

FOCAL POINT



Newsletter for the

Milwaukee Astronomical Society

January 1990

From The Editor

As the official newsletter of MAS, the Focal Point has the responsibility of informing its members of the many programs and activities that are available. It carries this out in the many articles, reviews and datelines that appear each month. And yet, as we start a new year, and decade, we want to underscore another role of the Focal Point—to invite, encourage and nurture the active participation of its members in a wide range of activities open to all. In this way, our membership grows and benefits from the comradery that is so much at the heart of the Society.

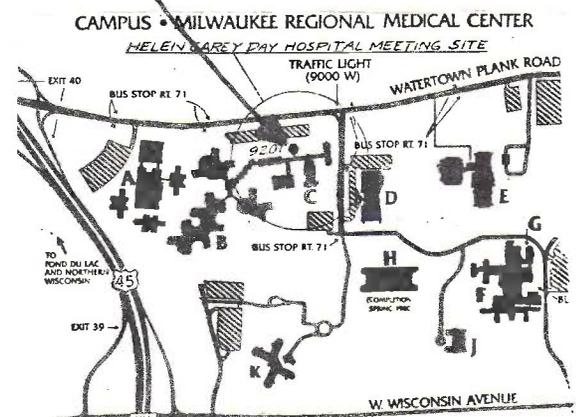
In this context, the members at large, the Focal Point and the MAS Board can review the many MAS endeavors and resolve to work for their continued innovative growth and success.

—Matthew McNeeley

January Program-Meeting

How many times have you traveled out to your favorite observing spot, only to find an unexpected cloud cover obscuring your favorite targets? Or wondered why you sometimes get soaked observing under a clear sky? Jim Ott, meteorologist for WTMJ-TV4 will explain and illustrate these and many more interesting atmospheric phenomena during his presentation titled: "Meteorology for Astronomers". Mr. Ott, a college professor and T.V. personality, is well prepared to share his expert knowledge and experience of our home planet's atmospheric phenomena. Don't miss it!

ENTER THROUGH A-FRAME



All members and guests (that's how we grow!) are invited to attend. Time is 8:00 pm at the Helen Carey Day Hospital Building, 9201 W. Watertown Plank Road. For security reasons, the entrance is open from 7:30 to 8:15 pm ONLY.

—Tom Renner

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Calender of Events

January 10, Wednesday	Full Wolf Moon
January 19, Friday	8:00 pm Program-Meeting
January 26, Friday	Deadline for <u>Focal Point</u> New Moon
February 2, Friday	Ground Hog Day
February 7, Wednesday	First Wednesday Meeting 7:30 at the Observatory
February 9, Friday	Full Snow Moon
February 12, Monday	7:30 pm Board Meeting Paul Borchardt's House
Saturday Nights—Member night at Observatory—Call key holder	

Library News

What's new in the library this month is not new at all in terms of "hot off the press" but should prove of interest to the specialists among us. Bob James has donated the following:

"Two-micron Sky Survey", a star catalog
"The Computation of Elements of Eclipsing Binary Systems"
"A Correlation of Optical, Radio, and Interplanetary Records of Solar Events", includes photographs of solar activity and several years worth of "Journal of the AAVSO".

The 75th anniversary issue (1986) is particularly noteworthy as it contains a wealth of background on the society and on the variable stars they watch. Although he does not have a paper published in this issue, our Observatory Director, Gerry Samolyk, is mentioned several times. This anniversary "Journal" can be found in the AAVSO History file.

Both Bob James and Frank Roldan have added some bound convention "Proceedings" and group photos to the Astronomical League History file. The Baltimore (1986) papers looked particularly "meaty".

See the Flying Swan, the Big Bear, the Chained Princess. Now you, too, can give a planetarium style constellation slide show. Frank Roldan has generously donated a slide set of 41 star patterns overprinted with the legendary figures for which they are named.

Please check your carousels and cartridges to see if you happen to have a green-coded MAS slide. We are missing A72 (26" scope) and C62 (Pleiades). Neither was signed out on the audio-visual form.

—Sally Waraczynski

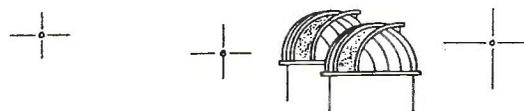
New Members

The following new members were recently announced by the MAS Board.

