

The Prairie Astronomer

August, 2008

Volume 49, Issue #8

The Official Newsletter of the Prairie Astronomy Club

PAC Program

Reports from The 15th Annual Nebraska Star Party

In This Issue

NSP Report, Lighting Ordinance Report, Focus on Observing Clubs

Featured Photo

Rick Johnson keeps sending out these beautiful images! This one is NGC 1624. Rick says: "The NGC catalog lists it as being 6 or 7 stars involved in nebulosity. Sharpless recorded the HII region that is referred to as SH2-212. Actually it is a far more interesting and studied object than you might expect. It is thought to be about 6 thousand parsecs away (about 20 thousand light years) and helps define the Perseus arm of our galaxy. This nebula recently helped decide a major issue of star formation. When a nebula forms new stars in its core it starts to be disrupted by the effects of these stars. The question was whether star formation could happen in the regions at the outskirts where this dust and gas was being blown or would the area be disrupted too much to allow stars to form before the region became too chaotic for this to happen. It turns out stars are being formed and some have just been formed in the outer parts of this nebula by the collect and collapse method. The stars we see in the center of the nebula formed some 4 million years ago. Those formed at the edge are still mostly hidden by the dust and gas that surrounds them and fed their creation.

Please send your astrophotos to Mark Dahmke to be added to the PAC website and the newsletter.



Saturn image courtesy NASA.

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NEWSLETTER

Focus on Observing Clubs--Jim Kvasnicka

Binocular Messier Observing Club

This month we show you don't need an expensive telescope to enjoy astronomy. A simple pair of binoculars will allow you to do serious astronomy. The Binocular Messier Observing Club is for beginners and well as experienced amateurs.

To qualify for the Binocular Messier Certificate you need to observe 50 or more Messier objects using only binoculars. Your observing log should include the following information: the name of the object; date and time; an estimate of the seeing; the size and power of the binoculars used; and a brief comment of what you saw.

Submit your observations to me and I will forward your observations to the Binocular Messier Observing Club chair for verification.

If you are not sure as to which Messier objects to observe with binoculars the Astronomical League website has an appendix for small and large binoculars. The appendix for small binoculars list 42 easy Messier objects; 18 tougher Messier objects; and 16 challenge Messier objects. This will help you to determine which Messier objects to observe.

If you have any questions regarding the Binocular Messier Observing Club or need help getting started please ask me and I will be glad to assist you.

List of PAC Binocular Messier Observing Club Awardees

Ron Veys and Dave Brokofsky

Hyde Observatory's PlanetCam is Ready for Use

The long-awaited Astrovid PlanetCam arrived and is ready for use. This is a 1 lux, 0.25 inch CCD with composite video output. It has controls for gain, contrast and color balance, plus manual shutter speed controls. It's designed for prime focus photography or use with a barlow. The small image sensor size (with 4.2 micron pixels) makes it ideal for prime focus views of the planets.

A video distribution amplifier allows the output of the PlanetCam to be fed simultaneously to the 17" LCD monitor was installed on the deck near the Nexstar scope, and the DLP projector.

There is also a computer VGA port near the Nexstar that, in conjunction with a laptop, can be used to feed the output of a webcam to the projector.



Club Events

PAC Club Meeting
Tuesday, August 26, 2008
7:30pm @ Hyde Obsv.

Club Star Party
Friday, September 05, 2008

Next newsletter submission deadline: September 20th.

PAC Club Meeting
Tuesday, September 30, 2008
7:30pm @ Hyde Obsv.

Club Star Party
Friday, October 03, 2008

Official Club Star Party Dates for 2008:
Aug 29, Sept 26, Oct 31, Nov 28, Dec 26.

Alternate Dates:
Sept 5, Oct 3, Oct 24, Nov 21, Dec 19.

Club Telescopes - Checkout Policy

To check out one of the club telescopes, contact Cassie Etmund at ccggymnast1@aol.com. If you keep a scope for more than a week, please check in with Cassie 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.



ON THE NET

PAC:
www.prairieastronomyclub.org

PAC E-Mail:
info@prairieastronomyclub.org

NSP:
www.nebraskastarparty.org

NSP E-Mail:
info@nebraskastarparty.org

OAS
www.OmahaAstro.com

Hyde Observatory
www.hydeobservatory.info

Panhandle Astronomy Club
Panhandleastronomyclub.com

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
me@myISP.com

To post messages to the list, send to the address

pac-list@prairieastronomyclub.org

Buy club apparel through the club website. Shirts, hats, mugs, mouse pads and more.



The Prairie Astronomer

NEWSLETTER

Club Business

Program Chair Jack Dunn Called the meeting to order.

Attendance: 14 club members and 30 visitors. Martin Gaskell invited many friends and former students to hear his talk, and this accounted for most of the visitors.

