

THE PRAIRIE ASTRONOMER

The Official Newsletter Of The Prairie Astronomy Club, Inc.

January 2007

Volume 48 Issue #1

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 OAS: www.OmahaAstro.com
 Hyde Observatory www.hydeobservatory.info
 NEB-STAR www.neb-star.org

Club Events

PAC Club Meeting

Tuesday, January 30, 2007

7:30pm @ Hyde Obsv.

Program: Learn To Use Your Telescope

Club Star Party

Friday, February 16, 2007

PAC Club Meeting

Tuesday, February 27, 2007 7:30pm

Club Star Party

Friday, March 16, 2007

Program

January Meeting: "Learn To Use Your Telescope." Brian Sivill will present the January program, "Learn To Use Your Telescope," which includes an introduction to telescope equipment and observing. **PAC members - please bring your telescopes to this meeting.**

PAC-LIST: You may subscribe to the PAC listserv by sending an e-mail message to: imailsrv@prairieastronomyclub.org. In the body of the message, write "Subscribe PAC-List your-email-address@your-domain.com"

For example:
 Subscribe pac-list stargazer@myISP.com

To post messages to the list, send to the address pac-list@prairieastronomyclub.org

Club star parties: March 16, April 13, May 11, June 15, July 6, August 10, Sept 7, Oct 12, Nov 9, Dec 7.

Mahoney star parties: May 18, June 15, July 13, August 10, Sept 14.

NSP: July 15-20

Contents:

Secretary's Report 2
 Club Telescopes – Checkout Policy 2
 Hyde Observatory Volunteer Schedule 3
 January PAC Meeting: Learn How to Use Your Telescope – Bob Leavitt 3
 Comet McNaught from Nebraska—Dave Knisely 3
 Earl Moser's Star Trails Photo Wins Astro-Tom 2006 Photo Contest 4
 Events Calendar 5

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 \$30/yr, Family \$35/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

Brian Sivill called the meeting to order. There were 4 visitors. Brian discussed upcoming club events:

- The next club star party will be held Friday, January 19 at the farm.
- The next club meeting will be Tuesday, January 30. Next month's program will be "Learn To Use Your Telescope". Club members are asked to bring their scopes.
- Hyde Observatory is open from 7:00 – 10:00 pm on Saturdays (winter hours).

Treasurer's report: no report this month.

Brian asked club members to think of ideas for PAC programs and give them to Jack Dunn.

NSP 2007 will be held July 14 – 20. There was a brief discussion of open issues surrounding the event. Josh Machacek, Lee Thomas, and Lee Taylor have been attending the NSP planning meetings.

Five of the PAC star party dates in 2007 were in conflict with dates set for Mahoney star parties. We decided to move the May, July, and September PAC star party dates to eliminate the majority of the problems. Dates for 2007 PAC star parties have been posted to the web site.

Brian reviewed upcoming observing highlights for the month of January.

The meeting was adjourned to the program. Jack Dunn presented a full-dome video called "Astronaut" by the National Space Center of England.

Submitted by,
Bob Leavitt

Club Telescopes – Checkout Policy

To check out one of the club telescopes, contact **Brian Sivill** or nanoamps@windstream.net. If you keep a scope for more than a week, please check in with Brian once a week, to verify the location of the telescope and how long you plan to use it. The checkout time limit will be two weeks, but can be extended if no one else has requested use of a club scope.

Hyde Observatory Volunteer Schedule

Date	Team Leader	Operators		Supervisor	Events
1/27/2007	Steve Lloyd	Josh Machacek	Mitch Paine	Dave Brokofsky	
2/3/2007	Bill Wells	Dave Brokofsky	Dan Delzell	Jack Dunn	
2/10/2007	Dave Churilla	Joey Churilla	Dave Hamilton	Steve Lloyd	
2/17/2007	Jeff King	Bob Kacvinski	Jim Kvasnicka		
2/24/2007	Steve Lloyd	Dave Hamilton	Josh Machacek	Dan Delzell	
3/3/2007	Dave Brokofsky	Mitch Paine	Bill Wells		
3/10/2007	Delzell, Dan	Dave Churilla	Joey Churilla	Steve Lloyd	
3/17/2007	Dave Hamilton	Bob Kacvinski	Jeff King	Ron Veys	
3/24/2007	Steve Lloyd	Jim Kvasnicka	Bob Leavitt		
Summer Hours: April through September (Sundown to 11:00 PM)					
Winter Hours: October through March (7:00 PM to 10:00 PM)					

January PAC Meeting: Learn How to Use Your Telescope – Bob Leavitt

Brian Sivill will present the January program, "Learn To Use Your Telescope," which includes an introduction to telescope equipment and observing. This will be followed by a telescope help session for the general public. **[PAC members - please bring your telescopes to this meeting.]** We want to have a variety of scopes on hand to demonstrate to the visitors. Flyers have been distributed and a press release was sent to media outlets last week. For more information about the program see the article "Learn To Use Your Telescope Program" in this newsletter.

