

The *Prairie Astronomer*

The Official Newsletter Of The Prairie Astronomy Club, Inc.

July 1997

Volume 38 Issue #7

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SECRETARY'S REPORT

Minutes From The June PAC Meeting

By Liz Bergstrom

The June 1997 meeting of The Prairie Astronomy Club was called to order promptly at 7:30 PM by president, Doug Bell. Doug brought up a trivia question. On the Moon at the Tranquillity Plateau, Doug stated that there is a plaque with four names listed, three those of astronauts, the fourth is not that of an astronaut. Check with Doug for the answer. Doug then asked if there were any guests in the audience. Our guest was Don Ediger who had been to the observatory on several Saturdays and decided to come to a meeting. He paid his dues to join the club. The club welcomed our guest.

What's Up: Galileo is fast approaching Jupiter. Pathfinder 4 is [was] nearing Mars. Stephanie Snedden is working on a project for TASS, doing research photometry. Please call or e-mail Stephanie if interested in helping with the research.

Site News: Earl Moser again stated that his pasture land near Hickman, NE is available to the club as an interim club observing site until more permanent arrangements can be made. Earl's pasture land can be reached by Hwy 77 south of Lincoln and then turning toward Hickman, NE. Doug reported that the dollars from the sale of the Atlas site have been placed into a money market fund for the time being.

NSP News: Jason Stahl and Tom Miller reported that the State of Nebraska has finished installing the rest of the light shields. Just to the east on the road that leads to the observing site and the Snake River campground, a new bait and tackle shop has been built. However, it can not be seen from the campground nor from the observing site.

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JULY & AUGUST MEETINGS & EVENTS

PAC MEETING

TUESDAY JULY 29, 1997, 7:30 PM
at Hyde Memorial Observatory

NEBRASKA STAR PARTY

AUGUST 2-9, 1997
at Merritt Reservoir, NE

PAC MEETING

TUESDAY AUGUST 26, 1997, 7:30 PM
at Hyde Memorial Observatory

BRIEFS:

The NSP Committee is looking for volunteers to lead a demonstration in mirror grinding and/or mirror testing on Friday August 8 at the Valentine High School. Equipment and materials will be provided. Call Dave Scherping at (402) 477-2596 or e-mail dscherping@juno.com.

The NSP committee is also looking for volunteers to help out in a number of non-technical roles. Here's your chance to get involved with NSP. If interested or just feeling generous (or guilty) contact Jason Stahl 438-4932.

WELCOME !!!

To our newest member

Don Ediger

Please send all submissions for The Prairie Astronomer to:

Dave Scherping

640 S. 30th St., Lincoln, NE 68510

(402) 477-2596

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Observing Chairman's Report

For August 1997 observing

By Doug Bell

New Moon:	Sunday, August 3rd
Lunar object:	Lacus Spei
Planet:	Jupiter
Messier monthly:	M 20
Top 40:	North America Nebula
Deep Sky:	NGC 6939
Challenge:	Shadows

Quote of the month:

"You can't step in the same river twice." - Heisenberg
"Splash me and your dead." - anonymous

Tip of the month:

Try naked eye lunar observing at twilight. You'll be surprised how much you can see.

Lunar feature: Lacus Spei

The Lake of Hope. What could be more fitting for a promising night of observing? Located in the extreme Northeast corner of the Moon. It will give you a challenge while waiting for the Moon to clear the field.

Planet of the month: Jupiter

The King of the Heavens reaches opposition on the 9th. Meanwhile the mutual events on Friday and Saturday night promise to be one of the highlights of this year's NSP.

Messier Monthly: M 20 The Trifid

Yes! It's the night of the trifids! Look for the famous dissecting dark lanes. Through my 8" at NSP, the reflection component appears nearly as bright as the emission component. But at home the reflection simply isn't there. Hmmm.

Top 40: The North America Nebula

One of the signature objects of the NSP. Remember the shirt two years ago? Check on a good night and see if you can it naked eye (the nebula, not the shirt). If not, keep the magnification low or use binoculars. As big as the Trifid is small.

Deep Sky: NGC 6939

An open cluster in Cepheus. Noted as "very rich". Probably has a fancy telescope too.

