

Black Forest Star Party: September, 2022

With the autumnal equinox fast approaching, Fall was in the air. Bringing with it cooler temperatures, Friday night football, band competitions, shorter nights, and more importantly the Black Forest Star Party at Cherry Springs State Park! ☺
The weather forecast for the week of the starparty was all over the place, belly-flopping from good to bad and back again every other day. Still, I was determined to attend the convention and spent the weekend of September 16th preparing the camper and my astro-gear for the trip up to Northern PA.

Sunday 9/18/2022:

Having hooked-up the camper Saturday afternoon, (and spending Saturday evening at the regional HS marching band competition at Baldwin), I was up early Sunday morning to finish loading perishables into my camper fridge. By a quarter after 8am, I was on the road to Cherry Springs. The sky started-off a little foggy, but soon the Sun had burned it off to a partly cloudy day. Other than a few spots of road construction along the way, it was mostly a pleasant drive, (except for a stretch along Rt555 near Benezette where it was slow driving due to all the "Elk" tourist on the road). Once past the traffic jams, I had the road mostly to myself, enjoying the view out the car window of the "PA Wilds", golden fields (of golden rod, lol), swiftly flowing clear streams, and dark green forests with hints of Fall yellow, red, and brown colors.

I arrived at the park shortly after local Noon to find our usual section of the field already half-full. In addition to Tracy N and Ed K, who had come up to the park on Saturday, there was also Gordon from Canada, Dennis & his wife camped in their usual corner, along with Paul, Brad, and Mark, (all from the York area), who had decided to move over to our section of the field this year. (they liked how well organized our group has always been and were tired of being crowded in their old section).





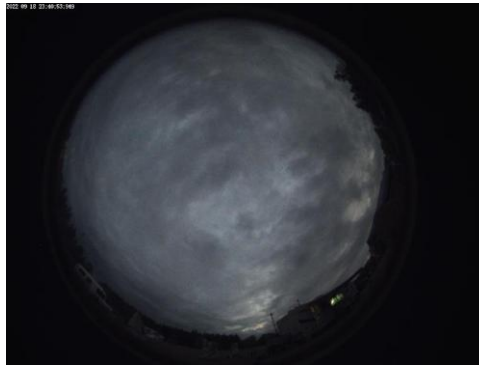
Fortunately, my usual spot was still open and after registering for camping on the field, I pulled-in and began setting up camp next to Mark. Denny H arrived a few minutes after me and setup his camp across from me, next to Tracy. There were also about 40 some amateur astronomers scattered around the southern and western sections of the observing field, with a few more arriving later that afternoon.



After a couple of hours, I finally had both the camp and astronomy equipment ready for the night. Setup took longer than usual due to all the good interruptions from everyone stopping over to visit.

The astro-gear assembled included my usual EAA setup: an 8" Celestron SCT optical tube @ f6.3 with a ZWO ASI294MC Pro camera and filter wheel on an Atlas EQ GEM mount, along with a piggybacked Canon CCTV 25-100mm zoom lens with ASI290MC camera, and a 60mm Antaries refractor guidescope with an ASI120MC camera. I also setup my DIY Allsky cam, a ZWO ASI224MC & fisheye lens inside a dome on a tripod mount. Finally, I put together my "Guttercam", an old Samsung SDC435 security vidcam & widefield lens housed inside a section of drain gutter, which I use to monitor my telescope at night during meridian flips and GOTO slews.

After a quick dinner and phone-home, I assembled my blackout tent canopy that Velcro's and hangs from the back of the teardrop campers open clamshell. At sunset, I pulled out my chair and sat for a bit with the others waiting for dusk to fall, and watching clouds slowing begin to build out of the west. Consulting the weather apps, the clouds that had now mostly overcast the sky should begin to break-up in a couple hours, and the sky should become mostly clear around midnight, lasting for several hours. That gave us a short dark-sky window before the waning gibbous moon would rise. With the warm 70's daytime temps dropping into the lower 60's, I changed into heavier clothing and our group continued to sit around in our chairs over by Gordon's tent.



Finally, around 11pm, the western sky began to clear and soon Polaris was sighted peeking thru the thinning clouds. Denny and I hurried over to our scopes and began the polar and GOTO alignment process. After working thru a few small hardware issues, I soon had the scope's mount ready to go, along with the main camera's and guidescope focused. As the sky's transparency was still poor, I decided to hold-off on faint nebula observing tonight and instead go for a few brighter deep-sky objects. But first, I warmed-up on open cluster M34, now rising high in Perseus in the northeast.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-Pro broadband filter, 15 second subs, PHD guided, livestacked for 5 minutes using SharpCap with dark & flat calibration frames applied, and histogram tweaked on the fly).

I then had to spend time resolving an issue with my AllSky cam where it stopped working. Apparently the USB cable was going bad causing the laptop to disconnect from the camera. Ended up pitching that cable and using two shorter runs. By now I was begging to feel a little tired from the long drive up, and the work in setting up camp and telescope. But the sky had somewhat improved and the Moon hadn't yet risen, so I wanted to get in a few more EAA observations before calling it a night. I slewed the telescope up to Andromeda and the galaxy M31, now high towards the meridian in clearer air. While my imaging kit doesn't have a wide enough field-of-view to capture the entire galaxy, I settled-in on the side containing the super starcluster NGC206. Here's the EAA observation:



(same scope info as above using the L-Pro filter, 3 minute subs, stacked for 30 minutes).

