Black Forest Star Party - September, 2019

Finally, after a long wet summer, the weather settled down to a drier pattern, with a week long run of sunny skies and no rain. I hoped that it would continue into the week of the Black Forest Star Party. This year's event was being held at the end of September, promising warm, but not too hot, days with cool evening temps and longer hours of dark skies. Had the camper loaded for several days in advance and after getting home from work Friday evening, I hitched-up the camper to the SUV, and stowed a few last minute items. My plan was to pull out in the morning for the drive up to Cherry Springs.

Saturday 09/21/2019:

Up early to finish prepping for the trip. Discovered that my campers water tank had developed a leak in the drain valve and over 2/3's of the tank had dripped out overnight. Plugged it best as I could but was only able to refill the tank part way. The previous day, there had been a large water-main break nearby, and the area was under a boil water alert. I didn't want to take all the water that we had on hand, and boiling fresh was time consuming. I'd just have to fill up the tank at Cherry Springs. Finally on the road to Potter Cty by 8:30am. The hazy Pittsburgh sky soon turned sunny once I was about an hour north of the city. Past the Dubois exit off I-80 into the more forested areas, I began to notice a touch of fall colors in the trees – yellows, rusts, and an occasional streak of bright red. The fall Equinox was only a few days away and the season was changing!

Arrived at the park shortly after 1pm to find a good group of 40 to 50 amateur astronomers already on the observing field. Bob K, Denny H of the Kiski Astronomers were already setup in our club spot, along with our buddy Tracy N. All three of them had traveled to Cherry Springs on Friday and already had one good night of observing under their belts.

I settled into a spot beside Bob and spent the afternoon setting up camp and assembling my telescope. (8" Celestron SCT optical tube @ f6.3, mounted on a CGem, with an 80mm Kson refractor and a 60mm Antares guide scope. My new ZWO-ASI294MC Pro camera was attached to the 8" SCT tube, and the old Stellacam-3 video-camera was on the 80mm, with the ZWO-ASI120MC on the 60mm guider. Also, had a QHY PoleMaster USB camera on the mount for polar aligning). Managed to acquire nice sunburn from my efforts.

Later in the afternoon, our Canadian friends Scott, Gordon, and Michelle, began to arrive in their usual spot just to the north of our section.

After dinner, with the Sun westering, we began to uncover our telescopes and prepare for the evening. I checked the balance on my telescope's RA and used several heavy magnets to fine-tune. My observing plan for the night was to work on Herschel Objects over in the North West around the handle of the Big Dipper of Ursa Major before they sunk too low toward the horizon and before the Moon rose at midnight. A short window of opportunity. Soon Polaris was sighted and I quickly had the mount polar aligned using the QHY PoleMaster. I then moved on to aligning the mount's GOTO only to find that the GPG Rollover bug was back! The scope kept thinking it was April 1986, which meant that all the summer alignment stars weren't available in the hand controller as it thought they hadn't yet risen above the horizon, and most of the spring stars that the hand controller could find had already set! Arggggh!!!!!

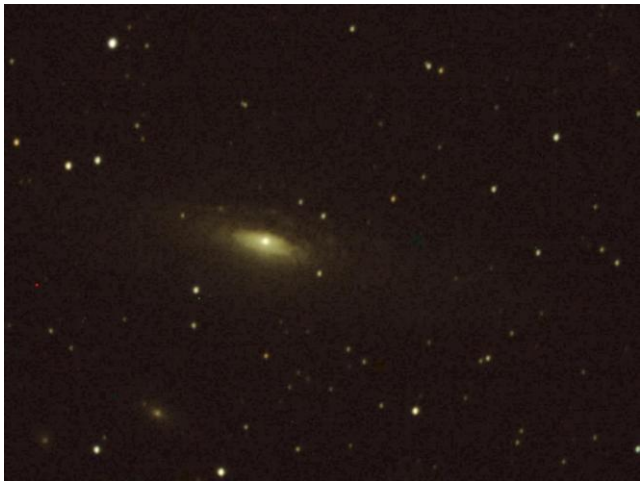
After fighting it for awhile, I came up with the idea of turning off the GPS unit and then on initial power up, to advance the year as far as it would go, to 1999, and then setting the month and day to current. With that I finally had access to several of the summer stars currently overhead and I manually slewed the telescope to several bright stars and synced the mount. That gave me an accurate enough GOTO to be usable for the evening and I could deal with fully resolving the GPS issue the next day. I quickly pointed the telescope at Altair and focused the cameras and then took control of the mount with the laptop. But, having wasted precious time on getting past Mr. Murphy, The Great Bear was fast sliding into the greater Coudersport light nebula, so I decided to change up my observing plans and image globular clusters over in the SE 'Fall' section of the sky using my ASI294MC camera on the 8".
At that point the sky had gone a little soft, with a light scattered haze that dimmed the Milky-Way over in the south-west. But the sky on the eastern-half of the meridian was still decent.

