



The Prairie Astronomer

July, 2010

Volume 51, Issue #7

The Official Newsletter of the Prairie Astronomy Club

PAC Program

Video presentation - "The Ecstasy and Agony of Planet X" and "Journey to the Stars."

In This Issue

Observing in August, Focus on Constellations, Focus on Outreach.

We need your feedback about the club! Take the online survey. See page 4.

Another incredible image by Rick Johnson. "Arp 295 is another Zwicky connected pair of galaxies. The southern one is MCG -04-60-021 which is classed as Sc? pec and is a possibly LINER galaxy. The northern component is MCG-01-60-022 and classed as Sb pec."

Featured Photo

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



Club Business

June 29th, 2010 PAC Meeting

Announcements:

Dan Delzell called the meeting to order.

On June 4th we had MSRAL so there was no star party.

On June 11th no one attended the Star Party

The Lunar party had 4 attendees.

The next PAC star parties will be on July 9th.

There will be a lunar party on July 16th at Jim's.

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

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

Programs we are working on for upcoming PAC meetings.

John Rienert will share his work on his experiences on the Shuttle.

Steve Ingracie will talk about the Antikythera Mechanism

UNL microgravity team.

Observing Chair Report

Club Observing Chair, Jim Kvasnicka provided a review of the planets that are viewable during July which are Venus, Mars, and Saturn in the evening and Mercury by the end of the month. Jupiter, Uranus, Neptune will be appearing in the morning. Scorpius was the topic constellation also.

We concluded the meeting to talk about MSRAL and catch up with people from around the club.

Brett Boller

Secretary

Prairie Astronomy Club

June PAC Board Meeting Minutes

June 22nd, 2010 PAC Board Meeting Minutes

MSRAL Budget: Still haven't received UNL housing costs receipt. Overall it was an excellent MSRAL with very few changes that would be made to better it. Going to ask for 50% reimbursement of the budget back.

July Meeting: July will be video presentation.

August Meeting: John Reinhert, NSP roundup

Aug 14th Clay Anderson will be back

September Meeting: Speaker Steven Gracert: Ancient astronomical computer

October Meeting: How to buy a telescope

Cabinets on the deck will be designed by Steve Lloyd.

Outreach: We need more volunteers. We will put out a survey and have open forum in meeting to clarify outreach. We will pick the outreach events that we really want to do each year.

Newsletter: Would like to find someone to take over duties for the newsletter.

Cost of PAC book: Original budget was \$200, another \$100 for pictures. New costs is \$700 dollars. Approved

Gift certificates approved to Jim and Jim's family. Also need to take care of any additional gift certificates that have been awarded but not giving out.

PAC History Book – Mark Dahmke

Reminder - if you ordered a copy of the book, please pay for it ASAP if you haven't already, and contact me to pick it up. I'll bring them to the next club meeting.

The book was recently reviewed on the Astronomy.com blog site - so the club got some free publicity.

Club Events

Newsletter submission deadline, August 22, 2010

PAC Club Meeting
Tuesday, July 27, 2010 7:30pm @ Hyde Obsv.

Nebraska Star Party, August 8-13

Clay Anderson at Hyde Observatory,
Monday August 16

PAC Club Meeting
Tuesday, August 31, 2010 7:30pm @ Hyde Obsv.
Speaker: John Reinert

PAC Club Meeting
Tuesday, September 28, 2010 7:30pm @ Hyde Obsv.
Steven Gracert: Ancient astronomical computer

PAC Club Meeting
Tuesday, September 28, 2010 7:30pm @ Hyde Obsv.

PAC Club Meeting
Tuesday, October 26, 2010 7:30pm @ Hyde Obsv.
Program: How to Buy a Telescope

2010 PAC Star Party Dates

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

September 17th, October 15th, November 12th

Nebraska Star Party

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

Volunteer Activities

Spring Creek Prairie Twilight on the Tallgrass – September 18
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.



