

President's Report
by Jon Stewart-Taylor

In February, it's my goal to increase our public outreach. The Outreach SIG will have had its first meeting by the time you're reading this, but it hasn't met yet. The exact type of outreach and the schedule are yet to be determined. One thing which is certain, is that it will be safe for both the public and our members despite the ongoing pandemic.

Messier Marathon season is coming. If you haven't heard of it before, it is possible to observe all 110 Messier Catalog objects in one night, from a narrow portion of the southern US, and within a narrow observing season from late February to early April. Cape Fear Astro will sponsor marathon observing sessions the week of the New Moon in March, and especially on the 11th through the 14th (the new moon weekend). Here's hoping for clear skies during that period.

On the just-published Cape Fear Astro calendar, there are two scheduled club observing sessions per month, on weekends closest to the last quarter and new moons. The new moon sessions are always at Starfields, to take advantage of dark skies and ability to stay all night and nap in the mornings. The last-quarter sessions are listed as "TBD". Since the last quarter moon rises around midnight, it might not be worth it to people to travel the distance to Starfields. I'm hoping that people will suggest moderately-dark locations closer to the majority of members homes. I'll happily join in on these sessions. Please post suggested locations to the e-mailing list.

Everyone please stay safe. Although the vaccination program has started, it will still be many months before it will be safe to meet in numbers without physical distancing. Fortunately, the skies will still be there for us, very far away.

Due to the COVID-19 virus pandemic, we are now under "Modified Stay At Home Order". No CFAstro public events are planned. Meetings will be via Zoom. Member observing as noted, with "social distancing".

February 2021

- Date – Event – Time
- 01 Mars at east quadrature – 90 degrees from the Sun in the evening sky
 - 04 Last Quarter Moon
 - 05 Club Observing – Location TBD; 06:00 PM**
 - 06 Club Observing – Location TBD; 06:00 PM**
 - 11 New Moon
 - 12 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 06:00 PM**
 - 13 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 06:00 PM**
 - 14 Cape Fear Astro Monthly Meeting; 07:00 PM; via Zoom**
 - 19 First Quarter Moon
 - 27 Full Moon

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

February Program

by Karl Adlon

This presentation will cover various kinds of Astrophotography (AP) at a high (overview) level and will include:

- Tripod shots and tracker shots (histogram)
- Afocal shots
- Telescope prime focus imaging with DSLRs and mirrorless cameras
- Planetary imaging
- CCD / CMOS imaging

In the past, I have done a little bit of all of the above except the last bullet.

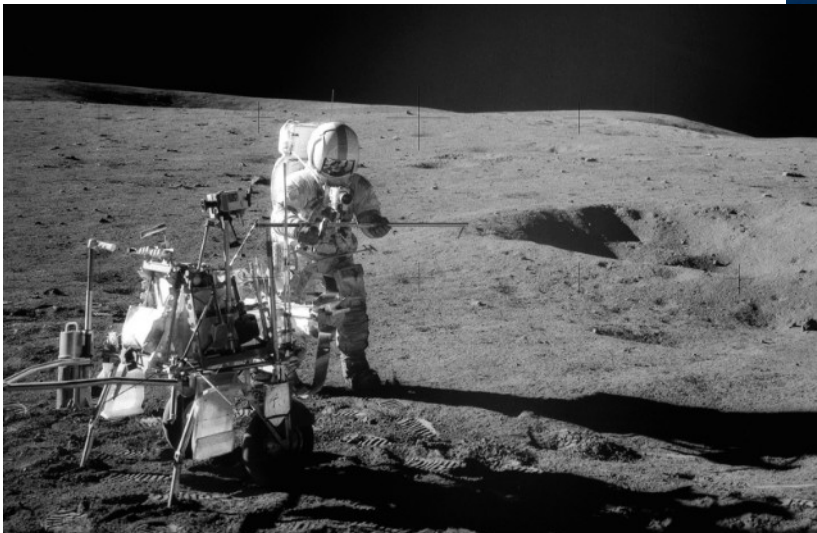
True: A newbie amateur asks an experienced astrophotographer “what advice to you have for a person who wanted to get started in astrophotography?” to which he replied with one word: “Don’t.”

