

THE PRAIRIE ASTRONOMER

Volume 16, Number 2

December 30, 1975

PRESSURE OF RISING EXPENSES IS LIKELY TO PUSH UP DUES AT DECEMBER MEETING

The program planned for our last meeting, a videotape replay of Dr. Hynek's address, was delayed, but a lively discussion of club business took its place. A sparse turnout of voting members prevented final votes on the issues discussed, but it is hoped that decisions can be made on

them at the upcoming meeting (see separate story.)

A positive vote was taken on the motion to construct and present a telescope to the city observatory. The motion included the provision that the club's Board of Directors, acting as a committee, would authorize expenditures for the telescope, which is expected to cost about \$150. Larry Stepp, who is heading the committee to construct the telescope, has provided a description of the project on page 2 of this newsletter. Because of a lack of quorum at the last meeting, the vote has the effect only of expressing the club's intention, but we need a quorum vote to make the project official.

PRESIDENT'S MESSAGE

Here it is the second month of my new term as president, and I can't think of much to report on.

I had intended to furnish you with the club bylaws, but I can't find the complete list. If any of you older members who may still have a copy of the bylaws as written up in 1966 or 1967 would please let me

(Continued on page 7)

There was some discussion of the need for an increase in membership dues. Sky & Telescope increased its price to the club for member subscriptions from \$5 each to \$6 effective August 1. On a regular membership, which presently costs \$8, this leaves the club a margin of only \$2 for other expenses.

If the club averages about 65 paid members during 1976, at \$8 each, we can expect revenue from memberships to be about \$520. (In actual practice, some memberships are for the newsletter only, at \$3, and others include an entire family at \$10.)

Sky & Telescope subscriptions for 65 members at \$6.00 would total \$390. Postage for mailing 65 newsletters

(Continued on page 8)

DECEMBER MEETING LOCATION CHANGED

Please note that the December meeting will not be held at Olin Hall of Science because it will not be available to us. Instead, the meeting will be at Mueller Planetarium, in Morrill Hall at the University of Nebraska, Tuesday night, December 30, at 7:30 p.m.

There is convenient parking on the north side of the building in Lot 12, and since it is semester break there will be no competition for parking with night class students. Enter Morrill Hall through the doorway on the west side of the building.

CLUB TELESCOPE PROJECT FOR COMMUNITY OBSERVATORY IS OUTLINED

After the September club meeting Jess and I were talking, over cookies and grape drink, about the new observatory project. We agreed it would be a fine gesture if the Prairie Astronomy Club could help make the project a success, and in discussing ways to help we hit upon the idea of donating a telescope to the observatory-- not a commercial telescope, since we cannot afford to buy one of appropriate quality, and I think it would be a mistake anyway. Many individuals and groups can afford to donate more than we can, and any drop in the bucket we can spare is likely to be lost in the general splashing. We have something of value that many others lack however, in our knowledge of telescopes and astronomy. So at the October meeting I proposed we make a telescope from scratch to give away.

Earl suggested we study the feasibility of such a project and asked me to investigate with a committee including Brad Binder, Don Baker, and Rick Johnson. After some discussion we decided a rich-field 8" telescope was the best option to investigate. The main instrument planned for the observatory has been a 14" Celestron, which has a long focal length, nice for planets but not too great for the Andromeda galaxy or the Pleiades. Telescopes of too short a focal ratio are much more difficult to build, so

we hit upon f/6.25 as a compromise focal ratio (50" focal length). We chose an 8" mirror because a 10" is a lot more work, a 6" is a lot less telescope, and we had an 8" blank lying around anyway. For convenience in observing we decided on a fork mounting; for practicality we chose a Parks fiberglass tube; and we decided upon a permanent pedestal mounting if possible for stability.

With these parameters chosen I worked on a preliminary design and investigated costs of materials, and at our last meeting Brad, Don, and I presented a report. The total cost of the project will be in the neighborhood of \$150.00 which includes \$50.00 for the tube, \$16.50 for the diagonal, and about \$16.00 for the mirror coatings. Jess has very graciously offered to donate a Jaegers clock drive which will save us at least \$50.00. The project was put to a vote and was approved unanimously by the club members present.

We will need some skilled help from club members to make this effort a success, and I have determined the following needs, for which we already have some volunteers:

- 1 woodworker: Tombe
- 2 mirror grinders: Walt Baumann,
Jeff Mallott
- 1 welder: Dr. Manthey

(Continued to page 7)

THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club, and is free to club members. Yearly newsletter subscription without regular membership is \$3. Regular membership (including one-year subscription to Sky & Telescope, club newsletter, and four quarterly issues of the Astronomical League publication *The Reflector*), is \$8. Family membership, \$10. Ed-

itor: Dr. Lee Thomas, 89-3850, Eastman, Edgemoor, Merton Sprengel, 89-5177.

