

THE PRAIRIE ASTRONOMER

Volume 17, Number 7

May 31, 1977

ASTRONOMICAL LEAGUE ELECTION SUBJECT FOR MAY MEETING

5-77

The 1977 Nominating Committee of the Astronomical League has presented the following slate of nominees for the national offices of the League:

President:

Mr. B.E. Williams (Memphis Astronomical Society, Southeast Region)

Mr. R. E. Fried (previous Vice President and President of national League)

Vice President:

Mr. J. Del Wiseman, Jr. (Portland Astronomical Society, Portland, Oregon)

Mr. Hollis Schmohe (incumbent, Central Missouri Amateur Astronomers)

Secretary:

Mr. Rollin P. Van Zandt (incumbent President, Peoria Astronomical Society, North Central Region)

Executive Secretary:

Mr. Jerry M. Sherlin (Omaha Astronomical Society, Mid-States Region)

Mr. Richard E. Wend (Racine Astronomical Society, North Central Region)

Additional nominations will be solicited from the floor at the National Convention in Boulder. We have received the official ballot for use in placing the club's votes, either by mail or by presentation at the convention. We must determine which method we will use, and before August

1, take an official vote of club members to determine how to cast the two votes to which our club, based on its paid membership, is entitled. Preliminary discussion of this voting will take place at the May meeting.

MAY MEETING FEATURES ETV SPECIAL "KEY TO THE UNIVERSE"

This month's meeting of the Prairie Astronomy Club will take place on the last day of May, Tuesday, May 31, 7:30 p.m., at Olin Hall of Science, Nebraska Wesleyan University.

The program will be a videotape replay of the ETV production, "Key To The Universe", which was aired on the Nebraska Educational Television Network (KUON-TV) May 24. It is a report surveying recent findings about the nature of the universe and its component matter. Scientists are shown analyzing X-rays emitted from distant galaxies and poring over photographs of the tracks left by subatomic particles on Earth. The X-rays are said to confirm the existence of dying yet immensely powerful stars, black holes, while radio waves support the big-bang theory of creation. But the biggest news concerns the smallest phenomena: quarks. Found

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OBSERVING CHAIRMAN'S REPORT: ENOUGH GALAXIES TO KEEP ANYBODY HAPPY

This month galaxies abound, which isn't surprising since we are looking out of the plane of our own galaxy toward several rich clusters of galaxies. In Leo, we find a fairly bright spiral galaxy, NGC 2903, in the mane of the lion about one and a half degrees south of Lambda Leonis. It shows some possible detail in large instruments and is worth the search.

South of the star 52 Leonis lies a large grouping of galaxies. The tightest bunch of galaxies is the small group consisting of NGC 3384, NGC 3379 (M105) and another galaxy which is not identified in the Skalnate Pleso atlas. This group lies almost directly between the stars 53 and 52 Leonis or about $3\frac{1}{4}$ degrees north and about 4 degrees east of Rho Leonis.

About a degree southwest of this group lies the widely separated pair of galaxies M95 and M96 which appear as oval patches devoid of detail.

Farther east lies the easy trio of galaxies M65, M66, and NGC 3628. M65 and M66 are located directly between Iota and Theta Leonis and are visible in a three or four inch, while NGC 3628 is visible only with a larger instrument, appearing as an elongated streak. My eight inch shows

a faint dark lane down this galaxy as well as some detail in M66.

If this doesn't satisfy your appetite for galaxies, then point your telescope about 3 degrees north of Rho Virginis. I have seen as many as 10 galaxies in a one degree field with my eight inch and I couldn't go one degree in any direction from there without running into at least one additional galaxy.

If you get tired of galaxies, look about a degree northeast of Alpha Coma Berenices for NGC 5024 (M53), a fairly bright globular that shows a few stars in an eight inch. Nearby about one degree east of Alpha is another globular, NGC 5053, which is a bit fainter than M53.

--David Knisely

MAY MEETING FEATURE IS VIDEOTAPE

(From Page 1)

in protons and neutrons, quarks are called "the building blocks of matter". Physicists (backed by animation and scale models) describe the complex interaction of quarks.

You will find an interesting article backgrounding the program by Isaac Asimov in the May 21-27 issue of TV Guide. Since the program runs 2 hours, only the first half will be seen at this meeting.

THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club and is free to club members. Yearly subscription without club membership is \$4.00. Regular membership (includes one-year subscription to Sky & Telescope, club newsletter, and four quarterly issues of the Astronomical League publication, The Reflector), is \$10.00. Family membership is \$12.00. Newsletter Editor, Lee Thomas (430-3356)

"STAR WARS" TICKETS AVAILABLE TO ASTRONOMY CLUB MEMBERS

"Star Wars", a film described by Time Magazine as "the best film of the year", is due to open at the Stuart Theater on June 22. The Stuart is being specially equipped with Dolby Stereophonic Sound for the event.

A special premiere performance of "Star Wars" will be held Tuesday night, June 21, at 8:00 p.m., co-sponsored by KLNS and the Stuart Theater. A limited number of free tickets are being made available for members of the Prairie Astronomy Club who are interested in attending this premiere. Lee Thomas will have details at the May meeting.

