



The Newsletter of the Milwaukee Astronomical Society

February 1999

New Building Update

After a two month delay, I finally completed the plans and a model for the new building to replace the aging "Quonset Hut" multi-purpose room. A model of the proposed building was shown at the January meeting. The plans will be presented to the New Berlin planning committee shortly. Hopefully, we will not have too many revisions.

What I would like to do is compile a list of MAS members that would like to help build the new building. You do not have to show up every building day, but please, if you schedule yourself for a given day, please try to be there. This will make it easier to plan things out.

We are looking for people to lay block, do concrete work, carpentry, drywall hanging, roofing, siding, inside trim, painting, labor and etc.. If we have any electricians and heating people, that would be a bonus. The more things we can do on this project, the less labor cost we will have to pay out. Please call me after 6:00PM on weekdays or any time on weekends at 414-548-9130. You can also email me at vhoag@gppi.com or vhoag.wi@worldnet.att.net. I just need to know how much work you have done and if you have any tools. Even if you feel you do not have the skill level, there will be plenty of things to do.

When the weather warms up a little and the new building has been approved by the city, the first job will be to clean out the old building. The satellite building needs to be torn down, so it will be cleaned out as well.

I will post starting dates in the Focal Point when the cleaning, tearing down, and building will begin. Please contact me if you would like to help out. Come on out and work with your fellow MAS members....It really is a lot of fun to see a project like this take shape....and be a party to it.

Vern Hoag, New Building Chairman

We meet at UWM on February 19th at 8:00PM in Room 133 of the Physics Building located on the corner of E. Kenwood Ave and N. Cramer St., Kenwood Campus. **President Scott Jamieson will discuss and demonstrate newly purchased software for use in processing images from the ST6 Imager.** Scott wants to also discuss further the new building renovation program. For those interested in a little premeeting education and/or family entertainment (ages 6 years or older), the Manfred Olsen Planetarium is just down the hall from our meeting room and usually have a Friday evening show at 7:00PM. The show charge is \$1 per person. For more info on the show, call 229-4961.

The MAS board meeting will precede the general meeting at 7:00 PM. Since Quorums have been marginal at previous meetings, all board members should make an effort to attend or let the president know they can't make it.

MAS Observer Receives Recognition

Last year, a long time MAS member, **Gene Hanson**, received the **AAVSO** (American Association of Variable Star Observers) **Director's Award**. Although Gene makes over ten thousand observations per year (thanks to the clear Arizona sky), he was recognized for a single observation of U Gem.

What made that observation special was that it took place during a satellite observing run. When these types of runs are scheduled, amateurs are asked to monitor a specific group of stars, in this case dwarf nova and report any outbursts immediately. When Gene saw U Gem going up he reported that information to AAVSO headquarters. Although no other observers were in position to confirm what Gene reported, the satellite observations were scheduled. Thanks to a single observation by an amateur, the observing run was a success and the astronomers got the data they needed.

Geno was one of our active observers of variable stars and lunar occultations in the late 70's and early 80's. He also helped with work in the building and dome that now houses our 25" Z scope. He graduated from school and moved to the Phoenix area over 15 years ago but has remained a member of the MAS. He is now one of the most active variable star observers in the country.

Eds Note: Above input via Obs. Dir. Gerry Samolyk

Unsung "Appleseed"

Some times members are roving ambassadors for Astronomy and do not seek recognition for their efforts. One such person is Karen Weisner. Karen writes an astronomy column a couple of times a month for the weekly suburban newspapers, that are delivered to most of the Metro Milwaukee suburbs. Additionally, Karen will provide materials and graphics to a local TV weatherman that are usually shown on the evening news and point out current things to see in the night sky.

Karen is also married to our Vice President Lee Keith and Mom to budding Astronomer - daughter Celeste. Celeste is rapidly gaining knowledge of our solar system and will readily point out these planets to you.

Way to go Karen.

