

## Cherry Springs Star Party - June, 2023

With the first week of June, anticipation began to build for the annual Cherry Springs Star Party. When the starparty tickets went on sale earlier in the spring, they sold out (400) within three days! Amazing!! Last year it took 3 full weeks. I started getting my observing plans in order, purchasing provisions, and getting the equipment ready. But I was also worried about both the weather and wildfire smoke. The long-range forecast for Cherry Springs was a bit 'iffy', but even more concerning was the impact from the wildfire smoke billowing down from Canada. Mid-week, the normally high-altitude smoke layer drifted down to ground level all along the northeast, with NYC, Philly, and even Harrisburg having the worst air-pollution in the world. The photos and video were like something out of a post-apocalyptic Sci-Fi movie! I strongly considered delaying my trip, but the Thursday forecast called for the smoke to clear out starting Friday evening. I decided to stick to my plans, and finished packing the camper & car.

### Friday 06/09/2023:

Waited till 8:30am to let rush-hour die-down before leaving for the park. The drive up was dreary for the most part, with an occasional shower along the way. Off in the distance along the mountain ridges, you could see smoke limiting the view. Fortunately, the closer to the park I got, the less smoke there was.

I arrived at the park at 1:30pm and to my surprise found only one other amateur setup on the field - Brad from the York crew. I had trouble picking a location to setup in,,, too many options,, LOL.



It always feels good to be back at Cherry Springs. The observing field grass had been recently mowed and looked great. I pulled into my usual 'spot' on "Orion Way", and spent the next several hours setting up camp in-between rain showers.

After visiting with Brad who stopped by, I then assembled my telescope: an 8" Celestron SCT optical tube @ f6.3 with a ZWO ASI294MC Pro camera, ZWO filter wheel & focuser, on an Atlas EQ GEM mount, along with a piggybacked Sky-Watcher EVO 50mm refractor with a new ASI294MC camera (uncooled model), and a 60mm Antaries refractor guidescope with an ASI120MC camera. The old ASI290MC camera that came off the 50mm is now attached to the bottom rail of the main optical tube with a small Canon 5.5-50mm CCTV lens as an experimental super-widefield finder, and I also setup the Allsky cam, a ZWO ASI224MC & fisheye lens in a DIY dome.



After dinner, around 7:30pm, the showers stopped and the clouds lifted a bit, allowing me to uncover the telescope, fire-up the laptop, and create flats for the new camera. I then verified that my laptop will seem to adequately run four instances of Sharpcap with cameras connected, PHD, planetarium program, and control the mount without crashing. (fingers crossed that the test results hold-up under real use, lol). After checking the weather radar, I shutdown all the equipment and covered-up the scope. Several waves of rain was coming off Lake Ontario and heading south from NY state. Closed up the camper and car hatch and headed indoors to read. Around 10:15pm, rain began tapping on the camper roof, and there was a brief downpour. Sounds like it is going to be an early night!

### **Saturday 06/10/2023:**

Slept in till 8:30am, woke to a chilly clear morning. Then enjoyed a leisurely breakfast. Sat around camp, tweaked the telescope and created new flats. Visited with Brad. Late morning other astronomers began to arrive, first was Tony D who setup camp down in the SW side of the field, then imager Adam N and his Tab camper who went down by Tony. Then Paul pulled in with his new camper and setup next to Brad, followed soon after by ORAS member Dean S, who pulled in next to me. A little while later Kiski/ORAS member Denny H arrived and setup to my other side. Several others pulled in and setup around the field, including our buddy Gordon M from Canada who setup across from Denny and I.





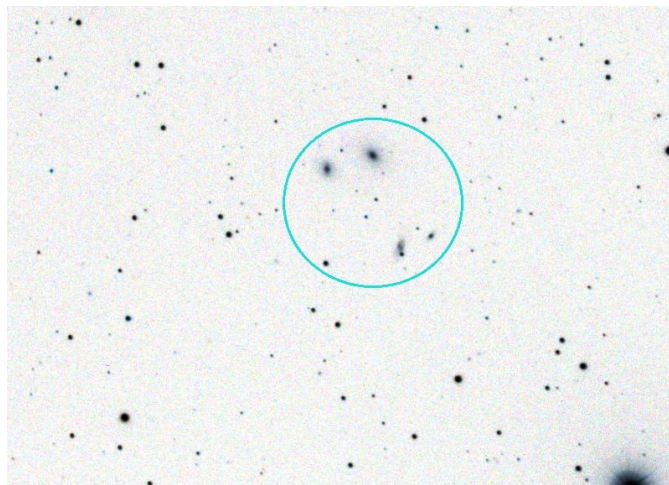
Spent time visiting with Dean, Denny, and Gordon, and Paul. Sat around camp and read a little, then headed indoors at 6pm to make dinner. After phoning home at 7pm, I assembled the blackout tent in back of the teardrop camper clamshell and prepared my observing notes for the evening.

At dusk, Denny, Dean, and I waited patiently for Polaris to appear. Took longer than expected due to the wildfire haze, but eventually, we were all polar aligned. I then pointed the telescope to Vega and focused the cameras, and tweaked their alignment with one another. While in Lyra, I stopped in for a quick visit with the Ring Nebula, M57, and then globular cluster M56.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, for M57 = 60 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 3 minutes, for M56 = 15 second subs for 5 minutes).

