



July, 2016

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## Summer Schedule

From June through August we do not have General Membership Meetings. However, the Board meets on the second Mondays of these months at 7:00 PM at the Observatory. The meetings are open to any member who is interested. The regular Membership Meetings will resume in September. Date and

program will be posted on the website and published in the September issue of the Focal Point Newsletter.

The Observatory will be open on Saturdays (Keyholder Nights), and when it is announced on the Google group. Stay tuned.

## MAS Picnic

This year we were exceptionally unlucky with our annual picnic, which was held on Saturday, July 23<sup>rd</sup>. After a week of extremely hot and dry summer, the weather has changed and a huge thunderstorm struck just about the time the picnic was supposed to kick off. It was even hard to get out of the cars.



Despite all of that a small group of brave members gathered on the hill. Tables were set in the Quonset hut, and when the rain switched to light the grill was started outside. We had a great time chatting and enjoying the delicious food (especially Barbara Jamieson's world famous brownies should be mentioned).

## Public Night on Friday, August 5<sup>th</sup>

The next Open House event is scheduled for August 5<sup>th</sup> at 7:30 PM at the Observatory. The speaker of the night will be Sue Timlin with the main topic: Sagittarius.

Since we are expecting an unusually huge crowd due to the aftermath of our presence on the New Berlin's July 4<sup>th</sup> Festival, and a special visit of Bostik employees (organized by Dan Yanko), extra help is needed. At least three persons should navigate the visitors in the parking lots and on the ground, and

all scopes need to be manned. Members with their own telescopes/binoculars are also welcome. This time each telescope will be assigned a single object to show, e. g. planets with A and B scopes, deep sky objects with the Obsessions. Camera-assisted observation will be demonstrated through G and F scopes.

We will also try to make the program more enjoyable for kids.

Any help will be appreciated.

## Observatory Report

The aluminum pieces of the Solar Scope's mount are back from anodizing, the hardware for the white light scope has been nickel plated and the scope is ready to be assembled. Still waiting for the dome to be delivered. A Baader 2" Herschel prism has been purchased for the white light scope and donated to the club by Gene Hanson. A chair and carpeting have also been purchased for the Solar Scope.

The club had a very successful tour on June 8<sup>th</sup> for a small group of middle school girls and their parents. With clear skies our guests were treated to three planets and several DSOs.

The tour brought in \$50 to be put into the general fund.

Work has been performed on the well's pressure tank to relieve the water logged state of the tank and allow the pump to cycle correctly.

A-scope has been in use almost every clear night with members imaging the three planets which are all out during the first half of the night.

Respectfully Submitted,  
Paul Borchardt, Observatory Director

## Treasurer's Report

<b>\$7,313.45</b>	<b><i>Starting Balance as of 5/18/2016</i></b>
	<b><u>Expenditures</u></b>
\$57.11	WE Energies
\$5.07	PayPal Fees
\$22.35	Gas for lawnmower
\$4,496.68	Solar project
-\$4,498.68	TOTAL Expenditures
	<b><u>Revenue</u></b>
\$4,309.00	Donations (Bowen, Evans, Timlin, Amazon Smile)
\$225.00	Book/Equipment Sale
\$54.00	Membership Dues
\$50.00	Private tour
\$60.00	Key Deposits
\$28.00	Alan Mulroy Grant
\$4,726.00	TOTAL Revenue
<b>\$7,540.77</b>	<b><i>Ending Balance as of 6/11/2016</i></b>

Respectfully Submitted,  
Sue Timlin, Treasurer

## Meeting Minutes

**Held** on June 13<sup>th</sup> at the Observatory. The meeting was called to order at 7:08 PM by President, Tamas Kriska.

**Minutes, Treasurer's Report, Observatory Director's Report, and the Membership Report** were submitted electronically.

Sue Timlin's generous donation of \$3204 (price of the POD) was thanked. A motion was made and carried to move \$2000 from this money to cover the Z-office (control room) expenses, and the rest remains on the Solar Observatory budget. After finishing that project the remaining may be used for maintenance.

**Old Business** - The Adopt-a-scope program was successful, every scope has an adopter, and 3 beginners applied as second adopter. We have so far \$4,435 donation for the Quonset Hut remodeling. We still have unused equipments to sell. Payed workshops (e.g. planetary imaging) for non members may be organized for fundraising. As the New Berlin's July 4<sup>th</sup> Festival would be a good opportunity to increase our membership and build a database of interested people, the application fee was paid and MAS business cards were ordered with the 2016 Open House schedule. We will raffle out 2 portascopes (a 10" and a 6") for tickets of \$1 per piece or \$5/10. The old Foremost insurance policy was reviewed, and we are waiting for a second offer from a different agency. The Board decided that basic liability of \$1,000,000 is enough and buying umbrella coverage is not necessary.

