

Cosmic Cliffs: This landscape of mountains and valleys speckled with glittering stars is actually the edge of a star-forming region called NGC 3324 in the Carina Nebula. This image released on July 12, was among the first taken with the James Webb Space Telescope. Though it resembles a craggy mountain scene, in reality it's the edge of the giant, gaseous cavity and the tallest peaks in this image are about 7 light-years high. - NASA caption. See more Webb images and a story on page 3.

Apollo: How We Got to the Moon

We will relive the excitement and adventure of the program that brought humans to another world. Learn about how the Apollo program was a masterpiece of engineering and courage in the days when technology was in its infancy. Apollo

August continued in the footsteps of history's great explorers and left an incredible legacy.

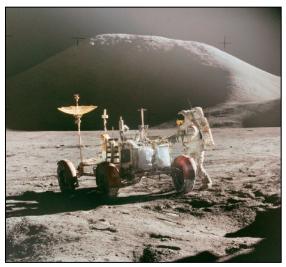
What does the Moon teach us about the Earth?

We will discuss how the rocks returned to Earth revealed how the Moon was formed, who the brave astronauts were, and what we will accomplish within the next few years.

After this presentation you will not look at the Moon in the same way.

- John Fontana,

NASA Solar System Ambassador



Apollo 15 astronaut Jim Irwin stands at the Lunar Rover, with Mt. Hadley as a backdrop, in this image taken by Dave Scott at the end of EVA-1.

July 7, 2022 General Meeting

President Jeff Setzer opened the July general meeting with 17 members in attendance and was held via Zoom, online. Mark Baker from Temecula, California joined the meeting with a presentation of the Lucy mission to the ancient Jupiter trojan asteroids. Baker is an amateur astronomer.

physicist, assists at the Palomar observatory, and is a solar system ambassador for NASA and JPL.

The presentation was well received and the business meeting followed. Gene DuPree reported \$6,328 in the club's general account. Setzer

See page 3

Looking Ahead

Thursday, August 4 General Meeting via Zoom, 7:30 pm

August 5, Friday 8 to 11 pm Public Viewing, Harrington Beach State Park Plunkett Observatory Volunteers Needed

August 6, Saturday 8 to 11 pm Public Viewing, Harrington Beach State Park Plunkett Observatory Volunteers Needed

August 6, Saturday 8 to 11 pm Public Viewing Pike Lake Unit, Kettle Moraine State Forest Al Steinberg and Steve Sweeney Volunteers Needed More events on page 2 **SPECTRUM** August 2022, page 2

Upcoming Public Viewing Events, Club Activities and Star Parties

August 26 to 28

Northwoods Starfest

Hobbs Observatory, 312 S. 130th St. Fall Creek, Wis.

Sponsored by the Chippewa Valley **Astronomical Society**

August 29, Monday 8 to 9:30 pm

Astronomy With Binoculars

Hosted by NCSF member Jim Hahn Schlitz Audubon Nature Center 1111 E. Brown Deer Road \$15 for members, \$20 for nonmembers

September 2, Friday 8 to 11 pm

Public Viewing, Harrington Beach State Park Plunkett Observatory Volunteers Needed

September 3, Saturday 7:30 to 11 pm

Public Viewing Henry Reuss Ice Age Center N2875 Hwy 67 Campbellsport, WI

September 9, Friday 7:30 to 10:30 pm

Horicon Marsh Viewing Horicon Marsh Visitor Center N7725 WI-28 Horicon, Wis. 53032 920-387-7893



Help needed for public viewing

Hello NCSF members, we are in need of volunteers to help at the Jim & Gwen Plunkett Observatory August 5 and 6 from 8:30 to 11pm. Looking for a leader and assistant for both evenings.

If you are available to lead or assist with this event please consider helping out this weekend and share your passion of the night sky with the campers and park visitors.

We are also in need of weeding and shrub trimming at the observatory grounds, if you would be able to help out with this area please let me know.

If you would like to help run the observatory at these or any future events please let me know.

Thanks and clear skies! -Dan Bert, Observatory Director

September 17, Saturday 8 pm to 1 pm

Public Viewing Pike Lake Unit, Kettle Moraine State Forest

September 17, Saturday 7 to 11 pm

Binocular Night NCSF Club Event Harrington Beach State Park Bring binoculars only, view the heavens with both eyes.

September 22-25

21st Annual Illinois Dark Sky Star Party Jim Edgar Panther Creek State Fish and Wildlife Area 10149 County Hwy 11 Chandlerville IL 62627 217-452-7741

September 30, Friday 7 to 11 pm

Public Viewing, Harrington Beach State Park Plunkett Observatory Volunteers Needed

Saturday, Oct 1 7 to 11 pm

Public Viewing, Harrington Beach State Park Plunkett Observatory Volunteers Needed

The Benefits of Observatory Training

July 16th was the scheduled Plunkett Observatory training night. I opened it up at 8:00 pm. under overcast skies with seven members waiting for training. Don Woelz, Matt Luedke and Mark Weber were getting their initial training while Gene and Charlotte to schedule their own private nights through Observatory Dupree. Steve Schowalter and Mike Borchert attended for support and refresher training.

A few stars occasionally peeked through the clouds but unfortunately no objects were viewed that night. Even so training went ahead successfully covering both observatory and 20-inch operation.

Training consists of working through steps on a check list so memorization of the specific steps are not needed. Only an understanding of what each step is telling you to do. The two thousand pound telescope is large and can be intimidating. It only takes a few tries at it to gain confidence on how to move it around.

