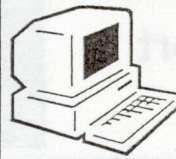


# President's Report

by Dave Scherping



If you have access to Internet, see the  
 Prairie Astronomy Club web page:  
<http://infoanalytic.com/pac/>  
 E-mail us at: [pac@infoanalytic.com](mailto:pac@infoanalytic.com)  
 Omaha Astronomical Society web page:  
<http://www.top.net/cdcheney>

# The Prairie Astronomer

## Astronomy Day ....

This year's Astronomy Day was the most successful one I've ever seen. We had a huge turnout, in part due to the International Space Station exhibit. Another great attraction was Martin Gaskell's hands-on mirror grinding demonstration. Many attendees enjoyed the opportunity to participate in rough grinding Martin's 11" mirror. And of course, there was our usual display of telescopes and computers. I'd like to thank all those who helped make Astronomy Day successful, especially the coordinators, Dave Knisely & Jack Dunn.

## NSP....

We just passed the 3-month mark in preparing for the Nebraska Star Party. There's a lot of tasks that need to be accomplished in the near future to assure a successful NSP. If you signed up as a volunteer, you are requested to attend the upcoming NSP planning meeting (see "Meeting Notices" section). Just a reminder, if you want to submit a t-shirt design to the NSP planning committee, you must get it to me *before* the next NSP meeting or bring it with you. The creator of the chosen design will win a free NSP registration & t-shirt. Also, if you plan to attend NSP and haven't registered, please do so as soon as possible. It will greatly help the NSP cash-flow.

## Mahoney Star Parties...

For the 3rd year, PAC & OAS will sponsor public observing nights at Mahoney State Park. This year, there will be five separate nights, the first of which was Friday, May 24th. The next one will be Friday, June 21st. I strongly urge all PAC members to make an effort to support these events. We typically have 100-200 visitors and need all the scopes we can get. Call me at 477-2596 if you need additional information.

## MAY/JUNE MEETING NOTICES:

GENERAL MEETING  
 TUESDAY, MAY 28th, 7:30 p.m.  
 at Hyde Memorial Observatory

NSP (MAY) MEETING  
 WEDNESDAY, JUNE 5, 7:30 p.m.  
 at Mahoney State Park Lodge

STAR PARTY  
 FRIDAY, JUNE 7th at the Atlas Site  
 SATURDAY, JUNE 8th (1st Rain Date)  
 FRIDAY, JUNE 14th (2nd Rain Date)  
 SATURDAY, JUNE 15th (3rd Rain Date)

MAHONEY PUBLIC STAR PARTY  
 FRIDAY, JUNE 21st  
 at Mahoney State Park  
 on the Soccer Field

NSP MEETING  
 WEDNESDAY, June 26, 7:30 p.m.  
 at Mahoney State Park Lodge

## BRIEFS:

We invite any PAC members to Liberty, Nebraska to observe with us any time. We have dark skies! Just call us (see page 7 for additional information).  
 - Tom & Sara Teague

My new e-mail address is: [thinker@inetnebr.com](mailto:thinker@inetnebr.com)  
 - Ben Rush

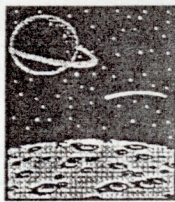
My "permanent" mailing address is: PO Box 4681, Antioch, CA 94531. I can also receive mail at home: 1406 Melbourne St., Foster City, CA 94404  
 - Kelly Erlandson

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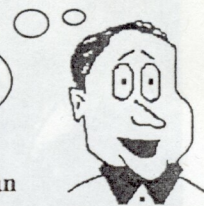
# Observing Chairman's Report

by Douglas Bell



## Questions & Answers

I hope these  
answers are correct.



