

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT
RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

Vol. 24, No. 6 **August 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:

FRAC Meeting: Thursday, August 13, 2020, 7:30pm on Zoom. A meeting invitation will be sent out in early August for the meeting. If you do not get an 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, August 14-15, 2020 at Joe Kurz WMA, sunset until whenever.

Astronomy in the Park: Friday, August 23, 2020, 8:15pm at High Falls State Park. There has not been a decision made about the status of this event yet.

Please keep checking your email for updates regarding club events.

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Information Request:

Does any club member have contact information for Aaron Morris? He paid his club dues at our last in-person meeting in February, and I do not have any contact information for him.

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Trivia:

1. Who discovered the four main moons of Jupiter in 1610?
2. What is the Hubble constant?
3. Vesta is which type of heavenly body?
4. The comet with the shortest orbital period of 3.3 years is named what?
5. Which three stars make the Summer Triangle?

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President's Message:

Hello FRAC Members,
I hope you are all doing well, staying healthy, and keeping busy. Please be aware that we will be making a decision regarding public observing events in the next few weeks. With the number of COVID-19 cases surging in Georgia and around the United States, it is unlikely that we will hold these events as planned.

In the meantime, go outside and do some astronomy! This past month I have gotten some great looks at Jupiter and Saturn. Alan's photo below inspired me to go and find the Ring Nebula in my 60mm Televue. Comet NEOWISE was the first comet I've ever seen that had a visible tail, and the only comet I've ever seen naked-eye. It has actually climbed up high enough that I can see it from my driveway on a clear night.

Vice-President's Message:

Comet NEOWISE C/2020 F3 was discovered on March 27, 2020 by the Wide Field Infrared Survey Explorer (WISE) Space Telescope. At the time of discovery, it was 2 AU from the Sun and 1.7 AU from the Earth. It was at magnitude 18. By mid-July it was bright enough to see with the naked eye! It is about 3 miles wide, and it has an orbital period of 6952.98 years! It goes out as far as 364

AU from the sun and gets as close as .29 AU from the sun. It should be visible to the naked eye for another week, but the moon is going to interfere, so look now! I saw it yesterday for the first time. This comet will not be back for another 6700 years!

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Previous Meetings/Activities:

FRAC Meeting - July 9, 2020 - 7:30pm on zoom.us

- 6 members attended our virtual meeting. Sean and Gianna Neckel, Mark Grizzaffi, Felix Luciano, Katie Nagy, and Tom Moore.
- A suggestion was made to have an online webinar for our next meeting. I will investigate.
- A further suggestion was made by Mark to use some of the AL Webinars for our meeting programs. He will investigate and report back.

FRAC Observing: Club observing weekend, Friday July 17th. 4 members braved the heat, humidity, and a cloud of very thirsty mosquitoes to observe from the alternate site at Joe Kurz, on a hill with a great northern horizon. Dwight Harness, Sean, Chelsea, and Gianna Neckel all got great views of comet NEOWISE. As a bonus, Jupiter's Great Red Spot was visible for most of the evening in Sean's 9.25" Celestron.

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Solar System Observing – August 2020

The Perseid Meteor Shower: Peaks in the early morning hours of August 12. Look for the radiant between Perseus and Cassiopeia.

Mercury is visible an hour or so before sunrise in early August.

Venus Visible in the predawn sky, starting about 1.5 hours before sunrise in early August, and 3 hours before sunrise by the end of the month.

Earth is right behind you.

Mars rises before midnight all month, visible until dawn.

Jupiter will be visible all night, all month.

Saturn will be visible all night, all month.

Uranus rises just after midnight early in August, visible with a telescope.

Neptune rises before midnight, visible with a telescope.

Moon: Full: 8/3 LQ 8/11 New: 8/18 FQ: 8/25

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Random bits of information:

- Jupiter's mass is one-thousandth that of the sun (0.1%). Its mass is also 2.5 times that of all the other planets *combined*.
- Saturn's density is less than water - it floats!
- Uranus has an axial tilt of 97°, meaning that its poles are nearly aligned with the plane of the solar system. One pole gets 42 Earth years of light, while the other gets 42 years of darkness during its 84-year orbit.
- Neptune has the strongest sustained winds in the solar system, measured at over 1300 mph. It is also the only planet discovered by mathematical means before it was located visually.
- Saturn's moon Titan is larger than Mercury, and the only satellite in the solar system with a dense atmosphere, nearly 4 times denser than Earth's.

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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



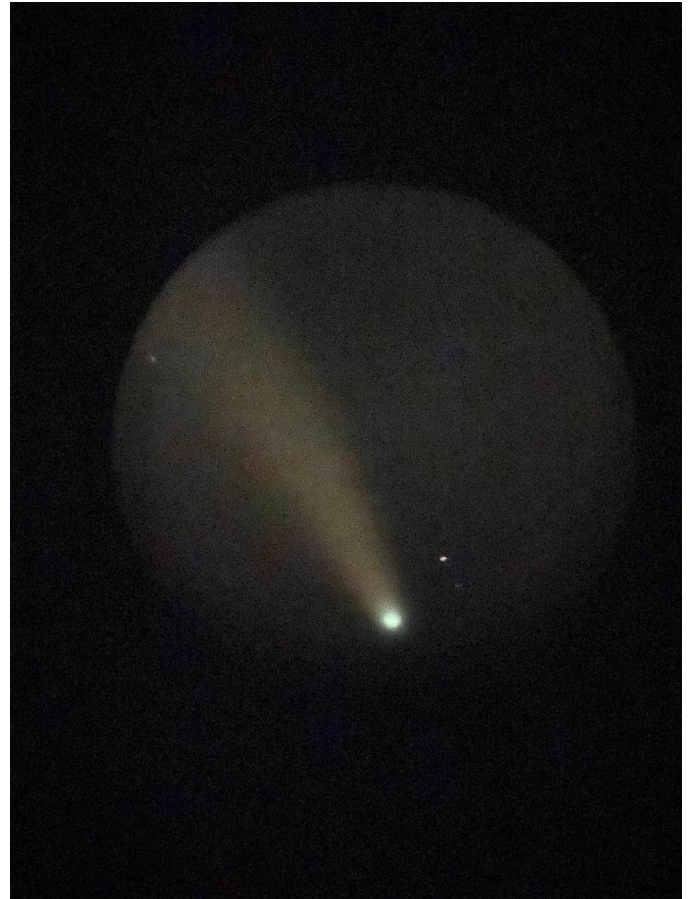
Photo of Messier 57, the Ring Nebula, courtesy of Alan Pryor. Taken from the pasture next to his home during the early hours of June 20, 2020.

The Ring Nebula, also known as M57 (Messier Object 57) is a planetary nebula found in the constellation Lyra. Located about 2500 light years from Earth, this ring is the remains of a Sun-sized star that swelled to the size of a red giant. Once the red giant's atmosphere dissipates, ultraviolet radiation from the white dwarf star at the center ionizes the remaining gases causing them to glow.

M57 is a great visual observation target, visible even in a telescope as small as 60mm. Look for it midway between Gamma and Beta Lyrae, the stars that form the 'bottom' of Lyra, the side of the lyre away from Vega.

The full-size photo is located here:

[M57 By Alan Pryor](#)



Comet NEOWISE C/2020 F3, July 17, 2020, 10:15pm, by Sean Neckel. Taken with an iPhone 11 using a Celestron 9.25" SC, 40mm eyepiece.

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Trivia Answers:

1. Galileo Galilei
2. A unit of measure used to describe the expansion of the Universe
3. Asteroid
4. Encke
5. Vega, Deneb, Altair

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