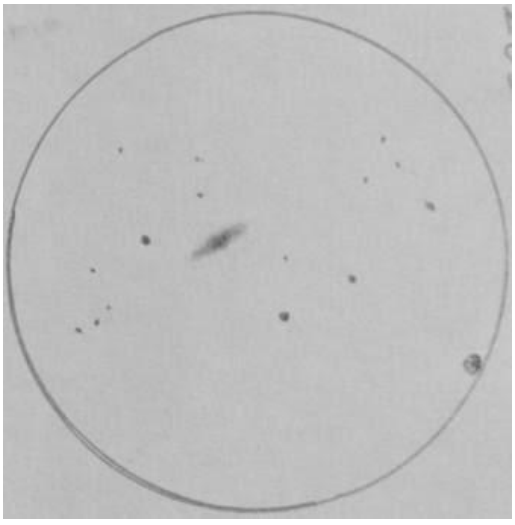
2021 March Observations from Big Woodchuck Observatory

-------- Original Message --------
Subject:[ORAS] A Tuesday Evening in March
Date: Fri, 05 Mar 2021

hi all,
Finally, after nearly a month of non-observing due to snowy weather, the temps warmed-up melting off all the snow around the observatory, and a clearing front went thru Tuesday, (3/2) afternoon sweeping away the clouds.
The Moon was also several days past Full, giving several hours of darkness before rising around 10:20pm.
So I hurried outback after dinner and fired-up the imaging system, (along with the propane heater - LOL)

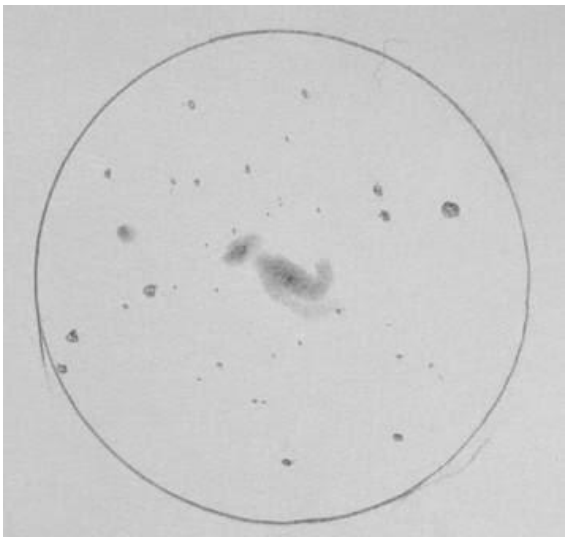
My first target for the night was a little galaxy high-up in Ursa Major, NGC2685.
Since December, I've been participating in an online 'Observers Challenge' group where we all try to target the same object per month. It's a half-n-half mix of visual sketchers and imagers. The 'rules' are pretty flexible and allow for using past observations no matter when. (though they prefer recent work). This works for me as most of my sketches are from many years back. As there are already imagers much better than I am participating, I try to utilize my older video-astronomy captures or recent livestacked images as they fill a niche between visual and traditional imaging.
If anyone is interested in checking out the observations, here's a link to the hosts main report index:
https://rogerivester.com/category/observers-challenge-reports-complete/

So as a preview for March, (which the report doesn't actually come out for until April) here's my new 'latest' livestack image of the galaxy, along with a 'sketch' made from the laptop monitor. (I pause the image stack at 60 seconds and sketch what detail it shows before letting the stack continue).



(using the 8" SCT optical tube @f6.3 on the Atlas GEM, ROI=4144x2822 then cropped, 30 second exposure, 40 subs stacked for 20 minutes) (sketch = #2 pencil & eraser)

Later in the evening, just prior to Moonrise, I also jumped ahead to the April challenge object - interacting galaxies NGC3226 & 3227 in Leo.



