

FOCAL POINT



Newsletter for the

Milwaukee Astronomical Society

May 1990

From The Editor

The May meeting has added importance because the membership elects members to the Board. The Board, in turn, elects the officers of the Society. They meet together once a month and act upon the policies, programs and funding of the Society.

This year there are four Board vacancies and the candidates nominated to fill them are: Wanda Berner, Paul Borchardt, James Kube, Tom Renner, Sally Waraczynski and Michael Wolkomir. Also, two proposals concerning the bylaws of the Society will be voted upon (see insert in April *Focal Point*).

We urge you to attend this meeting so you may have input in the operations of the Society.

- Matthew McNeeley

May Program-Meeting

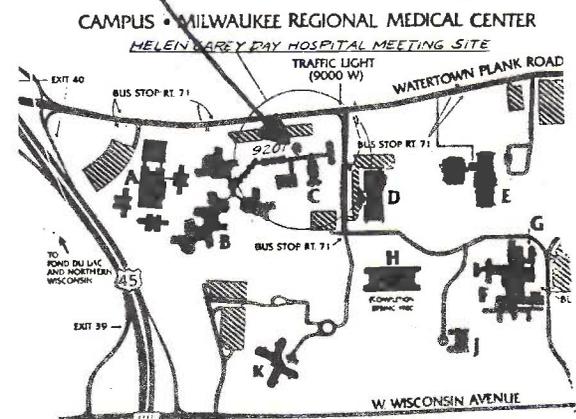
Our speaker this month is Larry Jahn, Vice Chairman of the North Central Region of the Astronomical League and active member of the Naperville Astronomical Society. Larry has collaborated with several other members of his society and produced an excellent videotape titled: An Astronomical Anthology which highlights the activities of the Naperville Astronomical Society and the many varied activities of amateur astronomers everywhere.

The videotape is an excellent example of the professional results that are being achieved in many societies (including our own) and will be an inspiration and a delight to view. Whether you are a new member or an MAS veteran, you won't want to miss this outstanding wrap-up to our '89 - '90 meeting season.

Doors open from 7:30 to 8:15 pm only, meeting at 8:00pm.

- Tom Renner

ENTER THROUGH A-FRAME



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Calendar of Events

May 14, Monday	7:30 pm Board Meeting at the Observatory
May 18, Friday	8:00 pm Program-Meeting
May 24, Thursday	New Moon
May 25, Friday	Deadline for <u>Focal Point</u>
June 6, Wednesday	First Wednesday Meeting 7:30 at the Observatory
June 8, Friday	Full Strawberry Moon
June 11, Monday	7:30 pm Board Meeting at the Observatory
Saturday Nights—Member night at Observatory—Call key holder	

Library News

An-Ti-Ci-Paaaaaa-Tion...

We've all been through it more than just a few times... the double scoop of ice cream that topples to the ground after one lick of frosty delight; all packed for the trip when the boss calls with an emergency order or one of the kids comes down with chicken pox; bleary-eyed vigils for the "comet of the decade". Well now that the launch has really taken place, it's probably safe to announce:

Alice and the Space Telescope by Malcom Longair, Astronomer Royal for Scotland, Director of the Royal Observatory in Edinburgh, and an Interdisciplinary Scientist for the Space Telescope Science Working Group.

When he gave the "Alice" lecture at the 1984 Baltimore meeting of the American Astronomical Society, Longair, a long time fan of Lewis Carroll, used this novel format to present the wonderful possibilities of the world's largest "looking glass". The first part of the book is a whimsical, conversational and often tongue-in-cheek exposition of the basic areas of astronomical research.

Part II - Annotations, is a mini-course in cosmology - a more detailed and, if you wish, parallel discussion of concepts presented in Part I. It provides more specific background for the fundamental questions the Space Telescope is designed to help answer, such as: "How do stars lose mass?" "How have the galaxies evolved with time?" "What is the Universal rate of expansion (deceleration)?"

Additional material on the Hubble Space Telescope may be found in the vertical file.

