



# The Prairie Astronomer

February, 2008

Volume 49, Issue #2

The Official Newsletter of the Prairie Astronomy Club

## PAC Program

“Explorer I” The Explorer I documentary was produced for JPL by Blaine Blaggett, who did the "Astronomers" series a number of years ago for PBS. But you won't see this on PBS or anywhere else - but at the PAC meeting. (well, there is one place - Discovery Channel HD was able to play it once). It was made for the 50th anniversary of the launch of Explorer I celebration held out at JPL on Jan. 31st, 2008. There is some great space history in here and a lot of humor as well.

## In This Issue

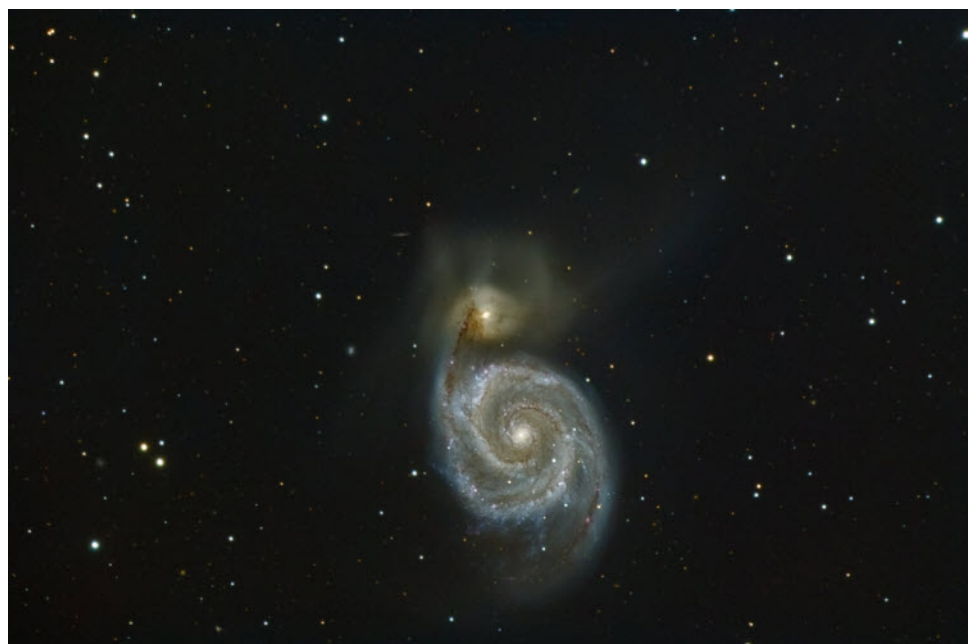
Outreach report, Rick's observatory report, Western Nebraska Star Gaze III.

## Featured Astrophoto

M51, by Rick Johnson. See “Observatory Update” for a detailed description.

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

Saturn image courtesy NASA.



# The Prairie Astronomer

## NEWSLETTER

### Western Nebraska Star Gaze III

May 29, 30, 31 & June 1, 2008  
Camp Clarke Raiders Black Powder Range

The Panhandle Astronomy Club invites you to join us in the shadows of historic Courthouse and Jail Rock for a laid-back weekend of stargazing and socializing.

The Western Nebraska Star Gaze is a time to share, to relax and enjoy our heavens. It's a time for amateurs, professionals, families and friends to come together to compare telescopes, techniques, observing goals and to promote astronomy. A time to share the night sky, our experiences and stellar sights with others. It is good clean fun for all ages.

Our observing site provides some of Western Nebraska's darkest skies with light pollution at a minimum. The Milky Way is easily visible from this location and the viewing compares nicely to that of other Star Parties.

In addition to the dark skies, there will be other scheduled events such as an astronomers breakfast, ice cream social, program for beginners and educational activities for the children. As well as, several area attractions located within an hour drive from the site, including several golf courses, Bridgeport State Lakes, Lake Minatare known for Nebraska's only inland Light House, Chimney Rock and the Scottsbluff National Monument.

The Western Nebraska Star Gaze is open to anyone interested in astronomy. You do not need to own a telescope in order to attend. Camping is permitted on the observing field.

Outhouses and drinking water are available at our site. There is no electricity, flush toilet or showers so plan accordingly.

The Weekend is sponsored by the Panhandle Astronomy Club located in Scottsbluff, Nebraska. The club officers and volunteers have worked hard to make this event happen and hope everyone has a great time.

## Club Events

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

Club Star Party  
Friday, March 07, 2008

PAC Club Meeting  
Tuesday, March 25, 2008  
7:30pm @ Hyde Obsv.

Club Star Party  
Friday, April 04, 2008

Nebraska Star Party: July 27th -August 1st, 2008

Next newsletter submission deadline: March 15th.

