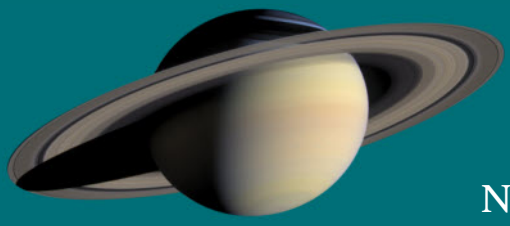


The Prairie Astronomer

November, 2007 Volume 48, Issue #11

The Official Newsletter of the Prairie Astronomy Club

PAC Program

At the November meeting: New VP Cassie Etmund will give us a brief background on how she got interested in amateur astronomy.

A new 12 minute video about the Webb Space Telescope.

Jack Dunn will finish the story of Clay Anderson's flight aboard the International Space Station (with pictures).

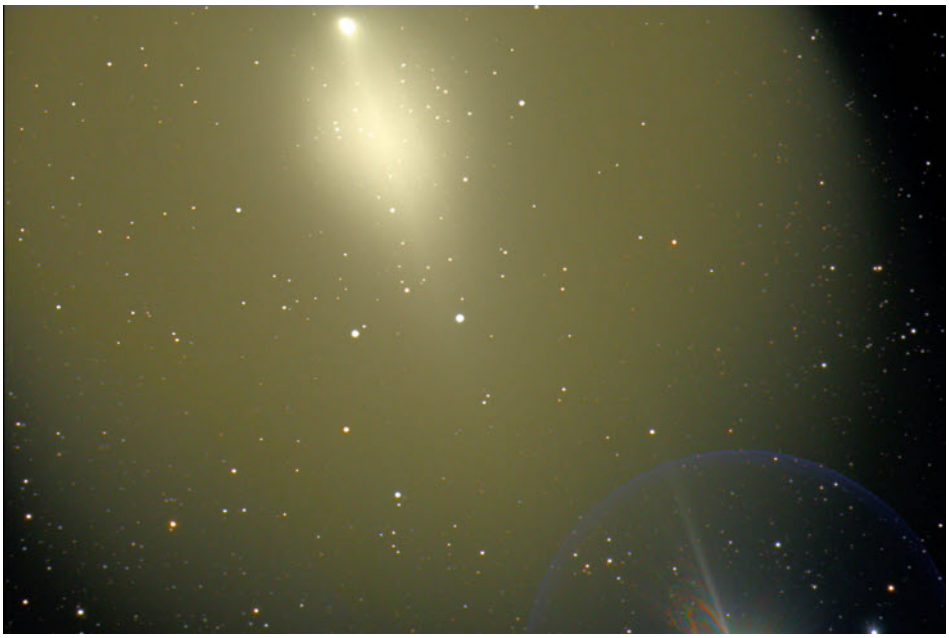
In This Issue

Beginning Astronomy Field Class Observing Report and Astronomy Seminar Class Report.

Featured Astrophoto

Comet Holmes, by Rick Johnson. This image shows a tail coming out of an overexposed pseudo nucleus then moving through a bright area. Several streamers then exit the bright area. But there's no hint of the blue tail seen on the 4th. The odd artifact at the bottom edge is caused by Alpha Persei just outside the frame. The comet is moving several times faster in our sky than it was earlier so you see color fringing on the stars due to this motion. The frames were taken over 8 minutes consisting of 7 one minute frames. First 4 luminosity frames then a red, then green and lastly blue frames. All were taken tracking the comet so the stars are elongated and show color fringing.

Measuring the coma size is difficult since it is larger than the frame. I estimate it at about 36 minutes of arc. At the comet's distance of over 1.6 AU that comes out to 1.6 million miles or nearly twice the sun's diameter.



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

Saturn image courtesy NASA.

Beginning Astronomy Field Observing Class Report—Jim Kvasnicka

The Beginning Astronomy Field Observing Class was held on October 19th at Hyde Observatory. Twenty people were signed up for the class including two children. The volunteers who helped with the class were Dan Delzell, Lee Taylor, Bill Lohrberg, Cassie Etmund, Dave Churilla, Dan Kincheloe and myself.

I started the class by welcoming the students, introducing the volunteers and giving a brief summary of what the class would cover. Dave Churilla then gave a PowerPoint presentation on buying a telescope.

After Dave's presentation the class moved to the observing deck where Lee Taylor and Bill Lohrberg identified the different parts on the telescopes along with an explanation of their function and how they relate to the telescope.

The class then moved outside. The class split up and each volunteer had 2-4 students with them at their telescope. Cassie Etmund went over alignment of the finder and why this is critical to using a telescope. We discussed the difference between a finder scope and a unit finder. The volunteers let the students look through their finders and allowed them to align them. After the students all had a chance to look through the finders and align them we turned the telescopes to the moon. We let the students point the telescopes and use the finders to locate the moon. We observed the moon using low, medium and high power.

