

Black Forest Star Party - September, 2017

Monday 09/18/2017:

After leaving the ORAS Astroblast site, I let the GPS take me north toward Rt6 and then on to Coudersport.

Hit town right during the noon lunch rush-hour and traffic was a mess from all the road work in downtown and along Rt6.

Finally made it to Cherry Springs State park shortly before 1pm. All the 'regulars' in our section were already there.

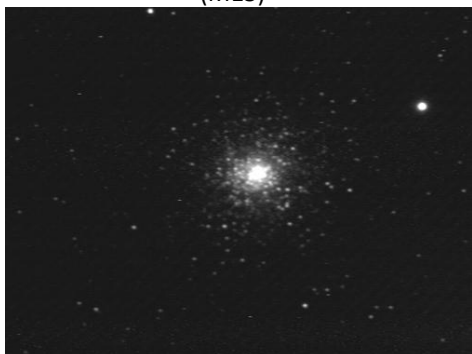
Bob K and Bob N from Kiski Astronomers, Mike from NJ, Nick and Jane, and Dennis from York. Frank W from PGH was across the road to the west, and Bob and Phil from the York area to the south. And further down in the South-western section of the observing field were Gary H, Conrad, and the gang.



A little later in the afternoon, Scot from Canada arrived and took his usual spot by the old Sky-Shed observatory building.

After spending a few hours setting up camp and re-assembling the telescope under hot sunny skies, I headed down to Lyman Run Park to hit the showers. Once back at camp, I headed in for a long nap. After dinner, I uncovered the telescope and visited with the folks in our section, before heading in at dusk to change into warmer clothes. The sky had gone from sunny to mostly overcast. I was hoping it would clear enough to get Polemaster aligned and the mount's GOTO sync'd. Finally, by 9pm, the clouds and haze lifted, and I quickly achieved polar and GOTO alignment with the C-Gem mount and focused the cameras. During the week, I planned on using the 8" SCT optical tube at different f-ratios, my normal f6.3 reducer for Herschel Objects, f10 for Arp galaxies, and a f3.3 reducer that Denny has loaned me for wider fields such as dark nebula. For tonight, I went with the f6.3 reducer. First stop was M15 in the flying horse - Pegasus. I then slewed over to the 'Deer-Lick' galaxy - NGC7331, and then to 'Stephans Quintet'.

(M15)



(NGC7331)



With a little prompting from Bob k, I then headed to Cepheus the King to work in the IC1396 region, capturing several dark nebula including B161 and B163, along with getting the 'snout' of the 'Elephant Trunk' nebula.
(I'll have to come back to this region again on another night to try using the F3.3 reducer)

I then gave chase to the Herschel galaxies in the little bear - Ursa Minor, and bagged NGC5836, 5909 & 5912, and 6331.
With the Perseus rising high in the north east sky, I move the telescope over to my favorite Greek hero and video-observed/captured NGC1122, 1129& 1130, 1138, and 1293 & 1294.

With the sky seeing starting to go 'soft', and the long day of travel and setup catching up to me, I decided that I had accomplished enough for that night so I closed up the telescope at 1am and headed in to bed.

Tuesday 09/19/2017:

Slept in till 9am and rose to a hazy day. After a late breakfast, Bob K and I drove down to the local hardware store in Sweden Valley (Ben Franklin), where I picked-up new set-screws for my 80mm Kson refractor tube rings.

By the time we had got back to camp, the Sun had burned off all the haze and from the weather forecast, the clear skies would continue thru the night. (actually, the entire week looked excellent, clear skies and no rain).

Spent the afternoon sitting around camp, reading and watching other amateur astronomers pull in and setup on the observing field. For several hours, you could hear off in the distance toward the north the sound of jets. It was the local air-refueling wing out for a practice run. While I never did see the actual tanker, I did catch a glimpse of several fighters circling to the north.

By late afternoon, a number of familiar folks had arrived on our section of the observing field. This included Kris and Mic from Pgh, Gordon from Canada, and Brian from E. PA.

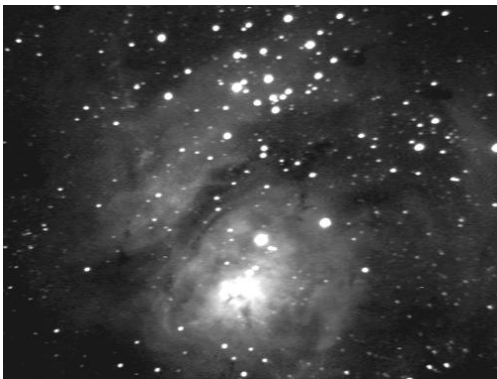
Later in the afternoon, Mike P from Niagara stopped over to visit, and Gary and Conrad stopped by.

