

Harford County Astronomical Society

Monthly Newsletter



Volume 40 Issue 6 June 2013

Public Star Party
Saturday, June 15, 2013
at 8:00pm
HCAS Observatory

General Meeting with Guest Speaker
Thursday, June 20, 2013
at 7:00pm
HCAS Classroom

Please check our website for possible schedule updates and changes:

<http://www.harfordastro.org>

and our Facebook page at:

<http://www.facebook.com/HarfordAstro>



<http://astroleague.org/>



<http://nightsky.jpl.nasa.gov/>

HCAS General Notes



May, 2013 General Meeting Minutes

Meeting was called to order at 7:00pm. Previous minutes were read, seconded and passed.

Treasurer's Report

Balance of main checking account: \$3,650.61

Pay Pal account: \$547.56

Secondary checking account: \$945.21

Total: \$5143.38

Minutes

1. Newsletter Issues: Please make sure all articles for submission for the next issue are in to the editor by the 10th of the month.
 - a. The new address to send in articles for the newsletter for consideration for publication now is as follows: hcasnewsletter@gmail.com.
 - b. It was a pleasure to see Roy at this month's meeting and he is going to try and make next months, but will be in New Mexico by July so try and stop by and see Roy before he departs the area.
2. Website Issues: *"Members Only" page on the website. When can we expect this page: It's been 3 months or more. Do you need help with the website?*
 - a. Larry has responded to the issue of the "Members Only" page, and has said he will have something up and running for us to see by next month's meeting. He has several good ideas from other club members and said that if anyone who still may have any ideas to drop him a email and he will respond.
3. Observatory Report: *Tim asked about Training classes: when are they going to start back up?*
 - a. Tim has raised a good point, if anyone wants to become trained in Opening and Closing the dome please contact Tim, and with him working a crazy schedule he will get something organized Broad Creek Reports: Roy and a couple other members have made it to BC, and as usual they report having a couple "OUTSTANDING" nights
4. Members Night & Open House Reports:
 - a. Past Open House – 5 members Karen, Paul, Dave, Tim, Gary. 8 visitors, normal cloudy overcast night for an Open House.

Old Business: As we sat in the classroom discussing this issue, and everyone beings such an expert on why we don't have internet, it was brought to everyone's attention that the "BAR CODING LABEL" on the side of the classroom computer indicates that the computer was the in fact the Colleges and not the one belonging to HCAS. So as a conclusion we will find our own computer and hook it back up and see if we have the internet, and proceed from there, Gary will send an email over to Debi explaining what we have found and will contact her if we still need to get with someone from the I.T. dept.

2013 Election Results:

Executive Board:

President: Gary George
Vice-President: Lucy Albert
Secretary: Karen Carey
Treasurer: Tim Kamel

New Board of Directors Members: Larry Hubble, Dave Jayroe, Rick Fensch

The newly elected Officers and Directors will be seated at the June General Membership meeting. Thank you to all who have responded and voted



Member Presentation

Lucy Albert gave a short 15-20 minute photo presentation on her recent trip “back home” to The Netherlands, this past summer. She highlighted a visit to the oldest still-operating Eise Eisenger Planetarium in Franeker, Friesland. Good pictures and presentation.



In Memoriam: A Tribute to Bruce Wrinkle. Larry requested 10 minutes time to speak in honor and tribute to Bruce Wrinkle, one of our former members, who recently passed away. Thanks, Larry for a good job in doing this.



A very happy Bruce holding an Apollo Moon Rock at Company Seven on 1 July 2003

Motion to adjourn: 8:10pm, Moved & Seconded by Dave & Tim.



HCAS General Meeting Speaker Series

Guest Speaker – June 20, 2013.

Dr. Bonnie Meinke, Space Telescope Science Institute

“Saturn's Intricate F Ring and the Small Moons that Perturb It”

Over the last three decades, many astronomers have referred to Saturn's F ring, with its ever-changing structure, as an "enigma." Since its arrival at Saturn in July 2004, the Cassini spacecraft has detected many never-before seen small-scale features in occultations and images. The nearby moon Prometheus stirs up ring material and creates observably changing structures in the F ring's meager 50 km radial width on timescales of

days to decades. I will discuss Cassini observations of transient clumping and what they reveal about the age and evolution of the entire Saturn ring-moon system.



