



Capitol Skies

The newsletter of the Madison Astronomical Society November/December 2004

From the President

by Neil Robinson

Greetings fellow MAS'ers, the autumnal equinox has passed and fall is bringing such delights as Orion, the Pleiades and Leonids. It also brought a fine evening on Sept 24 for the Moon Over Monona Terrace event which enjoyed a fine turnout of MAS members and viewing public. Thank you to all MAS'ers who came out with their equipment to make this event, once again, a success.

Thanks are also due to our Vice Pres. Wynn Wacker for his usual superb job of using the PA system for a guided-tour commentary of what was available to be seen through the scopes.

We owe thanks to Mark Hanson and Matt Mills for doing some much needed painting work at YRS. Others have also volunteered and we hope to get the most urgent work done before the weather catches up with the calender (any minute now).

We have a final plan frozen to build a new mounting for the C11 scope at YRS and funds have been voted by the membership at meeting, so hopefully work can begin shortly.

bimodal with 40% having been members for two years or less and 30.9% for over 10 years.

Over 60% of the respondents characterized themselves as having an "intermediate" to "advanced" level of experience with telescopes; 34.5% consider themselves "beginners" or as having no telescope experience. In contrast, most of the respondents (67.3%) have no astrophotography experience or consider themselves "beginners;" 32.7% classified their experience with astrophotography as "intermediate" or "advanced."

Members were then asked to rank their interest on a scale of 1 to 5 (one being low interest, 5 being high interest) in a series of astronomy related topics. The top five topics of greatest interest to the survey respondents were (in descending order of average interest): telescope observing, planets, galaxies, nebulae, and comets. The topics of least interest to respondents were (in ascending order from lowest to highest interest): amateur telescope making, artificial satellites, astrometry, film astrophotography, and "other" astrophotography. Thirteen (56.5%) of the twenty-three topics surveyed in this question had an average interest score exceeding the median score of 3 on a 5 point scale.

Over 65% of MAS members observe or image between one to five nights per month. Almost two thirds of the respondents (63.6%) most often observe from home, while almost 10% (9.1%) most often observe at YRS.

Nearly all of the respondents (91%) own some form of astronomy equipment; 46 members own binoculars and 48 own telescopes. The most common type of telescope owned is a Schmidt Cassegrain followed closely by refractors. The relatively high number of members who own solar filters (37) suggests solar observing is of some interest to the membership.

While interest in film astrophotography is low, the number of respondents who own an SLR camera for astrophotography is rather high at 30. In contrast, only seven respondents owned CCD imaging cameras and eight owned

Results of the 2004 Madison Astronomical Society Member Survey

by Jeffrey E. Shokler

In March of this year the MAS Ad Hoc YRS Committee sent out a membership survey aimed at acquiring baseline information about the membership and their interests. The survey was also aimed at providing the committee with information regarding member knowledge of and use of the organization's Yanna Research Station (YRS) observatory facilities and dark sky site. Collectively, this information would be used by the committee and by the MAS Board to assess current use and to plan for future use, maintenance, and facility upgrades of the YRS site. One hundred and three surveys were mailed to MAS members. Fifty-five responses were received resulting in a 53.4% return rate.

The first part of the survey was designed to acquire data that could be used to profile the current membership of the MAS in terms of their membership level, length of membership, self assessed telescope experience and astrophotography experience. The survey respondents were evenly split between Regular (49.1%) and Observing (49.1%) Members with only one Student Member (1.8%) represented. The distribution of survey respondents by length of membership was

Officers

PRESIDENT

Neil Robinson
238-4429

neilandtanya@mailbag.com

VICE PRESIDENT

Wynn Wacker
274-1829

wkw@mailbag.com

TREASURER

Mary Ellestad
233-3305

ellestad@mailbag.com

SECRETARY

Dave Odell
608-795-4298

dodell@midplains.net

OBSERVATORY DIRECTOR

Tim Ellestad
233-3305

ellestad@mailbag.com

AT-LARGE BOARD MEMBERS

Greg Sellek
827-6559

greg@sellek.com

Mark Hanson
833-8988

markh@tds.net

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 above.

MAS thanks

Internet Dynamics Corporation
for hosting our web presence.

Visit MAS on the web at:

www.madisonastro.org

Survey, cont.

web cams for imaging purposes.

