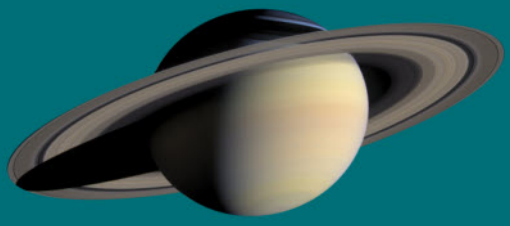

The Prairie Astronomer

June, 2008 Volume 49, Issue #6

The Official Newsletter of the Prairie Astronomy Club

PAC Program

To be announced.

In This Issue

Focus on Observing Clubs, Waterfest report, Brian Sivill Bio, Rick's Observatory Update.

Featured Photo

By Rick Johnson: Arp 18, cataloged as a spiral with a Detached Segment. More commonly known as NGC 4088 this galaxy is 42 million light years away as is its companion NGC 4085 at the bottom of the picture. 4088 has the detached segment which is the piece at the upper left. They have the same radial velocity which is rarely the case with interacting galaxies. Something disturbed NGC 4088 that's for sure. The detached part of the galaxy carries a separate designation of SDSS J120543.59+503319.0 ID and has a very different radial velocity. The core of the galaxy is receding at 823 km/s relative to our galaxy but the detached piece of an arm is moving away at only 661 km/s a difference too great to be due to rotation of the galaxy alone. So there's still a mystery here.

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

Saturn image courtesy NASA.

Focus on Observing Clubs--Jim Kvasnicka

Open Cluster Observing Club

Last month we looked at the Globular Cluster Observing Club. This month we will highlight the Open Cluster Observing Club.

The Open Cluster Observing Club is not just the observation of the 125 selected open clusters, but the ability to classify them using the Trumpler classification system.

There are two types of programs within the Open Cluster Observing Club:

Basic Program

- Observe any 100 of the 125 open clusters on the list.
- Sketch any 25 of the 100 open clusters you observe.
- Classify all 100 observed clusters using the Trumpler classification system.
- Any method may be used to locate the open clusters including GO-TO.

Advanced Program

- Observe all 125 of the open clusters on the list.
- Sketch any 50 of the open clusters you observe.
- Classify all 125 observed clusters using the Trumpler classification system.
- Any method may be used to locate the open clusters including GO-TO.

Only the Advanced Program will count toward the Masters Observer Award.

For each object the observer is required to record the location, date, time, seeing conditions, telescope size, magnification and a brief description of the object. Also required is the Trumpler classification of the open cluster. Trumpler identified three features in an open cluster.

- **Degree of Concentration**
- **Range of Brightness**
- **Number of Stars in the Cluster**

On the Astronomical League website you can download and print a guide to the Open Cluster Observing Club which includes the list of 125 open clusters and a detailed explanation of the Trumpler classification system including examples.

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

List of PAC Open Cluster Observing Club Awardees
No PAC member has completed the Open Cluster Observing Club.

Club Events

PAC Club Meeting
Tuesday, June 24, 2008
7:30pm @ Hyde Obsv.

Club Star Party
Friday, June 27, 2008

Club Star Party
Thursday, July 3, 2008

Astronomical League Convention
July 18 and 19 in Des Moines IA.

Club Star Party
Friday, July 25, 2008

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

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

Club Star Party
Friday, August 01, 2008

Next newsletter submission deadline: July 18th.

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

Alternate Dates:
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 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

Panhandle Astronomy Club
Panhandleastronomyclub.com

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

Brian Sivill called the meeting to order. Attendance: 20 PAC members and 4 visitors.

The next PAC meeting will be June 24

The next star parties will be May 30 and June 6 at the farm.

Waterfest will be June 14 at Holmes Park. Dave said he expects a large crowd since they will be setting up their scopes on the north side of the park.

The Astronomical League convention will be July 18 and 19 in Des Moines IA.

The 15th annual NSP will be July 27 – August 1 at Merritt Reservoir. Early registration is available until June 1 ($35 for adults, $10 for children under 13). After June 1 the adult price goes up to $45.

Dates for Mahoney Star Parties: May 9, June 13, July 11, and August 8. Brian encouraged PAC members to attend to show our support for these star parties and OAS.

Treasurer's report: Lee Thomas reported that the club has a total balance of $38,689.60.

Outreach Coordinator's Report: Dave Churilla discussed the PAC field school, which had been rescheduled to May 23. It was cloudy once again so the class was held entirely indoors. Dave also discussed the upcoming Waterfest event.

Observing Chairman's Report: Jim Kvasnicka reviewed the last star party and discussed what's up in the sky for June. He also talked about the Astronomical League's Globular Cluster observing award.