I then slewed the scope over to Hercules and hunted Hickson compact galaxy clusters. (HCG81, HCG82, & HCG83). The best looking one was HCG82:



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

Around 1:30am I decided to experiment a little with the 50mm EVO wide-field scope and the Canon zoom lens set to 10mm, comparing the views with the 8" SCT. My first target was the North American Nebula - NGC7000, along with the Pelican Nebula - IC5070. With the object centered, only the 'Florida' peninsula could fit in the  $\frac{1}{2}$  deg FOV, but the 50mm framed both nebula nicely (2.6 deg FOV), and the Canon 10mm (17.5 deg FOV) captured not only the nebula, but the nearby star Deneb, along with a rich section of Milky-Way! WOW! That was a widefield!





(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 30 minutes). (50mm EVO @ f4.2 ZWO ASI294MC camera with IR filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes). (Canon 5.5-50mm set to 10mm, ZWO ASI290MC camera with no filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

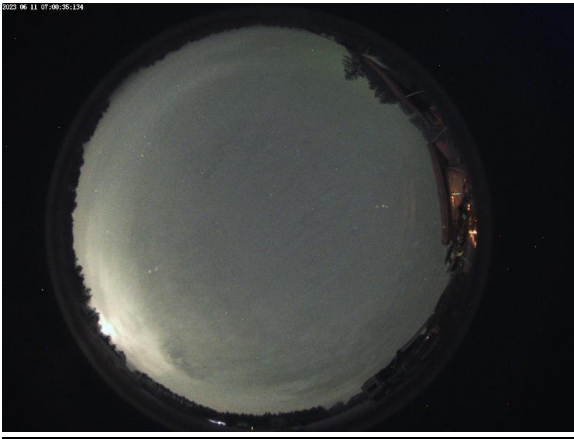
I then slewed the telescope over to the southern horizon and M8 - the Lagoon Nebula to repeat the same test. Unfortunately, the sky was a bit hazy in that section of the sky, and the 3<sup>rd</sup> Quarter Moon rising over the tree tops nearby prevented me from including the Canon lens in the test. Still, I was very happy with what the 50mm could do.





(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 30 minutes). (50mm EVO @ f4.2 ZWO ASI294MC camera with IR filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

By now the clock was going on 3am, and with a 3rd quarter moon rising higher in the eastern sky illuminating all the haze, I called it a night, powered down the telescope, and headed to bed.



### **Sunday 06/11/2023:**

Woke around 9am to a hazy sky. For most of the day, it was off/on clouds and haze, moderate temps with an occasional breeze. Mid afternoon, the breeze died for a couple hours and it became humid. Later in the afternoon, the breeze picked back up and cooled things off.

More amateur astronomers arrived at the park, including Doug and Jim who joined Tony in the southwest field, and ORAS member Gary S who setup next to his brother Dean S.



I spent the day sitting around camp, processing a few EAA deepsky captures from the night before, reading and visiting with the group, and tightening down my canopies in anticipation of rain pushing it way in from the southwest later that night. Late afternoon, Gordon, Denny, and Dean gathered over under my canopy. While we were there, Adam N dropped by to say hello.

Around 6:30pm, we all gathered over at Dean's camper awning for a group dinner of cheeseburgers grilled by Denny. While cleaning up from dinner, Tony D stopped by to visit. At dusk we walked down and visited at Tony's camp with him, Doug, and Jim. Didn't stay too long as soon it began to sprinkle, so we hurried back to our camp area and everyone headed indoors. I spent the evening reading and surfing the internet, listening to the rain hitting the camper. Around 11pm, I called it a night



#### **Monday 06/12/2023:**

Up at 8am to a dreary day. Just an occasional raindrop remained from the overnight shower, but more rain was on the way and the day was looking to be a washout. There was a slight chance of clearing around midnight to look forward too, (if I stay up, lol).

Spent the morning visiting with a few of the guys, and once showers began to pickup, I headed inside the camper to read. The rainy weather held the outdoor temps into the low 60's. Around 11am, the power went out.





A little later on of the park rangers came by and told us that the power was out for the entire mountain top and it had been called in to the local utility. (Probably a tree down somewhere).

The rain soon became heavy with winds gusting into the mid 20's, whipping the canopies around. Fortunately, my previous day's work of battening down held everything in place. The Explore Scientific camper van was not so lucky, as they lost their awning. Finally around 1:30pm, the power came back on. Yay! Heavy rain continued during the afternoon, with the observing field gravel roads starting to look like trout streams.



But still a few new attendees arrived, including Mark who setup with Brad and Paul. And also, Clyde from Ohio, with his clamshell tab.





With the rain continuing into the early evening, everyone was on their own for dinner. Finally, by 7:30pm, the rain moved off and everyone came out to slish around the field visiting. After reviewing the latest weather forecast, we all abandoned any hope for observing later that evening. At 8:30pm, the five of us gathered over at Dean's camper for snacks and to discuss and solve the astronomical issues of the day,,, ☺ Called it at night around 11pm and walked back in drizzle to my camp. Early to bed.

