

## Black Forest Star Party - August, 2016

With the approach of Labor Day, it was time to get ready for the trip up to Cherry Springs State Park for the 2016 Black Forest Star Party convention. <http://bfsp.org/> August had been a very hot and wet month here in Pittsburgh, and I was looking forward to a little cool relief and deep-sky observing!

### Sunday 8/28/2016:

Got an early start on Sunday morning, thanks to packing the camper and car the day before. I wanted to get up to Cherry Springs before the predicted thunderstorms hit the park later in the afternoon. The drive up was uneventful, with light traffic. Once I got on Rt555, past Benezette, I had the road to myself. The forest along the road was a dark green with a few hints of 'Fall' colors of red and yellow in some of the trees. The stream that runs along much of the way was very low and rocky, and at times was more pools than flowing water. I arrived at the park around 2:00pm and ended setting up in the spot next to where I usually go. I was directly across from Bob K and Bob N from the Kiski Astronomers who had come up to the park on Saturday, and next to them was Mike M from NJ, and Dennis from York.



There were probably another 30 astronomers already on the observing field, including the usual monthly group of which Tony D and Tom H stopped over to give us their weather prognostication for the night - "not good". As the sky was increasingly overcast with an occasional distant rumble of thunder, I hurriedly setup camp, opting to hold off on putting up my tent canopy until the next day. With the storm passing to the south of us, I moved on to assembling the telescope: 8" SCT on a CGem mount with 80mm & 50mm refractors piggybacked on top, along with my StellaCam videocameras and the ZWO ASI120 for guiding. While attaching the cameras, Nick and Janet arrived and squeezed into a spot between Mike and Dennis.



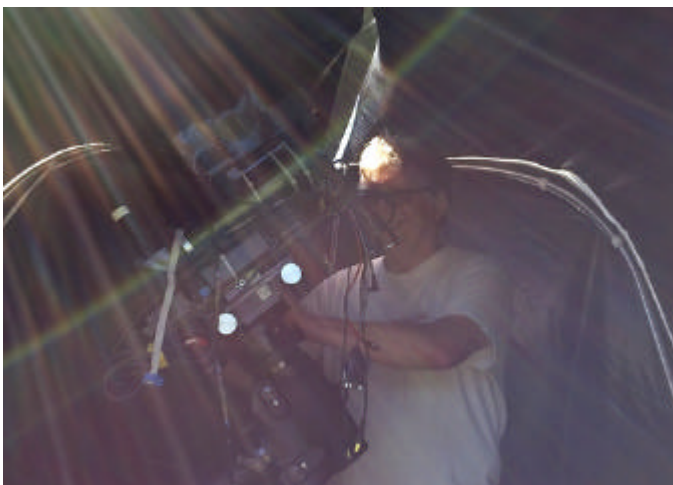


I finished connecting the last video cable and did a quick balance of the telescope ensemble before covering it all up as the weather radar showed storms all around the park. It was just a matter of time before we got hit, and sure enough around 7:00pm a heavy storm came barrowing out of the west, sending everyone indoors. After about an hour of thunder, lightning, and not too heavy of a rain, the storm moved on and we all came back out to assess the conditions. As it was still quite cloudy and getting dark and everything being soaked, along with a very hungry host of mosquitoes, we all headed back in for the evening. I stayed up till almost 11:00pm reading and surfing the web.

