



Harford County Astronomical Society

2015 Monthly Newsletter

Vol. 42 Issue 4--- April

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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

www.harfordastro.org

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Articles for submission to newsletter ; 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 GerlachVice 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

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

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

Upcoming Club Events:

April Events for the club are as follows:

HCAS Board of Directors Meeting :

Thursday April 2nd @ 6:30 pm in the classroom

HCAS Open House:

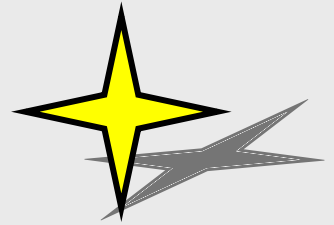
Saturday April 25th @ 8:30 pm here at the Observatory ,
Delta / Cardiff Cub Scout Pack 400 (between 5 – 10 people attending)

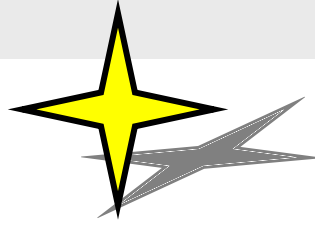
HCAS General Meeting:

Thursday April 30th @ 7:00 pm in the classroom

HCAS Members Only Night:

Please consult the “Members Only” page of the website for details





Mountain Christian STEM Night

Monday April 27th

On Monday April 27th the Harford County Astronomical Society has been invited to participate in the annual STEM Night at Mountain Christian Church in Joppa. These STEM nights are a great way for the club to create visibility in the community and to bring our passion for astronomy to young people who are already interested in science and math.

As a club we have participated in many of these STEM events over the last couple of years and we usually get a great and enthusiastic team of volunteers who help out. I'm sending this email out to try to get an idea of who is interested in volunteering at this event.

Normally we have one club member who gives a presentation about something astronomy-related and other members will bring their telescopes and set them up and give demonstrations of how to use them/how they work. I believe this is an indoor-only event so I do not think there will be any observing taking place.

If you are free on Monday April 27th in the evening and would like to donate your time and talents to bringing astronomy to our youth then please email me at tphelan88@gmail.com with your name and phone number and how you can help out.

Please see the text below from our contact at MCC for a description of the event. Thank you in advance and I hope you're all gearing up for warmer weather for your observing sessions.

Mountain Christian School, in Joppa, MD, is holding its fourth annual STEM Night on Monday, April 27, 2014. We would love for your organization to be part of this well received event and treat you to dinner (volunteers). Please let me know if that will be possible and save the date on your calendar.

If you can join us, please send me a title, brief 2-3 sentence description of your program, and a list of supplies you will need. Please also let me know which age group your presentation will be most appropriate for (K-4 or 4-8).

You may arrive in the New Life Center (larger, newer building down the hill) at 1824 Mountain Road in Joppa anytime after 3:30 on April 27 to set up. We will have volunteers

available to assist you. We would like to invite you for dinner anytime from 4-5:30pm-
please come hungry :)

Students will be selecting 4 stations to visit from 6-8pm. Each station will run for 20 minutes
and will be repeated by the presenter 4 times with a 5 minute break between each session for
students to switch stations. You will have between 10-20 students visit you each session.

Sessions will run as follows:

6:15-6:35

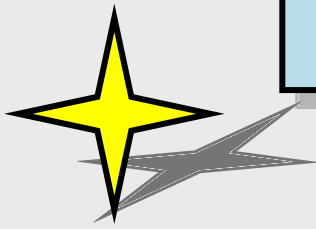
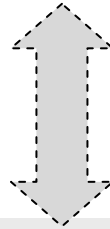
6:40-7:00

7:05-7:25

7:30-7:50

PLEASE NOTE:

If you cannot participate, please forward this email to anyone you think may be able to
help us.



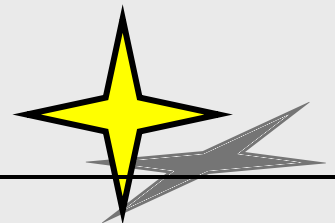
HOLD THIS DAY OPEN

Red Pump Elementary School is planning a STEM day on TUESDAY May 19th from
9:30 AM - 3:30 PM. They are asking HCAS if we would like to participate in terms of a
booth or table to set up displays, hand outs and possibly demo how a telescope operates.

If you can volunteer please let me know before Monday and we will follow up with
more details. Mike Talbard will be the POC for this event.

Once I get the list of volunteers I will pass to Mike for coordination.

Thanks for your help Bob



Open House January 24, 2015

Tim K.

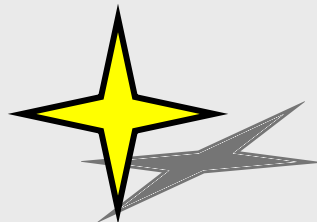
We did hold an open house at the observatory that date. It was a clear night, though it was not predicted to be so, and turnout was low for guests and members and I did not set up my scope as I had intended.

