Calhoun County Park, WV. July, 2023

With the July New Moon, I was once again planning a trip down to the new 'stargazing' field at Calhoun. I was looking forward to utilizing the low southern horizon in exploring the lower sections of Scorpius, especially around Zeta Scorpii and the 'False Comet' region. After studying the less than favorable weather forecast that second week of July, and even considering traveling northwards to Cherry Springs, Calhoun still looked to have the least amount of 'iffyness', so I decided to stick to my Calhoun trip plans. Wednesday evening, I finished packing the Ford Explorer and hooked-up the camper in preparation of leaving Thursday morning.

Thursday 07/13/2023:

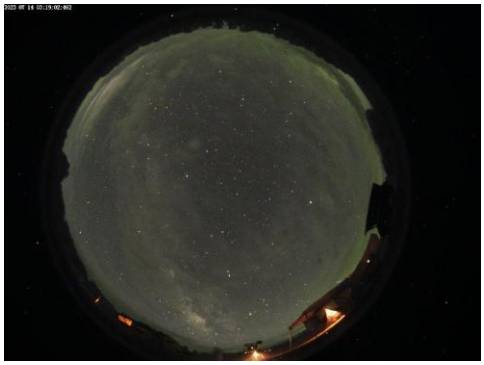
By 9am Thursday, I was heading on the road to Calhoun. I79 road construction between Morgantown and Fairmont is a pain! After a few rest stops, I arrived at the park at 2pm. Dean S (from the ORAS club) had arrived about 30 minutes before me and was mostly setup.

With storm clouds brewing to the southwest, I quickly got my camp setup and assembled my EAA 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 & ASI294MC camera (uncooled model), a 60mm Antaries refractor guidescope with a ASI120MC camera, and a small Canon 5.5-55mm CCTV lens & ASI290MC camera as a super-widefield finder, also piggybacked on top. And I setup the Allsky cam, a ZWO ASI224MC & fisheye lens in a DIY dome. Got everything setup and telescope balanced just in time, before rain set in for the next hour.

Late in the afternoon, the rain eased-off and the sky partly cleared, so I assembled the blackout canopy off the back of the camper's clamshell.

Dean and I had the observing field to ourselves, but some folks were staying in the cabin, while we hadn’t talked with them yet, we're thinking they're not astronomers, as there no equipment setup outside and they didn't come out later that evening when it cleared for awhile. (the next day we learned it was an older gentleman staying there for a nearby family reunion)

At dusk, it actually became clear for awhile at Calhoun, and both Dean and I were able to get polar aligned and mounts synced. We even got in some imaging. Dean got a nice stack of M51 and M20 with his new WO 71mm refractor, while I got an EAA capture of M3 with both the main 8” SCT and the EVO50mm before clouds moved in around 11:30pm.



M3 using the EVO50mm, and M3 again using the 8"SCT:

(EVO50mm @ f4.2 ZWO ASI294MC camera with IR filter, 15 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 15 minutes).

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

I also tried for an observation of M13, but the clouds did me in.
Throughout the evening, we had a nice lightning display along the southern horizon from thunderstorms down towards Charleston.

This prevented our making any southern sky observations. At midnight with the sky now overcast, we covered up the scopes and headed indoors. I stayed up till 1:00am reading.

Friday 07/14/2023:

Slept in till 8:30am. It was already a warm day, so soon the AC was running. The morning was sunny and humid, and before long clouds began building and storms moving in from the west. By noon, it had become a little rumbly out there. The skies would darken with thunder overhead, but no rain hit the ground.

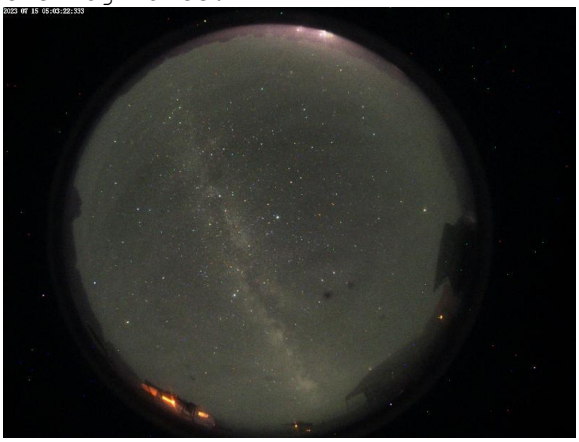
After lunch, I worked a little on the few images from the previous evening and read a magazine. Walked over to the water spigot by the cabin and met the folks staying there. They had a small 60mm refractor from the cabin and I showed them how to setup and use it. They were hoping to look at Venus that evening.

