



The Prairie Astronomer

May, 2007

Volume 48, Issue #5

The Official Newsletter of the Prairie Astronomy Club

PAC Program

At the May PAC Meeting: Shawn Langan will talk about the goals of the Behlen Observatory observing programs and their outreach programs. Shawn is the lab manager for the UNL Physics Dept. and also has worked at Behlen for several years while pursuing his own graduate degree.

In This Issue

Astronomy Day report, Dave Churilla's outreach report and Jim Vasnicka's observing guide for June.

Featured Astrophoto

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



The galaxy M94, CCD image by Rick Johnson. By reprocessing the luminosity image to go very deep a third stage of star formation can be seen as a large faint ring of blue stars. These, again since blue stars have very short lives compared to stars like our sun, are very new stars. What triggered this outer ring of star formation or indeed, why this galaxy has these three very different regions is just not really understood. The outer blue ring seems almost completely separate from the rest of the galaxy. It also looks "grainy". The brighter spots are star clusters in the ring. The faint grain is due to partial resolution of the super blue stars that make up this galaxy.

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NEWSLETTER

Educating the Office - Dave Churilla

I work for the State of Nebraska at DAS-CF (which stands for Department of Administrative Services – Central Finance). Over the past few years people here have become interested in my hobby of Astronomy, or at least they SAID they were interested (more likely they were being polite to listen to my Astronomical Ravings at times). But on the off chance that they really were interested, I offered to have a little open house at my home to let people see what the Moon and Saturn looked like through a telescope. 15 people showed up. I figured that it would be 30 minutes of looking through scopes then, a few oohs and aahs and everyone would settle down to drink and socialize the rest of the evening, but I was wrong. The evening turned out to be a mini Outreach outing, so Bob Leavitt thought I should treat it as one. I have to confess that as such it was rather successful.

In planning the evening I also asked Jim Kvasnicka and Bob Leavitt if they'd mind coming over with their telescopes to show people the sights. If they could, I'd plan to put the Moon in mine but hook up my video imager to it so people could use the hand controller and move around the Moon on their own. They would alternate between the Moon and Saturn for views through their scopes. The set up worked extremely well. I was rather shocked when I attempted to put my video imager into my 2.5x PowerMate. It worked very well and the image on the small TV was excellent. People had a fun time using the hand controller and moving the scope to different regions on the Moon. This might even be a nice thing to do at Hyde sometime.

Both objects (the Moon and Saturn) came in very well as seeing was excellent. It was good enough as it got dark to take the imager off of my scope and go for high power (317x – the 2.5x PowerMate and my 9mm Nagler) on Saturn. 5 Moons were visible, but I was stupid and forgot to look up which they were before the party began. The only one we knew for sure was Titan. But that didn't matter as every one thought seeing the distant Moons was spectacular.



The party lasted until 10 PM, when the last couple left. What surprised me was the genuine interest everyone had. Instead of a few peeks here and there, everyone hovered around the scopes the whole night (well, from around 8 PM on when we started getting the Moon in) and had great questions and showed a lot of interest about Astronomy in general. While there weren't as many people there as I'd hoped, the 15 who were really enjoyed the night and were very impressed, expressing a lot of interest in coming out to Hyde, and a few would like to come out to one of our Star Parties.

Many thanks to Bob and Jim for helping out. I had a great time.

Club Events

Mahoney Star Party
Friday, May 18, 2007

PAC Club Meeting
Tuesday, May 29, 2007
7:30pm @ Hyde Observatory

Club Star Party
Friday, June 15, 2007

Mahoney Star Party
Friday, June 15, 2007

PAC Club Meeting
Tuesday, June 26, 2007
7:30pm @ Hyde Observatory

Club Star Party
Friday, July 06, 2007

Club star parties: June 15, July 6, August 10, Sept 7, Oct 12, Nov 9, Dec 7.

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

Nebraska Star Party: July 15-20, Merritt Reservoir, Valentine, Nebraska

Next newsletter submission deadline: June 17.

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.



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

NEB-STAR
www.neb-star.org

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.



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NEWSLETTER

Club Business

Secretary's Report

Ron Veys called the meeting to order. Attendance: 17 PAC members and no visitors. Ron discussed upcoming club events:

- * The next club star party will be held Friday, May 11 at the farm.
- * The first Mahoney Star Party of the year will be Friday, May 18.
- * The International Sidewalk Astronomy Night is scheduled for Saturday, May 19th. Organizers are hoping to make this a public outreach event for astronomy clubs across the country.
- * The next club meeting will be Tuesday, May 29.
- * OAS is sponsoring the Mid States Regional Convention of the Astronomical League this year. The event will take place in Omaha on June 8 – 9, 2007.
- * The 14th annual Nebraska Star Party will take place July 15 – 20, 2007.
- * Hyde Observatory is open from 7:00 – 11:00 pm on Saturdays.

