



From The Editors

I saw two Saturns last night. The planet, easily visible by eye, and the nebula, fuzzy even under focus and filter of a telescope. Oh the joy when the planet look-alike appeared in all its fuzzy glow. It's always gratifying to find new sky delights, and for me, seeing the nebula in my backyard was only my second sighting—the first being at a recently attended star party.

I could "discover" the Saturn nebula (NGC 7009) because of the knowledge garnered from others—it's in their spirit of unique and shared experience that I eagerly look forward to this year's Banquet. Hope to see you there.

-Matthew McNeely

With one 'open house' remaining, why not come out Friday, October 11? It's a great opportunity to share photons with other members of the MAS while helping fulfill the public's curiosity and interest in astronomy.

Other opportunities to experience camaraderie are First Wednesday's and Saturday Nights (call keyholder first).

-Tom Gill

Fall Banquet

Our fall banquet takes the place of the October Program/Meeting. Come join the MAS membership for an evening of good food, good conversation and a truly entertaining speaker. John Briggs, fellow MAS member and astronomer at Yerkes Observatory, will spin his delightful tales of the life and times of an amateur astronomer turned professional. John's easy-going style and sense of humor were a big hit last winter at our February meeting and this encore performance is sure to be just as entertaining.

The banquet will be held at the Gasthaus restaurant in Waukesha. We will begin with a cash bar from 5:30 pm to 6:30 pm, followed by dinner. John will speak at 8:00 pm. A reservation form was sent with last month's Focal Point. Note that the reservation deadline is October 12. If you have any questions, contact the editors or program coordinator Tom Renner.

NCRAL Reminder

The next meeting of the NCRAL convention committee will be held at the Observatory on October 16, 7:30 pm.

Calendar of Events

- October 14, Monday MAS Board Meeting
7:30pm at the Observatory
- October 18, Friday **Fall Banquet**
- October 25, Friday Deadline for next Focal Point
- November 6, Wednesday First Wednesday Meeting
7:30 at the Observatory
- November 11, Monday MAS Board Meeting
7:30pm location to be announced

Saturday Nights—Member night at Observatory—Call key holder

Inside!

- Library News2
- NASA TV2
- Membership Kudos3
- Annular Eclipse Trip3
- Keyholder Info3
- Astrofest 19914
- Telescope Class4

CHIPS that pass in the night?! I get a CHARGE out of you?! Whatever cute title I had selected for this month's offering, we are grateful to the much more knowledgeable Greg Cieslak for reviewing our two new books on the growing field of electronic imaging.

-Sally Waraczinski

An Introduction to Astronomical Image Processing, by Richard Berry, is a good hands-on manual which describes and explains techniques used in processing electronic images. The book comes with a library of software tools called ImagePro Software on 5.25" disks for the IBM-PC.

The book begins with the basics on digitized images, CCD devices and how CCD's collect images. It quickly moves on to describe how to use the software provided with the book to examine the electronic images also provided. Through experience gained by these exercises, the user learns the basics techniques of processing images.

The remainder of the book describes in detail the various techniques (too numerous to mention here) used to enhance your electronic astronomical images in a cookbook-like style. Each page of each chapter presents a processing technique that could be used and describes the results that you should achieve. Numerous processing techniques can be applied to the same image, or the same technique can be applied repeatedly until the desired results are obtained.

A number of CCD devices are now available within reach of the amateur's budget. When the new and powerful CCD devices find their way into our observatory we'll be happy that we have this book and software. Thank you, Richard, for the education in image processing and software tools to make it possible.

CCD Astronomy by Christian Buil could have been called "Everything you always wanted to know about CCD cameras, and a lot more." This book was originally written in French and reprinted in English in 1991. The translation is excellent. No misunderstanding of the contents will result from translation problems.

The book is an in-depth reference of the design, construction, and use of Computer controlled CCD devices in astronomical applications.

The author explains the theory of CCD operation in great detail and the criteria by which to select the proper CCD in the construction of a camera for use in astrophotography. He describes the electronics and techniques required to interface that camera to a computer (IBM PC/AT) and he presents the software needed to operate the camera.

In the second part of the book, Buil describes his experiences with using CCD cameras he built at the Pic du Midi Observatory in South America. He explains the techniques necessary to control the camera to acquire good electronic images and presents a number of software modules required to process the images for display.

