Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

CAAC May 2021 Meeting

Next Meeting: Friday May 21st, 2021 **Time:** 7pm ET	**Place:** *Virtual Meeting - From the comfort of your home* **Address:** Zoom web conference link (See newsletter info below)

"Astrophotography from GHRO - a diversity of techniques"

Coordinated by our Observatory Directory Dr. Jim Gaiser

We will feature the expertise of our own members who are active in Astrophotography. They will share a variety of techniques and highlight some of the excellent results they have achieved in their pursuit of imaging our wonderful cosmos from our very own observatory (GHRO).

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://us02web.zoom.us/j/81031786709?pwd=ZlRlVGJTZ1YvbHQ2d3REaSttUnpKZz09

If needed Meeting ID: **810 3178 6709**

Passcode: **649379**

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:

This month brings to a close my time as your president. Our Charlotte Amateur Astronomers Club (CAAC) is without question one of the finest amateur clubs in existence. Thank you for the opportunity to serve as President for the past several years.

The dedication and hard work of the membership is a joy and an inspiration to me. The club can rightly be proud of the many efforts to share its passion for astronomy.

I leave with a very capable officer/director team in place. I anticipate great things in the future for CAAC.

I special thank you to Benton Kesler, our past Treasurer, and Dr. Steve Harris, Southern Star Chair, for their very capable service.

CAAC Officers/Directors:

President: Joel Levy
Vice President: vacant
Secretary: Nazim Mohamed
Treasurer: Scott Goforth
Observatory Director: Dr. Jim Gaiser
Outreach Coordinator: Neil Easden
Southern Star Chair: Jodie Funderburk
At large Directors: Benton Kesler and My Do

Thank You.
Ken Steiner

Dr. Megremis, 67 of Charlotte entered into the presence of God in the early morning of Saturday, May 8, 2021 after suffering a pulmonary embolism on Friday. Funeral services will be held at 11 am Wednesday, May 12 at St. Nektarios Greek Orthodox Church, 7108 Kuykendall Rd, Charlotte NC 28270.

Burial will follow at Forest Lawn East Cemetery in Matthews. His family will receive friends Tuesday evening from 5 until 7 PM with a Trisagion service held at 6 PM at Heritage Funeral Home, 3700 Forest Lawn Dr, Matthews NC 28104.

Tommy was born October 27, 1953 in Greensboro to Lampros Louie T. and Theodora Megremis. He attended Grimsley High School and graduated in 1972. He was a great athlete and student, playing baseball and softball well into his adult life. Tommy received his Bachelor of Arts from UNC Charlotte in 1976 and then moved on to graduate with his Master of Science in Chemistry in 1980. After receiving his Masters, he proceeded to graduate with his Doctor of Medicine from the University of North Carolina at Chapel Hill where he went on to specialize in OBGYN. He studied his residency at the University of Indiana and then transferred back to Charlotte to start his own OBGYN practice, Carmel OBGYN in 1990. During his career in Charlotte, he built a successful practice as a doctor and surgeon. He pioneered many new techniques and procedures for pelvic floor surgeries and delivered thousands of babies across the Charlotte region. He was always on a constant quest for higher knowledge and was continuously looking to improve the quality of his patients' lives. After retirement, Tommy joined the Charlotte Amateur Astronomers Club where he was awarded the title of Vice President of Programming. An avid Stargazer, he took a passion in building telescopes and bringing others of similar interest together.

He was a dedicated golfer and member of Carmel Country Club, researcher, and amateur pilot with a love for aviation. In 2010 he met Carolyn on a blind date and they were married in December 2012. Over the course of his life Tommy was able to travel the world and most recently with Carolyn they explored his family's country of origin Greece, as well as several other continents and most notably Africa which he loved. From the beginning they built a relationship of love, friendship and trust and from that point on they were inseparable.

In addition to his parents, his survivors include his wife, Carolyn Williams Megremis; sons, Matthew (Julie) Megremis and Theodore (Jennifer) Megremis; and his beloved grandsons, Aiden and Jayce Megremis, all of Charlotte; the mother his children, June Megremis; his sisters, Vicki (Ned) Vaughn and Georgette (Ed) Galloway, all of Greensboro and by their children Katherine, Victoria and Darden; and by his beloved uncle Kimmon (Gwen) and their daughter Megan (Ryan) and their sons, as well as many cousins.

The family asks that memorials be sent in Tommy's memory to St. Nektarios Church which he deeply loved and was founding member.

