

## Cherry Springs, PA - July, 2022

A group of us headed up to the dark skies of Cherry Springs the last week of July for the New Moon. We had originally planned on going south to Calhoun Cty Park and their new observing field, but the weather forecast was dismal for that location. As it was, we held off until the 25<sup>th</sup> to make our decision on where to travel too. With the camper and car packed on the previous day, all I needed to do was wait for the Pittsburgh rush hour to subside. For most of the week at Cherry Springs, I was joined by several fellow ORAS/Kiski Astronomers hooligans, Denny H, Dean S, and his brother Gary S. Up thru Friday afternoon, 7/30, there wasn't more than 25 upwards to 45 folks on the field, depending on the day. But that all changed on Friday afternoon. We guesstimated that there were probably 250+ people on the field Saturday evening. It was like a big starparty capacity crowd, but without the supporting infrastructure.

While I spent most of the week hunting small faint Abell Planetary nebula that don't look like much, I did do a little sight-seeing / EAA observations among the Messier and a few other objects.

### Monday 7/25/2022:

Waited till 9:30am before beginning the drive north to Cherry Springs. Needed to wait for the Pgh rush to die-down, which was made worse this morning by heavy rains moving across western Pennsylvania at dawn, causing local road flooding. Once on the road, the traffic wasn't bad, except around the Rt28 construction. The skies started off a dreary gray, but once I had driven north of I-80, the clouds began to break and it became a pleasant drive, especially along my favorite part of Rt555 towards the little town of Driftwood in the "PA Wilds". I arrived at the park just before 3pm to find Dean S there and setup. By the time I had my camp in order; Denny H was pulling in, soon followed by Gary S. The sky had cleared to a pleasantly sunny and cool afternoon, good weather for assembling telescopes!



My usual EAA setup consists of 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 domed container on a tripod mount. A little later in the afternoon, Jim B from New Jersey pulled-in with his brand new Tab camper and setup directly across from me. After introductions, Jim gave us a tour of his new astronomy accessory/camper. Very Nice!

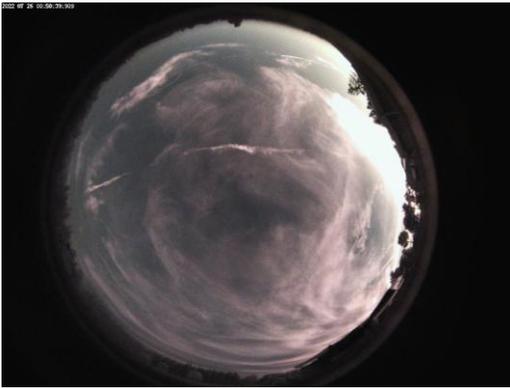


Around 7pm, Dean pulled out his grill and cooked brauts for all four of us, with each of us kicking in something for the meal. After cleaning up, I assembled my new blackout tent that goes over the back clamshell of my camper.



I then uncovered the telescope and connected and powered on the laptop and organized my observing plan for the night. For this trip, I had a number of faint Abell planetaries that I wanted to work, along with several interesting nebula mentioned in the July & August issues of Sky&Tel magazine.

At sunset, a thick band of clouds moved in from Northern Ohio, obscuring the southern horizon, along with cloudy tendrils reaching overhead. It did not initially look optimistic for clear skies that evening, with the weather satellite showing the clearing line right above us. Fortunately, the clouds were expected to drop south away from us over the course of the evening, giving us hope.



By now, there were about 30 amateur astronomers camped out on the observing field, including a pair of newbie's that tried to cook their dinner with a wood fire out in the middle of the field. Several of us walked over and nicely explained to them that there were no open wood fires allowed due to all the expensive optical equipment on the field. Seeing that they already had their dinner about half-cooked and the smoke wasn't really blowing into anyone else's' camp, we told them it would be ok to finish their meal preparations and we asked them to put out the fire as soon as they were done cooking, which they agreed too. We also told them about the location of the grill boxes over behind the pavilion if they should need to cook anything else.

