



Charlotte Amateur Astronomers Club
www.charlotteastronomers.org

Next Meeting: Friday, August 18th, 2017
Time: 7:00 PM
Place: Myers Park Baptist Church
Address: 1900 Queens Road

CAAC August 2017 Meeting

Program:

"Farewell to Cassini"

While media attention is focused on the upcoming solar eclipse, another historic mission is soon coming to an end. Cassini is the only spacecraft to orbit Saturn, and it has dramatically added to our understanding of the ringed planet over the last 13 years. And its Huygens lander gave us our first look at Titan, the only solar system moon with an atmosphere. Now at the end of its useful life, Cassini will plunge into Saturn's atmosphere on September 15. With videos and photos, we'll look back at this historic mission and what it has accomplished.

From the President:



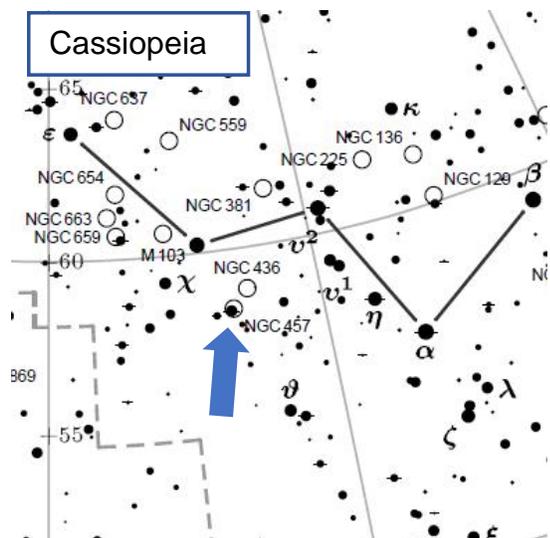
We are now on the final count down for the 2017 Eclipse. Hopefully the weather will cooperate but the long range forecast is a concern. I ask that all members in conversations with people with whom you come into contact the next few days to stress the safety issue of looking at the Sun. While several stores in the area are offering solar eclipse glasses (be sure they are ISO 12312-2:2015) I am sure some stores are sold out.

I will be absent for the August Meeting since I will be involved in final preparations for the Solar Eclipse observing at PARI (www.pari.edu). This is the first time that a total solar eclipse has taken place over a facility with large radio telescopes. We will be observing with the 4 meter, 12 meter and 26 meter scopes. Since this has not been done before we are not exactly sure what we may find. It is exciting to be a part of something new even if the outcome is uncertain. I hope to have something significant to report at a future CAAC meeting.

Ken Steiner
President

August Sky Challenge

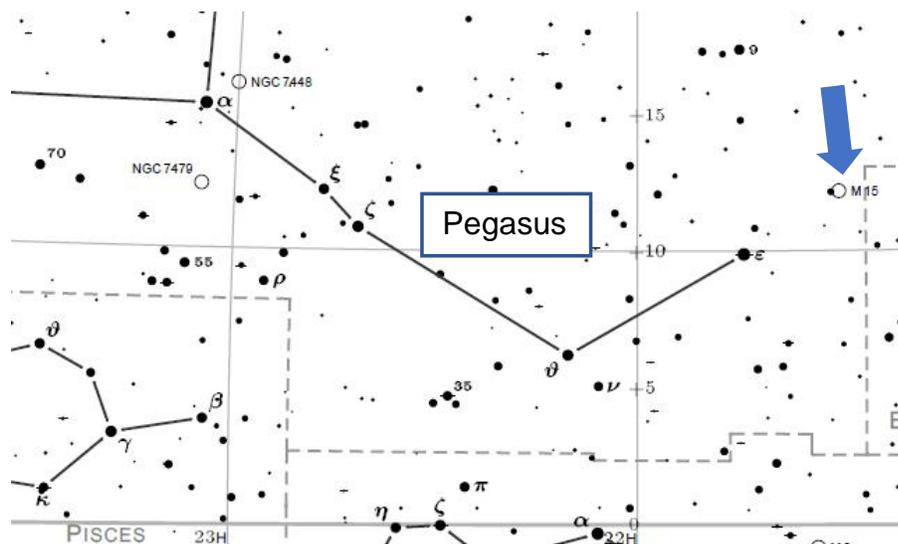
Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look! This month, an open cluster and a globular cluster!



The unmistakable “W” of **Cassiopeia** suspends itself high in the north, marking a section of the sky rich in open star clusters. One of these clusters is **NGC 457**, a bright object located in the rich star fields of the Cassiopeia Milky Way, about four degrees southwest of Gamma Cassiopeiae.