**New Business** - The date of the annual picnic was set for July 23<sup>rd</sup>. Full key application of Herman Restrepo was accepted. Paul is planning to revise the key-holder duties. Next month we will discuss naming/renaming certain buildings and telescopes.

The meeting was adjourned at 9:02 PM.

Respectfully Submitted,  
Agnes Keszler, Secretary

## Membership Report

Since the May Report we received 5 new membership applications and would like to welcome Michael Montie, John Morris, Bruce Michael Redlin, David Shapson, John Weber, Brian Williams, and Jennifer Zyzo. We now have 114 active members.

Respectfully Submitted,  
Jeff Kraehnke, Committee Chair

## Observatory News

### Setting Up the New Solar Observatory

Three month after the initial scheduled delivery date, the SkyShed POD, that will serve as a dedicated solar observatory, has finally arrived. On the last Saturday of July a work party was organized to assemble and put in place the plastic dome. Twelve members came to the Observatory to help with this task and by 7 PM the POD was completed.



## Participation on New Berlin's 4<sup>th</sup> of July Festival

The City of New Berlin organized its annual three day long Independence Day Festival in the Malone Park, between July 2<sup>nd</sup> and 4<sup>th</sup>.

Since this event presented itself an excellent opportunity to draw public attention to the MAS, we decided to participate. We had a booth with two telescopes to display and raffle out. While showing the sun thru solar filter, and planets after sunset, we sold raffle tickets and handed out MAS business cards with the Public Night dates. Electronic drawing was held on Saturday, July 9<sup>th</sup>. The winners were:

1<sup>st</sup> Prize, a 10" porta scope: **Chris Smyczek**

2<sup>nd</sup> Prize: 6" GEM telescope: **Colleen Anderson**

3<sup>rd</sup> Prize: 1 year MAS Family membership:

### Brian Williams

In total, 230 people/families entered the raffle contest for a total of 1,218 entries that should have generated ~\$700. Our profit after expenses (registration fee, printing hand out materials, sprucing up telescopes) was about half of that. Our exposure to New Berlin residents however was huge especially during the Parade.

The real success will be measured in the number of new members and the attendance of our fall Public Nights.

Big thank you to everybody who participated: Tamas Kriska, Jeff Kraehnke, Agnes Keszler, Frank and Kay Kenney, Ron Zoltowski, Clark Brizendine, Steve Volp, Herman Restrepo, John Asztalos, Paul Borchardt, Mike Smiley, Russ Blankenburg



*Chris Smyczek the first prize winner*

## In the Astronomical News

### MeerKAT Joins the Ranks of the World's Great Scientific Instruments

The MeerKAT First Light image of the sky, released by Minister of Science and Technology, Naledi Pandor, shows unambiguously that MeerKAT is already the best radio telescope of its kind in the Southern Hemisphere. Array Release 1 (AR1) being celebrated today provides 16 of an eventual 64 dishes integrated into a working telescope array. It is the first significant scientific milestone achieved by MeerKAT, the radio telescope under construction in the Karoo that will eventually be integrated into the Square Kilometre Array (SKA).

In a small patch of sky covering less than 0.01 percent of the entire celestial sphere, the MeerKAT First Light image shows more than

1300 galaxies in the distant Universe, compared to 70 known in this location prior to MeerKAT. "Based on the results being shown today, we are confident that after all 64 dishes are in place, MeerKAT will be the world's leading telescope of its kind until the advent of SKA," according to Professor Justin Jonas, SKA South Africa Chief Technologist.

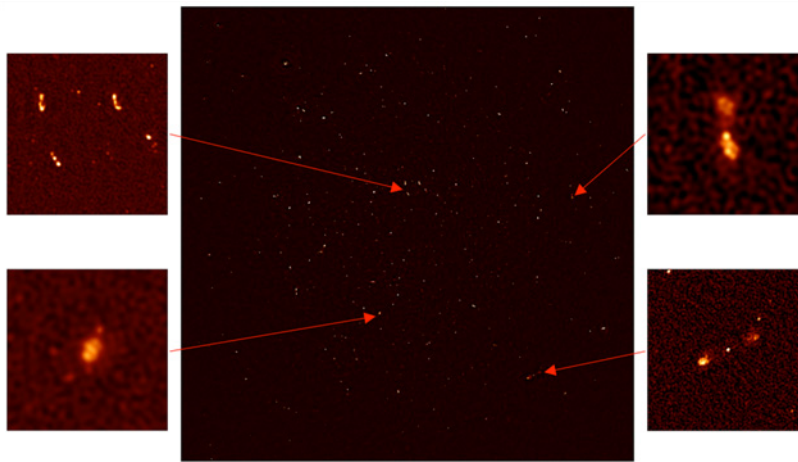
MeerKAT will consist of 64 receptors, each comprising a 13.5-metre diameter dish antenna, cryogenic coolers, receivers, digitizer, and other electronics. The commissioning of MeerKAT is done in phases to allow for verification of the system, early resolution of any technical issues, and initial science exploitation. Early science can be done with parts of the array as they are commissioned, even as construction continues. AR1 consists of 16 receptors, AR2 of 32 and AR3 expected to be in place by late 2017.