I reviewed my observing plans for the night, and decided to hunt dark nebula, so I switched the 8" SCT's visual back to the f3.3 focal reducer to see how well it would perform. Once the Sun began to hit the western tree-line, I uncovered the telescope and prepared the back observing area of my camper. Soon Polaris was twinkling in the deepening twilight, so I took time to tweak my polar alignment with the Polemaster camera, (a great tool).

At that point, Mr Murphy paid me a good visit, as for the next hour I was plagued by equipment issues: loose cable connectors on the video-cams, the laptop freezing up and needed rebooted, dead batteries on the red-dot finder, lousy GOTO slews to the point that I needed to re-do the mount alignment stars - made more complicated by the dead red-dot and having to earlier remove the only eyepiece that I use, as the f3.3 reducer wouldn't focus with the flip-mirror attached.

My attempts to sync the GOTO were so far off that I finally ended up pulling the StellaCam-II camera off the 80mm for the night and reverting it back to a visual finderscope. Finally, I wrestled the unruly telescope back into service and was able to put the f3.3 to the test by video-observing a number of bright Messier Objects: M8, M15, M17, M31 and M33, along with the spindle galaxy NGC891.

Overall the reducer worked well, but I'm not happy about having to pull the flip-mirror with its eyepiece in order to get the main camera - StellaCam-3, to focus.



(M8)



(M17)



(NGC891)

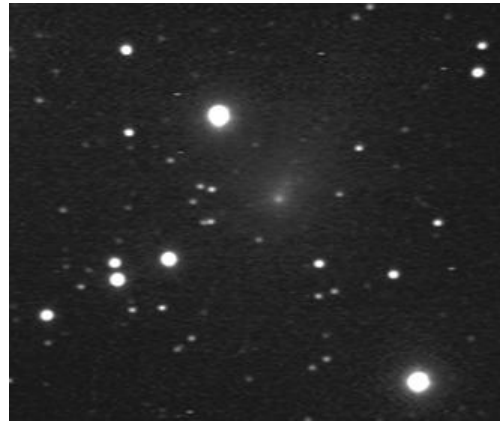
Remembering the previous night's observation of the 'Elephant Trunk' nebula, I returned to the IC1396 region in Cepheus, this time capturing a much larger portion of the elephants 'snout' with the f3.3 reducer.

I then went after the current 'new' comet cruising below the Pleiades - C/2017-ASSAN1, that was undergoing an outburst and brightening. After centering it, and taking a 60 second exposure, I called the guys over to take a look.

To me, it didn't live up to expectations, but any visible comet is a good comet.

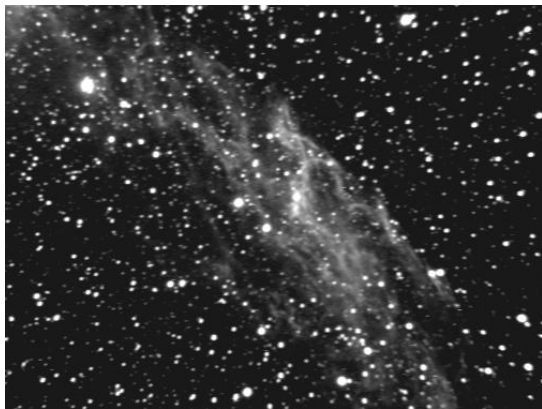


(IC1396 – Elephant Trunk)

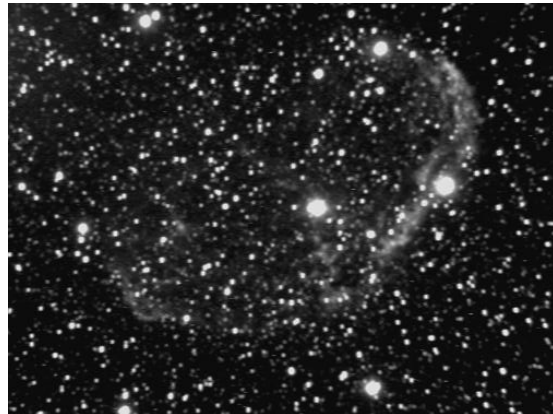


(Comet ASSAN1)

