Erie Eclipse Report: 04/05/2024 to 04/09/2024

hi all,

Consider this a 'brief' report as I'll have a more detailed one in a few days.
We arrived onsite at our rental located a couple of miles from downtown Erie on a bluff above the lake shore and across from Presque Isle.
At the time it was cold, rainy, and spitting sleet!! I decided to wait till the next day for sunny weather to setup the telescope.

My usual deep-sky EAA kit: 8" SCT optical tube @ f6.4 & ZWO ASI294MC Pro camera, 50mm EVO refractor & ASI294MC camera, my guidescope (which went unused), and my little Canon 5m-55mm zoom lens & ASI290MC camera. Also had my DIY AllSky cam (ASI224MC camera & fisheye lens).

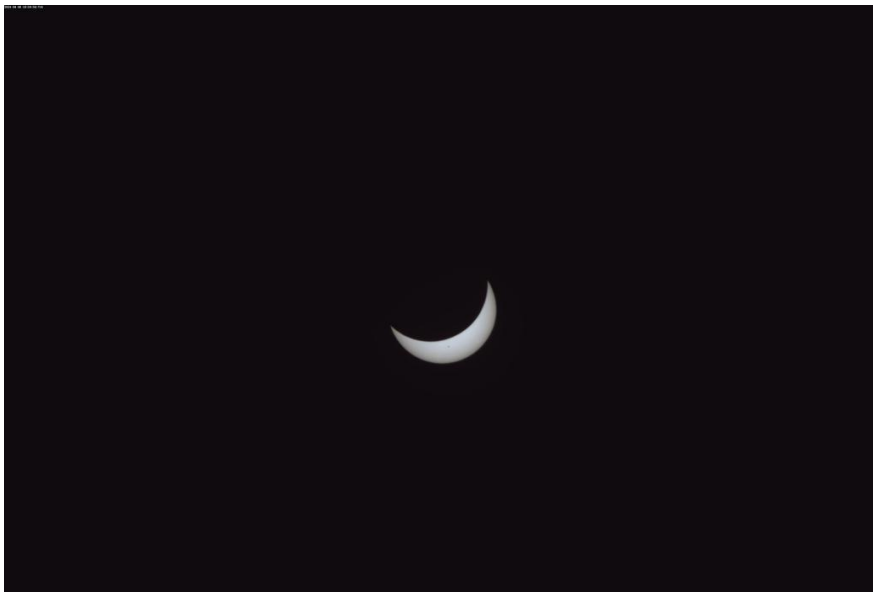
Saturday & Sunday were both beautiful clear days, but soon after sunset Sunday evening, clouds began to roll in from the southwest.
Monday morning dawned chilly & wet. After a few anxious moments checking the weather forecasts, it turned into a waiting game to see when the clearing line in central Ohio would

arrive. By noon, the sprinkles had stopped flying and the sky had begun to brighten. I uncovered the telescope and powered up the mount and cameras and attached the solar filters, but waited till after 1pm for the Sun to cross the meridian before slewing the telescope over to it. While waiting, we headed indoors to watch a little of the national TV coverage of the eclipse from locations in Mexico, Texas, and elsewhere along the eclipse shadow path. We also read reports online of huge traffic jams along I79 from people making a late dash towards Erie. Outside our rental, we could see other neighbors out in lawn chairs with several large parties in progress.

At 2pm, we headed back outside to view the start of the eclipse for our area. Unfortunately, with lingering thick clouds the Sun was blocked from view and did not dissipate enough in time to see first contact. But soon, the Sun broke thru the thinning clouds and we enjoyed the partial phase with an occasional passing cloud adding interest thru our eclipse glasses and white-light and Ha solar telescopes. We also noticed at least one jet at high altitude doing loops underneath the Sun.