#### **Monday 8/29/2016:**

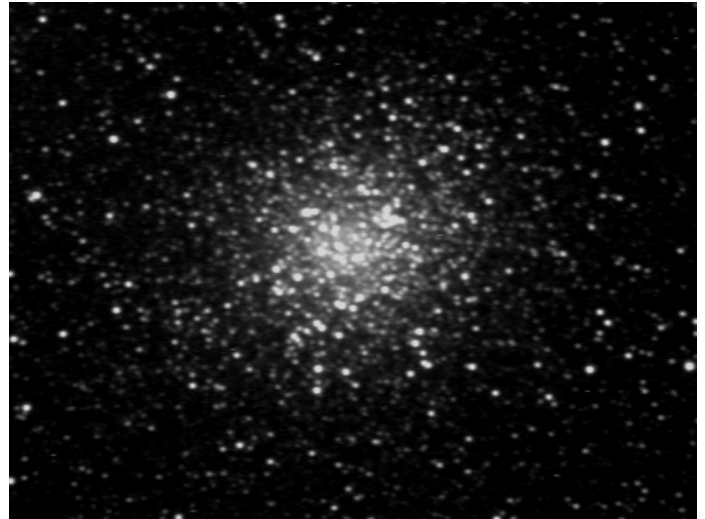
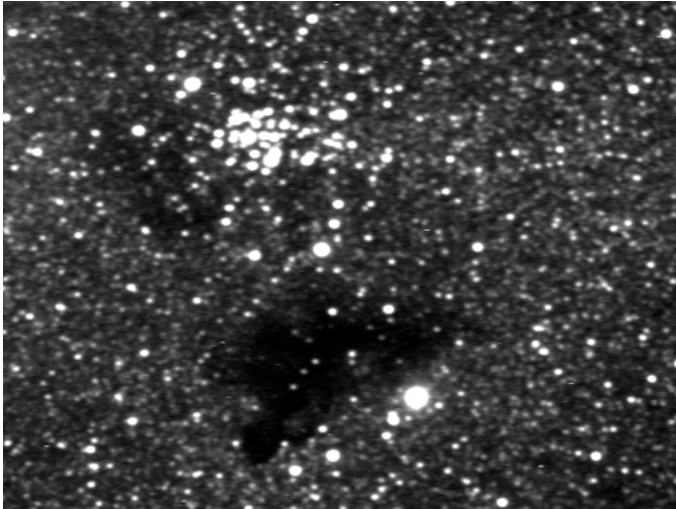
Woke early and soon after breakfast had the tent canopy up and table and chairs inside. Spent some time topping off the field batteries and checking the awesome looking forecast for that evening. Also spent some time catching up with everyone and talking current events. After lunch, headed down to Lyman Run park for a shower, but didn't get too far as I had forgotten about the bridge work causing the road to Lyman being closed. Had to backtrack down Rt 44 and take dirt roads down the mountain to the lake. Roundtrip probably added about an hour to the overall drive, not to mention all the dust I collected on my car. Once back at camp, walked over to say hello to Frank W from Pittsburgh who was setting up his astrophotography tent across the road from me.

A little after 3:00pm, Denny H from the Kiski Astronomers arrived with his Aliner camper and took the southern spot beside my camper. Went for a late afternoon hike along the trail leading out of the observing field. It was nice being in the cool shade of the trees. After dinner and a quick phone call home, I uncovered the telescope and prepared my observing plans. I decided to work on Herschel Objects, chase down several nebulas listed in the last months Sky & Tel, and visit a few old deep-sky friends.



Once it was dark enough to see Polaris swing off the tail of the little bear, I uncapped my new Polemaster and began the polar alignment routine. I was also trying out a new compact keyboard with integrated touch-mouse, which proved to be a pain as it tended to auto-click on things when I didn't want it too. I finally pulled out a spare mouse and after a few tweaks to the telescope, was polar aligned and soon had the GOTO mount calibrated to the sky. Then using the bahtinov masks for each aperture brought the cameras to a nice crisp focus.

I decided to start off the video-observing over in Sagittarius, before the centaur dived behind Denny's camper. After paying a visit to my favorite globular cluster - M22, I slewed over to my favorite dark nebula Barnard-86 "Ink Spot", and quickly got off a 60 second exposure with the SC-3 video-camera. If I had waited much longer, I would have had to ask Denny to open his camper window so I could shoot thru it! ☞



I then went on to re-image NGC6622, "Barnard's Galaxy", with a series of 1, 2, and 3 minute video-captures. Even at 3 minutes, this Local Group galaxy is faint! Too much "Milky-Way" obscuring it. I then went on to collect several Herschel Objects in the region, including open star clusters NGC6561 & 6647. Then I moved high-overhead to the Sagitta - Vulpecula area to hunt a number of faint Sharpless nebulas. The best of the bunch was SH2-88A&B. By then it was well after midnight, Triangulum was rising high in the east, so I sent the telescope over to Messier-33 for a series of deep 3 minute pics.