Astronomy Day was a big success. Approximately 550 people attended the event. Liz Klimek and Jack Dunn received a lot of positive feedback from attendees and volunteers.

Dave Churilla received the Volunteer of the Year Award at Hyde Observatory's annual Volunteer Appreciation Dinner on April 10.

Mark Dahmke has redesigned the PAC newsletter. We reviewed the attractive new design and thanked Mark for his efforts on this project.

Mark asked everyone to make sure that PAC has your current email address, so that you can receive the newsletter and other correspondence from the club.

Treasurer's report: no report this month.

Ron Veys and Jim Kvasnicka reviewed upcoming observing highlights for the month of May.

The meeting was adjourned to the program. Jack Dunn presented a Webb Space Telescope Preview and discussed Night Sky Network activities. We also looked at pictures from Astronomy Day provided by Bob Leavitt and Dave Knisely.

Submitted by,
Bob Leavitt

UPDATE

The Mid States Regional Convention of the Astronomical League has been canceled. This meeting was to have been held in Omaha on June 8-9.

Observing: What to View in June -- Jim Kvasnicka

Planets

Venus: Shines brightly in the west at magnitude -4.4 to -4.6. At the start of June Venus will be 25° high an hour after sunset, by the end of June it will be down to 15°. On June 12th and 13th it passes on the northern fringe of M44.

Mercury: Look for it to the lower right of Venus.

Saturn: In western Leo. All month Saturn closes in on Venus from the upper left. On June 1st they are 23° apart; by the end of June they will be only 0.7° apart and will fit in the same FOV in your telescope.

Jupiter: Magnitude -2.6 in southern Ophiuchus. Rises around sunset at the beginning of June and will be visible all night.

Neptune: 8th magnitude in Capricornus. Rises after midnight.

Uranus: 6th magnitude in Aquarius. Rises after midnight.

Mars: Getting higher in the east at early dawn. Mars shines at magnitude +0.8 as it crosses Pisces but it is only 6" wide.

Vesta: The asteroid will achieve naked eye visibility reaching magnitude +5.4 in late May. Vesta can be found in Ophiuchus, a finder chart is in the June issue of Sky and Telescope.

June Messier List

The Messier list for June is the Virgo Galaxy Cluster. Dark skies, a good finder chart and patience are a must when viewing this group of galaxies.

M84/M86 Same FOV. A pair of small round fuzzy shapes with a brighter core.

M87 Another round fuzzy object. **M89/M90** Same FOV. M89 is a round shape and M90 oval. **M91** Faint, oval shaped galaxy. **M88** Small oval shape with a brighter core. **M58** Oval shape with a brighter central region. **M59/M60** Same FOV. M59 is a small, faint oval, difficult to see. M60 is oval shaped, larger and brighter. **M99** Bright, round patch of light. **M98** Long pencil shaped object.

M100 Round, hazy glow of light.

Last Month: M49, M51, M61, M63, M64, M85, M94, M101, M102, M104

Next Month: M3, M4, M5, M53, M68, M80, M83

NGC Objects

NGC 2841 UMa: Elongated spiral galaxy. Very bright. **NGC 3521** Leo: Very large, bright spiral galaxy. **NGC 4111** Cvn: Bright, lens shaped edge on spiral galaxy. **NGC 4414** Com: Bright spiral galaxy with a star like nucleus. **NGC 4361** Crv: Small, bright planetary nebula.

Double Stars

Delta Bootes: Yellow primary with a bluish – white secondary. **Xi Bootes:** Close pair of yellow – orange stars. **Kappa Bootes:** Yellow primary with a blue secondary. **Tau Leonis:** Yellow and blue stars. **Epsilon Bootes:** Yellow primary with a greenish – yellow secondary.

Comets

C/2007 E2: Comet Lovejoy. At the end of May it will be passing into Draco and dimming rapidly. It will be no brighter than magnitude +8.4 and fading quickly.

Challenge Object

The Virgo Galaxy Cluster will be challenge enough for most observers.

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 Magazine.

CLUB STAR PARTIES

Club star parties are held monthly on the Friday night nearest the full 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.

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NEWSLETTER

Astronomy Day --Liz Klimek, Jack Dunn, Bob Leavitt

Many thanks to everyone who helped out with Astronomy Day 2007 at the University of Nebraska State Museum!

