ORAS Spring StarGaze May, 2026

One again, the spring weather was not cooperating. For the May ORAS Spring StarGaze new Moon week, the weather forecasts were not very promising looking. Still, there's always hope, so several of the ORAS Facilities Committee members decided to head to the observatory on Monday. Having loaded the car earlier Sunday afternoon, and the camper on Saturday, I had just a few last things to go in that Sunday evening. That's when I discovered that my camper fridge had died on me! (It was running fine Saturday night when I loaded perishables. After throwing out the milk and cheese tray, I tried to reset all the AC breakers, but it's too dark to pull the DC fuses to check. Everything else seems to be working in the camper. I'll have to troubleshoot once I'm up at ORAS.

Monday 05/11/2026:

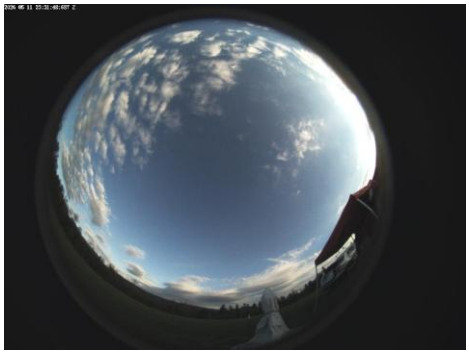
Up at my usual time Monday morning, and puttered around the house to let the PGH rush hour traffic die down. Headed northwards up I79 at 10:45am. Pleasant drive under mostly sunny skies, though the closer I got to the observatory the cooler the temp. Arrived at the ORAS Observatory at 1:10pm. Both Dean M and Dean S has been onsite earlier to mow the observing field. Dean M had his trailer parked in the West field and was assembling his telescope, while Dean S was looking for a camping spot over in the east field. I waited till Dean S had settled into a site then pulled in near him.



After setting up camp, I assembled my main EAA telescope: 8" Celestron SCT optical tube @ f6.3 with a ZWO ASI294MC-Pro camera, ZWO filter wheel & focuser, on an Atlas EQ GEM mount, along with a piggybacked Sky-Watcher EVO 50mm refractor with a ASI294MC camera, and a 60mm Antaries refractor guidescope with an ASI120MC camera. Also my AllSky cam, a ZWO ASI224MC camera & fisheye lens in a DIY dome attached to a tripod. And my SeeStar S30-Pro smart telescope and equatorial wedge & field tripod.


During the afternoon, the sky had gone cloudy, but at sunset it began to clear setting us up for several hours of good observing sky conditions. Around 8pm, ORAS member Alexi arrived and parked his minivan near the front of the observatory on the gravel pad and assembled his telescope imaging gear. While waiting for dusk, I uncovered the main telescope and assembled the rear clamshell blackout tent, and organized my target lists.

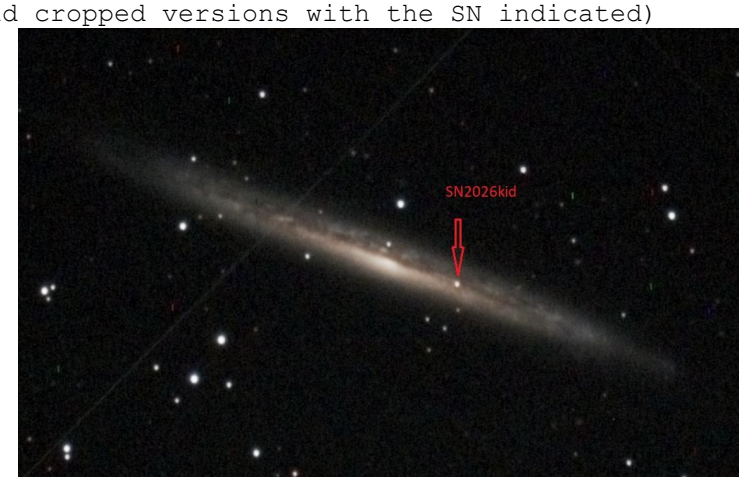
I then setup the S30-PRO over by the observatory for star-trail imaging.
Shortly after 9pm, Dean M was the first to spot Polaris. Within a few minutes, I sighted it too and soon had the Atlas mount polar aligned. I then pointed the telescope to the bright star Arcturus in Bootes and spent a few minutes focusing and aligning the 8" optical tube with the EVO50mm finderscope and the 60mm guide star.


