## 2021 May Observations from Big Woodchuck Observatory

------ Original Message ------Subject:[ORAS] Starlink!!!!!
Date: Fri, 07 May 2021

hi all,

With the late afternoon clearing, the blue skies were enticing me out to the observatory. But, according to my weather app, clouds were heading in from the west, and soon bringing more rain with them, so I put off going out at sunset to open up. I kept looking out the house windows at the still clear skies to my South, but by 9pm, I could see a few dark clouds inching forward from my NW. With the sky rapidly darkening, I knew it was time to make a decision on whether I was going out or not, so, I decided to step outside the kitchen door around 9:25pm for a guick look.

As my eyes began dark-adapting, I quickly picked-up Arcturus rising over in the East along with the Big Dipper. Then as as I continued to turn my head toward the north and looking higher-up, I was gobsmacked!!!! There 'flowing' out of the NW was a line of dozens of bright satellites! It only took a moment to realize that a SpaceX Starlink satellite train was going overhead. My First!

After I picked my jaw off the ground, I ran back inside and called for Suzanne to quickly come outside to see it.

After a few 'holy crap, look at that', I pulled out my cellphone and snapped away. Putting the camera into nightmode, I got a good shot.



It took several minutes for the satellite train to pass over, long enough for us to call our kids on the phone for them to see it too. At one point the line of satellites stretched nearly overhead from the NW to SE horizons.

Almost every one of them was nearly as bright as Arcturus that they were cruising past. It was quite the sight!!

The spectacle had to have been visible from all of Western PA. Hopefully, the short-lived clear sky enticed a few other club members outside and they were able to catch the 'train'.

Larry

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

**Subject:**[ORAS] a Busted observing night in May

Date: Sun, 09 May

hi all,

Once again, I was enticed out to the backyard observatory by late day sunny skies. Should have known better as earlier in the day, it sleeted while I was cutting the grass!

Prior to sunset, I had gone out and started-up the allsky camera in hopes of catching a Starlink repeat performance, or the Wallops Island NASA rocket launch, or maybe even the Chinese rocket booster that was going to reenter. (struck-out on all three! LOL) In reviewing the weather forecast, I knew it was going to be a repeat of Friday night, a few hours of relatively clear skies, eventually clouding over. So at 9pm, I headed back out to uncover the telescope and maybe chase Comet Atlas and a few galaxies.

Unfortunately, the incoming weather front from the Northwest pushed hazy skies before it, which tossed my observing plans out the window. So, after sitting the telescope on Arcturus for awhile, waiting to see if there would be a beak in the haze, I decided to slew the scope over to bright globular cluster M3 in Canes Venatici. Was pleasantly surprised by how well the cluster punched thru the haze.



(8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-Pro filter, ROI= 4144x2822, 30 second exposure for a total of 5 minutes)

I should have remembered from past hazy nights at Cherry Springs how star clusters are still visible.

Not long after I had finished imaging M3 and getting ready to point the telescope to nearby globular M53, the haze began to thicken into clouds. I decided to call it a night and after shutting down and covering up the equipment, headed into the house. So maybe not a total bust observing after all,,,,,,,

Larry

----- message -----

Date: Wed, May 19, 2021

Subject: May 2021 New Moon Observing

hi all,

Was out last Wednesday & Thursday evenings in the backyard observatory during a couple of really good nights that we had. Wednesday night was a little chilly out as the temps dipped into the mid-30's, but the transparency was some of the best that I've seen in years from my house. I almost convinced myself that I could even faintly see the Milky-Way once Sagittarius hit the meridian. (probably just my imagination - lol).

Thursday was almost as good of an evening, but the temperature was more moderate dropping only into the mid-40's.

On both nights I focused on working my Arp Peculiar Galaxy project, eventually video-observing/imaging a dozen new Arp objects. Most were faint fuzzies, good to add to my project page ( <a href="http://stellar-journeys.org/arpgalaxy.htm">http://stellar-journeys.org/arpgalaxy.htm</a> ), but only a few interesting enough to share with the group. Here's the best of the lot:

Arp307 (NGC2872, 2873 & 2874 in Leo) classified as "Double Galaxies" (left) Arp316 (NGC3185, 3187, 3190 & 3193 in Leo) "Galaxy Group" (right)





Arp83 (NGC3799 & 3800 in Leo) "Large High Surface Brightness Companion on Arm" (left) Arp313 (NGC3991, 3994 & 3995 in Ursa Major) "Galaxy Group" (right)





(all imaged using my travelscope - 8" SCT optical tube @f6.3 on the Atlas GEM, with the ASI294MC camera & L-Pro filter, ROI= 2072x1410 then cropped, 60 second exposure for a total of 30 minutes)

While I was observing in Leo, I took some time to search out an interesting object named the "Frosty Leo Nebula" that I had learned about over in CloudyNights: <a href="https://www.cloudynights.com/topic/764477-observing-the-frosty-leo-protoplanetary/">https://www.cloudynights.com/topic/764477-observing-the-frosty-leo-protoplanetary/</a> Frosty Leo, (also known as IRAS09371+1212) is a Red Giant star in the early stages of becoming a planetary nebula, and was only discovered about 30 years ago. Sky and Tel also has an observing article from 2018 about it with a link to a research paper: <a href="https://skyandtelescope.org/observing/put-a-little-bit-of-leo-in-your-life/">https://skyandtelescope.org/observing/put-a-little-bit-of-leo-in-your-life/</a> The protoplanetary, while bright, is very small. Here's my attempt at video-observing it using the 8" SCT.



(same telescope - camera info as above, highly cropped and enlarged, but only a 10 minute total exposure). You can barely make out the 'anse' to either side of the box-shaped nebula. I'm thinking one of the scopes at the ORAS Observatory would do much better on this object.

Finally, I imaged a nearby galaxy on Virgo, NGC5746, as part of the monthly 'Observers Challenge' project that I contribute too"



So this will probably be the last video-observation that I'll make from my backyard using my travelscope. As everyone in my family is now fully vaccinated, sometime in the next week, I am going to disassemble the setup so I can take it on the road to Cherry Springs, Calhoun, ORAS Observatory, and elsewhere.

Just hope I remember how to reassemble it! LOL