

SPECTRUM

Northern Cross Science Foundation Newsletter

November 2011

LOOKING UP

November 3, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to follow

November 5, Saturday

Observatory Training

7:00 p.m.

Harrington Beach

November 17, Thursday

Board Meeting

7:30 p.m.

Home of Joyce Jentges

November 19, Saturday

Public Star Party

7:00 - 9:00 p.m.

Yerkes Observatory

Lake Geneva, WI

(More info at General Meeting)

December 1, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Board Elections

Gift Exchange

(See Main Article)

Christmas Party

Presidents Corner...Joyce Jentges

It's been quite a while since I've written a note to the general membership as life is pretty hectic at times. But I had a couple of news worthy things that I wanted to share.

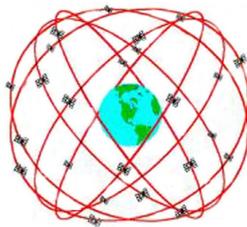
At our October board of directors meeting, the idea of doing a white elephant gift exchange was brought up with the idea that we would do it at our annual December meeting and Christmas party. If you've never been to our December meeting, I encourage you to come. Everyone brings a dish to pass, and after a very short business meeting, we eat, drink and chat. We thought it might be kind of fun to do a gift exchange - of the *white elephant variety*, with an astro theme to make it more interesting. There were already some pretty wild ideas floating around at our meeting! Those of us that have been in the hobby, have only to go to our telescope storage area, and I'm sure we can dust off some item to bring that we haven't used in a very long time and have been meaning to sell. Your item could be a piece of telescope equipment you aren't using any more, but it can also have a star theme, or be useful for stargazing, or something else you deem

appropriate. We are not setting a dollar limit being that these are white elephant items. Use your imagination and have fun with this! By the way, the dish you bring to pass can be anything you wish. In the past we've had sandwiches, Jambalaya, brownies, cakes and other desserts, dips and appetizers. The Northern Cross will provide the drinks and paper products.

At our November meeting we also take nominations for our Board of Directors. I encourage you to seriously consider nominating yourself, or have another member nominate you. It's always great to have new people on the board which helps to bring in new ideas and experiences to share. The election will take place in December at our meeting on the first Thursday. I still need to check over my list and see which members terms are expiring.

I am sad that our public observing season has come to an end, but it was a productive season with strong attendance at most events. We will begin thinking about next year very soon. See you at our November meeting! Clear skies!

Observing Geosynchronous Satellites...by Rick Kazmierski



The October issue of Sky & Telescope Magazine had an article on observing Geosynchronous Satellites. These are high orbiting satellites strategically placed at a distance

of 22,236 miles from Earth. At this distance, the orbit equals 24 hours (the Earth's rotation), and can theoretically remain above a fixed point on Earth. Compare this to low altitude satellites like the Space Station which orbit in about 88 minutes. There are over 300 geosynchronous satellites in orbit and they have revolutionized everything from communication to defense.

I was intrigued by the prospect of visually

identifying one of these satellites, so the first clear night I set out to do so. Using my 13" Meade Schmidt-Cassegrain, I slewed to declination -6.5 deg. The information I had showed this to be the ideal declination for finding Geosynchronous satellites from our latitude. Using a 40 mm Possl eyepiece at 90X, I slowly moved the scope east in right ascension watching for slow moving satellites. After about 10 minutes I spotted my first candidate. It was about 11th magnitude and drifted across the field to the west. By moving east in R.A. I was able to indefinitely track the object. Just to verify I'd truly found a Geosynchronous satellite, I turned off the telescopes clock drive. Sure enough, the satellite remained fixed in the eyepiece while stars now drifted by.

After turning the telescope (Cont'd on pg. 4)

October Meeting Minutes

By Kevin Bert

The October Business meeting of the Northern Cross Science Foundation was held at Unitarian Church North. President Joyce Jentges opened the meeting at 8:35 pm and welcomed 18 members and guests. She then asked for standard reports.

Treasurer Gene Dupree reported a balance of \$6271.99 in the checkbook account.

Secretary Kevin Bert noted that there were no changes in the membership roster. He said that he just received the latest Reflector magazine and did not get a chance to look it over. With no other League business he asked members to contact him if they are not receiving the Astronomical League Reflector.

Under old business Joyce said the board decided to cancel plans to pursue the 20-inch telescopes Cassegrain Secondary after hearing that the cost would almost be twice as much as they were hoping. The

board set a limit of \$3000 at the start of the project, a price over double the initial cost quoted from OMI.

Focus will now be on the Harrington Beach observing mound project that might better be called a step wall. The location will be very close to a large bush south east of the observatory. Park Superintendent Andy Krueger needs to respond to our last question on how the grass on it would be mowed. This will affect the shape of the mound or the type of grass used. The planning process will continue over winter.

Under new business a problem with the lighting on the new addition of the picnic shelter reared its ugly filament at a public viewing night. Member Ernie Mastroianni captured the offending photon emitter in a dramatic time-lapse file. Andy assured us that the light would not be on unless the shelter is rented out.

Joyce made a plea for members to help with material to the newsletter. Rick is always in need of articles.

