

While You Were Gone...

Secretary's Report by Jason Stahl

A new year is here for the Prairie Astronomy Club! Kicking off the year were the annual elections. In a neck to neck race for President, **John Bruce** won the support of the club.

The Vice President's race was left up to the wind. The race was in a dead heat, and ended in a tie. Thanks to the half dollar coin borrowed from Holly Johnson, the members in attendance were in suspense as the coin hurdled through the air. Landing in Tom's hand, the coin favored **Ron Debus**. This race was indeed the highlight of the elections.

The club has elected a new secretary, **Jason Stahl**.

Once again, **Lee Thomas** won another year as our faithful Treasurer. Congratulations Lee, you had one of the largest leads out of all the elections. It was a unanimous decision by the club to place our trust, and our money, with you.

Finally, **Dave Shering** won the position of Second Vice President. Dave held the other unanimous decision during the elections since he was unchallenged.

Our congratulations to all of those who have been voted into office. We wish all a successful year in the continuation of pride within the Prairie Astronomy Club. We give our great thanks to our past officers for their hard work and dedication during the past year.

The club also voted on the changes to the Club Bylaws. The revised version is posted in this month's newsletter. Please note the changes, they might affect you directly. If you feel that more changes are needed, or you are in doubt of any bylaw, come to the November meeting and voice your thoughts. If you are unable to attend, write to the Newsletter and have it posted for the entire club to take notice and bring a solution to the question up at the meeting.

This year, one of the changes that will take place is the start of the video library. Each

meeting will be taped and be accessible to the club via Tom Miller. If you have any concern about being taped, let the video operator know before hand so you will not be taped. If you know that you will miss a meeting, you can borrow the tape and watch it at your convenience, anytime one week after that month's meeting.

Recap on Calenders...

R ASC HANDBOOKS have been ordered, and should arrive in time for the December meeting-- maybe as soon as this month's meeting. Please plan to pick yours up if you have ordered and paid for one. [As usual, a few extras were ordered, and will be sold on a FIRST-COME FIRST-SERVED basis as soon as they arrive. Retail price is \$15.89. Member price is \$10.50.]

An order will be placed for Ottewell's Calendar, described in last month's PRAIRIE ASTRONOMER, after the November meeting. YOU MUST ORDER (AND PAY) IN ADVANCE either at this month's meeting, or by mail to reach the club's post office box no later than December 3. Retail on this item is \$16.00. PAC member price is \$10.00!

There was insufficient interest at the October meeting in Richard Berry's "Discover the Universe" calendar to make a club buy.

An order WILL be placed after the November meeting for the 1994 WONDERS OF THE UNIVERSE calendar from Hansen Planetarium. I have a few orders for it on hand, and will accept additional orders at the meeting, or by mail to the club's box RECEIVED no later than December 3. Retail is \$10.95. Club Member price: \$6.00. There is no

minimum order because we'll combine it with an observatory buy.

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*A new year is here
for the Prairie
Astronomy Club!*

The
Prairie Astronomer
inside...

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Special Club Survey Insert

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NO EXTRAS WILL BE ORDERED ON THIS ITEM, SO IF YOU WANT ONE, I NEED TO SEE THE COLOR OF YOUR MONEY BY DECEMBER 3!!!

Finally, a new item has become available which I think some club members might be interested in. Starry Messenger Press has the ASTRONOMY & SPACE EXPLORATION 1994 WEEKLY CALENDAR, a full-color desk-booklet calendar along the lines of the Sierra Club's very successful calendars sold in bookstores. SMP sent a sample, and it looks very good. Retail is \$12.95. We would need to order only three in order to get them at \$7.77 apiece (includes shipping.) I anticipate that some people WILL like this item, so if you think you'd be interested, come take a look at it at this month's meeting. If there's sufficient interest (expressed in terms of cash on the barrelhead), I'll place an order after the meeting.