Dr. Bonnie Meinke works in the Office of Public Outreach at STScI in Baltimore. Before coming to the institute, she was the resident planetary scientist at the Reuben Fleet Science Center in San Diego, CA.

She grew up in Texas where, as they say, "the stars at night are big and bright." Captivated by the night sky, she studied physics and astrophysics at the University of California, Berkeley, where she received her Bachelors in 2005. Bonnie went on to earn her PhD last year at the University of Colorado, Boulder, where she studied moon-formation in the Saturn system with the Cassini spacecraft.

Please join us as we offer a program of timely presentations at many of our general meetings.

These programs will last about 30-45 minutes in addition to our regular discussions.
We hope to have a speaker at every other meeting.

However, we also encourage our members to share their special skills and knowledge with everyone in the club.

A short presentation by our members would be welcome at those general meetings when we don't have a special speaker. Anyone who would like to present a topic of interest to the HCAS membership is welcome.

***Please contact Lucy Albert
at 410-679-7055 or ljalbert608@gmail.com to make arrangements to present.***

Upcoming Speakers:

August, 2013

Mr. Tom Donaldson, Space Telescope Science Institute, will introduce us to the vast array of accessible information available in the Hubble Legacy Archive.



Observing Notes, Star Parties, Astrophotography and Other Fun Stuff

Because of unpredictable weather conditions, we cannot set a specific date and time to observe. Sometimes the decision to go to our observing area at Broad Creek is made within a few hours before sunset. In any case, all club members will be notified by email.

Roy Troxel
Broad Creek
May 31, 2013
9:30pm to 12midnight

Tonight was unusually warm and clear, with temperatures in the 70s. Cathy, Bill and myself arrived at the BC gate around sunset, but waited until around 9:30pm for the sky to darken completely (or finish astronomical twilight). At that time, Scorpius was rising in the southeast, with Virgo due south. The Big Dipper was overhead.

The night sky currently abounds in bright galaxies, primarily in the constellations of Virgo, Leo, Ursa Major and Coma Berenices. Many globular clusters are coming into view as well, after 10pm. They can be seen in Ophiuchus, Lyra, Scorpius and – after midnight- in Sagittarius. Consequently, I decided to concentrate tonight's session on observing those objects, although Saturn was shining bright and clear in the southern sky.

- * M83 – A galaxy in Hydra. Appeared dimly, low near the southern horizon.
- * NGC4565 - A galaxy seen edgewise in Coma. Appears as a long thin line of light with a bright ball in the middle.
- * M64 – Galaxy in Coma. Sometimes called the “Black Eye”, because of its heavy dust layer on one side. It appears more like a deep funnel to me.
- * NGC4438 and companion, NGC4435. Known as “the eyes”, this pair also has a number of other galaxies nearby. All of them are part of the Virgo Cluster, about 65 million light years away.
- * NGC4526 – Galaxy in Virgo
- * M60 galaxy in Virgo. Several dimmer galaxies can be seen around it.
- * M49 galaxy in Virgo
- * M104 - The “Sombbrero” galaxy in Virgo
- * M12 - Beautiful globular cluster in Ophiuchus
- * M14 – Dim but large globular cluster in Ophiuchus
- * NGC6572 – Bright green planetary nebula in Ophiuchus.
- * NGC6633 – Fourth-magnitude open cluster in Ophiuchus. Appears bright and distinctive in low powers.
- * M5 – Beautiful globular cluster in Serpens.
- * M56 – Distant globular cluster in Lyra
- * M71 – Globular cluster in Sagitta, in a beautiful star field.
- * M10 – Bright globular in Ophiuchus
- * NGC4147 – Globular cluster in Coma Berenices
- * M4 - Globular in Scorpius
- * M80 - Distant globular in Scorpius.

By midnight, the dew had become quite heavy, so we decided it was a good time to pack up. It had been an excellent session!

