

SPECTRUM

Northern Cross Science Foundation Newsletter

December 2014

Looking Up

December 4, Thursday

General Meeting

7:30 p.m. - Business Meeting

Holiday Party to follow!

December 18 Thursday

Board Meeting

7:30 p.m.

Home of Jeff Setzer

January 8, Thursday (Note Date)

General Meeting

7:00 p.m.- Astronomy 101

7:30 p.m.- Main Program

Business meeting to follow

We have Winter Public Viewing (see below). Also, we may still have impromptu observing events, so check the Spectrum or our website at www.NCSF.info for the latest updates

Public Viewing Winter 2015

January 17, Saturday

Candlelight Ski & Hike

6:00 p.m.– 9:00 p.m.

Horicon

February 7, Saturday

Candlelight Ski & Hike

6:00 p.m.– 9:00 p.m.

Harrington Beach

February 14, Saturday (Updated)

Candlelight Ski & Hike

6:00 p.m.– 9:00 p.m.

Pike Lake State Forest

First Images...by Ernie Mastroianni

The first images taken with the club's Explore Scientific ED127 refractor were surprisingly easy to produce. After Chad Andrist navigated his way through the polar alignment process, Ernie Mastroianni made five unguided exposures of the Andromeda Galaxy with an unmodified Nikon DSLR. The photos revealed sharp stars and nearly imperceptible tracking errors. Exposures of only two minutes and 30 seconds brought out dim nebulosity and resolved delicate details in the dark lanes. I had to add a two-inch extension tube to reach focus without a diagonal.



Our imaging got a bit trickery when we chose to auto guide on our next target, the Orion Nebula. We used an Imaging Source firewire camera on the 60mm guide scope and ran PHD software on my MacBook laptop. I needed a short extension tube to reach focus on the guide scope.

When I connected the laptop to the CGE Pro's guiding port, they recognized each other, but not before a few PHD software crashes. That software bug may be why some auto guided exposures produced *greater* tracking errors than those which were unguided. I suspect the errors originated on my own laptop and not the

mount. I've experienced similar glitches with my Losmandy G11 mount.

While these easy targets show the promise of the telescope and 154-pound mount, obtaining satisfying photographs will require a solid understanding of how the telescope, mount, software and camera work as a unit. Fortunately, I found the learning curve to be not so steep. The go-to operating system seems intuitive. But the Feather Touch focuser is complicated. In the dark, it was hard for me to figure out which knob locked what.

But the positives outweighed the minor glitches. With a ready-to-go telescope on a polar aligned mount, the hours spent in setup and teardown are eliminated. For me, this makes imaging much

more fun with far less work. But you don't need a camera to enjoy this telescope. Deep sky objects seem more dramatic and almost three dimensional due to the sharp stars, dark background, and high contrast. And the telescope was a great compliment to the Panarusky on the haunted hike public viewing night. Visitors able to look through the refractor as they waited in line for a view through the eyepiece at the top of the big ladder.



**View online at:
www.NCSF.info for beautiful full-color rendition!**

November Meeting Minutes

By Secretary Kevin Bert

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

Treasurer Gene DuPree tells us that a total of \$6,868.68 is in the general fund and an observatory balance of \$1,055.06

Secretary Kevin Bert reports that there was no change in the membership roster. There was no new Astronomical League information. The 2015 NCRAL convention will be held in the Fargo/Moorhead area.

Observatory Director Dan Bert reports that the interpretive signs are now posted at the Jim and Gwen Plunkett Observatory at Harrington Beach State Park. Eight signs with basic astronomy topics are mounted in the ground with 4x4's with weather resistant surfaces. Thanks to the board for coming up with the sign information and an Eagle Scout that made it happen.

Saturday November 15th is an Observatory training session for those operators that need a refresher course or members

wanting to be able to open up and use the facility.

