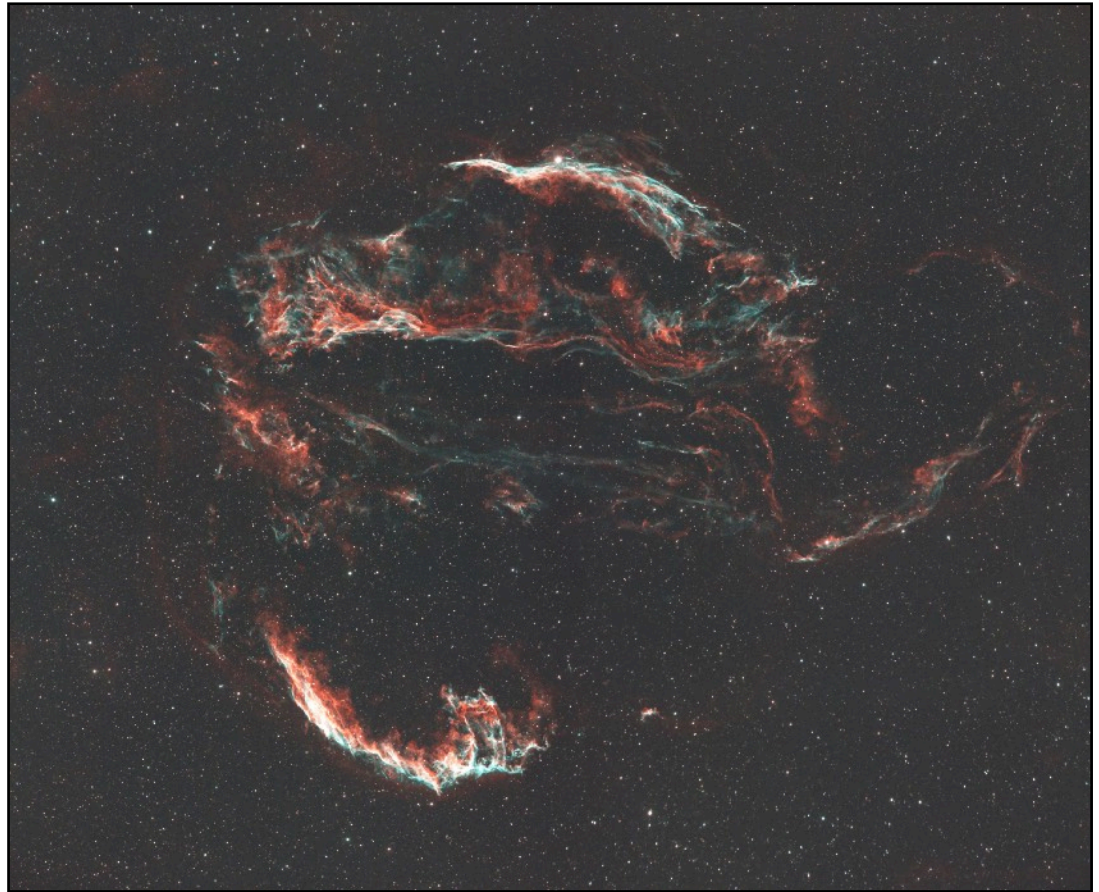


SPECTRUM

Northern Cross Science Foundation Newsletter

September 2023

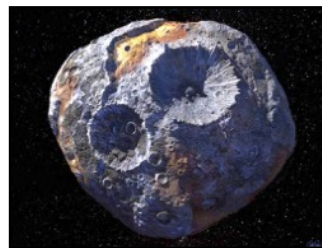
Veil Mosaic - Clear skies near West Bend on a recent night allowed me to pursue my first mosaic as a proof of concept for future such projects. I did two shots of the Veil Nebula then stitched them together to get this image. I took two hours of exposure for the north panel, more than four hours for the south panel. They were taken with a ZWO ASI071 color camera on a William Optics Zenithstar 3-inch refractor through an Optolong L-xTreme filter. I used NINA public domain software for session control and PixInsight for post-processing. The entire image of what is also known as the Cygnus Loop spans about six times the diameter of the full Moon. - Don Woelz



