



# Focal Point



March, 2014

## Inside this issue:

Membership Meeting	1
Speakers Wanted	1
Minutes	2
Treasurer's Report	2
Obs. Dir. Report	2
FOX6 Live	3
In the News	4
Adopt a Scope	5
Officers/Staff	5
Keyholders	5

## The March Membership Meeting

The next General Membership Meeting of the MAS will be held on Friday, **March 21<sup>st</sup>**, at UWM, Physics building, at 1900 E Kenwood Bld. (parking available in the Science Parking Lot). The room 133 is the first big auditorium on the left side of the hallway leading to the Manfred Olson Planetarium. The meeting will start at 8:00 PM, immediately following the Board Meeting.

The speaker of the night will be our member, **Dennis Roscoe**. His talk will provide valuable information for those who'd like to set up their own backyard observatory as well for those who are interested in using the Z-scope in the future.

Dennis Roscoe will be discussing all of the design elements associated with building an observatory dedicated to astrophotography. These elements include the design of the optical train, remote focusing system, pier and mount, the observatory building, communications network, operational software and image processing software. Finally, he will show a selected collection of narrow band images taken by the RoscoeSkies Observatory.



## Public Night Speakers Wanted

The Board of Directors has decided to hold 6 Public Nights in the 2014 season. The following dates were scheduled: **April 25, May 23, June 20, August 22, September 12, and October 3**. For each night we need a speaker in topics covering the Moon, the Sun, Constellations, Inner Planets, Gas Giants, Deep Sky Objects. The June 20<sup>th</sup> Public Night will be dedicated to the Sun with early start at 6 PM to allow solar observation. All other topics will be finalized during the March 21<sup>st</sup> meeting. If you would like to give a PowerPoint presentation to our guests please let the Board know. Any other help (manning telescopes, parking lot, tours) will be appreciated.

## Treasurer's Report

The MAS has spent on Z-scope rebuilding (\$979.88 ), WE Energies bills (\$163.53), City of New Berlin bills, magazine subscriptions, Zurich insurance (\$467.25), and driveway salt which totaled \$1670.27.

The income from Member fees was \$125.

Currently the checking account balance is at \$6283.40. The Albrecht fund balance 4714.81. The Endowment Found is at \$83963.87. Investco account is currently at \$9112.00.

Respectfully Submitted,  
Russell Chabot, Treasurer

## Observatory Director's Report

It has been a long cold winter. A big thank you to Scott Jamieson for doing the snow blowing. The garage door is getting increasingly difficult to open and just fixing it may not be enough so we should consider replacing it. Scott continues to work on Z-scope and will report on that progress.

On the website there is now a Contact Us, FAQ, and a Members Page. Also a Search page and an Artificial Satellite page has been added to give the current location of the ISS and major satellite flyovers. I now have the credentials for the MAS website and our Facebook page.

Respectfully Submitted,  
Gene Hanson, Observatory Director

## Meeting Minutes

**Held** on February 21<sup>st</sup> at UWM, Physics building. The meeting was called to order at 8:04 PM by President, Scott Jamieson.

**Minutes** from the January General Membership Meeting, was read by Secretary and approved.

The **Treasurer's Report** was read by Treasurer, Russell Chabot. Copy attached.

**Observatory Director's Report** - was submitted by Gene Hanson Observatory Director, and read by Jill Roberts Assistant Observatory director. Copy attached.

**Membership Committee** - There was no new membership application. Two membership renewals arrived since the last meeting.

**Correspondence** - The young couple who got engaged at the MAS Observatory asked for advice about buying a telescope.

**Old Business** - Scott is troubleshooting the balance problem of the Z-scope. The new desktop computer arrived, all software are installed.

The meeting was adjourned at 8:13 PM



**The Program** - We went over to the Manfred Olsen Planetarium to see the show entitled Colorful Nebula specifically adjusted for the MAS by the Planetarium Director Jean Creighton.

Respectfully Submitted,  
Agnes Keszler, Secretary

## FOX6 Airs a Live Broadcast from the MAS Observatory

When it comes to getting free publicity for the MAS, it's hard to beat a broadcast on a local television station. And what is even better? Multiple broadcasts!



It was to promote the new Cosmos by Neil deGrasse Tyson, an update to the series hosted by Carl Sagan back in 1980. Paul Borchardt received a call on Thursday from our local Fox affiliate, WITI, who wished to do a live broadcast from our observatory for their Sunday morning news program which aired from 7:00-9:00AM. On Saturday morning they did a site inspection giving us the go ahead. Scott Jamieson and Gene Hanson plowed and shoveled extremely wet snow on Friday hoping that the forecast for rain and then freezing would not materialize. They verified that all domes were functional.

The night before offered one of the rare clearings for Member's Night this winter and rotation of the Z Dome proved very limited to the west and the nearby moon made imaging very tough. We used part of that time to clean up the control room/library.

The following morning the truck arrived at 6:30 and the reporter, Justin Williams, arrived a little later. As we figured, the cable run was really long and in order to reach the Z Dome, they needed a signal booster from the Buckstaff Observatory.



A big concern of ours when the reporter showed up was he was given the indication that we were somehow involved in the Cosmos series and that's why he was asked to come. We did figure this is an experienced professional and would make this happen, and we were not disappointed. What was very obvious from the beginning was how enthusiastic Justin was about his job and astronomy and we

learned later that he is often called upon to do segments involving science. Before he arrived, we put Venus in the field on the B-Scope so at least we got to show him one object. And as many before him, he was amazed at the view and that bright star was actually a planet. We quickly brought him up to speed on what the observatory is all about and going through what we thought would make good segments. And music to our ears was Justin specifically said that this should be great publicity for the observatory.