Robert H. & Gloria Johnson - Muskego
Steve Johnson and Family
(Mike, Alice and Beth) - Waukesha
Aljea Kramer - Oconomowoc
Femis Miller - Eagle
James Pech - Wauwatosa
Bill Pochert - Milwaukee

The Society extends them all a big welcome! If you see them at a meeting or other MAS function, be sure to introduce yourself.

From the Past...



DOUBLE DOME

—15 years ago

Portascope Design Wins Award! While attending a combined meeting of the Royal Astronomical Society of Canada and the AAVSO in Winnipeg, Canada, MAS Director Ed Halbach accepted a plaque and a barlow lense for his original Portascope design.

Under Ed's direction, a group of volunteers turned the Observatory lecture hall into a workshop and combined their craftsmanship and ingenuity to complete twelve unique, portable 10" reflecting telescopes.

—10 years ago

This won't help much to keep you warm while observing on cold, windy nights, but to figure out the wind chill factor, the Fox Valley AS gives this formula:

$$\begin{aligned} \text{Windchill (deg F)} &= 91.4 - K(457 - 5T) / 110 \\ K &= 10.45 + 6.68v - .447v^2 \\ T &= \text{current temp, degrees F} \\ V &= \text{wind speed, mph} \end{aligned}$$

From the NCRAL newsletter,
"Northern Lights"

First Light

It was an auspicious new year for three MAS couples with recent arrivals. The latest little astronomer is Peter Anthony Koehler, born during the holiday season to Mary and Dan Koehler. Peter joins two autumn infants: Michael Milosch, first child of Cathy and Jim Milosch; and Lindsay Marie Zedra, born to Diantha and Nolan Zedra.

Congratulations to all of you and may you have clear skies ahead.

Mr. Tebbutt's Observatory - Windsor, New South Wales

Whenever another year of my life draws to a close, I try to spend a few minutes reflecting on highlights of that year.

As I reflected on 1989, my mind wandered to January when I was in Sydney, Australia. Over coffee with one of my oldest friends who works there, I mentioned that I was an amateur astronomer. My old friend said "Oh! Then I bet you'd love to meet my brother-in-law".

He was right! The man he spoke of was the great-grandson of John Tebbutt, one of the greatest astronomers the southern hemisphere ever produced, and an amateur himself. A call to New South Wales resulted in an invitation by John Halley Tebbutt to visit the observatories of his great-grandfather. No second invitation was needed.

John Tebbutt was born in Windsor on May 25, 1834. Tebbutt first became interested in astronomy at 19, his "taste" spurred from reading an article in the Illustrated London News.

His first telescope, a small marine glass, before he obtained a 3 1/4" refractor which he used to observe a large number of lunar occultations and stars from 1864 - '70. In 1872 he acquired a 4 1/2" equatorial and in that same year had his first observatory constructed. It was a modest building of pine and slats which was superseded in 1879 by a brick one. A fine 3" transit instrument was installed in this building for the purpose of accurately determining local time.

In 1886 he added an 8" equatorial with 115" f.l. made by Grubb, of Dublin. It was first owned by Dr. W. Bone of Castlemaine, Victoria. Upon Dr. Bone's death, Tebbutt purchase the instrument for 400 pounds. With it he made a vast number of observations between 1872-1916. His observations were regularly published in the Monthly Notices of the Royal Astronomical Society and in the Astronomical Nachrichten.

Among the highlights of Tebbutt's astronomical career were the discovery of two comets. The Great Comet of 1861 (discovered in May of that year) was one of the most spectacular comets seen

last century and was visible during the daylight by July. On June 29 - 30th of that year, the earth passed through the tail of the comet resulting in spectacular meteor showers seen in Europe. Halley's Comet of 1910 is the only other recorded occurrence of a tail being so close to the earth. At perihelion, the head of Tebbutt's Comet was only 14,900,000 km from the earth.

Tebbutt discovered his second comet in 1881. Comet Tebbutt 1881 III was the first comet to be photographed successfully and was studied for its chemical composition using a spectrogram. The study was performed by Sir William Higgins who produced a photograph of the spectrum of the comet showing features he identified as resulting from molecules of carbon and cyanide and the atoms of sodium. Tebbutt also observed no fewer than seven returns of Enke's Comet at Windsor.

