

FOCAL POINT

The Newsletter of the Milwaukee Astronomical Society

November 1994

FROM THE EDITORS' DESK

As we enter the month of November most of us begin to think about Thanksgiving. As an amateur astronomer, what are you most thankful for? Is it all that astronomical gadgetry you have? Or are you thankful for something a little less materialistic? Most astronomy enthusiasts remember that first clear evening when their father, grandfather, teacher, or friend explained the workings of the night sky and pointed out some constellations. What a feeling of joy and satisfaction each of us had upon learning to view the heavens in a whole new way!

Quite a few of our members spend time giving people, especially young people, that first opportunity to view the stars. Along the way, our members pass on some of their knowledge about astronomy, enriching the lives of all they reach. Some M.A.S. members help with open houses, or make presentations at grade schools, or give tours to civic groups. This month, in honor of Thanksgiving, I'd like to recognize two members who spend a great deal of their time teaching others about the wonders of the night sky.

Before **Nick and Jean Nichols** built the Warren Nichols Observatory near Richfield, WI in Washington County, Nick ran many of the public tours at the M.A.S. Observatory. Hardly a week went by when he couldn't be found out there with a group. After the WNO was finished Nick and Jean opened it to regular public tours, just like the ones they operated in New Berlin. Recently,

Jean told me about their trip to Camp Winding River, a girl scout camp owned by the Great Blue Heron Council of Waukesha County near Neosho. They set up telescopes for an evening of observing, had a great time with the girls, and got a chance to use a nice dark sky site too. Every year the Nichols' sponsor their own Astronomy Day celebration at The WNO drawing large crowds and inspiring many new amateur astronomers. Their love of the hobby and dedication to helping others learn about astronomy shows through in the many activities they conduct.

In this month of Thanksgiving, let us all be thankful for those people who first helped us realize the joys of amateur astronomy. And like Nick and Jean Nichols, let's all share the wonderment of our universe with someone new.

-★ *Mary Koehler*

LIBRARY NEWS

Now is the perfect time to make suggestions about what you think the M.A.S. library could do to better serve your needs. Until a Finance Committee is instituted (one of the revised Bylaws provisions to be voted on at the November 18 general membership meeting) and a library budget is approved, I am making no new purchases. What subject matter interests you most? Do you think we should concentrate on building our videotape collection?

Do any of the following apply to you?

1. I'm trying to build a personal astronomy library but don't want the potential hassle of a mail-order book club membership.
2. I'd like to get my books at a better discount than 10%.
3. I'd like to see more catalogs than those I presently receive.

If you said yes to any of the above, then it is quite possible your M.A.S. Librarian can be of service in these situations. If you want more details, call (321-0918) or see me at the November 18 meeting.

A final burning question: Who has our print copies of "Astronomy Network News"?

-★ *Sally Waraczynski*

NOVEMBER PROGRAM MEETING

Cosmology, the study of our place in the universe, is one of the most exciting and debated topics of astronomy today. Eighteen centuries ago, the world's eminent authority was the Greek astronomer Ptolemy. He believed that the earth was at the center of the universe, and that all objects in the sky were attached to crystal spheres encircling the earth.

Our speaker, Ms. Andrea Murschel of the Adler Planetarium History Department, will describe Ptolemy's theory and his influence on medieval and Renaissance European Science in her talk Knots, Warts and other Parts of Ptolemy's Lost Cosmology.

The November Membership Meeting will be held at 8:00 p.m. at National Regency Retirement Home at 13750 W. National Avenue in New Berlin. To get to National Regency from the freeway: On I-894 East or West bound, exit at National Avenue. Continue West on National past Hwy. 100 and 124th Street. National Regency is on the North side of the street just before you reach Sunny Slope Road. There are two main doors, enter in the East Door.

A MEMORIAL

At 1:03 a.m. on October 13, 1994, Ian Michael Keith was born to us. He weighed 9 lbs., 3.4 oz. and was 23 inches long. We are very happy and proud to be his parents.

Sometime during the night of October 10 - 11, 1994 Ian was taken from us. We are very sad that this special star in *our* universe shone for such a short time. His light will always be in our hearts.

