

# The Prairie Astronomer

April, 2008

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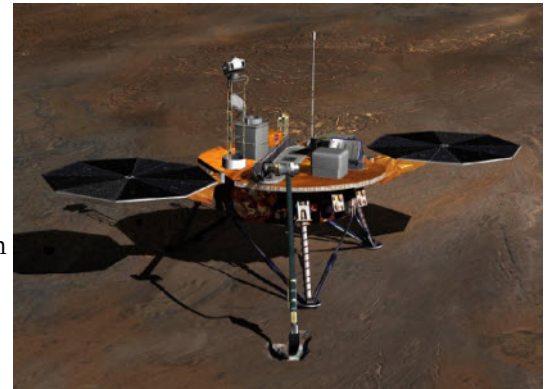
The Official Newsletter of the Prairie Astronomy Club

## PAC Program

Jack Dunn will give an overview of the coming landing of the Mars Phoenix mission scheduled to land on Mars on May 25th.

## In This Issue

Focus on Observing, Brian Sivill's Observing Report.



The Phoenix Mars Lander

## Featured Astrophoto

Rick Johnson's image of NGC 4013, a rather bright edge on spiral in Ursa Major just over western border of Canes Venatici. At 55 million light years it is rather close but also smaller than some other famous edge on galaxies like NGC 4565.

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

### Focus on Observing Clubs--Jim Kvasnicka

#### Lunar Club

The Lunar Club introduces amateur astronomers to the one object that all deep sky observers detest, the moon. Most deep sky observers prefer to be out when there is no moon in the sky. The Lunar Club gives us all something to do when the moon is up.

The Lunar Club is suited for the young, inexperienced observer as well as the more mature observer who is just getting started since no special observing skills are required. The Lunar Club was created as a project that can be done by schools and school children especially those in cities.

The Lunar Club has 100 features on the moon to observe. These 100 features are broken down into three groups. There are 18 naked eye features, 46 binocular features and 36 telescopic features. The observations can be made with a pair of 7x35 binoculars and a 60mm refractor telescope. The program does not require large, expensive equipment.

The Astronomical League web site at [astroleague.org](http://astroleague.org) has a list of the 100 features to observe for the Lunar Club. When you go to the Astronomical Leagues web site click on Observing Clubs and go to the Lunar Club. The site has a check sheet you can print off to help you keep track of the features you have observed. You have to record the date and time as well as the instrument you used for the observations.

If you are having trouble with observing all 100 original features there are 10 optional activities that you can do. These are included on the list of 100 features to observe that you can print off. It is recommended that you have a lunar map before starting the Lunar Club program. There are many budget maps available that you can purchase.

To receive your Lunar Club certificate and pin you need to send your observations along with your name to me and I will verify your observations. I will send the information to the Lunar Club chair. The chair will send me your certificate and pin and I will be delighted to present them to you.

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

#### **List of PAC Lunar Club Awardees**

Ron Veys, David Brokofsky

### Astronomy Day

**Astronomy Day is May 10th and we still need volunteers to help. Contact Steve Lloyd at [lloyds45@aol.com](mailto:lloyds45@aol.com) if you are willing to help the club educate the public.**

## Club Events

PAC Club Meeting  
Tuesday, April 29, 2008 7:30pm  
Hyde Obsv.

Club Star Party  
Friday, May 02, 2008

PAC Astronomy Field School  
May 13, 2008 @ Hyde Obsv.

Western Nebraska Star Gaze for 2008  
Panhandle Astronomy Club  
May 29 - June 1

Astronomy Day 2008  
Saturday, May 10, 2008 Morrill Hall - UNL Campus National Astronomy Day  
will be celebrate by PAC and a number of other organizations 9:30 a.m. to 4:30  
p.m includingthe chance to win a Meade Telescope

PAC Club Meeting  
Tuesday, May 27, 2008  
7:30pm @ Hyde Obsv.

Club Star Party  
Friday, June 06, 2008

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

Next newsletter submission deadline: May 17th.

Official Club Star Party Dates for 2008:  
May 2, June 6, July 3, Aug 1, Aug 29, Sept 26, Oct 31, Nov 28, Dec 26.

Alternate Dates:  
Apr 25, May 30, June 27, July 25, 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 [cggymnast1@aol.com](mailto:cggymnast1@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@myISP.com](mailto:pac-list@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

PAC Meeting Minutes for March 25, 2008

President Brian Sivill called the meeting to order. 17 members present, 3 guests

Announcements:

The next PAC meeting will be Tuesday April 29 at Hyde.