Roy Troxel
Broad Creek
June 4, 2013
9:00pm to 11:00pm

For tonight, all the weather predictions were for very clear skies. Well, guess what? All the weather predictions were wrong. In fact, the sky started clouding up just as I was packing my scope into the car. Nonetheless, four of us made it to Broad Creek for some observing time: myself, Bill Gelston, Tim Phelan and Heather Hamilton. The grass had grown very high there, but Bill had brought along his lawn mower and was able to clear away several areas for us to set up our scopes. Saturn made an appearance through several breaks in the clouds, and I was able to see at least three satellites in my 18” reflector. The only details available on the planet, however, were the Cassini Division and a few bands. Around 9:30pm, the International Space Station passed overhead, traveling from southwest to northeast. It was very bright, about -1 magnitude. Tim Phelan was lucky enough to see it through his 10" Dobson. At 34x magnification, he could clearly see the modular structure and two solar arrays! Just for reference, the ISS orbits the Earth at an altitude of 230 miles at a speed of 4.8 miles per second.

I was able to observe only a few other objects:

- * M13 - Globular cluster in Hercules
- * M92 - Another very bright globular in Hercules, but it appeared dim behind the cloud layer.
- * T Lyrae - A carbon star in Lyra, glowing with a metallic reddish-orange color. Carbon stars have their outer layers of hydrogen, helium and other gases missing, exposing heavier elements like carbon beneath.

By 11:00pm, we realized that the clouds were there to stay, so we began packing our equipment. The night wasn't a total disappointment, but...

Timothy Phelan
Cherry Springs Star Party
June 8, 2013

My dad and I had been registered for the Cherry Springs Star Party many months in advance so as the Accuweather forecast was looking increasingly bleak for the weekend of June 6-8 we began to get anxious. The Black Forest Star Party last September was our first big star party and we absolutely loved it. We were both incredibly excited to return to Cherry Springs and enjoy the naturally dark sky. When the event was two weeks away the forecast was calling for rain all day Friday and considerable cloudiness Saturday night. We eventually decided to completely nix Friday night and just drive up Saturday morning and hope for the best. Eventually, the forecast for Saturday night improved to mainly clear at sunset so we were pretty optimistic even when we saw nothing but overcast skies the entire 4 and a half hour drive up to the park. When we arrived around 1 pm it was clear that that a fair amount of people had already given up on the weather and left but right on cue the clouds began to break as soon as our tent was set up. As we came back from the speaker sessions and the raffle prize drawing (I won a meteorite from Sky Stones) the clouds were almost totally gone! As evening crawled along and the sun began its painfully slow descent to the horizon we were visited by lots of clouds. By the time the sun had set and darkness we were totally clouded out. Patience was the key for us. I listened to our neighbor give a wonderful presentation about telescopes and the night sky to a large group of kids with their parents who were there for the public observing. Our patience paid off at around 11 pm when the clouds finally broke and we had clear skies for the remainder of the night.

