

FOCAL POINT



Newsletter for the

Milwaukee Astronomical Society

January 1990

From The Editor

It's sad that in this winter season of frosty, cold nights, observing often takes a back seat to "armchair astronomy". I say this because I personally think the winter sky is one of the loveliest. I recognize as the temperatures dip to zero with wind chills in the negative readings, many must be confined to the warmth of indoors. I do not discourage outdoor stargazing, I simply recognize the limitations and many choose outdoor excursions more carefully.

For both the indoor, and the more intrepid outdoor observer, this month we highlight two of the many MAS benefits, available not only during winter, but throughout the year as well. We start by encouraging use of the MAS Library and the Observatory (as promoted by the Saturday Nite Keyholders). In the coming months, we'll highlight other MAS programs, activities and services to encourage their use by all of our members. Wishing you good Gazing and Good reading!

— Matthew McNeeley

Inside!

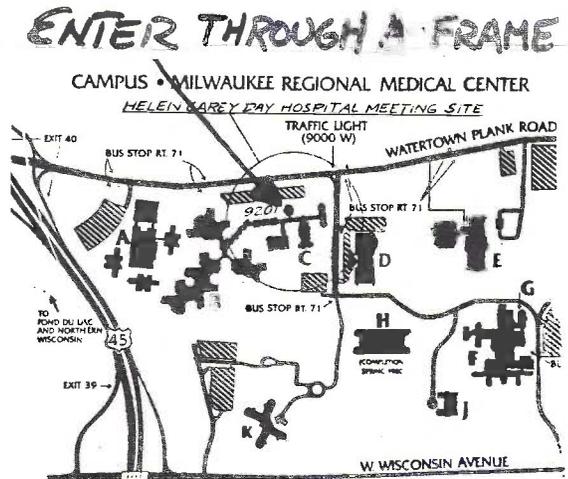
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Program/Meeting

This month, our speaker, Dr. Dale Snider of the University of Wisconsin-Milwaukee, will present an interesting program titled: The Many Motions of the Moon. Our nearest natural satellite obeys the same laws of physics as all objects in the universe. Yet the Nautical Almanac requires dozens of terms in the mathematical equations defining its motion, while the planets need only a few. Dr. Snider will explain in easy terms why this is so, and how we can observe some of these motions ourselves.

Dr. Snider will also present a second short subject titled: Four Great Circles. Using his personal computer and a special overhead projection system, he will demonstrate several interesting and sometimes unexpected groupings of objects in the sky. This presentation will be of interest to the observer and computer hacker alike!

— Thomas Renner



Calender of Events

January 15, Tuesday	New Moon
January 18, Friday	8:00 pm Program-Meeting
January 25, Friday	Deadline for Dec. <u>Focal Point</u>
January 30, Wednesday	Full Wolf Moon
February 6, Wednesday	First Wednesday Meeting CANCELLED FOR FEBRUARY
February 11, Monday	MAS Board Meeting 7:30 at the Ken Waraczynski's House

Saturday Nights—Member night at Observatory—Call key holder

Library News

Very few of us will ever make a significant contribution to the study of double stars. Even William Herschel's observations are merely "precious". The instrument requirements and long period of training will discourage all but the most determined astronomer. Nevertheless, Observing Visual Double Stars - Couteau, 1981, offers much advice of value to any observer. Use of the filar micrometer and the atmospheric motions which influence "seeing" are discussed at length. Did you know that double stars of known separation are an excellent tool for calibrating your photographic scale?

Since the author advises the newcomer to treat observation of double stars as a game, he includes a catalog of 744 pairs brighter than 10th magnitude with notes indicating decreasing or increasing separation, notable color contrast, aperture needed to resolve, etc. For the truly dedicated, there is a chapter on catalogs and indentifying faint pairs and another on computing orbital elements and mass ratio.

A new pamphlet in the vertical file, Visual Observation of Double Stars, goes into detail on the construction and use of a bifilar micrometer. It also includes a list of stars for observation.

Webb Society Deep Sky Observer's Handbook, Vol. 8: Variable Stars, 1990, is the latest in the highly respected series of guides for amateurs. John Isles, full-time observer and director of the British Astronomical Association's Variable Star Section, has provided an extensive bibliography to expand upon his very readable, but necessarily condensed text. Included with the expected material on classification and observing techniques is a field guide to 110 variables, most of which are given with the caution that one must ultimately use the charts of the society (e.g. A.A.V.S.O.) to which one reports data.

Key information on period, a historical perspective, and hypotheses as to the physical processes causing the variation accompanying the charts. These notes offer an intriguing invitation to look in on at least some of these stellar performers.

PRINTED LIBRARY CATALOGS NOW AVAILABLE

Tom Renner has supplied us with a limited number of Author/Title/Subject lists of books in the MAS library. Send \$1 if you wish to receive a copy through the mail; or pick one up at the next general meeting for \$0.50. There is a master copy at the observatory for your inspection.

