



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

CAAC June 2023 Meeting

<p><u>Next Meeting:</u> Friday June 16th, 2023</p> <p><u>Time:</u> 7pm ET</p>	<p><u>Place:</u> <i>Myers Park Baptist Church</i> <i>Education Building – Shalom Hall (Basement)</i> <i>Or Zoom Virtual Meeting</i></p> <p><u>Address:</u> 1900 Queens Road Charlotte, NC 28207 <i>Or Zoom web conference link (See newsletter info below)</i></p>
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Introduction to Astronomical Sketching

Sketching is a simple way to improve your seeing skills and produce a visual record of your observations. This presentation will introduce you to a few methods and techniques by which you can reproduce what you see in the eyepiece, the tools you'll need, and how to get started. No artistic abilities needed!

Speaker: Butch Phaneuf, CAAC Member

Butch Phaneuf joined CAAC when he retired from teaching in 2021. He taught high school social studies for 30 years, the last 22 of which were in Union County Public Schools. He also taught Introduction to Astronomy his last five years at Cuthbertson High, when the outgoing science teacher recommended him as his replacement. Butch grew up in central Florida, and following the manned space program during the 60s and 70s fired his lifetime love for all things astronomy. His visual astronomy journey began when he retired and could use evenings for observing and sketching with a 10" Sky Watcher Dob in a field near his home in Waxhaw. He's married to his wife of 45 years, has four grown kids and seven grandkids... so far.

CAAC Virtual Meeting Login 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:**

Click on the meeting link below:

<https://us06web.zoom.us/j/82489334922?pwd=dWRsdDFkMjJOWFVNUFIIN1IFL1NoQT09>

If needed Meeting ID: **824 8933 4922**

Passcode: **893125**

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>

From the President:

Greetings Friends,

As spring turns into summer and the sun is reaching its latest set time...let's take a moment to give thanks to an earlier leadership team for the opportunity we have to observe the stars at GHRO. 30 years ago, the night sky started to brighten in south Charlotte and Weddington...where our club housed it's 16" Cassegrain. The Executive committee of CAAC decided that it was time to move to a new location and the land in Taxahaw, SC was found. That was the beginning of what we now call GHRO.

CAAC has grown in leaps and bounds and the facility at GHRO is keeping pace, but we are reaching the point where prime real estate is getting scarce. Thanks to Ken Steiner, a dialogue with our neighbors at the Haile Gold Mine was begun in February 2020 to acquire additional land adjacent to our existing 4 acres. After much discussion, CAAC made a formal proposal for about 10 acres across the road from our current location and we hope they find our proposal satisfactory. We will keep the membership up to date as the discussions progress, as these things take time.

Finally, the Executive Committee will be meeting later in June, so if anyone has a topic they'd like to bring to the board, please see me at the meeting on June 16, or drop me an e-mail at jegaiser@gmail.com

Clear skies,

Jim
CAAC President

Secretary's Report:

1. Please see below for the 2023 CAAC annual membership options:
 - Annual individual/family membership, which includes access to the CAAC dark sky **observatory** (GHRO) - \$60.00
 - Dues are collected at the October meeting and are pro-rated for members joining in January or later.
 - Students up to 18 years old - \$15.00 per year.
 - Private Observing Pads - additional \$25.00 per year.
Optional fee for members with private concrete observing pads at the club's dark sky location. Contact the Observatory Director for additional information.

Membership Applications are available through the CAAC Treasurer at monthly meetings. Click <https://charlotte-amateur-astronomers-club-2.square.site/> to navigate to the CAAC online store. Then select "CAAC Membership" to add it to your cart

2. The CAAC website, <https://charlotteastronomers.org/> has been updated to provide better service to our members with easier navigation, up to date announcements and postings, and accessible communication. Please explore and enjoy your new CAAC website.
3. 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!

