

SPECTRUM

Northern Cross Science Foundation Newsletter

September 2020

Mars rides high for favorable opposition, start watching now

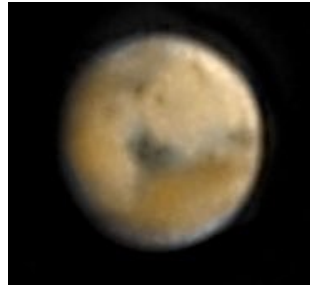
Bright red Mars is riding high this year in Pices, with closest approach on Oct. 6 when it spans 22.6 arc-seconds. Opposition is Oct. 13. But don't wait until October to view the planet, start watching now, but you'll need to rise early in the opening days of September to see it. There is no need to travel to a dark sky site. Mars shines brighter than -2.0 magnitude and is easily visible from urban locations.

At first glance, Mars may not yield much detail, but spend some time at the eyepiece and wait patiently for those steady moments of seeing. You'll see the southern polar cap (small this year), the subtle shading of land masses, and perhaps some lighter clouds in the tenuous atmosphere. Other tips to get the most out of seeing the planet:

- Try high power, then back off a notch. Your sharpest views won't be at the highest magnification.
- Vary your viewing hours. Earth and Mars have similar rotation periods (23h 56m vs 24h 37m), so viewing Mars at widely-spaced times is necessary to reveal new features.
- Be patient and wait for steady seeing. Over time, you'll recognize the distinct global features. A good map by veteran planetary photographer Damien Peach is [here](#).
- Look for changing weather. Clouds are bright, some as bright as the polar cap. Sandstorms can obscure the entire planet at times.
- Use filters. An orange, red or magenta eyepiece filter (aka #21, #23, #30) will greatly enhance surface contrast.
- Small scopes are fine, but a sturdy mount is a must.

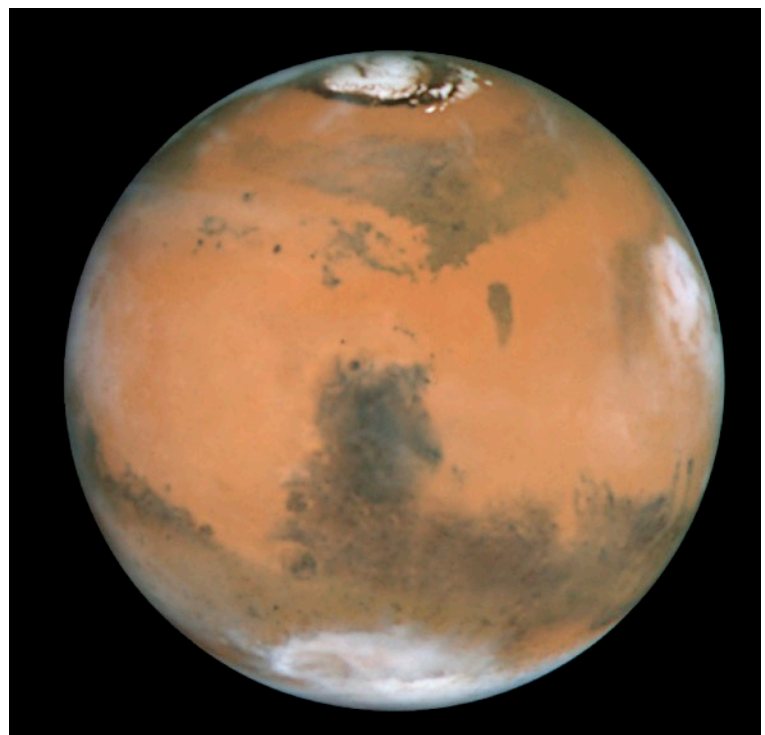
Mars is bright, so even a small scope will reveal much detail as long as the scope is not shaking. Enjoy the view. Mars won't get this close again until 2035.

- Ernie Mastroianni



Left: Mars as seen from Harrington Beach State Park on June 24, 2016, in a view typical through a good telescope. Ernie Mastroianni photo.

Below: The Hubble Telescope significantly improves the view in this 1999 photo. The Syrtis Major feature is center, the northern polar cap is at top. NASA photo



August General Meeting notes

The Northern Cross Science Foundation met via the virtual Zoom app on Thursday, August 6. President Jeff Setzer opened the meeting to a discussion on the recent appearance of Comet NEOWISE. Setzer, using the Sky Safari program, showed the course the comet will take among the background stars as it heads to the outer reaches of the solar system.