Once Astronomical Twilight has set-in, my first target of the night was Supernova SN3026kid a type II stellar core collapse explosion in the "Splinter Galaxy' NGC5907 located in Draco about 46.5 MLY away. The +15.6 mag SN, now on its way to becoming either a neutron star or a black hole, displayed nicely embedded within the dust lanes of the edge-on +11th mag galaxy. The galaxy's core is partly obscured by all the dust in the disk, which shows as numerous dark extensions.
(Thanks go to John L of the Kiski Astronomers for the reminder).
Here's an old 'pre-explosion' video-capture of NGC5907:

06/14/2012 - 6" RC @ f9, StellaCam-3 analog B&W video-cam and .5 focal reducer, IR filter, 30 second single exposure

Here’s the EAA observations: (wide FOV, and cropped versions with the SN indicated)

(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

While I was extra-galactic supernova hunting, Alexi was working thru equipment issues and going for Arp galaxies, Dean M was imaging M60, then later M81, and Dean S was shooting the galaxies of Markarian’s Chain in Virgo for the night. Tis Galaxy Season!!
During the early part of the evening, Dean S reported that he was getting some of the best SQM readings for ORAS. The sky visually looked exceptionally great!
Once I had wrapped the supernova hunt, I began working on my long-running Arp Peculiar Galaxy observing project. (It takes awhile to get thru the 338 Arp galaxy catalog!)

My plan was to catch individual galaxies as they rose in the east and approached the meridian where they would be at their best. I started off in Bootes, and then worked my way southwards into Virgo, then later back higher into Hercules. Observations below.

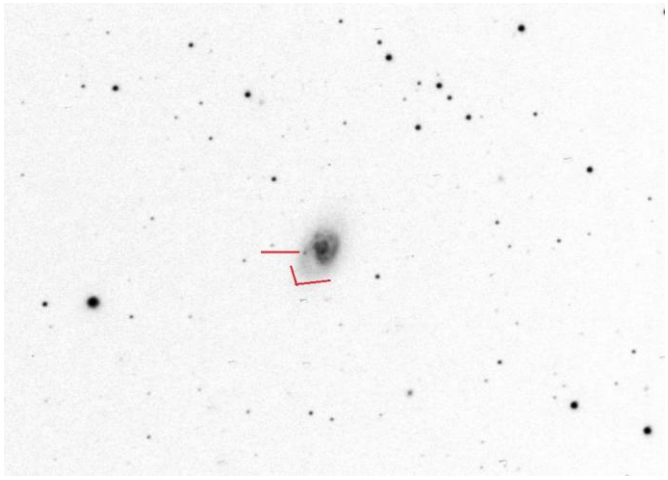
At 11pm, "Tick Toc! It's KitKat O'Clock" - I delivered KitKats candy bars around the field to our little group.

Shortly before 11:30pm, the SeeStar S30-PRO completed its hour long Polaris star-trail over the observatory. Here are the results: in addition to the trails, the S30 also caught a red flashlight dimly illuminated the front of the observatory, and my walking in front of the S30.

