

# Harford County Astronomical Society



*Celebrating Our 40<sup>th</sup> Anniversary!*

## Monthly Newsletter

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*Volume 36 Issue 8 August 2010*

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### **General Meeting:**

**Thursday, August 19, 2010**

*Presentation afterward: "Observing and Hiking in the Southwest"*  
*by Roy Troxel*

**at 7:00pm**

**In the Observatory Classroom**

### **Public Star Party**

**Saturday, September 18, 2010**

**at 7:00pm**

**At the HCAS Observatory**

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Please check our website for possible schedule updates and changes:

<http://www.harfordastro.org>



<http://astroleague.org/>



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

### **In This Issue:**

<b>HCAS General Meeting Notes.....</b>	<b>p.2</b>
<b>Observation Reports.....</b>	<b>p.4</b>
<b>Outreach Programs.....</b>	<b>p.5</b>
<b>HCAS Observatory Updates.....</b>	<b>p.7</b>
<b>Astrophotography.....</b>	<b>p.7</b>
<b>Miscellaneous Reports and Announcements.....</b>	<b>p.11</b>

## **HCAS General Meeting Minutes of July 22, 2010**

The meeting was called to order by Vice President Grace at 7:01pm. The Minutes of the June Meeting were published in the July issue of the Newsletter and were approved as published.

Newsletter Issues: There was a message from founding member Louis Berman in the July Newsletter. Grace urged everyone to read it.

Treasurer's Report: We have \$5408.22 in the checking account, and approximately \$389 in the PayPal account. There are reimbursements due from the checking account. We have 48 paid members, several have joined through the PayPal account. New Members Tim, Dale, Colleen and Jim are in attendance tonight.

Website: Roy reports that there was a problem with one of the Newsletter links, and Larry stated he would correct it. It was asked if Steve Krall's Messier notes could be brought back to the website and list AL and HCAS awards earned by members. Larry will check this out. The Yahoo Group is still alive, and we need to be utilizing it. Larry is in the process of converting the photographs from Cherry Springs to a Flash slide show, so that it is compatible with the Website.

Outreach: Past events - April was Global Astronomy Month, "Astronomy Without Borders - One People, One Sky" was the theme. HCAS hosted 5 events during the month with a total of 446 we outreached. Mountain Christian Church had an Astronomy night on June 25, at which Mark, Doug, Phil, Bill, Paul and Grace met with 32 visitors. Mark, Gary and Grace attended Anita Leight at Swan Harbor Farm in Havre de Grace on July 2, with 14 visitors. Grace made a presentation at Celebree Day Care Center in Bel Air for 27 4- and 5-year-olds. Phil and Grace performed outreach at Highlands School in Bel Air on July 13, which had 25 children.

Our open house was on July 17 - even though there were only a few stars out. The seeing conditions were poor, due to the humidity. We were host to 21 visitors. Fortunately, this was the first event that the observatory was in working order.

Future events: We will be continuing our annual presentation at Susquehanna State Park on July 24. Elk Neck State Park has also asked us to give a presentation on August 21. Astronomy Day is scheduled for October 16. Grace will be asking Sal for a place on campus for the day program. We will also have the Lunar Samples for this event. We will also have our regular evening program at the Observatory. A large event shows the "Triangulum" of HCAS - Outreach, Observing and Astrophotography.

HCAS40: Karen awarded the first 3 HCAS40 pins and certificates. Certificate 1 went to Leo Heppner Sr. His son was in attendance to accept the certificate on his behalf. Certificate 2 went to Roy Troxel and 3 went to Phil Schmitz.

Observatory Operations: The dome is not quite finished, but the telescope is in working order, enough to have visitors in the dome at our Open House last week. There are still a few repairs on the dome, such as installation of a gear reducer and a drive shaft. The telescope also needs to be drift-aligned. The interior of the dome also needs painting. Computer status: Mark will be purchasing a computer through his company for the club to use. Eyepiece inventory list: after an email went out to the membership, only a few pieces have been located. The ST6 camera is at the college on display. The refractor, autoguider, mount and accessories are here, waiting for installation. There is still one item we have not received.