This is the time of year that your PAC membership can save you a bundle. We sell these items at our cost. No effort is made to pad the treasury which, with a growing membership and some generous donations of both money and services, really doesn't need it. The flip side of this no-profit policy, of course, is that we can't afford to take a bath on things that people order and then don't actually pay for, which is why the Pay Upfront policy.

(Signed)
E. Scrooge,
Treasurer

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From the Vice President

What a race for vice-president! I'm looking forward to being an officer again and to another fine year.

I'll probably wait until January to rolling on a couple of things, including Astronomy Day, which I volunteered to help setup this year, and club t-shirts and jackets. With so many new members I'm sure we can get some additional advertising by selling items with our logo.

On a more serious note, we as a club tend to be poor listeners. I don't want to offend anyone and I know that no one means any disrespect, BUT a lot of members talk at meetings when someone else has the floor. It's hard for some people to get in front of a crowd and speak, and when members talk in front of them it discourages them from returning to do more presentations. I hope we can all work on this problem. I'm sure our new officers will appreciate the help.

I hope to see all of you at the next meeting. Let's have a good turn-out!!! *Ron Debus*

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Regular Members...\$10/yr, Family Memberships...\$12/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: John Bruce (Lincoln) 483-0389, Lee Thomas (Lincoln) 483-5639, John Lortz (Omaha) 496-1122. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 11684 MEREDITH AVE., OMAHA, NE 68164 no later than 10 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory in Lincoln, NE.

The President's Message

by John Bruce

Well it's been 20 years since I have written for this part of the newsletter, so please bear with me as I scrape off the rust and oil up my joints (yes I did watch the the OZ show this week).

The real unfortunate part of my first month as President is to tell you that I will not be at the meeting (sunny California is calling loud and clear) this month. Ron Debus will be running things in my absence (boy it sure is warm here in L.A.).

All kidding aside it is nice to be in office once again and I was REAL pleased to see all of the elections come out on close votes. To me this means that our club has a wide base of support for our officers and this sure makes our jobs more pleasant. My goals for the next year are to see that the club continues to grow as it has in the last couple of years and to do what ever I can to get every one that is able to come to as many meetings as possible. Don't get me wrong here, our turnout at meetings is good for a club our size but I would like to see more members that come on a seldom or "never" basis at meetings. If there are any suggestions from anyone to help this matter please feel free to call me at 483-0389 (home) or 467-0691 (work) or drop me a line via the club PO box or my home address 900 Dale Drive Lincoln, NE 68510-4003.

One more thing I would like to get underway this year is to finish the 8" club scope that

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Observing Chairman's Report

by Jason Stahl

This month is going to be a busy one for astronomical events! So plan accordingly to your schedule!

The next scheduled star parties will be on the December 10th and the 17th at the Altas Site. Last Quarter is on the 6th of Dec., New Moon is on the 13th, First Quarter is on the 20th, and Full Moon is on the 28th of Dec. The cloud/rain dates are the 11th of Dec., and the 18th of Dec. The Winter Solstice is on the 21st of December.

The night of the 13th is the peak of the Geminids meteor shower, (new moon on the peak of the shower.) The average hourly rate is about 50per/hr. The associated object is Asteroid 3200 Phaethon. The Radiant is located at 07 hrs 32 m dec.+32 (Epo h 2000.)

The night of the 22nd is the peak of the Ursids meteor shower, (gibbous moon.) Recorded

average hourly rate is about 15per/hr. The associated object is Comet Tuttle. The Radiant is located at 14 hrs 28 m dec. +76 (Epo h 2000.)

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under way (long term project) and also to get the 13.1" mirrors that were donated last year into some sort of a usable scope. (The donor gave the 13.1" optics to the club so that those who do not have or can not afford a scope would have a chance to use a large aperture instrument. The donor has expressed concern to me that the mirror is gathering dust in a box and not gathering photons under a dark sky as was his intentions for it. So in all fairness to him and those who would like the chance to use this set of optics I would suggest that we get something done with them or return them to the donor.)