Conducted by AstroMan

### For June Observing:

New Moon: June 16  
Lunar object: Eratosthenes Crater  
Planet: Ceres  
Messier monthly: M 9  
Top 40: M 57, the Ring Nebula  
Deep sky: NGC 6027 Seyfert's  
Sextet  
Challenge: Stellar motion

Tip of the month: Keep the red lights low. Any bright light, red or not, can spoil your night vision.

Lunar feature: Eratosthenes

A fresh impact crater just east of Copernicus. Is this a bright object or not? At dawn (lunar, of course) this is a unmistakable jumble of ejecta, crater, and secondary craters. But at full moon, it fades into the background. Hmmm.

Planet of the month: Ceres

Look for Ceres .8 degrees from the full moon on June first. Too bad we don't live in Japan. We could watch the entire occultation.

Messier Monthly: M 9

The smallest of the Ophiuchus globulars (sob!). It seems that globulars, like astronomers, come out in the summer.

Top 40: M 57

The ring nebula. It's probably everyone's first planetary simply because it's so easy to find. Look halfway between the two "end" stars in Lyra; a ghostly smoke ring.

Deep Sky: NGC 6027 Seyfert's Sextet

I thought this guy looked for active galaxies? Seems he found a difficult sextet in Serpens. The RASC handbook lists a 400mm scope as the minimum aperture (that lets me off the hook). You asked for it, you got it.

Challenge: Stellar motion

Bernard's Star is a non-descript 9.54 magnitude star hiding in the fields of Ophiuchus. There's nothing special about it, except for one thing. It moves. It has the highest proper motion known. So much so that it merits its own finder chart, complete with date ticks, in the Sky Atlas 2000 charts. Can you find it and verify its position?

Astro trivia: Which constellation has the most Messiers? How many?

Last month's answer:

The Milky Way. When my father was born, World War I had come and gone, people were flying across the country, the nature of the atom was being examined, and there was only one galaxy, The Milky Way. It wasn't until October 4, 1923, that Edwin Hubble found a cepheid variable in M31 and was able to prove conclusively that the Andromeda Nebula was a galaxy separate from our own.

Q: What causes the gas/dust tail of a comet like the recent Comet Hyakutake to shine?

A: The dust and gas tails of a comet like Comet Hyakutake (1996/B2) shine in very different ways.

The *dust* tail shines by reflected sunlight. The spectrum of the dust tail is the same as the spectrum of the sun. It has a yellowish-white color.

If the dust of a comet's tail hits the earth's atmosphere the grains burn up and are seen as meteors or "shooting stars". Meteors shine because they are white hot.

The *gas* tail glows by its own light. The ultra-violet photons from the sun hit the gas molecules of the tail. The molecules briefly gain the energy of the photons, go into "excited states", loose the energy and drop down to less energetic states.

The differing energies of a molecule can arise in three main ways: The molecule can be rotating faster, it can be vibrating backwards and forwards like a spring, or the charges can be pulled further apart.

When the molecule goes to a less excited state the excess energy is usually carried away in a photon. These photons have a distribution of energy characteristic of the molecule. These molecular emissions of comets are blueish in color, therefore gas tails are blueish.

There is a special expensive filter that will selectively let through these molecular emissions, in just the same way that an O III filter or an H beta filter selectively lets [O III] and H beta through. At least one club member has a "comet filter".

One of the strongest gas emission features in a comet's spectrum is a near ultra-violet feature caused by cyanogen. In 1910 the tail of Halley's comet crossed the earth's orbit. Some people worried about being poisoned by cyanide!

Q: What is "AU"?

A: The letters AU stand for astronomical unit. A astronomical unit is the average distance between the Sun and the Earth; 92,955,730 miles and is used as a distance measurement. Rather than express Jupiter's average distance from the Sun as 483,600,000 miles, for example, it is easier to simply say "Jupiter's distance from the sun is 5.2 AU" or roughly 5.2 times the distance between the Earth and Sun.