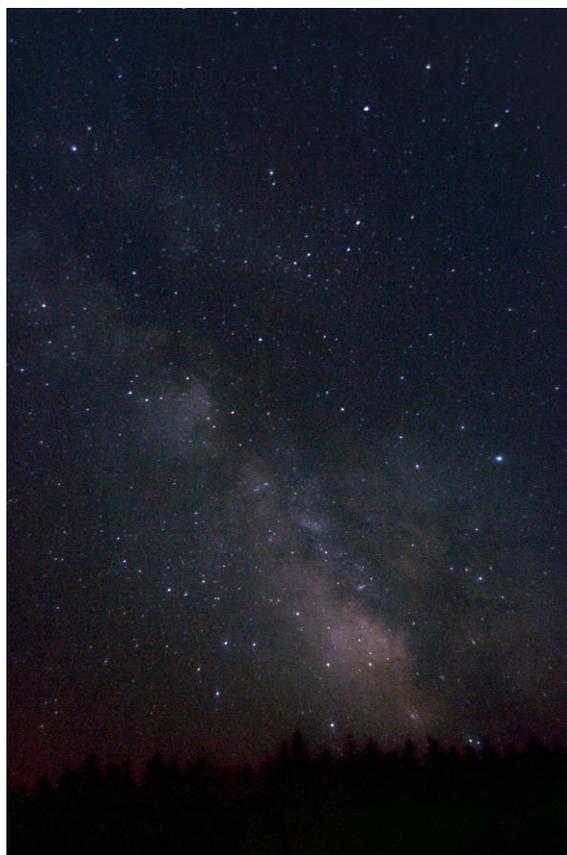
Once the alignment was made on my scope I began cranking through the Messier objects in Sagittarius, Scorpius, and Serpens. I made stops at M81/82 in Ursa Major and M65/66 in Leo as well as a few other galaxies. The globulars in Hercules (M13 and M92) were fantastic in my 10" Dob. I attempted to find the Veil Nebula but to no success for reasons unknown to me even with my O-III filter. My best guess is that my alignment must have been off. After that I started to have a problem with my eyepieces dewing up while I was using them. That was the signal that it was time to pack up. Regrettably, my short time observing had come to an end.

Determined to make the most of the time there I decided to get out my DSLR and tripod and snap some Milky Way shots before the lens dewed up. I took four :22 exposures along with some dark and bias frames so I could stack them the next day. With that I packed everything up and went to bed around 1:30 am.

We left around 8:30 the next morning and began talking about ways to prevent the dew bug from biting during the next star party. After everything was unpacked and hung up to dry (all our clothes were damp from the humidity and dew) I began processing the Milky Way shots from the previous night. I stacked the images in Deep Sky Stacker and used Photoshop to process the resulting image. After several editing passes and tips from Redditors on /r/Astrophotography I ended up with the image below. For a first attempt at the Milky Way I was quite pleased.

Overall, it was a slightly disappointing weekend because of the weather but I'm glad we got to go up and have at least one night of clear skies. I'm looking forward to going back up to Cherry Springs for Black Forest in September. Registration is open so don't delay! Cheers guys, and clear skies!

Tim Phelan



Courtesy of Timothy Phelan

Peter Nerbun
June 11, 2013

Mercury

It's been almost a year since I last attempted to capture Mercury so I gave it another try on June 11 2013 at 8:18 PM EDT near Maximum Elongation at 21 degrees elevation; the planet was 39% illuminated and 8.1 arc seconds in diameter; seeing was below average however I managed to resolve the crescent shape.

I captured this image with a C11 SCT, a 2.2x barlow and a monochrome CCD webcam. The Focal Ratio for this image was F/28 and the Effective Focal Length (EFL) was 7,700 mm.



Mercury 06/12/2013 00:18 UT, C11 F/28
Alt 21°, 39% lit, IR742 Peter Nerbun, MD, USA



Miscellaneous

As the new editor for this newsletter, I want to thank all the members of HCAS for your confidence in me to continue Roy's great work. And thank you to all the contributors who got their articles to me on time!

I did this job back many years ago for the club and it sure is a lot easier now, having to just copy, paste, edit and hit "send"! I don't plan on making too many changes in the format, just a few that work for me. I look forward to a rewarding experience.

HCAS Mission Statement

What is HCAS?

HCAS is a group of people from varied backgrounds, of all ages, men and women, with a common bond – a love for astronomy. CAS is associated with the Harford County Community College and has use of the HCC observatory and meeting rooms. Our members are friendly, and welcome anyone with an interest in astronomy – a beginner or an advanced observer and/or 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

- * Promote the interest and love of astronomy for the people of Harford County, Maryland.
- * Advocate for dark skies and fight light pollution and light trespass.
- * Engage with schools, churches, scouts and other groups to expand knowledge and interest in Astronomy.
- * 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 the official publication of
Harford County Astronomical Society
P.O. Box 906,
Bel Air, MD 21014.

Items for the newsletter are due to the editor by the 10th of the month of publication.

Please send all contributions (electronic format is strongly encouraged) to:

Lucy Albert at:

hcasnewsletter@gmail.com

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