

THE PRAIRIE ASTRONOMER

THE OFFICIAL NEWSLETTER OF THE PRAIRIE ASTRONOMY CLUB, INC.

DECEMBER 2003

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 NSP E-Mail: nsp@4w.com
 OAS Web Page: www.OmahaAstro.com
 Hyde Observatory: www.hydeobservatory.info
 NEB-STAR: www.neb-star.org

DECEMBER PROGRAM

December program: Larry Stepp, Manager, AURA New Initiatives Office

Title: "Cost-effective Design of a 30-meter Telescope"

CLUB EVENTS

Club Star Party

Friday, December 26, 2003

PAC Meeting Sunday 7:30pm

Sunday, December 28, 2003

Club Star Party

Friday, January 23, 2004

PAC Meeting 7:30pm

Tuesday, January 27, 2004

Program: How to Use your Telescope

NOTE: The December PAC meeting has been moved to Sunday, December 28th at 7:30pm.

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.

READ THIS NEWSLETTER ONLINE

Those who wish to help with publishing and postage costs by receiving only the on-line version of the newsletter should contact Liz Bergstrom at 464-2038. Mark Dahmke or Liz can give you the logon account and password for access. You may receive both the mailed version and the on-line version if you wish. A printable PDF version of this newsletter is also available through the website.

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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: **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 — Lee Taylor

Prairie Astronomy Club Minutes for the Meeting of November 25, 2003

President Dave Knisely called the meeting to order, no new visitors.

The Leonids, as expected were rather dull this year, but the observing session was enjoyable. The sun's active regions, which spawned the last set of massive solar flares and CME's have come back around, but are much less active than before.

The Nov. 8th lunar eclipse at Hyde was well attended, with around 200 visitors.

The next club star party is scheduled for Dec. 26, 2003 at Olive Creek.

THE NEXT CLUB MEETING WILL BE MONDAY DEC 29, 2003, to accommodate our speaker, former PAC president, Larry Stepp. The 11th annual Nebraska Star Party will be held around the week of July 18-24 at Merritt Reservoir. This seems to be the best compromise since the moon isn't cooperating with the weekend this year.

The next NSP planning meeting will be on Thursday Dec. 11, 2003 Club Secretary, Lee Taylor presented a short survey to the members on their interests and ideas on presentations for the club programs. We're still working out details on how to get it online so those not present can provide input.

As all members present are aware, there is now a LARGE obstacle in the South Shore Drive to Hyde Observatory, the access road for the heavy equipment runs right behind the gate. Ways of warning the public about this are being discussed.

Club Treasurer, Liz Bergstrom, is still taking orders for the RASC's

Observer's Handbook and Ottwell's Astronomical Calendar for 2004.

Costs are \$17.00 for the RASC and \$21.00 for the Astronomical

Calendar. Orders need to be in and paid for by Dec. 4, 2003. as Liz needs to have the whole order in by the 6th.

The club audit will be done in January of next year; the committee will consist of Bob Leavitt and Lee Taylor.

Adjourn to program of the Dowd and Gaskell family players providing complete coverage of the Antarctic solar eclipse on Sunday

Nov. 23, 2003. Also, Jack provided a great video outlining the next ten years of NASA's discovery missions.

Two notes to be made here, both club telescopes are available to members having paid for either full individual or family memberships. To check them out, contact Club Vice President, Dave Brokofsky. Also, as many members know, the club library is stored in the gray cabinet at Hyde. To check out any of our materials, again, contact Dave Brokofsky. If you're interested in seeing what's available, check out the PAC site. For an updated list, club secretary, Lee Taylor is tentatively scheduled to give a program on the PAC library in March, highlighting the more interesting books we have.