The next PAC star party will be held Friday April 4, at \*The Farm\*

The Des Moines Astronomical Society will host the Astronomical League's Convention July 18-19 in Des Moines.

The next PAC observing field school will be Friday April 11 at 7:00PM at Hyde.

The Sidewalk Astronomy Night will be held on Saturday April 12, 2008.

Astronomy Day will be May 10, 2008. PAC will participate with displays at Mueller Planetarium

The next astronomy seminar will be held on May 13 at Hyde. The topic will be The sun, stars and galaxies.

The first western Nebraska Star Gaze of 2008 will be hosted by the Panhandle Astronomy Club on May 29 - June 1

The 15th annual Nebraska Star Party will be held July 27-August 1st at Merritt Reservoir.

Club business:

Future occurrences of tonight's program, the PAC swap meet was discussed, with suggestions on time of year, locations, and possible participation of the Omaha Astronomical Society.

We are currently trying to schedule two star parties a month now, hoping to have at least one clear evening per month.

The PAC Executive Board has announced that the recent donation by Jerry Kreps of the 10-inch LX200 will be awarded as a prize on Astronomy Day to in an essay contest to participants in 7th grade to College. Details and rules have been posted.

Dave Churilla mentioned PAC participation in Waterfest '08 at Holmes Park on June 14 from 5-8PM. If you'd like to participate, let Dave know.

Treasurer's report: No treasurer's report this month.

Observing Chair, Jim Kvasnicka reviewed objects visible this month and next.

Adjourn to program, the PAC Swap Meet.

Respectfully submitted by,

Lee Taylor

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

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

### Planets

**Mars:** Enters Cancer on May 5<sup>th</sup>. On May 22<sup>nd</sup> Mars will pass through M44.

**Jupiter:** Starts to rise before midnight by the end of May. Magnitude -2.4.

**Saturn:** In Leo close to Regulus.

**Venus:** Hidden in the Sun's glare at dawn.

**Mercury:** 10° high in the WNW 45 minutes after sunset May 6<sup>th</sup> – May 18<sup>th</sup>.

**Uranus and Neptune:** In Capricorn and Aquarius in the morning.

### May Messier List

**M51:** The famous Whirlpool galaxy in CVn.

**M63:** Another spiral galaxy in CVn.

**M94:** Galaxy in CVn. Looks like a GC in the eyepiece.

**M101:** Face on galaxy in UMa. One of the most difficult Messier objects to find.

**M102:** Not an official Messier object. Look for NGC 5866.

**M64:** Oval shaped galaxy in Coma Berenices. The Black Eye galaxy.

**M85:** Galaxy in Coma Berenices.

**M49:** Round galaxy in Virgo.

**M61:** Face on spiral galaxy south of M49 in Virgo.

**M104:** The Sombrero galaxy in Virgo.

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

**Next Month:** M58, M59, M60, M84, M86, M87, M88, M89, M90, M91, M98, M99, M100 (The Virgo Cluster)

### NGC Objects

**NGC 2841:** Elongated spiral galaxy in Ursa Major.

**NGC 4449:** Rectangular shaped irregular galaxy in CVn.

**NGC 5033:** Large bright spiral galaxy in CVn.

### Double Stars

**Kappa Bootis:** Yellow and blue pair.

**Iota Bootis:** Yellow primary with a dim blue secondary.

**Pi Bootis:** Pair of white stars.

**Epsilon Bootis:** Yellow primary with a greenish yellow secondary.

**Xi Bootis:** Pair of yellow stars.

**Delta Bootis:** Yellow and blue-white stars.

**Mu Bootis:** Yellow pair.

**Zeta Corona Borealis:** Light blue primary with a greenish yellow secondary.

### Challenge Object

**NGC 4676:** "The Mice" two interacting galaxies in Coma Berenices, very faint. Detectable at high power.

## 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

### Observing Report--Brian Sivill

Location: Southeast of Cortland, Nebraska

Fellow Observers: Jim Kvasnicka, John Lammers

Weather: Cold, around 5 degrees F. Slight breeze.

Sky conditions: Very clear. Average seeing. Bright stars visible to within 5-7 deg of horizon.

I arrived at the observing site just shortly after John Lammers, so we set up our respective “camps” in tandem. Jim Kvasnicka had been onsite for hours and was clearly in his winding-down phase.

John and I, on the other hand, were eager to get observing. I asked Jim if we were the only persons hardy enough to brave the cold, or more accurately, the most mentally challenged. Jim appeared to reflect for a moment on his own cognitive abilities, and in a moment of lucidity that was not to be surpassed by anyone that evening, he elected to pack up and head home to a warm bed. Jim did mention that Chad Tolly and his two youngsters were actually the first observers onsite.

