FOCAL POINT

October, 2016

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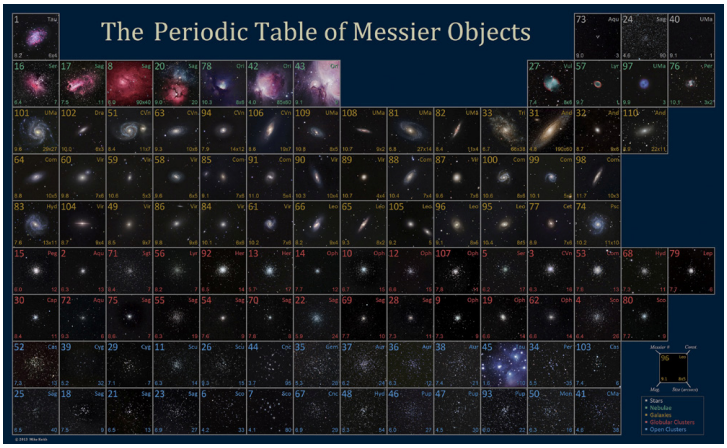
Membership Meeting on October 21st



The next membership meeting will be on Friday, October 21st at 8:00 PM at the Observatory. Since the Quonset Hut is undergoing a major facelift we will use the control room. The topic will be: **Everything about Charles Messier and his objects**. Following a presentation we will hold a demonstration how to use the B-scope to find and photograph Messier objects. The meeting will be preceded by a Board Meeting, which is open to any member who is interested, and will start at 7:00 PM.

MAS Membership Renewal

We are in the second month of the Membership renewal period. Thank you everybody who already responded and renewed their memberships.

There are several renewal methods you can choose from. If you prefer to do it online just follow this link: www.milwaukeeastro.org/renew. The renewal form can also be printed out and send it back along with a check made payable to The Milwaukee Astronomical Society.

If you are wondering whether you need to renew your MAS membership, simply look for your name on this list: http://www.milwaukeeastro.org/membership/membersRenewed.asp. If your name is there, you have already renewed.

Thank you for being a member of the Milwaukee Astronomical Society.

Big Turnout on the Last Public Night of 2016

The last Public Night of 2016 was held on Friday, October 7th. The topic of the night was the Moon. The sky was clear and more than 100 guests visited the Observatory. The Quonset was once again too small to accommodate everybody.

A big thank you for everybody who contributed to the successful season of Open Houses.

Observatory Report

The installation of the Solar Scope is complete, the mount has been polar aligned and balancing and alignment of the two scopes has been done. But two problems have been noticed and need attention, first is the second etalon on the Lunt solar scope is leaking pressure. Lunt has been contacted and is sending us two new O-rings to replace the existing ones, few this doesn't fix the problem the etalon will have to be sent back to Lunt for repair under warranty. The scope will still be usable with just the one remaining etalon while the other is out for repair. The second problem is a leak in the dome, the area of the leak has been found but a course of action to repair the leak is still under consideration at this point. To protect the interior of the dome and the scopes, a tarp has been installed over the dome. This is just a temporary solution; the leak will be repaired permanently in the next few weeks. I am also planning a class to be held this fall on the proper use of the solar scopes. This will be held on a Saturday afternoon, the exact date has yet to be determined. Continued on page 3.

Treasurer's Report

$11,787.33	***Starting Balance as of 8/06/2016***
	Expenditures
$63.91	WE Energies
$13.00	PayPal fees
$30.78	Heater strip F-scope
$26.17	Solar Observatory key
$8.72	Lawn mower gas
$136.74	Raffle prizes
$31.47	Wasp spray
$46.17	Tarp/bungees/stakes
-$356.96	TOTAL Expenditures
	Revenue
$23.13	Donations
$730.00	Equipment sales
$542.00	Membership dues
$60.00	Key deposits
$271.00	Public Night 09/02/16
$1,626.13	TOTAL Revenue
$13,056.50	***Ending Balance as of 9/14/2016***

Respectfully Submitted,
Sue Timlin, Treasurer

Meeting Minutes

Held on September 16th at the Observatory. The meeting was called to order at 7:30 PM by President, Tamas Kriska.

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

Old Business - Solar Observatory: The POD leaks, more caulking is needed. The second etalon is faulty, new O-rings are on the way.

Quonset Hut remodeling: We have so far $15,637.21 donation. There is a potential buyer for the 26" mirror and the Z-scope. After the last Public Night (October 7th) the demolishing will be started. There will be no meetings held in the Quonset from October through next May. Help needed to find a place for the meetings.

B-scope modification: The scope is not suitable for the proposed modification.

Membership Meeting speakers: We will not invite speakers for each meeting, which would save money.