Shortly after dusk, while Gary, Jim, and I were helping a late arriving amateur astronomer (Ben) thru the previously closed gate and guiding him to a spot on the field beside one of the old domes without having to turn-on the car headlights, the wood fire newbie's decided that would be a good time to set-off fireworks at their site in the middle of the observing field. (It was a nice roman candle type fountain display,, lol). Several of the other amateur astronomers who were camped over in the SW section of the field rushed over to talk to the newbie's, and there were no other on-field 'issues' for the rest of the night. (except for the expected car headlights from the public parking across the main road).

Before long, Dean spotted Polaris shining in the North thru the thinning clouds, and the scramble was on to get our telescope mounts polar and GOTO aligned. The clouds were now dropping southwards and the sky was opening-up, first to our north and overhead, and by 11:30pm it was completely clear. The Milky-Way starclouds were clearly defined, shining brightly rising to our southeast in Sagittarius and overhead in Cygnus.



After working thru a slew of technical issues with the telescope, cameras, USB cables, and laptop software, I was finally in business and was ready for EAA observing.

I started the evening off with the Crescent Nebula, NGC6888, in Cygnus, where I took a deep-running stack to bring out the faint internal nebulous filaments that gives the object the look of a brain.



(8" SCT optical tube @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-eNhanse narrowband filter, 3 minute subs, dark & flat calibration frames applied, PHD guided, livestacked using Sharpcap for 75 minutes).

The rest of the group was also busy, Dean working the Veil Nebula, and also joining with Denny and myself in shooting the Crescent Nebula. Gary was imaging galaxies. The night air had become chilly, with the temps dropping into the low 50's. A moderate dew was also covering most outdoor camping items, but the optics stayed clear. With the time now well past midnight, I turned to my Abell Planetary Nebula project, focusing on nearby objects in Cassiopeia and Cepheus, riding high in the northeast. Spent the rest of the night there EAA observing Abell's, including Abell185 in Cassiopeia, and Abell's 1,73, 77, and 86 in Cepheus. The best of the lot were Abell 73 and 75:



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

Finally, at a quarter till 5am, with the dawn's early light breaking along the eastern horizon, I called it a night, covered the telescope, and headed to bed.

**Tuesday 7/26/2022:**

Slept in to 10am. Woke to a cool partly sunny morning. Lounged around camp thru noon visiting with the group and comparing observation notes. Mid-afternoon, Mike from Niagara, Canada arrived and setup camp next to Jim.



Late afternoon, I headed indoors for a long nap, and once back up made dinner. I then went for a walk around the observing field, stopping in by the Dog-trot pavilion where a team was refurbishing the shelters windows, and then over to see the new maintenance shed being built at the southern edge of the field.



During the day, several tent campers had arrived and setup, swelling the number of folks on the field to around 45. At 8pm, I prepped my observing plans, assembled the blackout tent, and uncovered the telescope. The sky had gone partly overcast, but the satellite showed a clearing was coming. Around dusk, a little after 9pm, Jim and I closed the park gate for the evening to keep cars from driving in later that night.

With the thinning clouds still partly obscuring the sky, I pulled-out the August Sky&Tel and slewed the telescope over to the Serpent Bearer - Ophiuchus and started the evening's observations with several bright Messier globular clusters. M9, M10, M12, M14, M107, and little cluster NGC6366. (Denny was imaging M55 in Sag, while Gary was on the 'Wizard neb in Cepheus). Here's M9, 10, 12, and 14:





(same scope info as above using the L-Pro filter, 15 second subs, stacked for 5 minutes).

I also EAA observed galaxy NGC6384. Who knew that Ophiuchus had galaxies!! Then it was time to comet hunt by revisiting Comet Panstarrs K2. The comet was now displaying a faint fan-shaped tail with a star-like nucleus and a bright coma as it was moving swiftly southwards thru Ophiuchus towards Scorpius. (Dean also was on the comet).



(same scope info using the L-Pro filter, 3 minute subs, the galaxy stacked for 30 minutes & the comet stacked for 15 minutes).

