

## Calhoun Starpark Visioning - November, 2015

For the second year in a row, the Appalachian Regional Commission (ARC) out of the University of Tennessee held a conference/starparty geared toward developing a dark-sky location at the Calhoun County Park, near Grantsville West Virginia. Calhoun is one of the the darkest spots in the Eastern U.S. that you probably haven't heard of. <http://stellar-journeys.org/calhounpark.htm>

After several delays over the summer, the visioning meeting was finally held this fall. Once again, several amateurs from the Pittsburgh area attended the event, but this time there was participation of other amateurs from West Virginia, Ohio, and even Michigan.

### **Friday: 11/13/2015**

Left a cloudy and windy Pittsburgh mid-morning for the drive down to Calhoun Cty Park in southern West Virginia. It was quite breezy along the interstate, as wind gust kept catching my side extension mirrors and folding them up. Finally had to stop and take them off. The rest of the drive down hilly I79 was uneventful.

Arrived at Calhoun park around 2:30pm and setup camp beside the pavilion on the ridge above the Red Barn. Nearby on the ridge was Brian O from Ann Arbor MI in his small Winnebago RV, and there were a few locals down below getting the Red Barn ready for the next day's meeting. While I parked next to one of the few electrical outlets, I decided not to plug in. Wanted to try boondocking and running everything off the camper and field batteries. My teardrop Tab camper had its own internal battery and propane tank for heat & interior lights and would also power the video-monitors in the back clamshell. Also, there were separate batteries for the telescope C-Gem mount, dew heaters, and cameras. I even had an old marine battery & inverter in the back of the SUV that I planned on running a power cable from to power the computer monitor and a few other small AC items. For the power drain on the camper, I had a 100W portable solar panel charger to recharge the battery on Saturday.

I quickly got my camp in order and assembled the 8" SCT optical tube on the CGem mount and attached the finders, dew heaters, and StellaCam video-cameras. Late in the afternoon, the scattered clouds began to clear off nicely, and the air temps began falling toward the mid-forties. After sunset, darkness comes early this time of year, so I was soon able to do a polar alignment and focus the cameras. The breeze died down somewhat, but with the occasional gust, I was not able to put the dew shields on, as they would act as a big sail. Fortunately with the breeze, no dew formed on the telescope the entire night, and I was even able to turn off three out of four controller channels to conserve battery power. The down-side was that I had to limit my video-exposures to fewer than 40 seconds. While finishing my observing plan prep for the night, Brian O stopped over and we talked 'video-astro' for a bit. I showed him a couple of objects in the darkening eastern sky, galaxies NGC891 and Messier-33.



"NGC891", a galaxy in Andromeda.

I started off working on my constellation survey in Sculptor, video -capturing galaxies NGC55 and NCG300. Both of these large spirals showed lots of structural detail. They would be showcase objects if they were located another 20 - 30 degrees higher! I then moved over to the Western sky and hunted down Palomar-10 globular cluster and SH2-84, emission nebula in Sagitta, then up to Lacerta for planetary nebula PK102 -2.1. By 10:00pm, Auriga was climbing high in the North-East, so I slewed the telescope over to Capella, synced the alignment, and went after several small nebula including SH2-224 and vD-Berg-31. After finishing up in Auriga, I then moved back to the Southern sky where Fornax was making its way to the meridian. There I chased down a number of small galaxies including NGC1288, 1292, 1341, 1350 & 1360. By 11:00pm, clouds began rolling in from the North, and within 30 minutes the sky was mostly socked-in. Decided to call it a night and covered up the telescope and headed in for bed by midnight.

### **Saturday: 11/14/2015**

After a good night's sleep, woke at 8:00am to a chilly outdoor temp of 38 degrees. But inside my teardrop, it was nice and warm thanks to the camper's propane heated oil-radiator, so I was in no hurry to head outside. I had positioned the solar panel the night before to catch the morning Sun, so before long the camper's battery was recharging. After flipping thru the latest Sky& Tel, I finally ventured out and opened the backend of the camper and fixed a late breakfast. Then headed down the hill to the Red Barn and a shower. The men's shower was busted, so had to utilize the ladies. This is one of the items that the park needs to improve - better restroom and showers!

By mid-morning more folks began arriving, Tom K from Canton Oh, setup his 12" dob to the west of the old playground and Phil C pulled up between my camper and the pavilion. Phil later relocated in front of the playground to have an unobstructed view to the SW that my camper was blocking, and setup his 8" dob. The University of Tennessee ARC team of Tim E & family and Cat W arrived and setup their tents up on the ridge.