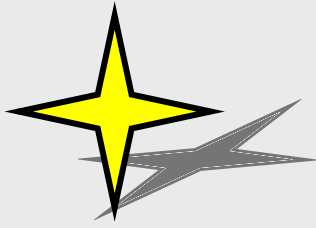
However, one of our guests was Dr. Lewis Berman, who as a young high school student, was a co founder of HCAS along with his father. Dr. Berman will be speaking to our group during our March business meeting.

I am estimating that we had about 20 guests. I spent the evening in the dome and was joined by Larry, Gary and Tim P. I do not recall who else came and do apologize for that. I need to do a better job of documenting these events as soon as they happen.

When our last guest had left, we tried to shoot Comet Lovejoy, but by then the clouds returned and we packed up and left. It did clear later but too late to do us any good.

If I missed mentioning you, please drop me an e-mail at hkamel32@comcast.net and I will amend the report for the next newsletter.





Fountain Green Elementary School
February 19th, 2015

We were invited to participate in Fountain Green Elementary School's Science and History program, titled "A Night at the Museum" on February 19th.

They asked for some one to set a scope for some 30 students to look through. Rick was the point of contact and I joined him on this project. The school was 10 minute drive from my house and it was a nice way to kill a night without watching TV.

As the date approached, we became apprehensive at the weather. It was forecast to be partly cloudy and brutally cold. It actually did clear for the duration of the event but the forecast was dead-on on the cold. It was 10 degrees and a little breezy.

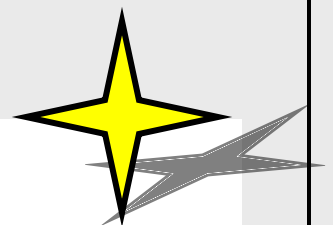
My scope, my ETX-70, did not like it one bit. It refused to move in the altitude axis and therefore would not track, so I had to manually move it to keep my target in the field of view.

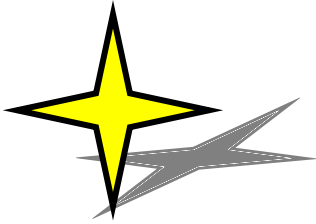
We had a nice view of the conjunction of Mars and Venus, nice contrast of color and brightness in field of view. Rick had a nice view of Jupiter by setting up across the driveway and over the roof of the school.

We had about 30 students and parents come out and take a look. However, I am sure that the cold was a factory in many just staying inside the building where it was warm.

We joined them every chance we had to get the chill off. The program ran for about 1.5 hours. When I brought my scope into the building, the condensation actually froze on my primary lens.

It was a pleasant event with much interest in what a conjunction was.





Open House
February 28th, 2015

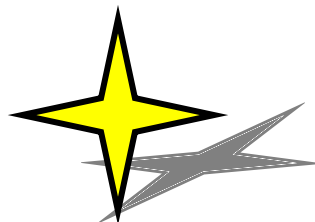
Tim K.

It was another clear open house, making it two in a row. In fact, it was a better observing night than usual, with no haze and no wind either. However it was cold, forecast for 17 degrees and dropping down to nine.

I did not get that cold, but did prompt us to not open the main dome for fear that we would burn out the motor. We set up two scopes in the parking lot. One was my Meade ETX-70 GoTo, which worked like a charm and actually impressing our young guests despite its small aperture. We also set up our club's 13.1" Coulter Dobsonian, which was manned by Jim G. Our targets for the night were, of course, the moon as well as Venus, Jupiter, and some deep sky objects that included the Pleiades, the Orion Nebula, Betelgeuse and M-41. No luck with M-44 as it was too close to the moon.

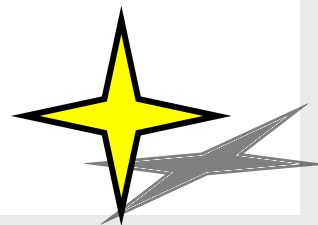
Our guests this evening were two groups. One was several members of Mr. McLoud's science class and a group of scouts. We had about 30 students and their parents and siblings. When they all left at about 7:30, we started closing up the place and just as we were about to close the door, another group of six people showed up. Since I had not yet packed up my scope, we spent another half an hour showing them some of the brighter objects.

Participating for the club were myself and Jim G. Also participating was Jim Buskirk and Jeremy joined us towards the end of the event. It was a nice evening, a bit cold but I was dressed for it. The guests were very nice and very thankful for being able to attend.



Atlas 5 Rocket Launch

Bob K.



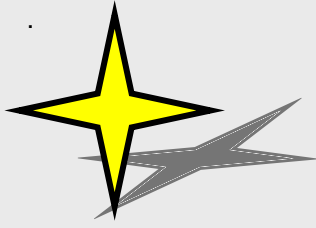
Being in Florida for the winter of 2015 has some obvious advantages, but one not so obvious is that I am only 75 miles from Cape Canaveral. I have seen three launches over the past few months and another planned for March 21 - a daytime launch.