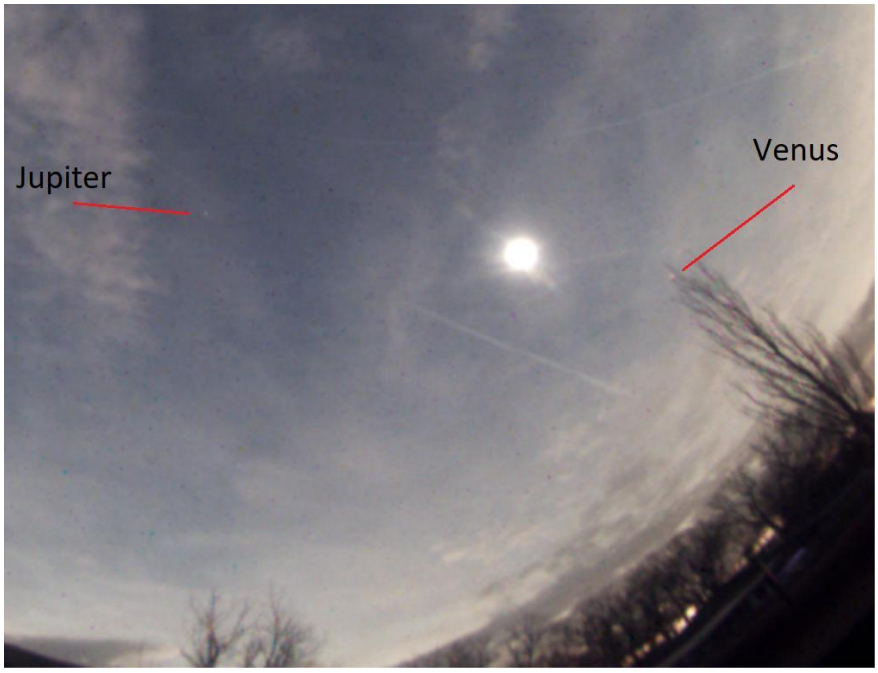
Here's a few pictures of the partial phases using a white-light Baader solar film filter prior to Totality, taken with the 8" SCT and 50mm refractor.
All in the low millisecond range of exposure, and image captured every 5 seconds.

(it was fun watching the Moon slowing covering that large Sunspot group!)



By 3pm, the sky had taken on a weird color, or more like a washed-out lack of color. The outdoor temperature had begun to drop and the readings on a watt meter we had setup to monitor the Sun's energy output was beginning to bottom out. Within the few minutes before totality, you could see the clouds & haze darkening to our SW as the umbra shadow approached, and the sky along the visible horizon to our west and north displayed sunset colors. With our solar eclipse timer app giving us notifications, we had in advance laid-out a white plastic table cloth on the ground in hopes of seeing shadow bands, but no luck. Could be the thickening haze blocked out the subtle effect from our view.

Then at 3:16pm, Totality! The Sun disappeared into the hazy sky and in place was a jet-black disk with several little red 'flames' surrounded by a diffuse halo of white silky light. We did not notice any long coronal streamers like in 2017, just a thin ring around the Sun. This might have been due to the slight thickening of haze at our location blocking the view, though I seem to recall reading that with the Sun's 11 year magnetic cycle being close to Solar Max this time that the corona would look different. In looking to either side of the eclipsed Sun for bright planets and stars, all that was visible to the naked eye was Venus to the lower west. (had binoculars available, but once again during an eclipse I forgot all about them, lol).
Afterwards, flipping thru the AllSky captures, I did find one image that showed both Jupiter and Venus. The haze blocked everything else.