(using the 8" SCT optical tube @f6.3 on the Atlas GEM, ROI=4144x2822 then cropped, 60 second exposure, 30 subs stacked for 30 minutes)

I also imaged a wide-field object from my list, the M81 & M82 pair of galaxies in Ursa Major using the Canon Zoom lens

(using the Canon lens set to 100mm @f5.6 piggybacked on the Atlas GEM, ROI=1936x1096 then cropped a little, 60 second exposure, 40 subs stacked for 40 minutes)

And while the wide-field was 'cooking', I also imaged the M82 with the main scope.

(using the 8" SCT optical tube @f6.3 on the Atlas GEM, ROI=4144x2822 then cropped, 30 second exposure, 20 subs stacked for 20 minutes)

That was about all I had time for before the Moon lit the backyard up to where you didn't need a flashlight.
The next several nights look really good forecast-wise, so I hope others in the club get out to observe!
Don't forget to report back to the list what you seen or image.
Larry www.stellar-journeys.org/

-------- Original Message --------
Subject:[ORAS] Friday night outing
Date: Sun, 07 Mar 2021

hi all,
The scattered clouds throughout the day Friday finally gave way to clear skies that evening. The temp wasn't very warm and there was a stiff breeze blowing. But, by sunset, the wind had died down to an occasional gentle breeze, with the temps falling into the mid-twenties. It made for a chilly night when I had to step outdoors to tweak focus or make an adjustment on the telescope. Wanted to start-off observing several small SH2 nebula's in Taurus, but alignment issues kept me busy to the point where I lost the constellation to the trees to my southwest.
Having resolved the telescope gremlins, I quickly slewed the scope to Orion who was also heading to ground. There I captured a couple of nice Sharpless nebula near the hunter's upraised club. The first is NGC2174/2175, (SH2-252) known as the "Monkey Head". (still trying to see that, lol).

(using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera and L-eNhance narrowband filter, ROI=4144x2822 then lightly cropped, 60 second exposure for 30 minutes)

Then I moved on to IC2162, "The 3 Snowballs", which includes several SH2's: 254, 255, 256, 257 & 258.

(8" SCT optical tube @f6.3, ASI294MC & L-eNhance filter, ROI=4144x2822 then lightly cropped, 60 second exposure for 30 minutes)

While in a phone text session with several other club members who were also out imaging, Dan reported getting clouded-out. Sure enough, the weather satellite showed lake-effect clouds heading our way. Before long, the clouds took out Ed and Denny, and I could see that I didn't have long to go either. Tried to get one more SH2 in up in Gemini, but by the time I had it framed-up and cameras and guider running, the clouds ate the sky! Closed-up for the night and headed in to the house.

I did make a timelapse allsky video from the evening. titled "A March Evening at Big WoodChuck".

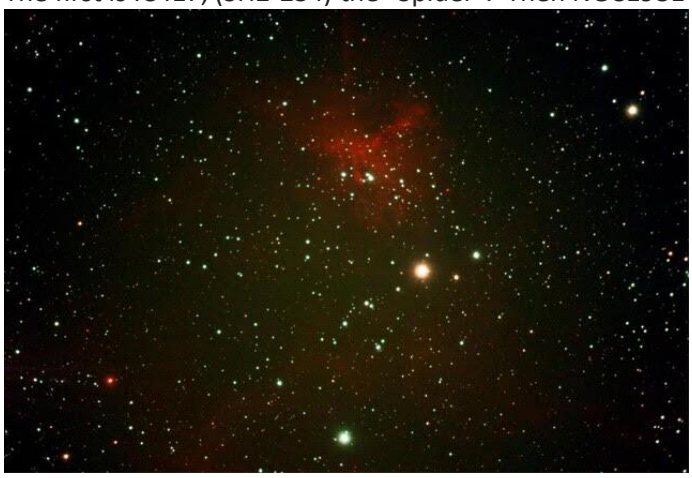
The old laptop that I use for capturing the frames froze-up for a bit and I lost some frames around the time of dusk, so the video jumps a little at that point. Still, got in the breeze blowing the trees around, Sunset, Constellations wheeling overhead, clouds, and Moonrise. https://youtu.be/9RVb5HhbIn8

