



Charlotte Amateur Astronomers Club  
[www.charlotteastronomers.org](http://www.charlotteastronomers.org)

### CAAC May 2024 Meeting

<p><b><u>Next Meeting:</u></b> Friday May17th, 2024</p> <p><b><u>Time:</u></b> 7pm ET</p>	<p><b><u>Place:</u></b> <i>Myers Park Baptist Church Education Building – Shalom Hall (Basement) <u>Or</u> Zoom Virtual Meeting</i></p> <p><b><u>Address:</u></b> 1900 Queens Road Charlotte, NC 28207 <u>Or</u> Zoom web conference link (See newsletter info below)</p>
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### Tales of the 2024 North America Total Solar Eclipse

This month several of our members have agreed to share their photos and experiences during the Total Solar Eclipse last month. Some stayed close to home, others travelled far to catch the full effect of the eclipse. Come see and hear how they prepared, what were their successes and failures, and maybe get some tips along the way.

**Speaker:** CAAC Members



## 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=dWRsdDFkMjJOWFVNUFIIN1FL1NoQT09>

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>

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## From the President:

Greetings Friends,

Southern Star was a rousing success this year, thanks to all the hard work of the Southern Star committee. I'd like to take this opportunity to thank the committee who made it possible, Jim Lamm (Coordinator), Justin Peatross (Registration intake), Ken Steiner (Speaker engagement), Roger Tooker (Wine and Cheese), Linda Austin (Apparel), Spencer Rackley (A/V and photography), Jeff Geiss and Rick Bassham (Door Prizes) and Scott Goforth (Treasurer). I'd also like to acknowledge Deborah Bergman and Anita Summey for staffing the registration desk all weekend.

With summer approaching it's time to think about how to best spend your time at our observatory. I hope you recall there are 5 RV sites at GHRO and tent camping is always an option. Whatever your choice, GHRO is yours to use at your convenience...24/7/365. Solar viewing is always an option using the Lunt 100 mm H-alpha scope...or using a white light filter on the 8" refractor. 40 Acre Rock is 2 miles away (as the crow flies) for hiking and relaxation and I'm sure Rick would enjoy some help with the mowing and weed whacking!! There's always something to do at GHRO.

Finally, it is with great sadness that I share with you the passing of Garry Tous, a longtime member and the person responsible for CAAC owning the Clark refractor. Garry donated the telescope to CAAC approximately 7 years ago, although it was at GHRO for several years before we took ownership. Garry was long time collector of antique telescopes, and his expertise was recognized by all. Cards and remembrances can be sent to his home at 8434 Aspen Court, Charlotte NC 28227-7072.

Clear skies,

Jim  
President, CAAC

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## Secretary's Report:

1. We want to thank everyone who voted at the April meeting confirming a strong Board of Directors for 2024-2025. Our gratitude to Ken Steiner and Benton Kesler for their many years of service as they roll off their positions. We welcome Justin Peatross and Tom Blevins to the Board.

### The 2024 – 2025 CAAC Board of Directors:

President	Jim Gaiser
Vice President	Justin Peatross
Treasurer	Scott Goforth
Secretary	My Do
Observatory Director	Rick Bassham
Public Outreach Coordinator	Tom Blevins
Southern Star	Jim Gaiser

2. The 2024 CAAC annual membership began in October:
  - 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.

3. Our gratitude to new joining members and to our renewing members. Your participation is greatly appreciated.
4. 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!

5. 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)

6. Are you looking for ways to participate in the club? We would appreciate volunteers for the following standing committees to better serve our members:
  - Room Set Up
  - Refreshments
  - Audio/ Video
  - Web Master/ Social Media. Please be on the lookout in the next couple of weeks for emails with more details and how to participate. Please contact the CAAC Officers and let us know which committee interests you. Thank you for your consideration.
7. The club is adding a new CAAC Astronomy Equipment Sales page to the newsletter. Please check out the offerings at the end of the newsletter.
8. 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!

How do I sign up?

- Visit this link: <http://slack.south40astro.com> or email [caac-slack@jamieandamy.com](mailto:caac-slack@jamieandamy.com)

If you run into issues signing up, email Jamie at [caac-slack@jamieandamy.com](mailto:caac-slack@jamieandamy.com) and he will help you get on the team.

9. 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.

