubl

**SECRETARY:** Ellen Owen

**TREASURER:** Dan Neville

Nominations will be taken up to the time of the voting at the October meeting, and can also be accepted through a mail-in letter. Let's have a good turn out and exercise our voting privilege.

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**NOTICE:** Would the individual who borrowed the Atlas Site Map from Del please return it as soon as possible. Other people would like to see and use it. Thanks!!!

# At The Last Meeting

by Kim Ellen Owen

The meeting was called to order by President Del Motycka, and 2 guests were introduced. During the "Announcements" portion of the meeting, Dave Knisely presented a map of Mars entitled "An Explorer's Guide to Mars", which is available for about \$5.00 from the Planetary Society. (Dues are \$20.00 per year, including the quarterly.) Dave also presented a book, THE SURFACE OF MARS, by Michael Carr which runs about \$16.00. Ron Veys mentioned that the Uranometria II is available before September 30 at the pre-publication price of \$35.00.

Treasurer Dan Neville reported a balance of \$2000.00 in checking, and \$717.00 in savings, not including dues received at the meeting or expenditures for insurance (\$15.00), or for the cost of the sanitary facility at the Site (\$100.00). The Treasurer's Report was approved. The Secretary's Minutes of the last meeting were read and approved.

Under Old Business, Lee Thomas informed the Club that his contact at the newspaper regarding publication of astronomical information was on vacation, and that he would pursue the contact later.

Deb Cohn's letter in the newsletter was mentioned.

Rick Johnson has "video tube syndrome" of the arms, but will be returning to Lincoln after October 15.

The viewing from the Site, to include the Firth COOP and our adjacent property owners and the supervisors of the Gage County Board of Supervisors was canceled due to smoke from the Yellowstone fire and resultant clouds. They will be invited to the next Star Party, which will be held on Friday, October 9. Del wanted to know if October 14 would be available as an alternate date, should October 9 be clouded out; the Club indicated that it was.

Dave Knisely brought up the outhouse, and wondered about its current state of development. Most important is the foundation which needs to be poured during the next month or so.

Del contacted the Corps of Engineers and the GSA for information to obtain the warranty deed on the Site property. A real estate transfer is needed, to be filled out by the seller, and since he is deceased, further pursuit of this would cause a trace of the executor and a great deal of expense.

Under New Business, nominations were made for officers for the up-coming year. [See Page 1 For Nominations. ED.] A question was raised as to if the presence of only one name on the ballot of an office would create a "frozen board." It would not because additional nominations can be made from the floor at the election, and nominations can be made in the form of a formal letter. Earl Moser moved to cease nominations and the motion carried.

Dave Knisely reported the reflectors at the Site are missing. One was found in a hole, one exists now as a metal frame only. They disappeared sometime between Sunday and Wednesday, Del reported. Dan

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The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Junior Members and Newsletter Only Subscribers...\$10/yr; Regular Members... \$24/yr; Family Memberships...\$27/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following officers: Del Motycka (Pres)489-2520, Ron Veys (V.Pres)464-1449, Kim Ellen Owen (Sec)423-7440, Dan Neville (Tres)476-7772, Ron Debus (2nd V.Pres)435-5688. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 9255 CADY AVE #14, OMAHA, NE 68134 no later than 7 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory in Lincoln, NE.

Neville was scrutinized while he was at the Site to observe by one of the property owners, then told, "Oh... you're one of THEM." Bev Hetzel wondered if it would be feasible to put a second gate inside the first one. Consensus was that it would be. Dave Knisely reported that he had checked on the price of large scale cyclone gates, and they run over \$1000.00. Del also suggested that as a last resort, we could issue 4 locks with different keys to the owners, so that the person leaving the gate open could be isolated (and shot?). Donn BAKER said that he knows a co-worker who says that the Norris School kids still use the Site. Trespassing Notices were discussed, and Del '073 remarked that he wants to finish visiting with the property owners in person before they are posted to avoid alienating them. Ron Veys said that he thinks we need to let people know that we won and use the property. Ellen Owen commended Del for his handling of the issues and people concerning the Site.

A motion was mad to adjourn, moved by several people simultaneously; the motion carried. ONE ADDITIONAL NOTE: Del lent the map of the Site to someone this summer. Could the borrower PLEASE return it?

A program of slides by Steve Bornemeier was presented by Ron Debus.

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## Observing Chairman's Report

8881

by Dave Knisely

THE NEXT SCHEDULED STAR PARTIES ARE ON NOVEMBER 4TH AND NOVEMBER 11TH AT THE ATLAS SITE. Open star clusters and a few galaxies dominate the late fall sky. One of the most difficult Messier objects to find is the nearly face-on spiral M74, located about 1.4 degrees east and a half north of Eta Piscium. It is rather small and faint, although a three inch will show it. The view in larger instruments doesn't get much better. A six inch will show a smaller brighter center and my ten inch only hinted at some vague detail in the circular outer haze.

