



Capitol Skies

The newsletter of the Madison Astronomical Society

August/September, 2002

From the President's Desktop

by Neil Robinson

Greetings, greetings fellow MAS'ers. It's a pleasure to be writing my first president's report for the newsletter, especially as there is much to report.

First of all, the new slate of officers for the next year, including yours truly, are installed; all except a secretary. We still need someone to step forward to fill A.J. Carver's shoes as secretary for the next year. This is a serious problem because the secretary position is stipulated in the by-

laws and our tax exempt status as a 501(c)3 nonprofit corporation depends, in part, on our complying with the officer staffing provisions as laid out in the bylaws. Someone please step forward and help us out, at least for the next year.

Secondly, we have just reached an agreement with Leroy Yanna to purchase the triangle of land containing the entry drive to YRS and to redefine the existing Kelly Road exit use-easement for for \$1,500. The paperwork process will be started directly

and we hope to close the deal by the end of summer.

Mark your calendars for October 11th! We are planning to have a presence at the Moon Over Monona Terrace gathering, and count on all of you to help us achieve a large turnout of MAS members for this community outreach opportunity. There will be a short club-business meeting before the MOM event starts. (Further details can be found below and in the October newsletter.)

Moon Over Monona Terrace

—October 11th - 6 PM - Mark Your Calendars!

Attention all MAS members. The Madison Astronomical Society has once again scheduled a public observing event in collaboration with the Monona Terrace Community and Convention Center. "Moon Over Monona Terrace" as it is billed was a big success when we last held the event several years ago, attracting a crowd of almost 700 people. This promotion invites the public to come down to the Evjue Rooftop Gardens of Monona Terrace to "View the Moon Through Telescopes."

This event is scheduled for the evening of Friday, October 11th with the following evening, October 12th, reserved as a weather day. Setup time is 6 PM. Parking information will be announced as the event approaches. The loading dock, large carts and the service elevator will be available to get our equipment to the rooftop garden. Power outlets, PA system, concessions, etc. will be provided by Monona Terrace. The event will conclude at 10 PM as stipulated by Monona Terrace rooftop operational rules. As October 11th is actually an MAS meet-

ing night, a short business meeting will be held on the Monona Terrace rooftop just prior to commencing public viewing. Inquiries about a weather postponement, MAS members or general public, may be made by calling Monona Terrace at 261-4042. MAS members may also call President Neil Robinson at 238-4429 or Observatory Director Tim Ellestad at 233-3305. If the event is postponed to Saturday evening the MAS monthly business meeting will be held as usual at 7:30 PM Friday at Space Place.

As you can imagine many viewing instruments are needed to provide viewing for such a large turnout (even considering that the crowd comes and goes throughout the event). At the first Moon Over Monona Terrace members brought 12 instruments and they were all busy. Having a variety of viewing equipment is desirable as it demonstrates how amateur astronomy can be pursued with many different kinds of instruments, large and small, expensive or economical.

It is essential that members show up with equipment for Moon Over Monona Terrace. The event will be promoted by being included in the Monona Terrace Fall Public Events Brochure that gets a mailing to thousands of addresses as well as being a daily handout at the Convention Center. Monona Terrace will also see that the event gets newspaper promotion. MAS will do a poster campaign on public bulletin boards at the Public Libraries, community stores and schools in the Madison Metropolitan Area.

RESERVE OCTOBER 11TH AND 12TH ON YOUR CALENDARS! Your participation is vital. Doing public education projects about astronomy fulfills part of our obligation to our non-profit corporation charter, thus sustaining our exemption from paying property tax (VERY IMPORTANT—more about this in the near future). Besides, this is a really fun event and will probably yield us a few new members! Plan to be there. It'll be a great time! — *Tim Ellestad*

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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 above.

MAS thanks

Internet Dynamics Corporation
for hosting our web presence. Visit

MAS on the web at:

www.madisonastro.org

A Word from the Outgoing Editor

While I do consider myself to be reasonably extroverted, that's not what I mean by "outgoing" in the headline above. I've been stating my intention of resigning the editorship of this newsletter for over a year now, but have kept at it out of loyalty to the society and a desire to see this important vehicle for outreach continue. Several members have mentioned to me their interest in possibly taking over the editorship (you know who you are). I hope you'll consider taking the plunge now. Contact me or Neil Robinson and we'll get you started.