Asteroid Missions by NASA

Fall of 2023 will be an exciting time for those who are interested in asteroids. Join me for the September meeting for a presentation on Autumn Asteroids. I will share information about two of NASA's missions, Psyche and OSIRIS-Rex. Psyche will launch in October to an asteroid of the same name. The OSIRIS-Rex mission will be returning a sample from asteroid Bennu on September 24, 2023. We will discuss highlights of these mission during a short presentation. - Joyce Jentges

September Program



Psyche Illustration by NASA/JPL-Caltech

August General Meeting Minutes

The general meeting for May started at 6 pm, at the Jackson Community Center with the soft start social time.

At 6:30, with about 15 members present, Jeff Setzer was on vacation, Joyce Jentges called the active part of the meeting to order. Three newer members introduced themselves.

Gene D reported that there was \$12,409.64 in the general account. The club's insurance of

\$1117 had been paid. If anyone wants to see what that insurance covered, please check with Gene. The club's electric bill of \$16.82, had also been paid for the month.

There were several updates since the Public Viewing was reported in the newsletter. (See August issue of "Spectrum") (I hope I have these all right).

See page 2

Coming Up

General Meeting

Thursday, Sept 7, 6pm
[Jackson Community Center](#)
N165 W20330 Hickory Lane Jackson, WI

Public Observing:

Ice Age Center
Sat. Aug. 26 7-11
N2875 Hwy 67
Campbellsport WI

Harrington Beach
Fri. and Sat. Sept. 9 & 10

Pike Lake, Sept. 16, 7-11

More events on page 2

Volunteers needed for Public Viewing Nights

The official google observatory events calendar of all events public are at the following link. You need to sign in to Google under your own name.

<https://calendar.google.com/calendar/embed?src=dbert64%40gmail.com&ctz=America%2FChicago>

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 262-357-1973



- August 26, Ice Age Center, 7-11 pm
- September 8 & 9, Harrington Beach, 8-11 pm
- September 9, Family night Pike Lake Beach, 6-9 pm, no stargazing, perhaps some limited solar viewing
- September 16, Pike Lake, 8-11 pm
- October 20 & 21, Harrington Beach, 8-11 pm
- October 21, Pike Lake, 8-11 pm

August Meeting Minutes

From page 1

The dates of 8/4 - 8/5 are correct, for the Port Washington Campout event at Upper Park. Joyce did ask for any volunteers to get in touch with her, as anyone that could help out would be appreciated. You do not need to camp at this event. Joyce mentioned that the weather looked good. Bring a scope, or just show up and discuss, laser point. The Spectrum did not report the annual Small Scope or Binocular star party that is usually held at the observatory, towards the end of the year. That is because it has not been planned by the board yet. Joyce did say the board would take that up soon, stay tuned for further details. There will be NO stargazing (usually until 11pm) at Pike Lake, at the September 9, Family Night. Gene and Charlotte will be there for some possible solar viewing, etc., from 6-9pm.

There IS an addition to the October 21st viewing. There WILL also be viewing at Pike Lake.

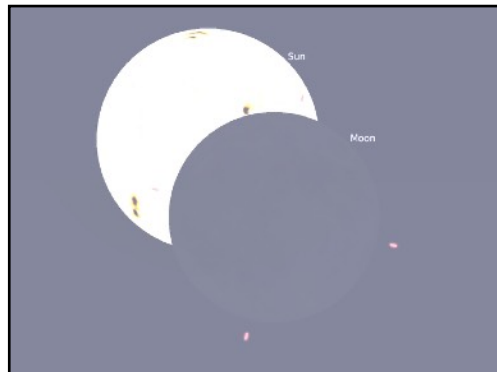
The subject of the Perseid Meteor shower also came up. While no solid times and dates or locations were confirmed, the meteor shower will peak around Sunday, August 13. There may be sightings the days prior and after. There is going to be a better chance this year, the moon brightness will not interfere. Please stay tuned to slack as we get closer.

