

# Harford County Astronomical Society



## Monthly Newsletter

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*Volume 36 Issue 1 January 2010*

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### **Public Star Party (Open House):**

**Saturday, January 23, 2010**

**at Dusk**

**At the HCAS Observatory**

### **General Meeting:**

**Thursday, January 28, 2010**

**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

There were no general meetings in November and December. The next meeting will be on Thursday, January 28, 2010.

### President's Message

Folks,

Another year has come and gone. We have made much progress in regard to the dome modifications in the last year. We have a newly designed web-site. The outreach programs have reached new heights. The "Moon Rocks" have attracted over 1800 participants, along with over 500 visitors to our open houses and another 550 people from individual efforts with outreach talks throughout the county in 2009. Individual members have done a fantastic job observing out on their own. The new Orion Imaging Camera has taken us to new heights in astrophotography.

We have much to look forward to in 2010. The dome repair project should be completed and our primary telescope re-installed soon. This will expand our astrophotography and open houses for public viewing. The astrophotography course will continue to educate those interested in this field and the outreach program will bring the world of astronomy to the public. We have much to look forward to in 2010.

I, as President, want to thank everyone for your hard work and commitments to projects during the last year as members of the HCAS. This year will surely bring new adventures for our club.

Have a happy, healthy and safe New Year.

- Tom Rusek,  
President, HCAS

## Club Elections

It is election time for HCAS. If you are interested in running for a position in the club (officer or board member or if you would like to nominate someone, please let Tom Rusek ([rusek54@yahoo.com](mailto:rusek54@yahoo.com)) or Grace Wyatt ([dgracew@comcast.net](mailto:dgracew@comcast.net)) know before January 28.

### Duties of Officers, Directors and Technical Advisors

#### Section 1. President.

The President shall have general supervision of the affairs of the Society. He or she shall serve as chairperson of the Executive Committee and as a member (ex-officio) of Special Committees. He or she shall preside at meetings of the Society and perform other duties as assigned by the Executive Committee. He or she shall submit an annual report on the activities of the Society to the Executive Committee at the Committee's last regular meeting of the year, and to the membership of the Society at the Annual Meeting.

#### Section 2. Vice President.

The Vice President shall, in the absence of the President, preside at the meetings of the Executive Committee and discharge the duties of the President. He or she shall serve as chairperson of the Program Committee. He or she shall perform other duties which may, from time to time, be assigned by the President with the approval of the Executive Committee.

#### Section 3. Treasurer.

The Treasurer shall receive all monies and deposit them to the credit of the Society in Depositories as designated by the Executive Committee. He or she shall disburse the funds of the Society as may be ordered by the Executive Committee, obtaining proper vouchers and/or receipts. He or she shall furnish a statement of monthly balances at all regular meetings of the Executive Committee. He or she shall furnish an annual report of the financial status of the Society at the last meeting of the Executive Committee in each fiscal year. This annual financial report shall be audited and certified by two members of the Board of Directors prior to presentation to the membership at the Annual Meeting of the Society.

#### Section 4. Secretary.

The Secretary shall keep all minutes of the meetings of the Executive Committee, report them at subsequent meetings and keep a permanent file of them. He or she shall receive all membership applications; maintain the membership roster, keeping it up-to-date; and prepare and mail all notices and other pertinent information to the membership. He or she shall forward all monies received to the Treasurer. He or she shall keep a permanent file of all correspondence originated and received by the Society.

#### Section 5. Board of Directors.

The members of the Board of Directors shall serve as members of the Executive Committee of the Society and assist in the technical, scientific and operational management of the Society. They shall have a vote in all aspects of the operation of the Society.

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## New Members

January 3, 2010

Please welcome the following new member:

Robert Kesler is currently working in Germany and belongs to an astronomy club there. He is retiring in 2011 and will be returning to Bel Air, Maryland at that time.

Welcome aboard!

## Treasurer's Report

January 13, 2010

Current balance is: 4100.98.

Membership now stands at 49 individuals and families.