I started off with short 15 second subs stacked for 2 minutes using the 'Livestack' option of Sharpcap of the globulars M2 in Aquarius and M15 in Pegasus. Being nearby, I decided to slew over to the 'Deer Lick Galaxy', NGC7331 and took several long stacks of 20 to 30 minutes of 30 second subs at varying ROI field of views.

(M2)

(M15)

While the camera was stacking away, I went for a walk over to see how Denny and Tracy were doing. Both of them were imaging away, and after a few minutes with them, I walked over to see what the visual folks were up too. Got a nice view of the Double-Cluster thru Gordon's 18" Dob and viewed the Pleiades and the Andromeda Galaxy using Michelle's new stabilized binoculars. Fun stuff!!! I then headed back to my setup and started a 25 minute imaging run (30 second subs) on the Triangulum Galaxy – M33 and then went and visited a new fella, Jeff from Conn, who had setup on the other side of Bob. Finally, with the late waning Moon clearing the tree tops, I stopped imaging, shut down the equipment and covered up, and sat around over at Gordon's camp for another hour shooting the breeze before heading for bed at 1:30am. Not a bad first night!



(NGC7331)

(M33)

Sunday 09/22/2019:

Slept in till 9am. After a leisurely breakfast, I spent time online researching the GPS bug from the previous night. Apparently, the beta patch version that I had installed back in the spring had expired, but there was now an official update patch available from Celestron for public download. As the park internet service was down, (from a lightning strike back in the spring), I had to throw a hot-spot with my cell phone so I could download the patch to my laptop. It was then short work to upgrade my CGem mount with the patch and that permanently resolved the GPS issue. I also updated Scott's Celestron mount, as he was having the same issue with his SCT.

During the late morning and early afternoon, a number of folks who were just there for the weekend packed up and headed home. They were soon replaced by several dozen new arrivals for the upcoming convention, including Nick and Jane, and Dennis who set up in their usual space to the south of us. During the day, clouds had begun building, and by mid-afternoon, several light showers rolled over the observing field sending everyone under their canopies. But the rain and clouds were thankfully short-lived, as by late afternoon, the Sun was back out drying up the field. At sunset, I uncovered the telescope and prepared my observing plans for the evening. I intended to spend time this evening on the Herschel's in Ursa Major that I missed the night before.

Once Polaris was sighted, I did a quick check of the polar alignment using the PoleMaster and made a few slight tweaks. (Leaving the device attached makes this check so very easy). I then redid the mounts GOTO alignment, which went flawlessly with the new GPS patch now installed. (Scott was also successful using his patched Celestron). After a slight focus adjustment, I was ready to go, and actually had to kill another 20 minutes waiting for the northwestern sky to completely darken. While the sky at sunset had been mostly clear, there soon developed over in the southwest a patchy, light overcast which washed out the Milky-Way over in Sagittarius. But the north stayed clear so I proceeded with my plans for the next several hours and hunted faint Herschel galaxies around and beneath the Big Dipper's handle. Of the approximate 2,482 objects cataloged by William and Caroline Herschel, I was down to the last 160 objects, all located in and around the 'Dipper' Several score of these were too low into the Coudersport light-dome to be worthwhile hunting and would have to wait till the spring. But that still left a good number to search for. I was able to add 17 new entries to my list of observations, including NGC4644, 4732, 4801, 4967, 4973, 4974, and 5109 & 5113.