Paul Borchardt did the first live segment as he's so well versed in our club's history. Scott Jamieson did the next two because they were in the Z Dome, and Gene Hanson did the final segment in the Albrecht Observatory. Additional "taped" segments of Jill Roberts as her role as librarian, and of Scott under the Zemlock Scope, another of Paul at the B-Scope. They left at 11:00AM so they were there for 4 and a half hours!



We would be remiss if we did not thank WITI Fox News in general for this, but specifically Justin Williams for doing an excellent job! Paul says the length of time we were given was unprecedented. We've done television interviews in the past, but we've always been lucky to get just 30 seconds of airtime.



## In the Astronomical News

### Discovered: Stellar Dinosaurs!

In 2006 and 2007, two objects caught by the detectors of the Supernova Legacy Survey looked like supernovae—stars exploding in cataclysmic stellar suicide—but did not act like familiar supernovae. Instead of brightening over a period of maybe three weeks (about 20 days), they seemed to take nearly three months (about 80 days). At first, no host galaxy could be found, and their spectra revealed mysterious broad lines never seen before.

Over the next year or so, a handful of similar objects discovered by the Palomar Transient Factory and the Texas Supernova Search revealed that they actually were incredibly distant supernovae—ones dating from beyond a redshift of  $z = 1$ , that is, more than halfway back to the Big Bang. The mysterious lines in the visible spectra were actually ultraviolet emission redshifted—their short UV wavelengths expanded by the expanding universe—into the longer visible region of the electromagnetic spectrum. That time dilation stretched out the duration of the event so that, as seen from telescopes on Earth, the explosions seemed to unfold in slow motion.

But another big mystery remained: how could those supernovae be so brilliant?

Supernovae are not alike. For decades, astronomers had known that supernovae fell into different types based on their light curves, that is, their pattern of rising and falling brightness. Later, they found these types actually corresponded to different physical circumstances triggering the explosions. Even those types have fine distinctions based on their spectra, giving rise to the categorization of

supernovae by roman numerals, with sub-classes given lower-case letters. For example, Type Ia supernovae originate from white dwarfs in binary star systems, whereas Type II supernovae originate in an implosion-explosion event when a massive star's core collapses and the star blows off its outer layers.



*Arrow points to supernova SNLS 06D4eu and its host galaxy about 10 billion light-years away. Big objects with spikes are stars in our own Milky Way; every other bright dot is a galaxy. Credit: University of California, Santa Barbara*

But the new supernovae did not correspond to any known type. The computer simulations suggested that one object, designated SNLS 06D4eu, was an emerging class of supernovae classed as superluminous supernovae, a handful of which have been discovered. The data suggest a star originally 20 to 40 times more massive than the sun first blew off its outer hydrogen-rich layers. Then the dense naked core—still having a mass five times that of the sun and composed of carbon, oxygen, and

other heavy elements—precipitously collapsed into a highly magnetized neutron star only tens of miles across, spinning hundreds of times per second, triggering the super-energetic explosion. In short, SNLS 06D4eu is one of a new sub-class of hydrogen-free superluminous supernovae.

These are the dinosaurs of supernovae! SNLS 06D4eu exploded before the sun was even born, when the universe was only 4 billion years old.

—Trudy E. Bell, M.A.

The University of California High-Performance AstroComputing Center (UC-HIPACC), based at the University of California, Santa Cruz, is a consortium of nine University of California campuses and three Department of Energy laboratories (Lawrence Berkeley Laboratory, Lawrence Livermore Laboratory, and Los Alamos National Laboratory). UC-HIPACC fosters collaborations among researchers at the various sites by sponsoring an annual advanced International Summer School on AstroComputing (ISSAC), offering travel and other grants, co-sponsoring conferences, and drawing attention to the world-class resources for computational astronomy within the University of California system. More information appears at <http://hipacc.ucsc.edu>.

## Adopt a Telescope Program - Signup Sheet

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

### At Your Service

#### Officers / Staff

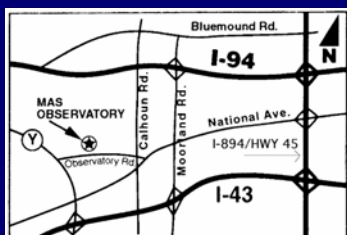
President	Scott Jamieson	262-592-3049
Vice President	Brian Ganiere	414-961-8745
Treasurer	Russell Chabot	414-881-3822
Secretary	Agnes Keszler	414-581-7031
Observatory Director	Gene Hanson	262-354-0138
Asst. Observatory Director	Jill Roberts	414-587-9422
Newsletter Editor	Tamas Kriska	414-581-3623
Webmaster	Robert Burgess	920-559-7472

#### Board of Directors

Robert Burgess	920-559-7472
Russell Chabot	414-881-3822
John Hammetter	414-519-1958
Gene Hanson	262-354-0138
Lee Keith	414-425-2331
Agnes Keszler	414-581-7031
Tamas Kriska	414-581-3623
Neil Simmons	262-889-2039
Michael Smiley	262-825-3981
Sue Timlin	414-460-4886
Dan Yanko	262-255-3482

#### March/April Key Holders

3/15	Mike Smiley	262-825-3981
3/22	Tom Schmidtkunz	414-352-1674
3/29	Dan Yanko	262-255-3482
4/5	Russell Chabot	414-881-3822
4/12	Brian Ganiere	414-961-8745
4/19	Gene Hanson	262-354-0138



#### MAS Observatory

18850 Observatory Rd  
New Berlin, WI

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