

# THE PRAIRIE ASTRONOMER

THE OFFICIAL NEWSLETTER OF THE PRAIRIE ASTRONOMY CLUB, INC.

APRIL 2001

VOLUME 42 ISSUE #4

## INTERNET ADDRESSES:

PAC Web Page: [www.4w.com/pac/](http://www.4w.com/pac/)  
PAC E-Mail: [pac@4w.com](mailto:pac@4w.com)  
NSP Web Page: [www.4w.com/nsp/](http://www.4w.com/nsp/)  
NSP E-Mail: [nsp@4w.com](mailto:nsp@4w.com)  
OAS Web Page: [www.OmahaAstro.com](http://www.OmahaAstro.com)  
Astronomy in NE: [www.blackstarpress.com/ar/in/](http://www.blackstarpress.com/ar/in/)  
Hyde Observatory: [www.blackstarpress.com/ar/in/hyde/](http://www.blackstarpress.com/ar/in/hyde/)

## APRIL'S PROGRAM:

The program for April's PAC meeting will be a "Project Update" on Nasa's Cassini mission to Saturn. It will be presented by PAC member Dave Hamilton. This should prove to be both informative and exciting! Please plan on attending on Tuesday, April 24th 7:30pm.

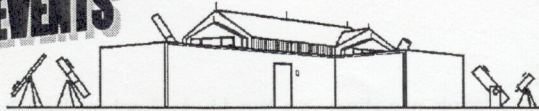
**PAC-LIST:** Mark Dahmke maintains an e-mail list server for PAC. If you have an e-mail address and are not on the PAC List, you may subscribe by submitting an e-mail to [list@4w.com](mailto:list@4w.com). Write "Subscribe PAC-List" in the body of the e-mail.

**ASTEROID OCCULTATION:** Late Monday evening, May 7, minor planet 337 Devosa passes in front of an 8th-magnitude star in Hydra for observers situated in a narrow path across the U.S. Within a few minutes of 4:44 Universal Time (on May 8th) the star may disappear for up to 5 seconds, leaving only 12th-magnitude Devosa in view.

**LUNAR OCCULTATION:** On Friday evening, April 27th, skywatchers all across North America can see the crescent Moon hide a 3rd-magnitude star. During twilight or full night (depending on your exact location), the advancing dark edge of the Moon snuffs out Eta Geminorum for skywatchers in the East and Midwest.

Eta Geminorum disappears at the following daylight saving time: Omaha, NE, 9:27EDT.

## CLUB EVENTS



**HYDE INSTRUCTIONAL STAR PARTY**  
SATURDAY, APRIL 21, 2001, 8:00 P.M.  
at Hyde Memorial Observatory

**PAC MEETING**  
TUESDAY, APRIL 24, 2001, 7:30 PM  
at Hyde Memorial Observatory

**RAIN DATE FOR HYDE INSTRUCTIONAL STAR PARTY**  
SATURDAY, APRIL 28, 2001, 8:00 P.M.  
at Hyde Memorial Observatory

**NSP PLANNING COMMITTEE**  
THURSDAY, MAY 10, 2001, 7:00 PM  
Mahoney State Park

**CLUB STAR PARTY**  
FRIDAY, MAY 25, 2001  
Wagon Train Lake  
(see map on back page)

**PAC MEETING**  
TUESDAY, MAY 29, 2001, 7:30 PM  
at Hyde Memorial Observatory

## CONTENTS:

Secretary's Report - By Pamela L. Fiedler	Page	2
Hyde Volunteer Schedule - By Dave Churilla	Page	3
Sky Chart for May	Page	3
Mead LX-90 Review - Dan Delzell	Page	4-6
Mars in May	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: Jeff King, 4018 South 83rd Street, Lincoln, NE 68506-5973 or [jeffrey892@aol.com](mailto: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.

4 - 01



# SECRETARY'S REPORT

By: Pamela L. Fiedler

Secretary's Report for Tuesday, March 26th

by Pamela L. Fiedler

President Dave Knisely opened the meeting, and greeted new guests.