A few quick remarks as I wrap up the layout of this issue of *Capitol Skies*.

First, while a calendar is provided in each issue, I must put a plug in for Dan Strome's work on our MAS web site. If you haven't been there in awhile, do check it out. Dan's calendar includes not only Society and Space Place related info, but also extensive coverage of summer events such as the UW Astronomy Department's Universe in the Park, Washburn observing nights, etc. Thanks to Dan for doing such a bang up job on the web.

Speaking of the web site, another recent edition is the photo gallery. Click on the "observing" link on the main page and you'll be taken there. If you do any astrophotography, consider sending Dan a few of your shots.

A quick word about the upcoming "Moon Party" MAS will be hosting for the Monona Terrace Convention Center. I was fortunate to be one of those in attendance last time this event was held, in September of 1999 (see photo by Tim Ellestad below). It is seldom that our society has an opportunity to put the skies on display for such a large segment of the public. After that evening nearly three years ago, my voice was practically shot. I had a constant stream of children and adults for nearly three hours that night. Luckily, I was there with a friend who did not bring his own telescope, and he was able to spell me several times that evening so I could get a drink and otherwise recharge. I don't think I'd be exaggerating if I said that over 100 people looked through my telescope that night.

Sharing astronomy with the public is second nature to most of you who are reading this. You will see no better opportunity to do so than this event.

The focus, of course, will be on the moon. MAS will make some materials available (basic maps for pointing out major features). Don't fret if you think you're not knowledgeable enough to share. Remember, many of those you'll be sharing with that night will never have looked through a telescope before. Just be friendly and be willing to share what you know. The natural beauty of the moon will take care of the rest.



The editor sharing a look at the moon with a 1999 "MOM" attendee.

September 19, 1999, photo courtesy Tim Ellestad

Book Reviews

–**World Building** by Stephen L. Gillett (edited by Ben Bova)

–**Bad Astronomy: Misconceptions and Misuses Revealed, from Astrology to the Moon Landing “Hoax”** by Philip C. Plait

World Building turned out to be one of the most valuable books I found for developing the realism of an imaginary universe I was inventing for a science fiction role playing game. This book engaged me in thinking more imaginatively about constructing star systems and life-supporting planets.

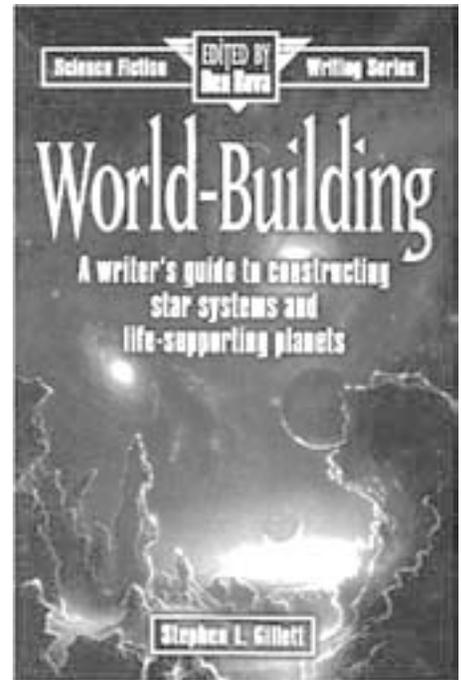
Gillett begins by reviewing astronomical terms and concepts such as gravity, orbits, seasons, and tidal action to establish a common ground with the reader. He then describes the characteristics of periodic elements and relates this information to the composition of various planets. Before I read this book I had assumed that all of the moons of the gas giants were cold balls of rock. As it turns out, each moon is quite different. For instance, Io, one of Jupiter’s moons, has the highest rate of volcanism known, and Titan, Saturn’s largest moon,

has an atmosphere denser than Earth’s!

Using the Earth as a model, Gillett explains plate tectonics and provides an introduction to the interrelationship of atmosphere and the life it supports. He also emphasizes the huge effects oceans can have on the evolution of planets. This part reminded me that there isn’t that big of a difference between Venus’s runaway greenhouse effect and what could happen here!

