

The Prairie Astronomer

The Official Newsletter Of The Prairie Astronomy Club, Inc.

March 2002

Volume 43 Issue #3

Internet Addresses:

PAC Web Page: www.prairieastronomyclub.org
 PAC E-Mail: pac@4w.com
 NSP Web Page: www.nebraskastarparty.org
 NSP E-Mail: nsp@4w.com
 OAS Web Page: www.OmahaAstro.com
 Astronomy in NE: www.blackstarpress.com/ar/n/
 Hyde Observatory www.blackstarpress.com/ar/n/hyde/
 NEB-STAR www.neb-star.org

MARCH PROGRAM:

March's program: check PAC Website

Prairie Astronomy Club's April Star Party, Friday, April 12th - Olive Creek Recreational Area

Be sure to bring your binoculars, telescopes, or at least your appetite on April 12th to the PAC monthly star party at Olive Creek Lake. Snacks and soft drinks will be provided for everyone who attends (coffee too, if the weather warrants it). Twilight begins at approximately 7:00 p.m., with dark skies around 8:45 p.m.

Several Messier objects are visible this time of the year, so if you're interested in starting a Messier Observing Program, let your Observing Chair know ahead of time and he will provide you with the means of properly recording your observations. Programs exist for both binoculars and telescopes, so just about everyone can participate.

For directions, check out the club's on-line newsletter, or the back page of the mailed version. For those of you who have never been to Olive Creek, Dave Churilla has volunteered as a "follow me" car. Contact Dave if you're interested. His email and phone number are listed in the club newsletter and on the PAC Members Only portion of the website.

A door prize will be awarded to one of the lucky participants, so make your plans today.

Cloudy skies will cause this event to be rescheduled for May 10th.

A Nebraska Park Permit is required to use this facility. They may be purchased at most HyVee stores.

--Jeff King

CLUB EVENTS

PAC MEETING

Tuesday, March 26, 2002, 7:30 PM
at Hyde Memorial Observatory

NSP PLANNING MEETING

Thursday, April 11, 2002
Mahoney State Park

CLUB STAR PARTY

Friday, April 12, 2002
Olive Creek S.R.A.

UNL Student Observatory Open House
April 19, 2002

PAC MEETING

Tuesday, April 30, 2002, 7:30 PM
at Hyde Memorial Observatory

Mahoney Star Party Dates

May 17th, 5 days after new moon
 June 14th, 4 days after new moon
 July 12th, 2 days after new moon
 September 27th, 2 days before 3rd quarter.

Astronomy Day

April 20th at Mueller Planetarium

PAC-LIST: 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.

CONTENTS:

Secretary's Report - By Lee Taylor	Page	2
Hyde Schedule	Page	3
LEONIDS FROM SOUTHEAST NEBRASKA	Page	3
Astronomical League Services	Page	4
Star Chart	Page	6
PAC Calendar	Page	7
Club Viewing Site Directions and List of Club Officers	Page	8

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: **Mark Dahmke, PO Box 80266, Lincoln, NE 68501 or mdahmke@4w.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: Lee Taylor

Prairie Astronomy Club Minutes for Tuesday February 26, 2002

President Dave Knisely called the meeting to order. No new visitors.

The last time at Oliver Creek, good seeing but haze hampered the view.

Brian Sivill and Mark Dahmke got some good photos and video of the Saturn occultation on the 20th. Apparently, the next one will be a crescent event in the daytime low in the SE.

The next PAC star party dates are March 8th and 15th.

The next NSP planning meeting will be Thursday March 14th at Mahoney State Park. Anyone interested in helping is welcome to attend.

After a year or so of being our observing chair, Bill Wells has decided to step down. Anyone interested in being our next observing chair, please contact Dave Knisely.

According to program chair Brian Sivill, we need programs for our meetings. Anyone with something interesting to share with the club is welcome to contact Brian about putting together a program. No project too big or too small. Any astronomical project is welcome.

Astronomy Day will be held this year on April 20, 2002 at Mueller Planetarium. As usual, club members are requested to come help spread the joy of amateur astronomy to the general public. That evening, Hyde will provide a star party for beginners in the field of observing.

