

Harford County Astronomical Society

Bel Air, Maryland
www.harfordastro.org



Volume 34 Issue 1

January 2008

Public Star Party (Open House):
Saturday, Jan. 19, 2008, At Sunset
At the Observatory

General Meeting:
Thursday, Jan. 24, 2008, 7:00pm
At the Observatory

Club Calendar for 2008:

<u>Open House/Public Star Party</u>	<u>Meeting Night</u>
January 19	January 24
February 16	February 20
March 15	March 20
April 12	April 17
May 17	May 22
June 14	June 19
July 12	July 17
August 9	August 14
September 13	September 18
October 11	October 16
November 8	November 13
December 6	December 11

Please check the website for possible schedule updates and changes:

<http://www.harfordastro.org>



<http://astroleague.org/>



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

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President’s Message

Fellow members,

I, as the current president of the HCAS, wish to thank all of you for a very productive 2007. Over the last year, we have seen many improvements in the observatory operations. Our primary telescope is functioning properly, dome operations have improved, and the main conference room now has a ceiling projector and a wall-mounted screen. Our deepest thanks go out to Harford Community College for their assistance in these ventures. We are looking forward to working even more closely with the school in the following year.

The outreach program has reached new heights with our acceptance into the Night Sky Network. Open houses and public outreach events have reached over 600 people. Outreach lectures to scouting groups and various clubs have averaged one a month and have attracted 450 people.

2008 promises to be another fulfilling year. The lunar eclipse program in February will be very exciting and a treat for anyone attending. Observatory operations will take another giant step as an educational commodity for our community. We will utilize the main conference room in the observatory for lectures and use the packages obtained from the Night Sky Network to help educate our younger viewers in our wondrous field.

Thanks to all of you for attending our Thursday evening meetings and for being part of a wonderful community endeavor. I look forward to being your president in 2008.

Sincerely yours,
Tommy Rusek

HCAS Business Meeting

Minutes of December 27th, 2007

Vice President Grace Wyatt opened the meeting at 7:00 PM. 7 members were present.

2. The minutes of the November meeting were published in the last newsletter. They were approved by a voice vote. Grace noted that the date of the November 2008 open house was improperly listed as November 18th in the newsletter. The correct date is November 8th. Roy Troxel will make the correction.

3. Treasurer: Tim Kamel did not have the checkbook with him. He will put the club's bank balance in his report for the newsletter. He did reimburse himself \$91.00 for the observatory telescope mount's new chip, manual, and protective case. There were no other expenses. He will send a check to Mike Talbard for his tripod once they agree on a price. The club currently has 48 paid members.

4. Observatory operations:

a. The observatory was open for the last open house and on Sunday, December 23rd. A group of members cleaned up the rooms and tried to get the DSL internet connection working. The phone lines appeared to be active, but they were unable to connect to them. A modem they brought in to try was not present at tonight's meeting. The group surmised that the school's IT people took it when they came in to investigate the problem.

b. They installed the new chip for the telescope mount. They also installed the Telrad. Mike Talbard replaced the rheostat for the lights. He also brought in some red LED lights for the stairway.

c. They successfully established a direct laptop-to-laptop computer link between the telescope room upstairs and the classroom.

d. Tim Kamel continues to work on a list of do's and don'ts for operating the observatory telescope. This will eventually become part of the user training program.

5. Outreach:

a. The last open house was scheduled for December 15th. It was cloudy, so the members did some work on the observatory instead of hosting the public event.

b. The club received a thank-you letter from the Whiteford library.

c. The Aberdeen Earth Day event will take place on April 19th, 2008. April 20th will be the rain date. The club will participate.

d. We will also support activities at Gunpowder State Park on February 8th and March 7th. This will take place off of Days Cove Rd, from 6-8 PM. The point of contact will call Grace in January to coordinate the final details.