Challenge: Seeing Your Shadow

Does the Milky Way cast a shadow? How about Jupiter? Try it at NSP. You'll need a good night, a white surface, and totally dark adapted eyes.

Astro-Trivia:

Last month's answer:

We all know that Pluto is the farthest from the Sun, except for a few years every orbit! Pluto's orbit is so eccentric (like some people I know) that it is occasionally closer to the Sun than Neptune. Like now.

This Month's Question:

Why is it impossible to measure the speed of light?

Announcement:

The 1997 GREAT PLAINS STAR PARTY

**will be held
September 25-28, 1997
at Scopeville, Kansas**

Presented by: Kansas Astrophotographers & Observers Society

Guest Speakers:

**John Hall, Owner of Pegasus Optics
Tom Martinez "How To Collimate Your Telescope"**

Registration Fee:

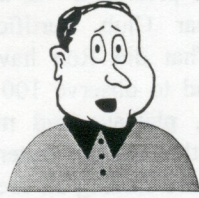
**Adults: \$30 before Sept 15th
\$40 at the door
Under 12: \$12 before Sept 15th
\$15 at the door**

Contact:

**Dan Johnson (913) 897-0235
Wayne Burnett (913) 381-2216
Jackie Wade (913) 469-0135**

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 \$15/yr, Family \$17/yr. Address all new memberships, renewals, or questions to: The Prairie Astronomy Club, Inc., PO Box 80553, Lincoln, NE 68501. For other club information, contact one of the following: Doug Bell -President (402) 489-8197, Ron Veys - V.P. (402) 486-1449, John Bruce - Treasurer (402) 483-0389. All newsletter comments and articles should be sent to: Dave Scherping, 640 S. 30th St., Lincoln, NE 68510 (402) 477-2596 or e-mail dscherping@juno.com ten days prior to the club meeting. Club meetings are held the last Tuesday of each month at Hyde Memorial Observatory in Lincoln, NE.

WANTED



NAME: ASTROMAN

ALIAS: "The Collimator"

DOB: 4-1-94

WT: .007 grams

HT: Varies between 1" & 3".

LAST SEEN: "The Prairie Astronomer",
April 1997 Issue

WANTED FOR:

FRAUD & PERJURY: On numerous occasions, he has claimed to see invisible objects.

USE OF DEADLY WEAPON TO COMMIT A FELONY: For using an averting eyepiece to commit above crime.

EYEPIECE LAUNDERING: For cleaning optics in a Maytag.

SMUGGLING: Masterminded a plot to smuggle home the astronomical accessories he and his cohorts purchased at the Nebraska Star Party without their wives' consent.

DEALING ILLICIT OPTICS: Indicted on 3 counts of selling highly addictive Naglers to innocent young astronomers.

DRIVING WHILE OBSERVING: Convicted 36 times for driving under the influence of stars. Convicted 19 times for observing under a suspended Messier Certificate.

ASTRONOMICAL ESPIONAGE: Suspected of sneaking peeks at faint galaxies through other people's scopes.

STAR SLAUGHTER: Knocked off 78 Messiers in one night.

DISTINCTIVE CHARACTERISTICS:

Multiple scars due to a close encounter with the Ford Galaxy.

Uses averted vision for every day activities.

Wears his Hershel Pin at all times, even to bed.

Addicted to Pyrex and other vision altering substances.

Compulsive collimator.

Extremely high IQ but very little common sense.

WARNING:

Recently escaped from the NSP Clinic For The Astronomically Obsessed. Extremely dangerous and unpredictable, especially at night. Becomes very irritable on cloudy nights and reacts violently to bright lights. Known to be heavily armed with a very large Dob. Severely afflicted with aperture fever which is highly contagious & known to cause bankruptcy and divorce.

Do not attempt to apprehend single-handedly.

Call 1-800-STAR-COP if spotted.

