

SPECTRUM

Northern Cross Science Foundation Newsletter

February 2014

LOOKING UP

February 6, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to follow

February 8, Saturday

Candlelight Ski & Hike

6:00 p.m. – 9:00 p.m.

Pike Lake State Forest

"NCSF Annual Banquet"

(In lieu of March General Meeting)

Thursday, March 6, 2014

Fox and Hounds Restaurant

1298 Friess Lake Rd.

Hubertus, WI

(just south of Holy Hill)

Menu selection & registration forms are being mailed with the Spectrum Newsletter and e-mailed to club members!

Please, bring your wives, husbands, significant others, teens, this is a friendly group! A great time is assured, the food is fabulous, and the desserts...divine!

Social hour starts at 6:00 p.m.

Dinner starts at 7:00 p.m.

**Banquet Registration
Enclosed**

John Dobson (1915—2014) *Sidewalk Astronomers*

"John Dobson has been called the "Pied Piper of Astronomy," the "Star Monk," and the "Mac Guyver of Astronomy." He is arguably one the most influential personalities in amateur astronomy in the last 50 years. He has almost single-handedly revolutionized backyard astronomy by bringing it out to the street, making it accessible for anyone who has ever looked up in wonder, and asked "Why?"



After completing a degree in Chemistry at the University of California at Berkeley in 1943, John and worked in a number of defense-related jobs. John was what he describes at a "belligerent" atheist. Attending a service at the Vedanta center in San Francisco, he realized they were on to something and soon after, he joined the Vedanta Monastery in San Francisco in 1944, becoming a monk of the Ramakrishna Order. He spent the next 23 years in the Monastery. When he joined the Order, known for its intellectual rigor and public service, he was given the assignment of reconciling the teachings of religion with those of science.

Having graduated from the university as a chemist, he wanted to see for himself what the Universe looked like, so John built his first telescope in 1956. It was a 2", made from a lens he got in a junk store and an eyepiece from an old pair of Zeiss binoculars; through it, he could see the rings of Saturn. One of his fellow monks told him that it was possible to grind a telescope mirror, so John then made his first mirror out of a marine-salvage 12" porthole glass. When he looked at the third-quarter moon with his finished telescope, he was surprised and deeply moved by what he saw. His first thought was, "Everybody's got to see this."

John was transferred to the Vedanta Monastery in Sacramento in 1958 and started getting seriously involved in telescope making. The first telescope he made at Sacramento was a 5-inch reflector; the mirror made from the cut-out bottom of a discarded gallon jug. It was John's greatest delight to share the beautiful things he saw through the telescopes with others. One of his friends was so amazed by what he saw through the 5-inch telescope, that he told John,

"You've got to make something bigger!", and donated some salvaged portholes. The portholes had to be smuggled into the monastery in fertilizer boxes. John also had to screen his own sand for grinding and made his own rouge out of garden supplies (ferrous sulfate and oxalic acid). All of this had to be done without attracting the attention of those members of the monastery who felt that his continued telescope making and public service astronomy were not an appropriate pursuit for monks or the best use of his time.

The noisy job of grinding mirrors had to be done under water to deaden the sound. Since John was a monk and had no money, he had to find a way to mount the mirrors using scrap materials that could be gathered up at no cost. His telescopes were made from discarded hose reels, lumber core cut-outs from school house doors, and scrap wood. Such was the humble origin of what has come to be known as the "Dobsonian" telescope. These are Newtonian telescopes. A Dobsonian mount is really a type of alt-azimuth telescope mount. What makes its so unique is its simplicity, it moves up and down, left and right. John never thought of getting a patent for his design although many suggested it.

"It's like re-inventing a cup, we've had cups all along, and if you try to patent a cup with a handle, you can't."

The desire that drove John to make more and larger telescopes, and to put himself in increasing peril of expulsion by monastic authorities, was to give everybody the opportunity to see the Universe first-hand. He put discarded wagon wheels on his telescopes to facilitate wheeling them around the residential neighborhood surrounding the monastery - delighting kids and adults with the views of the night sky.