Library News

Here are more of Brian Ganiere's generous donations.

1. **The Penguin Dictionary of Astronomy**; Jacqueline Mitton - 1993
 2. **Isaac Asimov's Guide to Earth and Space**; Isaac Asimov - 1993.
 3. **The Urban Astronomer: A practical Guide for Observers in Cities and Suburbs**; Gregory L Matloff - 1991
 4. **Seeing The Solar System: Telescopic Projects, Activities, & Explorations in Astronomy**; Fred Schaaf - 1991
 5. **Many Moons: The Myth and Magic, Fact and Fantasy of Our Nearest Heavenly Body**; Diana Brueton - 1991
- Scott Laskowski, MAS Librarian*

SO YOU WANT TO BE FAMOUS?

Earn your Messier, Herschel or Double Star Certificates and be famous! The Messier Club is a set of 107 of the best deep-sky object in the sky, which is the most popular way for amateur astronomers to learn the sky. The Herschel Club requires you to observe 400 much more challenging objects and the Double Star Club consists of

100 of the very best double and multiple stars that can be seen with the smallest of telescopes. Since these observing clubs are designed to help observers learn the sky and how to use their telescopes, **NO DIGITAL SETTING CIRCLES OR COMPUTER LOCATING DEVICES ARE ALLOWED!** To help you in this quest for fame, the MAS has observing club booklets are available for both the Messier and Double Star clubs. Just send an 8.5 by 11 in. envelope with enough postage for 4 ounces (99 cents) OR a floppy disk for the info on all the observing clubs to: Lee Keith, MAS Observing Clubs Coordinator, 8150 S. Legend Dr., Franklin, WI 53132-9623. There are also Binocular Messier and a Deep-Sky Binocular Certificates and a Lunar Certificate. Call 425-2331 for more information on any observing club.

Messier Marathon Planned for April

The MAS board has been discussing holding a Messier marathon night, tentatively, in April of this year. This is fun type program where participants try to find as many of the deep sky objects in one evening as possible, all while abiding by the rules listed in the above material that Lee Keith furnishes (on request). The fun part about this type of program is that nobody comes out a loser. You should get better at locating the Messier objects against the constellation frame with time and practice. Why not get your Messier material from Lee now and use the Messier night as a starting point on getting your certificate. Many look on this program as a goal in itself while others use it as a "training wheels" for doing more serious work such as finding and tracking variable stars.

Watch the Focal Point for further details on this planned night.

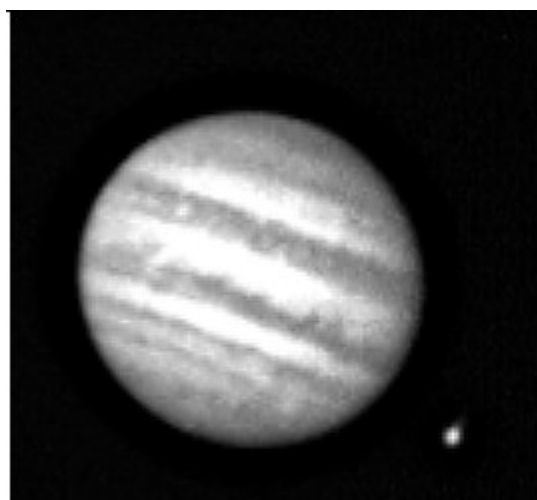


Image of Jupiter taken by Scott Jamieson with his home made CCD Imager. Last month's Xerox print didn't do justice to the quality. This issue was done with a high speed laser printer, which should be a better representation.

Rudy's Folly!

Shortly after joining MAS, I decide to put my woodworking skills to use and build my own telescope....not to save a great deal of money (if any!) but because I derive a great deal of satisfaction with designing and watching things take shape with my own hands. Before you launch into the design, you've got to list the basic performance you want from this evolving scope. Mine were fairly straight forward.

