THE

FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

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Club Calendar:
FRAC Meeting:
We will have our club meeting on Thursday, April 9, 2026, 7:30pm at the UGA Gardens in Griffin and on Zoom.

For the March meeting, Larry Dove will give a presentation about sunspots.

Public Observing Events:
In April, we have one public event. We will be at Indian Springs on Friday, April 3rd, and in case of clouds we will have a weather make-up date for Saturday, April 4th. The event starts at 7:30pm.

FRAC Observing Events:
Our club observing weekend at Joe Kurz will be on April 17th and 18th from sunset until whenever.

The gate is now closed, so please be sure to leave the gate as you find it when the last person leaves for the night.

The lock code is 9321.

Please keep checking your email for updates regarding club events.

President's Message:
April Topic of the month, Sunspots.

This month I'll be leading a discussion on sunspots. **First, the disclaimer: Never look directly at the sun with your naked eyes. Always inspect your filters before pointing your telescope at the sun, you could damage your telescope and your eyesight!**

Sunspots are caused by the different rotation rates of the dense gases of the sun. The equator rotates faster than the polar regions causing the magnetic field lines to get twisted and tangled. Where these tangles occur, the magnetic field gets concentrated, then breaks the surface of the sun. The resulting sunspot is cooler than the normal surface of the sun thereby creating a dark spot we see as a sunspot.

Sunspots are categorized in a McIntosh sunspot classification system. This is a three-letter system that accurately describes each individual sunspot or group of sunspots. There is also a daily sunspot score, a Wolf number, "R". The Wolf number (R=10g+s) is an indicator of the daily activity of the sun. "g" is the number of groups of sunspots and "s" is the number of sunspots counted.

The sun is a dynamic star. It changes from hour to hour, and day to day. Sunspots bloom and fade away. New sunspots rotate into view on the east limb of the sun; existing sunspots rotate out of view on the west limb. Any clear day is a great day to observe our favorite star. Make sketches, and in no time, you'll be able to collect a Sunspotter Award from the Astronomical League.

– Larry

Vice-President's Ramblings

I wanted to take some time to recognize a few of our members for their efforts.

Alfred McClure took over a little over a year ago as President of FRAC, and I wanted to say how much I appreciate his leadership. Alfred brought a new energy to the club that I think we can all

recognize. Thanks to his efforts, we are nearly to the finish line with our Solar System Model, we had new events partnering with the Griffin Library and Crescent Road Elementary School, and FRAC held our first ever astrophotography processing session. Alfred helped us to give our hosts at UGA and Joe Kurz gifts of framed astro photographs to show our appreciation to them.

I know that many other FRAC members were involved in these efforts under Alfred's leadership. Thank you as well, it takes a great team to accomplish so much in such a short time!

For the past few years, Dave and Rosanne Stone have held one of the more important positions in our club, Observing Coordinators. Co-Coordinators?

Communication, setting times and dates, checking the moon, dealing with people, and trying to predict the weather. Yeesh. It can be a bit like herding cats at times (I have 2 cats and use a spray bottle filled with water). Next time you see Rosanne and Dave (switched it up there, thought it was about time) let them know what a great job they've done and how much we have appreciated their efforts over the years.

Going forward, Tom Partin will be taking over as Observing Coordinator, which should mesh well with him already being the Social Media Coordinator, at which Tom has been doing a fantastic job. Let's all thank him for taking over the job, and support him in any way we can. THANKS TOM!!!

–Sean

PS - If you also have a cat, tell them I said *PSPSPSPS*!

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Club Projects:
Our Solar System scale model project is still ongoing. The signs are complete, and we are waiting on UGA to give us the go-ahead to start building at the Garden. More to come!

FRAC T-Shirts
FRAC T-shirts are still available! They are $20 at all FRAC gatherings.

Membership dues are $15.00 per year, make check out to Flint River Astronomy Club sent to Mark's address or at the meeting, or pay through Venmo@fracmoney24 (search for a business account)

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FRAC meeting:

FRAC meeting March 12, 2026, at 7:30pm at the UGA Gardens in Griffin and on Zoom.

14 club members and 1 guest were present at the UGA Garden for the March meeting: Alfred McClure, Dave and Rosanne Stone, Carlos Flores, Sean Neckel, George Ruff, Katie Nagy, Tom Moore, Carmen and Wade Simmons, Larry and Twila Dove, Mark and Terri Sutton, Ben Barker, and our guest Rex Randolph.

8 club members joined us on Zoom: Bill Evans, John Cruickshank, Doyne Tallman, Wayne White, Ann Angelheart, Aaron Calhoun, Brent Summers, and Clayton Wilson.

Topics Discussed:

- Larry Dove was elected as the new President of FRAC for 2026. Congratulations Larry!
- All other officers were re-elected for 2026.
    - Sean Neckel, Vice President
    - Mark Sutton, Treasurer
    - Terri Sutton, Secretary / ALCOR
- Tom Partin was offered the position of Observing Coordinator and accepted. He will transition the position from Dave and Rosanne Stone.
- Sean gave a presentation on Astronomy League Observing programs, observing tips and tricks, and star hopping.