4. Register with the **Night Sky Network!** It is imperative that all members of the CAAC join the Night Sky Network (NSN). Many of the club's 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](http://nightsky.jpl.nasa.gov/club-apply.cfm?Club_ID=1468&ApplicantType=Member-Pre-Monthly)

5. Sign up for CAAC Slack / chat!

Chat with fellow astronomy and astrophotography enthusiasts on our discussion group. This is a free service, we are using the basic plan. See who's going to GHRO, ask questions, or just be sociable. You can access via webpage or native applications on all major platforms and mobile phones. Sign up, introduce yourself, talk to your peers, tell your stories, ask your questions, and share your wisdom!

Again, if you run into issues signing up, email Jamie at caac-slack@jamieandamy.com and he will help you get on the team.

My Do
CAAC Secretary

CAAC Treasurer's Report as of 5/31/2023

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 Southern Star income (or expense).

*Funds are expended to meet operating obligations of the club.

1	Operating Fund Balance: 4/30/2023	\$43,430.86
2	Income: Dues and Fees Donations Sale of Club owned equipment Southern Star Deposits Concrete payment	 \$330.00 \$300.00 \$1,150.00 \$9,816.00 \$200.00
3	Expenses: Southern Star Southern Star Refunds Monthly Meeting GHRO Utilities (alarm, elec, internet) GHRO maintenance Service fee to accept credit cards	 \$20,332.72 \$190.00 \$357.65 \$417.90 \$405.70 \$15.47
4	Operating Fund Balance: 5/31/2023	\$33,507.42

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Non-Operating Fund Balance: 3/31/2023 Scholarship Fund CAAC Self Insurance Fund Contingency Fund	 \$6,706.87 \$20,000.00 \$7,390.05
2	Income: Interest	 \$4.34
3	Expenses or Transfers:	\$0.00
4	Non-Operating Funds Balance: 4/30/2023 Scholarship Fund CAAC Self Insurance Fund Contingency Fund	 \$6,706.87 \$20,000.00 \$7,394.39

Scott Goforth
CAAC Treasurer

News from GHRO

1. The next Star Party is Saturday, June 17 beginning at dusk. Current forecast doesn't look promising, but hopefully it will clear.
2. Telescope training for new members (and those wishing to get a review) will be held on Saturday, June 24th beginning at 6:30 PM. This training is required for all new members who wish to use the facilities at GHRO. The training will take place even if it is cloudy, it will be canceled only if it is actively raining or snowing. If it's clear, you can practice your newfound skills immediately after the training. To sign up please contact Rick Bassham.
3. Please follow the posted startup and shutdown procedures for any club owned scopes. This helps other members when they go to use our equipment.
4. Don't forget that the current sky conditions and weather and the Clear Sky Clock is found at the bottom of our homepage... <https://charlotteastronomers.org/>
5. The new telescope storage building near the all members pad is available for rent. The fee is \$10/month for a 3'x3' spot inside, with a 6 month minimum commitment. There are nine spots available. Users are encouraged to have their contents insured, as CAAC will not be insuring the contents of the building. Please see Rick Bassham if you have any questions.
6. We have a 12'x12' storage building by the fire pit for storing GHRO tools and equipment. For those who don't know, it also has a window unit A/C and single twin bed that is first-come first-served for those who don't wish to drive home late at night.
7. A new state of the art imaging observatory has been constructed and contains a Planewave 12.5" CDK telescope on a Planewave L-350 mount. This roll-off-roof facility will be available for all members of the club who get training, and it will be operated from inside the Outreach Center. The telescope is almost operational. The last step is getting the software configured to work with all of the equipment, polar alignment, and building a model for the mount. A special thank you to Dr. Jim Hermann for his generous donations.
8. Once the CDK above has been fully commissioned, work will begin getting ANOTHER 12.5" CDK working, also donated by Dr. Hermann.
9. Construction on the new solar panels is delayed pending permits from Lancaster County.
10. Boy Scout Troop 178 from Concord camped at GHRO beginning Friday night, June 2 and left Sunday morning about 9 AM. They enjoyed a visit to 40 Acre Rock while they were here and participated in a service project where they helped relocate gravel for later use as well as helping to clean up near the southern part of the facility. I'd like to thank Dr. Gaiser for hosting them and the scout troop for providing much needed labor to help clean up the area around the building donated by Dr. Hermann, helping to prepare it to fix the drainage issues we've had in that spot.
11. I'd like to gauge interest in a "Sponsor a Telescope" program. My vision on this is to pair up CAAC members who want to learn more about a particular club owned telescope and/or help pass on the knowledge and history of our club scopes. There would be no monetary commitment involved, only some time. Ideally we would have two members sponsor each telescope. Sponsors would be responsible for checking their telescope once a quarter and working with the observatory director to address any required maintenance or repairs needed. You would also be expected to attend a new-member training event once a quarter to help pass on your knowledge of the history and operation of the scope. As our club grows, maintenance and knowledge transfers become much more difficult to be done by just one person. If you are interested, please reach out to Rick Bassham (brodrick.bassham@gmail.com).