Observing Chairman's report: Jim Kvasnicka discussed the last star party and what's up in the sky for August.

There was a brief discussion of the upcoming Planning Commission meeting and the proposed lighting standards.

Adjourn to Dr. Martin Gaskell's program, Finally Understanding Quasars and Supermassive Black Holes: A 45-year Journey.

Submitted by,

Lee Taylor, as reported by Bob Leavitt

Planning Commission Passes New Lighting Regulations 9-0

On Wednesday, August 13th the Lincoln Planning Commission voted 9 to 0 to advance new light regulations to the City Council. The new code has been in the works for several years and pulls together various sections of the existing regulations and introduces new regulations that will hopefully help slow the growth of light pollution in our community. Cedric Gibb and Erik Hubl testified in support of it. Others sent letters of support.

Martin Gaskell, Jack Dunn and Erik Hubl all served on a taskforce chaired by Ken Fairchild from Olsson Associates. The taskforce was comprised of representatives from various city departments including Planning, Building and Safety and the Police Department. Other members included representatives from the lighting industry, the development community, Lincoln Independent Business Association (LIBA) and LES.

The new code builds upon the earlier work in 1994 and in 2001 where parking lot lighting, recreational facility lighting and outdoor billboards were addressed. Canopy lighting at gas stations, wall mounted light packs and unshielded lights above 4,050 lumens are all now a part of the new code. Car dealerships and their display lights are also covered.

The astronomical community will need to continue with our awareness campaign to help the public understand the negative effects of bad lighting. We will also need to show our support to the City Council on or before September 8th, 1:30 PM when it will be heard by the council. If it passes it then moves the Mayor for signature or veto.

Observing: What to View in September -- Jim Kvasnicka

This is a partial list of objects visible for the upcoming month.

Planets

Venus, Mercury and Mars: The triangle of planets is very low in the west. Only Venus is visible without binoculars.

Saturn: In conjunction with the Sun on September 4th. It becomes visible in the east before sunrise later in the month.

Jupiter: Just above the handle of the Teapot of Sagittarius shining brightly at -2.5.

Uranus and Neptune: In Aquarius and Capricornus. Magnitudes 5.7 and 7.8. Finder maps are on page 63 in the September Sky and Telescope.

September Messier List

M13: The Great Hercules Cluster.

M92: Another globular cluster in Hercules. Often overlooked.

M14: A small bright globular cluster in Ophiuchus.

M22: Large globular cluster in Sagittarius.

M28: Small globular cluster in Sagittarius near M22.

M69/M70/M54: Three small bright globular clusters in Sagittarius found along the bottom of the Teapot.

Last Month: M6, M7, M8, M9, M10, M12, M20, M21, M23, M62, M107

Next Month: M11, M16, M17, M18, M24, M25, M26, M55, M75

NGC Objects

NGC 281: A large faint EN in Cassiopeia.

NGC 869/884: The Double Cluster in Perseus.

NGC 1023: Lens shaped galaxy near M34 in Perseus.

NGC 7662: The Blue Snowball. PN in Andromeda.

Double Stars

Otto Struve 525: Yellow and blue pair in Lyra.

Gamma Delphinus: Yellow primary with a yellow/green secondary.

Zeta Aquarii: Yellow and white stars.

94 Aquarii: Yellow primary with a pale blue secondary.

Alpha Capricornus: Wide pair of yellow stars.

Beta Capricornus: Yellow and blue pair.

36 Ophiuchi: Equal pair of yellow/orange stars.

Omicron Ophiuchi: Yellow primary with light yellow secondary.

70 Ophiuchi: Yellow and orange stars.

Challenge Object

B 72: Barnard's dark S-Nebula or "the Snake". Located 1.5 degrees NNE of Theta Ophiuchi; area rich in dark nebulas.

ANNUAL MEMBERSHIP DUES

REGULAR MEMBER - \$30.00 per year. Includes club newsletter, and 1 vote at club meetings, plus all other standard club privileges.

FAMILY MEMBER - \$35.00 per year. Same as regular member except gets 2 votes at club meetings.

If you renew your membership prior to your annual renewal date, you will receive a 10% discount.

Club members are also eligible for special subscription discounts on Sky & Telescope

CLUB STAR PARTIES

Club star parties are held monthly on the Friday night nearest the new moon. Since they are held on private land, they are for club members and invited guests only. If you'd like to attend a star party, please contact one of the club officers. Check the club website members-only area for directions to the site.