The Celestron CGE Pro mount and 127mm imaging telescope is set up in the south end of the observatory. The Imaging committee will be talking about their next purchase to complete the basic equipment to capture images.

Under New Business, Jeff reports that Neil Degrasse Tyson of Cosmos fame will have performances at the Riverside Theater on December 10th and 11th.

It was noted that the status of the Bayshore Sidewalk Astronomy outreach is up in the air as they re-organize. Our contribution for this year is anticipated to be down and future ones in question.

Jeff Setzer covered upcoming events for December. December 4th is the Holiday Party so plan on a dish to pass. No board members term is up so nominations for the board are not needed. January 1st is an open park at Harrington Beach that will offer solar viewing. January 17th is a public viewing night opportunity at Horicon. Dress Warm!

With no further business, Jeff closed the meeting at 8:50 pm.

Respectfully submitted by Kevin Bert, Secretary.

Interpretive Signage

by Rick Kazmierski

Installation of the Interpretive Signage around the Jim and Gwen Plunkett Observatory is now completed. Eagle Scout Austin Berger installed the eight signs earlier this month and in the process completed his Eagle Scout Project.

The signs are mounted on four by four posts. The first sign at the beginning of the sidewalk describes the observatory and asks the question, "Where's the dome?" The next sign gives a brief description of the major styles of telescopes. Facing due north is a sign named "Circumpolar Constellations" A sign describing "Light Pollution" faces due south, in the direction of Port Washington and Milwaukee (for obvious reasons). The other four signs include "Meteors," "Sun," "Moon," and "Northern Lights"

The Kiosk is also in place at the head of the sidewalk and will be shared by the Park with our Facility. We will control one side for display of pertinent information regarding the public schedules for viewing, special Northern Cross events, membership information, and general Astronomical facts and other information pertinent to our activities.

Make sure to check them out next time you visit the park. The new look is impressive.

Please see the photo's on Pg 3!

Things to See In the December 2014 Night Sky By Don Miles

Mercury, Venus & Mars: By mid-month, Mercury will again be an evening object. By the end of the month it will shine at (-0.9 mag), and will continue to set later as the month progresses, eventually setting by about 5:45pm. Venus is the next to set, doing so by about 6pm by the end of the month. It's at (-3.9 mag), and will appear brighter as the month progresses. Mercury will end up below and to the right of Venus by a little over 3 degrees as the year comes to an end. Mars is the last of the three to set, and will do so by about 8pm (both early and late in the month). It's at (1.0 mag), and will be an orangish/red colored point of light low on the western horizon. It moves right-to-left thru the constellation Capricornus over the course of the month. It doesn't look like much as far as any detail or size, but its color is hard to miss.

Neptune, Uranus & Jupiter: Both Neptune & Uranus are already up at sunset and Neptune (7.9 mag) transits by about 5:45pm. It is the first to set, and will do so by about (11:15/9:15pm). It's still in the constellation Aquarius. Uranus (5.8 mag) transits about (8/6pm), and sets around (2:30/12:30am). Uranus is in the constellation Pisces. Jupiter is the crowd-pleaser

this month as it rises about (10/8pm), transits about (5/3am), and sets around sunrise. It's now at (-2.3 mag), and the views will keep getting better as the month goes on as it keeps rising earlier and earlier throughout spring. As general rule of thumb (even in the cooler months), the higher in the sky objects are early in the morning, the better the views will be. Some of the brighter planets even show more detail in "less than ideal dark skies" as our eyes can pick out subtle details when the contrast between the bright planet and dark background is less harsh.

Saturn: Is now rising before the Sun, and will continue to rise earlier every month thru next summer. It rises around (6/4:15am), and is at (0.5 mag) in the constellation Libra, and will slowly work its way to the East into the constellation Scorpius by mid-January.

