

## Kiski Astronomers at Cherry Springs - May, 2016

Hi all,

Several of us from the Kiski Astronomers volunteered to help plant trees at Cherry Springs during the May New Moon.

### Thursday 05/05/2016:

Once rush-hour had died down, I left a cloudy damp Pittsburgh around 10:00am for the drive up to Cherry Springs. Once north of I-80, it was interesting to see the hillsides still looked barren; while back home the trees had all leafed-out. The lack of foliage did allow you to see more of the sweeping vistas along the creek and the rock cliffs normally hidden along the steep hills on the road leading from Benezette.

I arrived around 3:30pm at the park and setup in my usual spot on Orion Ave, across from Bob K, who had come out a few days before. Bob said that they had only a few hours of relatively clear skies since he got there. The bad weather luck continued as it started to rain shortly after I had setup camp and partly assembled the telescope. That was the end of outdoor activities for the day! I spent the rest of the evening indoors reading and watching a little TV.

### Friday 05/06/2016:

Friday was more of the same as Thursday: cloudy, cold, windy, and wet! Spent the morning visiting with Bob, and then with Eric L who pulled in and setup next to me. Also talked with the usuals: Tom H, Conrad, Gary, Tony, and Elliot, who stopped over. Sat in on a board meeting with a landscaping specialist from the DCNR. Lots of interesting ideas. I was going to join them on a stroll around the observing field, but noticed that while we were down at the pavilion, a gust of wind had taken out my easy-up canopy.



Once again, the curse of Cherry Springs had struck, and I had lost another tent! Later that afternoon, a drizzly rain settled in and that pretty much sums up the day.



**Saturday 05/07/2016:**

The rain finally let up overnight and Saturday morning dawned partly sunny and cool. It was perfect weather for planting trees! A group of CS volunteers, including John and Kelly O, along with park staff led by Chip and Maxine, spent most of the day moving and planting 18 large 10ft tall pine trees along the berm across from the main gate. Also some of the team members touched up the paint on the pavilion and cleaned windows. By the time we were done mid-afternoon, I was ready to drop.







After an earned shower and several Advil, I spent the rest of the afternoon visiting with Bob and Mike M who had pulled in late and setup next to Bob. At sunset, the clouds rolled back in and soon it began to sprinkle. I spent the early evening reading and listening to the occasional tapping of rain on the camper roof. Around 10:00pm, a clearing went over and Bob knocked on the camper door to let me know. But by the time I dressed, got outside and finished attaching the video -cameras to the telescope, the clearing was rapidly closing and was completely gone in minutes, before I could polar align. Eric was more fortunate and had successfully aligned his telescope and was ready to go. Unfortunately for all, the only place we could go was to bed, as shortly after the clouds had rolled back in, it began to rain again.