After everyone had a chance to observe the moon we took a break. Dave Churilla provided bottled water and juice for the class and I brought cookies for all. The break was a nice opportunity for the students to ask questions and for all to relax for a while.

After the break we gathered the class back together and I gave a talk about eyepiece basics. We just observed the moon using low, medium and high power and I explained how the eyepiece determines the magnification and the field of view that you see. We discussed what a barlow lens is and other topics related to eyepieces.

Dan Delzell then led the class on how to read star charts and locate constellations. We identified the Summer Triangle and the major constellations. Everyone was given a star chart and they all did a great job of locating and identifying the different constellations. After Dan's discussion we moved back to the telescopes. In their handouts the class had Telrad maps for different DSOs. These DSOs were located in the constellations they had just identified. The DSOs included Albireo, M13, M31, M15, M57, NGC 457 and the Double Cluster. The volunteers located the objects for the students to observe. They then moved the telescope and let the students find the object using the Telrad maps. Some of the students did a fantastic job of locating the objects for not having any experience prior to the class. You could sense the excitement in the class and the students. They were all excited and thrilled to be looking through the telescopes and to be locating the DSOs on their own, maybe with a little help.

It soon was 10:00 and I dismissed the class. Some of the students stayed a little past 10:00 observing other objects. We started to pack up around 10:15 and the last students left. The class was fun to do and we received numerous positive comments. The students were all very thankful and appreciative. One student said it was the best $8.00 he ever spent. I would like to thank all the volunteers who helped with the class. It is because of them that the class was so successful.

Club Events

PAC Club Meeting
Tuesday, November 27, 2007
7:30pm @ Hyde Observatory

Club Star Party
Friday, December 07, 2007

PAC Club Meeting
Wednesday, December 26, 2007 (tentative)
7:30pm @ Hyde Observatory

Next newsletter submission deadline: December 17th.

FOR SALE

For Sale: Orion SpaceProbe 130ST EQ, Equatorial Newtonian Reflector Telescope, #9007, 5.1"/f5, 6x Finder scope, 25 mm Plossl, 10 mm Plossl, 6.3 mm Plossl, 2x Barlow Lens, Variable Polarizing Filter, Aluminum Attache Case for Eyepieces, Full Instructions
Purchased new in September 2001 - Barely Used - $275.00, Ph. 475-7805

For Sale: Meade 1998 Vintage Starfinder Dobsonian (Equatorial Mount available -see below) Asking Price: $375,10" Mirror, F4.57, FL = 1140 mm, Tube Length 45" - Sonotube, Also for sale: Orion Atlas Mount, Only 1 year old and shows very little wear. Asking Price: $ 950. Contact: Dave Churilla 402-467-1514.

For Sale: I have an 8" LX200 with a heavy field tripod and latest goto software upgrades and several power sources. I would like $800. Dave Hamilton.

Club Telescopes - Checkout Policy

To check out one of the club telescopes, contact Cassie Edmund at 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

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.

Club Business

Minutes of the October PAC Meeting

Ron Veys called the meeting to order.
Attendance: 18 PAC members and 4 visitors. Ron discussed upcoming club events:
· The next club star party will be held Friday, November 9 at the farm.
· The next club meeting will be Tuesday, November 27.
· An Astronomy Seminar will be held on November 8.
· Hyde Observatory is open from sundown to 10:00 pm on Saturdays.
Pete Schulz presented a special program at Hyde Observatory on October 26.
The topic of Pete's program: "Is the Moon a "dead" world, without change and totally inactive?
Or could it be "alive" with change?"

Treasurer's report: No report this month.
Lee Thomas is taking orders for the RASC Handbook.
PAC accepted the generous donation of a Meade LX-200 telescope from Jerry Kreps.
Another individual donated a partially ground 6-inch mirror.
Observing Chairman's report: Jim Kvasnicka discussed the October star party and upcoming observing highlights for the month of October. The big news this month is the sudden brightening of Comet 17P/Holmes. This comet should remain quite bright and easy to observe for at least several weeks. The Leonid Meteor Shower will peak on the evening of November 17-18.

Outreach Coordinator's report: Dave Churilla reported that the Astronomy Field School on October 19 was a big success. They received many favorable comments from the students. Twenty students were registered and the actually had to turn some people away. The "Howling Homestead" event at Homestead National Monument was also very successful. Dave Knisely estimated that about 200 people attended this event. Dave Churilla also mentioned that an Astronomy seminar will be held on November 8. Seventeen people are registered for this class. Jim Kvasnicka brought up the fact that PAC has used his mother-in-law's farm as an observing site for 2 years, and that it would be nice to give her a small gift as a token of our appreciation. The club agreed and voted to give her a $50 gift certificate to SouthPointe Pavilions shopping center.

