



# ***Harford County Astronomical Society***

*2015 Monthly Newsletter*

*Vol. 42 Issue 6--- June*

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*HCAS is an affiliated member of both the Astronomical League and the Night Sky Network*

This is an official publication of the Harford County Astronomical Society

Please go to our website for the latest updates for viewing schedule changes, and Public Outreach Events

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submit articles to the newsletter at : [hcasnewsletter@gmail.com](mailto:hcasnewsletter@gmail.com)



## Harford County Astronomical Society Executive Committee and Board Members

Please feel free to contact these members at anytime with your concerns.

### *Executive Committee:*

*Robert (Bob) Kesler*..... President

*Jim Gerlach* ..... Vice President

*Tim Kamel*..... Treasurer

*Rick Fensch* ..... Secretary

### *Sitting Members of the Board:*

Tom Rusek      Larry Hubble      Mike Talbard

Dave Jayroe      Tim Phelan

### *Technical Advisor to the Board: (Lifetime Standing)*

Mark Kregel

### *Astronomical League, Night Sky Network coordinator:*

Colleen Gerlach

### *HCAS MISSION STATEMENT*

- HCAS IS A GROUP OF PEOPLE FROM VARIED BACKGROUNDS OF ALL AGES BOTH MEN AND WOMEN WITH A COMMON BOND, THE LOVE OF ASTRONOMY. HCAS IS ASSOCIATED WITH THE HARFORD COUNTY COMMUNITY COLLEGE ( HCC ) AND HAS THE EXCLUSIVE USE OF THE OBSERVATORY AND ASSOCIATED MEETING ROOMS.
- 
- HCAS MEMBERS ARE FRIENDLY, AND WE WELCOME ANYONE WITH AN INTEREST OF ASTRONOMY TO JOIN OUR RANKS. A BEGINNER OR ADVANCED OBSERVER AND OR AN ASTRO-PHOTOGRAPHER. HCAS IS COMMITTED TO THE PEOPLE OF HARFORD COUNTY TO ASSIST AND AUGMENT LEARNING AND INTEREST IN ASTRONOMY, AS WELL AS PROVIDING STRONG, ALL VOLUNTEER OUTREACH PROGRAMS TO SCHOOLS, CLUBS, AND OTHER INTERESTED ORGANIZATIONS



### Goals for HCAS

- 1.- PROMOTE THE INTEREST AND LOVE OF ASTRONOMY FOR THE PEOPLE OF HARFORD COUNTY, MARYLAND.
- 2.- ADVOCATE FOR DARK SKIES AND FIGHT LIGHT POLLUTION AND LIGHT TRESPASS.
- 3.- ENGAGE WITH SCHOOLS, CHURCHES, SCOUTS AND OTHER GROUPS TO EXPAND KNOWLEDGE AND INTEREST IN ASTRONOMY.
- 4.- ESTABLISH AND MAINTAIN AN ATMOSPHERE AT THE OBSERVATORY WHERE EVERYONE IS INCLUDED AND INVITED TO JOIN AND SHARE ASTRONOMY BY VISUAL OBSERVING AS WELL AS ASTRO PHOTOGRAPHY, REGARDLESS OF SKILL LEVEL OR EDUCATION.



This newsletter is an official publication of :

Harford County Astronomical Society

P.O. Box 906

Bel Air, Maryland 21014

For any articles and or pictures you would like to submit to the newsletter for consideration for publication

Please read the following :

It is strongly suggested that all articles be submitted in a “Word” document and sent to the newsletter email address at: [hcasnewsletter@gmail.com](mailto:hcasnewsletter@gmail.com)

Articles and pictures will need to be submitted by the deadline. The deadline for each monthly issue is **NO LATER THAN** the third week of each month.

All pictures in each newsletter are copyrighted by the photographer, any duplication of the pictures need permission from the photographer, for permission please forward all inquiries to the newsletter and your request will be forwarded to the photographer, and permission will be granted by the photographer and only the photographer.

Any address changes should be brought to the attention of the editor given above. Any complaints concerning any content of this newsletter should be brought to the attention of the editor promptly.