6. Observing Reports: Roy Troxel and Tim Kamel met on December 18th at the Broad Creek site at about 2 AM. It was a nice night to observe. Roy used this opportunity to check out his new telescope. They observed Mars and numerous deep sky objects.

7. Old business: None

8. New business:

a. Tim Kamel noted that there will be a total lunar eclipse the evening of February 20th. He suggested hosting a public event that night, along with moving the monthly business meeting to that night instead of the currently-scheduled evening of February 21st. The club agreed to do this. The meeting will take place at 6:30 PM at the classroom. Afterwards, the group will move the Harford Tech parking lot for eclipse viewing.

b. Grace said that 2009 will be the International Year of Astronomy. Galileo introduced the telescope to astronomy in 1609, so 2009 marks the 400th anniversary. We should think about what we want to do as part of this commemoration.

c. The club is renewing our association with the Astronomical League. Each member should start receiving copies of the magazine, *The Reflector*. Karen Carey said she would be interested in taking on the role of Astronomical League coordinator.

9. The meeting was adjourned at 7:33 PM. The group thanked Karen for bringing in homemade cookies. Several members moved over to the observatory to look at Mars and check out the new scope mount chip after the meeting.

- Monroe Harden

New Members

Clarence Wilson and Jason A. Willard

Treasurer's Report

As of 12/20/07, our bank balance is \$5049.92. As of 12/31/2007, we have 45 members.

Observation Reports

December 18, 2007

On Tuesday, December 18th, Roy and I went observing at Broad Creek. This was the night for Mars' closest approach and we planned our session for the early morning, starting at 2:00 AM. This would be the first time that I observed at Broad Creek in the early morning. Basically no different than observing in the evening except that I had to set up in the dark, with only the light from the trunk of my car. It was also the first time I had been observing at Broad Creek since September 2nd. Somehow it seemed that for the last 15 weeks we had a bright moon on the nights that it was clear and it was overcast when the moon was away.

Prediction for Broad Creek was for good transparency but seeing was only a 2/5, poor. Temperature was in the mid 20's with no wind.

Roy brought along his new 12.5" Obsession Dobsonian. I brought my 8" f/4 Newtonian that I had mounted on a GOTO LXD-75 mount.

Primary target was Mars, which was almost overhead. Alas, it was not to be. I uses various powers to 200 power plus and the views were disappointing, with very little detail in my scope. At low power, Mars was a bright disk. At high power, the view swam and there were some features but they were very dim. Using Roy's scope and with various filters, we could barely see the pole and some faint features.

Basically, it was the same story for Saturn, with the view swimming in the eyepiece of my scope. Venus was a distinct crescent and took magnification well.

I had to settle for some Messier objects, including some old friends that I had not seen in several months. First, I scored M102 as I try to finish my Messier list (I still have seven left). This is one of the galaxies that apparently was not plotted correctly and is up for debate. The one that I went after is NGC5866, an edge-on galaxy with a rated magnitude of 10.7. I could not see it in my scope but did see it in Roy's as an extremely dim subject. I returned to my scope and think I saw it, but would hate to have to swear to it. My next target was M83, rated at Magnitude 7.6 and should have been easy. Unfortunately, it was low to the west and could not be seen in either scope.

Otherwise, I settled into a routine of hitting extended Messier objects, concentrating mostly on star clusters. At f/4, I could not ask for a better wide field scope. Roy went after the same but also hit galaxies and he has the right scope to do it with. We looked at:

M35, 36, 37, 38 star clusters (Gemini and Auriga),
M81 and 82 Galaxies. These were bright. (Ursa Major)
M5 star cluster – very bright (Serpens Caput)
M46, 47 Bright clusters (Canis Major)
M88, 89,90, 91, 100 - galaxies in Virgo, very dim for some reason
M65, 66, 95, 96 – galaxies in Leo
Orion Nebula and M43 – saw 5 Trapezium stars, plus NGC1977
Crab Nebula – M1
Beehive Cluster, M44
M41 in Canis Major
Double Cluster in Perseus.
Comet Holmes

Somehow, we missed out on Comet Tuttle though it may have been too late in the night to see it.

