



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

Next Meeting: Friday, May 19th, 2017
Time: 7:00 PM
Place: Myers Park Baptist Church
Address: 1900 Queens Road

CAAC May 2017 Meeting

Eclipses, History and Charlotte

There will be a total eclipse of the Sun on August 21st this year. If the weather conditions are favorable, we can view it after a short drive into central South Carolina. An eclipse is really not a rare event, it occurs somewhere on Earth about every year and a half.

For an eclipse to occur, the Sun, the Moon and the Earth must be in a special alignment. In the long ago past, this alignment produced an eclipse unlike those we now see and in the far distant future the total solar eclipse may not happen at all.

Eclipse viewers sometimes notice unusual behavior by birds. Shadows are also of a special eclipse variety. People from the Charlotte area have an eclipse viewing history going back to the year 1900.

Come to the May meeting and get filled in on the details.

Our presentation will be by long time member, Gayle Riggsbee.

Gayle is a native of Charlotte and a retired machine design engineer. He has been an avid amateur astronomer since joining the Charlotte Amateur Astronomers Club in 1960. He has served as both President and Vice President of the Charlotte club and for many years was the club's observatory director and telescope maker. Gayle founded the Southern Star Astronomical Convention, the popular annual astronomy lecture weekend at Wildacres retreat in the North Carolina mountains. He enjoys lecturing on the history of astronomy and has built telescopes ranging up to 24 inches in diameter. His telescopes have won national awards, including first place at the annual Stellafane meeting. The Charlotte club has honored Gayle with a lifetime membership and their club observatory complex is named in his honor.

FROM THE PRESIDENT:

We had a great Southern Star at Wildacres last month. A big thank you to Chair Jim Gaiser and his committee for a “stellar” event!

This month’s meeting marks the new officer year for CAAC. I want to thank Mark Hoecker for helping us out covering the VP duties this past year. I want to especially than him for his contributions to programing and leading the strategic planning session.

Two other officers who have served several years will be rolling off at the conclusion of this month’s meeting:

Ruth Rupert has served as our secretary since May 2015 greeting visitors and putting together our monthly newsletter along with the regular secretary duties. Thank you Ruth.

Phil Foust has served as our treasurer since May 2013. He has streamlined the accounting practices for the club that offers greater transparency and administration of this vital task which will be helpful for our new treasurer coming on board. Thank you Phil.

Two months ago you approved changes to our constitution which transitioned us from a Board of Directors composed of the “Officer Team” to an expanded board which I will call the “Leadership Team”. The new board will include, in addition to the regular officers, two (2) at large Board of Director members along with two ExOfficio members: Outreach Coordinator and Chair of Southern Star. This provides us with a board of nine members which will provide greater representation of the membership on the Board of Directors.

The leadership team which will officially take office at the conclusion of the May Meeting are:

President: Ken Steiner

Vice President: Jack Howard

Secretary: Nazim Mohamed

Treasurer: Benton Kesler

Observatory Director: Chris Skorlinski

At Large Board of Director Members: Karen Achor and Joel Levy

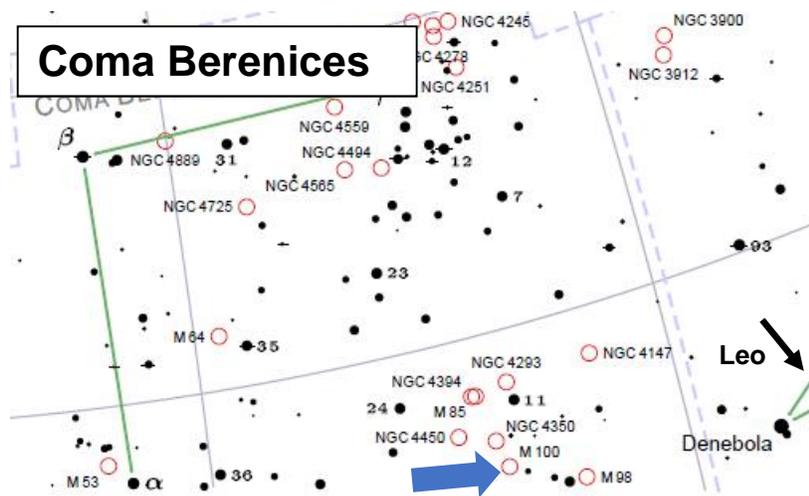
ExOfficio members: Outreach Coordinator: Keven Moderow and Southern Star Chair Jim Gaiser

I am excited to have this fine leadership team in place for the coming year.

Ken Steiner, President

May Sky Challenge

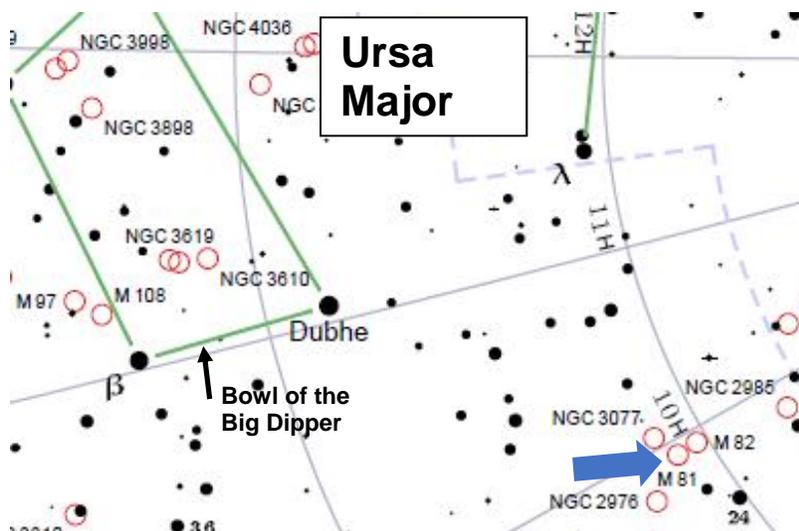
Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look! This month – three galaxies to find!



