



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

CAAC August 2020 Meeting

<p>Next Meeting: Friday August 21, 2020</p> <p>Time: 7pm ET</p>	<p>Place: <i>Virtual Meeting - From the comfort of your home</i></p> <p>Address: Zoom web conference link (See newsletter info below)</p>
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The Magnetic Sun: How magnetic fields there affect us here

We will explore the Sun and its powerful magnetic fields, how these fields are produced, how they generate the features we observe, and how the Sun's magnetic activity affects us here on Earth.

Speaker Bio:

Dr. Gaiser earned his PhD degree in Atomic Physics from Auburn in 1981. After a stint as an Assistant Professor at East Carolina University in the 80's, he transitioned into Medical Physics, where he's practiced that profession for 32 years. He's held various positions of leadership in CAAC and is now the Observatory Director. His lifelong interest in Astronomy began when he looked up to see Echo I in 1961. His first telescope was a 75mm, f15 Unitron refractor that he got in 1967, Tom Blevins recently refurbished it for his grandchildren. His astronomical interests include asteroid occultations and astrophotography.

CAAC Virtual Meeting Log In Instructions

1. If you have not used Zoom before go to Zoom.com and download the Zoom program onto your computer.
2. **To Log In;**
 - a. Click on the meeting link below:
<https://us02web.zoom.us/j/82492598966?pwd=NmJrK2NIY3RENT09VVUT09>
 - b. If needed Meeting ID: **824 9259 8966**
Passcode: **073330**
 - c. This manual “log in” rather than invitation to everyone prevents all the emails showing up on the invite. This is a security issue for your privacy.
3. When on the Zoom screen to prevent chaos and overloading bandwidth:
 - a. Mute your microphone-icon lower left of screen
 - b. Mute Video icon on the lower left of screen.
 - c. You will be able to see and hear leaders of the meeting when they are speaking
4. If you wish to ask questions of the speaker after the main presentation:
 - a. Submit on the chat feature which is at the bottom of the screen. You will then type out your question and hit enter.
5. Excellent Zoom tutorials are available on You Tube:
 - a. <https://www.youtube.com/user/ZoomMeetings>

CAAC Treasurer's Report as of 7/31/2020

Part 1 of 2		
Operating Fund		
Purpose: Enable the CAAC to pursue our non-profit goals, maintain our facilities, and run our programs:		
<ul style="list-style-type: none"> Funds are acquired through ongoing receipts of dues, fees, and annual net Southern Star income (or expense). Funds are expended to meet operating obligations of the club. 		
1	Operating Fund Balance 6/30/2020	\$6448.95
2	Income	
	Dues and Fees	305.00
	Expenses	
	GHRO Utilities	379.93
3	Annual GHRO Insurance	2024.60
	Fee for Credit Card Service	10.97
4	Operating Fund Balance: 7/31/2020	\$4338.45

Part 2 of 2		
Non-Operating Funds		
Purpose: Administer gifts and donations for designated use.		
1	Balance 6/30/2020: Non-Operating Funds	
	Scholarship Fund	3989.36
	Contingency Fund	27,356.98
2	Income	
	Interest	.26
3	Expenses or Transfer	
4	Balance 7/31/2020: Non-Operating Funds	
	Scholarship Fund	3989.36
	Contingency Fund	27,357.24

-Benton Kesler
CAAC Treasurer

News from GHRO

1. While scheduled star parties are on hiatus due to Corona Virus concerns, GHRO is open for your personal use. It is also open for ongoing maintenance.
2. I will have on-site training on Saturday, September 12 for a group not to exceed 6. Mask wearing and social distancing will be required. Please send me an e-mail at jegaiser@gmail.com if you'd like to attend. Admission will be on a first-come, first served basis. I will write back to confirm your place in the training. **This training can be cancelled if the virus situation dictates.**
3. There is plenty of Lysol™ in the outreach center, don't hesitate to use it.
4. A huge thanks to Dale Poole for his tireless efforts keeping the grass well maintained at GHRO.
5. The 10" RC telescope (Astro Imaging) is now back up, it may need a small alignment. Contact me at jegaiser@gmail.com if you are interested in using this telescope.
6. If you are interested in becoming part of the Observatory Committee, please let me know. The committee helps the Director maintain the facility and provide insight and advice on operations and maintenance of GHRO.

GHRO Information (see <http://1drv.ms/1m2wPUn>)

GHRO is located at [1427 Bloomwood Drive, Lancaster, SC](#). (some GPS show city as Pageland). Gravel road leading to the observatory is located 5.22 miles east of the "522 Grill" on Taxahaw, Rd.

Facebook FAQ

<https://www.facebook.com/CharlotteAstronomers/> scroll down to NOTES, then Frequently Asked Questions page for more information about GHRO. Be sure to share your astronomy photos and observing tips.

Night Sky Network -- "Heading to GHRO"

For updates on GHRO, be sure to join the <https://nightsky.jpl.nasa.gov/index.cfm> "Heading to GHRO" message group.

Jim Gaiser, Director GHRO.

As always, we care about the safety and security of all visitors to our observing facility, the GHRO. To keep us all mindful for the need to keep alert while visiting the observatory, we provide the following reminder. Please share this with your family and any visitors who may join you at the observatory. Thank you.

