



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

Next Meeting: Friday August 17th, 2018

Time: 7:00 PM

Place:

Myers Park Baptist Church
Education Building – Shalom Hall (Basement)

Address:

1900 Queens Road
Charlotte, NC 28207

CAAC August 2018 Meeting

Program:

CAAC Scholarship Auction!

This month's meeting will be the Scholarship auction that we hold every few years. Items that have been donated since the last auction and current items donated by members will be auctioned with **100%** of the proceeds going to the CAAC Scholarship fund. The scholarships are for college students majoring in astronomy or physics. The application for the scholarship information was provided in the last newsletter notice (July 2018).

If you've been looking to purchase some gently used items from our community and support CAAC Scholarship fund, please come and participate! Bring in your items for auction, and your checkbooks! Good luck to all the bidders!

From the President

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Three points I would like to make for this auction:

1. We need donated items to sell. You may bring them to the meeting, preferable by 6:00 am so we can organize the items for the auction. I will plan on being at the meeting room from 5:00 pm on.
2. We need bidders to raise the funds for the scholarships
 - a. If you are bidding on an item going for less than it should, you are welcome to bid against yourself! Remember the money is going for a good cause!
3. **If you are not interested in any of the items for sale; you are more than welcome to make a contribution (tax deductible) to the scholarship fund. (We don't want to leave anyone out!)**

Following are a few of the items we know of at this time:

Meade ETX 90

Meade EXT 123 w/ tripod

6" Orion Reflector, Skyview Deluxe EQ

12" Odyssey Dobsonian

Meade Refractor Model 390 D90

6" Cassegrain OTA 150-f1000 f/11

10" Coultler Dobsonian

Heavy Duty Camera Tripod

Assortment of Equipment cases

Books

-The Hubble Atlas of Galaxies

-Sky Atlas 2000

-Night Watch

We expect many more items to show up the night of the auction.

Below are pictures of some of the items that will be in the auction.





Ken Steiner
President

CAAC Treasurer's Report as of 7/31/18

Part 1 of 2

Operating Fund

Purpose: Enable the CAAC to pursue our non-profit goals, maintain our facilities, and run our programs:

- 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: 6/30/2018		\$14,269.01
2	Income		
	Dues & Fees		120.00
	Prepaid Subscriptions		0.00
	Pad Fees		0.00
	Hat and Shirt Sale		0.00
	Donation		0.00
3	Expenses		
	GHRO Expenses		270.71
	GHRO Utilities		
	Fees for Credit Card Service	324.71	
	Meeting Expense		2.96
	Insurance GHRO Additional Coverage		336.92
			91.16
4	Operating Fund Balance: 7/31/2018		\$13,262.33

Part 2 of 2

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Balance 6/30/2018: Non-Operating Funds		
	Scholarship Fund		3,315.00
	Contingency Fund		27933.94
	Long-Term Fund		7203.74
2	Income		
	Donation: Microsoft, BofA, Other		50.00
	GHRO Pad Purchase		0.00
	Interest		
3	Expenses or Transfers	.99	
	Balance 7/31/2018: Non-Operating Funds		
	Scholarship Fund		3,315.00
	Contingency Fund		28,283.94
	Long-Term Fund		7204.73

-Benton Kesler
CAAC Treasurer

CAAC Outreach Updates

CAAC Outreach need boots on the ground with scopes for upcoming events

Check the CAAC Night Sky Network Events Calendar for more details

If you are interested in getting more involved with CAAC Community Outreach please contact Kevin Moderow, kevinmoderow@gmail.com

Kevin Moderow
CAAC Outreach Coordinator

Secretary's Report:

ATTENTION:

If you are a former CAAC member and have not been keeping up with your membership dues, firstly please come back! We'd love to reconnect you with the love of astronomy through our club, use of GHRO observatory, and the camaraderie of our members.

Please also remember to return your badges on the table near the exit at the end of the meeting before you leave! Doing this will significantly reduce the chances of badges getting lost and reduce the amount of time (and cost) of having to re-create your name tag if it is lost. Thank you!

Register with the **Night Sky Network!** It is imperative that all members of the CAAC join the Night Sky Network (NSN). Many of the clubs outreach activities are managed by the NSN, as well as club communications (newsletters, event notifications, general email). The NSN is a wonderful tool specifically designed for amateur astronomy clubs like ours. Membership allows you to contact other members via email, and receive last minute updates for outreach events via text message:

http://nightsky.jpl.nasa.gov/club-apply.cfm?Club_ID=1468&ApplicantType=Member Pre-Monthly

Meeting Gathering Several CAAC members gather at Panera Bread (601 Providence Road, just a few blocks from our meeting place) at 5:30 prior to the monthly meeting. Anyone interested in sharing a meal with them is welcome.

News from GHRO

1. The next star party will on Saturday, **September 8**, come on down!!!
2. There will be telescope training for the solar, 8" refractor and the 16" reflector on Saturday night, **September 15** beginning at 6 PM. If you haven't been trained, or want a refresher, come on down.
3. Cosmic Camporee is right around the corner, **October 5-7**, with a backup date of **October 12-14**. There will be burgers and dogs provided by CAAC to accompany the side items and desserts provided by each of you. We'll start the menu coordination in September.