To all our friends in the M.A.S., please share our joy in becoming parents of a beautiful baby boy.

-★ Lee Keith and Karen Wesener

-Ed Note: Our heartfelt sympathy, and that of all M.A.S. members, goes out to Lee and Karen on the death of their infant son. A floral arrangement was sent to their home on behalf of the members of the Milwaukee Astronomical Society by President Matthew McNeely. Cards and letter of condolence should be sent to 8150 South Legend Drive, Franklin, WI 53132.

MESSIER CLUB AWARDS

I am pleased to announce that the M.A.S. has two more accomplished amateur astronomers. Members **Vern Hoag** and **Wanda Berner** have observed 70 of the 109 objects in the Messier list of Deep Sky objects and have earned the regular Messier Certificate. In addition, Vern has also observed 50 Messier objects

with 11 x 80 binoculars and has earned the Binocular Messier Certificate and pin. Please join me in congratulating them on their efforts by attending the November membership meeting where they will be presented with the awards. For more information on the Messier, Herschel, or Burnham Observing Clubs call me at 425-2331.

-★ Lee Keith

ATTENTION M.A.S. STUDENT MEMBERS

Thinking of going to college? Want to be a REAL astronomer? The M.A.S. has received information on pursuing a BS in Astronomy /Astrophysics from the University of Denver. Their Mt. Evans Observatory is above 14,000 feet and contains a 28-inch binocular system. Fund raising has begun for a 4-meter class instrument. Please contact Lee Keith at 425-2331 for more information. As a side note, UW-Madison also has an excellent astronomy program. UW has made instrumentation that has flown on many spacecraft including the Hubble Space Telescope.

FOR SALE

A fellow amateur astronomer in Madison has contacted the M.A.S. concerning books and equipment he has for sale. He is recently divorced and wishes to simplify his life. He has over 100 books, atlases, and handbooks including the Webb Society series, *Sky & Telescope*, *The Astrograph*, *Astronomy*, and *Deep Sky* magazines, ASP publications, Atlas of the Heavens Catalogs, Tirion Sky Atlas 2000 among other titles. If you are looking for something call me at 425-2331 for specific titles and prices. He also has a 6 inch f/4.5 refractor that needs alignment with tripod and equatorial mount for \$500.

-★ Lee Keith

GROCERY RECEIPT REIMBURSEMENT PROGRAMS

If you shop at any Milwaukee-area CUB Foods or at one of the Pick 'N Save stores listed below please save your receipts for the M.A.S. We receive 1% of the tape total on store receipts. Remember to ask for the "WE CARE" sticker at Pick 'N Save. We have been collecting the receipts from these stores for many months now. To date, the M.A.S. treasury has received about \$25.00 from the CUB organization. To qualify for reimbursement from Pick 'N Save, we'll need \$5,000 in receipts. We're well on our way to this goal though. As publicity for this Society fund raising project has increased, we have received an increasing number of receipts. Thanks to those of you who have been contributing, and consider asking your friends, neighbors, and relatives to help us too! You may deposit the receipts at the Observatory, mail them to me at the address below, or bring them to a meeting.

Participating Pick & Save stores:
Tri-City at 6312 South 27th Street
124th and Capitol Drive
68th and State Street

Send to: Karen Wesener, 8150 Legend Drive, Franklin WI 53132

SMALL PROPERTY INVENTORY

The Board of Directors has asked Board Member **Virgil Tangney** to conduct an inventory of all M.A.S. small property stored at the Observatory and at member's homes. The purpose of the inventory is as follows:

1. To determine the identity and current location of all M.A.S. property and if the items are properly stored and maintained.
2. To determine if the Society has proper levels of insurance on its property.
3. To determine if any items currently held by the Society should be sold.

