

# The Prairie Astronomer

December, 2008

Volume 49, Issue #12

The Official Newsletter of the Prairie Astronomy Club

## PAC Program

Former PAC member Larry Stepp will speak about the status and challenges of the design of the Thirty Meter Telescope.

Larry Stepp is the Telescope Department Head for the TMT project, responsible for the overall design and functionality of the 30-meter telescope. Before joining the TMT project office, Larry was a senior engineering manager at the National Optical Astronomy Observatory in Tucson, where he worked on AURA's design for the Giant Segmented Mirror Telescope, as well as the optics for the Gemini telescopes, the WIYN 3.5-meter telescope, and earlier large telescope concepts.

**The meeting date has been moved to Monday December 29th.**

## In This Issue

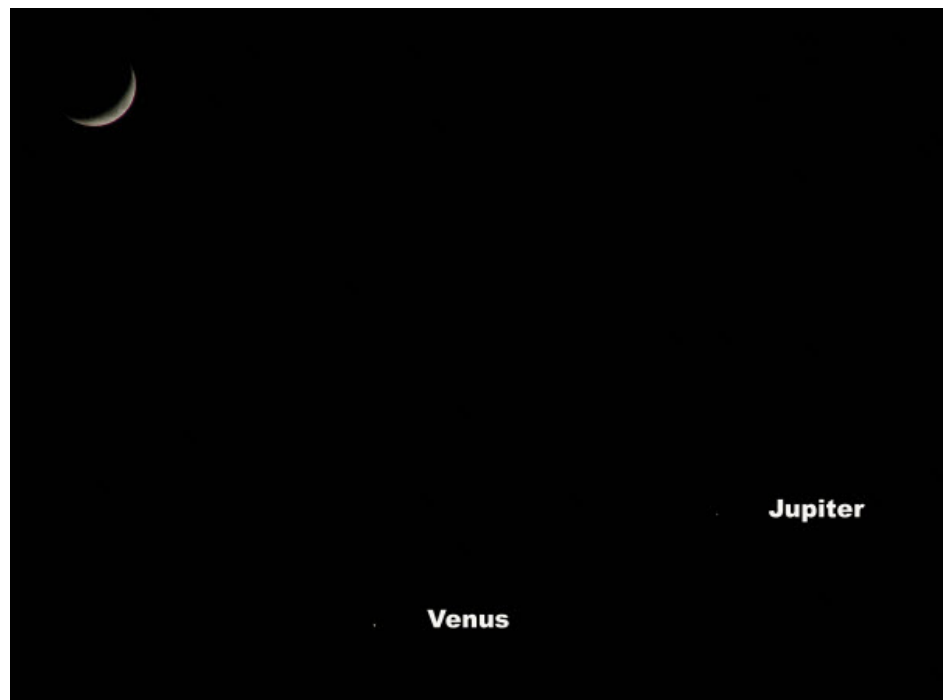
Focus on Observing, Conjunction photos

## Featured Photo

“Moon, Venus and Jupiter” by Jim Atkins

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

#### Planetary Nebula Club

This month we focus on the Planetary Nebula Club. Planetary Nebulae are some of the most beautiful and interesting objects in the sky. They exhibit complex shapes and may even show colors.

There are 110 planetary nebulae on the list to observe for the Planetary Nebula Club. The list contains some of the most famous objects observed as well as examples across the entire range of planetary nebulae morphology. Some are tiny star-like points in a crowded star field and others appear as ghostly apparitions. This program will certainly test your observing skills.

The Planetary Nebula Club can be completed visually or by imaging. There are two levels of accomplishment, Basic and Advanced. The Basic program is achievable with modest equipment and from less than dark skies. For the Basic program you must observe at least 60 of the objects from the list of 110. The Basic program awards a certificate only.

To earn the certificate and pin for the Advanced program you must observe or attempt to observe all 100 objects on the list. The program recognizes the possibility that a few of the objects may be beyond detection for some observers. With this in mind Negative observations are allowed for completion of the Advanced program. Evidence of effort to observe these negative objects is required. At least two observing attempts must be made on different nights. Each negative attempt must include a sketch of the star field. Negative observations will not apply towards the Basic program. To complete the program by imaging, 90 objects out of the 110 must be successfully imaged.

Any method can be used to locate the objects including GO-TO. Those who use the traditional manual methods to locate 100% of the objects will receive special recognition on their certificates. Your observing log should include the usual information: name of the object; observing site; date and time; seeing conditions; size of your telescope; magnification; filters used; and a description or sketch of what you observed.

When you are finished submit a copy of your observations to me and I will review them and report completion to the Planetary Nebula Club Coordinator. Images will need to be forwarded to the Club Coordinator.

