NORTHERN LIGHTS

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NORTH CENTRAL REGION

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FROM CHAIRMAN THOMPSON . . .

The NCRAL is very pleased and gratified to Jim Fox for assuming the task of editing and publishing the Quarterly NCRAL Newsletter. May your rewards be many, Jim.

Many thanks to the Peoria Astronomical Society for their tremendous group accomplishment in the recent NCRAL Convention held in Peoria last May. The convention was very smooth and well planned. We certainly are proud of you.

I wish to volunteer to act as a clearing house for planned meeting programs. There is such a need to exchange papers, slides, lectures, and news items between the astronomical organizations. The program chairmen are always hard put to prepare interesting and member drawing programs throughout the year. Please send all information available to my attention. Charles J. Thompson, P.O. Box 46, St. Charles, Illinois 60174.

I hope to attend as many meetings as possible throughout the year and would appreciate all member clubs and societies sending me dates of their monthly meetings.

May the coming year bring clear skies and beautiful viewing for all.

PEORIA CONVENTION TERRIFIC SUCCESS !

If the worth of a convention were measured by the quality of the papers, the recent NCRAL 25th annual meeting in Peoria was outstanding. The variety of topics covered clearly indicated the many facets of our fascinating hobby. Following is a description of the papers presented. If you desire more information, contact the author via his society.

PAPERS

Herb Sandstrom (Peoria) has devised a circular sliderule for predicting the exact orientation of the sun's axis. While observing for the AAVSO solar section, his device allows him to quickly plot sunspot locations.

John Louie (Peoria) presented a variety of color slides of constellations and aurorae. John's equipment ranges from a 35mm camera to the Peoria 12-1/2" telescope.

Homer DaBoll (Argonne) presented two papers: the first demonstrated the versatility of wooden bearings for telescope mounts; the second described several upcoming grazing occultations.

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ROAMING THE REGION

While vacationing in Hawaii last June, Ed Halbach (Milwaukee A.S.) was able to attend the annual meeting of the Astronomical Society of the Pacific. Perhaps Ed will write a brief report of the meeting for inclusion in the December issue.

Only fifteen months old as a club, the Des Moines Astronomical Society is preparing an eight week course in elementary astronomy. The course will be offered to the general public at the Des Moines Center of Science and Industry. The Science Center has recently acquired an 8" Celestron for use by the Des Moines society.

On September 10th, Homer DaBoll (Argonne A.S. and Fox Valley A.S.) will be the envy of all amateurs throughout the region. On that date Homer has been granted time on the Yerkes 40" refractor at Williams Bay, Wisconsin, to time total occultations. If only the weather is favorable.....

Regional Chairman Charles Thompson (Argonne A.C. and Fox Valley A.S.) has just finished moving from a home on a wooded lot to one in the depths of the forest. With about a 80 degree horizon, Chuck is happier than ever that his 12-1/2" reflector is an f/4, so that it is relatively easy to transport.

Bill Pohnan (Argonne A.C. and Elgin A.C.) majored in Astronomy at the University of Illinois, and received his B.S. degree in June. He plans to join the working force for a year or two, before returning to the academic world. Bill completed an 8" telescope a few months ago, and is currently working on a 12-1/2" mirror.

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PAPERS (contd.)

Michael Moraghan (Princeton) discussed the problems he encountered while building a 4-1/2" Schiefspiegler.

Jim Fox (3M Club) discussed the appearance of Jupiter through various color filters.

R. Van Zandt (Peoria) presented an animated movie, "The Grand Tour" from the Jet Propulsion Laboratory (Cal Tech).

Ed Halbach (Milwaukee) demonstrated the extreme portability of a set of 10" telescopes which the Milwaukee Society is building for graze work.

Art Grebner (Peoria) discussed some of the problems he encountered in working a large (12-1/2") telescope mirror.

Andrew Erickson (Beloit) presented some slides from his successful expedition to the March 1970 solar eclipse in North Carolina.

George Triff (Peoria) amused everyone with some rhymes and memory associations to aid amateurs in remembering the bright stars and the Zodiac.

Orville Brettman (Racine) discussed a photographic technique for finding supernovae in other galaxies. Orv has used the technique with Racine's 16" reflector.

Joseph Kris (Racine) studied the axis orientation of nearby stars and found that, from a particular perspective, the stars form groups such that the rotational axes of the stars parallel the boundary of the group.

Greg Butler (Peoria) discussed some of the problems encountered while constructing a spectrograph for use on the Peoria 12-1/2" reflector.

REGION (contd.)

Doug Oakman (Des Moines A.S.) will enter the University of Iowa this fall. Doug will major in astrophysics.