Turning to results relating to the organization itself, about half of the respondents indicated they attend MAS monthly meetings. Virtually all of the respondents (98.2%) were satisfied with the current MAS dues structure, yet almost two thirds of the respondents would also be willing to pay higher dues to support non-YRS related activities and programming (12.7% did not respond to the question and 23.6% responded that they would not support paying higher dues for this purpose). In addition, over 70% of the respondents were also willing to pay higher dues to cover higher YRS insurance and maintenance costs (18.2% did not respond to the question and only 9.1% indicated they would not support higher dues for this purpose). Almost 90% of the members responding to the survey indicated they had visited the MAS web site.

The remainder of the survey focused on member use of the YRS facilities. 78.2% of the respondents indicated they had been to YRS, but only 38.2% had attended a YRS orientation session. Overall, member use of YRS is low with 45% responding that they either never observed or imaged at YRS or they did so only 1-2 times per month; 7.3% observed or imaged 3-10 nights per month, while 14.5% responded that they observed or imaged either "at some point in the past, but not anymore" or "as often as possible."

The primary interests of respondents with regard to YRS are (in descending order from highest average interest to lowest): telescope observing, learning astronomy from advanced/skilled MAS members, observing workshops led by experienced MAS members, MAS star parties, and equipment workshops with experienced MAS members. The clear signal from the results of this question is that the membership is most interested in using the YRS facilities when other people are present, particularly when experienced members are present so they can learn more and thereby improve their

skills and understanding of astronomy. Of least interest to the respondents at YRS (in ascending order from lowest interest to highest interest) are film astrophotography, unaided eye observing, MAS social events, binocular observing, and YRS science endeavors.

The most commonly used facilities at YRS are the concrete pads followed closely by the clubhouse. The 12" LX200 in the roll-off structure and the 17" Dobsonian were the most frequently used instruments followed by the 11" Celestron Schmidt-Cassegrain.

The quantitative survey results documented in this report and the qualitative responses from the survey will provide the YRS Ad Hoc Committee, the Observatory Committee, and the MAS Board with extremely useful information for assessment and planning purposes for the future of the society and of the YRS facilities. As a member of the Ad Hoc Committee, I would like to express my thanks to the MAS membership for their outstanding response to this survey.

Members of the YRS Ad Hoc Committee:

Neil Robinson (Chair)
Dr. R. A. Greiner
Tim Ellestad
Mark Hanson
Rodney Helt
Dave Odell
Jeffrey Shokler

For Sale:

MegaView 20x80 Wide Angle Binocular (originally \$439.00)
Paragon-Plus Binocular Mount and Tripod (originally \$279.00)

Both of these items are in perfect condition, only used twice. Binocs have a case. Both are black.

Please make an offer.

Contact Laurie Werth, 249-8218 or lwerth@wisc.edu

A few notes from your treasurer

by Mary Ellestad

Elizabeth Brinn Foundation Donation

A very special thanks from MAS to member Bill Jollie for presenting MAS with a third generous donation from the Elizabeth Brinn Foundation. Bill indicated that he hoped this would be used to augment maintenance and projects at YRS.

Since the project to build a handi-capped-accessible deck with a roll-off shelter to place our Celestron C-11 back in service was just approved at the last meeting, it seems likely and fitting that this gift be put toward that project.

Thanks again to the Elizabeth Brinn Foundation and Bill Jollie for continuing to assist MAS in our efforts to improve YRS.

Dues & Subscription Renewals

Thank You, Thank You to everyone

who paid for their dues and magazine subscriptions so promptly this year. I mailed the subscription renewals to Astronomy and Sky & Tel on October 18th so if either one keeps sending you notices please just ignore them. Even though the cutoff for subscriptions has passed, I'm hoping that those who haven't yet paid their MAS dues will still send them in and renew their membership for another year.

Welcome To New Members

Troy Johnson, Richard Burner, Mark Grandau and John Wunderlin.

December Meeting

For our new members and anyone who missed it last year, this is a quick reminder that our December meeting is a

Holiday get-together. Everyone brings a treat of some kind and we all just socialize and talk astronomy or whatever for a couple of hours. If we have a business meeting at all, Neil has been informed that it must be 5 minutes or less!! Tim and I hope to see you there and forgive me if I do the name tag thing but we have quite a few new members and we don't all know each other yet.

March Banquet (speaking of a nother year)

Just to let you know ahead of time - Jane Breun has managed to reserve CJ's East for our March 2005 banquet. It's been a few years since we've gone there. We will probably look at menu choices at the next meeting.

Thanks again everyone!

