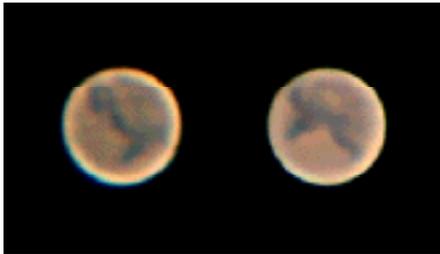




Capitol Skies

The newsletter of the Madison Astronomical Society November/December 2005



Above: Mars, as shot through the "Doc G" 12" LX200 on October 28-29, 2005. Nikon Coolpix 4500 digital camera, Scopetronix 14mm eyepiece. The view on the left was taken at 9:30 pm, the view on the right about 3 hours later. All observers were a little surprised that we couldn't see any hint of the south polar icecap (south is to the upper right in the two images shown). Everyone was impressed with the steadiness of the atmosphere, giving us even better looks

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From the President

by Neil Robinson

Greetings Fellow MAS'ers. Fall is here with its panoply of daytime colour and nighttime bright-star wonders.

The opposition of Mars is upon us and presents the best opportunity of our times to see Mars "close up." There are several Mars-gazing opportunities being organized and some, at the UW Washburn Observatory and UW Space Place, would encourage the participation of MAS members. Call the UWSP for details.

We held a Mars party on the night of October 28 out at YRS (see article below) and about 15 people showed up. The observing conditions were ideal and much fun astronomy was done.

In addition to several privately owned instruments, the Doc G instrument and the 17" Dob were opened up and pointed at Mars along with all the usual suspects. The big Dob showed up M1 the Crab Nebula particularly well, and with the use of an H-Alpha/O3 filter it even showed good detail of M1. The Andromeda Galaxy, M31, was clearly visible to the naked eye and showed up very well in even the smallest instruments. The evening was capped by a splendid showing of bright meteors, most likely late Orionids or early Taurids.

There may be other opportunities for good Mars and "Usual Suspects" viewing in the weeks ahead, so come on out and see it!

Spontaneity at the Yanna Research Station

by Tim Ellestad

The recent Mars observation gathering at the Yanna Research Station demonstrated the most important element of amateur astronomical observing in the Midwest - spontaneity! When the night sky is displaying the celestial detail that we want to see and weather conditions are conducive to good viewing we need to seize the opportunity and head for YRS.

When MAS Newsletter Editor John Rummel saw the magic combination approaching - Mars spectacularly close and clear skies predicted - he sent out an Email a few days in advance suggesting that he and a couple guests would be observing at YRS if anyone cared to join him. While this isn't exactly an example of "drop-everything-and-run" decision

making it does demonstrate that only a modest amount of lead time is usually provided for the decision to head for the observatory. A number of MAS members recognized this as a good chance for an enjoyable observing outing and came down to YRS. It became a really fun evening with some spectacular viewing as have been many similar evenings over the years at our observatory.

But gatherings such as this will mostly happen only when individual members decide on their own that conditions look good for observing and then make that "spur-of-the-moment" decision to head for YRS. While MAS will always attempt to hold a few well-announced observing events at YRS every year the probability of Midwest weather scuttling the observing is

significant. When we make these planned outings even more selective by limiting them to moonless Saturday nights with pleasant temperatures you can see how narrow the prospects for success might get. Over the years YRS has been the scene of many impromptu MAS star parties and observing gatherings. These events were enjoyable, informative, and most of all, cordial. But most of them weren't planned. MAS members simply recognized the evening's potential for observing and went to YRS.

Many newer members of MAS have expressed an interest in observing at YRS but only if there will be other members at the observatory as well. This is understandable since it would provide guidance

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From the Observatory Director

by Tim Ellestad

Well, as much as I hate to say it, cold weather is probably not too far in the future. And while cold nights can sometimes bring some pretty jumpy seeing they can also provide some spectacular dark skies. Calm conditions and snug winter garb can make taking advantage of these dramatic skies surprisingly comfortable. The user friendly heating system in the YRS clubhouse will definitely make "observer's chill" a thing of the past.