Another section of the book describes the relationships and effects that a star’s distance, brightness, and mass can have on its planets.

The viability of developing life on solar systems with multiple stars is also discussed in this section. This is important since it gets harder to form planets, let alone life-bearing ones, with each star you factor into a system. Since over 50% of solar systems are multiple star systems, my uni-



verse would probably feature quite a few, so it was important for me to learn about this.

Throughout his book Gillett includes helpful formulae: technical ones, which are essential in designing a realistic planet or solar system, and those intended to help the writer write a more colorful science fiction book. An example of the former would be a formula to determine the luminosity of a star, and an example of the latter would be a formula to determine how large (the angular diameter) stellar objects would look in the sky, or the “horizon distance” of a planet.

In the last chapter of the book, “Not As We Know It,” planets with extreme (but still life supporting) conditions are considered. On a planet rich in neon, for example, the atmosphere could be capable of supporting large flying creatures. Designing a planet that can develop large—not to mention intelligent—flying creatures always seems to be a problem in science fiction.

World Building is part of an excellent series called The Science Fiction Writing Series, all edited by Ben Bova. There are 3 other books in the series, covering other parts of science fiction, such as, space travel, time travel, and aliens—all designed to help a writer write plausible science fiction. (reviewed by Ben Hastil)

Calendar

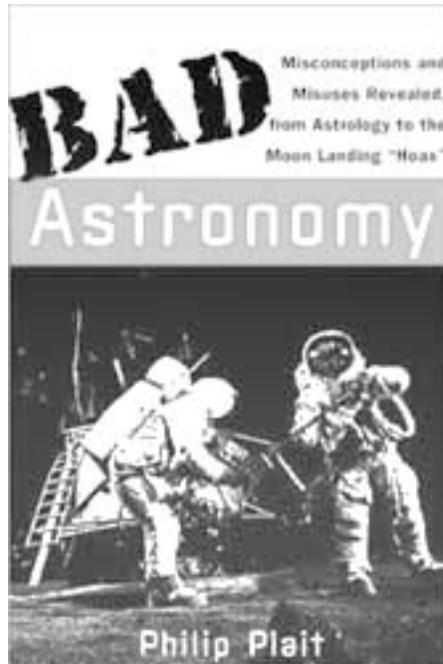
August 9	MAS monthly meeting 7:00 pm board meeting, 7:30 main presentation: Member Dick Greiner will give a presentation about his recent tour of Arizona observatories. 1605 S. Park St.
August 13	7:00 pm, Space Place guest speaker: Dr. Matt Briggs, “Zeno: A Space Shuttle Experiment on ‘Soft’ Fluids.” 1605 S. Park St.
August 27	7:00 pm, Space Place: Eyes on the Skies w/ Jim Lattis. 1605 S. Park St.
September 10	7:00 pm, Space Place guest speaker: TBA, 1605 S. Park St.
September 13	MAS monthly meeting 7:00 pm board meeting, 7:30 main presentation: TBA, 1605 S. Park St.
September 18	7:00 pm, MMSD Planetarium Public Program, “Skywatching.” Memorial High School, corner of Gammon and Mineral Point. 663-6102 for info on admission \$\$.
September 24	7:00 pm, Space Place: Eyes on the Skies w/ Jim Lattis. 1605 S. Park St.
October 11/12	Moon over Monona Terrace, see page 1 for info.

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Misconceptions creep into the public's understanding of astronomy perhaps more than any other science. Surveys have found that even graduates of elite universities carry persistent misconceptions or even wildly incorrect ideas about the phases of the moon or the cause of the seasons.

For the past several years, astronomer Phil Plait has been battling these misconceptions, as well as the flood of just plain bad astronomy (hence the name). Plait's web site has built a loyal following, and I have been a frequent visitor there almost since its inception. For people like me, the book *Bad Astronomy* is a logical extension of the web site. For newcomers, it will be a welcome addition to your libraries.