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

#### **List of PAC Planetary Nebula Club Awardees**

No PAC members have completed the Planetary Nebula Club.

## Club Events

Club Star Party  
Friday, December 26, 2008

PAC Club Meeting  
Monday, December 29, 2008  
**Speaker will be Larry Stepp**  
7:30pm @ Hyde Obsv.

Club Star Party  
Friday, January 16, 2009

Public Star Party  
Strategic Air and Space Museum  
Saturday January 17, 2009

Club Star Party  
Friday, January 23, 2009

PAC Club Meeting  
Tuesday, January 27, 2009  
7:30pm @ Hyde Obsv.

Next newsletter submission deadline: January 17

### 2009 Star Party Dates

January 16th and **January 23rd**  
February 20th and **February 27th**  
March 20th and **March 27th**  
April 17th and **April 24th**  
May 15th and **May 22nd**  
June 12th and **June 19th**

## 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  
[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

Prairie Astronomy Club Minutes for the Meeting of November 25, 2008

President Brian Sivill called the meeting to order, 14 members, several visitors.

Announcements:

The next PAC meeting will be MONDAY December 29, 2008 at Hyde Observatory. The date has been changed to accommodate our speaker, Larry Stepp, who will be providing an update on the Thirty Meter Telescope Project.

The next PAC star parties will be held on November 28, and December 19 and 26.

On Saturday January 17, 2009, the Strategic Air and Space Museum will be hosting a presentation by James Manning, the president of the Astronomical Society of the Pacific and a public star party, to officially kick off the International Year of Astronomy. The museum will be hosting several of these events throughout the year and have invited PAC to participate by providing the public with an opportunity to see the night sky. They have offered to be very cooperative. Jack Dunn recently visited the museum to coordinate the proper lighting. They have even offered to cooperate with the Mahoney Star parties by turning off the lights during those events.

The 2009 Mid-States Regional Convention will be held on March 6-8 in Columbia Missouri. PAC is planning to send a group there.

Club Observing Chair, Jim Kvasnicka provided a review of observing activities for the past month, and a look ahead to December and the coming year.

We've been having good luck with star parties lately, with one of 2 well attended in October. and the next one scheduled for the day after Thanksgiving. We are even considering a lunar party on the 5th of December. Saturn is a good morning object in Leo, with the ring plane crossing coming up next year, though it will occur very near solar conjunction.

The Geminids peak in Mid-December, with a peak around 30-40/hour. Jim's Observing club spotlight this month was on the Herschel 400. For intermediate observers who wish to continue beyond the Messier objects and \*shallow sky\* observing.

Brian reviewed the PAC Banquet held on November 16 at DaVinci's and the awards presented at that time:

Alexia Bazan - The 2008 Young Astronomer Award

Jim Kvasnicka - For his outstanding and diligent services as Observing Chair for the year 2008

Dave Churilla - For his outstanding and diligent services as Outreach Coordinator for the year 2008

Mark Dahmke - For his outstanding and diligent services as Newsletter Editor and Website Administrator for the year 2008

Erik Hubl -For his outstanding and diligent services in Lighting Quality Standards & Light Pollution Awareness

Thank you all for the efforts you put toward the goals of the club.

## Club Business, continued

Treasurer's Report:

PAC Checking account: \$2687.69

PAC Savings Account: \$9318.00

Total accounts and CD's: \$38,749.69

Previous treasurer, Lee Thomas, has noted that we have been carrying many former officers on our signature cards for these accounts. He suggested that we make an effort to have these old signatures removed. After some dealing with the bank, he proposed a process to have this done. At the last PAC Executive Board meeting on November 12, we passed a motion to have those old signatures removed and that henceforth only the president and treasurer be maintained as current signers on the account. After notifying the bank of these decisions, we will be issued a new signature card with only the president and treasurer as signers. Also at that meeting, current treasurer, Dan Delzell suggested requiring two signatures for payments from club accounts above a certain amount. His suggestion for a limit was \$250.00.

The current board has several ideas for the club for the coming year, as I wrote in the last newsletter. On the president's agenda is use of club funds for publicity for the club and to provide deserving newcomers to astronomy who are interested in building their own telescope an opportunity to do so. Once the annual PAC audit is completed and some financial reports issued, we will provide a proposal to do some of these things.

Adjourn to Mark Dahmke's program about his trip to the Kennedy Space Center with his HD video camera.

Respectfully submitted by,

Lee Taylor

### **A Call for Photos, History and Stories for PAC's 50th Anniversary —Mark Dahmke**

The first formal PAC meeting was in April, 1961, and the club was formally incorporated in December, 1965. The first issue of the newsletter was printed in April, 1962. I started checking on this because by volume number, the first newsletter would have been printed in 1960, however prior to 1975, volume numbers weren't used, and the newsletter was not always published on a regular basis. Therefore, April, 2011 will be the official date of PAC's 50th anniversary.