New Business - Clark Brizendine applied to fill the open Board slot. The Board approved his application and voted him member of the Board of Directors. The color planetary camera (Skyris 618c) is missing. It was last seen in July. Replacement is not considered at this point.

G-scope: New narrowband filters (5 nm) were ordered to improve the scope's imaging capability. The auto guider has not been communicating properly with the mount for a while most probably because of the outdated controller box. Motion made to approve $2000 to upgrade the controller box. Motion carried.

Program – Tamas Kriska gave a presentation about the use of Dobsonian telescopes followed by demonstration and hands-on training held by Paul Borchardt how to assemble and use the Club's new 12.5" port-a-ball telescope.

The meeting was adjourned at 9:50PM.

Respectfully Submitted,
Agnes Keszler, Secretary

Membership Report

Since the last Report we received 22 renewals and five new membership applications and would like to welcome Jason Doyle and Family, Mark Urness and Family, Joe and Missy Carmichael, and Joshua Acosta. One applications is pending. We now have 128 active members.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Observatory Director's Report (continued from page 2)

Restoration of the interior of the Z-building is continuing to move forward, it was thought to be near completion until some dry rot of a section of the floor in the dome was found and some drywall needs to be replaced in that same area.

The guide scope on the F-scope now has a dew zapper installed so drying off the objective of the guide scope with a hair dryer is no longer needed to be done between images. It should be noted that there has been a shape increase of interest in the use of the F-scope with several members learning how to image with the scope at this time. Tamas Kriska, Jeff Kraehnke, and myself have all been involved in this training process, passing on what we have learned about this scope and its operations.

The Society received telescope donation this last month from a gentleman named Walter Bradford. Donated was a vintage Criterion Dynamax 8, this telescope is an 8" Schmidt-Cassegrain with a focal length of 2110mm. The scope is in pretty good shape especially considering its age of about 40 years. A good cleaning is needed and the 1 ¼" diagonal was missing. I found a Meade diagonal used for $30 and the scope is now complete and in good working order, but still needs cleaning. This telescope is not needed be the Society and will be sold. The proceeds from the sale will go into the Quonset Remodeling Fund.

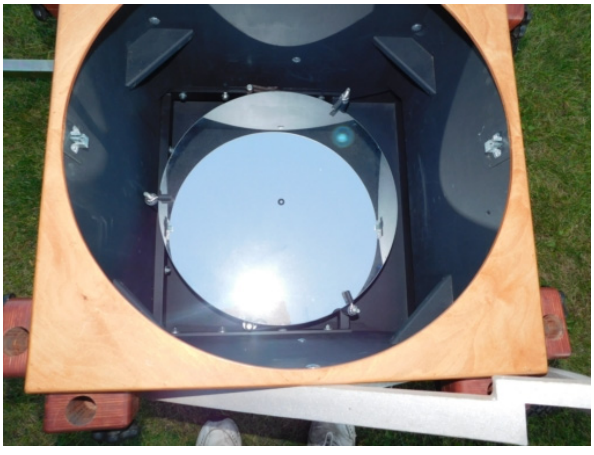
Respectfully Submitted,
Paul Borchardt, Observatory Director

Telescope for Sale by Member

I am selling my 20" Obsession Classic F/5 Telescope. It is in very good condition and I am the second owner. This particular telescope has 2 features you cannot get any longer - a mirror done by John Hudek of galaxy optics (according to their website they are only re-coating mirrors now http://www.galaxyoptics.com/reflectivecoatingservices.html) and genuine ebony star formica on the altitude bearings (its no longer being made -the current "ebony star" is not anywhere near the same texture).

Scope includes custom shroud, dual speed JMI 2"/1.25" focuser, telrad finder. I am going to put it up on eBay for 5000.00 but will offer here to club members first for 4500.00 cash (PayPal is fine too but we will need to at least split the fees) as I would prefer not to ship the scope.

Please contact me by email: rps6005048@gmail.com



Observatory News

Quonset Hut Remodeling has Began

On Saturday, October 8th, some 12 hours after the last Open House talk was given, the demolition stage of the Quonset Hut remodel project started. And it was a very successful 2 days as the pictures show. Great thanks to the participants: Scott Berg, Paul Borchardt, Clark Brizendine, Russell Chabot, Jason Doyle, Gene Hanson, Lee Keith, Agnes Keszler, Jeff Kraehnke, Tamas Kriska, Michael Montie, Sue Timlin, and Steve Volp. The work will continue on every Saturday and Sunday until the weather permits.

Observatory News

Shooting a Commercial at the Observatory

Back on September 19th the Observatory was used for a reason I had never seen before, it was a set for the making of a commercial…

Earlier in the month local commercial director Chris Leclerc had contacted the Club through our web site and asked if we would consider letting him use the Observatory for a day to shoot a couple of scenes for a commercial he was producing.