Then using the September Sky&Tel with its interesting article on Kepler's Supernova remnant (SN1604) also located in Ophiuchus, I made an EAA observation of this object. The article didn't give a finder chart or list the RA/Dec coordinates of the object, so I had to dig that out. (Thanks Google!). Also, the article used a very zoomed-in view of the SNR, which threw me off as to how big the object would look. The nebula is actually quite small, I ended up using Wikisky / (an online image planetarium) to help identify the field and find the tiny little SNR. Here's the observation and a zoomed/cropped version.



## Kepler's SuperNova - SN1604



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

Even though it took awhile to find and confirm the SNR, it's still fun to hunt down and observe these exotic objects.

By now the sky was nearly crystal clear, though a little soft in transparency. I decided it was good enough for hunting Abell Planetary, so I pointed the telescope to Aquila and observed Abell's 52, 53, 56, and 62. The best being Abell 53 and Abell 62.



(same info as above using the L-eNhance filter, 3 minute subs, stacked for 9 & 21 mins).

By the time I was wrapping up the last Abell observation, clouds had begun rolling in around 3am from the southwest. I decided that was a good stopping point and closed up.

**Wednesday 7/27/2022:**

Woke once at 8am, looked out the window at cloudy skies so I rolled back over and slept till 10:30am, LOL! By the time I was awake, over half the folks on the field had packed and left the park. (including my new Tab friend Jim B). After checking the weather, I knew why. The forecast showed rain starting in the afternoon and cloudy overnight. But Thursday evening looked promising, and Friday and Saturday nights were looking great! So I think it's worthwhile spending a day or two camping in the rain for good nights of observing afterwards. Besides, I could use a good night's sleep! ☺

After breakfast, I packed away a few non-essential camping items and after a shower visit to Lyman Run, spent the afternoon visiting with Denny, Dean, Gary, and Mike, or sitting under my easy-up canopy reading. Around 3:30pm, the clouds began to spit a little drizzle, so I headed inside the camper to continue reading and process a few images.

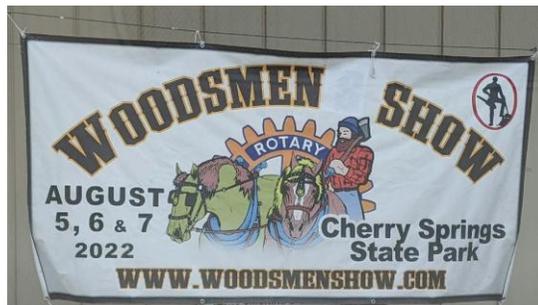
Around 5pm a good hard rain went over the field. But by 6pm, the sky had partly cleared, allowing us to gather outside for a pasta dinner prepared and cooked by Denny & Dean, with all of us contributing additional food. We then spent the early evening sitting under Dean's awning/bug net, with an occasional drizzle going over. At dusk, with fog forming on the field and the bugs becoming interested in having us for dinner, we all headed back indoors to our campers.



As the drizzle turned to a light rain, I flipped on the TeeVee and watched one of the PBS stations that we get over the air. A show was on Nova about the Kepler telescope and exoplanet hunting. Good stuff to watch on a rainy night during an astronomy trip! Soon the sound of rain on the camper's roof began to put me to sleep. Early to bed.

**Thursday 7/28/2022:**

Even with going to bed early the night before, I slept in late till 9am. There was no reason to get up early, as it had rained overnight and it was a gray, cool, damp morning. But around 10:30am, the sky went partly cloudy and soon the Sun was nicely drying out the observing field. Had a leisurely breakfast, (more like brunch), and read a little. Also stepped outdoors and visited with the group. Mid-afternoon I headed down to Lyman Run and then on to Galeton for gas. While there I drove thru the little shopping plaza and snapped this picture.



Yep, it was time for the Woodsmen show, which was why all the astronomers had to be off the observing field by 3pm Sunday!!! ☺

Back at camp, I had barely hung my towel to dry when dark, angry looking clouds rolled in from the west. Soon a heavy rain drove all of us indoors.



