



Charlotte Amateur Astronomers Club

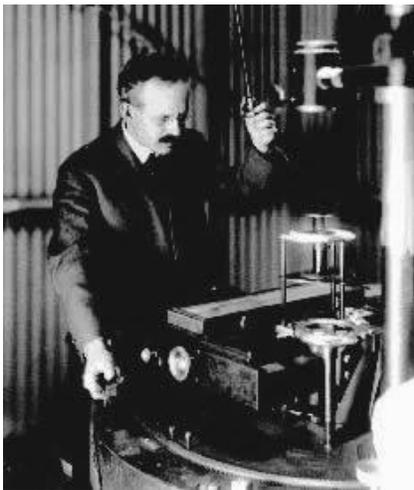
www.charlotteastronomers.org

Next Meeting: Friday, January 19, 2018
Time: 7:00 PM
Place: Myers Park Baptist Church
Address: 1900 Queens Road

CAAC January 2018 Meeting

Program:

George Ellery Hale



Hale was a driven individual who worked to found a number of significant astronomical observatories, including Yerkes Observatory, Mount Wilson Observatory, Palomar Observatory, and the Hale Solar Observatory. At Mount Wilson, he hired and encouraged Harlow Shapley and Edwin Hubble toward some of the most significant discoveries of the time. He was a prolific organizer who helped create a number of astronomical institutions, societies, and journals. Hale played a central role in developing the California Institute of Technology into a leading research university. After retiring as director at Mount Wilson, he built the Hale Solar Observatory in Pasadena, California, as his office and workshop, pursuing his interest in the Sun.

Speaker bio: Gayle Riggsbee

Gayle Riggsbee is a native of Charlotte and a retired machine design engineer. He has been an avid amateur astronomer since joining the Charlotte astronomy 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 Wild Acres 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 Stellafane. The Charlotte club has honored Gayle with a lifetime membership and their club observatory is named for him.

From the President:

During our last meeting folks were encourage to help themselves to the items on the library cart. There are a few items left, this will be the last opportunity to take items that might interest you. I will be introducing two new telescopes for our member's loaner program at Friday's meeting. We are asking that members who have loaner telescopes to return them so we can inventory and decide which ones will remain a part of the loaner program. Going forward the loaner telescope program will be administered by Tom Montgomery who has graciously agreed to do this along with heading the mentoring committee.

On January 6th, the CAAC Board of Directors held their quarterly meeting. Please find a summary of the meeting minutes attached (open embedded link):

 <--- Click to open

GHRO update:

1. I have posted on the doors at GHRO a Cold Weather Protocol to protect our pipes from freezing. If you are the last to leave during the cold weather months be sure to following the instructions to protect our facility.
2. We have experience excessive charges to our internet service. The Internet service at the GHRO is expensive if we go over our base usage. Please remember that this service is to provide a means to check the weather station and sky cam from your computer, provides the Observatory Director a means to check the video cameras when we receive an alarm notification, gives members access to internet at the facility for general astronomical information and weather forecast. This is not for sending and receiving very large files of astroimages and/or streaming of movies at the GHRO. We have experienced overcharges in excess of @200.00 per month, your cooperation in managing internet usage will be greatly appreciated. If we cannot control these overcharges then the usage will need to be severely restricted.

Finally, we can use volunteers to help set up the meeting room. Please let me know if you can help.

See you Friday,
Ken Steiner

CAAC Treasurer's Report as of 12-31-2017

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: 10-31-2017	\$14,842.98
2	Income	
	Dues & Fees	1995.00
	Prepaid Subscriptions	0.00
	Pad Fees	75.00
3	Expenses	
	GHRO Expenses	211.68
	GHRO Utilities	750.41
	Fees for Credit Card Service	50.86
	Meeting Expense	100.00
	Administrative	12.90
	Outreach _ Loaner Scope Program	558.68
4	Operating Fund Balance: 12-31-2017	\$15,228.45

Part 2 of 2

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Balance 10-31-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	23,404.00
	Long-Term Fund	2825.28
2	Income	
	Donation:	2350.00
	Interest	1.63
	Expenses or Transfers	\$0.00
3		
4	Balance 12-31-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	25,754.00
	Long-Term Fund	2826.91

-Benton Kesler
CAAC Treasurer

From the South Star Planning Committee:

Southern Star 2018!!!!!!!!!!

Dates have been confirmed

April 5th 2018 – April 8th 2018

SAVE THE DATE

More details to follow soon.
Keep your eye on your email inbox!!!

CAAC Outreach Updates

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.

On Sunday, Jan 21st the CAAC will be hosting a Telescope Workshop. All members are encouraged to attend. The purpose of the workshop is to help members of our community who received a new telescope or astronomy gear as a holiday gift. The workshop will be held from 2:00 - 5:00 PM at St. Francis United Methodist Church, [4200 McKee Rd, Charlotte](#).

Also, mark your calendar for a star gazing event Feb 23rd at Stalling's Blair Mill Park. This event is open to the public. Members are encouraged to attend and bring a scope.

