



The *Prairie Astronomer*

The Official Newsletter Of The Prairie Astronomy Club, Inc.

November 1999

Volume 40 Issue #11

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 Hyde Observatory: www.blackstarpress.com/arin/hyde/

MEETINGS & EVENTS



PAC MEETING

TUESDAY, NOVEMBER 30, 1999, 7:30 PM
at Hyde Memorial Observatory

NSP 7 PLANNING MEETING
THURSDAY, DECEMBER 9, 1999
Mahoney State Park

CLUB STAR PARTY
FRIDAY, DECEMBER 10, 1999
OAS Observing Site
(see map on back page)

HYDE VOLUNTEER MEETING
PAC YOUTH GROUP MEETING
SUNDAY, DECEMBER 12, 1999, 7:30 P.M.
At Hyde Memorial Observatory

UNL STUDENT OBSERVATORY OPEN HOUSE
FRIDAY, DECEMBER 17, 1999, 7:00 P.M. - 10:00 P.M.
UNL Parking Garage by the Stadium

PAC MEETING
TUESDAY, DECEMBER 28, 1999, 7:30 PM
at Hyde Memorial Observatory

NOVEMBER'S PROGRAM:

Projects in Progress at Doane College

This month Mark Plano Clark and two students from Doane College (Crete) will give presentations on current projects in-progress at Doane.

- 1) A project to repair the 8" telescope mount which was built in 1884 (Mark Plano Clark).
- 2) A project to build a CCD camera for astrophotography (Bob Drake).
- 3) A project to (re)construct and install a time-ball for use in the "Around the World Time Ball (Drop) Project" on New Year's Eve in cooperation with The U.S. Naval Observatory, and the History of Astronomy Commission of the International Astronomical Union (Jacob Robison.)

PAC OFFICERS FOR 2000

President: Dave Knisely
Vice President: Larry Hancock
2nd Vice President/Program Chair: Mark Fairchild
Secretary: Willa Penney
Treasurer: Liz Bergstrom

PAC-LIST: Mark Dahmke maintains an e-mail list server for PAC. If you have an e-mail address and are not on the PAC List, you may subscribe by submitting an e-mail to list@4w.com. Write "Subscribe PAC-List" in the body of the e-mail.

OUR CLUB OFFICERS: With the generous help of each club officer, beginning in this issue you'll find out more about who you have elected to run your club. In the next few issues there will be a short "Getting To Know Your" club officers article. This month begins with the Club President, Dave Knisely.

NO PADLOCK AT OAS SITE: Contrary to what was published in the last two newsletters, there is no padlock on the gate at the OAS viewing site. The editor was given an old map that wasn't updated. Sorry for any confusion this may have caused. Thanks to Larry Hancock for the update.

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Be sure to complete the survey on page 6 and return it to a club officer. You'll be eligible for a door prize!

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The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc. Membership expiration date is listed on the mailing label. Membership dues are: **Regular \$20/yr, Family \$22/yr.** Address all new memberships and renewals to: **The Prairie Astronomy Club, Inc., PO Box 5585, Lincoln, NE 68505-0585.** For other club information, please contact one of the club officers listed on the last page of this newsletter. Newsletter comments and articles should be submitted to: **Jeff King, 4018 South 83rd Street, Lincoln, NE 68506-5973 or jeffrey892@aol.com,** no less than ten days prior to the club meeting. The Prairie Astronomy Club meets the last Tuesday of each month at Hyde Memorial Observatory in Lincoln, NE.

Secretary's Report

By: Willa Penney

Prairie Astronomy Club
October 26 1999

President Dave Knisely opened the meeting. We had several guests.

Dave reported that the sun has been VERY active; there was a massive aurora Saturday night that was visible over a great portion of the U.S. Comet Lee is beginning to fade; it is about magnitude 8 - 9. Jupiter continues to be very good viewing.

Larry Hancock reported that there were 52 people at the PAC/OAS dinner at Mahoney State Park. Martin Gaskell gave an excellent program on Mars. A very big thank you to Larry for his work in setting up the evening; it may very likely turn into an annual event.

Martin was presented with a photograph taken by the Journal/Star during the "Telescope Making Marathon" in July.

Doug Bell, coordinator of next year's NSP, invited everyone to the next NSP planning meeting on Nov. 14. Meetings are held on the 2nd Thursday of each month at 7:30 at the Mahoney State Park Lodge. The committee has had two meetings so far and can always use more help in planning and lining up speakers, publicity, catered meals, etc. John Lawlor will be handling registrations this year. The Nebraska Star Party will be July 29 - August 5, 2000.