This book is written for the novice who quickly wants to become an expert in CCD astronomy. Beware, a number of other reference books will probably also be required if you plan to build the projects in the book. The components described, though not outrageously expensive, are not inexpensive enough for the casual electronic technician to make many mistakes.

CCD Astronomy provides insight into the marvelous science and extraordinary capabilities of electronics in astronomy while giving the reader a feel for the complexity of the application of CCD technology.

-Greg Cieslak

Remember the first time you saw M31 in the eyepiece? Or looked for the small, faint NGC object that you thought would be too faint for your telescope, but there it was? Or the first time someone let you look through a really big telescope?

That's just the kind of things we had in mind when we started the Night De-Light column last year. Trouble is, no one took us up on our invitation to share information or personal impressions and opinions about an object or aspect of astronomy.

So we're asking again. If writing is not your bag and you would rather just describe it over the phone, I'd be happy to put your impression into printed words.

Stargazing is so much more than just seeing objects and recording data. The experience is also enhanced by our personal perspective. If you feel Night De-Light is of value, we ask that you consider a brief submission for a future issue of the Focal Point.

-Tom Gill

NASA TV

It was brought to our attention by member Bob Bialecki that Warner Cable in Milwaukee will be broadcasting NASA Select on Channel 49 on M-F, 11 am to 4 pm.

The show is part of the MPS School Channel and will feature space and astronomy related topics of new and previously recorded tapes from the NASA library.

Two of the subjects mentioned were Supernova 1987A and a new feature on Gamma Ray Observations.

If you do not have Warner Cable this might be a good time to write to your local cable company asking that they consider adding the NASA programming.

For further information, contact Jim Donlinger, ESCCTV, Milwaukee Public Schools, PO Box 10K, Rm 10, Milwaukee, WI 53201.

1991 Annular Eclipse Trip

An annular eclipse of the sun will take place just before sunset on Saturday, January 4, 1992 for much of southern California. The observatories at Mt. Wilson and Mt. Hollywood (Griffith) are located in the path of annularity.

John Mosley and Patrick So of the Griffith Observatory staff have invited amateur astronomers around the U. S. to view, photograph, and assist with public observations of the event at their facility. According to a September 16 press release, Mosley expects high public and media attention for the eclipse.

Several MAS members have expressed serious interest in forming an eclipse expedition for the "sunset annular." The organizers at Griffith are requesting an approximate count of the number of amateurs and telescopes each society might provide. They will reserve unobstructed viewing space on the Observatory grounds accordingly.

Any seriously interested MAS members should contact me by the end of October if they would like to participate in the unique expedition. We currently envision a four-day long trip departing Milwaukee the morning of Friday, January 2 and returning the evening of Monday, January 6. Approximate round-trip airfare to LAX is \$350 per person. Group rates could apply if there is sufficient interest.

Annularity at Griffith lasts just under 5 minutes, with sunset beginning 2 minutes after the central phase ends. Observers will watch the sun "sink" into the Pacific Ocean in partial eclipse. Weather (clouds and or marine haze) prospects are currently projected at 50/50. The Observatory's elevation is 1,170 feet above sea level and provides for a beautiful view of Los Angeles below, especially in the evening.

The next annular eclipse visible from the U. S. will occur on May 10, 1994. The track of the central eclipse will run from New Mexico to Maine. Wisconsin observers will need to travel south of Chicago to view annularity.

-Dan Koehler

Member Kudos

There are two more deep sky observing experts among us mere mortals. Member Richard Adduci, of Eagle WI, has earned a regular Messier Certificate for observing at least 72 Messier objects. Also, member Steve Johnson, from Reedsburg, has become only the second member in the society to earn the prestigious and coveted Herschel 400 Club Certificate for observing 400 of the best Herschel deep sky objects. Join me in congratulating them on their observing success!

As a reminder to observers, the MAS offers, for Deep Sky observing, the Messier Club Observer's Handbook or for Double stars, the Burnham Club Observer's Handbook, if you send an 8.5" x 11" SASE with (4) 29-cent stamps to: Lee Keith, MAS Observing Club Coordinator, 8150 S. Legend Dr., Franklin, WI 53132-9623. They contain a wealth of information on observing techniques and hints, as well as detailed maps to find the more elusive objects. Best of all, they're FREE! After observing and recording the objects in the list, you will receive a certificate from the Astronomical League.