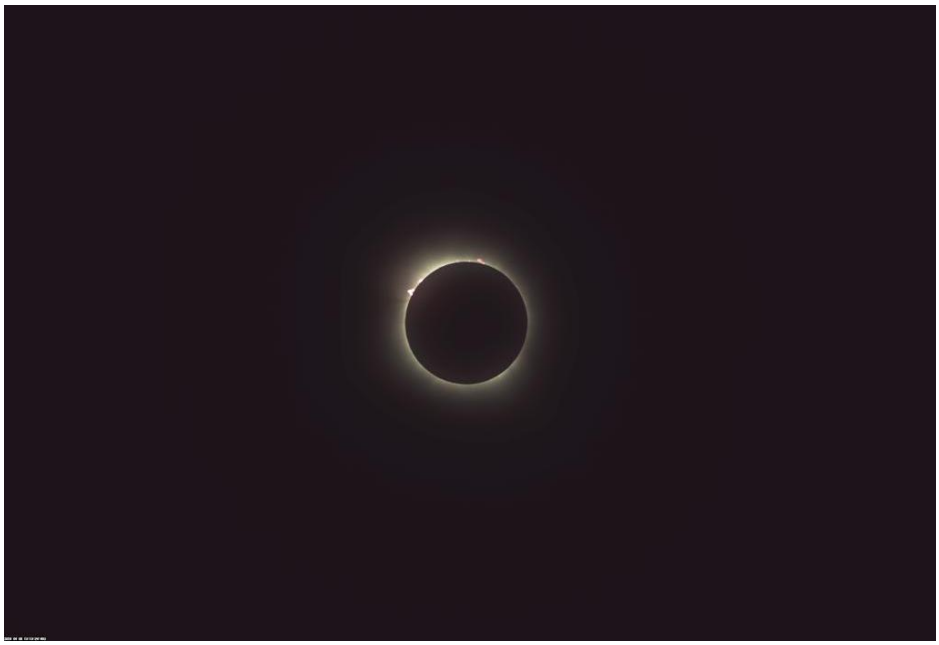


My plan for using the Canon 5mm zoom camera for the planets was a bust, no usable images.

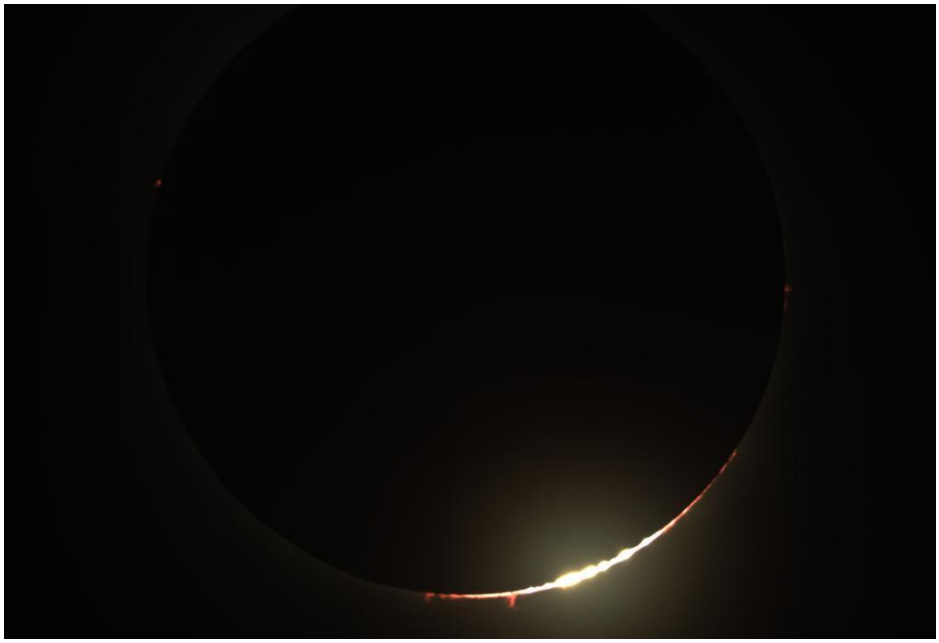
The deck we were standing on and the yard around us became dark. We could hear shouts of joy and awe from around the neighborhood, which we joined in and added our voices too. Then in what seemed like a blink of the eye, (a long 3 minutes & 42 seconds blink), a brilliant Diamond Ring appeared on the black disk and totality ended. Sunlight began to illuminate the deck and world around us. Everyone again shouted out in joy!
Off in the distance from the Erie Harbor, several ships sounded their horns. A rousing end to the celestial event that had just occurred over our heads. We continued to monitor the partial phases for the next hour using our equipment while enjoying a few Corona Beers.