More on Saturday evening's observing run coming later.
Looks like another good night on tap for this evening!
Larry

------- Original Message --------
Subject:[ORAS] Saturday Observing on March 6th
Date: Sun, 07 Mar 2021

hi all,
At sunset, the little fluffy clouds gave way to clear skies. The temp again wasn't very warm but at least there wasn't much of a breeze blowing. The temps soon fell into the low-twenties and later upper teens.
Inside the observatory, it wasn't so bad, as I spent some quality-time with my propane heater!
The telescope gremlins returned again, and it took awhile to get them resolved. (doesn't help when you do silly things like accidentally dislodge the USB cable from the telescope & cameras. That's a good way to send everything on the laptop crashing! LOL!)

Eventually, I got it all sorted-out and pointed the scope and cameras up to Auriga to chase HII nebula. Spent some time trying to frame two close SH2's called the "Spider and Fly", but couldn't quite fit them into the 8" field-of-view.
Gave up and imaged them separately.
The first is IC417, (SH2-234) the "Spider". Then NGC1931 (SH2-237) the "Fly". (fyi - I don't make these names up! heh)

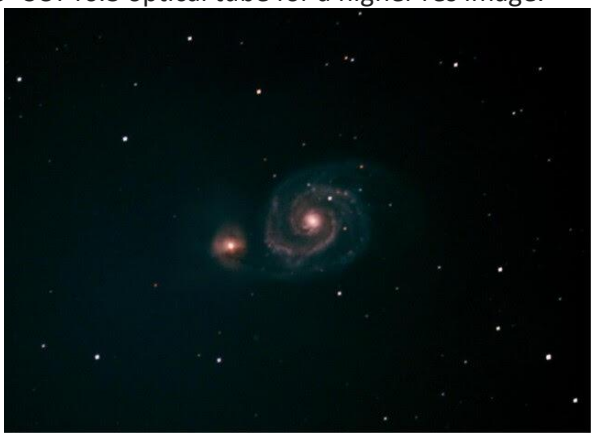



(both using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera and L-eNhance narrowband filter, ROI=4144x2822 then lightly cropped, 60 second exposure for 30 minutes)

Between resolving scope issues and some other puttering around in the observatory, time got away from me, and I soon realized that the remaining nebula that I wanted to image were too far to the west, in the trees. So I decided it was galaxy season time, and changed the camera's narrowband filter to the L-Pro which is for galaxies and clusters. The objects that I went after were all from the 'spring' widefield list that I wanted to use my Canon Zoom lens & ASI290MC camera on. Started off with the large naked-eye cluster Melotte-111 in Coma Berenices.

(Canon Zoom set to 25mm @f5.6 piggybacked on the Atlas GEM, ASI290MC camera no filter, ROI=1936x1096 then lightly cropped, 15 second exposure for 10 minutes)

Then I moved on to the nice large, bright galaxies in Ursa Major: M51 and M101.
While using the Can lens for the widefield shot, I also use the main 8" SCT f6.3 optical tube for a higher res image.



(Canon Zoom set to 100mm @f5.6 piggybacked on the Atlas GEM, no filter used, ROI=1936x1096 then lightly cropped, 60 second exposure for 25 minutes) (8" SCT optical tube @f6.3, with the ASI294MC camera and L-Pro filter, ROI=4144x2822 then lightly cropped, 60 second exposure for 25 minutes)

Should really image both galaxies for a much longer exposure, but this gives a 'taste of spring'.
Kinda like seeing the Robins in the yard today!