Joyce continued on with a list of upcoming

NCSF events. October 8 is solar viewing at Pike Lake State Park. See Jeff Setzer to help with a home school evening in Whitefish Bay on the 12th. An evening of viewing at the Lac Lawrann Conservancy on the 15th. Cub and Boy Scouts will be entertained at the Observatory on the 17th. October 22nd is the haunted hike at Harrington Beach. The 28th is the great pumpkin event at Bayshore.

With no further business Joyce closed the meeting at 9:05 pm.

Astro Humor

Delighted at finding a Tasco 60mm refractor tube, Professor McGutty got a little carried away building a mount.



Things to See In the November 2011 Night Sky By Don Miles

Venus & Mercury: Both follow the Sun pretty closely, but Venus is much brighter (mag -3.9) and easier to find. Look right behind the Sun as it is setting, and the first bright "star" you'll see will be Venus. Mercury is below and to the right of Venus, but much more faint (mag -0.3). To find Mercury, just locate Venus, and then look about 2 degrees below it. The night of the 10th, Venus and Mercury will form a straight equally spaced (2 degree) line with Antares (the reddish "heart" star of Scorpius). Venus is at the top, Mercury in the middle, and Antares on the bottom. After this alignment, Mercury will pick up speed and head back towards the Sun on its way around the "front" side.

Pluto: Look for Pluto (14.1 mag) still in the constellation Sagittarius just as it gets dark. It will be highest in the sky as the Sun sets and will set around 6:00pm. It's now getting so low in the sky; you'll need an excellent SW horizon, or wait until next spring.

Neptune & Uranus: Neptune (mag 7.9) still straddles the border of the constellation Aquarius & Capricorn, and will move very little throughout November. It's best seen about 9:45pm. Uranus (mag 5.8) rises about two hours after Neptune (right about sunset), and is just to the East of the lower "fish" in Pisces. Your best views of Uranus

will be just before midnight. Look for a blue-green color to it.

Jupiter: Now at (mag -2.9), brilliant Jupiter rises at about 6pm early in the month, and will already be high in the sky at sunset by month's end. Look to the East for the brightest "star" in the sky by about 8pm, and that will be Jupiter. It will slowly drift to the west towards Pisces. The best time to see it will be a little after midnight, but will be up all night this whole month. Jupiter will set about two hours earlier every month thru the winter and into spring, so look when you can before it isn't as comfortable viewing.

Mars: Rises around midnight in the constellation Leo, about 4.5 degrees above and to the right of Regulus, and will slowly drift eastward to end up between the lion's front & hind feet by the end of the month. On the night of the 10th, Mars will pass within 1.5 degree of Regulus (mag 1.35) making an interesting pairing. Mars is presently at (mag 0.9) and appears only 7.1" in diameter (a little larger than Mercury appears), so is observable, but is hard to see much detail unless you have very steady skies.

Saturn: After passing around the "back" side of the Sun, Saturn now rises right before the Sun, and will progressively rise earlier & earlier. Look for Saturn around 5am early in the month, and by about 3:30

later in the month in the constellation Virgo. From our vantage point, Saturn is now tilted at an excellent angle to see detail in the rings. It will continue to increase tilting until it reaches the maximum angle in March, after that, they will start to level off until the next cycle.

Moon:

November 2nd: First Quarter

November 10th: Full Moon

November 18th: Last Quarter

November 25th: New Moon

Special Events:

There are a couple of meteor showers happening this month, and the only one worth mentioning is the Leonids. They peak the night of the 17 and into the morning of the 18th. Unfortunately, the Last Quarter moon will not only be up, but will be in the area where the meteors appear to originate from (radiant). Only the brightest will be visible, but you can up your odds by blocking the direct light of the moon with the edge of a building, or something else (even though you'll also be blocking over half of the radiant). Without the moonlight, peak rates of about 40/hour would be average.

November General Meeting

101 Class... by Kevin Bert

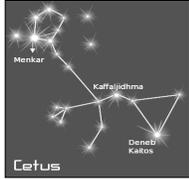
The November, the 101 class is entitled;

"Cleaning Eyepieces."

Out of all the optical surfaces of a telescope, eyepieces seem to accumulate dust and grime the most. Sooner or later they need to be cleaned.

Find out about the do's and don'ts of cleaning them.

"Cetus"- Constellation of the Month



Main Program by Mark Hirschmann

"Meteorite Impact Crater Pierce County, WI"

Having visited this site several times, about 40 miles west of Eau Claire, Mark will describe how the landscape records the impact meteorite made 450 million years ago. Share in the wonder. Learn where to find the crater and identify evidence of the impact.

October Events

Public Viewing September 30

Reported by Ernie Mastroianni

The sky was clear but the north wind was brisk for the public viewing night at the Jim and Gwen Plunkett Observatory at Harrington Beach State Park.

Ernie Mastroianni was the observing leader and Northern Cross Science Foundation president Joyce Jentges was the assistant.