In addition to chapters on lunar phases and the cause of the seasons, Plait adds a detailed (and fairly technical) account of tides, the Coriolis effect (as applied to toilet bowl water rotation), why the sky is blue, the moon size illusion, and many, many others. Digging a little deeper into the "current issues" genre, Plait also tackles Velikovsky, UFOs, creationism and astrology. His writing is very clear and should be accessible to anybody interested in science and the battle against pseudoscientific non-



sense.

Regular visitors to the web site will be familiar with Plait's crusade against the "moon hoaxers" – those who persist in believing that the Apollo moon landings were faked. Plait's site led the charge against this nonsense, and he includes a brief treatment of the topic in his book as well.

Bad Astronomy is lightly illustrated with a mix of schematic drawings (to illustrate for example, tides or the moon size illusion) and black and white photographs. Some of the chapters could certainly have benefitted from more lavish illustrations, and perhaps even some color plates (the chapter on the Apollo "hoax," for example, needed some additional photos to help dispel the most common objections). However, the format of the book (paperback) and the expense (between \$11 and \$14) dictated the conservative approach, I'm sure.

The chapters are well balanced in size. With a topic per chapter, and 24 chapters totalling 257 pages, you won't find an in-depth treatment of any of these topics, but enough to surely whet your appetite. He also provides recommendations for additional reading, both book and WWW, in an appendix.

In the larger context of "defense of science" writings, Plait joins other such notables as Carl Sagan, Martin Gardner, Robert Park, Stephen Jay Gould, and Michael Shermer. Plait's contribution is a welcome one, and he is poised to take his place as a defender against bad science. (reviewed by John Rummel)

Web Watch

–In search of good science content on the internet

For the information addict, the internet is like a hyperactive kid in a candy store. So much content is so easily available, that trawling the net for valuable information often degenerates into a frustrating effort to separate the wheat from the chaff.

And there is lots of chaff out there.

Most daily web surfers practice their task by identifying their own personal "most trusted" web sites, and returning to those sites time and time again for their daily fix of information. My own bookmark list reflects my efforts to hone such a list over the past several years. So, here are my top four internet sites – ones that I turn to on at least a weekly basis for news. They reflect my own personal biases, and are heavily weighted in favor of astronomy, physics, and miscellaneous sci-

ence.

This is my list, I'd like to hear about the sites you find useful:

1) *SciQuest.com's SciCentral News Service* (<http://www.sciquest.com> and click on the *SciCentral* logo)

SciQuest offers an email news service that I find more useful than any other similar service I've seen. Sign up with your email address and preferences, and every Friday you receive a concise email with the top news stories of the week in your chosen fields. Material is referenced directly to the web sites of the publications from which they are drawn, NASA labs (Goddard, JPL, etc.), New Scientist, ESA, Space.com, SpaceDaily, Science and Technology Review, and doz-

ens of others. I regularly use their astronomy and astrophysics news summaries, as well as several related to biology and evolution. If I could access only one science news source on the internet, this would be it.

2) *Sky and Telescope* (<http://skyandtelescope.com/>)

The best astronomy magazine, and their website is first rate too. I use this site almost daily to keep up on breaking stories, sky watching tips, reviews of equipment, etc. S&T constantly manages to find ways to improve without changing the accessibility and usefulness of the site.

3) *The New York Times Science* (<http://www.nytimes.com/pages/science/index.html>)

Web picks, cont.

When I lived in Syracuse, I always looked forward to Tuesdays and the Science Times section of the NYT. Upon moving to Madison 12 years ago and finding it nearly impossible to get the Tuesday edition reliably, I gave it up. After a few years of fits and starts on the internet, I'm happy to report that the *Times* and I are back on a first-name basis and their science section is better than ever. Their coverage of astronomy and astrophysics is excellent and regular correspondents such as Dennis Overbye and Lawrence Krauss provide strong content. A "must see" site each

week indeed. Outstanding book reviews too. 4) *Space.com* (<http://space.com/>)

In spite of some dubious decisions over the years (they actually once had a section on horoscopes—quickly removed when their readership cried foul), Space.com has managed to find a permanent home on my list. Some of their regular correspondents (such as Robert Roy Britt) are excellent and have a way of sniffing out good stories that nobody else seems to pick up on.