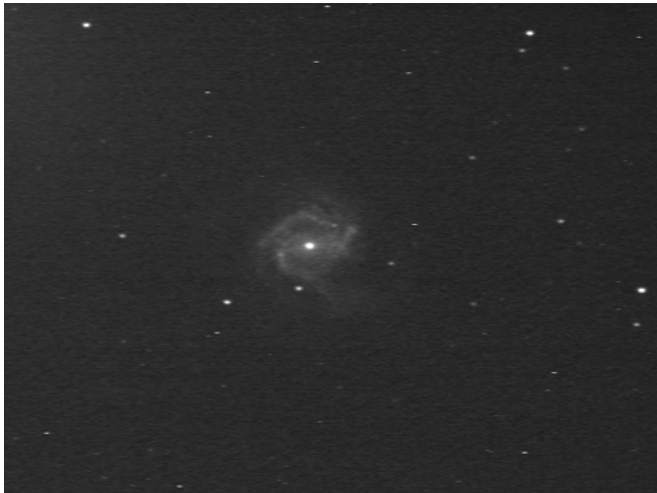
#### **Sunday 05/08/2016:**

Awoke to a cloudy and cold day. Bob K, needing to be back in Pgh, had packed -up the night before and had pulled out at dawn. I took my time getting out, instead lounging inside and waiting for the sky to clear and the Sun to warm things up. By noon, the weather had gone to mostly sunny, drying off the observing field nicely. A new dozen or so amateurs pulled in and setup, as it looked like we were finally going to get a good night of observing. At sunset, I finished making a few last tweaks to my telescope and cameras, just in time for the clouds to roll in!! But from the weather forecast and the ClearSky Clock, we knew that the clouds would be short lived, and soon the sky once again cleared and I polar aligned the scope and was ready to go. I decided to work on my Constellation Survey project and started off in Hydra hoping to capture a dozen or so galaxies that I still had left in that constellation.

I slewed the 8" SCT on its CGem mount with the Stellacam-3 camera over to the low south-west, hoping to collect these galaxy eggs before they slithered away below the horizon, but with Hydra sinking fast into the tree-line, along with an annoying small cloud band, I was only able to video-capture a few including NGC4304, 5264, 5556, 5626, and **M83**.



During the evening, the winds had died down with the air temps diving rapidly into the upper 30's. Surprisingly, there was no dew to worry about. I decided to try my faint fuzzy luck higher up, first in Virgo, capturing a number of NGC's including NGC4292, 4307, 4324, 4348, 4351, 4378, 4380, along with **M61** and **M100**.



I then moved further up in Come Berenices and worked on my Herschel -II project, video-observing NGC4676, 4185, 4310, 4336, 4359, 4571, 5056, and M91.

Finally, around 4:00am, with Mars shinning ruddily down from just past the meridian, I switched over to my ZWO ASI120MC color astro-webcam and attempted to unsuccessfully image it. Shortly after that, I headed inside to grab a quick hour or so of sleep before needing to get back up to prepare for the Mercury Transit later that morning.



**Monday 05/09/2016:**

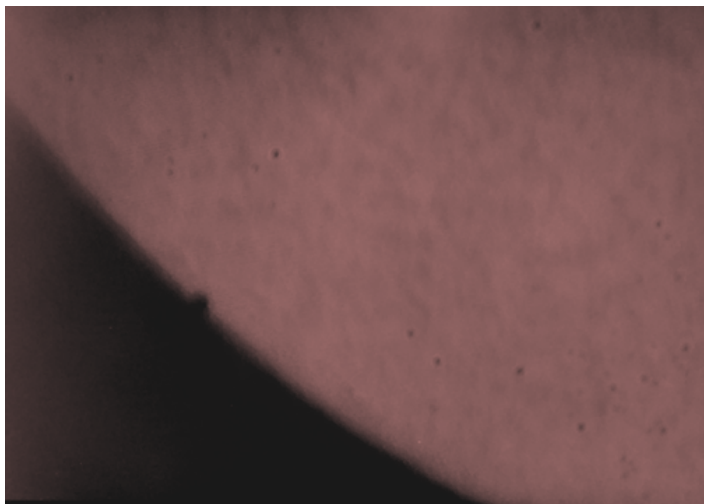
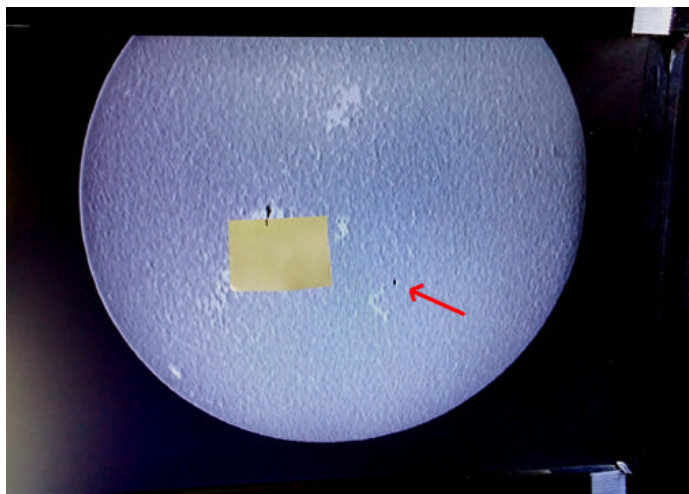
The alarm woke me at 6:00am, and with dawn lighting up the field, I headed back outside to setup my solar equipment. Once I had the Daystar Ha filter and PST Cak ready to go, had to wait for the Sun to clear the trees along the eastern side of the observing field.