Please visit our website at : [www.harfordastro.org](http://www.harfordastro.org)

Visit us online at [www.facebook.com](https://www.facebook.com/Harfordastro) / Harfordastro



*Upcoming Club  
Events for June*

*HCAS Open House:*

Saturday June 27<sup>th</sup> @ 8:30 pm here at the Observatory ,

*HCAS General Meeting:*

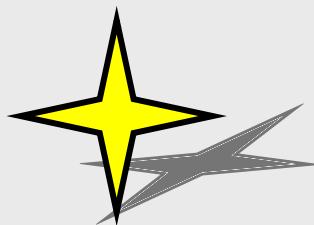
Thursday July 2<sup>nd</sup> @ 7:00 pm in the classroom

*HCAS Board of Directors Meeting :*

Thursday JULY 30<sup>th</sup> @ 6:30 pm in the classroom

*HCAS Members Only Night:*

Please consult the "Members Only" page of the website for details



## A Message from Our President

### *HCAS Members:*

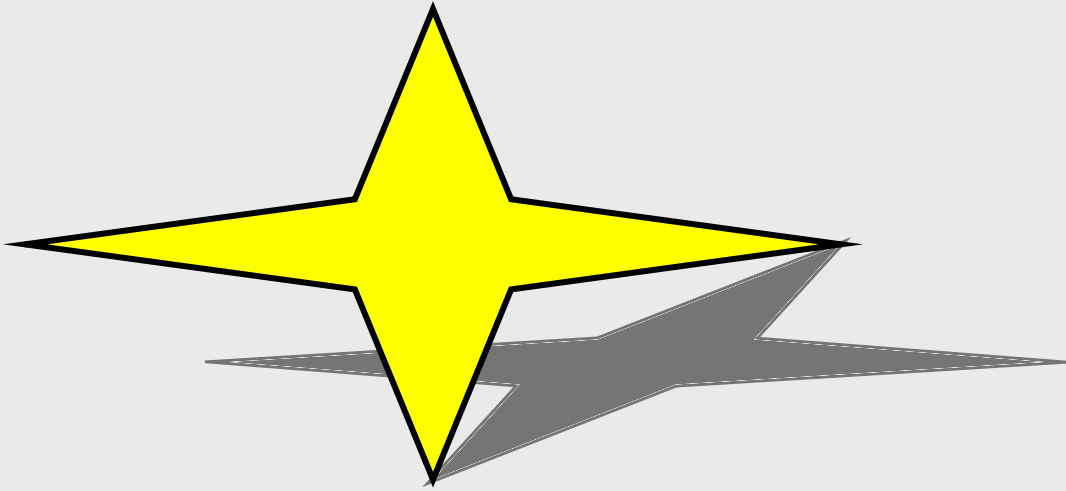
**Wow**, what a great year we have had and what a great year we have ahead of us! I'm very excited about the future and proud of the past. I wanted to take this opportunity to share with you a few notes from our annual meeting which we had on Thursday night, May 28th, 2015. I hope you will take a minute to look this over.