- Tim Kamel

## 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 :**

**Jan. 7 through Jan. 23, 2010**

**Feb. 5 through Feb. 21, 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](mailto:rtroxel@comcast.net)*

### Broad Creek

December 16, 2009

5:15pm to 8:00pm

It was a cold evening with the temperature at about 32° at sundown. Nonetheless, the sky was very clear, so I felt it was worth spending a few hours at BC.

I had just purchased a 2" Orion UltraBlock filter off Astromart.com, and wanted to try it out with my 35mm Panoptic eyepiece.

I first looked at Jupiter, now in the southwest sky. Without the filter, the planet's image wobbled and the four moons flickered, but when I screwed on the filter, the image became very steady. It also helped to dim the brightness of the image, so that more detail could be seen.

The UltraBlock was very helpful for viewing emission nebulae as well. The region around Cassiopeia and Perseus is rich with open clusters, many of which have nebulosity near them, so I began my session there. The 35mm eyepiece provided wide, inclusive views of this area – an arm of the Milky Way that includes the constellations of Cepheus, Auriga and Camelopardalis. The Milky Way began to appear around 6pm, mostly overhead, but also in Cygnus, which was now in the northwest. The 35mm also brought out many dim objects, because of its wide field of view. For closer views, I used the 12mm Nagler eyepiece.

Other objects I observed included:

M34 – Open cluster with many double stars. Looked more impressive through the 35mm than the 12mm

M76 – Looks like the Dumbbell Nebula (M27), but with a beautiful red star near it.

NGC281 – Open cluster with nebulosity in Cassiopeia.

IC405 in Auriga – A triangle of stars with some faint nebulosity.

Couldn't see NGC1499 – the California nebula in Cepheus.

IC1396 – An open cluster in Cepheus, with nebulosity.

NGC896, This open cluster has an emission nebula around it, very visible using the UltraBlock filter.

M1, the Crab nebula in Taurus, was very faint and low in the east.

NGC6692 –The western sky was becoming increasingly hazy, but, thanks to the filter, I was able to observe the Veil Nebula in Cygnus, now about 45° in the western sky. Also saw the North America Nebula, as well (NGC7000), or at least the “Mexico” portion of it. This nebula should really be viewed with binoculars.

NGC7023 – An open cluster in Cepheus with some nebulosity.

M103 – Beautiful twinkling open cluster with a triangular shape which for some reason doesn't appear in photographs. This is one you really have to enjoy at the eyepiece on a cold night. Photographic or digital reproductions don't do it justice.

Double Cluster in Perseus – Now near the zenith, and displaying dozens of stars. Best view all year of this object at Broad Creek.

NGC1502 – an open cluster in Camelopardalis, with many double stars.

NGC1501, a bluish planetary nebula in Camelopardalis

The final test of the UltraBlock was to observe the Sculptor galaxy, NGC352, and the globular cluster below it, NGC288. Both of these objects were below Fomalhaut on the southern horizon, which was now filled with haze and at the edge of the Bel Air light dome. To my delight, I was able to see both the galaxy and the star cluster. They didn't appear too clearly, but I was surprised to see anything at all in that murk.

I began packing up the scope at 8:00pm. Orion was rising in the southeast, very clear and bright, but the wind was also picking up and my car's dashboard temperature reading was 29°F. I drove away from the BC gate about 8:30pm and headed for Bel Air for some hot coffee!

- Roy Troxel

### **Broad Creek January 10, 2008**

It was COLD, but mostly clear. We began observing around 5:45pm and left around 9:00pm. The temperatures ranged from the high to low 20s while we were there. A breeze picked up during the last half-hour, which brought the wind-chill factor down to the 'teens. The seeing wasn't good for nebulae, including M42, but very good for star clusters. Galaxies were dim, too, although I was able to see NGC2403 in Camelopardalis. It's usually very sparkly, but not tonight. Even M1 (The Crab Nebula) was very dim, even with the UltraBlock.

Saw about a dozen clusters, including M50, M35, 36, 37 and 38. Saw the "little" cluster NGC2158, near M35. It is actually about the size of M35, but 6 times farther away (13,000 light years). Used the 35mm and 12mm Nagler eyepieces, often with the 2" Orion UltraBlock filter, which helped see through the haze and present high-contrast images of the nebulae.