Best,

My Do  
CAAC Secretary

## CAAC Treasurer's Report as of 4/30/2024

### **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	<b>Operating Fund Balance: 03/31/2024</b>	<b>\$24,714.25</b>
2	<b>Income:</b> Dues and Fees Hat Sale Southern Star Deposits	 \$1,625.00 \$20.00 \$5,361.00
3	<b>Expenses:</b> Monthly meeting Insurance GHRO Utilities (alarm, elec, internet) Southern Star Expense Service fee to accept credit cards	 \$337.98 \$356.00 \$173.90 \$217.58 \$56.44
4	<b>Operating Fund Balance: 04/30/2024</b>	<b>\$30,578.35</b>

### **Non-Operating Funds**

**Purpose: Administer gifts and donations for designated use.**

1	<b>Non-Operating Fund Balance: 03/31/2024</b> Scholarship Fund CAAC Self Insurance Fund Contingency Fund	 \$6,706.87 \$20,000.00 \$7,428.16
2	<b>Income:</b> Interest	 \$0.28
3	<b>Expenses or Transfers:</b>	 \$0.00
4	<b>Non-Operating Funds Balance: 04/30/2024</b> Scholarship Fund CAAC Self Insurance Fund Contingency Fund	 \$6,706.87 \$20,000.00 \$7,428.44

Scott Goforth  
CAAC Treasurer

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## News from GHRO

1. The next **Star Party is Saturday, June 8th** beginning at dusk.
2. Telescope training for new members (and those wishing to get a review) will be held on Saturday, June 15th, 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. Friday, May 10th we had the wonderful opportunity to view the aurora at GHRO. For more than an hour, the skies lit up with beautiful hues of red and green. On the 11th, many more people came to visit GHRO hoping for a repeat, but while we did not get another repeat performance of the aurora, we did have some wonderful stargazing and new member training before the clouds rolled in.
4. When observing at GHRO please ensure you minimize the amount of light you produce. Especially for imagers, **please take care to hide lights from your equipment and computers.** Plastic bins are available for use to put your laptop in.
5. Please follow the posted startup and shutdown procedures for any club owned scopes. This helps other members when they go to use our equipment.
6. 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/>
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 is available for all members of the club who get training, and it is operated from inside the Outreach Center. The telescope now has first light. Please contact Rick Bassham at [ghro@charlotteastronomers.org](mailto:ghro@charlotteastronomers.org) to learn how to use it. As a primer, if you are new to astrophotography, check out the [NINA tutorial by Everyday Astro on YouTube](#). A special thank you to Dr. Jim Hermann for his generous donations.
8. Anyone interested in the "Sponsor a Telescope" program, please reach out. 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 ([ghro@charlotteastronomers.org](mailto:ghro@charlotteastronomers.org)).
9. Anyone interested in helping out with grounds maintenance, please contact Rick Bassham. It currently takes about 5 hours for one person to mow and trim the full grounds, and any help would be appreciated. Special thanks to Dale Poole for doing a lot of mowing at GHRO.

10. The complete GHRO calendar for 2024 is below:

### 2024 Star Party and Training Schedule

Month	New Moon Date	Star Party Date	Moon Illumination	Moon Rise	Training Date	Training Start Time (PM)
January	11	13	7% waxing	9:28:00 AM	20	4:30:00 PM
February	9	10	1% waxing	7:58:00 AM	17	5:00:00 PM
March	10	9	1% waning	6:25:00 AM	16	6:00:00 PM
April	8	6	6% waning	5:52:00 AM	13	6:00:00 PM
May	7	4	16% waning	4:21:00 AM	11	6:30:00 PM
June	6	8	6% waxing	7:46:00 AM	15	6:30:00 PM
July	5	6	1% waxing	6:35:00 AM	13	6:30:00 PM
August	4	3	1% waning	5:27:00 AM	10	6:30:00 PM
September	2	7	18% waxing	11:05:00 AM	14	5:30:00 PM
October	2	5	8% waxing	9:57:00 AM	12	5:30:00 PM
November	1	2	1% waxing	8:50:00 AM	9	4:30:00 PM
November	30	30	0% new moon	6:43:00 AM	No training	
December	30	28	5% waning	5:33:00 AM	No training	

### What would you like to see at GHRO?

Please provide any suggestions on things you would like to see at GHRO! I want to make sure this facility is providing the maximum benefit to all of our members, and I can't do that without your feedback. GHRO is already a world class amateur astronomy location, but it can always be improved. You can always contact the GHRO director, Rick Bassham at [ghro@charlotteastronomers.org](mailto:ghro@charlotteastronomers.org).