Calendar of Events

- | | |
|-------------|--|
| November 9 | UW Space Place: A talk by historian of science Dr. Peter Sobol, "The Astronomy of Johann Kepler." 7:00 pm, 1605 S. Park St., admission free. |
| November 12 | MAS regular monthly meeting. Our speaker is a UW Astronomy dept grad student, Soeren Meibom, "Tides in stars - and their effect on stellar rotation and binary orbits." Much like lunar tides on the earth, two stars in a close binary (stars separation less than 1 AU) create tidal waves in each other. With tides come tidal interactions leading to changes in the spin (rotation) of the stars as well as the shape of the binary orbit. The main focus of the talk will be on the observational evidence of tidal interactions in close binary stars with solar-like companions. Such observations are important to help theoretical astrophysicists understand the physics of tidal interactions in stars. Space Place (1605 S. Park St.). Business meeting 7:00, main presentation 7:30. |
| November 17 | MMSD Planetarium Public Program: Solar System Update, an update on the progress and current status of the Mars Explorer Rover and Cassini Saturn missions. Memorial High School, corner Mineral Point and Gammon, 663-6102 for info. All tickets \$2. Programs at 6:30 and 7:45. |
| December 10 | MAS annual holiday party, 7:30 pm. Space Place (1605 S. Park St.). |
| December 14 | UW Space Place: A talk by astronomer Dr. Barb Whitney, "UW-Madison's GLIMPSE of the Milky Way and the Spitzer Space Telescope." 7:00 pm, 1605 S. Park St., admission free. |
| December 31 | UW Space Place: 6-10 pm: USBank Eve events at Space Place, including sky viewing (weather permitting). There is an admission charge for all USBank Eve events, but volunteers from MAS are most welcome and will receive free admission and the usual nice event t-shirt. |

“To the Editor”

Dear Editor,

As many of you know, my husband Mark Hanson has a passion for digital astrophotography. He’s considered one of the top digital astrophotographers in the world right now. He recently entered three photos (for three different categories) in the Third Annual Photo Contest and Exhibit through the LodeStar Astronomy Center and Albuquerque Astronomical Society. Not surprisingly, he won two first place awards and one second place award. The pictures should be on their web site soon at <http://taas.org/astroimages.html> and will be viewed by the public at the LodeStar Astronomy Center located in the New Mexico Museum of Natural History and Science in Albuquerque, New Mexico. Congratulations Mark!

– Lori Hanson

Dear Editor,

Maintenance to and improvements of our facilities at YRS has been for many years now a topic very dear to me. There has been some detonation of the facilities in the last three years which I have complained about. These issues have been the subject of discussion at MAS meetings for some months now.

I am very happy to report and express my pleasure about the work that has been done in the last week on the Doc G observatory. It was in dire need of painting. I am no longer able, as I was as a youth of 70, to do the physical labor required personally. I discovered that Mark Hanson and Matt Mills took up the challenge and did a painting of the Doc G building. I was down to YRS a few days ago to inspect the job and have to say that it was very professionally done. Thus, I publicly thank Mark and Matt for their work. I am confident that the building, which is again like new, will serve the MAS for many years to come.

Thanks and very best wishes,

– R. A. “Doc G” Greiner

Book Review:

The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus by Owen Gingerich, 256 pages ; Walker & Company; 2004

by John Rummel

The period from Copernicus to Newton is certainly one of the richest and most important in the history of astronomy. Material covering this period is plentiful and one of the chief challenges for the casual historian of astronomy is culling through the options and deciding what to read.

Certainly biographies figure high on the priority list. Here the selections reflect the amount of material available about the lives of the principle players. Galileo and Newton have no shortage of books devoted to their lives and work. Biographies of Copernicus are rare because relatively little is known of his life. Kepler and Tycho fall somewhere in the middle.

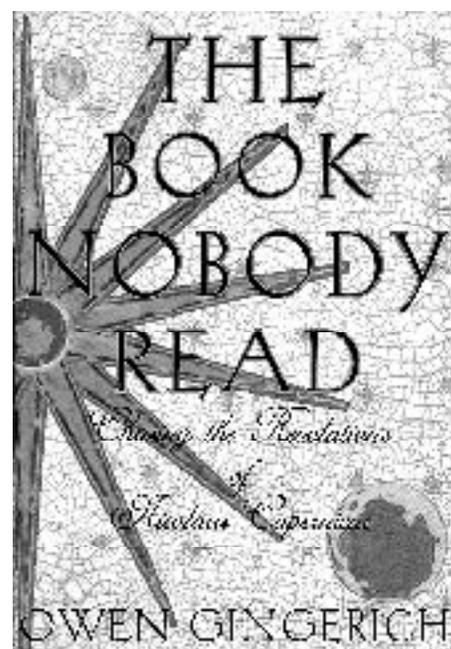
The current work of by Owen Gingerich is a very different take. It is essentially the biography of a book: Copernicus’ seminal *De Revolutionibus Orbium Coelestium*.

