Harford County Astronomical Society

Monthly Newsletter

Volume 36 Issue 3 March 2010

Public Star Party (Open House):
Saturday, March 20, 2010
at 7:00pm
At the HCAS Observatory

General Meeting:
Thursday, March 25, 2010
at 7:00pm
In the Observatory Classroom
Phil Schmitz will give a slide show presentation immediately following the meeting. The presentation is titled "The Winter Star Party of February 2001, West Summerland Key, Florida"

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

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

In This Issue:

HCAS General Meeting

Minutes of February 25, 2009

Meeting was called to order by President Tom Rusek at 7:17pm. The minutes from the January meeting were published in the Newsletter and were approved as published.

Treasurer's Report: Tim states we have $4,169.63 in the checking account, and 50 paid members. The most recent new member is Claire Bessler.

Newsletter Issues: Tom says that the Newsletter is looking great. He brought a paper copy if anyone would like to peruse it.

Website Issues: Larry says that he had some trouble with the Dreamweaver program and that the site's index file had become corrupted. He used an earlier issue and updated, and this seems to have solved the problem. There is now a link to the German Astronomy Club from our website. There should be no problems accessing their site and translating it. *[See page 11, this issue.]*

Outreach: Our Open House on February 20th was bitter cold, and due to the condition of the Observatory road, was held on the parking lot of the Technical High School. We had approximately 18 people brave the cold and find us amid the snow plow mountains. We were unable to show many items, as the parking lot lights were quite bright. Thank you to all who came out for this event.

Upcoming Outreach Events: March 16, Tom will do a presentation to the McFall Elderly Activity Center. There has been a request for reschedule from Patterson Mill High School. April 17th will be Earth Day Outreach. Grace will do a program for Prospect Mill on April 18.

Observatory Operations: There has been no motion forward on the dome as the road has been impassable. A request will be made to the college to clean out the gutters, get the heat fixed, and move the mirror grinding table.

The issue of Incorporation to protect Officers and Board Members from lawsuit has been put to rest. Tim states that we have plenty of insurance coverage for protection. The issue of the school's laptop computer has been handed back to the HCAS to handle as they see fit. Tim opened discussion about getting the road to the Observatory paved. This was a topic of heated discussion, however a request will be made to the college to find out if it can be done with the budget we have remaining from the Dome Repairs.

HCAS 40: During the B of D Meeting, Karen has proposed a pin for the HCAS 40. Cost will be $250 for 100 pins. She will place the order for these with the approved artwork depicting the dome. HogeyeInc.did a wonderful job in translating our building to a small pin size. Two people have already submitted that they have completed the list.. [*See a picture of the pin on page 13 of this newsletter.]*

Observing Reports: Currently, there is snow in from of the gate at Broad Creek. Alternate sites were mentioned, including Eden Mill which is a County Park. Larry and Ricky came across this site, and it has some signage denoting astronomical guideposts, and there will be further inquiries made.

Upcoming Star Parties: Registration has opened for the Cherry Springs Star Party for June 10-13. Stellafane is in August.

Elections: Tom laid down the timeline for elections. March meeting will be nominations, April will be the Election and May the new officers will take Office. We need 3 Board members (two can be reelected) and nominations are open for all 4 Officers.

Night Sky Network: We have received a new banner from the NSN, for holding over 10 events in IYA2009. We held 41 events, and had Outreach to over 3400 people. 778 came to the Observatory. Grace awarded certificates and pins to the 13 people who volunteered for at least 5 outreach events: Gary, Roy, Phil, Paul, Tom, Karen, Jimi, Larry, Tim, Grace, Dave J., Mark and Ricky received the pin and certificate from the NSN. Remember that NSN is hosting Globe @ night during one week in March. Go outside, and report online how many stars you can see, by matching it to the proper magnitude map.

Tim states that there is a Lunar eclipse coming up on December 20 at 2AM. Karen opened the idea of supporting the 365 days of Astronomy 2010 Podcast by donation of $30 to the Memory of Harold Berman, a founder of HCAS. This can be done through PayPal.

Ricky says that he would like to do another Power Point "Jeopardy!", this time with a higher or lower grade level in mind. He is looking for ideas of new questions.

The meeting was adjourned at 8:02pm

- Karen Carey, Secretary

Website Report

The website has now been updated!

If you have not seen it yet, I have added the link to our sister club in Germany, the Volkssternwarte astronomy club.

Also I have added the “Members Telescopes” gallery in the drop-down menu on the gallery page. I still have two or three images to add, so keep checking the site. I am also working on the astro-images from the German club.