Member Jim Macak recounted his view of the comet's head through a telescope, vice president Joyce Jentges recalled viewing it through Gene DuPree's 8-inch telescope, and members Setzer and Mike Borchert showed their wide-field time-lapse videos of the comet taken from Harrington Beach State Park and from a dark-sky site near

Colgate in late July. "The comet was a high, high interest event," Setzer said, adding that the views of his video attracted thousands of views on Facebook, Linked In, and Twitter. Members also reviewed and reacted to the comet images and stories by NCSF members in the August SPECTRUM newsletter, including the highly detailed cover image by Nolan Zadra.

Setzer also presented, via Sky Safari, several deep sky objects that are ideally positioned for viewing in the August sky.

In the absence of treasurer Gene DuPree, who was on vacation, Setzer reported a total of \$11,878.89 in the NCSF

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September 3, Thursday General Meeting

Online via Zoom
7:30 pm

General Meeting Post-pandemic

7:00 p.m. Astronomy 101
7:30 p.m. Main Program
Location:
GSC Technology Center
W189 N11161 Kleinmann Dr.
Germantown, WI

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Please email editor Ernie Mastroianni with dates and times of any upcoming NCSF events:
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NCSF members featured in the media this summer

By Ernie Mastroianni

Last month, NCSF members, Jeff Setzer, Joyce Jentges, and Charlotte DuPree appeared in newspaper and magazine articles which featured their involvement in astronomy.

NCSF president Jeff Setzer was the subject of a feature story in the Ozaukee Press issue of Thursday, August 20. A photo of him with his vintage 5" Celestron appears on the cover and links to a much larger photo and story inside. The lengthy article starts out by describing Setzer's first purchase, a telescope with a 10" lens (which he says was actually the classic Coulter 10.1" Dobsonian).

The story continues to where he is today: president of the NCSF, owner of about 40 telescopes of up to 22 inches of aperture, and deeply schooled in observational astronomy and the complex technology of telescopes and software. "For me," he is quoted, "half of it was looking at the stars, and half of it was looking at how the telescope worked."

The feature also describes his development of a 3D-printed smartphone eyepiece adapter (called an eyepiece in the story). He offers the 3D software plans for free to anyone wanting to make their own.

Also highlighted is Setzer's commitment to community outreach, which is a major focus of the NCSF. The story is [online](#), but might require a log-in or subscription to read.

"I was contacted out of the blue and asked if I would allow them to write an article," says Setzer. "Apparently my activities online caught some local attention. I've received many nice comments from people who read the article and even got a couple of astronomy-related inquiries."



Joyce Jentges and Charlotte DuPree were also mentioned in Glenn Chaple's monthly column in the September issue of *Astronomy* magazine. Chaple wrote about women who participate in the astronomy hobby which, historically, has attracted far more men than women.

In his January 2020 column he solicited input from women involved in astronomy clubs and related activities. Jentges and Dupree, both long-time

active members in the NCSF, replied. Both were cited by name, but due to space limitations, their included comments could not be lengthy.

One point Chaple stressed was that an advanced degree is not required to enjoy astronomy and Jentges' quote from the column says as much: "I could care a less about gravitational waves and black holes. But, let me look at the planets and deep sky stuff, I am happy."

Had more room been available, Jentges' following remarks (not published) would have been on the mark: "To women considering joining a club: don't let your gender stop you! If you are interested in buying a telescope, great! People in the club will help you. They are a wealth of knowledge, don't be afraid to tap into that."

DuPree was also quoted, but unfortunately, the quote associated with her name was not what she said. Mistakes will happen in journalism and Chaple sent DuPree an apology and explained that he must have erred when copying multiple emails into a Word document. He said he would correct the mistake in a future column.

In the meantime, you can read DuPree's thoughtful input here: "We do a lot of public viewing events, and I tell everyone, don't be afraid to join a club if you don't know anything about the sky. After 27 years, I still don't know a lot about the night sky, but enough for public viewing. Most club members will be very happy to teach you what they know, and it depends on how much you want to learn."

DuPree also included this in her note to Chaple: "I met my future husband when he later joined the club. We would go to the same star parties, and six years later we were married. Our honeymoon was camping at a star party!"

August General Meeting

From page 1 account and the payment of \$958 for the annual renewal of the club's liability insurance.

In new business, member Rob Powell suggested that the observatory closure might be a good opportunity to clean the mirror of the Panarusky telescope, perhaps without removing it from the telescope. However, with a new baby in the household of observatory director Dan Bert and Kevin Bert working

second shift, their availability to direct the mirror cleaning will be limited.

In addition, the NCSF board voted to keep the observatory building closed to stargazing activity as long as state park buildings remain closed, due to the COVID pandemic (See the story on next page).