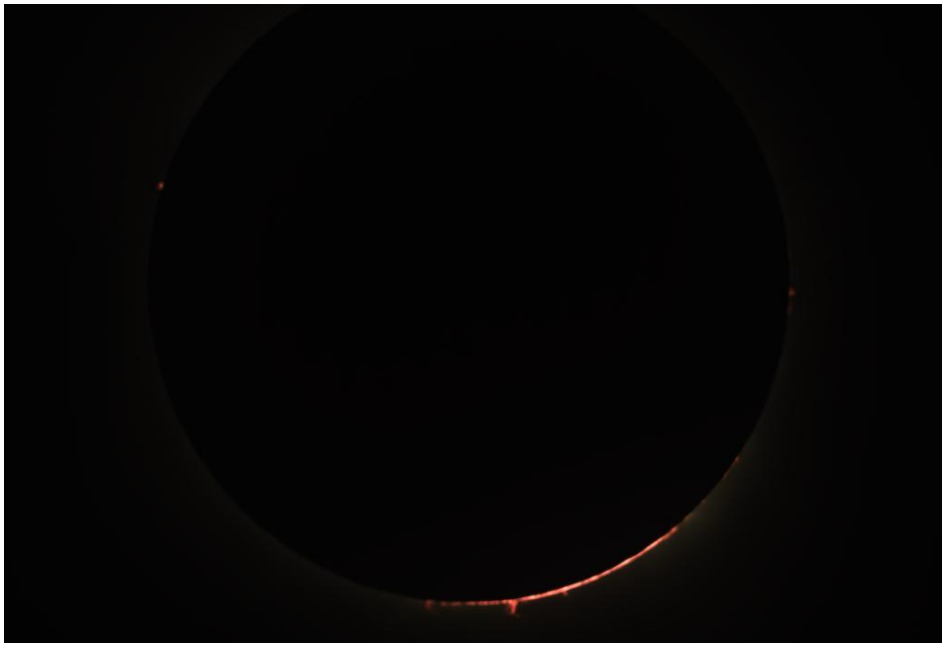
At 4:30pm it was a wrap, with the last trace of the Moon gliding off in front of the Sun's disk. The eclipse of 2024 was over.

Here's a few pictures of Totality with filters removed taken with the 50mm refractor and 8" SCT.
All in the low millisecond range of exposure, and image captured every 5 seconds.