I have made other links on the home page nicer and little more stylish.

Finally, I have added the link to the "Our Dark Skies" web site. Several HCAS members have already posted their photos on that site. If you are interested in posting your work, contact Gary George for any additions. He is handling that for the club, and can be reached at gg439209@yahoo.com

You can visit Our Dark Skies at: Ourdarkskies.org

- Larry Hubble

If you have any questions or comments about the website or camera, please contact Larry at lkhubble@verizon.net

Treasurer's Report
March 11, 2010

Our current balance is: $4011.63

Membership now stands at 50 individuals and families. This is the highest membership roll we have had in several years.

- Tim Kamel

Night Sky Network Certificates

Thirteen members of the Harford County Astronomical Society recently received awards from the Night Sky Network for outreach activities.

Front row: Jimi Hajek, Grace Wyatt, Karen Carey, Mark Kregel.
Back row: Tim Kamel, Larry Hubble, Ricky Hubble, Gary George, Tom Rusek, Roy Troxel.
Not pictured: Dave Jayroe, Paul Sokolowski, Phil Schmitz. Photo by Joe Manning.

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 :

March 6 through March 23, 2010
April 3 through April 17, 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

Sunday, March 7, 2010:
Steppingstone
7:15pm - 10:20pm

After briefly visiting Broad Creek earlier in the week, I decided that it would not be a good place to observe from for a while. There were 3 to 5 inches of snow still at the entrance gate and along the uphill road. In fact, my car began spinning its wheels before I had even reached the gate. Consequently, we decided to use the Steppingstone Museum grounds for observing. Although this facility has more light pollution than BC, it is still one of the darker areas in the county. However, the Clear Sky Clock predicted the seeing as poor, with a rating of only 1 or 2 out of 5.

I began observing, along with Tim and Gary, about a half-hour after sunset. The sky was very clear at that time, as it had been the night before. I began with M44 in Cancer - the Beehive star cluster. It is an open cluster and appeared very bright in my 35mm Panoptic eyepiece, at a magnification of 45x.

I tried to see a number of the nebulae in Cepheus, but they were too low to the horizon and blocked by trees. After several attempts at these objects, I decided to go for something higher in the sky, so I turned the Obsession southward, to view Orion. All six stars in the Trapezium were visible, although the two dimmest ones kept flickering in and out. Also tried to view the nebulosity around Alnitak, the left-side star in Orion's belt. This area includes the Flame nebula, IC434 and the Horsehead. However, no nebulosity could be seen, even when using the UltraBlock filter for ambient light. This suggested that the seeing was probably low, as had been predicted.

Mars was close to the zenith, in retrograde motion back toward Gemini. However, even using the red #25 filter, only a hint of detail could be seen on its surface.

Tried for the Eskimo nebula in Gemini, NGC2392, but could not see the detail that I saw in January. It appeared as a regular-looking planetary nebula, without the "face" and "hood" features that give the nebula its name.

It was a good night for local star clusters. The M50 open cluster in Monoceros was quite bright, and so I began to explore other clusters in that Winter Triangle area of the southern sky. M41 in Canis Major, and M46 and M47 in Puppis were quite clear. Even the small planetary NGC2438 in M46 was easily visible. I used the wide-angle 35mm Panoptic eyepiece on these clusters. I concluded my viewing of the Canis/Puppis area with the wedge-shaped cluster M93.

I next moved to Lepus the Hare, under Orion, to view Hind's Crimson Star (R Leporis), which appeared a metallic red. It is a beautiful variable star and is now at about 10th magnitude, the dimmest level of its 430-day period of alternating luminosity.

Moving toward the zenith, I located M67 in Cancer. I used both the 35mm and the 12mm eyepieces for this often overlooked, but well-populated open cluster. It's overlooked because of the brighter M44 in the same constellation.

One of my favorites, the NGC2403 galaxy, could be seen between two stars in Camelopardalis, to the north. This galaxy is a member of the M81-M82 group and is about 8 million light years away. In dark skies, it is a bright and sparkling object, but on this night, it appeared more like a dim nebula.

The NGC2903 galaxy, in front of the sickle asterism in Leo, appeared bright, but not especially distinct. Nonetheless, I could easily distinguish the core from the arms of stars around it.

Returning to the southern sky, I saw the Rosette nebula clearly by using the 35mm eyepiece, with the UltraBlock filter. The star cluster in the central hole of the Rosette, NGC2244, was easily seen as well.