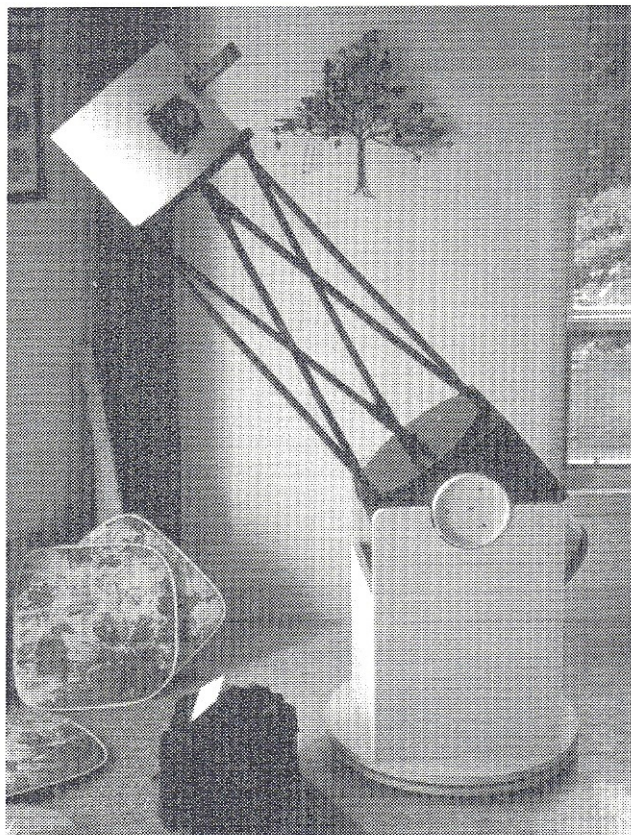
*A scope to be used primarily for deep sky observations (the larger the mirror the better) but still suitable for planetary observation.

*Total scope should be easily luggable, not over 50 lbs. with no subassembly weighing over 25 lbs.

*Can be knocked down (and reassembled) for compact transport to places like Tucson. ie. occupy about 4 sq. ft of floor space in my van

*Easily collimated & simple to use.

With these simple requirements, I came up with a Dobson configured Newtonian scope with a 10" diameter, F/6 mirror. The focal length implied a tube length of over 5 ft so the tube was designed with upper and lower sections held in alignment with a six easily detachable aluminum struts as shown in the picture below. This two section tube assembly slides into a third Cradle tube containing the plastic pipe cap pivots. With appropriate teflon pads and nylon tape the entire tube can be rotated for convenient eyepiece location. The upper tube contains the secondary mirror/spider, JMI NGC3 Crayford focuser, and a Rigel 1x projected reticle finder. The lower tube section contains the 10" mirror and cell assembly with three pairs of push-pull bolts for



Rudy's Folly continued

collimating the mirror. The mirror cell additionally has a small cool down fan (and four compact 12 volt gel cells to power the fan). The Gel cells also act as balance weights to counter balance the upper portion of the tube.

When the telescope is knocked down for transport, the upper tube stores part way into the lower tube, which in turn rests in the cradle tube and Dobsonian base. This stored stack sits less than 36 inches high of the van floor!

No matter how clever the scope design is, It will never perform better than the quality put into the primary mirror. I tried to solve this problem by a lot of digging and word of mouth references. I finally settled on having my mirror made by a mirror maker, Alan Raycraft in Divide CO. Alan made the 10" F/6 (with a high reflectance coating) in a couple of months. Several more experienced amateurs have looked thru my scope and subjectively assessed the mirror as excellent.

My woodworking skills were used in making the three tube sections and the Dob base. Each tube has upper and lower circular stiffener ring made from 3/4" birch plywood. A router with a radius arm was used to cut the rings and to put a 1/8" circular dado in the rings as well. The tube walls were made of 1/8" thick, two Ply birch plywood. This plywood has a tendency to curl along the birch grain, so that when it is cut to size and set into the 1/8" dados in the end stiffener rings, the assembly forms a stress skin cylinder, which is a very stiff tube. The seam line of the tube was joined by a H-shaped (cross section) spline made from solid birch. All edges of the 1/8" tube, dados, spline were glued with a waterproof glue called Gorilla glue.