The meeting was adjourned to the program. Jack Dunn gave an Astronomy Day recap and Mark Dahmke showed a high definition video with scenes from Astronomy Day. Jack Dunn then gave an update on the Mars Phoenix Lander along with the latest photos.

Submitted by

Lee Taylor
as reported by Bob Leavitt

Observing: What to View in July -- Jim Kvasnicka

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

Planets

Mars: Begins July only 3/4° above Regulus and 5° to the lower right of Saturn. On July 9-10 Mars and Saturn are separated by only 0.7°.
Jupiter: In Sagittarius shinning brightly at magnitude -2.7.
Saturn: In Leo at magnitude 0.8. From July 6th through the 13th Saturn and Mars are less than 2° apart. They are the closest on July 9th and 10th.
Venus: Very low in the western sky. Only 5° above the horizon.
Mercury: Look for Mercury 45 minutes before sunrise just above the ENE horizon.
Uranus and Neptune: In Aquarius and Capricornus.

July Messier List

M3: A bright globular cluster in Canes Venatici.
M4: Globular cluster in Scorpius. Look for the line of bright stars crossing the center.
M5: Large bright globular cluster in Serpens Caput.
M53: Globular cluster in Coma Berenices.
M68: Dim globular cluster in Hydra.
M80: Small globular cluster in Scorpius.
M83: Face on spiral galaxy in Hydra.
Last Month: M58, M59, M60, M84, M86, M87, M88, M89, M90, M91, M98, M99, M100
Next Month: M6, M7, M8, M9, M10, M12, M19, M20, M21, M23, M62, M107

NGC Objects

NGC 6210: A star-like blue planetary nebula in Hercules.
NGC 6572: A tiny blue planetary nebula in Ophiuchus.
NGC 6940: A fairly rich open cluster in Vulpecula, over 60 stars.

Double Stars

Nu Draconis: Equal pair of white stars.
Psi Draconis: Light yellow pair.
40/41 Draconis: Equal pair of light yellow stars.
Xi Scorpii: Yellow and light blue pair.
Struve 1999: two yellow-orange stars.
Beta Scorpii: White primary with a light blue secondary.
Nu Scorpii: Yellow and light blue pair.
Delta Serpentis: Pale yellow pair of stars.
Theta Serpentis: Blue and white pair.

Challenge Object

NGC 6027: Seyfert's Sextet; a compact group of 6 small and faint galaxies in Serpens.

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.

Waterfest 2008—Dave Churilla

Waterfest 2008, a celebration of Holmes Park and Green Earth, was held on June 14th.. A part of that celebration was Hyde Observatory. Representing both Hyde and PAC were myself, Jim Kvasnicka, Bob Kacvinsky, Joey Churilla, Dan Delzell and - the best for last - Cassie Etmund.

Jim and I arrived at Holmes Park at around 3:45 PM to find that despite my requesting clear western skies they had put us in a tent with trees to our west. We traded with another group to have the telescopes on the Northeast side. That gave us a view of the sun for the whole time, which was from 5-8 PM. We asked how far in the middle we could go and the organizer said we should not go to far as last year they had 3,000 people here. Jim and I looked at each other and although we didn't say it we both thought "Oh _ _ _ _!"

We began setting up and were ready by 4:30. The sun wasn't very active, but there were 2 decent prominences to let people view. We had Jim's Dob with a White Light filter... too bad there weren't any sunspots however. I had my PST set up and it was manned by Cassie as well as my NexStar with the T-Scanner which was run by Joey. Dan and Bob ran the table which had my laptop with a short PowerPoint about the sun as well as a PowerPoint with the planet and star comparisons that Bob L sent to us a long time ago as well as a demo from one of the Night Sky Network Kits. I handled a little crowd control and told people as they waited what they were going to see and what to expect as well as announcing Hyde's hours and what they might see there and talked about PAC.
People started coming by 4:40 and by 4:45 we were swamped.

Organizers told me that just over 1,500 packets were picked up (one to a family) and they thought that somewhere between 2,000 and 3,000 people were at Waterfest. I'm pretty sure most came to look through the telescopes to look at the sun. Most of those also went to our table to listen to Dan and Bob talk about eclipses and the sun as well as Hyde and PAC.