Saturn is now in the "bowl" area of Virgo, visually near the famous Virgo supercluster of galaxies. Saturn's rings are beginning to open up again, but little detail could be observed on the rings or the planet itself. Two satellites, Titan and Rhea, were easily seen, however.

I then began looking for galaxies in Leo and Virgo. Both constellations were rising in the eastern sky, which had an unfortunate layer of haze. I could find M65 and M66 in Leo, but not the nearby NGC3628, which completes that triplet of galaxies. I moved on to M95, M96 and M105, which form the second galactic triplet.

I moved to M97, the "Owl" nebula in Ursa Major, but it appeared dim, as had most nebuae on this particular evening, The UltraBlock filter gave it more contrast against the sky, but I couldn't see any detail, such as the two "eyes" of the owl.

Using the UltraBlock filter and the 12mm eyepiece, I found M1 (Crab Nebula) in Taurus, now sliding into the west.

I finished the night's session with Virgo galaxies M85, M86 and M87. This part of the supercluster was now about 30 degrees up in the eastern sky.

By 10pm, the temperature was dropping fast, and a chilly breeze had begun. Tim had finished with his photography, so we decided it was a good time to begin packing up. We left around 10:45pm. It had been a good night, but I look forward to our return to Broad Creek.

- Roy Troxel

Tim with camera, netbook , Orion 10-inch reflector and Vixen mount

Observation Report
Sunday, 3/7/2010

My last observing session was January 10th and I was itching for an opportunity. Then we had a string of beautifully days and nicely clear night starting around the 6th of March and that was opportunity knocking. Snow was a problem though. The nice warm weather had done a n ice job of melting it, but some was still left. Roy had gone up to Broad Creek to scout it out and found that the road had 5 inches of slush and the condition of the Hill itself was unknown. Gary, Larry and Roy decided to go instead to Stepping Stone Saturday, Mar. 6,and had a great time. Seeing was good and it was pretty clear. I could not make Saturday and was hoping for a repeat on Sunday.

Well, it did stay clear and Roy, Gary and I went star gazing, again to Stepping Stone. The reason we're using this site is that it has a paved lot and the lot had been plowed. It is not as dark as Broad Creek, and one can not see the Milky Way from there. Also, there are a lot of trees planted around the parking lot, making it difficult to get a view of the large chunk of the sky. None-the-less, it is still a pretty decent site and ample for an astronomy fix.

Roy brought his 12.5" Obsession Dob. Gary brought his 8" Orion reflector on an equatorial mount. I brought along my 8" f/4 reflector on my LXD 75 equatorial mount. I was hoping to see if my D-SLR camera would reach focus on this scope, and even took the time to move the mirror as far forward as I could and then also collimated it. No, it did not reach focus, but I forgot to try using it with a Barlow. This would have given me an f/8, not too bad for some objects. Next time, I guess.

Anyway, I got my self set up and did a polar alignment. I then went to Mars and took some photos using a Meade Lunar Planetary Imager (LPI). I had had some success last year with Jupiter and was hoping to repeat that with Mars and Saturn tonight. First set of shots of Mars showed a tiny disk. Mars is already well past opposition and this closest approach was very far, one of several bad ones for the next few years. Mars was down to about 10 arc seconds, pretty small. I tried a 3X Barlow and was actually able to get Mars centered and took several shots. I

Though I had a fairly decent focus, the shots, as a saw later, were no good. There was nothing to see. Maybe I should have tried a 2X Barlow.

I also wanted to shoot Saturn, but it was too low in the sky. So, while I waited for it to rise higher in the sky, I took a few shots of the Orion Nebula but had to stop experimenting when the Nebula went behind tree branches, destroying the image. These shots also were not good. Though I tried several exposure times, the trapezium was either too distorted or the nebula was too dim. I blame the camera for this. Though it does have a setting for Deep Sky objects, it is more designed to do planetary and lunar work.

Next, I tried for Saturn. Again using the camera only, Saturn was small but gave a well defined image. I was able to get it into the field of view of a 3X Barlow and had a decent focus. But I could not get any decent shots, though I tried different exposure times and different number of images to stack. Then the image on my laptop got really bad and I realized that Saturn was now behind tree branches. Looking at the photos later, they lack definition and don't really show any features. I am wondering if the 3X Barlow is a little too much.

My last attempt at a shot was of Mizar. I wanted to see if I could Mizar and its close double (not Alcor) in a shot. I did, but the image was not good enough for me to share.