The next club star party will be either November 5 or 12th at the OAS site. The gate to the site is not padlocked. There are no more Mahoney Star Parties scheduled for this year.

The Leonid Meteor Shower will be November 17-18. Dave said that he will be going to the Olive Creek site and invited anyone to join him.

The next Hyde Volunteer meeting will be Sunday, November 14th. Regular meetings are held the 2nd Sunday of the month at 7:30. On Monday, November 15th, Hyde will be open for the Mercury transit of the Sun. This will take place beginning at 3:15 p.m. CST.

Please submit any newsletter articles to Jeff King; the survey sheet that was in last month's newsletter may be given to either Jeff or Mark Fairchild.

Erik Hubl reported that there is a proposal to have lights put up at the dog run on the other side of 70th Street. The proposal calls for shielded lights that would be on until midnight. The Parks Board tabled this at their last meeting. The Planning Commission is studying a proposed ordinance on billboard lighting which would require down lighting that would turn off at midnight. If you would like to have input in either of these actions, please contact Erik.

Bob Leavitt presented the new club banner; it was made by Brent Kasl and designed by Connie Leavitt. Cost was \$50.

Erik is taking orders for the 2000 Astronomical Calendar and the Royal Astronomical Society of Canada Observers Handbook. Costs are \$16/\$17 and \$13 respectively. Please order and pay for them by the November meeting.

Election of officers for 2000 was held and the following were unanimously elected:

President - Dave Knisely
Vice-President - Larry Hancock
2nd Vice-President - Mark Fairchild
Treasurer - Liz Bergstrom
Secretary - Willa Penney

Dave invited everyone to Village Inn after the meeting. Our program was presented by Dr. Vanessa Gorman from UNL on Ancient Roman Religions and their astronomical basis.



Leonids Line-up Lots of Little Lost Lookers

By Dave Knisely

Well, first off, I would have to characterize this year's Leonid Star Party as a success, despite a few minor problems. We didn't see a storm, but about 20 of our good "astronomical friends" did see a good shower which rivaled the Perseids and Geminids.

I left Beatrice at about 7:00 p.m. following John Lammers from Fairbury in his van. The two of us kept in touch between our two vehicles via our 2 meter ham radio transceivers, so the trip went quickly. Once we got to the Area #1 turnoff into the park, we noticed that there were some cryptic signs saying "Area Closed for Development". Once we got down the road a distance, we noted that the only gate to our usual observing spot was shut and locked. There was plenty of room on the road to set up however, and as usual Del Motycka had beaten us to the site. We decided to pull our vans next to his camper to make an effective wind screen against the southerly wind which increased in intensity as the night progressed. We set up our lawn chairs in the "moon shade" of Del's Camper and began our usual chit-chat while watching the clear autumn skies. The temperature was cool and the wind was brisk, but it was fairly comfortable, especially for November.

The moon hampered our viewing initially, but we could still see things like the Double Cluster and the Pleiades with the unaided eye, so we had fun just doing a lot of naked-eye stargazing. About half an hour later, Bill Wells pulled in and set up just west of Del's camper along the road. Like me, he had been monitoring the shower via FM radio meteor scatter, and we heard several pings as we waited for the moon to get out of the way. Slowly, people began to trickle in. We saw distant flashlights way over on the northeast side of the lake, so Bill drove off to see if there were a few lost amateur astronomers there. While he was gone, Jeff King drove in to set up, followed soon after by Brian Schaaf. It was a bit windy for scopes, but binoculars and the unaided eye worked very well despite the moon. Finally Bill Wells drove back in with two more cars in behind, as the lost astronomers were now found!

By now, a few of the brighter Leonid and Taurid meteors were becoming visible, but the rate was still just a trickle. Munchies and coffee began to make the rounds, as we continued to watch and wait. Doug Bell then drove in and set up his little 4 inch Brandon refractor behind Del's camper. We got a few nice looks at Jupiter, Saturn, the Pleiades, M42, the Double Cluster, and a few other showpieces using that scope.