ASTRO - TRIVIA

Answers in next month's issue

1. Which planet has the greatest mean density?
2. Which planet has a moon named Oberon?
3. What is the name of the group of asteroids which precedes and follows Jupiter in its orbit by approximately 60 degrees?
4. Who discovered Neptune in 1846?
5. In which constellation is the south celestial pole located?
6. What is the 2nd brightest star in the sky (not counting the Sun)?
7. What is the popular name for the planetary nebula NGC7009 found in Aquarius?
8. What is the common name for β Ursa Majoris?
9. In which constellation would you find the "Blue Snowball"?
10. When did the supernova which created the Crab Nebula occur?
11. What is the color is the reflection portion of M20?
12. What is the name for the most prominent pair of spectral emission lines visible to the eye in the light from most planetary nebulae?
13. For what discovery did Albert Einstein win the Nobel prize?
14. In which constellation is the Galactic North Pole located?
15. What is the constellation that lies directly south of the teapot asterism of Saggiarius?
16. In which constellation would you find the "Eskimo Nebula"?
17. In which constellation is M16 located?
18. In which constellation is the radiant of the Quadrantid meteor shower?
19. What are the other two names for the open cluster known as the Coathanger?
20. What do you get when you divide the focal length of the eyepiece by the focal ratio of the telescope?
21. What are Thassaloids?
22. In which constellation is the "1st Point of Aries" located?
23. What is the brightest Seyfert galaxy?
24. Which planet has a moon named Amalthea?
25. What is another name for the Autumnal Equinox?

(These questions were taken from the Astro-Trivia Contest for 1993 Mid-States Convention of the Astronomical League)

The following is from Ron Balke at JPL:

Eugene ("Gene") Shoemaker, 69, was killed in a two-car accident near Alice Springs, Australia, on the afternoon of July 18. His wife Carolyn suffered broken bones, and is hospitalized in stable condition at Alice Springs Hospital.

Gene Shoemaker played an enormous role in the exploration of the Moon (along with other things he accomplished). Among those most notable to me were: (1) He recognized the role of impact craters in shaping the history of the Moon and led the group of people who first established the relative chronology of lunar surface features now in use; (2) He was the first to recognize the existence of and the means of creation of the lunar regolith (a term he coined for the surface rubble on the Moon); (3) He created the Branch of Astrogeology of the USGS which led the field geology teams for the Apollo missions. Gene was the team leader for Apollo 11; (4) He was the promulgator of the scientist - astronaut program that resulted in at least one scientist (Jack Schmitt) participating personally in the exploration of the Moon; (5) His continued studies of the role of impact were also critical in our understanding of catastrophic collisions with the Earth, among which are those collisions which terminated the dinosaurs at the Cretaceous/Tertiary boundary. In addition, our understanding of the impact origin of the Moon can be traced in part to his contributions. He made many other contributions, and was continuing his investigations of impact structures in Australia when he died. He was important for many of us who are interested in the Moon. Some of us owe our interest pretty much entirely to him. He will be sorely missed.

OCCULTATION OF ALDEBARAN BY THE CRESCENT MOON

July 29th

The following is an excerpt from an e-mail received from David Dunham of IOTA:

There is now only one week to the July 29th occultation of Aldebaran by the crescent Moon, one of only 3 easy naked-eye occultations of the star that will occur in the USA during the current 4-year series of these events. Information about the event is on pages 93-96 of the July issue of Sky and Telescope, and much more detailed information (predictions for almost 300 cities, Moon views for several cities, maps showing local times, graze path details and maps) is on IOTA's lunar Web site given at the bottom. Much remains to be done, and you can help.

David W. Dunham, IOTA
email: dunham@erols.com phone: 301-474-4722
IOTA Web site: <http://www.sky.net/~robinson/iotandx.htm>

SECRETARY'S REPORT

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Other News:

Ron Veys, our vice president, was the first in our club to be awarded the Lunar Club Certificate. He was awarded certificate #53. What did Ron have to do to receive the certificate? Ron had to observe 100 different items, such as craters, mountains, plateaus and mares. He said that the observing was mostly of moon craters. Ron said that he spent one night at his house finding all the listed items. He said he used a lunar map to plot where and what he was going to observe. Del Motycka piped up and asked if Ron could be called and referred to as "Looney". Everyone had a good laugh over that remark. Ron said for some of us to get busy and start observing. It's lots of fun.

