



Focal Point



June, 2012

The MAS Summer Schedule

There will be no General Membership Meeting in June, July, and August. The September Meeting will be announced in August issue of this newsletter. We will hold our annual **MAS Picnic on August 4th**, at 4:00 PM at the MAS Observatory. The next Public Night will be on August 10. Topic: the Perseid Meteor Shower.

The use of the Observatory is not affected by the summer schedule. Remember - Saturday nights are the keyholder nights! See you there.

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The Venus Transit



Our special public night for Venus transit was spectacular. The sky was perfectly clear and we had a huge turnout. An estimated 150 cars arrived with almost 500 visitors. Fortunately people were coming and going, most of them did not stay through the whole event. People started coming around 4:30 and were still continuing to come after 8:00 PM. When the Sun disappeared behind the tree-line many visitors still waited for their turn. As a last attempt we opened the A-dome and set the solar scope onto a makeshift shelf. We were able to show the transit for about 30 more visitors before it was completely over.

It was amazing to see how awed people were by what they had seen at the observatory. A few people even hung around for a night observation to see Mars, Saturn, M13, M57, and Alberio among other objects.

In addition to the uniqueness of the

event, what really made the evening such a success was all the members who came and helped out. Not only did our newly purchased Personal Solar Telescope provide some good viewing, the members (Andrew Cannestra, Brian Ganiere, Mike Smiley) who brought their own scopes out for public viewing were really lifesavers! Also, John, Sharon, Lori, and Tamas did a wonderful job directing traffic in the parking lot -- we couldn't have managed it with any less than three people. We also got the impression from visitors that the MAS members contributed to their enthusiasm and enjoyment -- we had so many people asking about the MAS, membership, other public nights, private tours, etc.

THANK YOU, all members who came out and provided so much help! You did a great job, and it couldn't have gone so well without you. Hope to see you again at our remaining three public nights.

Treasurer's Report

The MAS has received \$167.00 from Public Night parking fees, donations, and membership fees.

Payments of energy bill, and speaker honorarium totaled \$127.26.

The checking account balance as of May 11th is \$4,960.17. The Albrecht fund is \$8,070.68.

After compensating for projected bills, subscription payments for members and other set asides the amount available for discretionary spending is \$992.88.

Respectfully Submitted,
Neil Simmons, Treasurer

Public Night

On May 18th the MAS held the second Public Night of the season. The nice weather resulted in a great turnout. An estimated 50 guests showed up. The topic was: **Constellations—the landmarks of the sky**. Sue Timlin gave a talk in a crowded quonset hut.



The presentation was followed by a telescope observation. Guests could enjoy a view of Venus, Saturn and Mars. Those who stayed longer saw some deep sky objects, e.g. M81-M82 galaxies.

Meeting Minutes

Held on May 11th at MAS Observatory, New Berlin.

The meeting was called to order at 8:06 PM by President, Henry Gerner.

Minutes of the April General Meeting, was read and approved.

The **Treasurer's Report** was read by Treasurer, Neil Simmons. Copy attached.

Observatory Director's Report was given by Henry Gerner.

There was no **Correspondence**

There was no **Old Business**

New Business: Brian Ganiere made a motion to declare a quorum for the election. Motion was approved. Henry thanked Lana Silke for her work as a Board Member as she will not run for the second term. There are two openings in the Board while Dan Yanko's first term has expired. Brian nominated Dan for his second term. Tamas Kriska nominated Mike Smiley and Robert Burgess into the Board of directors. There was no other nomination, Brian made a motion to close the nomination process. Motion was carried. All three nominations were approved unanimously.

The new Board of Directors voted for officers. Henry Gerner, Brian Ganiere, Neil Simmons and Agnes Keszler were voted for President, Vice-President, Treasurer and Secretary, respectively.

Announcement - Gerry Samolyk asked the Board to start a search for new Observatory Director as he is stepping down when his term expires next year. Sue Timlin reminded members to sign up volunteering for the Venus Transit. Brian announced the Picnic on August 4th at 4:00 PM. MAS will provide beer/soda as well as charcoal grill.

The Program Russell Chabot gave a slideshow about his recent cruise around South America and the most interesting southern sky objects.