By 11:00 p.m., the meteor rates were still low, but beginning to increase. We were waiting for Martin Gaskell and his group of students, but it was after 11:30 p.m. before they arrived. Martin then gave us the bad news: the storm peak was underway in Europe, with over 1000 meteors per hour there! We resigned ourselves to seeing what would probably be just a good shower rather than a storm. As the moon got lower, the sky got noticeably darker, and it looked like it would be a very transparent night, despite the wind and the fine dust it occasionally kicked up. As the moon set, the number of meteors took off, with rates approaching 40 to 60 per hour. We didn't see too many fireballs, but the meteors were still bright (mostly between -1 and 4th magnitude). Martin began his work with his group of student observers, and was starting his IMO "triangle" counting to determine the limiting magnitude. A call for a bright flashlight was answered by my "OBIWAN KENOBI STAR POINTER" (with suitable sound effects), a real bruiser of a 6 Volt lantern. Its beam was visible all over the observing area, making pointing out star patterns (or blinding people unlucky enough to look into the beam) easy. The sky became very dark and pristine after moonset, with people seeing stars fainter than 6th magnitude. A few good bright meteors kept the interest high, although the shower meteors seemed to come in bunches separated by "meteor drouths" of from 5 to 15 minutes. After 2 a.m., the rate began to decline somewhat (and Martin ran out of tape for his tape recorder), so a few people took off.

Towards the end of our observing session, Bill Wells shot a few pictures of us in our chairs (each of us was pointing in a different direction!). The group then began to break up around 3 a.m., with a big bunch of fairly happy meteor watches heading home for some sleep.

Everyone who attended had fun, and no one really minded missing out on the "storm". We need to do this again. Anybody up for the Geminids? (Burr!!!). Clear skies to you.

Astronomy Events

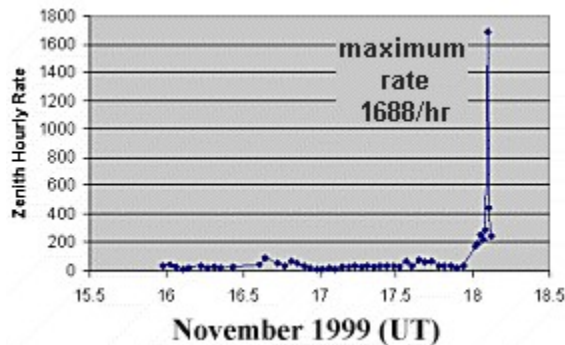
Occultation of Nu Geminorum

A brilliant full moon occults magnitude 4.1 Nu Geminorum on December 22. The event occurs shortly after moonrise for observers in the western half of the United States but is better placed above the horizon for observers farther east. In the central United States, the event occurs at approximately 7:53 p.m. CST, with those farther east seeing the event occur later and those to the west a few minutes earlier. The star pops out from behind the moon after its game of hide and seek approximately 47 minutes later. The precise time of reappearance depends on your specific location, so you should acquire accurate predictions for your observing site.

Occultation of Delta Cancri

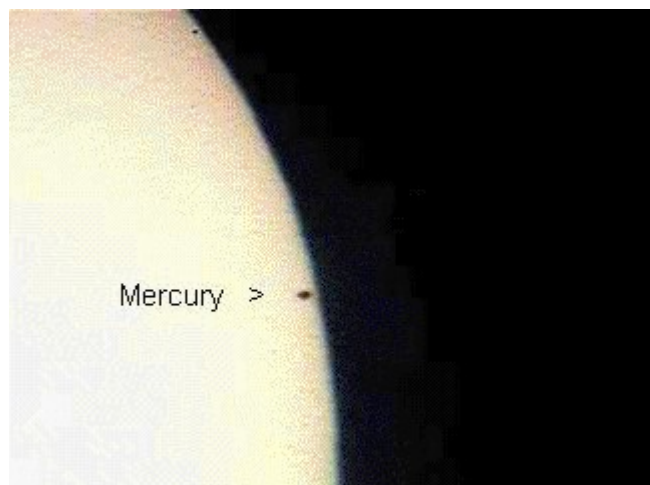
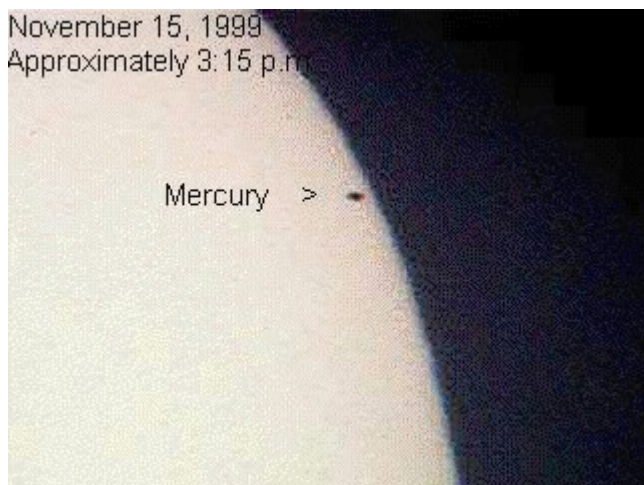
On Christmas Eve a fine occultation of Delta Cancri occurs. Delta Cancri is the magnitude 3.9 star that lies near M44, the Beehive Cluster. Even next to the waning gibbous moon, you can view the bright star with binoculars. The star reappears approximately 68 minutes later. Serious observers might try timing these events using the time signals from WWV Fort Collins (2.5, 5, 10, 15, and 20MHz SW) as a reference. You can also check the web page of the International Occultation Timing Association (IOTA) for timings of bright star occultations for major cities across the United States and instructions on making accurate observations. Links to web pages in other countries are also provided at their site (lunar-occultations.com).