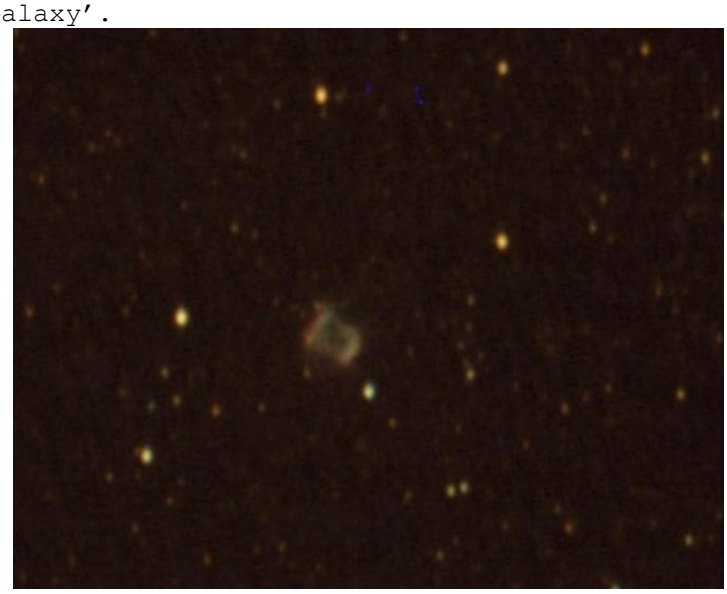
Around 10:30pm, the sky completely cleared, with the Milky-Way popping out nicely! This was due to a steady breeze that had developed which cleared the scattered haze and kept the dew from forming on our equipment. That was a good thing, as the breeze turned our dew shields into sails catching the wind, making it difficult to take subs longer than 60 seconds. Denny and I had to remove our shields to keep the star images from blurring. With Ursa Major finally bottoming out along the northern horizon, I decided to move up high to Cygnus, now riding on the meridian. I slewed the telescope over to NGC6888, the 'Crescent Nebula' and after spending some time trying various ROI sizes to get a nice frame of the object, initiated a long running stack of 30 second subs with SharpCap monitoring PHD guiding. I then went for a stroll to visit Denny and Tracy who both were imaging the 'Heart & Soul Nebula' in Cassiopeia. I then dropped in on Gordon who was visually chasing planetary nebula, along with Michele who once again had her new binocs out.

With the clock hitting midnight and moonrise not long off, I headed back to camp to check on my imaging. While I was out and about, PHD encountered guide errors which SharpCap didn't catch, resulting in several interesting camera artifacts in the stacked image of NGC6888. Rather than restarting a fresh imaging run, I decided to head over to another object – the Veil Nebula, and spent some time capturing images of NGC6960, the bright section around 61 Cygni. But I didn't have long to spend on the Veil, as a brightening glow in the East announced the arrival of the waning moon. Within minutes, it was peaking over the tops of the pine trees, so I decided to call it a night, stopped the image stack, shutdown the equipment and head for bed. With the clouds and rain from earlier in the day, it turned into an unexpected good night of observing.

Monday 09/23/2019:

Around dawn, clouds rolled in along with a few light showers. It was a cool, dreary morning and stayed that way thru much of the day. A welcome break from the hot Sun of the past two days. In-between the sprinkles, more amateur astronomers arrived at the park, with most heading to the southern section of the observing field. Spent the late morning visiting with the folks in our section, and then a fair amount of the day inside the camper catching-up on magazine reading. During the afternoon, when it wasn't raining, Tracy and Denny stopped over to visit. Toward evening, the clouds thickened and several heavier downpours rolled over the already soggy field. Looked like there would be no observing tonight! But then, at sunset, a little Cherry Springs 'magic' occurred with the sky clearing off to a crisp dark blue.

Several of us hurried to uncover our telescopes, including Tracy, Gordon, and myself. Denny decided to setup his DSLR on a tripod and do wide-field nightscape photography of the Milky-Way. The detail visible in the Milky-Way, bright star clouds, dark knots, and rifts were eye-popping! The bright Messier nebula and clusters were naked-eye, including M7, and the Lagoon Nebula – M8. It was tempting to leave the telescope covered and grab my binoculars and a chair, but I couldn't pass up a 'found-night' of using my new ASI294 color camera. So I powered up the telescope and computer, and then swung over to Altair to focus the cameras. While there, I headed over to the nearby 'Wild Duck' cluster- M11 and captured a series of 15 second subs for 75 seconds. I then headed over to Sagittarius to capture planetary nebula NGC6445, the 'Box Nebula' for 3 minutes to use in my presentation on Saturday. I then slewed over to Canes Venatici in the north-west to capture 15 minutes of M51, the 'Whirlpool Galaxy'.



Finally over to the north-east for the 'Double-Cluster' in Perseus (NGC869 & 884). After taking a couple of test shots to frame the star clusters, I hit a snag.