A REMINDER: As Open House season approaches, it is particularly important to remember to sign out all audio-visual materials on the green form. This includes the projectors as well as the slides and tapes.

- Sally Waraczynski

Future Events I - Solar Eclipse - 1991

Joel Harris of Eclipse Excursions will conduct an informational meeting for those going on the '91 Solar Eclipse trip to Baja, Mexico. The meeting will be held at the Observatory on Saturday, June 16th at 7:30 pm. Please plan to attend.

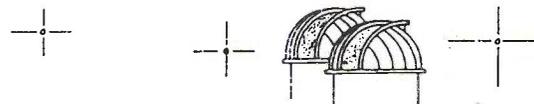
Future Events II - NCRAL 1992

Congratulations to MAS! NCRAL has accepted our invitation to host the regional convention in 1992. When it gets closer to the event, we will tap the many and varied talents of our members to assure its stellar success. (The 1991 NCRAL convention will be in Green Bay).

Still Room for Shutterbugs

A reminder for the UW-Waukesha short course, "Astrophotography for Beginners" (See April Focal Point for details). Fridays, June 1, 8, 15 and 22, 1990 at the MAS Observatory from 9-12 pm. To register, call Don Bracco at 521-5460. The registration fee is \$50, but MAS members get a \$20 discount. You can also call Lee Keith at 961-8752 for more information.

From the Past...



DOUBLE DOME

— 15 Years Ago

CONVENTION RESUME: Two statements in the April Double Dome proved true: The MAS was well represented and those who came down to the Wagon Wheel Resort did have a good time.

Papers covered many subjects and among them were "AAVSO's Eclipsing Binary Program" by Observatory Director Ed Halbach, and "Design and Construction of a Photo-Electrical Photometer for a Newtonian Telescope" by Tom Renner. Dr. J. Allen Hynek, Chairman from the Department of Astronomy, Northwestern University concluded the day with his talk "A Fight for Photons" which described a method of observing electronically. What a boon for the armchair observer!

We are looking forward to next year's convention in Madison.

— 10 Years Ago

PLAN AHEAD! Friday night through Sunday (July 11 - 13) has been reserved for the first MAS Campout. We will meet at the Northern Kettle Moraine Greenbush group campground. Details and a map will appear in the June Double-Dome.

Treat yourself to some rest, relaxation and dark skies!

(1990 ed. note: REST?!?)

Super Turbo Light Speed

Sorry for the confusion in last month's article on the parsec. Light is fast, but not ridiculous. The figure with all the zeros (5,880,000,000,000 miles) was for a YEAR, not a second. You knew that, right?

★

**Ask
 The
 Astronomer**

How do we know whether a stellar object is approaching or receding from us?

— Photon Phar

Dear Photon,

The term used to define whether a stellar object is approaching or receding is radial velocity. To do this, we must be familiar with the Doppler Effect which states that a change in wavelength results when a source of waves and the observers are moving relative to one another. So the question is how are these waves affected and how do we measure them.

A light source approaching us will have its light waves crowded closer and shortened – that is, blue-shifted in the spectrum; and a light source receding from us will have its light waves spread out or lengthened – red-shifted. By measuring the amount of blue, or red shift in the spectral lines corresponding to known elements, the speed, or recession of the stellar object can be computed to determine its radial velocity from us.

MAS & The Space Telescope

MAS can take pride that one of our former observers has made a name for himself in astronomy. Ed Halbach saw an article in the Denver Post (April 25th, 1990) about Robert Stencil and Ted Snow, directors of CU Center for Astrophysics and Space Astronomy who will analyze data collected from the Space Telescope. Robert Stencil got his start as an observer at MAS in his early career. Thanks, Ed, for sharing this news with us.

(Ed will attend the variable star convention (AAVSO) in Belgium this July and looks forward to seeing MAS members in attendance).

Spring Field Trip - Yipee for Yerkes and Wow for Whitewater

It is said that time moves forward only. But for the Spring Field Trip participants, the historic past merged with the future one afternoon at Yerkes and U.W. Whitewater.