Comet distances are often expressed by AU. Comet Hale-Bopp was discovered last July 22nd at a distance of 7.2 AU from the Sun. There are about 63,240 astronomical units in a light year.

Questions about astronomy or PAC can be confidentially sent to AstroMan in care of Bryan Schaaf (see address and phone number below).

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 Members...\$15/yr; Family Memberships...\$17/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following: President Dave Scherping (Lincoln) 477-2596, Treasurer John Bruce (Lincoln) 483-0389, Bryan Schaaf (Lincoln) 438-4285. All newsletter comments and articles should be sent to: Bryan Schaaf, 1309 W. PLUM, LINCOLN, NE 68522 (or E-mail to [schaafb@aol.com](mailto:schaafb@aol.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.

## MEETING ADJOURNED...



### Secretary's Report by Bryan Schaaf

The April 30th PAC meeting at Hyde Memorial Observatory began at 7:35 PM. Dave Scherping's meeting agenda opened with a brief description of "What's up" and he touched on each of the three bright comets; Hyakutake, Kopff, Hale-Bopp and all the current visible planets.

John Bruce reported that "We're doing well. All the (treasury) accounts are gaining value slowly. The Nebraska Star Party (August 10-17th) account is up near \$1000 due to recent NSP registrations". The Hyde Memorial Observatory sales account that covers sales of posters "is around \$100".

Immediately following the Treasurer's report was Site News. Regarding the possible "purchase agreement" with 20th Century Castles Real Estate Co. for our Atlas Observing Site land, John reported that "Things have slowed down considerably" and the reported sales of other former missile sites across the country just haven't happened.

The next Atlas Observing Site work bee is scheduled for May 5th. Dave outlined the work that needs to be done which consists mainly of positioning the outhouse, bolting it down and hauling some junk away. Six to eight people are needed to help with the outhouse, which was vandalized a couple months ago.

The main entry gate by the road is (and has been, for quite some time) damaged by vandals. More importantly, the gate at the entrance to our sight has been open for a month and will be kept closed, when not in use, for now on. Del Motycka mentioned that, beyond the mere need to help control vandalism, "the gate should be kept closed for insurance purposes in case something happens".

Dave Hamilton is housing the 13" club telescope at his office. Don't hesitate to borrow it. That's what it is for. Dave's office phone number is 434-2900.

Dave Scherping suggested that the club consider purchasing a insurance policy for the protection of club owned equipment such as telescopes and eyepieces. The anticipated cost for such a policy is about \$50 per year. There was no decision made about this issue at the this meeting, but "we'll have to look into it and report on it at the next PAC meeting".

There is another club telescope that has been stored in a shed in Earl Moser's yard in Hickman. It hasn't enjoyed much use lately. In fact, over the years, a large tree branch has grown over the shed, making the telescope inaccessible. Earl is going to build a new garage where the shed is now, so he needs the shed dismantled and the telescope moved elsewhere. Tom Miller has offered to keep the telescope at his place temporarily until the club

decides what to do with it. The catch is that volunteers are needed to help cut/remove the branch, dismantle the shed and transport the telescope. Although the telescope has a 12 1/2" aperture it is equatorially mounted and quite heavy.

Dave suggested that this telescope could be permanently mounted somewhere someday for members to conveniently use and that it could be the next club project after the Dobsonian 13" club telescope project that was completed a couple years ago. "There are a lot of possibilities for it's use", Dave said.

Recent events were mentioned briefly:

The N.E. Kansas Astronomy Workshop, hosted by Brenda Culbertson, 35 miles south of Topeka was a big success and a lot of fun for attendees Dave Scherping and Bryan Schaaf.

Astronomy Day at Mueller Planetarium in conjunction with NASA's International Space Station Exhibit was great.

An article about PAC and Comet Hyakutake appeared recently in The Beatrice Daily Sun newspaper. It is posted at Hyde Memorial Observatory.