Of the multitude of scientific papers published by Tebbutt, eight contain data on the variable Eta Argus. From these papers, estimates of brightness on 203 different nights provided material for brightness variation curves from 1854 to 1890. Today Eta Argus is known as Eta Carinae, one of the most unusual objects known. In 1843 it was the third brightest star in the southern hemisphere and probably the most intrinsically luminous object in our galaxy.

Six papers containing 428 estimates were published relating to R Carinae. From this data, period curves were constructed. We know today that R Carinae is a Mira-type star.

The above are only a few of the highlights of John Tebbutt's career in astronomy—a career that was unique when you consider that he was entirely self taught. His work was so highly regarded that he was offered the position of Government Astronomer in New South Wales in 1862. He declined in favor of pursuing his private scientific study. In 1862 Tebbutt was elected a member of the Royal Society of New South Wales and in 1873 a Fellow of the

Saturday Nite Keyholders

January 13	Brian Ganiere 272-4649
January 20	Chris Hesseltime 482-4515
January 27	Lee Keith 961-8752
February 3	Dan Koehler 662-2987
February 10	Nick Nichols 628-4059
February 17	John Pfannerstill 475-6494
February 24	Terry Ross 784-2093

Royal Astronomical Society. He was also elected to be the first president of the British Astronomical Association.

John Tebbutt passed away on November 29, 1916, at the age of 82. He left behind a legacy that covered two hemispheres and marked one of the earliest bridges between the amateur and the professional astronomer.

The International Astronomical Union honored Tebbutt in 1973 by naming a lunar crater after him (it's visible through a telescope). In 1984, a great national honor was bestowed upon him when he and his observatory buildings were depicted on the Australian \$100.00 note.

Two of his three observatories are open to the public and house the restored Grubb refractor, complete with its mechanical, gravity drive, and an eight inch Celestron with a CCD camera.

As I viewed M42 (upside down and in a group of stars known as "The Source-man") from Tebbutt's observatory, I wondered what he would have thought if he could see the marvelous additions to our knowledge that technology has brought to his observatory.

—Richard I. Adduci

1990 Coming Attractions

The new year promises to be an active and eventful one for MAS as highlighted below. It's worth noting that many of the listed activities have grown in scope and popularity and will continue to do so. Specific information and dates will be announced as the event draws nearer.

Sept - May Program Meetings - 3rd Friday of each month

Spring Field trip to Yerkes Observatory
Spring Greenbush Campout - Galaxies!

Summer Open House Programs - general public invited to Observatory to hear members present diverse topics.
Picnic - Fun in the sun (or rain)
Summer Greenbush Campout - Milky Way!

Sept. 14-16 Astrofest - Sponsored by the Chicago Astronomical Society; held at Shaw-Wan-Nee-See 4H Camp near Kankakee, IL. Loads of fun!

Fall Fall Banquet - nationally recognized speakers join the members for an evening of astronomical esprit-de-corps.
Fall Greenbush Campout - Glimpses of the Winter sky!

In addition to the above activities, MAS provides two 8" dobsonian "Apollo Loaner Scopes". No deposit or rental fee. And for the general public, group tours of the Observatory can be arranged. If you have questions on any of the above listed activities, contact Matthew McNeeley or any other member of the MAS Board.

Wanted To Buy

A 55mm Clave eyepiece. Will pay up to \$150. Call Tom Milner at 383-3452 if you know of one or for further details.

For Sale

MAS Clothing—white on royal blue (jackets also available in navy).

T-shirts	\$ 6.50
Golf Shirts	\$ 9.50
Sweat Shirts	\$10.00
Nylon Jackets	\$27.00

Also. for sale — Chest Works —The company that makes them!

Complete silk screening business and local and mail order client list (with many loyal customers). Includes equipment, inventory, 100+ screens, supplies (inks, solvents, etc) and original designs relating to astronomy, tennis, bicycling, hunting & fishing. Good part-time business with great income potential.

For details contact Tom Gill 476-6986.



MAS INFORMATION

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