More outreach events for the fall season have already been planned. Contact Kevin Moderow if you are interested in getting involved with outreach.

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.

But, in addition to that over the next several weeks I will be undergoing a membership maintenance effort to identify former members who are not current on their dues and clean up the name tags, email, and NSN lists.

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.

For Sale by Owner

- 8" Meade LX 3 SCT with original foot locker case
- Field tripod & Wedge
- 10 x 50 finder scope
- original 9 & 26MM eyepieces
- Hand controller
- JMI declination motor
- Piggyback camera mount
- Losmandy dovetail bar for GM 8 mount.

\$500.00

Contact Tom Blevins @ gblevins@att.net

News from GHRO

January 20th Start Party at GHRO

This Saturday looks to be perfect time for a January Start Party at GHRO. Weather forecast is clear skies and warmer evenings, perfect combination. Come down as join fellow members for evening of fellowship and viewing the Carolina winter skies.

GHRO Information (see <http://1drv.ms/1m2wPUu>)

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.

Chris Skorlinski, 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 ***

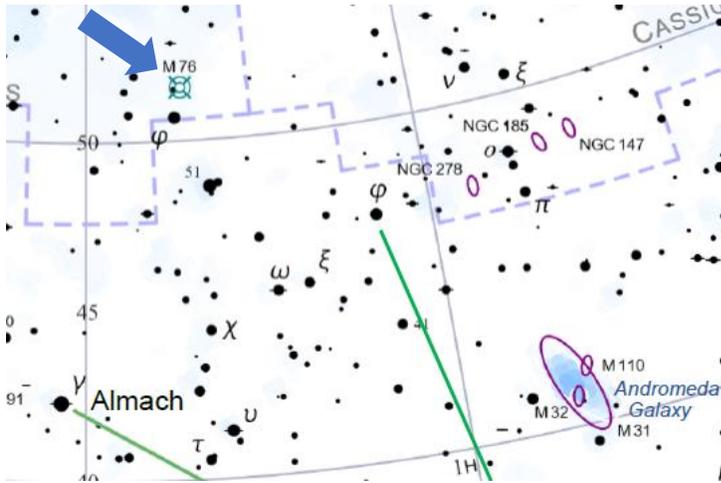
This facility and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

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.

January 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 planetary nebula and two clusters – all in Perseus!



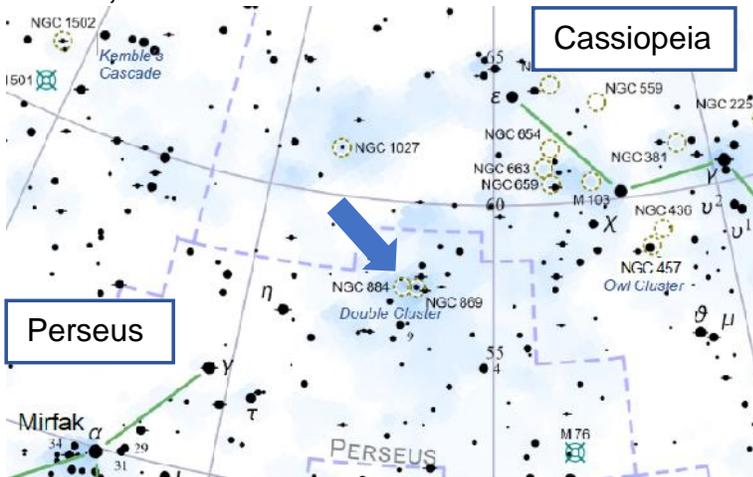
Perseus, M76

Most planetary nebulae appear as rings or disks, but a few of them have an irregular shape. The best example of this type of planetaries is **M76** (the Little Dumbbell Nebula), lying in the constellation Perseus at a distance of roughly 3,600 light-years.

At magnitude 12.2 M76 is the faintest object in the Messier catalog, but you can see it even with a 2.4-inch telescope as an elongated patch that is 64" across and runs northeast-southwest. Larger telescopes and high magnification show some fainter areas of nebulosity at each end of the nebula, forming the classic shape from photos. With an OIII filter still

more nebulosity is apparent on both sides, and especially beyond and south of the fainter northeast lobe.

Perseus, NGC 869 & NGC 884



... also known as h and Chi Persei, are two of the finest star clusters in the sky. This splendid group contains some of the most brilliant stars known and is visible with the naked eye as a hazy patch between Cassiopeia's W and the pointed top of Perseus. It is believed that this **Double Cluster in Perseus** has been known since pre-historical times, but was first catalogued only about 150 BC by the Greek astronomer Hipparchos. He referred to it as a "nebula" or "cloudy spot", one of the half dozen then recognized. The true nature of such objects remained a mystery until the invention of the

telescope in the early 1600's.

Binoculars show each of the clusters to have over a hundred stars, with the westernmost, NGC 869, appearing more compact. The two clusters cover an area two times the size of a Full Moon, with NGC 869 being the brighter and richer of the pair.

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? 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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