The Mid-States Astronomical League Regional Convention will be hosted by the Astronomy Club of Tulsa this year, June 15, 16 and 17. (By the way, I have all the information available for the asking.)

The major highlight at the PAC meeting was the presentation of the 1995 Volunteer of the Year certificate and plaque. On behalf of the Lincoln Parks and Recreation Dept., Ron Veys presented the award (in very good M.C. style) to Jerry Williams. Jerry has volunteered MANY hours on Saturday nights for public observing sessions at Hyde. The plaque, bearing his name, will be (is) mounted on the volunteer wall at Hyde. Jerry is the twelfth recipient of the award representing the twelfth year since the award was first presented. Congratulations!

Liz Bergstrom brought a very old telescope to the meeting. It is owned by a friend of hers. His grandfather used it to observe from the Nebraska sand hills. Liz told about a lot of history associated with it.

I presented the program after the meeting. First, I reviewed the following astronomical observing techniques: averted vision that is most commonly used to see faint celestial objects, induced motion of a celestial object in the telescope field of view by slight tapping of the telescope, averted imagination (self explanatory), perverted imagination (extreme application of averted imagination and useful for all types of seeing) and averted hearing (very useful technique for detection of mysterious auroral sound).

The program was a talk about auroral sound followed by a video tape entitled "The Aurora Explained", a production of the Aurora Color Television Project, Geophysical Institute, University of Alaska Fairbanks.

# The Prairie Astronomy Club

## June 1996

S M T W T F S

<p><b>2</b> Look for Venus early this month very low over west north-west horizon before it disappears into the sun glare</p>	<p><b>3</b> Moon at perigee, 224,620 miles 11:17 PM Eclipsing variable star Algol at minimum magnitude at 2:00 AM; eclipse last ~10 hours</p>	<p><b>4</b> Jupiter 5 deg. S of Moon 1 AM</p>	<p><b>5</b> Algol at minimum magnitude at 10:49 PM</p>	<p><b>6</b> Comet Hyakutake crosses Earth's orbit</p>	<p><b>7</b> STAR PARTY AT ATLAS SITE Delta Clipper XA flight test scheduled</p>	<p><b>8</b> STAR PARTY AT ATLAS SITE (1st Rain Date), LAST QTR. MOON 6:05 AM</p>
<p><b>9</b> Saturn 3 deg. south of Moon 4 PM Robert Goddard patented 1st rocket powered aircraft design, 1931</p>	<p><b>10</b> Comet Hale-Bopp 19h 20.3m -13o55' 7.2 magnitude Comet Kopff 19h 14.1m -16o10' 7.2 magnitude Mercury G.Elong.24 deg.</p>	<p><b>11</b> Asteroid 1566 Icarus near Earth flyby (0.0101 AU) Balloon first used to explore another planet (Venus), USSR, 1985</p>	<p><b>12</b> Galileo Spacecraft Orbital Trim Manuver #5</p>	<p><b>13</b> Mars 4 deg. N of Moon 8 PM Pioneer 10 leaves solar system, 1983</p>	<p><b>14</b> STAR PARTY AT ATLAS SITE (2nd Rain Date) Mercury passes 3 deg. north of Mars</p>	<p><b>15</b> LIBRARY PRESENTATION 2:00-4:00 STAR PARTY AT ATLAS SITE (3RD RAIN DATE) NEW MOON 8:36 AM</p>
<p><b>16</b> Mars passes 3 deg. northwest of Mercury Asteroid 1990MU near Earth flyby (0.2499 AU) Valentina Tereshkova, 1st woman in space, 1963</p>	<p><b>17</b> Venus appears over east-northeast horizon 1/2 hr. before sunrise, use binoculars</p>	<p><b>18</b> Sally Ride, 1st American woman in space, Challenger Space Shuttle, 1983</p>	<p><b>19</b> Moon at apogee, 252,297 miles 1:24 AM NEAR spacecraft trajectory correction Manuever #2</p>	<p><b>20</b> First Day of Summer Comet Hale-Bopp 19h 09.1m -12o58' 7.0 magnitude Comet Kopff 19h 19.1m -16o52' 7.1 magnitude</p>	<p><b>21</b> MAHONEY STAR PARTY AT STATE PARK SOCCER FIELD</p>	<p><b>22</b> Charon, moon of Pluto discovered, 1978</p>
<p><b>23</b> Mercury 1.6 deg N of Venus one hour before sunrise <b>30</b> "BLUE MOON" FULL MOON 10:58 PM</p>	<p><b>24</b> FIRST QUARTER MOON 12:23 AM</p>	<p><b>25</b> PAC MEETING 7:30 PM AT HYDE MEMORIAL OBSERVATORY Hermann Oberth, born, 1894</p>	<p><b>26</b> Charles Messier born, 1730</p>	<p><b>27</b> Galileo Spacecraft first flyby of Ganymede (1st orbit) Mars 6 deg. north of Aldebaran</p>	<p><b>28</b> Galileo Spacecraft close approach to Europa (1st orbit) Jupiter/Europa occults star PPM 269153</p>	<p><b>29</b> Venus passes 4 deg. south of Mars</p>

