Harford County Astronomical Society

Monthly Newsletter

Volume 36 Issue 2 February 2010

Public Star Party (Open House):

Saturday, February 20, 2010
at 7:00pm
At the HCAS Observatory

General Meeting:

Thursday, February 25, 2010
at 7:00pm
In the Observatory Classroom

Please check our new website for possible schedule updates and changes:
http://www.harfordastro.org

http://astroleague.org/ http://nightsky.jpl.nasa.gov/

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HCAS General Meeting

Minutes of Jan. 28, 2010

The meeting was called to order at 7:09pm by President Tom Rusek. He welcomed us to our first Business meeting since October. We have a short presentation by Ricky Hubble this evening after the meeting.

The minutes of the October meeting were approved as published in the Newsletter.

Treasurer's Report: Tim states that we have $4440. in the checking account and Grace reports that we have gotten 2 new members, who enrolled on the website. Larry reports that he still needs the information regarding the debit card for use in connection with the website.

Newsletter Issues: Tom had a paper copy of the newsletter in hand, and although we didn't have any meetings, the newsletter was filled with Observing Reports and other items of interest to the Club Membership.

Website: Larry reports that the Website is being updated as needed with items such as the newsletter. He asks that members submit pictures they have taken or of themselves and their telescopes for the Gallery. Grace mentioned that we are getting a lot of feedback on the website on the email address. One of the emails we received was from the builder of the "Leviathan" Telescope in the Classroom, he now lives in the Milwaukee area.

Outreach Programs: Grace reports that in 2009, we outreached to 3400 people. We had many successful events, such as Astronomy Day, having the lunar rock samples travel to schools and a library, members giving their own talks, and our regular open houses. Thank you to everyone who helped make these events a success!

On December 18, Tom gave an hour-long talk to 120 freshman students at HCC. On November 13, Mark and Phil were at Carroll Manor Elementary School. Even though it was raining, there were 75 people in attendance. Paul Sokolowski attended APG Youth Center and showed the kids how to use the 8" telescope that was donated to their center. Joppatowne Elementary School had 31 students see a presentation by Tom and Grace. Phil, Karen and Maggie gave a 1-1/2 hour presentation to Maggie's 4th grade peers at Bear Creek Elementary School in Dundalk.

On January 9, the Anita Light Estuary Center had 11 people attend a Constellation Hunter's Program conducted by Gary, Grace and Larry. In return, they are sending us a $25 donation. On

January 21, Grace talked with 16 Boy Scouts and their parents.

Our regular Open House was on January 23, when we had about 60 visitors. First, we had a group of Brownie Girl Scouts working on their Space Explorer Try-It. We were able to show the public only a few sights such as Mars, the Pleiades, the Moon and the Orion Nebulae before the clouds rolled in at about 9pm.

Future events: March 14, Tom will give a presentation to the McFall Elderly Activity Center. We have an outreach presentation on Wednesday, March 24, at Patterson Mill HS, they are requesting telescopes to attend. Aberdeen HS is asking for a program for about a dozen students, Larry and Grace will handle. APG Youth center is asking for us to lead some afternoon programs from 4 to 6 in the afternoon for a few weeks. Grace will explain to the leader that it is a bad time of day for anyone in our group. There will be a group of Girl Scouts before the next Open House. If you are able to help out, please come early! Parkville Middle School programs scheduled for early January will need to be rescheduled, Tim will get with his wife to get a new date.

We need to make clear that when someone is asked if we will do an Outreach Program, please email the information Grace first, and she will email the group and find out who is interested in doing the program. Get with Grace as soon as possible if you are interested in doing the Outreach. If you say you will be there, then we need to be able to count on you to do the program. We will respond to the group that we will be there based on the responses we receive. If we get no or not enough responses, Grace will contact the group to let them know.

Observatory Operations: Mark gave a brief rundown of the dome upgrades. The design is complete; there is only labor left. Mark will need to get a professional welder - through the college – in order to move forward. He has been in touch with Steve Garey. Tom mentioned that at the last open house, the public was parking in the HTHS parking lot, but then were unsure where to go. Perhaps we can use the scroll sign at the tree line to point the public to the Observatory. The 501(c)(3) status has been set up through the College via the Harford County College Foundation. We have an account number, and we will see how the club can get funds that have been donated.