Many, Many, Many thanks go out to Cassie, Joey, Bob K, Dan D and Jim for their help today. Without them this would have been very, very difficult. Crowd control, as you might expect was a minor nightmare but people were very well behaved. Just to give you an idea, between 4:45 and 5:30 PM there were between 15 and 20 people ALWAYS at each scope waiting to view. It slowed down after that to about 7-8 people per scope but didn't really let up until around 7:30. At least that was when Joey, Cassie and Jim had a chance to sit for a minute. With the sun getting blocked by clouds, Jim and Joey put their scopes on the moon. Cassie stuck with the sun (well, she had to with the PST) and a few late comers still got a brief look at the prominence.

We kept plugging PAC and Hyde... hope Hyde wasn't swamped tonight because of it :) All in all it was a good, if not very tiring evening. More scopes and help next year would really help.


THE Prairie Astronomy Club
www.PrairieAstronomyClub.org

Brian Sivill

Hello fellow members of the Prairie Astronomy Club,
My name is Brian Sivill and I'm your current club President.

I'm a 46 year-old native Nebraskan. I grew up in South Sioux City and graduated from South Sioux City High School in 1980. I attended UNL for two years, but eventually found my direction as an Electronics Tech graduating from Western Iowa Tech in 1985.
I moved to Nashville, Tennessee that year where I began my career in servicing and installing medical imaging equipment. In 1998, BryanLGH Medical Center hired me to maintain their six cardiac catheterization labs (Cath Labs) here in Lincoln.

My interest in Space and Astronomy started fairly young. I would often watch the August Perseid meteor shower from the roof of my Uncle's cabin along the Missouri River, eventually attracting over a dozen compatriots -imagine a dozen kids on a roof!
At age 13, my mother gave me the book "A Field Guide to the Stars and Planets" which I poured over for perhaps years. My fate toward becoming an amateur astronomer was ultimately sealed one calm summer night when a friend showed me M13 through his 8 inch telescope –right in his front yard. I've had a passion for all things unworldly ever since.

I learned of the Prairie Astronomy Club after I had done a web-search and found Hyde Observatory's web site. The first time I came to a club meeting, I felt I had found friends. That was over 10 years ago. I now count many of you some of my closest friends.

The Prairie Astronomy Club has given me a way to enjoy my interests in astronomy with good company. Many members are dedicated volunteers and passionately share their interest with the general public. Some members enjoy astronomy in considerably different ways, web surfing, reading books, science TV etc. The Prairie Astronomy Club tends to be the intersection where many of our varied interests meet.

I've enjoyed being a member in this club for the last 10 years, and look forward to fulfilling my current role as club president.

Sincerely,
Brian Sivill
President, Prairie Astronomy Club

Observatory Update—Rick Johnson

First up is a black and white shot (clouds prevented color which wouldn't have added much anyway). A famous object for beginning amateur astronomers with small telescopes is the Double Cluster in Perseus. There's a far more distant double cluster with far more stars. The stars of the double cluster number in the hundreds but this "double cluster" has trillions of stars as it is a double galaxy cluster. Known as Abell 1758 it is some 3.1 billion light years away, compared to 7000 light years for the Double Cluster. Or 436,000 times more distant. It consists of some 200 galaxies in two groups making it look a lot like the "Double Cluster" except each "star" is really a galaxy of many billions of stars. The light left this cluster when the first very primitive life forms (more primitive than bacteria of today) were the only living thing here on earth. This was taken in very high winds. I shut down before I wanted to as winds were hitting 45 mph which was shaking the pier a bit too much for imaging and endangering the rolled off roof. Some elongation of stars is seen due to these high winds.

Continuing with my Arp Galaxy series here is Arp 205. I ran Arp 206 last update. Both are classed as "Material Ejected From Nucleus". It is also known as NGC 3448 with the nearby, very faint spiral cataloged as "companion" by Arp and UGC 6013 by everyone else. I assume the "Material Ejected From Nucleus" is the large bright lump somewhat disconnected from the galaxy at the upper left rather than the tidal arms. Radial velocity puts NGC 3448 at 68 million light years and UGC 6016 at 74 million light years. These distances are likely somewhat wrong as the redshift of both has been altered by their passage by each other. The real distance is probably more like 70 million light years if 3448 is significantly more massive than UGC 6016 which appears likely.

Above and a slight bit right of NGC 3448 is the galaxy cluster ZwCl 1051.4+5440. It is a galaxy cluster much like Abell 1758 in last weeks update. It too has two major elliptical galaxies but only one, the one on the left, has attracted a following. The one on the right has only one obvious nearby companion. At the very lower left corner a few outlying members of another cluster ZwCl 1053.4+5427 are seen. The former is about 2.1 billion light years away light travel time while the latter has yet to have its distance measured that I can find. Just not enough grad students to do the work it would seem. The entire field is full of faint, very distant galaxies most of which have not been measured for their distance.

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
June 24, 2008
7:30 PM