Nominations were taken for PAC officers for next year, and elections were held.
The following individuals were elected:
President: Brian Sivill
Vice-President: Cassie Etmund
Secretary: Lee Taylor
Treasurer: Lee Thomas
2nd Vice President: Jack Dunn

The meeting was adjourned to the program. Taylor Chonis presented a program on his internship at Mauna Kea.
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Submitted by,
Bob Leavitt

Observing: What to View in November -- Jim Kvasnicka

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

Geminid Meteor Shower
The Geminid meteor shower peaks on the 14th of December around midday in North America. Activity should be strong on the preceding and following nights.

Comet 8P/Tuttle
May reach naked-eye visibility as it races across Cassiopeia in late December. The best viewing will be in January. Watch for finder charts on SkyandTelscope.com.

Planets
Jupiter: Lost in the Sun's afterglow.
Mars: Rises after the end of evening twilight at the start of December. Mars will peak in brightness at -1.6 in mid to late December and reach a size of 15.9".
Saturn: Rises around midnight at the start of December and by 10 pm at the end of the month. Saturn's rings are tilted only 7°. This makes the planet much fainter with a magnitude of 0.6 to 0.7.
Venus: Continues to shine bright in the morning sky at -4.2.
Uranus and Neptune: Very dim in Aquarius and Capricornus sinking lower.

December Messier List
M2: A bright globular cluster in Aquarius.
M15: A bright globular cluster in Pegasus surrounded by several bright stars.
M29: An open cluster in Cygnus.
M39: A large and bright open cluster in Cygnus.
M31: The famous Andromeda galaxy. Use a low power eyepiece.
M32: A companion galaxy to M31.
M110: Another companion galaxy to M31. On the opposite side from M32.
Last Month: M27, M30, M56, M57, M71, M72, M73
Next Month: M33, M34, M52, M74, M76, M77, M103

NGC Objects
NGC 246: The Pac Man nebula in Cetus.
NGC 247: Galaxy in Cetus.
NGC 470/474: Galaxy pair in Pisces.
NGC 925: Galaxy in Triangulum.
NGC 1333: Reflection nebula in Perseus.

Double Stars
14 Aurigae: Bright yellow and pale blue stars.
Zeta Piscium: White primary with a yellow secondary.
51 Piscium: Beautiful blue-white and greenish pair.
Gamma Ceti: Triple star. Close white and yellow pair with reddish dwarf 14' away.
Alpha Ceti: Orange giant forms a wide double with the blue star 93 Ceti.

Challenge Object
IC 405: The Flaming Star Nebula in Auriga. A UHC filter reveals a huge, extremely faint glow spreading north of AE Aurigae.

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.

Photos from the Astronomy Seminar Class

Astronomy Seminar Class Report—Bob Leavitt

An enthusiastic group was on hand for the fall Astronomy Seminar, which took place November 8th at Hyde Observatory. Sixteen people attended the class, including four children. The instructors were Steve Lloyd, Brian Sivill, and myself. Our main topic for the evening: "The Solar System."

The class began with a near disaster, as the computer projector wouldn't turn on. Luckily Brian was able to borrow one from his office. We rearranged the schedule to start with something that didn't require a projector while Brian quickly retrieved his projector and hooked it up. (Whew!) After that the rest of the class went smoothly.

The class began with a discussion of constellations and planispheres, followed by a constellation talk out under the stars. We then presented an overview of the solar system. This included some PowerPoint slides and a 3D solar system simulation using a software package called SSSIM.

Our next topic got students up out of their seats and directly involved in the class. We wanted to illustrate motions of objects in the night sky and have them see it in action. First we handed everyone a 3-foot square piece of butcher-block paper and some crayons along with a small picture of a constellation. These were the constellations of the zodiac plus a few extras. Then we had them draw a large picture of their constellation on their big sheet of paper. Next we hung the constellations on the walls as they appear in the sky (well at least we had them in the correct order).

Brian made a set of props for the Sun and planets by painting some Styrofoam balls and attaching them to sticks. We had some students stand with the planet props in the correct solar system positions. Using our model we showed how different constellations (on the walls) appear in the night sky at different times of the year, and what it means for a planet to be "in" a constellation. Then we put the planets in motion. I know the lady who was holding Mercury understood what we had been talking about. She moved with Mercury quickly around the Sun, and yelled to Neptune, "Hey, you're moving too fast! Neptune is supposed to go slowly in its orbit." As you can imagine, everyone had a great time with this activity.

After a short break we moved on to phases of the moon and eclipses. Again the props came in handy. The last topic was astronomy resources (books, magazines, and web sites for beginners), upcoming astronomical events, and PAC activities.

Steve did an excellent job of leading the class and keeping us on schedule that night. He also brought refreshments, including some delicious chocolate-chip cookies baked by his wife Ann. A special thanks should go to Brian for rescuing us when the projector failed, and for making the solar system props. All-in-all the class went well. It was a lot of fun and everyone seemed to have a good time. We had many thank-yous and positive comments at the end of the night.

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.

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
November 27, 2007
7:30 PM