The "easiest" star party ever, [Northwoods Starfest](#), will take place, August 18-20, near Fall Creek Wisconsin. For the one-time fee, food, indoor lodging, discussions, and a place to set up scopes in dark skies are offered. Please google for exact information and reservation

Joyce also mentioned that Jeff has reserved the best spot for viewing at Hartman Creek State Park for the time frame around October 13-14th. Please get in touch with Jeff and let him know you're interested. A small fee will apply. The partial eclipse will happen around noon that weekend, October 14.

Gene and Charlotte will be at Pike Lake for the partial eclipse around noon. If you need more details or confirmation, get in touch with Gene or Charlotte, either email, (check newsletter for email) or Slack.

Jim Hahn has a couple of outings he will be involved with. He will be presenting at the [Audubon Society October 14](#), featuring the 2024 Eclipse. Jim also has another feature earlier at the Audubon, on binoculars, contact Jim for those events. - Mike Borchert



From Milwaukee the Moon will partially eclipse the Sun starting at 10:37 on Saturday, Oct. 14. Maximum coverage of 41 percent is at 11:57. The eclipse ends at 1:20. The times from Hartman Creek are within a few minutes of Milwaukee. Coverage is the same. Stellarium illustration

Great Port Washington Campout

The Great Port Washington Campout was held August 4th. Members Jim Hahn and Rick Dusenbery helped out with this event. We had an estimated 20 campers come over to look through our scopes.

It was really tough finding objects due to the streetlights, smoke and clouds. Next year they are considering moving us further south to be closer to the campers. Thank you to Jim and Rick for their assistance! - Joyce Jentges

Take the Telescope Quiz

Member Jerry Kohlmann sent me this link that he spotted in his American Society of Mechanical Engineers newsletter. It's a test about telescope knowledge. I found it challenging, see what your think.

- Ernie Mastroianni

<https://www.asme.org/topics-resources/content/quiz-a-fast-look-at-telescopes>



NCSF at Northwoods Starfest



Gearing up - Kevin Bert inspects a telescope at the 2023 Northwoods Starfest at the Beaver Creek Reserve near Eau Claire, held August 18-20 and sponsored by the [Chippewa Valley Astronomical Society](#). The sky was smoky but clear for the popular annual event. NCSF members Kevin and Kathy Bert, Gene and Charlotte Dupree, and Jeff Setzer attended.
- Photo courtesy of Gene and Charlotte DuPree.

Eyes on the Ice Giants

NASA's New Horizons Team Calls for the Amateur Astronomers Augment Observations of Uranus and Neptune

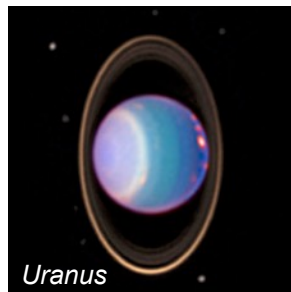
Editors note: NASA's call for amateur observations of the outer planets gives the NCSF a chance to make a scientific contribution to astronomy. Our 20" Panarusk telescope has the reach, so our planetary imagers need to record Uranus during the early hours of Sept. 17, and Neptune during the later hours of Sept. 17 to early Sept. 18. This matches the time when the New Horizons spacecraft and Hubble will be watching. Contact Ernie Mastroianni for more info.

By NASA

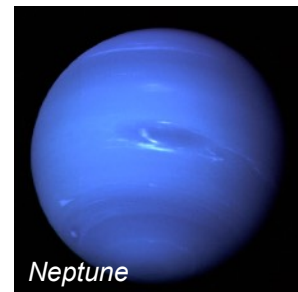
NASA's New Horizons spacecraft team plans to observe Uranus and Neptune from its location far out in the outer solar system this fall, and is inviting the global amateur astronomy community to come along for the ride – and make a real contribution to space science – by observing both ice giants at the same time.

In September – in tandem with the Hubble Space Telescope – New Horizons will turn its color camera toward Uranus and Neptune. From New Horizons' position in the Kuiper Belt, more than 5 billion miles from Earth, these unique images acquired from “behind” the two giant planets will provide new insights.

