



The Newsletter of the Milwaukee Astronomical Society

May-June 2003

Presidents Corner

By Scott Jamieson

We were all saddened this month to hear of the death of MAS Board of Director member Tom Pelnar of complications relating to his diabetes. Tom's wife Joan told me that Tom slipped into a coma and died a few days later. Tom was Program Director for the last year before his health started to fail. He was also a mentor to several of our members in learning the sky and to appreciate the beauty around them. Tom will be remembered for his love of nature and constant emphasis on truly seeing what is around you. I had a personal experience with this aspect of Tom's personality one day when I was talking to Tom and some other members about the day before when I had recorded the minima of 4 separate eclipsing binary stars. I had taken great delight in the fact that my data was of high quality and the minima could be determined to an accuracy of minutes for reporting to the AAVSO. Most everyone seemed to be impressed, but Tom seemed to be just listening quietly. After the others left, he turned to me and said that my good data was nice but had I ever actually looked into the eyepiece that night? After being somewhat taken aback by this comment I answered that I guess I had not. He then said I had completely missed the beauty of the sky and the excitement of seeing the many beautiful objects available that night such as Saturn and Jupiter. It is easy to forget that that is the main reason people get into the hobby of astronomy in the first place. I made some lame comment that I had seen them before and would try to remember to actually look through the eyepiece next time. Some time later, after finishing a binary light curve run I remembered Tom's comment and decided to remove the camera and spend a short time observing visually. It was an unusually clear and quite night and the short time extended into the wee hours of the morning. I hadn't had that much fun in a long time and as I closed up my observatory that morning I said a quiet thank you to Tom for his insight. Our hearts go out to Joan and her family in this difficult time.

The beauty of a dark sky for visual observing is a real thrill and is the main reason we have for trying to find a darker location for the club. We have resumed our search and will continue to prepare for the day we succeed. I must admit I find this task to be very time-consuming and frustrating but, thanks to Tom, I again feel it is worth it. Thanks Tom and, I promise, I will keep "looking through the eyepiece".

Elections

Don't forget that the elections for Board of Directors and Officers will take place at the May meeting. If you want to take part in the organizational level of our club you will be more than welcome to run for office or the board. The general club atmosphere is, to a large extent, determined by its leaders and the constant influx of new members and new ideas is very important to us. If you would like to run for any office or as a board member please contact me directly at sjamiem16@aol.com or our observatory director, Gerry Samolyk at samolyk@ix.netcom.com

Club Dues Increase

The club has maintained the \$28/year level for individual membership since I first got onto the board 7 years ago. At the May meeting, after the elections, we will be voting on accepting a \$34/year dues. This is still exceptionally low by astronomy club standards and, considering the access all of our members have to a beautiful site with modern equipment, is still a rare bargain. The student dues will be raised \$4. We have considered several times in the past raising the dues some to help cover our rising insurance costs and club and equipment maintenance costs, but each time decided to put it off as long as possible. The downturn in our money market funds and increases in almost everything we have to pay for have made it impossible to delay any further. Perhaps the most astounding increase in our costs has come from a recent announcement that, due to the high quality of their newsletter and some paid positions within the organization, the Astronomical League is

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doubling their fees and is now charging \$6 per club member/ year. This is for every club member despite the fact that many of us do not want to be in the AL at all and didn't consider it worth it at \$3. For the average membership of 170 people in our club, that means that we will be writing a check to the AL for over \$1000! Since they require that all members of a club be a member of the AL or none, we will be considering a vote to form a separate club group that is comprised of members that want to be a member of the AL. (MASAL) That way we will only have to pay the fee for those that want to be in the AL and so indicate on their membership renewal this fall.

I hope that the dues increase will not discourage anyone from being a member and must say that the best way to make your membership the best value in astronomy is to actively participate in the club and come out and use all of the facilities available to you. Some people think that the dramatic increase in the number of people getting involved in CCD imaging has somehow made it more difficult to get access to visual scopes on the hill . In fact, there has never been so many visual scope available to our club members! So, come out and enjoy!!!

Open Houses

It is again open house season and we need more members to come out on these nights to help show the beauty of the sky to the public. It only takes a few hours on six Friday evenings a year and there is usually a lot of fun had by all. Last night I needed up talking to a small group of visitors that were amazed at what they had seen and just couldn't bring them selves to leave. Naturally, I directed them to our website for membership information and expect to see some of them again at our meetings soon.