Respectfully submitted by,

Lee Taylor

Hyde Observatory Volunteer Schedule

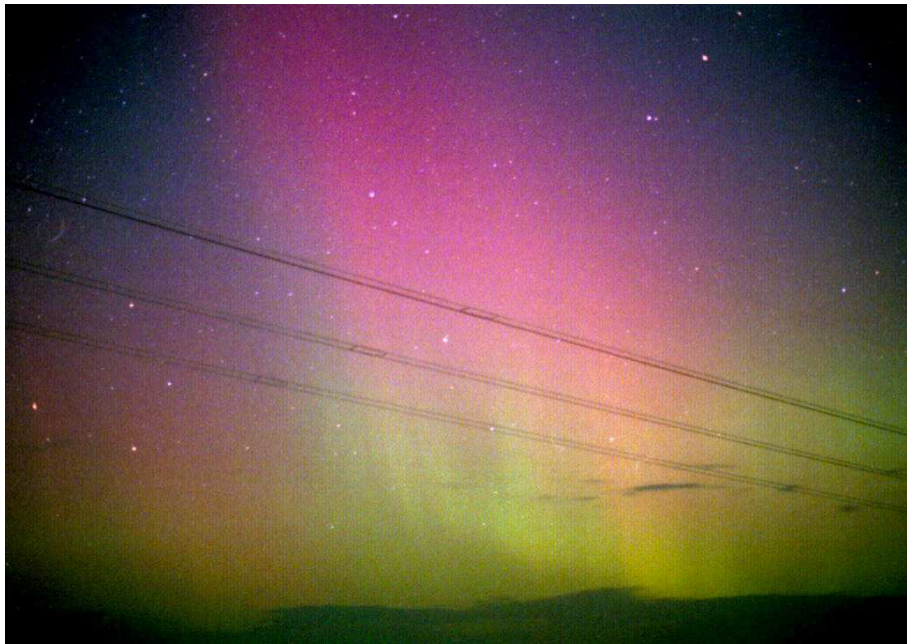
Date	Team Leader	Operators		Supervisor	Events
December					
12/20/03	Dan Delzell	Jared Delzell	Josh Machecek	Dave Hamilton	
12/27/03	Bob Leavitt	Karla Bachman	AJ Benker	Dave Knisely	
January					
1/3/04	Dan Delzell	Jared Delzell	Jeff Campbell	Erik Hubl	
1/10/04	Dave Churilla	Joey Churilla	Erica Block	Brian Sivill	
1/17/04	Bob Leavitt	Karla Bachman	AJ Benker	Dave Hamiton	
1/24/04	Jeff King	Josh Machecek	Cece Hedrick	Rick Johnson	
1/31/04	Bill Wells	Joey Churilla	Steve Lloyd	Dave Churilla	
February					
2/7/04	Jeff King	Mary Winqest	Jeff Campbell	Brian Sivill	
2/14/04	Bob Leavitt	Joey Churilla	Erica Block	Dave Churilla	
2/21/04	Bill Wells	Karla Bachman	Cece Hedrick	Rick Johnson	
2/28/04	Dan Delzell	Jared Delzell	Josh Machecek	Dave Hamilton	
Summer Hours: April through September (Sundown to 11:00 PM)					
Winter Hours: October through March (7:00 PM to 10:00 PM)					

Aurora and Sunspot Pictures – Martin Gaskell

These photos were taken from just north of Lincoln, Nebraska, between midnight and 1 a.m. At the peak of the auroral display around 7:30 p.m. the aurora could be seen from inside Lincoln. The brightness then was comparable to seeing the sky lit by the floodlights of the University of Nebraska football stadium from a block away. The aurora had died down considerably by the time these photos were taken over four hours later.



The two pictures above were taken less than a minute apart and show how much an aurora changes from minute to minute. Notice that the aurora is illuminating the cornfield in the foreground.

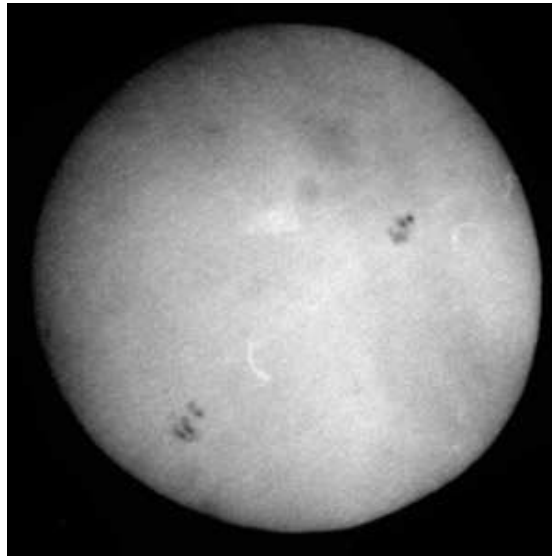


Another picture taken less than a minute or so before the two above.