SCENES AT ASTROFEST XV

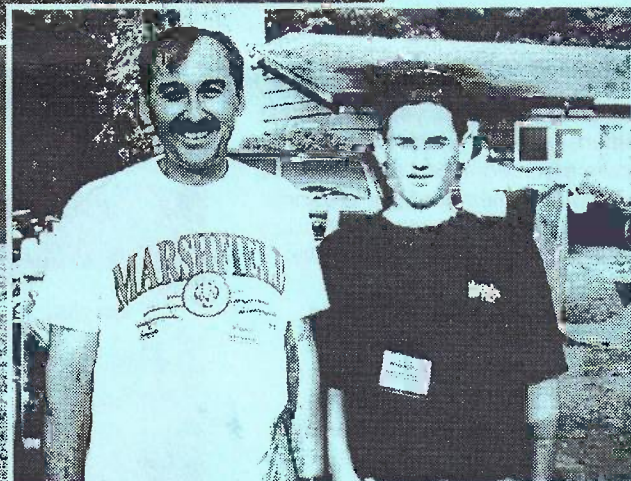
SEPT. 9 - 11, 1994

Jim and Dorothy Kube (right) relax next to their motorhome on Saturday afternoon. They arrived at Astrofest after a two-week vacation to the eastern U.S.



Sally-Jo Michalko and Jim Kube (above) pose for the camera.

At left: A partial group shot in front of a 25-inch Obsession 'scope on Saturday afternoon. Standing are (l. to r.) Peter Smitka, Tom Gill, Dave Kriege, Scott Jamieson, Matthew McNeely, John Shibley, Tom Renner, and Charlotte Nelson. Kneeling (l. to r.) Lana Silke, Jim Hervat, Lee Keith, Wanda Berner, Dan Koehler, and Barbara Jamieson.



The "Galactic Poles" Jim and Dorothy Kube at left. Jim is the current M.A.S. Vice-President. Above, we spotted Harvey and Andy Herman at the Astro Swap/Flea Market on Saturday.

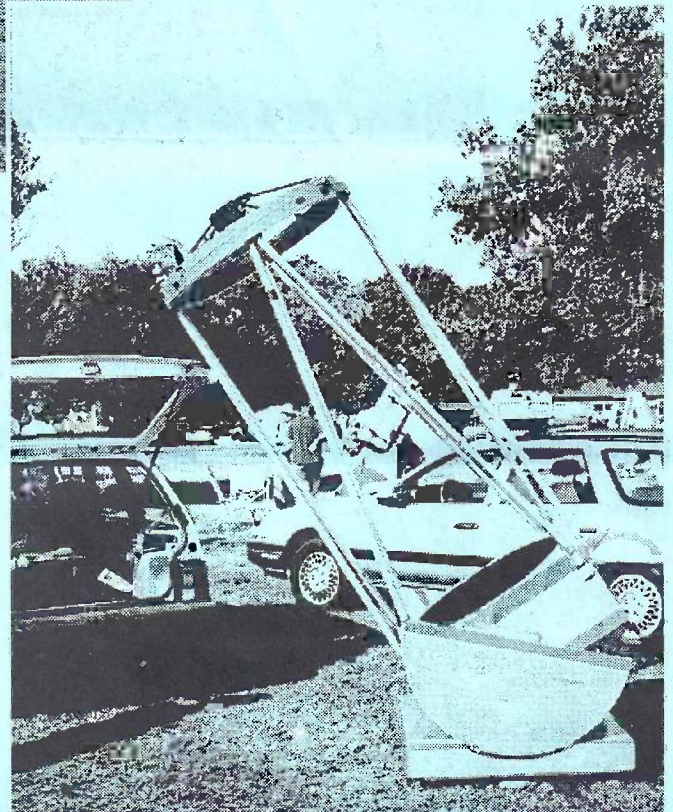


Left, a view of one portion of the infamous "telescope field" on Saturday. Note the nearly cloudless skies! Most of the evening viewing occurred here.

Below, this was the largest 'scope on display at Astrofest XV, a 30-inch Dobsonian that, believe it or not, fits comfortably in the Ford Fiesta (with open hatch door) to its left. The 'scope was carried to the top of Mt. Pinos in southern California (alt. approx. 9,000 feet) earlier in the summer this way. Now that's portability!