Then picked-off a number of small faint Herschel Object galaxies including NGC614, 780, 807, 855 and 987. After finishing the last object in Triangulum, I then slewed over to Taurus to hunt Webb Object IC360, a nebula, and then moved to Orion to capture Ced-62. Finally, toward 3:30am, with the Great Bear beginning to rise in the northeast, I video-captured the last Webb Object on my observing list: galaxy NGC2692. Felt good to be finished with a multi-year (since 2013) project survey of the Webb Objects!! Headed to bed at 4:00am!



**Tuesday 8/30/2016:**

Slept in late till 10:00am, finally being woken by a warm camper. After breakfast, sat around under my tent canopy with Denny and Bob K talking about the previous evenings great observations. Both of them had a good session imaging the Silver Coin galaxy - NGC253 in Sculptor. Spent the afternoon recharging the field batteries, doing a little reading, and trying to stay out of the Sun so I wouldn't get broiled.

During the day, more astronomers began to arrive and the empty spots around us began to fill up. Some of the new folks included Scott, Gordon, and Michele from the York Ontario club, along with Brian, who is a local PA citizen.



Got in a good long nap as the evening was looking great for another observing run. At sunset, Bob K, Denny and I walked over to visit with Tom H and along the way we stopped in to see a monster 32" f4 dobsonian! Very nice!





Afterwards, we took a stroll across the main road to the public area and checked out the latest park upgrades to the outdoor planetarium. By then the sky has gone drastically downhill and was mostly overcast. So we didn't bother to uncover the telescopes and instead pulled out our chairs to sit and discuss the latest news in astronomy - the new planet discovered around Proxima Centauri! Traveling there seems almost seems doable, If you have like 10,000 years! LOL!

After awhile, we noticed a few stars beginning to pop-out from the overcast. Soon a sucker hole opened up overhead. Then, Cherry Springs worked its magic and the sky mostly cleared off, leaving the Milky-Way shining down on us. Up out of the chairs we all leaped and soon had our telescopes uncovered and cameras powered up. I quickly slewed the scope over to Altair for a quick focus check, and while there decided to hunt Herschel Objects located within the eagle. Soon I had video-captured open cluster NGC6728, along with galaxies NGC6926 & 6929. By then the clouds had begun to reform along the horizon, so I moved up overhead to clearer skies in the swan and captured a faint little galaxy NGC7013 that was hiding in the Milky-Way of Cygnus. I then scurried over to the lizard where I continued the galaxy hunt, netting NGC7197 & 7231. With the time going on midnight, the sky finally came to a close, going completely overcast, so we all covered up the scopes and called it a night. Still, a pleasant few hours of observing!

### **Wednesday 8/31/2016:**

After a good night sleep, was up by 8:30am. A shower had gone thru at dawn leaving the ground damp. After a check of the weather conditions and forecast, there was no hope of any Sun today, or stars tonight. Denny and I took the long drive down to Lyman Run for the showers. With the bridge being out on the main road to Lyman for replacement, you have to take a very long detour down Rt44 to Sweden Valley and up Rt6, or take a number of dirt / gravel forest roads down the mountain where you come out at the back of Lyman Lake. We chose the dirt roads! While we ended up getting shiny & clean, couldn't say the same for the car. It was a mess, with a very fine grit even working its way thru the rear hatch and covering things in the back end. Once back at camp, we collected Bob K and went for ice-cream down the road at Keeners. They've added a bunch of new "Cherry Springs" items for sale including hats, Coffee mugs, shirts, hoodies, and magnets!



We spent some time sitting on their front porch watching the world go by and discussing our concerns about the progress of Tropical Storm Herminie impacting our observing on the weekend.