The Prairie Astronomer

NEWSLETTER

15th Annual Nebraska Star Party-- Lee Taylor

I'd been looking forward to my second NSP for months. I was pleasantly surprised that I could get away early from work to get out to Merritt Reservoir for NSP 15. Early Friday morning, Josh Machacek and I had a good breakfast and started out. We arrived at the Snake River Campground around noon local time to reserve our usual "beachfront property" on the lake. Once settled, Josh set up his solar station with several batteries to charge. Afterward, we carpooled to Valentine for supplies. We returned and checked on the progress of the charging batteries and stored the supplies.

Along toward sunset, the clouds rolled in and we didn't get much of a chance to observe. Around 4am, I awoke to see a last-quarter moon peeking through the clouds. I roused Josh and we spent some time getting some rare (for me at least) views of an old moon. After some time, I went back to bed with a sense of accomplishment at having done some early observing.

Saturday, Brian arrived with another set of solar arrays, batteries to charge and an extensive collection of electrical doo-dads. We were ready to charge anything that might come our way.

Once again clouds rolled in around sunset and we started wondering about a disappointing pattern of beautiful days, cloudy nights.

Sunday started slowly with my camera batteries running out right before I left to see Snake River Falls. Of course, Brian was ready to help with my batteries. I charged them with his equipment while relying on Josh's new camera and photography skills for pictures from the falls. We got back in time to register and have a wonderful barbeque chicken dinner. The evening started out cloudy, but by 3AM it was clear enough for Josh to try his hand at the moon.

Monday evening was when the observing really started to cook. The sky started out just a little cloudy, and the seeing wasn't great, but we did get to see Jupiter rise out of the muck as the sun set. I had planned on logging some Messiers, but wound up showing several objects to the Etmunds, who were getting their first look at the NSP skies. Josh was lounging in his chair, browsing the sky with binoculars while Brian was working with his new 13-inch mirror. (which worked quite well in the club's dobsonian:-)) Dave Knisely was busy tracking down his usual faint fuzzies with a 25-inch dob.

Tuesday evening brought even better skies. I was able to log a couple more Messier objects, but ran out of steam fairly early. Camping in hot weather really wears me out. :(

Wednesday had to be the best day for me. I woke up early. I actually slept well, even if I did miss a good sky. With the speakers in Valentine, we all headed for the high school. This year's speakers included old favorites. First up was Jim Hopkins from Illinois, with a talk on the interstellar medium. Eric Balcom of OAS followed with the topic of stellar evolution, and our own Dave Knisely with movies from the surface of Mars, courtesy of his Vista-Pro recreations. The day ended with dinner at Jordan's. That evening, I observed for a little while, again worn out from the long day. However, I did manage one or two more Messiers before giving out.

Thursday brought our "Tubing" trip down the Niobrara with several PAC members, some new acquaintances, and two or three others from Lincoln who hadn't heard of either Hyde or PAC. The scenery was breathtaking, the people were wonderful, and the water fights, soaking. I discovered that spending six hours sunning, swimming and steering my inner-tube were a little too much for me. I spent some time that evening on the observing field, looking for objects in Ophiuchus and Scorpius. While the others were logging objects right and left, I struggled to stay

awake. I finally headed down to camp, exhausted, but happy about such a good night. Josh tried to roust me out of bed around 3AM, but I just couldn't make it.

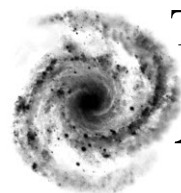
Friday morning, I packed up and headed out, not observing as much as I'd like, but satisfied knowing that everyone involved in the 15th annual Nebraska Star Party had wonderful days and Clear, DARK, and steady nights.

NOTE: Dave Knisely wrote another excellent NSP report, but due its length, it can be found in the members-only area of the PAC website. Please take time to read Dave's report!



Photos by Lee Taylor and Josh Machacek. Shown above, Cassie Etmund, Lee Taylor and Brian Sivill.





THE *Prairie* *Astronomy* *Club*

Amateur Astronomy --
A Hobby as Big as the Universe

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 to the right. Newsletter comments and articles should be submitted to: **Mark Dahmke, PO Box 80266, Lincoln, NE 68501 or mark@dahmke.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.

PRESIDENT	Brian Sivill (402) 325-0997 nanoamps@windstream.net
VICE PRESIDENT	Cassie Etmund
2nd VICE PRESIDENT (Program Chair)	Jack Dunn jdunn@spacelaser.com
SECRETARY	Oliver L. Taylor (402) 327-0804 otaylor89@hotmail.com
TREASURER	Lee Thomas lleet@alltel.net (402) 483-5639
Club Observing Chair	Jim Kvasnicka (402) 423-7390 jim.kvasnicka@pfizer.com
Outreach Coordinator	Dave Churilla, 467-1514 weber2@inebraska.com
Newsletter and Website Editor	Mark Dahmke (402) 475-3150

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

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Next PAC Meeting
August 26, 2008
7:30 PM