I wanted to see Hind's Crimson Star, but the batteries on my ArgoNavis went out. I hooked up my 12-volt battery to the "stalk" which holds the AN, but still no power. After I had left BC, I realized that I hadn't attached the stalk's power cable to the ArgoNavis. (Duh.)

Tim brought along his 12" Dobson, so we had a lot of aperture to work with. Both scopes displayed all 6 stars in the Trapezium, but not much of the nebula. I used my 9mm Nagler (175x) on this object.

Other objects observed were:

Jupiter - Now in the southwest sky just after sunset. It appeared to wobble, but the UltraBlock filter steadied the image. Not much to see however, except for a few bands. Apparently there was a lot of haze in the sky this night.

NGC7380 - The "Wizard Nebula" in Cepheus. Easy to see with the UltraBlock

The Great Orion Nebula, M42, It was low on the eastern horizon and rather dim, both with and without the UltraBlock. This again attests to the poor seeing conditions, probably 1/5..

In Orion's belt, I tried for NGC2024 The Flame Nebula, but I couldn't see it. In fact, I have seen it only twice at BC.

I concluded with the open cluster M50, near the eastern horizon, in Monoceros.

- Roy Troxel

## **Broad Creek Sunday, 1/10/2010**

As I write this, it is Tuesday night and it has been 2 days since I went observing last Sunday. The numbness has left my legs and my hands have defrosted enough that I can actually type this report.

I'll start the report with the snowfall we had last Thursday night. When it stopped snowing on Friday, the sky cleared and we were in for several clear nights with no moon. I had too much to do Friday night. Saturday, Roy and Cathy had plans to go but I had made plans to go see the Blind Side with my wife. If you have not seen this movie, you should go. It was great.

Sunday, Roy had put out a note for that night and I was dying to go, having several reasons for it. First, I had not done any observing since the November open house. Second, I had found the laser collimator that I had bought at Cherry Spring last May and had misplaced. I used it to collimate my Dob and wanted to see how that was working. Third, I had new contact lenses which fixed my astigmatism and I wanted to see how observing with them would be. I had also bought an 8 mm Chester Brandon off of Astromart and my son had given me a new laser pointer for Christmas and I wanted to try these out. Holding me back was the cold. The forecast was for temps in the mid 20's but the wind chill was in mid teens with the 8 mph wind. I checked the clear sky chart and forecast was for completely clear skies, good transparency but poor (2/5) seeing. I decided to go anyway. There were no other takers.

I was hoping to get there at 5:00 but did not make it till 5:30 and by then it was getting dark and the bright stars were already visible. Roy was already there and had already set up his Obsession. I brought my XT-12i and was set up in a couple of minutes. I was disappointed to see some clouds, but these went away as it got darker and were not an issue.

We had a chance to talk with Ron, caretaker for the camp. I advised him that I could not get the gate closed. The gate would not reach the hasp and would not close. I told him it was so cold, the gate had shrunk. He told me he would fix it and when we left, it was fixed.

I started off observing Jupiter but the views were poor. Three of the moons were out. At low power, Jupiter was clear but too bright to show any belts. High power with my 8 mm Brandon gave soft views with belts barely visible. I thought maybe the eyepiece was bad so I tried a 7 mm Ortho. It was just as bad. Something else was causing the problem but I was not sure if the collimation was off, the seeing was poor or my scope was still cooling down.

I moved on to other objects using different eye pieces. I picked up the Ring Nebula low down to the west, no problem, but could not see the Dumb Bell, which was higher up and brighter and larger. I have no idea why.

I then moved onto the Orion Nebula and spent a good part of an hour looking at it and the Trapezium using different eyepieces. What an incredible object. The nebula was exquisite with stars imbedded in it. I was able to see all six stars using an 8 mm Baader Hyperion eyepiece in my scope and a 9 mm Nagler in Roy's scope. I could see 5 stars using a 13 mm Baader Hyperion.