Back at camp, the sky decided to rain some more, so I headed indoors to practice my presentation for Saturday on "Obscure Open Star Clusters". During the afternoon, campers continue to pull into the field looking for spots. Among those were Ron K and Eric L of the LVAAS club.



Once the showers had ended, Bob N of our Kiski club needed to head back home for work, so he packed up his telescope and Aliner camper and pulled out. After dinner, with a partly cloudy sky, Bob Denny and I went for a stroll and dropped in to visit with Eric L, who had setup shop over near the southern end of the observing field. At dusk, I headed back to camp, and rather than feeding the bugs, decided to go in for the night to read and watch a little TV. Early to bed.



#### **Thursday 9/1/2016:**

Another morning of waking early from a long sleep brought by sunlight shining thru the windows of my camper. Checked the weather forecast, looked like we were in-store for a great night of observing. Sat around during breakfast talking telescope mounts with Bob and Denny, then pulled out a book to read - "Starlight Detectives" by Alan Hirschfield, about the switch over from 19<sup>th</sup> century visual observing to modern astrophotography. So far a very good read! All afternoon astronomers kept pouring into the park and soon nearly every little open spot was taken. Fred K from Pittsburgh and Tracy N from Delaware arrived and grabbed the two spots that we had been saving for them.





Jeff N of CCTS also pulled in with his trailer of goodies and he soon had a couple of tables going. Bob and I stopped over to see what he had, and I quickly purchased a new 60mm helical focuser guidescope from Jeff.

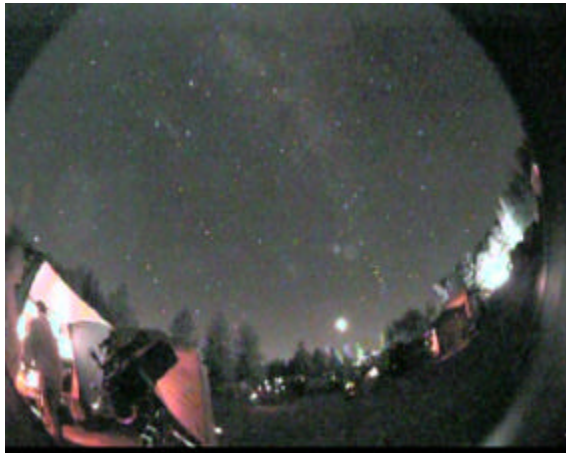


Back at camp, I pulled out my Samsung SDC435 videocam with a 1.5mm fisheye lens and got a time-lapse running with the camera pointing north. Spaceweather was calling for aurora overnight from a large coronal hole on the Sun that was pointing Earth's way. Hopefully, I would catch one. Tracy also had the same idea, as he soon had three DSLR's running!



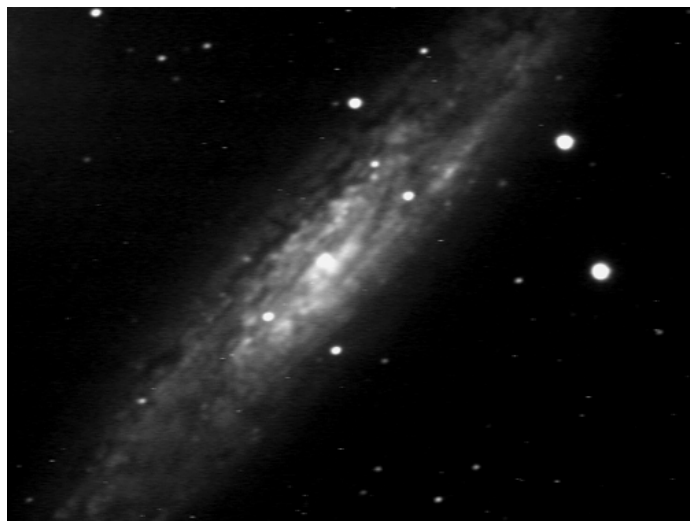
After dinner and a call home, I uncovered the telescope and prepared the night's observing list. After redoing my Polemaster and GOTO alignments, (figuring the telescope had settled a bit over the last several days), I was planning on going after Local Group and Arp Peculiar galaxies, with a few Herschel Objects thrown in. Toward sunset, the clouds started to noticeably thicken rather than dissipating, and the sky remained overcast for the next several hours, with an occasional bright star poking thru a short-lived sucker hole. Dang!!!! The forecast went bad! We were robbed!!!

