



Issued by the

*Milwaukee Astronomical Society*

September 1988

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Meteor Showers

**Draconids** - October 9. Peak at 8PM. Rate of 10/hour. Look northwest.

Special Thanks

Special thanks to Steven Reich who, as typographer and layout man, organizes the "Focal Point" into its present form, and to treasurer Dan Koehler who contributed many of the articles in this issue.

September Program-Meeting

As Mars increases in brightness and nearness each night, so does excitement increase as the Red Planet moves toward the best position for viewing since 1956. For our latitude, a repeat performance will not occur until 2035, so take advantage of the situation!

The closest approach, 36.3 million miles, will occur September 21-22. Mars will be high in the sky. In a telescope, the disk will be large and bright. Greatest brilliance occurs on September 27-28.

Our first meeting of the 1988-89 MAS year will feature Mars and focus on viewing techniques through a telescope. Lee is an active member, knowledgeable in many facets of practical astronomy. He frequently speaks at MAS Open Houses and meetings and is well known for his hands-on workshops.

**WHEN:** Friday, September 23 at 8:00 P.M.

**WHERE:** The Milwaukee Astronomical Society Observatory  
 18850 W. Observatory Road, New Berlin (542-9071)

"Northern Lights"

"Northern Lights," the official North Central Region of the Astronomical League (NCRAL) quarterly newsletter will soon publish its October edition. Editor and publisher Ray Wendt will accept your newsy, especially if unusual, astronomical articles of general interest. Write the best you can; Ray will edit.

Subscriptions for four editions are \$2.50 per year. MAS members receive "Northern Lights" free.

Please contact Ray Wendt at 4834 N. 70th Street, Milwaukee, Wisconsin 53218.

Calendar of Events

- Friday, September 16 - MAS Open House (Telescopes)
- Wednesday, September 21 - Mars at its brightest and nearest Earth.
- Thursday, September 22 - Fall begins at 2:29 P.M. CDT.
- Friday, September 23 - September Program-Meeting at the MAS Observatory.
- Friday, September 23 - October "Focal Point" deadline.
- Saturday, September 24 - Saturn's rings at best tilt.
- Sunday, September 25 - Full Harvest Moon.
- Wednesday, October 5 - First Wednesday at the observatory.
- Monday, October 10 - Board Meeting 7:30 PM at observatory.
- Friday, October 14 - MAS Open House (General Astronomy)
- Saturdays - Observatory maintenance and improvements. Help wanted. Call 475-9418 or 258-5626.
- Saturday Nights - Member's night at the observatory.

## MAS Dues To Increase?

At its August meeting, the MAS Board of Directors, upon the recommendation of Treasurer Dan Koehler, voted to increase dues for all membership classifications (regular, non-resident, and junior) by \$10 per year beginning with all individuals joining the Society after December 1, 1988, or renewing membership for the 1989-90 fiscal year. This increase is subject to the approval of members attending the November 18, 1988 general meeting at the CATC.

After six years of slow but steady inflation, increased costs for maintaining and insuring the Observatory, and a healthy increase in membership benefits, the Society's treasury is feeling the strain of financial burden. In order to keep the Society's programs moving ahead, and maintain the Observatory, the treasury is in need of more revenue. Since the last dues increase in 1982, members have been enjoying constant benefits from Society functions but have been steadily paying less than what these benefits actually cost. The present membership dues are simply not high enough to cover all of the routine expenses of our Society. It is time to bring revenue back in line with expenditures.

A complete explanation of cash flow "through the books" will be made at the September 23rd and November 18th meetings. You may ask any questions you have about the Society's finances at those meetings. A majority vote of the members present and the November meeting will be necessary before the dues increase can go into effect. Plan to attend both meetings to voice your opinion and make your vote count.

## Can You Believe This?

We've suffered one of the biggest droughts in U.S. history, so when does it break? Yep, on the afternoon of the MAS Annual Family Picnic!

Needless to say, those who attended were driven inside the Quonset hut by the downpour, others who planned to attend never showed.

Those who dashed outside to the cache and returned had plenty of refreshments to enjoy.

Member Florence Simandl won the top picnic prize, a Wil Tirion Sky Atlas 2000.0, which was donated to the MAS library for everyone to enjoy. Other unawarded picnic prizes will be offered at the September Program Meeting.

And thanks to picnic chairman Pete Smitka for taking care of the details.