Bill Nelson and David Dorff (Des Moines A.S.) have qualified for the Astronomical League's Messier Club. Bill has observed 80 objects from Messier's famous list while Dave has located 70.

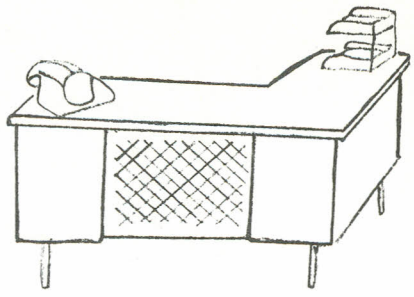
Members of the Racine Astronomical Society are working on a photoelectric photometer for use with their 16" Cassigrain-Newtonian telescope. The instrument may be in operation this fall. Electrical parts were designed and built by Tom Cram while Orville Brettman and Bill DuVall built the optical and mechanical components. The society has had as many as 50 visitors on public viewing nights this summer.

Kevin Krisciunas (Argonne A.C., AAVSO, and ALPO) enters the University of Illinois this fall, where he will major in Astronomy. Kevin has been making variable star measures and Jupiter drawings with a 6". We hope that things will work out right for him to continue these projects with the larger instruments at the U of I.

The 3M Club Astronomical Society is completing phase one of its plans for an observing facility just east of St. Paul. Phase one consists of a 14' x 28' concrete slab for portable instruments and a 13' square club room for storing equipment and charts. This phase should be complete early this fall. Phase two will add a domed observing room and a permanent instrument.