Board of Directors Meeting: The BoD met to discuss the wish list for additions to the main telescope, and to help facilitate use of the camera. It was decided that the College would not provide the funds, because there were enough donations from club members to completely cover the cost of the equipment. It was agreed that these donations would be used to purchase the equipment. There needs to be a camera safety net installed. A discussion also covered the need to light the steps going to the observatory. A cable going from the observatory to the classroom is still needed as well.

Observing Reports: Black Forest Star Party at Cherry Springs is September 10-12; there are very few spots still open. Stellafane is coming up at the end of August. Please check the newsletter for observing reports from club members.

Night Sky Network: There is an iPhone application called GoStargaze. It advertises free publicity for published events.

There will be a full lunar eclipse on December 21, which is a Monday night into Tuesday morning. Totality will be at approximately 1am. Matthew took a moment to talk about meeting Astronaut John Grunsfeld at the Space Telescope Institute in July.

The meeting was adjourned at 8:07pm.

*Karen Carey,  
Secretary*

### **Treasurer's Report August 10, 2010**

Current balance in checking account is: \$4478.82

Membership now stands at 50 individuals and families.

I have stopped following up with members that have not renewed their membership and have dropped them from our membership rolls.

*- Tim Kamel*

## **New Members**

### **July 29, 2010**

Please welcome the following new members:

The Cowan Family  
The Davidson Family  
The Blanchard Family  
Dale Edmunds

Welcome aboard!

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## **Observation Reports**

### **Broad Creek**

#### **Saturday, August 7, 2010**

9:20pm to Midnight

Six HCAS members attended this session – myself, Grace, Gary, Bill, Jeremy, and new member Dale Edmunds. The evening began with a better-than-average sky, although it was not until after 10pm that it became dark enough to observe deep space objects satisfactorily. Consequently, I began by observing some of the brightest objects, including the double star Nu Scorpii, globular clusters M5 and M22 and open cluster M11.

As the sky darkened, I turned the scope toward M16 in Serpens. The star cluster was very bright and the Eagle Nebula could easily be seen, by using an UltraBlock filter with the 35mm Panoptic and 24mm Meade eyepieces. No sign of the Pillars of Creation, however.

I next moved to NGC 6755, a dim, wide and loose open cluster in Aquila that filled the field of my 35mm Panoptic eyepiece.

In the large constellation Ophiuchus I was able to view NGC6781, a large but dim planetary nebula, and IC4665, a large, loose and bright open cluster.

I concluded with NGC6530, a bright open cluster in Sagittarius, containing mostly blue and white stars. The cluster is very close to the Lagoon Nebula (M8) and was probably formed from the nebulosity in that area.

By 11pm, the Milky Way was easily visible in Cygnus and Aquila, and the dark rifts in both constellations were very apparent. The Scutum Star Cloud was dimly visible, but the M. W. appeared very faded by the time it reached the southern sky in Sagittarius.

By midnight, Jupiter had risen in the east. At the same time, however, some very bright lights appeared behind the trees along the eastern side of Astronomy Hill, and they made the eastern sky all but invisible. None of us knew what the lights were for, or whether they had anything to do with the Broad Creek reservation. (I had seen the lights before, about two years ago.)

In any case, Jupiter was bright also, and very observable. The four Galilean moons appeared, two on each side of the planet, with the shadow of Io on the southern hemisphere. Io itself appeared to be almost touching the planet's western edge. I used a 12mm Nagler eyepiece with a light blue #80A filter.

Clouds began rolling in after midnight, at which time we began packing. It had been a short but productive session.