Afterwards, I headed back to camp, filled the camper water tank, and then headed inside for an afternoon nap. Around 4pm, the sky finally decided to let loose and we had a hard rain that lasted nearly a half hour. Lots of boomers directly overhead, wakening me several times. At 5pm, with the sky now having cleared and the Sun shining, I rolled out of bed and went out to tip the water out of my camping chair.

Around 6pm, Dean and I did a group dinner. Afterwards I prepped my blackout observing tent and notes for the night, uncovered the telescope and started up the AllSky camera.

At sunset, fog began to form and soon dew.

We fought with the fog all night. The fog would roll in and cover the field such that only a few stars overhead were visible. Then it would suddenly lift and there would be good observing until the next wave built. Here's Dean shining my red-light during one of the fog waves:



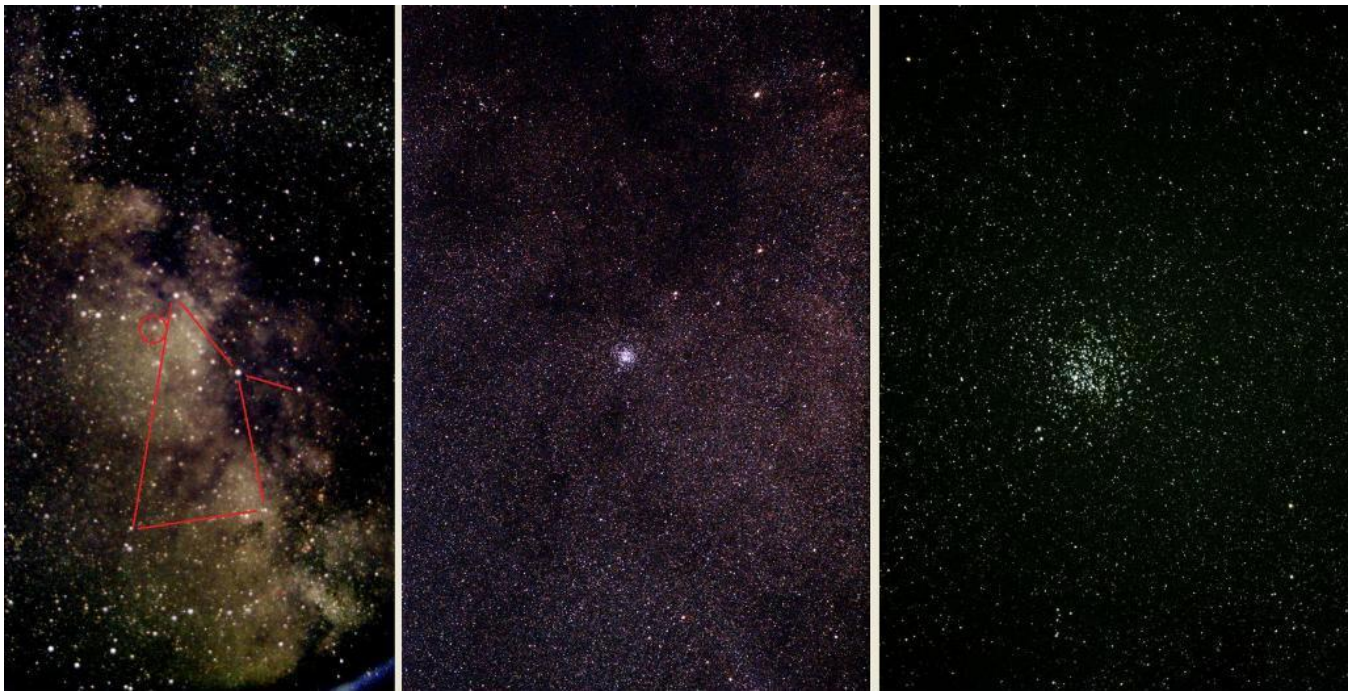
Dean continued working on adding additional images of M20 - the “Triffid Nebula”, to the ones he had taken the night before, and then globular M13 in Hercules.

I made some progress on my EAA observing list using the Canon 10mm lens and EVO50mm widefields with the 8” SCT, including a number of rich Milky-Way starfields. Unfortunately, the fog once again kept me from exploring the lower regions of Scorpius, with the best low-altitude observing being of M4 near Antaries. (I did try for Rho-Oph and the “Blue-HorseHead” - IC4592, but the fog spoiled those).