On Sunday March 3, 2002. Asteroid 194 Prokne will occult the star TYC 0319-00151. The path cuts right through southeastern Nebraska. Dr. Gaskell is asking for volunteers to come out and observe this event. Two good sites are Big Indian Lake and Rockford Lake. If we can set up some people along the occultations path, we may be able to do some good science here.

Hyde's volunteer appreciation night will be Tuesday March 12 at Mueller Planetarium. This is intended for those who have volunteered their time at Hyde Observatory in the past year.

We still need people to take the electronic newsletter. Mailings have decreased, but mailing costs keep increasing. You can opt out of the mailed version by contacting Liz Bergstrom to get access to the online version.

On the subject of the newsletter, newsletter editor Mark Dahmke is asking for articles. Anything you like to share can be placed in the newsletter. Simply contact Mark.

Inventory of PAC items for sale: 1 hat, 1 XL Polo shirt, 2 L T-Shirts, 3 XL T-Shirts.

Brian Sivill reports that the audit is almost complete and should be so by the next meeting.

Finally, on Friday March 8, 2002 at 8pm, Dr. Martin Gaskell will be giving a concert of William Hershel's music in Mueller Planetarium.

Adjourn to program of Mark Dahmke showing his new telescope and some of the things he's done with it.

Respectfully submitted by,

Lee Taylor

Hyde Schedule

	<u>Team Leader</u>	<u>Telescope Operators</u>	<u>Supervisor</u>	
	Winter Hours (7:00 PM to 10:00 PM)			
3/23/02	Brian Sivill	Dan Delzell	Jared Delzell	Jack D
3/30/02	Jeff King	Steve Lloyd	Dave Hamilton	Dave C
	Begin Summer Hours (Sundown to 11:00 PM)			
4/6/02	Dave Hamilton	Justin DeVries	Lynda Beck	OPEN
4/13/02	Jeff King	Dan Dezell	Jared Delzell	Dave C
4/20/02	Bill Wells	Bob Leavitt	AJ Benker	Ron V
4/27/02	Dave Churilla	Joey Churilla	Joe Babcock	Rick J

LEONIDS FROM SOUTHEAST NEBRASKA

by David Knisely and Jeff Campbell

The 2001 Leonid meteor shower was more of a game of meteorological "cloud tag" than the hoped-for pleasant observation of what turned out to be a pretty intense meteor shower. Early on Saturday, November 17th, the sky was clear during the day, but clouds continued to increase and the weather forecasts did not look promising. Still a dedicated "band" of PAC observers did gather at Olive Creek State Recreation Area that evening in hopes of seeing something. Del Motycka (a veteran of the spectacular 1998 display) arrived in his van-like camper, joined later by Dave and Joey Churilla, Brian Sivill, Jeff Campbell, and Joe Babcock. They sat under clouds and some stiff southerly breezes for quite a while, but then, about 4 a.m. on the 18th, a 'miracle' happened. From Jeff Campbell's account:

"Around 4:15, the hole we were waiting for opened. Now, almost everyone is familiar with Dave Churilla and clouds, so some of us got a kick out of the fact that the hole opened up just as Dave and Joey were packing up to leave. Man, they rushed quickly to pull those chairs back out. We all moved our chairs back a bit to provide us with more sky over Del's trailer. Almost immediately we started seeing meteors. I continually took note of the time as the five of us watched the sky. Between the five of us, we counted 108 meteors in exactly 30 minutes. Another person witnessing them as well could confirm almost all of them. There were several instances where two of us were looking at different points in the sky and would call out the next number within a second of each other. We never had a hole big enough to see the entire sky, so we know we missed quite a few. At most, we had maybe a 60-degree field of open sky, but most of the time we had hardly 45 degrees of view. When the first hole came, it was clear enough that Brian said he could see several Messier objects naked eye. Most of what we saw ranged from 1st mag. up to -3rd mag. There were a few that were as dim as 2nd or 3rd mag., but very few. At about 4:30-4:35, Joe Babcock arrived. As we were calling out to turn the lights of, we were trying to keep count as well. There was also a regular pattern of clouds going through, so after about 4:25, we would see the bottom half of Orion dim on us, then brighten again as clouds rolled in. At 4:45, it closed up for good, and we didn't see any more holes that were as good as the first. We would see small ones, with maybe two or three stars, but they quickly closed up too. After 4:45, we saw several more bright meteors through the clouds. One caught everyone's eyes, as it produced the brightest flash we saw that night, burst and produced stripes across the sky. This was a result of several bands of thin clouds, and was the highlight of the mornings "Cloudy Fireballs". The time of this one was 5:26:55, give or take 5 seconds."