While standing and peering along the long, white tube that houses the 40 inch refractor, our avid band of astronomers could sense the spirit of astronomers past. It was truly a moving experience as we rode the wooden floor upward to finally rest at eyepiece level. Gazing along the imposing instrument that looked like a huge cannon, it was really nature's canon that the early stargazers sought.

Soon our reverie about past and present Yerkes projects was transformed with our move to the physics department of U.W. Whitewater. Here we learned how the ultra-modern 16.5 Ritchey Chretien telescope and the latest computer technology combine to scan the cosmos to provide data for modern research.

For sharing this wonderful field trip of historic and futuristic significance, we thank the staffs of Yerkes and U.W. - Whitewater, and give a special thanks to Tom Renner, Program Director, for his organizing the event - a flawless and fruitful afternoon.

— Matthew McNeeley

New Members

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

Richard Wargin
 - Milwaukee, WI

Steven P. Lebryk
 - Waukesha, WI

Welcome! When you see these members at meetings and other MAS functions, introduce yourself and make them feel a part of the group.

Saturday Nite Keyholders

May 12	Chris Hesseltine 482-4515
May 19	Dan Koehler 662-2987
May 26	Lee Keith 961-8752
June 2	Gerry Samolyk 475-9418
June 9	John Pfannerstill 475-6494
June 16	Terry Ross 784-2093
June 23	Tom Schmidkunz 784-0253

Greenbush Campout

A foggy Friday didn't dampen the formation of friendships between MAS members and members of NEWSTAR (Appleton and Green Bay area) that accepted the invitation to partake of the Greenbush campout. The camaraderie continued on Saturday when improved sky conditions and new arrivals from the Spring Field Trip augmented the ongoing star party. It was an opportunity to blend the expertise and experience of two dynamic societies. The "Big Guns" of Dave Kriege, Peter Smitka ("First Light"), Mike Wolkomir and Dan Wyman (Newstar) captured galaxies galore at an amazing clip. The Ring Nebula (M 57) looked spectacular too!

With visiting and viewing going on throughout the night, many were tired when the a pre-dawn's call was made, "Who wants to see Comet Austin?" Although not as dramatic as earlier anticipated, it was still exciting to see, since comets are rare events. With the dawn many of us broke camp looking forward to this summer's campout.

— Matthew McNeeley

The 1990 Open House Schedule

We are listing the Open House schedule here to save on sending out separate sheets. Encourage your friends to attend. A short talk will be given several times during the evening and several scopes will be set up for viewing. Open houses begin at 8:00 pm, rain or (star) shine.

July 13 Space Exploration

July 20 is the 21st anniversary of the Apollo 11 Moon landing. Tonight you'll learn about the many space missions, their accomplishments and goals for the future.

July 27 The Moon

Tonight is a perfect night to observe and learn about our nearest celestial neighbor, the Moon. It's a 'mere' one quarter million miles away, only 6 months by car!

August 10 Perseid Meteor Shower

In the early morning of August 12, the summer's best meteor shower will peak. You will learn why meteor showers occur and how to best observe and the enjoy the cosmic fireworks.

August 24 Observing with Binoculars

Did you know that binoculars are telescopes too? In the talk tonight, learn how and what to observe with that telescope gathering dust in your closet.

September 7 Constellations

The sky is filled with mythical men and monsters. From eagles to crows, snakes to lizards, hunters to virgins. Come discover some of the stories in the sky with us!

September 21 Uranus, Neptune and Pluto

With recent visits by the Voyager 2 spacecraft, we know much about these distant, dark and frigid planets. Pluto, over 2.5 billion miles away, is smaller than our Moon, yet has a satellite of its own!

October 5 Ringed Planet Saturn

The beautiful ringed planet Saturn is well placed for viewing in the evening skies this fall. Seeing it for yourself is better than any photo and will be a memory to cherish for a lifetime!

Bring a jacket. . . The mosquitoes bite and it's always cool!

\$2 guest parking donations are greatly appreciated.



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