

SPECTRUM

Northern Cross Science Foundation Newsletter

August 2015

Looking Up

August 6, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Michael Bakich

“2017 Solar Eclipse”

August 7, Friday

Geocaching Festival

8:30—10:30 p.m.

Reiner Park, West Bend

August 8, Saturday

Lake Moon Festival

2:00 p.m. - 10:00 p.m.

Concordia College

August 20, Thursday

Board Meeting

7:30 p.m.

Home of Jeff Setzer

August 21, Friday

Public Viewing

7:00 p.m. - 11:00 p.m.

Harrington Beach

August 22, Saturday

Public Viewing

7:00 - 11:00

Harrington Beach

August 22, Saturday

Public Viewing

8:00 p.m. - 10:00 p.m.

Glacier Hills

Washington Co Park

September 3, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

NCSF Imaging Test...By Ernie Mastroianni



Jaime Hanson tests connections with the laptop, camera, mount and guide scope

The most recent acquisition of the imaging system at the Plunkett observatory was connected and tested with the 5-inch refractor on July 8. Club member Jaime Hanson tried the new SBIG

8300 full color camera with the club's laptop and software. "We went three for three on connections," he said, referring to the successful communication between laptop and the SBIG camera, the mount and the guide camera. "We were able to focus on a distant tree using the 2" extension tube and took a 10 second exposure. That's about all we could do under cloudy skies."

The camera's sensor is a Kodak KAF-8300, 8.3 megapixel, full frame CCD with an array of 3326 x 2504 pixels. It has a mechanical shutter and is electronically cooled. It was purchased from Oceanside Photo and Telescope, which offered a club discount of four percent. Research by Wally Gersmehl and Chad Andrist proved instrumental in obtaining the discount.

Some equipment, such as tube extensions, connecting cables and camera adapters, still need to be purchased but imaging committee members are considering buying them and donating them to the club.

The Moons of Saturn with a Real-Time Phone App...By Rick Kazmierski



Moons of Saturn

Haze from fires in Canada and Alaska made even clear night viewing in late June / early July less than ideal. However, I did get a chance to do some viewing. I was able to spend several evenings picking out the larger moons of Saturn. Saturn has sixty two catalogued moons, but only five large enough to be glimpsed in amateur telescopes. Sky Telescope has a great little app for my Android phone, which displays the five brighter moons in real time. Named "The moon of Saturn" it not only displays the moons in real time, but can be set to display your specific telescope orientation. This interactive diagram is also available online at:

http://www.skyandtelescope.com/wp-content/observing-tools/saturn_moons/saturn.html#

Saturn reached opposition in May and is still well placed for viewing, being due south at 10:00pm. Although rather low in the constellation of Scorpio, it won't get any better this viewing season. In the past, I had viewed the two largest moons, Titan and Rhea.

However, I had never attempted to located Dione, Tethys, or Enceladus, also visible in amateur telescopes.

Titan and Rhea are easy in most any scope, but the dimmer three (Continued on Pg. 4)

July Meeting Minutes

By Secretary Kevin Bert

The July Business meeting of the Northern Cross Science Foundation was held at Unitarian Church North. President Jeff Setzer opened the meeting at 8:10pm and welcomed 20 members and guests. He then asked for standard reports.

Treasurer Gene DuPree tells the membership that the regular accounts balance is \$10,520.53 and the observatory account balance remains at \$1,109.06.

Secretary Kevin Bert reports that there were no new members added to the roster. The Astronomical League is planning to give away one Library Telescope to a club in each of the Leagues regions. Kevin received confirmation of the NCSF entry form for the telescope drawing to be held at the National Convention from July 6-10 in Las Cruces NM.

Kevin reported for Observatory Director Dan Bert who was not available. Trimming of the bushes that were encroaching on the sidewalk and placement of new wood chips were accomplished the previous week. Additional member sign-in forms were replenished. The purchase of bird spikes at the top of the observatory interpretive signs is pending the park's ok to go ahead.