Advance publicity on the film indicates that the special effects rival those in Kubrick's 2001: A Space Odyssey. "Star Wars", however, is a space fantasy, not a science fiction film, so be prepared to suspend your scientific disbelief.

President's Report

OBSERVATORY MOVING AT GOOD PACE-- TELESCOPE DECISIONS ARE COMING UP

I drove by the Hyde Memorial Observatory the other evening, and I was pleased to see the progress being made. The concrete floors are in place and the frames for the walls are up, with some plywood sheathing already on. I am no expert, but as far as I can tell, the construction work seems to be of good quality.

Also, I can report that the lights from the baseball fields are not as much of a problem as I had feared. On a good, clear night I don't think they will be noticeable.

In regard to our eight inch telescope, we are going to need to send for certain parts (such as eyepieces) right away in order to get them in time, so we will need to make some decisions at the next meeting.

We will be having a Gateway show on the 26th (before the date of our May meeting) and will report on the turnout. Keep the 23rd of June in mind for our next Gateway show, weather permitting.

One more reminder about the conventions coming up. Our Mid-States Convention (see story below) will be in Wichita on June 17-18 and 19. The National Astronomical League convention will be held in Boulder, Colorado August 10-13. These will both be well worth going to. See you at the meeting!

--Larry Stepp

MIDSTATES REGIONAL CONVENTION SCHEDULED FOR WICHITA JUNE 17-19

We've been talking alot about the national Astronomical League convention in Boulder, to the exclusion of a convention just as important, and closer to home. The 27th annual Mid-States Regional will be held Friday, Saturday, and Sunday, June 17-19, at Friends University in Wichita, Kansas. The host society is the Wichita Astronomical Society.

Attractions include the Friends
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MID STATES REGIONAL CONVENTION SCHEDULED FOR WICHITA

(Continued from Page 3)

University Observatory, with its 10-inch telescope, the Wichita Omnisphere, Wichita State University Observatory, with Dynamax 8s, 5 -inch Richest Field refractors, a 26-inch Newtonian, and 3½ - inch refractor. Speakers will include Dr. David Alexander, professor of physics and astronomy, Wichita State University, Jose Olivarez, director, Wichita Omnisphere, and Dr. Robert W. Johnson, professor of physics, Friends University.

Registration fees are \$5 for individuals, \$6 for families. Dormitory rooms are \$3 per night, meals

\$12/ Total for families is \$24. for individuals. \$23

Papers: cContact Jim Petrou, Department of Physics, Wichita State University, to present a report or paper on your favorite topic.

Exhibits: contact Robin Riddel, 621 South Glenn, Wichita, KS 67213.

Chairperson: Kjersti Swanson, Friends University, Wichita KS 67213.

Vice-Chairman: Leland Johnson, Friends University, Wichita KS 67213

THE PRAIRIE ASTRONOMER
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9/77

SKY CALENDAR






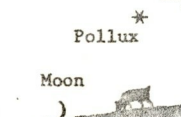

Information for helping teachers

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	
<p><i>Evening Planet: Saturn</i> is brightest object in western sky at dusk, except for Capella which is much farther north and lower. On June 1, Saturn is 17° lower right of Regulus and sets 4 hrs after sun. On June 30, Saturn is 14° lower right of Regulus and sets as twilight ends, 2 hrs after sun. <i>Morning Planets: Venus</i> is most brilliant morning "star". It rises north of east 2 hrs before sun Jun 1 and about 2 1/2 hrs before on Jun 30. Through telescope Venus appears like a half moon at midmonth (see Jun 15). Reddish <i>Mars</i> is close to Venus all month. On June 1-3 the planets are 1.2° apart; by the 18th they are 3° apart, and by the 30th 6° apart. See diagrams for changing configuration of Venus-Mars. <i>Jupiter</i> emerges from sun's glare at month's end. See 6/29.</p>				<p>Full Moon, of two this rises at sun hour after</p> <p>Moon</p>
<p>Moon now rises 5 more than 3 hrs after sunset, allowing more than an hour of very dark skies. Look for the two star clusters marked OCl on this month's map, and for Milky Way rising in east.</p>	<p>This month's map 6 represents the sky about 1 1/2 hours after sunset tonight. Take map and flashlight outside, and identify the 9 stars of first magnitude or brighter and the one planet currently visible.</p>	<p>Note these objects 7 in order from the west to the northwest: Regulus, Saturn, Pol-lux, Castor, and Capella. If you look at the same time, they appear a little lower each night. On what dates will you last see each one?</p>	<p>Last Quarter (half moon) circle) was Moon visible time sky in west arc midday.</p>	
<p>One hour before 12 sunrise: Planets 1.9° apart; moon very close.</p> <p>Mars * Moon Venus *</p> <p>A spectacular sight!</p>	<p>One hour before 13 sunrise: Planets 2° apart.</p> <p>* Mars * Venus</p> <p>Moon</p>	<p>One hour before 14 sunrise:</p> <p>Mars * Venus * (2.2° apart)</p> <p>* Pleiades Moon</p>	<p>Venus at greatest elongation (upper right in morning remains visible eastern moon until December will pass sun (superstition) in J.</p>	
<p>One hour after 19 sunset:</p> <p>* Saturn</p> <p>Moon</p> <p>* Pollux</p>	<p>One hour after 20 sunset:</p> <p>* Regulus</p> <p>Moon tomorrow</p> <p>Saturn *</p> <p>Moon tonight</p>	<p>21 Summer Solstice. Sun rises farthest north of east and sets farthest north of west today. Midday sun is highest of year. Today is longest day of year. Sun's path through sky gets lower next 6 months.</p>	<p>One hour after 21 sunset:</p> <p>Moon</p>	
<p>One hour after 26 sunset:</p> <p>Moon</p> <p>* Spica</p>	<p>One hour after 27 sunset:</p> <p>Moon</p> <p>Antares *</p>	<p>One hour after 28 sunset:</p> <p>Moon</p> <p>* tomorrow</p> <p>Antares *</p>	<p>One hour after 28 sunrise:</p> <p>Pleiades</p> <p>Mars (not 5 3/4° up) of Venus.</p> <p>Jupiter</p>	