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EDITOR'S CORNER

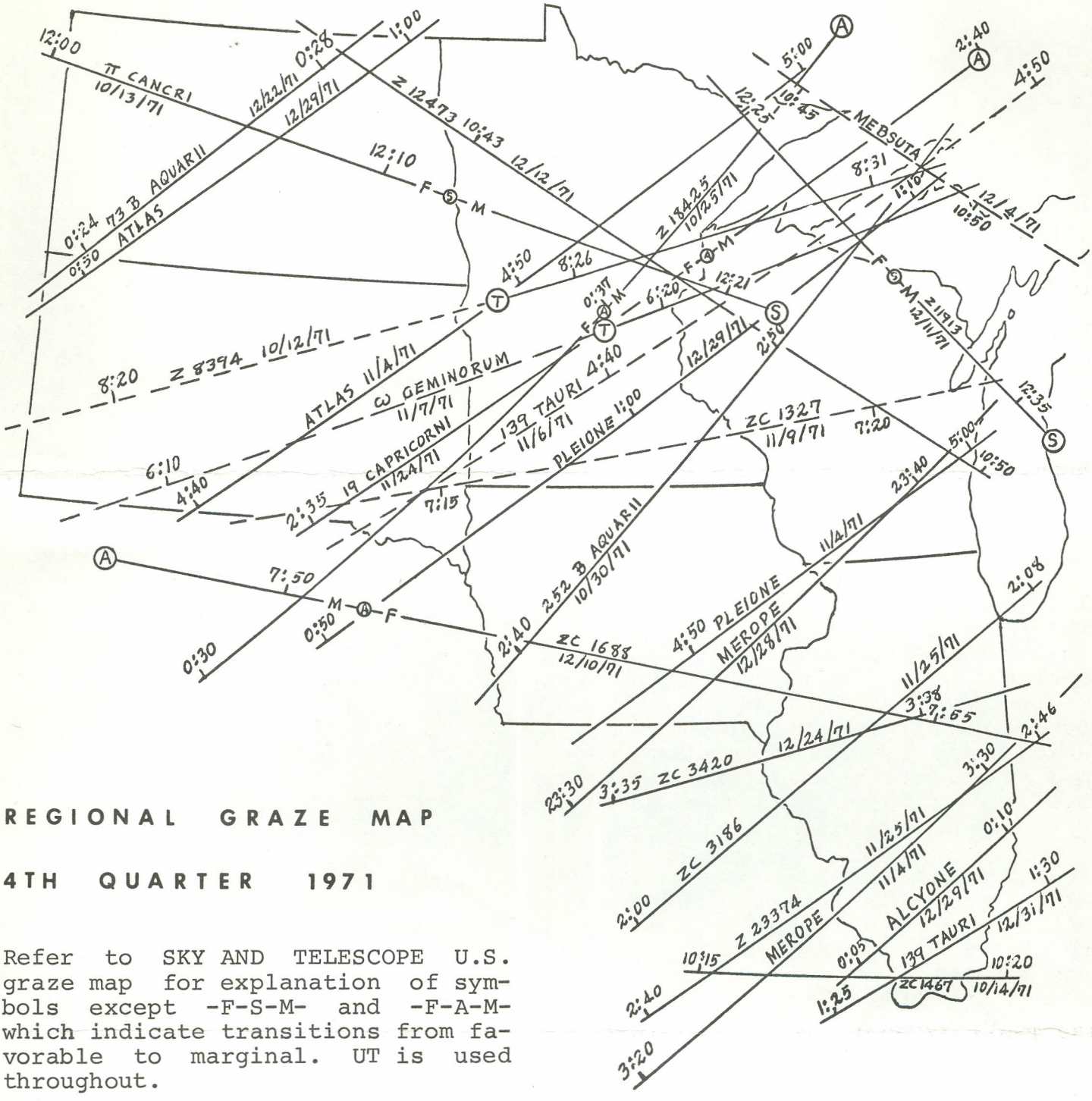


As you can see, I received news material from several of the member societies in the NCRAL. I had hoped for much more. As editor, I have included those items which I thought would have the widest general interest. News sent in but not included in this issue may be used at a later date if space permits.

If you are unhappy with the outcome of this issue, please let me know. This is your publication and only by expressing your opinions can you help me to publish the kind of newsletter we all want.

Increased circulation is our greatest need at the moment. Less than 5% of the Region will receive this issue! Show your copy to your associates and urge them to subscribe.

"The struggle to preserve dark skies will not be an easy one, but unless some action is taken soon we will have little reason to build our own telescopes." Lyle Johnson's concluding remark in an article titled "Mercury Vapor Blight" in the July issue of The Amateur Astronomer is very much to the point. Mercury vapor lamps are, perhaps, the biggest spreaders of "light pollution." Their short wavelength light is scattered upward from city centers and shopping plazas. The hazy glow from Minneapolis-St. Paul can be detected from almost forty miles away - on the ground. Think what this could do to your astrophotographs! Contact your local officials and urge them to consider carefully any future increases in lighting. At the very least, street lights should be shielded so that their light is cast down but not up.



REGIONAL GRAZE MAP

4TH QUARTER 1971

Refer to SKY AND TELESCOPE U.S. graze map for explanation of symbols except -F-S-M- and -F-A-M- which indicate transitions from favorable to marginal. UT is used throughout.

Map scale precludes its use to set up expeditions. If interested, contact H.F. DaBoll, Rte. 1, Box 261B, St. Charles, Illinois 60174, phone (312)-584-1162 for detailed predictions or information on an expedition already in your area. Include star name or number, date and approximate longitude of proposed observation. Also mention if you have experience at graze planning or observation.

As used below "IMBSW" means "it might be seen with."

PLEIADES PASSAGES

The Moon is beginning another series of passages thru the Pleiades star cluster, which will afford opportunities for individuals to make especially valuable total occultation timings, as well as providing some more favorable graze expedition opportunities. Moon brightness will improve in early 1972. Moon illumination: Friday morning, September 10th, 65%, waning; Late Wednesday evening, November 3 - 4, 97%, waning; Early Tuesday evening, December 28 - 29, 90%, waxing.

November passage:

Merope (ZC545), Favorable. Mag 4.2, High in the east. IMBSW a 3". Dunham-DeRoy expedition planned near O'Fallon, Ill.

Atlas (ZC560), Favorable. Mag 3.8, High in the east. IMBSW a 60mm. Possible Fox expedition.

Pleione (ZC561), Strong Marginal. Mag 5.2, High in the east. IMBSW a 4". Possible Blattner and/or Halbach expedition(s) in Wisconsin.

December passage:

Merope (ZC545), Favorable. Mag 4.2, Moon 90%, waxing. IMBSW a 2". High in the east. Expedition possibilities: Blattner, near Madison, Wis.; Halbach, near Beaver Dam or Fond du Lac, Wisc.

Alcyone (ZC552), Very favorable. Mag 3.0. IMBSW 7 x 50 binoculars. Expedition possibilities: Dunham-DeRoy, near Rockwood, Illinois; Wayne Warren, near Greencastle, Ind.

Atlas (ZC560), Favorable. Mag 3.8. IMBSW a 2". No known expedition possibilities.

Pleione (ZC561), Weak favorable. Mag 5.2. IMBSW a 4". Fox expedition planned near St. Paul, Minnesota.

139 Tauri (ZC900), Strong marginal. Mag 4.9, Moon waxing. IMBSW a 4". High in the east. Expedition possibilities: Dunham-DeRoy, near Jackson, Mo. or Wolfe Lake, Ill.; Warren, near Orleans, Ind.

OTHER GRAZES

Z8394, 10/12/71. Strong marginal east of T. Mag 8.0, Moon 38% sunlit, waning. Moderately high in the east. IMBSW a 4". Possible Fox expedition near Moose Lake, Minn.