Leonids Meteor Shower Peaks



Left: The peak of the Leonid meteor shower stands tall as tallied by radar observations assembled by the U.S. Air Force and University of Western Ontario. The peak at about 2:00 Universal Time, November 18th (9:00 p.m. EST, November 17th) matched predictions. Courtesy NASA/Marshall Space Center

Images of the Transit of Mercury (From the UNL Student Observatory Public Viewing)



Get Your Book and Calendar Here

I am taking orders for the 'Royal Astronomical Society of Canada (RASC) Observers Handbook for 2000' and the 'Guy Ottewell Astronomical Calendar 2000'. Both of these books feature month by month celestial events for the year, along with a wealth of additional information about astronomical phenomena. These books are a very useful guide whether you are in the field or at home. By purchasing large orders we can keep the price as low as possible. I have a firm price for the RASC, but I haven't talked with Guy Ottewell yet to see what a bulk order would be. I speculate it may be about \$15.00 each. His order form says \$17.60 for 4 or more.

RASC 10-29 copies \$13.00 each

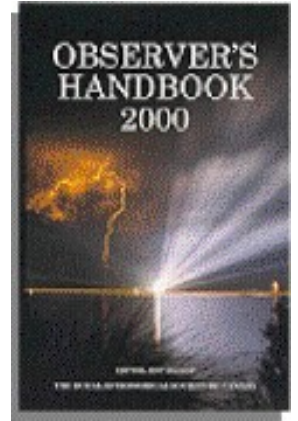
Ottewell 15 or more? \$15.00 each (estimated)

I will take orders at the November meeting and place the final order shortly thereafter. I have already received checks from Kevin Dowd, Liz Bergstrom and John Lawler for the RASC. If you are interested, please contact me at the meeting or by phone or email. I will put the entire order on my credit card for convenience.

Erik Hubl

488-1698

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THE OBSERVER'S HANDBOOK 2000

92nd Year of Publication. Editor: Dr. Roy L. Bishop

The Royal Astronomical Society of Canada
issn 0080-4193

288 pages, soft cover, 14cm x 21.5cm

The *Observer's Handbook* is a 288-page guide published annually since 1907 by **The Royal Astronomical Society of Canada** (136 Dupont Street, Toronto, Ontario, Canada, M5R 1V2). Through its long tradition and the expertise of more than 35 contributors, the *Observer's Handbook* has come to be regarded as the standard North American reference for data on the sky. The material in the Handbook is of interest to professional and amateur astronomers, scientists, teachers at all levels, students, science writers, campers, scout and guide leaders, as well as interested general readers. The *Observer's Handbook* is an integral part of many astronomy courses at the secondary and university levels, and it should be on the reference shelf of every library.

The various sections in the *Observer's Handbook* are of two kinds:

1. Sections dealing with **astronomical events** which occur during the current year, e.g. times of sunrise and sunset, moonrise and moonset (for latitudes 20 to 62 degrees N), eclipses, location of the planets and bright asteroids, returns of periodic comets, times of meteor showers, predictions of occultations by the Moon and by asteroids, the orbital positions of the brighter satellites of both Jupiter and Saturn, and predictions of the cycles of many variable stars. There is a 24-page section called "The Sky Month By Month" which gives an extensive listing of events.
2. Sections dealing with **astronomical data** and other information which do not vary from year-to year (although revisions are made annually to ensure that the information is the best available), e.g. orbital and physical data on the planets and their satellites, astronomical and physical constants, some optical properties of telescopes and binoculars, information on filters for astronomical observing, light pollution and sky transparency, a description of the various systems of specifying time, information on the Sun including sunspots and aurorae, a list of meteorite craters in Canada and the United States, advice on using the *Observer's Handbook* for teaching astronomy, information on the gegenschein and zodiacal light, 40 pages of authoritative tables dealing with stars, star clusters, nebulae and galaxies, maps of the Moon and the entire stellar sky.