“By combining the information New Horizons collects in space with data from telescopes on Earth, we can supplement and even strengthen our models to uncover the mysteries swirling in the atmospheres of Uranus and Neptune,” said Alan Stern, New Horizons principal investigator. “Even from amateur astronomer telescopes as small as 16 inches, these complementary observations can be extremely important.”



Uranus



Neptune

With New Horizons and Hubble focused on the details of the planets' atmospheres and the transfer of heat from their rocky cores, observers on Earth can measure the distribution of bright features on Uranus or characterize any unusually bright features on Neptune. They can also track those features much longer than either spacecraft.

Observers can post their images – as well as the details of when they were made and in what filter passbands -- on X (formerly Twitter) or Facebook using the hashtag #NHIceGiants. The New Horizons team will see and collect the images and supporting information placed on these platforms using this identifying hashtag.

Full details on the campaign are available on the New Horizons website at <https://pluto.jhuapl.edu/Learn/Get-Involved.php#Uranus-Neptune-Observations>.

The Hubble images of Uranus and Neptune will be made publicly available in late September on the Mikulski Archive for Space Telescopes, or MAST, at archive.stsci.edu. The New Horizons team expects to receive the images of Uranus and Neptune from the spacecraft by the end of 2023 and will make them available as well.

Board of Directors, 2023

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

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



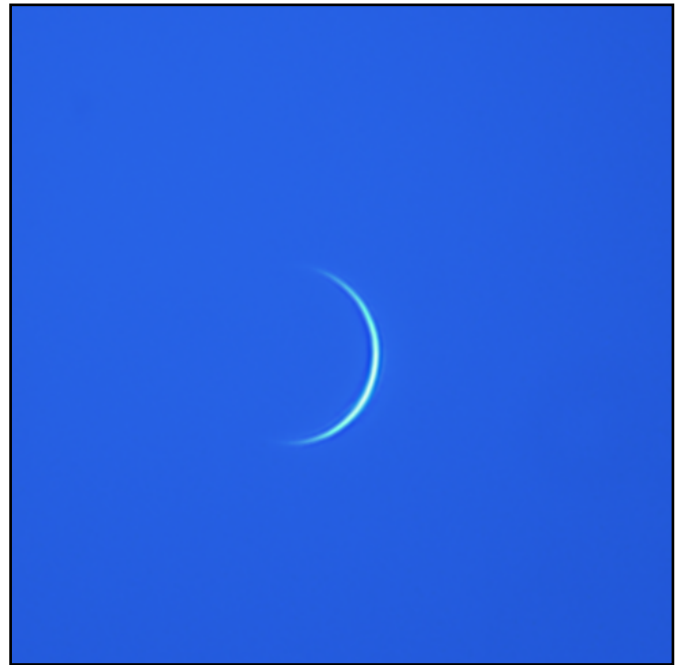
NCSF is a member of the [North-Central Region of the Astronomical League](#).



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

Imaging Report**Venus at Inferior Conjunction**

On August 10, Venus was just a slender crescent only 1.1 percent illuminated as it appeared in my telescope in broad daylight. But the planet, just 8.4 degrees away from the solar disk, was overwhelmed by the Sun's glare. To find it, I used my vintage Questar telescope, mounted on a leveled tripod with an adjustable latitude wedge and equipped with accurate setting circles. The process takes many steps, but in a nutshell, I leveled the tripod, pointed it north using accurate markers in my yard, then turned the scope to the sun (with solar filter installed). With some small azimuth and altitude adjustments of the tripod, I centered the sun, then dialed in Venus's position. Once the solar filter was removed, Venus was visible in a 54x field, though not centered. After centering, I took about 500 frames with a planetary camera, but eliminated most due to bad seeing. The final image was with just 20 percent of the frames. - Ernie Mastroianni

**Spectrum newsletter**

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

NCSF On Facebook

Members:
<https://www.facebook.com/groups/284397465372797/>

Public:

<https://www.facebook.com/NCSFAstronomy/>

Slack: ncsfastro.slack.com

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