Important Space Flights of June:

June 3, 1965/ Gemini 4/ James McDivitt, Ed White/ First American space walk by White  
June 3, 1966/ Gemini 9/ Thomas Stafford, Eugene Cernan/ Unable to dock with Agena target; Cernan's planned 2 hour, 46 minute EVA cut short by 39 minutes, due to over exertion; resulting in helmet face-plate fog over  
June 25, 1992/ Columbia Space Shuttle/ 7 astronauts/ Sets new record for duration of shuttle mission; 14 days (Duration record was broken by Columbia mission 7/8/94)  
June 27, 1995/ Atlantis Space Shuttle/ 7 astronauts/ Docked with Mir Space Station to transfer crew members; created a overall temporary Mir crew of 10  
June 20, 1996/ Columbia Space Shuttle/ Scheduled launch/ Life & Micro-gravity Spacelab

**1** FULL MOON 3:48 PM  
(There are two full moons this month! The second full moon in the same month is called a "Blue Moon.")

# ASTRONOMY DANGEROUS?

by Bryan Schaaf

In 1991, when I was stationed at Oceana Naval Air Station by Virginia Beach, Virginia, I would often carry my Odyssey 8 telescope outside the barracks to a area as dark as I could find.

One Spring night, while observing the galaxy M101 of Ursa Major, bright car headlights suddenly blazed into my face. One of two Navy shore patrol policemen asked, "Are you okay?"

"Yes. Why do you ask?"

"Well, we saw you hunched over and we thought you were sick or beat up", he said.

"I'm fine. I'm just star gazing", I said. They drove away, leaving me light blinded and my quest ruined for the night.

Another night, in Autumn, I was showing a Navy friend many wonderous deep-sky objects until he became tired and he left at about 11:30 PM.

Throughout the evening, I occasionally heard passing footsteps accompanied by voices of personnel leaving work. Around midnight, while I was scrutinizing over a star chart and observing the star clusters of Cassiopeia, I heard footsteps again. They approached and stopped, whereupon I looked up from the eyepiece. The night was humid and my glasses were fogging over, but I could see three dark figures standing nearby shoulder-to-shoulder. Not knowing who they were I managed to blurt out "Oh, hi", as calmly as I could. One was holding a machine gun and the others appeared to be armed with hand guns. Whew! They were Navy policemen again.

The machine gun wielding policeman boldly approached my telescope and asked "What is this thing?"

"It's a telescope for star gazing", I said, greatly relieved.

"Oh", he said perplexed, "what an unnatural thing to do".

One of the other men said something like "Oh, we thought it was a cannon". They evidently thought I was aiming a cannon in preparation to fire it at a aircraft hanger. They walked away.