From the President—Dan Delzell

One of the things that I've most appreciated about the hobby of astronomy is the great number of ways you have to experience it. For me personally, I love visual astronomy. I love planning an observing session and spending hours under dark skies finding and viewing objects that most of the people in the world have no clue even exist. I also enjoy introducing people to the hobby. I share the thrill when I help someone view the rings of Saturn for the first time, or help someone get started using their first telescope.

But astronomy can be enjoyed many different ways. We have club members who enjoy the hobby by reading books, participating in discussion groups on the Internet and through presentations at PAC meetings. We have members who enjoy astrophotography and who are really good at it. Our club also has a social aspect that we need to cultivate. I really enjoyed the social time we had at our last club meeting. It was good to talk to and spend time with each other.

Given that astronomy can be enjoyed so many different ways, the club leadership wants to be sure that the club is meeting your needs. To do this, we've put together a very short survey we'd like you to fill out. It's less than 15 questions so it should take a few minutes, but also please give us feedback in comments. In surveys like this, it's often the comments that clearly communicate your answer.

We've tried to be a club for all types of members by planning PAC meetings targeted at beginners like the How to Buy a Telescope and How to Use a Telescope programs. We've also had more advanced programs by Jack Gabel and George Burba. We've tried social activities and we've expanded observing opportunities by adding the Lunar Parties.

Let us know how we're doing and also give us suggestions on making the club better.

Take the survey online at:

<http://www.surveymonkey.com/s/CT8WC2M>

August Observing: What to View--Jim Kvasnicka

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

Planets

Venus: Increases in magnitude from -4.3 to -4.6 in August.

Saturn / Mars: Look for them 7° to the upper left of Venus and only 2° apart. The three are the closest on August 7th forming a 4.8° circle.

Jupiter / Uranus: Both rise around 10:30 pm to start August and by 8:30 at the end. Jupiter brightens to -2.9 and its disk is $49''$ wide.

Neptune: Low in the west and difficult to see.

Mercury: Very faint in the evening twilight.

Meteor Showers

Perseids: Will peak the nights of August 11th and the 12th. Expect to see 100 or more meteors per hour. The moon will not interfere with your viewing.

August Messier List

M6: The Butterfly Cluster in Scorpius.

M7: Large open cluster in Scorpius.

M8: The Lagoon Nebula in Sagittarius.

M9/M10/M12: Class VI, VII, and IX GCs in Ophiuchus.

M19/M62/M107: Class VII, IV, and X GCs in Ophiuchus.

M20: The Trifid Nebula in Sagittarius.

M21/M23: Open clusters in Sagittarius.

Last Month: M3, M4, M5, M53, M68, M80, M83

Next Month: M13, M14, M22, M28, M54, M69, M70, M92

NGC and Other Deep Sky Objects

NGC 6445: Planetary nebula in Sagittarius.

NGC 6624: Globular cluster in Sagittarius.

NGC 6781: Planetary nebula in Aquila.

NGC 6818: The Little Gem, planetary nebula in Sagittarius.

Double Star Club List

Struve 2404: Close orange pair of stars in Aquila.

57 Aquilae: Pair of white stars.

Beta Cygni: Albireo, gold and blue pair.

31 Cygni: Yellow and blue stars.

61 Cygni: Pair of orange stars.

Epsilon Lyrae: The Double Double.

Zeta Lyrae: Yellow pair.

Beta Lyrae: Shellak, yellow primary with multiple white stars.

Challenge Object

NGC 6522/ NGC 6528: Two small globular clusters in Sagittarius that fit in the same FOV.

Focus On Constellations - Jim Kvasnicka

Lyra

Lyra the Lyre is one of the smallest constellations but it contains some big attractions. Vega is the brightest star in the summer and the fifth brightest of all the stars. Lyra has a wondrous deep sky object in M57, the Ring Nebula, one of the most observed and photographed objects in the night sky. Lyra is host of one other Messier object in the globular cluster M56. Epsilon Lyrae, the Double Double is a favorite telescope object. Lyra has its own meteor shower in the Lyrids which can be seen April 20-22 each year. Lyra is also prominent in astronomy history. Vega was the first star to have its picture taken in 1850. It was also one of the first stars to have its parallax accurately determined. Vega also will play a role in future astronomy history as well. In about 12,000 years Vega will assume the title of North Star. Lyra is best seen in August.

