2022 March Observations from Big Woodchuck Observatory

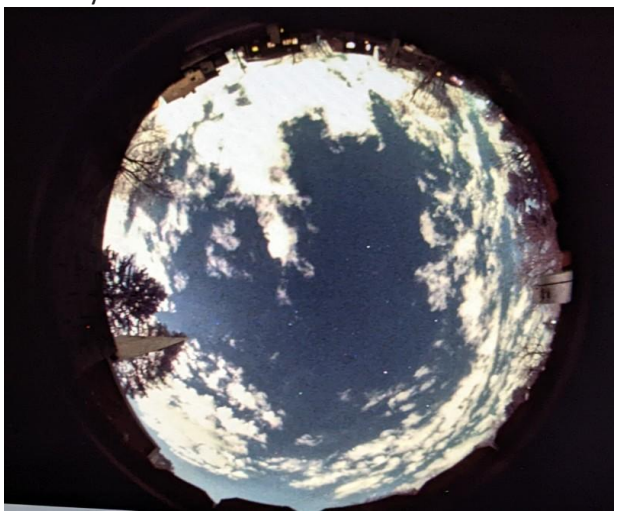
-------- Original Message --------
Subject:[ORAS] under a Shamrock Moon
Date: Thur, 18 March 2022

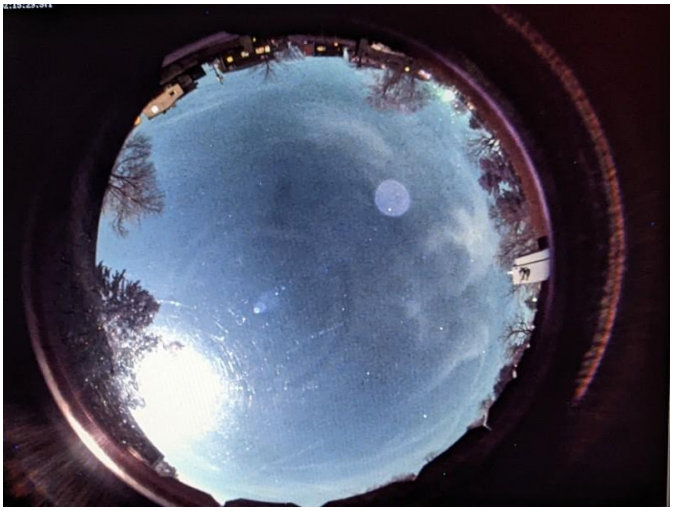
hi all,

With the warm, dry weather this past week, I decided to disassemble the travel-scope that has been out in the backyard all winter and slepped it up to my garage. (Takes about 5 trips up 2 flights of steps,,, ugh!). But, I kept out the cameras and the MoonLite crayford focuser with the new EAF and filter wheel, and installed those on my observatory's Meade 8" SCT. Hoping to get a little more practice with the setup before heading out on a camping trip in a few weeks.

I also wanted to try-out several new features in the SharpCap imaging software program that I use which involves satellite trail removal, and practice creating flat frames using a light-panel.

So, after a cloudy start, yesterday afternoon's skies cleared and I headed outdoors after 8:30pm once it was dark enough. (Not that it was really dark, with the Full Moon rising at sunset. Oh, and I want my standard time back!) Once the observatory was opened-up and cameras and laptop up and running, I had to wait for a few late clouds to roll over. By then the Moon had risen above the trees.





I had originally planned on using the narrowband L-eNhance filter to observe HII nebula, but with the objects that I wanted to work quickly dropping below the observatory's western wall, I decided to try the broadband L-Pro filter on a few open clusters that were close to the meridian.

Here's an EAA observation of star clusters M93 in Puppis, and M48 in Hydra:

8" SCT @ f6.3 Fork Wedge, ASI294MC camera & L-Pro broadband filter, 15 second subs for 5 minutes.

I then tried a little galaxy observing, but the bright moonlight was overwhelming on longer exposures.
Here's an observation of NGC3115 located in Sextans:

8" SCT @ f6.3 Fork Wedge, ASI294MC camera & L-Pro broadband filter, 15 second subs for 10 minutes.
The spindle shaped galaxy was only 30 deg away from the Moon to the east. Probably could have observed more detail is I had let the livestack run longer, but I decided to just wait till next week when the moon is not up.

And finally, to close-out this observing session, I gave in and pointed the telescope to the Full Shamrock Moon.