Finally, I would again like to remind our members that we are still looking for a Program Director. This person will work to bring in speakers to our club meeting from the surrounding astronomical community. If you are interested, please contact me directly.

MAS Open House Schedule

By Lee Keith

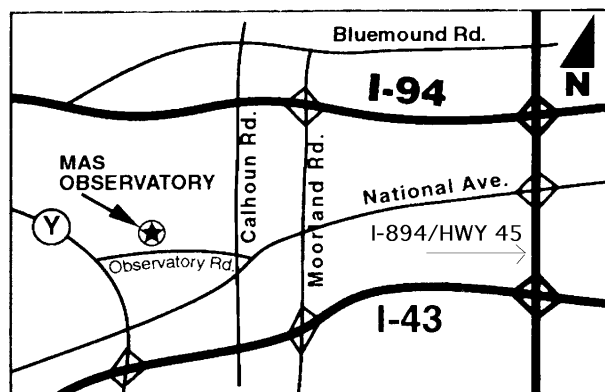
- May 9th.....Lunar Eclipses
- May 23rd.....Constellation Myths
- August 8th.....Persied Meterors
- September 5th.....Craters of the Moon
- October 3rd.....Mars at its Best

All open houses start at 8:00pm and all MAS members are invited to come down and help if possible. For non-members we ask for a \$2.00 donation per carload for parking and we also ask that they bring a jacket along to protect themselves from not only the cool night air but also the MOSQUITOES!!!

There will be slide programs and an opportunity to look at the moon, planets and stars through the many telescopes we have, weather permitting.

General Meetings

The May General meeting will be on May 16th. The board meeting will be at 7:00pm and the general meeting will follow at 8:00pm. There will be no general meetings in June, July and August. They will resume in September. See map below.



3 **Help!! We need a program chairman**

The club is in dire need of a program chairman. Your responsibilities would include finding speakers for our general meetings. The only real rule is that the speaker should talk about astronomy and astronomy related subjects. If you are interested please contact MAS President Scott Jamieson by email at sjamiem16@aol.com or by phone at 262-896-0119.

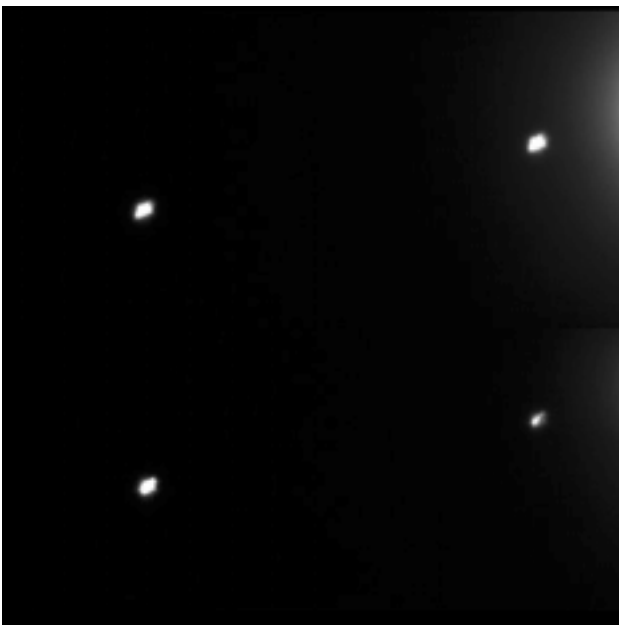
Albrecht Moving Fund.

The Albrecht moving fund is now up to \$2600.00. We would like to thank all that have contributed and would ask anyone that would like give a donation contact MAS president Scott Jamieson at 262-896-0119 or email him at sjamiem16@aol.com

Jovian Satellite Eclipse

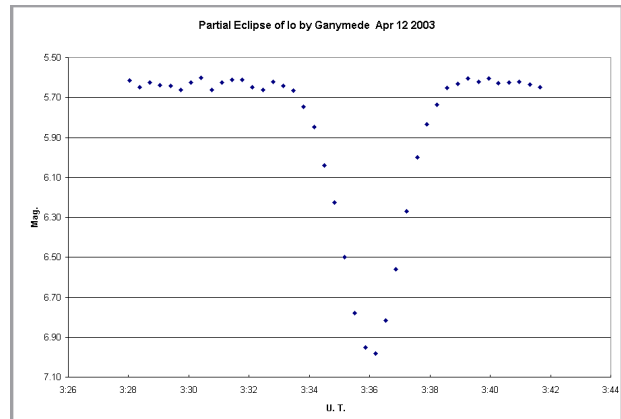
By Gerry Samolyk
MAS Observatory Director