Above, M.A.S. President Matthew McNeely admires the very sturdy home-built refractor mount built by fellow member Scott Jamieson, who received an award at this year's Astrofest for its craftsmanship. The 4-inch Edmund refractor shown mounted here was donated to the Society by M.A.S. member Mike Wolkomir. Scott will be donating the mount to the Society as well. Thanks to both for their generosity!



Right, another view of the telescope field.

All photos by Dan Koehler. Photo editing and layout by Robbie Suhr of the Graphics Dept. at Modine Mfg. Co. in Racine, WI. (Thanks for your help, Rob!)



Report any M.A.S. property, excluding library materials, in your possession by December 31, 1994 to Virgil at 414-327-7976, 8034 West Norwich Avenue, Milwaukee, WI 53220.

EYE ON THE SKY FOR DECEMBER

Most celestial observers won't have a lot of events to celebrate this month. Since I'm a "sun watcher" I especially enjoy the times of solstice. My house is situated on a hill so I can stand in the front yard on the days of earliest and latest sunsets and mentally mark the most southern and northern points of sunset in relation to physical features on the western horizon. It's quite interesting to see how far the sun "travels" from south to north through a twelve month cycle.

The only prominent planet in the evening sky is Saturn. Located in Aquarius, Saturn now sets before midnight. As it goes down each evening, Mars, in Leo, is just rising in the east. Mars will be at "aphelic opposition" on February 12, 1995, 0.68 A.U. or about 63,000,000 miles from Earth and very near its farthest point from the sun. The last time Mars reached opposition this far from us occurred in 1982 when Earth stood .64 A.U..... from the red planet.

Consequently from a telescopic point of view, the coming apparition of Mars will not be a very favorable one; its apparent diameter will not exceed 14 arc seconds. Contrast this with the *exceptionally* favorable apparition in 1988 when Mars was over 25 arc seconds in diameter -- a *huge* size in comparison to 1995. We won't see the planet that big again until August 2003! Mars observers can take some solace from the fact that this is about the worst the planet ever appears to us at opposition. The next three apparitions (in 1997, 1999, and 2001) will slowly and steadily increase Mars' apparent size in our telescopes. Until then use this "poor" apparition to sharpen your Martian observing skills. Learn to identify the more prominent surface features on the planet's disk by comparing what you see in the

eyepiece with a good Mars map. On clear evenings with good seeing you'll be amazed at how many features you can actually identify. And from this experience you'll also learn to appreciate and understand the significance of the better apparitions that lie in the future!

Jupiter is steadily moving away from the sun in December. The planet reached conjunction with the sun on November 17. Each morning during December the planet will appear higher in the sky until it is visible in a nearly dark sky by month's end. Of course the biggest attraction to renewed Jovian observations will be the status of the many Comet Shoemaker-Levy-9 impact sites. For nearly two months Jupiter has been too close to the sun to observe, so the beginning of the planet's next apparition will be especially interesting to those who watched the aftermath of the S-L-9 collisions in awe last summer.

Venus is the other "morning star" this month, appearing very near Jupiter in the dawn sky. Here are some other celestial events to observe in December:

Dec. 02 -- New Moon at 5:54 p.m. CST

Dec. 09 -- Venus at greatest brilliancy (-4.7), First Quarter Moon at 3:06 p.m. CST.

Dec. 18 -- Full Moon at 8:17 p.m. CST. This is the "Moon before the Yule" or the "Long Night Moon". The full moon in December is riding the highest point in the ecliptic, just as the sun occupies this spot in June. Thus, the full moon is above our horizon for a long time tonight, just as the sun is on the longest days of the year each summer.

Dec. 22 -- The solstice occurs at 8:27 p.m. The sun is now at its farthest point south of the celestial equator, marking the beginning of winter in the northern hemisphere and the beginning of summer in the southern hemisphere.

Dec. 25 -- Third Quarter Moon at 1:06 p.m. CST.

Dec. 29 -- The waning crescent moon lies between Venus and Jupiter in this morning's dawn sky.