I started out by locating M1, the Crab Nebula in Taurus. This Messier was important for me to view for several reasons:

First, it's almost impossible to see from town except on the clearest of nights. Second, it's headed westward with Orion and won't be observable in a few months.

Lastly, this object has been a topic of keen interest to me since ever since Jack Dunn's talk on M1's central pulsar during his Astronomy class in February.

The Crab was a tiny oval smudge in my home-made 6" f8 dob using my 38mm Rini eyepiece. The view through my 9mm Nagler was more satisfying, but I couldn't make out any specific detail.

From the faintest to the boldest- Since this was the clearest night and the darkest location I have had the privilege of observing under in quite some time, I *HAD* to view M42 in Orion.

In my 38mm Rini, it was nothing short of spectacular. The nebula extended far beyond the limit of the eyepiece's FOV. The view was seemingly photographic. I made no point to raise the power, but John had narrowed in on the trapezium in his 8 inch f5 scope using his Speers-Waler zoom eyepiece. The view through both scopes was outstanding.

I then spent a few minutes observing M45, the Pleiades. I think mostly just to have a recorded observation of it for my largely pathetic, but ever-increasing log of observed Messiers. Admittedly, I've not been very disciplined at logging my observations.

M45 was brilliant, blue and expansive. I had to scan around several FOV widths to take it all in. This object is able to project a noticeable image on your hand if you hold it near the eyepiece! I think in this instance, one word *can* describe it - Wow!

We then moved on to good old M35 in Gemini. M35 is well-defined in binoculars, but loses its boundaries when viewed at even modest powers. It filled over half of the Rini's field and one could easily identify nearby cluster NGC 2168. Just another short hop further in the same direction revealed cluster IC2157.

John and I needed to warm-up, so we escaped the cold by sitting in John's van with the heat running—a routine we

would follow several more times that evening. John spoke in detail of the actual fields of view with our respective equipment, and I probably should have them memorized by now, but admittedly I may have dozed off a bit in the warm van...

Round two. We looked west and decided to log the three famous clusters in Auriga M38, 36 and 37. In binoculars, all three are compact and are quickly located. In the telescope they're not hard to find, but on clear nights such as this, the clusters themselves don't seem to have much visual advantage over the background stars. M38 and 36 have some visual similarities though 36 is the brighter of the two. M37 is more consolidated and at low power appears more like a globular than an open cluster.

We then moved straight overhead to M44, the Beehive. Once again, primarily just to get an official observation documented. Telescopically I don't find anything particularly noteworthy about M44. In the 38mm Rini, it takes some scanning to view it all. In my Pentax 10X50 binoculars, it's a stunning cluster. I read somewhere that Galileo was the first human to resolve this cluster into separate stars where previously it was just believed to be nebulous in nature.

We then swung eastward to Leo to capture one of my favorites, the triple galaxies in Leo: M65 M66 and NGC3628. They're easy to locate in dark sky, especially due to their proximity to 73 Leonis. In my Rini you can just frame them all in one FOV and it's a wonderfully ethereal sight. M65 has a more elliptical appearance than M66 while NGC3628 is noticeably fainter than its two neighbors. I spent a long time examining these three using several different magnifications.

We warmed up in the van again, and had to defrost our Telrads and a few eyepieces.

At some point in the evening (maybe several times) we observed Mars and Saturn. The seeing this night was only average. Clear planetary details were fleeting.

Now onto M47 and M46 in Puppis. These are two beautiful open clusters. I discovered that I could swing from one to the other and that the contrast between the two was fantastic. M47's stars were distinct and blue while M46 was fainter, more dense, and quite gold in color. I neglected, however, to raise the magnification and find the planetary nebula within M46 (NGC 2438). I'll have to make a point of it next outing.

There were other observations that night, but pen after pen succumbed to the cold leaving me with no functional writing utensils.

The last object of the evening was a way of ushering in the spring season for me: M104 the Sombrero Galaxy. It was beautiful and well defined. This object, more than any other, motivates me to build a bigger telescope!!

The cold and fatigue caught up with us both and we closed camp around 1:30AM  
Let's all hope for warmer temps next time!

**The Hyde Observatory "Volunteer of the Year" Award was presented to Jim Kvasnicka by Jack Dunn at the Hyde Volunteer Appreciation Dinner held on April 22nd at Mueller Planetarium. Congratulations Jim!**





**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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<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
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**Next PAC Meeting  
April 29, 2008  
7:30 PM**