



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

Next Meeting: Friday May 18, 2018

Time: 7:00 PM

Place:

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

Address:

1900 Queens Road
Charlotte, NC 28207

CAAC May 2018 Meeting

Program:

Experience your place in the Milky Way Galaxy. Contribute to our scientific understanding of the universe. On May 18, 2018, Dennis Hands will share the insight and opportunity available in our classrooms to helping astrophysicists understand the universe. Galaxies will rule!

Speaker Bio:

Dennis Hands is an active member of the International Dark-sky Association and the Greensboro Astronomy Club. He teaches astronomy at High Point University and volunteers at Cline Observatory at Guilford Technical Community College (GTCC)

From the President

Congratulations to the Southern Star team for a great convention at Wild Acres. Folks enjoyed the meeting with comradery with other amateur astronomers, swap table and the very interesting speakers.

Reminder that the club has loaner telescopes available to any member. These are especially well suited for beginners who want to gain some experience with telescopes before making their own purchase. See Tom Montgomery about checking one of these scopes out.



Ken Steiner
President

CAAC Treasurer's Report as of 4/30/18

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: 3/31/2018		\$38,208.05
2	Income		
	Dues & Fees		150.00
	Prepaid Subscriptions		0.00
	Donation		70.00
	Southern Star Auction		4201.48
	Southern Star Receipts (net refunds)		442.50
3	Expenses		
	GHRO Expenses		351.21
	Admin, Miscellaneous		
	GHRO Utilities	0.00	
	Fees for Credit Card Service		338.93
	Meeting Expense (Room Rent)		5.55
	Southern Star Expenses		236.25
	Transfer to Savings		21,736.19
			4271.48
4	Operating Fund Balance: 4/30/2018		\$16,132.42

Part 2 of 2

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Balance 3/31/2018: Non-Operating Funds		
	Scholarship Fund		3,315.00
	Contingency Fund		27,933.94
	Long-Term Fund		2829.45
2	Income		
	Donation: Microsoft, BofA, Other		100.00
	Transfer from Checking		4271.48
	Interest		
3	Expenses or Transfers	.89	
	Balance 4/30/2018: Non-Operating Funds		
	Scholarship Fund		3,315.00
	Contingency Fund		27,933.94
	Long-Term Fund		7201.82

-Benton Kesler
CAAC Treasurer

CAAC Outreach Updates

CAAC Community Outreach needs you and your expertise. Outreach events connect CAAC members with groups in the Charlotte metro area who request star parties, presentations or training.

We would like to thank all members who attended outreach events during a very busy month of April. In particular a special thanks to those members who brought telescopes and shared their knowledge with the public. Our club received high praise from both The Catawba Lands Conservancy and Discovery Place.

As the temperature heats up so will another summer of CAAC outreach and events.

Make sure you are registered at the Night Sky Network so that you can receive automatic email notifications of upcoming events.

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

Kevin Moderow
CAAC Outreach Coordinator

FROM THE SECRETARY:

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. There will be telescope training for the solar, 8" refractor and the 16" reflector on Saturday night, May 26 beginning at 6 PM. I realize this is the Memorial Day weekend, but it's the only available weekend. If you haven't been trained, or want a refresher, come one down
2. The June star party will on Saturday, June 9, come on down!!!
3. I plan to have a GHRO work day on Saturday, May 19. Boy Scout Troop 405 from Charlotte will be camping at GHRO that weekend and will help us with any projects we have. Please send me an e-mail at jegaizer@carolina.rr.com to let me know you will be attending.

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.

SkyMaps

Check out <http://skymaps.com/downloads.html> for a printable PDF map of the night sky.

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 *****

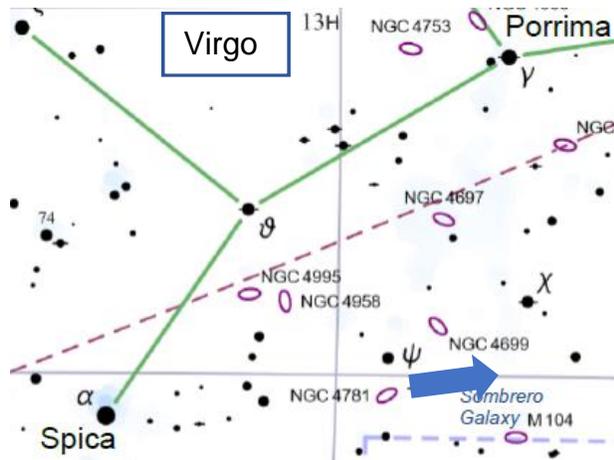
This facility and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

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.

May 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 galaxy and a wonderful cluster of stars!

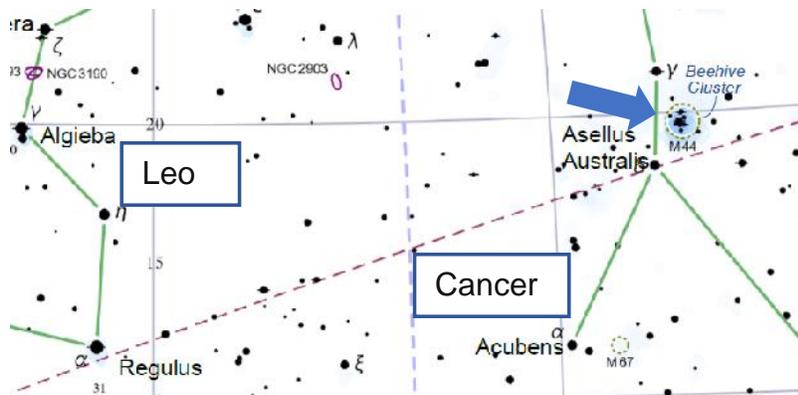


The well-known “**Sombrero**” galaxy, **M104** in Virgo is probably the best example of an “Sa” spiral, with tightly- wound spiral arms and a large luminous bulge. M104 is not a member of the Virgo Cluster, and lies at about half the cluster’s distance. The Sombrero is a fabulous object in any telescope, 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.

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 scroll down the left column to "Mag 7 Star Atlas" and just follow the link.

Happy Observing!

CAAC CONTACTS

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