Under New Business it was noted that the West Bend News had a nice article about Charlotte Dupree at the Heritage Trail viewing event. Congratulations!

The imaging committee noted the purchase of the one-shot color camera SBIG 8300C. They are looking forward to checking out how it performs with the imaging scope.

Jeff Setzer covered upcoming events for July. The 11th is the Small Scope Star Party at Harrington Beach. The 18th is public viewing at Pike Lake State Park. July 24 & 25 are Public Viewing nights at Harrington Beach. August 7th is an evening at Regner Park in West Bend for the Cache-Bash Festival. August 8th is the Lake Moon Festival at Concordia, Mequon. Saturn and the Sun will be the objects highlighted. With no further business Jeff closed the meeting at 8:40 pm.



Small Scope Star Party

Photo by Rick Dusenbery

(See page 3)

Maintaining our Observatory!

Club Members, some of you use our observatory more than others, and may have noticed something requiring some attention. If you have noticed anything not working properly, on the verge of falling apart, requires some sort of maintenance, please let us know.

We want to keep the Observatory in tip top shape! Please contact Observatory Director, Dan Bert **262-357-1973** or Kevin Bert **262-375-2239**.

Thanks! *Your NCSF Board*

Excerpt from

"The Awakening of the Fires"

The stars drop down in their blue dominions
To hymn together their choral song;
The child of earth in his heart grows burning
Mad for the night and the deep unknown.

George William Russell

Things to See in the August 2015 Night Sky By Don Miles

Mercury & Jupiter: Mercury closely follows the Sun this month and sets about 45 minutes after sunset. It keeps this same pace for all of August, and even into September. After mid-September, it slips closer to the Sun again as it works its way around the "front" side, then becomes a morning object until mid-November. Presently, it's at (mag 0.2), and sets about (8:45/8:30pm). Jupiter also closely follows the setting Sun, but is too close to view this month. It soon will be passing around the "back" side of the Sun for the next couple of weeks, and it'll become another morning object by mid-September. It'll then be at (mag -1.7), and will continue to rise earlier and earlier thru the end of the year.

Saturn, Pluto, Neptune, & Uranus: Saturn and the outcast Pluto are already high in the sky as the Sun is setting. Saturn is at its highest about (8:30pm/sunset), and sets around (1am/11:15pm). It's at (0.4 mag) now in the constellation Libra, but will continue to get dimmer and smaller as we're getting further from each other thru mid-October. After that, we'll start getting closer again until next summer. The rings remain tilted at an excellent angle to view the gaps or "divisions". Pluto is highest at

about (11/9pm), and still at a stellar (14.1 mag). It remains in the constellation Sagittarius, and sets about (4/2am). Neptune is the next to rise, and will be about (9:30pm/sunset). It transits by about (3/1am), and is at (7.8 mag) in the constellation Aquarius. It's at opposition the night of the 31st, and still up at sunrise, so you have ample opportunity to find it if it's on your hit-list. Uranus is the next to rise, and does by about (11/9pm). It's at (5.7 mag) in the constellation Pisces, and as mentioned previously... will remain there for the next couple of years.

Mars & Venus: Mars is now a morning object, and the views will continue to get better as we get closer to each other thru fall and into late spring. It rises (4:45/4:30am), and is at (1.7 mag). It begins the month in the constellation Gemini, and works its way eastward into the constellation Cancer by months' end. Venus begins the month closely trailing the Sun too close to view, but soon passes past the "front" side, and by the end of the month becomes a morning object again. It will rise about 4:45am later in the month, and will show phases again as the planets shadow has switched sides. It's very hard to miss as it's at (-4.4

mag). It begins the month in the constellation Leo, but will finish the month in Cancer.