Magnitudes of the Planets: Venus -4.1 to -3.8; Jupiter -1.5; Saturn +0.6 to +0.7; Mars +1.3 to +1.2. Motions: Venus, moving 29° eastward, goes from Pisces through a corner of Centaur, crosses Aries and enters Taurus. Nearly keeping pace, Mars moves 22° eastward and crosses from Pisces into Aries. Saturn, in Cancer 5 1/2° east of the Beehive as June opens, goes 3° east and ends month 14° west of Regulus.

R JUNE 1977

s and students observe the sky

DAY	THURSDAY	FRIDAY	SATURDAY
<p>1st month, set. One sunset:</p>  <p>Antares *</p>	<p>2 One hour after sunset:</p> <p>Antares *</p> <p>rising Moon</p> 	<p>3 Arcturus passes due south near end of evening twilight. "Follow the arc (of the Big Dipper's handle) to Arcturus, and drive a spike to Spica". Tonight, moon rises just before twilight ends, so sky doesn't get very dark.</p>	<p>4 One hour before sunrise: Planets 1 1/4° apart.</p> <p>Mars * Venus</p> 
<p>8 (morning sets 90° (1/4) of sun. in day-til it sets and local</p>	<p>9 As the sky gets dark, use the Big Dipper to locate Leo with its bright star Regulus (see map): "If the Big Dipper sprung a leak, loudly would the Lion roar!" He doesn't like to get his back wet!</p>	<p>10 One hour before sunrise:</p> <p>Moon</p> <p>Mars * Venus (1 2/3 degrees apart)</p>	<p>11 One hour before sunrise:</p> <p>Moon</p> <p>Mars * Venus (1 3/4 degrees apart)</p> 
<p>15 latest 46° west of sun sky. Venus ble in ing sky per, and ar side of or conjunc- uary 1978.</p>	<p>16 New Moon, not visible. Moon passes nearly between earth and sun. Beginning Saturday, moon will be visible in evening sky. Watch it pass bright zodiacal stars Pollux, Regulus, Spica, Antares.</p> 	<p>17 Altair now rises at about sunset. As sky darkens, use this month's map to locate Vega, Deneb, and Altair in eastern sky. They form the Summer Triangle, so named because it is visible all night in early summer.</p>	<p>18 One hour after sunset:</p> <p>Castor *</p> <p>Pollux</p> <p>Moon</p> 
<p>22 Regulus *</p>	<p>23 One hour before sunrise:</p> <p>Mars *</p> <p>Venus * (planets now 4° apart)</p> <p>Pleiades</p>	<p>24 One hour after sunset:</p> <p>Spica *</p> <p>First Quarter D (evening half moon)</p>	<p>25 One hour after sunset: Keep in mind that moon appears too large on these diagrams.</p> <p>D *</p> <p>Spica will actually appear 3 to 4 moon diameters from edge of moon.</p>
<p>29 Venus * (shown) is er right</p> <p>Aldebaran</p>	<p>30 Full Moon rises in SE about 1/2 hour before sun sets in NW. Moon in Sagittarius, half-way around zodiac from sun's place. Bright moon makes Sagittarius hard to see. Wait a few days.</p> 	<p>Next month's map, <i>July Evening Skies</i>, can be used during June at the following times: Mid-June, 3 hrs after sunset; End of June, 2 hrs after sunset.</p>	<p>Summer and autumn 1977 will be poor seasons for evening planet visibility. Saturn is gone by mid-July; Mercury can be seen with difficulty late that month. Then, no naked-eye planets will appear within 3 hrs of sunset until November.</p>

East Lansing Sunrise: June 1 6:02 a.m.; June 16 5:59 a.m.; June 30 6:03 a.m. EDT
 Sunset : June 1 9:10 p.m.; June 16 9:18 p.m.; June 30 9:20 p.m. EDT