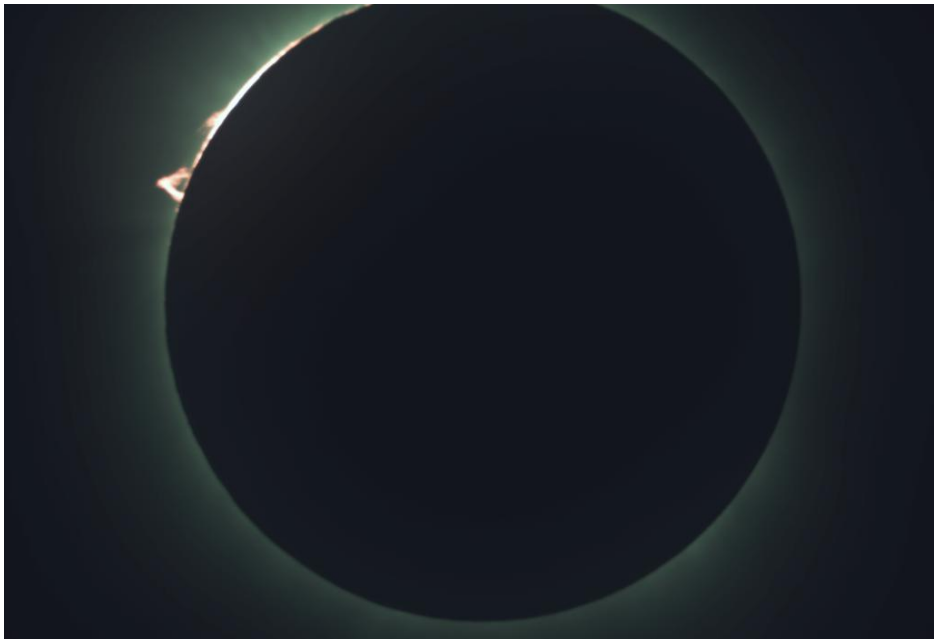


(Corona and several prominence's, then Diamond Ring)





(Bailey's Beads and the Chromosphere)



(large prominence and just prior to the Diamond Ring)

Larry

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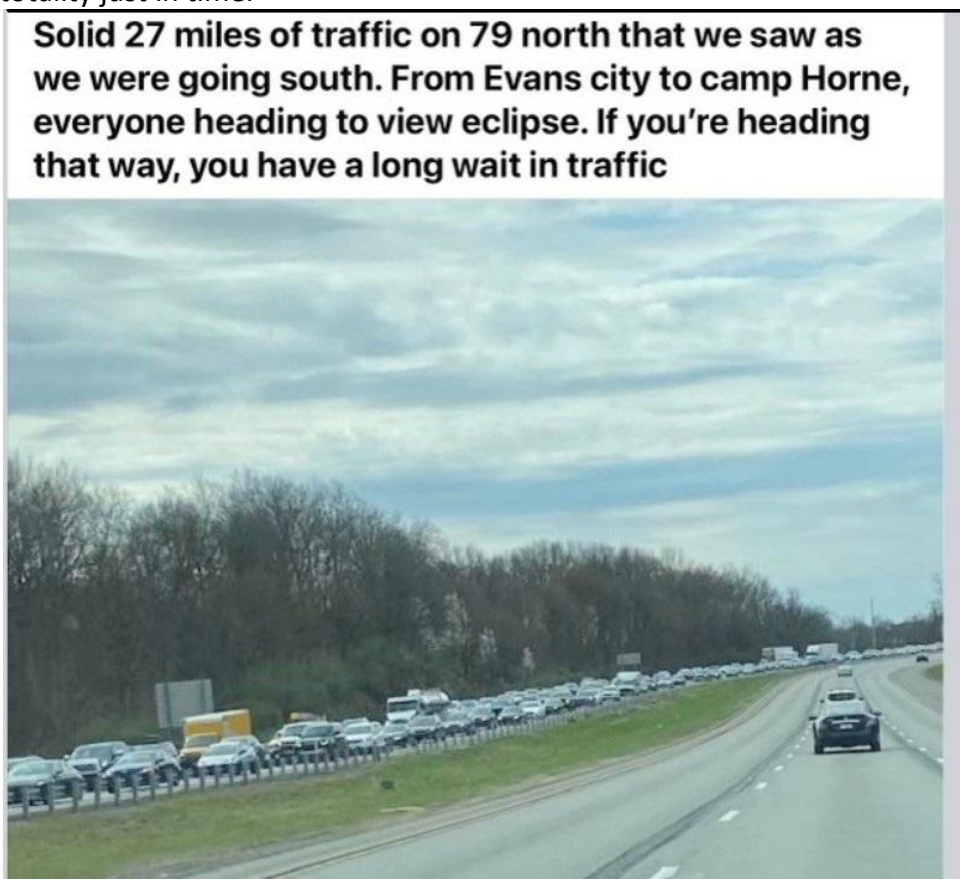
hi all,

Thought I'd share a few phone photos of eclipse 'phenomena' from Monday.
Also, I've uploaded several time-lapse videos to my YouTube channel. (see below)

First, here's a "traffic" photo from Monday around 1pm that my neighbor shared with me. A friend of my wife said that they were stuck in that, bumper to bumper going 4 MPH. They bailed off I79 at Cranberry and took the back roads into Ohio and made it into the path of totality just in time.