Observing ridge



my portable observatory

A number of other amateurs arrived, including David H from Wheeling and Robby W from Charleston WV. David setup a Lunt solar scope down by the Red Barn and had nice views all afternoon. The Univ of Fairmont concept team, led by Shay S arrived and headed for the barn, and Tony & Roz O from the Kiski Astronomers made it in time for the conference. Also, during the day, a number of Civil Air patrol members began arriving, several in a large RV over in the campground, along with a van and several cars along the middle of the ridge. They put on a rocket launch exhibition during the day. Right before the start of the meeting, I quickly setup my Samsung SDC435 videocamera & fisheye lens on a tripod and began capturing time-lapse pictures with my Orion DVR. I let it run till the next morning and created a nice video of the evening.

<https://youtu.be/yWLveIASe2A>



Here's my take on the Calhoun Cty Starpark Visioning meeting :

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In addition to the local parks and county officials and other interested local community members, there were about a dozen amateur astronomers present, including Tony and Roz O from the Kiski Astronomers club in Pa, Phil C and Tom K from Canton Oh, David H from Wheeling, Brian O from Ann Arbor MI, along with several from the Charleston and Clarksburg WV clubs. Also, a number of officials from the regional Civil Air Patrol were there, as they were interested in learning about the astronomy potential for their members. The starpark 'visioning' meeting started at 2:30pm, with University of Tennessee ARC project lead Tim E starting off with a quick recap of last year's meeting, along with a status of where they currently were in the project. His colleague, Catherine W join in with a discussion on funding grants and work on putting in place local lighting zoning ordinances. The possibility of using crowd-funding was also discussed. The gist of it was that before the large foundations would give any funding, the local gov officials needed to take a more proactive role in showing progress on what they could accomplish within their means, in addition to tracking usage statistics on amateur astronomers who are coming and observing at the park. Also discussed was developing an official web / social media presence for the park, as other than my website, there was nothing online for people interested in coming to the park as to how to go about making reservations and what to expect.

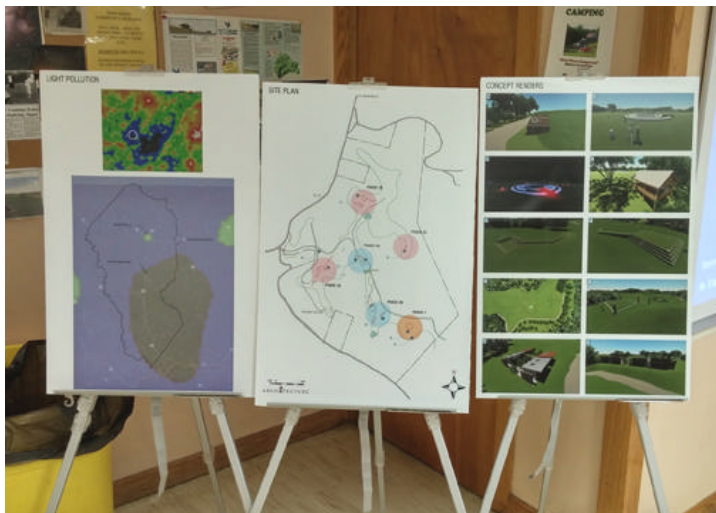


Tim E



Shay S

The Univ of Fairmont team, led by Shay S then presented an extended version of their starpark concept. Their main idea was to develop a number of observing areas that would include softly lighted outdoor design structures that would represent bringing the night sky mythology down to earth. This included structures such as a mariner's compass, along with areas representing the Big & Little Dippers, along with other constellations. Also included was new modern restroom/shower facilities, along with open-air concept moveable 'mini-cabins' that would be available to rent .





Here's a newspaper article about the event with a few concept photos:

[http://www.hurherald.com/cgi-bin/db\\_scripts/articles?Action=user\\_view&db=articles\\_hurherald&id=61974](http://www.hurherald.com/cgi-bin/db_scripts/articles?Action=user_view&db=articles_hurherald&id=61974)

They then opened the floor for discussion of the concept. I started it off positive by thanking the students for creating an 'interesting' design, but then pointed out a number of items that they might want to reconsider: the compass was taking up substantial valuable space on the main observing field and any lighting, no matter how red and dim, would not be acceptable to amateur astronomers wanting to utilize the observing field. I also brought up the potential safety issues associated with their design of the dippers, (a raised platform for one and sunken depression for the other), that people could fall off or into and injure themselves. As we went around the room, with the astronomers in attendance, most of the comments reinforced my main points. Additionally, items mentioned by Tony O, Phil C, Mike K, and David H, included possibly building a permanent observatory and widening the access road to the observing field so RV's could pass each other. (right now, it's basically an old golf cart drive).

As the discussion progressed, the overall tone started to become a little pessimistic, but the Univ of Tenn. folks eventually led the conversation back to what were the basic needs that we amateur astronomers were looking for, and the consensus was electrical power and a better restroom!

Then it became more interesting. The Civil Air patrol commander, spoke up, saying that their organization was interested in helping out, as community outreach was part of their mission statement. He mentioned that not only does the CAP have the earth moving equipment, but they also have the expertise in running utilities and other effort needed for creating the starpark. And they were very willing to help! This really changed the mood of the meeting!