By now, it was after 3am and with the Moon popping over the horizon, I called it a night.
Will be heading back out this evening!
Larry

---- Original Message --------
Subject:[ORAS] Sunday Night, March 7th
Date: Mon, 08 Mar 2021

Hi all,
So Sunday evening was the third night in a row of deep-sky observing.
Started off as the best of the three nights, clear sky and warmer temp. Got a late start (~8pm) and with the trees along my SW horizon, I had to pick my targets wisely, before the Winter Constellations set behind those trees.
After uncovering the telescope and powering up the mounts and cameras, I sent the telescope over to Orion and imaged Sharpless Catalog object, SH2-261, A nice large emission nebula whose H-alpha regions really popped with the L-eNhance narrowband filter.

(using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera, ROI=4144x2822 then lightly cropped, 60 second exposure for 30 minutes)

Seeing how low to the horizon Canis Major now was, I next went hunting for Thor's Helmet, NGC2359.
It barely cleared the fence around that side of the observatory. (note - need to rebuild that fence this year! LOL)
This HII region is a bubble-shaped structure showing multiple shells, ionized by the strong stellar winds of a nearby Wolf-Rayet star. On this object, the L-eNhance filter really brought out the OIII.

(same scope/camera specs as above)

Having had good luck with the Thunder god's hat, I went for another nearby HII region, SH2-301, which displayed a nice little red cloud of hydrogen.

(same scope info)

Pressing my luck, I spent some time trying for the single SH2 object located in the very southerly constellation of Pyxis the compass. The combination of having a low altitude and being a very large diffuse object, it wasn't a very successful hunt. So I slewed the telescope higher in the sky to Puppis for another SH2 catalog object, NGC2467 (SH2-311), called the "Mandrill Nebula".

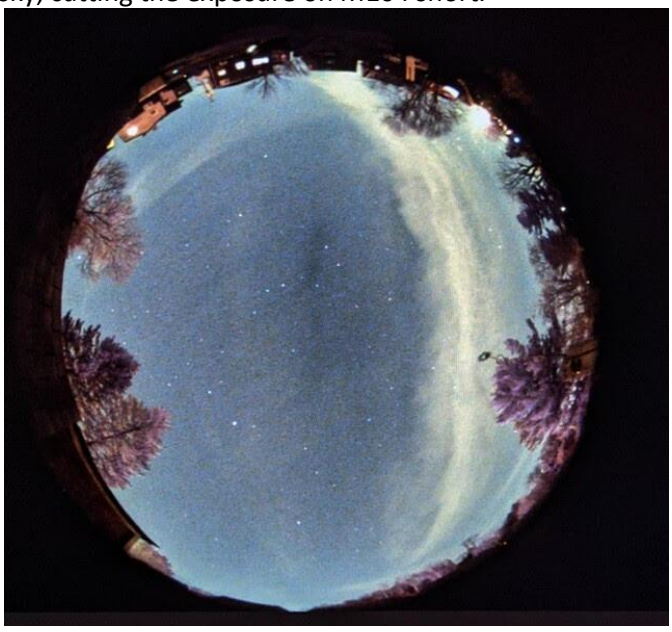
(same scope/camera/filter)

Around 11pm, I began to notice with the allsky cam a line of haze hovering over the western sky. At first I thought that it was just frost forming on the camera dome, as the outdoor temp had dropped into the low-twenties. But after stepping outside the observatory a little past 1am, I confirmed that there were indeed hazy skies forming to the west and north. The satellite showed a large N/S wave rolling in from Ohio.

I hurried and switched the camera filter over to the L-Pro so I could image galaxies in the still clear SE sky and pointed the scope to Corvus and the Sombrero Galaxy - M104.

(using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera, L-Pro filter, ROI=4144x2822 then lightly cropped and rotated, 60 second exposure for 20 minutes)

I would have liked to go longer on the exposure, but having to retrain the PHD guider software to that side of the meridian slowed me down. Before long, that westerly cloud band had quickly pushed to the east wiping out most of my sky, cutting the exposure on M104 short.