The meeting was adjourned at 8:37 PM

Respectfully Submitted,
Agnes Keszler, Secretary

Astronomical Events

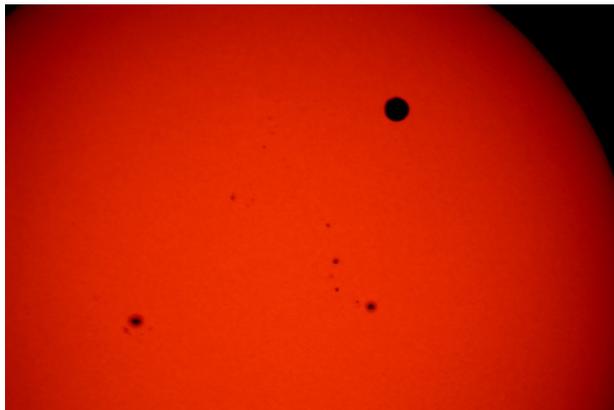
The Venus Transit

Gerry Samolyk: From my location, I could follow the transit until sunset. The only thin clouds in the sky were a couple of degrees above the horizon. As the Sun set behind these clouds it created the appearance of cloud bands similar to Jupiter.

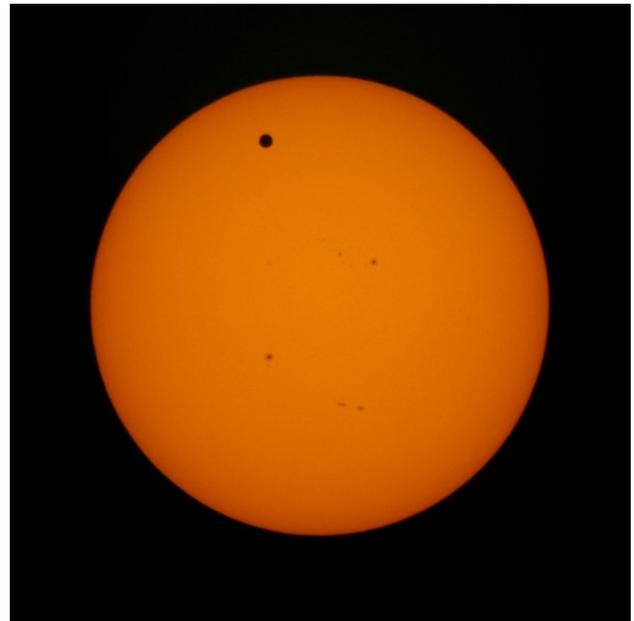


The photo at second contact (above) shows the black drop effect. This photo was taken with my 12" LX200.

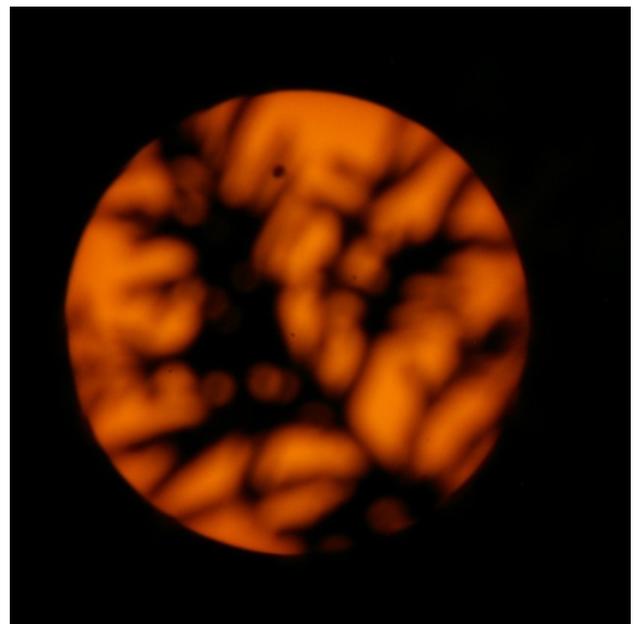
I had a hydrogen alpha filter on my 8" LX200. With this filter, the disk of the planet was visible before the first contact, against the faint glow just beyond the photosphere of the Sun. For a few minutes before second contact, sunlight that was refracted by the atmosphere of Venus was visible beyond the disk of the Sun, forming a ring around the disk of the planet.



Paul Borchardt: I took these photos of the transit from the MAS Observatory grounds. I used an 800mm telephoto lens with my Pentax DSLR mounted on a Super Polaris mount. All of the photos were shot through a Thousand Oaks filter at 1/60th second @ F8.