Gingerich has been in a hunt for surviving copies of the 1st and 2nd editions of Copernicus’ *De Rev* for over 30 years, and this book tells the story of his journey and its rewards, trials, dead-ends, who dunits, and frustrations. Gingerich has written of his trek before, in magazines and selected articles. Many of these pieces have been released in his two excellent compilations, *The Great Copernicus Chase* and *The Eye of Heaven*, but those few pieces were only tantalizing morsels. The full course meal is in the present volume, and it is a treat.

Gingerich’s census of surviving copies of *De Rev* presents a unique window into the development of cosmology and the slow acceptance of the heliocentric view. Early scholarly readers were in the habit of annotating their copies, pointing

out their agreements and dissents, occasional passages of scripture, comments of their teachers, etc. Since many of the books passed from owner to owner over the centuries, Gingerich found many copies that contained multiple layers of annotations, marginal notes, edits, censorings, etc.

What began as a simple census of



extant copies soon turned into a scientific/historic detective story as Gingerich traced the various schools of thought, teacher/student relationships, and geographic migration of ideas through 16th to 18th century Europe. The result is a fascinating, personal account of the journey, detailing many of Gingerich’s wrong turns and dead ends as well as the brilliant deductions and “aha” moments as he traveled the globe and interacted with the community of Copernicus scholars, rare book dealers, and often, the seamy underside of library theft and international looting during wartime.

The title, by the way, is lifted from Arthur Koestler’s *The Sleepwalkers*, a work which Gingerich read as a graduate

From the Observatory Director

by Tim Ellestad

YRS Getting Rejuvenated

Autumn is here with Winter right on its coattails. Some overdue painting has been provided at YRS, spiffing up the place just in time to take advantage of the last of the beautiful Fall weather. Instead of begging for painting labor non-specifically, as we have done in the past, I outlined some specific painting jobs to be accomplished at the observatory and asked for volunteers to take those specific jobs to completion. Several YRS stalwarts came forward right away and tackled a healthy chunk of the necessary work while weather conditions were still suitable.

The MAS would like to thank members Mark Hanson and Matt Mills for their volunteer effort. The "Doc G" building is now sporting some new, well-needed paint and the unsightly rust on the clubhouse door is gone to a new coat of white. Mark Hanson and MAS President Neil Robinson also stained most of the observatory decking and posts, a never ending requirement. Out thanks to Neil, as well.

MAS member Jeff Shokler has volunteered to paint the Art Koster Observatory and I will likely assist on that project - Mary and I painted the AKO when it was built. Painting not accomplished this Fall can be resumed with the return of acceptable weather conditions next year. We still need the interior of the "Doc G" roll-off primed and painted (it is still bare wood) and we need the club-

house soffits, fascia, and window trim prepped and painted. Volunteers are needed. The clubhouse painting can wait, though, as there will be some additional trim added to the building to conceal the gaps in the stucco cladding dating back to the original construction. The new trim will need priming and painting as well.

The miscellaneous construction and repairs contracted for in early Summer will be underway in a few weeks. Out contractor, Alliance Construction, is finally completing the house construction that they initiated before MAS was able to approve their bid. They assure me that we are in the schedule for this year - it's just that a fairly rainy Summer slowed progress on their house projects.

Winter at YRS

With the arrival of Winter another YRS seasonal effect will occur - the appearance of the driveway barricade. When cold conditions finally set in and frost captures the turf we eliminate cars and trucks from driving on the mowed areas of YRS. Vehicle traffic in Winter and the Spring thaw wreak havoc with the grass, killing it off and leaving miserable ruts to stumble over in the dark. When you drive into YRS in the coming weeks, keep alert for the possibility that the barricade may be back, set up between the Arbor Vitae just to the south of the KMO blocking access to the main lawn. Please don't crash into and damage our barricade.