Mythology and History

Classical mythology links the lyre and the tortoise shell with the story of Mercury, who found a tortoise shell. He noticed the resonance when he tapped on the shell. This gave him an idea to drill holes in the shell along opposite ends. He then laced the holes with linen threads. The lyre was invented and Mercury played enchanting music. Apollo beseeched Mercury to teach him to play. Mercury traded the lyre to Apollo for the power to fly and Mercury became the swift messenger of the gods with his winged sandals. Apollo gave the lyre to his son, Orpheus, who learned to play with such talent that his music would soothe the wild beasts. After the death of Orpheus, Jupiter placed the lyre in the heavens, a jewel in the summer sky.

Objects Magnitude 12.0 and Brighter

Galaxies: NGC6703, NGC6792, NGC6745

Open Clusters: NGC 6791, Steph 1

Globular Clusters: M56

Planetary Nebulae: M57, NGC6765

Bright Nebulae:

SNREM:

Dark Nebulae:

Named Stars: Vega (Alpha), Sheliak (Beta), Sulafat (Gamma), Epsilon 1, Epsilon 2, Aladfar (Eta), Alathfar (Mu)

Number of Objects in Various Observing Clubs

Messier Club: 2 objects

Double Star Club: 4 objects

Herschel 400 Club: 0 objects

Globular Cluster Club: 1 object

Open Cluster Club: 2 objects

Planetary Nebula Club: 2 objects

Urban Club: 2 object

ANNUAL MEMBERSHIP

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.



Focus on Outreach–Dave Churilla

There's been much discussion about Outreach, both at Club Meetings and among the Executive Board. Soon, if not already, you'll be asked to give your input on this and other subjects in a survey for the club and as Outreach Coordinator I'm very much interested in your opinions.

I actually enjoy doing Outreach (which is a good thing since I'm the Outreach Coordinator), although at my age it's getting tougher to do the events – and I certainly did NOT pick the right telescope to drag around to them! One failing I have is being “TOO”....I can be TOO exuberant, TOO gung-ho, TOO worried about doing everything. Plus I have a very bad habit of projecting what I think onto what I think SHOULD BE DONE. My apologies for that – smack me up the side of the head (gently, I can't afford to lose any more brain cells) if I do it in the future. As I reflect on my own wishes to enjoy my own free time, something I seem to have less and less of lately, I realize that others have the same wishes or are not comfortable doing Outreach. That leaves a smaller group of members able to do Outreach. At first, that was frustrating. But I've come to realize that's OK and so far, thanks to some very dedicated volunteers, we've handled most of the Outreach Activities that have been asked of us. And even if we only do a few (like the ones listed below), that's still a heck of good Outreach effort, especially considering we also staff Hyde, which is a HUGE Outreach endeavor. It should be noted that “a few” can mean different things to different people. What activities we do may be considered by many as doing quite well; to me it seems meager sometimes. That's just one of those “TOO's” in me you'll have to pardon.

One other thing that we do for Outreach that many members may not realize is to contact guests to the PAC Meetings and invite them to a Star Party so that they can get the flavor of the hobby of Astronomy from an observing standpoint as well as to meet some of the great club members we have. This sounds (and is) easy, but it takes some time and effort to greet guests at the meetings and have them sign in, record their information and to keep emailing them to invite them to more meetings and to Star Parties. Currently, I, Jim K, Bob L, or Bob K greet guests to the meetings and have them sign in. I record their info in a spreadsheet and email them monthly until they attend a Star Party or say stop bothering me. We've been doing this since January 2009. This also takes time at the Star Parties as we have to “host” the guests.

As we've discussed Outreach among ourselves, I've come to realize that rather than not doing enough we are actually doing quite a lot for an all volunteer organization. We certainly do more than many other clubs in our region, especially with the resources at hand. Just so that you know, we currently have a core group of about 5 people who participate in nearly ALL Outreach Activities. In addition we have a few others who help as their schedules allow. It would be great to see that core group grow as that would enable us to do some other things with Outreach. Another Author's Note: the astronomy class was not done this year because of the efforts of the MSRAL Convention. We hope to resume that next year – hint hint!