After our monthly meeting on April 11, many of you stayed at the observatory to watch an eclipse of Io by Ganymede. We used one of the clubs ST9E CCD cameras installed on Z Scope to record a series of one second images. With the small, four arcminute, field we were able to keep the glare of Jupiter out of the field. An image was taken every



14 seconds starting about five minutes before the predicted event. These images were processed using the aperture photometry feature of the Mira software that was demonstrated at our meeting last November. Europa was used as a comparison 'star'.

The two images above show Europa on the left and Io on the right. The upper image was taken before the eclipse started. The lower image was taken at mid eclipse when Io was at only 1/3 of its normal brightness. The satellite causing the eclipse (Ganymede) was in transit on the disk of Jupiter and lost in the glare of the planet.



This lightcurve is the result of the processed images. The entire event took only six minutes. A photometric V filter was used so the response was close to the human eye. The prediction for mid eclipse was 3:35.7 U.T. The observed time was 3:36:03 with an error estimate of 3 seconds. We will have opportunities to observe these type of events thru May and June. After that, it will be another six years until we cross the plane of the orbits of these satellites again. Predictions for these type of events can be found on the special events page of our website: www.milwaukeeastro.org

Welcome New MAS Members

We would like to welcome four new members:
Brian Fussell from Theinsville
Robert Sparks and Family from Racine
Jamie Hanson from Milwaukee and
Kunaal Pai and family from Racine
Please don't hesitate to ask questions you will find there are many people willing help.

Library News

By Scott Laskowski

There are three new additions to our library:

1. **The Turtle and the Stars;** Observations of an Earthbound Astronomer-by **Arthur Upgren-2002**

A friend once said “sometimes science can become literature” does this fit the bill? Humane arguments, reason, dark skies pervade the theme with all in the future in mind. Basic science, astronomical conceptions are explained, as examples: the Analemma(which is a mystery to most science teachers) , The moons orbit around the earth and what causes its phases are also a mystery most people. Again, light pollution becomes a pervading theme. How can we learn or appreciate the endangered heavens if they are gone for posterity.

2. **The Hundred Greatest Stars-**
by **James A. Kaler-2002**

What do astronomers study(besides cosmology), stars. It is gratifying that Kaler dedicates this book “to the community of amateur astronomers”. All kinds of stars are listed as the best example, or three of their classifications. The first pages describe the sun, our star. All the other 99 stars are listed with photo's, diagrams and graphs according to their specifications; (O, B, A, F, G, K, M) “Oh be a fine girl kiss me” Pardon the mnemonic. Beyond the main sequence, Extreme stars are also considered, Like brown and white dwarfs, and cataclysmic events-supernovae, Black holes and the intragalactic results. An astrophysics writer kaler is popular for giving an understanding of stellar workings to the beginning enthusiast.

3. **Quantum Leaps in the Wrong Direction:**

Where real science ends...and Pseudoscience begins-by **Charles M. Wynn** and **Arthur W. Wiggins-2001**. The purpose of this book and ours as amateur astronomers is to debunk common misconceptions about science and reality. The main themes (each chapter) refute nonsense and unsubstantiated beliefs such as UFO's and aliens, out of body experience, astrology creationism and the types of ESP. **Continued in next column.**

Real science methodology is described with the ability to change, evolve to fit new evidence, a strength not a dogma. Get the story straight-even if it takes the cartoons of Sidney Harris a popular science illustrator to make the point. Maybe we have to invent myths to comfort ourselves. Yes the truth is more frightening and stranger than fiction (are we up to it.)

Notice please return overdue books and video tapes to the observatory Library!!!!!!
Other people might want to check them out!!!