Meanwhile, Dr. Martin Gaskell of UNL was driving around through several counties in looking for at least a small hole, which he eventually found as he was driving between Lincoln and Beatrice. He noted one point near 4:25 a.m. when he was seeing about one meteor every 5 seconds (he also noted that he ended up putting over 200 miles on his car's odometer!).

Down south in Beatrice, PAC President Dave Knisely was greeted as he got home from work at 11:25 p.m. with clouds, clouds and *more* clouds! He sat sadly glued to his computer screen watching the radar and satellite images and listening to the light rain begin outside. As luck would have it, around 2:15 a.m., the rain stopped and a few breaks in the clouds began to appear. The infrared satellite image showed a possible hole to his south moving north, so he quickly drove out to Rockford Lake southeast of Beatrice and got an eyeful under skies, which ranged from clear to almost completely overcast. Rates began to climb rapidly from one to three meteors per minute at 3 a.m. to nearly 10 per minute only 30 minutes later. Most were fairly bright, including many brilliant ones, which left long, but brief trails. One particularly bright fireball lit up the ground and left a trail, which was visible for over 10 minutes as upper-level winds bent it into the shape of a question mark. There were several instances where anywhere from 3 to as many as 6 meteors appeared

together within the space of only one or two *seconds*! These spectacular bursts of activity were, of course interspersed with the famous "meteor droughts" where only one or two per minute were seen. Some of these meteors were faintly greenish, while others were bluish-white or white in color. A huge surge began just after 4 a.m., when in one minute, Dave counted 17 meteors (equivalent to an hourly rate of over 1000 per hour), although the actual rate changed rapidly from minute to minute. Dave recorded a whopping 135 meteors in the space of only 15 minutes between 4:00 a.m. and 4:15 a.m. Rates continued in the 10 to 15 per minute range until around 4:17, when a large band of clouds began to obscure much of the sky. He continued to follow the shower by listening to FM radio signals being bounced off the ionized meteor trails, and rates there continued near storm levels. A clearing developed low in the south, and meteors almost seemed to be "raining" down from the south edge of the cloud deck. The sky was completely cloudy by 5 a.m., so Dave called it quits, but still felt that the shower was definitely better than even the spectacular show in 1998. All in all, Dave recorded 264 meteors between 3 a.m. and 4 a.m., and 342 meteors between 4 and 5 a.m.

The next major meteor shower is the Geminids, which should peak very early in the evening of December 13th. Hopefully, it won't be too terribly cold to get out and watch what hopefully will be a nice "relaxing" shower.

Astronomical League Services

As your new club Observing Chair, one of my duties is to promote the Astronomical League observing clubs. In the next year, I hope to introduce these clubs to as many members as I can. However, the Astronomical League offers more to its members than observing awards. This organization provides PAC members with services ranging from the wonderful newsletter called the Reflector to the option of liability insurance for club events. Here is an article provided by the AL, which describes the services we may receive with our membership. --Jeff King

We are often asked, "What do I (or my club) get for my (our) dues to the League?" This is understandable. We All want value for our money. The Astronomical League offers many services to both individuals and clubs. It is difficult to remember all of them, so this sheet is a convenient reminder.

The REFLECTOR

The League Bylaws specify that, "The League shall produce a publication for distribution on a regular basis to the membership." That publication is our quarterly newsletter the REFLECTOR. It is our major tool for communications, both between officers and members, and between member clubs. It brings news of national and regional activities and highlights local activities that might be of general interest to our membership. If you have items to contribute to the newsletter, contact the editors: Vic and Jennifer Winter, 4907 W 57th Terrace, Roeland Park, KS 66205-2839.

Program Materials Library

A free lending library of professionally produced videotapes and color slides is available for the beleaguered club program chair. Selections include NASA materials, productions from the PBS NOVA series, news documentaries and papers from national conventions. When you request an item for a specific date, you can be certain that it will arrive in plenty of time. The only cost to your club is the packaging and mailing of your selection. A full listing of the titles is available from the Library Chair: Don Garland, c/o Ft. Worth Museum of Science and History, 1501 Montgomery St., Ft. Worth TX 76107.

