



The Prairie Astronomer

April, 2010

Volume 51, Issue #4

The Official Newsletter of the Prairie Astronomy Club

PAC Program

Jack Dunn will show photos from the launch of STS-131. Also there will be a review of Astronomy Day.

In This Issue

Observing in May, Focus on Constellations, MSRAL Convention, PAC History Book., STS-131, Astronomy Day.

Featured Photo

Congratulations to Steve Lloyd, who received the 2010 Hyde Volunteer of the Year Award.

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



Club Business

March 30, 2010 PAC Meeting

Announcements:

Dan Delzell called the meeting to order.

The next PAC star parties will be on April. 9th & 16th.

April 13th is Volunteer Appreciation Night.

There will be a lunar party on April 23rd at Jim's.

April 24th is Astronomy Day.

The next PAC meeting will be Tuesday April 27th, 7:30 PM at Hyde.

MSRAL is June 4th, 5th, & 6th, please register on the website if you are attending.

MSRAL speakers are:

Rob Landis

Pete Shultz

Rick Johnson

Larry Stepp

Waterfest will be held at Holmes Lake on June 12th.

The Nebraska Star Party is August 8th through 13th, 2010.

Observing Chair Report

Club Observing Chair, Jim Kvasnicka provided a review the planets that are viewable during April which are Venus, Mercury, Mars, and Saturn in the evening and Jupiter, Uranus, and Neptune in the morning. The Lyrids meteor shower will occur on April 21-22. Meteors predicted are in the 5-15 meteors/hour range. The constellation Leo was also the topic of discussion.

The Galileo Scopes have arrived and you can pick your scope up if you ordered one.

We concluded the meeting to listen to Jack Gabel give a very interesting and detailed explanation of his studies on black holes and quasars.

CHANGE TO CLUB OBSERVING SITE

The directions to the club observing site have been updated. Please see the members only area of the website for driving directions.

Astronomy Day

Mueller Planetarium, Lincoln's Prairie Astronomy Club and a host of other local organizations join forces with Astronomy Magazine and Celestron Telescopes to celebrate Astronomy Day 2010 on April 24! Activities will be held from 9:30 a.m. - 4:30 p.m. in the University of Nebraska State Museum (Morrill Hall) on the UNL City Campus. Demonstrations of robotics, rocketry, planets, space travel, microgravity, physics, telescopes, meteorites, optics, the Moon and more will be presented at the event! Other attractions include rocket launching outside and presentations in the planetarium of the full dome show "Earth, Moon and Sun" (additional admission is charged for the planetarium show). Outdoor activities are weather permitting.

All those who visit the event will have a chance to win a Celestron 50th Anniversary FirstScope valued at \$50 provided by Astronomy Magazine and Celestron, and a 6-inch Dobsonian reflector telescope provided by the Prairie Astronomy Club valued at \$250. Both will be given away locally and won by someone who attends the event! Entry forms for this giveaway will be available at the front desk of the museum. The drawing will take place at 4:00 p.m. You need not be present to win. Visitors will also have the opportunity to register to win

the grand prize Celestron 6-inch NexStar 6SE telescope (valued at \$799), given away nationally by Astronomy magazine in the weeks following Astronomy Day. 2006's national winner registered at Mueller Planetarium! That's three chances to win your very own Telescope! Over 25 of the prime Planetariums, Museums and Observatories across the country are part of the promotion of amateur and professional Astronomy sponsored by Astronomy Magazine.

Presenting organizations on Astronomy Day include Mueller Planetarium, The Prairie Astronomy Club, Hyde Memorial Observatory, the Nebraska Center for Materials and Nanoscience, the UNL Department of Physics and Astronomy, the UNL Chapter of the Society of Women in Engineering, the UNL Microgravity University team from the UNL Department of Engineering, the UNL Chapter of the American Institute of Aeronautics and Astronautics, the Air Force Association and others. Exhibits and displays will line the lobby of the Planetarium and all three floors of the Museum. There will be displays of telescopes, computer astronomy and astronomical photos by members of the Prairie Astronomy Club.

Club Events

Newsletter submission deadline, May 10, 2010

Astronomy Day 2010 is April 24th.