Somewhat, I agree, with the modification: “unless you have time, money and enjoy frustrations on the road to obtaining a decent image.

Here are a few reasons to try it out:

- You have a camera, so why not
- Your eyesight is deteriorating with age
- You want something to show others and/or to hang on the wall

I hope you join in the Zoom meeting and see what I have to say.



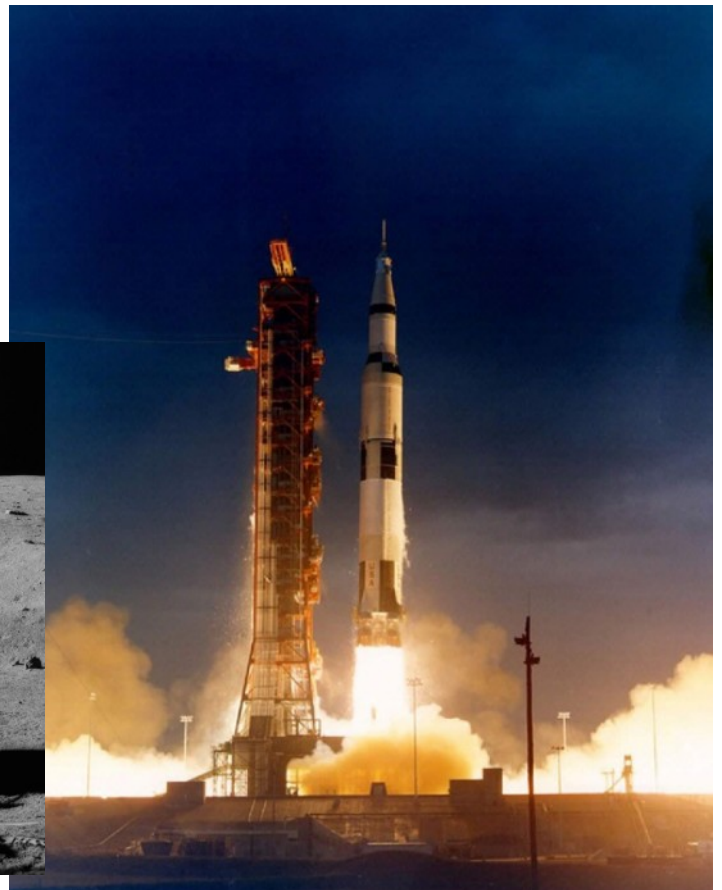
50th Anniversary!

Launched on January 31, 1971, it is the 50th Anniversary of the Apollo 14 mission with astronauts Alan B. Shepard Jr., commander; Stuart A. Roosa, command module pilot; and Edgar D. Mitchell, lunar module pilot.

This was the first space flight for Roosa and Mitchell and, with Shepard’s flight being 15 minutes in space, space.ccm calls this the “Rookie Crew”. Some mission highlights:

- After transposition, attempted docking fails when the capture latched failed to extend. Several hours late, an attempt while applying thrust worked.
- A faulty abort switch kept signaling the landing computer to abort. MIT scientists send instruction to reprogram the landing computer to think it was already in abort mode so it would ignore the signal.
- The landing radar wasn’t working. Mission control advised cycling the applicable circuit breaker which got it working.

When we return to the Moon, I hope we find out how far Al Sheppard’s golf ball traveled!