For future reference, if there is an injury at the Observatory, it is imperative that we call Campus Security to make a report, even if the injury seems minor in nature. There was much discussion as to whether the Club should Incorporate for security against individuals being sued in the case of an injury. Tom and Grace will follow through on this. Further discussion ensued about getting our driveway repaired of the potholes in the gravel. Mark says he will send a few emails and find out what can be done to rectify this ongoing problem. Mark says that he will also find out from Sal whether the funds the College has earmarked for the Dome repairs can be used for other improvements to the property, such as the parking lot/driveway repair.

Observing Reports: All observing reports were included in the last Newsletter. The last time anyone went it was "COLD"!

New Business: Gary introduced the idea of HCAS having a sister astronomy club. Robert Kesler is a Dept of Defense employee who lives in Bel Air, but is currently stationed in Germany. He emailed and joined the HCAS through the website. Gary has become the point of email contact with this gentleman, and the German group is actually meeting on the same night of our meeting. The group seemed receptive to the idea, and a further discussion will find out what kind of mutual benefit the groups can provide.

Phil introduced the idea of a "HCAS 40 Observing Club" to celebrate the 40th anniversary of the founding of HCAS. He has posted a proposed list of 40 objects that members would need to find. Many of these items are on the observing awards lists for the Astronomical League. Karen has found information about an enamel pin distributor and gotten prices for custom pins for the club. Phil showed a sample of a certificate, and has requested that certificate #1 be given posthumously to Leo Heppner, Sr.

Larry gave a rundown of the next two CCD imaging classes. The third class requires that the dome/telescope be working, as the members would be taking pictures with the CCD camera. The final class would be about stacking and processing the images.

Phil has been cataloging the materials in the Library. He asks that we do not refile books for the time being, until he gets the project done. Phil will provide a list of Library materials to Larry to publish on the website. One of the benefits of membership to the HCAS includes access to checking out materials from the Library.

Officer Nominations: Tom has announced that is not too early to consider running for or nominating others for the positions of President, Vice President, Secretary, Treasurer or Director. Three Board of Director members are needed to be elected, as two terms expire and one will be moving soon. Nominations will take place at the March Business meeting, Elections will be via email/snail mail at the April meeting, and New Officers will take office at the May meeting.

Tim has brought back the club's laptop. It continues to be plagued with problems necessitating a driver password and authorization codes. Mark will contact the College to find out if we can reformat the hard drive to correct the problems we are having. If the college refuses to let us reformat the hard drive, Mark will return the laptop to the college with a "thank you". Discussion ensued about using club funds to purchase a laptop for club use without needing authorization/software from the college.

Grace has further information regarding the patches for the HCAS Jr. Observers Club and the smaller HCAS patches. There were no objections.

Karen explained that her employer gives grants to charitable entities for the hours she volunteers to the club. Karen presented a check to the HCAS Foundation from Walmart in the amount of $250.

The meeting was adjourned at 8:15pm.

Ricky Hubble gave a presentation of his Astronomy game, inspired by *Jeopardy!*. He came up with the layout and the questions all on his own, and he did a wonderful job. This tool can be used for some of our outreach events, especially for Scout Groups.

- Karen Carey, Secretary

President's Message

Folks,

Well, 2010 is off with a bang! We have made new friends with the German Astronomy Club and things are going well. We are working on completing the 40 years anniversary list of objects to observe. The dome modifications move closer toward completion and after they are completed, we will invite the College Faculty and Staff over for a very special evening. Our Night Sky Network is also growing as is our outreach programs.

Every so often issues arise and we must conquer them. We WILL soon settle the lap top issue and be happy once again. Just recently, we reviewed our own insurance policy and that of the college in order to protect ourselves from any unfortunate occurrences during the outreach programs. These discussions led us to review our safety program. With this in mind, a Standard Operating Procedure (SOP) was initiated. The purpose of this SOP was to REMIND us that safety is always first in whatever we do. We are all intelligent people and our track record is evidence of that.

But every once in a while we need little reminders of safety especially now that the dome repairs are nearing completion and we will once again have many people up inside the dome area. An astronomy club is one of few that require DARKNESS while other clubs cannot function in the dark. And, of course, darkness breeds accidents.

March is nomination month for new Officers and Board members. I have been your President now for 3 years. What you have seen is what you will get again if I am re-elected. I am impatient and like to get things done. I try to keep meetings to 1 hour. My fellow officers are the BEST. They, along with the Board members, try to settle tough issues before meetings in order to save time.

But we still need everyone's opinions. We must obey the standard codes for meetings and behave ourselves for this one-hour so that we can get things accomplished. I don't like problems that hang on and on and never get corrected. (The decision, of course, is yours.)