The solar activity/ delta configurations were much more popular and interesting, than our freezing butts with no heat. (humor please)

Good attendance was reported at the Wagon Train Star Parties.

We applaud all of our club members for good attendance during our March meeting--as the Hyde had no heating facilities whatsoever!

Mars.....will be approaching closer during the month of April.....WHERE will your telescope be parked?

Volunteer Appreciation Night is Wednesday, April 4th. The program will begin at 6:30 on the UNL Campus @ the Mueller Planetarium. Valentino's Pizza will be served.

Astronomy Day is Saturday, April 7th. Volunteers are needed, and the public will be encouraged to bring their problematic telescopes to the event. The doors will open to the public (the Mueller Planetarium ) at 9:00 a.m. The Physics Society will also be giving demonstrations.

The Star Party Flyer was created by the Hyde's Graphic Designer: Pamela L. Fiedler. The event will take place at the Hyde on Saturday, April 21st. (8:00 p.m.) Bad weather date is scheduled for the following Saturday: April 28th.

Approximately 300 flyers have been printed. They will be handed out at the Hyde until the event, and also passed out through local businesses.

Star Party at Wagon Train on April 20th.

The Nebraska Star Party is scheduled for July 15th-20th. If you freeze your butt off there it will be your own fault: pack matches and 1 wooden mousetrap. Light mouse trap with match to start fire. In case of emergency: think of HOW COLD it was at the Hyde for the March Meeting--THAT should warm you up on those cold, July nights...

The first Star Party at Mahoney State Park is Friday, May 25th. Pack 2 mousetraps & 2 packs of matches: it's sometimes colder in May than July.

It's been said that humor is the best medicine for life. If Einstein was allowed to run around Princeton without socks, and score all the chicks--well then, I can pack a few matches and some mousetraps into the starry-night report.

At all times just remember: Artificial Intelligence is no match for Natural Stupidity.