Comet McNaught from Nebraska—Dave Knisely

Comet McNaught (2006P1) made a brief but fairly impressive appearance during the first two weeks of January. I had heard of it being visible during daylight hours in a telescope, but my first attempt to do that on the afternoon of January 9th failed, as I had the position a little off. Later that afternoon, I went out southwest of Beatrice on a high hill and watched the sun go down about 5:18 p.m. behind some very distant trees and farm houses on the horizon over 2 miles away using my 10x60 binoculars. Venus was visible with binos before sunset, but not with the unaided eye. After watching the sky get dark (and some faint horizontal haze layers appear along the horizon), about 5:35 p.m. suddenly, there it was! It was EASY in those binos and showed a half a degree of tail from the word go, despite the presence of a bright yellowish sky background. The coma was white in color, rather condensed, and may have been slightly oval in a direction perpendicular to the tail, with hints of tail structure. The tail was narrow but not extremely so, broadening slightly in a sort of narrow "whisk broom" sort of form. It was also very slightly curved along the sides but the overall form was fairly straight (looked a lot like the images we have seen over the past couple of days). About 5:47 p.m., it became visible to the unaided eye, and overall, I would have to compare its brightness to that of Mercury near greatest brilliancy. I estimated the head at -1.6, but that is a very rough guess, as it could have been as bright at -2 (there was nothing nearby to compare it to except for Venus at mag. -3.9). As the sky got a bit darker (but still fairly light), I was able to trace the tail out to about two full degrees with little trouble, although not much further out. The tail seemed to have rather well defined north and south edges as if I was seeing faint edge streamers, as well as having a diffuse central brightening extending out right behind the back of the oval coma. As the comet appeared to slowly descend, it went into more layers of air and haze, dimming and reddening significantly. However, I was actually able to watch the coma actually *set* on the horizon at around 6:10 p.m.! I kept watching for a few more minutes after "comet set" to see if I could detect a longer fainter component of the tail, but was unable to see anything of the the tail from a few moments before the head vanished onward. In overall form, I would say that it resembled Comet Kohoutek seen

The Prairie Astronomer

by moonlight, although this one was definitely brighter by a wide margin. A few others in the club also viewed the comet from various locations around Lincoln and reported similar views.

The next day (January 10th), I had to do an interview for the local paper (Beatrice Daily Sun) on the hobby of amateur astronomy, so I had the NexStar 9.25 out and running as a "prop" for pictures. Just to check, I put the orbital elements of the comet into MEGASTAR, sent the Nexstar to the position the software provided, and BANG, there was the comet! It was tiny and faint, but it was probably no more difficult than my daytime observations of Mercury when it is a fat crescent. I noted a small diffuse coma around a tiny bright core with perhaps two or three hints of narrow streamers or jets curving away from the nuclear condensation. 168x showed that the core was non-stellar and fairly well-defined, and the narrow streamers were still visible. They were probably no more than 30 arc seconds long, but they were surprising to see considering it was broad daylight. Later that day, Martin Gaskell did a nice imaging movie of the comet as it set low in the southwest. This was my very first "daytime" comet, although later in the week, people were seeing it with binoculars or the unaided eye while we were all being buried by snow.