Earl Moser saved copies of all the newsletters, plus a treasure trove of newspaper clippings and other materials about the club (THANK YOU EARL!). I plan to scan all of the newsletters and publish a book and DVD of club history. This project will take at least a year to complete. If you have any stories, photos or other materials related to the club that you would like to contribute, please contact me. All photos should be scanned at 300 dpi or better (at least 1200 pixels wide for a 4" photo) and slides at 2400 dpi or better.

## 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

### January Observing: What to View--Jim Kvasnicka

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

#### Meteor Showers

**Quadrantids:** Peaks the morning of January 3<sup>rd</sup> at 7:00 am our time. This is a brief, but intense meteor shower. The peak will last just a few hours but you can expect up to 120 meteors per hour.

#### Planets

**Venus:** Brightens in magnitude from -4.4 to -4.7 and remains up for almost 4 hours after sunset.

**Mercury and Jupiter:** On New Year's Eve the two planets are just  $1\frac{1}{4}^\circ$  apart with the separation increasing by about  $1^\circ$  per day. Jupiter appearing lower and Mercury higher.

**Saturn:** Rises around 10:30 pm at the start of January. By the end of the month it will be visible around 8:30 pm. The rings are tilted just  $1^\circ$  to our line of sight and appear as a thin line.

**Uranus:** Less than  $1\frac{1}{2}^\circ$  south of Venus.

**Neptune:** Very close to the horizon.

**Mars:** Not visible for most of the month. Towards the end you can look for Mars below brighter Mercury.

#### January Messier List

**M33:** Large spiral galaxy in Triangulum with a low surface brightness.

**M34:** Large bright open cluster in Perseus.

**M52:** Rich open cluster in Cassiopeia.

**M74:** Faint galaxy in Pisces.

**M76:** The Little Dumbbell. Planetary nebula in Perseus.

**M77:** Small, faint galaxy in Cetus.

**M103:** Small open cluster in Cassiopeia.

**Last Month:** M2, M15, M29, M31, M32, M110

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

#### NGC and Other Deep Sky Objects

**NGC 1999:** Diffuse nebula in Orion.

**NGC 2022:** Planetary nebula in Orion.

**NGC 2242:** Planetary nebula in Auriga.

**NGC 2392:** Eskimo Nebula in Gemini.

**IC 421:** Galaxy in Orion.

#### December Double Star List

**Beta Orionis:** Bright white and dim blue stars.

**Delta Orionis:** Bright white and pale blue pair.

**Struve 747:** Equal pair of white stars.

**Lambda Orionis:** Pair of white stars.

**Theta 1 Orionis:** The Trapezium.

**Iota Orionis:** Bright white and blue stars.

**Theta 2 Orionis:** Three white stars.

**Sigma Orionis:** White primary with three pale blue companion stars.

**Zeta Orionis:** Bright white star with two white secondary stars.

#### Challenge Object

**IC 443:** Faint supernova remnant in Gemini close to Eta Gemini; use a filter. Also look for NGC 2174.

## A Very Photogenic Conjunction



In addition to Jim Atkins conjunction photo on page 1, Dave Knisely submitted these two beautiful photos.

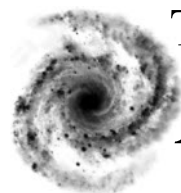


Strategic Air and Space Museum Star Party, January 17-- Dave Churilla

I just wanted to send out a reminder that we are planning a Star Party at the Strategic Air & Space Museum near Mahoney State Park, an activity sponsored by NASA's Space Grant Consortium for 2009 for the International Year of Astronomy (I.Y.A.). While the main contact is Brian, I'm the one to let know if you will be setting up your scope there that night. I've only heard from a few of you so far, so if you are planning to be there please let me know as soon as you can. I will keep Steve apprised so he can make sure that Hyde is covered that night.

Thus far committing to that night are: Dave Churilla, Bob Kacvinsky, Dan Delzell,

If anyone has any ideas on how to make this star party special let me know and we can work on them.



# 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>	Dan Delzell Dand@fes.org (402) 483-4585
<b>Club Observing Chair</b>	Jim Kvasnicka (402) 423-7390 jim.kvasnicka@pfizer.com
<b>Outreach Coordinator:</b>	Dave Churilla, 467-1514 weber2@inebraska.com
<b>Newsletter and Website Editor:</b>	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**  
**MONDAY**  
**December 29, 2008**  
**7:30 PM**  
**Hyde Observatory**