Here is the back office of the Quonset being turned into the set for the first scene shot at the Observatory

It seems he had looked at the pictures of the Observatory on our web site and was quite intrigued, it was just what he was looking for. I met with Chris a few days later at the Observatory, he was there to see if we had the areas of the Observatory he needed and I was there to find out what he wanted to do and what would be the impact on our site. He loved the nasty old office in the Quonset building, it was just what he had in mind.

The coming of night fall and a little smoke gave the grounds a very eerie appearance, note the ghost like figures of the cameraman and the actor moving through the scene

And felt that B-dome would be another great place to shoot the commercial. Along with books, charts, and telescopes we had everything Chris was looking for. Chris agreed to a $500 donation for the Quonset remodeling fund, which was what I was looking for.

So came the Monday afternoon of the shoot, along with Chris directing the filming there was the cameraman, set designer, grip, and of course an actor. They setup at 1:00 in the afternoon filming in the back office of the Quonset building and didn't wrap up the last scene needed which was filmed in B-dome until 10:30 that evening. Chris was very pleased with what he had got on film, thanked us immensely for our willingness to open the observatory for him and his crew, and then was off for three weeks of filming in Africa.

When Chris returns from the work in Africa he will be doing the editing and competition of his commercial, which is a

Inside the B-dome director Chris Leclerc goes over the next scene with actor William

piece he is doing for himself. This commercial was not done for a client, but for Chris to have to showcase his abilities and talent. Chris promised me he would send us a copy of his finished work to us to view, which has a surprise ending. So I cannot ruin the surprise by saying any more, we will just have to wait and see.

by Paul Borchardt
Observatory Director

Astronomic Events

Science Fiction Day at Discovery World

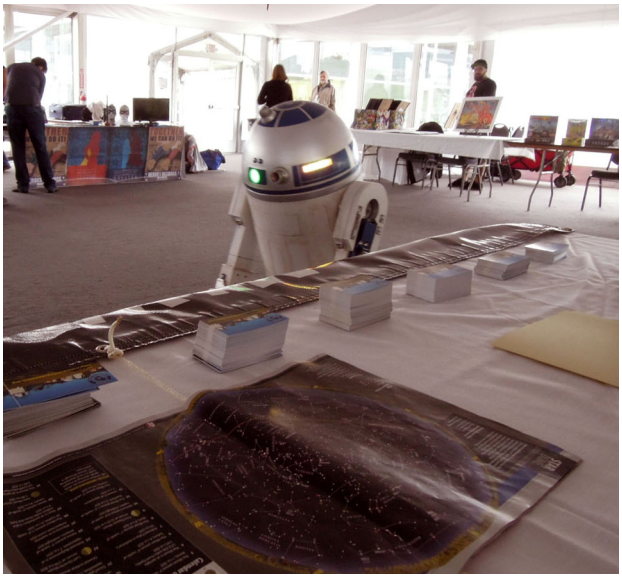
On Saturday October 1st Sue Timlin and myself participated in the Science Fiction Day organized by the Discovery World.

I was not particularly enthusiastic about this event because it was "Science Fiction Day" and we are clearly not a science fiction club. But I felt it was worth the exposure if nothing else and I did not think we should really tell them no when they specifically asked us to be there. During the entire day even though the event was very well attended, we spoke to maybe 2-3 dozen people that actually approached our desk during the seven hours we were there.

Should we be invited back we will be better prepared. They were not at all helpful in letting us know what we could do and what we could not do. I would definitely bring a telescope just to have it there as a conversation piece. I was specifically told we only had the area of the table top itself, but other attendees did have things on the side .

It would be very exciting to be asked to an actual science event!

by Gene Hanson



In the Astronomical News

Epic Crash Vaporized Baby Earth – and so the Moon was Born

Around 4.5 billion years ago, an object slammed into Earth vaporizing most of the planet into a scorching cloud from which the moon was born.

Geochemists in the US – Kun Wang from Washington University in St Louis and Stein Jacobsen at Harvard – examined minuscule amounts of potassium in moon and Earth rocks and found minute differences – possible only if their raw materials were thoroughly mixed in a superheated fog before they coalesced.

The work, published in Nature, pokes a hole in the theory that the moon was born from a low-impact collision.

The giant impact hypothesis has, for decades, been the frontrunner in how our biggest satellite came to be. It centers on a glancing blow from a Mars-sized object, which smashed a bit off the Earth but was completely obliterated in the process. Dust and rubble formed a disc around what was left of the Earth, and this clumped together to become the moon.

In the early 2000s, though, geochemists analyzed rocks brought back by Apollo astronauts in the 1970s and found isotope ratios of zinc and chlorine, for instance, were identical to those found on Earth. (Isotopes are elements containing different numbers of neutrons in their nucleus.)