FRAC Observings:
We had a great turnout this month at JKWMA. On Friday, March 13, Aaron Calhoun, Dave and Rosanne Stone, Wade Simmons, Chris and Brennan Czoch, Doyne Tallman, Carlos Flores, Mark Sutton, and Tom Partin participated.
Saturday, March 14, Steve and Ben Barker, new members Brent and Marlena Hayslett, Wade Simmons, and guest Rex Randolph had a great night of observing.

Public Observing Events:
In March we had one public event scheduled at Indian Springs State Park that was rained out.

Welcome New Members!
In March, Jason Chance and Brent and Marlena Hayslett joined our club. Welcome to FRAC! In addition, Kevin and Aidan Powell rejoined FRAC after a short absence. Welcome Back!!

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Solar System Observing April 2026
Mercury is not observable during April.
Venus is visible from dusk until about 2 hours after sunset.
Earth is in space. So are you. And so is everything else.
Mars is just past solar conjunction and is not observable during April.
Jupiter is visible starting at 8:20pm until about 2:20am
Saturn is just past solar conjunction and is not observable during April.
Uranus is just past solar conjunction and is not observable during April.
Neptune is just past solar conjunction and is not observable during April.
Moon: Full: 4/1 LQ 4/10 New: 4/17 FQ: 4/23

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

In the sky, April 2026

Spring brings the chance to see and image some spectacular galaxies. Set these as targets at any opportunities you get.

First up, Bodes Galaxy M81. Bodes is a spiral galaxy 12 million light years away in the northern sky. Look for it near the dipper portion of the Big Dipper.

The Whirlpool Galaxy, M51a, and its smaller companion M51b is another great target. Located 31 million light years away, it is found near the end of the handle of the Big Dipper.

Special this month is comet C/2025 R3 Panstarrs. This comet is rapidly approaching perihelion on April 19th. R3 Panstarrs has the potential to become visible to the naked eye in the early mornings just before twilight. On clear mornings in early April search for this comet about 10° above the eastern horizon. After perihelion it will no longer be visible in the northern hemisphere. For more details on the comet consult Theskylive.com or ALPO, the Association of Lunar and Planetary Observers.

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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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Christmas Tree and Cone Nebula (NGC 2264) courtesy of Alan Pryor

The Christmas Tree Star Cluster is easily visible in binoculars or small scopes. It is located in the constellation of Monoceros. In mid-March 2026 it is about 13 degrees SSW of Jupiter, but other times you can see it by looking for the star Al Zirr (Wasat). It is the bottom eastern star in the eastern twin of Gemini. From there, go another 3 degrees SSW. The individual stars in the cluster have magnitudes in the 6 to 8 range. The shape of the Christmas Tree definitely stands out.

The Christmas Tree Cluster is composed mostly of young stars that are about 2,500+/- light years away. The background of the area is an emission nebula composed of ionized hydrogen which is being excited by a nearby star. The area is a star-forming region.

In the photo, the Christmas Tree is tilted to the right, and at the tip of the tree one can see the Cone Nebula. The Cone Nebula is an area of molecular hydrogen that is absorbing light from the emission nebula that is behind it. However, it is difficult to observe the Cone Nebula visually. The brighter

stars in the area cause one's eyes to ignore the dark area. If one has a large scope and very dark skies, you might see it if you move the scope to place the bright stars out of the field of view.

Messier 82 Photographed 1/25/2014, courtesy of Alan Pryor

Messier 82, the Cigar Galaxy, is in the constellation of Ursa Major. It is about 12 million light-years away. With a magnitude of 8.4, a 4-inch or 6-inch telescope should reveal the galaxy. It is located about 10 degrees northwest of Dubhe (the top star in the bowl of the Big Dipper).

This photo accidentally captured a supernova, SN 2014J. It was taken four days after the supernova was discovered. This event was identified as a Type Ia supernova, in which a white dwarf accretes too much mass from a binary companion, triggering a thermonuclear explosion. It may also result from the merger of two white dwarfs.

Messier 82 is unusual in several ways. Most notably, it exhibits large outflows of gas visible in the hydrogen-alpha band (seen as red structures). These gases are driven out of the galaxy by intense stellar winds and supernova activity associated with its high rate of star formation. This is because Messier 82 is a starburst galaxy (i.e., one with an exceptionally high star formation rate).

The starburst nature has been attributed to gravitational interaction with its neighboring galaxy, Messier 81, which is triggering enhanced star formation. It is also believed that the two galaxies made a close approach about half a billion years ago, further intensifying this starburst activity.


The Triangulum Galaxy M33, courtesy of Sean Neckel

This photograph of the Triangulum Galaxy (Messier 33, NGC598) was taken at Joe Kurz Wildlife Management area on December 21, 2025 using my SeeStar 50.

The Triangulum Galaxy is the 3rd largest member of the Local Group, behind Andromeda and the Milky Way, composed of around 40 billion stars. At nearly 2.9 million light years from Earth, it is the furthest permanent structure that is able to be observed with the naked eye, though only under very dark skies with little to no light pollution.

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