Please be active and help us move on in 2010. This is going to be a fabulous year for the club. REMEMBER we are a TEAM and everyone's opinion counts. Every member in the club is important and we need you all.

Your President,

Tommy Rusek

Observation Reports

The best times to observe at Broad Creek are between the last quarter and first quarter of the lunar cycle. The next two such periods are :

Feb. 5 through Feb. 21, 2010
March 6 through March 23, 2010
Try to keep some of these dates open on your schedule!

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

For any questions, contact Roy Troxel at: rtroxel@comcast.net

Broad Creek

Monday, Jan. 18, 2010

The moon had set about two hours earlier, but the sky was almost 50% covered with clouds. By 9pm, the clouds had drifted away, leaving a clear sky, with a seeing rating between 2/5 and 4/5, and a transparency of about 4/5. So, I packed up the scope and headed for BC. I was set up by 10pm.

The first object I observed was M42, which was then high in the south, approaching its transit meridian. I used the 35mm, 12mm and 9mm eyepieces, with and without an UltraBlock filter. With the 9mm (175x) I could see all six stars of the Trapezium, but not easily. Stars E and F kept drifting in and out of visibility. The overall structure of the "fish mouth" area, however, was quite detailed, especially when using the UltraBlock.

The Crab Nebula in Taurus (M1) was near the zenith and was surprisingly dim. This area of the sky is usually the most transparent, and with the clearest seeing, but not on this night.

I turned my scope southward toward the Winter Triangle, to view these objects:

The Rosette Nebula in Monoceros was very apparent in the 35mm Panoptic eyepiece, with the UltraBlock. It is about 1.5 times the size of the Panoptic's field of view, but I was able to easily move the scope around to observe its various sections, the brightest of which was the lower-left (Northeast) region. This doughnut-shaped nebula is actually made of several nebulae, NGC2237, 2238 and 2239. The open cluster NGC2244 appears in the nebula's central "doughnut hole" and is usually quite bright.

The Rosette was discovered by William Herschel and is about 4,900 light years distant. On very clear nights, it can be seen through binoculars and covers a width of two degrees, four times the width of the full moon. It is quite dim, however. The rosy color is visible only in photographs and is

caused by the radiation of its hydrogen gas. The stars from the cluster NGC2244 are causing the gas to radiate.

I switched from the southern to the northern sky in pursuit of two nebulae in Cepheus. The first was NGC7380, lying near to the horizon. It appeared as a faint glow, covering most of the field of the 35mm eyepiece. Next I viewed IC1396, but it appeared very faint, even with averted vision.

NGC2392, at 175x, is a very interesting planetary nebula in Gemini. It appeared as a white dot with a distinct circle around it, as if I was observing Saturn from above its north pole.

Back to the southern sky, in the constellation of Puppis, the M46 open cluster appeared very bright, as did the small planetary nebula in the foreground, NGC2438.

It was now almost 11pm, and a thick fog was rolling along the grassy field of Astronomy Hill. At first, I thought this was signaling the end of the night's observing session, but the northern sky appeared quite clear, and the stars of Ursa Major unusually bright. I decided to try for M82 and, to my surprise, the galaxy appeared brighter and more distinct than any previous time I had viewed it at BC! I could see across its entire width, and its vertical dust clouds appeared dark and distinct. Its neighboring galaxy, M81, displayed a distinct bright nucleus, surrounded by a translucent disk, although I couldn't detect any arms. One thing I've learned about observing at BC, is that there are always some pockets of very clear seeing and transparency in the night sky, even if the overall sky has poor seeing or transparency. The only problem is that you never can tell where they are, until you find them by accident!

Within 15 minutes, the fog and haze has dissipated, leaving the skies reasonably clear again. Leo was now completely above the eastern horizon, so I tried for the M95 triplet of galaxies. Only two of them were to be seen however, and they were quite dim. So apparently, the haze hadn't altogether cleared from the east. However, when I tried for NGC2903, the galaxy just west of Leo's sickle asterism, I obtained a very clear view, seeing both the core and hints of the the arms.

I took a quick glance overhead at Cassiopeia and Perseus, but the Milky Way was not visible. Again, it was unusual that the overhead area of the sky would be less transparent than the lower regions. I could see the Double Cluster naked eye however.

Looking to the south again, into Monoceros, I focused the 35mm onto the "Christmas Tree" cluster, NGC2247. I could see traces of nebulosity around the brightest star in the "tree", but that was all. In photographs, this area is covered with nebulosity.