Naturally, when people started to look through John's telescopes some of the neighbors and their kids wanted John to help them make their own telescopes. He realized that this would make his life more difficult because his AWOL hours from the monastery would increase. Nevertheless, he continued and expanded his activities, till he was asked to leave the monastery in the Spring of 1967, after 23 years as a monk

With no "profession" and an overwhelming desire to show the night sky, John decided to dedicate the rest of *Continued on Pg 2*

January Meeting Minutes

by Kevin Bert

The January business meeting of the Northern Cross Science Foundation was held at the Unitarian Church North. President Jeff Setzer opened the meeting at 7:50 pm and welcomed 22 members and guests. Jeff shared with the membership a letter he had just received from member Pat Marek. In memory of her late husband, Pat was donating \$500 to the club. Tony was very supportive of the goals of the club and was very active over the years. Once decided, the money will go for a special project to recognize Tony and promote the club and its activities.

Jeff then asked for standard reports.

Treasurer Gene DuPree reported that there was \$13,601.29 in the checking, \$1,109.07 in the observatory account. He encouraged all to get their membership dues in.

Secretary Kevin Bert said the final membership roster came to 71. No new Astronomical League info was given.

Observatory Director Dan Bert reports that a red LED rope light was installed under the north wall cabinets in the Observatory. This will eliminate the need for clamp on lights.

NCRAL conference chairperson Mickey Kazmierski enthusiastically reports that registration is open online and she feels that the \$70.00 registration rate worked out

by the committee is the lowest it has been in years and overall very reasonable. The quality of speakers so far locked in is remarkable. All members who have wondered about experiencing an Astronomical League convention should take advantage of this occasion when it is practically in their back yard. April 4-5 will be here sooner than you think, so plan ahead for the clubs biggest event of the year.

Jeff Setzer told us that due to bad weather the December Board meeting was canceled and that officer positions were not selected.

Under new business Joyce Jentges reports that Andy has been reassigned to be Park Superintendent at Pike Lake State Park and that Robin will now be in charge at Harrington Beach.

For upcoming events Jeff says the next public viewing event will be at Harrington Beach this Friday January 4th. This will take place during the parks Candlelight Ski & Hike and is often well attended. January 18th is a public viewing night at Horicon. February 1st is a repeat of the 4th at Harrington Beach. The following week will be the Saturday Pike Lake Ski and Stars event. All scopes are welcome to help entertain the hundreds of people that attend. The winter sky has marvelous sights and be sure to dress extra warm to fight off the cold.

With no further business Jeff closed the meeting at 8:25 pm.

Respectfully submitted by Secretary Kevin Bert

John Dobson - *Continued from Pg 1*

his life to public service astronomy and hitchhiked to San Francisco. Then as now, John had many friends, and they helped to keep him fed, clothed, and sheltered. He retrieved some of his telescopes from Sacramento and set them up at the corner of Broderick and Jackson streets in San Francisco every clear night. Thousands of people looked through the telescopes while John talked to them in detail about what they were seeing. (This practice is still an integral part of Sidewalk Astronomy: astronomical information must be supplied by the telescope operator so the viewers can understand what they see.) Eventually, John was able to support himself by teaching classes in telescope-making and astronomy at the Jewish Community Center and at the California Academy of Sciences.

In 1968, some of the kids who had made telescopes under John's guidance, and who joined him in setting up scopes at Jackson and Broderick, started a public-service organization named the San Francisco Sidewalk Astronomers. As the organization grew, larger telescopes were made and taken out to the streets. By 1970, the Sidewalk Astronomers had a 24-inch telescope which was freeway portable. The possibility of showing deep sky objects to large numbers of people through very large telescopes led the growing band of Sidewalk Astronomers to National Parks and Monuments, Native American *Continued on Pg 3*

Things to See in the February Sky...by Don Miles

Mercury & Neptune: Mercury starts the month setting about 6:45pm, but as any inner planet, it works its way back towards the Sun. This happens before mid-month as it will pass on the near side of the Sun the 15th. After that, Mercury (mag -0.4/0.8) will again be a morning object as by the end of the month, it will rise about 5:30am. Neptune (mag 8.0) is the next to set, as it also closely trails the Sun. It sets around 7pm early in the month, and before month's end will be lost in the glare. By the 23rd, it will have moved to the "back side" of the Sun, so not visible for the rest of the month. Uranus sets not long after Neptune at about (10/8:15pm) [early/late in the month], and is at (mag 5.9) in the constellation Pisces.