E-mail From the President

Hi all. I want to thank the membership of the Prairie Astronomy Club for giving the present group of officers a real vote of confidence with their unanimous re-election (and a *really* fast one at that!). I hope that we can continue to provide the membership with what it enjoys, as well as expanding our activities in the future.

However, something published in the December 1999 SKY and TELESCOPE, page 85, has started me thinking. Perhaps I shouldn't be, but I am a little bothered in a small way by some statements made in the Amateur Astronomers section. The article by Stephen James O'Meara highlights the Johnson Space Center Astronomical Society, with its "philosophy of learning about the stars while having a good time at it." Perhaps I am reading too much into what O'Meara said, but it still irks me a bit for some reason. The overall article isn't all that bad. In fact, it aptly describes what a good club should do, and how one particular organization is apparently doing it. However, in only the second paragraph, O'Meara sets an unfortunate tone, which soured the article for me. (second paragraph follows)...

To be "organized", today's astronomy clubs usually adopt bylaws, establish political hierarchies, conceive programs, collect dues, and delegate tasks. All actions follow conventional protocols. At meetings, business is generally conducted first, followed by other formalities, then the evening program. This is all fine, if that's what the members want. But the vast majority of people who join astronomy clubs arguably do so simply to meet "good fellows" with similar interests to themselves without the strains of bureaucracy. Perhaps that's why many clubs have experienced declines in membership, splintered into rival societies, or simply evaporated - too much politicking, too much structure, and not very much fun.

Somehow, I don't see the Prairie Astronomy Club (and its "good *people*" (not all "fellows")), quite in this light, although perhaps others might feel differently. The above statement leaves me just slightly irritated, but at the same time at somewhat of a loss in how to respond. The statement (and the overall tone of the article) seems to imply, in its own sort of way, that structure is something which is bad. We do have bylaws, but we are a non-profit group, and some sort of formal structure has to be set up and followed at least loosely to satisfy our "corporate" requirements. It also helps us handle more difficult issues than just deciding when the next star party will be. We have dues to allow us to do things like publish a newsletter, put out brochures, help provide additional activities, provide liability protection for the club, and interface with the larger amateur community (ie: League Membership). I can't quite see 5 officers as a real "bureaucracy", and have seen little in the way of politics (especially during the last election, probably one of the shortest in history!). I have tried to limit the non-

program portion of the meeting to under 30 minutes, and have relegated any major long drawn out business to a separate board meeting (I want to quit talking and sit down as soon as possible :-)). I believe our programs are better, attendance is up, and we are at least holding our own as far as membership numbers are concerned. Larry Hancock has given the club a social "kick in the pants" with his handouts, his efforts at providing meeting refreshments, and (especially) setting up the fall banquet. Thanks to Martin Gaskell's and Mark Fairchild's efforts, I am starting to see more young people involved in our group. I think that we do have a lot of fun at the meetings and afterwards. I particularly enjoyed the company of the little casual observing group on the deck at Hyde after the program, something we should really do as often as we can.

Our star parties could be better attended, but with time pressures (and weather), it is sometimes difficult to get a lot of people out observing together at the same time. We have had a wonderful set of activities this year (trip to the Cosmosphere, Astronomy Day, NSP, the Fall Banquet, the Mahoney Star Parties, ect.), and we remain active by helping others see the wonders of the heavens at Hyde Observatory. I like this club, and always look forward to meeting all my friends each month.

So why am I disturbed? I don't exactly know, but maybe its because I am seeing the "difference" between our club and the ones O'Meara describes in his "blanket" statement about "today's astronomy clubs". However, the possibility exists that we might fall into the traps that O'Meara's paragraph implies have existed in other clubs. To this end, I am issuing a challenge to the membership. I want to see more from the members, in terms of both input and activity. We need to know what YOU want this group to be involved with, and we need YOUR involvement. I want all who didn't fill out the survey in last month's newsletter to do so and get it to Jeff King as soon as possible. Also, I want to ask Jeff to reproduce the survey again, perhaps expanding it a bit into the areas of what club activities outside of programs the members would like to see. I want to see more people at the star parties, and more people putting items into the newsletter, as well as putting on club meeting programs. We have had only a handful of people finish even a few of the various observing programs and awards the League offers, so such regular observing programs would be a good way to become "involved" in our club.

As I said to those at the beginner's field school at NSP, "If you aren't having fun with this hobby, you aren't doing it right!". If there are ways we can make membership more enjoyable (within reason ;-)), we need to know about it. Thanks for listening to my little "venting". Clear skies to you.

