

# FOCAL POINT



The logo of the Milwaukee Astronomical Society is circular, featuring a silhouette of the state of Wisconsin with a telescope and a star. The text 'MILWAUKEE ASTRONOMICAL SOCIETY' is written around the perimeter of the circle.

Issued by the

MILWAUKEE ASTRONOMICAL SOCIETY

- : MARCH, 1987 : -

NO MARCH PROGRAM-MEETING: Instead, MAS members, their families and friends, and other nearby astronomical societies who have made reservations will make the 1987 MAS Spring Field Trip to Chicago on Saturday, March 28, 1987.

The focal point of the trip is Chicago's Adler Planetarium Exhibits and Sky Show. There will be optional side trips to the Field Museum of Natural History, the Museum of Science and Industry, or to the Shedd Aquarium.

A fourth bus has been added, so we can accept 34 more people, first come, first served. The cost is \$9.25 per person.

Full particulars can be obtained by calling Dan Koehler at 662-2987.

Please act now as time is very short!

OBSERVATORY NEWS: Soon snow and cold will be ushered out by fair skies and warm sunshine! We have a lot of buildings and equipment, so there'll be some maintenance and some unfinished and new tasks to work on. But with a little sweat and strain from volunteers, the work'll get done. Call 475-9418 or 258-5626 and let the responders know how you'd like to help.

The MAS library, ever growing, has added six new books. All have been especially selected for the beginning and advanced members of the Milwaukee Astronomical Society.

All kinds of astronomical literature is available from the library, most of which may be checked out during First Wednesday meetings or on Saturday nights by appointment with the keyholder.

Librarian Sally Waraczynski and Co-Librarian June Regis are to be commended for doing a great job of revamping and relocating the library for your use and convenience.

Go-nogo and other information about grazing occultations can be obtained from the observatory answering machine. Call 542-9071.

RAY WENDT has volunteered to edit and publish "Northern Lights," the North Central Region quarterly newsletter received by all MAS members. His duties begin with the June issue.

Astronomical articles of general interest should be sent to Ray at 4834 N. 70th St., Milwaukee, Wis. 53218.

"Northern Lights" was published by Jim Fox of Afton, Minn. for 16 years. We appreciate his good job of work, his choice of interesting, unusual articles, and his perseverance. All Ray has to do is as well.

### TELESCOPE MAKING CLASS UPDATE

The MAS telescope making class is now a month old, and members are well into the construction of their telescopes. Of the group, 3 are making 6" scopes, 2 are making 8", one 10" and 2 12.5"! In addition, two 8" telescopes are being made for rental to members when they are finished by late spring. Information on rental of these instruments will be given in the near future. All participants are having a "blast" and are finding that making a telescope is fun, easy and inexpensive, but not cheap! As you read this, all members are finished with their mirror mounts, tubes, end rings, dobsonian boxes for the tube, and have ordered all optics & accessories. Good luck to all of them! May you all be future Messier and/or Herschel Club members!

### MESSIER & HERSCHEL CLUB ANNOUNCEMENTS

OBSERVER'S HANDBOOK: The MAS has a *Messier-Club Observer's Handbook* available FREE by sending a 8.5" by 11" SASE with 66 cents postage to: Lee Keith 1239B E. Randolph Ct., Milwaukee 53212. It contains numerous observing tips: dark adaptation, selecting an observing site, what magnification to use, and more! Other sections include 4 different methods to find those elusive Messier objects, and what to record about each object to get the coveted Messier Certificate! Lastly, there are finder charts for many objects and a sample observing log. Who could ask for more?!?!?

Don't forget that when you complete the 107 object Messier list, you can begin on the challenging 400 object Herschel object list. If you complete it, you will be among a small group of observers (30) nationwide to complete such a feat!

MAS OBSERVER'S TUTORING SERVICE: Especially for new members, beginning or novice observers! An experienced member of the MAS will meet you either at the observatory or *come to your home* and show you anything you need to know about your telescope and observing Messier objects! Appointments can be made by calling Lee at 961-9752 (evenings) the day before you wish someone to come out; confirmation will be made the next day. Don't forget that the *Amateur Astronomer's Series* classes on telescopes and observing will be offered this spring; watch for class schedule! Not bad for \$30 dues, huh?

SEE YOUR "NORTHERN LIGHTS" NEWSLETTER for the Racine NCRAL convention which will take place April 25. Packets will be available at the March 28 Field Trip and at the April 17 general meeting.

SOMETHING NEW: Changes in the sky may not be too apparent to the casual naked-eye observer, but something is happening all the time.

