

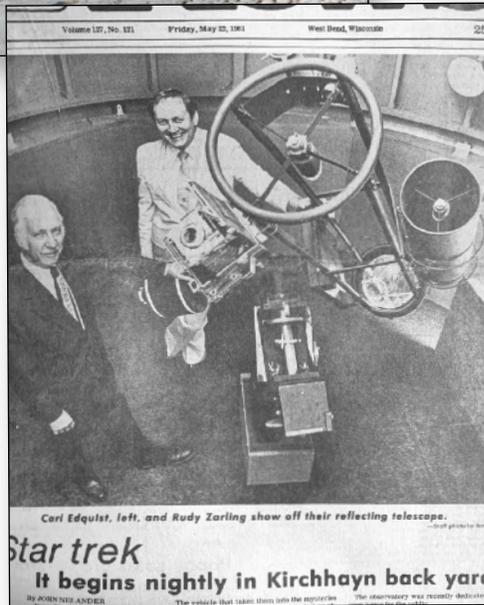
SPECTRUM

Northern Cross Science Foundation Newsletter

February 2024



Great Beginnings: The first NCSF observatory was built by club founder Rudy Zarling and the Cedarburg Jaycees on his private land in 1974. A wind storm destroyed the sheet metal structure but Zarling built again in 1981 as seen in this aerial view above. The observatory was closed in the mid-90s when light pollution from local development affected the site.



50 Years of NCSF Astronomy



Left: A worker from Backyard Observatories prepares the massive concrete form for the Panarusky telescope's base at Harrington Beach in 2006.



Above: The completed Jim and Gwen Plunkett Observatory in 2008, named after the benefactors who provided major funding. **Left:** NCSF members Carl Edquist and Zarling were featured with the 12" reflector in the West Bend News in 1981. More photos on page 3.

In Person with the Apollo Astronauts

February Program

Our main program will be by Chris Henry from the Experimental Aircraft Association. Along with club member Tim Burris, he'll speak on his experiences with past astronauts. Chris had the opportunity to spend time with nine of the Apollo astronauts in person and interviewed dozens of others who helped tell the story of the Apollo moon landing program in the 1960s. He crafts a story using their words and photos.



January General Meeting Minutes

The meeting began with the introduction of guest speaker, Dale Dellutri, by president Jeff Setzer. Dale's presentation was titled *Artificial Intelligence in Astronomy*.

His presentation gave a thorough, in-depth treatment of the use of neural networks, a tool used in artificial intelligence learning. This tool is used in various disciplines in astrophysics and the study of astronomy. Some of the applications that have benefited from neural network programming included active, real-time control of telescope optics, image processing,

See page 2

Coming Up

General Meetings
Thursday, Feb. 1, 6 pm
[Jackson Community Center](#)
N165 W20330 Hickory Lane Jackson, WI

Thursday, Mar. 7, 6 pm
Annual banquet
[Libby Montana Restaurant](#)
5616 W. Donges Bay Rd.
Help NCSF celebrate our 50th anniversary! Private room, order from the menu. Come and hear more about our club's 50th anniversary celebration this year. Contact: Charlotte DuPree grdupree@charter.net

Pay Your Dues and Explore the Universe for Just \$36

The [Northern Cross Science Foundation](#) brings the wonders of astronomy and spaceflight to our members and the public. Your dues help to maintain our Harrington Beach observatory and entitle you to loaner telescopes and access to our informative monthly meetings and newsletter. The cost is just \$36 a year, \$24 for students. [Pay now via Paypal or a credit card](#) and stay part of our active astronomy organization.

Adult/Family Membership

Regular adult membership. Includes all family members

\$36.00

Pay with **PayPal**



2023 Volunteer Hours for the Plunkett Observatory

Looking back at this past year, a total of eight public viewing nights and four small group events were held at the observatory. All together, 17 different members logged a combined total of 180 volunteer hours towards public outreach at the park welcoming over 500 recorded visitors. A big thank you to all who helped with an event in the past year. Looking forward to the 2024 viewing season, clear skies!

- Dan Bert,
Observatory Director

A young observer peers at the crescent moon through the club's 5-inch refractor at the Plunkett Observatory on July 21, 2023.

- Ernie Mastroianni photo



January Meeting Minutes

From page 1 correlation of data in very large arrays of optical and radio telescopes, and in the better understanding of physics by, for instance, the reverse derivation of Newton's gravitational constant.