Winter can provide some dramatic dark skies and some rewarding observation. I'd like to remind observing members that Winter observing can be a lot more enjoyable with the convenience of our nice snug, warm clubhouse to occasionally chase away the chills. Please take advantage of it. Remember that our maintenance heating keeps the clubhouse at a constant temperature just below 50° F. If you would like more warmth just set some time on the timer box located on the clubhouse floor below the air conditioner. The booster heaters will come on bringing the ambient temperature up to about 68° F in a short time. If the timer hasn't run down before you depart, try to remember to turn the timer back to zero before you leave. DO NOT, I repeat DO NOT change the settings on the thermostats.

Observing Member Orientation

Anyone with an observing membership who hasn't had orientation for the use of the observatory PLEASE CALL ME. 608 233-3305. I will be happy to schedule you for this session at YRS to initiate your personal use of the instruments and buildings. Please contact me BY PHONE, not Email, as we need to converse to compare schedules and weather to do this. I'm looking forward to hearing from you.

Wishing everyone clear skies and plenty of time.

Copernicus, cont.

student. Koestler referred to *De Rev* as "the book nobody read", and Gingerich was inspired to find out if that was really true. Except for the opening chapter on cosmology, *De Rev* is a murderously technical and geometrical treatise, and could only be understood by those well-trained in mathematics. But as Gingerich soon learned, it was far from ignored.

Gingerich's book has much to add to

any history of the period. *De Rev* was owned by virtually all of the important figures in the history of astronomy. Tycho, Kepler, Galileo and Newton all figure prominently in the story, and Gingerich's clear prose and knack for story telling will give even the uninitiated reader a pleasurable introduction to one of the most fascinating periods in history. However, to the knowledgeable

reader who is already familiar with the development of ideas in astronomy, this book will be hard to put down due to its unique spin on the period.

Gingerich has produced an instant classic in the history of astronomy with this book. It is a fascinating read and has already entered my personal top-ten list as a book that will be referred to again and again.

Moon over Monona Terrace, September 24, 2004

text and photographs by Brian S. Schultz

On Friday, September 24, 2004 I had the opportunity to witness my second Moon over Monona Terrace star party, the first year as a member of MAS. Last year's party was the catalyst in which I decided to join MAS.

Being a "newbie" in observing (interested and did reading and star trail photos in high school), and after last year's party, I was looking forward to this year's party like a kid at Christmas time.

That's no exaggeration, because I had

techniques as before I was very successful at not being able to find the eclipsed moon. Granted, the moon is extremely tiny and hard to find with a fairly powerful telescope, as my friends pointed out to me, many, many times (even to this day). Well my face was redder than the eclipsed moon that night by gosh!

To show them that I had a sense of humor, I swung the scope around and pointed it dead-on Mars right away. Go figure, huh? We had fun rolling on the ground laughing at that one. To my own defense, the finder scope somehow got knocked off alignment, and my Autostar controller failed trying to do an alignment, and my friends couldn't do any better trying to find the moon, hah!!

Anyway, I'm babbling off topic, which is my specialty. Instead of observing the moon this year at the Monona event, save a peek or two, I really enjoyed observing the public and their reactions to

our amazing hobby. It's especially fun to watch the children, the priceless expressions of awe in their young eyes. Children and adults alike seemed very interested in astronomy and asked many intelligent questions. I remarked to other members of MAS that the public seemed to be there out of genuine interest, and not just a way to kill a Friday night.

The night seemed to go way too fast. Before I knew it, it was time to wind down and dismantle everything. Of course, things continued to get interesting. There was a large fireworks display taking place at Olin-Turville Park at the end of our star party. One of our members checked into it later and found out that it was for a wedding. I believe it was



Douglas Russell prepares for an evening of sharing his love of astronomy with the public.

just purchased my first telescope, a Meade LX-90 prior to last year's party, and was hoping to gain new advice on using the scope at this year's party. Just after last year's party, I took my scope out and set it up with my neighbor's assistance and showed him the wonders of the moon. If that weren't enough, I swung it around and showed him Mars, complete with the polar ice cap, which excited me no end. Mind you, I'm new to this, and didn't know much about alignment and all that good stuff, so it was all done manually.

I developed a little confidence after that and decided to throw my own little lunar eclipse star party with some friends out at YRS. Using my same alignment



Mark Weller readying his Celestron 9.25" for the evening.



Tom Brissette and his popular Obsession Dob are a fixture at MAS public events such as this.