PAC Club Meeting

Tuesday, April 27, 2010 7:30pm @ Hyde Obsv.

Program: Jack Dunn - STS-131 launch, and Astronomy Day review

PAC Club Meeting

Tuesday, May 25, 2010 7:30pm @ Hyde Obsv.

Program: Mark Dahmke - STS-132 (tentative) and pre-MSRAL planning

MSRAL, June 4-5

Waterfest, June 12

2010 PAC Star Party Dates

May	7 th & 14 th
June	4 th & 11 th
July	2 nd & 9 th
August	6 th & 13 th
September	3 rd & 10 th
October	1 st & 8 th
November	Oct 29 th & 5 th
December	3 rd & 10 th

2010 PAC Lunar Party Dates

April 23rd, May 21st, June 18th, July 16th, September 17th, October 15th,
November 12th

2010 Convention of the Mid-States Region Astronomical League

(MSRAL) June 4th, 5th, 6th at UNL

Nebraska Star Party

August 8th – 13th Merritt Reservoir South of Valentine, NE

Volunteer Activities

Astronomy Day – April 24th

Spring Creek Prairie Twilight on the Tallgrass – September (date not set)

Homestead National Monument Halloween on the Prairie – Sat. before
Halloween

Hyde Observatory on Saturday nights

Additional volunteer events will occur when they are scheduled.

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: mailsrv@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

PAC can also be found on Twitter and Facebook.

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



May Observing: What to View--Jim Kvasnicka

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

Planets

Venus: Shines at magnitude -3.9 in the west.
Mars: Shines at magnitude 0.7 to start the month and dims to 1.1 at the end.
Saturn: In Virgo. Dims to magnitude 1.0 due to the narrowing of its rings.
Jupiter: Rises around twilight in Pisces. By month's end it rises around 3:00 am.
Mercury: Low in the bright dawn of late May, difficult to see.
Neptune/Uranus: Both are difficult to see at dawn.

May Messier List

M49: Elliptical galaxy in Virgo.
M51: The Whirlpool Galaxy in Canes Venatici.
M61: Spiral galaxy in Virgo, faint fuzzy patch.
M63: Spiral galaxy in Canes Venatici.
M64: The Black Eye Galaxy in Coma Berenices.
M85: Elliptical galaxy in Coma Berenices.
M94: Galaxy in Canes Venatici, bright core.
M101: Face on galaxy in Ursa Major, dim.
M102: Look for galaxy NGC 5866.
M104: The Sombrero Galaxy in Virgo.
Last Month: M40, M65, M66, M95, M96, M97, M105, M106, M108, M109
Next Month: M58, M59, M84, M86, M87, M88, M89, M90, M91, M98, M99, M100
(The Virgo Galaxy Cluster)

NGC and Other Deep Sky Objects

NGC 4038/NGC 4039: Ringtail Galaxy. Interacting galaxy pair in Corvus.
NGC 4244: Long, thin galaxy in Canes Venatici.
NGC 4361: Planetary nebula in Corvus. Gray in color, fairly bright.
NGC 4762: Galaxy in Virgo.
NGC 5746: Galaxy in Virgo, bright central bulge.

Double Star Club List

Kappa Bootis: Regulus. Yellow primary with a blue secondary.
Iota Bootis: Yellow and dim blue pair.
Pi Bootis: Pair of white stars.
Epsilon Bootis: Yellow and greenish-yellow stars.
Xi Bootis: Pair of yellow stars.
Delta Bootis: Yellow primary with a blue-white secondary.

Mu Bootis: Yellow pair.
Zeta Corona Borealis: Light blue and greenish-yellow stars.

Challenge Object

NGC 6166: Brightest member of the Abell 2199 Galaxy Group in Hercules. Averted vision will reveal some very faint companion galaxies.



We still need volunteers to help with displays and exhibits for Astronomy Day. Please contact Steve Lloyd ASAP.