MeerKAT is a precursor to the Square Kilometre Array (SKA) and follows the KAT-7 telescope which was an engineering test-bed for MeerKAT. MeerKAT is funded by the South African Government and is a South African designed telescope with 75% of its value sourced locally. MeerKAT will be an integral part of SKA Phase 1. An important aspect of the SKA site decision in 2012 was that MeerKAT

would be part of the sensitive SKA Phase 1 array, which will be the most sensitive radio telescope in the world. Upon completion at the end of 2017, MeerKAT will consist of 64 dishes and associated instrumentation. SKA1 MID will include an additional 133 dishes, bringing the total number for SKA1 MID to 197.

The SKA is an international effort to build the world's largest radio telescope - one hundred times more sensitive than any current radio telescope. The scale of the SKA represents a huge leap forward in both engineering, and research and development towards building and delivering a unique instrument. As one of the largest scientific endeavors in history, the SKA will bring together a wealth of the world's finest scientists, engineers and policy makers to bring the project to fruition. SKA will be built in two phases - SKA1 and SKA2 - starting in 2018. SKA1 will include two components - SKA1 MID (to be built in South Africa) and SKA1 LOW (to be built in Australia); they will observe the Universe at different radio frequencies.

by Lorenzo Raynard, SKA SA

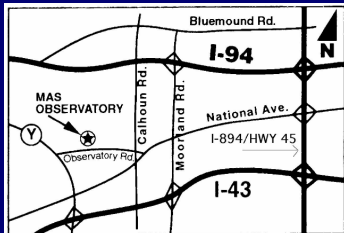


*Montage of MeerKAT First Light radio image and four zoomed-in insets. The two panels to the right show distant galaxies with massive black holes at their centers. At lower left is a galaxy approximately 200 million light years away, where hydrogen gas is being used up to form stars in large numbers.*

*Credit: SKA Africa*

## Adopt a Telescope Program - Signup Sheet

	<b>Adopter</b>	<b>Scope</b>	<b>Location</b>
<b>1</b>	Sue Timlin/John Hammetter	18" F/4.5 Obsession	Wiesen Observatory
<b>2</b>	Steve Volp	12.5" F/7.4 Buckstaff	B Dome
<b>3</b>	Robert Burgess	12.5" F/9 Halbach	A Dome (Armfield)
<b>4</b>	Mike Smiley	18" F/4.5 Obsession	Albrecht Observatory
<b>5</b>	Jeff Kraehnke	14" F/7.4 G-scope	Z Dome
<b>6</b>	Lee Keith/Tom Kraus	12" F/10 LX200 EMC	Tangney Observatory
<b>7</b>	Herman Restrepo/Matt Mattioli	8" F/11 Celestron EdgeHD	Ray Zit Observatory
<b>8</b>	Tamas Kriska	14" F/1.9 F-scope	Jim Toeller Observatory
<b>9</b>	Paul Borchardt	Solar scope	SkyShed POD



### MAS Observatory

18850 Observatory Rd  
New Berlin, WI 53146

[www.milwaukeeastro.org](http://www.milwaukeeastro.org)

## At Your Service

### Officers / Staff

President	Tamas Kriska	414-581-3623
Vice President	Sue Timlin	414-460-4886
Treasurer	Sue Timlin	414-460-4886
Secretary	Agnes Keszler	414-581-7031
Observatory Director	Paul Borchardt	262-781-0169
Asst. Observatory Director	Jeff Kraehnke	414-333-4656
Newsletter Editor	Tamas Kriska	414-581-3623
Webmaster	Gene Hanson	262-269-9576

### Board of Directors

Paul Borchardt	262-781-0169
Robert Burgess	920-559-7472
Steve Volp	414-751-8334
John Hammetter	414-519-1958
Lee Keith	414-425-2331
Frank Kenney	414-510-3507
Jeff Kraehnke	414-333-4656
Agnes Keszler	414-581-7031
Tamas Kriska	414-581-3623
Sue Timlin	414-460-4886
Vacant	

### August/September Keyholders

8/6	Scott Berg	262-893-7268
8/13	Gene Hanson	262-269-9576
8/20	Henry Gerner	414-774-9194
8/27	Jeff Kraehnke	414-333-4656
9/3	Steve Volp	414-751-8334
9/10	Sue Timlin	414-460-4886
9/17	Lee Keith	414-425-2331