While I was working thru issues and doing a little observing, Denny also was spending the evening struggling with his mount and laptop not wanting to talk to each other, and needed to update mount drivers. But he did get in a very nice image of SH2-119 in Cygnus. Tracy worked galaxy NGC891 in Andromeda with his new 11" Celestron Edge and even later imaged the Moon with it. Ed had his mobile observatory up and running too.



But the visual guys, Gordon, Paul, Brad, and Mark all decided to wait for a better night and left their scopes covered up and headed to bed early.

After finishing up my observation of the Andromeda Galaxy, I then moved the telescope downwards to the Triangulum Galaxy - M33 for an observation of the Pinwheel, which just fits into the camera FOV.



(same scope info as above using the L-Pro filter, 3 minute subs, stacked for 15 minutes).

It was now after 2am, with the Moon beginning to rise on the eastern horizon thru the pine trees. I had stayed-up longer than planned and was now out of gas. I quickly shutdown the telescope cameras, and laptop, threw the blackout tent into the back of the car and headed inside the camper to bed.

Monday 9/19/2022:

Slept-in till about 9am, woke to grey, overcast skies. After a check of the weather radar, showing a line of thunderstorms barreling towards the park, I quickly dressed and headed outdoors to pack away my camping chair and tighten down the easy-up canopy over the back of the camper. Then headed back indoors for a late breakfast. Denny popped over for a visit and brought homemade cookies, which went well with pop-tarts and bananas.

Around 11am, the raindrops began to fall and for the next several hours it was a mix of heavy rain and thunder. The camper got a good bath. According to Tracy's weather station, we got around a ½" of rain. Soon fish were spawning in the road-stream outside my camper's front window. Ed, being parked on high ground was making plans to gather telescopes, 2 x 2, to save them, while Tracy was planning white water rafting.... Spent the time indoors reading. ☺

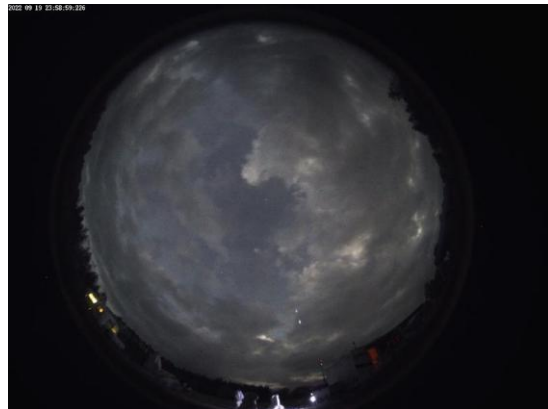


At 1:15pm, Dean S arrived and took the open spot to my north.



After visiting with Dean, I headed back indoors to continue reading and then fetched my laptop and finalized my EAA observations from last night. The rain gradually died down and the sky went partly cloudy, with occasional brief sunshine. At 6pm, we all gathered over under Dean's awning for a chili dinner that Dean's better half had prepared in advance for us. Afterwards, we sat around and talked 'astro'.

At dusk, though the weather radar looked a little 'iffy', with small popup storms to our north, the forecast looked promising for later that evening, so I assembled the blackout clam tent, powered-up the laptop and AllSky cam and began collecting subframes. But to be on the safe side, I left the telescope covered.



We then gathered over at Gordon's tent again with our chairs for the next several hours and watched for the occasional star shine thru the cloud 'sucker holes' that would briefly open and quickly close. We had light fog and clouds forming directly overhead from all the ground moisture evaporating. Finally, just after 9:30pm, the sky began to clear and I soon had my telescope uncovered and powered-up. Several times during the rest of the evening, the sky would briefly go hazy as the ground continued to dry. By midnight, the sky became really good with the Milky-Way shining nicely overhead.



My first videoastronomy observation of the night was globular cluster M2 in Aquarius. I then slewed the scope over to nearby globular M72. The L-Pro broadband filter does a great job giving the clusters a good detailed 'contrasty' look. Here are both clusters' observations, though I had to cut short M72's due to clouds.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-Pro broadband filter, 15 second subs, PHD guided, livestacked (M2 for 5 minutes, M72 for 3.5 min) using SharpCap with dark & flat calibration frames applied, and histogram tweaked on the fly).

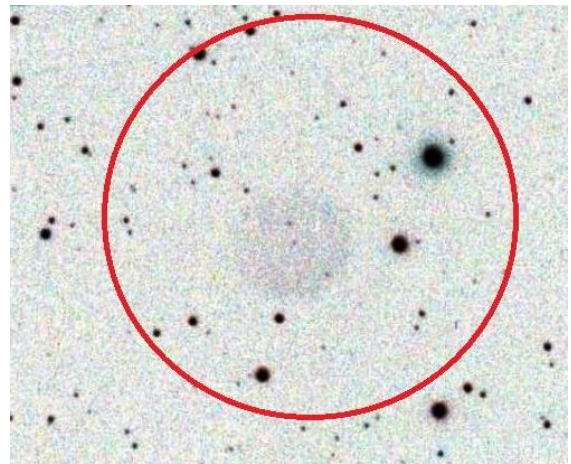
After that round of clouds departed, I then pointed the telescope over to Pisces 'the Fish' for the face-on spiral galaxy M74. On the near real-time monitor view, you could easily trace-out the multiple spiral arms with HII regions coming off the galaxies core. The observation took longer than planned as both clouds and the wind was being a pita.