Actually the YRS clubhouse provides several cold weather comforts to take the frost off your nose and make the evening an enjoyable experience. The microwave is there to warm up cold evening snacks and the coffee maker is at the ready, too, even just to heat water for hot chocolate. Remember though - VERY IMPORTANT! Any food items that you bring in must be thoroughly cleaned up before leaving - all crumbs, wrappers, or residue needs to be taken back home with you. YRS has no trash or garbage service and

food remnants only attract life forms that are unwelcome in the clubhouse. Also, no potable water is available at YRS for either making coffee or chocolate or for cleaning up - so bring a jug of clean water with you.

Once again, each year I give the standard reminder about clubhouse heat control. Do not touch the thermostats. The thermostats are set to maintain the clubhouse temperature at a minimum of about 50 degrees to make the computers reliable and to keep the building at the ready for a reasonably quick warm-up. If you want more warmth simply set some time on the big electrical timer on the floor below the air conditioner. In a short amount of time the electric heating system will bring the ambient temperature up to a pre-set 68 degrees. If the timer is still running when you are closing up the observatory please try to remember to turn the remaining time off.

As in previous years, as we near the time when the lawn freezes hard at the observatory, I post a warning to watch for

the barricade that we place across our driveway where it enters our mowed area. No vehicles are allowed to drive on the YRS lawn during frozen conditions. In the past winter vehicle traffic produced a lot of winter kill in the grass and re-seeding a lawn at YRS is difficult without water available. I'll put the barricade out when the turf gets frozen and it will remain in place until the lawn hardens up after the spring thaw.

Take advantage of our wonderful facilities at YRS this winter and do some observing under those strikingly transparent skies.

Spontaneity, cont.

and assistance and certainly MAS members are willing to help whenever they can. But when you consider the difficulty in forecasting suitable conditions in combination with the fact that MAS is an organization of volunteers you can see that predictable participation at YRS isn't a convenience that we can offer. We need to chance the trip to the observatory on our own. However, don't overlook the potential for Email or, better yet, the good old telephone. A little friendly encouragement can help get observers together as well.

Astronomical observing is truly an undertaking that permits participation only when conditions are favorable, and observers must be willing to take advantage of opportunities when they occur. If we embrace this approach I think that YRS will become a much busier place. With other members doing the same thing these gatherings and star parties will self-generate.

Mars pictures, cont.

at Mars than we had two years ago during the historic opposition of August 2003. (Image details: each shot is a composit of approximately 100 frames, processed with Keith's Image Stacker for OSX. (Image credit: John Rummel)

Calendar of Events

- November 11 MAS monthly meeting at Space Place ([2300 S. Park St., in the Villager Mall](#)). Business meeting 7:00 pm, main meeting 7:30; speaker is Professor Ed Churchwell, UW Madison Astronomy Department, speaking on "New Results from GLIMPSE Survey." GLIMPSE stands for Galactic Legacy Mid-Plane Survey Extraordinaire and is a survey of infrared stars made with the Spitzer Space Telescope. Spitzer was launched two years ago into an orbit around the sun at the distance of the earth. As Spitzer slowly moves away from earth in its orbit, astronomers have been able to observe our galaxy in infrared wavelengths. Professor Churchwell spoke to the MAS last year about the telescope and UW's plans for its survey. Now he has more results to share with us.
- November 16 MMSD Planetarium Public Program. Memorial High School, 201 S. Gammon Road. 6:30 and 7:45, all tickets \$2. "Solar System Update" Come see and hear what you've wondered about the Mars Rovers, Cassini at Saturn, Deep Impact, and more as our robotic explorers send back news from the solar system. Call 663-6102 for info.
- December 9 Annual MAS Solstice Celebration (nee Christmas party). Space Place ([2300 S. Park St., in the Villager Mall](#)) 7:30 pm.
- December 21 MMSD Planetarium Public Program. Memorial High School, 201 S. Gammon Road. 6:30 and 7:45, all tickets \$2. "Season Of Light" Annual seasonal program. Call 663-6102 for info.

2006 Observer's Handbook

by Neil Robinson

Now is the time to place your order for the 2006 Observer's Handbook.

Below is the description of the book from the publisher. Following is ordering information.

Observer's Handbook 2006. 98th year of publication. Editor: Dr. Rajiv Gupta. The Royal Astronomical Society of Canada. 304 pages, soft cover.