So, what this long winded rambling is boiling down to is this. I've had to rethink what I perceive as my duties as Outreach Coordinator. When you read over and hopefully fill out the survey you'll receive keep in mind that you're being asked to contribute your thoughts on topics about the club. This is important for the club's leadership, now and going into the future, to help the club progress not only as they see it should but with the membership's ideas behind them.

Hopefully your input will help to define PAC's Outreach policy or at the very least help to give those who do it some direction. And if you'd prefer to just email me your thoughts or talk to me please feel free to do so. I'd welcome your input.

My personal feeling is that we currently do a very good job with Outreach Activities. We put out a quality “product” at each event. This is due solely to the efforts of the volunteers who help out and for that I thank them. Hopefully we can involve more people, especially some of the new members, in volunteering for Outreach and for Hyde, which will help distribute the work among more people. But remember, all this takes a commitment...not a difficult one, but a commitment nonetheless. For me, it's a commitment grounded in two labors of love: 1) the desire to share the hobby I love with people and 2) wanting to help the Club I've grown to consider a home away from home by growing.

Just my thoughts...for whatever they are worth (likely only that proverbial 2 cents).

If you've volunteered for an Outreach Event I, or whoever is in charge of that event, will normally email

you several weeks in advance with information about the event.

Here's what's coming up for the rest of the year.

Hyde Observatory: We still haven't exactly decided if we call this a Club Outreach "Event"...more an activity. I'll count it as Outreach though as PAC members are involved with volunteering to staff Hyde Observatory on Saturday nights. If you are not already volunteering, please consider doing so. It's not hard and can be a lot of fun. Don't worry, we won't throw you to the wolves...Steve does a good job of training you and there's a time period where you are teamed up with another experienced volunteer while you learn. But it's really not that difficult – Joey and I began volunteering before we could even find the Moon...well, Joey could but I couldn't! If you can't yet find objects there is always an experienced volunteer there to help out – and in time that helps you learn how. So contact Steve Lloyd today and start volunteering.

Prairie Life Learning Center: Tuesday, July 20th (Aug 3rd is an alternate date) from 9 pm to 11 pm. This one will likely be over for this Newsletter so I'll report on it in the next one (unless the alternate date was chosen). This is a small group of about 12 kids at the Prairie Life Learning Center a few miles south of Hwy 77 & Saltillo Rd. We were there last year but got pretty much clouded out. As of this writing it appears as though Jim Kvasnicka, Brett Boller and maybe Dale Bazan will be taking it. Thanks guys!

Spring Creek's Twilight on the Tallgrass: Saturday, September 18th from 5 pm to 8 pm. We like to have at least 6 telescopes 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. As of today we have 6 signed up with 4 maybe's (at least one scope – probably mine – will be at the building for those who

can't walk the trail). I've emailed the Wachiska Audubon Society to confirm things and am still waiting to hear back from them. The event usually attracts between 300 and 400 people and is at Spring Creek Prairie west of Denton with viewing from about 8 pm to 10 pm. I usually ask volunteers to get there by 6:45 pm as at 7 pm they'll take us out onto the prairie to set up. That usually takes about 30 – 40 minutes (driving and set up) and we're ready just before start time of 8 pm. We'll have, I think, 1st Quarter Moon already up to view.

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. So far I have 3 volunteers and 3 maybe's. I've emailed the park to find out when they will hold this and am waiting an answer. It will either be Oct 23rd or Oct 30th. It attracts over 400 people but in small groups of 15 to 20 and is west of Beatrice with viewing generally from 7 pm – 10 pm. We'll usually gather about 6 pm for this one so that we can again be led to the viewing area and set up.

What if you're contacted for Outreach? If you are contacted for an Outreach Activity and want to handle it yourself, 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.)

Got Milky Way?

We sure do!

THE NEBRASKA STAR PARTY

August 8th THROUGH 13th, 2010

MERRITT RESERVOIR,

27 MILES SOUTH OF VALENTINE, NEBRASKA



Still Got It - But Do I Want It?!—Dave Churilla

A Hopefully Entertaining “How NOT To” Essay

“Hey Guys,

You would have been proud of me last night. Talk about having the touch!”