I then dropped the scope down in altitude to Cetus - "the Whale" and EAA observed galaxy M77. This is another interesting face-on galaxy with a bright detailed core surrounded by a very faint outer halo of spiral arms.



(same info as above using the L-Pro filter, 3 min subs, stacked for 30 minutes).

By now the sky had cleared nicely, with the wind dying and the sky transparency becoming very good. I pulled out my Abell Planetary Nebula project, switched filters to the L-eNhanse narrowband, refocused the camera, and slewed the telescope over to Lynx and Abell-16. The faint pale blue disk showed nicely, along with the 17th mag+ central star.



(same scope info as above using the L-eNhanse filter, 3 min subs, stacked for 15 min).

I then moved over to the border of Ursa Major, now rising in the northeast, and hunted Abell-28. It's a very faint planetary, even under dark skies, and between the objects low elevation and the Moon rising over the horizon during the livestack, I decided to throw this object back onto the 'not observed' list and try for it on another night. With the still bright sliver of Moon now lighting up the sky, fading-out the Milky-Way, I decided to call it a night, shutdown the equipment, and disassemble the blackout tent. In bed by 2:30am.

Tuesday 9/20/2022:

Woke around 9am to a sunny sky and cool mid 50's temps. Nice!

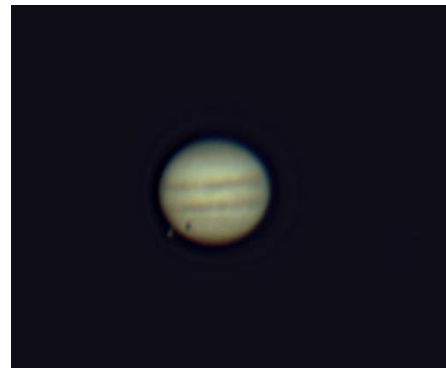
After breakfast, finished-up a few observing notes from the previous evening, and spent the late morning outdoors visiting with the group. The sunny skies brought more folks to the park, including Mike (from Niagara Can), and Eric L, both who setup their camps down along the western fence line. And Brian returned to our section, to setup beside Gordon.



Around 2:30pm, I headed indoors for a long nap. Once back up, I joined the group at 5:30pm over at Dean's camp for a cheeseburger & fries dinner cooked by Denny & Dean. Afterwards, we sat around under Dean's awning and watched the sunset. Towards dusk, I lumbered out of my chair and setup the blackout tent and uncovered the telescope and started up the laptop & AllSky camera.

I then joined Tracy, Ed, and Gordon for a walk down to the main gate to close it. We were just in time, as a card-load of astro-tourist pulled in off of Rt44 just as we were closing the gate. They were there for some casual stargazing, so we explained to them that they needed to park in the public lot on the other side of the road and then could walk back over. Once back at camp, I changed into warmer clothing and rejoined the crew sitting out over by Gordon's camp watching the stars begins to shine.

In the meantime, Paul, Mark, and Brad were killing time waiting for full darkness by visually observing the planet Saturn, well placed in the southeast sky, with several nice refractors that they had setup. I walked over and had a great view of the rings thru Paul and Mark's scopes. I then headed back to my camp and after waking up the telescope mount, slewed the scope over to Saturn to observe, and then on to Jupiter rising above the eastern trees. There was a Galilean Moon shadow transit of Io on Jupiter's disk! Pretty cool to watch.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with IR filter 150 to 165 millisecond exposures avi for 500 frames. Post-processed using Registax)
After wrapping up the 'Shallow Sky' observing, it was now dark enough for Deep Sky.



I commanded the scope overhead to globular cluster M15. Its concentrated core displayed uncountable stars on the monitor with just a 15 second EAA exposure.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-Pro broadband filter, 15 second subs, PHD guided, livestacked for 5 minutes using SharpCap with dark & flat calibration frames applied, and histogram tweaked on the fly).

Around 8:33pm there was a brief Starlink satellite 'train' visible in the western sky. It was interesting watching the individual satellites 'light-up' for a few seconds then going dark and disappearing as they moved into the Earth's shadow. The event was so quick, that I only caught one 30 second image of it on the AllSky camera.



After that, I slewed the telescope over to the small 'Ring' galaxy NGC7184 in Aquarius. The L-Pro broadband filter nicely displayed the inner arm ring structure after just a few exposures. Here's the completed EAA observation:



(same info as above using the L-Pro filter, 3 minute subs, stacked for 30 minutes).

It was then nebula time! I switched over to the L-eNhance narrowband filter and moved the scope over to nearby bright planetary nebula NGC7293, the "Helix Nebula" in Aquarius. After a few short exposures showing good detail in the planetary, I decided this was a good time and a good test subject for doing a really deep AP like exposure. It would test both my physical polar alignment and my guide camera/PHD's ability to track for a long period. It would also be a good test of Sharpcap's software ability to monitor various parameters such as PHD guiding, and sky brightness (from clouds).