A breeze had started up shortly after dusk, which was pushing around my dew shield causing guiding errors. So I took it off, but forgot to turn the dew heaters up to compensate. With the breeze blowing, dew wasn't able to form, but while I had been pointing the telescope up to M51, I didn't notice that the wind had died down to calm. It didn't take long with the dropping temperature and humidity from the earlier rain for dew to quickly form on the unprotected SCT's corrector plate. I had dewed up!!!
After realizing my observing session killing mistake, I put the lens caps back over the telescope optics and cranked the heaters to high. Sometimes if the dew is just a light mist, that will dry it out, but in this case I had a thick layer of condensation covering all the glass surfaces. I figured that I was probably done for the night.
Fortunately, Denny had a low-power 12v hair drier that he brought over, and after awhile we were able to clear the optics and I was back in business. It's good to have friends around at Cherry Springs!

I then picked-up where I had left off and captured a nice two minute image of 'x & y'. By then, around 11pm, a line of clouds began racing in from the west, pushing a light haze ahead in front. Soon the sky went soft and with the darkening clouds covering most of the sky west of the meridian, we all shutdown the telescopes and covered up for the night. Though it was a little short, we still had a very pleasant evening of observing!

Tuesday 09/24/2019:
Slept in and woke to a foggy, damp morning. Around 10am the Sun began to poke thru the mist and dry out the field. The day's forecast for nearby Coudersport, down in the valley, was sunny skies in the afternoon with a high of only 65F. Clear overnight, with the expected low dipping into the mid-forties. Up on the mountain, we'll see cooler temps, Sounds like a perfect night of video-observing ahead!
All during the day, dozens of other astronomers poured onto the field. At this point, there were probably close to 200 people now setup on the observing field. New arrivals to our section included Chris and Nick from Pgh, and Brian from NJ.

With Spaceweather calling for a chance of aurora over the next several days, I pulled out my homemade dome-cam (old B&W StellaCam-II in a cheap dome), along with my Samsung SDC435 color camera, both with small fisheye lens. The dome-cam video feed went to one of the monitors mounted in the camper tailgate kitchenette work area underneath the curtained canopy where I operated my equipment from. It would allow me to see most of the sky from within my 'control room'. I also setup my 80mm Bosma refractor mounted alt/az on a tripod for later casual viewing. After a visit to Lyman Run facilities to freshen up, I stretched-out inside the camper for a nice several-hour nap. Tonight had the makings of an all-nighter and I wanted to be well rested. Once I was awake, I made a quick dinner, organized my object list for the night, and uncovered the telescope and started up the laptops and capturing time-lapse imaged from the two fisheye cameras.
While waiting for sunset, I went for a stroll around the observing field, dropping in on fellow astronomers that I've met over the years, including Phil, Brad, and Paul from York, along with Roxanne, Conrad, Gary, and a number of others.

With darkness and the temperature falling, I hurried back to camp to change into warmer clothes. Once Polaris was visible, I tweaked the PoleMaster alignment and then headed over to Altair to focus the cameras. At 8pm, the observers on the field were treated to a brilliant ISS pass high over the polestar!!

While waiting for the northwest sky to become dark, I started out the evening's hunt by reprising the night before, first stopping on M11 in the SE for several minutes to capture a nice image, then over to the NW to M51. I settled there for awhile, letting the image stack slowly build in the darkening sky and walked over to visit with Denny for a few minutes.

By 8:40pm, it was finally dark enough to go after the faint glow of Herschel Galaxies along the handle of the Big Dipper. I settled into a routine of hunting by first finding the selected object from my Herschel-2500 observing list on the ECU planetarium program and then slewing the telescope to the objects position, taking several short 15 second subs to verify and center the object, and then stacking four 30 second subs for a two minute image. Due to the low NW elevation that I was trying to work, I had to check each objects RA & Dec to validate that it was high enough to keep from slewing the telescope toward the ground. Having spent time over the past several years following in the Herschel's tracks, you could begin to pick-up on how they were doing their observing run for that particular night back in the 1780's, slowly letting the Earth's rotation bring each object into their sweep. Using today's modern equipment, there's no need to wait; all you had to do was hop down the sweep path to the next observable object. When you think about that, it's sorta inspiring to think that in your own way you are following in their footsteps!

For the next several hours I video-observed/imaged several dozen Herschel galaxies, most of the objects were faint non-descript smudges of light, even with a two minute stack, probably from the low altitude. Among the more interesting Herschel-NGC objects that I captured were NGC4500, 5164, 5342, and 5526.