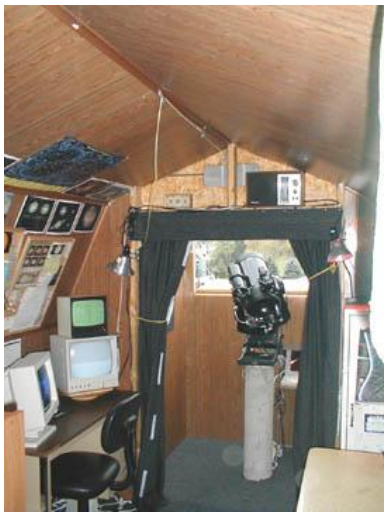
8" SCT @ f6.3 Fork Wedge, ASI294MC camera & L-Pro broadband filter, 15ms, single frame.
LOL! Larry

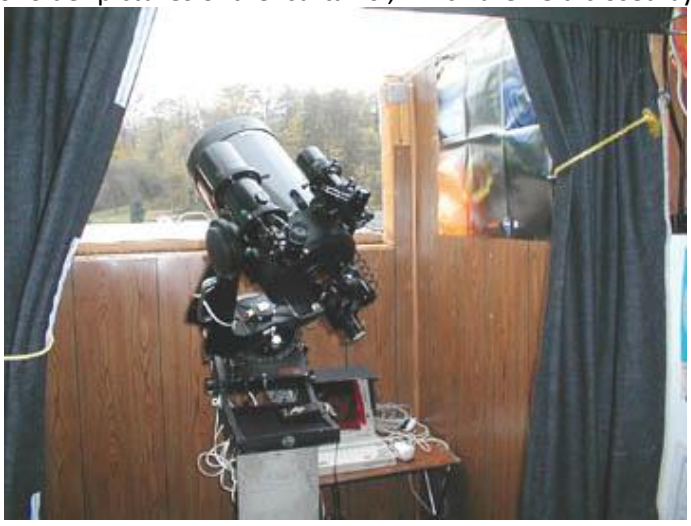
-------- Original Message --------
Subject:[ORAS] a couple of March nights
Date: Tues, 22 March 2022

hi all,

With the Moon now several days past full and rising later, I got out for a little EAA backyard observing this past Sunday (3/20) and Monday (3/21) evenings. Wanted to work on both my SH2 emission nebula and Abell planetary nebula projects using the L-eNhance narrowband filter, which greatly helps with these types of objects.
Sunday was the better of the two evenings, with good transparency, while Monday was much poorer skies, though we did have an extra hour of darkness before moonrise. Late Sunday afternoon, I headed out to the observatory shed to start-up the allsky cam and prep a few things for later. The sky was a beautiful clear blue with white puffy clouds that would soon dissipate at sunset:

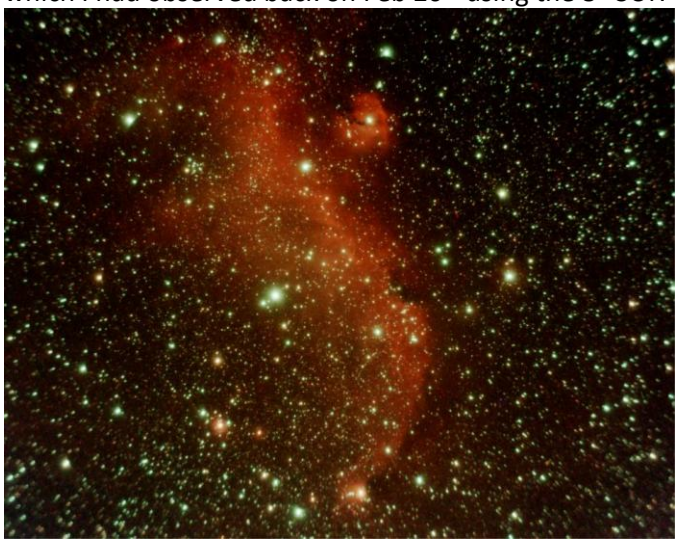
At 8pm, I headed back to the observatory. The Winter Constellations were beginning to sink towards the SouthWest horizon, and the Spring stars rising in the East. With the outdoor temps dipping into the mid-40's, I turned-on the propane heater to take the chill off the observatory interior. After uncovering and powering on the Meade 8" SCT and laptop, I cranked-open the observatory flip-roof, sync'd the telescope on Sirius and focused the camera.
Once the telescope was set, I pulled close the heavy blackout curtains that separate the telescope 'room' from the rest of the observatory interior, so that the heat stays inside and doesn't bother the scope. The curtains also block stray light from the laptop. Here are a couple of older pictures of the 'curtains', which are held closed by Velcro.





I started the session off in Gemini the Twins with an observation of SH2-247, near the border with Orion.
8" SCT @ f6.3 Fork Wedge, ASI294MC camera & L-eNhance narrow filter, 60 second subs for 30 minutes.