Fortunately, other than raining for the next hour, there wasn't any strong wind. Once the sky had begun to clear, I headed back outdoors to visit and sit under the canopy reading. Several new folks pulled into the park and setup camp, including Amy from New Jersey who parked her camper-van directly across from me and setup a nice DSLR tracking mount. With the Sun now out, the field was soon dry, so at 6pm we gathered for another group dinner. Afterwards, I assembled the blackout tent and prepared my observing notes and uncovered the telescope. I planned to continue working Abell Planetary in Aquila, along with a few more globular clusters in Ophiuchus and Sagittarius.

At sunset, after a quick phone-home, I changed into my lighter observing clothes, as the overnight temps were expected to fall only into the mid 60's, not as chilly as earlier in the week. Mike and I then went for a stroll around the observing field, taking a few pictures along the way and stopping in to visit with several folks including Anthony & his son & friends with a new Tab camper and a nice refractor. Also a number of folks from ASH were there, including Roxanne, Chip, and Doug. Roxanne had recently been down under to Australia to participate in an occultation timing of Pluto, and told us about her adventures there, and being able to see all the cool southern sky objects.



Around dusk, light clouds began to move in from the west and soon most of the sky was covered. I did manage to get in a quick EAA observation of bright open cluster M11 in Aquila before the sky hazed over. After checking the satellite image, any observing for the rest of the night was a lost cause. So as the equipment was up and running, I decided to use the time to create a new library of dark frames for using later in the week. Denny used the hazy sky time to re-do his telescope alignment with the brighter stars that were peeking thru the clouds, while Dean and Gary attempted to troubleshoot a problem with Dean's ASIAirwifi. By midnight, everyone had packed in for the night.

**Friday 7/29/2022:**

Up at 8:30am to a partly sunny morning. After breakfast, I visited with Dean who was slowly packing up to head home. (He had commitment on Saturday). Once Dean was on the road, I went for hike along the path that runs along the northern and western edges of the observing field before it dives downhill through a wooded area to finally emerge on the road up to the park. Along the way while stopped reading one of the park nature signs along the trail, I met a couple of ladies also out hiking, (Nicole from Connecticut who is in advertizing and teaches creative writing, and Olivia from Manhattan who works in the New York film industry). Both were beginner stargazers and had heard about Cherry Springs being the place to see the Milky-Way. After sharing that I was an amateur astronomer, I invited them to stop by our camp that evening and our group would show them the sky and our equipment. We then headed off on our separate hikes. The trail was overall in good shape, except for the little footbridge that needed some repairs.



Once back at camp, I drove down the mountain to Lyman Run, but near where the road finally bottoms out from the hill, I was stopped by a tree that had just fallen across the road moments before. While standing there looking at the tree and trying to decide how to turn around, a car came along from the opposite direction, and the driver soon joined me in eyeing the large limbs.



We were just about ready to try and turn our cars around when two more vehicles pulled up and four guys got out. We quickly decided to clear the road and began hauling the branches across the road and tossing them over the guardrail. We hadn't got very far when more cars arrived and soon there were a dozen of us lifting the large limbs. In short order we had the road cleared and were all back on our way. I later reported the downed tree to a park ranger who had a maintenance crew chainsaw the large trunk that was lying alongside the road.

Back at camp, Denny and I went for a drive down Rt44 to Coudersport to buy two tickets to paradise - Mega Millions was up over a billion \$. LOL. On the way back, we stopped for ice cream at the Sweden Valley Mini-Golf. A chocolate malt hit the spot! We then stopped at an overlook along Rt44 with a scenic view of the valleys to the west of Cherry Springs park.



After a quick lunch at camp, I got out my PST solar telescope and shared views of the Ha prominences that were visible along the Sun's limb with our little group and Amy.