The next day, at work, I found my friend and began telling him what had happened after he left. He said he knew all about it. "How", I asked. He told me that he was confronted by police too and that they had us under surveillance for two hours!

Do you have a funny story to share?  
If so, please send it to me for the newsletter.

# NSP MEETING DATES & OTHER ANNOUNCEMENTS

by John Bruce

Here is a list of NSP planning meeting dates. They will all be at Mahoney State Park at 7:30 pm, but I am not sure of the rooms that we will be assigned. There is a sign just inside the front door of the lodge that lists meetings and the rooms they are in, so it should not be too hard to figure out where to go.

June 05, Wednesday (this is the "May" meeting)

June 26, Wednesday (this is the June meeting)

July 12, Friday (the first July meeting)

July 25, Thursday, (the second July meeting)

We have 2 meetings in July because of the increased work load that is upon us as we get closer to NSP. There will most likely be other meetings of smaller groups that will be set up as they are needed, but we planned these this far ahead because of the fact that Mahoney is virtually fully booked thru August (these are about the only dates that had a room open).

I had a request from one of the staff at the Anderson branch library (near the corner of Touzalin and Freemont streets - near Havelock). They want some of us to come out on Saturday, June 15 from 2:00 - 4:00 to give a presentation on basic beginning astronomy: how to get started, what type of optics to buy, what to look at, how to look at it, etc.

I have called them and confirmed our willingness to be there. I have Dave Scherping on tap to give a presentation (about 30 minutes) that he has prepared. I am going to bring my 6" with the solar filter on it, and hope that it will be clear.

We have done this a couple of times before (about 10 years ago) at this same location, and have usually had 30 - 60 people attend. We gained a couple of members from this activity.

I hope that we can get 2 - 4 more people to come out. There are always a LOT of questions and it would be good if each could bring some type of equipment or other material like books, binoculars, atlas and catalogs, as well as anything else they feel may be of interest.

I will take a supply of club brochures, telescope buying guides and other handouts from Hyde so we will have something to put in their hands.

Since this will be on a Saturday afternoon we should recommend a trip to Hyde that evening.

(*"Announcements" continued on page 8*)

# HELLO FROM Kelly Erlandson

Fellow Stargazers,

Hello from California! I think I have found a club to join here in California. The club meets in a middle school here in Foster City, CA. and it is called San Mateo Astronomical Society (because of San Mateo County). Most of the clubs here belong to the Astronomical Society of the Pacific and are not interested much in nation-wide things. In my search, I have learned alot about good clubs (like PAC) and not so good clubs (like some I have found here).

The first thing I realized is how easy it was in Nebraska to get to reasonably dark skies. I drove two hours this past weekend (May 11-12) to get to a sky similar to the Atlas Site on an average night. I was told that in the summer the sky is better when the fog rolls in and blocks the city lights 3000 feet below.

It has been hard to find a club as active and with as many interests as PAC. When was the last time you stopped to think about the many interests of the club? There are people enjoying many aspects of astronomy. Some of them include: occultations, Messiers, Herschels, photography, CCD, eclipses, telescope building, computers, not to mention plain "old" observing. I am sure I have forgotten some. Many of the clubs in California focus on a single topic, and do not branch out much. PAC also has many opportunities for volunteering that I am not finding in California. Some include: Hyde Observatory, Nebraska Star Party, Astronomy Day, Atlas Site and many other activities that come and go.

The Atlas Site is a plus for the club too, because it's a secure place, close to Lincoln, with tables, with a outhouse AND it has cooperative neighbors. Fremont State Park is a magnet for astronomers in this vicinity of California, but it is two hours away. While it was over-run by astronomers last weekend (with maybe 50+ telescopes set up; all 15" and smaller, except for a permanently mounted 30" scope) it is STILL a state park open to everyone.