All evening the sky was dark and crystal clear, with the Milky-Way glowing in the South-west. But around midnight, the seeing once again went soft, with the Sagittarius Milky-Way fading away. As the overhead sky still looked great, I spent the next hour high-up in Cygnus the Swan video-observing/capturing all the individual sections of the Veil nebula. They fit nicely in the f3.3 field of view and showed great detail! I then slewed the telescope over to the 'Crescent Nebula' and was able to get it entirely in the video-cam field. Got a great capture from that. With the clock going past 2am, the sky went completely soft and hazy, so most of the imagers, including the Bob's and I called it a night. But Gordon and Brian kept persevering, and by 3am, it had cleared again so they, as Brian would say "went the distance" and observed till dawn. (the next day, they looked like the walking dead,,,,)



(Veil & Crescent)



Wednesday 09/20/2017:

It was a sunny morning when I woke. I uncovered the telescope to let it dry from the previous night's heavy dew. I then removed the f3.3 reducer and reattached the flip-mirror to the telescope's visual back. I decided to run at f10 tonight and hunt Arp galaxies. At lunch-time, Bob N packed-up and headed back to PGH to attend to family business, while Ed K from the Kiski Astronomers and Fred K from PGH arrived and setup in our section. Later in the afternoon, Eric L from E. PA, and Phil D from Canada pulled in and setup down in the southern section of the observing field by Mike P.



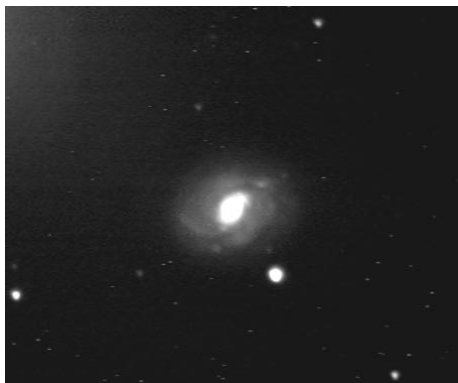
The weather forecast for the night looked awesome, so late in the afternoon, I went in for a nap. More people kept arriving throughout the day, including Michelle from Canada, who setup her camper by Scott. With the great looking forecast, the field was really beginning to fill up, three-days out from the start of the actual convention!! Even Fox's, the food vendor, opened for business! After dinner, Eric dropped by to visit, so Bob K and I walked back over to his camp to visit with Mike and Phil. We were surprised by the number of astronomers filling up nearly all the available space in their area. I'd say there were well over 350 attendees already on the field. While there, we stopped in to say hello to Elliot, Conrad, Gary, and John O from the ORAS club.



With the Sun setting, we hurried back to camp. The dew was already starting to form on the cars, so I switched on the telescope's dew heaters to low and with the air temperature dropping, went in to change. With Polaris visible, I tweaked the Polemaster alignment and then helped Ed K use his for the first time, and then went over to assist Dennis with his. Once they were up and running, I re-did my mounts GOTO star alignment, focused the cameras and slewed the telescope over to Pegasus to begin hunting Arp Galaxies.

It was a great night! The sky was beautifully clear and transparent, with the Milky-Way shining brightly overhead down thru Sagittarius. Many Messier Objects were naked-eye. And the Galactic Dark Horse was faintly visible off the teapots spout, with nearby Saturn helping to locate the prancing pony.

Spent the next several hours video-observing/capturing a number of Arp peculiar galaxies in both Pegasus and Cetus: Arp37 (M77), 46, 54, 118, 120, 249, and 262. Even with the dark skies of Cherry Springs, many of these were quite faint and difficult to locate, even using the GOTO and ECU planetarium program. I also went back to "Stephan's Quintet" to re-image the group at f10.



In the middle of hunting Arps, I began to notice the image becoming fuzzy. So I walked over to the telescope and realized that with the heavy dew, I had forgotten to turn the heater to high. Dew was starting to form on the optics! Argghhhh! I quickly turned the heaters to their highest setting and put all the lens caps back on. Took about 30 minutes, but eventually the optics cleared.

After finishing the night's list of Arps, and taking a few breaks to visit with Bob, Ed, Brian and Gordon, and having some visitors - Eric dropped in to see what I was observing, I got in a little armchair naked-eye observing. The Great Rift in Cygnus and the Scutum Starcloud was outstanding to look at! Even over in the Northeast, you could easily trace the fainter portions of our galaxy extending down from Cassiopeia thru Perseus to Auriga! What an awesome night! Finally, by 2:30am, I was feeling wiped-out and getting chilled, so I powered down the telescope, cameras, and computer, and headed in to bed.