I spent the rest of the session looking at various objects, including M1, M41, The Double Cluster (glorious), M35 (a beautiful cluster that is much under rated), M36, M37, M38, M45 (too big for my scope) and M78. I got my first look at Mars but it was too low with just a hint of shading and maybe the polar cap.

By now, it was about 8:30 and I was starting to suffer from the cold. I had enough on to keep my torso and legs warm but my feet were cold and my fingers were worse as I needed to keep pulling the gloves off and touch metal objects. I had waited too long to start using the hand warmers and they were not helping much. We decided to pack up, which took me a few minutes. It takes Roy a little longer because he has to take his obsession apart to get it into his car. I spent some time looking through my 15 x 70 binos. We then left.

Overall, I was happy I went even though I was only observing for about 2.5 hours. I got to see some old friends and got my first views of Mars and the Orion Nebula for the season. My Intelliscopes worked like a charm, only failing me towards the end when the screen became too dim to read. The collimation on the scope was very good and I had great views of the Double Cluster and the Trapezium. My new contacts are working well on both eyes. The laser pointer works well. The jury is still out on the 8 mm Brandon. After using it to look at Jupiter, I put it back in the case and did not try it again. I will need another night to test it.

Viewing was a little weird. I could not bring in M27 and views of Jupiter were disappointing, yet I had no problem finding M57 near the horizon. I also had great views through my binoculars of M31 and M33. I had never seen M31 so large and M33, normally a very tough object for me, was easily found and fairly distinct.

Too bad the cold kinda shortened our session, but 2½ hours wasn't a bad session.

- *Tim Kamel*

## **Outreach Programs**

**Open House  
December 19, 2009**

Cancelled! This time by snow, 22 inches of it.

**Constellation Hunter Program at Swan Harbor Farm  
Jan. 9, 2010**

Larry Hubble did a presentation for Anita Leight Estuary Center at Swan Harbor Farm. The Estuary Center had sent out notices to all their members of the program. They put a limit of 25

participants and had 21 people sign up. The night was incredibly cold but we still had 11 people attend the one hour event. Larry did an excellent job explaining the layout of the night sky, identifying constellations, providing some of the lore and stories that go with constellations, talking about the lifecycle of stars and answering all sorts of questions. I attended and gave out club schedules, Kepler information, moon maps and sky wheels to those who attended and assisted with answering questions. Gary and Darlene George attended the event also. Swan Harbor Farm is a beautiful place day and night and the sky was good. There are security lights near the buildings but if you get far enough away, they do not come on. Rebecca Gallo had requested the program. She offered if we want to come there to observe, give her a call or email and she will leave the gate open for us. The Center gave a donation to the club for the program and took HCAS schedules for their events stand.

### **HCAS Presentation at Aberdeen Proving Ground**



*Paul Sokolowski shows the children the Aberdeen Area Youth Center's telescope on Nov. 20.*

### **Upcoming Outreach Events**

**Parkville Middle School**  
8711 Avondale Road  
Parkville, MD 21234  
Thursday, January 21, 2010  
6 PM TO 8 PM  
(Rain date January 26)

Tim's wife requested a program for Parkville Middle School. There will be somewhere between 50 and 150 attendees. They will have a list of objects to look at--Jupiter, Mars, Moon, Pleiades, Orion Nebula and Betelgeuse & Rigel to contrast young and old stars. We will need at least 5 telescopes and/or binoculars for the event. Tim plans to bring at least one telescope and can bring two if necessary. Please contact Tim if you plan to attend at [hkamel32@comcast.net](mailto:hkamel32@comcast.net)

### **Open House** **Saturday, January 23, 2010**

Our regularly scheduled open house is 7 PM on January 23. We will be hosting a Girl Scout Troop prior to the open house. The girls are scheduled to arrive at 6 PM to work on their badges. Please come out to help at this event.



## Miscellaneous

### Astronomy Presentations

HCAS is looking for presenters for after general meetings. Do you have a program you would like to share with the club? Do you have a collection you would like to share? Do you know someone who would like to give a presentation? Learning something new or seeing something cool is always a welcome addition to our general meetings. Please contact Grace Wyatt to schedule your program if you have something to offer.

