

Harford County Astronomical Society

Bel Air, Maryland
www.harfordastro.org



Volume 34 Issue 3

March 2008

Public Star Party (Open House):
Saturday, March 15, 2008, At Sunset
At the Observatory

General Meeting:
Thursday, March 20, 2008
7:00pm - Business Meeting
At the Observatory

Club Calendar for 2008:

| <u>Open House/Public Star Party</u> | <u>Meeting Night</u> |
|-------------------------------------|----------------------|
| 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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**Minutes of the HCAS Business Meeting
February 20th, 2008**

President Tom Rusek opened the meeting at 6:36 PM. A guest named Rick Seville attended the meeting.

2. The minutes of the January 2008 meeting were published in the last newsletter. A correction was sent out via email shortly after the newsletter was sent out. The group approved the corrected minutes.

3. Treasurer: Tim Kamel reported that the club's bank balance was \$5037.92. Jim Garrett re-joined so the current member count is 47. Tim noted that he plans to start the membership renewal process in March. He will also canvas some of the more active former club members to see if they can be convinced to re-join.

4. Observatory operations:

a. Tom Rusek wants to get the scrolling lighted sign up and operational. We have all the parts, we just need to set it up and use it. Joe Manning said he had an extra battery charger that he will donate for use in recharging the sign's battery.

b. The observatory was open for the open house on February 16th. Tom Rusek noted that we need to stress being careful on the steps so that visitors do not slip and fall.

5. Outreach:

a. The last open house was scheduled for February 16th. The event was not well publicized, so only 8 people attended. The night was clear and cold, making it a great night for observing.

b. The next event at Gunpowder State Park is scheduled for March 7th from 6-8 PM. Grace Wyatt and Tom Rusek have been unable to reach the contact person.

c. The Aberdeen Earth Day event will take place on April 19th, with the 20th as a weather date. Tim Kamel is the club's lead for this event. We will have the usual table and display.

d. Grace Wyatt received a letter from Susquehanna State park. They enjoyed our participation in their summer campfire program and would like us to participate again this year in June, July, or August. Tom Rusek will contact them about this.

e. Tim Kamel is trying to arrange a visit from a home school group for March.

f. Grace noted that we have achieved the red star level in the Night Sky Network. We received a new outreach kit from them.

6. Observing Reports: None

7. Old business:

a. The classroom computer still cannot be loaded with DVD player software since we do not have an administrator account. Tim Kamel will email Sal Rodano to see if he can get the school's IT people to fix this for us.

b. Tim also has a new wireless router to try in the building. The old "missing" router was back in place too.

8. New business:

a. Roy Troxel spoke to his homeowners' association group about light pollution. The club agreed that this is a larger problem, but did not think that contacting local officials by ourselves would have much impact. A possible path forward would be to contact other environmentally-oriented groups at Earth Day to see if a combined approach would be better.

b. Grace Wyatt said on a related note that a group is conducting a light pollution study called "The Globe at Night." They are asking interested people to count the number of stars visible in Orion as a measure of their sky's limiting magnitude during the period from February 20th until March 8th. Grace will send a copy of the email about this to anyone interested.

c. Tom Rusek asked if we should consider spending about \$400 on a Sky Scout "go-to" device. It could be useful during outreach events. Jim Garrett said that in his opinion, they are of cheap quality. The one he knew of lasted only about 3 weeks. There was no motion to purchase one.

d. Grace Wyatt suggested that we obtain a solar filter for the club's 8 inch reflecting telescope. Tim Kamel said we could also make one out of the solar film.

e. Tom Rusek had a copy of his recently published book, *From God to Man*. It is a story about how God made the universe using evolution as a tool. It is meant to be for children.

9. The meeting was adjourned at 7:15 PM. Several members waited afterwards for the weather to clear up so that they could host the previously-announced public lunar eclipse viewing event.