Rick Bassham  
CAAC Observatory Director



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## **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.

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.

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## CAAC Outreach Report May 2024

For the first time in months, we have no outreach events scheduled.

On a personal note, I want to thank the members who have supported the outreach events during my time as CAAC Outreach Coordinator. During the last two years we have had 38 events or presentations to various groups in the Charlotte region. As I complete my tenure as Outreach Coordinator, I am pleased to pass this position to Tom Blevins who will do a great outreach job.

Ken Steiner  
CAAC Public Outreach Coordinator

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## CAAC Astronomy Ad Listings

Welcome to the CAAC classifieds. If you would like to post an ad in the newsletter, please let us know at the beginning of each month and we will list your items. Please provide a brief description and your contact information.

- Item 23-001:** **1958 Criterion Newtonian reflector**, 6" f/8 for sale with original mount.  
Asking \$600 with free delivery within the Charlotte area.  
- David Friday, [wdfriday@twc.com](mailto:wdfriday@twc.com) 704-579-1778.

- Item 23-002:** **New SkyQuest Intelliscope XT8**. List Price \$ 1,300.00.  
All manuals with it-including initial purchase paperwork  
- **Make An Offer.**  
- Contact Jim Gaiser



- Item 23-003-R1:** **Celestron Nexstar 130SLT**, Computerized telescope (Dobsonian) – NEW IN THE BOX, never unpacked. Current Amazon price is \$599. 1.25" Barlow lens included. PRICE - \$550 **MAKE ME AN OFFER I CAN'T REFUSE!**  
- James Foreman, [jforeman@charlestonmgt.com](mailto:jforeman@charlestonmgt.com)



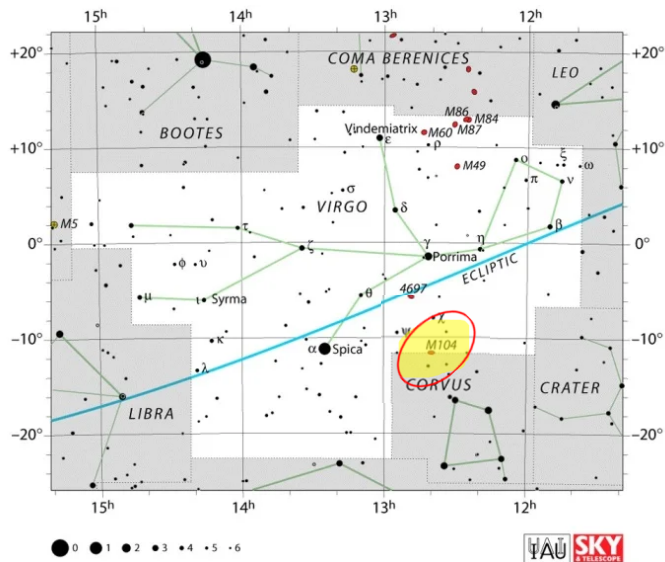
**Orion Skyquest XTg GoTo Dobsonian**, 12" – XT12g – (out of production now) NEW AND NEVER USED. On this one, I assembled the base to make it easier to store and move the tube around, but the tube and its internals have never been assembled. I built a platform with casters to move the scope around, and I also purchased a 12V sealed rechargeable battery (\$20 on Amazon) to power the electronics. There is also a telephone adapter (Celestron NexYZ - \$54 on Amazon) to fit over the eyepiece outlet. Bought the scope on Amazon several years ago for \$1795. PRICE - \$1750 **WOULD REALLY LIKE TO SELL – MAKE ME AN OFFER!**

- James Foreman, [jforeman@charlestonmgt.com](mailto:jforeman@charlestonmgt.com)