David Knisely

Getting To Know Our Club Officers

Editors Note:

In the next few issues of the newsletter we're going to get to know more about the five amateur astronomers who make up our club officers. We'll start off with our newly re-elected club President, David Knisely.

David Knisely, Our Club President



Dave has been an amateur astronomer for over 30 years, starting out at the ripe "old" age of 12 with a cheap 3-inch reflector. A year later he worked up to a somewhat better 2.4-inch refractor. He joined the Prairie Astronomy Club in the fall of 1972 and during that same year, built his first telescope, an 8-inch Newtonian. He remembers the club being a lot smaller back then, around 35 members total, and eagerly looked forward to the monthly meetings and star parties.

Dave attended The University of Nebraska, receiving a BS in Physics/Astronomy. While going to school, he remembered the club was always around to help him stay in touch with his friends while away from home. He counts himself among those fortunate enough to see the club play a major part in the development of The Hyde Observatory during 1979 while watching the club grow in both size and activity level.

A year earlier, Dave was appointed club Observing Chairman and held that position for about 15 years where he provided monthly observing reports for the newsletter (and much to the editors delight, still does on occasion) and scheduled club star parties. On several occasions he has served as Chairman of Astronomy Day and on the observing site committee which eventually helped the club acquire the Atlas Observing site. He purchased a 10-inch

Newtonian in 1985, just in time for Halley's Comet to come by.

"The thing I most like about our club is its friendly social atmosphere, which makes my job as president a lot easier."

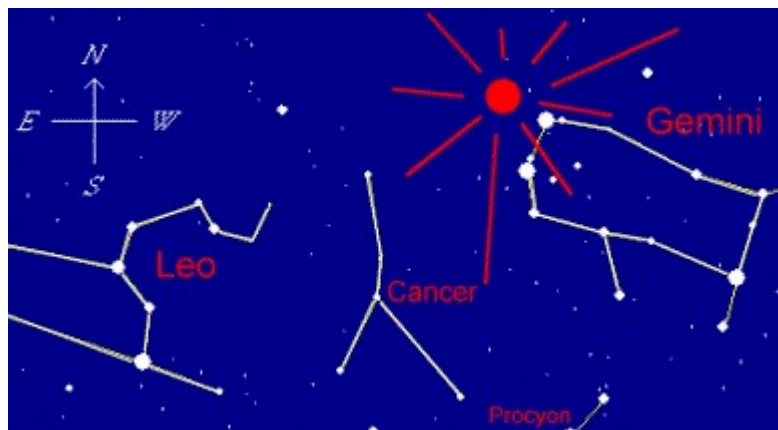
Dave was elected Vice President of the club in 1991, and served as President in 1992 and 1993. He has helped out with the Nebraska Star Party since NSP2 and in his own words "I am grateful to those people in our club who had the guts to create this wonderful observing event (my annual "vacation"), too."

As for the future of our club, Dave says: "The thing I most like about our club is its friendly social atmosphere, which makes my job as president a lot easier. I am going on my 2nd consecutive term as president, and my hope is that we can continue to provide our members with the kinds of activities which make being a club member so much fun. To do this, we do need more of our members to volunteer and become involved in things like the monthly star parties, NSP, Astronomy Day, Hyde Observatory, and any new projects which we might want to become involved with."

Dave currently lives in Beatrice and works at the Beatrice State Developmental Center. His favorite aspects of amateur astronomy are Deep-sky Observing, Solar Observing, and public outreach.

The Geminids

The meteor shower is active from December 6 until December 19, 1999, but the maximum will occur during the night of December 13/morning of December 14 with 100 meteors per hour expected under ideal observing conditions. During the shower Geminid meteors can be seen anytime after 10 p.m. local time, when the constellation Gemini is well



above the horizon (a sky map is given at right), but the best time to look is during the early morning hours between about 2 a.m. and dawn.

Club Interests Survey

Please take a moment to convey your interests by filling out the form below. If you filled out the one concerning club programs, please take the time to fill this one out as its aim is to determine the direction the club needs to take to meet the interests of its members. Return it to a club officer at any club meeting. Those who return their survey will be eligible for a prize! Here's the small print: You will have to give your name if you want to be eligible. Please return the completed survey by the December PAC meeting on the 28th.