After dinner, I uncovered the telescope, started-up the laptop and began capturing AllSky frames. I then went for a walk around the observing field. The clear weather forecast for tonight and Saturday brought scores of new arrivals to the field swelling the attendees to well over 125 people, including Jess from Delaware who pitched her tent across the road from Amy and assembled a very nice imaging scope with a ZWO ASI294mc camera like mine. It was beginning to look like a starparty! Along the walk, I took a few pics and stopped in to chat with the Ash folks.





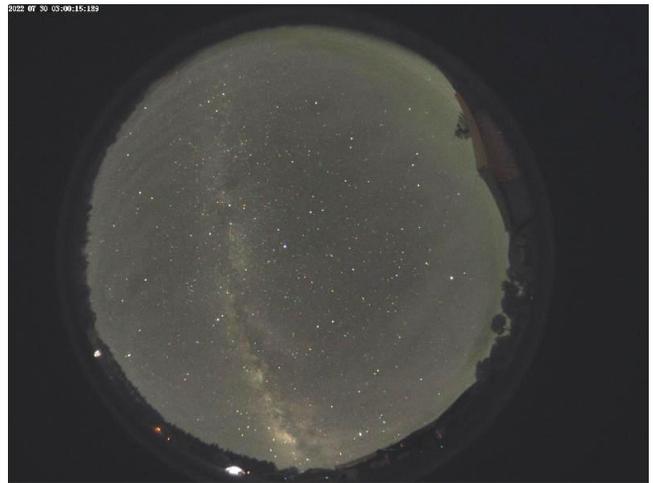
At dusk, I assembled the tent, powered on the telescope, cameras, and laptop, and organized my observing plan. I had several objects from the Sky&Tel magazines that I still wanted to observe, along with a handful of Abell Planetary nebula in Aquila.

The evening started off clear, with only a few meandering clouds, mostly over to the southwest. I began the night's observing warming up on a few clusters, the bright, condensed open cluster M11 in Scutum, followed by the small globulars M69 & M70 in Sagittarius.



(same scope info as above using the L-Pro filter, 15 second subs, stacked for 5 minutes).

While imaging the globulars, Chip from ASH stopped over to visit and see my EAA setup. Then Amy dropped in, also interested in my camper setup and we observed the Eagle Nebula - M16 in Scutum, along with M11. I also showed her how my AllSky camera worked.



(same scope info as above using the L-Pro filter, 15 second subs, stacked for 8 minutes).

As Amy was leaving, Olivia and Nicole, who I had met earlier in the day on the hiking trail, arrived and I spent some time visually introducing them the constellations and

pointing out the Milky-Way, then showed them a number of deep-sky objects, first going back to M11, and M16. I then showed them tiny Abell planetary nebula Abell164 in Aquila, and for comparison, the large, bright Dumbbell Nebula - M27 in Vulpecula.



(same info as above using the L-eNhanche filter, for Abell164 - 180 sec subs for 15 mins, and M27 - 20 second subs, stacked for 7.5 minutes).

The two ladies then settled in with lawn chairs that they had brought, occasionally asking questions about how to find constellations and bright stars using a planetsphere that I gave them. Later, I took them over and introduced them to Mike who shared a view of Saturn thru his 20" Dob. They were quite impressed with the visual view thru the telescope. It was a lot of fun showing the night sky to a couple of excited newbie's!

After our guests left for home, I continued with my Abell Planetary project, capturing two more in Aquila - Abell158 and Abell176.



(same info as above using the L-eNhanche filter, 180 sec subs livestacked for 15 minutes).

With the time now approaching 4am and feeling it, I decided to make one more observation of a nearby Sharpless HII emission nebula SH2-102 in Cygnus. With that observation completed, and dawn beginning to break, I called it a night, closed the scope and headed inside the camper to bed. It was a very fun and good night of EAA observing!