In the eyepiece NGC 457 appears as a scattered group of stellar points some 10 in diameter, consisting of about 100 stars brighter than 13th magnitude. One bright foreground star, Phi Cassiopeiae, is in the middle of NGC 457 but is not a member of the cluster. A 2.4-inch telescope resolves about two dozen stars,

while a 6-inch reveals almost all the stars of the cluster.



Looking in Pegasus
Globular clusters are huge symmetrical systems containing up to a million stars, which lie round the edge of the Milky Way. **M15** is easily found about 4° northwest of Enif (Epsilon Pegasi), the star at the tip of Pegasus' nose. It was discovered by French-Italian astronomer Giacomo Filippo

Maraldi in 1746 and rediscovered by Messier in 1764. Shining at magnitude +6.2, M15 is generally considered to rank among the dozen finest objects of its type in the northern sky.

From a dark site, keen-eyed observers can spot M15 with their naked eyes. Most binoculars reveal it as a nebulous patch with no visible stars embedded within, although some stellar resolution is barely discernible in larger glasses at 20x if the observer uses averted vision. A 4-inch scope will resolve dozens of stars around M15's strikingly bright core, with star chains winding out from the central region.

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!

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.

CAAC Treasurer's Report as of 7-31-2017

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: 6-30-2017	\$13,419.70
2	Income	
	Dues & Fees	180.00
	Hat Sales	30.00
	Prepaid Subscriptions	0.00
3	Expenses	
	GHRO Expenses	384.18
	GHRO Insurance	1141.62
	GHRO Utilities	164.85
	Fees for Credit Card Service	7.02
	Meeting Expense	0.00
	Administrative	0.00
4	Operating Fund Balance: 7-31-2017	\$13,073.65

Part 2 of 2

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Balance 6-30-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	21,654.00
	Long-Term Fund	2,922.21
2	Income	
	Donation: Bank of America	0.00
	Donation: Duke Energy	0.00
	Interest	0.76
3	Expenses or Transfers	\$0.00
4	Balance 7-31-2017: Non-Operating Funds	
	Scholarship Fund	5,315.00
	Contingency Fund	21654.00
	Long-Term Fund	2,922.97

Wonderful things are happening with the Charlotte Amateur Astronomy Club. Opportunities for exploration and outreach are growing. **Membership dues for the 2017/2018 fiscal club year are due in October** as usual. Currently dues are \$60 per family which includes access and privileges of the club's observatory (GHRO) in South Carolina. Dues can be paid online with your credit card, go to <https://squareup.com/store/charlotte-amateur-astronomers-club-2> and select Renewal Membership - Full Year. I can still accept your cash or check (made out to The Charlotte Amateur Astronomy Club) at our monthly meeting. We look forward to sharing the wonders of the night sky with you.

-Benton Kesler
CAAC Treasurer

UPCOMING OUTREACH EVENT

Community Outreach needs you and your expertise.

The August 12th Star Party at Camp T.N. Spencer saw cloudy skies and storms in the area. A similar event with Mt. Pleasant Public Library will likely be scheduled later in the fall. Mark the calendar for "Summer Stargazing" at Blair Mill Park in Stallings, August 25th. Blair Mill Park is at 1025 Fair Oaks Dr.

Finally, ask Kevin Moderow about "The Sun Is Also A Star" Community Read events in association with the Charlotte-Mecklenburg Library.

Kevin Moderow
CAAC Outreach Coordinator

For sale by owner

Astro-Physics Mach 1 GTO mount.
Celestron C-11 Edge OTA.
HyperStar lens for C-11.
Meade LX200R 14" OTA.
Astro-Physics 140MM Starfire refractor OTA.

Contact Paul Webb (803)240-5872 for more info and prices if interested. All equipment in like new/excellent condition all located in Columbia for pick-up.