Pi Cancri(ZC1375), 10/13/71. Strong favorable in North Dakota, where IMBSW a 2". Mag 5.6, Moon 27% sunlit, waning. High in the southeast. Fox expedition near Sandstone, Minn.

ZC1467, 10/14/71. Favorable. IMBSW a 4". Mag 7.3, Moon 20% sunlit, waning. About 29 degrees up in the east. Dunham-DeRoy expedition planned near Fredericktown, Missouri.

Z18425, 10/14/71. Favorable between points in Nebraska and Minnesota, where sunlight and Moon altitude, respectively interfere. IMBSW a 4". Mag 7.4, Moon 27% sunlit, waxing. Fox expedition planned near St. Cloud, Minnesota.

252 B Aquarii (ZC3362), 10/31/71. Weak favorable. Mag 5.9, Moon 80%, waxing. High in the south. IMBSW 4". Fox expedition planned near Rochester, Minnesota.

139 Tauri (ZC900), 11/6/71. Rated favorable. Mag 4.9, Moon 85%, waning. High in the east. Central graze 1.2 on the bright limb, in the Cassini region, at the probable location of the Fox expedition planned for near Taylors Falls, Minn. "Favorable" applies only to those events seen at dark or shadowed lunar features, unless a star is brighter than about Mag 3.5.

Omega Geminorum (ZC1070), 11/7/71. Favorable. Mag 5.2, Moon 75%, waning. High in the east. Fox expedition planned near Cambridge, Minn., where central graze will be just barely on the dark side of the cusp.

ZC1327, 11/9/71. Weak favorable. Mag 6.8, Moon 55%, waning. Central graze at the bright limb, the more so, the farther east the observer. Fox expedition is planned near Rochester, Minnesota.

19 Capricorni (ZC3058), 11/24/71. Strong favorable in So. Dak. and Minn., marginal in Wisc. Mag 5.9,

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GRAZES (contd.)

Moon 32%, waxing. IMBSW a 2" in S. Dak., a 6" in Wisc. Low in the southwest. Fox expedition planned for Pine City, Minn.

AC3186, 11/25/71. Favorable, Mag 6.7, Moon 43%, waxing. IMBSW a 3". Moderately high in the southwest. Evening Thanksgiving eve. DaBoll-Larson expedition probably near Joliet, Ill. Possible Rhoads expedition near Peoria.

Mebsuta (ZC1030), 12/4/71, Saturday morning, bright limb favorable. Mag 3.2. Whether or not it can be observed depends much more on seeing than on aperture. Moon 49 degrees up in the southwest, as seen from Minnesota.

ZC1688, 12/10/71, Friday morning. Known as 431 B Leonis, this star is actually within the IAU boundaries of Virgo. Strong favorable. Mag 6.3. Moon 43%, waning. IMBSW a 2" east of Nebraska. Moderately low in the east. St. Louis, greater Chicago and Peoria observing groups plan to combine forces for an expedition near Peoria.

Z11913, 12/11/71, Saturday morning. Weak favorable. Mag 7.8, Moon 33%, waning. IMBSW a 4" west of Wisconsin. Moderately high in the south.

Z12473, 12/12/71, Borderline between marginal and favorable. Mag 8.0, Moon 24%, waning. IMBSW a 4". Low in the southeast. Ed Halbach probably will lead an expedition near Sheboygan, Wis., for this Sunday morning graze.

ZC3152, 12/22/71. Known as 73 B Aquarii, this star is actually within the IAU boundaries of Capricorn. Strong favorable. Mag 6.8, Moon 18%, waxing. IMBSW a 2".

ZC3420, 12/24/71 (Thursday evening, Dec. 23rd). Favorable. Mag 7.1, Moon 39%, waxing. Low in the southwest. IMBSW a 3". A large (Dunham-DeRoy, Rhoads, DaBoll-Larson) expedition will be planned for near Dillon or Bloomington, Ill.

SEB ACTIVE ON JUPITER

For you planetary observers, IAUC Number 2344 reports the following from New Mexico State University: "On July 18, E.J. Reese discovered a second strong distrubance in Jupiter's south equatorial belt, located at longitude 144 degrees (System II). This is the first time that two SEB disturbances have been active concurrently. Material from the first disturbance is spreading around the planet and will begin interaction with the preceeding end of the red spot on or about August 24. If historical behavior prevails, this will cause the red spot to fade rapidly, marking the end of an unprecedented eleven year period of conspicuousness."

REGION (contd.)

At their August 1st Mars party, the Argonne Society had between 500 and 700 guests. Unlike 1969, the Argonne amateurs were prepared with 16 telescopes ranging from a 4" Maksutov and a 6" refractor to a 16" reflector.

NOVEMBER 15 IS DEADLINE FOR DECEMBER ISSUE