– Roy Troxel

## Outreach Programs

### Susquehanna State Park

Saturday, July 31, 2010



*Mark Kregel discusses stellar evolution with a small but focused group on a hot July evening.*



*Photo by Larry Hubble and Roy Troxel*

The ones who could not make it for the outreach program at Susquehanna State Park were as bright as the Moon. After his talk, Mark even bailed out due to the fact it was 99.7 degrees at 9:00 in the evening. That left Grace, Mike, Roy, Karen, Maggie, and me to greet the few people who braved the heat.

Roy and I broke out the club's camera and after focusing on Vega we turn it to the moon for something easy to show the few guests. We used my small 80mm refractor (the same kind the

club just bought) to get the “Yellow Moon”. I think I heard Karen showing others Saturn, and Mike was on something after he got the kids to stop swinging on his telescope.

The Moon rose into the sky just like the song lyrics by Neil Young “Yellow Moon on the Rise”. It really was yellow just like the photo we took.

- *Larry Hubble*

### **Open House July 17, 2010**

Two in a row – Wow! For our July open house, we were again favored with fairly clear skies at the beginning of the session that slowly deteriorated later in the evening. This was OK, though, because we have the C-14 scope back in service and we were limiting our targets to bright objects only.

We had started out with the moon, which was still rising, barely above the horizon, but we quickly lost it in the trees. So we moved to Venus, which has waned to about 50% illuminated but has gotten larger. We then went for Saturn. Rings are still fairly closed but in the C-14 show a shadow on the planet. Mars is still visible but is so small at this point that it is barely a disk that is distinctly red.

We are also able to see Alberio but any attempts at other objects were unsuccessful due to the haze and the bright moon.

We packed it up around 10:30 PM.

Turnout was modest, 21 guests, but there was a lot of enthusiasm from guests that had been awaiting the return of the “big scope”. Members attending included Phil, Paul, Karen and Maggie, Grace, Gary, Beverly and Sarah, Tim, Roy, Larry and Ricky.

- *Tim Kamel*

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## Astrophotography



### **M20 (Trifid Nebula) in Sagittarius**

Photographed at Lake Phelps in Pettigrew State Park, North Carolina, April, 2010. Shot with Canon 40D camera , Celestron C8 telescope, at 1260mm, 45x1 minute ISO 3200 exposures combined. Not the best luck with round stars (the autoguider is on the way) and my focus seems to have shifted later in the night. To see a high-resolution version of these photographs, visit our web site at: <http://www.harfordastro.org>.

- *Jeremy Kirkendall*

## HCAS Observatory Updates

### **Fund-raising for telescope accessories is a success!**

On July 3, Mark Kregel circulated an e-mail in which he made a motion that we start a fund drive specifically aimed at raising money to buy astro-photography equipment for use by club members at or away from the observatory. On the list were a guidescope, the mounting hardware and an autoguider.

The response to this e-mail was surprising in its intensity and promptness. Within a few days, and without a second to the motion or a vote, we had donations and pledges of \$900, all earmarked for astrophotography equipment. A meeting was quickly scheduled for July 9th to discuss how to proceed next.

We then spent some time discussing the types of equipment to buy. We settled on a Celestron Onyx 80 mm EDF refractor. One was available used on Astromart. The mounting hardware would come from ADM Accessories. The autoguider is an Orion Starshoot Planetary Imager and Auto Guider. All three have been ordered and have since arrived. We have not installed this equipment as yet as we need a counterweight which Mark is going to machine.

We also revisited the decision about using the equipment off site. This is not going to be an option, due to issues involved with dismounting and remounting the guidescope and hardware. It looks like they will have to stay with the C-14 in the dome.

Clearly, interest in astrophotography by club members is high, judging by the results of the fund drive and the interest exhibited at the meeting of July 9. Because of this, we also decided to keep the fund drive active through August, just in case there are others who are interested in making a donation at this point in time. The cut-off date will be 8/31/2010. Any additional funds received in this fund drive will go towards the purchase of photographic narrowband filters that are necessary to cut through the light pollution at the observatory.