### **Tuesday 06/13/2023:**

Woke early to a partly sunny sky. According to a few folks who were up, after 3am, the sky went partly cloudy with a few stars shinning thru the sucker holes.

After breakfast, I visited with Dean, Denny, and Gordon. The Sun was out and soon drying off the field and our camps. At 9am, the tent crew arrived and setup the Vendors and Registration tents. Around noon, I drove down to Lyman Run for a shower and then lunch back at camp.

Another front was beginning to move into central Ohio, pushing more clouds over Cherry Springs, and wind gusts began to pickup. Went for an afternoon walk and visited with Paul & Mark, then headed over to the SW to visit with Eric L, who had just arrived and was setting up, and then with Doug, Jim, Tony, Chip, and John O who was had also just arrived at the park ad was setting up his tent. Spent the rest of the afternoon indoors reading and surfing.



Late in the day, the group gathered our chairs and met over under Dean's camper canopy and Denny prepared a spaghetti dinner for the group. We then sat around after dinner and snacked on homemade cookies. Tony D and later Eric L stopped by to visit. At 8pm, light raindrops began to fall at first, then a heavy rain started that sent everyone back to their campers. I listened to the radio and read before heading to bed early.

### **Wednesday 06/14/2023:**

The rain continued throughout Tuesday evening into Wednesday morning, with the occasional wind gust waking me. Finally got up a little after 8am to a cool, dreary, wet morning.

Around 10am, the rain let up and the clouds began to break. The park and starparty staff worked on getting the needed convention infrastructure in place, setting up the food vendor tent and the sidewalls in the main tent. Our group came out of our campers and enjoyed the warm sunlight while visiting. But around 11:30am the backend of the spiraling weather pattern moved in and before long a new round of rain sent everyone back indoors.



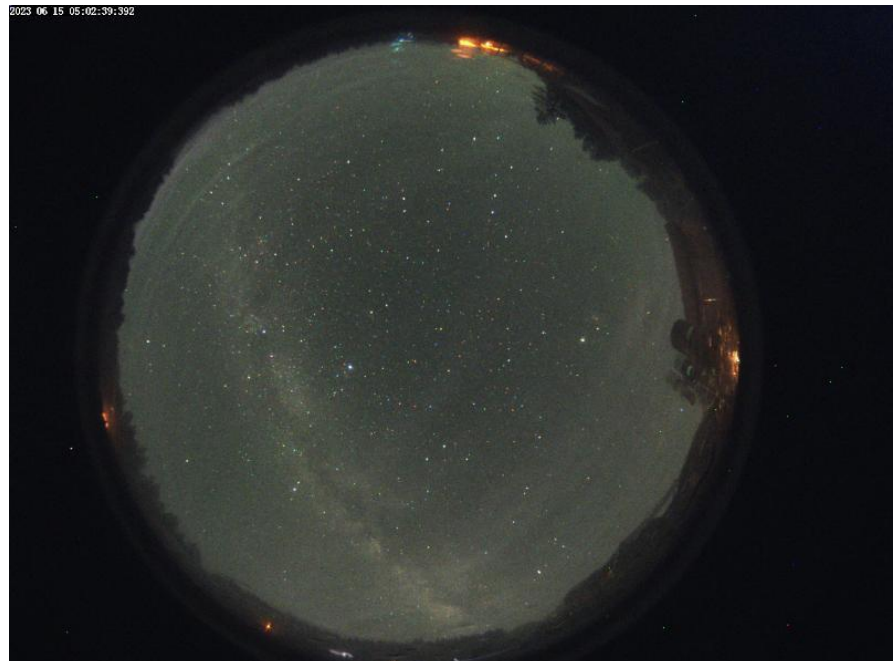


The rain continued off and on thru the afternoon. More amateurs continued to arrive, for the starparty and anticipation of clear skies later that evening, including Molly W, a columnist from Astronomy Magazine, from Dayton Ohio with her tab S model camper. And Jeff from CCTS arrived with his crew (Frank & and William).