-Lee Keith

Astronomical Software Library

The MAS has a substantial library of public domain/shareware astronomical software for IBM-PC's and compatibles. Titles are too numerous to list here, so for more information, contact Lee Keith at 425-2331

Saturday Nite Keyholders

Oct. 12	Lee Keith	961-8752
Oct. 19	Dan Koehler	662-2987
Oct. 26	John Pfannerstill	475-6494
Nov. 2	F.Roldan	608-787-1730
Nov. 9	Terry Ross	784-2093
Nov. 16	Gerry Samolyk	529-9051
Nov. 23	T. Schmidtkunz	784-0253

For Sale

Telescope: 6-inch Criterion reflector, equatorial mount with R.A. drive. Mint condition. Call Nick Nichols at 628-4059 for details.

Two-meter Observe-a-Dome. Solid aluminum, heavy duty construction complete with rotating ring. A \$6000 value selling for \$2200, you pick up. Will also consider a trade for telescope. Call Rick Moskow at 966-2656 for details.

Telescope: 10-inch f4.5 Dobsonian reflector. Like new with Coulter optics, beautiful wood mount, \$380.00. Call John Marrari at 691-2539 for details.

Wanted

Inexpensive eyepieces (\$10 -\$20) of various focal lengths, to allow me to provide same with a 'starter' telescope soon to be 'for sale'. Call Tom Gill at 476-6986 days or eves.

Astrofest 1991

Ah, the many and varied splendors of Astrofest: decently dark skies, exotic instruments of every size and configuration, swap bargains galore and sharing it all with the other astronomers attending this excellent midwestern star party.

Attendance at Astrofest 1991 was just short of 500 and as usual, the Chicago Astronomical Society did a great job with accommodations and coordination of the event.

Telescopes of every conceivable size and configuration were scattered about the field and friendly owners gladly shared the views at night and proudly displayed and discussed their instruments during the day. This year's Astrofest also marked the return of binoculars—nearly a dozen binocular mounts were displayed, several sporting instruments with giant 100 mm objectives.

Friday night was clear and decently dark. A small MAS contingency spent *almost* too much time hunting for those sly 'de-light'ful planetaries (the "blinker", NGC 6826, and NGC 6210) but the searching was fun and we did bag ultimately bag them both.

A hot and humid Saturday found several MAS members relaxing in the shade of the Kube-mobile, while others chose to hike the grounds, attend talks, stroll the telescope field or catch up on the sleep they missed the night before. Saturday night started clear but clouded early, leaving a teaser strip of hazy but workable sky directly overhead.

One nice thing about Astrofest is if there ever was a particular instrument that interested you, you're likely to find one and a fellow stargazer willing to give you a look-see. For me, a long-time wish was to observe with super-big binoculars and I finally got my chance, gasping at my first duo-vision view of the Omega Nebula (M17) as seen through twin 16" mirrors. Using both eyes added a new dimension to viewing that made the nebula appear to be suspended in front of the background stars (which it is, of course). I looked as long as I dared, reluctant to give up the eyepiece to the next person in the long line behind me.

MAS members often unveil their proud accomplishments at Astrofest. A few years back Dave Kriege's Obsession telescopes made an impressive debut, and this year it was Peter Smitka's unique white ball telescope which impressed all who took it for a spin. Like a grown up Astro Scan, the ball transcends the restrictions inherent in most alt-az designs (Dobson's hole and true circular sweeps). After an hour of observing with the prototype (now owned by Tom and Wanda Berner), I must say this ball is a winner. It has great eyepiece height, well designed ergonomics and the smoothest movement of any telescope I have ever swung around the sky—I could have danced all night!

During Saturday's evening presentations, Peter won an award for the telescope. Joining him in the spotlight, MAS Treasurer and astrophotographer Dan Koehler also received an award for his outstanding Mars photographs. In a unique class by himself, Tim Burris won an award for "The Well Equipped Astronomer," for an incredibly complete array of observing aids, comforts and necessities. Ask him about it sometime. The MAS even did well on door prizes, with four winners taking home the goods!

I say this every year but it bears repeating: If you've never been to Astrofest or the other big star parties, you just have to make the trip next year!

-Tom Gill

Telescope Class

UW-Waukesha is hosting a class entitled, "Astronomy with Telescopes" will cover care and use of a telescope and how to find things in the sky. Participants may bring their own scopes or use those at the Observatory.

The class is held 7-9:30 -pm on Fridays, October 25 and November 1, 8, 15 & 22. To register or for more information, call Don Bracco at 521-5460 or Lee Keith at 425-2331.



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