Clear Skies,

Pamela L. Fiedler

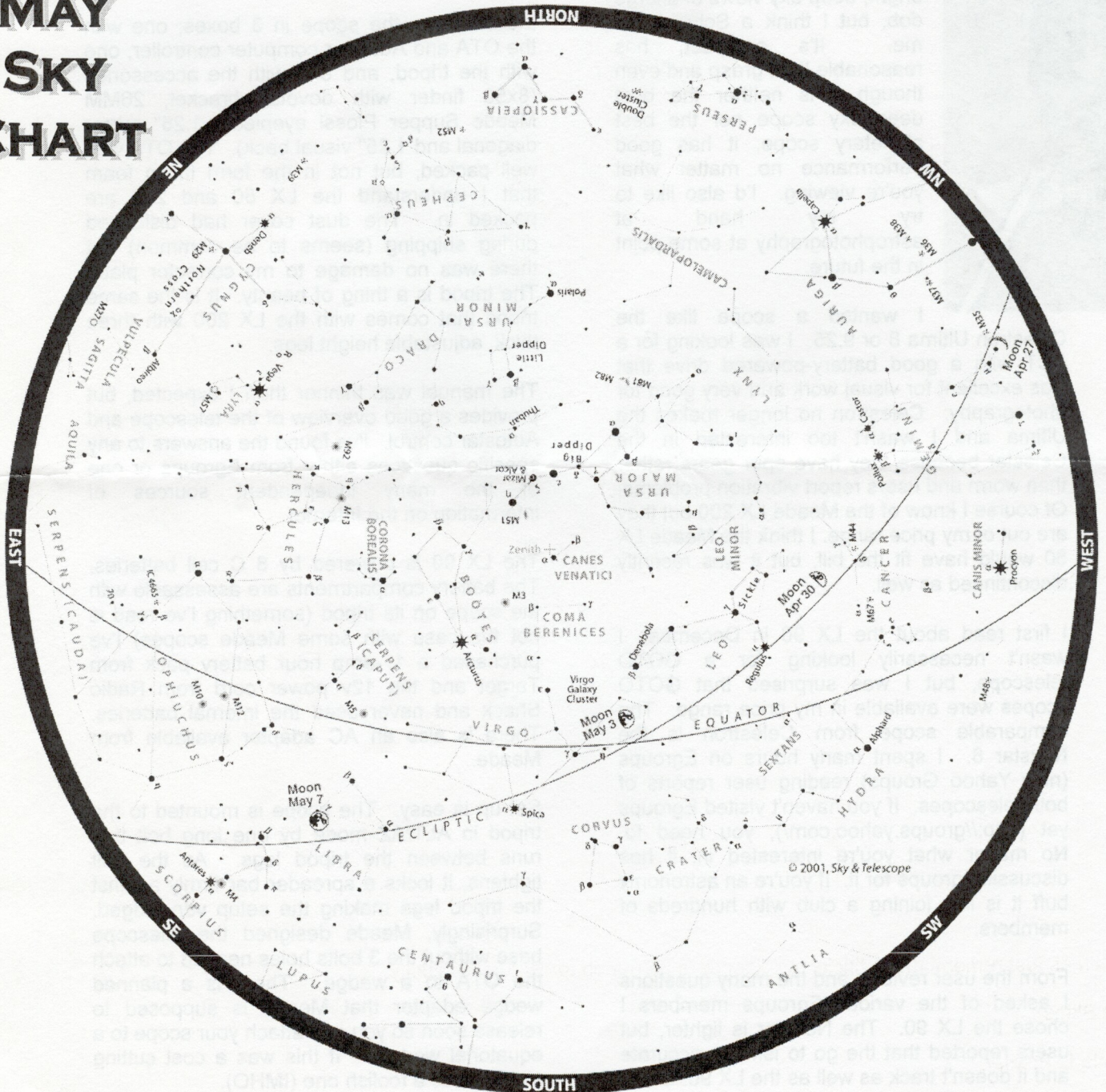


# HYDE MAY VOLUNTEER SCHEDULE

Summer Hours Begin: Dusk until 11:00 PM

Date	Team Leader	Operators	Coord.	Supervisor
5/05/01	Brian Sivill	Lee Taylor      Matt Reiling	Dave Churilla	Jack Dunn
5/12/01	Jeff King	Jeff Campbell      Troy Anderson	Lee Taylor	Dave Churilla
5/19/01	Dave Churilla	Bob Leavitt      Joey Churilla	Dave Churilla	Ron Veys
5/26/01	Lee Taylor	Dave Hamilton      AJ Benker	Lee Taylor	Rick Johnson

## MAY SKY CHART





# MEADE LX-90 REVIEW

BY DAN DELZELL



I've been an owner of an 8" SCT for about 5 years. My first scope was a 1986 Celestron Super C8+ that I purchased used from Astromart in 1995. I often find myself wishing for the bright, deep sky views of a large dob, but I think a Schmidt fits me. It's compact, has reasonable light grasp and even though it is neither the best deep sky scope nor the best planetary scope, it has good performance no matter what you're viewing. I'd also like to try my hand at astrophotography at some point in the future.

I wanted a scope like the Celestron Ultima 8 or 9.25. I was looking for a SCT with a good battery-powered drive that was excellent for visual work and very good for photography. Celestron no longer makes the Ultima and I wasn't too interested in the Celestar because they have spur gears rather than worm and users report vibration problems. Of course I know of the Meade LX 200 but they are out of my price range. I think the Meade LX 50 would have fit the bill, but it was recently discontinued as well.

I first read about the LX 90 in December. I wasn't necessarily looking for a GOTO telescope, but I was surprised that GOTO scopes were available in my price range. The comparable scope from Celestron is the Nexstar 8. I spent many hours on Egroups (now Yahoo Groups) reading user reports of both telescopes. If you haven't visited Egroups yet (<http://groups.yahoo.com/>), you need to. No matter what you're interested in, it has discussion groups for it. If you're an astronomy buff it is like joining a club with hundreds of members.