Photo by Dave Churilla

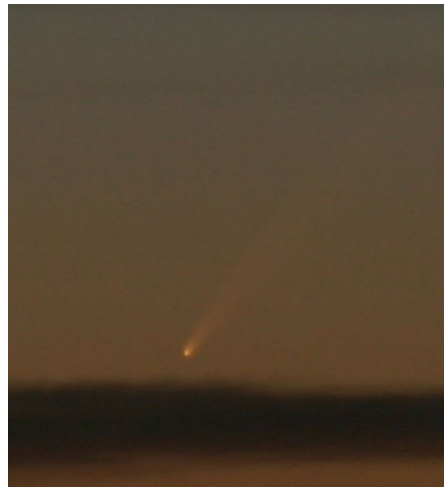
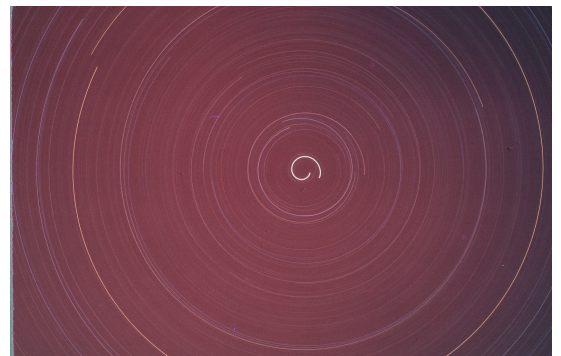


Photo by Clark Cheney

Earl Moser's Star Trails Photo Wins Astro-Tom 2006 Photo Contest

Club member Earl Moser's 24 hour star trails photo won the Astro-tom.com star trails photo contest for 2006. Here is the photo and a description provided by Earl:

"24 hour star trails? I chose the longest night of the year (Dec. 26th, 1970). I had 11 hours and 58 minutes of total darkness to work with. I rigged up my telescope tripod and drive (no tube or mirror) in my backyard and put 2 feet of the tripod up on kitchen chairs between all the snow drifts. I finally got the telescopes polar axis aligned with the earths axis. But, 180 degrees reversed! My theory was in order to get "24 hours" of star trails I would be able to make 12 hours of darkness work with the drive going opposite of the earths rotation. So now, the telescopes polar axis is turning to the east, the same as the earth. I built a frost shield out of cardboard for the camera lens and attached it. After all was ready, I check the time, I Opened the shutter and went inside. In the morning, I found everything covered with frost! Checking my cardboard tube around the camera lens I found that the last 2 inches next to the lens had been saved from the frost. The frost shield had worked! I checked the time then closed the shutter. With the tripod perched in such a precarious position between the snow drifts I had a slight problem with the polar alignment. However. the results



were close enough. The star trails nearly meet after going 360 degrees resulting in the attached image. Earl Moser, Hickman, Nebraska. Submitted by daughter - Leona Barratt , Lincoln, Nebraska. (leona@neb.rr.com)”

Events Calendar

February 2007						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 	2 	3 
				Sun: 07:36 - 17:43	Sun: 07:35 - 17:45	Sun: 07:34 - 17:46
						Hyde Observatory Open to the Public
4 	5 	6 	7 	8 	9 	10 
Sun: 07:33 - 17:47	Sun: 07:32 - 17:48	Sun: 07:31 - 17:50	Sun: 07:30 - 17:51	Sun: 07:29 - 17:52	Sun: 07:28 - 17:53	Sun: 07:27 - 17:54
Mercury close to Venus			Venus conj with Uranus			Hyde Observatory Open to the Public
11 	12 	13 	14 	15 	16 	17 
Sun: 07:25 - 17:56	Sun: 07:24 - 17:57	Sun: 07:23 - 17:58	Sun: 07:22 - 17:59	Sun: 07:20 - 17:59	Sun: 07:19 - 18:01	Sun: 07:18 - 18:02
	Mercury close to Uranus				Club Star Party	Hyde Observatory Open to the Public
18 	19 	20 	21 	22 	23 	24 
Sun: 07:16 - 18:03	Sun: 07:15 - 18:04	Sun: 07:14 - 18:05	Sun: 07:12 - 18:07	Sun: 07:11 - 18:08	Sun: 07:09 - 18:09	Sun: 07:08 - 18:10
						Hyde Observatory Open to the Public
25 	26 	27 	28 			
Sun: 07:06 - 18:11	Sun: 07:05 - 18:12	Sun: 07:03 - 18:14	Sun: 07:02 - 18:15			
		PAC Club Meeting				

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**

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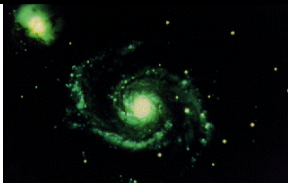
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**The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 5585
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First Class Mail

**Next PAC Meeting
Jan. 30, 2007
7:30 PM
Hyde Observatory**

«TITLE» «FIRSTNAME» «MIDDLENAME» «LASTNAME» «RENEWALDATE»
«CAREOF»
«ADDRESS1»
«ADDRESS2»
«CITY», «STATE» «ZIP»