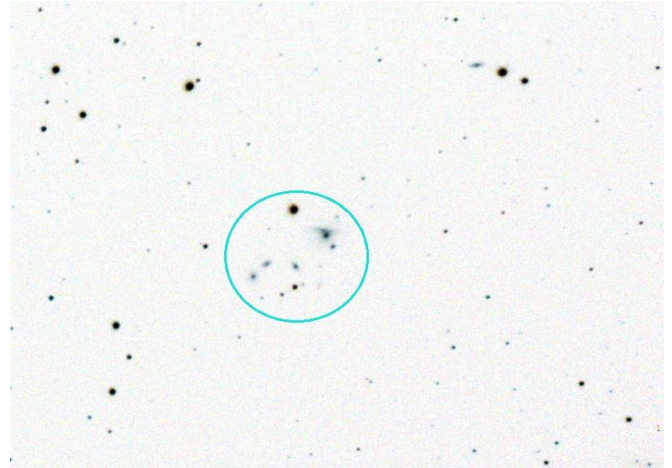
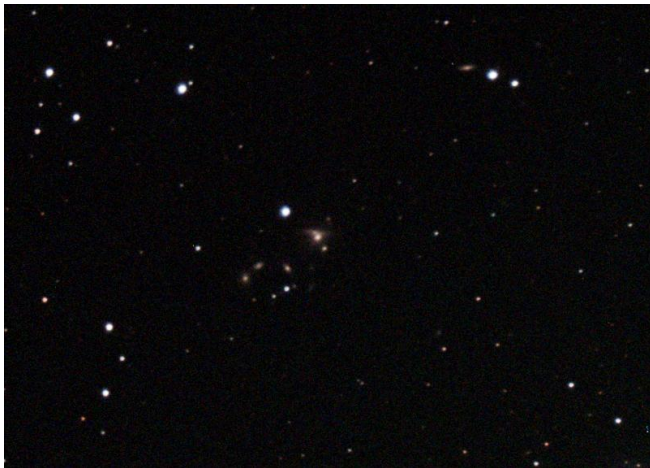
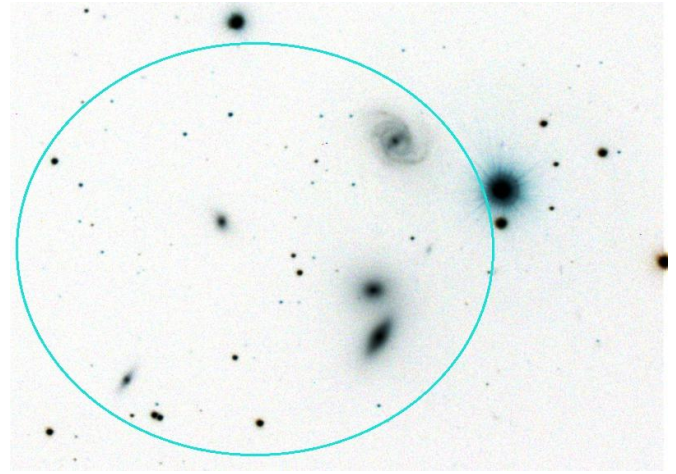
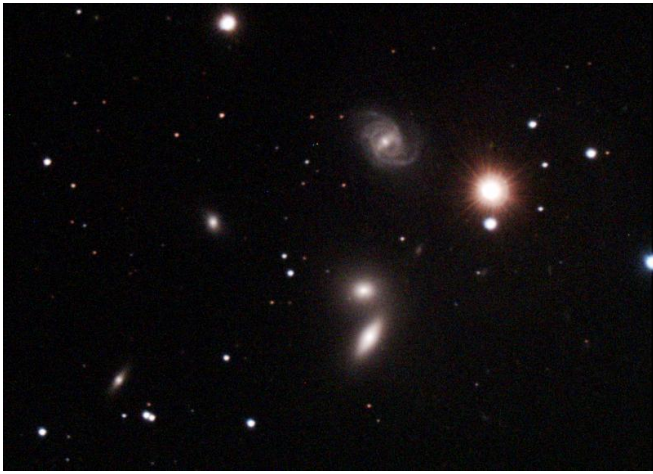
Around 3:30pm, the rain came to an end and the Sun began to shine thru partly cloudy skies, helping to dry off the field. The food vendor arrived and was soon selling sandwiches. After dinner, I setup the laptop in the back of the clamshell, but with a few stray showers to our NW, I held off on assembling the blackout tent or uncovering the telescope. By 10:30pm, the last of the stray showers had moved off, but the sky remained cloudy. The clouds were forming right over the mountain from all the moisture evaporating from the earlier rain.

Then around 11:30pm, it cleared off nicely, with the glow of the Milky Way softly rising in the eastern sky. But within an hour the sky was once again obscured by the clouds. Dean and Denny called it a night, but Gary, Gordon and I stuck it out. Molly came over to visit and see my tab camper setup, and Gary and Gordon also dropped in. Around 1:30am, it once again cleared, allowing us a little time under dark skies. But within the hour it clouded over again. Gary called it a night, but Gordon and I stuck it out till 3:30am fighting sucker holes.



With all that, I was only able to EAA observe two new Hickson galaxy clusters. HCG68 in Canes Venatici, and HCG75 in Serpens. Here's both clusters:





(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

And I was only able to get in a single 3 minute observations of the Cygnus/Sadr region using the 50mm EVO:



(50mm EVO @ f4.2 ZWO ASI294MC camera with IR filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

With the Moon lighting up the sky, I finally gave up and headed to bed.



**Thursday 06/15/2023:**

Slept in till 9am. After breakfast, Denny and I walked over to the vendor tent and spent some cash with CCTS. (Dean also dropped a few bucks for a new WO 71 redcat refractor). Back at camp I installed my new L-Pro filter on the ASI294 & 50mm and added a few heater strap to the little canon lens.

At noon we all officially registered for the starparty. The field was beginning to fill. More campers flowed into the park during the day, including Carol from Vermont & her son Joe from Philly, And Roxanne K from ASH. Also, Trinna C and her son from NJ. And Trevor from Astrobackyard and his better-half were here in a Tab400 camper.