But my time that evening with the Herschel's was limited, and by 10:30pm, they had begun sliding into the pine trees as the constellation of the Great Bear neared the horizon. I then left the NW to head high up in the NE to Perseus the hero and several of his planetary nebula. I started off with Messier-76, taking a long run of 30 second subs for a 35 minute total exposure. I then hunted IC351 and IC2003, both nice little blue orbs. With the Andromeda Nebula (M31), glowing brightly naked-eye as it wheeled overhead, I slewed the telescope over and after spending a few minutes framing the great galaxy on the camera's widest ROI to include the satellite galaxies M32 and M110, I started a long run of 30 second subs. While setting up for the run, I was able to get the imaging software SharpCap to interface with the PHD guiding program to guard against including any smeared sub from a tracking error to be included in the stack. I also setup star brightness limits within SharpCap to suspend stacking if the image should begin to dim. That worked out really well later in the evening.

Walked over to visit with Tracy, who was imaging nightscape images with his trio of DSLR's, and then dropped in on Denny who was imaging the 'Witches Head' Nebula. While visiting with Denny, standing out in front of his tent canopy, we heard a group of coyotes call out just to the north of us. They were close by, probably over in the field where the vendor's tent would go. Then a second pack to the east answered the northern pack's calls. The yipping went on, back-n-forth for several minutes. Guess the bears that are usually closer to the field than the coyotes must have taken the night off. ☺

I then uncovered the 80mm refractor that I had assembled earlier and took in low-power visual views of the Milky-Way star-clouds running down thru Aquila. By now, with a calm clear sky, the dew was thick in the air, and I had turned the 8" SCT's heaters to their highest settings. But the little visual 80mm scope was not equipped, and it didn't take long even with using a dew shield for is optics to dew over. Having enjoyed my visual observing with the telescope, I pulled-out my 12x50 Minolta binoculars and grabbed a chair. Soon I was enjoying wide-field views of the Pleiades, M31, the Double Cluster, Melotte-20, along with the bright path of the Milky-Way running from Cassiopeia thru Perseus to Auriga. Carrying my chair, I walked over and joined Michelle and Gordon who were also sitting out in their chairs taking a break from their telescopes. Gordon then swept up M42, the Orion Nebula rising above the trees with his 18" dob. We had a great view of the greenish nebula! After that, having been away from my telescope for over an hour, I started to head back to camp, first dropping in on Tracy again to see that he had now switched over to imaging M42. He was getting some very nice 60 second subs.

Dropping my chair off under my easy-up tent, I glanced at my telescope mount and immediately noticed something was wrong. The power indicators on the dew controller were all off. Sometime in the last 30 minutes, the battery that I was running the heaters off of gave out, and with the telescope's corrector plate point overhead, it didn't take long for the dew-shield to be overcome and the optics coated over with dew. I headed under the camper tailgate curtains, fully expecting to find the last two hours of imaging being

wasted, but fortunately, the precautions that I had set early saved the day. SharpCap recognized that the stars were dimming and the guiding failing, so it stopped the image stack with a good 65 minutes of accumulated subs, saving the overall image from being washed-out with oval egged-shaped stars. Nice!!!

Rather than try to resuscitate the scope from the dew, I decided to shutdown and cover-up the telescope and try experimenting with camera settings on the dome-cam. With no signs of any aurora happening, (a quick check of the Spaceweather site showed the aurora activity indexes dying down), the Moon beginning to rise thru the trees, and the clock going on 4am, I decided to call it a night. Not quite an all-nighter, but close!

Wednesday 09/25/2019:

Slept for about five hours and was up by 10am. After a late breakfast, I uncovered the telescope to let it air-dry under a sunny sky, and plugged-in to the charger the dead dew heater battery. Then I sat around writing up my observing notes and reading. During the day, more amateur astronomers arrived at the park, including Bob K returning from a trip back home. Spent the afternoon lounging around camp under my easy-up canopy, and trying to nap. At 6pm, Ed K of the Kiski Astronomers club arrived and setup next door. We now had four Kiski club members in our section of the field, reminiscent of the olde days when we would have a dozen or more camping out together.