TIME TO CHECK THE CAROUSELS AGAIN.

We seem to have misplaced slide no. A128 - Saturn, showing some cloud features. Remember, MAS slides are numbered in green ink.

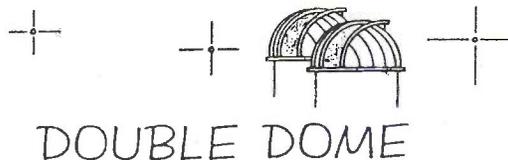
- Sally Waraczynski



With the cold brilliance and brightness of the recent "Blue" Moon blotting out all thoughts of deep sky observing, I had an opportunity to reflect on this relatively rare phenomena. I appreciate the fact that we were able to gaze on two full moons within the confines of one calendar month. In the short time that I have been a star gazer, this was my first "Blue" Moon. I'm not so sure that I saw blue, except in my mind's eye and cultural recollection as expressed in the songs "Blue Moon", "Blue Christmas", and "Blue Moon Over Kentucky". Although psychologically we often think of being blue as a "downer", as in "I'm in a blue mood", I must say that this Blue Moon with its reflected beauty lifted my spirits skyward. I'm looking forward to the next Blue Moon. When will that be?

- Matthew McNeeley

From The Past



DOUBLE DOME

- 20 years ago

MAS member, Gustave Christie made mention of the August 1970 National Geographic article which told of a forthcoming "traffic jam" in Scorpius, of Venus, Mars, Jupiter, the Moon, Neptune and Vesta. The rare event will occur on January 23, shortly before dawn. (Ed. note: remember, this was 20 years ago, so don't go running outside in your bathrobe on that day.)

- 10 years ago.

MAS was commended at the Racine Astrofest for craftsmanship practiced in building the 10" Portascopes. The award was displayed at the December meeting.

While many members contributed time, treasure and talent to produce the twelve unusual, portable telescopes, much of the credit goes to designer Ed Halbach and mirror grinder William Collins.

Our most distant member, Bill and Anne Albrecht, recently sent a note from Pahala, Hawaii. Bill mentioned 10,416 variable observations he has made in two years besides occultations and graze attempts. Quite a record!



I've heard of the Summer Triangle and Fall's Great Square, but how can I identify the Winter sky?

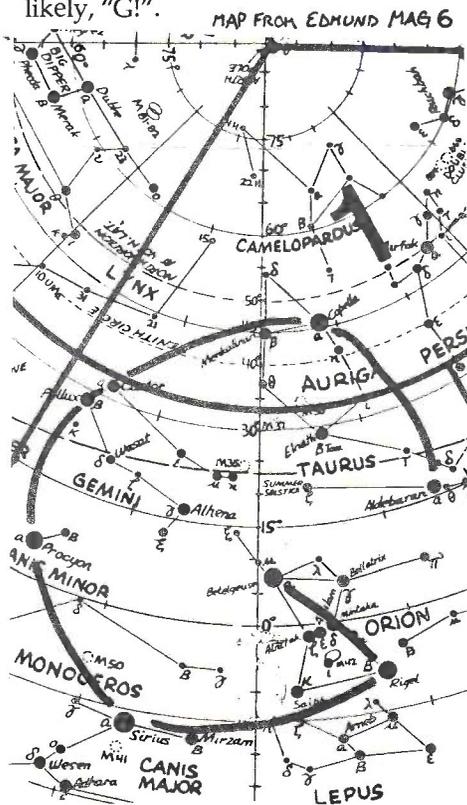
- Rosetta Trapezium

Dear Rosetta,

The winter sky too, has a trademark configuration although in this case, it's a letter not a polygon. The "Heavenly G" is high overhead in winter and covers a large chunk of the sky. Also notable is that the stars that form it are some of the brightest stars seen in any season.

To see this sky wonder, start at Aldebaran in Taurus and follow the curve around the top of the "G" via Capella, on to Castor and Pollux, and round the bottom through Procyon, Sirius and Rigel, then form the crossbar at Betelgeuse.

Because of its enormous size, you'll need a wide open sky to see this "Heavenly G" in all its splendor at which time you will likely exclaim, "gee!" Or more likely, "G!".



Pike Lake Ski 'N Stars

Here's a great opportunity to get some exercise, do some group observing in winter and share your enthusiasm with the public. On Saturday, February 9th, join others for Candlelight Skiing followed by stargazing from the dark skies of Pike Lake State Park. Candlelight skiing is scheduled from 6:30 to 9:30 pm, and viewing will be offered from 6:30 pm 'til? (sunrise?).

Members of the Northern Cross Astronomy Club will be there (Pike Lake is one of their dark sky sites) and MAS members are invited to attend. Hot coffee and cocoa will be served in a warming shelter. For the early birds, skiing starts at 7am. The telescope set-up is behind the shelter building in the parking lot near the lake. Ask park rangers for directions, or pick a map up at the January MAS meeting or by calling Tim Burrus. Transportation is also available to and from the telescope area. There will be a small warming fire near the shelter but blocked from view of the telescope area.

