

Calhoun County Park, WV - May, 2019

After several early spring trips having already been 'washed-out' by the wet weather, I was determined to travel to a dark-sky location for the May New Moon. Both the ORAS Observatory site near Clarion, PA, and Cherry Springs were showing a cloudy/rain forecast for the entire first weekend in May, but Calhoun was still 50/50. After delaying the trip for several days, I finally decided to make the drive down south to WV.

Sunday 05/05/2019:

Based on the improving weather, I headed to Calhoun under dreary Pittsburgh skies. For the first half of the trip, I drove thru several light showers, but by the time I driven south of Clarksburg on I79, the Sun began to burn thru the clouds. I arrived at Calhoun Park mid-afternoon and setup camp up on the ridge above the Red Barn, near the shelter building/playground. After assembling the telescope, (8" SCT optical tube on a Celestron CGEM mount), the weather radar showed storms approaching the park. Looked like my observing plans for Sunday night were dashed, but the forecast for Monday and Tuesday night looked awesome! Spent the evening inside the camper listening to it rain and reading a book. Early to bed.



Monday 05/06/2019:

A beautiful, warm sunny day. Spent the morning lounging around camp, and went for a mid-afternoon hike up to the future observing field. Late that afternoon Alexis from Pittsburgh arrived to setup next to the pavilion. At sunset, I uncovered the telescope and prepared my observing plans. I decided to use my old StellaCam-3 to work on my Herschel Survey project. Other than slewing over to the southern horizon toward midnight to catch galaxy NGC5128 (Centaurus-A) hitting the meridian, I spent the entire evening up north in Canes Venatici imaging faint Herschel Objects galaxies. Video captured a total of 22 new Herschel's, along with nine faint PGC galaxies in the same fields. Some of the brighter ones included NGC4617, 5014, 5107, and 5123. Finally, got tired around 3am, and headed to bed. Monday night was a great night of observing!



NGC4617



NGC5014



NGC5107



NGC5123

Tuesday 05/07/2019:

Slept-in till mid-morning, spent the day visiting with Alexis and reading. That afternoon, several more amateur astronomers arrived - Chuck G and Tom W from Dublin, OH, and Frank W from Pittsburgh. They setup camp on the other side of the playground along the ridge.





Tuesday night turned-out to be not so great of a night. After a hot afternoon, it was periods of clear sky followed by clouds throughout the evening plus; the GPS Rollover issue really bit me. I encountered the rollover issue on Monday night, but after fumbling thru the hand-controller menu, was able to get past it. (the last time I used the mount was last fall at Calhoun so I just used the 'Last Alignment' option and sync'd on a star).

So Tuesday evening, being cocky from Monday night's success, as my alignment was a little off from Monday night, I decided to 'improve' it. Instead, I made it a lot worse, and the mount kept wanting to point the optical tube to the ground. I fought with it till nearly 1am, not getting a single observation in, and finally called it a night.

Back home later in the week, I did some digging and found both a temp fix and a firmware Beta update for the Celestron CGEM GPS. Had to sign up as a beta tester with Team Celestron: <http://www.teamcelestron.com/> Then I was able to access their forums and download the beta containing the GPS patch.

What GPS issue you might ask? Well, here it is:

from: <https://www.nexstarsite.com/OddsNEnds/GPSRollover.htm>

GPS Week Rollover

On April 7, 2019, the Global Positioning System experienced its second "week rollover" event. The GPS system was originally designed using a 10-bit binary number as a counter to indicate the week of the current date transmitted from the satellites to the GPS receivers. 10 bits only provide 1024 possible values so every 1024 weeks (approximately 19.7 years) the system returns to its starting value of 0. At its base level, for most receivers that indicates a date in August 1999. Some GPS receivers are able to determine that a date in 1999 (or any date 19.7 years prior to today) is actually in the past and they will add 1024 to the week counter and thus return the correct date. Other GPS receivers are happy to tell us today is 19.7 years in the past. It's Y2K all over again!!!!

Wednesday 05/08/2019:

Up early to pack-up the telescope and camp, As I needed to head home. Plus, the Moon was starting to become bright in the evening sky. Alexis also left for home, but the others were sticking it out for another day. Said my goodbyes to Chuck, Tom, and Frank.

I needed to get on the road early, as I was invited to stop along the way to see a special project for the park. A group of students at the local vocational school had won a WV Governors Career and Technical Education Economic Initiative competition in which an innovative community service project involving a 'tiny structure' was to be developed that could positively impact the local community.

After winning the award and receiving funding for a "cabin/observing unit", the Calhoun Gilmer Career Center has the building under construction and hopefully will be ready to move on site late this fall.

I was going to meet with the instructor of the build team and the school director, as I have experience in building and using a personal observatory and two large club observatories, and may be able to answer any questions that they might have or offer advice.

The trip to see the tiny house/observatory was interesting. It's a lot bigger than you might think. It is 16'x32', fully equipped, and will even include a fireplace and big-screen TV, and will have an adjacent roll-off roof section for observing. In addition the 'cabin/observing' unit will also have a kitchenette, full bathroom, and will sleep six people. They hadn't actually started on the observatory section, so it was mostly the 'cabin' that we looked at.

The structure will have solar power and also hooked up to the electrical grid which will be extended to the observing field with power pedestals positioned out in the field. The current time schedule is to have the 'cabin/observing' unit in place on the park observing field by late October, so the interior finishing work can occur over the winter school months with everything completed by the end of the school year.





So this concludes a short observing trip to dark-skies.
It will have to hold me until the end of the month and my trip to Cherry Springs for the
2019 CSSP!

Larry McHenry

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