About 60 visitors enjoyed the views through the Panarusky telescope and the six-inch Newtonian set up by Joyce on the back patio. The three day old moon was viewable for about half an hour before setting in the twilight. As darkness fell, we saw M-13, the Ring and Lagoon Nebula, Comet Garrard, M-31, NGC 457 and Jupiter.

After the guests thinned out, we took on the more challenging Stephan's Quintet (NGC 7320) and the nearby NGC 7331. A 32-second time lapse video covering about 3.5 hours of the viewing night, photographed by Ernie with a camera mounted on the observatory wall, can be seen at this link: <http://tinyurl.com/3lm678c>.

The roof closed at about 11 pm

Solar Viewing October 8

Reported by Charlotte DuPree

The first annual Friends of Pike Lake Discover Day was held on Oct. 8. There was a steady stream of visitors, 9-3:30, looking through the club solar scope, our 4 1/2 inch solar scope and 80mm Astrophysics refractor with a glass solar filter. The Sun and the clouds cooperated nicely for the public viewing. Thanks to Al Steinberg for bringing his 4 inch reflector. Carol Nelson, Rick and Georgine joined us for the afternoon.

Luminary Walk October 15

Reported by Jeff Setzer

This Laclawrann Event was lead by Jeff and Becca Setzer, with assistance from Tyler. Several hundred people stopped to view or ask questions. The night was partly to mostly cloudy and Jeff stated Jupiter was the only sky object worth viewing.

Public Viewing October 17

Reported by Joyce Jenges

On October 17th I hosted 3 boy scout troops and an advanced physics class from Ozaukee High School at the observatory. I want to thank Gene and Charlotte DuPree and Don Miles for coming to help out. At one point we had a very full observatory of adults and kids. I estimate that we had approximately 50 people in attendance. Despite fighting the clouds, we had a fantastic night. Everyone seemed to be pretty impressed with M15, the beautiful globular in Pegasus. We did look at several other objects, but with that many people, we had a pretty long line waiting to look through the eyepiece.

Haunted Hike October 22

Reported by Charlotte DuPree

The Friends of Harrington Beach State Park, annual Haunted Hike started out slow with visitors in small groups. Around 8:00 we had a steady line of people looking through the big scope. We saw comet Garrard, M11, M57, M27. Gene had the 9 inch Celestron on the double cluster and Alberio. Kevin and Dan had the two observatory scope out back. Thanks to Joyce, Al, and Rich for setting up in the parking lot.

CURRENT CLACK

New Members

Welcome to "New Club Member"

Kenneth Dunn

November 5,

Observatory Training

Harrington Beach

Kevin and Dan Bert

Holiday Folk Fair

NCSF will not be manning a booth at the 2012 Holiday Folk Fair at Wisconsin State Fair Park this year. The strain on participating Club members time, poor booth location, and lack of firm commitment from the fair's organizing committee are the reasons for this decision.

Observatory Notes

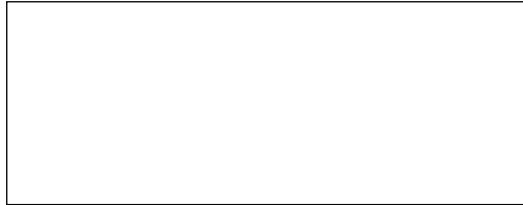
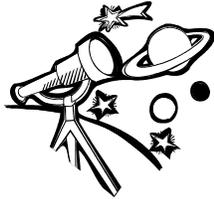
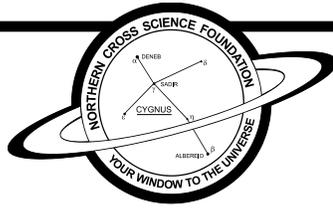
Joyce Jentges and I noted the very bright security lights blazing from the recently upgraded picnic shelter next door during the Public Viewing Event on September 30th. Although the lights were shielded by the structure and not directly visible at the eyepiece, the bright orange glow affected viewing at the eyepiece and cast a wide pool of light across the parking lot. Joyce called the park superintendent who assured her that the lights would not be on if the shelter was not occupied. *Ernie Mastroanni*

Jim and Gwen Plunkett Observatory



**Observatory Director:
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(Cont'd from pg. 1)

drive back on, I lost the object. I again went to declination -6.5 deg. and scanned east. It didn't take long before I found another 11th mag. satellite, but this one had a dim 13th mag. companion in tandem with it. It took a few seconds to realize what I was seeing, but when I did I got quite a rush!

The two brighter satellites should certainly be visible in medium size amateur telescopes of six to eight inches, making this kind of observing practical for Public Viewing or Star Parties.

Making Sky Measurement

by Harvey Sherman

Locating objects in the sky often require estimating distances in degrees. There are several methods of making these measurements. One of the most common is to hold the hand at a distance from your face. The little finger is about 1/2 degree; first three fingers are about 5 degrees; a closed fist is about 10; etc.

Here's a simpler way. Practice holding a metric ruler about 22 or 23 inches (57 cm) from your eyes. Each cm division is about 1 degree. It's that simple.



Gail Sherman Demonstrates

Our club has a "Discussion Group on Google"
See our website: <http://www.ncsf.info> for details.

SPECTRUM

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

<http://www.ncsf.info>

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