- Monroe Harden

Folks,

I want to wish everyone a Happy Easter. We have much to be thankful for. This past February 20th we witnessed nothing short of a miracle. We watched the snow come down well into the evening. At around 8pm, we saw glimpses of the moon overcast by clouds. By 9:30pm, the skies were clear and barely a cloud could be found. The upcoming totality of a lunar eclipse would be observed by members and visitors alike. What a show!!! Thanks to all who stuck it out and to the 25 quests who witnessed the special event. These 25 observers had a wonderful time and the joyous cries from all kept us warm during a truly frosty evening. If you truly believe, the skies will clear!

- Tom Rusek

Observation Reports

Lunar Eclipse February 20, 2008

What an event! Good weather, good turnout by members and good turnout by the public.

It did not start out that way. As early as the weekend before, the prediction was for good skies. However, as we got closer, a fast snow storm was moving in and the prediction deteriorated. On the 19th, the prediction was for clouds all day, clearing around 7 PM. I thought that we were going to be OK. On the 20th the weather forecast had deteriorated further but was vague. Prediction was for snow ending around 6 PM and clear skies after midnight, but no word on what was to happen in between. It was looking like it was going to be a repeat of the eclipse of March 3rd, 2007.

I consider myself a pessimist but this particular evening I was hoping for better. I loaded up my equipment and came prepared for a long night. I was willing to wait for the clouds to clear and was ready to stay till 11 PM if necessary.

We had our business meeting starting at 6:30 and kept checking the sky. Basically socked in till about 7:30 or so when we could see the moon vaguely through the clouds. Gary and I drove down to the parking lot by the school to see if there was any one over there, and there was none. However, by 8:00 or so there were gaps in the clouds and by 8:15 a quarter of the sky was clearing to the west. We drove over to the parking lot and began to set up. By 8:30 it was completely clear, not a cloud in the sky. Perfect for the start of eclipse a few minutes later.

Our first guests, a father and son, showed up just before the start of the eclipse. They were followed by others and we had a steady stream of guests till about 11:00 PM. We had a total of about 25 of all ages. Nothing near what we were expecting but still a fair showing. Participating also from the club were Grace Wyatt, Tom Rusek, Gary George, Joe Manning and Roy Troxel. The equipment that we set up for the event included 10x50, 12x50, and 20x80 binoculars as well as an ETX-70 and a 4.5" reflector. I also brought a 4.5" reflector but never got around to setting it up. A guest brought along a 100mm Mak.

In addition to watching the moon get eclipsed and see the red color of the moon, we also looked at M-45 and M-42. We also spent some time looking at Saturn.

As the evening wore on, the temperature dropped and we experienced equipment trouble. The binoculars frosted over, as did the ETX and the Mak. Though I had a hair drier and defrosted the equipment, the cold killed the batteries on the ETX. By 11:15, we began packing up and we left the site by 11:30. The moon was still partially in the shadow but was close to ending.

It was a nice night and the longest that I had actually watched an eclipse.

- Tim Kamel

Observatory Operations

February 2008

This is a progress report on some of the changes occurring at the observatory.

First, you are already aware that the observatory is networked and is connected to the Internet through a DSL line. In February, we have improved this capability by going wireless. There is a limitation however, in that the wireless router we are using is incapable of being properly secured against unauthorized access. So, right now we are shutting it off when it is not in use pending replacing it with a modern router with decent security capabilities.

The Telrad unit finder we had on the C-14 has been reattached. It had fallen off last fall and my first attempt to fix it using Velcro had failed. I have now attached it with double-sided tape and it is holding. It works like a charm during the synchronizing process and is much better than using the finder scope. The trouble with the finder is that it is a RACI type finder and when the elbow is rotated to face the viewer after the scope is moved, I find that the cross hair does not stay centered.

With respect to the finder, it has a cross hair illuminator that has been removed. I have located the illuminator and find that it does not have batteries. I have ordered batteries for it and expect to mount the illuminator shortly.

Lastly, we now have a new cover for the scope, courtesy of Gary George.

- Tim Kamel

More New Improvements...

The past couple of weeks has seen some important improvements in the new computer network installed for the HCAS Observatory and classroom.

