

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT
RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

Vol. 24, No. 10 **December 2020**

Officers: President, **Sean Neckel**; Vice President, **Aaron Calhoun**; Secretary / ALCOR **Mark Grizzaffi**; Treasurer, **Steve Hollander**; Board of Directors: **Dwight Harness, Felix Luciano, and George Ruff**; Program/Observing Coordinator: **Sean Neckel**; Facebook Coordinator: **Aaron Calhoun**; Webmaster: **Tom Moore**; Newsletter Editor: **Dawn Chappell**; NASA Contact: **Felix Luciano**

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Club Calendar:

KAS Remote Observing: Another remote observing event, hosted by KAS (Kalamazoo Astronomical Society), will take place on December 5, 2020 at 8:30pm EST. Register at this link: [12/5/2020 Registration Link](#)

VLA (Very Large Array) Virtual Tour: The National Radio Astronomy Observatory (NROA) in New Mexico is offering free virtual tours. The next is on December 5, 2020 at 1pm MST (3pm EST). Register here: <https://public.nrao.edu/event/vla-virtual-tours-2020-12-05/>

FRAC Meeting: Thursday, December 10, 2020, 7:30pm on Zoom.

In place of our typical Holiday Party, we will have a short meeting followed by FRAC show-and-tell. If you've gotten yourself an early astronomy gift this year, please take a few minutes and share it with the club.

Feel free to dress festively. Let's see your Santa hats and your best / worst sweaters!

A meeting invitation will be sent out in early December for the meeting. If you do not get the invite to the meeting, please email me at stneckel@gmail.com and I will reply with the invite.

FRAC Observing: Club observing weekend, Friday and Saturday December 11-12, 2020 at Joe Kurz WMA, sunset until whenever.

No other events are scheduled for December 2020.

Please keep checking your email for updates regarding club events.

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Trivia:

1. What planet could float on water?
2. What color is the hottest type of star?
3. What color is the coldest type of star?
4. How large is the moon compared to Earth?
5. How many Earths can you fit across Jupiter?

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President's Message:

Hello FRAC Members,

Just a few notes for this month:

- You will notice above I've included a couple of virtual events that might be of interest. If you have other events that may be of interest to your fellow members, please let me know so that they can be included in the newsletter.
- If you are planning to present something for the holiday show-and-tell, send me a note so that I can plan the meeting.
- If you have the chance, and the skies are clear, you should make it a point to see the conjunction of Jupiter and Saturn. They will be within 0.1° of each other on December 21. This conjunction happens about every 20 years, but this close pass only happens once in a lifetime.

Have a great holiday, and a happy New Year!
Sean

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Previous Meetings/Activities:

FRAC Meeting - November 12, 2020 - 7:30pm on zoom.us

- 10 members attended our virtual meeting. Sean Neckel, Katie Nagy, Mark Grizzaffi, Bill Evans, Steve Hollander, Alan Pryor, Aaron Calhoun, Felix Luciano, and Dwight Harness. A guest, John Cruickshank joined us as well.
- Aaron Calhoun led us through an exercise to determine the distance between 2 celestial objects, Alpha and Beta Persei.

FRAC Observing: Doayne Tallman and our guest John Cruickshank enjoyed clear skies on Friday, November 13. Doayne reported getting some good data on the Pleiades.

Astronomy in the Park at High Falls State Park on November 21, 2020 was cancelled due to concerns about COVID-19.

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Solar System Observing – December 2020

Mercury Reaches solar conjunction on 12/19 and will not be visible this month.

Venus Visible to the east in the early morning sky all month.

Earth is where all the trouble started.

Mars rises just after sunset, and is visible until after midnight.

Jupiter will be visible after sunset, setting 2-3 hours after the sun.

Saturn will be visible after sunset, setting 2-3 hours after the sun.

Uranus rises just after sunset, visible with a telescope, visible until after midnight.

Neptune rises just after sunset, visible with a telescope until just before midnight.

Moon: LQ 12/7 New: 12/14 FQ: 12/21 Full: 12/29

BONUS: Jupiter and Saturn are just 2° apart at the beginning of December. On December 21, they will pass within 0.1° of each other. This will be their closest conjunction as visible from Earth since March 4, 1226 (a closer conjunction occurred in 1623, but was not visible from Earth). This will be the closest great conjunction until 2080.

[Great Conjunction of 2020 - Earthsky.org](http://Earthsky.org)

BONUS BONUS: If you happen to be in the vicinity of central Chile or Argentina on 12/14, then lucky you! There is a total solar eclipse on 12/14/2020 starting at 8:34 AM EST.

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Classifieds:

If you have something you would like to buy, sell, or trade, email the specifics, including your contact information to stneckel@gmail.com

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NASA Coordinator's Message:

[Arcibo Observatory, a Great Eye on the Cosmos, Is Going Dark.](#)
[From Wikipedia](#)

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Photo of NGC225, the Sailboat Cluster courtesy of Felix Luciano

Details:

Telescope: AP 130GT @ FL 819mm

Camera/Filters: ST8300M @ -20C, FW5, Baader 36mm RGB

Exposures: RGB: 7 subs X 300 sec

From Wikipedia, the free encyclopedia:
"NGC 225 is an open cluster in the constellation Cassiopeia. It is located roughly 2100 light-years from Earth."

NGC 225 (The Sailboat Cluster) was discovered by Caroline Herschel in 1783.

The full-size photo is located here: [NGC 225](#)

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Trivia Answers:

1. Saturn
2. Blue
3. Red
4. $\frac{1}{4}$
5. 11

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