Here’s a group observation of M4 using the three imaging scopes:

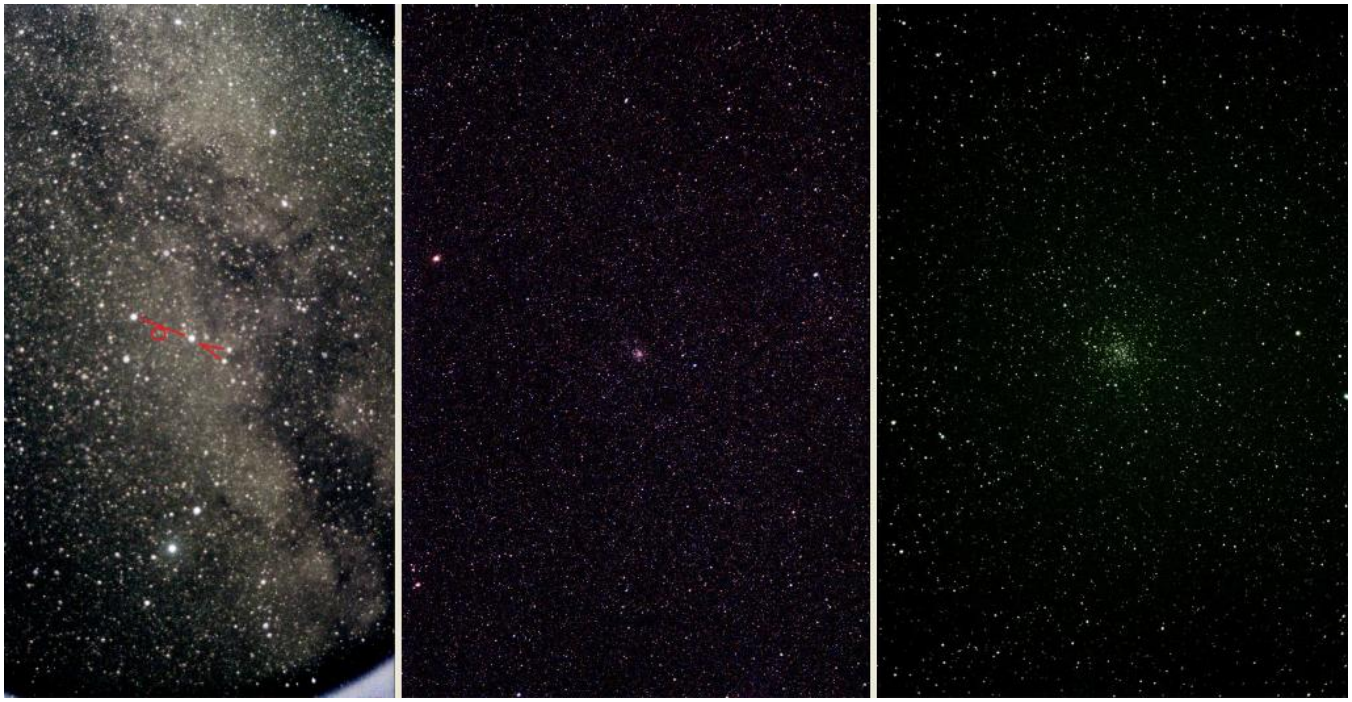
(8" SCT @ f6.3 ASI294MC Pro camera & L-Pro filter, 15 sec subs livestacked using Sharpcap for 5 min), (EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 3 min subs, for 15 min), (Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 10 min).

And here’s group observations of open cluster M11 in Scutum, globular cluster M22 in Sagittarius, and globular cluster M71 in Sagitta using the three imaging scopes:
M11:



M22:

M71:

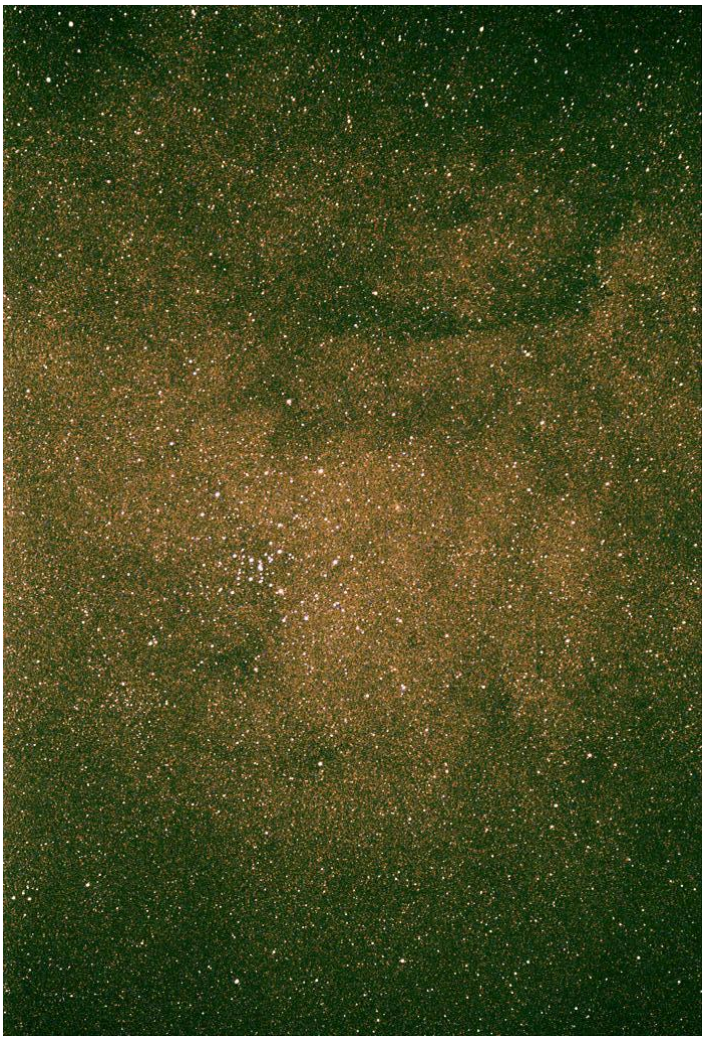


All three:
(8" SCT @ f6.3 ASI294MC Pro camera & L-Pro filter, 15 sec subs livestacked using Sharpcap for 5 min), (EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 15 sec subs, for 15 min), (Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 15 min).

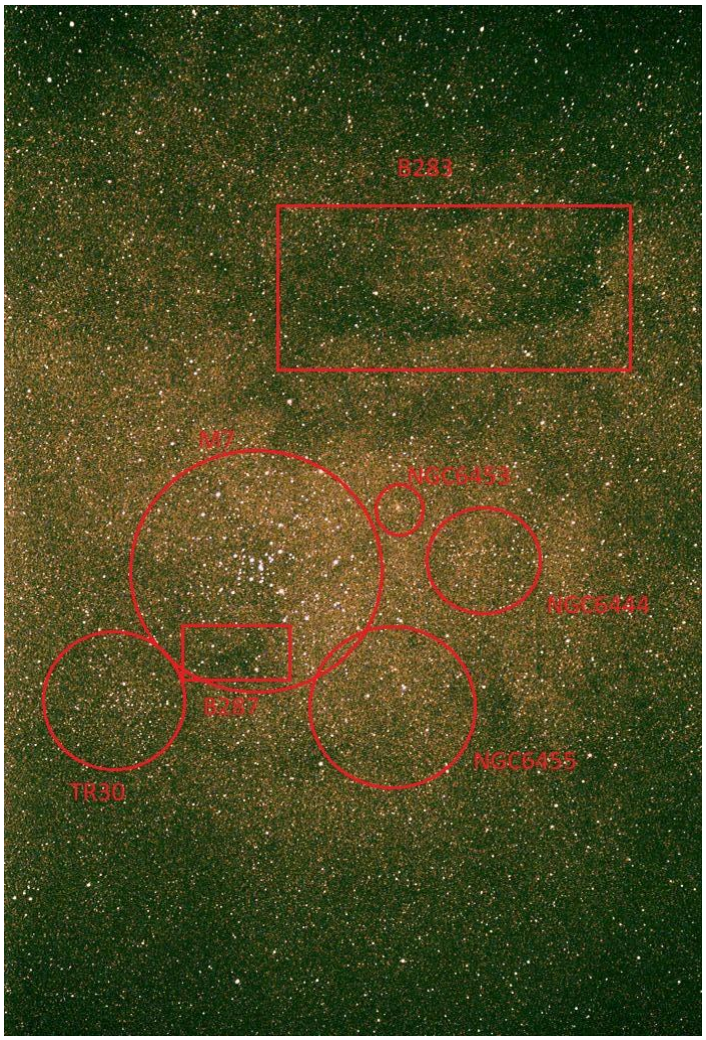
I spent a good chunk of time using the June Sky&Tel article on M7 to make a deep EAA observation of “Ptolemy’s Cluster” and surrounding deep-sky objects using the Canon 10mm lens and the EVO50mm f4.2 refractor. It was fun identifying the different objects, open clusters M7, NGC 6444, 6455, & Trumpler-30, globular cluster NGC6453, and Barnard dark nebula B283 & 287. (the planetary nebula mentioned in the article were too small for the widefields and fog ate the horizon before I could get the 8” SCT on them).