I found a great spot to watch the launches on a hill. Yes, there are hills in Florida and even though this is Lake County, FL it should be called "Hill County, FL". I was the only car in the UCF parking lot and set up the tripod and camera. I had live feed from NASA on my iPhone. All was set. I listened as the iPhone crackled with the launch but could not find the rising spark in the distance so I just started the exposure. You can see from the image that there was a delay in starting the exposure. Next time when the launch is initiated I will start the exposure! I had a hard time finding the rocket and kept scanning the horizon with my binoculars. When I took them away from my eyes I saw the rocket climbing higher. Now I know the exact lift off position on the horizon I will be better prepared to see it from the instant it is visible. Next year I would love to have a scope to try and follow it as it climbs!

Thanks for reading, Bob.

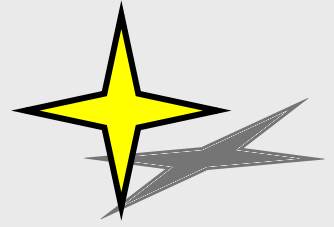


March 12/13, 2015 •
Atlas 5 • MMS
Launch Time: 10:44-
11:14pm EDT
Launch Site: SLC-41,
Cape Canaveral Air Force
Station, Florida
United Launch Alliance
Atlas 5 rocket will carry
NASA's Magnetospheric
Multiscale, or MMS, mis-
sion to make three-
dimensional measure-
ments of magnetospheric
boundary regions and ex-
amine the process of
magnetic re-connection.



Seagull Nebula

Peter N.



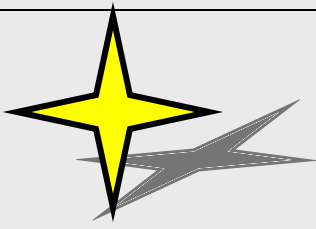
Seagull Nebula (NGC 2327 and Sh2-236) on March 18 2015

This image shows the Seagull Nebula which I captured on Mar 18, 2015. I used a thermoelectrically cooled CCD camera on a 92mm refractor. I recorded 15 minute subframes with an H-alpha narrowband filter and an O-III narrowband filter.

The head of the seagull appears along the top of the image; the wings extend from left to right below the head. The nebula is believed to be about 3,800 light years from Earth and measures 129 light years in width.

If the nebula were bright enough to see with the naked eye its wingspan would appear 4 times the angular width of the Full Moon. Because of the seagull's large width I captured the left and right sides of the nebula separately and merged them together to form a mosaic.





Suggested April Viewing Notes

The following information is a new feature for the newsletter, if everyone likes it I will try and keep it going for the months to come. Any and all feedback on this feature will be appreciated.

Planets this month:

Mercury – very low in the *WNW* after mid-month

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

Mars -----very low in the *W* at dusk, lost in twilight late in the month

Jupiter ----- high in the *S* after dark, sets in the *W* near 4 am

Saturn ----- rises in the *SE* after 11 pm, transits in the *S* approx. 4 am

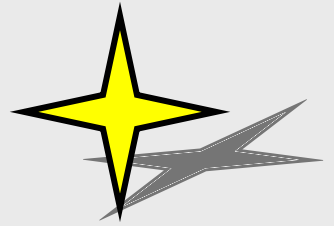
Moon Phases this month:

FULL MOON -- Sat. Apr. 4 @ 8:06 (known as the Pink Moon)

Last Qtr. -- Sat. Apr. 11 @ 23:44

New Moon ----Sat. Apr. 18 @ 14:57

First Qtr. ---Sat Apr. 25 @ 19:55



Other notable events for the month:

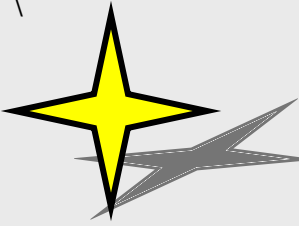
Sat Apr.4 ----- There is a **Total Lunar Eclipse** visible in the Pacific and West Coast of N. America, Sets at the start of totality on the East Coast

Tues. Apr 21 ---- the Crescent Moon is 7 degrees to the left of Venus this evening

Wed. Apr. 22 --- Lyrid Meteors starting after *7 pm*

Sun. Apr. 26 ---- Lunar X and the **Straight Wall** are visible this evening **starting at 1 am**

(Sunday night early Monday morning)



WELCOME TO OUR NEWEST MEMBERS

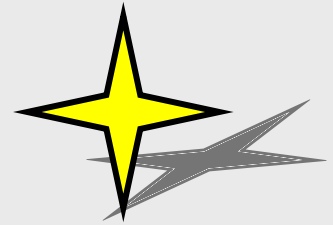
Jim Buskirk

Frank Mannone

Kelly Stewart

Mike Hollinger

Joseph Deitzel



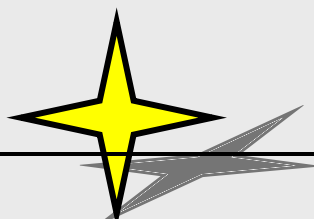
To those of us who knew our former club member, Roy Troxel, he moved to New Mexico, a couple years ago, well in reading an email from him, Roy has told me that he has just been awarded the Astronomical League's Award for the following Observing club,
The " Arp Pencil Galaxy Observing Program" Certificate # 81- V

CONGRADULATIONS Roy, Job Well Done

Editor

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