Jupiter, Mars, & Saturn: Jupiter is at (mag -2.6), and up already at sunset, and will transit around (10pm/8pm) in the constellation Gemini. It sets about 3:30am late in the month. It's hard to miss, even if you're not looking for it. Mars is next to rise, and does so by about (11/9:30pm). It

transits by (4:45/3:15am), so will be worth getting up early for some viewing if you've wanted to view the red planet. It starts the month at (mag 0.2), but by the end of the month will have brightened to (mag -0.5). It slowly moves eastward throughout February, but stays within Virgo. Saturn is next to rise, and will by about (1:30am/11:30pm) in the constellation Libra. It will transit around (6:30/5am), so if you happen to be getting up to view Mars, be sure you take a look (or two, or three) at amazing Saturn.

Venus: Is now a morning object, and will remain one until fall. It's at a blazing (mag -4.6), and rises about (5:15/4:15am). It begins the month in the constellation Scutum, and moves eastward across Sagittarius to end up close to Capricornus.

Moon:

February 6th: First Quarter

February 14th: Full Moon

February 22nd: Last Quarter

Special Events:

There is only one meteor shower to speak of this month, and those are the Delta Leonids. They "peak" the evening of the 25th, with a whopping 5/hr. The moon won't be an issue, and the ones you do see will be slower than most other showers as these are traveling at about 15 miles/sec. The debris trail is fairly wide, so you may notice *sub-peak bursts* of activity a week before the 25th, but will drop off soon after. Look in the direction of Leo after midnight for your best chance of an enjoyable show.



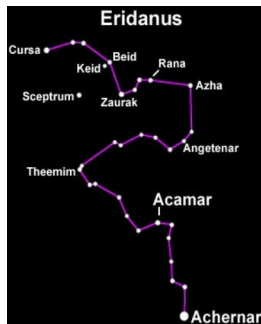
February General Meeting

101 Class... with Kevin Bert

"The Planet Jupiter"

The solar system's largest planet is now a favorable evening object. Hear what can be seen in a telescope and learn some interesting facts about the king of the planets.

The constellation of the month will be Eridanus



Main Program

To be Announced!

RELATED INFO

Leaders for Public Viewing

February 1

Candlelight Ski & Hike

Charlotte and Gene DuPree

February 8

Candlelight Ski & Hike

Charlotte and Gene DuPree

January Events

January 4, 2014

Reported by Charlotte DuPree

Harrington Beach - Candlelight Ski & Hike

Cloudy, no visitors. We left at 8:30.

January 18, 2014

Reported by Charlotte DuPree

Horicon Marsh - Candlelight Ski & Hike

The forecast was not on our side, for a clear sky this year. Even though the wind was calm and the temp. was not bad, we made the choice to set-up our display of magazines and scopes inside. John Dobson had passed away on Wednesday, so Gene made a tribute poster to him. At one time there must have been a dozen visitors, listening to my fascinating explanation of how a telescopes works. By 6:30 the official counter number was 369. By 8:30 the count was 711, and that does not include the visitors that go around the back side. The Dodge county sheriff was directing traffic, and their car count was around 350 X 2.5 person per vehicle. We were getting reports that Jupiter could be seen, so Gene kept looking outside. About 7:45 he took the 8 inch out, and instantly had a line forming to take a look.

John Dobson - Continued from Pg 2

reservations, and out of the country to places where "dark skies and the public collide."

In 1978, Swami Swahananda, formerly of the San Francisco and Berkeley Vedanta centers and recently transferred to Hollywood, invited John to give a series of lectures at the Vedanta Society of Southern California. The lectures were a great success so he began teaching telescope making and for 26 years, he continued to teach in Hollywood, spending at least two months there each year. The Brothers at the Vedanta Society in Hollywood have always supported John and his vision.

While John was no longer a monk, his beliefs and his former task of reconciling Vedanta and science had a great influence on him and his interpretation of the cosmos. He has written two booklets, Advaita Vedanta and Modern Science and Astronomy for Children Under 80 which explain his thoughts and prove him to be as much a philosopher as he is a popularizer of astronomy.