It was a productive night and one that I really appreciated after all those poor weekends. However, by 4 or 4:30 AM, our feet were getting quite cold and neither one of us brought along any chemical warmers. We packed up and left by 5:00.

- Tim Kamel

December 27, 2007

We had our monthly business meeting on Thursday, 12/27. It was a clear night and after the meeting, we decided to open up the dome and do some observing. This would also be a good opportunity for us to check out the new chip in the mount.

We concentrated our viewing to the south, and started off with Mars. Roy had brought along several filters and we tried them all, feeling that the #25 red gave the most detail. Overall, however, Mars had little to offer in terms of details.

Next was the Orion Nebula and we looked at that with and without an Ultrablock filter. What an incredible nebula it is to look at. We were lucky enough to be able to see a fifth star ("E") in the trapezium, floating in and out of view. However, no luck with star "F". We also tried for the Horsehead and had a Hydrogen Alpha filter. Not even close. Could not see even a glimmer of nebulosity.

While the main scope was in operation, the rest of us were using a set of binoculars to look through the dome opening. We looked at the Alpha Perseus (Mirfak) Cluster, the Hyades and the Pleiades. We were also able to see Comet Holmes with averted vision. We also learned a new trick. It seems that if we close the lower door of the dome opening, we block out the light at the horizon and improve our night vision.

Next, we viewed some of the clusters in Auriga and closed up with a view of the double star Castor.

We closed up the dome at about 10:00 PM

- Tim Kamel

Lunar Eclipse February 20th, 2008

On February 20th, there will be a full lunar eclipse that will be visible from our locale in its entirety. For this eclipse, the full duration will be 5 hours and 39 minutes. The total phase of the eclipse will be about 50 minutes. For viewers in Maryland, first contact will be at 7:36 PM. This is when the moon enters the Penumbra and is difficult to see. The partial eclipse (entry into the Umbra) will begin at 8:43 PM and will be readily visible. The moon will be completely eclipsed, and totality will begin, at 10:01 PM. It will at 10:51. The partial eclipse ends at about 12:09 AM. The eclipse ends when the moon exits the penumbra shadow at 1:15 AM.

Harford County Astronomical Society is planning to be on hand to set up telescopes and binoculars for use by members and the general public. The general public is invited to join the members and to bring and set up their own equipment on site. Binoculars and low power telescopes would be the best instruments for this event.

Saturn will be close to the moon, to the top left and Regulus will be to the top right of the moon.

The next total lunar eclipse visible here will not be till December 21, 2010.

If you are available, please join us. If the weather cooperates, we are expecting a good turnout. For last year's March 3rd Eclipse, we had a full parking lot even though the weather prediction was poor.

We have moved our business meeting from Thursday the 21st to the 20th to support this event. We plan on adjourning in time to set up our equipment and be ready for the event. The public session will be held in the parking lot of the Technical High School, the one north of the school and next to our driveway.

Tim Kamel

Observatory Operations December 2007

Saturday, 12/15 was the night for our scheduled open house for December. It was completely overcast with occasional sprinkles. Grace had only one phone call, a group of girl scouts, to reschedule their session.

Hoping for a repeat of the November open house, when the sky cleared for about 2 hours and we had 17 visitors, five of us (Mike, Grace, Gary, Roy and I) decided to meet at the observatory. Not really expecting the skies to clear (the sky stayed overcast and there were no visitors), we planned on doing some work.

Primarily, we cleaned. The dome and stairs were swept out, primarily to remove what felt like several thousand dead flies. Not sure where they came from but it was bad. The classroom and office were vacuumed and rearranged. The bookshelves were reorganized to accommodate the new stuff from the Night Sky Network. The mirror making room was cleaned up and all the stuff in the refrigerator was removed in preparation of having the refrigerator itself removed. We left a mound of trash to be removed.