## Club Telescopes - Checkout Policy

To check out one of the club telescopes, contact Cassie Etmund at [ccggymnast1@aol.com](mailto: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](http://www.prairieastronomyclub.org)

**PAC E-Mail:**  
[info@prairieastronomyclub.org](mailto:info@prairieastronomyclub.org)

**NSP:**  
[www.nebraskastarparty.org](http://www.nebraskastarparty.org)

**NSP E-Mail:**  
[info@nebraskastarparty.org](mailto:info@nebraskastarparty.org)

**OAS**  
[www.OmahaAstro.com](http://www.OmahaAstro.com)

**Hyde Observatory**  
[www.hydeobservatory.info](http://www.hydeobservatory.info)

**Panhandle Astronomy Club**  
[Panhandleastronomyclub.com](http://Panhandleastronomyclub.com)

**PAC-LIST:** You may subscribe to the PAC listserv by sending an e-mail message to: [imailsrv@prairieastronomyclub.org](mailto: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](mailto:me@myISP.com)

To post messages to the list, send to the address

[pac-list@prairieastronomyclub.org](mailto:pac-list@prairieastronomyclub.org)

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





# The Prairie Astronomer

## NEWSLETTER

### Club Business

President Brian Sivill called the meeting to order. 18 members present, 2 visitors.

The next PAC star party will be Friday February 8 at the farm..

The next PAC meeting will be Tuesday February 26, 7:30PM at Hyde.

Hyde will be open on February 20 for the total lunar eclipse.

The next Astronomy class will be Thursday Feb 7 entitled: "The Universe: From Supernovae to Black Holes."

The fifteenth annual Nebraska Star Party will be July 27 - August 1, 2008 in Cherry County Nebraska, with events at Merritt Reservoir and Valentine.

Proposed dates for 2008 PAC star parties are as follows:

Feb. 2, Mar. 7, Apr. 4, May 2, June 6, July 4, Aug. 1, Sept. 5, Oct. 3, Nov. 28, Dec. 26

Dave Churilla reported on upcoming outreach events, and updated the club on possible changes to his upcoming classes.

Jim Kvasnicka reviewed February's astronomical events to watch for, and objects to observe.

Treasurer's report. The interest earned for all club accounts was \$1,73.50. Balances are as follows:

CD-1	\$17,511.77
CD-2	3,876.26
CD-3	5,355.25
Hyde checking	0.00
Hyde savings	0.00
PAC Checking	2,414.40
PAC Savings	9,218.06

---

Total Bank Accounts \$38,375.74

Larry Lusk, a former member passed away recently and his widow graciously donated the following equipment to the club:

A Meade 10-inch Starfinder Dobsonian, with instructions, Eyepieces including:, 40mm Meade Super Plossl, Meade 26mm Super Plossl, Meade MA25mm, Meade MA12mm, Meade MA9mm, 2x Barlow.

They are currently held by the club property manager pending a decision on the best use of them. (members are encouraged to submit ideas, as well as requests for check-out, according to the club telescope check-out policy.)

She also donated a number of books to the club library. I full inventory will be reported shortly. Adjourn to Brian's \*Beginners Seminar\* and assistance for the 20+ visitors to the program.

Respectfully submitted by:  
Lee Taylor

## Observing: What to View in March -- Jim Kvasnicka

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

### Planets

**Mars:** High in the south at nightfall near the feet of Gemini. Mars will continue to fade during the month dimming from magnitude 0.2 to 0.8 and reducing in size from 9" to 7".

**Jupiter:** Rises several hours before the Sun. The best viewing in a telescope is when dawn is starting to break.

**Saturn:** In Leo, well up in the east at dusk. Remains visible all night long.

**Venus and Mercury:** Both are barely above the ESE horizon during dawn.

**Uranus and Neptune:** Low in the morning sky and very dim. Not really visible in the dawn sky.

### March Messier List

**M41:** Open cluster in Canis Major.

**M93:** Open cluster in Puppis.

**M46, M47:** Open clusters in Puppis next to each other. Note the contrast.

**M50:** Open cluster in Monoceros.

**M48:** Open cluster in Hydra.

**M44:** The Beehive Cluster in Cancer. Use a low power eyepiece with a wide FOV.

**M67:** Another open cluster in Cancer often neglected due to M44.

**M81, M82:** A pair of galaxies in Ursa Major. M81 is an oval shape and M82 pencil like.

**Last Month:** M1, M35, M36, M37, M38, M42, M43, M45, M78, M79

**Next Month:** M40, M65, M66, M95, M96, M97, M105, M106, M108, M109

### NGC Objects

**NGC 2359:** Duck Nebula in Canis Major.

**NGC 2360:** Open Box Cluster in Canis Major.

**NGC 2362:** Bright OC in Canis Major centered on bright star Tau Canis Majoris.

**NGC 2438:** Planetary nebula in Puppis found in OC M46.

**NGC 2440:** Planetary nebula in Puppis.

### Double Stars

**h 3945:** Intense orange and blue pair in Canis Major.

**17 Canis Majoris:** Wide triple with a white primary and two orange companions.

**Iota Orionis:** Nice triple star with a white primary and a pale blue and reddish companion.

**Sigma Orionis:** Quadruple star. Bright white primary with three blue stars.

**Delta Orionis:** Mintaka. White primary and a pale blue star.

### Challenge Object

**IC 434/B33:** B33 is the famous Horsehead Nebula, a dark nebula superimposed on a faint emission nebula IC 434 in Orion. Use an H-Beta filter with dark skies.