Jupiters Eclipsing Moons May thru Mid July 2003

By Gary Parson

All research for the following article was done on Sky & Telescopes web site. www.skyandtelescope.com

About once every six years or so, the time it takes Jupiter to go around the sun. Jupiters moons orbits are shown so nearly edge on to our view here on earth that the moons can be seen going in front and behind one another. These are called Mutual events and right now is the best time to be viewing such events. They will last until mid July. Most of these events only last a few minutes or so careful timing is of the essence. All times are given in UT time. Also there are many more mutual events than listed below. I chose the events here when it would be dark here at home.

May 3- Ganymede eclipses Europa 06:50 - 06:53
 May 7- Europa occults Callisto 02:26 - 02:51
 May 13- Io occults Europa 04:12 - 04:16
 May 15- Callisto occults Io 04:11 - 04:20
 May 20-Io total occult Europa 06:30 - 06:34
 May 22- Io occults Callisto 07:14 - 07:38
 May 27- Io occults Europa 08:50 - 08:54
 June 5- Europa occults Ganymede 05:46 - 05:50
 June 8- Ganymede eclipses Io 03:55 - 04:07
 June 9- Europa occults Io 06:44 - 06:46
 June 14- Io occults Europa 02:46 - 02:51
 June 15- Ganymede eclipses Europa 02:54 - 03:01
 June 16- Europa occults Io 09:04 - 09:07
 June 18- Callisto occults Ganymede 07:09 - 07:18
 June 21- Io occults Europa 05:12 - 05:16
 June 22- Ganymede eclipses Europa 06:20 - 06:27

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June 23-Ganymede occults Io 05:40 - 05:47
June 25- Io occults Callisto 03:59 - 04:13
June 26- Io occults Ganymede 07:13 - 07:17
June 29-Ganymede total eclipse Europa 09:48-09:56
June 30- Ganymede occults Io 09:03 - 09:10
July 11- Europa occults Io 05:06 - 05:20
July 18- Europa occults Io 07:38 - 07:41

Again all times are in UT so you have to subtract 5 hours. In other words 18:30UT would be 1:30pm our time. I hope you have fun with these and if you do please write me a note about your experience so I can write an article about it. You can send me an email to gparson@wi.rr.com

Where is it?

By Gary Parson
MAS Focal Point Editor

I have a new experience to talk about this time. An experience that every member of our club can have if they want to. What is it? Its imaging with our LX200 10in F/6.3 Meade SCT and our ST-9E imager. I always wanted to do this but was at first a little nervous because I thought you had to be Einstein to create any type of images and secondly I couldn't afford to spend three to four thousand dollars on an imager equal to the quality of the ones we have at our own club. Well both of these problems were answered the night of April 12th. With just a short training session with our observatory director Gerry Samolyk and some help from MAS member Steve Diesso I was on my way to creating the image you see in the next column. This was my very first try at imaging. It consisted of taking 20, 20 second images with alternating dark frames stacked on top of each other to get the raw image of M3. Now that might of sounded sort of complicated but in reality it was very simple to do. With just a little training it can be accomplished. I then downloaded the image on a floppy disk and had taken it home with me. I used an image processing program call AIP4WIN by Richard Berry and James Burnell to clean up the image and what your seeing the final product. You can also process the image right at the observatory using CCDOPS the same program you use to get the raw image. If you want to have some real fun. Try It, you will like it.

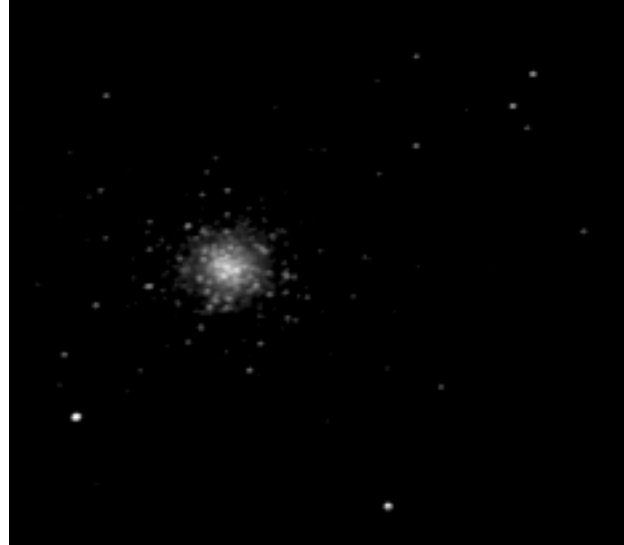


Image of M3 taken on April 12th 2003 at 3:00 UT. The imaging software talked about in the column comes with the book "The Handbook of Astronomical Image Processing" By Richard Berry and James Burnell. It is a great book to own. The cost was \$79.95 plus shipping. And can be ordered at www.willbell.com and is quite a bargain considering you get both the book and the software. The book covers from very basic information up to very complicated for those who are more advanced. The software includes practice images that you can actually work with even before you own an imager. I would highly recommend it to anyone considering imaging.