We also replaced a chip in the mount of the Celestron C-14 scope. According to Astro-Physics, this chip is intended to improve tracking for astrophotography.

We were unable to finish two other tasks. We tried to connect the DSL in the classroom, to no avail. Though we found three phone lines into the building, none would show a signal for DSL. We are not sure if the DSL has been connected to the building.

We were able to install the hardware, however. The DSL modem and hub were installed and wired. The computer in the classroom acknowledged their presence, so it seems that we are networked (we still need to check this). All that is left are two phone wires to connect to the DSL phone line and we are cooking.

Second, the computer in the classroom will not play a DVD, and this has limited our ability to use some of the materials that we have gotten from the Night Sky Network. Though the computer has the right audiovisual software, it is missing a Codec driver to run DVDs. We brought the driver but were unable to install it because installing to XP requires an Internet connection to authenticate the installation.

Mike and I, and possibly others, are planning to meet again at the observatory Sunday night, 12/23, to do some more work. We are hoping to replace the dead rheostat in the dome, bring in a laptop and see if we can network the dome to the classroom, and clean up some of the wiring in the utility room. If the weather is clear, we should also test the new chip.

On Sunday, 12/23, Mike, Gary, Grace and I returned to do some more work at the observatory.

We found that the trash that we had left on 12/15 had been removed and also the defunct refrigerator had been taken out. Unfortunately, the dead flies are back and this was starting to feel like a bad horror movie. We will need to do another cleaning but we did not bring any brooms.

Mike brought a replacement rheostat for the dimmer switch in the dome that had broken a couple of months ago. The new one now works perfectly. It is rated at 600 watts and is better than the 400-watt unit that we removed. Hopefully, with improved capacity, it will better take the load. I brought along some double-sided sticky tape and we reinstalled the Telrad that had fallen off last summer back onto the C-14. Though the scope also has a regular finder, it is a RACI finder whose cross hairs drift when the finder is rotated in its holder so that the eyepiece can be accessed. The Telrad should be much more useful in aligning the scope.

We tried to do some more work on the DSL network connection but had limited success. We did bring two laptops with us and connected to the ports in the classroom and found that we do have a network in the building and we can connect the dome to the classroom.

Unfortunately, we also found that the modem that the College had provided, and which we had installed with screws to the wall, had been removed, along with the power supply and the box that they came in. We are assuming that the College removed it for some reason.

We are still unable to make use of the desktop computer in the classroom. Because of security on the computer, we cannot install a Codec that will allow us to run a DVD. We do not have an access and password for the computer even though it is not, and will not be, connected to the college network.

On Thursday, 12/27, the night of our monthly meeting, we installed a DSL modem that Gary brought along. We still cannot detect a DSL signal though we did notice that a line filter has been installed on the observatory phone. This filter is needed if a phone is to be used on a DSL line.

We had a clear sky this night and did some viewing after the meeting, and were able to test the mount for the first time since installing the E1 Chip on 12/15. The mount is working. Tracking and GOTOs appear to function properly. I personally could not notice any difference between the new chip and the old one but Astro-Physics told us we needed the new chip to improve mount performance if we were going to do any astrophotography. With the minor cost of the chip, we felt the upgrade was justified.

- Tim Kamel

Miscellaneous

Awards Presentations January 24th, 2008

During our business meeting of January 24, 2008, we will be presenting awards to several of our members.

All members are invited to attend this meeting and we would love to have you participate.

Observatory Needs Utensils

Members of HCAS recently cleaned the observatory and building. Since the refrigerator and coffee pot were not usable, they were discarded. If you have a refrigerator or a coffee pot you can donate, please let us know.

You can contact Grace at dgracew@comcast.net or call at 410-836-7285 if you have a donation available. Thanks!

This newsletter is the official publication of:

Harford County Astronomical Society

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