Name: _____		I would like to:					
Areas of Interest	Hear a talk	Give a talk	Do a project	Elaborate (if you wish)			
Astrophotography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Instrumentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Amateur Telescope Making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Telescope use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Binoculars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Developing a personal observing program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
History of astronomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Local astronomy activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Deep Sky Observing (General)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Double Stars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Planetary Nebulae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Open Clusters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Globular Clusters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Novae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Galaxies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Solar System Observing (General)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Sun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Planet: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Moon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Asteroids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Comets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Aurora	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
• Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Light Pollution:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____			
Which of the following club activities do you participate in and enjoy the most? Rate it from 1 to 5 with 1 the best.							
	Best	1	2	2	4	5	Least
Nebraska Star Party							
Mahoney Star Party							
Monthly Club Star Party							
Hyde Observatory Public Nights							
Astronomy Day							
Other Public Outreach Opportunities							
Monthly Meetings							
Meteor Watches							
Other (Please specify)							
What other areas of interest would you like to see the club become involved?							

Billboard Ordinance Takes A Big Step Backwards

The Planning Commission met yesterday (11/17/99) and discussed as one of its items the Mayor's proposed ordinance for Billboards in Lincoln.

I want to thank Martin Gaskell for speaking on behalf of those of us who are trying to save our nighttime sky. Jeff King and Mark Fairchild were also there but did not speak.

The ordinance HAD SAID that billboards should be 'provided by down-lighting methods'. Despite my testimony including pictures of the effects of up-lit billboards and Martin's testimony, the Commission was swayed by the attorney (Mark Hunzeker) of the Billboard Company to amend the text to read: "Illumination of off-premises signs will be in accordance with design standards."

There are NO design standards in place. These will have to be developed by the staff of the Planning Department. Hunzeker told them; 'perhaps they can shield the lights better from the bottom'. This is a set back because there is no assurance that we will be able to help create the 'design standards'!

If our astronomy club is real serious about trying to have an influence on the lighting situation in Lincoln, then it needs to get involved.

Yesterday's outcome just may have been different if a dozen astronomers would have spoken the benefits of well-shielded lighting!

Now, the next step is more difficult. The options might be to appeal to the City Council to replace the wording. That is where this 'word-smithed' ordinance now goes.

A second option might be to try to work our way into some task force to help create the 'design standards' for billboard lights. This is what Carroll Moore and I did when we were involved in creating recreational lighting and parking lot lighting standards. It is a long and arduous process and I have a full time job and a full time family.

A third option might be to question the process where Mark Hunzeker was allowed to help craft the new wording. I believe he acted improperly and that the Commission improperly accepted his 'additional' testimony and amended the text nearly verbatim with what Hunzeker proposed. It was a very unorthodox process and it is preserved in video.

A fourth option is much more pessimistic. It is a lot of hard work to follow this process along. It was a lot of hard work to be on the Mayor's Billboard Task Force and lobby for the text in the first place. By not being present, the club has given the impression that it does not seem to be that concerned in being active with lighting issues.

I have many more things that I would rather be doing too! Up to this point, I haven't minded the extra work if I knew the club was willing to back it up. The lack of testimony from concerned astronomers sends a message that it wasn't a priority for you. Right now, I guess I am questioning whether it's worth all the work.

I wrote all the above last night and stopped short of mailing it because I wanted the morning to bring a fresh perspective. And despite my busy schedule I wanted to watch the Leonids

The night sky of Lincoln ablaze from an up-lit billboard. Without your help, you can expect this to be an ever increasing sight in the city of Lincoln. *Picture by Bill Wells of the PAC. Billboard located on NW 48th Street.*



too. I now want to hear from the PAC on your opinions.

Furthermore, this morning, I was advised that our next step should be to lobby the council members, write letters to them and appear at

the next public hearing before the council (in force) and provide testimony.

So what do we do.....?

A very discouraged Erik

Telescope Making Marathon Part III: the Daily Grind.

Martin Gaskell

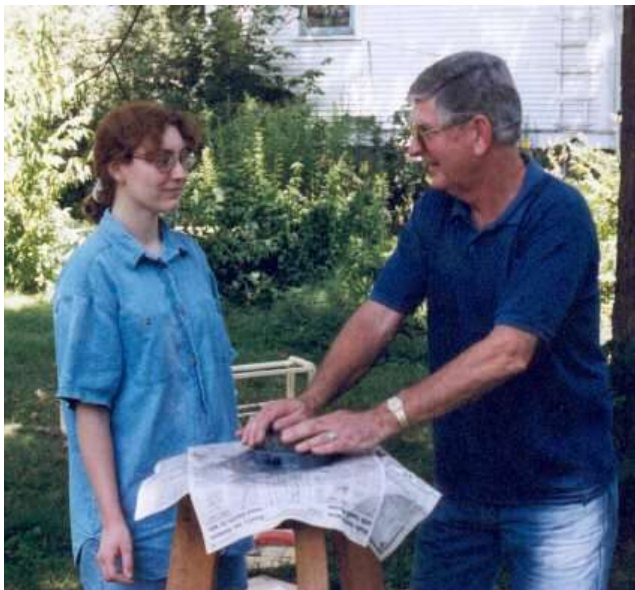
Grinding took all morning and afternoon. Almost everyone got to try their hand. This month we've only got room for a few pictures – more next month, space permitting.