Focus On Constellations - Jim Kvasnicka

Canes Venatici

Canes Venatici, the Hunting Dogs, is a constellation with few stars but rich in galaxies. Almost all of the galaxies in Canes Venatici are visible in a small telescope. Looking towards Canes Venatici we seem to be looking through three layers of galaxy groups. The closest group the Canes Venatici I Cloud is an average of 20 million light years distant. It includes M94 and M106. The next group the Canes Venatici II Cloud is centered 35-40 million light years away and includes M51 and M63. The third layer of galaxies in Canes Venatici is 70-80 million light years distant. Besides the four Messier galaxies, M51, M63, M94, and M106, Canes Venatici contains one of the three brightest globular clusters in the northern hemisphere in M3. Alpha Canes Venatici or Cor Caroli is a fine double star as well. The constellation Canes Venatici is best seen in the month of May.

Mythology

Canes Venatici was introduced by the Polish astronomer Johannes Hevelius in 1690. It represents the two dogs Asterion and Chara, both held on a leash by Bootes as they chase the Great Bear around the North Pole.

Objects Magnitude 12.0 and Brighter

Galaxies: M51, M63, M94, M106, NGC4631, NGC4449, NGC5195, NGC4214, NGC4490, NGC5005, NGC4228, NGC4395, NGC5033, NGC4244, NGC4656, NGC5371, NGC4143, NGC4111, NGC4618, NGC4151, NGC4242, NGC5353, NGC4346, NGC4217, NGC5390, NGC4138, NGC4145, NGC4460, NGC5350, NGC5377, NGC4220, NGC5354, NGC5383, NGC5395, NGC5375, NGC4914, NGC5273, NGC4369, NGC4389, NGC5297, NGC4485, NGC5127, NGC5326, NGC5444

Open Clusters:

Globular Clusters: M3

Planetary Nebulae:

Bright Nebulae:

SNREM:

Dark Nebulae:

Named Stars: Cor Caroli (Alpha), Chara (Beta)

Number of Objects in Various Observing Clubs

Messier Club: 5 object

Double Star Club: 1 object

Herschel 400 Club: 17 objects

Globular Cluster Club: 1 objects

Open Cluster Club: 0 objects

Planetary Nebula Club: 0 objects

Urban Club: 2 object

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 Telescopes

To check out one of the club telescopes, contact **Jason Noelle**. If you keep a scope for more than a week, please check in with Jason 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.



Mid-states Region Convention–Jack Dunn

**The Prairie Astronomy Club
invites you to attend the MSRAL
Convention, June 4-5.**

CLUB MEMBERS - Don't wait till the last minute to sign up for MSRAL! You won't want to miss this great lineup of speakers.

Sign up now online or print and mail your registration form. PLEASE SIGN UP SOON so we will know how many will be attending the conference and banquet.

Featured Speakers:

Rob Landis, NASA, Lunar Surface Systems Project at Johnson Space Center.

Dr. Peter Schultz, Brown University, Science Coordinator for NASA-Ames Vertical Gun Range. "Shooting the Moon: Results from the LCROSS Mission"

Rick Johnson is a founding member of the Prairie Astronomy Club.

"Imaging at -40 degrees"

Larry Stepp, Telescope Department Head for TMT. "A brief history of future giant telescopes"

Even though we already have some great speakers, we want your contribution. Consider giving a talk on some aspect of your hobby. See website for details.

SCHEDULE OF EVENTS

Join us for a Friday evening Star-B-Que at Hyde Observatory, with tour of Hyde and telescope viewing.

Saturday will be packed with speakers and two full-dome planetarium shows, vendor displays and a banquet at the Knolls Country Club.

Sunday will start with complimentary continental breakfast, Rick Johnson's talk at 10am followed by the MSRAL business meeting.

**WE NEED VOLUNTEERS
TO ASSIST WITH THE MSRAL CONVENTION.
PLEASE CONTACT JACK DUNN ASAP!**

Also check with Dave Churilla and/or Dan Delzell if you're available to help with the Star-B-Que.

From the Newsletter Archives, April, 1977 – Mark Dahmke

ANOTHER BIG STEP: GROUNDBREAKING FOR COMMUNITY OBSERVATORY

Groundbreaking ceremonies were held at the Holmes Park site of the Hyde Community Observatory Thursday, April 21 at 2pm. Construction is to begin within a few days, with completion of the observatory expected this summer.

