



THE PRAIRIE ASTRONOMER

The Official Newsletter Of The Prairie Astronomy Club, Inc.

October 2005

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 Hyde Observatory www.hydeobservatory.info
 NEB-STAR www.neb-star.org

Club Events

October PAC Meeting

Tuesday, October 25, 2005

Program: What's New on Mars, Martin Gaskell

Club Star Party

Friday, November 04, 2005

UNL Student Obseravtory Open

Friday, November 04, 2005 7:30-10pm Mars

November PAC Meeting

Tuesday, November 29, 2005

Club Star Party

Friday, December 02, 2005

UNL Student Obseravtory Open

Friday, December 16, 2005 7:30-10pm - Mars

Program

Mars 2005

Martin Gaskell will give a talk, "Mars 2005", for the program at the October PAC meeting. This year's opposition is the last and best of the current series of perihelic oppositions and Mars will not be this well placed again in Lincoln until 2020. Martin will talk about what is going on on Mars this apparition and how it compares with previous apparitions. He will talk about how to get the most out of observing Mars over the next couple of months, and give a demonstration in the room of web cam observing techniques.

Bring your friends and family!

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

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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 \$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

President Ron Veys called the meeting to order. There were 2 visitors. Ron discussed upcoming club events:

- The next club star party will be September 30th at Jim Kvasnickas family farm.
- The PAC / OAS Banquet will be held on October 14th.
- The next club meeting will be October 25th.
- The UNL student observatory will be open to the public on October 21st and November 4th.

Treasurer's report: Lee Thomas reported that there is approximately \$153 in the main club account. Recent expenses include insurance (\$350) and post office box (\$38).

Hyde Observatory is open Saturdays from sundown to 11:00 pm. Winter hours (7:00 pm to 10:00 pm) begin October 1st. Hyde will have a special opening for the Mars opposition on Saturday, October 29th. A large crowd is expected and additional help will be needed. Contact Dave Churilla if you would like to participate.

Dave Knisely reported that Homestead National Monument will be having their annual Halloween special on Saturday, October 29th. They would like to have several telescopes set up for the public. Homestead will donate \$100 to the club if we participate. Contact Dave if you would like to participate.

The Wachiska Audubon Society held their "Twilight On the Prairie" event on Saturday, September 10th at Spring Creek Prairie. Erik Hubl, Lee Thomas, and Bob Leavitt set up their telescopes for the event. The crowd greatly appreciated the opportunity to look through the scopes and everyone had a good time.

Bob Leavitt proposed that the next beginning astronomy class be held in April 2006. The class would be held on Wednesdays from 7:00 9:30 pm. The topic was being addressed due to a September 30th deadline for placing ads in the upcoming City Compass. After a brief discussion it was decided to go with this plan.

Ron reviewed upcoming observing highlights for the month of September.

Nominations were opened for the PAC board for next year. The following nominations were received:

President: Ron Veys
Vice-President: Mark Dahmke
2nd Vice-President: Jack Dunn
Secretary: Bob Leavitt
Treasurer: Lee Thomas

Nominations will remain open until the October meeting, at which time the election will be held.

The meeting was adjourned to the program. Kris Miller, a former PAC member, presented the program "Living and Working at Lick Observatory".

Submitted by,
Bob Leavitt

Club Telescopes – Checkout Policy

To check out one of the club telescopes, contact Mark Dahmke (475-3150) or mdahmke@4w.com. If you keep a scope for more than a week, please check in with Mark 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
October					
10/29/05	Bill Wells	Jared Delzell	Jim Kvasnicka	Jack Dunn	Mars Party
November					
11/5/05	Dave Churilla	Joey Churilla	Jim Kvasnicka	Dan Delzell	
11/12/05	Jeff King	Steve Lloyd	Dave Brokofsky		
11/19/05	Bob Leavitt	Jim Kvasnicka	Dan Delzell		
11/26/05	Bill Wells	Bob Kacvinsky	Josh Machecek	Dave Brokofsky	
December					
12/3/05	Jeff King	Dave Brokofsky	Jim Kvasnicka	Dan Delzell	
12/10/05	Bob Leavitt	Joey Churilla	Bob Kacvinsky	Dave Churilla	
12/17/05	Bill Wells	Josh Machecek	Jeff King		
12/24/05	CLOSED				
12/31/05	CLOSED				
Summer Hours: April through September (Sundown to 11:00 PM)					
Winter Hours: October through March (7:00 PM to 10:00 PM)					

Nominations for Club Officers

At the September PAC meeting nominations were opened for the PAC board. This is for a one-year term beginning November 1. The following nominations were received:

President: Ron Veys

Vice-President: Mark Dahmke

2nd Vice-President: Jack Dunn

Secretary: Bob Leavitt

Treasurer: Lee Thomas

Nominations will remain open until the October meeting, at which time the election will be held. We encourage all club members to consider running for an office. This is a great opportunity to influence club policies and help set the club's direction for the next year.