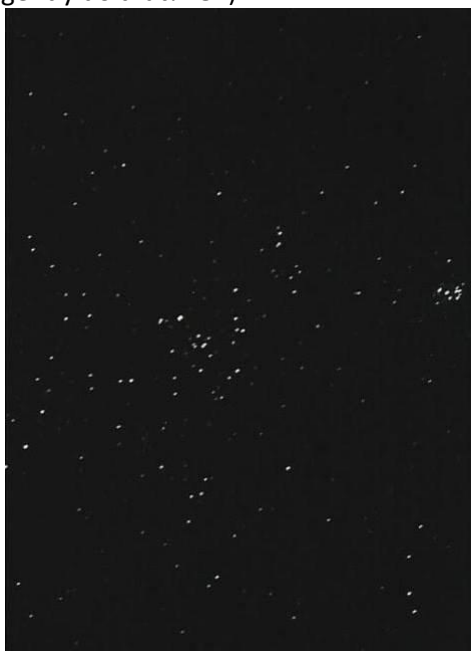


After spending some time waiting to see if the hazy clouds would dissipate, I finally threw in the towel and closed up shop for the night a little past 2am. So not a full night of observing like I had planned, but six hours was still good!
After a three night run, I decided to take Monday evening off,,, LOL.
Tuesday evening looks promising, so maybe I'll head out then.
Larry

------- Original Message --------
Subject: Re: [ORAS] My First Mount
Date: Fri, 12 Mar 2021

hi Dean,
That's a sweet looking tracker!
Brought back memories from wayback when I dabbled in film. I had to dig thru a storage box to find the old album, but here's a barndoor tracker that I built in 1985 using a design from Sky&Tel magazine. I mounted the wooden tracker on an old set of tripod legs. (all that remained of my 1970 Sears 60mm Refractor)
The tracker was equipped with a 6x30 'finder' above the hinge to sight on Polaris, and had a analog stopwatch illuminated by a book-light. To operate, you would set the lever to the watch zero position, start the watch and slowly turn the lever to keep pace with the watch's second-hand. (Lots of fun trying to gently do that! LOL).





Orion and Taurus/Pleiades - 01/11/1986, 5 minute exposure

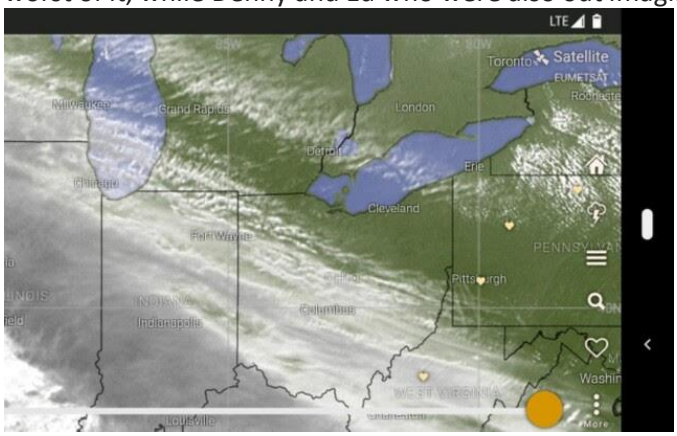
My camera was a Minolta-XG1 with a 50mm lens and a cable release. I didn't get a lot of good images with it.
Back in those days you either had to developed your own film, (tried using B&W Tri-x Pan), that I was lousy at doing, or used one of the new high-speed color films and send that off for processing. (the lab rarely got those right). I did get a few worthwhile constellation shots, and a hint or two of the Milky-Way. But, the expense of buying film and getting it developed and then tossing much of it was a drag on a young family's income. Having recently completed building a 10" f5.6 dob at the time, I decided to switch to sketching. (Pencils were a lot cheaper! :-))
I ended-up giving the tracker away to a fellow Louisville Astronomical Society club member.

