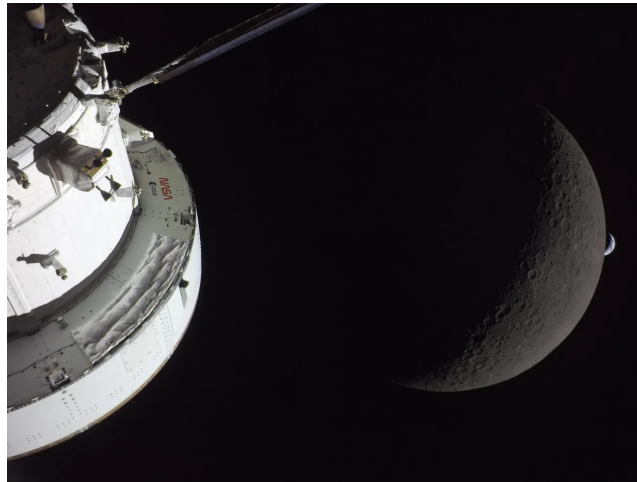




✧ Charlotte Amateur Astronomers Club  
 ✧ [www.charlotteastronomers.org](http://www.charlotteastronomers.org)

## Tracking Artemis II: Behind the Scenes at PARI



Pisgah Astronomical Research Institute (PARI) was asked by NASA to participate in the tracking and download telemetry of the Artemis II Moon mission. The presentation will review the overall Artemis II mission followed by the behind the scenes of the tracking at PARI. *(Photo courtesy of Nasa)*

**Speaker:** Ken Steiner

Ken Steiner, past President of Charlotte Amateur Astronomers Club, also served as CAAC Observatory Director for 7 years during the 2011 major expansion of the Gayle H. Riggsbee Observatory (GHRO).

He has served as Interim Executive Director of Pisgah Astronomical Research Institute (PARI), Brevard, NC. He currently is a Consultant for Special Projects at PARI including Dark Sky Park Designation and upgrading of the controls of the 4, 12, and 26 meter radio telescope dishes. At PARI he recently participated in the Artemis II moon mission tracking.

He arrived in the Charlotte area in 2001 as a Sales Engineer for Enprotech Technologies (Forging and Stamping Press rebuilding) covering the SE USA and Mexico. He has served on numerous national and international non-profit boards. Ken and his wife Deb have been active in the Charlotte Amateur Astronomers Club since their arrival in the Charlotte area.



### CAAC April Meeting

|  |  |  |
|--|--|--|
| <p><b><u>Next Meeting:</u></b><br/>         Friday April 17th,<br/>         2026</p> <p><b><u>Time:</u></b> 7pm ET</p> | <p><b><u>Place:</u></b><br/> <i>Myers Park Baptist Church<br/>         Education Building – Shalom Hall<br/>         (Basement)</i><br/> <i>Or Zoom Virtual Meeting<br/>         (See info on next page)</i></p> | <p><b><u>Address:</u></b><br/>         1900 Queens Road<br/>         Charlotte, NC 28207</p> |
|--|--|--|

## 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://us06web.zoom.us/j/82489334922?  
pwd=dWRsdDFkMjJOWFVNUFIIN1IFL1NoQT09](https://us06web.zoom.us/j/82489334922?pwd=dWRsdDFkMjJOWFVNUFIIN1IFL1NoQT09)

If needed Meeting ID: **824 8933 4922**

Passcode: **893125**

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>

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**From the President:**

Greetings Friends,

What a past couple of weeks! The historic Artemis II mission launched on the 1st, with the crew successfully returning on the 10th. Hopefully you were able to watch and keep up with everything going on with that.

Southern Star is next weekend! Since we aren't quite a sellout, we've extended registration until after the meeting on Friday, April 17th. Please bring a printed form and a check to the meeting if you want to sign up! It's too late to order tee shirts, but we've still got a few beds available. If you're interested in joining us at Southern Star, we've got 4 outstanding speakers, a smart telescope discussion, wine and cheese social, as well as (hopefully) clear skies for viewing at 3300 feet.

It's also election month! The leadership team is presenting a slate of candidates for officers of the club at the April meeting. Please reference the slate of officers accompanying this newsletter. The election will take place during the meeting, with the elected officers taking office after the regular May meeting.