Afterwards, I spoke with several of the parks officials, and stressed to them several first steps that they need to take: relocating the old play set on the ridge and putting in more electrical outlets, cutting the upper observing field grass to match the rest of the park and maintaining it that way, extending the campground electricity to the upper observing field, and finally, putting in place at the Red Barn a payment system similar to what Cherry Springs does - envelopes for stuffing money in and a secure deposit box. I also told them they need to find a way to upgrade the restrooms. They agreed that needs to happen and will look to work with the CAP folks to get things going.

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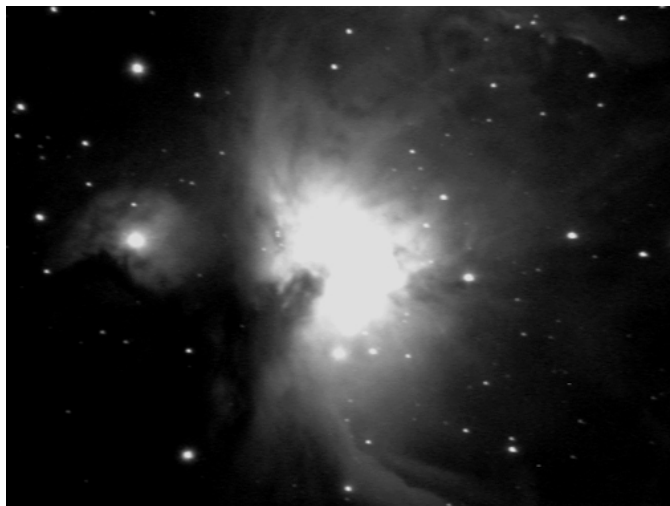
After dinner, which was provided by the park, I quickly headed up the hill to change into my winter observing clothes and powered up the telescope and cameras. The skies Saturday night at Calhoun were spectacular! Clear and cold! Before long a crowd gathered around my telescope and 'observatory' portion of the camper, and for the next couple of hours I did video-astronomy outreach, slewing the telescope to the bright fall showcase objects such as clusters, galaxies, and nebula.



"M103", star cluster in Cassiopeia



"NGC253", a galaxy in Sculptor



"Orion Nebula", bright nebula in Orion



"Horse Head", a dark nebula in Orion

In between objects, I would share some of the night-sky mythology circling overhead, particularly the story of Perseus and Andromeda, where I used my green-laser to point out all the constellations involved. I then covered some of the myths about the Pleiades and the Milky-Way. Probably had between 20 - 30 people stop-in.



"Pleiades", bright cluster in Taurus



"Ring Nebula", planetary nebula in Lyra

Finally, the crowd died down by 8:00pm, and I went back to my constellation survey work. Started off overhead in Aries, capturing a number of small galaxies, including NGC691 and NGC697. I then moved to the southern sky back to Fornax and finished video-observing more small galaxies, including NGC1366, 1379, 1386, 1389 and NGC1437.

During the evening, Phil C called me over to point out the gegenschein oval glowing just beneath the Pleiades, and the faint Zodiacal Band glowing along the ecliptic above the southern horizon. I have seen the Zodiacal Light before at Cherry Springs, but never the gegenschein!

By the time I finished galaxy hunting in Fornax, the twins of Gemini was well placed in the eastern sky, so I spent some time observing emission nebula's IC443 and IC44. While taking a break, Phil C called me back over to his 8" dobsonian and showed me a great visual view of the California Nebula in Perseus using a 30mm 82-degree eyepiece. First time I've visually observed it. Very nice. He then moved over to the Andromeda galaxy, and we enjoyed a great wide-field view that included the satellite galaxies.

Once back at the camper, I moved on to Orion, video-observing a number of reflection nebula including IC423, 426 & 427, IC430, and NGC2067. Another group from the CAP stopped by, and I showed them the Great Orion Nebula, along with the Horsehead. Tom K, who had been trying to find the Horsehead in his 12" dob, stopped over to see it on the monitor.

By now it was getting very late (or early), with the clock going past 2:00am, and I was finally getting cold.

After a few more views of M42, I decided to wrap it up for the night, powered down the telescope and put away my observing books for the night. Spent several minutes taking in the naked-eye Winter Milky-Way stretching down thru Canis Major to Puppis, and headed in for the night.

**Sunday: 11/15/2015**

Woke around 7:30am from the noise of others packing up. Made it outside in time to say goodbye to the folks from Univ of Tenn. and Tom K from Canton. Spent the next hour packing the telescope and readying the camper for travel, then headed down to the barn to say thanks and goodbye to the local parks folks. Headed back home to Pittsburgh and pulled in the driveway by 3:00pm.

So, for a second year in a row, we had a good conference starpark 'visioning' session and great observing! I left feeling much more encouraged about something actually happening in 2016 at Calhoun Cty Park.

Larry McHenry

Astronomical Webportal: <http://www.stellar-journeys.org/>