PAC/OAS Banquet



Jack Dunn



Door Prizes



The PAC/OAS Banquet was held on Friday, October 14 at Riverview Lodge at Mahoney State Park. Forty two club members from PAC and OAS attended. Larry Hancock organized the banquet and obtained some outstanding door prizes, including Mini red LED flashlights, three in one pens (laser pointer, LED, ink), Fulgarites, Irghezite, Allende hypernova meteorite, Nantan Iron meteorite, Lunar meteorite and a Martian meteorite worth approximately \$800, won by Connie Leavitt. Jack Dunn presented the program: “Personal Universe.”

Observing Report– David Brokofsky

October 5, 2005

Lincoln, NE

Skywatcher 120 f/8.3

M13, M15, M31, M57, NGC 7331, NGC 891

I thought I'd post an observing report for a change since they're pretty rare for me. Tonight was probably the best night I've seen, in Lincoln, for the whole of this year and even the last few years for that matter. To illustrate my point, I could see the Milky Way pretty clearly from my backyard running from Perseus in the northeast all the way to Sagittarius in the southwest. That's something I haven't seen since I was in High School some 12 years ago! (we must be having an effect on light pollution)

At any rate, I started my night around 8:20 in Lyra with M-57. I always like to start with my favorites to "Warm up" so to speak before going after things I haven't seen. It also gives my eyes a chance to adjust. 57 at 40X was easy to find revealing it's tiny doughnut shape. Stepping up the power just made the doughnut larger but never revealing the central star (never will see it in my scope). From there I stopped at M13 only to be "awed" at the beauty of this glob this evening. Using the 9 Nagler really made this cluster an eye full. It was easily resolved all the way till the core where things started to turn fuzzier.

The real treat of the night came as I turned my scope toward M31, which was awesome tonight. Now maybe it's been because I haven't done any recreational observing as of late but the beauty of 31 and its satellite galaxies completely blew me away!. Placing 31 in the 9 Nagler just compounded this effect. Both satellite galaxies were easily visible with direct vision and really made for a wonderful view.

I finally decided that since viewing was so good, it was time to locate something I've never seen before as well as possibly bag another Herschel object for the list (which I'm slowly narrowing down). The object of choice: NGC 7331 in Pegasus. I had recently been reading some posting in some online forums where some people had been looking at the galaxy and I thought since some of their scope weren't much bigger than mine that I too would give this galaxy a try.

It took me around 10 minutes to track down this galaxy but once I found it I through in the 9 Nagler (which was beside me at the time) and really took a look at this galaxy. 7331 itself, showed a hint of some dust mixing in with the light of the disk as well as some well pronounced elongation. The part that really proved the transparency and stability tonight was when I noticed a few other smaller fuzzy spots not far from 7331. A quick check with Cartes du Ciel indicated that these were other fainter galaxies around 7331. So to prove that I was really seeing these I slew the scope a degree or so away toward another group of galaxies and was able to see them too. All these smaller galaxies were at or around mag 12.5. This isn't something I do let alone in the city but after triple checking, I am pleased to say that I was able to break my previous magnitude limit of 11.5 in the city. After that, I took a quick look to see if NGC 891 was visible in the east-northeast and was able to see the highly elongated galaxy at various powers as well.

After this I decided to call it quits (about 10:15) as I work early tomorrow morning but if the weather stays this nice, I'll probably try going out again on Friday night (primarily to bag some more Herschels) but we'll see. I did however want to share a SUPER couple of hours observing with all of you and hope that you, like me, will get a chance to get out and take in a bit of the autumn skies.

Lady in Red: Andromeda Galaxy Shines in Spitzer's Eyes

NASA's Spitzer Space Telescope has captured a stunning infrared view of Messier 31, the famous spiral galaxy also known as Andromeda.

Andromeda is the most-studied galaxy outside our own Milky Way, yet Spitzer's sensitive infrared eyes have detected captivating new features, including bright, aging stars and a spiral arc in the center of the galaxy. The infrared image also reveals an off-centered ring of star formation and a hole in the galaxy's spiral disk of arms. These asymmetrical features may have been caused by interactions with the several satellite galaxies that surround Andromeda.

"Occasionally small satellite galaxies run straight through bigger galaxies," said Dr. Karl Gordon of the Steward Observatory, University of Arizona, Tucson, lead investigator of the new observation. "It appears a little galaxy punched a hole through Andromeda's disk, much like a pebble breaks the surface of a pond."

The new false-color Andromeda image is available at <http://www.spitzer.caltech.edu/spitzer/> .