12. The complete GHRO calendar for 2023 is below:

2023 Star Party and Training Schedule

Month	Star Party Date	Moon Illumination	Training Date	Training Start Time (PM)
January	21	1%	28	4:30
February	18	5%	25	5:00
March	18	15% waning	25	6:00
April	22	7%	15	6:00
May	20	1%	13	6:30
June	17	1%	24	6:30
July	15	5%	22	6:30
August	19	9% waxing	26	6:30
September	16	2%	23	5:30
October	14	1%	21	5:30
November	11	4%	18	4:30
December	9	14% waning	No training in December	

Rick Bassham
CAAC Observatory Director

GHRO Information

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.

Rick Bassham, 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 (GHRO) 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.

CAAC Outreach Opportunities

Since last meeting:

Sun City Star party hosted by Jim Gaiser, assisted by John Abel, Jim Craig, and Benton Kesler.
Matthews Glen Retirement Community presentation of “Cosmic Perspective” by Ken Steiner.
Mecklenburg County South Rotary Club Presentation of “James Webb Space Telescope” by Ken Steiner.

Scheduled:

6/20 Kids R Kids Camp Huntersville, Solar presentation and Solar viewing.
7/7 Matthews Glen Retirement Community Presentation of “James Webb Space Telescope”.
7/18 Windsor Run Retirement Community presentation of “Cosmic Perspective”.
7/29 Matthews Library Solar Presentation and Solar viewing.

On Deck:

8/11 Catawba Lands Conservancy Star Party, Mount Pleasant, NC.
8/24 Providence Rotary Club presentation of “James Webb Space Telescope”.
11/20 South Minster Retirement Community presentation of “Cosmic Perspective”.