Canon 10mm lens:

EVO50mm:



Hand-Annotated view:



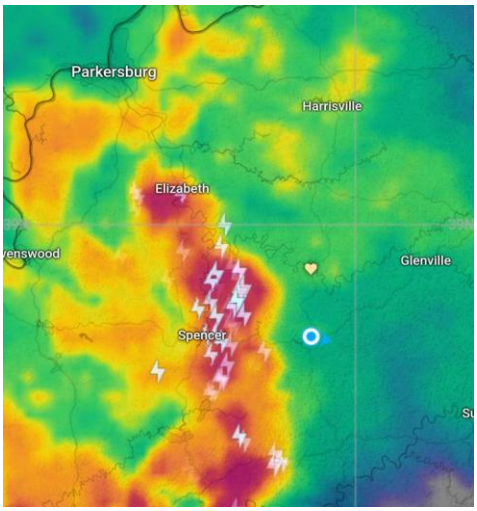
(EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 15 sec subs, for 15 min).
(Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 15 min).

Dean finally called it a night at 2am, and after another half hour I also covered-up and was in bed by 3am.

Saturday 07/15/2023:
Slept in late till 9am. It was already a warm, humid morning. Spent the day hanging out with Dean at camp. The afternoon temps rose to the upper 80's and the outdoor humidity became stifling.

Stayed inside my camper with the AC on high and visited with Dean a few times in his larger trailer. Occasionally the sky would cloud over with cracks of thunder, but no rain hit the ground. I read and worked on my captures from the night before, while Dean worked on a slide presentation, and he then went for a drive around the park.

Around 3:45pm, I laid down for a nap, but within 15 minutes I was awaken by several large thunderclaps directly overhead followed by a deluge of rain and strong wind gusts.
The weather radar showed us in the direct path of a severe storm.



The wind almost stripped the shade visor from the camper (I had to step outside and hold on to it for a few minutes before being forced to head back indoors), and as it was several of the fiberglass shock rods were splintered. Dean had to run out in the midst of the downpour to fold up his awning to keep it from being ruined. Finally, after a good 20 minutes, the storm passed thru and subsided into a steady rain that lasted till 5pm.

Later Dean and I gathered for a much needed happy hour! ☺

After dinner, I phoned home, and stayed inside reading. No observing in the fog & light rain that continued into the early hours of Sunday morning. Early to bed.

Sunday 07/16/2023:
Slept in late, woke by the weak glow of sunlight around 9am. The sky gradually began to clear, along with the temps rising into the low 80's. The humidity wasn't as bad as the day before.

After breakfast, Dean drove into town for supplies while I kept an eye on camp.
Later in the afternoon, I went for a drive around the park and stopped at the Red Barn for a shower.

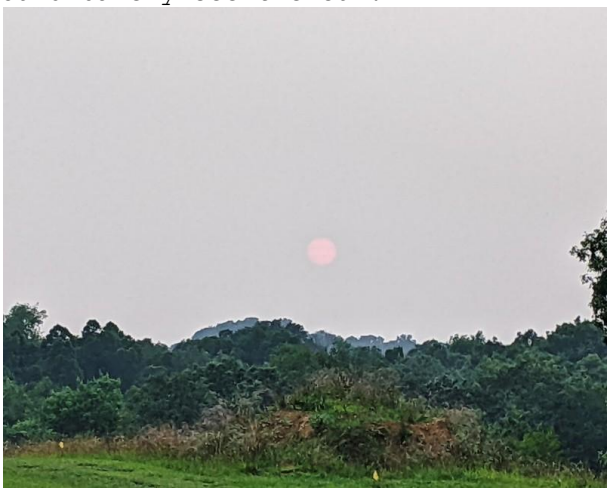
The Calhoun park folks have really made a lot of improvements around the park.
A new playground up on the ridge by the shelter above the barn, new windows and siding on the Red Barn, along with inside remodeling of the second level, all still in-progress.