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 *****

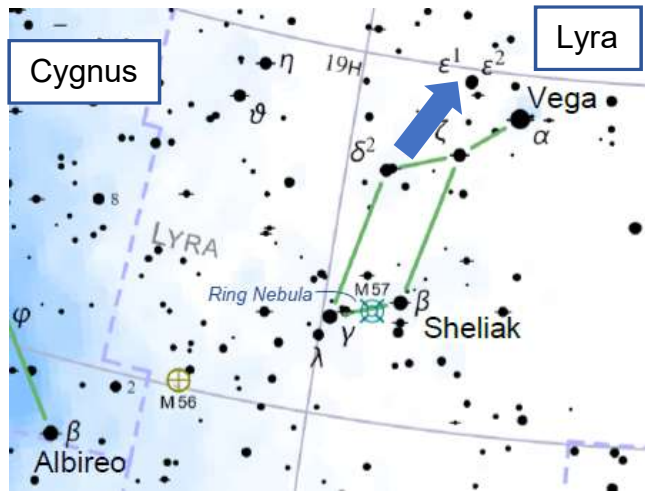
This facility and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

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, a double-double star, a galaxy and a cluster!

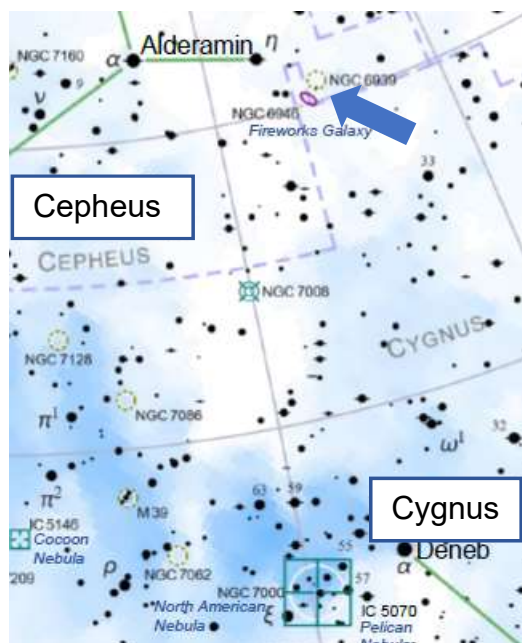


One excellent example of a multiple star is **Epsilon Lyrae**, a quadruple system commonly known as the Double-Double.

To the average eye Epsilon Lyrae appears as a single star, but small binoculars or even keen eyesight show it to consist of a wide pair of 5th-magnitude stars. Nothing spectacular until now, but if you use an aperture of at least 3-inches and high power you will find that each star is itself a close double!

These two pairs were first noticed in 1779 by William Herschel, the famous musician turned astronomer. Here is his observing log

entry: "A very curious double-double star. At first sight it appears double at some considerable distance, and by attending a little we see that each of the stars is a very delicate double star." Besides providing two pairs for the price of one, Lyra's Double-Double is a fine resolution test for small-aperture scopes. To get accurate results, choose a night with low atmospheric turbulence and try to observe using the highest magnification your scope can give.



NGC 6946 is a large spiral galaxy, lying on the Cepheus – Cygnus border about two degrees southwest of the 3rd-magnitude star Eta Cephei. The galaxy is 11th magnitude, and appears nearly circular to the eye, measuring about 8' in diameter.

Many observers find this object difficult even with large telescopes, but personally I had no trouble seeing it with a 4.5-inch scope. I think that the key to success is observing from a location with very dark skies, because the galaxy has a low surface brightness even moderate light pollution will make it invisible.

Appearing in the same visual field, just 40' northwest of NGC 6946 you will find **NGC 6939**, a dim open star cluster. Its eerie glow is partially resolved into stars at medium power, in the northern part of the cluster you will see three stars disposed in a triangle.

Acknowledgements:

NightSkyInfo www.nightskyinfo.com/archive

for target descriptions, adapted.

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 start 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!

An **ENHANCED** Star Atlas – **FREE!**

Our CAAC member, Mark Hoecker, has used the *Mag 7 Star Atlas – Color Milky Way version* (available on the internet) and added some enhancements including:

- A star map index to quickly identify the individual star chart you are looking for.
- Blue directional arrows at the edge of each chart guiding you to the adjacent chart. Also large page numerals were added in the lower right corner, helpful when thumbing through the charts.
- Finally, he manually added common star names and a selection of deep sky object names to the star charts, helpful in finding your way around the sky.

Such enhancements are allowed under the Creative Commons License by Andrew L. Johnson, author of the original charts.

SUGGESTION: While printing at the largest paper size you have available is helpful, a great alternative if you have a "letter size" color printer with a manual auxiliary feed slot, is to print on "legal size" (8½ x 14-inch) heavy paper or even "card stock". You could also punch holes and place in a legal-size report cover available at office supply stores. You would then have a wonderful star atlas to help you through the night skies!

If you have access to a color printer that can print on 11 x 17-inch paper (or card stock), you can print a magnificent copy whose readability will rival that of very nice, commercially available atlases.

To download your **Mag-7 Star Atlas Milky Way version – ENHANCED**, go to the CAAC website and scroll down the left column to "Mag 7 Star Atlas" and follow the link.

Happy Observing!

CAAC CONTACTS

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