Now the big news is the discovery of a supernova, or exploding star, the brightest since the one discovered in Ophiuchus in 1604.

According to MAS member John Geraci, the type 2 supernova is located in the Large Magellanic Cloud about 150,000 light-years from earth. Its coordinates are (2000) 5h35m5s/-57°16'. It is not visible here. Brightness will peak at mag. 1 or 2. It will become a neutron star or a black hole. Fascinating!

FOR THE CURIOUS, a penumbral eclipse of the moon will happen Monday, April 13. The eclipse begins at 7:20 PM CDT and ends 11:18 PM CDT. Central U.S. will see the moon rise eclipsed. Since only 8/10 of the moon will enter the penumbra, only the edge of the moon will be slightly discolored. The moon will also pass about a degree from Spica.

BEST HERSCHEL OBJECTS: For those of you who wish to explore the Herschel list, the following are the best of the spring objects for your viewing pleasure. Spring is the "galaxy season" in astronomy, so be ready for a challenge in finding other Milky Ways. Don't be daunted by the Herschel list, many of them are so bright that you may wonder how Messier missed them...

NGC Number	Coordinates		Seeing	Description (10" f/4.5 at 44x unless noted)
	R.A.	Dec.		
3034	09h 52m	+69 56'	Avg.	Bright, highly elongated, irregularities of illumination noted. Beautiful!! [6" f/6; 36x]
3166	10h 11m	+03 40'	V.Good	Fairly bright, small, very bright center with elongated halo. Makes nice pair w/ NGC 3169.
3169	10h 12m	+03 43'	V.Good	Fairly bright, but small; only slightly elongated, fuzzy. Slightly brighter toward center. Nice pair with NGC 3166.
3184	10h 15m	+41 40'	V.Good	Large, round, easily seen. Sensed some unevenness. Reminds me of Owl Nebula, M97.
3242	10h 22m	-18 23'	V.Good	Large, bright, blue green with edges dimmer & center brightest. Looks unevenly lit, some patches darker. (197x)
3379	10h 45m	+12 51'	V.Good	Bright, round with very bright nucleus. Large halo.
3384	10h 46m	+12 54'	V.Good	Bright, fairly large, round with bright nucleus & large halo.
3486	10h 58m	+29 15'	V.Good	Large, round, easy to see, evenly lit.
3628	11h 18m	+13 53'	Poor	Large, elongated, even illuminated. Nice! (6" f/6; 36x)
4088	12h 03m	+50 49'	Good	Large, bright, lens shaped; of some uneven brightness. Nice!
4147	12h 08m	+18 49'	Good	Small but bright, seen in 9x60 finder. Some resolution hinted and of irregular outline.
4490	12h 28m	+41 55'	Avg.	Large, bright highly flattened. Slight brightening toward center. Nice!
4565	12h 34m	+26 16'	Good	VERY long & thin with nuclear buldge prominent. Dark central dust lane glimpsed with averted vision.
4594 M-109	12h 37m	-11 21'	Fair	In rich field. Very nice! Large halo, central lane & dark lane seen with averted vision. "Sombrero" shape glimpsed. Bright nucleus!
4631	12h 40m	+32 49'	Fair	WOW! Large, bright needle. Nuclear bulge prominent. West side seems longer & thinner. Faint star on north edge. Show this one!
4699	12h 47m	-08 24'	Fair	Small, very bright, very bright nucleus, faint halo & arm extensions hinted; fuzzy star.
5195	13h 28m	+47 31'	Good	Small, round with faint nucleus. Nice! 92x [companion to M51]

"Frank Roldan, the occultation recorder for the Society, has developed a new form for reporting regular occultations. This form should make it easier for observers to record their observations, while at the same time, provide Frank with all the data he needs to prepare his reports for the International Lunar Occultation Centre in Tokyo, Japan. The forms can be found in a new holder (built by Frank) installed at the observatory, in the office, above the bulletin board. Please call Frank at 423-0210 if you have any questions or comments about the form or, if you would like more information about the regular occultation observing program".

MEMBERS NIGHT KEYHOLDERS:

Mar. 21 - G. Hall	786-8579	Apr. 11 - D. Koehler	662 2987
28 - D. Harris	964-1428	18 - N. Nichols	542-2055
Apr. 4 - L. Keith	962-2856		

DIRECTORY:

Pres. - D. Koehler, 662-2987	V. P. - Dr. R. Wiesen, 781-4757
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MAS Observatory - 18850 W. Observatory Rd., New Berlin - 542-9071	

APRIL FOCAL POINT DEADLINE - WEDNESDAY, APRIL 1.