But, after much hair pulling and gnashing of teeth, the sky started to clear from the north, and by 10:30pm Polaris was in the clear and I was able to begin re-aligning the telescope. Gave a Polemaster 'demo' to George K of the Kiski club who had dropped in to visit, along with a few other folks. I then started on my mount's GOTO alignment, but made several poor choices on stars that were too low in the west and obscured by my camper causing me to hit the cancel button. Upon adding the last calibration star, and doing a test slew, I realized it was wasted time as the telescope didn't have a clue as to where it was pointing. So sent the mount to its home position, powered it off/on and restarted the whole process over. This time I more wisely chose alignment stars and before long the telescope was accurately aligned and back in action. Unfortunately, between the early clouds and having redoing alignments, I had lost a number of objects in Scorpius and Sagittarius to being obscured by Denny's camper. I'll have to try for them on another night. While I was going thru all this, some folks over in the public side thought it would be a 'cool' idea to launch several candle hot-air lantern balloons! They floated right over the observing field and were amazingly bright. After the second one went up, Bob K raced over the field and across the highway, found the folks and told them to stop!! Apparently they had no idea how disruptive it was to everyone doing astronomy,,,!!! These two pictures give you an idea of how it lit up the field.



With my 8" SCT CGem finally having an excellent alignment and the focus on the StellaCams tweaked to optimal, I decided to go after Local Group Galaxies over in Capricornus and later in Cetus, including IC1613. But I soon ran into an issue where the laptop would lose communication with the ASI guidecamera causing the longer video exposures that I was attempting to have bloated stars and trails. After wasting a good hour struggling with trying to figure out the root cause of the problem, (Laptop? PHD? ASI Camera?), Denny dug out a spare 15' USB cable and we tried plugging the camera into that. Problem resolved, PHD was guiding, and I was back in business. Apparently after working fine for the previous two observing sessions, my new USB cable had gone bad! Arghhhhh!

I then finally moved into taking deep video exposures of several Arp galaxies in Cetus including Arp8 (NGC497), and Arp4 (MCG2-3-50), and did a series of multi-minute captures of NGC253 'Silver Coin Galaxy', which by now was well placed on the meridian along the Southern horizon.

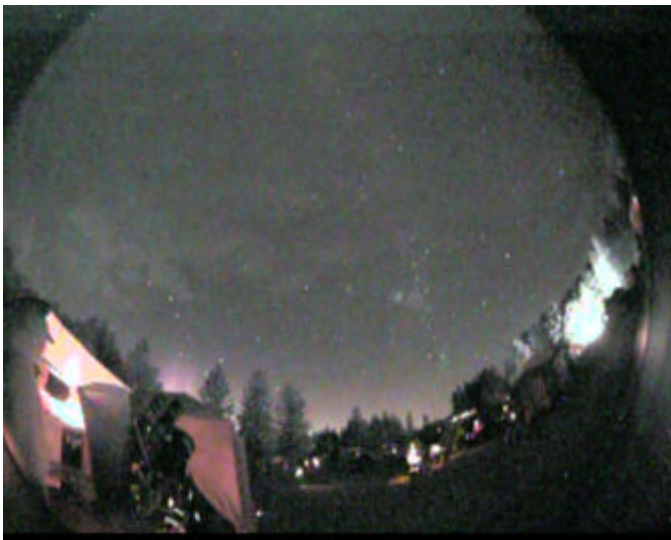




By now it was past 2:00am and a band of clouds that had been hugging the northern sky finally began to move south. Soon the sky was almost completely overcast, and after Bob, Denny, Tracy, Fred and I checked the weather satellite, and realized it wasn't going anywhere fast, we decided to call it a night. We soon had our cameras and telescopes powered down and covered up. I walked over to chat with Gordon and Brian who were still attempting to visually pull objects out of a few sucker holes. I left them to it and was in bed by 3:00am.