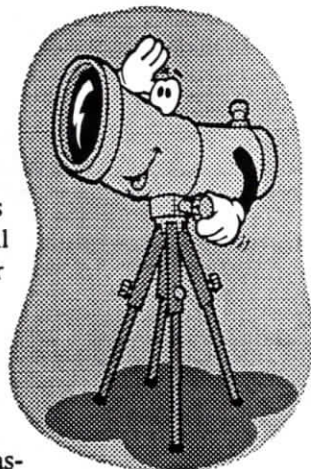
Remember that we will be voting on the revised set of bylaws at this months meeting so be there to make sure that your voice is heard if you have any thing to add or discuss about them.

I would like to thank Dave Knisely and the other outgoing officers for handing the club over to me in what must be called VERY good shape. If you don't think that THE PRAIRIE ASTRONOMY CLUB is in good shape just ask me about several others that I know of that would kill to have the growing and active group we have.

If you can, come to the VILLAGE INN at 66th and "O" street after the meeting for coffee and some time to chat. There is a slim chance that I might be able to drop in if I get back on schedule from SUNNY WARM CALIFORNIA! See you at the December meeting.

JOHN BRUCE

PS If this gets to you in time don't forget the TOTAL Lunar eclipse on Sunday night November 28-29. It all starts at about 9:40 pm local time and totality starts just after midnight and lasts till just before 1:00 am. Hope you have good weather!!



The winter sky is the best time for us to view some terrific objects. The only thing that would hinder our spirits is the cold temperature, but by wearing the proper clothing and drinking warm fluids, observing in the winter can be fun. To help in the entertainment section, Auriga has some good open clusters to observe. If you have not started cataloging your Messier objects, this would be a good place to start.

There are three Messier objects fairly close to one another, and easy to see in binoculars or any size scope. M38(NGC 1912) is located at 5hrs 28.7m dec.

+35.50 Mag. 6.4 with about 100 stars to be seen. Just below M38 is NGC 1907, it is another open cluster located at 5hrs 28.0m dec.+35.19. Mag. 8.2 There are about 30 stars with 9-12

stars in some nebulosity. M37(NGC 2099) is located at 5hrs 52.4m dec. +32.33. Mag. 5.6 with about 150 stars. M36(NGC 1960) is located at 5hrs 36.1m dec. +34.08 Mag. 6.0 There are 60 stars in this cluster. Also, in Gemini M35(NGC 2168) is located at 6hrs 08.9m dec. +24.20 Mag. 5.1 with 200 stars. In Taurus, M1(NGC 1952)Crab Nebula, is located at 5hrs 34.5m dec. +34.15 Mag. 8.4 The Crab Nebula is a Supernova remnant. This is a great object to look at in small to medium scopes, the larger scopes show great detail in this object, so much detail that it would take you some time to draw it in your Messier log-book.

The focal point for this month will be the Andromeda Galaxy. Many of us have seen this great spiral, it's dust lanes, the concentrated nucleus, the star clouds, and the galaxy's companions. Let us try to find

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The winter sky is the best time for us to view some terrific objects.

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some other treasures in Andromeda.

Andromeda holds some good observing challenges for us. Try finding some of these objects with binoculars, a small telescope, or if you have one, a large telescope:

- | | |
|----------------------------|------------------------|
| -bright, ball-like nucleus | -satellite M32 |
| -oval galactic hub | -satellite NGC 205 |
| -spiral arms | -satellite NGC 147* |
| -dust lanes in arms | -satellite NGC 185* |
| -star cloud NGC 206 | -nova searching** |
| -globular clusters* | -supernova searching** |

* = These objects are for large telescopes. 10-inches would be the minimum to see the objects clearly. Which would require good to excellent seeing conditions.

** = This is mainly done photographically, but can be done, using a telescope. Great patience is needed for nova hunting.

The Andromeda Galaxy (M31, NGC 224, UGC 454) is located at R.A. 04h42.7m, Dec +41° 16' (Epoch 2000.0) It is classified as an Sb I-II galaxy. With a Mag. V = 3.5, and a size of 178' by 63'.