TREASURER'S REPORT GIVES CLUB INCOME STATEMENT FOR PAST YEAR

When discussions about dues increases start, it is helpful to have information on actual income and expenditures at hand. The following income statement covers the period of the present treasurer's first year in office, December 15, 1974, until December 14, 1975.

One item in the statement distorts the net income, and that is income from telescope sales. One telescope was purchased on December 1, 1974, from Bob Crosby for \$100. This expenditure is not reflected in the statement shown, but the income received from sale of the telescope, which took place during the period covered by the statement, is shown.

Another point to note is that some club members make donations of materials to the club without receiving payment from the treasury. These include Jess Williams, who frequently donates the door prizes, Dr. Robert Manthey and Earl Moser who supply refreshments at the meetings, and John Bruce, who received payment only for postage, not the supplies required for printing the newsletter during his tenure as President.

It is easy to see that, if the club had actually paid for all the goodies it received during the past year, the income statement might very well have been printed in red.

Income

Membership dues.....	\$431.00
Telescope sales.....	322.00
Miscellaneous.....	9.45
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Total Income.....	\$762.45

Expenses

Sky & Telescope	
Subscriptions.....	\$262.00
Telescope Purchases.....	53.00
Corporation Fee (1975-1976)..	10.00
Printing Supplies.....	16.66
Postage.....	72.40
Donation to Community	
Observatory.....	27.53
Astronomical League Dues.....	26.50
Purchase of Mirror Grinder...	75.00
Star Party.....	12.17
	<hr/>
Total Expenses.....	\$555.26
Net Income (Loss).....	\$207.19
Bank Balance as of 12/14/75..	\$428.21

ASTRONOMY MINI-COURSE FOR BEGINNERS TO BE OFFERED BY UNL EXTENSION

Jack Dunn, Director of Mueller Planetarium at the University of Nebraska, tells us that the finishing touches are being put on a minicourse Introduction To Astronomy that will be offered this Spring. It would be an excellent way for new club members to learn some of the basics.

The course is a project of the UNL Extension Division, and will

meet five consecutive Tuesday nights beginning March 16. There will be a modest fee, as yet undetermined. For details, check with Jack Dunn. Registration will be through the UNL extension Division.

**DON'T FORGET--THIS MONTH'S MEETING
IS AT MUELLER PLANETARIUM, UNL
--NOT AT NEBRASKA WESLEYAN!**

PRAIRIE ASTRONOMY CLUB--MEMBERSHIP ROSTER, December 30, 1975

1. Don Baker	2616 North 59th Street	Lincoln, Nebraska 68507
2. Walter Baumann	Route #1, Box #52	Roca, Nebraska 68430
3. Roger Besch	1030 North 78th Street	Lincoln, Nebraska 68503
4. Brad Binder	415 Lyncrest Drive	Lincoln, Nebraska 68510
5. Rex Brinton	1315 Plum Street	Lincoln, Nebraska 68502
6. John Bruce	5001 Bellhaven Drive	Lincoln, Nebraska 68516
7. Felix Cavosie	4116 G Street	Lincoln, Nebraska 68510
8. Sekhar Chivukula	601 Mulder Drive	Lincoln, Nebraska 68510
9. Dr. John Clothier	355 South Cotner Blvd.	Lincoln, Nebraska 68510
10. Duane Coates	Burt Hall, Nebr. Wesleyan	Lincoln, Nebraska 68504
11. Monte Cole	800 Eldon Drive	Lincoln, Nebraska 68510
12. Russell Copple	Route 1	Alvo, Nebraska 68304
13. Geoff Crooks	2816 North 63rd Street	Lincoln, Nebraska 68507
14. David Daiker	1537 North 57th Street	Lincoln, Nebraska 68505
15. Allen Daubendick	1821 Jackson Street	Beatrice, Nebraska 68310
16. Jack Dunn	5514 Briarwood Avenue	Lincoln, Nebraska 68516
17. Rollin Ellis	Route #1, Box #152	Roca, Nebraska 68430
18. Mike Engel	5512 R Street	Lincoln, Nebraska 68504
19. Dr. Charles Erickson	7120 Oxford Street	Lincoln, Nebraska 68520
20. Harlan Franey	1734 South Cotner Blvd.	Lincoln, Nebraska 68506
21. Norman Frerichs	1623 Lincoln Street	Beatrice, Nebraska 68310
22. Clark Fuller	2811 S Street	Lincoln, Nebraska 68503
23. Richard Goeglein	6821 Kearney Street	Lincoln, Nebraska 68507
24. Joe Hamersky	3748 South 40th Street	Lincoln, Nebraska 68506
25. Dick Hartley	320 Wedgewood Drive	Lincoln, Nebraska 68510
26. Richard Heim, Jr.	335 N.W. 19th Street	Lincoln, Nebraska 68528
27. Duane Hutchinson	3445 Touzalin Avenue	Lincoln, Nebraska 68507
28. John Johnson	566 Naples St., Apt. 114	Chula Vista, California 92011
29. Rick Johnson	1860 Pawnee Street	Lincoln, Nebraska 68502
30. Steven Kell	RFD 8	Lincoln, Nebraska 68506
31. Warner Klammer	1648 North Columbia Street	Seward, Nebraska 68434
32. David Knisely	1616 North 14th Street	Beatrice, Nebraska 68310
33. Ken Kopta	1544 Crestline Drive	Lincoln, Nebraska 68506
34. David Kopta	6027 Lexington Street	Lincoln, Nebraska 68505