The six struts are made from 5/8" aluminum tubing straight off the Ace hardware shelf. the biggest job was figuring the right length for these tubes. Each end of the tube was flattened in a machinists vise and mounting holes were drilled in each end, on a jig to assure identical spacing (for interchangeability). If you use care on holes locations, you'll find that collimation remains very close even after disassembly and reassembly! These struts were attached to angle bracket/1/4-20 bolts mounted to the stiffener rings on each tube subassembly. Plastic 1/4-20 knobs are used to secure the struts to the brackets. I also prevailed on my wife's seamstress skills to make a shroud (out of black rip-stop nylon) that encloses the open space between upper and lower tubes (over the struts). Velcro strips on the Shroud and on the tube rings allow rapid covering.

Lastly, the Azimuth/elevation base was made in a standard manner such that the eyepiece sits at my eye level when the scope is pointed overhead.

The assembled tube Structure weighs 28 lbs. The Dob base weighs 18 lbs, and the Cradle tube weighs 4.5 lbs.

This is one of those fun projects that moves right into a succession of mod programs that never end!

Editors Note. The editor has a rule about personal writing but this article was done in the spirit of encouraging others to look into possibly tackling their own scope

I'd also like to thank Peter Smitka (of Portaball fame) for putting up with my brainpicking many of his suggestions.

MAS Officers/ Staff

President	Scott Jamieson	896-0119
Vice President	Lee Keith	425-2331
Treasurer	Dan Yanko	453-3382
Secretary	Margaret Warner	327-7427
Observatory Director	Gerry Samolyk	529-9051
Assistant Observatory Director	Paul Borchardt	781-0169
Focal Point	Rudy Poklar, Editor	786-8931

Future MAS Events

March 19, April 16th; We meet at UWM
 April ? Messier Hunt

Saturday Keyholders

February

6	Dan Koehler	662-2987
13	Jim Kube	453-8858
20	Scott Laskowski	421-3517
27	Rudy Poklar	786-8931

March

6	Terry Ross	784-2093
13	Gerry Samolyk	529-9051
20	Tom Schmidtkunz	352-1674
27	Ken Waraczynski	321-0918

** If members want to be assured of observatory access on a given Saturday nite, they should call the keyholder ahead of time.*

MAS Membership is open to all with an interest in Astronomy and expanding their knowledge of the Universe. Yearly Membership Dues are: Individual \$28/yr; Family \$32; Non-resident (individual \$18, Family \$22); Student (under 18) \$12. **For more infomation, contact Membership Chairperson Julie Frey, 11040 W. Meinecke Avenue, Milwaukee WI.**

Focal Point Publishing Guidelines

Focal Point Newsletter is published monthly from Sept through May with a Mid-summer issue in July. Articles, Announcements, Graphics, Photos, Swap/Sale Ads etc should be submitted at least 10 days prior to the first of the month (of the desired issue). Article inputs are preferred via E-Mail, or diskette in a text or Word compatible format, if possible. Submit FP inputs to:

MAS Focal Point c/o Rudy Poklar
 12905 W. Crawford Drive

Loaner Telescopes (available to members for local use)

Scott Jamieson (Waukesha)	896-0119	4"	f/15 refractor
Lee Keith (Franklin)	425-2331	8"	Dob reflector
Rich Stearle (Greenfield)	543-7479	8"	Dob reflector

Visit our MAS Website:

<http://members.aol.com/masmemb/index.html>

The Milwaukee Astronomical Society

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** We meet at UWM Kenwood Campus on Feb. 19th, 8:00 PM
 -New CCD image processing Software Demonstration
 -More dicussion of Building Plans*