Tom Jacobs and Wynn Wacker consulting. Tom's setup includes a video monitor connected to his vintage orange-tube C8. Wynn acted as MC for the evening, presenting a lecture and commentary over the PA system.

stated that the groom worked for a fireworks company. I think they were just doing it in our honor, for missing out on where they really wanted to be – our star party!

Well, if you'll permit me to babble a little more, I gave two of my own "micro" star parties after Monona Terrace this year. One was of the moon for relatives near Chicago. I was dumb-



SCTs, such as this one belonging to new member Joel Norder, are popular scopes among our membership, as the survey (elsewhere in this issue) points out.

founded (another of my specialties) when my 14 year old second cousin asked me about exo-planets. Wow! My Uncle said he'd never seen the moon that up close and personal before. Then I added the Barlow.

The second party I threw was at a residence of a friend on the south side of Madison. I showed his family the moon as well as a double star (Mizar), which

seemed to be a good choice due to obstructions and light pollution. This was my first view of a double star system, and my jaw was on the deck along with him and his daughters.

I hope I haven't bored anyone too much with my babbling. I sure look forward to next year's Moon Party. Being a recent member, I do remember some faces that were there last year who weren't there this time. It's so much fun, if for no other reason, to mix with other members, enjoy the public, and maybe share some new sightings, or discuss different techniques or equipment. I know I did, and learned some valuable things. I hope to gain more each time. See you all at next year's Moon over Monona Terrace Star Party, and perhaps even at next month's meeting!

Universe in the Park

by John Quigley

Running from May to October is the UW Astronomy Department's *Universe in the Park* program, a series of talks and telescope viewing for the general public held in various state parks, including several close to Madison. On July 31 I attended one such event in Governor Dodge State Park near Dodgeville.

On arriving at Governor Dodge, we were directed to the location of the talk—a small outdoor amphitheater—by park personnel at the entrance. It began just

after sunset with a lecture and slide show about the Cassini mission to Saturn. This event was well-attended, with about fifty people showing up, as well as a few dogs and horses.

After the lecture people lined up for viewing through an 8-inch SCT set up in the adjoining parking lot. The only object I stayed to see was the globular cluster M13. While it is an excellent object, our view of it was diminished by a nearby light, the rising full moon, and lingering twilight. Compared to YRS, the park had more light pollution but fewer mosquitoes.

To shorten the amount of time spent waiting in line, I'd recommend that UW set up two telescopes to look through at each site if possible.

Based on one experience, I would say that going to Universe in the Park is worth it if you enjoy getting out of town and can afford to spend some extra time visiting the state park where it is held. For an extended session of sky viewing however, you would get more bang out of a trip to YRS.

To check the schedule for Universe in the Park, go the web site <http://www.astro.wisc.edu/~ewilcofs/uitp>

Mark Hanson's Astronomy Calendar 2005



A collection of 12 of Mark's stunning astro-images in a beautiful calendar layout. Purchase now by going to Mark's website:

<http://btguce.digitalastro.net/>



Capitol Skies
2810 Mason Street
Madison, WI 53705

First Class

MAS would like to thank:



for hosting our web presence

This resource list is made up of people who have special interests which they are willing, even eager, to share with others in the Society. Many members, not listed, also are interested in particular aspects of astronomy and have considerable expertise in viewing and imaging the skies. Members are encouraged to come to the monthly meetings, not only to get to know the other members, but to discuss and enjoy their special or general interests in various aspects of astronomy. This is a Society of beginners and experienced amateurs. From time to time we have seasoned professionals attending. The meetings are a good time to meet these people as well. See you there.

Resource People and Special Interests

The resource list is currently being revised and rebuilt. If you would like to be listed as a club resource, please submit your name and contact info to darksky25@charter.net.

Possible areas of expertise include:

- Variable stars
- Planetary and lunar observing and imaging
- Deep space object observing and imaging
- Solar observing and imaging
- Observatory design and construction
- History of astronomy
- Computers and software
- Comet and asteroid astrometry and photometry
- Occultations and grazes

MAS Membership Form	
Name:	_____
Address:	_____
City/State/Zip:	_____
Phone:	_____
Email:	_____
Please circle membership type: <i>Enclose check and make payable to the Madison Astronomical Society. Mail to MAS Attention: Mary Ellertsd, 2810 Mason Street Madison, WI 53705</i>	
Student (\$5.00)	<input type="checkbox"/>
Regular (\$25.00)	<input type="checkbox"/>
Observing (\$60.00)	<input type="checkbox"/>