Here's a photo of a jet that was circling overhead around 3pm. Around 3:12pm, the quality of sunlight rapidly began to change, colors washed out.

At 3:15 - 3:16pm the western sky looked like sunset and you could see the Moon's Umbral shadow approaching, like a darkening storm-front.

Then Totality! with Venus appearing thru the haze:

The Horizon visible around us took on the orange-red glow of sunset, while the patio/deck we were on grew dark.

The wonder & awe of the moment of Totality is hard to describe!

Here's the Time-lapse links:

A short slow-motion clip during Totality from my AllSky cam:

https://youtu.be/9ohqfxPWwXI?si=-OB2qRdkilb8p8NN

(Monday Afternoon - Total Solar Eclipse in Erie, Pa, overlooking the shore of Lake Erie. Somewhat hazy with scattered clouds that afternoon. Clip from about 3:12pm to 3:24pm.)

Time-lapse slow-motion using my Skywatcher 50mm EVO refractor & ZWO ASI294MC camera:
https://youtu.be/AeYtGXLr3MQ?si=F-E3CfbNPIVZ6m9v
(Watch for giant sunspot AR3628 near center disk, a brief appearance of Bailey's Beads right before Totality begins. Then once Totality starts, the ghostly glow of the corona forming a halo around the eclipsed Sun with tiny flickering red prominences around the edge of the disk. Moments before Totality ends, a bright sliver of Chromosphere appears and then a Diamond Ring sunburst.)

Another slow-motion Time-lapse using my 8" SCT optical tube @ f6.4 & ZWO ASI294MC Pro camera on an Atlas Gem:
https://youtu.be/xsJexsrSoEQ?si=teQvWjX0WObCZJxV
(Watch for giant sunspot AR3628 being covered by the Moon, Bailey's Beads and red chromosphere right before Totality begins. Then once Totality starts, bright prominences appearing and the ghostly glow of the corona forming a halo around the eclipsed Sun. Moments before Totality ends, a bright sliver of Chromosphere appears and then a Diamond Ring sunburst.)

Finally, here's the entire eclipse (minus 1st contact which was clouded-out). This gives you an idea of how lucky we were to even see Totality!
A 2.5 hour eclipse condensed into about 2.5 minutes!
https://youtu.be/18j2VNNc6Ss?si=14sZCirwPz7pUpn9

Larry
https://www.stellar-journeys.org/

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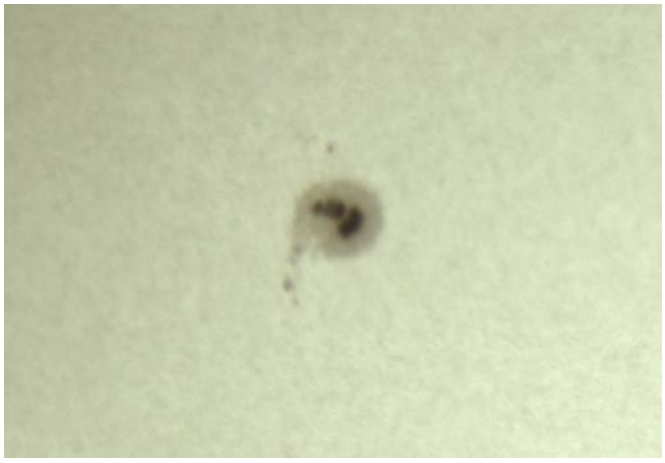
hi all,

While being close to downtown Erie wasn't the best location for doing deep-sky, I did get in a few other 'non-eclipse' EAA observations, including a couple of 'daytime' objects. Saturday April 6th was a good sunny day to get my equipment setup. While checking everything out, I got in an observation of the Sun and large sunspot group AR3628 using my 8"SCT @ f6.3 & ASI294MC Pro camera with IR eyepiece filter and Baader solar film on the front, 3.5ms single sub exposure.

