

FOCAL POINT



From The Editor

In the coming weeks, MAS is sponsoring diverse events for your enjoyment and participation. This April there is the Spring Field Trip and the Greenbush Campout.

In May, MAS will observe National Astronomy Day on Saturday, May 5th at the Observatory. And to close the regular program season, elections to the Board will be held on Friday, May 18th. We invite your involvement in all these noteworthy activities.
 - Matthew McNeeley

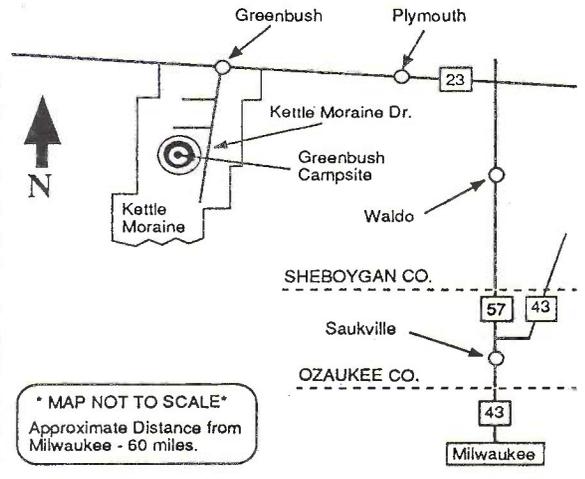
Light Pollution Chairperson Needed

With John Asztalos's anticipated move to Colorado, there's a need for a new light pollution chairperson. If you're interested in continuing the effort for darker skies, please call John at 774-5418

April Activities

No April Program Meeting. The 1990 Spring Field Trip to Yerkes and U.W. Whitewater will be its replacement. Please return the 1990 Spring Field Trip form to Program Director Tom Renner as soon as possible. Call him at 292-2799 for the latest information since space is limited. All details were provided in the flyer included in the March Focal Point.

Greenbush Campout. Greenbush campers may again join the Star Party at Greenbush Kettle Moraine campsites #5 & 6. Friday and Saturday April 20 & 21 (Sunday optional). The highlight of the campout should be Comet Austin that holds promise of "lighting up" the dawn and dusk horizons. Bring your tent, telescope, warm clothes and firewood. Fees for all the fun are just \$3.50 (vehicle sticker) plus \$2/day/person. Call John Asztalos at 774-5418 for details.



Calendar of Events

- April 20-23Green Bush Campout
 - April 21, Saturday Spring Field Trip
Yerkes and U.W. Whitewater
 - April 25, Wednesday New Moon
 - April 28, SaturdayDeadline for Focal Point
 - May 2, Wednesday First Wednesday Meeting
7:30 at the Observatory
 - May 9, Wednesday Full Flower Moon
 - May 14, Monday 7:30 pm Board Meeting
at the Observatory
- Saturday Nights—Member night at Observatory—Call key holder

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Library News

Reporting on the rest of Barb Swiontek's January donations, we have:

Practical Astronomy with Your Calculator, 2nd edition. With only a moderately sophisticated calculating machine, you can use Duffett-Smith's methods to find the position of some periodic comets, convert alt-azimuth to equatorial coordinates, determine planetary bright limb position angles, etc. Problems are introduced with general information of value to any reader.

Observational Astronomy For Amateurs, 4th edition. This is J. B. Sidgwick's classic manual updated by James Muirden in 1982. It thoroughly and systematically covers observing procedures for solar system objects as well as variable and binary stars. Most sections also include photographic techniques.

The Runaway Universe, by cosmologist/philosopher Paul Davies, is one of his earlier (1980) popular-level histories of everything since the Big Bang. In discussing the probable end of the universe, Mr. Davies has defined the term "entropy" with exceptional clarity and offers intriguing scenarios of "intelligence" staving off the final moment.