Clear skies,

Justin  
CAAC President

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## Secretary's Report:

1. We will be casting votes for the slate of Board of Directors at this month's club meeting.
  - Current active members with dues paid are eligible to vote. Individual membership has one vote and Family Membership has one vote.
  - Members livestreaming via Zoom may vote via chat with their membership name.
  - Members may cast nominations from the floor. The nominations shall be seconded to be carried and placed on the ballot.
  - The slate of Board of Directors candidates is attached to this newsletter. The club will vote at the April 17th club meeting.
2. **CAAC 2026 Southern Star Conference - Registration is Open!**  
April 23-26 at Wildacres Retreat. Please see the enclosed Southern Star 2026 flyer for the Speakers List and programs. Register at this [link](#) on the CAAC website. We will have more information about this terrific event at our Friday meeting including a call for volunteers for the 2026 Southern Star Committees.
3. The **2026 CAAC annual membership** began in October and we want to express our gratitude to new joining members and to our renewing members. Your participation is greatly appreciated.
  - Annual individual/family membership, which includes access to the CAAC dark sky [observatory](#) (GHRO) - \$60.00
  - Dues are collected at the October meeting and are pro-rated for members joining in January or later.
  - Students up to 18 years old - \$15.00 per year.
  - Private Observing Pads - additional \$25.00 per year.  
Optional fee for members with private concrete observing pads at the club's dark sky location. Contact the Observatory Director for additional information.

Membership Applications are available through the CAAC Treasurer at monthly meetings. Click <https://charlotte-amateur-astronomers-club-2.square.site/> to navigate to the CAAC online store. Then select "CAAC Membership" to add it to your cart

4. 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.

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!

5. Register with the **Night Sky Network!** It is imperative that all members of the CAAC join the Night Sky Network (NSN). Many of the club's 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](http://nightsky.jpl.nasa.gov/club-apply.cfm?Club_ID=1468&ApplicantType=Member-Pre-Monthly)

6. **Are you looking for ways to participate in the club?** We would appreciate volunteers for the following standing committees to better serve our members:
- Room Set Up
  - Refreshments
  - Audio/ Video
  - Web Master/ Social Media. Please be on the lookout in the next couple of weeks for emails with more details and how to participate. Please contact the CAAC Officers and let us know which committee interests you. Thank you for your consideration. The club is adding a new CAAC Astronomy Equipment Sales page to the newsletter. Please check out the offerings at the end of the newsletter.
7. The club is adding a new CAAC Astronomy Equipment Sales page to the newsletter. Please check out the offerings at the end of the newsletter.



8. Sign up for **CAAC Slack / chat!**

Chat with fellow astronomy and astrophotography enthusiasts on our discussion group. This is a free service, we are using the basic plan. See who's going to GHRO, ask questions, or just be sociable. You can access via webpage or native applications on all major platforms and mobile phones. Sign up, introduce yourself, talk to your peers, tell your stories, ask your questions, and share your wisdom!

How do I sign up?

- Visit this link: <https://slack.theastroshed.com> or email [caac-slack@jamieandamy.com](mailto:caac-slack@jamieandamy.com)

If you run into issues signing up, email Jamie at [caac-slack@jamieandamy.com](mailto:caac-slack@jamieandamy.com) and he will help you get on the team.

9. The **CAAC website**, <https://charlotteastronomers.org/> has been updated to provide better service to our members with easier navigation, up to date announcements and postings, and accessible communication. Please explore and enjoy your new CAAC website.

Best,

My Do  
CAAC Secretary

## CAAC Treasurer's Report as of 3/31/2026

### 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 Southern Star income (or expense).

\*Funds are expended to meet operating obligations of the club.

|   |  |                    |
|---|--|--------------------|
| 1 | <b>Operating Fund Balance: 2/28/2026</b> | <b>\$20,279.51</b> |
| 2 | <b>Income:</b>                           |                    |
|   | Dues and Fees                            | \$255.00           |
|   | Donation                                 | \$3,743.81         |
|   | Southern Star Deposits                   | \$13,660.00        |
| 3 | <b>Expenses:</b>                         |                    |
|   | Meeting expenses                         | \$138.37           |
|   | Outreach expense                         | \$97.80            |
|   | CAAC Director's insurance                | \$333.00           |
|   | GHRO Equipment repair & purchase         | \$2,037.60         |
|   | GHRO Utilities (alarm, elec, internet)   | \$402.90           |
|   | Service fee to accept credit cards       | \$10.24            |
| 4 | <b>Operating Fund Balance: 3/31/2026</b> | <b>\$34,918.41</b> |

