



WANTED: Back-up Newsletter Editor

This is in the rare case that the current Editor is unable to produce the Newsletter. You'll only need to cut-and-past what others send, check it for spelling and typos and add dates for the Next Meeting and Public Events. I'll show you how it works. Contact Karl at kmja79@yahoo.com . Thank you!

President's Message

by Ben Steelman

Has anyone been watching for T CrB?

For the Muggles out there, T CRB is T Coronae Borealis, an otherwise obscure star in Corona Borealis (the Northern Crown), next to Bootes.

Normally, Corona Borealis is not that noticeable -- the brightest star is just magnitude 2.2, and there aren't that many galaxies, nebulae or other NGC objects. The main stars form a crown-like arc.

However, Corona Borealis does contain T CrB, sometimes known as the "Blaze Star." Every 80 years or so, T CrB goes nova, increasing its magnitude to 2 -- and astronomers expect it to do just that, sometime between now and September,

Thanks to Jon Stewart-Taylor, by the way, for keeping us posted.

T CrB has been flaring like this, more or less regularly, since about 1217, when stargazers first noticed it. It's a binary -- a red giant and a larger-than-usual white dwarf. The white dwarf seems to suck gas and plasma off the bigger star, which is thought to lead to the flare-ups. (We don't know exactly why; maybe this time we'll figure out.)

When it happens, the flare-up is expected to last about a week; during this time, the Blaze Star should be about as bright as Sirius. This is literally a once-in-a-lifetime event, which gives us all yet another excuse to

Keep Looking Up!

Calendar

The full club calendar is available at
<https://www.capefearastro.org/calendar.htm>

July 3

Monthly SIG (Special Interest Group) via Zoom

July 13

Public Observing @ Carolina Beach State Park

July 14

★ Cape Fear Astro Monthly Meeting ★

Presentation: by Jon Stewart-Taylor

“AL Herschel 400 Observing Program: Imaging with the ZWO Seestar S50”

GAStronomy Meeting - 5 PM

TBD - Watch your email for time and place!

(Dinner, prior to the Monthly Meeting)

CFAS Monthly Meeting

7:00pm – 9:00pm - 212 DeLoach Hall; UNCW

Also simulcast via Zoom

AUGUST

Aug. 11

★ Cape Fear Astro Monthly Meeting ★

Kristin Hendershot (The Astro Ranger) presentation on "Women in Astronomy"

Newsletter Note

by Karl Adlon, Editor

If you send a groups.io message and you'd also like to see it in the newsletter, let me know specifically. My thought is that if everyone already got the message, I don't need to put it in the newsletter. However, if you'd like me to include it, I'll certainly do that – again, let me know.

What Diagonal?

by Frank Rich

<Note: This and more is planned to be discussed at the July 3 Monthly SIG, which you can join if interested in this topic and/or have information regarding it. You can also contact Frank directly.>

I have a couple questions that perhaps you can answer.

Background: I have an EFW <Electronic Filter Wheel> for Astrophotography but also want to do visual astronomy using these filters. I would think it a "PIA" to unscrew a filter every time I want to try a different filter. For one, our skies gotten brighter and thus I want to try a CLS filter. I realize I need a diagonal with a removable nose piece and some type of adapters. I know Baaders are removable, and I think Williams Optics are, although I tried my WO and could not remove the nose piece.

Q1 – Can any CFAS member help with, perhaps have experience with, adapters and diagonals for this application?

Q2 – What effect does a longer equipment train (adding adapter and possibly a filter slide) have on the eyepiece view (distortions)?

Q3 – Any experience with Prism Diagonals and Mirror Diagonals and various dielectric coating on these?

The June Public Observing Session at Carolina Beach State Park

by Jon Stewart-Taylor

Saturday, June 15 was our scheduled monthly public observing session at Carolina Beach State Park (CBSP). Cape Fear Astro has been holding these sessions for longer than I've been a member, so they have some tradition behind them. We schedule them for the Saturday closest to the first-quarter moon. That way, even if the weather is "iffy", the folks who come will have something to look at.