Thursday 09/21/2017:

Slept in till mid-morning. The rental tent folks showed up and raised the vendor, registration, and food tents, and the porta-john company delivered the portable units to the field. Spent the morning recharging batteries and drying out the telescope equipment from the night before, lounging around camp and comparing observations with Bob, Fred, and Ed K. For most of the afternoon, folks came and went, looking for shade under my easy-up canopy. My camp was a popular spot for our section as the temperature and sunny skies overhead reached into the low 80's. During the day on Thursday afternoon, we gave Denny H from the Kiski Club a group phone call. Denny was out on the west coast and couldn't make the BFSP this year. So we caught him up on the week's observing. At dinner, Bob, Fred, Ed and I headed over to Fox's for dinner and afterwards we were joined by Orin for a walk around the observing field to check-out all the uncovered telescopes.





At dusk, everyone changed into their observing clothes and soon were prepping their telescopes. I decided to leave the 8" SCT optical tube at f10 and continue hunting galaxies for the night. Unfortunately, late in the day, the skies had begun to deteriorate, and were now hazy with poor transparency. It was the remnants of Hurricane Jose! Only the brightest stars could shine thru. Tonight was not going to be a useable night for faint fuzzy hunting. (but it was a ok enough for open cluster work, which I wasn't setup for). At that point, I figured I might as well switch the 8" visual back to the f6.3 reducer in case the skies improved enough to hunt brighter Herschel Objects. After getting the SC-3 camera refocused, I slewed the scope over to Hercules in the western sky and centered on M13. The great cluster displayed nicely on the monitor screen. While waiting to see if the skies would eventually improve, Bob and I went for a walk and visited with John, a friend of Gary H's. John had a very nice 20" dob with a nightvision binocular viewer. Even with the poor skies, John had some great views with it. We then headed over to visit with Eric, Mike, and Phil at their camp, commiserating on the lousy skies that had settled in. At midnight, we walked back to our camp, and decided to call it a night. Headed in to bed. The next day, Brian and Gordon told us that around 2am, it finally cleared off, and they were able to observe faint fuzzes till well after 4am.

Friday 09/22/2017:

Woke to a cool cloudy morning. Cloud bands from the hurricane had spun back into central PA. But the weather forecast was calling for it to move out by noon, with sunny skies afterwards.

Mid-morning, we walked down to the vendors tent to visit Jeff N at CCTS and dropped a few bucks while there.



Back at camp, Bob K and Mike M repaired the RJ45 connector on my mounts hand-controller. I had apparently over-stretched it and several wires inside the connector were coming loose, causing the controller to not function correctly. After a little cutting and crimping, Mike and Bob had it back up and working. This is one of the benefits of our Cherry Springs observing group. If someone forgets something at home or has an equipment issue, everyone pitches in to help fix the issue!!

We then spent most of the day trying to stay in the shade, as the afternoon sun was hot. Once again, my canopy was a popular shady place! Later that afternoon, I headed into the camper, turned on a few fans and took a nap.

At dinner, the CPO folks hosting the convention invited the speakers to their club dinner. I headed over to the pavilion and joined in. They presented Chip and Maxine an award for all their years of service at Cherry Springs. It was very nice!



All day the weather continued to improve and that brought more amateur astronomers to the field. The few empty spots around us quickly filled and fresh telescopes soon sprouted up on the field. There was every kind and brand of scope and cameras setup, including a 36" 'Yard' dob!