### Saturday 7/30/2022:

Slept in till 10am, woke by a gusty breeze rattling the camper. It was a sunny day, with the usual daytime white puffy clouds. The occasional breeze helped to keep it cool in the shade. After 'brunch', I sat outside under the canopy and read for a bit. I then began to pack a few camping items in preparation of having to vacate the park tomorrow afternoon for the upcoming woodsmen festival. (Which was going to be a shame, as Sunday's weather forecast looked very good). Earlier in the week, a tractor-trailer had delivered a large Bulldozer to the southern section of the observing field. The running joke around the park was the dozer was for Sunday afternoon to push all the astronomers and their telescopes off the field! LOL!



A number of folks around the field packed up and left for home, including Amy who had camped with us for several days. But, more campers came in throughout the day, with the size of the crowd continuing to build.

Got in a long mid-afternoon nap so I would be able to pull one last all-nighter. At 6pm, Gary, Mike and I gathered over at Denny's campsite for a last group meal of the trip. It was a clean-out-your-fridge dinner, with the last of the brauts and sausages and anything else we could throw in.

Once dinner was over, I assembled the blackout tent and uncovered the scope and got the laptop running, capturing frames from the AllSky camera. My observing plan for the night was to visit a number of old favorite summer deep-sky objects and enjoy our last evening.

I then went for a quick walk around the park and took a few more pictures trying to show the size of the crowd, which we estimated at around 250 people.



At dusk, the daytime clouds all dissipated into a clear blue sky, and the temps began to drop. It was going to be a cool evening, so I dressed in heavier clothing. While outside chatting with the guys and powering up the telescope, Roxanne stopped over to say hello and to see my EAA setup. Later that evening, Jess also dropped in to check-out doing EAA. Late into dusk, Denny pointed-out a bright pass of the ISS going directly overhead. We all enjoyed the show and I snapped a phone picture just before the space station disappeared behind the trees to the southeast.



Once it was dark enough, I slewed the scope over to Altair for a quick focus and then sent the telescope over to the scorpion's tail where I EAA observed the big open clusters of M6 & M7. The bright clusters looked good in both the main 8" SCT and the Canon 100mm. Here are both clusters, starting with M6, then M7:

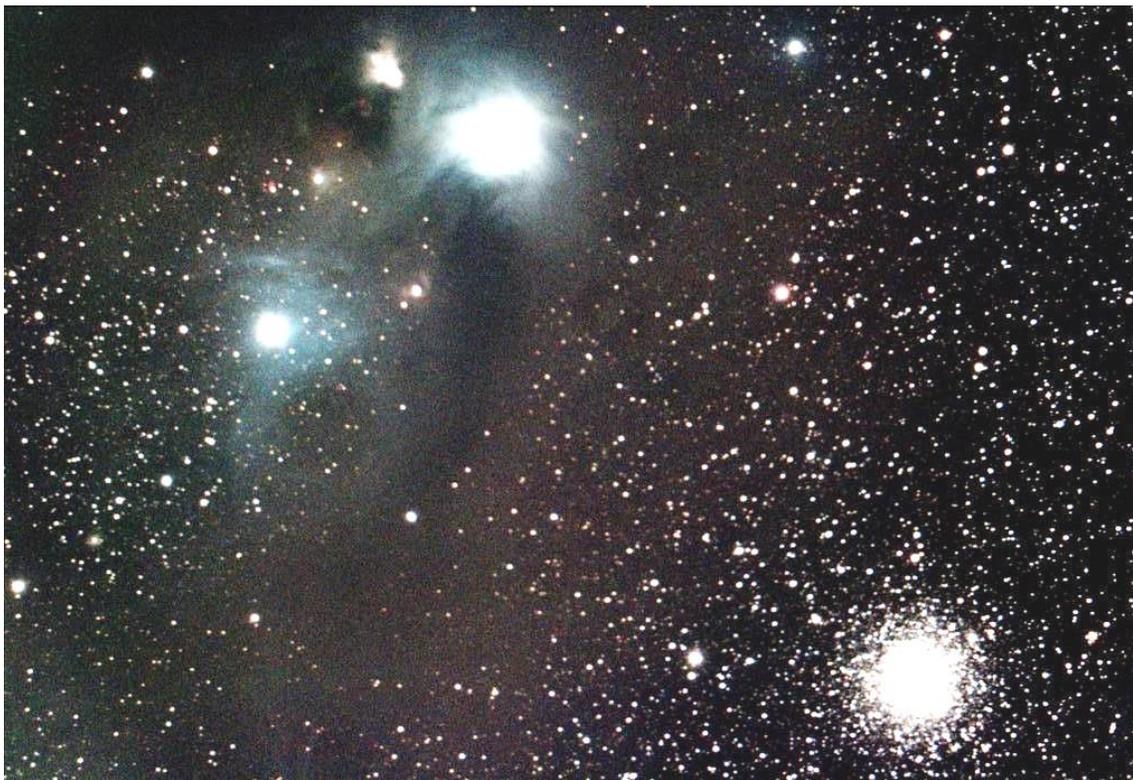


(Canon 100mm lens & ASI290MC, no filters, 15 second subs livestacked for 5 minutes)  
(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC camera with L-pro filter, 15 second subs, dark & flat calibration frames, PHD guided, livestacked using Sharpcap for 5 minutes).

By now, the Milky-Way was shining brightly overhead, and was a beautiful sight. It was easy to visually trace the dark rift from Cygnus down into Ophiuchus.



I moved the telescope over to the southern border between Sagittarius and Corona Australis, to the celestial pair of globular cluster NGC6733 and reflection/dark nebula NGC6726 as highlighted on page 26 of the July 2022 Sky&Tel magazine. Its low altitude of around 10 deg made it somewhat of a challenge object.



The pair was a beautiful sight on the monitor.  
(Same 8" scope info as above using the L-Pro filter, 180 second subs, stacked for 30 min)

After a KitKat / coffee break, I switched over to the L-eNhanse narrowband filter, checked focus and decided to go swimming in the 'Lagoon' - M8.  
Afterwards, it was time for a little Night of the 'Trifid' - M20.



(8" SCT @ f6.3, Atlas Gem, ZWO ASI294MC camera with L-eNhanse narrowband filter, 3 minute subs, dark & flat calibration frames applied, PHD guided, livestacked using SharpCap for 30 minutes).

Then it was time for a 'Swan' dive - M17, and then to fly like an 'Eagle' - M16



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

I then pointed the telescope high overhead to the bigger celestial swan - Cygnus and its bright central star Sadr. There's a lot of great HII nebulously surround the star. With the time flying, I was now running out of nighttime, so I made my last stop for the night to see the 'Wizard' - NGC7380, in Cepheus. (Same scope, 3 min subs for 30 mins).



It was now almost 5am, and Dawn began lighting up the eastern horizon. Time to call it a night and get a few hours of sleep before having to pack. It was an awesome night!



**Sunday 07/31/2022:**

Slept till around 9:30am, woken by the noise of those around me. Gary, Denny, and Mike were already busy packing, and a number of the tent folks had already gone. While stowing the interior camper gear, I had a quick breakfast, and then joined the guys outside to begin taking down the telescope. Gary was the first to leave for home in MD. He was soon followed about an hour later by Denny. I had everything ready by 11:30am and after saying my goodbyes to Mike, and started the drive back to Pittsburgh. Arrived in town by 3:30pm. Once home, I unpacked the car and camper and cleaned-up.

So, six nights in total spent at CS this past week, (Monday afternoon thru Sunday noon), with 4 great nights of observing. Monday night was very good, with Tuesday's sky a little softer. Wednesday night was rain, Thursday night looked like it was going to be ok, but after about an hour it clouded over, (but I did get one observation in, so I guess that makes 5 nights, LOL). Friday night was very good, and Saturday night was in the awesome category. Overall, I am a happy camper!

My next astro-trip will be back to the ORAS Observatory in August for AstroBlast!

Finally, here's a time-lapse video made from Saturday evening, dusk to dawn:

[https://youtu.be/m\\_jOEQOzkxY](https://youtu.be/m_jOEQOzkxY)

Larry McHenry

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