Orion was now in the southwest, hovering precariously over the light dome there. Nonetheless, I tried for the nebulous area around Alnitak, the eastern star in the belt. Neither the Flame (NGC2244) or IC434 (containing the Horsehead) were visible, even using the UltraBlock, so I moved to M41, the open cluster in Canis Major. It was bright and clear.

I moved upward again, just above Orion's head, to view M78. This is a combination emission and reflection nebula, wrapped around two bright stars. Viewing this object has the effect of two eyes looking back at you. When I screwed on the UltraBlock filter, however, most of the nebulosity disappeared, because the UltraBlock enhances only nebulae that are actually producing light and radiation, not just reflecting the light of nearby stars.

I had to view the M79 cluster in Lepus through the southwest light dome, so it appeared more like a planetary nebula than a globular cluster.

Mars was now quite bright and orange-colored, about 45 degrees up into the eastern sky. Only some hints of detail were visible however, even at 175x, using a #25 red filter.

Also at this time, Saturn was rising over the eastern horizon, in Virgo. Unfortunately, my car was in the field of view, so I had to miss the planet for this session. (On the other hand, the rings are barely "open" at this time.)

Cancer was now high in the sky and the Beehive Cluster (M44) was naked-eye visible. The cluster didn't completely fit into the 35mm Panoptic's field of view, but its hundred or so stars of varying colors was, as always, an impressive sight.

I tried for the galaxies M65 and 66 in Leo, but that area was still hazy. Both galaxies appeared in the same field of the 35mm eyepiece, but dimmer than usual. By this time, the eastern sky was definitely becoming hazy, and there were clouds moving in from the west. The bowl of Virgo, as well as first-magnitude Spica, could be seen low in the eastern haze. It was now about 12:30am, the temperature was in the 20s, and I decided it was time to pack and leave.

- Roy Troxel

Outreach Programs

Open House

Saturday, February 20, 2010

We have a group of Daisy Scouts planning to attend at 6 PM to work on their astronomy award. The general public is scheduled to attend at 7:00 PM. If you plan to attend the open house, please check your email before leaving your home. With all the snow we have had and the possibility of more snow on the 15th and 18th, there is a possibility the observatory might not be accessible. We may have to make other plans for the open house.

- Grace

Night Sky Network Roster

I will be adding your names to our Night Sky Network roster. In the past, I could just record an event and it would count for everyone who was there. I could then report at the end of the year how many people qualified for pins. (Our 2009 pins are on the way). You will receive an email from the Night Sky Network verifying your involvement, asking you to add information about yourself (position with the club, etc) and set a password for your use. Even if you are not interested in receiving a pin or recognition, please reply and sign up. The network counts so many things for us to get bonus materials. I recently logged all of our upcoming open houses this year and we should receive the new Night Sky Banner. Also, now that we have access to a 501c3 number through the college, if someone got really ambitious and applied for grants, a written record of what club members do would go a long way on the application process. Last year it was easy to be counted for a Night Sky Network event because every event that included a telescope counted towards your total. This year it will be a little harder. If you are interested in working on next year's pin, see me before each open house and I can tell you what to do to qualify. For instance, if your telescope concentrates on the moon, tell visitors about phases of the moon (a teaching idea in a NSN toolkit). If you are using the laser pointer to show constellations and it is the right time of year, point out Cygnus and tell about the Kepler Mission. It doesn't require a lot, it just requires telling visitors about something in a toolkit.

Please take a moment and respond when the network contacts you. If you absolutely do not want to sign up, let me know and I will not include your name and email. (Your email will not be public information).

- Thanks, Grace

Astrophotography

Space Shuttle Launch on February 8, 2010
Photographed by Monroe Harden. The shuttle can be seen as streak in the lower left, above the gibbous moon, The red star near the center is Antares.

Miscellaneous

The ***Delmarva Stargazers***
are pleased to announce the

Star Gaze XVI
Star Party

When: **Starting Thursday April 15, 2010 at 11 AM**
Ending Sunday morning April 18, 2010

Where: **Tuckahoe State Park's Equestrian Center**
near Queen Anne, MD.

For more information, go to
Delmarvastargazers.org

Blizzard hits observatory and grounds.
Gary George and grandson Caleb demonstrate.

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

Roy Troxel at:
rtroxel@comcast.net.

Address regular mail to:
HCAS Newsletter
c/o Roy Troxel
301 Tiree Court #403,
Abingdon, MD 21009

And be sure to visit our Web Site:

http://www.harfordastro.org
Webmaster: Larry Hubble