A somewhat more interesting galaxy can be found in the east portion of Andromeda. NGC 891 is an edge-on spiral that can just be glimpsed in a six inch aperture. It can be found about three degrees east of the bright double star Gamma Andromedae, and although it is large, its surface brightness is very low. On a good night, a six inch will show it as a moderate sized very faint fuzzy streak with a broader middle. A ten inch will show an irregular dark lane down the length of the galaxy and a twelve inch will make it look something like its photograph.

In Cassiopeia are a number of interesting open star clusters including one Messier object. NGC 457 is a fairly large and rich group of stars located about half a degree north-west of Phi Cassiopeiae. It is pretty in small instruments, while larger ones make it look a bit like an eagle with scattered strings of bright stars reaching out from the middle. The view in an eight inch is breathtaking with many stars showing color. NGC 129, located 3.5 degrees west and a half south of Gamma, is a moderate sized cluster of about 25 stars. An eight inch shows many faint background stars as well as a few red giants. A bright bluish star lies near the cluster's south edge. One of the best clusters in the area is M103, located about one degree east and a half north of Delta. It roughly triangular in shape and is not as big as NGC 457. About 25 or 30 fairly bright stars make up this group, with many showing color when viewed in a eight inch telescope. Six or eight inch apertures make the cluster spectacular and help bring out the rich milky-way background.

Of course, the best group of stars in the winter sky is not just a cluster, but two clusters, NGC 884 and NGC 889. Also known as "h" and "Chi" Persei, these two groups are visible to the unaided eye just over a degree north of gamma Persei. A good pair of binoculars will begin to resolve them, and the view through almost any telescope at low power is truly awesome. They can both be placed in a one degree field of view and many of the stars show color in moderate sized apertures. There are also several red giant stars in and between the two clusters.

Getting back to galaxies, look about a degree east and a half south of Delta Ceti for the unusual spiral galaxy M77. A 2.4 inch will show it as a moderate to small sized faint fuzzy patch with a small brighter center. Six inch apertures will show a star-like nucleus at high power, while an eight inch will hint at some vague detail in the outer haze. A ten inch will show some hints of diffuse spiral structure in the outer haze and make the galaxy look more circular than it does in smaller instruments. The galaxy has an energetic nucleus and is one of the Seyfert galaxies that may be related to quasars. Large apertures will also show several other galaxies in the area.

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## The Reviewer

by Dave Knisely

Many of us have dabbled in Astrophotography and have learned the hard way just how difficult it can be to get good consistent results. There are many books on the subject that can help the beginner get a good start, but for those who really want to really perfect their skills, there are few good references available. A MANUAL OF ADVANCED CELESTIAL PHOTOGRAPHY is a refreshing work that fills that void fairly well. As its title states, this isn't a book for beginners, but novices might be wise to at least take a look at it. It contains a lot of good advice for both the beginner and the "expert".

The book is organized into 13 rather rigorous chapters covering virtually all aspects of advanced astrophotography. The second chapter on instrumentation is particularly good, as it destroys many of the misconceptions amateurs have concerning which telescope design is best. This portion should be read by anyone who is serious about building or buying a quality instrument for either visual or photographic use. It covers mountings and drives fairly well, discussing all the major designs and their problems. It doesn't give you any finished plans, but it does give you a good understanding of the principles of good mechanical design. The third chapter presents a good discussion of the principles involved with proper guiding, including polar alignment, guidescopes, and both on and off-axis techniques.

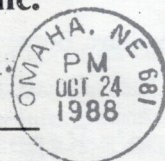
The fourth chapter looks at some theoretical points that need to be understood by the astrophotographer. The portion I particularly liked concerned the computer raytracing of various optical systems. It showed just how worthless spot diagrams can be if they are not interpreted correctly.

The remainder of the book covers topics like film characteristics, sensitometry, black and white developers, tri-color photography and darkroom techniques, both basic and advanced. There is even one chapter devoted exclusively to six different methods of hypersensitizing film. Deep-sky and high-resolution photography are each given separate chapters, thus avoiding confusion of the various techniques involved. There is also an excellent selection of work done by some of the best astrophotographers active today, in instruments as small as six inches using the methods outlined in the text. A special topics chapter lets people like Jack Newton (cold cameras), Jack Marling (filters), James Rouse (planetary photography), and Ron Potter (automatic guiders) tell you their secrets of good astrophotography. The book is accompanied by three appendices containing formulae, a discussion on computers, and a catalog of interesting deep-sky objects.

I did find the authors' use of absolutes a bit annoying. Their choice of words sometimes gives the reader a false impression that something doesn't work, even though it sometimes does. For example, they state that Technical Pan 2415 film is NOT useful for astrophotography unless it is first hypered. This is not exactly true, since the film can perform fairly well unhypered on the planets and the moon. Also, the section on the history of astrophotography could have been left out without harming the book very much. However, these faults are minor. In general, I found this work a very satisfying reference that every advanced amateur should have on his or her bookshelf. If you are at all serious about astrophotography, this book should help you get the most out of your nights at the guiding eyepiece.

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Expr: 9/89F

Next PAC Meeting October 25, 1988