So I set the exposure to 10 minutes and livestacked it for one hour. I waited for the 1st exposure to come in to verify that the tracking was good, then went for a walk to visit with Denny, Tracy, Dean, and Ed. (now I can finally relate to how traditional AP'ers have to kill time, lol). With a few minutes to go on the hour-long livestack, I returned to the back clamshell for a few last histogram tweaks to the observation before it saved. The fine nebula detail and colors visible was outstanding in the inner oval. I could even see portions of the outer oval! It was an awesome EAA observation!



(same info as above using the L-eNhance filter, 10 minute subs, stacked for one hour).

I also had a few visitors of my own during the night, at one time or another most of the group, including Brian, dropped by, and from Eric who took a long stroll from the western side of the field to visit. They were all working on various projects of their own; Tracy was imaging pinwheel galaxies, (M101 & M33), and also doing star trail time-lapses around Polaris. Denny was shooting Sharpless nebula SH2-54 low over in Sagittarius, Dean was also working the Helix with his widefield rig, along with SH2-119 "the Flying Bat" in Cepheus, and Ed was up in the Milky-Way.

Around 1am, the sky over towards the south and west began to go soft and hazy. An approaching storm front from the northwest was pushing a layer of hazy clouds towards the park, impacting sky quality and dimming the Milky-Way. To get away from the front's impacts, I slewed the telescope high to the northeast to Cassiopeia and the "Pac-Man Nebula" - NGC281. A nice bright HII emission nebula with embedded star cluster.



(3 minute subs, stacked for 30 minutes).

After finishing up the Pac-man, shortly after 2am, the sky had now become mostly clouded-over with the northeast hole rapidly closing up. After checking the weather sat & radar photos, I decided to close up shop for the night and was in bed by 2:30am.

Wednesday 9/21/2022:

Slept in till close to 10am. The skies were only partly cloudy, with periods of sunshine. Apparently, after I went to bed, the skies had mostly cleared. I had left the laptop and AllSky camera running all night collecting images, so I stitched those into a time-lapse of Tuesday night: <https://youtu.be/cWQcpcwTV9k>

Soon the outdoor temp was warm enough for sitting outside and visiting with the group. Around noon, Denny and I went for a walk on the park hiking trail, and then dropped in to visit with Mike and Eric over in the western side of the observing field. Eric had a new ZWO filter wheel and we helped him figure out how to attach his camera to it, and then to the telescope. We also walked over to see how the new maintenance garage was going. During the day, more familiar faces arrived at the park and setup camp near our group, including Chris and Mick from Pgh, and Dave from CPO.



Around 3pm, clouds began to build from the west, and at 4:20pm we had a very brief rain shower. At 6pm, we gathered under cloudy skies over at Denny's camp for a group spaghetti dinner. (Ed made garlic knot bread). Very delicious! I don't think I'll be losing any weight this camping trip like I normally do. LOL!

Around 7pm, we had a little 'Cherry Springs Magic'; the skies began to clear, so I quickly uncovered the telescope, started up the laptop and AllSky and assembled the blackout tent. Eric dropped by to visit with the group before dark, while Denny and Dean both uncovered their telescopes. After I had the scope up and running, I invited Paul, Brad, and Mark over for a demo of how I controlled my telescope and EAA observing using SharpCap. My target was the Edge-on galaxy NGC891 in Andromeda. They all enjoyed seeing how my setup works and how quickly I can get a detailed EAA observation of a deep sky object with no post-processing necessary. Having several minutes in already on NGC891, I let the livestack continue to build the image to 30 minutes. Here's the completed EAA observation:

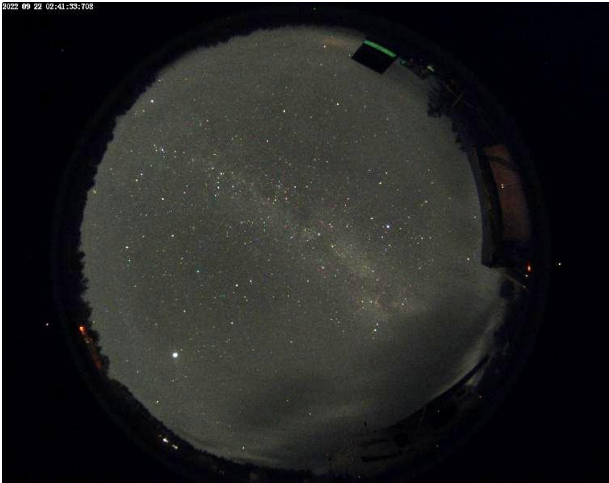


(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-Pro broadband filter, 180 second subs, PHD guided, livestacked for 30 minutes using Sharpcap with dark & flat calibration frames applied, and histogram tweaked on the fly).