The Quest for SS 433, by David H. Clark, 1985. Highly variable, point-like radio sources were found in or near supernova remnants; coincident x-ray emission was detected; the optical counterparts had strange spectra. One of the mysterious sources studied was no. 433 in the Stephenson-Sanduleak list of H-alpha emission objects. This story reveals as much about professional astronomers and theorists as about the cosmic puzzles they seek to solve.

The Astronomy Book Club is making a special offer this month. If you are considering joining the Book Club, please give me a call. Our library will receive free books for sponsoring your membership.

— Sally Waraczynski

Spring Arrivals

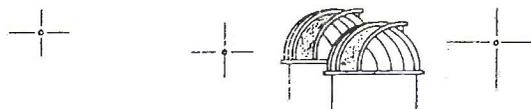
Does spring bring Galaxies? Yes, like clockwork. But the season of the vernal equinox had special meaning for both Jim and Dorothy Kube and Richard and Beatrice Wiesen as each family celebrated the arrival of grandchildren — the 2nd for each family in the last six weeks! Born on the first day of spring was Rebekah Lauren Kube, and on April 1st Andrea Marie was born to Richard and Beatrice's son Andy and his wife Julie. Best wishes to all.

Yikes!

Ode to the lost o's. O-o, er, I mean oh-oh. 'O' well. The more observant readers probably noticed that I've been short-changing Dorothy on her right to have 7 lucky letters in her name. Truth is, I was hoarding the o's to give her a standing 'o', but they kept rolling away. Sorry Dorothy!

— Tm (Tom) Gill

From the Past...



DOUBLE DOME

— 20 Years Ago

GRAZING OCCULTATIONS

Now that the snow is disappearing and warmer weather is returning, the grazing occultation program is being resumed. For the unfamiliar, a grazing occultation occurs when a star "grazes" the edge of the Moon's disc, and, with a telescope, can be seen to peek-a-boo because of the Moon's rough terrain.

Instruments 6" or larger are preferred for this work but an occasional brighter star allows use of a smaller instrument. If interested, call Director Edward Halbach at . . .

— 10 Years Ago

26" (66cm Telescope) NEWS: THIS IS IT, The news you've been waiting for. Ground will be broken for the 26" telescope installation at the Observatory on Astronomy Day, Saturday April 26, at 5 pm.

The Mayor, aldermen and other officials from the City of New Berlin will be there along with our Milwaukee Astronomical Society officers. And we wish Miss Cora Zemlock, who donated the mirror blank, Bill Albrecht, Ed Halbach and the many people who worked on this project could be here to witness, perhaps the biggest MAS event since the ground breaking for the 12 1/2" telescope nearly 50 years ago!

For Sale

12.5" f/5 mirror, Celestron C-8 with accessories. Make an offer. For more info call John Asztalos at 774-5418.

Televue 32mm Plossl, for \$70.00. Call Matthew McNeely at 354-5347.

10" f/5.6 equatorial w. heavy duty mount and drive. Coulter mirror, 50mm finder and Telrad. Nolan Zadra, 962-3021 eves.



Ask The Astronomer

Why do professional astronomers measure distances in the strange distance unit "parsecs" instead of the more common "light year"?

— Dumbfounded by Distance

Dear Dumbfounded,

There are 2 reasons astronomers prefer parsecs instead of light years. The first is that the parsec is a unit that is a natural mathematical consequence of finding the distance of stars, although parallax is used only for the closest stars. The second reason may be just plain convention.

Astronomers agreed a long time ago that parsecs would be used in all "official" distance figures. That's not to say that light years are not useful, but it was not the chosen unit. So we lay people will stick to light years and the pros will use parsec, but like miles and kilometers, they are just different ways of measuring the same thing.

Ed. note: What a coincidence! Member and astronomical sage Lee Keith explores the parsec in an accompanying article.

If you have a question to "Ask the Astronomer", please submit it to the Focal Point for consideration. Note the deadline in each month's calendar of events.

Donated to MAS

The Girl Scouts at Chinook Program Center in Waukesha donated \$25 and a copy of Ranger Rick's Nature Scope (Astronomy Adventure) to thank Matthew and Mark McNeely for two "Reach for the Stars" presentations. We appreciate their generosity.