34. David Kubicek	6727 Lexington Street	Lincoln, Nebraska 68505
35. Steven Lau	3701 South 44th Street	Lincoln, Nebraska 68506
36. Jeff Mallott	2731 Anderson Drive	Lincoln, Nebraska 68506
37. Dr. Robert Manthey	Gateway Shopping Center	Lincoln, Nebraska 68505
38. K. Miller	1149 South 17th Street	Lincoln, Nebraska 68502
39. Prof. Carroll Moore	1140 North 79th Street	Lincoln, Nebraska 68505
40. Earl Moser		Hickman, Nebraska 68372
41. Jim Nicolai	240 Wedgewood Drive	Lincoln, Nebraska 68510
42. Bill Noel	1646 David Drive	Lincoln, Nebraska 68504
43. Philo Prell	4425 Randolph Street	Lincoln, Nebraska 68510
44. Mark Pretzer	Route #4	Beatrice, Nebraska 68310
45. Carroll Reinert	3895 Sheridan Blvd.	Lincoln, Nebraska 68506
46. Virginia Reller	1906 D Street	Lincoln, Nebraska 68502
47. Curtis Roelle	2612 South 30th Street	Columbus, Nebraska 68601
48. James Rogers	8211 Cherrywood Drive	Lincoln, Nebraska 68510
49. Steve Roper	5731 Glade Street	Lincoln, Nebraska 68506
50. Brian Rugg	3468 Woods Avenue	Lincoln, Nebraska 68510
51. John Say	805 Harper Hall, UNL	Lincoln, Nebraska 68503
52. Tom Schleich	1830 St. James Road	Lincoln, Nebraska 68520
53. John Schroeder	3760 South 40th Street	Lincoln, Nebraska 68506
54. Mildred Seacrest	Gateway Manor, 56th & R Sts.,	Lincoln, Nebraska 68505
55. Roger Severns	3717 South 18th Street	Lincoln, Nebraska 68502
56. Jim Shaffer	Calvert Place	Lincoln, Nebraska 68506
57. Wendell Slubbendieck	1636 South 20th Street	Lincoln, Nebraska 68502
58. Merton Sprengel	4522 Hillside Street	Lincoln, Nebraska 68506
59. Larry Stepp	5341 Ervin Street	Lincoln, Nebraska 68507
60. Lee Thomas	1025 No. 63rd, Apt. B107	Lincoln, Nebraska 68505
61. John Vajgrt	1020 K Street	Lincoln, Nebraska 68508
62. Jess Williams	7844 So. Sycamore Drive	Lincoln, Nebraska 68520
63. Ed Woerner	4911 Lowell Street	Lincoln, Nebraska 68506
64. George Work	2515 South 39th Street	Lincoln, Nebraska 68510

COMET WATCH SHOWS 1975 WAS VERY ACTIVE YEAR, AND '76 IS LOOKIN' GOOD TOO!

Probably because of the Kohoutek misfire, the media have been very quiet about comet discoveries, when in fact there have been an abundance of fairly bright comets this year. Almost anyone who cared to look easily spotted Kobayashi-Berger-Milon this summer. Comet Suzuki-Saigusa-Mori (1975k) was discovered in early October, then skittered into far southern skies where it has attained estimated magnitude as bright as 4 in early November. Comet Sato (1975q) was discovered in early December when it had already attained nearly 9th magnitude, then rapidly moved into the southern sky where it was predicted to reach a magnitude of approximately 7 on the 18th. Both of these Japanese-discovered comets reached their peaks too far south for Nebraska observers.

But now we are watching for comet Bradfield (1975p), discovered on November 11 by Australian William A. Bradfield. This one appears headed for a period of naked eye visibility around the New Year.

We must be careful in referring to this comet solely as Comet Bradfield, because the discoverer has picked off three other comets in the last three years: Bradfield 1972 III, Bradfield 1974b, and Bradfield 1975d. Notice that none of these comets bears the name of a co-discoverer -- Bradfield had them all to himself!