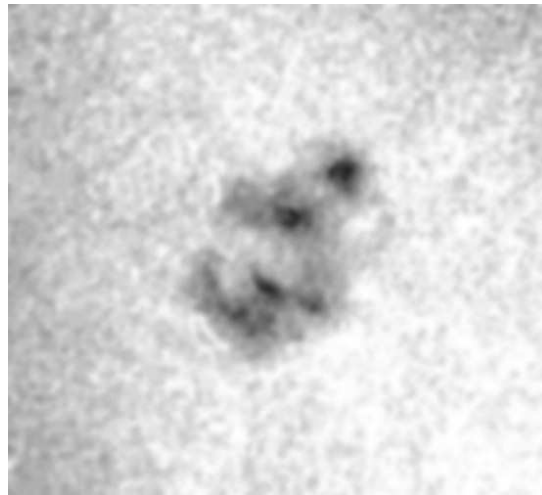


A wide-angle photo taken some time after the pictures above. The pole star is near the top of the photo, slightly to the right of center. When the earlier pictures were taken the aurora was reaching above the pole star. Unfortunately it had died down when I took this wide-angle photo.

Giant Sunspots on the Sun



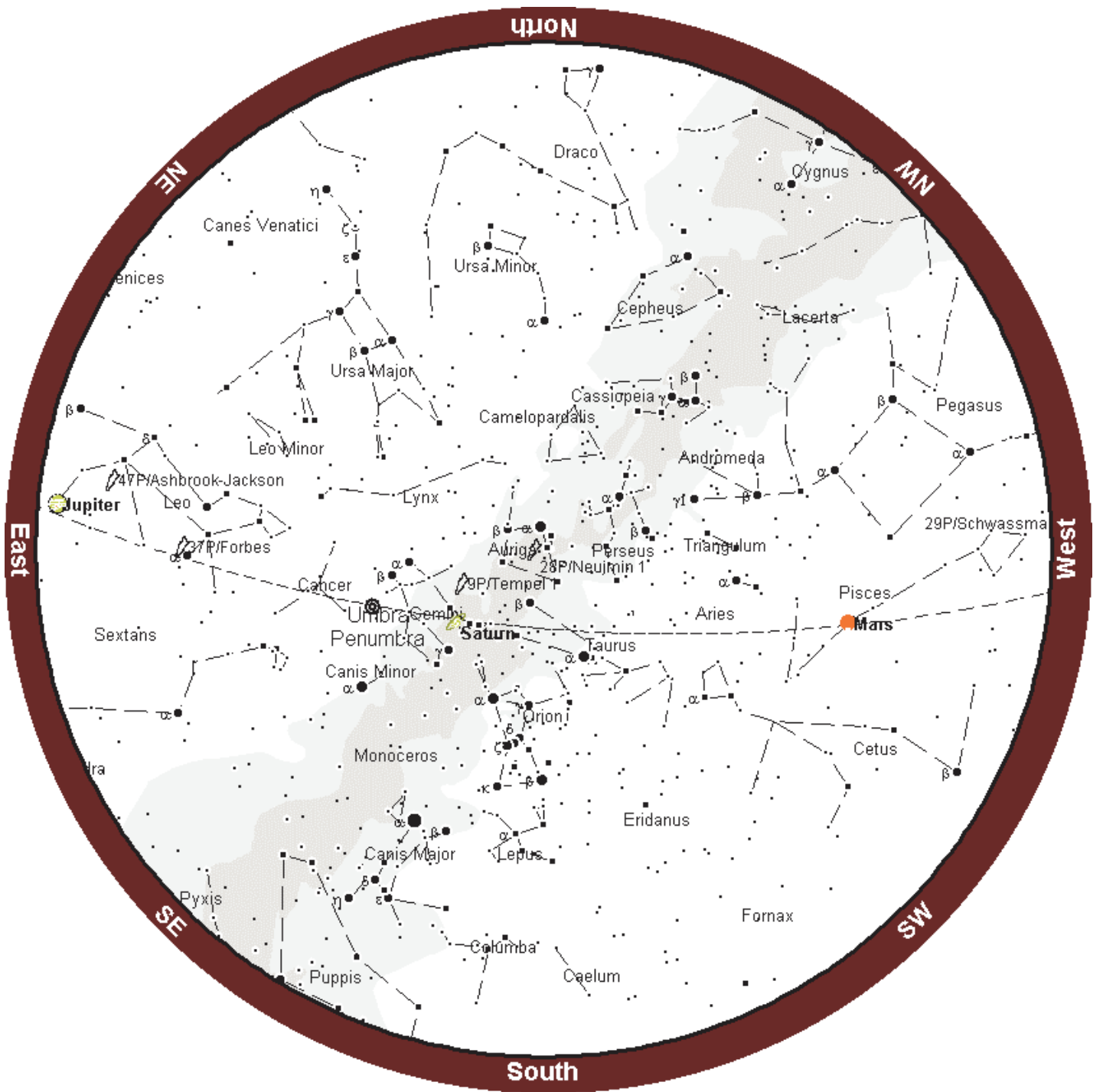
The auroral display was the result of a massive flare on the sunspot to the upper left of center in this picture. This is a poor quality picture taken by son Daniel and I with a homemade 8-inch Newtonian reflector on October 25, five days before the auroral display. It was partly cloudy when we took the photo. The sun shows two large sunspot groups. This is very rare.