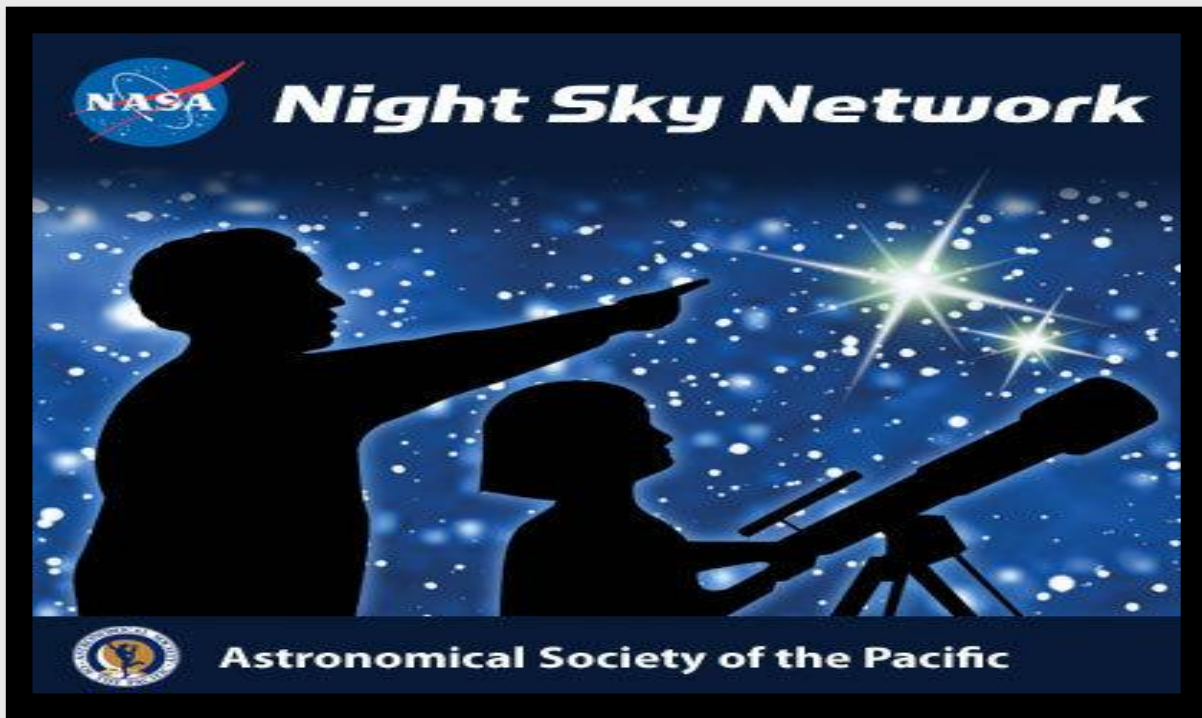
- A **huge thanks to HCC** for their continued support. We have a **new road, sign, parking lot and the trees are shorter. Thank you, Dean Wrobel**, for your help and support.
- Thanks to **HCPS for partnering with HCAS** on several very cool first ever events.
- Thank you members - you are awesome!**
- HCAS conducted **6 open houses and 243 people attended**. Amazing participation for the community.
- We have a new **10" Meade LX200** for use at Open House events.
- HCAS was given a 22" diameter mirror** which will be housed in a new Dob mount which **we will build at the HCC observatory with member expertise**. Very exciting!
- HCAS has been contacted by **Towson University Astronomy professor** to enlist us in a **national program** called project **ASTRO**. They will be at our **July 2 General Meeting**. Don't miss it!
- HCAS has been contacted by **Oak Ridge Associated Universities** asking us to support a residency class **of 40 high school students from across the US** to offer an **evening session at the Observatory**. Very exciting!
- Where **we want to improve and expand...**
  - General meeting speaker program
  - Visual observing group in HCAS
  - Members only nights at the Observatory
  - Build on the HCAS 40 achievement pin
  - More visits to Broad Creek and other dark sites

Well, HCAS, that's about all for this message. I hope you all get a sense of excitement about the future as well as a feeling of pride for what we have accomplished.

Thank you and best regards. Remember to have fun with astronomy.







At last month's HCAS business meeting, President Bob Kesler was given the names of our members who have earned their Night Sky Network award for the past year. Each year Night Sky Network asks for the names of people within the group who have assisted with community Outreach to a level they recommend. This year we are pleased to have 14 of our members who will receive the award which will be a certificate and a pin in appreciation of their hard work with the Outreach Program. The awards go to the following:

Bob Kesler, Karen Carey, Tom Rusek, Rick Fensch, Mark Kregel,  
Larry Hubble, Jim Gerlach, Colleen Gerlach, Dave Jayroe, Tim Kamel,  
Tim Phelan, Gary George, Mike Talbard, and Paul Sokolowski.

Thank you to each of these members for their efforts to provide education to the public about Astronomy and for sharing their expertise with others.