George Pappayliou's *absolutely beautiful* Orion and Running Man Nebulae



New, Improved SIG (Special Interest Group) schedule for 2021

by Jon Stewart-Taylor

In 2021 we're going to try expanding the Special Interest Group (SIG) topics. After an on-line poll, the following SIGs are planned to meet on the listed days:

Title & Occasion sorted by day of the week	Description
AP-SIG TBD	Astrophotography. A hoped-for SIG still in development, which will address lots of different methods of taking pictures of the heavens and objects in them.
Both Eyes 2nd Tuesday	Both eyes is about how and what to observe with Both Eyes, whether unaided-eye, binoculars, or binoviewers used with telescopes.
Telescope Usage 3rd Tuesday	The Telescope Usage SIG is for those who are looking tofor how to get more out of their telescope (or maybe to get a new scope), and for those who want to help them do so. If you have questions or suggestions for topics, please feel free to e-mail them to me and we'll try to address them during the SIG meeting.
Outreach 4th Tuesday	Outreach is sharing our love of the sky with new astronomers and the general public. The means can vary widely, from text to video to in-person. If you have ideas, or want to do outreach, please join us.
Phenomena 1st Wednesday	We'll discuss observing Astronomical Events, such as eclipses, meteor showers, conjunctions, comets, and so on. Each month's discussion will be either something significant in that month, or something "big" coming up in the next 6 months or so. We'll be discussing what to observe, when to observe it, how to observe it, and where to find references to astronomical phenomena.
New Astronomers 3rd Wednesday	If you are a new astronomer, or want to help out new astronomers, we'll be covering a wide range of basic amateur astronomy, including equipment, targets, and techniques.
Observatory 2nd and 4th Thursday	Developing the club observatory from a mowed field to a true observatory.
Brunswick Area as needed by members	This SIG is to find observing locations and coordinate amateur astronomy activities in the Brunswick area. People who don't live in Brunswick can participate.

If any of that appeals to you, please join us. For the foreseeable future most (all?) meetings will be via Zoom. I'll try to post Zoom invites to the e-mailing list and to our GroupMe room before each meeting.

Steve Hilliard says: "I have an old Pixcel 237 ccd that was for my Nexstar GPS when I had it. Can anyone use it?"

His email is asheville2017@gmail.com if interested.



Astronomical League Update

by Hank Lyon

Astronomical League Correspondent (ALCor)

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While it might be a little late for New Year's resolutions, it's never too late to establish a new goal. Goal setting is an excellent way to increase motivation and stay focused with just about any endeavor, not the least of which is amateur astronomy. Whether you're a new astronomer or been around for while, the AL's Observing Programs offer many opportunities to establish new goals, increase experience and gain knowledge.

Looking at the AL's Observing Program matrix, I counted 83 different programs, some of which represent different levels of participation for a given subject or focus. For example, there is a regular and advanced Bright Nebula Observing Program. Each program is described by a standard narrative which includes an introduction with a quick listing of requirements, background information, program rules and requirements, instructions for certification, submission requirements and associated links or resources. The links and program resources may include readymade materials or something unique that is required for the program. Certification can be sought either directly with AL's specific program coordinator or with assistance of CFAS. With the latter, I'm glad to assist.

We'll take a quick look at some of the elements, tools and resources common to many of the AL observing programs next month. Whether you're seeking certification for a given program or just trying to "standardize" your approach to observation, I think you'll find the AL Observing Program useful and educational.

Quick Items

Looking for a book? Many in print titles from popular astronomy publishers can be obtained for a 10% discount through the AL's Book Service. Check out the website or contact Marilyn Unruh=marilyn@booknookprescott.com for assistance.

Uncertainties with COVID continue. The AL has pushed back the registration for this year's Astronomical League Convention in Albuquerque, you'll need to wait until at least March 1 to register.

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Editor's Note: Used in this Newsletter, "Cape Fear Astronomical Society" may be abbreviated "CFAS" or "CFAstro".

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:

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Dues for 2021 are \$25 for Individual and \$32 for Family Membership.

Contact Us:

You can contact CFAS at info@capefearastro.org
Our website is <http://www.capefearastro.org/>