### Non-Operating Funds

**Purpose: Administer gifts and donations for designated use.**

|   |   |             |
|---|---|-------------|
| 1 | <b>Non-Operating Funds Balance: 2/28/2026</b> |             |
|   | Scholarship Fund                              | \$4,706.87  |
|   | CAAC Self Insurance Fund                      | \$30,000.00 |
|   | Contingency Fund                              | \$7,434.68  |
| 2 | <b>Income:</b>                                |             |
|   | Interest                                      | \$0.36      |
| 3 | <b>Expenses or Transfers:</b>                 |             |
| 4 | <b>Non-Operating Funds Balance: 3/31/2026</b> |             |
|   | Scholarship Fund                              | \$4,706.87  |
|   | CAAC Self Insurance Fund                      | \$30,000.00 |
|   | Contingency Fund                              | \$7,435.04  |

Scott Goforth  
CAAC Treasurer

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## News from GHRO

1. Don't forget the monthly star party on Saturday, April 18...dusk is getting later!!!
2. The next training date is May 23 **at 6:30pm**, nothing in April because of Southern Star.
3. When observing at GHRO please ensure you minimize the amount of light you produce. Especially for imagers, **please take care to hide lights from your equipment and computers**. Plastic bins are available for use to put your laptop in.
4. Please follow the posted startup and shutdown procedures for any club owned scopes. This helps other members when they go to use our equipment. Please ask if you are unsure.
5. Don't forget that the current sky conditions and weather and the Clear Sky Clock is found at the bottom of our homepage... <https://charlotteastronomers.org/>
6. The binocular observatory building is complete and the binoculars should be installed by end of month...ready for training on May 23. We ran into a couple of issues that needed resolution but they're completed now and the binoculars should be installed shortly.
7. The complete GHRO calendar for 2026 is at the bottom of this page.

## What would you like to see at GHRO?

Please provide any suggestions on things you would like to see at GHRO! I want to make sure this facility is providing the maximum benefit to all of our members, and I can't do that without your feedback. GHRO is already a world class amateur astronomy location, but it can always be improved. You can always contact the GHRO director, Jim Gaiser at [ghro@charlotteastronomers.org](mailto:ghro@charlotteastronomers.org).

## 2026 GHRO Star Party and Telescope Training Schedule

|                  | Star Party | Moon Illumination on Star | Moon rise/set time | Training Date              | Training start time (PM) |
|------------------|------------|---------------------------|--------------------|----------------------------|--------------------------|
| <b>January</b>   | 17         | 3% waning                 | 4:26 PM (set)      | 24                         | 4:30                     |
| <b>February</b>  | 21         | 16%                       | 10:58 PM (set)     | 28                         | 5:00                     |
| <b>March</b>     | 21         | 6% waning                 | 10:57 PM (set)     | 14                         | 6:00                     |
| <b>April</b>     | 18         | 1% new                    | 9:52 PM (set)      | No training, Southern Star |                          |
| <b>May</b>       | 16         | 1% new                    | 5:42 AM            | 23                         | 6:30                     |
| <b>June</b>      | 13         | 6% waning                 | 4:15 AM            | 20                         | 6:30                     |
| <b>July</b>      | 11         | 15% waning                | 2:53 AM            | 18                         | 6:30                     |
| <b>August</b>    | 15         | 8% waxing                 | 9:47 PM (set)      | 22                         | 6:30                     |
| <b>September</b> | 12         | 1% new                    | 8:13 PM (set)      | 19                         | 5:30                     |
| <b>October</b>   | 10         | 0% new                    | 6:40:00 PM (set)   | 17                         | 5:00                     |
| <b>November</b>  | 7          | 4% waning                 | 4:10 PM (set)      | 14                         | 4:30                     |
| <b>December</b>  | 12         | 9% waxing                 | 8:21 PM (set)      | No training in December    |                          |

Jim Gaiser  
CAAC Observatory Director

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## **GHRO Information**

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.

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.

