



Charlotte Amateur Astronomers Club  
[www.charlotteastromers.org](http://www.charlotteastromers.org)

Next Meeting: Friday, March 17<sup>th</sup>, 2017  
Time: 7:00 PM  
Place: Myers Park Baptist Church  
Address: 1900 Queens Road

### **Pluto, its moons and the New Horizons Spacecraft**

Bob Cantu is a naturalist for the Blue Ridge Hiking Club, Grandfather Mountain Stewardship and the Grandfather Mountain Parks & Recreation. He is also an armchair astronomer and an active member of the Charlotte Amateur Astronomers Club since 1992. In his previous presentations to CAAC and other astronomy clubs, he has given talks on the Big Bang Theory, Jupiter's Galilean moons specifically Europa, several different presentations on Extrasolar planets, and a senior talk on Flora & Fauna of Grandfather Mountain. This month's presentation is on Pluto, its moons and the New Horizons Spacecraft.

For this talk, Bob asked for and got help from Dr. Alan Stern, Director of the New Horizons Spacecraft mission of the Southwest Research Institute and NASA. Bob's speaking engagements for the work-related printing industry and his pursuit of astronomy points of interest have taken him across the US, Canada, Europe, Australia, South America, Central America and Mexico. Several of his science articles have been published in national magazines. He was the 2001 recipient of NAPIM's Pioneer award, and TAPPI's 2007 Technical award.

A graduate of the University of Texas, Austin, Bob spends half of the year in Blowing Rock leading nature hikes, working up new astronomy talks, and volunteering at Grandfather Mountain Stewardship identifying birds of prey. The rest of the year, he's back in Charlotte.

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#### **FROM THE PRESIDENT:**

A big thank you to the members who turned out to represent the CAAC at the Stallings Community Star Party. The last count was placed at 350 people. They are very interested in doing this on a regular basis.

It is that time of year to be thinking about Officers and At Large Board of Directors (assuming the approval of the Proposed Constitutional Changes). Please let the President know if you have suggestions for these positions. The Officers will present a slate of officers at the April meeting, suggestions are welcomed.

The biggest item of business for the March meeting is the Proposed Constitutional Changes along with a document entitled "Rationale for CAAC Constitutional Changes". Please review these documents prior to the meeting and print out a copy if you wish to have one in your hands at the meeting.

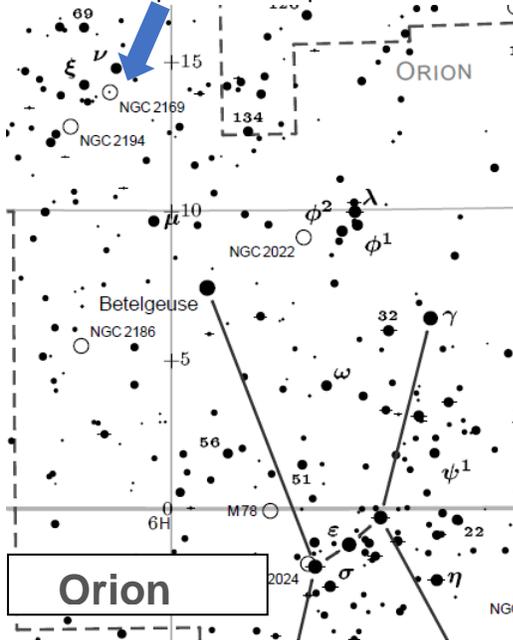
Let me know if you have any questions or concerns.

Ken Steiner, Club President

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# March Sky Challenge

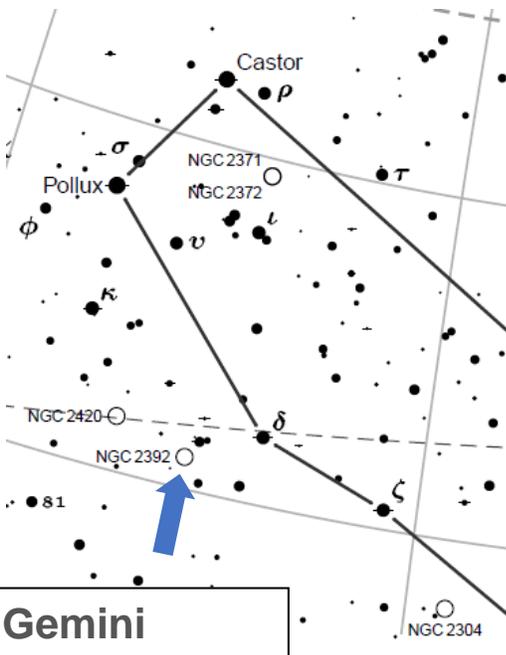
Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence!