-★ DLK

DEEP SPACE FROM THE PINEWOODS CAMPGROUND

The clouds and rain on Friday, September 30 and Saturday, October 1 gave way to clear skies on Saturday night. Those in attendance at the M.A.S. fall campout were rewarded for their diligence with a fine opportunity to view the skies from a new location, the Pinewoods Campground west of North Prairie in the Kettle Moraine State Forest.

The highlight of the evening for many of us was viewing Stephen's Quintet, a group of five galaxies in the constellation of Pegasus. We used both 12-inch Porta-ball telescopes and the M.A.S.'s new Wiesen Memorial Telescope, the 18-inch Obsession. The hunt began by finding NGC 7331, a relatively easy S6 spiral galaxy at 11th magnitude. Stephen's quintet is only 1/2-degree and most of the observers saw from one to four of the five galaxies in this very remote group. The magnitudes of each range from 13.7 to 15.3.

Some of us also visited the proposed remote observing site near Pinewoods. The site looks very promising as an escape from the light-polluted western suburbs of Milwaukee. As usual, this M.A.S. campout continued the fine tradition of these rewarding observing events. Thanks to all who helped make it possible.

-★ Tom SchmidtKymz

DUES REMINDER

Paul Sorenson, Membership Chairman is still waiting for a few people to pay their dues. Please mail them to: W188 S8660 Brooke Lane, Muskego, WI 53150 (414) 679-4339.

**M.A.S OFFICERS, DIRECTORS, AND
COMMITTEE CHAIRS**

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**VICE - PRESIDENT, DIRECTOR, & OBSERVATORY
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LEE KEITH, 425-2331

NEW MEMBER CONTACT

SALLY-JO MICHALKO, 524-9499

PROGRAM CHAIR

TOM RENNEN, 524-0932

**OBSERVATORY KEYHOLDERS FOR
OCTOBER, NOVEMBER, AND DECEMBER**

NOV 12	TIM BURRUS	783-6572
NOV 19	GREG CIESLAK	529-0548
NOV 26	BRIAN GANIERE	961-8745

DEC 03	CHRIS HESSELTINE	482-4515
DEC 10	LEE KEITH	425-2331
DEC 17	DAN KOEHLER	662-2987
DEC 24	SCOTT LASKOWSKI	421-3517
DEC 31	JIM KUBE	453-8858

M.A.S. EVENT SCHEDULE

NOV 14	BOARD MEETING AT THE OBSERVATORY	7:30 P.M.
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NOV 18	GENERAL MEMBERSHIP MEETING AT NATIONAL REGENCY, NEW BERLIN	8:00 P.M.
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DEC 07	FIRST WEDNESDAY MEETING AT THE OBSERVATORY	7:30 P.M.
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DATES, TIMES, AND LOCATIONS OF THE DECEMBER BOARD MEETING AND THE MEMBERSHIP HOLIDAY GET-TOGETHER HAVE NOT YET BEEN DETERMINED.

JAN 04	FIRST WEDNESDAY MEETING AT THE OBSERVATORY	7:30 P.M.
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JAN 09	BOARD MEETING Location to be determined	7:30 P.M.
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JAN 20	GENERAL MEMBERSHIP MEETING AT NATIONAL REGENCY, NEW BERLIN	8:00 P.M.
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Article and photo submissions are encouraged. Deadlines are on the 20th of the month preceding the month of publication. The editors reserve the right to alter all submissions in style, length, and content for final publication. Where practical, submissions may be held until suitable space is available in a future issue. Submissions of lengthy articles are appreciated in digital format. Please call for instructions.

Address all materials for publication, comments, and questions to *The Focal Point*, W248 S7040 Sugar Maple Drive, Waukesha, WI 53186 (414-662-2987) or FAX to the attention of D. L. Koehler at 414-636-1818. Any portion of *The Focal Point* may be reproduced and distributed with proper credit give to the publication and The Milwaukee Astronomical Society.

THE FOCAL POINT is published 10 times each year, and is the newsletter of The Milwaukee Astronomical Society, a non-profit corporation founded in 1932 and dedicated to conducting research and educational programs for its members and the general public in the science of astronomy.