## Pay Those Dues On Time!

If you haven't already done so, please remit dues to the MAS Treasurer for the 1988-89 fiscal year, which began September 1. Payment of dues is required by September 30 to maintain active membership in the Society. Use the "Membership Renewal" form and return envelope mailed to you during the first week of September. Use the form to obtain (or renew) discounted subscriptions to "Astronomy" (\$14), "Deep Sky" (\$7), "Telescope Making" (\$7), and "Odyssey" (\$10) magazines, as well as for reserving a copy of the RASC Observer's Handbook for 1989. A group order will be placed for the handbook in late October, and handbooks will be distributed to members at the December and January membership meetings at the CATC. You may also request a mailed copy for \$1 extra. Subscriptions to all periodicals obtained through MAS membership begin with the January, 1989 issues.

Prompt payment of dues is essential for a healthy treasury, and to insure proper receipt of your magazine subscriptions. Members who haven't paid dues by October 31, 1988 will be automatically dropped from the Society roster. There will be no exceptions.

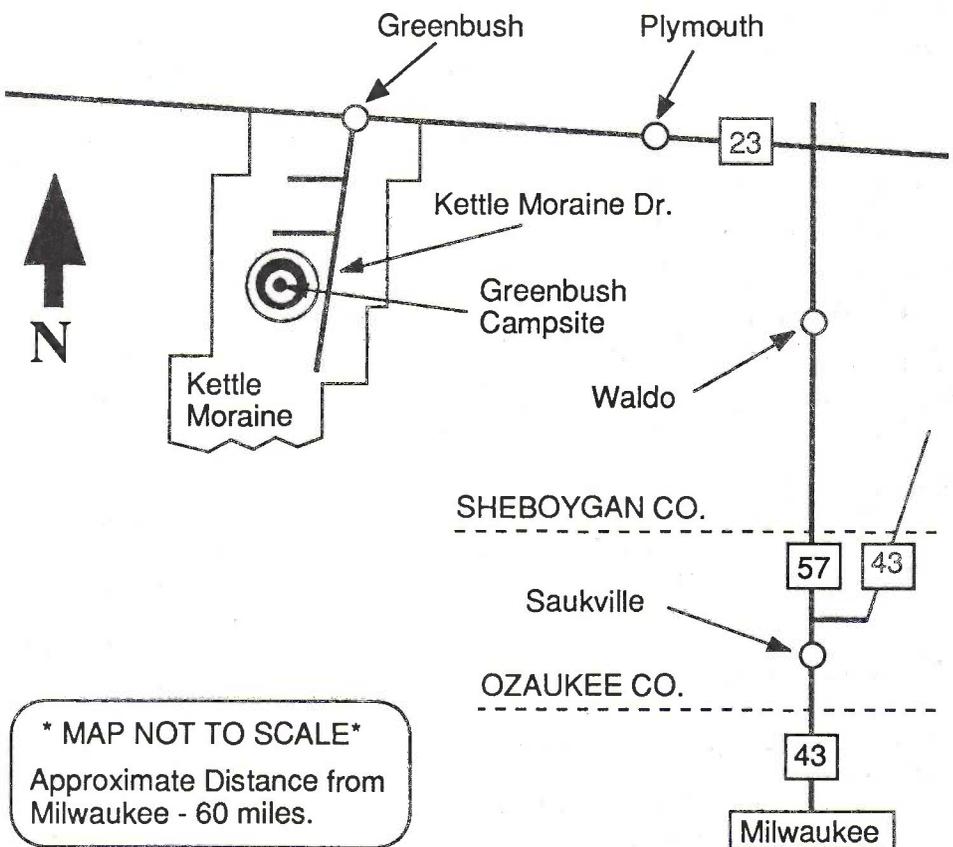
## AND While You Are Paying Your Dues...

Please don't forget to fill in the "quick survey" included with your "Membership Renewal" form. It's important to determine the extent of interest in the items listed on the survey. Return it with your dues payment by September 30.

## Greenbush Campout

The Greenbush Fall campers may join the Star-Party campout at the Greenbush Kettle Moraine campsite #6. Enjoy a dark, moonless sky and see the stars! The Draconid meteor shower will be at its peak. Look to the northwest and see how many you can see.

Bring your Tent, telescope, warm clothes, and firewood. When? Friday through Sunday, October 7-9. Call John Asztalos at 258-5626 for details.



## New Members

The following new members will be introduced at the September 23rd meeting at the Observatory:

Luca Alverno, Milwaukee  
Chad Andrist, Wauwatosa  
Terrence Brehmer, Milwaukee  
Mark Dominick, Waukesha  
Scott, Sue, and Will Erickson, Waukesha  
Olaf, Ruth, Heather, and Heidi Harken, Pewaukee  
Dennis Janz (and wife), Butler  
Alan Eliot Reed, Jr. (and three family members), Milwaukee  
Michael Rainiero, West Allis  
Jay Schubring, Milwaukee  
David Seeds, Milwaukee  
Jennifer, Vijay, and Barbara Seth, Wauwatosa  
Carl and Eugenia Whitman, Mukwonago

Our membership roster continues to expand, thanks in large part to the success of our Public Open House Schedule so far this year! Welcome to the MAS family, all of you!