After dinner, I uncovered the telescope and made plans for the evening. The sky was mostly clear for much of the afternoon, but a late day haze had developed. Depending on which forecast you read, it was either going to stay clear for most of the evening, or we were going to soon be clouded out. We'll have to see which one is correct. At dusk, under hazy skies, I checked polar alignment and camera focus. I then sent the telescope over to the southwest to Sagittarius and the Lagoon nebula – M8, where I captured a five minute image of 15 second subs. I then moved up to M20 – the Triffid Nebula and began a series of 15 second subs, but after only about two minutes, I had to stop the stack, as clouds rolled in from the west. Soon the sky was completely overcast and all we could do was shutdown the equipment and cover up the telescopes. Bob, Denny, Tracy, Ed, and I sat around for awhile to talk astronomy. Around 11pm, with the previous night catching up to me, I headed in for bed. At midnight I was woken by a light shower tapping on the camper's vent cover. I looked out a window and watched those who hadn't yet covered up their telescopes now hurrying to do so. Guess the forecast calling for early clouds was right!

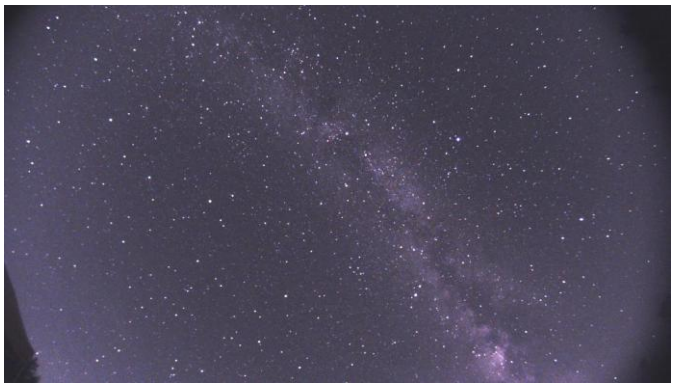
Thursday 09/26/2019:

Got a good rest, slept in late. Woke to a cool, damp and grey morning. Weather radar showed more light rain on the way, but the forecast called for sunny skies in the afternoon, with clear and cold skies overnight. Mid-morning, several showers rolled over the field sending everyone indoors. By now, the observing field was beginning to look full, with well over 300 amateurs there, and more arriving every hour, including Alexi from Pgh who setup next to Bob, and Eric L who headed to his usual southern field location.

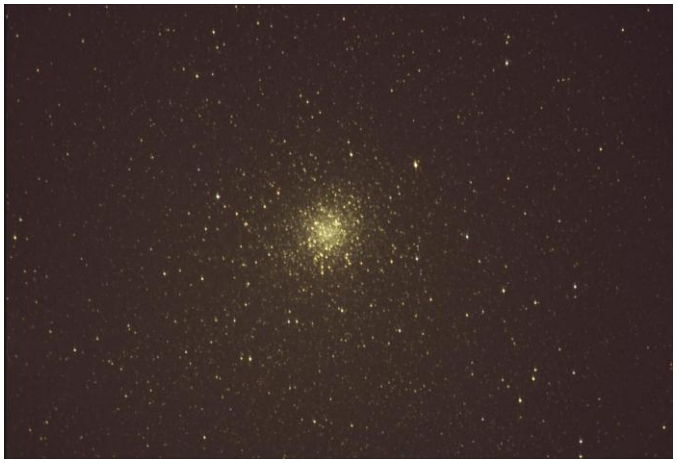
The vender's tent was setup and Jeff N of CCTS was there with his astronomical merchandise. I ended up purchasing from Jeff a new smaller ZWO camera, ASI290MC, as a replacement for my old SC-II analog camera inside my dome-cam.

At noon, Tracy and I headed down the mountain to Galeton to shop for lunch at the little grocery store in town. We were both looking forward to the BBQ food vender opening on the observing field on Friday. Around 2:30pm, a line of storms packing a stiff breeze went thru, soaking the field. But the clearing line was not far behind, and with the Sun back out and a light breeze, the field soon dried-out. You could feel the drop in air temperature, it was going to be a cold night at the park, with lows expected to fall into the upper to mid 30's. I'll be putting on the heavy winter clothes tonight!
By 4pm, all of the empty spots in our section of the field were now full, as even more people arrived at the park looking for a space to setup camp in anticipation of the clear dark skies. The park was going to be packed by Friday afternoon.

At sunset, everyone uncovered their telescopes, and layered-up with warm clothes. With darkness rising up overhead, I decided to first experiment a little with my new ZWO Dome-cam. Being a USB camera, I plugged it in to my old spare XP laptop and used an old version of FireCap to capture test images. They looked great!