Bradfield 1975p was positioned at RA 11h35m15.43s, DEC -42°14'38.3", magnitude 8 on November 17. Eleven days later, November 28, it had moved through about two hours of right ascension and about 6½ degrees of declination to RA 13h41m10.61s, DEC

-48°57'44.2". Orbital elements calculated from these observations by Brian Marsden show an orbital inclination of 70°.642, which will sweep the comet rapidly north of the ecliptic plane after perihelion (closest approach to the sun) on December 21 at a distance of 18,600,000 miles (.218 A.U.).

All this means we should find Bradfield emerging from the solar glare by December 27. If it brightens as the inverse fourth power of its distance from the sun, it should be about third magnitude on that date, fourth magnitude on December 30, fifth magnitude on January 1, and about eighth magnitude on January 23. The comet will be moving eastward and slightly toward the north, starting about 20° west of Altair in the constellation Aquila on December 28, and moving in the general direction of Altair.

The comet might first become visible to the unaided eye about January 1, as it moves steadily higher above the evening horizon as nautical twilight ends. Telescopic observers should be able to pick it up long before that, however. By January 8, a waxing first-quarter moon will begin to interfere with observations. During the first half of January the comet's tail will be pointing away from the horizon and toward the right (north), and each degree of observed tail will correspond roughly to 2,000,000 miles.

When Bradfield fades, we might expect comet West (1975n) to reach

LATEST REPORT SHOWS GOOD PROGRESS ON BICENTENNIAL COMMUNITY OBSERVATORY

This is a report of where the Observatory is and of some thinking about the future. The pledges so far for the observatory have been very good. The total to date is \$15,200, plus architect's fees of \$4,000.

Mr. Dale Sheer, Executive Vice President of Midwest Life Insurance has agreed to direct a small drive of Lincoln businesses in January. We are very pleased that he will help.

The Lincoln School Board has given a very good endorsement of the project. As you know, it is both a state and city Bicentennial project. It has also received backing of the Park Department, the City Council, and the Mayor. There has been good support.

The City needs to have the money in hand before it can order or start to build. It is hoped that many who

have pledged will be able to send some or all of their money soon to the Lincoln Foundation, for the Observatory fund. Eight thousand is needed soon so that telescopes can be ordered for delivery when needed.

If all the money is in by March 1, 1976, the bids could be let and construction started by March 15. The architect thinks that the work would take about three months. In case we do not reach our goal of \$60,000 (due to inflation), some would like to build the observing part and finish the lecture area when the rest of the money is received.

--Carroll Moore, Chairman
Community Bicentennial Astronomical
Observatory Committee

TELESCOPE PROJECT (from page 2)

1 auto body worker: (Barry Magnass?)

2 machinists:

Larry Stepp

1 collimator: Earl Moser

1 draftsman: Don Baker

If you are skilled at one of these, whether we have a volunteer for it or not, please contact me at 464-0140. We are shooting for April to have the project finished, and we will have reports each month of our progress on the parts of the assembly.

--Larry Stepp

PRESIDENTS REPORT (From page 1)

borrow them, I would appreciate it.

The club membership turned the matter of raising the dues over to the Board of Directors. We will make a final decision and announcement at our December meeting.

We plan to have Russ Maag, Vice President of the Astronomical League, give part of the program this month. Russ has been involved in Astronomy many years and you can always depend on him for a good program. Let's have a good turnout for our December meeting, and if you have visitors or guests at your house, bring them along. Remember, the meeting will not be at Olin Hall this month, but at Mueller Planetarium.--Earl Moser

COMET WATCH (from page 6)

naked eye visibility in the eastern morning sky. West is expected to reach about fifth magnitude and be well placed for observation in mid-March, according to an ephemeris by Dr. Richard Schmidt of the U.S. Naval Observatory.

POSSIBLE RISE IN DUES, NEWSLETTER FILE, DISCUSSED AT LAST MEETING

(Continued from page 1)

per month at the new postage rates of 13¢ would be \$101.40 for the year. Printing costs for the newsletter are expected to average slightly over \$4 per month, for a total of about \$50. Thus, total expenses would be \$541.40, with revenues of \$520. Naturally, these figures disregard other club revenue and expenses. You can get an idea of what these might be by examining the Treasurer's report on page 3.

One proposal for a new dues schedule is: Single membership, \$10; Family membership, \$12; Newsletter only, \$4.

A suggestion was made that a com-

plete file of club newsletters published since the beginning be assembled. If you have some of the older issues squirreled away in the attic your wife is nagging you about cleaning out, the club would like to have them. Contact Earl Moser.

It was noted that the Messier object cards recently advertised, in which some club members had expressed an interest, have been ordered and received by Professor Carroll Moore. He plans to use them in teaching, but if you are interested in what they look like and how to go about ordering yourself a set, you can check with him.

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FIRST CLASS MAIL

Mr. Earl Moser
Hickman,
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9/76