- contributed by John Rummel

From the Observatory Director

by Tim Ellestad

As per the decisions of the membership, contractor-supplied maintenance has been arranged for at the Yanna Research Station.

Miscellaneous carpentry and mechanical jobs are pending with Hans Moen. Wolfe Tree Service in Belleville has been contacted for tree and hedge trimming. Progress is slow because our jobs are small and these contractors will fit them into time gaps that occur in their larger projects.

I met with a painting contractor for an estimate on the various paint and stain jobs that need to be done at YRS. I'm anticipating an estimate before the next business meeting.

In the process of completing much of this work, some of the YRS facilities may be briefly out of service. When this is the case appropriate signs will be displayed and pertinent information will be displayed on the clubhouse bulletin board. It is important that members observe the out-of-service status.

Recent e-mail messages that I have received suggest that there may be confusion on the part of some members regarding public viewing at YRS. People who are not MAS members have been requesting directions to YRS for observing.

The MAS rules state that non-members may observe at YRS only as guests when accompanied by an MAS member host. This implies a "member and friends" situation and not a member serving as a defacto host for any non-member arrivals. This rule also covers pre-arranged events such as school outings where it is mandated that a suitable number of MAS observing members will be scheduled to be in attendance.

The MAS does not hold "open-to-the-public" observing events at YRS. This serves our security concerns by keeping the location of the observatory reasonably obscure and, most importantly, is consistent with the site use description provided for obtaining our insurance policy.

Here's looking forward to clear skies on dark nights and the camaraderie of MAS members enjoying the use of the Yanna Research station.

Another Blast from the Past (circa 1964)

by Eric Thiede

This is a short excerpt from the June 1964 issue of *Star Trails*, the newsletter of the Junior Astronomical Society of Madison, Wisconsin (JASMW). It predates even my membership in that organization, and because of this I did not have the pleasure to be personally acquainted with the writer Dave Gladstone or his equally infamous brother Donn. From the tone of

it they must have been fun guys to know.

Referred to below is a Fish Hatchery Road that was at that time pretty much a narrow two-lane country byway. It would be quite an accomplishment to walk it from the Fish Hatchery to the Oscar Mayer Observatory today, without becoming a pedestrian traffic fatality.

Upcoming Events

By Dave Gladstone

Our annual picnic will be on Saturday, June 6. This is the most important meeting of the year, so plan to attend. It will be at the Fish Hatchery's picnic grounds (two miles south of the Beltline on Fish Hatchery Road), and will start at 23:00 Universal Time (6:00 PM in CDT for those uninitiated). Bring a sandwich, cold cuts, hard-boiled eggs, etc. because we will have no barbecue, grill, electric range, or other cooking implement. After having gorged ourselves with such unappetizing delicacies, we will call our business meeting, during which we will hold elections. This is one of the reasons why it is the most important meeting of the year. Then we will trek down the road for half a mile and arrive full and exhausted (remember, a whole half-mile!) at the

observatory, where we will initiate our summer season with a Star Party. This is the other reason why it is the most important meeting of the year. Everybody is encouraged to bring their friends and prospective members to the meeting (those of you who will take the time to analyze that statement will find some very interesting connotations). Relatives, Seniors, and the general public are also invited to attend the Star Party, which should start at about 1:00 UT (you figure this one out).

The dates of the Star Parties have not been figured out yet, but rest assured that you will be notified before each one.

The Seniors are having their annual picnic on June 12 and their monthly observing session on June 26.



Capitol Skies
2810 Mason Street
Madison, WI 53705

First Class

MAS would like to thank:

Tim Stanton and IMAGES UNLIMITED

for printing the newsletter

and



for hosting our web presence

This resource list is made up of people who have special interests which they are willing, even anxious, 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

- Newsletter Editor: open to appointment
- LX200 Observatory: Dick Greiner 233-6882
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- Photo Editor: Tim Ellestad 233-3305
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- Variable Stars: Dave Weier 241-1444
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- Jupiter Observations: Wynn Wacker 274-1829
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- Deep Sky Observing: Tom Brissette 833-4225
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- Minor Planet Search: Greg Sellek 848-6301
(orion98@charter.net)

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 Ellestad, 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"/>