## Loaner Scopes

Two 8" Dobsonian "APOLLO" telescopes are available to MAS members for general use away from the observatory. They will accept either 1.25" or 2" eyepieces.

One is located on the north side at the home of: Matt McNeeley, 8200 N. Cedarburg Road., Brown Deer (354-5307)

The south side location of the other is at the home of: Richard Sterle, 8115 W. Waterford Avenue, Greenfield, Wisconsin (543-7459)

No deposit is required, but an agreement to cover loss or damage must be signed. The loan period is from 14-21 days with an extension possible.

These telescopes were built from funds contributed by MAS member Orin Purinton, president of Apollo Fund Limited.

## Keyholders

Following is the list of "Member's Night" keyholders for the period of Sept. 17 to Nov. 5:

Sept. 17 .....Nick Nichols .....628-4059  
Sept. 24 .....Aris Penikis .....354-9708  
Oct. 1 .....John Pfannerstill .....475-6494  
Oct. 8 .....Frank Roldan .....423-0210  
Oct. 15 .....Terry Ross .....784-2093  
Oct. 22 .....Gerry Samolyk .....475-9418  
Oct. 29 .....Tom Schmidkunz ...784-0253  
Nov. 5 .....Peter Smitka .....785-0926

## Library News: by MAS Librarian Sally Waraczynski

The long, hot summer evenings this year have inspired a good number of our members to curl up in front of the air-conditioner with a refreshing astronomy book. Here are the latest quenchers of you thirst (for knowledge) to arrive on our shelves:

### Astronomy: A Step-By-Step Guide to the Night Sky - Dunlop, 1985.

This is a concise, introductory field guide to all the celestial phenomena and the tools and techniques for observing them.

### Build Your Own Telescope - Berry, 1985.

Includes well-illustrated and detailed plans and procedures for constructing several types of telescope.

### The Study of Variable Stars Using Small Telescopes - Percy (ed.), 1985.

Proceedings of a symposium at David Dunlap Observatory, Toronto. Janet Mattei, director of the A.A.V.S.O., champions visual observing and the value of the society's vast data base to the scientific community. The emphasis of the book, however, is on photoelectric photometry. Period analysis is also covered in depth. A wealth of reference material is cited throughout as a source of further reading.

### Introduction to Observing and Photographing the Solar System - Dobbins, Parker, and Capen

and just arrived, MARS.

For photography enthusiasts and planetary observers, a photocopy of most of Kodak's "Filters for Scientific and Technical Uses" (B3) is now in the vertical file under ASTRONOMICAL PHOTOGRAPHY. Graphs show wavelength transmission for the various Wratten filters.

Again, June Regis and I welcome your suggestions for the library collection. We will also be pleased to accept your donations of books or articles for the vertical file of reference material.

## Observatory News

John Asztalos (258-5626) will be Acting Director in the absence of Gerry Samolyk. New locks will be installed at the observatory. Please read the details in another article elsewhere in this issue.

According to Frank Roldan, the New Berlin Fire Department recently made an inspection of our observatory, the first, to the best of our knowledge, in the society's history. The inspector found two deficiencies. One was a missing door in the break box of the 26" telescope building (door has been ordered). The other requirement was for fire extinguishers to be installed in each dome. To the rescue came member Warren Sondericker and Midwest Fire Protection, Inc. who donated three 9-pound Halon fire extinguishers and serviced the existing one at the observatory (this one was also donated by Warren in 1982). Many thanks to Warren for the generous donation.

## MAS Observatory To Get New Locks

New locks will be installed at the MAS observatory on Sunday, September 25. Keyholders are reminded to meet at the observatory at 2:00 p.m. to exchange their keys, sign updated "Keyholder Agreement" forms, and discuss policies and procedures for the keyholder program. This is a mandatory meeting.

If a keyholder has extenuating circumstances and cannot be at the Observatory, he/she *must* call Dan Koehler (662-2987) prior to the meeting to make other arrangements. Failure to do so will result in that keyholder losing his/her key privileges and deposit. There are no exceptions.

The lock change does not affect "\$1 Keyholders" as those locks will not be changed. Details of the exchange were summarized in a letter mailed to all keyholders in mid-August.

## Beneath Northern Skies by Michael Wolkomir

When the time come to load up the gear and head out to the MAS dark sky sight for a weekend of stars and fellowship, my thoughts are always on the sky and its wonders. It's easy to forget that the area around the Greenbush site bears the marks of incredible natural phenomena of a more earthly nature. Greenbush lies on the northern fringes of the Kettle Moraine State Forest, a part of the National Parks Service Ice Age National Scientific Reserve.

