

2022 February Observations from Big Woodchuck Observatory

----- Original Message -----

Subject:[ORAS] a February observing run - Sunday 2/20 and Monday 2/21

Date: Wed, 23 Feb 2022

hi all,

Having started out in the hobby as an 'old school' visual astronomer, I still tend to avoid observing when there's a bright Moon overhead. (I know, my narrowband filters should now allow me to do EAA observing with the Moon up, but old habits die hard,,,) Anyway, watching the weather forecast, I noticed there was going to be a short window of dark sky Sunday evening before Moonrise. Between the warm afternoon temps and my itching to try out my new ZWO electronic focuser, I headed outback to the observatory to fire-up the AllSky camera and to install the new focuser and prepped the 8" travel scope telescope for the evening.



Once dark, around 7:00pm, I dressed in heavier clothes and walked back down to the observatory with my laptop and observing notes. The sky looked good!! Well, at least for what I can get from my backyard! LOL



After connecting the USB to the laptop and starting up the planetarium and camera software, I discovered that the laptop couldn't communicate with the astro equipment.

Spent the next hour debugging the issue, and determined that the USB3 hub out on the telescope wouldn't power on. (with all the rain we've had, I think moisture must have gotten to it). So I dug out an older USB cable with a powered hub on the end and ran it out the observatory door to the telescope. Wasn't the best solution, as the cable didn't have enough USB sockets for everything to be plugged in at once. I ended-up having to switch out the new

focuser and guidecamera depending on what I needed to use.

While it worked, it made for a bit of back-n-forth walking between the indoor laptop and outdoor telescope. Once everything was up and running, I slewed the telescope over to Orion and redid my earlier January observation of NGC1999 with the nearby Herbig-Haro objects. This time around, the darker sky helped bring out a bit more detail.



8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-eNhance narrowband filter, 180 second subs for 45 minutes.

I then moved on to my Sharpless project (SH2) observations in Orion, which was now diving toward the trees to my southwest, and then higher up in Gemini.

The best of these was SH2-249 near +2.9 mag Mu Gemini.



8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-eNhance narrowband filter, 60 second subs for 30 minutes.

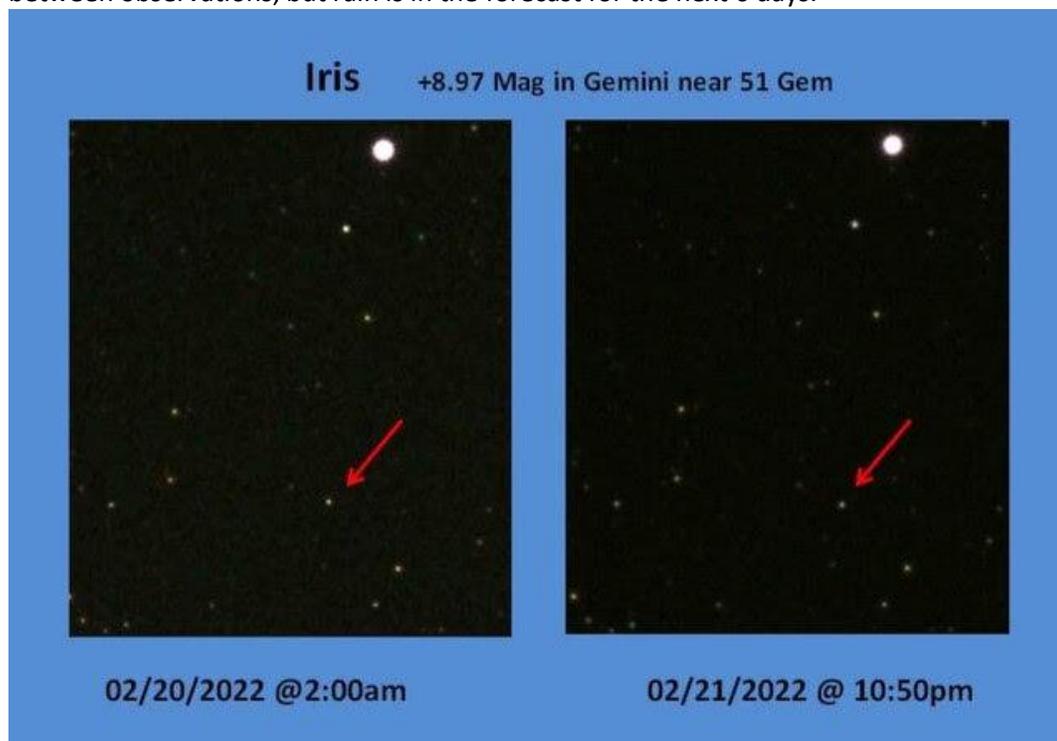
With the waning gibbous Moon now above the horizon, I decided to spend time trying out different software settings on the new focuser. ZWO makes a sweet little piece of hardware!