From the user reviews and the many questions I asked of the various Egroups members I chose the LX 90. The Nexstar is lighter, but users reported that the go to isn't as accurate and it doesn't track as well as the LX 90. Users comparing both scopes say the optics are almost identical. The Nexstar uses a single fork arm and I was concerned that it wouldn't be steady. The LX 90 costs about the same as the Nexstar.

I ordered my LX 90 on January 29th from eHobbies.com. eHobbies was running a special 10% off plus free shipping. I had some tracking problems with my order, and it was delayed by computer problems at eHobbies but it finally arrived after a long 4-week wait.

Meade ships the scope in 3 boxes; one with the OTA and Autostar computer controller, one with the tripod, and one with the accessories (8x50 finder with dovetail bracket, 26MM Meade Supper Plossl eyepiece, 1.25" mirror diagonal and 1.25" visual back). The OTA was well packed, but not in the form fitting foam that I understand the LX 50 and 200 are packed in. The dust cover had dislodged during shipping (seems to be common) but there was no damage to my corrector plate. The tripod is a thing of beauty. It is the same tripod that comes with the LX 200 with three thick, adjustable height legs.

The manual was thinner than I expected, but provides a good overview of the telescope and Autostar control. I've found the answers to any specific questions either from Egroups or one of the many independent sources of information on the Internet.

The LX 90 is powered by 8 C cell batteries. The battery compartments are assessable with the scope on its tripod (something I've read is not the case with some Meade scopes) I've purchased a 17-amp hour battery pack from Target and the 12v power cord from Radio Shack and never used the internal batteries. There is also an AC adapter available from Meade.

Set up is easy. The scope is mounted to the tripod in ALT/AZ mode by one long bolt that runs between the tripod legs. As the bolt tightens, it locks a spreader bar firmly against the tripod legs making the setup very ridged. Surprisingly, Meade designed the telescope base without the 3 bolts holes needed to attach the OTA to a wedge. There is a planned wedge adapter that Meade is supposed to release soon so you can attach your scope to a equatorial wedge. If this was a cost cutting move it was a foolish one (IMHO).

The Autostar holds the coordinates for 6 user-defined locations. Lincoln is one of the cities it knows, but found the exact coordinates for my address at Map Blast. On power up, the



Autostar displays a warning not to look at the sun through a telescope (probably good advice) and then instructs you to enter the date and time, level the scope and face it north. I purchased a small bubble level to assist with this. I've always chosen the easy two-star align. The scope slews to the first alignment star but it is often out of the finder's field of view, the second one is usually much closer.

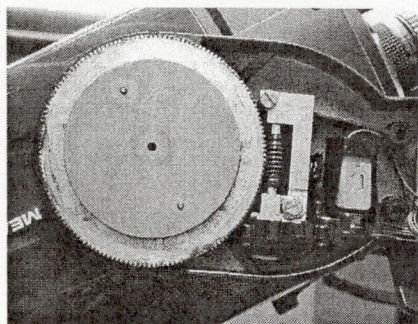
The Autostar has 9 slew speeds. The sound of high-speed slew is noticeable, but not annoying. It has been a while since I've heard the LX 200 slew and it is often described as a coffee grinder. The LX 90 is much quieter. I have no concerns with using the scope from my back yard at night with sleeping neighbors. The drive is silent when tracking.

First light with the LX 90 was from my back yard in late February. I lined the finder and did a quick star test on Procyon. Collimation looked good enough (I was too excited to take the time tweak it!) I can't see Polaris from my backyard so I guessed at north, but leveled the OTA. The Autostar chose Sirius and Aldebaran as alignment stars. The initial slew to Sirius was about 10 degrees off and the slew to Aldebaran was much closer. I first chose to do the Night's Best Tour, one of many standard tours offered by the Autostar. First stop was Jupiter. Unfortunately it was not close to the field of view of even the finder. Saturn was off by the same amount. I realigned the scope. I'm not sure what I did wrong the first time, but this time Jupiter was centered in the field of view of the 26mm eyepiece.