If you have any questions, please feel free to e-mail me at [hkamel32@comcast.net](mailto:hkamel32@comcast.net) or e-mail any of the officers or directors.

- Tim Kamel  
Treasurer



Photo: Gary George

### **C14 Telescope is now drift-aligned**

I would like to thank everyone who helped me drift-align the observatory's C14/Astro-Physics 1200 GOTO mount. Members present on Sunday night were Tom Rusek, Tim Kamel, Roy Troxel, Gary George, and I.



We worked the first night till 1:00am and in the south we were getting an accuracy of better than seven minutes at 313x power. This amazed me!

The next Thursday night, Roy, Gary and I went back to the scene of the crime to tweak the alignment as close as we could and to double-check our work. I am very pleased with how well the job went.

The observatory is now up and running, the scope is polar aligned, and the hand controller is working fine. With the newly improved dome, and the new refractor and accessories on order, we will be better than ever.

### **Celestron 80mm ED Finderscope, AutoGuider and Planetary Imager Installed**

I am happy to report that a few members got together and mounted the NEW Celestron 80mm EDF refractor on the observatory scope. This took place Saturday night, August 1. (An email went out inviting anyone who wanted to be there.)

Gary took photos of the new addition. We now have a two-scope system, like we have had in the past. It will be very useful at our open houses, giving us both the high-power view through the 14" and the wide-field view through the 80mm refractor.

We will now be able to see the entire Moon at one glance, as well as the entire Orion Nebula. The high power of the 14" has prevented this in the past.

This is a great addition to the club! Along with the Planetary/Auto-Guider imager, members can now get stunning images of the round stuff, like the moon & planets. It will also allow us to use the astrophysics' 1200 GOTO mount to its fullest with its auto-guiding port for long exposures. This will allow us to get the most potential that the observatory has to offer. Despite the overwhelming light pollution at the college, we can now "reach out where members have never gone before"!

The camera's ability to work along with the software was tested. I will give lessons to anyone who wants to use it. We still need to find a clear night to test its function with the Astrophysics' mount. There is a learning curve, but the learning will be a lot of fun.

### **First Photo Taken using Club's Auto-Guider and Planetary Imager!**



*Jupiter, with Great Red Spot, Sunday, Aug. 8, 2010  
Photo by Larry Hubble and Tim Blanchard  
Note: There is a moon transit shadow below the Great Red Spot.*

It was just fifteen years ago that HCAS members were at the old observatory, imaging Jupiter with an eyepiece stuck in a tube with a film camera on the back, trying to get a clear shot in 6 to 10 seconds. Sound impossible doesn't it? It was!

On Sunday night, August 8, club members Grace Wyatt, Tim Blanchard (AKA Tim-2) and I took the club's new Auto-Guider / Planetary Imager out of the box and tried it out, tracking for a few minutes. It calibrated to the mount in only 1 or 2 minutes, but unfortunately, the seeing was just terrible. Only the brightest stars were out, and they were jumping all over the place.

Then we turned the scope on Jupiter after focusing the imager on a nearby star.

It was a memorable moment in my life! There was a live streaming image of Jupiter, missing an equatorial band and the great red spot. We all were in shock! Even though the seeing was horrendous, there it was, and for over an hour. We just sat there watching the red spot move across the disk. We were in awe.

Well, I guessed we should at least try to capture it. So I clicked the "Capture" button. Tim timed it for about two minutes; I think 4 minutes is optimal. Again wow! It took 1031 raw images in two minutes.

This was as easy as pointing and clicking. "A caveman could do it". I took it home, used Regi-Stax software, clicked the mouse a couple times, used a little Photoshop, and here it is. *[See photo above.]*

I will add the AVI video to the website as soon as I can. It's very cool!

One more note: the new refractor worked flawlessly as a telescope, finder scope and guiding scope.