At this point, it was time to pack up, being after 10 and I had work the next day. We left at 10:30 or so and I was home and in bed by 11:15. I had to wait till the next day to unpack. Not a big deal.

The night was not a complete loss. I had gotten a net book computer for Christmas and had wanted to see how it would work for astrophotography. It worked perfectly fine and I am no longer dependent on using the club's lap top to use my LPI. The net book also has the potential of much longer battery life so that I do not have to lug around a power pack.

- Tim Kamel

Outreach Programs

Open House
January 23, 2010

The first open house for the year and the weather cooperated, somewhat. Forecast was for overcast skies but the clouds held off, giving us a nice session.

This open house, we hosted Brownie Troop 250 from Bel Air. We held an indoor program presented by Grace, Phil and Karen. The visitors then came outside to look through scopes.

Though the forecast was for clouds, several members still brought scopes and when we saw that it was clear, we went ahead and set up. I brought my trusty little ETX-70 and show cased the moon and M-42. Paul brought his 8" Dob and featured the Moon. Karen and Maggie brought the 10" Coulter Odyssey and featured the Moon, Mars and M-42. In all, we had 52 guests this evening.

Also participating for the club were Mark, Tom, Roy, Tony, Jimi, Beverly & Sara and Gary.

The weather held off till after 8. By then, most of the guests had left and the members hung around a bit, cleaned up and left.

Not a bad start for 2010. Lets hope it continues.

- Tim Kamel

Open House
February 20, 2010

This was our second open house for the year, and it was beautifully clear. Mars had passed opposition but was still prime viewing though it was an unfavorable opposition, with Mars so far away.

However, we had problems. There was still a ton of snow on the ground and the driveway to the observatory was not usable. We decided that we would still do the open house but do it in the Technical High School parking lot. We had used this facility regularly up until 2½ years ago, when we put the main scope in the dome back in service.

Snow was piled high on the lawn between the parking lot and Thomas Road, so we could not set up where we usually do, right up by the road where we could be seen. So we set up at the back of the parking lot. Unfortunately, the snow was so high, that we could not be seen from the street.

Remarkably, 18 people found us.

I brought my ETX-70. Karen and Maggie brought the 10" Coulter. Paul brought the 8" Dob and Jeremy brought his 80mm ED refractor. Because of the high level of light from the new lights in the parking lot, we could only concentrate on brighter objects, and these had to be fairly high otherwise we picked up a lot of reflections inside the scopes from the floodlights. We stuck with the Pleiades, the Orion Nebula, Mars, the Bee Hive and the like. Later, I even had my first look at Saturn this apparition.

Also participating tonight were Gary, Larry, Tom, Beverly and Sara. The session ended fairly quickly. Lack of visitors and the cold kind of killed it.

Otherwise, we were ready and the skies were nice and clear.

Tim Kamel

Patterson Mill High School

We have an outreach event scheduled for March 24 from 8 to 9:30 PM at Patterson Mill High School, 85 Patterson Mill Road, Bel Air, MD 21015. There is an astronomy class that will be participating. We are expecting 30 to 40 students for viewing and they may bring family members. The school just wants telescopes set up--no other program.

Please let me know if you can set up your telescope or binoculars for this event. I will send the information as to where we will be setting up in another email.

- Grace Wyatt
dgracew@comcast.net

Astrophotography

Sat, March 6, 2010
Steppingstone Museum

I would like to report that the astrophotography program is alive and well! As soon as the weather broke, Gary, Roy, and Tim were out taking images. The club's camera has been idle only because of the weather, not for the lack of interest. Now that the dome renovation is almost complete, there will be a CCD class as soon as it's ready. I am still excited over the turnout of the

classes-- 11 members showed up for the last class. This certainly shows there is a lot of interest in imaging and the camera.