(SeeStar S30-Pro: 60 second exposures in Star-Trail Mode, Alt-Az Mount, IR filter, stacked for 60 minutes, then AI noise reduction applied in-app)

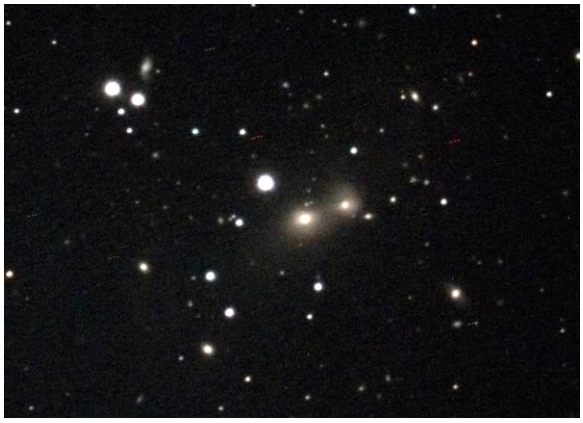
I decided to leave the SeeStar still pointing at the observatory and started up a two hour Time-Lapse mode exposure while I worked with the 8" SCT back at camp. Unfortunately, that was the first time I had tried that S30 telescope function and didn't turn-out very well. I'll need to practice a bit more with that mode and try again.

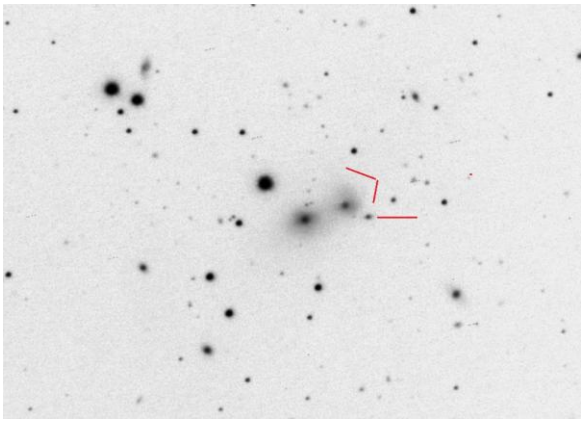
As I mentioned above, after the supernova hunt, my first Arp Peculiar Galaxy target of the night was NGC5665 (Arp49) in Bootes. It's a small, but bright +12.7 mag galaxy with an even smaller, nearly star-like companion object embedded within a spiral arm which it is disrupting. Several dark lanes can be glimpsed along the right edge of the main galaxy. Here's both a positive and negative view of the galaxy with the peculiar features indicated.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

I then slewed the 8” telescope down into the galaxy rich constellation of Virgo. My next target was Arp171 – the interacting pair of NGC5718 & IC1042 with several ‘friends’ (IC1039, PGC52451, PGC52452, PGC1253615, and SDSS-J144036.97+032752.9) located within in the FOV. The main pair of galaxies, at +13.9 & +14.3 mag, displays a faint wispy connection between the two and a faint counter-tail from IC1042 opposite of SDSS-J. Here’s the EAA observation: (8" SCT – same tech specs as above).

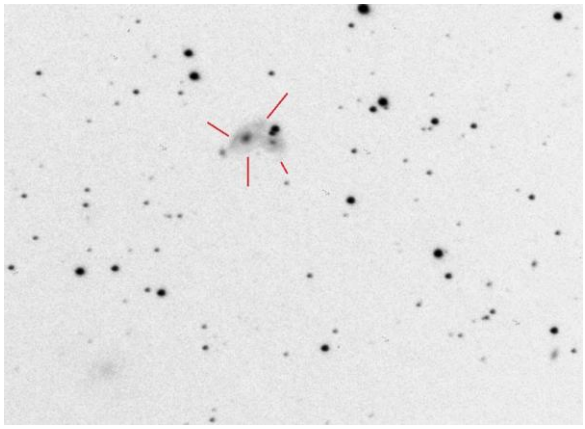




Around 11:30pm, scattered clouds began moving along the southern horizon. Then at 12:30am, light haze and clouds began to drift overhead, messing with the 8” telescope guiding while I was attempting to capture images. Several times I had to pause my livestack observing to allow them to pass thru the FOV.