A closeup of the sunspot that was going to produce the flare. We took this at the same time as the previous photo. This is a huge sunspot! The earth is about the size of one of the dark cores of the sunspot!

All photos copyright Martin Gaskell

December Star Chart



Events Calendar

January 2004						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 	2 	3 
				Sun: 07:50 - 17:09	Sun: 07:50 - 17:10	Sun: 07:50 - 17:11
						Hyde Observatory open to the public
4 	5 	6 	7 	8 	9 	10 
Sun: 07:50 - 17:11	Sun: 07:50 - 17:12	Sun: 07:50 - 17:13	Sun: 07:50 - 17:14	Sun: 07:50 - 17:15	Sun: 07:50 - 17:16	Sun: 07:50 - 17:17
						Hyde Observatory open to the public
11 	12 	13 	14 	15 	16 	17 
Sun: 07:50 - 17:18	Sun: 07:49 - 17:19	Sun: 07:49 - 17:20	Sun: 07:49 - 17:22	Sun: 07:48 - 17:23	Sun: 07:48 - 17:24	Sun: 07:48 - 17:25
			Uranus 1 deg N of Venus			Mercury greatest elongation; Hyde Observatory open to the public
18 	19 	20 	21 	22 	23 	24 
Sun: 07:47 - 17:26	Sun: 07:47 - 17:27	Sun: 07:46 - 17:28	Sun: 07:45 - 17:30	Sun: 07:45 - 17:31	Sun: 07:44 - 17:32	Sun: 07:43 - 17:33
					Club Star Party	Hyde Observatory open to the public
25 	26 	27 	28 	29 	30 	31 
Sun: 07:43 - 17:34	Sun: 07:42 - 17:36	Sun: 07:41 - 17:37	Sun: 07:40 - 17:38	Sun: 07:39 - 17:39	Sun: 07:39 - 17:41	Sun: 07:38 - 17:42
		PAC Meeting 7:30pm				Hyde Observatory open to the public

Moon phase images by: António Cidadão

**Directions to Olive Creek
Observing Site**

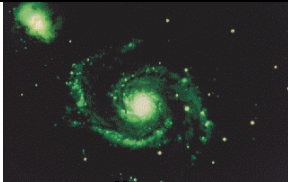
Shorter:

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
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SECRETARY:	Lee Taylor (402) 327-0804 otaylor89@hotmail.com
TREASURER:	Liz Bergstrom (402) 464-2038
<i>Club Observing Chair</i>	<i>Jeff King</i> 483-0599
<i>Hyde Volunteer Coordinator:</i>	<i>Dave Churilla</i> (402) 467-1514 weber2@inebraska.com



**The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 5585
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First Class Mail

**Next PAC Meeting
SUNDAY
December 28, 2003
7:30 PM
Hyde Observatory**