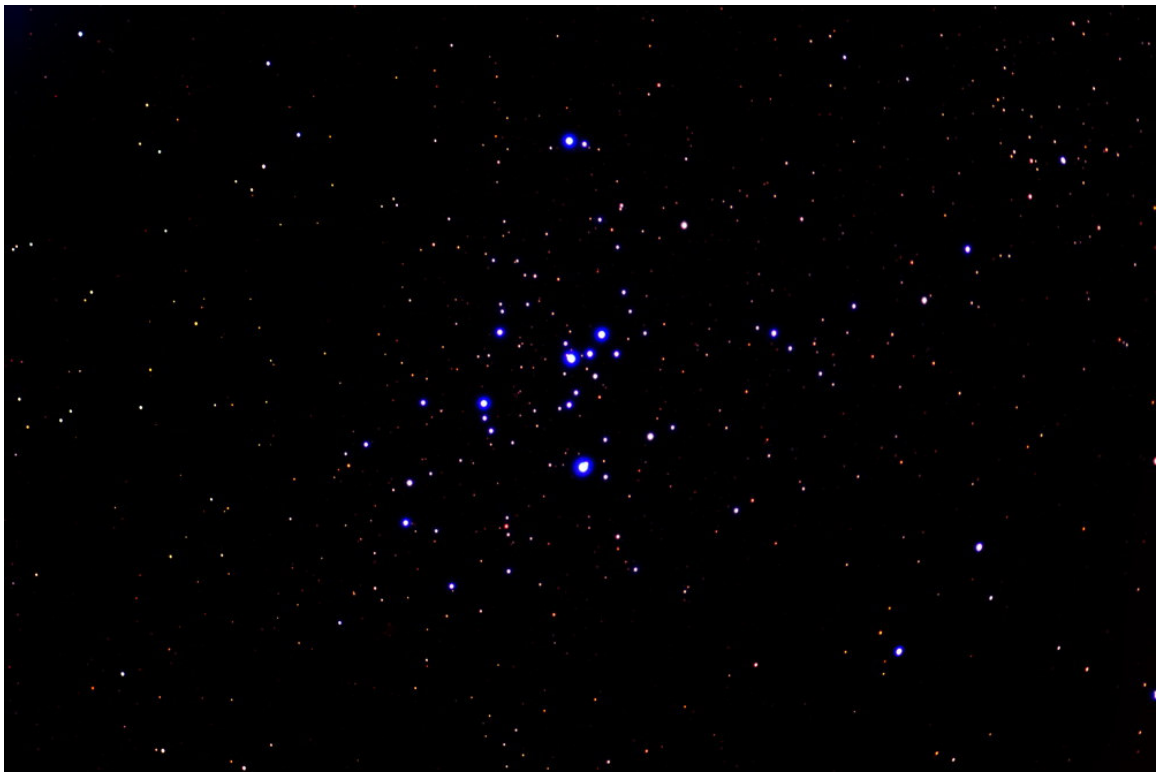
The two images below were taken by Gary and Roy with very little help from me. I would like to point out that both images are unfinished. The laptop and camera batteries died before we could finish the image of M65, M66 and NGC2638. Thus we were able to obtain only a third of the images we had intended. Otherwise, this photo would have been fantastic. Great job Gary and Roy!

- Larry Hubble

With the snow gradually clearing from BC, but being replaced with slush and mud, we decided to set up the equipment on the Steppingstone Museum parking lot, instead of Broad Creek. Gary brought the club's camera and laptop, I brought my 120mm refractor, and Larry Hubble brought his expertise. The seeing and transparency levels in the sky that night were quite high for this area, maybe 4/5, so it was an excellent night for photography.

I thought we should start with something simple, like a bright star cluster, so we chose M47 in Puppis which was rising in the southeastern sky. We made sure the refractor was level and polar-aligned, and then attached the camera to the scope and the laptop to the camera.

To our initial dismay, we saw that the 20-second images were downloading onto the laptop very slowly, maybe 30 seconds per image, making a total of 50 – 60 seconds per image. Nonetheless, we obtained 40 images of M47, which Larry later processed with his graphic software. You can see the result below:



M47 open cluster in Puppis

After completion of the first photo, we noticed that Leo was now high in the eastern sky, and decided to try to photograph some galaxies in that region. We chose one of the triplets: M65, M66 and NGC2638. As Larry noted above, the laptop battery died as we were downloading images, so we weren't able to obtain the 60 images necessary to produce the high-quality photograph we had hoped for. But despite these drawbacks, we still get better at photography. And I look forward to the completion of the dome. - *Roy Troxel*

Galaxy Triplet in Leo: M66(center), M65(lower right) and NGC3628(upper right).

Miscellaneous

HCAS's New "Sister" Club in Germany:
Volkssternwarte
http://www.sternwarte-hofheim.de/

How lucky could I be to have found an observatory and a wonderful astronomy club right next to the local village of Breckenheim, a suburb of Wiesbaden. After moving to Germany from Hawaii

in 2008, I thought I would have to place my hobby on hold for three years, until I returned to the US in 2011. Well, that all changed when I saw a strange-looking object while hiking in the hills above Breckenheim. I had never seen anything like it, and thought it was some kind of radar device, associated with the airport or possibly a military device...

