

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT
RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

Vol. 27, No. 8 August 2023

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

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Club Calendar:

FRAC Meeting: Thursday, August 10, 2023, 7:30pm at the UGA Gardens in Griffin and on Zoom. Sean will share some vintage Voyager 2 photographs with the group.

Public Observing Events:

We have a public observation at Lake Horton located in Fayetteville on Friday, August 4th at 8:30pm with a weather makeup on Saturday, August 5th.

We also have a public observation at Indian Springs in Flovilla on Friday, August 18th at 8pm with a weather makeup date on Saturday, August 19th.

FRAC Observing Events:

Friday and Saturday night, August 11-12, from Sunset until whenever at Joe Kurz Wildlife Management Area.

Remember if you are the last to leave and the gate was locked when you arrived, lock our combination lock to the other lock on the chain when you go.

The lock code is 9321.

Please keep checking your email for updates regarding club events.

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President's Message:

Hello FRAC Members,
After a month hiatus, the Flint River Observer returns. I appreciate your patience, as I was on vacation and out of touch for 2 full weeks during the end of June and beginning of July.

We have gained quite a few members recently, and I look forward to seeing you at our next meeting, or one of our events this month. Remember, you do not need a scope to participate - just come out and hang with us and enjoy the night skies. There are always enough scopes to share.

Sean

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Club Projects:

Starry Skies South

The Starry Skies South meetings have been moved to be at the same time as our club meetings, however, there have been some time changes. If I receive an invite, I will forward it to the club.

Globe at Night

This month's campaign is August 6-17, and will use the constellations [Cygnus](#) and [Hercules](#).

Details of the process are here:

<https://globeatnight.org/6-steps.php>

FRAC T-Shirts

T-shirts are still available. They are \$20 at all future FRAC gatherings.

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Astronomy Trivia – Lunar Edition:

1. The moons Io, Europa, and Ganymede orbit Jupiter at ratios of 4:2:1. What is this called?
2. Over time, slightly more than half the Moon can be observed. What effect allows this to be true?

3. The Earth's axis changes orientation over time. What is the name given to this process?
4. The summit of Mt. Chimborazo in Ecuador is the furthest point on the Earth's surface from its center. Why is this?
5. What is the point called where the Earth is closest to the Sun?

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Previous Meetings/Activities:

July Events:

FRAC Meeting - July 13, 2023 - 7:30pm on Zoom. 13 Members attended the meeting on Zoom: Sean Neckel, Mark Grizzaffi, David Stone, Roseanne Stone, Wade Simmons, Carlos Flores, Bill Evans, Clayton Wilson, Aaron Calhoun, Mark Sutton, John Cruickshank, George Ruff, and Alfred McClure - Sean indicated anyone interested in restoring a 10" DOB donated to the club to contact him by email at stneckel@gmail.com.

- Aaron talked about the upcoming solar eclipse and going as a club. Will discuss solar eclipse at the next meeting.

- Mark G. received an email from Dr. Schmude representing the Astronomical League as Southeast Region Chair. The AL wants to foster greater communication among the clubs in the region. He wants to have a regional conference in 2025. The SERAL (SouthEast Region Astronomical League) Newsletter is attached to the same email as the FRAC newsletter.

- Mark Sutton said the new club checking account is now open. He will be buying a light quality meter for the club.

- Aaron gave a report on NASA activities. He provided these links:

[EU Euclid Mission](#)

[JWST Rho Ophiuchi Image](#)

[Mars Helicopter Update](#)

[JWST Cycle 2 Update](#)

- Sean gave a preview of an upcoming presentation he will do on some old NASA photos.

Welcome New Members!

FRAC would like to welcome our newest members, Kelley, Emanuel, Ryan, and Lauren Navaja. Welcome to FRAC!