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## CAAC Outreach Report April 2026

### Scheduled:

**04/22/2026 Southminster Retirement - Planets + Lunar**

[8919 Park Road Charlotte 28210](#)

Setup: 7:30 PM

Program: 8:30 - 9:30 PM

**04/24/2026 Aquinas Learning Charlotte - GHRO Heritage Learning Center - Planets + Lunar**

[1427 Bloomwood Dr, Lancaster, SC 29720](#)

Setup: 7:30 PM

Program: 8:30 -10:00 PM

**04/25/2026 Statewide Star Party - Morrow Mountain State Park - Planets + Lunar**

[49104 Morrow Mountain Rd, Albemarle, NC 28001](#)

Setup: 6:00 PM

Program: 7:00 - 9:00 PM

**05/22/2026 Cornelius Family Campout - Robbins Park Cornelius - Lunar**

[Robbins Park 17500 W. Catawba Ave. Cornelius](#)

Setup: 7:30 PM

Program: 8:30 - 10:00 PM

**05/23/2026 Huntersville Parks & Recreation - R.C. Bradford Park Huntersville, NC - Lunar**

[R.C. Bradford Park 17005 Davidson - Concord Rd, Huntersville, NC](#)

Setup: 7:30 PM

Program: 8:30 - 10:00 PM

If you would like to volunteer with any of these outreach programs, please contact Tom Blevins at, [publicoutreach@charlotteastronomers.org](mailto:publicoutreach@charlotteastronomers.org)

Clear Skies,  
Tom Blevins  
CAAC Public Outreach Coordinator

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## CAAC Astronomy Ad Listings

Welcome to the CAAC classifieds. If you would like to post an ad in the newsletter, please let us know at the beginning of each month and we will list your items. Please provide a brief description and your contact information.

- Item 24-001:** *Obsession 15 Classic f4.5 with Argo Navis, Custom Equatorial Platform, etc.* for sale in Chapel Hill. \$2700. Local pick up or seller is willing to drive for meet up. Ad can be viewed on AstroMart [here](#), or contact:
- Bob Clemen, [rtclemen@gmail.com](mailto:rtclemen@gmail.com)



**Item 24-002:** Sold

**Item 24-003:** Sold

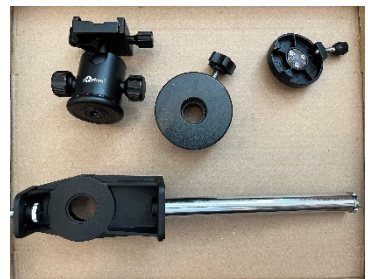
- Item 24-004:** *Star Tracker for sale: iOptron SkyGuider Pro EQ camera & the optional iOptron SkyTracker Ball Head camera mount, lightly used & in excellent condition.* for sale in Charlotte
- Included:

1. *iOptron SkyGuider Pro EQ camera (mount model #355)*

- internal rechargeable lithium battery, good for 20 hours of operation
- illuminated internal polar scope for polar alignment & built in bubble level
- built in camera trigger port & ST-4 guiding port
- Detachable counterweight shaft & 3-pound counterweight

2. *Includes the separately purchased iOptron SkyTracker Ball Head camera mount (model #3305A)*

- ball head mount allows for 360 degree panning & makes it easy to tilt a camera into position
- can support a heavy camera lens, bubble levels on each axis & also has a dovetail mounting bracket



List price for this package brand new with the optional ball head mount is \$463 today. Asking \$325 for the full package. Can be picked up in Charlotte or other arrangements may be accommodated, contact:

- David Harris, 704-577-8977, [davidharris11@yahoo.com](mailto:davidharris11@yahoo.com)

- Item 23-001:** *1958 Criterion Newtonian reflector*, 6" f/8 for sale with original mount. Asking \$600 with free delivery within the Charlotte area.
- David Friday, [wdfriday@twc.com](mailto:wdfriday@twc.com) 704-579-1778.

- Item 23-002:** **New SkyQuest Intelliscope XT8.** List Price \$ 1,300.00.  
All manuals with it-including initial purchase paperwork
- **Make An Offer.**
  - Contact Jim Gaiser



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## The Night Sky in April 2026

The monthly Sky Challenges provide three levels or degrees of observations ranging from Binoculars, to Small Telescope, to the Challenge Object. The fun is in the hunt for each object and to take time to carefully observe, may be sketch, and share your observations.

### Deep Sky Challenge – NGC 5053 Mag. 9.96 very sparse Class 11 Globular Cluster

Discovered by William Herschel on 3/14/1784.

Mag. 9.96 **R.A.** 13 hr. 16 min. 42 sec. **Declination** +17 deg. 41 min.



### Urban Challenge – NGC 2903 Mag. 9 SBb Type Barred Spiral Galaxy

Another William Herschel discovery on 11/16/1784. Somehow as bright as this galaxy is, Messier seems to have missed this one. Should be visible in an 8" telescope under urban skies.

Mag. 9. **R.A.** 9 hr. 32 min. 10 sec. **Declination** +21 deg. 30 min.



## Double Star Challenge – 54 Leonis

With 6.6 sec. Separation, the pair should be an easy split in even a small telescope.