Colleen Gerlach Night Sky Network coordinator



Allow me to quote a paragraph from the letter that was received from the Astronomical Society:

*“It has been a pleasure to review your observation notes and recognize your accomplishment by awarding you the Astronomical Leagues Advanced Lunar Observing Award Certificate and Pin, your notes are very well organized and a pleasure to review, Remember you are now part of a small group of nationally recognized Lunar Observing Enthusiasts. I hope that you will continue to share your enthusiasm of our Moon and pass this on to others.”* It gives me great pleasure to award this Certificate to:

**Gary George**

on this day the 30<sup>th</sup> of March 2015.

**John Goss**

Astronomical League President

**Clifton B. Mygatt Jr.**

Astronomical League Lunar II Coordinator

**CONGRATULATIONS GARY!!!**

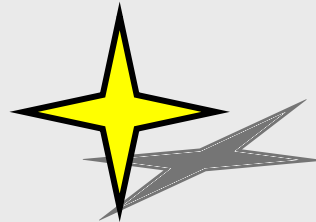
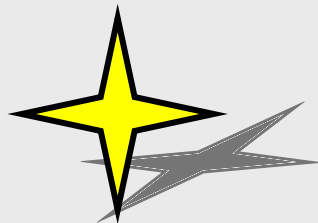
## Planets this month June :

*Mercury* – very low in the *ENE* in the morning twilight, last week of month

*Venus* ----- low in the *WNW* in the evening twilight

*Jupiter* ----- in the *W* during twilight, sets in the *NW* near midnight

*Saturn* ----- in the *S* at dusk, sets in the *WSW* near dawn



## Moon Phases this month:

*FULL MOON* – Tues. June 2 @ 12:19 pm (Strawberry Moon)

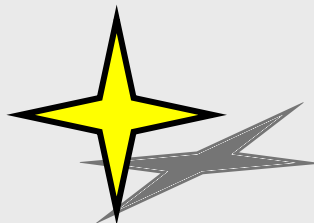
*Last Qtr.* – Tues. June 9 @ 11:42 pm

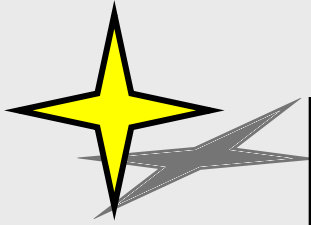
*New Moon* ---- Tues June 16 @ 10:05 am

*First Qtr.* --- Wed. June 24 @ 7:03 am

## Other notable events for the month:

*Wed. June 24* - The *Straight Wall* are visible this evening.





## Membership Drive 2015 - 2016

Fellow members of the HCAS

It is early spring and it is time again to start mowing, putting down mulch and planting flowers. And, it is time to renew your membership in the Harford County Astronomical Society.

I have attached a document requesting some information from you but if there has been no change since last year, don't bother with it. Otherwise, there is information on payment options.

Hoping for clear skies soon,

Tim Kamel  
Treasurer

# Harford County Astronomical Society

Bel Air, Maryland  
www.harfordastro.org



## 2015-2016 MEMBERSHIP RENEWAL FORM

It is mid May and it is again time for our membership renewal dues.

Please make your check payable to the **Harford County Astronomical Society** and send  
the check, along with this form, by **6/1/2015**, to:

### Membership Renewal

**Harford County Astronomical Society**

**P. O. Box 906**

**Bel Air, MD 21014**

Or, if you prefer to use PayPal, you can do so using the link on our website at [Harfordastro.org](http://Harfordastro.org).

Cash payments will be accepted during our open house and business meeting functions.

To help us maintain an accurate roster of our membership, please provide the following information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-Mail: \_\_\_\_\_

### Membership Dues (check the level):

Family (\$37.50): \_\_\_\_\_ Individual (\$25.50): \_\_\_\_\_ Donation: \_\_\_\_\_

# Harford County Astronomical Society

Bel Air, Maryland  
www.harfordastro.org



## 2015-2016 MEMBERSHIP RENEWAL FORM

### Club Discount Subscriptions (check if you want and include payment):

Astronomy Magazine \$34.00 \_\_\_\_\_

We need a minimum of 5 subscriptions to qualify for this price. I will return your money if we do not make it.