I then slewed the telescope up to Pegasus's front legs and settled in on one of my favorite fall objects, the "Deer Lick Galaxy" - NGC7331. After a couple of short exposures, I decided to do another deep-dive and changed the exposure to 10 minute subs and planned to let that livestack for a full hour. With time to kill, I took out my 12x50 Minolta wide-angle 5.5 deg binoculars and went over to visit with Denny, who was sitting outside by his telescope. This was the best looking Milky-Way since I first arrived on Sunday. Enjoyed binocular views of the various Messier cluster and nebula objects over in Scorpius, Sagittarius, and Scutum, (clusters M6 & 7, M11 and globulars M4 & M22, and nebula M8, M20, & M17, and the Small Sagittarius Starcloud - M24). It's still a lot of fun to do low-power visual sweeps of the Milky-Way on a really clear night! There were also a number of good meteors visible while we were outside.



After a quick check on how my deep imaging was going, I stowed the binocs and took a long walk over to visit with Mike and Eric at the far end of the observing field. I had just arrived when a series of very dark clouds began rolling in from the northwest. After a few minutes of standing there looking at the clouds and chatting, the sky continued to go downhill and we spotted a flash of lightening off to the NW. Yikes!!! I immediately said my goodnights and quickly headed back to my camp. I arrived back to find Denny and Dean shutting down and covering up their telescopes. After a quick check of the weather radar, I joined them in closing up. Here's the EAA Observation of NGC7331, cut off early by Sharpcap due to clouds:

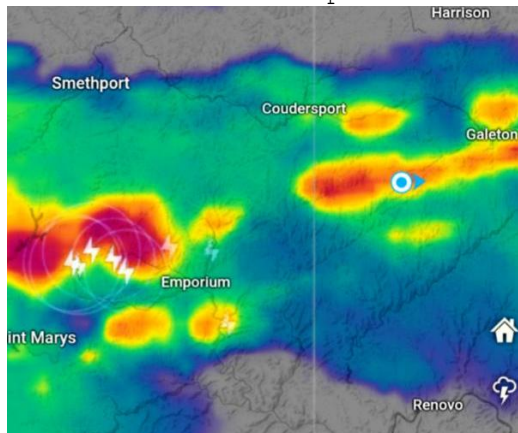


(same scopeinfo as above using the L-Pro filter, 10 minute subs, stacked for 40 minutes).

We then stood around for awhile, watching the sky being engulfed by the clouds, then folded up our camping chairs and put them in our cars and headed indoors. I stayed up till a little after midnight reading, (Sky & Telescope magazine of course), before hitting the sack.

Thursday 9/22/2022: (Fall Equinox)

Woken at 2:30am by the sound of thunder. It was one heavy thunderstorm after another, with bright flashes of lightening and thunderclaps overhead and rain pummeling the camper for the next hour. After falling back to sleep, I was again woken at 4:30am by more loud cracks of thunder overhead and another heavy downpour of rain. Then at 5:30am, a third round of heavy storms went over. Here's a screenshot of how the weather radar looked, showing us in nearly a straight-line path of the storms. Later I checked Tracy's online weather station on his camper which showed that we got 1.13" of rain over that time.

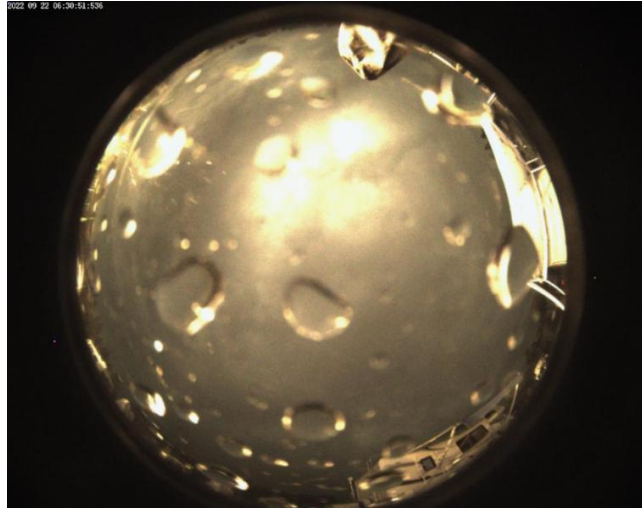


Finally got out of bed at 8am. It was a grey wet morning, temps near 50 deg. Looking out my front window, I could see at least one easy-up canopy collapsed by the storm. (Brian also had his sleeping tent damaged and had to spend the night in his car). Not being able to see the rear of my camper, I was concerned that my canopy might not have survived the night either. (I was known for having past canopies demolished at CS).

After dressing, I headed outside and was relieved to see the canopy still standing with just a small amount of water ponding on one side. Said hello to Dean who was also standing outside drinking coffee, grabbed my laptop and a few items out of my fridge, and headed back indoors to fix breakfast and my own cup of coffee.

Afterwards, I spent the rest of the morning inside, waiting for the temps to rise higher into the upper 50's and hoping for the ground to dry out a little. A passing rain shower at 10:30 dampened that.