So, I turned to Google Maps for a closer look and it turned out to be the Baha'i Temple. Mystery solved... But wait! What else was I seeing on Google? Was it possible that I had stumbled upon an observatory? Sure enough, when my wife Michele and I drove over to explore, we found the very cool Sternwarte-Hofheim astronomy club. So I visited their web site and came to a meeting at the observatory. The club members could not have been more welcoming. Two of them, Rainer and Olaf, have taken me under their wings and encouraged me to use my camera with the club's telescopes. The weather has been very poor for seeing lately but we have had a few good nights. I have a long way to go in order to catch up to this group - they are very experienced and well-versed in astronomy.

I started to think about how I could forge a partnership that I could take back to Maryland in just about 1.5 light years.... and I thought that a club-to-club partnership could be started. I contacted Gary George and Larry Hubble and joined the HCAS. Now we are posting images on each other's web site.... I hope we can share a project together and possibly have some mutual visits in the future. I'm very impressed with the two clubs and look forward to meeting the group at HCAS and learning more from my friends at Sternwarte-Hofheim.

- Bob Kesler

Public Observatory Hofheim-Marxheim, Germany

We currently have three heavy-duty concrete columns that carry our telescopes: Our main telescope is a 16" Meade 400 ACF with a focal length of 3,200 mm (f/8). We use it mainly for visual observation and short-exposure astrophotography (moon, planets, bright deep-sky objects) as it is on an altazimuth mount.

Our second instrument is a 5" Meade Apo with a focal length of 950 mm (f/7.5), mounted on an equatorial (German) mount (Skywatcher Skyscan EQ6). We use it for visual observation, mainly

planets, and as a guiding scope for long exposure time astrophotography with my small Pentax 75/500 mm Apo.

Our third column carries a Losmandy Titan mount. We have two scopes for this mount: A Meade LX 200 (10", f/10) that belongs to Jürgen and a 7" Intes Alter Maksutov-Cassegrain telescope. The Titan setup is only being used for astrophotography. We can change the scopes in a minute, depending on the object we want to photograph.

We use a SBIG 2000 CCD-Camera for deep-sky photography, but own also a modified Canon EOS450D camera.

- Olaf Filzinger
Filzinger@gmx.de

"HCAS – 40"
Observing Certificate

I had been thinking about us (HCAS) having a list of objects to observe to generate more observing interest in the club. I thought it would be nice to award a certificate and pin upon completion of the list. But I couldn't come up with a reasonable number of objects until talking to Grace one day. She happen to mention that this year (2010) is the clubs 40th Anniversary. So I decided to propose we create a list of 40 objects to observe and I came up with a suggested list. I included 10 multiple stars, 20 Messier objects and 20 non-Messier objects. I wanted to be sure that these objects were all visible from our main observing site, Astronomy Hill (aka Broad Creek). So I went through the last last 2 years of newsletters and came up with the proposed list. The list is relatively easy, all of the objects are brighter than 10th magnitude. They should be visible in an 8 inch scope, possible even in a 6 inch. Unlike the Astronomical League Certificates which require a lot of field information, i.e., transparency, seeing, date and time, etc., I wanted to make it easy so I proposed that members only need to record the date and type of instrument used. Members can even use Go-To and Push-To controls to find the objects.

I then went about designing a certificate that could be awarded to each member that completed the list. After several attempts I came up with a design that I presented to the club at the January Board meeting (Board members had received the list of suggested objects prior to the board meeting for their review in an email). The list and the certificate met with approval from the board. At the January meeting, Karen Carey agreed to design a pin to go along with the certificate. Since Karen is our Astronomical League Coordinator, she also agreed to handle the awarding of the certificates and pins. Karen has designed an exceptional pin. The response of

members present at the January meeting was encouraging, several said they would work on the list. How about you?

- Phil Schmitz

Binoculars for Sale

One pair of Orion Giant Binoculars
16x80 Excellent condition

Fully mulit coated,Field of view 3.5,Eye Relief 16mm
Weight 5 lbs 9 oz
BAK 4 Glass prisms, Tripod adaptability
Binoculars also come with hard case/neck strap/4 end caps and an L bracket

Asking $200 Cash

If interested, please call Cathy at 410-671-9403

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

Cherry Springs
Annual Star Party
June 10 – 13, 2010
(Thursday thru Sunday)

Registration is now OPEN!

For more information and online registration, visit:
http://www.astrohbg.org/CSSP/Registration.html

This newsletter is the official publication of
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Items for the newsletter are due to the editor by the 13th of the month of publication.

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

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