For those members with a Sky & Telescope subscription, you should be receiving from them renewal notices and you should go ahead and use one of them. S&T no longer has a membership department and there are no club renewal programs that I can find.

TOTAL ENCLOSED FOR MEMBERSHIPS AND SUBSCRIPTIONS: \$ \_\_\_\_\_

If you have any questions, please contact the club Treasurer, Tim Kamel, at:

410-937-8008 or [hkamel32@comcast.net](mailto:hkamel32@comcast.net).

## Open House

Tim K.

### April 2015

Nope, another stinker, weather wise. It was overcast with no hope of improvement. I went anyway as we had committed to a scout group that we would accommodate them. When I arrived, there were people already waiting including a couple that had been meaning to visit use for a few years and just never could get out. So I told them that I would give them a tour and had security open the building. By then, the scout group showed up as well as a few other people. I started to panic a bit that this might turn out to be a well attended session and I had no help.

I took the group up to the dome and Tim Phelan also showed up then. We talked a bit about the scope and mount, and some of the things that we did. I opened the wind screen, and there was the moon, barely visible through the clouds. So I started the scope up and was able to bring in the moon, but we could just barely make out the edge. I then slewed the scope to Venus and was able to see it through the clouds. It was a terrible view. Could not really see a disc or crescent. We then tried for Jupiter and were able to view it that the view was not particularly good.

I would estimate that we had about 20 guests including a scout group. The event ended about an hour later.



## May 2015 / Tim Kamel

This open house event was a beauty. Weather was perfect, with a good guest turnout and lots of members. Our big event tonight was for Abingdon ES. Dale Woodring had arranged this event for his wife who teaches there. We were all lucky this night. There was not a cloud in the sky all day and into the night. Turnout was very good and we estimate at least 40 guests that included the students and their families as well as members of the general public that dropped by to take a look.

I had a family dinner scheduled and was not expecting to come, but dinner was over by 7:30 and it was still bright daylight, so I made it to the event a few minutes after 8 and helped in the dome. We mostly focused on three objects - Venus, the Moon and Jupiter.

All were bright and clear and the Moon cast its magic, getting most of the comments from the visitors. As the night moved on, we were also able to bring in Saturn, which has just hit Opposition Friday night. We were also able to view the globular clusters M13 and M92 in Hercules, as well as the galaxy M81 in Ursa Major.

Member participation was also quite high this night, I guess everyone was itching to make use of this fine night as well as support the outreach. Beside me there were Larry and Ricky, Gary, Mark, Tom, Rick F, Tim P, Karen, Dale, Jim, David and Bob. Most of these members set up scopes in the parking lot and were featuring whatever was available. Tom did a presentation to visitors till it got dark enough for viewing through a scope.

The event itself ended at about 11 PM though a couple of members remained to do some astrophotography.

May 23, 2015 / Tom Rusek

The forecast was predicted to be warm and clear a week before the event. And so it was! The evening of May 23<sup>rd</sup> was, in my opinion, one of the best we ever had for an Open House Event. The skies were a vivid blue with not a cloud in sight. The weather was just right with no wind to speak of.

I arrived at 6:45pm and opened up the **Observatory** with the HCC police. After setting up my power point presentation, in the large conference room, I found a broom and swept the dome area, stairs and entrance to the facility (many LARGE dead bees, but not enough for a cookout). By 7:30pm, several members along with anxious families started to arrive. This was to be **the Third Annual** visit for the **Abingdon Elementary 5<sup>th</sup> grade students**.

The presentation commenced at 8:10pm with approximately 40 students, teachers, parents and other visitors. This was a good time since it would not be dark enough for viewing for another 30 to 45 minutes.

The presentation covered Saturday's **5 day old moon**, upcoming events in the astronomical world, and the realm of **Pluto, dwarf planets, globular clusters**-and what the sky would look like if you lived on a planet in one-, and **the Milky-Way Galaxy**.

Newer topics such as "**Numbers in Astronomy**" and "**Name that Nebula**" were also featured. Everyone participated in guessing the Nebula's names. The guesses were astounding and we all had an enjoyable time. I think everyone wanted more nebulae to guess. Who do you call on when almost everyone is raising their hands and waving frantically?