While indoors, I worked on creating a time-lapse from the previous night's AllSky cam frames. I flipped thru every subframe hoping to catch a lightning bolt on one of the subframes. Here's the best one:



Here's the time-lapse video: (warning, some folks might not like the bright flashes).
<https://youtu.be/9oQY8nnZDPI>

After lunch, the wind began to pick-up with gusts into the upper 20's mph. But the Sun was now out and combined with the wind was drying out the field. Nearly lost my easy-up canopy in the breeze, but thanks to Mark's quick actions of grabbing it, he was able to hold it down until I could get over to fix the corner that had come loose. At the time, I was several campsites down helping to keep Brian's tent from complete collapse. Even Ed had his Dob get blown over! After all the camping gear was secure, I headed down to Lyman Run Park for the showers. I had just got back to camp and hung my towel out to dry when a pop-up rain shower soaked it and the field. Spent the rest of the afternoon inside with my laptop processing the planetary avi's that I had taken on Tuesday.

The breezy, wet weather precluded any outdoor group meals, so everyone was on their own. After visiting with Dean and Denny to show them my EAA observations. I headed inside my camper for dinner and then spent the evening watching TV and reading. Stayed up till 11pm listening to the wind outside the windows.

Friday 9/23/2022:

Woke at 8:30am to a partly sunny sky and 37 deg outdoor temp! A light breeze was also blowing, Burr!!! (Tracy who was up earlier reported seeing frost on top of his truck). Spent the morning indoors, waiting for it to warm up outside. Did a practice run of my Arp Peculiar Galaxy presentation that I was giving on Saturday. At Noon, I headed over to the main gate and the starparty registration tent to get signed-in and pickup my goodie bag. Then walked over to the food vendor tent for a cheeseburger lunch.

On the way back I stopped over at the starparty solar observing station and looked thru the Lunt solar scope that the BFSP folks had setup. There was a large active loop prominence on the solar limb, just above a sunspot group. Very Nice! That inspired me, once back at camp, to pull out my Coronado PST solar scope and I shared a few solar views with Denny, Dean, and Brian.

Just before 1pm, Pat and his son Ryan arrived and setup their Aliner camper next to Ed.



At 3pm, Dean and I gathered our swap meet sale-items and carried them over to the swap table area. Dean was selling a box full of things that his brother Gary had sent, and I had a few items also. It was a break-even activity for me, as I sold an item and bought an item, lol!



Once back at camp, I decided to go ahead and setup the blackout tent and uncover the telescope and startup the AllSky cam. While doing that, I watched more amateurs pouring into the observing field, looking for open space to setup in, including Carol and her son Joe who I had met at the CSSP back in May. Most of the 'regulars' were now onsite.

Around 5:30pm, Dean and I went for a quick walk-around around the observing field. There were lots of great looking telescopes uncovered and awaiting the sunset.

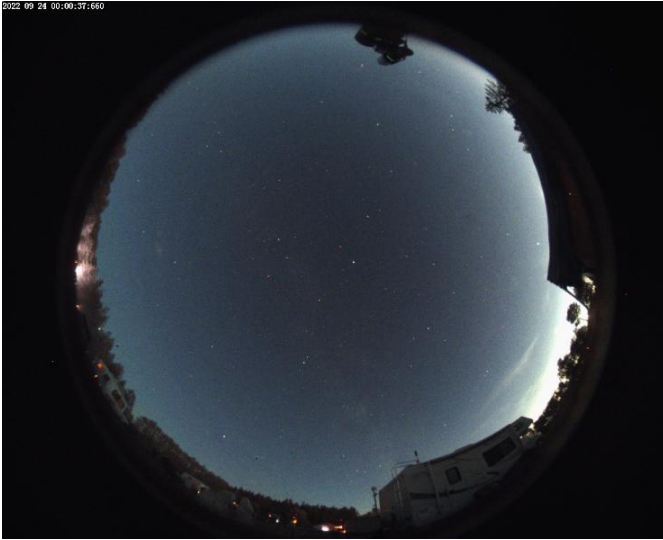






For dinner, our group was treated to pizza, courtesy of Tracy and Gordon. Afterwards, I walked around our section and visited with Pat & Ryan on the north end, then down to the south end to say hello to Chris & Mick, Paul, Brad, and Mark. Towards sunset, I headed indoors to change into heavier cloths, as the temperature was dropping towards the upper 40's, and then prepared my observing plans. Tonight I was going to spend a large chunk of time working deep-sky objects in Perseus listed in the October 2019 Sky&Tel magazine on bright and dark nebula in that constellation that I had been saving. But before starting that, after conferring with Dean and Gordon, we came up with a 'challenge' object for the night, the "Cocoon Nebula", NGC5146 in Cygnus.

The evening started off beautifully, with the Milky-Way shining shortly after dusk began.



The light breeze throughout the day had died down, and we were expecting a dewy night. I turned the dew heaters up to 2/3's and settled in to EAA observing the Cocoon Nebula, using 5 minutes sub exposures. After the first couple of subs had livestacked, I was able to bring out good detail in the dark lanes that bisected the emission nebulosity. In addition, I was also doing 3 minutes subs using the widefield Canon lens at 100mm to pull in more of the dark nebula that extended away from NGC5146. I called over Dean, Gordon, and Denny to share the view. A little while later, Carol and Joe stopped in while I still had the Cocoon up on the monitor and also shared the EAA observation with them.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-eNhanse narrowband filter, 5 minute subs, PHD guided, livestacked for 60 minutes using Sharpcap with dark & flat calibration frames applied, and histogram tweaked on the fly). (Canon Zoom lens set to 100mm at f5.6 using a ZWO ASI290MC camera, no filter, 3 minute subs livestacked for 15 minutes)

Then it was time for working the Perseus objects, starting with several bright emission nebulas - NGC1491 and NGC1624. The L-eNhanche narrowband really brought out the details.