## 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

### Observatory Update—Rick Johnson

When cleaning out my hard drive one thing really stood out—my early color correction was lousy. While we all know the sun and moon turn red as they near the horizon and we know the sky is blue we really don't think much about it. It turns out to be a real problem for good color imaging of the sky. The same scattering of sunlight that makes the day sky blue and reddens the sun and moon when they set or rise also turns the night sky blue and reddens objects imaged in the sky. The closer to the horizon the worse the problem but even overhead it is more severe than you may realize. Then there's the problem that no CCD responds to various colors of light the same, even those of exactly the same type vary and this changes slightly as they age. Then too the CCD is black and white. To take color I need to take the image through red, green and blue filters. These, when combined with a CCD alter the color balance because there's no way to make filters that match each CCD. You'd just make them to pass colors correctly if each CCD was perfect. All this means that each image must be color balanced to match the conditions under which it was taken. Colors in the sky are very subtle; it doesn't take much of an error to turn blue spiral arms red for instance. A one percent error that you'd never see on a typical snapshot is enough to do this. There are about as many ways of color balancing as there are imagers. There's another problem: the sky is blue, even at night. So to make the sky black I needed to reduce the blue, but if that's done then the object becomes even redder and it's already too red from the scattered blue light being removed from it. Adjusting for a neutral sky background just makes everything that much redder. I won't go into details as to how I do it other than to say it is more art than science and each color image teaches me more about the process. Thus my early efforts were pretty bad compared to what I'm doing today and I'm sure another year or two will make these seem "awful" as I learn even more about the art.

Anyway, in going through the hard drive I've found a lot that could be improved. Most I doubt I'll reprocess but some scream out for it. M51 is one of those. Back when I did it I didn't understand how to get rid of a blue sky and still not redden the objects in the image. Thus, the sort of blue areas of the galaxy were white and the areas slightly redder than white were way too red, but adjusting that turned the sky purple blue. So I went with what I had and thought it fairly good at the time. But seeing it today I had to reprocess it. So here's the reprocessed version of M51 (see photo on page 1)..

<http://www.seds.org/Messier/M/m051.html>

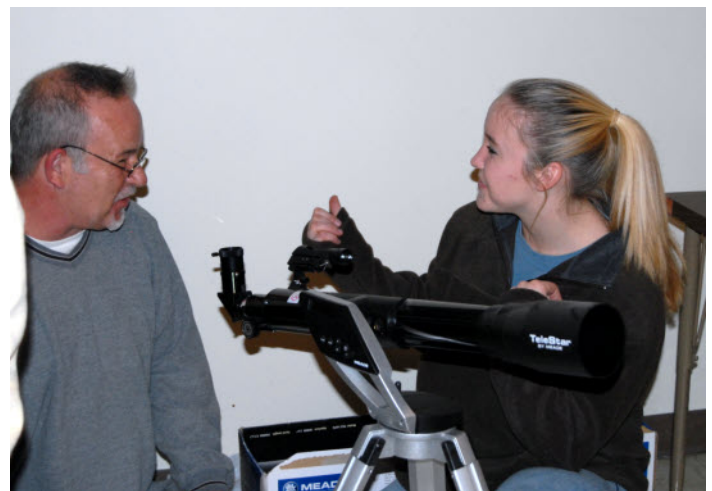
## Outreach Report—Bob Leavitt

This year's Learn to Use Your Telescope program was a great success. A total of 21 people showed up and many of them brought their own scopes. After Brian's telescope overview program we broke up into small groups for one-on-one assistance. Around the room I saw about half a dozen ongoing sessions, as PAC members explained the somewhat confusing details of telescope setup to appreciative observers.

I helped a man and his son set up their small reflector in the classroom. Then we went outside to align the finder scope and pointed it at the sky. I helped them find M42 and several stars, and they were delighted - couldn't wait to try it out again on their own.

The person Cassie helped was so impressed and thankful that he wanted to send a donation to PAC for her help.

All-in-all this was one of the most successful outreach projects the club has done. It was very well received by the public, and all those who participated should be congratulated for their efforts - well done!





**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.

<b>PRESIDENT</b>	Brian Sivill (402) 325-0997 nanoamps@windstream.net
<b>VICE PRESIDENT</b>	Cassie Etmund
<b>2nd VICE PRESIDENT (Program Chair)</b>	Jack Dunn jdunn@spacelaser.com
<b>SECRETARY</b>	Oliver L. Taylor (402) 327-0804 otaylor89@hotmail.com
<b>TREASURER</b>	Lee Thomas lleet@alltel.net (402) 483-5639
Club Observing Chair	Jim Kvasnicka (402) 423-7390 jim.kvasnicka@pfizer.com
Outreach Coordinator:	Dave Churilla 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

FIRST CLASS MAIL

{MM:TITLE} {MM:FIRSTNAME}  
{MM:MIDDLENAME} {MM:LASTNAME}  
{MM:CAREOF}  
{MM:ADDRESS1}  
{MM:CITY} {MM:STATE}, {MM:ZIP}  
  
{MM:RENEWALDATE}

**Next PAC Meeting  
February 26, 2008  
7:30 PM**