There was something for everyone, from kids' activities such as "Star Darts" and "Build a Planisphere" to stuff for older visitors, such as displays about meteorites and astronomical research being conducted at UNL. Volunteer organizations included PAC, the UNL Physics and Astronomy Dept, the Air Force ROTC, and even a couple of teachers from the Lincoln and Omaha school systems.

An enthusiastic crowd of around 550 people, 200 of which were kids, enjoyed this year's event. Several people noted that there were more hands-on activities than there have been in previous years. And it was obvious that a lot of kids and adults were having a great time. A special feature planetarium show, "Black Holes," was the first show to feature new and upcoming full-dome planetarium technology in Nebraska.

Dave Knisely commented, "We had lots of people come through the exhibits (and my voice was rather strained towards the end from overuse), so we got a nice workout." Dave added, "At Hyde Saturday night, it resulted in a big increase, as we had probably about 150 people show up and stay out for much of the evening. I recognized some of the visitors as those we had seen down at Morrill Hall at Astronomy Day."

The weather fortunately permitted outdoor activities, such as solar observing done by Dave Churilla, Joey Churilla, Jeff King, Aaron King, and Jim Kvasnicka. Also the ROTC brought a homeland security robot which roamed the front steps of Morrill Hall and launched rockets.

One of our new members, Dan Anderson, brought his kids to Astronomy Day. He said they had a great time. Dan was impressed by all the activities and he thought we put on a very nice event. Special thanks go to Sami Veys and an accompanying friend for providing relief for several stations over the lunch hour. Several of us wouldn't have been able to eat if it hadn't been for them!

We had some 400 people see the fulldome show: "Black Holes" over the weekend in the Planetarium. And now that we are able to purchase our own equipment for the system, it will be a permanent feature for the Planetarium audiences. Special thanks to Clark Planetarium (Salt Lake City) for allowing us to use their show and Ash Enterprises for loan of the projection equipment. Regular fulldome shows will start for the public on June 1. See the planetarium website www.spacelaser.com for schedules when posted.

At the end of the afternoon, drawings were held for the prizes donated by Astronomy Magazine. The winner of the Meade EX-80AT telescope donated by Astronomy Magazine was a 4 year old child from Yutan, NE. He and his family came last Sunday to the Planetarium and picked it up and they were all excited to start using it. They now know about Hyde and PAC and some resources for sky charts.

Astronomy Day 2007



Dave Churilla, Joey Churilla, Jeff King, Aaron King, and Jim Kvasnicka setup their telescopes for solar observing.



Above: Dave Knisely.

Right: Steve with Bob Kacvinsky.



The Prairie Astronomer

NEWSLETTER



Dave Brokofsky, Bill Lohrberg, Brian Sivill, Josh Machacek, Bob Kacvinsky



Bob Leavitt at the PAC table.



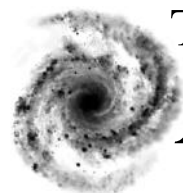
Liz Klimek - Accretion discs



Events Calendar



June 2007						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1  Sun: 17:57 - 08:51	2  Sun: 17:58 - 08:51 Hyde Observatory Open to the Public
3  Sun: 17:56 - 08:52	4  Sun: 17:58 - 08:53	5  Sun: 17:55 - 08:54	6  Sun: 17:55 - 08:54	7  Sun: 17:55 - 08:55	8  Sun: 17:55 - 08:55	9  Sun: 17:54 - 08:56 Hyde Observatory Open to the Public
10  Sun: 17:54 - 08:57	11  Sun: 17:54 - 08:57	12  Sun: 17:54 - 08:58	13  Sun: 17:54 - 08:58	14  Sun: 17:54 - 08:58	15  Sun: 17:54 - 08:59 Mahoney Star Party, Club Star Party	16  Sun: 17:54 - 08:59 Hyde Observatory Open to the Public
17  Sun: 17:54 - 09:00	18  Sun: 17:54 - 09:00 Moon close to Saturn	19  Sun: 17:54 - 09:00	20  Sun: 17:55 - 09:01	21  Sun: 17:55 - 09:01	22  Sun: 17:55 - 09:01	23  Sun: 17:55 - 09:01 Hyde Observatory Open to the Public
24  Sun: 17:56 - 09:01	25  Sun: 17:56 - 09:01	26  Sun: 17:56 - 09:01 PAG Club Meeting	27  Sun: 17:57 - 09:02	28  Sun: 17:57 - 09:02 Moon close to Antaries	29  Sun: 17:58 - 09:02	30  Sun: 17:58 - 09:01 Hyde Observatory Open to the Public



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.

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Next PAC Meeting
May, 29, 2007
7:30 PM