The view of Jupiter was beautiful; much better than in my old C8. I was never sure I saw the Great Red Spot in my old scope, but I could easily pick it out in this one. Cassini's Division was sharp on Saturn. The tonight's best tour ran through about 30 objects. Trees or houses blocked many, but those that were visible were dead center in the FOV of the 26mm eyepiece.

Working with the scope, I noticed that it had considerable slop in declination. With the lock

Inside the Meade LX-90



engaged and a slight pressure applied to the  
*The Prairie Astronomer*

OTA, objects would move about half the 26mm EP field of view. Egroups came to the rescue. Another user had this problem and fixed it by tightening the bolts that mounted the declination worm gear. I wasn't keen on taking my new scope apart, but I didn't want to send it to Meade for 3 weeks repair either. Following his instructions I was able to tighten the bolts and it totally fixed this problem.

Besides the dec slop, I've found no quality issues with this scope. There is very minor mirror shift, only noticeable at very high power. Other LX 90 owners have complained of stiff focusers, but I like mine. Focus is sharp and consistent with pinpoint stars. The go to and tracking is excellent.

Last Saturday, my son Jared and I had our scopes out at Wagon Train with Dave Hamilton

M51, 30 minute exposure.



and Dave Churilla. I left it centered on M13 while I talked to the two Daves and enjoyed the views from their scopes for about 20 minutes. When I returned M13 was still centered. Many users report good success with photography. I've seen one 30 minute, self guided exposure with the telescope mounted on a homemade equatorial wedge. (Check them out at <http://home.earthlink.net/~rjkrejci/>). The telescope does not have periodic error correction (PEC). But it still seems to be a solid platform for dabbling in photography.

I have noticed that even with go to, I need to plan my observing sessions. The Autostar has over 30,000 objects programmed in it memory, some I doubt you could see with an 8" aperture. You can choose objects by name, catalog #(Messier, Caldwell, NGC, etc) or by entering its RA/DEC. However, I've found that there are objects that I would have liked to observe, but because I hadn't taken the time to plan my session I didn't notice they were up. Now that I feel I've had the LX 90 through it's shake down, I can do better.

In summary, things I like about the LX 90 are:  
\* The Autostar. It's easy to use and feature rich. I'm still finding things it does that I hadn't known. The Autostar software is updateable via the Internet.



\* The Optics. Much better than my previous telescope.

\* Point and tracking accuracy. They say it is not as nice as the LX 200, but the LX 90 is \$600 less. It puts almost every object in the middle of the field of view and tracks for a very long time.

\* The tripod. I'd be surprised if there is a better tripod on any commercial SCT.

\* Size and weight. The LX 90 weighs 51lbs (OTA & Tripod) the LX 200 weighs 69lbs.

\* Great 8X50 finder.

\* It's a lot of fun to use!

#### Dislikes:

\* The dust cover. Falls off after observing on a cold night. It's plastic, not the nice metal ones you find on the LX 200. I need to find a better way to attach it to the OTA.

\* The adapter needed for equatorial mounting. I think Meade should have designed the base with the boltholes to attach it to the wedge like the other LX telescopes. It wouldn't have added much to the cost.

#### Wishes:

\* The drive does not have PEC. This can be overcome through auto guiding, but it would have been nice.

\* I also wish Meade wouldn't have skimped in the packing and shipped the telescope in the form fitting foam like the other LX models. I've purchased a trunk for my scope but I have yet to cut foam for it. All in all I've very pleased with this scope. I'm still leaning all it can do. If I was planning to focus on astrophotography then I'd consider moving up to the LX 200. It's sturdier (and heavier), supposedly has better go to accuracy and tracking, has PEC and accepts more accessories than the LX 90. But, as a fun, visual scope with the ability to do light photography at some point, I think it is ideal.



