

THE PRAIRIE ASTRONOMER

Volume 17, Number 3

January 25, 1977

JANUARY CLUB MEETING IS EXPECTED TO BE BUSY WITH IMPORTANT BUSINESS

The January meeting of the Prairie Astronomy Club will be held at Olin Hall, Nebraska Wesleyan University, Tuesday, January 25, 1977, at 7:30 p.m.

Many items are on the agenda for this meeting.

First, we will be taking orders for posters and post cards from Hansen Planetarium, which were discussed at the last meeting. (A partial listing of items appears elsewhere in this issue, along with prices.) The order will be placed cash in advance, so be sure to bring change along with you.

The Astronomical Calendars, limited supply, have arrived and will be available at \$3.95 per copy at the January meeting. Sale will be on a strictly first-come, first-serve basis, so that if you miss the meeting, you will miss the calendars. At press time, the Observer's Handbooks had still not arrived from Canada, but we have passed the usual month's waiting time since the order was set so it is quite likely that these, too, will be available for sale. Price will be announced at the meeting, based on our discount and the mailing charges which we won't know until the shipment arrives.

We will be discussing the possibility of raising club dues. Here is how your present \$9 membership dues are used for club expenses:

Sky & Telescope Subscription	\$6.00
Astronomical League membership dues.....	1.00
Newsletter:	
Paper.....	.49
Ink.....	.25
Stencils.....	.90
Postage.....	<u>1.56</u>
	3.20

Expenses, per member..... 10.20

The deficit so far has been absorbed by the cushion in the club's treasury, which is rapidly dwindling, and by family memberships, which contribute \$2.00 to the treasury over the regular membership fee, and by the fact that we have yet to actually pay the new, increased Astronomical League dues.

At present, our regular \$9.00 membership dues are actually \$1.00 cheaper than a "civilian" subscription to Sky & Telescope, making club membership an outstanding, if not downright tantalizing value.

Also at this month's meeting, Carroll Moore will bring us up to date on the Community Observatory, for which fund raising has now been completed. Construction is planned to begin this spring, with a summer 1977 opening.

And, Jack Dunn says he will have an "unannounced" program. It should be a very important meeting, so be sure to attend.

PRAIRIE ASTRONOMY CLUB -- MEMBERSHIP ROSTER, January 25, 1977

1. Donn Baker	2616 North 59th Street	Lincoln, NE 68507
2. Walter Baumann	2305 Marilynn Avenue	Lincoln, NE 68502
3. Tom Beardsley	5400 N Street	Lincoln, NE 68510
4. Michael G. Benes	722 Hill Street	Lincoln, NE 68502
5. Bill Besch	7420 Garland Street	Lincoln, NE 68505
6. Brad Binder	415 Lyncrest Drive	Lincoln, NE 68510
7. Rex Brinton	1315 Plum Street	Lincoln, NE 68502
8. Felix Cavosie	911 Division Street	Hurley, Wisconsin 54534
9. Sekhar Chivukula	7801 South Street	Lincoln, NE 68520
10. Dr. John Clothier	355 South Cotner Blvd.	Lincoln, NE 68510
11. Brian Cooper	5930 LaSalle Drive	Lincoln, NE 68516
12. Russell Copple	Route #1	Alvo, NE 68304
13. Geoff Crooks	2816 North 63rd Street	Lincoln, NE 68507
14. David Daiker	P.O. Box 629	Waverly, NE 68462
15. Allan Daubendick	1821 Jackson Street	Beatrice, NE 68310
16. Jack Dunn	5514 Briarwood Avenue	Lincoln, NE 68516
17. Rollin Ellis	Route #1, Box 152	Roca, NE 68430
18. Harlan Franey	1734 South Cotner Blvd.	Lincoln, NE 68506
19. Norman D. Frerichs	1423 Lincoln Street	Beatrice, NE 68310
20. Clark Fuller	2811 S Street	Lincoln, NE 68503
21. Richard Goeglein	6821 Kearney Avenue	Lincoln, NE 68507
22. Joe Hamersky	3748 South 40th Street	Lincoln, NE 68506
23. Dick Hartley	320 Wedgewood Drive	Lincoln, NE 68510
24. Duane Hutchinson	3445 Touzalin Avenue	Lincoln, NE 68507
25. Richard Johnson	1860 Pawnee Street	Lincoln, NE 68502
26. Marguerite A. Kellett	P.O. Box 267	Valparaiso, NE 68065
27. Werner Klammer	1648 North Columbia Street	Seward, NE 68434
28. Ken Kopta	1544 Crestline Drive	Lincoln, NE 68506