CAAC Treasurer's Report as of 4/30/2021

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 3/31/2021**		$9390.07
2	**Income**		
	Dues and Fees		225.00
	Donations		285.60
	Transfer from GHRO Capital		78.93
	Expenses		
	GHRO Utilities		279.00
3	Fee for Credit Card Service		8.33
	GHRO Capital		78.93
	GHRO Concrete, Fire Ant Treat, other		
	GHRO Trailer Repair	2180.41	
		157.12	
4	**Operating Fund Balance: 4/30/2021**		$7275.81

Part 2 of 2

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	**Balance 3/31/2021: Non-Operating Funds**		
	Scholarship Fund		2989.36
	Contingency Fund		27,360.21
	GHRO Infrastructure Improvement		26,642.35
2	**Income**		
	Interest		.47
	Expenses or Transfer		
3	Transfer to Checking from GHRO capital		78.93
4	**Balance 4/30/2021: Non-Operating Funds**		
	Scholarship Fund	2989.36	
	Contingency Fund		27,360.68
	GHRO Infrastructure Improvement		26,563.42

Benton Kesler
CAAC Treasurer

News from GHRO

1. I am pleased to announce that the COVID-19 protocol we have been living with at GHRO is being replaced with a new protocol, effective Saturday May 22.

   All fully vaccinated members and guests are permitted to use the facility without masking and social distancing restrictions. We are operating under the honor system, please respect it. Anyone who is not fully vaccinated will be required to wear a mask at all times while on the property. Anyone can be wearing a mask, so don't assume that a mask wearer is not vaccinated. I plan to wear one most of the time and I've been fully vaccinated since January. Fully vaccinated means that all shots have been received and at least two weeks have passed since the last shot. For Phizer and Moderna vaccines, both shots must have been received…J&J is a one shot protocol.
2. Star parties are back!! The first one will be Saturday evening, June 12, beginning at dusk…first stars about 9 PM.
3. 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.
4. The sidewalk in front of the Outreach Center has been extended another 20 feet and is in use. **Please be careful in the area of the sidewalk as the soil is graded but the grass is not back yet.**
5. The next training session at GHRO will be Saturday, June 19 beginning at 5 PM. Anyone who needs training (or a refresher) on the use of the club owned telescopes is welcome to attend. Please contact me via e-mail (jegaiser@gmail.com) to reserve your spot. Remember, training is required for access to any of the buildings.

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 ***

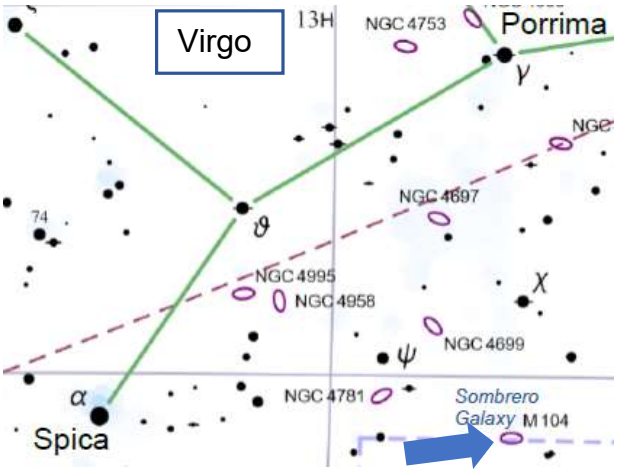
This facility (GHRO) and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

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.

May Sky Challenge

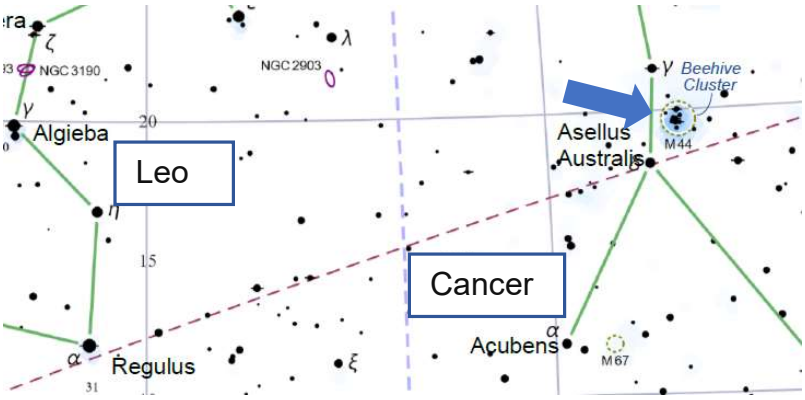
Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look! This month, a galaxy and a wonderful cluster of stars!



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 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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