It was going to be close, but by 7:05am, the Sun had made it over the last pine tree. I immediately focused the telescope and adjusted the cameras and shortly thereafter Mercury arrived on the limb of the Sun. Mike M visually observed the planet passing in front of a limb prominence before touching the disk, Very Nice!!! Eric, Mike and I were all very happy to see the start of the transit.



I spent the day following the little planet as it slowly swept across the Sun, recording both Ha and Cak with my laptop, and also sending the Cak video feed to my Orion mini-DVR.

As I didn't have a really good polar alignment from the night before, after about five minutes, the Sun showed a noticeably drift. I ended up using a small 'sticky note' on the monitor screen with a hash-mark aligned to the one large sunspot as a sight indicator, utilizing the telescope hand-controller to lightly tweak the telescope back to the alignment mark when the mount had drifted too far. This turned into my having to babysit the guiding for the entire seven hours of the transit! ☞



During the initial ingress contact, I was too busy getting the video-capture running to really notice any transit phenomena. But, there was more time during the final egress stage to notice a brief 'blackdrop' effect just prior to Mercury reaching the western limb. Eric, Frank W from Pgh who had arrived mid-transit, and I also noticed an interesting effect where it appeared as if the Sun's disk was bowing away from Mercury, as if the planet was pushing the limb forward, like a bow wake from a boat. We also observed with the Daystar Ha video-feed Mercury passing over a low hedgerow of limb spicules, which allowed us to follow the planet for some additional time after it had officially left the Sun's disk. Very Cool!!!!

Finally, around 2:30pm, Mercury sailed off the solar limb, back into darkness. Overall, while not quite as exciting as the Venus Transit, watching a transit of Mercury across the Sun was still an experience! One I was happy to observe and share.

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I quickly covered over the telescope and headed down to Lyman Run for a quick shower and then a nap back at the camper. Upon waking a few hours later, I noticed that the light haze at the end of the transit had thickened into scattered cloud bands. But, the CS ClearSky Clock and the overall weather forecast promised clearing skies later that evening, so I prepared my observing plan for the night and readied my telescope. By 9:00pm, the haze began to clear, and soon I had redone my polar alignment and was video-observing. Tonight I decided to work on my Webb and Herschel-II surveys and spent the next several hours high above the Polestar in Canes Venatici, the 'Hunting Dogs'. I had to watch where the object that I wanted to observe was located, as I kept flirting with the Meridian, and flopping back-n-forth on meridian flips quickly got old. After finishing running with the dogs and video-capturing several dozen NGC galaxies, including NGC4138, 4395, 4861, 4956, 5371, 5383, 5440, and **M106**,



I left Canes Venatici behind and wandered over the border into Bootes the 'Herdsman', keeper of the dogs. There I leased-in a few more fuzzy galaxies - NGC5520 and 5602. By then, Midnight was passing, and the long day was finally caught up to me, so as much as I wished to keep going, I closed up the telescope, said goodbye to Eric, who was pulling out at dawn, and dragged myself to bed.

**Tuesday 05/10/2016:**

Slept in till 8:30am and slowly woke to a partly sunny sky and cool temps. Spent the next hour breaking down the telescope and stowing the camping items. Stopped over to see Mike one last time, and then hit the road back to Pittsburgh. So, while not a great observing run this trip, I did get in 1½ nights of decent observing, watched the Mercury Transit, and helped plant trees to better the park! So I'd say overall, a successful trip!!

Larry McHenry

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