M31's nucleus is seen as a bright small fuzzy patch in the center. With a 6-inch or larger scope, the most visually interesting feature in M31, is the dark nebulosity surrounding the brightest spiral arm. The dust lanes are easy to see, which lie in front of the central hub.

The Andromeda Galaxy does contain one massive concentration of stars that is comparable in size to some large dark nebulae. NGC 206 is an extremely large cloud of young, hot stars and glowing nebulosity that measures thousands of light-years across. Under excellent skies, NGC 206 can be seen with averted vision in telescopes, as small as 6 inches in aperture. It is easier to pick out in larger rich-field telescopes.

The Andromeda Satellites

Astronomers know of eight major satellite galaxies belonging to the Andromeda Galaxy. Half of these are too faint to be picked with amateur telescopes. The other four are well known and, although low-mass objects, are visible without difficulty in small telescopes.

M32 (NGC 221) and NGC 205 are dwarf elliptical galaxies. Both are small and contain just a small fraction of the stars of their larger spiral companion. They consist primarily of old stars, with most of them in the cool end of the spectrum. Physically the two galaxies differ only in shape. There are more similarities than differences. Yet, they do not appear identical in a telescope. NGC 205 has a lower surface brightness than M32.

M32 Glowing at 8.0 magnitude, can be seen in large binoculars under good dark skies and appears to be embedded in the glow of the larger spiral galaxy. M32 covers a large area of the sky compared with most galaxies (7.6' by 5.8' in diameter), because it is so close. M32 lies suspended in front of the giant wheel of M31's arms. It is so close, M31's core holds M32 gravitationally.

NGC 205 is sometimes called M110 because Charles Messier did observe it, although he did not assign a number. The galaxy's visual magnitude is 8.2, but is more difficult to see than M32, because of its low surface brightness. Its glow is spread out over an area of 17.4' by 9.8'. NGC 205 can be seen with binoculars under dark skies. In small telescopes it appears as an elongated glow with just a slight brightening toward the central core. As a treat to the large scopes, 10-inch or more, within NGC 205 lies the 15th magnitude globular cluster, G73. It might be visible with a 6-inch telescope under excellent skies, though a finder chart will be necessary to distinguish it from the many other stars in the foreground.

If you found M32 and NGC 205 easy to find and observe, and not hard enough, try looking for NGC 147 and NGC 185. Lying six degrees to the north, in Cassiopeia, these two galaxies are gravitationally bound to the Andromeda system. They are both comparable to that, of NGC 205, in terms of surface brightness, but smaller, and at least a full magnitude fainter. Make sure you really saw NGC 205 before you attempt to find these two.

NGC 147 and NGC 185 can be found by star hopping west of Omicron Cassiopeiae. NGC 185 lies one degree west of Omicron and is the brighter of the two at 9.5 magnitude. NGC 185 is a dEO galaxy that measures 11.5' by 9.8' across, making it visible in a 6-inch telescope under very dark skies. Like NGC 205, this compact galaxy has several small dark patches that contain young blue stars.

NGC 147 lies a degree west of NGC 185. It glows softly at 9.5 magnitude. With a diameter of 12.9' by 8.1', this dwarf E4 galaxy is considerably more elongated than neighboring NGC 185. NGC 147 has a lower surface brightness and requires very dark skies - moonlit or light-polluted skies will make this one difficult. Save this one, NGC 147, for a really dark night.

If you have any problems in trying to find any of these objects, and someone else is around, don't be afraid to say, "Excuse me, can you help me find this object? If you would like, I would be happy to help you find yours."

Remember, we all share a common interest.

HAPPY OBSERVING!

-Jason Stahl

PRAIRIE ASTRONOMY CLUB BYLAWS
Revised as of October 1993

NAME

The name of the Club is Prairie Astronomy Club of Lincoln, Nebraska.