While it was a beautiful night overall, a very slight haze had developed, causing the Milky-Way to appear washed-out. The dark rifts were not as sharp as earlier in the week. Still, it was a great night to be under the stars with a telescope, so I put the dome-cam away and 'focused' on my 8" and my other ZWO camera, ASI294MC. I started off in Sagittarius doing stack of globular cluster M22 of 15 second subs for three minutes. I then stopped back over at M20 for another go, as I wasn't happy with the previous night's attempt. This time I stacked eighty 15 second subs for a total of 20 minutes.



After that, I slewed the telescope up to the northwest and Ursa Major where I spent the next hour capturing Herschel Objects. These included NGC4149 and NGC4161 among the best. When I made the long swing from Sagittarius to the Big Dipper, the power cord for the dew controller was dislodged, and once again, my telescope optics dewed up!

But Alexi and Denny came to the rescue with their DC hair driers and I was soon back in business with clear optics. (I've really bad luck this trip with dew!)

Once the Dipper became too low for hunting faint galaxies, I moved over to the southern sky and to the 'Silver Coin Galaxy', NGC253, where I captured a 30 minute stack of 30 second subs. By now it was well past 2am, and the belt of Orion was well placed so I decided it was time to 'horse-around', and I centered dark nebulae B33 on the camera. The 'Horse Head' is a fairly large object, so I needed to use the widest ROI that the camera had. After framing the nebula to my liking and tweaking the gain/brightness settings and turning on Sharpcap's guiding and star dimming monitors, I started an hour long stack of 30 second subs. To help with staying awake, I walked around and visited with Bob, Denny, Tracy, Ed, and the Canadian crew. I also had several guest drop in to visit my canopy warm-room, including Eric and Brian. After finishing B33, with a little time left before the very old thin sliver of Moon rose over the trees, I decided to make M42 – 'The Orion Nebula', my last object of the night. I started up a 15 second stack for 35 minutes.

At 5am, I walked over next door to visit with Ed and showed him the Zodiacal Light rising up in the east just below Gemini. It was a very nice view, something that I could never see from home. And with that last naked-eye observation, I decided to call it a night. After shutting down the telescope, camera, and laptop, I walked over for a last visit with Denny. Enjoyed viewing his latest image capture of M42, then I headed back to my camper, and as I was opening the door to go in, caught sight of the thin crescent moon peeking over the tree-line. Asleep by 6am. It was a good night of astronomy!

Friday 09/27/2019:

Was hoping to sleep-in longer, but after only 4 hours I was woken by the noise of campers out and about. It was a clear sunny morning with a light breeze. Unable to fall back asleep, I dressed and headed outside to uncover the telescope and let the Sun dry off all the dew from the night before. I then walked down to the vendor's tent and picked-up a new red-light from Jeff. It was one of those new Celestron lights that had a built in rechargeable 5000Mw battery that will last for weeks and even power your cell phone. Around noon, Janis, Denny's better half, arrived and that brought the Kiski Club up to 5 members at the starparty.

I then spent the afternoon trying out several different fisheye lenses on the new ASI290MC, but didn't like the field of view that they gave, so I eventually went back to the stock lens that came with the camera. While it has a nice wide field, it doesn't give a full sky. I'll need to look for another fisheye lens. I had hoped to mount the new camera inside the little dome, but discovered that the USB3 connector stuck out too far on one side to let the camera fit inside the dome. I'll have to modify the dome once I'm back home. So for tonight I planned on putting the camera on an old tripod and pointing it toward the southwest.

At sunset we uncovered our telescopes, and then our Kiski group (with Tracy staying back to hold down the fort) went for a walk around the observing field to drop in on our friends and to check-out all the different makes and models of astronomical equipment that was setup. We also enjoyed seeing the various camper models on the field. I always like taking pictures during our stroll, so here's a bunch!

With the western sky darkening, we headed back to camp to prepare for observing. Unfortunately, after the sun had gone down, a light haze with occasional scattered light clouds had developed. It wasn't going to be a great evening. With the northwestern sky washed-out, I abandoned working any of the remaining Herschel Objects tonight in that part of the sky, and headed over to the eastern side of the sky to image globular clusters. There I captured 15 second subs for a stack of 3 minutes for M15, M30, M72, and M75.

I also got a time-lapse running with the new fisheye camera, capturing an image every 30 seconds during the evening. Back home, I combined them into a nice little video.

Here's the YouTube link:
https://youtu.be/-qwceqfJj2A

Finally, around midnight, having only 4 hours of sleep from the previous night, I began to run out of gas. Knowing that I had to give a noon presentation, I decided to head to bed. Shutdown my equipment and crawled into the sleeping bag!