I loaded the model solar system and the Sky Scanner 100 into the car. I thought about taking the S50 for some deep-sky objects, especially the spring globular clusters. But, I knew that Steve had moved out of state, and Karl and Skip had already said they wouldn't be able to come to this one, and if I was the only one there, I thought the Sky Scanner was the better choice.

As I usually do, I arrived well before sunset to give myself time to set up and talk to early-arriving members of the public. I set up the Sky Scanner, then put out the club cards (Solar System, What Did I See, Buying Scopes, and the club business card) as well as the Bright Star Atlas, Turn Left at Orion, and a couple of take-aways. I ran off 10 of the June "scavenger hunt" sheets and brought those, as well as a dozen (red) glow-in-the-dark bracelets.

I thought about doing the solar system, but again if I was going to be the only one there, I wanted to focus on the scope and what's in the sky. So, the solar system stayed in the car. By that time it was pretty clear that no one else from the club planned to come. The people from the park (mostly campers) began to trickle in. The sky was pretty clear, with occasional bands of clouds. The moon was easily visible, so I pointed the scope at it, and invited the early-birds to come and see the day-time (well, civil twilight at this point) moon.

More people showed as the sky darkened, and before the first star was visible, we had about 25 looking through the scope, and asking questions about astronomy, telescopes, etc. I had to open a second dozen bracelets as it got darker. Two or three of the older folk claimed one, but the rest all went to kids. Final count of visitors was about 20 kids and the same number of adults, so we had between 30 and 40 total. It was definitely one of the busier nights at CBSP.

The sky conditions were fine for the moon, and the brightest stars were visible intermittently through holes in the about 30% cloud cover. I was able to get Arcturus and Vega in the scope to show people the different colors. Spica was quite near the moon, and the clouds tended to drown it out. Toward the end of the evening the Big Dipper was intermittently visible, so I tried to find Mizar and Alcor, but they were high enough the clouds were thick enough, and the scope set low enough (so kids could reach without a stepstool), that I never did get them in the scope long enough for people to look at.

People started to leave around 8:45. and by 9:15 I was basically alone. Packing up was easy with just the table cleanup and the Sky Scanner. I was out of bracelets and "scavenger" hand-outs: obviously needed to bring more than 10.

Over all it was a good night. Could have used fewer clouds, but it could have been much worse. Would have been nice to have another club member or two. so visitors could have spent more time at the eyepiece, see more types of scopes, and be able to ask questions without feeling like they're stealing time from other people.

If you'd like to join in, please do, even if you're not the most experienced observer. Our July public session at CBSP is Saturday the 13th.

July 13 Public Observing at CBSP Spica and the Moon Together!

by Karl Adlon

Playing with Stellarium, I stumbled on this conjunction. This is a 2.2° field of view.

The Moon is 248,160 miles (2.3 light seconds) away. Spica is about 250 light-years away.

Come show this to the public!

(If you have a low horizon in the southwest, you may be able to see the Moon occult Spica later!)



Field Trip to Ingram Planetarium

by Jon Stewart-Taylor

Cape Fear Astro took our annual field trip to the Ingram Planetarium for the June monthly meeting. This is always a popular meeting, and we had on the order of 20 members and family that night.

We had a comedy of errors choosing a restaurant for gAstronomy, first selecting one which would not be open, then choosing one which could not seat our large numbers, then (again!) choosing one which would not be open. We finally ended up split between La Cucina (the small Italian restaurant) and Las Palmieras (a fall-back Mexican restaurant very near the planetarium, and La Cucina).

Our long multi-vote process for selecting the canned planetarium presentation was also in vain, since the Planetarium's web site was out of date, and they no longer offered the chosen movie. We requested "something similar about cosmology", and ended up with a brief history of Big Telescopes in Southern Africa, with a little about what they'd discovered, and how they will be used in the immediate future.

We then got a seasonal (sort of) presentation with the planetarium projector, and at the end were shown where the predicted nova T Corona Borealis and the approaching comet C/2023 A3 (Tsuchinshan-Atlas) were in the sky.

I mentioned to the Planetarium Director that we have a substantial presence in Brunswick county near them, and that we'd be pleased to help them out with public outreach and such. They said they would be very pleased to receive astroimages, and put them on the web page. Unfortunately, we don't yet have contact information to send images to, nor to reiterate our offer of outreach help. If you live near the Planetarium, you could stop in and see if you can get contact info.