Some visitors who arrived late could see the transit only through the tree branches.



Astronomical Events

The Annular Solar Eclipse

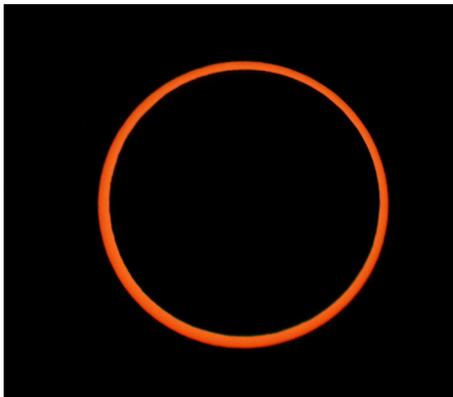
On May 20th, just two weeks prior the Venus transit we had an Annular Solar Eclipse. The full eclipse was visible only from the southwestern part of the United States, but even from Wisconsin Moon covered about 66% of the Sun. Several MAS

members traveled to Grants, New Mexico to see the event, shooting some nice photos.

They even had a wonderful tour of the EVLA headed by Dr. Pat Palmer, our April General Meeting speaker.



Neil Simmons (above): Moments after 3rd contact, or the end of the annular eclipse. You can tell we were south of the center line a bit because the left and right "horns" are slightly different thicknesses.



Gerry Samolyk: A photo above is very close to mid eclipse. The photo below is at 3rd contact. You can notice multiple contacts as a number of mountains along the limb of the moon are breaking into the ring from my line of sight



Russell Chabot (above): Here is one that I took about the same time as Neil's. I took mine with a Canon T2i DSLR camera w/250mm telephoto lens.



Dan Yanko (above): The photo I took of the partial solar eclipse from New Berlin. The sun was setting in the trees before it reached totality. I had a good time with friends. .



Tamas Kriska & Agnes Keszler (above): Photo taken with Nikon D40x camera and 200 mm lens from Milwaukee. The sky is cleared after a thunderstorm just for a few minutes before the sunset.

Announcements

Astronomical League Membership

It is the renewal time for members of the Astronomical League. If you want to renew your membership or start a new membership please send a check made out to the Astronomical League for \$7.50 and send in to:

Dan Yanko
W140N8080 Lilly Road
Menomonee Falls, WI 53051

Please send the checks before July 1st 2012. Check out [The Astronomical League](#) web page for additional information. You can also email me at danheleny@aol.com. Thank You!

Meade LX200 Classic 8" f/10 For Sale

My name is Leon Yu, I attended a couple meetings of the MAS several years ago. I have a Meade LX200 Classic, 8" f/10 telescope with field tripod, 8 piece Meade Super Plossl eye piece set and metal accessory case that I'd like to advertise through MAS before I try ebay or Craig's List. I have only used it about 15-20 times since I've owned it and it is in excellent condition. Pictures of the scope can be seen here: <https://picasaweb.google.com/105271318382928972372/LX200Telescope?authuser=0&feat=directlink>. Interested parties can contact me at leonyul3@gmail.com, and to try it out in my back yard (I live in Mukwonago). I purchased the scope for \$2,400 in Sept. 2001, I'm asking \$1,200.



12" Zhumell Dobsonian For Sale

I have a two years old 12" Zhumell Dobsonian on a mobil base (4" castors). Eyepieces are; Televue Nagler 13mm type 6, Televue Panoptic 27mm, Televue Paracorr(1st model), Meade 4000DS 26mm plossel, Meade 4000DS 9.7 mm plossel, eyepieces that came w/scope - Zhumell 30mm wide field, Zhumell 9mm. Also it has a Zhumell collimator. The scope is in very good condition, used roughly 30 hours. Reason for selling: I got it for my youngest son while he was a junior in High School. He's now in the Air Force in Louisiana and I have other hobbies to work with. My goal is to get \$1400, but willing to "horse trade" a bit.

Rick Griffith (Cell: 414-232-0714; E-mail: Rick.Griffith@unilever.com)



Member's Story

Yet One More Eclipse Report

The plan was to work my way from the Denver area to Canyon de Chelly, in Arizona, a place I'd never been to before and wanted to see anyway. That turned out to be a good choice. It was right on the center line, and the weather turned out to be nearly perfect.