ATTENTION, ASTRONOMICAL RATCHETJAWS

A meeting or so ago, Earl Moser suggested getting together a list of club members who have CBs. When we get the names collected, we'll publish them in the newsletter. Drop a note to the club address, or let the newsletter editor know at the meeting. We need your name, CB handle and the channel you like to use, and (because the editor is so used to being regulated by the FCC that it's hard to shake the habit), your official call sign. To start the ball rolling, take note that Earl Moser is "Stardust," can be found on channel 15 and his official call is KAMU 8900.

History of PAC Book Completed– Mark Dahmke

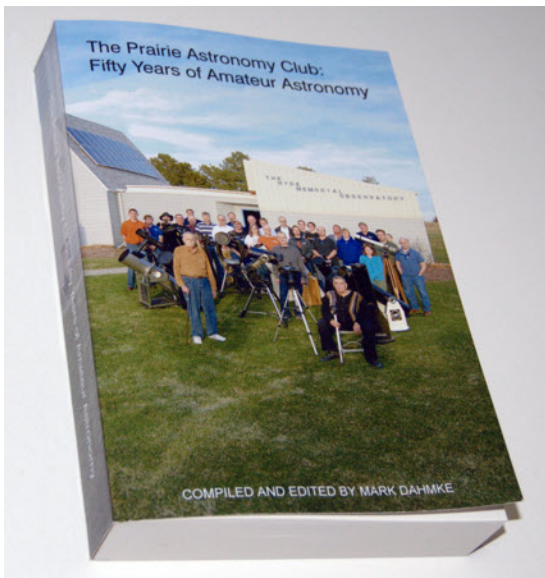
I received three proof copies of the book on April 9th and have ordered another proof copy after fixing typos and making a few corrections.

From the time I approve the book and release it for distribution, it will take about six weeks for it to get into the “Books in Print” catalog and to appear on Amazon.com and the catalogs book stores order from.

The book is 568 pages long and the retail price will be \$27.99. This is due to the way books have to be priced when going through retail channels, and the publisher will also get their percentage of the profits. If someone orders through a bookstore, the net royalty to PAC will be about \$0.91 (this is not unusual-most authors get about \$1 per copy).

The book is currently available for purchase on the lulu.com site at \$27.99, but PAC can place a bulk order to get a significant discount. After talking with Dan Delzell we decided that \$20 per copy would be a good price for club members, but this depends on a **minimum order of 25 copies.**

At the next PAC meeting I'll bring a copy of the book to pass around, and send around a signup sheet, or you can email me and let me know how many copies you'd like to order. **The bulk order will be placed no later than May 6, so copies will be here in time for MSRAL.**



Title: “The Prairie Astronomy Club: Fifty Years of Amateur Astronomy.”

ISBN: 978-0-557-34865-7, retail price: \$27.99 – 568 pages.

Back cover copy: On November 7th, 1960, the planet Mercury transited the Sun. This event was observed from Nebraska Wesleyan University in Lincoln, Nebraska, by astronomy and physics professor Carroll Moore. Publicity about the event helped bring together a small but dedicated group of amateur astronomers and was the catalyst for the formation of the Prairie Astronomy Club.

As the club grew, it found a role in public outreach and science education, and in 1977, helped raise the money to build Hyde Memorial Observatory, the only public observatory that was built and is operated entirely by donations, devoted exclusively to public viewing, completely free of admission charge, and staffed only by volunteers.

Now celebrating its fiftieth anniversary, the Prairie Astronomy Club continues its mission to educate, provide public outreach, operate Hyde Memorial Observatory, and be a resource for its members.

This book tells the history of the club and includes stories and memories, and the best articles contributed by club members to the club’s newsletter, the *The Prairie Astronomer*.