Publications Committee

Besides overseeing the publication of the REFLECTOR, this committee publishes a variety of informational pamphlets about amateur astronomy clubs and the Astronomical League and publishes our popular OBSERVE manuals. This series currently includes: Observe and Understand the Sun, Observe Eclipses, A Guide to the Messier Objects, Observe the Herschel Objects, Observe Meteors and Math for Amateur Astronomers. In cooperation with ALPO, we also published the ALPO Mars Observers Handbook. Suggestions for new manuals or improvements to existing ones are always welcome and should be addressed to Publications Chair: Sue Wheatley, 950 Brandywine, Beaumont, TX 77706.

Astronomical League Sales

You can order copies of your OBSERVE manuals plus a variety of T-shirts, jewelry and patches bearing the Astronomical League emblem from this office. Proceedings of past conventions and assorted "specials" are also offered from time to time as they are available. See the ad in each issue of the REFLECTOR or write for current offerings to: Astronomical League Sales, P.O. Box 572, West Burlington, IA 52655.

StarGate BBS

StarGate BBS is the official bulletin board service of the Astronomical League. It is a free service to all members having a computer and modem, the only cost being the long distance phone call - usually less than \$7.00 per hour during night and weekend rates from anywhere in the country. Simply call 214-578-7618 with your serial port set to 8 bits, no parity, 1 stop bit and up to 14,400 baud. StarGate BBS offers over 1,000 files containing 45 megabytes of information including Sky and Telescope's "Skyline" and "Sky at a Glance," IAU circulars and news from NASA. Both IBM and Mac formats are represented. For further information, call the BBS or write to SYSOP: John Wagoner, 1409 Sequoia Dr., Plano TX 75023.

Education Committee

Each year the Education Committee helps many clubs begin astronomy education programs through the use of its publication Astronomy Teaching Handbook: a Course Planning Guide. The handbook includes presentation hints, lesson plans and sample exercises which illustrate the basics of astronomy. The Committee has produced a slide set and script, "Introduction to the Universe," to provide clubs with a ready-to-show program to introduce astronomy to the general public. For further information, contact Chair: Dr. T. Michael Flick, 1643 Elder Ct., Ft. Wright KY 41011.

Astronomy Day Coordinator

Astronomy Day is an annual activity to promote astronomy to the public at large. Each year, many local clubs set up displays in shopping malls or other public locations to show how fun astronomy can be. Our Coordinator assists those clubs with publicity releases, an Astronomy Day Handbook, answering questions, spreading ideas among participants and administering an award for the best club activity during each year's Astronomy Day. Contact: Gary E. Tomlinson, Public Museum of Grand Rapids, 272 Pearl NW, Grand Rapids MI 49504.

Book Service

League members can purchase any book in print related to astronomy for a 10% discount. They are not limited to the offerings of a specific publisher or book club. There are no additional "hidden" charges for postage or handling, the Book Service takes care of all of that. Send the name of the book, author, publisher, name of your League member society, your name and address and a check for list price less 10% to: Paul Castle, 2535 45th St., Rock Island IL 61201.

Observing Awards

One of the Astronomical League's prime missions is to develop observing skills in its members. While many of the Observe manuals provide detailed instruction, this committee rewards dedicated effort. Our Messier certificate has been awarded to over 1,000 members who have observed at least 70 of Messier's famous objects. A certificate is available to members who observe 50 Messier or Deep Sky objects with binoculars. An observer wanting further challenge is invited to observe at least 400 objects from William Herschel's list to earn a Herschel certificate. Award programs are also in place for solar and meteor observers. For further information, see <http://www.astroleague.org/al/astrnote/astnot12.html> or contact: Scott Kranz, 106 N Darrowby Drive, Raymore, MO 64083-9181, E-mail: skranz@worldnet.att.net. For Herschel information, contact: Brenda Branchett, 515 Glen Haven Dr., Deltona FL 32738. For binocular awards, contact: John Wagoner, 1409 Sequoia Dr., Plano TX 75023.