FRAC Observings:

Friday, July 14th was a cloudy mess, but David Stone and Terry Holland were at Joe Kurz. Saturday, July 15th was a bit better. Mark Sutton, Alfred McClure, and Wade Simmons enjoyed some mostly clear skies.

Public Observing Events:

Friday, July 21 and Saturday, July 22, the event at Sprewell Bluff was canceled because of cloudy skies.

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Solar System Observing - August 2023

Mercury is very close to the sun and not easily observable.

Venus is approaching inferior conjunction with the sun and is not observable.

Earth is taking another lap.

Mars is close to the sun and not easily observable.

Jupiter is visible in the morning sky around 1am until dawn.

Saturn is becoming visible around 11pm until dawn.

Uranus is visible in a telescope starting around 1:30am.

Neptune is visible in a telescope starting around midnight.

Moon: Full: 8/1 LQ: 8/8 New: 8/16 FQ: 8/24 Blue Moon: 8/30

<https://in-the-sky.org/>

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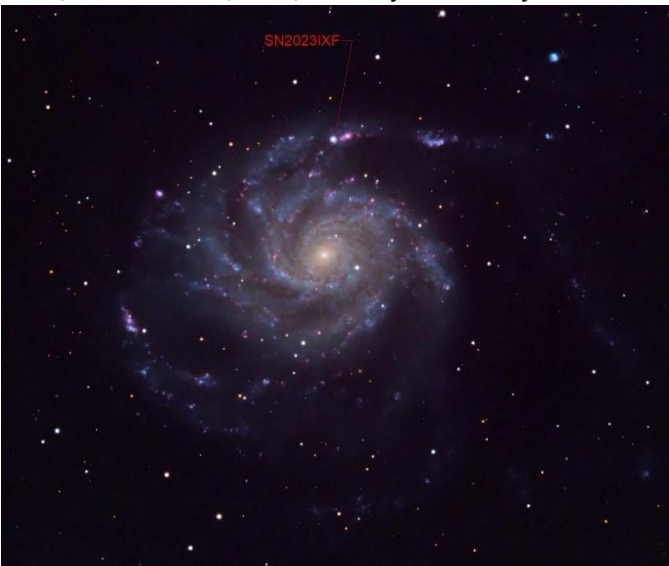
Classifieds:

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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M101, Taken June 14, 2020, Courtesy of Alan Pryor.



Supernova SN2023IXF in M101 by Alan Pryor, June 9, 2023

June 9, 2023, I photographed a galaxy called Messier 101, and I captured the supernova in it. M101 is a large galaxy that is about 21 million light-years away. It has about one trillion stars in it. Originally, I had photographed Messier 101 on June 14 of 2020. ([2020 Photo of M101](#)) It produced a nice spiral galaxy. In the photo from 2020, note the top arm of the galaxy. It has some purple areas where there is a lot of hydrogen being excited, but the supernova star is too dim to be seen.

Look at the photo from June 9, 2023. ([2023 Photo Of M101](#)) In that photo that upper arm has an extra star in it. That is the supernova. It has been designated as supernova SN2023IXF. It was discovered on May 19, 2023. It is a star that was at least 8 times bigger than our sun, and it ran out of fuel for its nuclear reactions. Then the core

of that star collapsed. When that happened, the star reached a temperature of about 100 billion degrees, and its brightness increased by about 10 billion times. Now all this actually happened about 21 million years ago, but that light is just now reaching us.

The supernova was discovered by Koichi Itagaki on May 19, 2023, and it reached its peak brightness on May 26, 2023. It will take several months for it to become too dim to observe. It will probably become a neutron star. My photo of June 9th was a 3 hour and 25-minute exposure using a 14" telescope.

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Trivia Answers:

1. [Orbital Resonance](#)
2. [Libration](#)
3. [Axial Precession](#)
4. Mt. Chimborazo lies on the Earth's [equatorial bulge](#) , and its peak is over 2000 meters further from the center of the Earth than Everest's.
5. [Perihelion](#)

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