For starters, we now have wireless Internet access available in the classroom and immediately surrounding the HCAS Observatory grounds. The access point is available to members of the HCAS with laptops that would like to bring them to meetings or Open House events. Although accessible, there are security settings required for the connections. Details will be made available to those individuals interested in using this wireless access.

The second improvement is the connectivity available at the 14" Celestron telescope in the Observatory. Besides wired Internet access, we have freely available software available (RealVNC or TightVNC) that allows those members with PCs and CCD imaging equipment to share those captured images at the scope, in real-time, with other members or visitors located in the classroom. The same software can actually allow remote control of the imager and PC in the Observatory from the classroom. This allows a lot of options and control not possible before. For example, once the dome is opened and the scope aligned and tracking an object, the actual imaging capture, stacking and enhancement procedures can be demonstrated and shown to

other members of the HCAS or public in the classroom. Or, for Open House events, individuals or groups not able to make the climb to the Observatory can see what the scope is pointed at immediately in the classroom environment. Weather notwithstanding, we hope to demonstrate this capability at the next business meeting.

Using this system will be easy with some simple instruction, and again, the software necessary is freely available and easy to set up and use with any PC operating system. We hope to develop documentation to show step-by-step how to do it.

For those interested in seeing the improvements in action, or learn how to use your PC with the HCAS telescope, plan to attend the next business meeting for details. See you there!

- Jim Garrett

Open House **February 16, 2008**

Tonight was our February open house session. Weather was fairly mild and prediction was for clear skies and, as usual, poor seeing, 2 out of 5. The session was well advertised and we were expecting a good turnout.

Unfortunately, it was not to be. We had only eight visitors and one dog. Participation by club members was good and included Phil Schmitz, Roy Troxel, Mark Kregel, Grace Wyatt, Gary George, Tom Rusek, new member Tony Murphy who came with his daughter and her friend, and me. Mark had his 14" home built Dob and Roy had his 12.5" Obsession. We also had the dome open.

Basically, we arrived early and I had a chance to sweep out the dead flies from the dome and stairs, and fix one of the light fixtures that had gone dead (fluorescent light needed to be rotated). I also tried to fix the thingy that illuminates the cross hairs in the finder on the C-14 but the batteries I brought were too small. There were no batteries in it and I do not know what size it takes so I will try again with different ones.

Guests started arriving around 6 PM and the last one left at about 8 PM or so. However, we kept the dome open for another hour and half for use by the members.

The highlight of the evening was Saturn. Viewed at 100 & 160 power, the views were incredible, with four moons visible as well as two bands on the planet itself. The Cassini Division could be seen though the rings are getting close to closing up. At 260 power the view got soft but still elicited pretty good responses from our guests.

Mars is pretty high up and could only be seen for a few minutes before it became too high to see from the dome. We were still able to see some features on the surface, as dim shadows.

We saw the ISS, which traveled ½ the sky before fading out.

Otherwise, we used the scope (and two sets of binoculars, the club's 10x50 and Gary's 12x50) to look at several DSOs over the course of 3.5 hours. Included were M42 and nearby NGC objects 1977 and 1981, M41, M44, M50, M46, M47, M67, M93, M31 and M32, one half of the Double Cluster, M45, the Hyades, the Alpha Perseus Association, M81, M82, Castor (triple star), double star Mesarthim and, of course, the moon, which was a show stopper in the C-14.

Attempts at the Auriga Clusters were unsuccessful, too high up for the dome opening.

We had some issues getting the mount to GOTO when we first started, requiring several shut downs and realignments. After the fourth try or so the mount then performed perfectly. Not sure what was happening. We were trying to observe near the meridian and maybe that was part of the problem. The Telrad was a big help since the finder scope does not stay centered if it is rotated to accommodate position. We really should replace it with a straight through finder.

- *Tim Kamel*

Miscellaneous

Community College of Baltimore, Dundalk

<http://www.cbcmd.edu/catonsvilleplanetarium/starparties.html>

Schedule for Star Parties Friday evenings

April 11, 2008, 8 - 10 p.m.

April 25, 2008, 8 - 10 p.m.

May 9, 2008, 8 - 10 p.m.

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