I think one of the best features of PAC is its affiliation with other clubs in the state and region. If you can't find what you want in PAC, someone can help you find it other places. In all I miss PAC and am looking forward to NSP.

# DID YOU KNOW THAT...

by Ben Rush

Two new planets have been discovered; 70 Virginis "B" and 47 Ursae Majoris RBS. Both their mother stars are very sun-like in composition, structure and type. Although they are very Jupiter-like in their size, and possibly composition, astronomers are sure that where they find these over-sized planets, the smaller ones are sure to follow; maybe even earth-like ones.

According to the world of hyperspace, there are actually ten dimensions. At the big bang they split into two pieces. We luckily belong to the ever-growing four-dimensional piece. Out there somewhere, or maybe just on paper, lies the ever-shrinking six-dimensional missing link.

The famous Orion star, Betelgeuse, has 6 companion stars orbiting it. Betelgeuse is of spectral type M2 and ranks in at a magnitude of 5. If this monster were to replace our sun, it would pass well beyond Venus, arguably much further.

Jupiter has a mass of 317.938 times that of Earth, yet, spins on it's axis in only ten hours, making it the fastest rotating planet in the whole solar system.

Pluto is only .0022 times the Earth's mass. It was discovered at the Lowell observatory in Arizona by Clyde Tombaugh in 1930. It lies 5,913.52 million km (about 3548 million miles) from the sun; around 40 times the distance the Earth is from the sun.

## THE ASTRONOMICAL LEAGUE'S BINOCULAR DEEPSKY CLUB

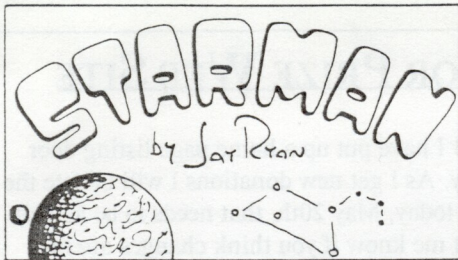
by Ron Veys

I'd like to get more people interested in the Astronomical League's Binocular Deepsky Club. Maybe you are already familiar with the program, where you have to observe 60 deepsky objects. There is a prepared list of deepsky objects. They're almost all open star clusters but there are other objects like a couple of galaxies blended in too.

To earn the program award you have to observe them with binoculars only and then send in your observations. The Astronomical League will verify your observations and send you back a certificate and pin, just like the A.L. (telescopic) Messier Club.

I finished it and sent in my observations and just recieved my certificate last week. I think I'm the first member in the club to earn the binocular deepsky award and I got certificate number 49, which means I'm the 49th person in the nation to recieve the award. My goal was to get in

*("Deepsky" continued on page 8)*



DURING THE MONTH OF MAY, THE **BIG DIPPER** IS NEARLY OVERHEAD IN THE EARLY EVENING ABOVE MOST NORTHERN LATITUDES.

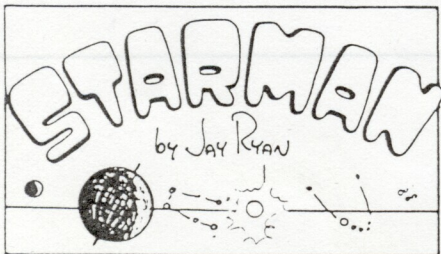
AT THIS SAME TIME, THE CONSTELLATION **LEO THE LION** IS HIGH IN THE SKY ABOVE THE SOUTHERN HORIZON. LEO IS DISTINGUISHED BY THE BRIGHT STAR **REGULUS** AND THE DIM STARS OF THE **SICKLE**.

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IF YOU LOOK STRAIGHT UP, YOU CAN SEE THAT LEO AND THE DIPPER ARE VERY CLOSE TO EACH OTHER IN THE SKY.

FAR TO THE SOUTH OF LEO IS THE CONSTELLATION **CRUX**, THE SOUTHERN CROSS. UNFORTUNATELY, CRUX IS NOT VISIBLE FROM NORTH AMERICA.