How to Order

Sign up to order a copy of the book at a special price for club members - \$20 per copy. Mark Dahmke will bring a signup sheet to the next club meeting, or email him at mark@dahmke.com. **Orders must be placed by May 6.**

Focus on Outreach–Dave Churilla

One Friday night this April I enjoyed a nice night at the Farm viewing with old friends. As I sat there looking at Double Stars I remembered that I was scheduled to work on the Deck at Hyde the next night and I thought back on how I started, with no telescope and little knowledge of the hobby of astronomy. For me it started with 3 members of PAC that were set up at Behlen Observatory during an open house. They had reached out to a lot of people that night and it sparked something in me that stuck and 13 years later I'm still into this wonderful hobby and now *I'm* sharing it with other people. I share that knowledge with people as a way of saying thanks to Jeff, Bill and Don for getting me involved in a hobby that has been very fulfilling, helped me to get closer to my son, and extremely educational – not to mention the great friends I've met.

You can give back too simply by volunteering at Hyde Observatory on just one Saturday evening a month. You don't have to be an astronomy expert to do it either and Steve will teach you everything you need to know. This past Saturday was fun with lots of people very interested in learning about astronomy, the stars, the moon and Saturn. The time passed quickly and made a very hazy night with poor visibility enjoyable. If you're not already volunteering for Hyde then consider it now and contact Steve Lloyd. You don't know who you'll inspire to take up the hobby of astronomy.

I also want to remind everyone that we really need you to register for the MSRAL Convention (June 4th, 5th, & 6th). We are only 7 weeks away and need to have people registered so that we can finalize our plans, get head counts for the banquet, etc. You really don't want to miss this convention. With speakers like Rob Landis, Pete Schultz, Larry Stepp and Rick Johnson his astrophotography these speakers are worth the price of admission alone! But you also get the banquet included in the registration - how can you beat a deal like that?! So register today. Oh, and we can really use volunteers to help out with things for the convention. So if you're willing to help the club put on this fantastic event please contact Steve Lloyd right away. Thanks!

We don't have any outreach events coming up in the next month and because of the work needed on the MSRAL Convention we are not actively looking any, but we also won't turn them down. However, we do have some annual events that we set up for and following is a list of them so you can plan ahead:

Hyde Observatory: While we don't (yet) count Hyde as Outreach, it really is. We talk to thousands of people every year who come to Hyde to enjoy the observatory or who have strong interests in astronomy. Many people come specifically to find out how they can get help with or to join the hobby and we usually direct them to the PAC meeting. It's every Saturday and I know Steve can use volunteers.

Waterfest: June 12th from 5-8 pm. This is a celebration of the environment, the sun and of Holmes Park. We set up for Solar Viewing if weather permits. Over 3,000 people attend this so we need help. It's at Holmes Park, north side.

Spring Creek's Twilight on the Tallgrass: In September (date not set but usually around 1st quarter moon). We like to have at least 6 telescopes (more is better) to set up for this event. The scopes set up on the Prairie as 1 of about 3 stations for hikers to stop at during a nighttime trail walk. The event usually attracts between 300 and 400 people and is at Spring Creek Prairie west of Denton with viewing form about 8 pm to 10 pm.

Homestead National Monument's Howling Halloween: This is the Federal Park's Open house and is geared toward kids and their parents and is usually held the Saturday before Halloween. It attracts over 400 people and is west of Beatrice.

What if you're contacted for Outreach? If you are contacted for an Outreach Activity and want to handle it, that's great – I don't need (nor want) to be involved with every event that we do. I do, however, ask that you let me know about it and afterward send me information about the event so I can track and log it. I need:

Event Name

Event Location

Organization

Contact Name and Information (phone, email, etc)

Volunteers (and who organized)

Event Date & Time – include set up time – so we can track volunteer hours

What you did (i.e. Set up scopes, did presentation or a talk, etc.)

STS-131 Photos



The launch of STS-131 on April 5th. Photo by Jack Dunn.



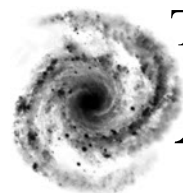
Clay pauses to give a Vulcan salute during final checkout before boarding Discovery.

Discovery docked at ISS - Clay and his Huskers cap visible on the flight deck.



Meanwhile, back in Lincoln, "flat Clay" presents Hyde Volunteer of the Year award to Steve Lloyd.





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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FIRST CLASS MAIL

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Next PAC Meeting
TUESDAY
April 27, 2010
7:30 PM
Hyde Observatory