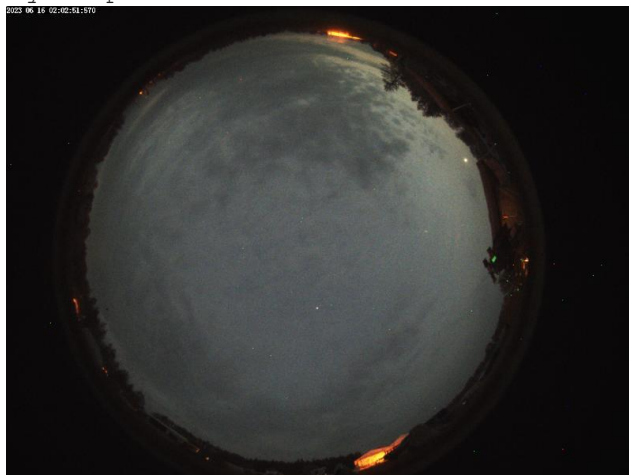
But several folks decided to pack up and head home, due to the poor weather forecast, including Gordon and Denny. Soon the spots that Gordon and Denny had vacated were filled. Dean and Gary decided to stick it out for one more night. There were probably 200+ folks now on the field. Late that afternoon, Dean cooked up the last of the hamburgers for dinner for the three of us. Afterwards, Gary and I took a stroll around the field and visited with Tony and then over to the far western edge of the field with Eric L. Ran into several CloudyNighters, including Will, Rich, and George. (and his friend Mark) Next time, we should organize an informal CN meet-up during the starparty.





We also ran into Chris P from the ORAS club.

Gary and Dean then packed away their telescopes and camping gear as they were pulling out in the morning. I prepped my blackout tent and observing notes in hopes (futile) of clear sky later. We then sat around under my canopy watching folk's pass by, waiting for darkness. The three of us walked across our section's common area to catch a view of Venus thru a large refractor setup by Skip B from the Westminster Astronomical Society.



With the sky being mostly cloudy and smoky, Dean and Gary then decided to call it a night. I covered up my telescope and packed away the blackout tent in anticipation of the overnight rain. I then walked down to the southern section of the observing field and visited with Tony, Doug, John, Roxanne, and others of their group, watching the thickening clouds till about 11:30pm. Then walked back to camp and bed.

#### **Friday 06/16/2023:**

Up at 8am to a grey, damp day. Most of the heavy overnight rain had gone to our south, but we did get a few light showers. Gary had already packed and left for home, while Dean was also in the process of packing, and was soon on the road. Within a few hours, both of their open spaces was filled by new arrivals.

After breakfast, I headed down to Lyman Run and once back at camp, prepared for giving my talk later that afternoon. It was cloudy and drizzle here all day, though we did get an occasional sighting of the sun. I walked over to the pavilion and sat in on Roxanne K's talk on her occultation trip to Australia. Very interesting! Learned a few tips, outside of the major population center, most of their 'highways' are only two lanes. Once you are off the main highway, the 'roads' are all dirt. If you rent a car, always get the extra insurance. Always fill up the gas tank at every chance. Good stuff to know if you ever visit down under.



At 4:15pm I gave my presentation to about 50 attendees on observing Planetary Nebula. The talk went well with good questions afterwards. I then headed over to the food truck for a bacon cheeseburger & French fry dinner.





The weather for the late afternoon into early evening remained mostly cloudy. With showers moving into the region at sunset, I folded up my camping chair and headed indoors for the evening. Read and watched TV a little, another early to bed night.

### **Saturday 06/17/2023:**

Woke around 8pm to a sunny, clear sky. The temp soon warmed into the lower 60's heading later to the upper 60's, and the Sun, along with a light breeze, soon dried off the observing field. People were up and about the field enjoying the change in weather.

After dressing and breakfast, I headed over to the Swap Meet. Afterwards, I went for a quick stroll around the observing field and took a few photos.





Throughout the day, the wind was breezy with an occasional strong gust that blew over several canopies. The Sky wasn't a crisp dark blue, but a little hazy from smoke. The forecast for the evening was clear skies but below average transparency due to smoke moving in. Took in the 1pm talk by Colin M on beginning astrophotography. He did a great job!



After lunch, I headed back to the pavilion at 3pm for the Cherry Springs manager Scott Morgan's park report. Major park roadwork will be next year. Hopefully start in the spring. Still getting all the paperwork in order to let the bids this fall. Estimate that the work will probably take about six months once it starts. Woodsman show will be moving across the field when the road project is completed. After the main road project is done, then the park will see about fixing some of the water drainage and holes issues on the observing field, and put in French drains along the roads. Scott talked about the new traffic patterns on the public side entrance with new posts being installed to direct exiting traffic away from the observing side. Should be a good temporary fix until the major road project is completed. Also, the park will not schedule any public events during starparty weekends to help keep crowds down from trying to walk across the street at night. There were 177,000 public in attendance last year at the park. Staffing - full time night sky educator (Susan) and an environmental person, plus a summer intern, in addition to the two law enforcement rangers and one information ranger.