29.	Mike Larson	2933 South 44th Street	Lincoln, NE 68500
30.	Allan Logan	7920 Cherrywood Drive	Lincoln, NE 68510
31.	Marian McIntyre	2342 21st St., P.O. Box 516	Waverly, NE 68462
32.	Jeff Mallatt	2731 Anderson Drive	Lincoln, NE 68506
33.	Dr. Robert Manthey	Wards Optical Dept, Gateway Center--Lincoln, NE 68505	
34.	K. Miller	1149 South 17th Street	Lincoln, NE 68502
35.	Professor Carroll Moore	1140 North 79th Street	Lincoln, NE 68505
36.	Earl Moser		Hickman, NE 68372
37.	William F. Norris	2832 Manse Avenue	Lincoln, NE 68502
38.	Tom Peterson	6161 South 70th Street	Lincoln, NE 68516
39.	Philo Prell	4425 Randolph Street	Lincoln, NE 68510
40.	Carroll Reinert	3895 Sheridan Boulevard	Lincoln, NE 68506
41.	Curtis Roelle	6831 Bethany Park Drive	Lincoln, NE 68505
42.	Joe & Jennie St. Lucas	4827 Judson Street	Lincoln, NE 68504
43.	Mildred Seacrest	Gateway Manor, 56th & R Streets	Lincoln, NE 68505
44.	Jim Shaffer	Calvert Place	Lincoln, NE 68506
45.	Merton Sprengel	4522 Hillside Street	Lincoln, NE 68506
46.	Larry Stepp	4200 South 32nd Street	Lincoln, NE 68502
47.	Fred Stuart	3720 South 40th Street	Lincoln, NE 68506
48.	Matt Sweet	3630 South 27th Street	Lincoln, NE 68502
49.	L. Lee Thomas	1025 No. 63rd, Apt. B107	Lincoln, NE 68505
50.	Ronald B. Veys	5400 Salt Valley View, Apt. 10	Lincoln, NE 68512
51.	Jess Williams	7844 South Sycamore	Lincoln, NE 68520
52.	Ed Woerner	4828 Meredith Street	Lincoln, NE 68506

(Membership roster is published twice yearly, in the January and July issues of The Prairie Astronomer. List includes persons whose membership was paid and in force at the date shown.)

PARTIAL LIST OF HANSEN PLANETARIUM ITEMS AVAILABLE FOR SALE AT JANUARY MEET

Apollo Posters (\$2.25 ea.)

AP HP-10 The Earth From Space
 AP HP-21 Man on the Moon
 AP HP-12 Earthrise

Astro Posters (\$2.25 ea.)

AP S-19 North American Nebula
 AP S-20 Veil Nebula
 AP S-23 Orion Nebula
 AP S-24 Andromeda Galaxy
 AP S-26 Trifid Nebula
 AP S-30 Pleiades Star Cluster
 AP S-33 Rosette Nebula
 AP S-35 Gaseous Nebula in Serpens
 AP S-37 Planetary Nebula in
 Aquarius
 AP S-40 Mars
 AP S-42 Saturn

Apollo Postcards (Set of 12 -- \$1.00)

The Launch of Apollo 11
 Earth View
 Approaching Tranquility Base
 Descending onto the Moon
 First Man on the Moon
 Footprint on the Moon
 Aldrin's Visor Reflecting Armstrong
 The United States Flag on the Moon
 At Work on the Moon
 Seismometer Deployed
 Eagle Returns for Rendezvous
 Apollo 11 Astronauts


Complete listing will be available at the January meeting. See Ed Woerner at the meeting to renew your club membership if it is due.

THE PRAIRIE ASTRONOMER
 c/o Lee Thomas
 1025 No. 63rd, Apt. B107
 Lincoln, Nebraska 68505

FIRST CLASS MAIL

Mr. Earl Moser
 Hickman,
 Nebraska 68372



SUNDAY	MONDAY	TUESDAY
<p>INFORMATION ON EVENING PLANETS:</p> <p>SEE FEB 13, 28, AND BOXES FOLLOWING FEB 28.</p>	<p>AT OPPOSITION, an object is visible all night (low E at dusk, high in S in middle of night, and low W at dawn). This week, Saturn is at opposition night of Feb 1, moon night of Feb 3.</p>	<p>One hour after sunset: 1</p> <ul style="list-style-type: none"> ● Castor ● Pollux ○ Moon ● Procyon
<p>Mercury, low in ESE morning sky, gets more difficult to see this week. Using binoculars 40 min before sunrise, try for Mars 4° to lower left:</p> <p style="text-align: center;">Mercury Mars </p>	<p>Moon remains visible in daytime for an hour or two after sunrise. Each morning, moon sets later. Look for moon in daytime each morning thru Feb 16.</p>	<p>One hour before sunrise: 8</p> <ul style="list-style-type: none"> ● Spica ○ Moon
<p>Last month's map shows sky tonight 1 hr after sunset; this month's, 3 hrs after. Use planets to help you find clusters: Pleiades, 8 1/2° from Jupiter, and Beehive, 6° from Saturn. Beautiful in binoculars! 13</p>	<p>According to astrologers, sun entered sign of Aquarius Jan 19. But sun enters constellation tomorrow. Nearly 2000 years ago signs matched constellations, but have since slipped nearly 30° because of precession. 14</p>	<p>Sun enters constellation Aquarius. Halfway around zodiac from sun's place and visible all night is the Sickle in Leo. Look low in east as sky darkens. 15</p>
<p>One hour after sunset: 20</p> <ul style="list-style-type: none"> Venus ● Moon ☾ 	<p>Very easy to find Venus in daytime: 15 min before sunset, Venus 3°-4° upper right of moon, 43° up in SW. One hour after sunset they look like this: 21</p> <p style="text-align: center;">Moon ☾ ● Venus</p>	<p>One hour after sunset: 22</p> <ul style="list-style-type: none"> ☾ Moon Venus ●
<p>This week, use map, February Evening Skies, around end of evening twilight (about 1 1/2 hours after sunset). 27</p>	<p>Venus at greatest brilliancy (nearly same brightness 2 weeks before and after this date). Watch Venus rapidly approach sun next 5 weeks. For info on phases, see boxes at right. 28</p>	<p>Venus, the brightest planet, this month attains greatest brilliance and latest setting time of its current evening apparition. There's no mistaking Venus, brightest "star" in sky until it sets 3-4 hrs after sun.</p>