The presentation was followed by announcements by president Jeff Setzer:

- This year, 2024, is the 50th anniversary of the NCSF, and numerous related activities and events will highlight the history of the organization.
- Previous members of NCSF will be invited to the March Banquet event. Since turnout may be larger than normal, members will be asked to sign up for the banquet so that we can make sure the facility and planning can accommodate us. Watch for further updates on this.
- New officers were elected at the December Board meeting. They are:

- **President: Jeff Setzer**
- **Vice President: Joyce Jentges**
- **Secretary: Don Woelz**
- **Treasurer: Gene Dupree**

• The new year means it is time for membership renewal. All members can renew their membership online from the NCSF web site (www.ncsf.info) using a credit card, or by mail with a check.

• The solar eclipse in April will involve travel by many members to places on the path of totality. Members who travel for this event are invited to share their experiences and pictures of the trip and the solar eclipse with Ernie Mastroianni, editor of the Spectrum Newsletter to share in the newsletter.

- Don Woelz, Secretary, NCSF

NCSF Observatory Milestones Since 1974



The original dome of the observatory at Rudy Zarling's rural home in Kirchhayn, Washington County in 1974. It was built by Germantown High School students from silo parts. It was vulnerable to high winds and was ultimately destroyed.



Left: The new dome was built at Carlson Tool and then moved to Zarling's property in 1980, in a project headed by then-president Carl Edquist and Rudy Zarling.

Below: Visitors gather for opening ceremonies at the New Jim and Gwen Plunkett Observatory at Harrington Beach State Park on July 21, 2007.



Above: Plunkett Observatory director Dan Bert takes one of the first looks through the 20" Panarusky reflector in April, 2007. The massive instrument was designed and built by volunteers at the Carlson Tool & Manufacturing. In 1983, member Alvin Panarusky donated \$2100 toward its construction.

Right: Kevin Bert examines the 5" Explore Scientific refractor, purchased with a donation by member Nolan Zadra in 2014. A committee was established in 2013 to advance astrophotography at NCSF. The telescope is kept at the Plunkett Observatory, and is used for public viewing nights and astrophotography.



Above: With the temperature hovering at zero degrees F., the observatory was opened for public viewing of the February 20, 2008 total lunar eclipse. Despite the chill, dozens of visitors came to Harrington Beach to view the spectacle. It marked the first test of the observatory in adverse weather. - Ernie Mastroianni photos (3)



Look for more photos of NCSF activities from the last 50 years in upcoming issues.

Board of Directors, 2024

President - Jeff Setzer
1418 Trillium CT
West Bend, WI 53095
262-338-8614
astrosetz@hotmail.com

**Vice President -
Joyce Jentges**
336 N Main Street, Apt.3
Cedar Grove, WI 53013
262 483- 4270
joycejentges@hotmail.com

Treasurer - Gene DuPree
6219 Jay St.
West Bend, WI 53095
262-675-0941
grdupree@charter.net

Secretary- Don Woelz
4892 Lois Lane
West Bend WI 53095
(414) 732-7705
woelzd@charter.net

Kevin Bert
2292 Ridgewood Road
Grafton, WI 53024
(262) 674-0610
kevin.bert@hotmail.com

Mark Zellner
N58 W5624 Edgewater Drive
Cedarburg, WI 53013
(262) 204-8283
mk.zellner@yahoo.com

James Neal
341Deer Meadow Dr.
Fredonia, WI 53021
(812) 580-3731
penn.dm@gmail.com



NCSF is a member of the [North-Central Region of the Astronomical League](#).



NCSF supports the [International Dark Sky Association](#)

Imaging Report

An Easy Target - Astrophotography can be difficult, but with the Moon, excellent results need not require large aperture, expensive software or heavy-duty mounts. This image was taken through a small Maksutov reflector with just 3.5 inches of aperture. A high resolution ZWO camera, similar to the one used for this shot, is just \$149. The [Registax](#) software to process this image was free. This view shows a gibbous moon and the arc of the Apennine Mountains. An arrow shows the Apollo 15 landing site. - Ernie Mastroianni

**Spectrum newsletter**

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Slack: ncsfastro.slack.com

Editor: Ernie Mastroianni
5821 N. Santa Monica
Whitefish Bay, Wis 53217
ernie.mastroianni@gmail.com