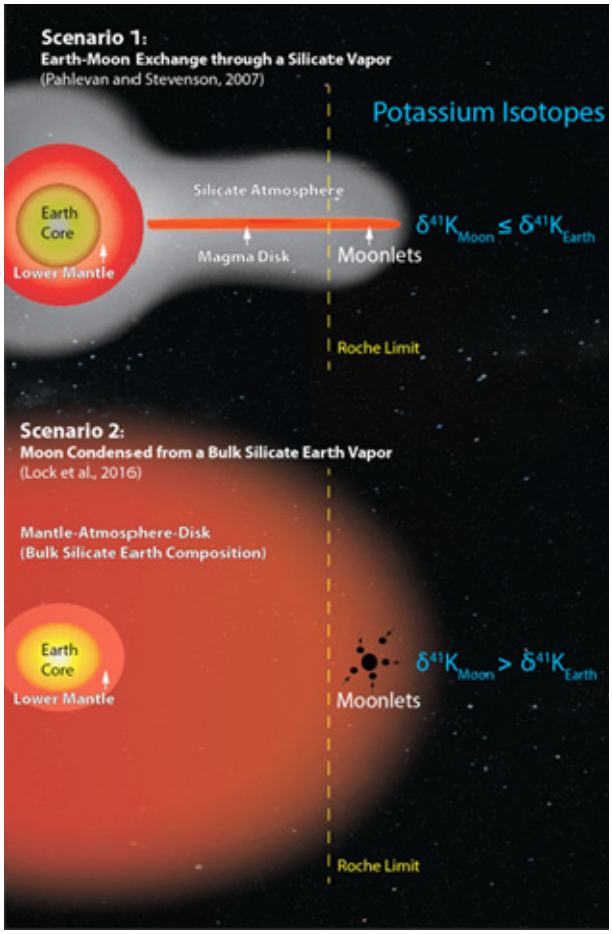
The problem was the speed of the mixing via the silicate atmosphere – or lack thereof, Wang says. There simply would not be enough time for the material to exchange bits and pieces with the atmosphere before it started to fall back onto Earth.

Another hypothesis was more violent.

The smash was powerful enough to liquidate the baby Earth's mantle and its impactor into a "supercritical fluid" atmosphere, which expanded into a flattened sphere more than 500 times the volume of Earth today.

This dense melt of hot rock – a cross between a gas and a liquid – mixed quickly and efficiently. And as it cooled, little "moonlets" formed – again, beyond the Roche limit – which eventually clumped to become the moon.

To test these theories, Wang and Jacobsen looked at potassium isotopes in terrestrial and lunar rocks from Apollo 11, 12, 14 and 16 missions – what they call a "paleo-barometer" for moon-forming conditions.



Two models explaining how the moon formed. New research support the latter. Credit: Kun Wang NASA/JPL-Caltech

Of potassium's three stable elements, only two – potassium-41 and potassium-39 – are plentiful enough to be measured. The ratio of these isotopes could be the key, they realized. If moon rocks contained more of the heavier potassium-41 isotope compared to the lighter potassium-39, this would point to the violent moon birth story, because heavier atoms would preferentially "fall out" of the cloud and clump together more readily than light ones.

In April, the pair unveiled a technique to detect these negligible scraps of potassium to a precision of 0.05 parts per million – scientists had not had instruments sensitive enough to detect them until then.

And sure enough, the lunar rocks were enriched with heavy potassium by about 0.4 parts per thousand – "the first hard evidence that the impact really did (largely) vaporize Earth", Wang says.

by Belinda Smith, Cosmos

Adopt a Telescope Program - Signup Sheet

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

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

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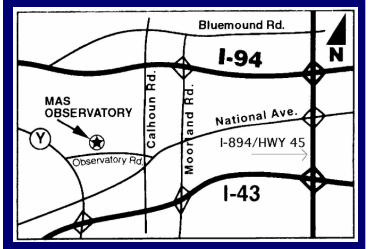
Robert Burgess	920-559-7472
Clark Brizendine	414-305-2605
Steve Volp	414-751-8334
John Hammetter	414-519-1958
Lee Keith	414-425-2331
Frank Kenney	414-510-3507
Jeff Kraehnke	414-333-4656
Agnes Keszler	414-581-7031
Tamas Kriska	414-581-3623
Sue Timlin	414-460-4886

October/November Keyholders

10/15	Henry Gerner	414-774-9194
10/22	Gene Hanson	262-269-9576
10/29	Scott Jamieson	262-592-3049
11/05	Lee Keith	414-425-2331
11/12	Frank Kenney	414-510-3507
11/19	Jeff Kraehnke	414-333-4656



MAS Observatory

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