Coma Berenices

M100 can be spotted with large binoculars and backyard telescopes in Coma Berenices, a faint constellation M100 is the brightest and largest spiral galaxy in the Virgo Cluster and has a “grand design”, meaning that it has two symmetrically placed spiral arms that extend over most of its visible disk in

professional telescopic images. Through an 8-inch scope at low to medium power, look for a soft, round glow about 6' across. You will not see M100's spiral arms until you crank the magnification past 200X, and then only on the best nights.



M81 & M82 Galaxies

M81 is an outstanding Sb spiral galaxy in Ursa Major. Although its magnitude of 7 makes it bright enough to be visible in 7x50 binoculars in suburban skies, M81 it is pretty hard to find because it is located far from any handy reference stars. M81 is an example of a starburst galaxy undergoing a period of rapid star formation. Even in a small telescope it looks

disturbed, and in larger instruments it is highly mottled with several bright knots visible. Found within the same low-power eyepiece field as M81 is **M82**, a peculiar edge-on galaxy. Although it is a magnitude fainter than its neighbor, M82 offers more structural detail, but you will need a larger telescope to see that. Try visiting the GHRO on a clear night!

Acknowledgements:

NightSkyInfo www.nightskyinfo.com/archive for target descriptions, adapted.

Mag Star 7 Star Atlas Project © 2005 Andrew L. Johnson for star maps (clipped)

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? Large star atlases are pretty intimidating...confusing... and expensive. Cell phone apps are just hard to see.

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!

FROM THE SECRETARY:

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.

CAAC Apparel & Gear

Visit our Lands' End Store – Follow the navigation bar link on our club website:

<http://www.charlotteastronomers.org>

CAAC Treasurer's Report as of 4-30-2017

Part 1 of 3

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: 3-31-2017	\$12,656.34
2	Income	
	Dues & Fees	235.00
	Prepaid Subscriptions	34.00
	Expenses	
3	GHRO Expenses	384.78
	GHRO Utilities	161.85
	Fees for Credit Card Service	7.29
	Meeting Expense	98.12
	Administrative	685.32
4	Operating Fund Balance: 4-30-2017	\$11,587.98

Part 2 of 3

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Balance 3-31-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	18,552.00
	Long-Term Fund	2,920.10
2	Income	
	Donation: Microsoft	1,800.00
	Interest	0.67
3	Expenses or Transfers	\$0.00
4	Balance 4-30-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	20,352.00
	Long-Term Fund	2,920.77

Part 3 of 3

2017 Southern Star Fund Update

Southern Star Astronomical Convention is the club's largest educational outreach event each year. It's annual net financial contribution (income or expense) is posted to the club's Operating Fund.

As of 5/8/17, registrations were \$29,245.03 and expenses were \$26,772.26.

This year's Southern Star was held April 27th to 30th. Final accounting will be posted at end of May and reported in June.

Updates from Gayle H. Riggsbee Observatory

16" Telescope Retrofit

Under the masterful eye of Mr. Gayle Riggsbee the 16" cassegrain telescope is almost finished its retrofit. While the basic cassegrain design will remain, the telescope body is being redesigned to allow the mirror to be cleaned while still mounted in the telescope. For those of use who've removed that mirror we thank you! We hope to have the 16" fully operational by the Club's joint Star Party with Belmont Astronomy group on Saturday May 27th.

Upcoming Events at GHRO

Friday May 19 - This Friday, yes, during CAAC meeting, we'll be hosting local Girl Scouts for overnight at GHRO. If you're not attending CAAC meeting and IF the skies stay clear, you're welcome to join us at GHRO for the evening program and viewing through telescopes. Bring down your telescope and share the skies. We'll start at 7pm.

Saturday May 27 - CAAC Star Party with Belmont Astronomy Club. Last year this was a great event with over 40 members from CAAC and Belmont club attending. From 5-7pm we'll have picnic dinner, BYO BBQ, then evening programs starting with rocket launch starting 7pm. There will be lots of new to Astronomy and new to GHRO walking around so if someone looks lost, help them out. And please, easy on the technical jargon like f-ratio and aperture. Just point to your neighbors and say "bigger than his". Just don't point at Skip, I've not seen many that can match Skip's big DOB, its a wonderful setup, I hope he brings it on the 27th, hint, hint.

Rockets, Rockets, Who's got the Rockets?



We seem to be losing rockets at GHRO. I think it has something to do with Math; Wind + Trees + Altitude + Fun = Lost Rockets. The next time you're on Amazon and you need another \$10 to get that Free Shipping, consider buy and donating an Estes Ready To Fly (RTF) rocket like "Sizzler". These are quick to assemble and low cost is less painful when you see it drift away. Buy 2 and launch one yourself. Just drop it off at GHRO on your next visit we'll find some young Rocketeer excited to launch into space.

Check out the **NOTES** page (on lower left side) on <https://www.facebook.com/CharlotteAstronomers/> we added FAQ section for new visitor to GHRO.

Chris Skorlinski
Director Gayle H. Riggsbee Observatory
[704-966-4215](tel:704-966-4215)

GHRO Event Recordings: 704-909-0604
Chris Skorlinski Director GHRO 704-996-4215 or ChrisSkor@Hotmail.com

CAAC CONTACTS

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