And the new observing field handled all the rain well, very few puddles.
The power pedestals are awesome, (I can run the AC and even use the microwave at the same time without popping a breaker!). And the stargazing cabin looks great!

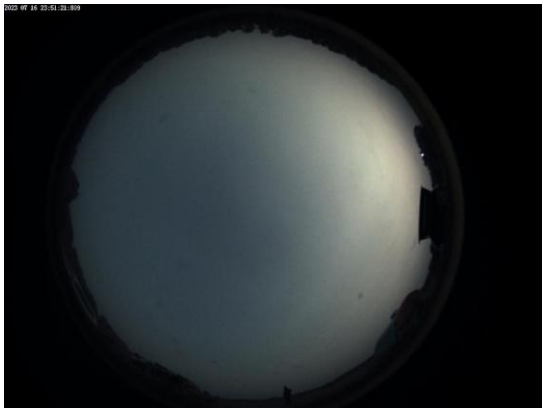
But the missing piece is finishing the new restroom on the field.

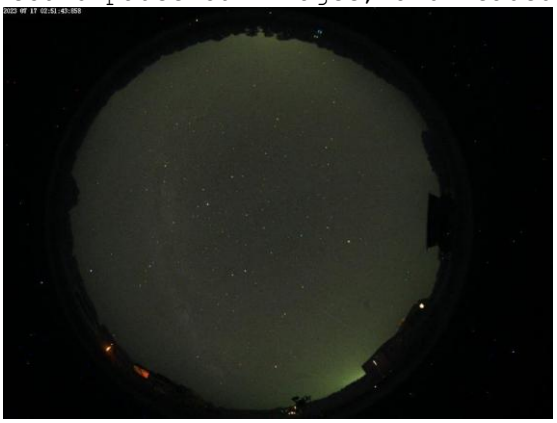
The Red Barn is just too far of a walk, and you can't drive your car down to the barn at night without greatly disturbing everyone and violating the observing field usage rules. Additionally, with all the construction items and the dome section underneath the pavilion portion, you can't use the shelter for shade to get out of the hot Sun. Hopefully, the park will be able to soon get at least one toilet and sink installed in the new rest-room facility. (That's all we really need up there).

After consulting the weather and smoke forecast, Dean and I decided to make Sunday our last night, so after an early dinner, I packed up the easy-up canopy, and most of my camping gear. Towards sunset, Glenn arrived and setup his 10" Vixen cat over by us. At sunset, the smoke was so bad you could barely see the Sun.