Moon

December 5th: Full Moon

December 14th: Last Quarter

December 21st: New Moon

December 28th: First Quarter

Special Events:

Meteor Showers... There are two worth mentioning that won't be obscured by the light of the Moon, and the better of the two are the Geminids. They peak the night of the 13th, and into the morning of the 14th. The debris trail is pretty wide, as the showers start around the 6th and last thru the 19th. The moon rises by about 12:30am, so your best bet would be to go out Friday night a while before midnight. You'll have the best "dark" viewing before you get too cold, then can call it a night early before the Moon rises. They are predicted to peak at 60-120/hr., and are moderately slow (21.75 miles / second) and are known to produce bright fireballs. The second and much less active are the Ursids. The typical rates for the Ursids are around 10/hr, but have been known to peak as high as 50/hr. Watch for them towards the Little Dipper the early morning hours of Monday the 22nd.



December General Meeting

NCSF Holiday Party

Please bring a dish, desert, appetizers to pass.

Beverages will be provided!



AND

The White Elephant Exchange!



1. Bring an *astronomy-themed, wrapped gift! Participate or observe, as inclined.
2. When the gifts arrive we will have numbers attached to them with matching numbers in a hat.
3. One by one, each participant will draw their prize number and open it to the oohs and ahhs of all present.

*A White Elephant gift: lurking in the shadows of your astronomy closet, an item gathering dust. Like a book, map, etc. Perhaps in your travels you see something funny or yummy, the imagination soars! Why, last year someone got an old astronomy book and an Alien key ring which made a "an alien" sound!.

RELATED INFO

Leaders for Public Viewing

January 17

Horicon

Charlotte and Gene DuPree

February 7,

Harrington Beach

Leaders Needed

February 14

Pike Lake

Charlotte and Gene DuPree

NCSF Interpretive Signage Photo's

Photo's by Rick Kazmierski



2015 Dues

Your 2015 Dues invoice is included with this Newsletter. New members having joined the Club this past year will find their dues have been pro-rated, making them payable on the same schedule as the rest of our general membership (at the beginning of each calendar year). Members receiving electronic mailing can download the Dues Invoice from the Club website or print the attached pdf file. Additional copies of the Invoice will be available at the December Membership Meeting.

Instructions for submitting Dues are indicated on the Invoice.

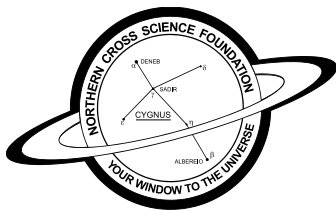
Note: Astronomy Magazine can only be renewed through the Club to receive the discount rate. However, you can renew an existing Sky & Telescope Magazine subscription on your own and the Club discount will automatically be available.

Jim & Gwen Plunkett OBSERVATORY



Observatory Director:
Dan Bert: 262-357-1973

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Celebrate Families 24th Annual FREE FAMILY EVENT

Sunday, February 8, 2015

11am – 3pm

West Bend High School

1305 East Decorah Road, West Bend, WI 53095

Our NCSF Club will be having a booth at this event. I've been asked to organize our booth and activities. I have begun the process of contacting sources for materials on astronomy-related activities, work sheets, and freebies that will be handed out to the children. There will also be information for teens and adults to take with them.

We will need volunteers to come with scopes. The idea would be to have each volunteer train their scope on one particular item and explain to them what it is they are looking at. We will be indoors, I have multiple NASA 8x10 prints, galaxies, planets, rockets launching, etc. that can be taped in the room on far away walls. Or...if you have a specific photo and topic you would like to discuss, let me know.

This is still a work in progress, but will have it pounded out and details in the January 2015 Spectrum.

If you are interested in volunteering, please contact me, Mickey Kazmierski: mickeyrose@charter.net

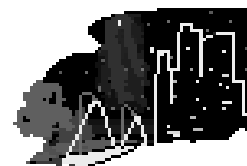
Thanks!

SPECTRUM

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The NCSF supports the International Dark sky association.



Send inquiries to:

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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