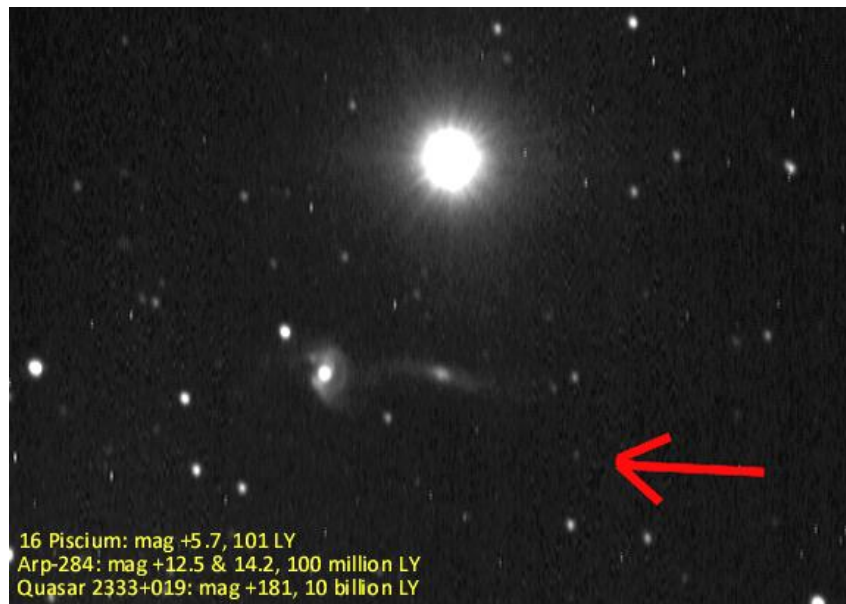


At dusk, everyone in our group powered-up their telescopes, cameras, and laptops, and re-did their polar alignment. There was not a cloud in the sky and transparency was great. Soon the Milky-Way was glowing overhead with the west still a-glow from sunset and a thin Crescent Moon. It was going to be one of those awesome Cherry Springs evenings!



While straightening-up the cables around my telescope, a bright fireball lit up the sky, with a big 'look at that' from the observing field. Of course I was looking down at the time,,,,,,
I decided to work on video-observing Arp galaxies that I wasn't able to work on the previous evening. I focused on the Andromeda - Triangulum - Aries region rising high in the eastern sky.
After several hours of hunting, I soon had captured Arp56, 78, 98, 145, 158, 190, 258, 273, 276, and 290.

I then went after Arp284 (interacting galaxies NGC7714 & 7715) and the Quasar 2333+019 mentioned in the October 2017 'Sky & Telescope' magazine located near the 5th magnitude star 16 Piscium. The authors of the article had used a 48" reflector visually to make the observation, and I wanted to see what my setup would do. With the StellaCam-3 taking a 3 minute exposure, it was quite an interesting view on the monitor: The bright +5.7 star at about 101 light-years away, the pair of +12.5 & +14.2 galaxies at about 100 million light-years, and the +18th magnitude Quasar at about 10 billion light-years, nearly 2/3 the age of the universe!
After grabbing a 3 minute video-capture with my Celestron 8" SCT @ f6.3 and StellaCam-3 video-cam, I shared the view with others around me, Bob, Ed, Gordon, and Brian. Pretty amazing that my 8" doing videoastronomy could replicate the same visual view as a 48"!!! Definitely one of my highlights of the convention!



After that, Bob and I decided to take a break and we walked back over to see John's 20" dob and Gen-3 NV bino viewer. John showed us outstanding views of the Silver Coin galaxy - NGC253 in Sculptor, along with NGC891 in Andromeda, and the Crescent and Veil nebulas in Cygnus. It was neat seeing the night-vision device in action!
We then walked over to the big 36" dob, but with the heavy dew soaking the ground and our shoes, neither of us wanted to climb the 10' ladder to view through it. We then dropped in on Mike and Phil, but missed Eric, as he was also out walking around the observing field. I had hoped to see his Atik Infinity videocam at work on his big SCT. Have to save that for another night. Once back at camp, with the clock well past 2am, I reluctantly decided to call it an early night so that I wouldn't be a zombie the next day during my talk on Saturday. It was a great night of videoastronomy and naked-eye observing. The best sky this trip, so far!

Saturday 09/23/2017:

Woke early and headed down to Lyman run to clean up before the rush. Once back at camp, Bob, Ed, and I visited the swap tables where I picked up a set of finder rings and a dew shield for my home observatory telescope.



At noon, I headed over to the pavilion to give my presentation on "E.E. Barnard and his Dark Nebula". It was a fairly large crowd, and I quickly distributed all 80+ handouts that I had brought. The talk went well with good questions afterwards on the life of Barnard, and observing his dark nebula that evening.

For those interested, you can find a PDF of my talk, along with the handout at: <http://www.stellar-journeys.org/downloads.htm>

Once back at camp, I dropped off my laptop and headed back to the pavilion to check-out the door prizes and to hear the next speaker - Bill Arden, talk on the Sun. Good general info on solar observing! I then stopped in to visit at the Dark Sky Fund tent. With a break in the schedule, I headed back to my camper for a much needed nap. At 4pm, we walked back to the pavilion for the keynote presentation by Dr. Fred Espenak recapping the August 2017 'Great American Eclipse'. Dr. Espenak had a number of great videos and still images from various eclipse teams around the country. Afterwards, I bought his book on the 2024 eclipse to start planning my trip up to Erie/New York. Then it was time for the big raffle prize drawing. Both Ed and I won!! (Ed a weather station and ADM adapter parts for myself). I then hurried over to Fox's and ordered a large pizza for the group. Bob, Mike, Ed, Fred, and I sat under my canopy and devoured it.