Earl Moser gave a short report on the Astronomical League's Mid- States Convention held in June in St. Louis, MO. He said that there was lots of talk about NSP4. Dr. Morton Friedlander spoke about the significance of Stonehenge in England and a little known site in the US named Woodhenge. Woodhenge was created about 1,000 to 1,500 years ago near Kohokio, Illinois by the local indian tribes in that location.

Doug mentioned what about a picnic in the near future. Suggestions anyone?

They constructed five very large rings made of wood to track the solstices and some of the movements of the stars and planets. This site is of great archeological value. I believe that Earl said it was discovered during some road building projects in the area. Earl stated that there were about 77 to 78 attendees at the convention.

Mention was made that the new bench by the door to the observatory was dedicated by the Moore family in honor of Carroll Moore.

Door Prizes: Tickets were passed out to the members and guest for the door prize drawing of a Starry Messenger Magazine and a Prairie Astronomy shirt. Erik Hubl was the lucky recipient of the shirt.

No further business was brought up for discussion, therefore the meeting was moved and seconded for adjournment.

Program: Earl Moser presented a slide program of Comet Hale-Bopp and other comets which he had the privilege to witness, observe and photograph. He commented that you never want to take comet photos or other photos of objects in the night sky using a flash with your camera. It was a really great program and Earl is to be complemented for his photos.

The PRAIRIE ASTRONOMY CLUB CALENDAR AUGUST 1997

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
3 NEBRASKA STAR PARTY	July 28 Peak of δ Aquarid meteor shower	July 29 PAC MEETING 7:30 pm Hyde Observatory !!!	July 30	July 31	1	2 NEBRASKA STAR PARTY
NEW MOON	4 NEBRASKA STAR PARTY	5 NEBRASKA STAR PARTY	6 NEBRASKA STAR PARTY	7 NEBRASKA STAR PARTY	8 NEBRASKA STAR PARTY	9 NEBRASKA STAR PARTY
10	11 1ST QUARTER MOON	12 Peak of Perseid meteor shower	13	14	15	16
17 Double shadow transit on Jupiter 5h43m UT	18 FULL MOON	19 Moon at perigee	20	21	22	23
24 Double shadow transit on Jupiter 8h18m UT	25 3RD QUARTER MOON	26 PAC MEETING 7:30 pm Hyde Observatory !!!	27	28	29	30
31 Double shadow transit on Jupiter 10h53m UT						

FOR THE BEGINNER

The following was taken from the July 97 issue of the OAS newsletter STELLA and is originally from Ian Ridpath's book Astronomy:

CLASSIFYING STARS

Astronomers use a somewhat confusing system for classifying stars. First they assign a *spectral type*, in effect an indicator of the star's surface temperature as revealed by its spectrum. There are seven main spectral types, denoted by the letters O, B, A, F, G, K, M, from the hottest to the coolest, and traditionally remembered by the phrase "Oh Be A Fine Girl (or Guy) Kiss Me". The odd sequence of letters is a result of rearranging and simplifying previous systems. Each type can be subdivided into as many as 10 classes, numbered 0 - 9. To distinguish giants from dwarfs, astronomers assign each star a *Luminosity Class* that runs from I (supergiants), via II and III (bright giants and ordinary giants) to IV (subgiants), V and VI (dwarfs and subdwarfs), and finally VII (white dwarfs). The supergiants are often subdivided into Ia, Iab, and Ib to indicate grades of luminosity. On this classification the Sun is a G2V (ie., a dwarf star of intermediate temperature). The blue supergiant Rigel is classified as B8Ia, and the red supergiant Betelgeuse as M2Iab. Sirius, a main-sequence star somewhat hotter than the Sun, is A1V, and the red dwarf Proxima Centauri is M5.5V.

OFFICERS OF THE PRAIRIE ASTRONOMY CLUB

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Do you have anything you'd like to see in upcoming issues of The Prairie Astronomer? Have you done something unique, exciting, and/or worthwhile that you'd like to share with the club? If so, I urge you to submit it. This is your newsletter and I welcome your suggestions and ideas.

Dave Scherping - Editor (477-2596)



The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 80553
Lincoln, NE 68501



First Class Mail

Next PAC Meeting
July 29, 1997
7:30 PM
Hyde Observatory

7-97

Mr. Earl Moser
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