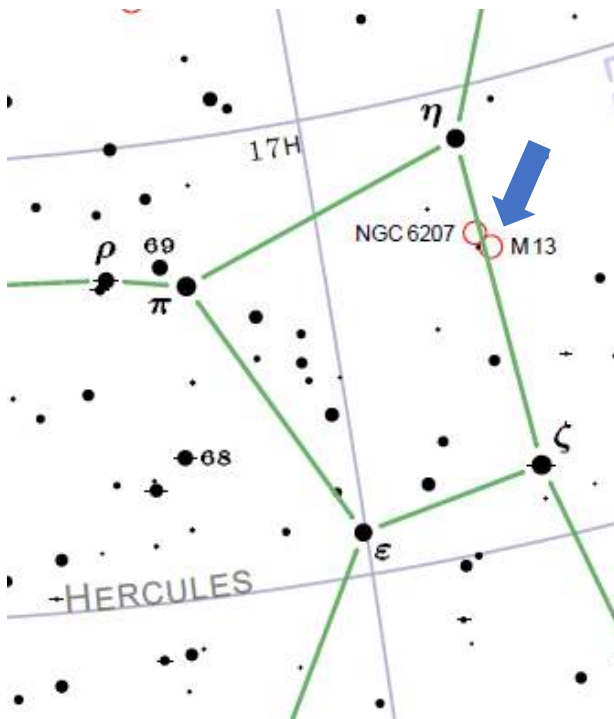


Benton Kesler, Jim Gaiser, John Abel, and Jim Craig at Sun City Star Party

Ken Steiner
CAAC Public Outreach Coordinator

June Sky Challenge

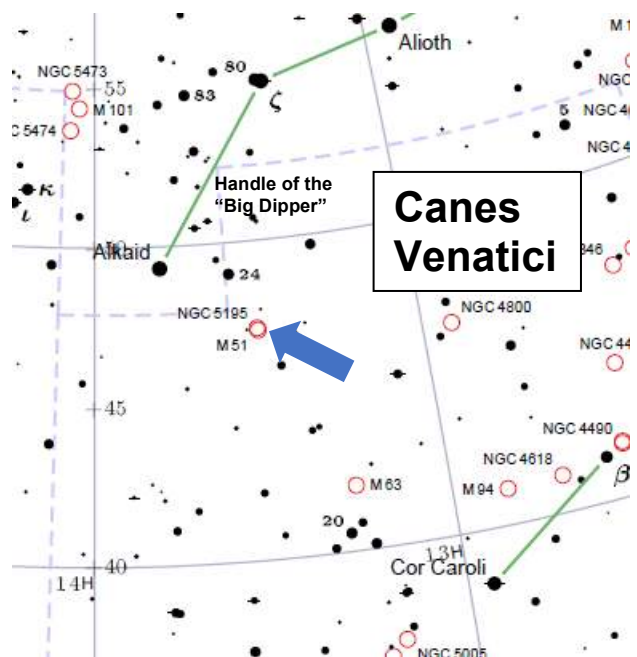
Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look!



Hercules

Globular clusters are gravitationally bound concentrations of stars, which form a nearly spherical system around our galaxy. **M13**, the Great Cluster in Hercules, teeters on the edge of naked eye visibility and appears in binoculars as a small, circular, hazy glow. It contains over 300,000 stars, and its luminosity is 300 thousand times the Sun.

The cluster is located in the “Keystone” of Hercules. Small refractors or large binoculars show a large, bright smudge, but resolution of individual stars is difficult. A 4.5-inch telescope starts to show stars at the cluster’s edge as individual points, and with a 6-inch scope their images are strong and steady.



Canes Venatici

Of all the countless island universes scattered across the sky, none seem as exciting as **M51**, the renowned **Whirlpool Galaxy**. Once believed to be a great swirling nebula, M51 is now known to be the finest example of a face-on spiral galaxy. The Whirlpool, just a few degrees southwest of the end star in the Dipper’s handle, is visible as a hazy patch even in binoculars. From dark, clear sites, high-quality 6- to 8-inch telescopes will readily show M51’s graceful arms arcing around its bright central core. Don’t overlook M51’s companion, **NGC 5195**, which apparently Messier did when he observed M51 in 1773. Conspicuous in the small telescope, this satellite system gives the appearance of being attached to the north spiral arm of M51.

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!

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 on the top menu bar, hover your cursor over “Resources” then select “Mag-7 Star Atlas”. Follow the directions to download.

Happy Observing!

Endowment Corner

Gifts for Tomorrow:

Bequest

A bequest is one of the easiest gifts to make. The CAAC Endowment has sample language that can be used to include a planned gift to the CAAC Stewardship Foundation in your estate plan. Always consult your attorney before executing a new will or other estate planning document.

To make a contribution or learn more, please visit
<https://charlotteastronomers.org/endowment/>

Ken Steiner
Chair, CAAC Stewardship Foundation

CAAC CONTACTS

President	Jim Gaiser	president@charlotteastronomers.org
Vice President	Benton Kesler	vicepresident@charlotteastronomers.org
Treasurer	Scott Goforth	treasurer@charlotteastronomers.org
Secretary	My Do	info@charlotteastronomers.org
Observatory Director	Rick Bassham	ghro@charlotteastronomers.org
Public Outreach Coordinator	Ken Steiner	publicoutreach@charlotteastronomers.org
Southern Star	Jim Gaiser	southernstar@charlotteastronomers.org