



CAPE FEAR Skies

Monthly Newsletter
Cape Fear Astronomical Society
Serving Wilmington, NC and Surrounding Areas



Cape Fear Astronomical Society is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

June 2022

President's Report

by Jon Stewart-Taylor

One of the exciting things about amateur astronomy is that there are still phenomena which have never happened before. I'm writing this on the day of the potential Tau Herculis meteor outburst caused by the break up of comet SW3. By the time you read this, we'll know if there is a shower, a storm, or nothing at all. Tonight I plan to go to Starfields and watch to see what happens.

Another thing I'm excited about is the opportunity to reach out to members of the public. Karl has had a long term Science Olympiad mentorship. I'm doing something similar with Girl Scout troop 4301. And many of us participate in the public observing sessions, both monthly at events like the SWSP and IOMN.

We have a first-time event coming up on June 22nd. We have an afternoon and an evening session scheduled for the children of the North Carolina National Guard, with both sessions at the Fort Fisher Air Force Recreation Area. I'll discuss these at the June meeting, and put stuff on the e-mailing list.

Speaking of the June meeting, we're very pleased that George will be giving a presentation on his astronomical imaging. He plans to bring all his equipment and discuss how and why he uses it. I expect it will be well attended, since a lot of people have expressed interest in imaging.

The July meeting will be at the Ingram planetarium at Sunset Beach. We'll be meeting at our usual 7am second Sunday date and time, but we'll be in the planetarium. We're still figuring out some of the details, but what usually happens is we reserve the planetarium and each member pays the standard planetarium admission. During the meeting we get our choice of the Ingram shows, and they usually do a seasonal sky tour with the planetarium projector.

President's Report Epilogue

Terry Herrin: Possible meteor storm update:

Just got back from Ft. Fisher. Started observing at 12:15 and saw six between then and 12:45. Five were near the radiant. One was closer to the northern horizon. All were faint, slow moving, with a very short duration. After 12:45 I saw nothing. Headed back at 1:15.

Jon: Meteor update

Kathleen and I were at Starfields from about 11:45 'til 1:45. During that period, we saw about two dozen meteors. About a dozen were bright, between 2nd and 0th magnitude. Of those, two were clearly sporadics, but the remainder of the bright ones were almost certainly shower meteors, with the right radiant and unusually slow velocity. Of the fainter ones, about half seemed like they belonged to the shower, based on radiant and velocity.

It wasn't exactly a storm, or even a strong shower, but it was definitely enhanced activity, with the radiant where they said it should be, and a guesstimated ZHR of 15-20. It also had a much higher proportion of bright meteors compared to what the predictions lead us to expect.

I'm looking forward to reading reports from observers around the world to see what if anything other people saw.

Calendar

June 2022

Date – Event – Time

- 04 Public Observing, 8:20 PM – starts at sunset; Carolina Beach State Park**
- 06 Jupiter and Neptune at Heliocentric conjunction; 04:00 UTC
- 07 First Quarter Moon; 14:48 UTC
- 12 ★ Cape Fear Astro Monthly Meeting ★
CFAS Monthly Meeting - 7:00pm – 9:30pm
212 DeLoach Hall; UNCW
Also simulcast via Zoom**
- 14 Full Moon; 11:51 UTC
- 16 Mercury at Westernmost elongation: 23 deg from Sun; 15:00 UTC; morning
- 17 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; 3rd Quarter Moon**
- 18 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; 3rd Quarter Moon**
- 21 Last Quarter Moon; 03:11 UTC
- 21 June (northern summer) Solstice; 09:17 UTC
- 22 Moon 1 degree from Mars; 70 degrees from Sun; 20:00 UTC; Morning
- 24 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; New Moon**
- 25 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; New Moon**
- 29 New Moon; 02:52 UTC

Astro phenomena from:

<https://www.universalworkshop.com/astronomical-calendar-any-year/>

2022 Public Events

Date	Time	Event	Where
Jun 4	30 min before Sunset	Public Observing	CBSP
Jul 2	30 min before Sunset	Public Observing	CBSP
Aug 6	30 min before Sunset	Public Observing	CBSP
Sep 3	30 min before Sunset	Public Observing	CBSP
Oct 1	30 min before Sunset	Public Observing	CBSP
Oct 1	TBA	International Observe the Moon Night	CFM
Oct 29	30 min before Sunset	Public Observing	CBSP

Where (Locations):

- ★ CBSP: Carolina Beach State Park
- ★ CFM: Cape Fear Museum
- ★ BES: Beulaville Elementary School

Special Interest Groups (SIGs)

Usual meeting dates – watch emails for exceptions

Phenomena: First Wednesday

Both Eyes: Second Tuesday

Astrophotography: As Requested/Announced

Telescope Usage: Third Tuesday

New Astronomer: Third Wednesday

Outreach: Fourth Tuesday

May 15-16 Total Lunar Eclipse Flower Moon Eclipse

by Becky Hucks

The shots were taken from my dock on the Lockwood Folly River. I had a clear view of the sky and moon with only a few hazy clouds. I used a Nikon D7100 with a Nikon 80-400 mm lenses and a Nikon teleconverter 1.4x. Since I'm not really good at this, I googled what I was suppose to do. In the beginning things were not going so well, The moon was too bright. Finally with the camera set at ISO 500, f8, 1/250s and at 550mm I got my first good shot. As the eclipse continued, my next problem was getting the picture in focus when the moon was getting dark. So after many frustrating shots, I put the camera on auto focus and let it struggle but the pictures were more in focus than when I did it manually. I did have a remote shutter release, which was great.