I left town on Thursday the 17th, and headed to Moab, UT. Managed to find a camp sight at Horseshoe campground on the BLM land near Dead Horse Point (see above). The next day, Friday, I went out to Dead Horse Point to shoot some pictures, and hiked around in great weather. That afternoon, I went over to Arches NP and checked out the Fiery Furnace. I got stuck at Surprise Arch and since it was getting late, I headed back to camp. That night, I talked to some nice young ladies, from Denver/Golden, who coincidentally had their eclipse glasses with them. I suggested that they might want to hike up to Delicate Arch to watch the eclipse. Then showed them some constellations, and zodiacal light. It was too windy to set up my 12.5" telescope and somewhat cloudy, so I tried to get some sleep.

Saturday morning, I shot some sunrise images at Mesa Arch in Canyonlands, and then headed down to Canyon de Chelly. The drive south of Bluff, UT to Chinle, AZ is through some of the most barren, and desolate country one can imagine. I got to the national monument and checked out some overlooks that were promising for eclipse watching and got ready for Sunday. The weather was perfect, and I was hoping for the same the next day.

On Sunday morning, I shot some images of Spider Rock and hiked down to White House Ruins. It had a nice view of the western horizon, and the weather was about 75-80F and perfectly clear with a light breeze. On my left was a contingent from the KPNO outreach group that had a bus load of pilgrims all wearing the same eclipse shirts. On my right was a group from the University of Sonora in Hermosillo, Mexico. They have a solar observatory there and about eight of them came to video the eclipse, and watch. They were headed next to the Big Island to watch "The Transit". There were probably about one hundred people in all, and it was probably and most fun and festive astronomical events I've ever attended. Everyone had the good vibe going. I talked extensively with a couple from Milwaukee (where I'm originally from) and told them to go to the Milwaukee Astronomical Society's observatory to see the transit, and look up some friends of mine. They later stuck around after dark and I set up my 12 1/2" 'scope and we had some nice views. I stayed at the Thunderbird Lodge, which is right at the entrance of Canyon de Chelly.

I left for Phoenix the next day via Show Low, and the Salt River Canyon to see a friend. Tuesday night we took the scope down south of town, west of Maricopa, pretty much in the middle of the boonies. We looked at the Moon, planets, and a lot of DSO's, and about 9:30 MST we saw some strange lights in the sky. They were in pairs, about -2 mag, not twinkling, and could not be associated with any aircraft. They were a bit on the red side of an HPS light, about five degrees above the horizon and about a degree apart. They lasted for about 15 seconds and faded away, only to re-appear a bit later. I got the binoculars on them but could not see any aircraft nearby. No noises either. Hmm... it was a bit spooky. They were UFO's simply because I couldn't ID them. Then again, Luke Air Force Base, and the Barry Goldwater Test Range are in that direction.

I returned home via a stop in Albuquerque, Weds. night, on Thursday the 24th. All in all, a very successful, exciting, and fun trip.

by John Asztalos

In the Astronomical News

Catching Stars That Go BANG!

About once a century in any galaxy, a star spontaneously explodes—so brilliant that for a few days it can outshine all other stars in a small home galaxy. Although frequent by cosmic standards, supernovae are rare in human terms: since the invention of the telescope, none has been seen to explode in our Milky Way.

So how can astronomers study such catastrophic stellar suicides, especially the hours immediately after ignition? Answer: Partner two automated telescopes with real-time supercomputing to monitor tens of thousands of galaxies every night, so that statistically there's a high chance of

spotting a star exploding in some galaxy. "Just since April 2009, we've discovered over 1,300 supernovae!" exclaimed Peter Nugent, senior staff scientist at Lawrence Berkeley National Laboratory and principal investigator of the Palomar Transient Factory (PTF) Type Ia supernova program.

Atop Palomar Mountain, the Samuel Oschin telescope—a 48-inch (1.2-meter) Schmidt—acts as an automated wide-field survey camera, snapping sequential exposures of 8 square degrees across the night sky. Each minute or so, its sensitive CCD 101-megapixel sensor array records stars and galaxies as faint as 20th magnitude. Each digital image is instantly beamed to the San Diego Supercomputing Center at the University of California, San Diego, and then 400+ miles north to the National Energy Research Scientific Computing Center (NERSC) at Lawrence Berkeley National Laboratory. Within minutes, supercomputers subtract each incoming image from reference images, comparing new sources of light to the Sloan Digital Sky Survey and other databases.