(same 8" SCT info as above using the L-eNhanche filter, 3 minute subs, stacked for 30 minutes for NGC1491, and 15 minutes for NGC1624).

During the evening, I had a number of visitors drop by including Brian, Pat & Ryan, Eric, and Tracy, who I shared the nebula views with. Around 10:15pm, as I was finishing up the NGC1624 observation, a hazy band of clouds rolled in from the northwest and by 11pm had shutdown most of the sky, leaving just a few bright stars and Jupiter shining thru.



This lasted till midnight, when a large clearing went over and I was able to resume observing in Perseus, with the bright HII nebula NGC1579, known as the "Northern Triffid". To me, the object reminds me more of the 'Flame Nebula' in Orion.



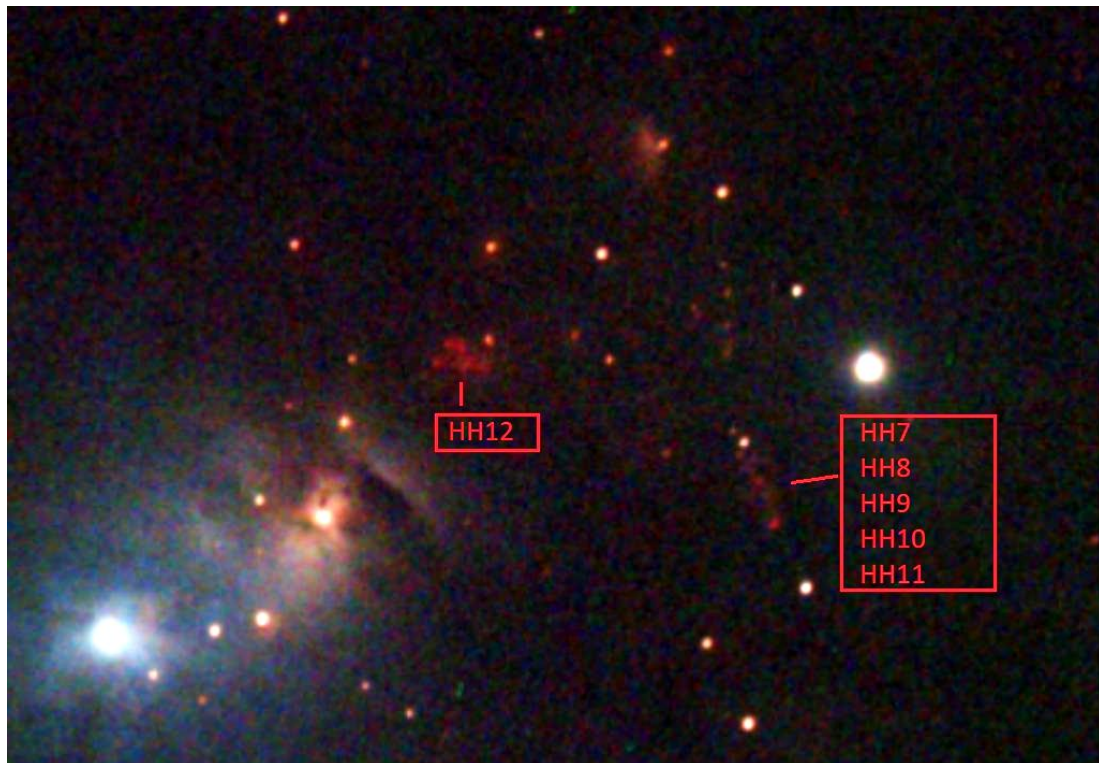
(3 minute subs, stacked for 15 minutes).

While Dean was imaging the Pleiades and Tracy was on the Helix Nebula, I switched over to the L-Pro broadband filter and hunted several reflection nebulas in Perseus, vdB24 and NGC1333. Both of the blue dusty objects also have nearby associated emission nebula, but only NGC1333 displayed any signs of the HII.



(same info as above using the L-Pro filter, 5 minute subs, stacked for 30 minutes).

Interesting, the area around NGC1333 also includes a number of Herbig-Haro (HH) objects, which are thought to be protoplanetary disks shrouding new forming stars. Here's a close-up of the above NGC1333 EAA observation with the HH objects identified:



Around 2:30am, thicker clouds began to move in from the west, completely obscuring the sky. As Saturday was going to be a busy day, I decided to call it a night, shutdown the telescope and was in bed by 3am. Most everyone else did the same.