Approximately 2.5 million light-years away, Andromeda is the closest spiral galaxy and is the only one visible to the naked eye. Unlike our Milky Way galaxy, which we view from the inside, Andromeda is studied from the outside. Astronomers believe that Andromeda and the Milky Way will eventually merge together.

Spitzer detects dust heated by stars in the galaxy. Its multiband imaging photometer's 24-micron detector recorded approximately 11,000 separate infrared snapshots over 18 hours to create the new comprehensive mosaic. This instrument's resolution and sensitivity is a vast improvement over previous infrared technologies, enabling scientists to trace the spiral structures within Andromeda to an unprecedented level of detail.

"In contrast to the smooth appearance of Andromeda at optical wavelengths, the Spitzer image reveals a well-defined nuclear bulge and a system of spiral arms," said Dr. Susan Stolovy, a co-investigator from the Spitzer Science Center at the California Institute of Technology, Pasadena.

The galaxy's central bulge glows in the light emitted by warm dust from old, giant stars. Just outside the bulge, a system of inner spiral arms can be seen, and outside this, a well-known prominent ring of star formation.

NASA's Jet Propulsion Laboratory, Pasadena, Calif., manages the Spitzer mission for NASA's Science Mission Directorate, Washington. Science operations are conducted at the Spitzer Science Center at the California Institute of Technology. The Jet Propulsion Laboratory is a division of Caltech.

Report on Kris Miller's PAC Program – Bob Leavitt

For those who missed the September PAC meeting, we had an excellent program by Kris Miller about his living and working as a telescope operator at Lick Observatory. From his talk you got a feel for what it's like to maintain large telescopes. To keep them running he has to be a jack-of-all-trades from mechanic to electronics technician to programmer.

Kris had some interesting and humorous stories about working with professional astronomers and staff at Lick. Like the European Astronomer who always arrived for his session carrying six bottles of beer for the staff. Kris said it's exciting to be present during research projects when new discoveries are made for such things as supernovas and binary asteroids. Living on top of a mountain they are forced to be self sufficient in every way. They even have a fire station and one room school in their little community. Kris had very nice set of pictures in his PowerPoint presentation, which also covered the history and background of the Lick Observatory and the weather and environment on the Mt Hamilton. The PowerPoint is still on the PC at Hyde for those who are interested.

During his presentation, Kris handed out samples of Ghirardelli chocolate from San Francisco. It turns out the James Lick and Ghirardelli were friends. In 1838 Ghirardelli opened a confectionary store in Lima, Peru, right next to a cabinet shop owned by James Lick. In 1847 Lick left for San Francisco, taking 600 pounds of Ghirardelli Chocolate with him. People loved the chocolate and Lick convinced Ghirardelli to move his operation to San Francisco. The rest is history.

Events Calendar

November 2005						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 	2 	3 	4 	5 
		Sun: 06:57 - 17:22	Sun: 06:58 - 17:21	Sun: 06:59 - 17:20	Sun: 07:00 - 17:18	Sun: 07:01 - 17:17
				Moon close to Antares	UNL Student Observatory Open; Club Star Party	Hyde Observatory open to the public
6 	7 	8 	9 	10 	11 	12 
Sun: 07:03 - 17:16	Sun: 07:04 - 17:15	Sun: 07:05 - 17:14	Sun: 07:06 - 17:13	Sun: 07:07 - 17:12	Sun: 07:09 - 17:11	Sun: 07:10 - 17:10
			Mercury close to Antares			Hyde Observatory open to the public
13 	14 	15 	16 	17 	18 	19 
Sun: 07:11 - 17:09	Sun: 07:12 - 17:09	Sun: 07:13 - 17:08	Sun: 07:14 - 17:07	Sun: 07:16 - 17:06	Sun: 07:17 - 17:05	Sun: 07:18 - 17:05
Leonids					Leonids	Hyde Observatory open to the public
20 	21 	22 	23 	24 	25 	26 
Sun: 07:19 - 17:04	Sun: 07:20 - 17:03	Sun: 07:21 - 17:03	Sun: 07:23 - 17:02	Sun: 07:24 - 17:02	Sun: 07:25 - 17:01	Sun: 07:26 - 17:01
	November Monocerotids					Hyde Observatory open to the public
27 	28 	29 	30 			
Sun: 07:27 - 17:00	Sun: 07:28 - 17:00	Sun: 07:29 - 17:00	Sun: 07:30 - 16:59			
		November PAC 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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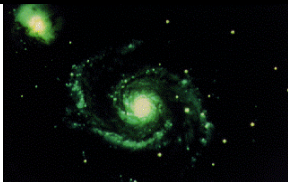
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**The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 5585
Lincoln, NE 68505-0585**

First Class Mail

**Next PAC Meeting
October 25, 2005
7:30 PM
Hyde Observatory**

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«ADDRESS2»
«CITY», «STATE» «ZIP»