That was the heading of my email to some friends.

The email read: “I went out about 9 PM to set up my new Astroview Pro mount with the Club Refractor OTA so I could Polar Align it as I wanted to use it with my PST on it for Solar Viewing.

So I set it up on the driveway. I decided since I had some time to wait until I could see Polaris I would try to get as close as possible to being right. So I used a compass to make sure I had it facing north as closely as I could, and then made sure it was level. Then I made sure that the OTA was aligned with the North axis as well as I could by my eye and the same with the Dec or vertical axis. Then I waited.

At last I could see Polaris naked eye and got ready to go to work. I first looked in the finder scope.... it was just a degree or so off center! Dang, not bad! Then I looked in the eyepiece. Dog gone if Polaris wasn't in the field of view! Darn I'm good! A few tweaks of the axis adjustments and it was centered. Then I released the clutches and moved the scope to Arcturus. 15 minutes of tracking and Arcturus hadn't moved a bit from center.

Just goes to show, even though I've graduated to a GOTO mount, I still have the touch :) “(end of email)

Of course, that's the official story. If only they had seen the sweat and blood that went into trying to get it to that point. Not to mention the fact that if you have your telescope facing north and, in Lincoln, tilted to about 40° you should be on Polaris. But that's beside the point.

First I had to get the mount out of the house. I didn't want to remove the brace/eyepiece tray so I maneuvered it through the hallway and foyer with a tripod that spans – gosh, it must be 10 feet, right! Bang, scratch on the wall. That's OK, it needs painting soon anyway. Thump...oops, sorry Shale (our Golden Retriever)...hope the headache goes away soon. Crash, tinkle...gosh, don't think the wife liked that vase anyway.

(Wiping brow) finally outside so can't do any more damage...arm is cramping so put down the mount dummy. Ok, let's set up here, in the open where there's a breeze. Better check if I have it pointing north. I open the compass, look through the sight and line things up. Looks great...but something seems wrong...what is it? I can't get that odd feeling of something amiss out of my head but I attach the refractor OTA to the mount and decide to align the finder....OH MAN...THAT'S IT. I look north and see....a huge Oak tree. Brilliant, just brilliant Dave...now you either have to raise each of the legs 15 feet or move the mount so Polaris won't be behind a tree!!!

New location, do the compass thing again...trying to align it perfectly. The mount points over one leg, so if I divide that leg between the other 2...do I have it centered...no, a little more this way – that's not right! 20 minutes later I settle on a center point and get the mount pointed north. I'm now sweating like a Sumo Wrestler in a Sauna (OK, I sort of look like one too) and take my shirt off to cool down (it's 87° out still, and it's nearly 9 PM). Ouch! OUCH! ‘Skeeters are all over the place – shirt goes back on (the neighbors thank me). Now check the angle...it's at 40°...good. Ok, put in an eyepiece – oops, it's over there...DANG IT! Picking myself up after tripping over the tripod leg I realize I've moved the scope. Sigh...I wipe my brow as I start all over again.

Now it's 9:20 and it's still bright as noon out. I swat at the ‘Skeeters and some imaginary gnats (blasted floaters! – when you get over 50 you'll understand that one) as time slowly, agonizingly ticks by. I notice that the scope's angle toward where Polaris should be puts the eyepiece quite low. I leveled the mount, but didn't raise the legs. Thinking things I can't say here I decide I DON'T want to redo everything so I resign myself to having to crouch to see anything through the finderscope. It's 9:35 pm and I start to look for Polaris (right, like I'll see it at that time with MY eyes – need Lammers or Knisely...they would have seen it HOURS ago). At 9:40 pm I see my quest albeit faintly. I look through the finderscope and nearly knock the telescope over again with my elation. Polaris is less than a degree off the crosshairs. And after all that it's even in the eyepiece field of view. A few tweaks and the mount is aligned.