#### **Friday 9/2/2016:**

Was woken up early around 7:30am to the noise from folks outside. Apparently they had forgotten about the quiet rules. After breakfast, I uncovered my telescope and installed the new 60mm guide scope, replacing the 50mm scope. I then headed down to the swap-meet and picked up an interesting CCTV lens: a 25mm - 100mm Canon zoom. Should be useful for wide field Milky-Way videoastronomy. Back at camp, visited with Michele and had a discussion on how to manage cables/wires on our mounts. We both have the same CGem mount and she was looking for ideas. Dennis from York stopped over and we talked about using the AWI camera as both a guider and imager camera. Spent some time working on the video time-lapse from the night before. Turns out there was an aurora early on. Later, I'll load a video to YouTube: <https://www.youtube.com/user/StellarJourneys?feature=watch>



I missed it as I was doing the Polemaster demo at the time. Tracy N was able to get a nice capture of it using his DSLR's. After lunch, I went inside the camper for a nap. The weather forecast looked excellent for the night and I needed to get some rest if I wanted to make it thru that evenings observing session. But I couldn't sleep too long as the CPO club had invited the convention speakers to join them at the old pavilion for dinner, so at 6:00pm I was over at the shelter enjoying a good dinner supplied by our BFSP hosts. Thanks Guys!!!!!! Back at camp, Tony D and Tom H stopped over to give Bob and I a visit.



All day the sky was mostly clear, except for an occasional patchy cloud, and the clearskyclock showed excellent for that night. But late in the afternoon, word started going around about now Hurricane Hermine taking a more northerly track, and by sunset, an outer band of clouds from the storm had swirled up and engulfed the southern and eastern sky. For awhile it looked like it was going to be a total cloud-out, but a cold-front dropping out of the north pushed back, and we had somewhat clear skies around most of the horizon, but the transparency was bad.

I tried to make the best of it and after powering up the telescope slewed over to Capricornus and was able to video-image Local Group galaxy MCG2-53-2, "Aquarius Dwarf". Wanted to work on Arp galaxies, but the sky was just too soft to pull in that kind of faint detail. By midnight, the Milky-Way faded to barely visible, so I pointed the telescope horizontally to help keep dew off the optics and went inside the camper for a nap. After about an hour, pulled on my jacket and came back outside to find an improving sky. Went back to video-observing Arp galaxies and captured a number of them over in the whale and fish. The Cetus and Pisces region was a rich hunting ground for these interesting peculiar interacting galaxies and I netted Arp19 (NGC145), Arp59 (NGC341), Arp100 (IC18&19) & 157 (NGC520).

I wish I could have stayed up all night hauling in these fascinating objects, but by 3:00am, my thoughts were on how busy the next day was going to be, so I powered down the telescope and headed in to bed.

#### **Saturday 9/3/2016:**

Again, wasn't able to sleep in past 8:00am due to outside noise from folks across the road. This was Getting old! After breakfast, made the dusty trip down to the Potter Family Campground off of Rt6 to cleanup. Once back at camp, I plugged in the battery chargers and reviewed my presentation notes one last time. Wini and John L from the Kiski Astronomers, up to Cherry Springs for the day, stopped by our camp and visited with us. I then headed back over to the Saturday swap table and picked up a few small items that I 'needed'. At 2:30pm, I gave my "Obscure Star Clusters" presentation to a good size crowd. There was a number of good questions afterwards. For those interested, you can find a PDF of my talk at: <http://stellar-journeys.org/downloads.htm>

Afterwards, Tracy, Denny, and I sat in on the keynote presentation on preparing for the upcoming 2017 August Total Solar Eclipse, by Dr Mike Reynolds. Good info, confirmed pretty much what I had already planned. Bob K then gave a great introduction to head park ranger Chip H, as it was Chip's last starparty before he retired.



Chip gave his final park update, detailing the plans this fall to move the entrance to the public area across the main road. That should really help with the car headlights shining across the observing field at night when the public program ends.