*** WARNING ***

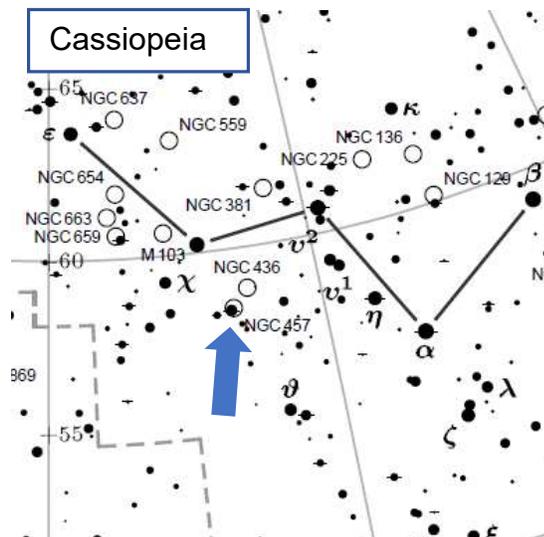
This facility and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

By using this facility, users assume the risk of personal injury, and loss or damage to personal property. All persons should use extreme caution at all times.

Users of this facility agree to hold harmless the Charlotte Amateur Astronomers Club, its Directors, and its members for any and all injuries sustained while participating in club activities or using this facility.

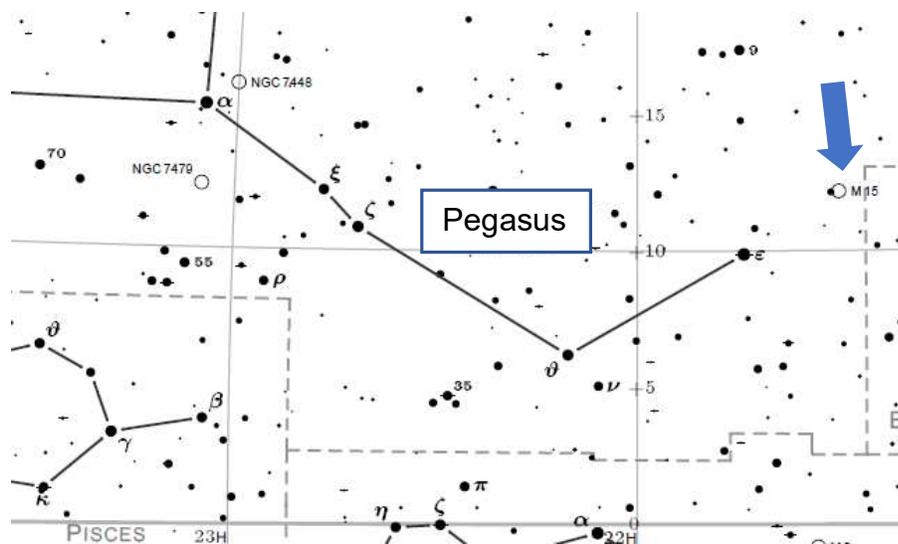
August Sky Challenge

Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look! This month, an open cluster and a globular cluster!



The unmistakable “W” of **Cassiopeia** suspends itself high in the north, marking a section of the sky rich in open star clusters. One of these clusters is **NGC 457**, a bright object located in the rich star fields of the Cassiopeia Milky Way, about four degrees southwest of Gamma Cassiopeiae.

In the eyepiece NGC 457 appears as a scattered group of stellar points some 10' in diameter, consisting of about 100 stars brighter than 13th magnitude. One bright foreground star, Phi Cassiopeiae, is in the middle of NGC 457 but is not a member of the cluster. A 2.4-inch telescope resolves about two dozen stars, while a 6-inch reveals almost all the stars of the cluster.



Looking in Pegasus

Globular clusters are huge symmetrical systems containing up to a million stars, which lie round the edge of the Milky Way. **M15** is easily found about 4° northwest of Enif (Epsilon Pegasi), the star at the tip of Pegasus' nose. It was discovered by French-Italian astronomer Giacomo Filippo Maraldi in 1746 and

rediscovered by Messier in 1764. Shining at magnitude +6.2, M15 is generally considered to rank among the dozen finest objects of its type in the northern sky.

From a dark site, keen-eyed observers can spot M15 with their naked eyes. Most binoculars reveal it as a nebulous patch with no visible stars embedded within, although some stellar resolution is barely discernible in larger glasses at 20x if the observer uses averted vision. A 4-inch scope will resolve dozens of stars around M15's strikingly bright core, with star chains winding out from the central region.

Acknowledgements:

NightSkyInfo www.nightskyinfo.com/archive for target descriptions, adapted.

Mag Star 7 Star Atlas Project © 2005 Andrew L. Johnson for star maps (clipped)

Edited by Mark Hoecker

What's Up in the Sky?

Highly Recommended Download and print a good *FREE* star map (including interesting objects to look for) monthly from:

Skymap <http://www.skymaps.com/downloads.html>

You'll also find a good monthly sky map in each issue of *Sky & Telescope* or *Astronomy* magazines.

New to the Night Sky?

Are you puzzled by folks in the club who point up in the sky and say "There's Gemini... and you can see Leo rising over there...and doesn't Regulus look clear tonight"? Are you trying to figure out where those darn constellations are? Those large star atlases are pretty intimidating... confusing... and expensive.

A good starting point could be called, *My First Star Atlas*... but in reality it is 4 simple but very helpful *FREE* star chart pages from the Stephen F. Austin State University – called **SFA Star Charts**. Pages 2 & 3 show you about 90% of everything you need to get started. There are even a couple pages that explain how to use a star chart. Clear and straight-forward.

Go to this link and print out the pdf file on the largest paper you have available, though standard letter paper is fine:

<http://observe.phy.sfasu.edu/SFAStarCharts/SFAStarChartsAll.pdf>

While these charts do not show the myriad of deep sky objects, they DO show the constellations and brightest stars – a good introduction to the night sky!

Happy Observing!

CAAC CONTACTS

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