Thanks,  
Grace  
[dgracew@comcast.net](mailto:dgracew@comcast.net)

### A Winter Blast of Fun!

*This article is from Tom Koonce of the Antelope Valley Astronomy Club, Inc., Lancaster, California*

The weather is often keeping us inside at this time of year. The only stars we get to see are those as we are dashing from the car to the house in the evenings. For a few seconds we may glance up at Orion's Belt or perhaps a bright planet through bitterly cold, but alluringly steady, clear skies. You might briefly think about going inside and grabbing your telescope and coming back out for a few minutes of observing, but then the choice between the bitter cold and the Siren's song of the warmth of the house becomes clear as you retreat inside. It's frustrating, surely, but while amateur astronomy is a hobby that teaches patience and perseverance we don't want to sit idly by all winter.

Perhaps we should treat the winter months as an "opportunity". We could use these few months to explore our creativity, get our equipment finely tuned and ready, or even expand our horizons online by conducting real science for professional astronomers. With that in mind, here are a few ideas for the winter months. Maybe you'll like to try a few. These could count as New Year's Resolutions. All count as fun!

Clean all of your eyepieces (<http://www.televue.com/engine/page.asp?ID=143>)

Clean your telescope ([http://www.ehow.com/how\\_10336\\_care-telescope.html](http://www.ehow.com/how_10336_care-telescope.html) ,  
[http://sctscopes.net/SCT\\_Tips/Maintenance/Cleaning\\_Your\\_Optics/cleaning\\_your\\_optics.html](http://sctscopes.net/SCT_Tips/Maintenance/Cleaning_Your_Optics/cleaning_your_optics.html))

Change the batteries in your Telrad, red light flashlights and other powered accessories.

Inventory all of your astronomy gear. Take pictures of all of it for insurance purposes.

Organize your eyepiece case and / or make a new eyepiece case  
([http://www.cloudynights.com/item.php?item\\_id=1090](http://www.cloudynights.com/item.php?item_id=1090))

Image process all of those great shots that you've been meaning to get to  
([http://www.spacetelescope.org/projects/fits\\_liberator/improc.html](http://www.spacetelescope.org/projects/fits_liberator/improc.html))

Accomplish real science on your home computer – help scientists classify galaxy types: (<http://www.galaxyzoo.org/>)

Build a model of the Cassini Spacecraft (or many others!) (<http://www.jpl.nasa.gov/scalemodels/>)

Establish an "astronomy fun fund" for yourself and put \$5/week into it

Write a few letters to your town in favor of lighting control (<http://www.darksky.org/>)

Review the Astronomical League list of observing clubs. There are a few new ones you might like try. (<http://www.astroleague.org/observing.html>)

Repaint your old telescope with a cool pattern  
(<http://www.cloudynights.com/ubbthreads/showflat.php/Cat/0/Board/classics/Number/2294472/page/0/view/collapsed/sb/5/o/o/fpart/all>)

Update your GoTo software on-line to the latest version

Build your own dobsonian telescope (<http://www.backyardvoyager.com/dobplans.html>)

Create a list of community outreach activities that you think your club might be able to do this year.

Sketch out what your backyard observatory will look like one day  
(<http://obs.nineplanets.org/obs/obslist.html>)

Survey your club members about what was their best astronomy-related experience this past year. Try to have more of those this next year.

Make a glare shield for your telescope from black foam craft sheet  
([http://www.atoztelescopes.com/products/dew\\_shield.asp](http://www.atoztelescopes.com/products/dew_shield.asp))

Listen to an astronomy related podcast on your computer (<http://www.astronomycast.com/>)

Write a letter to your state congressmen and senators in favor of the space program

Explore Google Moon and Google Mars

Make a cover for your telescope when not in use

I hope that you find this short list inspirational on the cold, dark, days of winter and that it prepares you for the upcoming warmer weather.

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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 13<sup>th</sup> of the month of publication.*

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

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<http://www.harfordastro.org>  
**Webmaster: Larry Hubble**