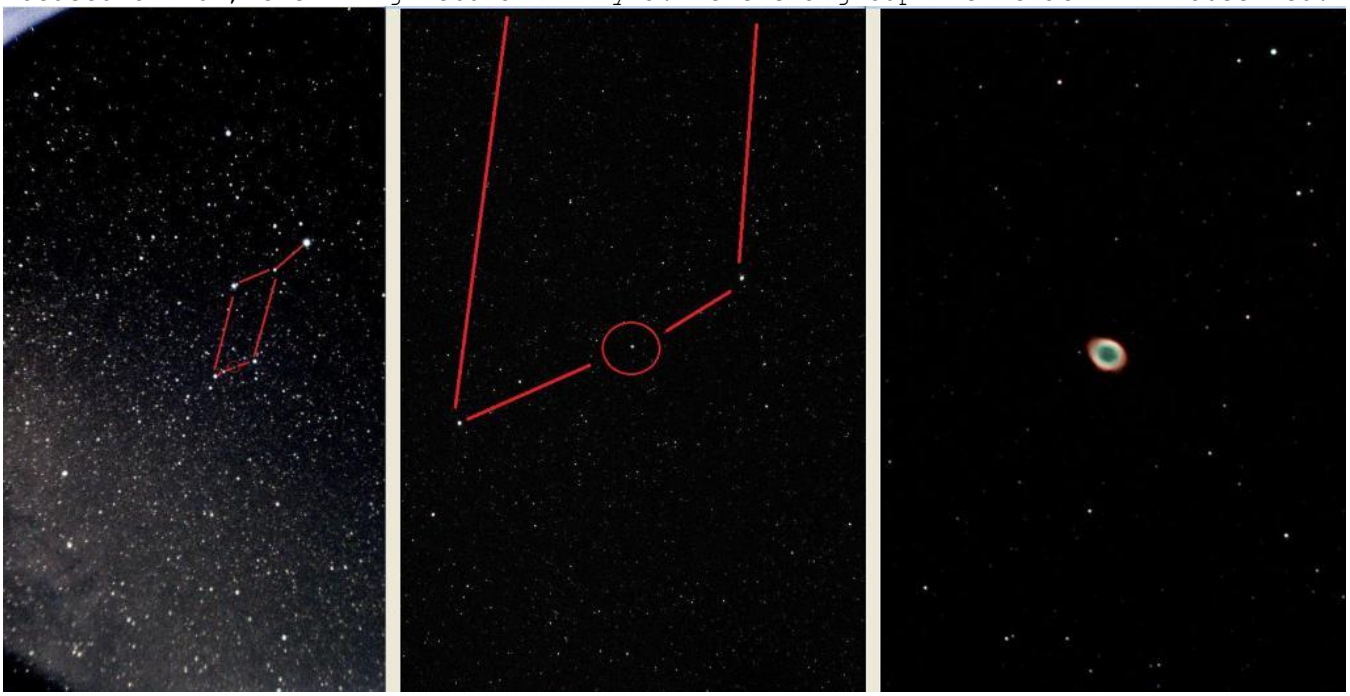


Once dark, you could only see a few stars, mainly Arcturus, and the Sumner Triangle, and the Big Dipper stars. While Dean and I were both able to do imaging straight over-head, Glenn wasn't able to do any visual observing, so after about an hour he packed up, gave us a heads-up that he was leaving so we could pause our images, and headed for home.





Both Dean and I stuck to over-head objects, with Dean imaging M13 in Hercules, and I focused on M57, the “Ring Nebula” in Lyra. Here’s a group view that I EAA observed:



(8" SCT @ f6.3 ASI294MC Pro camera & L-eNhance narrowband filter, 3 min subs livestacked for 15 min), (EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 3 min subs, for 15 min), (Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 15 min).

For the heck of it, I decided to slew the telescope over to M16 – "Eagle Nebula in Serpens, and M17 – "Swan Nebula" in Sagittarius to see what I could observe thru the heavy smoke. Amazingly, I was able to get usable images.
Here's a group observation of M16 using the three imaging scopes:

(8" SCT @ f6.3 ASI294MC Pro camera & L-eNhance narrowband filter, 3 min subs livestacked for 15 min), (EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 3 min subs, for 15 min), (Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 15 min).

And M17:

(8" SCT @ f6.3 ASI294MC Pro camera & L-eNhance narrowband filter, 3 min subs livestacked for 45 min), (EVO50mm @ f4.2 ASI294MC camera & L-Pro filter, 3 min subs, for 45 min), (Canon zoom set to 10mm, ASI290MC camera no filter, 15 sec subs, for 45 min).

The sky transparency was much softer during the M17 observations, forcing me to let the livestack run for much longer than M16's. Both objects were significantly darkened and nosier due to the thick smoke overhead.

With the sky conditions continuing to worsen, Dean and I called it quits shortly after 12:30am. After packing away a few items, I was in bed by 1:30am.

The next day, I processed the AllSky overnight captures into this video:
https://youtu.be/ZZt0o90ujXE

Monday 07/17/2023:
Up early to finish packing the camping gear and dissemble the telescope. Dean was also up and packing. Shortly before 10am, Dean pulled out for home, and I hit the road about 15 minutes later.

While still on the observing field and driving along RT 5, other than an overcast looking sky, you didn't really notice the smoke very much. But once in the mountain tops along I79, you could see it thick all around. Driving on I68 past Cheat Lake, the valleys were filled with smoke, and I could barely see the hills on the other side of the valley.

After several hours of driving, the sky began to really darken, and eventually I drove thru a heavy downpour, giving the car and camper a good wash. Around 3pm, I arrived back in the Burg, got the camper backed down the driveway and unloaded.

Thus ends this trip report.
The weather gods had frowned upon us at Calhoun. Four nights onsite and not a single completely clear night. Mostly cloudy, foggy, rainy, and smokey!
Still, both Dean and I did get a little observing in, which made the trip worthwhile.

Hopefully I'll be back to Calhoun sometime in the fall.

Larry McHenry
Astronomical Webportal: http://www.stellar-journeys.org/