As the sky was now washed-out, I decided to move from deep-sky to shallow-sky with an observation of the asteroid Iris, coasting thru Gemini. It's currently a faint dim fella, at mag +8.97. After completing that observation, and puttering around the observatory for a bit, I decided to call it a night. Hopefully I will get another chance Monday evening to make a confirmation observation of Iris.

Late Monday afternoon, an approaching front began to move haze and occasional light clouds into Western PA. At sunset, it thickened into an overcast and I thought I had lost out for the night. But then around 10pm, a large semi-clear opening rolled in from Ohio.

I quickly headed out to the observatory and started-up the telescope and cameras. I then slewed the telescope back over to Iris's location and lined-up the same field of view from Sunday night and captured a quick 15 second observation. The next day, I confirmed the asteroid capture and put together this comparison slide showing the asteroids slight movement among the background stars. Would have been better to have a couple more days in-between observations, but rain is in the forecast for the next 6 days.



Canon 100mm lens @ f5.6 piggybacked on an Atlas Gem, ASI290MC camera no filter, one 15 second image.

As the sky had grown hazier. I decided to observe a few of the brighter late-winter open clusters in Canis Major, Puppis, Monoceros, and Cancer that were still visible thru the poor transparency.

M41:



NGC2362



M47



M50



M67



all made using the 8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-Pro broadband filter, 15 second subs for 5 minutes.

After finishing the observation of M67, only a scattering of a few bright stars were still visible, so I shut down the telescope and made sure everything was covered up for the expected rains. Hopefully, I'll get a few clear nights during next week's New Moon.

We're now entering 'Galaxy Season'!!! :-)

Larry

----- Original Message -----

Subject:[ORAS] A frosty February Evening of 2022

Date: Sun, 27 Feb 2022

hi all,

Yesterday's sunny weather enticed me outback for another night under the February stars.

I headed out early before sunset and started up the observatory laptop to began capturing AllSky frames.



Once dark, I began the evening in Orion, just passing over the meridian. Wanted to test a few additional Sharpcap features that I hadn't tried before, so I chose the Great Nebula as a test subject. I was imaging very short exposures, 3 seconds in length, and letting the software slowly livestack the individual frames as I tweaked the captures. Here's an individual frame, and the final stacked observation of 60 subs for 3 minutes in total. (both images were cropped) The individual frame reminds me of the visual view that I've seen thru telescopes, though not that much color, mostly greenish. Can anyone else see the 'Fish Head'?



8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-Pro broadband filter.

Before switching over to the Sharpless observing project, I dropped down in altitude to the rabbit skirting along the horizon, to globular cluster M79 in Lepus the Hare.

Here's the observation, 15 second subs for 5 minutes total:



The sky was a bit hazy throughout the evening, but still good for EAA observing. (north is at the top)



I then spent several hours in Orion and nearby Monoceros observing small SH2 HII emission nebula. The two best of the evening was vdB93 (SH2-292), and the Rosette Nebula & cluster NGC2244: (need a better wide-field scope for the Rosette!)



Both of these are 60 seconds subs livestacked for 30 minutes. 8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-eNhanse narrowband filter.

With the Spring Constellations now approaching the meridian, it was time to switch gears and go galaxy hunting! Before working on the smaller Arp Peculiar galaxies that I like to observe, I first 'warmed-up' on a couple of splashy Messier's, M81 & M2 in Ursa Major.



Both of these are 180 seconds subs livestacked for 30 minutes. 8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-Pro broadband filter. One of the fun things about doing EAA and livestacking is that you can 'play' with the observation in real-time. For example, in the above image, I didn't want to blow-out the core of M81, so I toned-down some of the capture settings. But I also wanted to see more spiral arm detail, so after I saved the first image, I gave the live histogram a tweak. Not the most 'pretty' of images, but I could now follow the arms and see more HII region details as they spiraled out from the core.



I then moved on to the Arp project, capturing several new peculiar galaxies in the general area around M81/M82. The best of the lot was NGC2523. I was able to observe the splits in the spiral arms coming off the central bar, which is this galaxies peculiarity.



180 seconds subs livestacked for 21 minutes. 8" SCT @ f6.3 Atlas Gem, ASI294MC camera & L-Pro broadband filter.

With the clock well after midnight, I decided to call it a night.

Finally, Here's the AllSky time-lapse from the evening: <https://youtu.be/c8jsfunjq3E>

Big Woodchuck allsky: ASI224MC camera & fisheye lens in a DIY dome. from sunset till sunrise. Watch for the Winter constellations setting to the west, and the Spring stars wheeling overhead. As a 'bonus' there's a little frost on the dome at the end. LOL.

Larry