I would like to thank Mark for his support and the trust he gave in me to oversee this job. I would also like to take this time to thank all of the members here and abroad for their support of this important project.

- *Larry Hubble*

I would like to tell you about last Sunday night from a non-technical point of view. It was way cool! Tim Blanchard and I showed up so Larry would have others with him to test the new autoguider purchased with donated funds. Tim and Larry set up the telescope and the autoguider. The sky was not the best with thin clouds and humidity in the air but photos of Jupiter were captured. And the most coolest of all--video of Jupiter. We could see the red spot traveling as the planet rotated. I also was present when we first bought the CCD imager when the photos of Comet Lulin were taken. I had not had a good view of Lulin through an instrument I had used. With the CCD imager--there it was large and vivid.

You get very different views when looking through the original cassegrain telescope and the new refractor that has been attached to the cassegrain. It is well worth the effort to attend a session when an email is sent announcing work at the dome with the telescope and/or camera. I do not see myself as ever doing astrophotography. I don't think I have the patience but I find watching the process interesting and rewarding. A benefit of being a member of HCAS is the opportunity to participate in these trips to the observatory for work or pleasure. You do not need technical skills to be a part of a night at the observatory. When we have an open house, it is for the public and we cater to the public and what would interest the public. Club member nights are devoted to testing the limits of imagination, equipment, skill and sometimes just plain old luck. Looking at familiar objects in a new way (seeing Jupiter's red spot move) or capturing something distant and faint are both rewarding experiences. If you attend, you can help in any way you are capable or you can attend just to get those "WOW" moments when you see the red spot move or a comet becomes more than just a green smudge.

Don't cheat yourself out of one of the best benefits of the club--using club equipment to view the night sky in an exceptional way. When classes are set up to learn how to use the telescope in

the dome and/or the CCD Imager--be the first to sign up. Even if you are like me and don't plan to ever take photos, you will be amazed at what you can learn in the sessions.

- Grace Wyatt

## Miscellaneous

### NASA Moon Rocks

Again this year, we have been granted permission by NASA. to show the lunar samples, October 11th, through the 25th, Please keep in mind that this is on a "first come, first served" basis, So far I have heard from Tom, Grace, Karen and Mark, I need to hear back from Mike Talbard, Larry Hubble, Gary Almes, and Bill Gelston as to whether or not the children's school would be interested in having us bring the lunar samples to their school and show them to the staff and students. The information I need is: who in the club is interested, plus a verbal answer from the school's principal, and a tentative date. When we receive this information, we will be sending out a formal letter to the principal with the date and time we will be arriving . If you have any questions please feel free to contact me by e-mail or telephone

Thanks,

- Gary George

[e-mail: gg439209@yahoo.com](mailto:gg439209@yahoo.com)

telephone: 410-515-0143 ( after 7:30 pm )

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### Go StarGaze: Your Club's iPhone App!

The Night Sky Network is thrilled to announce Go StarGaze, a fantastic new free iPhone app that helps people find Night Sky Network (NSN) astronomy events & clubs.

Our club will get publicity, for free, for all our public events listed on the Night Sky Network Events Calendar. I list all of our public events on the NSN website.

In June, Apple announced it would surpass 100 million devices sold (includes iPhone, iPad, iPod Touch), so NSN clubs have a powerful publicity tool in Go StarGaze that will tap into new audiences and make it easier for people to find your events.

**Get Go StarGaze on iTunes:**

<http://itunes.apple.com/us/app/go-stargaze/id380833895?mt=8>

It'd be super helpful if you'd rate Go StarGaze, write a review, and spread the word about the app! The more ratings it gets, the more attention it will get on iTunes.

**Three HCAS members Earn the HCAS-40 Certificate;  
Leo Heppner honored**



*Karen Carey presents the HCAS-40 observing certificate posthumously to Leo Heppner,. His son, Leo,Jr. accepts . Roy Troxel and Phil Schmitz also received the certificate.*

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