## Orion NGC 2169 Open Star Cluster

Many clusters are named by their number in the New General Catalog (NGC), which was compiled between 1864 and 1908. Our highlight deep sky object this month is a little-known member of this catalog – **NGC 2169** in Orion.

NGC 2169, nicknamed “The 37 Cluster” due to its striking resemblance to the number 37, is located about 3,600 light years away from us.



## Gemini NGC 2392 Planetary Nebulae

- Some planetaries appear more like a ring – or even a face – than a disk. This is true especially for the **Eskimo Nebula** (NGC 2392) in Gemini the Twins. NGC 2392 is easily located about 1° southeast of the wide double star 63 Geminorum. With low power it is an unimpressive sight, appearing to be little more than a star surrounded by dim haze. However, increased magnification and a little patience bring out some interesting details. It just may look like a face surrounded by an Eskimo’s white fur collar! Try using averted vision (last month’s Astro Moment !) with this one.

### Acknowledgements:

NightSkyInfo [www.nightskyinfo.com/archive](http://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?

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.

## TREASURERS REPORT:

<b>CAAC Treasurer's Report as of 28-FEB-2017</b>		
	<b>Previous Month</b>	
	Long-Term Fund	\$ 2,918.84
	Scholarship Fund	\$ 5,315.00
	Contingency Fund	\$ 17,832.00
	Checking & Cash	\$ 14,721.50
<b>1</b>	<b>Balance: 31-JAN-2017</b>	<b>\$ 40,787.34</b>
	<b>Income</b>	
	Dues & Fees	\$ 35.00
	Donations To CAAC	\$ 25.00
	Southern Star	\$ 1.03
	Interest	\$ 0.60
<b>2</b>	<b>Total Income</b>	<b>\$ 61.63</b>
	<b>Expenditures</b>	
	GHRO Expenses	\$ 227.80
	GHRO Utilities	\$ 74.00
	Southern Star	\$ 0.70
	Bank Fees For Credit Card Service	\$ 2.37
	Meeting Expenses	\$ 145.83
<b>3</b>	<b>Total Expenditures</b>	<b>\$ 450.70</b>
<b>4</b>	<b>Balance: 28-FEB-2017</b>	<b>\$ 40,398.27</b>

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FROM THE SECRETARY:

### **31<sup>st</sup> Southern Star Astronomical Convention:**

Registration is now open for the 31st Southern Star Astronomical Convention to be held April 27-30 at beautiful Wild Acres Retreat. Speakers this year include Nobel Prize winner Dr. John Mather from NASA's Goddard Spaceflight Center, noted solar eclipse expert Dr. Jay Pasachoff of Williams College, amateur astronomer extraordinaire Glenn Chaple and star evolution expert Dr. Brad Barlow from High Point University. In addition, we have a special talk this year by Tom English from Guilford Technical Community College on the 1878 Great American Solar Eclipse. These talks, together with the wonderful atmosphere of Wild Acres, the potential for a 6th magnitude star party every night, an Ice

Cream Social one evening with a Wine and Cheese social the next should make for a wonder experience. Please email [jegaiser@carolina.rr.com](mailto:jegaiser@carolina.rr.com) with any specific questions.

#### 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](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>

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## Updates from GHRO

### **Saturday, March 25th, Star Party at GHRO**

Come on down Saturday, March 25th to GHRO for our monthly star party. Bring your own telescope or use one of the permanently housed telescopes. Come down 2 hours before sunset to view sun through our H-alpha Solar scope, then stay and observe the night sky. For dinner, pack a picnic or stop at JoJo Backyard BBQ on way to GHRO.

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.

#### GHRO Telescope Training:

Starting at 5pm, Saturday, March 25th we're have training on the club's telescopes. Class is designed for those with general familiarity of telescope operation and would like to use club scopes. We'll cover setup, alignment, observing, and shutdown first with the Solar scope, then 8" Alvan Clark refractor and moving on to 16" cassegrain. We'll cover a lot of material in short-time, but have plenty of dark sky for hands-on learning. Good targets for learning telescope operations are double stars, with plenty in the sky this time of year.

If weather looks cloudy in Charlotte, it may still be clear the observatory. You can also call the observatory at [704-909-0604](tel:704-909-0604) for a recording of current event information.

Chris Skorlinski, Director Gayle H. Riggsbee Observatory (GHRO)

[704-996-4215](tel:704-996-4215)

ChrisSkor@Hotmail.com

## CAAC CONTACTS

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Public Outreach Coordinator	To Be Filled	