Darksky fund report by Chip, (from ASH), The DSF folks have a new official vest to wear. They will act as "Ambassador's" when at the park, and will be on the field wearing the new vest and handing out new Cherry Springs etiquette cards. The DSF is also planning on installing 2 to 3 new power pedestals along Nova way. (Along the west field split rail). Scored on the raffle, winning several nice astronomy books from Firefly publishing.





After dinner, I uncovered the telescope and setup the blackout tent. I then went for another walkabout around the observing field to see all the uncovered telescopes, stopping in to talk with Mark, Rich, Clyde, Tony, Doug, Jim, Roxanne, and Eric. The observing field had really filled up, and it was beginning to look like it might be a good night.



Back at camp, I changed into my heavier clothes and prepped my observing plan notes.

Once dark, I had several visitors drop by to see my setup, including Carol and Joe, and Trinna and her son. Enjoyed explaining my EAA setup to everyone.

While the night was a little soft at times in transparency due to the wildfire smoke, the sky conditions was still good enough to see the Milky-Way and get in some decent observing.



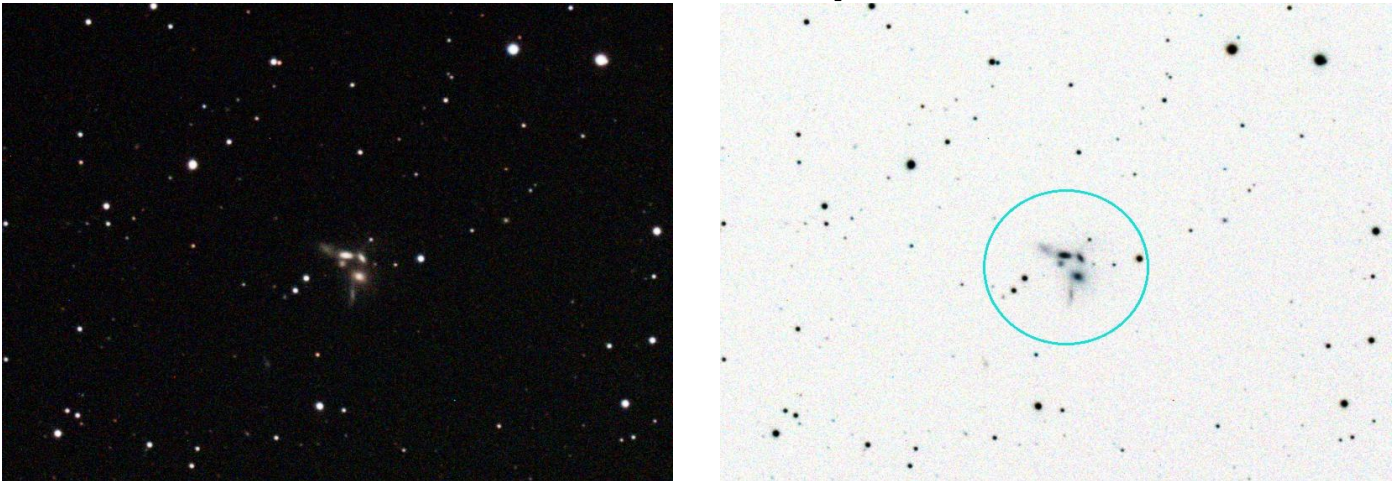


I warmed-up with globular M13 in Hercules, using all three cameras/lenses for different livestack views.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using SharpCap for 30 minutes). (50mm EVO @ f4.2 ZWO ASI294MC camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using SharpCap for 15 minutes). (Canon zoom set to 10mm, ZWO ASI290MC camera with no filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked for 15 min).

I then moved on to a trio of Hickson Galaxies in Serpens: HCG76, 77, & 79. Best is HCG79:



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 3 minute subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using SharpCap for 15 minutes).

Around 1am, the sky transparency went very soft from high altitude smoke, dimming the Milky-Way considerably. I tried to EAA observe several SH2 nebula over in Ophiuchus, but ended up wasting my time. At that point, a lot of folks called it a night.