Moon:

August 6th: Last Quarter

August 14th: New Moon

August 22nd: First Quarter

August 29th: Full Moon

Special Events/Objects:

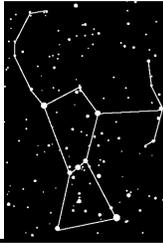
Meteor Showers: Watch for the Perseids in the early morning hours (best around 2am) of Wednesday the 12th. The peak expected rate for this shower is 60-110 per hour. They're known to move across the sky pretty fast, and also for leaving "smoke" trails. The dreaded Moon will not crash the party this time. So...bring mosquito repellent, a comfortable chair (preferably a lounge chair to save your neck muscles), and enjoy the warm night. Hope you all have clear skies.



August General Meeting

101 Class...By Kevin Bert

The Astronomy 101 class for August is the constellation of the month. "Sagittarius." Looking to the center of the Milky Way this constellation is loaded with celestial gems.



Main Program

Michael Bakich

Senior Editor of Astronomy Magazine

Michael will be speaking about his huge, public event for the August 21, 2017 Total Solar Eclipse!

July Public Events

Horicon Marsh, July 7th

By Charlotte DuPree

Family Fun Night @ Horicon Marsh, Mid-Wisconsin Federated Library System. This was an evening of family activities including walks, face painting, crafts, bake sale, and solar viewing. The Sun was in and of the clouds. By the time we hoped to see Venus and Jupiter, the heavy clouds came. We left just when the sprinkles started.

Pike Lake, July 11

By Rick Dusenbery

Our Annual **Small Scope Star Party** was a success with a mostly clear sky! There were quite a few scopes in use ranging in size from hand-held monocular to six-inch reflectors, with a lot of refractors and small "cats" in between. The photo shows Jeff demonstrating his "beer bottle" scope as we waited for it to get dark. Soon we were viewing Venus and Jupiter (still very close together), followed by Saturn. Then as darkness deepened, we turned our attention to the brighter deep sky objects: globulars M13, M22, nebulae M27, M8, double stars Mizar-Alcor, Albireo, etc. It was tempting to open the observatory to use the 20", but after all, this evening was for small telescopes of six inches or less.

Pike Lake, July 18th

By Charlotte DuPree

We had an excellent night for stargazing. We spotted Venus near the Moon early in the evening. It took a while before Jupiter was finally spotted. Saturn was looking good too. The usual deep sky objects were great. There was a good size crowd from the camp ground. We have been invited to do PVN whenever we want to. Thanks to Rick D., Al, Rick S., Tyler, and Carol.

Harrington Beach, July 24th

By Charlotte DuPree

This was another excellent night for stargazing, despite the first quarter Moon. Gene and Kevin and a few scopes out the back doors. There was a steady flow of repeat visitors from the campground. Thanks to the club members that set-up in the parking lot.

Harrington Beach, July 25th

By Rob Powell

Clear skies, a light breeze, and good seeing conditions prevailed on Saturday's public viewing event. Rob Powell led the observing at the observatory, and Richard Sauve coordinated the viewing of members' telescopes, in the parking lot.

Eighty-six visitors were recorded on our guest sign-in sheet, having come to view the Moon, the Swan & Ring nebulae, and M13. One family drove two hours, from Beloit, just for the event, after reading about it on the park's web site earlier that day. They had such a good time, they wrote the club a check for \$20 in appreciation for the evening's activities.

When the queue was at its longest (~50 people), it was useful to go out onto the south lawn and greet the waiting crowd, use the laser pointer to show them a few constellations, and point out where the target objects were located in the sky. For crowd management, guests were encouraged to visit the volunteers' telescopes in the parking lot; many thoroughly enjoyed that experience and returned to the observatory already knowledgeable about what they were about to see in the Panarusky telescope.

Harrington Beach, Unscheduled Events

By Rob Powell

Over the years, I've noticed that there is a tendency, in July, periods where the viewing conditions seem exceptionally favorable, without the presence of the moon. When that occurs, it's been enjoyable to open the observatory for park visitors and campers on an unscheduled basis.

This month, it was a pleasure to do so on several dates: 7/5, 7/6, 7/10, 7/17, 7/20, 7/21

7/20 and 7/21 turned into "Nothing but Nebulae Night", where we observed many nebulae:

The Ring, the Dumbbell, the Swan, the Blinking Planetary, the Lagoon, and the Trifid nebulae.