Then it was time for the door prize drawing! Denny won a Coronado PST!!!



After the drawing was over, Bob, Denny, Tracy, and I headed over to Fox's for their traditional "Chicken, biscuit, and gravy" dinner, followed up by "cookies -n-cream" ice-cream! We then had to go for a stroll around the observing field to walk all that off. Bob and Denny soon stopped to talk with a couple up from Pgh, but as it was getting dark, I decided to head off on my own to take some telescope photos. It was amazing how full the observing field was! People were setup all the way to the southern fence and the eastern "Woodsmen" rough uneven section of the field was even filled up!



I stopped in at Eric L's camp to see how his observing with the new Atik Infinity videocamera was going, and to say hello to Phil D and Mike P from Canada who had arrived the previous day.





With the sky beginning to darken, I continued my stroll around the field. It was great to see all the different styles & makes of telescopes setup and ready to go!







Ran into more folks that I knew including Jeff from N. VA and Jim and Gary from the Hamilton Ontario club.



As the air temp was rapidly cooling, I then hurried back to camp to change into warmer clothes and prepare the telescope and my observing notes. With the stars beginning to twinkle overhead and a young Moon shining in the west, the public began arriving and wondering the observing field looking for those of us who had signed up for public viewing had set out red glow sticks for them to find us by.



Soon I dozens of folks stacked 3 or 4 rows deep to see my videoastronomy setup. I hopped around the usual fall showcase objects including open clusters M6 & M7 in the scorpions tail, to the bright nebulas in Sagittarius & Scutum - the Lagoon - M8, the Swan - M17, and the Eagle - M16 showing the Hubble "Pillars of Creation". Over in the eastern sky, I showed the rising galaxies of Andromeda - M31 and the Pinwheel - M33, and the edge on spiral NGC891. Was even able to display the Whirlpool galaxy - M51 over in the northwest before it set behind my camper. (That was a real crowd pleaser, being able to see the spiral arms!). This rapid-fire public videoastronomy outreach went on for several hours, with my going thru a pile of handouts on what they were seeing. Finally, the crowd began dying down at 11:00pm. Must have had 100+ people go thru!

As the last visitor drifted away toward the exit gate, I took a long drink of Coke and moved on to my observing program for the night. The sky was looking kinda 'weak' with transparency degrading, so I decided to hunt the brighter Herschel Objects. As Andromeda was well placed, rising high in the eastern sky I started there, video - capturing a number of galaxies including NGC280, 395, 477, 533, 898, and 980. While in the neighborhood, I went back to NGC891 and took a number of deep 5 minute exposures of this beautiful edge-on spiral galaxy, giving it an "Outer Limits" look.



After a short 'warming' break inside the camper, where I fell asleep for a good 45 minutes, I headed back outside and continued the Herschel hunt in Aquarius. Within the water bearer, I video-captured quite a few galaxies including NGC7165, 7246, 7364, 7391, 7393, 7606 and 7725. A good collection!



By now it was well past 3:00am, and I took a break from the Herschel's to slew over to Taurus the bull and try my luck with the Crab Nebula - M1. Got a nice sequence of 60, 180, and 300 second video-captures. I then moved on and picked-off a number of Taurus Herschel Objects including NGC1409, 1588, 1758, and 2026. During the Herschel Object hunt, Eric L stopped over to say 'hello' and to see what I was working on. He told me that there weren't too many of us still up and put observing. Most of the folks in my group had already called it a night. But we both agreed that even a 'fair' night at Cherry Springs was better than the best of nights back home and shouldn't be wasted. After Eric headed back to his telescope, I finished off the Herschel's in Taurus. Then with the clock showing past 4:00am, I decided it was time for my last object of the night - The Horse Head dark nebula - B33 in the belt of Orion! I sent the telescope over to the last star in the Hunter's belt - Alnitak and did a mount star sync as I knew the horse was elusive to find and I wanted to be dead centered on it. I took a short 30 second exposure and there it was! I then captured a series of 1,3 and 5 minute video - captures and the dark horse's head filled the monitor screen nicely illuminated by the background glow of IC434. It was an awesome view!!!