Thank you for the trip down memory-lane!
Larry

On 3/12/2021 3:17 PM, Dean wrote:
Hi everyone,
I came across my first mount while doing a bit of housekeeping a few days ago and thought that some of you might enjoy seeing it.
…….
Building and using this Barn Door Tracker was a great learning experience. Playing with it for the last few days has sparked an interest in getting it out underdark skies again. Perhaps you might see it on the ORAS observing field in the future. Does anyone else have experience with one of these?
Dean

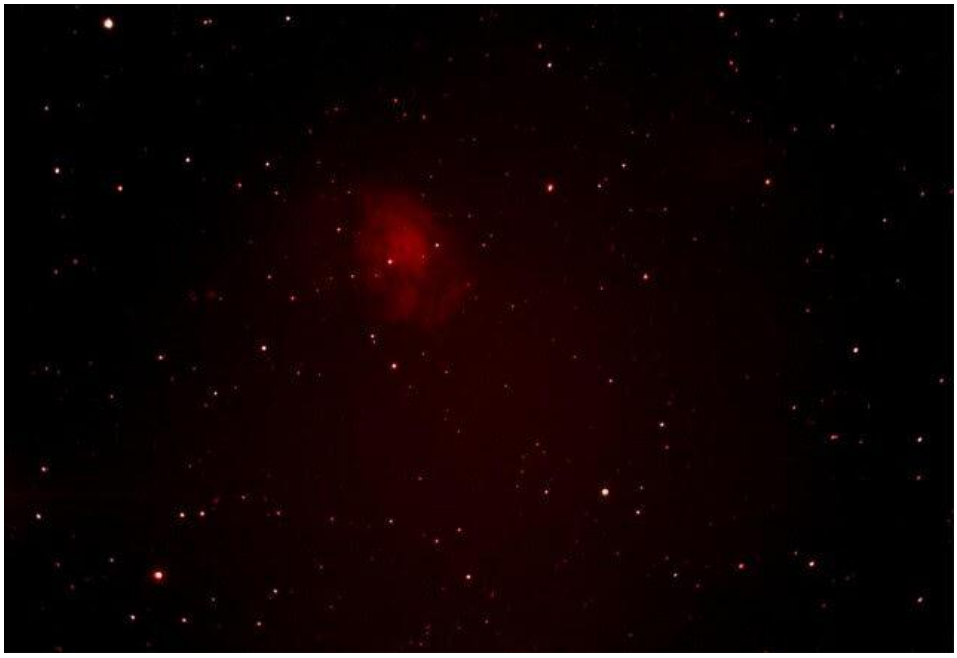
------- Original Message --------
Subject:[ORAS] March Madness - New Moon Observing that is!
Date: Mon, 15 Mar 2021

Hi all,
Saturday evening, March 13th, 2021, I decided to pull an all-nighter out in the backyard observatory. Based on the weather forecast, it was probably going to be the last good view of the bright Winter Constellations under dark skies. (say 'hello' to the Spring Stars!) While the forecast showed clear skies all night, the satellite showed our region just on the edge of a large front that was casting a light haze overhead. I think Pittsburgh and south (where I'm at) had the worst of it, while Denny and Ed who were also out imaging had better skies.



I let the Allsky cam run all night, (ASI290MC & fisheye lens, capturing an 8 second exposure every thirty seconds), and it shows the waves of thin streamers rolling thru. https://youtu.be/XWrDwhbLSjw

I started the evening off over in Auriga as it looked in the clear, hunting a few Sharpless Catalog nebula, and was successful with SH2-235



(8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-eNhance narrowband filter, ROI=4144x2822 then cropped, 60 second exposure for 30 minutes)

I spent some time trying to get a decent image of several other fainter SH2 objects in Auriga, but wasn't very successful, so I'll skip showing those.

By midnight, as predicted by Dan H who was chatting with us, the sky finally cleared nicely, but by then I had lost most of the Winter Constellations to the trees in my SW horizon. So I decided to go galaxy hunting in Leo. I replaced the narrowband filter with the broadband L-Pro filter and slewed the telescope to the wide trio of M95, M96, and M105.