"We collect about 50 gigabytes of raw data per night," Nugent says, "and typically discover about

a million things that vary. The vast majority of them are 'garbage'—known variable stars, asteroids, etc. But one or two per night are young supernovae!"

Coordinates of suspected supernovae are forwarded 500 miles back down to Palomar to a 60-inch photometric telescope for detailed brightness measurements that same night—and possibly also to 15 other telescopes around the world for spectroscopic observation.

The PTF's most spectacular find so far made newspaper headlines last summer: on August 24, 2011, a supernova (SN 2011fe) brightening in the

Pinwheel Galaxy in Ursa Major only 21 million light-years away. The nearest and brightest Type Ia supernova to be spotted by the PTF, on September 10th, it peaked at visual magnitude 9.9.

In a paper published in *Nature* on December 15th, 2011, Nugent and coauthors conclude that SN 2011fe was a white dwarf star 1.4 times as massive as the sun, but only the diameter of Earth. It was stealing gas from a close sun-like companion until a

runaway thermonuclear explosion ignited. Found only 11 hours (plus 21 million years!) after it exploded, it was the youngest supernova ever detected.

First scientific results from observations of SN 2011fe appear in "Supernova 2011fe from an exploding carbon-oxygen white dwarf star," by Peter Nugent *et al.*, *Nature* 480, 344–347 (15 December 2011); abstract is at <http://www.nature.com/nature/journal/v480/n7377/full/nature10644.html>; arXiv.org version of the entire paper can be downloaded from <http://arxiv.org/abs/1110.6201>. The home page of the Palomar Transient Factory is <http://www.astro.caltech.edu/ptf/>.

by UC-HIPACC. More information appears at <http://hipacc.ucsc.edu>



The beautiful Pinwheel Galaxy in the constellation Ursa Major (the Big Dipper) is shown the night before supernova SN 2011fe exploded on August 22, 2011 (left), half a day after it exploded (middle) on August 23, and a day later (right) on August 24 (green arrows). The supernova reached maximum brightness on September 10, 2011, and then began fading. It was both the nearest and the youngest supernova discovered by the Palomar Transient Factory, being discovered only 11 hours after it detonated.

Adopt a Telescope Program - Signup Sheet

	Adoptee	Scope	Location
1	Sue Timlin	18" F/4.5 Obsession	Wiesen Observatory
2	Neil Simmons	12.5" F/7.4 Buckstaff	B Dome
3	Russell Chabot	12.5" F/9 Armfield	A Dome
4	Dan Yanko	18" F/4.5 Obsession	Albrecht Observatory
5	Tamas Kriska	25" F/15 Zemlock	Z Dome
6	Henry Gerner	12" LX 200	Tangney Observatory
7	Jeffrey Fillian	14" Z-Two scope	Ray Zit Observatory
8	Kevin & John McCarthy	10" LX 200	Jim Toeller Observatory

At Your Service

Officers / Staff

President	Henry Gerner	414-774-9194
Vice President	Brian Ganiere	414-961-8745
Treasurer	Neil Simmons	262-889-2039
Secretary	Agnes Keszler	414-475-6267
Observatory Director	Gerry Samolyk	414-529-9051
Asst. Observatory Director	Henry Gerner	414-774-9194
Newsletter Editor	Tamas Kriska	414-475-6267
Webmaster	Robert Burgess	920-559-7472

Board of Directors

Robert Burgess	920-559-7472
Russell Chabot	414-559-3502
Henry Gerner	414-774-9194
Chris Hesseltine	414-482-4515
Al Hovey	262-524-5510
Agnes Keszler	414-475-6267
Tamas Kriska	414-475-6267
Neil Simmons	262-889-2039
Michael Smiley	262-825-3981
Sue Timlin	414-460-4886
Dan Yanko	262-255-3482

June/July Key Holders

6/30	Paul Borchardt	262-781-0169
7/7	Dan Yanko	262-255-3482
7/14	Brian Ganiere	414-961-8745
7/21	Henry Gerner	414-774-9194
7/28	Chris Hesseltine	414-482-4515
8/4	Tim Hoff	262-662-2212



MAS Observatory

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www.milwaukeeastro.org