# The Night Sky in May 2024

## M104 – Sombrero Galaxy

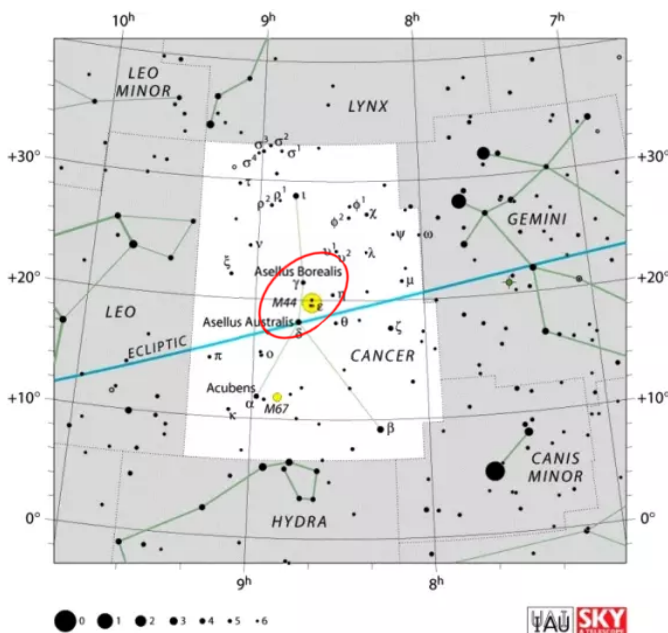


The well-known “Sombrero” galaxy, **M104** in Virgo is probably the best example of an “Sa” spiral, with tightly- wound spiral arms and a large luminous bulge. **M104** is not a member of the Virgo Cluster, and lies at about half the cluster’s distance. The Sombrero is a fabulous object in any telescope, and it is easy to locate by aiming three degrees south of the 5th-magnitude star Chi Virginis.

The galaxy’s lenticular form and bisecting dust lane are easily visible in small telescopes. Because **M104** is inclined six degrees to our line of sight, its dust lane appears to cross just south of the center. A large elliptical core surrounds a star-like nucleus, and depending on

the size of your telescope and the sky darkness, the south portion of the core may not be visible at all. The dust lane is narrow and dense, appearing to completely obscure the light from beyond.

## M44 – Beehive Cluster



**M44, Praesepe**, also popularly termed the Beehive Cluster, is one of the largest and brightest of all open star clusters. It is known from ancient times, but the actual nature of the cluster remained a mystery until the invention of the telescope in 1610. When Galileo observed the Beehive through his primitive telescope, he realized with astonishment that the small nebulous object is in fact composed of myriads of small stars.

**M44** is clearly visible to the naked eye as a misty patch, even from moderately light-polluted places. Finding it is pretty easy, the cluster is located just 1.5 degrees northwest of the 4th-magnitude star Delta Cancri.

Because of its great size covering 1.5 degrees of sky (or three times the apparent width of the full Moon), **M44** is best seen with binoculars or rich-field telescopes. The cluster will be easily resolved into dozens of stars of magnitude 6.5 or fainter.

We welcome and encourage our CAAC members to come and visit the **GHRO Observatory** to enjoy, learn, and observe these and other celestial wonders.

**Virgo and Cancer Constellation Maps** courtesy of IAU and Sky&Telescope, <https://www.constellation-guide.com/constellation-map/northern-constellations/>

We would like to acknowledge the content for this report was edited from information courtesy of NightSkyInfo, \*Please note that NightSkyInfo has merged with Starlust.org and the original NightSkyInfo content has been migrated to the new site, Tom Urbain (Starlust.org) Acquire NightSkyInfo.com

If you would like to download a map of each month's night sky, use this link, <https://www.skymaps.com/skymaps/tesmn2308.pdf> to download, print, and navigate the Evening Sky Map.

## **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!***

## Endowment Corner

Gifts for the Present:

### Appreciated Assets

You can give appreciated stocks, bonds, or mutual funds and receive an income tax deduction. In fact, there is a double tax benefit because neither you nor the CAAC Endowment is taxed on the capital gains of your appreciated assets.

FYI update: The CAAC Stewardship Foundation (Endowment) investment portfolio is now approximately \$26,713.00.

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

Ken Steiner  
Chair, CAAC Stewardship Foundation

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### CAAC CONTACTS

President	Jim Gaiser	<a href="mailto:president@charlotteastronomers.org">president@charlotteastronomers.org</a>
Vice President	Justin Peatross	<a href="mailto:vicepresident@charlotteastronomers.org">vicepresident@charlotteastronomers.org</a>
Treasurer	Scott Goforth	<a href="mailto:treasurer@charlotteastronomers.org">treasurer@charlotteastronomers.org</a>
Secretary	My Do	<a href="mailto:info@charlotteastronomers.org">info@charlotteastronomers.org</a>
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Southern Star	Jim Gaiser	<a href="mailto:southernstar@charlotteastronomers.org">southernstar@charlotteastronomers.org</a>