Both nights, while waiting for optimal darkness, we observed many globular clusters and double stars including: M10, M11, M13, M22, M28, M56, M92, Beta Cygni, and Epsilon Lyrae.

The pace of the unscheduled openings is slower, which permits observing objects to be viewed at length.

RELATED INFO

New Members

NCSF welcomes new members:

Joe Aldstadt

Mark Aldstadt

Leaders for Public Viewing

August 7

Geocaching Festival

Jeff Setzer

August 8

Lake Moon Festival

Jeff Setzer

August 21

Harrington Beach

Charlotte & Gene DuPree

August 22

Harrington Beach

Leaders Needed

August 22

Glacier Hills, Washington co Pk

Charlotte and Gene DuPree

September 5

Ice Age Visitors Center

Charlotte and Gene DuPree

STAR PARTIES

Northwoods Starfest

August 14 - 16

Hobbs Observatory

Fall Creek, WI

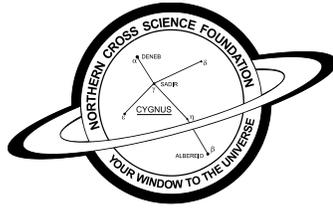
cvastro.org@gmail.com

WHAT DO YOU CALL AN ALLIGATOR IN A VEST?

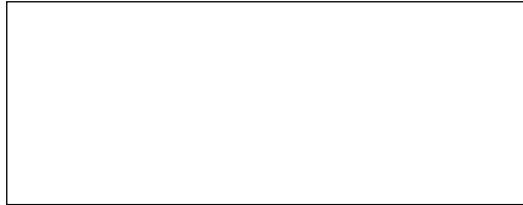


Answer: An Investigator

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**Jim & Gwen Plunkett
OBSERVATORY**



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(Continued from Pg 1) require larger aperture and higher magnification, with Enceladus difficult even in my 12 inch Dob at 300 power. The issue is that the smaller three moons have a tighter orbit and never stray far from their mother planet. Saturn is so bright it drowns out the dimmer moons, but higher magnification puts a little more space between the planet and moons, cutting down the glare. Inverted vision is recommended.

Winning Clubs of the 2015 Horkheimer Library Telescope Program

Kevin Bert submitted our Club's entry into the Astronomical League's, Horkheimer Library Telescope give-away. The names of ten clubs were drawn at ALCon 2015, one from each region. There were thirty-three total entries. The North Central Region winner was the **Northern Cross Science Foundation!**

Each winning Club will receive an Orion 4.5 inch StarBlast Dobsonian Telescope, a Celestron 8-24 mm zoom eyepiece, and a commemorative plate, all to be modified by the respective club as a Library Telescope. The Grafton Public Library will be the recipient of our winning telescope.



2015 Horkheimer Library Telescope Winners:

Northwest Region: Olympic Astronomical Society
Western Region: Temecula Valley Astronomers
MARS: Longmont Astronomical Society
Southwest Region: Houston Astronomical Society
North Central Region: Northern Cross Sci. Foundation
Mid States Region: Broken Arrow Sidewalk Astronomers
Great Lakes Region: Oakland Astronomy Club
Northeast Region: Amateur Observers' Society of N.Y.
Mid East Region: Back Bay Amateur Astronomers
Southeast Region: Flint River Astronomical Society
More information is available at:
<https://www.astroleague.org/content/library-telescope-program>

SPECTRUM

Is published by the Northern Cross Science Foundation, Inc. A nonprofit organization based in Southeastern Wisconsin and is a Member of the North-Central Region of the Astronomical League.



The NCSF supports the International Dark sky association.



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This Issue, along with back Issues of SPECTRUM, can be found on the NCSF Web Site.

<http://www.ncsf.info>

Monthly Meeting Information

7:00 p.m. Astronomy 101
7:30 Main Program
Unitarian Church North
13800 N. Port Wash. Rd.
Mequon, WI 53097