Having used another scope and some knowledge of the skies makes it a lot easier to operate but it is not required. There is

nothing that a person can wreck if they simply follow the check

Operators have the key to the observatory and the opportunity Director Dan Bert. The only thing that the club asks in return is that they assist a leader in running the observatory on one of the public viewing nights for that year. It gives operators a chance to practice opening the facility to keep fresh with their operating skills. At least one assistant is needed for each event to help run the Observatory but more are welcome.

You will find there is a great deal of satisfaction in helping with showing individuals the wonders of our universe. Some individuals will go on to be leaders for these public nights.

I plan to schedule another training night later this year. If you don't vet have training. I hope you as a club member consider attending.

-Kevin Bert

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Impressions of the Webb Space Telescope First Light

By Mike Borchet

The Retzer Nature Center in Waukesha hosted an event on July 12 to show the first light first images from the James Webb Space Telescope.

My wife Gayle and I took the morning to visit the planetarium onsite. We'd never been to the planetarium, which was built to be a county resource to educate the school students and the general public.

We arrived in time to see the introductions and credits of the Webb telescopes's 20-year history.

I was truly amazed at how many people from all over the world were tuned in, including many who were part of the project.

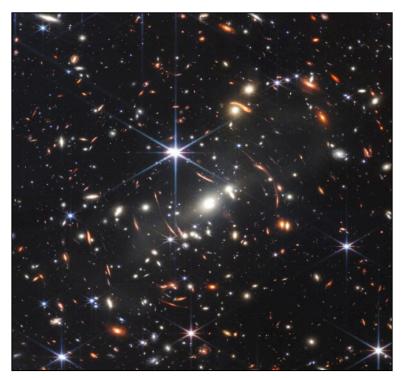
The five first images included Stephan's quintet (a deep field image of five galaxies), the Southern Ring Nebula, the Carina Nebula, and WASP 96b. The images were stunning. The explanations of these images gave proof to what an extraordinary resource the telescope will be.

NCSF vice president Joyce Jentges then gave a wonderful description of four other NASA-involved missions. They include the <u>Parker Solar Probe</u>, <u>Mars Perseverance</u>, moon project <u>Artemis</u>, and of course the Webb telescope. Joyce's presentation included wonderful pictures along with just the right depth of description.

Joyce and I were interviewed for several television news channels. All in all, a great way to spend a memorable Tuesday morning. See more about the Webb telescope at this link: https://www.nasa.gov/webbfirstimages.

The Webb telescope reveals Stephan's Quintet in this enormous mosaic. It's Webb's largest image to date, covering about one-fifth of the Moon's diameter from almost 1,000 separate image files. You can see a full-resolution version that is also zoomable at this link.







Top: Webb's first deep field shows galaxy cluster SMACS 0723, teeming with thousands of galaxies. **Above:** Webb captured this deeply detailed image of NGC 3132, aka the Southern Ring Nebula.

July General Meeting Minutes

From page 1 reported about \$8,600 in the club's general PayPal account.

A chance to observe at the Pike River Starfest, in Amberg, Wis., was mentioned. It was slated for on July 27 to 31. Talk to Gene and Charlotte for details.

The Chippewa Valley Astronomical Society will host the Northwood Starfest on August 26 to 28. This is an excellent first-time star party event. It features cabins, beds, air conditioning, dining facilities, showers and observatory building. There is a swap and sell also. Event info can be found on the internet.

Public viewing at Harrington Beach State Park was held Friday and Saturday, July 8th and 9th. Jeff Setzer and Don Woelz hosted Friday. Mike Borchert, Ernie Mastroianni, and Jim Macak hosted on Saturday.

Activity on our sun is ramping up as it heads into the solar maximum peak of its 11-year cycle. Keep an eye out for the Northern Lights.

Joyce Jentges spoke at the Horwitz-DeRemer Planetarium in the Retzer Nature Center in Waukesha, July 12. Her talk was part of the festivities surrounding the first published images from the James Webb Space Telescope. NASA also hosted a virtual social event on the NASA channel that same day.

Jim Hahn invited club members for an event involving liquid nitrogen.

There was discussion on a field trip to the Adler Planetarium by Jentges. Details will be discussed in forth coming meetings. The meeting was adjourned at 8:50.

Mike Borchert - secretary

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Board of Directors, 2022

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 and ALCOR
- Mike Borchert
3656 Willow Creek Rd.
Colgate, WI 53017
262-628-4098
gmborchert@gmail.com

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

Rick Kazmierski 5327 Cascade Dr. West Bend, WI 53095 262-305-1895 rickkaz@charter.net

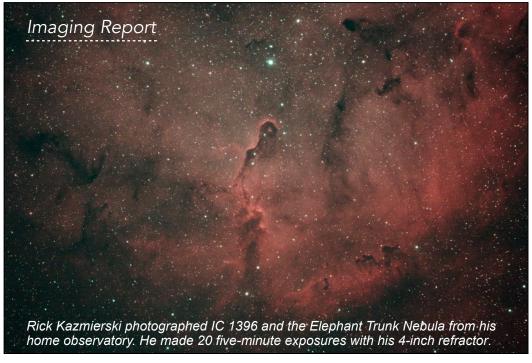
Don Woelz 4892 Lois Lane West Bend WI 53095 (414) 732-7705 woelzd@charter.net



NCSF is a member of the North-Central Region of the Astronomical League.



NCSF supports the International Dark Sky Association





Above: Ernie Mastroianni captured Jupiter, the Great Red Spot, lo's shadow and Ganymede from his back yard. Right: Don Woelz imaged the entire expanse of the Veil Nebula in this 4.5 hour exposure from his home. All images were taken this July.





Spectrum newsletter

Published monthly by the Northern Cross Science Foundation, Inc. (NCSF), a nonprofit amateur astronomy organization based in southeastern Wisconsin. https://ncsf.info

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