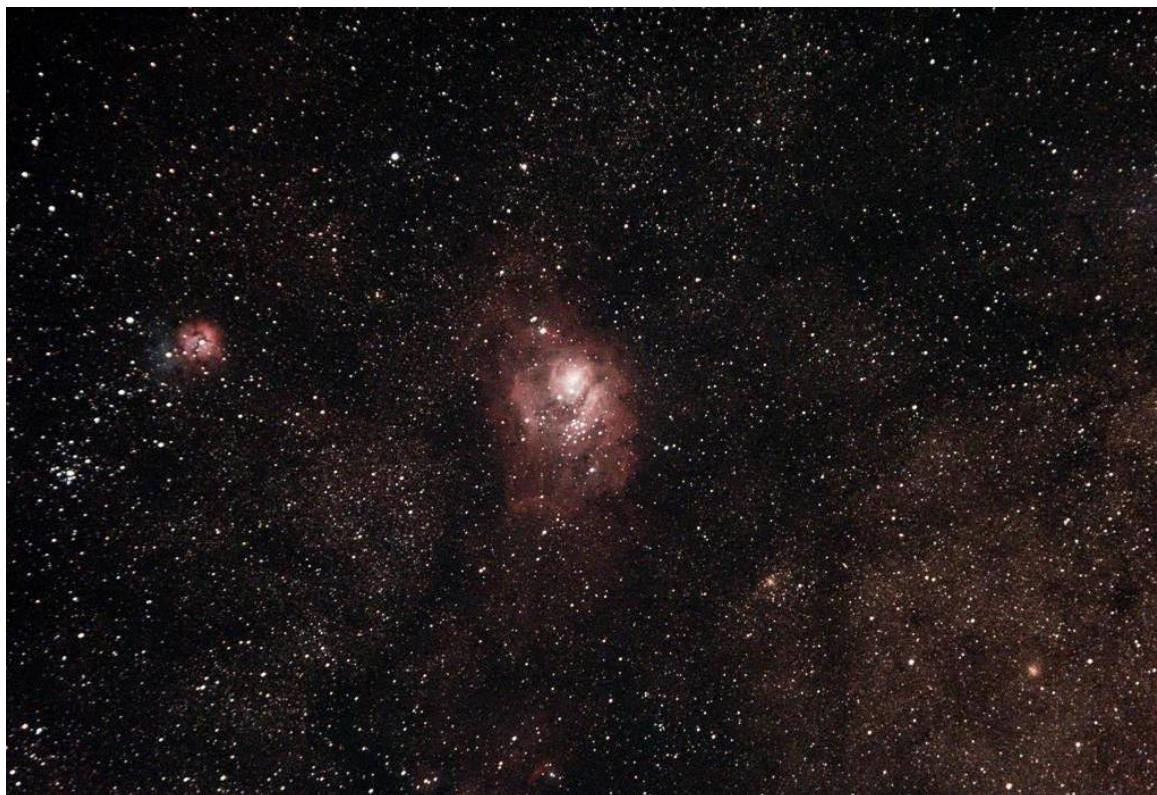
While killing some time testing the 50mm scope/camera, Eric L dropped in for a visit. Then at 2am, the haze seemed to move out and the sky transparency improved.



With the telescope still pointing over in Ophiuchus, I quickly got in observations of the Snake Nebula - B72 (using the EVO50mm & 8" SCT), and then M24, the Small Sagittarius Star Cloud (using the Canon Zoom @ 10mm & the EVO50mm), and finally, back to M8 - the Lagoon Nebula (using the EVO50mm).







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I also went back to NGC7000 in Cygnus for a quick view, but didn't save any of the observations. Finally, with dawn beginning to brighten the eastern sky at 4:30am, I powered-down the scope, zipped-up the blackout tent, and crawled into bed.



Here's the AllSky overnight time-lapse: <https://youtu.be/Ti9SniylERk>



### Sunday 06/18/2023:

Woke up at 8am, everyone around me is packing up to get out of dodge, with most of the little tent campers already gone. But there are several folks around the observing field that were staying for another night or two. As I'm already setup, it kind of makes sense to put one more night in.

I also wanted one more night to try taking the super-wide field Canon lens off the main scope. The dew shield from the 8" SCT was partly blocking the widefield lens. It was also difficult to reach the lens setting adjustments to change the zoom and refocus when mounted underneath the main tube. I wanted to see what the lens could do and how easy to use it on a stand-a-lone tripod. Additionally, I had learned during the previous observing sessions that my laptop was struggling with running four instances of Sharpcap at the same time, particularly impacting the AllSky camera causing it to drop multiple frames sometimes over a several minute period, which doesn't make for a smooth timelapse. So I was thinking of powering the Canon lens/ASI290MC camera off and only using it when I wanted to try observing a specific object with it.

Packed up the camper shade 'visor', then the canopy over the car along with other unnecessary camping gear. Then took a long afternoon nap. Got a bit smoky here at CS. You could see a light haze across the observing field and even smell it!

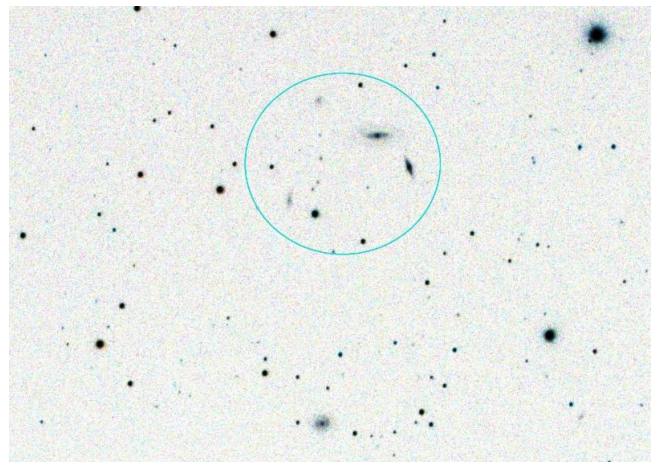
Probably about 50 people now on the observing field. At least a dozen new amateurs arrived during the afternoon. The only ones left that I knew are Tony, John O, Mark from the York group, and Eric L, who I stopped by to visit later that evening before sunset.

Observing actually wasn't too bad as long as you went after objects that were high elevation. While I EAA observed both globular clusters M5 & M13 using the 8" SCT, I also was able to pull-in Hickson Galaxy clusters HCG55, 78, 80 & 85 in Draco. Here's the globular EAA observations:



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 15 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 5 minutes).