ON MAY 26, THE DAY PAST THE FIRST QUARTER, THE GIBBOUS MOON WILL PASS BY LEO, VERY NEAR TO REGULUS.



SUMMER BEGINS ON JUNE 20 AT 10:24 PM EASTERN DAYLIGHT TIME. AT THIS MOMENT, THE SUN REACHES ITS GREATEST NORTHERN DECLINATION OF THE YEAR IN **GEMINI**.

AT THIS TIME, THE SUN REACHES ITS HIGHEST POINT IN THE SKY OVER THE NORTHERN HEMISPHERE. ON THE FIRST DAY OF SUMMER, NOON SHADOWS ARE AT THEIR SHORTEST.

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ON THE FIRST DAY OF SUMMER, THE NORTH POLE IS INCLINED TOWARD THE SUN.

CONSEQUENTLY, THE LATITUDES OF THE NORTHERN HEMISPHERE RECEIVE A LOT OF SUNLIGHT. LOCATIONS NORTH OF THE EQUATOR SPEND MORE TIME IN THE SUN'S RAYS THAN IN THE SHADOW OF NIGHT.

THUS, SUMMER DAYS ARE LONGER THAN 12 HOURS. THE SUMMER SUN RISES AND SETS TO THE NORTH.

**WELCOME NEW MEMBERS!**

Midori Ono	Fred, Kristin & Amy Miles
2504 N. 56th #8	341 E. Orcutt Ave.
Lincoln, NE 68504	Lincoln, NE 68504
402-467-6429	402-464-4643

Please welcome our new members and introduce yourself. They'll appreciate it!

Tom & Sara Teague  
RR1, Box 53  
Liberty, NE 68381  
402-674-3252



As noted in the "Briefs" section on page 1, Tom and Sara Teague have extended a standing invitation to club members to observe with them from their home at Liberty, Nebraska. Their place is easy to find:

Just drive south on highway 77, through Beatrice, through Wymore, to State Route 8 and turn east. Drive east 6 1/2 miles and turn south onto a county road. Drive south just a little over 1/4 mile to the first house you come to (on the west side of the road).

("Announcements" continued from page 5)

This is a great PR event for us. I hope we make the most of it! That's it for now, if there are any questions let me know.

As you may have noticed I now have e-mail at home, but I only check it about 3 times a week. If there is something that needs attention in a shorter time frame it should be sent to my work e-mail (jbruce@env. licor.com) as I check it several times each work day. You can call me at home too (483-0389).

("Deepsky" continued from page 6)

under a hundred; I wanted to be one of the first hundred, so I guess I did that.

I also want to encourage every body else to do this program because it is easy and it's fun to do. I'll bring all of the program information to the PAC meeting on May 28th.

## NSP DOOR PRIZE WEB SITE

To help promote NSP3 I have put up a home page listing door prizes for the star party. As I get new donations I will update the page (I got some more today, May 20th, that needs to be added). Please check it out. Let me know if you think changes are in order. If the page looks reasonable perhaps a link to it could be put in NSP's home page.

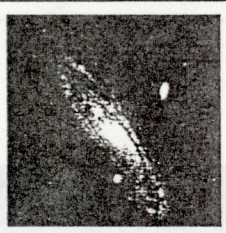
The url is:

<http://www.papillion.ne.us/~ldorland/pages/nsp3.html>

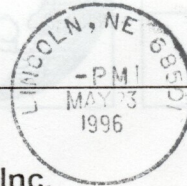
Let me know what you think.

Louis Dorland

[ldorland@monarch.papillion.ne.us](mailto:ldorland@monarch.papillion.ne.us)



The Prairie Astronomer  
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P.O. Box 80553  
Lincoln, NE 68501



Next Meeting  
May 28th, 1996

MAY 96

EARL MOSER  
P. O. BOX 162  
HICKMAN NE 68372