M95

M96

(M105 also includes NGC3371 & 3373)

I then moved a little eastward to the "Leo Triplet" (M65, M66 & NGC3628).
Here's a wide field of the three, along with closeups of each:

Triplet

M65

M66

NGC3628

With the time now after 4am, I headed over to Coma Berenices and imaged M98.

(all galaxy images using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-Pro broadband filter, ROI=4144x2822 then cropped (some heavily), 60 second exposure for 30 minutes)

With my propane tank having run out of gas earlier in the evening, by 4:30am, I was getting tired and a little chilly, so I shutdown the cameras and scope and called it a night. Was hoping to make it back out later that Sunday evening, but that lingering front to our south pushed a bit further north, clouding me out.

Larry

-------- Original Message --------
Subject:[ORAS] Friday & Saturday Equinox Observing
Date: Mon, 22 Mar 2021

hi all,
Even though there was a waxing crescent Moon high in the sky, the clear skies drew me outback to observe on both Friday, March 19th, and Saturday the 20th. With the 'Spring Forward' time change from last weekend, it now wasn't getting dark till after 8pm, so killing a little time after dinner Friday evening, I flipped thru the April Sky&Tel. Good observing article on the 'Leo Triplets'. As the temp was going to dip down into the 30's, I dressed for cold and headed to the observatory at 8:30pm. Before long, I was joined via chat by Denny, Ed, and Dan out in their observatories, along with another chat with one of our Cherry Springs friends, Eric L, over in eastern PA with his scope setup in his driveway.

While the Moon was becoming brightly annoying, using the Optolong L-eNhance narrowband filter would allow me to work on my Sharpless HII nebula project. I started off up in Auriga, (near the Moon, lol), and pulled in several small, but bright SH2's. The best was SH2-219. To escape the Moon, I slewed the telescope over to Monoceros for several more Sharpless nebulas, with the best there being SH2-288 (IC466).


(using the travelscope 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-eNhance narrowband filter, ROI=4144x2822 then cropped, 60 second exposure for 30 minutes)

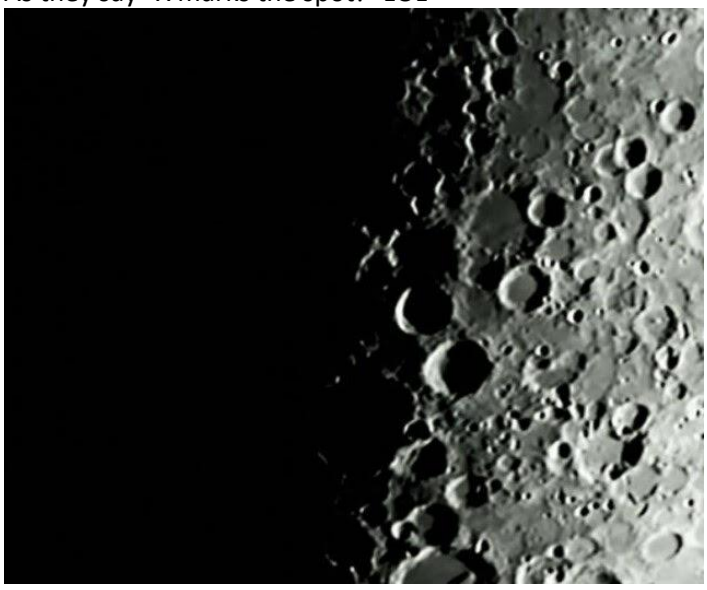
Spent some time using the inside observatory's Meade 8" SCT LX200 to video-observe the Moon using my old StellaCam-3 camera, but didn't save any pictures from that. After losing Monoceros to the trees, I moved over to Puppis for a few more observations. While imaging SH2-305, I got zinged by a satellite. At least it wasn't one of the planes from the local county-airport that seemed to be flying over in that direction. When one of those with its landing lights on goes thru the image, you know it!!