I then moved down to Monoceros the Unicorn, to the 'Seagull Nebula', (IC2177), just a little ways above and to the left of Sirius in Canis Major. I had previously EAA observed the seagull (SH2-296) back in Nov 2020 using my 60mm f4 refractor, but now I've been working on re-observing its individual SH2 components such as its 'head' SH2-292 (vdB93), which I had observed back on Feb 26th using the 8" SCT.



Tonight I wanted to continue with several additional SH2 objects within the larger nebula.
First was SH2-297, the bright knot at the 'lower wingtip', followed by nearby SH2-293 & 295:
Here's SH2-297 with the 8" SCT, 60 second subs for 15 minutes:

I could only EAA/observe the SH2-297 for 15 minutes as that section of the sky was now setting behind the observatory's wall. Sh2-293 and 295's observation had to wait till Monday evening (along with a piece of SH2-296's 'wing' in the lower left), imaged with the 8" SCT, 60 second subs for 30 minutes. Both objects suffered from the poorer transparency of Monday's skies. The observation was sub-optimal, but with rain coming in for the rest of the week, this was the last opportunity for using the observatory telescope.

I finished-up the SH2 observing with nearby SH2-294, a much brighter emission nebula that punched-thru the hazy Monday evening conditions. (8" SCT, ASI294MC camera & L-eNhance narrow filter, 60 second subs for 30 minutes)

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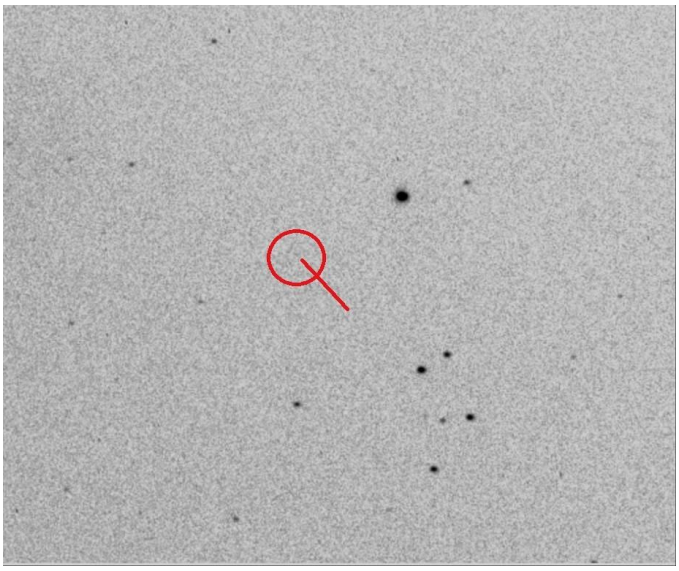
I also EAA/observed several Abell Planetary Nebula on both evenings, including Abell30 in Cancer, and Abell33 and 34 in Hydra. Abell planetaries are generally very large, faint and old, making them difficult to observe even from a much darker-sky location than my backyard. So of the three that I observed, only Abell33 from Sunday evening is worth sharing an image of: (8" SCT @ f6.3, ASI294MC camera & L-eNhance narrow filter, 60 second subs for 30 minutes)

Finally, Sky & Telescope magazine has an interesting article in its April issue (page-57) on observing Quasars.
There are a number of them located close to the +5.5 mag star 52 Leo, not far from M95, M96 & M106 galaxies.
While Sunday evening would have been a much better night to try for these, I waited till Monday,,,,, ☹
As the transparency was lousy Monday evening, I wasn't really expecting much success, as these are +18 mag quasars, but I thought it would still be a good 'test run' of the equipment. It also didn't help that by the time I attempted this, the Moon had risen, further degrading the sky conditions. So I switched the manual filter wheel over to the broadband L-Pro filter, as it gives better star images than the L-eNhance, and refocused the telescope on Regulus. I then slewed the telescope to the target star.

First up is a 5 second image (stack of 12) of the central area around 52 Leo. (I set the camera's ROI at 2072x1410)
This matched-up well with the magazine's 'finder-chart' photo of the general region on page-58.

The fainter star in the lower right corner is one of the finder stars in the photo-chart for the +18.9 mag quasar labeled as #6 in the article.

Here's the image of #6 quasar test, both regular and negative, where I was able to match the photo-chart.
(image post-stretched).
I 'think' if the sky conditions had been better, I 'may' have been able to pull in the quasar. As it is, there's almost something visible in the location of the quasar, but its right at the noise level threshold.
(8" SCT @ f6.3, & L-Pro filter, 60 second subs for 5 minutes)



So, this little 'test run' gives me greater confidence that on a better night of sky conditions, that I should probably be able to EAA/observe these quasars from my backyard observatory. And even better prospects from a dark-sky location. When I get a chance to make a good observation, I'll post a follow-up.

Larry