At that point, with the time going past 4:30am, I decided to stop there with that memorable video-observation and closed up the telescope and headed for bed!

#### **Sunday 9/4/2016:**

Slept in till 10:30am, ignoring the noise from folks outside, but the camper becoming warm finally roused me out of bed. Once up, sat back with breakfast and watched the scramble of everyone packing and heading home. Our little group had decided to stay one more day, but soon the observing field had significantly emptied-out. Denny and I headed down to the Potter Family Campground for the showers and after a stop on the way back at keeners for ice-cream, I headed inside the camper for a nap.

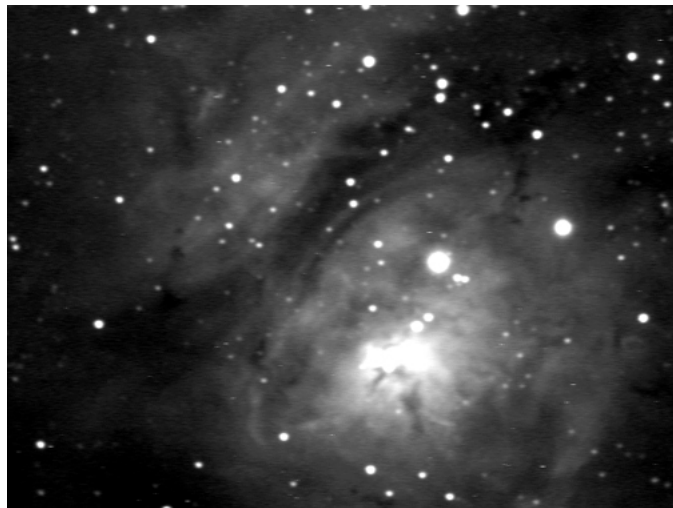
After about an hour, I got back up and decided to start pre-packing my camp. Took down the tent canopy, which had made it all the way thru a starparty without losing it to a storm!), and packed away other non-essentials for the night. Gave Denny and Bob a hand taking down their tents.

Met a couple from Bethel Park that came up for the day and was staying overnight. We talked about the Liberty Bridge fire fiasco and wondered how long it would take to repair the bridge and what were the best detours.

At sunset, walked down to the southern section of the observing field to visit with Mike P and Eric L. After getting back to my camp, I uncovered the telescope and powered everything up for the night. The sky was clear, but it was another night of weak transparency and a faded Milky-Way. I decided to start off the evening using the SC-II on the 80mm Kson Refractor to take 8 second video-captures of open clusters M6 & M7 in the scorpions tail.



I then followed up by deep 60 second images of M8, M17 in Sagittarius & M16 in Scutum.





I then headed up to the winged horse and captured several Local Group galaxies in Pegasus, including AndVI. I then continued hunting Herschel Objects including NGC 52,7280, 7311, 7316, and 7321. Moved on from there to Andromeda the princess to pick up another Local Group member - AndVII. At Midnight, Bob K called it quits and packed-up his telescope. Denny and I, both dragging from the previous long night of observing, lasted for about another hour, then we both decided to close up and also packed up our telescopes. I was in bed by 2:00am.

**Monday 9/5/2016:**

Sunlight streaming in woke me at 8:30am to a dewy field.

I had just missed early-bird Bob K pulling out for home.

Quickly packed the inside of the camper and moved outside to have breakfast and pack the remaining few outside items. Hooked up the car to the camper and went around and said my goodbyes to Denny, Tracy, and Mike. Denny pulled out for home shortly before I headed out at 10:00am. On the drive back toward I80, we both got stuck in a Labor Day parade in Penfield! Denny stuck it out, but I turned around and headed cross country to Brookville, then to I80. Probably added an extra hour to my drive home.

Finally, close to 4:00pm, I backed the camper into my driveway and unpacked. I was home!

This ends the Black Forest Star Party of 2016. Six out of eight nights of observing!  
Not a bad run at all!!!

Larry McHenry

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