Saturday 09/28/2019:

After a good night's sleep, I was up early to a cool hazy morning. The weather forecast called for rain later in the afternoon and storms on Sunday, so time to start packing. All around me, folks were breaking down their telescopes and camps. So after a bit of breakfast, and another look at the forecast, I decided to also throw in the towel and disassembled my telescope and packed all the astronomical gear away. At 10am, I walked over to the swap meet near the vendor's tent, where Denny was trying to sell a few items. I had already bought a nice spare telescope cover from him beforehand. Even though I had bills burning a hole in my pocket, I didn't see anything that caught my eye. Headed back to camp and moved-on to taking down my easy-up canopies and rolled up the ground mats. Figured it would be better to put all that away while it was still dry. Also less work to do the next morning. By now a number of people in our section had finished packing and left for home, including Ed, Scott, Brian, Gordon, Michele, and many others. Denny, Tracy, and I decided to stay overnight and pull out in the morning for home.

At noon, I gave my presentation on "Planetary Nebula: What are they and how to observe them" to a large crowd (over 50+) at the pavilion. Good questions from those attending. After carrying my laptop and notes back to camp, Denny, Tracy, Bob and I sat in on Jeff N's presentation on the life of a lunatic vendor. Jeff had lots of great stories; we could easily have sat listening to him for another hour. Once Jeff's talk was finished, Bob hooked-up his camper and headed off to home. At 4pm, Denny and I headed back over to the pavilion to hear the keynote presentation by Mel Bartels on making ultra-fast F2 telescope mirrors and using them to visually observe & sketch Integrated Flux Nebulae. That was a very interesting talk!! Both Denny and I plan on trying to image these.

Following the keynote speaker, Tracy joined us for the Cherry Springs park update by the rangers and then the big raffle prize drawing. There were several nice prizes and while the three of us dropped some bucks in the kitty, none of was lucky enough to win.
After the raffle we headed back to camp, and Denny got out his small gas grill, and made kielbasa sandwiches for our dinner. Tracy and I pitch-in a few sides to go along.
At sunset, under cloudy skies, we went for a walk to see who we knew that was still on the observing field. At least two-thirds of the amateurs had left, and most of those remaining had packed-up their telescopes. We dropped in to talk with Eric L who was still setup, hoping for a possible late clearing that night. With the field getting dark under cloudy skies, we headed back to camp and pulled out our folding chairs to sit out and socialize. After about an hour, we started to notice a clearing in the western sky, within another 20 minutes, all the clouds disappeared to a sharp, crisp sky!! It was one of the best views of the Milky-Way all week. Cherry Springs magic at work,,,,

I unpacked my binoculars and we took turns passing it around for low-power views of naked-eye Messier Objects and other deepsky: Andromeda, the Pinwheel Galaxy, the Pleiades, and the Double-Cluster, along with Milky-Way star clouds. Good Fun!!!
At 10pm, Tracy and Denny decided to call it a night, so I decided to stretch my legs and walked down to visit with Eric. He was in the middle of imagining NGC253 with his 8" SCT and learning how to use PHD from a couple of his club members, so I listened in.
Once Eric had the guider running, he uncovered his big 24" Dob and pointed it at NGC253 for us to do visual observing. But we didn't get very long with the telescope, as clouds began racing in from the southwest, quickly covering the southern horizon. By 11pm, we were completely clouded-out. I headed back to camp and called it a night.

Sunday 09/29/2019:
Up early to a cloudy sky. The radar showed showers in the area. After a hurried breakfast, I finished securing the inside of the camper, put away the last few outdoor camping items, and hooked-up the SUV to the teardrop. Said my goodbyes to Denny and Tracy, who were also packing, and I started the long drive back to Pittsburgh.

So out of a total of eight nights spent at Cherry Springs this trip, I was able to get in some type of observing on every one of those nights! Though some nights were partial for only a few hours, there was several dusk to dawn nights! We got to see great ISS passes for several nights in a row, heard coyotes singing, and was mostly successful in fighting off dew. Other than the GPS issue on the first evening, my telescope had a great polar alignment and the GOTO worked flawlessly throughout the week. I was able to interface the imaging and guiding software to work together and enjoyed using my new cameras.
Finally, I was able to make progress on my Herschel Objects survey project, capturing 45 new entries. That brings me down to ~120 Herschel's to go, out of a total 2482!
And adding together the Herschel's and other new non-Herschel objects, I've now gone over a milestone of 5000 total objects observed! It was a pretty good astronomical trip!!

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