Upcoming Astronomical Events

By Gary Parson
MAS Focal Point Editor

Eta Aquarids meteor showers peak the nights of May 5th and 6th. About 20 per hours in the northern hemisphere. Watch the East-Southeast in the constellation Aquarius.

On Wednesday May 7th Mercury will transit the sun. The transit will already be in progress at sunrise in our area so we will only be able to see a fraction of the transit. Still might be worth a peek. **As always make sure you have a solar filter properly attached to your scope before viewing the sun. Never view the sun with an unprotected eye.**

The night of May 16-17 There will be a total eclipses of the moon. The moon will enter the Penumbra at 8:05 our time and will leave the Penumbra at 1:15am.

6 MAS Officers/ Staff

| | | |
|---------------------------------------|----------------|--------------|
| President | Scott Jamieson | 262-896-0119 |
| Vice President | Vern Hoag | 262-548-9130 |
| Treasurer | Chris Weber | 262-789-7128 |
| Secretary | Henry Gerner | 414-774-9194 |
| Observatory Director | | |
| | Gerry Samolyk | 414-529-9051 |
| Assistant Observatory Director | | |
| | Paul Borchardt | 262-781-0169 |
| Focal Point | Gary Parson | 262-895-3015 |

Future MAS. Events

The May 16th meeting will be held at the observatory. No general meetings June, July and August.

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 information, contact Membership Chairman, Carlos Garces, 16430 Melody Drive, New Berlin, WI. 53151. Phone: **262-786-2623**. Email : **cgarces@wi.rr.com**

Focal Point Publishing Guidelines

Focal Point Newsletter is published bi-monthly(Sep,Nov,Jan,Mar, May and 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 email, Mail, or diskette in a text or Word compatible format. Submit FP inputs to: email gparson@wi.rr.com or

MAS Focal Point c/o Gary Parson
7521 E Wind Lake Rd
Wind Lake, WI 53185-1513

Keyholders list

May

| | | |
|----|---------------|--------------|
| 3 | Chris Weber | 262-789-7128 |
| 10 | Neil Simmons | 262-889-2039 |
| 17 | Dan Yanko | 414-453-3382 |
| 24 | Brian Ganiere | 414-961-8745 |
| 31 | Carlos Garces | 262-786-2623 |

June

| | | |
|----|------------------|--------------|
| 7 | Henry Gerner | 414-362-4441 |
| 14 | Chris Hesseltine | 414-482-4515 |
| 21 | Vern Hoag | 262-548-9130 |
| 28 | Tim Hoff | 262-662-2212 |

July

| | | |
|----|----------------|--------------|
| 5 | Scott Jamieson | 262-896-0119 |
| 12 | Lee Keith | 414-425-2331 |
| 17 | Dan Koehler | 262-662-2987 |

MAS Open House's

The open house schedule will be April 25, May 9, May 23, August 8, September 5, and October 3rd

Loaner Telescopes (available to members for local use)

| | | |
|---------------------------|--------------|------------------|
| Lee Keith (Franklin) | 414-425-2331 | 8" Dob reflector |
| Scott Jamieson (Waukesha) | 262-896-0119 | 8" Dob reflector |
| Paul Borchardt (MAS site) | 262-781-0169 | 6" Dob reflector |
| Chirs Weber(New Berlin) | 262-789-7128 | 8" Dob reflector |

MAS Observatory 262-542-9071

MAS Web Page: www.milwaukeeastro.org

The Milwaukee Astronomical Society

C/O Gary Parson
7521 E Wind Lake Rd
Wind Lake, WI 53185

CHANGE SERVICE REQUESTED

**The Next MAS General and board meetings will be held on May 16th.
The board will meet at 7:00pm and the general meeting will be at 8:00pm at the Observatory. After the May meeting General meetings will be discontinued until September. The Board will meet all summer.*