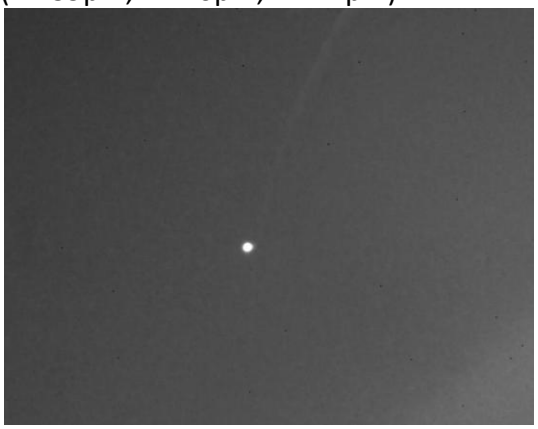


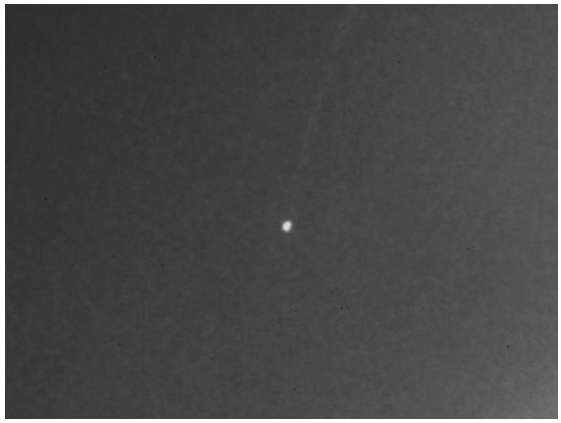
That evening, I uncovered the scope and tried out the Erie skies. Not too bad, especially when pointing to the north out over the lake.
Here's the bright spring globular cluster M3 in Canes Venatici using the 8"SCT @ f6.3 & ASI294MC Pro camera with L-Pro broadband filter, 15 sec subs livestacked for 60 seconds:

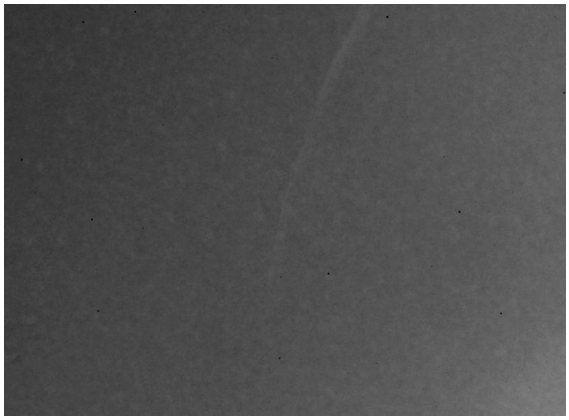
Then I went hunting for spiral arms with galaxies M51, also in Canes Venatici, and M101 in Ursa Major.
8"SCT @ f6.3 & ASI294MC Pro camera with L-Pro broadband filter, 45 sec subs livestacked 9 minutes for M51 & 21 minutes for M101:

The observations were all a little noisy, would have been better if I had created new flats earlier that afternoon.

Then back to daylight observing on Sunday April 7th for the Venus - Moon occultation.
This observation was a little tricky, with the pair being only 15 deg away from the Sun, which threw a lot of glare into the telescope tube.
Using my 8"SCT @ f6.3 & ASI294MC Pro camera with IR filter, 8.3ms single sub exposure.
(12:39pm, 12:40pm, 12:41pm)







Finally, the evening of April 8th after the eclipse, an observation of Comet Pons-Brooks:
The comet was low to the horizon over Presque Isle, with that whole area of the sky impacted by skyglow reflecting off of a lower bank of clouds.
8"SCT @ f6.3 & ASI294MC Pro camera with L-Pro broadband filter, 60 sec subs livestacked 3 minutes. (and a quick pic from the Canon 5m lens)

Shortly after bagging the comet, I flipped-on the outside lights to pack up the telescope.
Larry