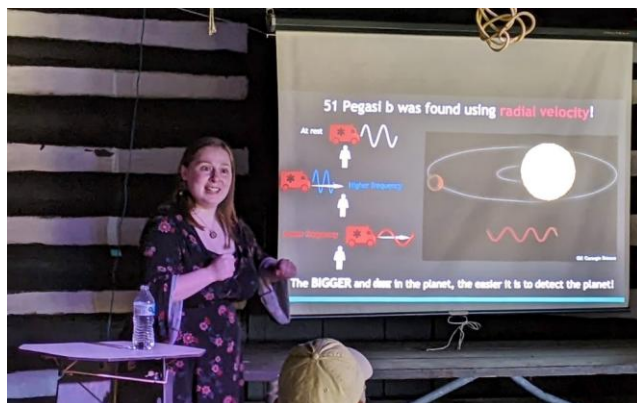
The AllSky dome cam collected images all evening, and the next day I stitched those into a time-lapse of the night: <https://youtu.be/l8vNTldfiug>

Saturday 9/24/2022:

Up at 8:30am to a partly cloudy sky. The weather forecast for tonight looked pretty hopeless, with rain predicted to start early Sunday morning. I decided to pack up the scope, canopy, and most of the camping gear later in the afternoon. That was a general consensus among the group with several now planning to also head for home.

After breakfast, I headed back over to the swap meet area and tried to sale a few additional items. No bites on the astro gear, but did enjoy talking with Ed, Tracy, Denny, and a little later Roxanne who brought over a few of her own items to sell. At 11am, I headed down the mountain to Lyman Run for the showers and once back at camp began to disassemble my telescope and AllSky camera. Soon both Ed and Tracy were packed and had pulled out for home, joining the exodus from the park. Dean, Denny, Pat & Ryan, and I decided to stay for the afternoon talks and raffle and spend the night at the park and leave the next morning.

At 1pm, I headed over to the park pavilion and gave my presentation on Halton Arp and His Peculiar Galaxies, to a large crowd. There were lots of good questions afterwards, and I think the attendees enjoyed the talk. I stayed for the first half of the next speaker presentation by Phoebe Sandhaus on exoplanets, but with clouds beginning to move in from the west and the weather radar showing a few scattered showers to our north, I decided to head back to camp to finish packing. Fortunately, the BFSP folks were running a low-wattage FM radio station that was broadcasting the presenters and I was able to listen in to the rest of the presentation while packing. By 3:30pm, I had all the astronomy and camping gear ready to go, and even hooked-up the car to the camper.



At 4pm, Denny and I headed over to the pavilion for the keynote presentation on the Web Telescope by DR Bryan Holler. It was a very interesting talk! I'm looking forward to all the new research that will be coming from the new space telescope.



Then it was time for the Park Rangers and the Dark Sky Fund update reports. This time next year, the park hopes to finally break ground for the new observing field and public visitor's entrances, which will go a long way in solving a lot of recent user issues at the park. At the completion of the project, there will also be a new ranger 'check-in' station that everyone will need to stop at before setting up camp. During the report, the Head Ranger stated that people coming to Cherry Springs for the dark skies is now 80 to 90% of all of Potter County's tourism, even over hunting, fishing, and ATV/snowmobiling. That was a "wow" moment for everyone there in attendance.

But then again, when you see the park stats on how many visitors they get in one year, (somewhere around 100,000), it's easy to believe. Of course the vast majority of those visitors are the 'day-tripping' astro-tourist on the casual/visitors side of the park, spending a few hours there at night to look at the stars, see the Milky-Way, then spending \$\$ at the local stores, gas stations, and staying at area accommodations.



Then it was time for the door prize raffle! While I had great expectations of winning one of the ZWO prizes, but it was Denny and Ryan who were the group winners! (Denny won a BFSP T-shirt and the ZWO EAF, while Ryan won a nice eyepiece).



We then headed back to camp, where Denny and Dean cooked up the last of the brats and sausages and Pat, Ryan, and I threw in our leftovers. By then there weren't too many attendees remaining in our section, with Brian, Gordon, Paul, and Brad and many others having left for home.

After dinner, with dusk and the temperatures falling under a cloudy sky, we cleaned-up the leftover garbage and stowed away our chairs. There was no hope of even doing any binocular observing that evening. So we all said our goodnights and headed indoors. I spent the evening working on my observations from Friday night and doing a little reading. Finally hit the sack at 11pm.

Sunday 9/25/2022:

Up early for a light breakfast. Around 6am, it had begun to drizzle, then from 6:30 to 7:30am it rained cats-n-dogs, a really hard rain with a few claps of thunder. Once again it was fishing season out on the gravel roads. Glad I packed everything yesterday!!



Once the rain let up, everyone was outside finishing up preparations to leave, and soon Denny, Dean, and Pat & Ryan were heading out. I hit the road at 8:30am, and other than Mark who was still slowly packing, our field section had emptied out, with maybe only a few dozen still left in the entire park.

The trip home started off a little foggy with occasional scattered light showers, but once I made it to I80, the sky began to clear, and it was sunny when I pulled into my driveway around 1:20pm back home in Pittsburgh.

So, out of seven nights at Cherry Springs for the BFSP, I got in some amount of observing over five nights. While there were no all-nighters, and clouds would occasionally interrupt during those five nights, there was still long stretches of good EAA observing to be had. Overall, it was a successful starparty and deep sky trip. And I got to spend time under the stars with a great group of folks from both ORAS & Kiski, and from around the region.

I plan to be back out under dark skies (hopefully at Calhoun) for the October New Moon.

Larry McHenry

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