PURPOSE

The purpose of the Club is to encourage and to participate in the study of astronomy and related subjects for the benefit of its members and of the general public, including but not limited to owning an observatory, telescopes, or other instruments or property useful in such studies. No part of its income or net earnings are to inure to the benefit of or be distributable to its members, directors, or officers or any private individual.

PROCEDURES

A quorum of one-third of the memberships on the current membership list must be present for a vote to be binding. A family membership shall count as one membership for this purpose. A simple majority vote of the members present is required except where a two-thirds majority vote has been required by these Bylaws. Where a two-thirds majority vote is required, notification of the upcoming vote shall be published in the Club newsletter issued immediately prior to the meeting at which the vote is to be taken.

These Bylaws may be changed by a two-thirds majority vote by a quorum of members at a regularly scheduled meeting. The proposed changes must be presented at a regularly scheduled meeting previous to the meeting at which the vote is taken and must be published in the Club newsletter prior to the meeting at which the vote is taken.

When conducting the business of the Club, procedural disputes shall be decided by consulting Roberts Rules of Order. All amendments to a motion must be voted upon before the vote on the main motion may be called for.

All regular Club meetings shall be open to the general public.

DEBTS AND OBLIGATIONS

A two-thirds majority vote by a quorum at a regular meeting shall be required to obligate the Club for any debt or to increase any outstanding debt. The property of members, directors, and officers shall not be liable for payment of the debts and obligations of the Club.

BOARD OF DIRECTORS

The business of the Club shall be managed by a Board of Directors. The Board shall have the power to spend funds from the treasury for any valid purpose. The Board shall create additional non-elective offices as required and initiate impeachment proceedings against officers who have been negligent in performing their duties.

The Board shall consist of the elected officers of the Club. Each decision of the Board shall require an affirmative vote of three Board members.

ELECTION OF OFFICERS

Five officers shall be elected from the membership: President, Vice-President, Secretary, Treasurer, and 2nd Vice President.

Nominations for the elected officers shall be held during the September meeting and elections held during the October meeting. The term of office for elected and appointed officers shall be from November 1 until October 31 or until a successor is elected. In the event of a vacated elective office, a special election will be held to fill that office for the remainder of the term.

Any single individual is precluded from holding more than one elected office at any one time.

Impeachment of any officer shall require a two-thirds majority vote by a quorum of members at a regular meeting. Notice that an impeachment vote is to be held and the name of the officer involved shall be printed in the Prairie Astronomer prior to the meeting.

Non-elected offices shall be held by qualified Club members appointed by the President.

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DUTIES OF THE ELECTED OFFICERS**President:**

The President shall organize and direct the regular monthly meetings and all other Club activities, officially represent the Club at meetings of regional and national importance where he/she is in attendance or to delegate this authority. The President shall have the authority to call meetings of the Board of Directors and to appoint non-elected officers.

Vice-President:

The Vice-President shall be responsible for meetings when the President is absent. He/She is to be the mediator in cases of procedural dispute, to temporarily assume any duties of any officer at the direction of the President, and to be in charge of Club publicity.

Secretary:

The Secretary shall handle all Club correspondence and be responsible for the distribution of information received through official Club correspondence.

Treasurer:

The Treasurer is responsible for all Club funds and for keeping accurate records of all monetary transactions. He/She shall submit a written report of the Club's monetary status at the request of the President, or give a verbal report at the request of any member during regular meetings. He/She shall also maintain a current inventory of all Club property.

2nd Vice-President:

The 2nd Vice-President shall be responsible for the formation and presentation of monthly Club programs.

DUTIES OF NON-ELECTED OFFICERS**Publications Chairperson:**

The Publications Chairman is responsible for the editing, publishing, and mailing of the Prairie Astronomer in advance of each monthly meeting.

Site Chairperson

The Site Chairperson is responsible for establishing a site committee to oversee the maintenance and security of the club site.

Recording Secretary:

The Recording Secretary is responsible for keeping the minutes of Club meetings and filing a copy with the Club Secretary.