We'll do it again next year.

Headlight Filters

by Jon Stewart-Taylor

When going to star parties, or to our club observing sessions, it is common courtesy to dim headlights as much as safely possible. Older cars used to be able to turn them off but leave the running lights on, which would keep from blinding people already at the observing site, while still providing enough light to steer by.

Newer cars often have no ability to turn off the headlights but leave the running lights. Some have "Daylight Running Lights" (DRLs) which are basically an extra-low setting of the headlights, but not dim enough to keep from blinding observers. Others just have two settings: everything on, or everything off.

For DRLs or all-or-nothing lights, it's possible to create "headlight filters": translucent covers which turn the lights red and reduce the brightness to observing-site levels. It just takes about \$5 worth of materials from dollar stores and your recycle bin, which is often enough to make several sets of filters.

I used a couple layers of red plastic tablecloth, some corrugated cardboard, super glue, and Velcro™ spots to cover the headlights on Kathleen's FJ Cruiser. See the attached photos to see how they work. I haven't tried them at highway speeds (and one probably shouldn't use them on highways). We did use them at the Staunton River Star Party with a 25 mph speed limit. They stayed firmly attached, and we had no trouble seeing the road.

If you want to make your own, I can give you the table cloth and Velcro™ parts if you give me the dimensions of your headlights.



Get to Know YOUR Astronomical League



The Astronomical League (Astroleague or AL) is one of the largest amateur astronomical organizations in the world. The organization serves to encourage an interest in astronomy (especially amateur astronomy) and promote the science of astronomy by:

- ✓ fostering astronomical education;
- ✓ providing incentives for astronomical observation and research;
- ✓ assisting communication among amateur astronomical societies.



CFAS is one of over 300 member societies affiliated with the Astroleague. Your membership in CFAS allows you take full advantage of this relationship so periodically review the information below to see how the Astroleague can support your astronomical interests and endeavors.

Astroleague Home Page	www.astroleague.org
About the Astroleague	https://www.astroleague.org/about-us/
AL Observing Programs <i>(Alphabetical Listing)</i>	https://www.astroleague.org/alphabeticobserving/
Night Sky Tools	https://www.astroleague.org/navigating-the-night-sky-guides/
Astroleague Store	https://store.astroleague.org/
Current and Past Issues of <i>Reflector Magazine</i>	https://www.astroleague.org/reflector/
Additional AL News, Information and Reminders	<p>Click HERE for the Astroleague News Page and be sure to check the Astroleague Home Page weekly for new and important posts.</p> <p>Contact Hank Lyon, hlyon8448@gmail.com, for any changes to your Reflector delivery preferences (US Mail, Email or Both).</p>

The Astroleague Correspondent (or ALCor) is your link between CFAS and the Astroleague. Don't hesitate to contact your ALCor if you need assistance with anything Astroleague related whether its general information or detailed coordination of observing program completions for certification. **Check back each month to see any new links, postings or reminders.**

Copyright © 2024 Cape Fear Astronomical Society. All rights reserved. For permission requests, write to the Society, addressed "Attention: Permissions Coordinator," at the address below.	
CFAS Correspondence: Please contact the society at: CFAS, P.O. Box 7685, Wilmington, NC 28406 Members are welcome and encouraged to submit articles or other input for "CAPE FEAR SKIES". Submit any and all interesting items for publication to Karl Adlon, Editor (email kmja79@yahoo.com).	
<i>Cape Fear Astronomical Society is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.</i>	
CFAS Officers: President: Ben Steelman Vice-Pres: Karl Adlon Associate VP: Jon Stewart-Taylor Secretary: George Pappayliou Treasurer: Bill Cooper ALCor: Hank Lyon	Dues: Dues for 2024 are \$25 for Individual and \$32 for Family Membership. Students dues are \$5 per year. Mail to: CFAS, P.O. Box 7685, Wilmington, NC 28406 Contact Us: You can contact CFAS at info@capefearastro.org Our website is http://www.capefearastro.org/