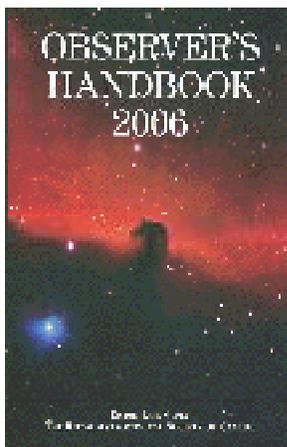
The Observer's Handbook is over a 304-page guide published annually since 1907 by The Royal Astronomical Society of Canada. Through its long tradition and the expertise of more than 40 contributors, the Observer's Handbook has come to be regarded as the standard North American reference for data on the sky. The material in the Handbook is of interest to professional and amateur astronomers, scientists, teachers at all levels, students, science writers, campers, scout and guide leaders, as well as interested general readers. The Observer's Handbook is an integral part of many astronomy courses at the secondary and university levels, and it should be on the reference shelf of every library.

The various section in the Observer's Handbook are of two kinds:

1) Sections dealing with astronomical events which occur during the current year, e.g. times of sunrise and sunset, moonrise and moonset (for latitudes 20 to 62 degrees N), eclipses, location of the planets and bright asteroids, returns of periodic comets, times of meteor showers, predictions of occultations by the Moon and by asteroids, the orbital positions of the brighter satellites of both Jupiter and Saturn, and predictions of the cycles of many variable stars. There is a 28-page section called "The Sky Month by Month" which gives an extensive

listing of events.

2) Sections dealing with astronomical data and other information which do not vary from year to year (although revisions are made annually to ensure that the information is the best available), e.g. orbital and physical data on the planets and their satellites, astronomical and physical constants, some optical properties of telescopes and binoculars, information on filters for astronomical observing, light pollution and sky transparency, a description of the various systems of specifying time, information on the Sun including sunspots and aurorae, a list of meteorite craters in Canada and the United States, advice on using the Observer's Handbook for teaching astronomy, information on the Gegenschein and zodiacal light, 40 pages of authoritative tables dealing with stars, star clusters, nebulae and galaxies, maps of the Moon and the entire sky.



Ordering Information

Normal price per individual copy, including shipping, is \$28.95. By ordering as a group, we pay only \$18.45. (If more than 10 copies are ordered, the cost is further reduced to only \$16.95 per copy. I will issue a refund if this is the case.)

To order your copy, send a check in the amount of \$18.45 for each copy made out to: Neil Robinson, 5646 Lake Mendota Drive, Madison, WI 53705. The order for MAS will be placed on November 12th, so all orders MUST BE RECEIVED prior to that date. If you are mailing your order to me and it is close to the deadline, please phone or email to let me know. 238-4429, neilandtanya@mailbag.com

Notes From Your Treasurer

by Mary Ellestad

I'd like to welcome a new member, Laura Smail, and welcome back a returning member, Tom Hall.

At the last meeting I tried for a new "Fastest Budget Ever" record but there was some discussion and some good suggestions so I will make a few changes and have the final version for approval at the November meeting.

A truly big Thank You to everyone who has paid their MAS dues and subscriptions renewals. I have sent in both the Astronomy and Sky & Tel renewals so hopefully we will all stop getting notices from them. If you haven't paid your MAS dues, we hope that you will soon.

Also - Don't miss the chance to do a little socializing and gabbing at the December meeting/party (mostly party). The meeting lasts about 5 minutes, everyone brings a treat of some kind and we spend the rest of the evening catching up with each other's stories, bad jokes, whatever. If you still haven't been to the new Space Place, check our website for directions or call any officer. Hope to see you there. I'll try to remember the name tag thing since we do have some new members.

FYI - It looks like the March banquet will be at CJ's on the east side again. I'll have more info and menu choices in the next newsletter. We'll probably have about four choices again so if there's anything you'd like (or didn't like last year) just let me know. The one thing that I know we want to keep is the ice cream sundaes!



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MAS would like to thank:

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for hosting our web presence

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Madison Astronomical Society members are active in sharing the pleasures of astronomy with the public, acting as a resource for students and teachers, and exchanging information at Society meetings which occur monthly. The Society continues to pursue its original goal to "promote the science of astronomy and to educate the public in the wonders of the universe."

For more information about the Society, please contact one of the officers listed at left or visit us on the web at:

www.madisonastro.org

MAS Membership Form

Name _____

Street _____

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Please circle membership type:

Student (\$5.00)

Regular (\$30.00)

Observing (\$70.00)

Enclose check and make payable to the Madison Astronomical Society.

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