I step back and look at my handiwork. I've been out

here an hour and in 2 minutes everything is done. Seems a waste to just put it away but with the Red Wood Forest surrounding my house there's little I can see that isn't **UP** and I'm not squatting for the next hour to peer into my eyepiece – remember, I didn't raise the legs!

Suddenly a terrible thought creeps into my head. I did ALL this just to align this new mount for my PST. The sun won't go into an early Solar Minimum will it?!!

That would be my luck...upgraded PST, new mount, and those 5 sunspots in June was Solar Max and the Sun goes dormant for the next 20 years!

Ah, the fun of Amateur Astronomy! One can enjoy the equipment, the fickle weather, and the thought that you actually CAN find something once in a while all by yourself. No wonder I prefer Star Parties to observing by myself...I can enjoy bothering everyone else! ☺

Microsoft and NASA Bring Mars Down to Earth

Microsoft Research and NASA are providing an entirely new experience to users of the WorldWide Telescope, which will allow visitors to interact with and explore our solar system like never before. Viewers can now take interactive tours of the red planet, hear directly from NASA scientists, and view and explore the most complete, highest-resolution coverage of Mars available. To experience Mars up close, Microsoft and NASA encourage viewers to download the new WWT|Mars experience at <http://www.worldwidetelescope.org>.

Dan Fay, director of Microsoft Research's Earth, Energy and Environment effort, works with scientists around the world to see how technology can help solve their research challenges. Since early 2009, he's been working with NASA to bring imagery from the agency's Mars and Moon missions to life, and to make their valuable volumes of information more accessible to the masses.

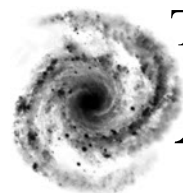
"We wanted to make it easier for people everywhere, as well as scientists, to access these unique and valuable images," says Fay. "NASA had the images and they were open to new ways to share them. Through the WorldWide Telescope we were able to build a user interface at WWT|Mars that would allow people to take advantage of the great content they had."

To create the new Mars experience in the WorldWide Telescope, Fay worked closely with Michael Broxton of the NASA Ames Research Center's Intelligent Robotics Group (IRG). Broxton leads a team in the IRG informally called the Mapmakers, which applies computer vision and image processing to problems of cartography. Over the years, the Mapmakers have taken satellite images from Mars, the moon and elsewhere, and turned them into useful maps. Broxton says that getting the results of NASA's work out to the public is an important part of his mission.

From the Newsletter Archives, July, 1963 – Mark Dahmke

The June meeting was a very enlightening one. Our valued member, Prof. Carrol Moore gave us the details of the coming ECLIPSE of the Sun. He had a special camera for taking pictures of the Eclipse and explained its use and construction. To we who love our astronomy so much, a meeting like this one is priceless. One of our most successful meetings for those present was the July 19 private STAR PARTY out in the open under the STARS. Jess furnished the Spot, NE of Cheney. The night was perfect, clear, the sky black as pitch, and not an obstruction of any kind and everyone was amazed at the depth of vision and the brilliance of the Stars, Clusters, Milky Way and etc. Pete used 400X with his 10 inch on the Ring Nebula M57 which gave us all an excellent view of the little smoke ring. Also M51 gave us a peek, for the first time, of spiral structure. Our six and eight inch scopes picked up the Trifid and Lagoon

Nebula as most brilliant and beautiful objects. Earl Moser had a great time finding the Star Clusters. At times having as many as two in his field at once. Harlan Franey kept us all busy as the official guide for finding many of the more faint objects by giving us the correct RA Dec from the several books he brought. One member said, "If you could see it at home with your scope, you could find it out there with the naked eye." The Robertsons, Jess and myself were astonished at the number of Clusters and Nebula we could see in Sagittarius using only binoculars and in some cases with only the naked eye. The Andromeda Nebula was a sight to behold. This was a great Star Party and we want to thank all who took part and especially those folks from Auburn who made the long trip to be a part of this occasion. We hope to repeat this type of meeting and Star Party soon. Dick Hartley, Program Chairman



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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{MM:CAREOF}
{MM:ADDRESS1}
{MM:CITY} {MM:STATE}, {MM:ZIP}

{MM:RENEWALDATE}

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