## MARS IN MAY

**M**ars will be magnificent in May! It greatly outshines all the stars and glows with an imposing fiery hue. Go out around midnight on May 9th and 10th to see Mars low in the southeast near a big, bright Moon. A few nights later, turn binoculars or a very-wide-field telescope on Mars well after midnight, but before moonrise, and you'll see the Lagoon Nebula only about 2 degrees (less than a half binocular field) to the left of the planet.

All month look for the white polar caps of Mars in a scope at high power and note how the planet's dark markings change noticeably in just an hour or two as Mars rotates. The red planet hasn't been this big or bright in telescopes in 13 years. Next month it gets even better!



# THE PRAIRIE ASTRONOMY CLUB CALENDAR

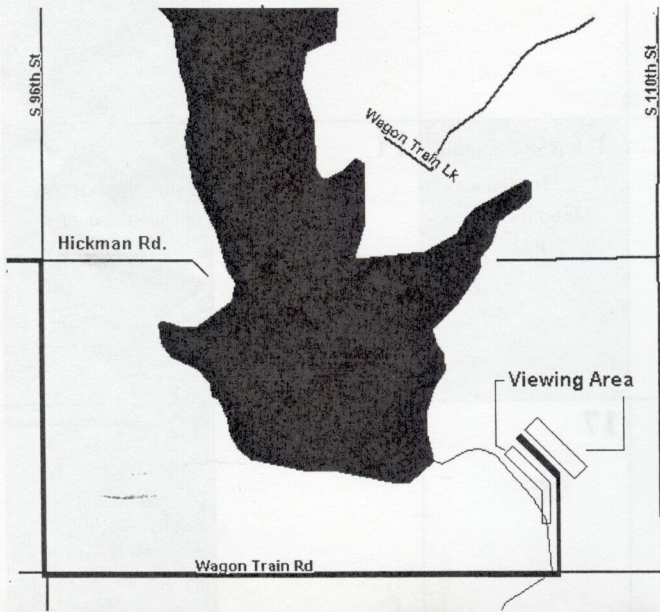
## For May 2001

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b> Hyde Observatory open to the public sunset-11:00 p.m.
<b>6</b>	<b>7</b> FULL MOON 	<b>8</b>	<b>9</b>	<b>10</b> NSP Planning Meeting Mahoney State Park	<b>11</b>	<b>12</b> Hyde Observatory open to the public sunset-11:00 p.m.
<b>13</b>	<b>14</b>	<b>15</b> 3 <sup>RD</sup> QUARTER 	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b> Hyde Observatory open to the public sunset-11:00 p.m.
<b>20</b>	<b>21</b>	<b>22</b> 	<b>23</b> NEW MOON 	<b>24</b>	<b>25</b> Club Star Party	<b>26</b> Hyde Observatory open to the public sunset-11:00 p.m.
<b>27</b>	<b>28</b>	<b>29</b> PAC Meeting 7:30 p.m. Hyde Observatory	<b>30</b> 1 <sup>ST</sup> QUARTER 	<b>31</b>		



**Directions to Wagon Train Lake  
Observing Site**

From Hickman, NE, turn East on Hickman Road. Go until you reach 96th Street, then turn RIGHT. Drive until you reach Wagon Train Road, then turn LEFT. Area 6 is about 3/4 of a mile East. Turn LEFT into Area 6.

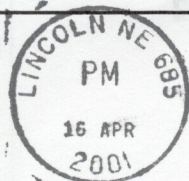


**OFFICERS  
OF THE PRAIRIE ASTRONOMY CLUB**

- 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:** Pam Fiedler  
(402) 472-1705  
pfiedler@unlnotes.unl.edu
- 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  
April 24, 2001  
7:30 PM  
Hyde Observatory**

EARL MOSER 9/2001  
P O BOX 162  
HICKMAN NE 68372-0162