Librarian:

The Librarian shall keep the Club library and promote its circulation among the Club members. Dated records of persons to whom books are circulated are to be kept by the Librarian. He/She shall keep a current bibliographic listing of all Club library materials and file updated copies as necessary with the Club Treasurer.

Observing Chairperson:

The Observing Chairman shall present a monthly report at Club meetings and/or in the Prairie Astronomer. He/She shall attempt to keep members informed of upcoming celestial events, sky objects of special interest, and star parties.

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MEMBERSHIP

There shall be two classes of membership: Individual and Family.

An Individual Membership shall be granted to any individual who has a valid interest in astronomy and the Club's activities, upon payment of the proscribed dues. Family Membership shall be granted to any family, the members of which have a valid interest in astronomy and the Club's activities, upon payment of the prescribed dues. Except for voting rights and dues, the rights of the two classes of memberships are identical.

VOTING

A paid-up Individual member shall have one vote. A paid-up Family membership shall have two votes when two or more family members are present at the time of voting. When only one member of the family is present, he/she may cast one vote. A Family, or Individual, member must be present in order to cast a vote.

RIGHTS OF MEMBERS

Each paid-up membership has the right to:

1. Receive notification of all Club meetings, activities, and other events occurring in the name of the Club.
2. Initiate and second motions. The President does not have this right.
3. Speak out and be heard during Club discussions.
4. Submit for publication articles for the Prairie Astronomer.
5. Submit, without charge, advertisements of relevance for publication in the Prairie Astronomer.
6. Require a reading of the minutes of the last meeting, a Treasurer's Report, or request a secret ballot.
7. Equal opportunity to use all Club-owned equipment and resources.

DUES

Dues shall be determined by the Club membership and adjusted as required to meet expected expenditures.

AUDIT

The Treasurer's books shall be audited within 45 days of the close of the fiscal year via committee of three club members appointed by the President in October.

DISSOLUTION

The Club shall not be dissolved so long as five members vote against dissolution. If the Club is dissolved, its assets at the time of dissolution, after payment of liabilities, shall be distributed to Hyde Memorial Observatory, so long as this observatory is used for purposes of dissemination of astronomical knowledge to the general public.

A Message From the Program Chairman

by Dave Scherping

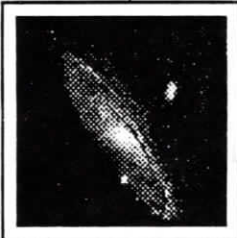
As you are probably aware, at the last meeting I was elected to be this year's Program Chairman. Wow!, what a tough campaign. I thought Lee Thomas was the only one who was supposed to run uncontested. I've definitely got my work cut out for me, especially after the great job Tom Miller did last year. I think Tom deserves a big "atta-boy" for a job well done and for his generosity. Who else would donate a C90, an Astrosystems focuser, 13" optics for the club scope, and numerous other door prizes?

Speaking of door prizes, I have written to 20 vendors asking if they would be willing to donate something for one of our meetings. Hopefully, we will have a few positive responses. The offer also stands for any member willing to donate a door prize. Even little things will be greatly appreciated. Please note: BIG Dobs and Naglers will be acceptable as well.

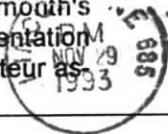
Over the next year I hope to coordinate a variety of exciting programs. At this month's meeting, we will hear an interesting presentation on eyepieces by Doug Bell (reknown amateur as-

tronomer of "Dougbell Nebula" fame) and we'll give away a few books and computer disks for door prizes.

In an effort to determine what type of programs are desired, I have enclosed a questionnaire. Please take the time to fill it out and either give it to me at the meeting or mail it to me. I especially want to hear from those who are willing to give presentations.



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



First Class Mail

Next Meeting
November 30, 1993

93007 04/94 RS
John Johnson
15606 Woolworth Ave.
Omaha NE 68130-2517

Please Notice: If there is an asterisk on your mailing label it is time for you to renew your PAC membership!

inside...

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New PAC Bylaws
Special Club Survey Insert

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