David Brokofsky and Mark Fairchild about to start a wet.



Lee Taylor







Kelly Crowley and her dad (Jack Crowley)



Margaret Fairchild grinding with Helen and Catherine Dowd

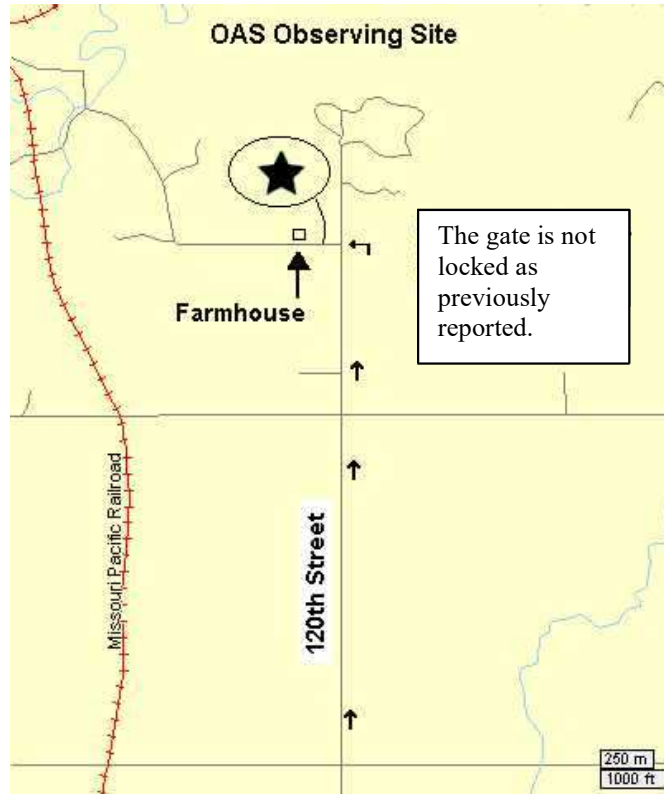
THE PRAIRIE ASTRONOMY CLUB CALENDAR

For December 1999

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
Hyde Volunteer Schedule for December: 12/04/1999 07 Earl Barnawell , Matt Cole , Bryan Schaaf , Bill Wells 12/11/1999 08 Joe Babcock , Jason Busch , Ron Debus , Dan Scharf 12/18/1999 09 Angela Gasparetti , Don Gasparetti , Rekha Rajagopal , Bill Wells 12/25/1999 10 ***Closed***			1	2	3 OAS Meeting	4 Hyde Observatory open to the public 7-10 PM
5	6	7 NEW MOON 	8	9 NSP 7 Planning Meeting, 7:30 @ Mahoney State Park	10 Club Star Party at the OAS Viewing Site	11 Hyde Observatory open to the public 7-10 PM
12 Volunteer Practice Night; 7 p.m. to 10 p.m. @ Hyde <i>PAC Youth Group</i> 7-8:30 p.m. @ Hyde Discovery Channel and Freedom 7, 8:00 to 10:00 p.m.	13 Geminids Meteor Shower Peak Meteor Party Anyone???	14 Geminids Meteor Shower Peak	15 1 ST QUARTER 	16	17	18 Hyde Observatory open to the public 7-10 PM
19	20	21	22 FULL MOON 	23	24	25 Merry Christmas! Hyde Observatory Will NOT be open this evening
26	27	28 PAC Meeting 7:30 PM Hyde Observatory	29 3 RD QUARTER 	30	31	January 1, 2000 Hyde Observatory will NOT be open this evening

Directions to OAS Observing Site

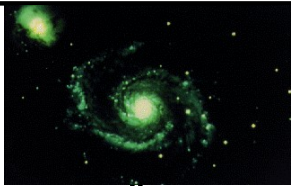
From Lincoln, take Highway 34 East approximately 29 miles to 120th street. Then go North about 2 ½ miles.



OFFICERS OF THE PRAIRIE ASTRONOMY CLUB

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Next PAC Meeting
November 30, 1999
7:30 PM
Hyde Observatory

First Class Mail