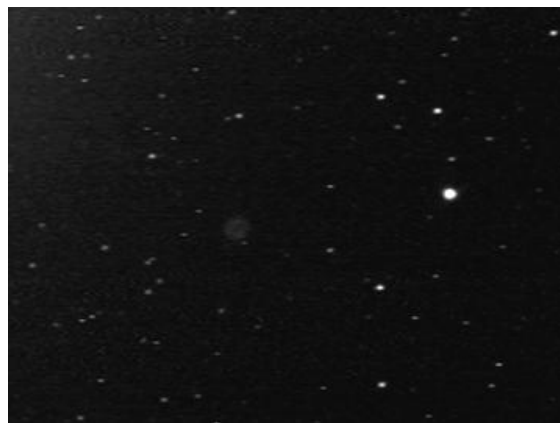


By the time we finished up the last slice, crowds of public visitors for that night's park program from across the street were already walking about the observing field. You could tell that we were about to get very busy. Both Ed and I had volunteered for the Dark Sky Fund's public outreach that night, so as the Sun settled behind the western tree-line, we hurried to change into observing clothes and uncover our telescopes. Once the stars started shinning, for the next three hours it was one giant public starparty with scores of people guided by the red blinking light sticks given to us by the fund, stopping by Ed's telescope for visual views and then next door to my videoastronomy setup. I stuck to showing the planet Saturn and it's moons, along with the basic bright Messier showcase objects, such as the Lagoon and Swan nebulas, the globular cluster M22, The Ring Nebula overhead, and while it lasted - the Whirlpool Galaxy, M51 in the northwest, before it 'set' behind my tent canopy. As each new 'wave' of visitors approached, I would greet them out by my telescope with a red light, explain to them how I no longer looked thru the telescope with eyepieces, but instead used deepsky astrovideo cameras to feed monitors mounted inside my camper's clamshell tailgate. I would then invited them to come inside under the tailgate canopy to look. I would then give them a handout on what they might see that night and explain to them the object that I currently had displayed on the screens. I then showed how I could use the computer to command the telescope to slew to a new object, center it on the monitor, and change the camera's settings to display an eye-popping image! While there were an occasional few 'experienced' amateurs in the groups who easily understood my setup, most of the folks were gobsmacked by how I was doing astronomy. After bouncing about a half-dozen objects or so I would send them over to Ed's telescope or back to the road to continue their visit at another location.

Finally, by 10:30pm, the crush of public visitors ended and I was able to start my observing plans for the night. It was another great Cherry Springs dark sky, so I decided to spend the last evening hunting Abell Planetary Nebulas using the Sky & Tel magazine article from the spring, along with Alvin Huey's observing guide book. These objects are all quite faint, even when using an OIII imaging filter. I was able to video-observe a number Abell's including Abell75 and 81 in Cepheus, and Abell2, 82, 83, 84 & 85 in Cassiopeia.



(Abell-81)



(Abell-2)

Around 3am, I decided to move on from doing planetary nebula, removed the OIII filter and slewed the telescope over to Orion. After a stop to admire the Great Orion Nebula, M42, whose bright knots of swirling nebulosity filled the monitor screen, I then headed over to Orion's Belt and the Horse-Head - B33. The dark nebula displayed nicely, backlit by the ghostly glow from IC433. I then took a series of 10 video-captures of 2 minutes length each, and finished off with a corresponding dark frame capture. My goal was to process the batch back home and try to create a little more traditional astrophotography like image.



By the time I wrapped up those images, it was after 4am. I was running out of gas, and as I was going to have to pack everything up in a few hours to head home, decided to end the night there.

In bed by 4:30am.

Sunday 09/24/2017:

The noise from my neighbors roused me out of bed by 9am, and after putting away a few indoor items, I soon joined everyone outside. The early birds Bob and Fred had packed most of their equipment the night before and had already left for home, leaving the rest of us groggily packing up our telescopes and campsites. I sadly disassembled the telescope and mount, and collapsed the tent canopies, and loaded everything into the SUV. After hooking up the camper to the car, I made my round of goodbyes and was on the road by noon.

This brings to an end the 2017 Black Forest Star Party. It was a week long run of good weather- no storms or rain whatsoever! Just sunny days and dark nights, something that we hadn't experienced for several years! What a observing run it was!!

Larry McHenry

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