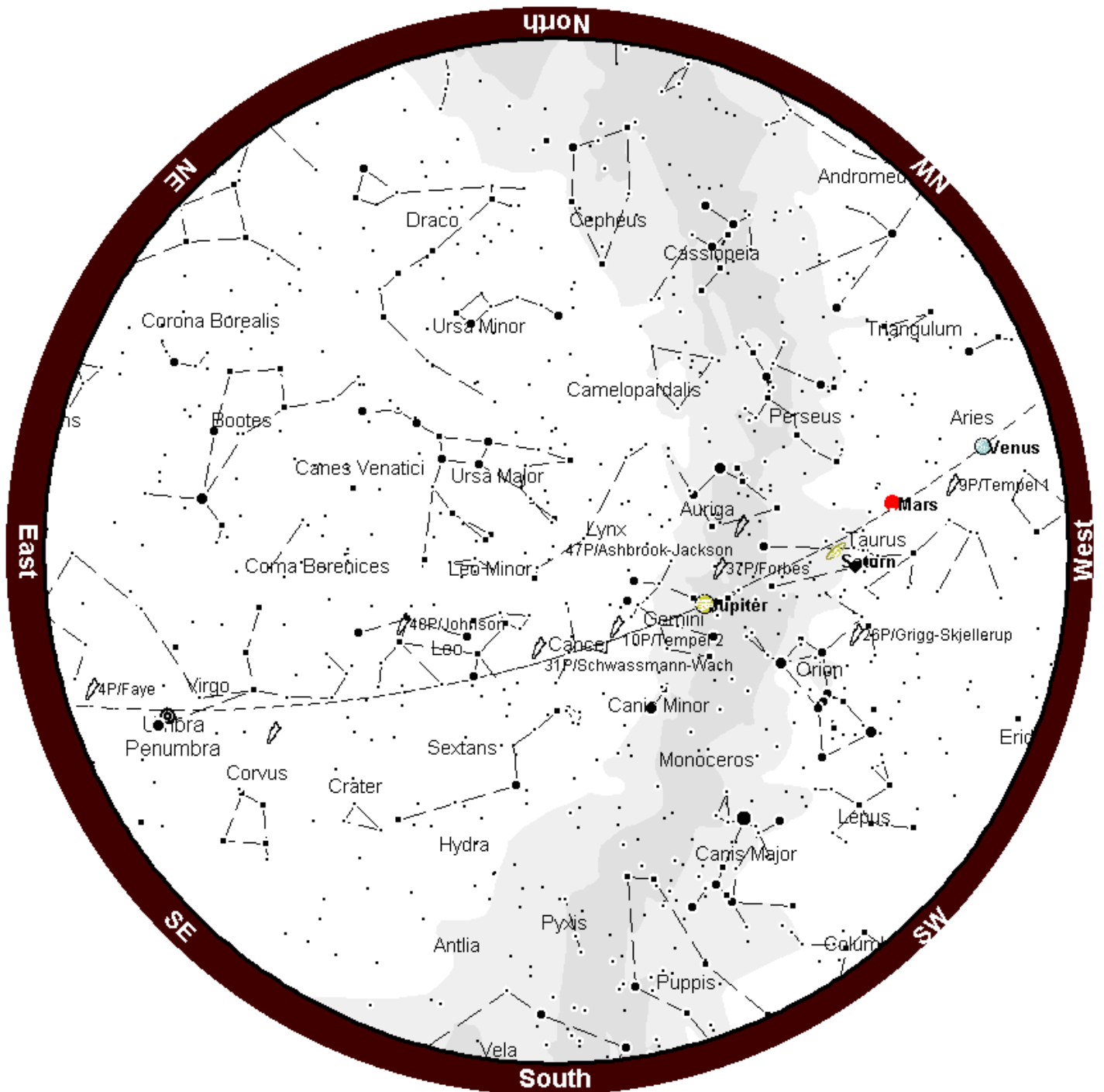
National Outstanding Young Astronomer Award

This competitive award recognizes the astronomical achievements of high-school-age young astronomers. A national panel of judges examine all entries based on defined criteria. For full details and an entry form, contact: [Charles E. Allen III, 1007 Rollingwood Ln., Goshen KY 40026](mailto:cea@compuserve.com), cea@compuserve.com.

Club Liability Insurance

Many parks, shopping malls and other public areas are requiring proof of insurability before allowing an astronomy club to host a star party or set up an Astronomy Day display. This insurance is not inexpensive, but the Astronomical League has made arrangements for member clubs to obtain \$2 million liability coverage at a competitive rate. Contact the League President for further information.