Finally, what I found to work the best with the changing lighting, was to set the camera at ISO 400, F8 and change the shutter speed until the EV was in the middle. I could zoom in and out with auto focus. My later shots were better and I was having more fun. Lesson to take away is that you should not wait until the night you plan to do the photography to practice. It was a great evening and I enjoyed every minute I was watching the Flower Moon Eclipse.



Note: Be sure to look for stars in the following images. -Karl





TOTALITY



My Favorite. Really zoomed in.



My last shot of the night and probably my best. You can actually see stars in it.

Lunar Eclipse Photos

by Steve Hilliard

I took these from my front deck using my TV-85, 0.8 photo reducer and Canon T6s.

First time ever using the photo reducer. I thought these were pretty good until I expanded the photos, then the star bloat became apparent.

Question, will a Bahtinov mask work with the photo reducer/flattener attached? *Yes, it should. -Karl*



Lunar Eclipse Photos

by Jon Stewart-Taylor

Partial Eclipse



Nearing Totality



Girl Scouts and Astronomy

by Jon Stewart-Taylor

Tonia Burger, the leader of Girl Scout Troop 4301, reached out to me in February for assistance with providing astronomy experiences for the girls. She said “We like to help the girls get badges, but it’s more important for us to teach our girls new things. “

As it happened, Kathleen and I had just taken a course from the Astronomical Society of the Pacific specifically about assisting Girl Scouts with astronomy, so I immediately said yes. We negotiated back and forth for a bit, and arrived at a list of activities for the girls.

On Saturday, 14 May, we did the first one. I set up the Guy Ottewell inspired Scale Model Solar System, and a dozen assorted Girl Scouts and family members gathered at Starfields. There was room to set up as far as Saturn without doubling back, so that’s how far we went.

The walk went pretty well. I actually remembered to stop and ask for questions at each planet. And, they did have questions for most planets, so it’s a good thing I was stopping for them. Most common were questions about life, on other planets and around other stars.

After we were done with the solar system, the moon was high enough to find in scopes. I set up the Sky Scanner and the club’s 8” Orion dob for some daytime lunar observing. This was quite popular with some of the kids. I pointed out the maria and Tycho and Copernicus. One sharp-eyed Scout spotted Langrenus. One of the scouts enjoyed using the Sky Scanner to find trees, clouds, and airplanes. That showed they also were mastering the 'scope.

Eventually our two-hour session began to stretch to a two-and-a-half hour session, and twilight was advancing quickly. The Scouts and families had to go. But, there are a number of remaining activities to help them with the Investigator badge. The Scouts will be back several times over the next few weeks for a night-sky scavenger hunt, and for a star party.

Thank You for Sharing!

A Special Thank You to Becky, Steve and Jon for sharing your eclipse pictures and the stories that went with them!

I don’t know of anyone who has started in astrophotography and didn’t have lots of “throw away” pictures. From about 1970 to 1987 I went to races and took pictures – film and slides. No autofocus. I learned about film speed, camera speed, focus and depth of field – mostly by trial and errors (many). Pointing out the problems to others is hard. Showing them the successes is easy. Here’s one of mine. Mike Mosley, driving Dan Gurney’s Eagle, started at the back, passed everyone and won the race.

But I digress. I suppose it’s time to restart the **Astrophotography (AP) Special Interest Group (AP-SIG)**. If you have an interest in that, contact me, whether you are interest in wide field AP, deep sky or lunar-planetary-solar. If you have photos (good, bad or ugly) to share, we’d like to see them.





Get to Know YOUR Astronomical League

www.astroleague.org



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.

AL Home Page	www.astroleague.org
Observing Programs	https://www.astroleague.org/observing.html
NEW! June Night Sky Guide	https://www.astroleague.org/files/u220/2022 June.pdf
Galaxy Season Observing Challenge	https://www.astroleague.org/content/al-observing-challenge-special-observing-award
ALCon 2022 Information	https://alcon2022.org/
NEW! Speaker Line Up for ALCon 2022	https://alcon2022.org/speakers/
NEW! Past Issues of <i>Reflector Magazine</i>	https://www.astroleague.org/reflector/april-2022-reflector-magazine
CFAS ALCor	Hank Lyon, hlyon8448@gmail.com
Reminders and AL News Bites	Welcome new CFAS members! Your quarterly <i>Reflector</i> magazine will arrive via US Mail unless you specify the digital/email version. Please let your ALCor know your preference. Cutoff for ALCon 2022 mail-in registration is June 27 th and July 6 th for online registration. <i>There is no word yet if any of the July 28-30 event will be offered online.</i>

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 here each month to see any new links, postings or reminders.

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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).

Cape Fear Astronomical Society is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

CFAS Officers:

President:	Jon Stewart-Taylor
Vice-Pres:	Skip Hagers
Associate VP	Karl Adlon
Secretary:	George Pappayliou
Treasurer:	Ben Steelman
ALCor	Hank Lyon

Dues: Dues for 2022 are \$25 for Individual and \$32 for Family Membership. Students dues are \$5 per year.

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