Mag. 4.5 mag. AO primary and 6.2 mag. A2 secondary with 6.6 sec. separation  
**R.A.** 10 hr. 55 min. 36 sec. **Declination** + 24 deg. 44 min.

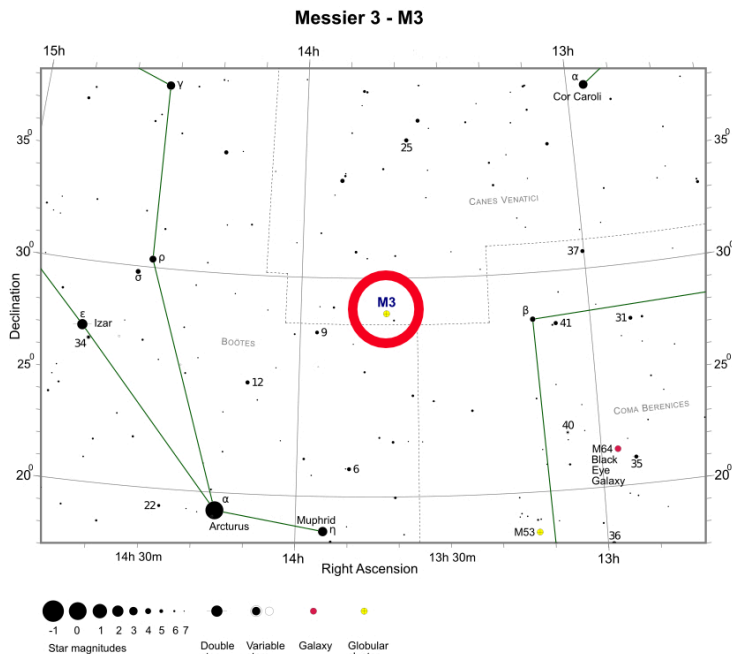


## Small Scope Objective – N/A

Mag. \_ R.A. \_ Declination +\_.

## Binocular Challenge – Messier 3 Mag. 6 Globular Cluster

Easily located by following a straight line to a point about halfway between Arcturus and Cor Caroli in Canes Venatici. Plainly non stellar in 10 X 50 binoculars, and definitely fuzzy in 15 X 70 binoculars.



We welcome and encourage our CAAC members to visit the **GHRO Observatory** to enjoy, learn, and observe these and other celestial wonders.

**Celestial Objects** Map courtesy of [Stellarium](#)

*We would like to acknowledge the star field map for this report was edited from information courtesy of [Mag Star 7 Star Atlas Project © 2005 Andrew L. Johnson for star maps](#)*

If you would like to download a map of each month's night sky, use this link, <http://www.skymaps.com/downloads.html> to download, print, and navigate the Evening Sky Map.

## **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!***

## Endowment Corner

### Gifts for The Present

#### Matching Gifts:

Matching gifts from your employer can double and sometimes triple the value of your gift to the CAAC Endowment and your support of the astronomical programs important to you. To find out whether your employer offers a matching charitable gift program, please contact your human resources officer.

To make a contribution or learn more, please visit <http://charlotteastronomers.org/endowment.htm>

FYI: The balance in the CAAC Stewardship Foundation is \$33,703.31.

Ken Steiner  
Chair, CAAC Stewardship Foundation

#### CAAC CONTACTS

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|                             |                  |  |
|-----------------------------|------------------|--|
| President                   | Justin Peatross  | <a href="mailto:president@charlotteastronomers.org">president@charlotteastronomers.org</a>           |
| Vice President              | Margaret Dunford | <a href="mailto:vicepresident@charlotteastronomers.org">vicepresident@charlotteastronomers.org</a>   |
| Treasurer                   | Scott Goforth    | <a href="mailto:treasurer@charlotteastronomers.org">treasurer@charlotteastronomers.org</a>           |
| Secretary                   | My Do            | <a href="mailto:info@charlotteastronomers.org">info@charlotteastronomers.org</a>                     |
| Observatory Director        | Jim Gaiser       | <a href="mailto:ghro@charlotteastronomers.org">ghro@charlotteastronomers.org</a>                     |
| Public Outreach Coordinator | Tom Blevins      | <a href="mailto:publicoutreach@charlotteastronomers.org">publicoutreach@charlotteastronomers.org</a> |
| Southern Star               | Jim Gaiser       | <a href="mailto:southernstar@charlotteastronomers.org">southernstar@charlotteastronomers.org</a>     |