Farther than Far

One method astronomers use to determine the distance to the nearest stars is called "parallax". If you hold a finger out in front of you and close one eye then alternate between left and right eyes, it will appear to "jump" back and forth against the background. Astronomers use the orbit of the Earth instead of blinking eyes when looking at stars, but the principal is the same. The distance a star must be from us for this jump (parallax) to be just 1/3600 of one degree (one arc second) is called a parsec. A PARAlax of 1 SECond = 1 PARSEC. Get it?

A light year, however, is simply the distance a beam of light travels in one year at the fast clip of 186,282 miles (that's 7.5 times around the earth!). In ONE second, light will travel the mind boggling distance of 5,880,000,000,000 miles!

Even though a parsec is about 3.26 light years, it is a testament to the vastness and emptiness of space that there are NO stars less than a parsec from the Sun! The closest star, the Alpha Centauri system, is 4.3 light years or 1.3 parsecs away from the Solar System.

— Lee Keith

Rather Fight than Light?

Fighting light pollution is no easy task. It requires a constant review of methods and materials to keep the sky dark. One way is to use low-sodium lighting with proper shielding. For more information, contact Tim Burris at 783-6572.

NCRAL 1990

For those planning on attending the NCRAL Convention on Saturday, April 28, 1990 at the YaHara Conference Center (Waunakee, WI), there is a car pool available originating at Goerkes Corners Park-and-Ride (Hwy. 18 and I-94). Call Dan Koehler at 662-2987 for details if interested.

Saturday Nite Keyholders

April 14	John Asztalos 774-5418
April 21	Greg Cieslak 744-5703
April 28	Paul Borchardt 781-0169
May 5	Brian Ganiere 272-4649
May 12	Chris Hessel tine 482-4515
May 19	Lee Keith 961-8752
May 26	Dan Koehler 662-2987

New Members

The following new members were recently announced by the NAS Board:

William J. Jennaro & Family
— Waukesha, WI

Thomas J. Barderweper
— Shorewood, WI

**Thomas J. Michlowski, M.D.,
Aida & David**
— Wauwatosa, WI

Maz Rahder & Debe Brickson
— Milwaukee, WI

**Edward, Patricia & David
Meyers**
— Brown Deer, WI

Welcome! When you see these new members at meetings and other functions, be sure to introduce yourself and make them feel a part of the group!

M45 Results

Our success with the Lunar occultations of the M45 star cluster continues. On Friday night, March 2, 19 observers were set up at the Observatory for the event. As the Moon entered the cluster, some thin clouds got in our way, wiping out all but the brighter stars, but after a half hour the skies cleared up permitting us to get most of the stars we hoped for.

When the strip chart was reduced, 263 good timings of 30 stars were found. This data is reported to the ILOC (Japan) for reduction and publication. I expect to see our 1987 observations published later this year. We have made over 1000 M45 timings since early 1987.

Our next passage will be on Tuesday morning, August 14. This will feature the stars reappearing on the dark limb plus several brighter cluster members. Hopefully our luck will continue.

— Gerry Samolyk

Attention Night Shutterbugs

UW-Waukesha is hosting a new short course that combines astronomy with photography. "Astrophotography for Beginners" will cover basic telescope functions, how a camera and telescope work together, constellation photography with a tripod, photography of the moon and planets as well as long exposure photography of star clusters and nebulae.

Dates are Fridays, June 1, 8, 15 and 22, 1990 at the MAS Observatory from 9-12 pm. Students should bring a 35mm SLR camera, tripod and cable release (if possible), a T-ring (if possible) and 2 rolls of 24 exposure ISO 400 or faster SLIDE film.

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.

National Astronomy Day

On Saturday, May 5th, MAS will hold a celebration of Astronomy Day. The Observatory will be open from 2:00 pm to 11:00 pm for tours, talks on astronomy topics and, sky permitting, evening viewing with Society and member scopes.