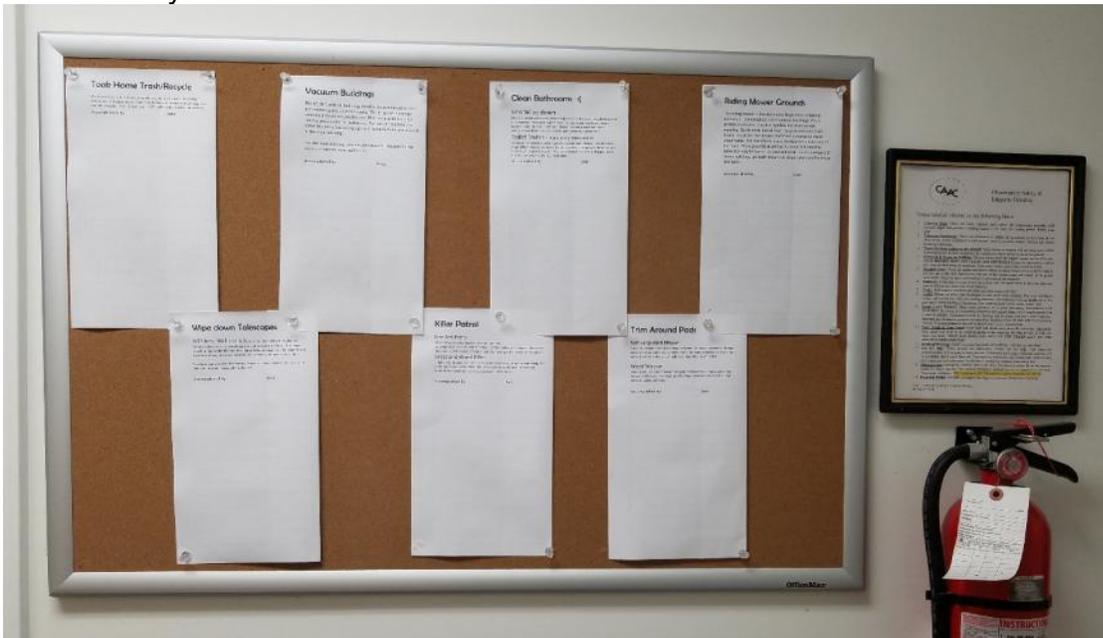
News from GHRO – Chris Skorlinski, Director

“WARNING” – Board of Directors recently approved new signs at GHRO to alert our visitors to watch their step while on grounds of GHRO. You’ll notice the new signs when you drive in, they’re big, they’re yellow and slightly reflective.



Now Can I help?

Looking for ways to help out at GHRO but don't know how? We recently updated the bulletin board with list of activities need to keep GHRO maintained as wonderful resource for all members. When you arrive, select an activity, directions provided, then jump in and lend a hand. Date and sign when complete to help track what was done when and by whom. We'd like to know who to thank!



“No Total Eclipse at GHRO”

No formal events are planned for GHRO during Great American Solar Eclipse as GHRO is not in path of total eclipse. If you're **not** planning on heading to Columbia or Greenville as part of mass migration south, you may want to watch Eclipse live on NASA channel. Should be show of a life-time!

NASA EDGE Megacast Eclipse Live Streams

Stream: NASA EDGE Main Show

Website: <http://www.ustream.tv/nasaedge> (link is external)

“Saturday, August 23rd CAAC Star Party” and “Saturday, September 16th CAAC Star Party”

CAAC members and their guests are invited to CAAC’s owned and operated Gayle H. Riggsbee Observatory (GHRO) near Taxahaw, SC. We have “open” pads for your telescope or just come down and look through one of our permanently housed telescopes. We’ll have members driving the scopes, no experience required for viewing night sky.

If weather looks cloudy in Charlotte, it may still be clear the observatory. For current conditions check the Sky Camera from our club’s weather page at

<http://charlotteastronomers.org/weather/>

Check out <http://skymaps.com/downloads.html> for downloadable list of objects and map for our August night sky.

“Saturday, September 23rd - Annual Cosmic Camporee ” -- CAAC members and their guests are invited to GHRO for our annual Cosmic Camporee. We’ll have a full day of events Saturday starting at 2pm, BBQ potluck dinner at 5pm, and dark clear skies for viewing Carolina Night Skies. Come down early Saturday and head over to 40 Acre Rock for easy hike.

Campers welcome Friday through Sunday.

Every year BBQ, chicken, and hotdogs are provided through generous member donations. Bring a dessert, salad, drink or side item to share. A "homemade", store bought Apple pie and ice-cream are still my favorite. Alcohol is allowed, sharing with GHRO Director and GHRO Volunteers is encouraged.

We’ll finish up with 8am Pancake Breakfast for overnight campers.



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.

CAAC CONTACTS

President	Ken Steiner	Ksteiner30@gmail.com
Vice President	Jack Howard	jackthoward@earthlink.net
Treasurer	Benton Kesler	benton.kesler@gmail.com
Secretary	Nazim Mohamed	info@charlotteastronomers.org
Observatory Director	Chris Skorlinski	chrisskor@hotmail.com
Public Outreach Coordinator	Kevin Moderow	kevinmoderow@gmail.com