I told them that we were going to learn a new word and that very few people on Earth knew its EXACT meaning. The word was "(one hundred) **QUINVIGINTILLION**", the number of **atoms in the observable universe**. Do you know how many this is? **They do!!!**

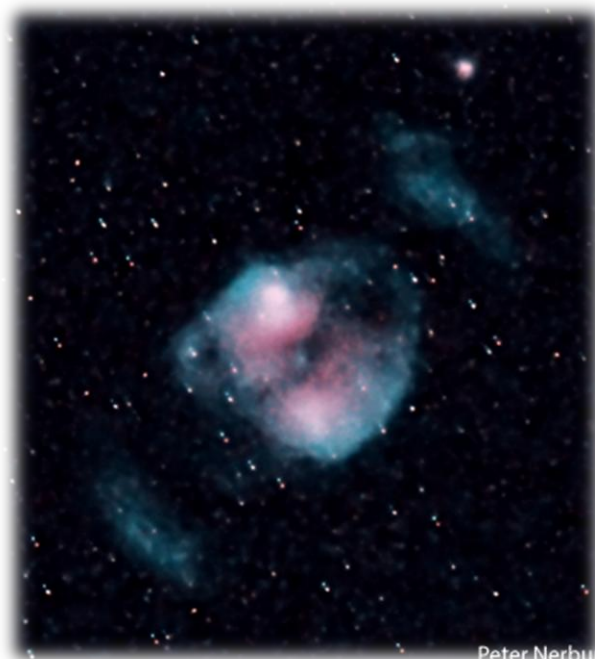
## Gemini Nebula (NGC 2371-2)

Peter Nerburn

This image shows planetary nebula NGC 2371-2, also known as the Gemini Nebula. Note the two lobes of gas expanding from the central star; within each of these lobes one can see a pair of shells. The inner shell consists of hydrogen gas glowing in red at a wavelength of 6563 Angstroms; surrounding the hydrogen is an outer shell of oxygen glowing in blue green at a wavelength of 5001 Angstroms.

Also note the blue-green wing structures above and below the two lobes; these wings are part of a large halo of gas surrounding the lobes of the nebula. The gas of the nebula glows in red and blue-green because ultraviolet energy from the central star strips the hydrogen and oxygen atoms of their electrons to form ionized hydrogen and oxygen; when the electrons rejoin the ionized gas and subsequently cascade downward to a lower quantum state the result is that photons of red and blue-green light are emitted.

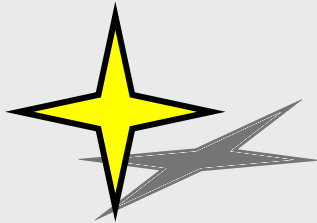
NGC 2371-2 is about 4,300 light years from Earth; it has a visual magnitude of 11.19. I captured this image on May 9 2015 at 0225 UT by recording 15 minute sub frames using a cooled ATIK monochrome CCD camera coupled to H-alpha and O-III narrowband filters on a C11 SCT. To enable auto guiding I used an Off-Axis Guider and Lodestar guide camera. on a C11 SCT



Peter Nerburn

**WELCOME OUR NEWEST MEMBERS**

Let's give a very warm **WELCOME** to our newest members,

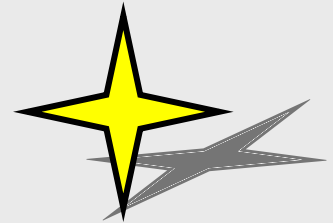


***Joseph Deitzel & Family***

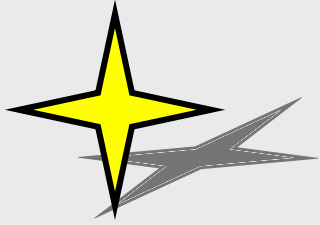
***Kelly Stewart & Family***

***David Lari & Family***

***Robert Auberger***



hope you have as much fun and enjoyment as we do.



Visit our website at: [www.harfordastro.org](http://www.harfordastro.org)

Visit us on Facebook at: **Harford County Astronomical Society (HCAS)**