To assure that our Observatory is "ship-shape" for this special occasion, we ask you to help with the annual Spring Clean-up (light housecleaning chores) at the Observatory on Friday, May 4th starting at 6:30 pm. Please come. We provide the cleaning materials. People wishing to help should call Lee Keith at 961-8752.

May Elections

Elections will be held in May for four Board positions and that of the office of Secretary. This is an opportunity for our members to serve and have direct input into MAS programs and policies. If you are interested in being a candidate or need more information, call Richard Wiesen at 781-4786.



MAS INFORMATION

MAS OFFICERS

President	Dr. Richard Wiesen 781-4786
Vice President	Matthew McNeeley 354-5347
Secretary	Ms. Karen Wesener 961-8752
Treasurer	Dan Koehler 662-2987
Obs. Director	Gerry Samolyk 475-9418
Assist. Obs. Director	John Asztalos 774-5418
Librarian	Mrs. Sally Waraczynski 321-0918
Assist. Librarian	Mrs. June Regis 962-0896
Program Dir.	Tom Renner 392-2799

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476-6986

MAS Observatory
18850 W. Observatory Rd.
New Berlin, WI
542-9071

Following are two proposals, approved by the Board of Directors on March 12, 1990 for member's review, for a new article to the Milwaukee Astronomical Society By-Laws creating an Endowment Fund, and a revision in the wording of the By-Laws concerning membership classifications. You will be asked to vote on these proposals on May 18, 1990 during the membership meeting:

ARTICLE X - ENDOWMENT FUND

Section 1: The Society shall establish and operate an Endowment Fund (herein referred to as "the Fund"). The principle balance of the Fund is permanently fixed at the sum of \$40,000 plus the sum of additional donations made on the behalf or by the bequest of past and present Society members, or from sources outside the Society and specifically designated for the Fund. The principle balance may be drawn below this amount only in the event the Society experiences severe financial distress, which shall be determined by a two-thirds majority vote of the Society's members holding Regular, Non-Resident, and Founder status (one vote per family).

Section 2: Administration of the Fund shall be performed by the Society's Treasurer, with the knowledge and consent of the Board of Directors. The Fund's principle and interest balances shall be invested in financial instruments at the discretion of the Board of Directors. The sum of all investments comprising the Fund shall not be less than the previously stated fixed balance.

Section 3: The Treasurer shall provide a report of investments, earnings, deposits, and withdrawals within the Fund at least once per fiscal year to the Board of Directors and the Membership.

Section 4: Interest and/or dividends accumulated through investment of the Fund's principle shall be available to finance projects relating to the Society's Observatory including construction and/or purchase and/or maintenance expenses of buildings, real estate, instruments or related astronomical equipment, or equipment used to maintain any of these alternatives at the discretion of the Board of Directors.

Following is a proposal to change ARTICLE II - MEMBERS

Section 1, ACTIVE MEMBERS

Change from:

ACTIVE MEMBERS are those who pay regular dues, partake in the general activities of the Society, and present a sustained interest in advanced astronomical study.

Change to:

REGULAR MEMBERS are those who live within the political boundaries of the Wisconsin counties of Milwaukee, Waukesha, Washington, or Ozaukee, or who partake in activities at the Milwaukee Astronomical Society Observatory in New Berlin, Wisconsin on a regular basis, and who do not meet the qualifications for Junior Membership.

Section 1, NON-RESIDENT MEMBERS:

Change from:

NON-RESIDENT MEMBERS are those who do not reside within a 30 mile radius of the Milwaukee Astronomical Society's Observatory in New Berlin, Wisconsin, and who do not find it expedient to hold any other class of membership.

Change To:

NON-RESIDENT MEMBERS are those who do not live within the political boundaries of the Wisconsin counties of Milwaukee, Waukesha, Washington, or Ozaukee, and do not partake in activities at the Milwaukee Astronomical Society Observatory in New Berlin, Wisconsin on a regular basis, and who do not meet the qualifications of Junior Membership.