By midnight, the Moon was finally setting behind the south-western trees, so I decided to switch over to the L-Pro broadband filter and go after galaxies. Dan, Ed, and Denny were already imaging galaxies. I ducked-out the observatory door without my coat on to change out the pocket filters to a surprise chilly night. The temp was now in the low 30's, but inside the observatory it was a warm 67 degrees! I then pointed the telescope northward to the Whirlpool Galaxy - M51. After finishing up M51, I moved over to the Pinwheel Galaxy - M101 and followed it through the meridian.

(using the 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-Pro broadband filter, ROI=4144x2822 then cropped, 60 second exposure for 90 minutes)

With the clock going past 4am, I decided I was done for the night, so I shutdown the telescope and headed inside to bed.

That Saturday afternoon/evening of the Spring Equinox was much warmer, and with the ORAS public zoom meeting at 7pm, around the same time as a good showing of the "Lunar-X" transient shadow event, I headed out to the observatory early (6:30pm) to setup the Meade 8" for video-observing and get the laptop ready for the zoom meeting. No need for the heavier winter jacket tonight. By the time of the zoom meeting, the Lunar-X event was well under way, and would last for the next several hours as the Sun rose over that region of the moon. Here's a processed video capture image taken at 7:42pm with the 8" Meade at f10 using the StellaCam-3 analog vidcam.
As they say "X marks the spot!" LOL



(~200 frames stacked from a 10 second avi clip)
I've uploaded the raw video-clip to my Youtube channel: https://youtu.be/gHWzbm8lz0U

The letter "X" transient event is caused by sunlight illuminating the higher rims along the crater walls of Werner, Blanchinus, La Caille, and Purbach while the rest of the craters are still in shadow. It occurs every month right at the 1st Quarter. (another great lunar lighting event is the "Golden Handle" - sunrise on the Jura Mountains that occurs a few days before Full Moon - this coming Wednesday early evening). I kept watch on the "X" for the rest of the early evening, sharing phone shots with both Denny and Ed who were also imaging the event. While I had the Meade telescope up and running, I also captured/processed avi clips of the craters Aristoteles & Edoxus with the Caucasus Mts along the northern lunar rim, and the southern region around the crater Maurolycus

Once the zoom meeting ended, I began my imaging program with the outside 8" scope. After focusing the camera, the first stop was the Orion Nebula. By this time of year, Orion begins to edge close to the trees to my SW, so won't be long till I lose the Great Hunter for the season. Need to visit his Great Nebula while I still can!
I then went for several SH2's, including the nearby Running Man, (NGC1973 & 1977), but had to cut that exposure short when the guidescope lost its star to the trees.

(using the outdoor 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-eNhance narrowband filter, ROI=4144x2822, 5 second exposure for 5 minutes) (for the Running Man, same scope info, but using the L-Pro filter, exposure cut short to only 17 minutes).

I then moved higher-up to Orion's Club region and went for several very small SH2's located there. Even with the L-eNhance narrowband filter back on the camera, the moonlight interfered with getting a good image.

The best one was SH2-271/273:

With all the winter Milky-Way nebula fast slipping toward the trees or hindered by the Moon, I switched back to the broadband L-Pro and went galaxy hunting away from the moon across the meridian over in Coma Berenices.
Still, I stuck to the brighter island universes, starting with M100 that showed several nice spiral arms. I then moved farther eastward to the Blackeye Galaxy - M64 and it's prominent dark lane that gives it its name.

(8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-Pro broadband filter, ROI=4144x2822 then cropped, 60 second exposure for 1 hour) (for M64, same scope info, but total exposure of only 30 minutes)

At this point, I was tiring out from the late night the previous evening, so I closed-up shortly after 2am.
So, two good nights of observing under a bright March Equinox Moon. Not bad at all!

Larry