Magnitudes of the Planets: Venus -4.1 to -4.3; Jupiter -2.0 to -1.8; Mercury 0.0; Saturn +0.1; Mars +1.5
 Planets against star background: Venus moves 22° eastward in Pisces; note changes in its alignment with the east side of the Great Square of Pegasus; Jupiter moves 2.7° east, shifting from Arctis into Taurus and approaching to within 7° of the Pleiades; Saturn retrogrades (moves west) 2.1° and concludes the month 4.5° east of the Beehive cluster in Cancer. See this month's map for positions of planets.

Teachers and students observe the sky

WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>One hour after sunset:</p> <p>Two hours after sunset:</p> <p>Saturn</p>	<p>Two hours after sunset:</p> <p>Saturn</p> <p>Full Moon</p> <p>Regulus</p>	<p>Two hours after sunset:</p> <p>Saturn</p> <p>Regulus</p> <p>Moon</p>	<p>2 1/4 hrs after sunset:</p> <p>Regulus</p> <p>Moon</p>
<p>One hour before sunrise:</p> <p>Spica</p>	<p>10</p> <p>Moon, nearing Last Quarter, is slightly more than half full in morning sky. An hour before sunup, look for 3rd-mag Alpha in Libra near moon. Binoculars show it as pretty double star.</p>	<p>One hour before sunrise:</p> <p>Moon tomorrow</p> <p>Moon this morning</p> <p>Antares</p>	<p>12</p> <p>Can you still see Mercury? This morning 40 minutes before sunrise it is only 2° above ESE horizon. Use binoculars. If you find Mercury, look for Mars 0.2° to lower left.</p>
<p>Minutes before sunrise:</p> <p>Use binoculars for Mars and Mercury. Mars will emerge from twilight end of May.</p> <p>Mars</p>	<p>17</p> <p>New Moon, in conjunction with sun, not visible. Regulus, in Leo, is in opposition to sun tonight. See box before Feb 1. For telescope: Jupiter's satellite III goes into shadow 7:45 pm EST, comes out 10:05 pm EST.</p>	<p>18</p> <p>Can you see the very young thin crescent moon tonight? It is less than 24 hours old. Using binoculars 40 min after sunset, look 1 1/2° above horizon, 8° south of due W.</p>	<p>19</p> <p>Moon, setting about an hour later each night, is very pretty in early evening. Look for earthshine, "the old moon in the new moon's arms", on dark side.</p>
<p>One hour after sunset:</p> <p>Pleiades</p> <p>Aldebaran</p> <p>Jupiter</p> <p>Moon</p>	<p>One hour after sunset:</p> <p>Pleiades</p> <p>Aldebaran</p> <p>Jupiter</p> <p>Moon</p>	<p>One hour after sunset:</p> <p>1st Qtr Moon</p> <p>Pleiades</p> <p>Aldebaran</p> <p>Jupiter</p>	<p>One hour after sunset:</p> <p>Moon</p> <p>Aldebaran</p>
<p>Venus approaches earth during Feb March, its changing phases are very interesting to watch with a telescope. Avoid glare of Venus against dark sky, look immediately after sunset or in daytime.</p>	<p>As Venus gets closer to earth, its crescent shape gets large enough to distinguish with 7X binoculars in late Feb. At sunset on Feb 1, Venus is 41° up in SW. At sunset Mar 1, Venus is 38° up in WSW.</p>	<p>Jupiter ranks next in brightness after Venus among all "stars" in evening sky. In first part of month, Jupiter passes due south during evening twilight. Later, Jupiter moves thru SW and W sky, setting after midnight.</p>	<p>Saturn, as evening twilight ends, is bright "star" in east, below Gemini Twins and 16°-18° upper right of Regulus (see box before Feb 1). For positions of Jupiter and Saturn among stars, see this month's map.</p>

East Lansing Sunrise: February 1 7:53 a.m.; February 15 7:35 a.m.; February 28 7:16 a.m. EST
 Sunset: February 1 5:51 p.m.; February 15 6:09 p.m.; February 28 6:26 p.m. EST