A 1991 annual or \$3.50 daily park sticker is required for your vehicle.

Call Tim Burrus at 783-6572 for more info.

New Members

The MAS Board recently announced the addition of the following new members:

Charlotte Nelson - Wauwatosa

John W. Briggs - Yerkes Observatory, Williams Bay

Clint Laskowski - Cudahy

Michael Cain, Wildwood, IL

Douglas C. Aldridge and family
Pamela and Tara - Greenfield

Bill and Sandy Robertson
- Hales Corners

Welcome to all!

A Closer Look - Saturday Nite Keyholders

For your convenience, here is a list of the keyholders for the first 6 months of 1990. To assure that the keyholder will be on duty, we ask that you call the keyholder by 6:00 pm the Friday before. If you do not know how to use the equipment, the keyholder will assist you. (First Wednesdays are also an opportune time).

Jan. 12	Tom Schmidtkunz	784-0253
Jan. 19	Peter Smitka	785-0926
Jan. 26	Virgil Tagney	327-7976
Feb. 2	Jim Toeller	352-7144
Feb. 9	Richard Wiesen	781-4757
Feb. 16	Paul Borchardt	781-0169
Feb. 23	Greg Cieslak	744-5703
Mar. 2	Brian Ganiere	272-4649
Mar. 9	Chris Hasseltine	482-4515
Mar. 16	Lee Keith	961-8752
Mar. 23	Dan Koehler	662-2987
Mar. 30	John Pfannerstill	475-6494
Apr. 6	Frank Roldan	608-787-1730
Apr. 13	Terry Ross	784-2093
Apr. 20	Gerry Samolyk	529-9051
Apr. 27	Tom Schmidtkunz	784-0253
May 4	Peter Smitka	785-0926
May 11	Virgil Tagney	327-7976
May 18	Jim Toeller	352-7144
May 25	Richard Wiesen	781-4757
June 1	Paul Borchardt	781-0169
June 8	Greg Cieslak	744-5703
June 15	Brian Ganiere	272-4649
June 22	Chris Hasseltine	482-4515
June 29	Lee Keith	961-8752

Observing Clubs

Winter is a good time (as are all seasons) to join an Observing Club. The MAS offers two helpful guides: for deep sky observing, the Messier Club Observer's Handbook or for double stars, Burnham Club Observer's Handbook. Just sent an 8.5" x 11" SASE with \$1 postage affixed to: Lee Keith, MAS Observing Clubs Coordinator, 1239B E. Randolph Ct., Milwaukee, WI 53212.

They contain a wealth of information, hints and detailed maps to help find the more elusive objects. And best of all, they're FREE! After observing and recording the objects in the list, you will receive a certificate from the Astronomical League.

A Closer Look- The MAS Library

Part of the ongoing series focusing on the many benefits and services available to members.

What is Available?

Members may borrow from over 250 books and about 1,000 indexed 35mm slides. Materials from the vertical file, star charts and atlases, and the periodic collection are for on-site reference only. IBM and compatible public domain computer software is also available, and titles soon will be included in the card catalog.

Where is the Library?

The book shelves, vertical file, chart drawers, and card catalog are at the Observatory, in the office at the rear of the quonset. Slides are kept in the audio-visual closet in the lecture room. At this time, there is also a collection of books of historical significance at the home of the librarian. These are designated HIST. on the catalog cards and are available on request.

For the time being, the computer software library is at the home of Lee Keith, 1239 E. Randolph Ct. Milwaukee, WI 53212. Send a 5.25" or 3.5" floppy with SASE for your copies. You can reach Lee at (414) 961-8752.

When is the Library Open?

Members may use the library any time they have been admitted to the building by a keyholder. This would normally be on Saturday evenings, First Wednesdays and Open Houses. If necessary, you may call the librarian for an appointment.

Borrowers' Responsibilities

Sign out books on the small clipboard hanging from the bookcase door. Sign out the audio-visual materials on the large clipboard hanging on the inside of the closet door. Length of loan depends on the item. Projectors are to be returned immediately after use. Red-dotted books and slides should be considered short term loans. Other books may be kept out up to two months.

When returning items, cross out your name and replace the books or slides where you found them. Borrowers will be expected to pay for damaged or lost items.

How does the Library Grow?

We have an annual budget of about \$200. In addition, the Society subscribes to the following periodicals: "Astronomy", "Deep Sky", "Odyssey" and "Telescope Making". Donations of books and other materials from members and friends also play a large part in the continued growth of our library.

If you are planning to join the Astronomy Book Club, consider letting MAS sponsor your membership. You still receive your books at the special introductory rate, while our library also receives gift books.

Questions or suggestions?

Call the librarian, Sally Waraczynski, at (414) 321-0918.



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