Then here's HCG78:





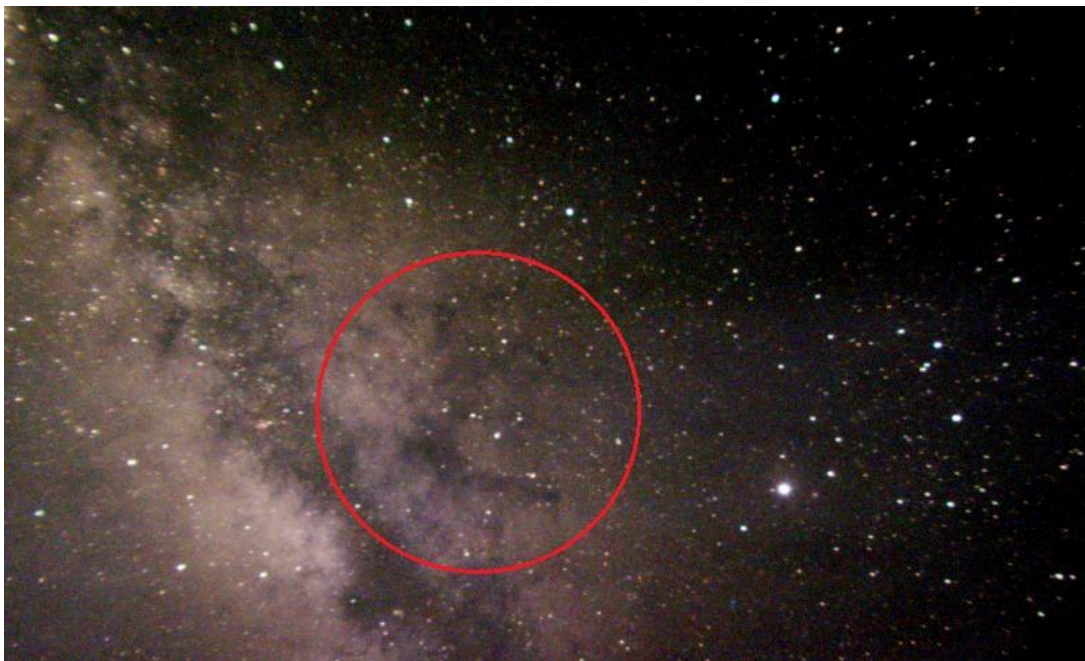
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The little Canon Zoom lens, now on a tripod, was working nicely as a way to monitor what my main scope was up-to, along with showing a bit of sky. "Son of GutterCam" rides again!



There was a bit of excitement tonight here at CS. Around 11:30pm, a Ford pickup truck parked down by the pavilion fired up its lights and went flying down the gravel road, stopped in front of the closed gate, honked it's horn a few times, then crashed thru the man gate. Heard crashing sounds, but the truck kept going. Looks to have snapped a few tree branches and clipped one of the posts. Crazy! One of the rangers came up and took a report from the folks who witnessed it.

Shortly after midnight, noticing the Milky-Way glowing softly thru the haze in my AllSky camera, I hand-pointed the tripod-mounted Canon lens a little higher and was able to get in an observation of the Galactic Dark Horse using my widefield 5.5mm Canon CCTV lens set to 5.5mm and ZWO ASI290MC camera.



(Canon 5.5mm, ZWO ASI290MC camera with no filter, 60 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using SharpCap for 6 minutes).

Eric L stopped in to visit around 1:15 am. After Eric had left, I decided to try for one more object before calling it a night, the +17.4 Mag "Twin Lensed Quasar" in Ursa Major. It was barely there, and given the sky conditions, I think I'll come back another night.

Knowing that I still had quite a bit to pack in the morning, along with a long drive, I reluctantly shutdown the telescope & cameras and headed to bed.



**Monday 06/19/2023:**

Up at 8:30 am to begin packing. A number of folks had already left, and most were packing to go home. After about 2.5 hrs, I was ready to hit the road. Drive home was uneventful, except for the occasional road construction delay. You could still see lots of low level smoke close to ground level, and Pittsburgh looked very hazy when I drove thru later in the afternoon. Made it home by 4pm.

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So that brings this 2023 CSSP trip report to a close.

This year was a bit of a bust weather wise, only 4 out of 10 night's clear enough for EAA observing, but only 2 of which were entire full nights, with even those were mired by wildfire smoke. Still, it was fun just being on the observing field with 400 other fellow amateur astronomers, meeting new folks, visiting with old acquaintances, seeing all different kinds of telescope equipment and campers.

My astro-equipment worked well, I was able to try out my 50mm EVO refractor with my new ASI294 camera and L-Pro filter and experimented with the little 5.5 to 55mm Canon zoom lens and my ASI290 camera, and my camper kept me warm and dry. All things considered, it was a good trip. I'm looking forward to another trip back to Cherry Springs in the fall, and a return to the 2024 CSSP next June!

A few days later, NPR put out an online report about the starparty:

<https://www.npr.org/2023/06/24/1183490359/astronomy-light-pollution-star-party-astrophotography>

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