Between about 25,000 and 10,000 years ago, in the depths of the Pleistocene, this beautiful region lay compressed beneath, and pinched between, the immense cliffs of ice that made up the Green Bay and Lake Michigan Lobes of the Laurentide ice sheet. Amazing creatures thrived here. Despite the cold, this region was rich in fauna. In fact, the environment was favorable enough to support "megafauna" like mastodon and mammoth, saber-toothed tiger, musk-oxen, horse, camel, and even a species of beaver that weighed up to a quarter ton - about the size of a modern Black Bear. There is excellent evidence that early man was one of the creatures benefiting from this wealth of resources. Native Americans of the Copper Culture hunted these lands and without doubt, wondered at the nocturnal beauty of the sky we seek there as well.

The very size of the glacial geological features of the northern Kettle Moraine remind us of the incredible forces at work through the moving ice. The region is dotted with "kettles", circular depressions formed when small segments of glacier were isolated, allowed to melt, and the land under them depressed into circular lakes or swamps. One of the nicest examples lies close to our site - the Greenbush Kettle, a large depression about 3 miles south of Greenbush on Kettle Moraine Drive. Snaking south of Greenbush is the Parnell Esker. This long, sinuous ridge formed in a tunnel through the base of the great glacier. Imagine the river of melt-water running beneath the ice sheet, depositing this miles-long gravel ridge.

Kames are isolated appearing conical hills. Their origin is no less fascinating. If they appear "set down" on the plain, that is exactly how they got there. Vertical shafts formed in the ice-sheet and debris was washed down them, forming these features. Observing Dundee Mountain near the Long Lake Recreation Area is an excellent way to get a feel for the height of the glacier.

The families of odd, tear-dropped shaped hills, built up along their gently sloped ends by the glacier's advance, and revealing their blunter extremity with its retreat, are known as drumlins. They are somewhat hard to identify from the ground, but a field of them is preserved 3 miles northwest of Campbellsport.

The margins of the glacier are marked by the features that give the region its name. The unsorted rubble marking the pinched territory between the two lobes is clearly identifiable as the moraine lying just east of Mauthe Lake. It's absolutely unmistakable.

The Parks Service maintains the Henry S. Reuss Ice Age Visitors Center, where you can view an excellent short film on glacial geology and examine fossil and archaeological artifacts from the Pleistocene. The center is 3 miles west of Eagle on Highway 59. I would suggest purchasing a copy of "On the Trail of the Wisconsin Glacier", a 4 page mimeograph driving tour of the forest.

The sky at the Kettle Moraine is magnificent, but daylight reveals the magnificence of the forces of nature on a more human scale, It's well worth looking around, as well as up.

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## Open Houses An "ASTRONOMICAL" Success

After two years of mostly rain-outs and cloud-outs, the Observatory's Public Open House program is enjoying clear nights and large crowds. For the first four dates in July and August, a total of 1000 people have listened to member presentations about galaxies, the moon, meteors, and stars, and taken a look at and through our Observatory's excellent equipment. The 26" scope was opened for public viewing for the first time on August 5!

The schedule continues into the fall with open houses on September 16 (Telescopes), September 30 (Mars), and October 14 (General Astronomy). We still need members to help park cars, operate telescopes (yes, you should bring yours out!), direct traffic flow in and out of buildings, and answer questions. There's no need to call, just come on out! Programs begin at 8:00 p.m. Bring a sweater or jacket and mosquito repellent. The observatory is located at 18850 W. Observatory Road, New Berlin. If you get lost, call 542-9071.

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## "Focal Point" Deadline

The "Focal Point" deadline has been changed to coincide with the general meeting date, usually the third Friday of the month. This move will allow more time for typographer Steven Reich, the "Focal Point" Editor, and the printer.

The deadline for the October issue will be Friday, September 23. Your "Focal Point" editor is LeRoy Simandl, 4201 W. Highland Blvd., Milwaukee, Wisconsin 53208 (933-3052).

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## Directory

President .....	Dr. Richard Wiesen .....	781-4757
Vice President .....	Mathew McNeeley .....	354-5347
Secretary .....	Ms. Karen Wesener .....	961-8752
Treasurer .....	Dan Koehler .....	662-2987
Observatory Director .....	Gerry Samolyk .....	475-9418
Assistant Observatory Director .....	John Asztalos .....	258-5626
Librarian .....	Mrs. Sally Waraczynski .....	321-0918
Assistant Librarian .....	Mrs. June Regis .....	962-0896
Program Director .....	Mathew McNeeley .....	354-5347
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