John Dobson's life has been a tremendous inspiration to a great many people. The Sidewalk Astronomers continue to serve the public with large telescopes, providing free "star parties" and slide shows under dark skies and city lights, encouraging the citizens of this planet to think and wonder about the Universe, giving them a chance to see its beauty with their own eyes.



The NCRAL 2014 Committee is happy to announce two more speakers! **Bart Adrian**, former meteorologist from Fox 6 now teaching at UWM and President of the Milwaukee Meteorological Society will be speaking. Bart's Topic is: "Astronomy and Meteorology: Two Sciences...Pioneered by One Galileo"

John Rummel, President of the Madison Astronomical Society, astrophotography enthusiast. John's Topic is:

Wide-Field Astrophotography: Combining the Celestial with the Terrestrial

In this talk, John will discuss, and show examples of combining compelling astronomical images with familiar landscapes to create images that resonate with the viewer. Topics will cover everything from planning a shot months ahead of time to post-processing techniques to achieve the definitive print.

Observing Summary for 2013

By Dan Bert - Observatory Director

The volunteer participation forms completed at each public viewing event have now been totaled. Looking back at this past year, a total of 23 public viewing events were held at the Jim & Gwen Plunkett Observatory. All together 17 different members logged a combined total of 325 volunteer hours towards public outreach at the park.

"A big thank you to everyone who gave of their time to help provide a "window to the universe for others."

Wisconsin Observers Weekend

To be announced

Hartman Creek State Park

www.new-star.org

Northwoods Starfest

August 22-24th

Hobbs Observatory

Fall Creek, WI

www.cvastro.org

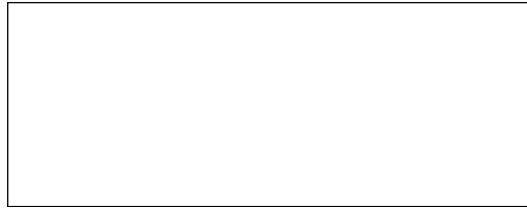
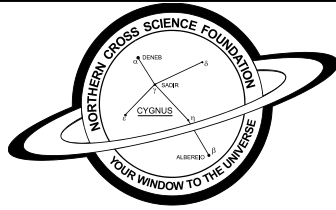
Jim & Gwen Plunkett

OBSERVATORY



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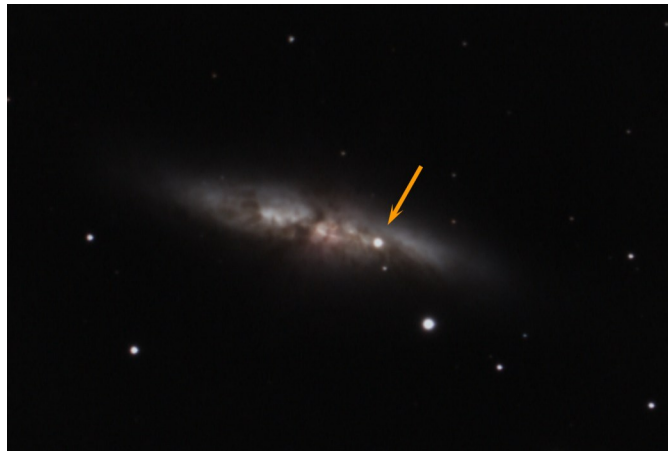
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Supernova 2014J in M82 *By Rick Kazmierski*

Supernova 2014J was spotted by four undergraduate students observing galaxy M82 while astronomer Steve Fossey taught them how to use a telescope at the University College London Observatory on Jan. 21. As of January 31 st, the object appears to have peaked at 10.5 magnitude and is an easy object in amateur telescopes. Best observed at higher power.



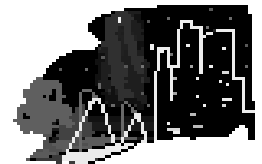
I took the above image from my backyard observatory on January 27th. The temperature was -9 degrees, a new personal record. Exposure was a total of 30 minutes with a Canon DSLR camera through my 14" Meade LX200.

SPECTRUM

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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