April Star Chart



THE PRAIRIE ASTRONOMY CLUB CALENDAR

April 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
	Sun: 18:10 - 06:50	Sun: 18:09 - 06:51	Sun: 18:07 - 06:52	Sun: 18:06 - 06:53	Sun: 18:04 - 06:54	Sun: 18:02 - 06:56 Hyde Observatory open to the public 7-10 p.m.
7	8	9	10	11	12	13
Sun: 18:01 - 07:57	Sun: 18:58 - 07:58	Sun: 18:56 - 07:59 Io & Europa in conjunction	Sun: 18:54 - 08:00	Sun: 18:53 - 08:01 NSP Planning Meeting	Sun: 18:51 - 08:02 Club Star Party	Sun: 18:50 - 08:03 Hyde Observatory open to the public 7-10 p.m.
14	15	16	17	18	19	20
Sun: 18:48 - 08:04	Sun: 18:47 - 08:05	Sun: 18:45 - 08:06	Sun: 18:44 - 08:07	Sun: 18:42 - 08:08	Sun: 18:41 - 08:09 UNL Student Observatory Open House	Sun: 18:39 - 08:10 Astronomy Day Hyde Observatory open to the public 7-10 p.m.
21	22	23	24	25	26	27
Sun: 18:38 - 08:11	Sun: 18:36 - 08:12 Lyrid meteor shower	Sun: 18:35 - 08:13	Sun: 18:33 - 08:14	Sun: 18:32 - 08:15	Sun: 18:31 - 08:17	Sun: 18:29 - 08:18 Hyde Observatory open to the public 7-10 p.m.
28	29	30				
Sun: 18:28 - 08:19	Sun: 18:27 - 08:20	Sun: 18:25 - 08:21 PAC Meeting 7:30pm Hyde Observatory				

**Directions to Olive Creek
Observing Site**

Shorter:

Take Hwy 77 South out of Lincoln until you get to the Crete corner (junction Hwy 77 and Hwy 33). Go West on Hwy 33 (toward Crete) until you get to SW 72 St. Turn Left (South) on SW 72 St. and go about 5 miles until you get to SW Panama Rd. Turn right (West) until you get to SW 100 St. (SW 100 St does NOT go through to Hwy 33). Turn Left (South) on SW 100 St and go about 1 to 1 1/2 miles until you see the sign and entrance to Olive Creek (this is the West side of the Park). It's on your left (East) side of the road.

More Black Top:

Take Hwy 77 South out of Lincoln until you get to the Crete corner (junction Hwy 77 and Hwy 33). Go West on Hwy 33 (toward Crete) until you get to about SW 114 St. - the first intersection after SW 100 St. (forgot to look at this street sign, sorry - you'll see a sign for Olive Creek though at this road- but don't count on anymore signs after that, I didn't see any). Turn Left (South) on SW 114 St and go about 5 miles or so until you get to SW Panama Rd (you'll see a church and small school on your right). Turn Left (East) and go about a mile to SW 100 St, then turn Right (South) and go 1 to 1 1/2 miles until you see the Olive Creek entrance and sign (on your left hand side of the road).

**OFFICERS
OF THE PRAIRIE ASTRONOMY CLUB**

PRESIDENT: Dave Knisely
(402) 223-3968
KA0CZC@navix.net

VICE PRESIDENT: Dave Brokofsky
(402) 486-3441
dbrokof@msn.com

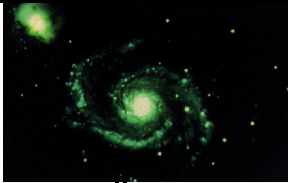
**2nd VICE PRESIDENT
(PROGRAM CHAIR):** Brian Sivill
(402) 420-1227
nanoamps@aol.com

SECRETARY: Lee Taylor
(402) 327-0804
otaylor89@hotmail.com

TREASURER: Liz Bergstrom
(402) 464-2038

Club Observing Chair: Bill Wells
477-1346

Hyde Volunteer Coordinator: Dave Churilla
(402) 467-1514
weber2@inebraska.com



**The Prairie Astronomer
C/o The Prairie Astronomy Club, Inc.
P.O. Box 5585
Lincoln, NE 68505-0585**

First Class Mail

**Next PAC Meeting
March 26, 2002
7:30 PM
Hyde Observatory**