Joyce Jentges, also a NASA Solar System Ambassador, discussed upcoming crewed missions to and from the International Space Station.

- Ernie Mastroianni

September program speaker

Michael Keefe from the Raleigh Astronomy Club will be presenting Introduction to Video Astronomy/EAA (Electronically Assisted Astronomy).

Keefe has been an amateur astronomer since 2006 and has been focusing on video astronomy the last few years. He's also a [NASA Solar System Ambassador](#).

Website: www.astronerd.net

Facebook: facebook.com/astronerd.net



Leave those light buckets at home for these events

The Small Scope and Binocular Star Parties are longtime NCSF traditions, but this year, we have to make some adjustments. Social distancing will be observed, and people will need to maintain distance from each other when they are looking at other scopes. The small scope event is at Harrington Beach State park and starts at 7 p.m. on Sept. 12. The binocular event is at the same venue on October 17.

No sharing of views through each other's scopes. And there will be no potluck — strictly bring your own snacks. Otherwise, it's the same idea as always, so let's bring out and use those scopes 6" and smaller!

We will also be having the Binocular Star Party as scheduled, with the same rules as above.

Neither of these events are public and will not be advertised outside of our own membership.



Rob Teeter via Wikimedia/CC BY SA 4.0

We ask that members keep these events to ourselves to insure we comply with DNR restrictions.

-Jeff Setzer

Observatory closed for stargazing until DNR reopens facilities

During the July board meeting, it was unanimously voted to keep the observatory closed to any stargazing activity until the Wisconsin State Department of Natural Resources opens their other buildings.

"We did bring up the idea of opening the observatory in some fashion for membership," said president Jeff Setzer during the August General Meeting. A member had earlier queried the board to consider its reopening.

"That was debated quite a bit and the board ultimately voted to keep the observatory closed for the time being," said Setzer during the August General Meeting. "It would be an exception for us for the state to let us in that building, because they are not opening up their buildings for their own staff or anyone else."

According to Harrington Beach State Park superintendent Carolyn Morgen,



NCSF members *are* allowed to enter the observatory as long as they abide by social distancing rules laid out by the state. But this exception could be potentially problematic during this unprecedented COVID pandemic.

The NCSF is still prohibited from opening the observatory to anyone from the public, and is not permitted to host public events at the facility or anywhere else on state grounds.

"As an organization, we want to comply with what the DNR is doing with the rest of the property to make absolutely sure we stand in good stead with their management, and to guarantee that the NCSF is in no way exposed to any potential liability," said Setzer.

- Ernie Mastroianni

New member in the Dan Bert Household

Observatory director Dan Bert and wife Laura welcomed their second child, Samuel David, into the family last month. Samuel David Bert was born August 10, and joins his older sister Kristina, age 2, who loves seeing the moon while on evening walks. Best wishes to the Bert families!

Looking ahead

Small Telescope Star Party

September 12, 2020
Harrington Beach State Park
For NCSF members only, not a public event. Telescopes larger than 6 inches of aperture not allowed. NCSF members only.

Binocular Star Party

October 17, 2020
Harrington Beach State Park
For NCSF members only, not a public event. Leave your scope at home, this one is for both your eyes. NCSF members only.

NEAF

Northeast Astronomy Forum
April 10 and 11, 2021
The twice-canceled conference will try for the third time. Rockland Community College, Suffern, NY
<https://www.neafexpo.com>

Pre-WOW

June 4 - 9 2021
Hartmann Creek State Park
Come and go anytime during those dates.

Wisconsin Observers Weekend

June 10 - 13, 2021
Hartmann Creek State Park
<http://www.new-star.org/index.php?Itemid=82>



Nebraska Star Party

August 1 - 6, 2021
Merritt Reservoir Snake Campground
<https://www.nebraskastarparty.org/>

Board of Directors, 2020

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



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

*Imaging Report***Dim galaxy and summer showpiece images**

Above: M16 and M17 taken with my 70mm Stellarvue apo refractor at f/4.8 from my backyard observatory. I combined 60 images at 40 seconds each. I was surprised how these two objects seem to rise out a shared heavy background of dust.

Right: NGC6822 (Barnard's Galaxy) taken with the same equipment. The original image was cropped to emphasis the galaxy.

The final image was a stack of 48 images at 50 seconds each. With a magnitude of 9.3 it sounds like an easy object. However, with an apparent size of 15.5 x 13.5 arc minutes, it has a low surface brightness and is difficult both visually and photographically.
-Rick Kazmierski

**SPECTRUM newsletter**

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<https://ncsf.info>

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