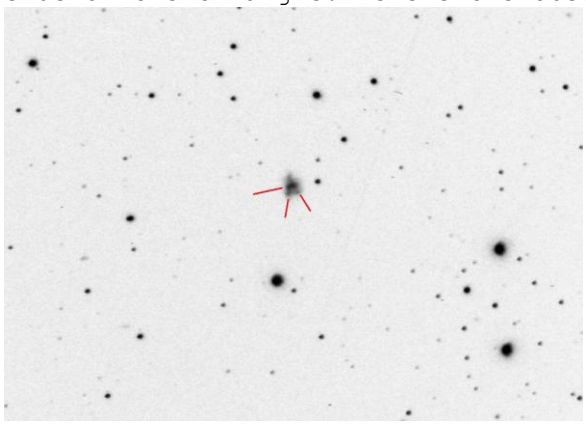
A little after midnight, Dean M sent a welcomed text that he had made hot chocolate with Bailey's so I grabbed my mug and headed over to his camp for a visit. Soon we were joined by Dean S.

Once back at camp, I continued with hunting Arps, with the next target sill in Virgo, Arp274 – NGC5679. This is a small grouping of three interacting galaxies: MCG+1-37-34, MCG+-37-36, and MCG+1-37-36 (all under the general ID of NGC5679). Dust lanes and spiral arms were visible in the two main galaxies with visible connections among all three. Within the FOV, there were several other galaxies, a couple of small PGC galaxies – PGC52141 & PGC1280787, along with a large very diffuse face-on spiral – UGC9385. Here’s the observation:



(8" SCT – same tech specs as above).

What turned-out to be the last Arp galaxy of the night was Arp209 – NGC6052 in Hercules. This was a small, +13th mag oddball triangular shaped object with what looked to be an elongated core with several knots along one side of the triangle. Here's the observation:



(8" SCT – same tech specs as above).

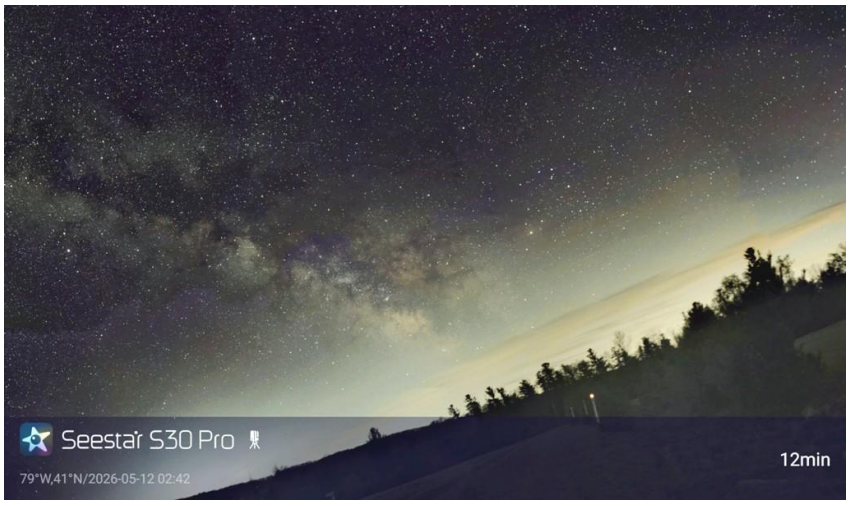
The next day, while reviewing the EAA capture of NGC6052, I spied near the corner of the FOV, a small group of interesting galaxies. The ORAS internet was sketchy at the time, so I couldn't connect to my favorite website tool – WikiSky, for verifying the objects, so I made a note to check the mystery pair once back home. A week later I was able to identify the two brighter spirals as PGC57124 & PGC57125, both of which showed spiral arms with dust lanes. Nearby (to the left) was also PGC214459 and a small face-on unidentified galaxy just to the upper right of PGC57125. It pays to always check out the full FOV of an observation to see what else might be lurking there! Here's the capture:

While attempting to connect to Wikisky, I had the S30-Pro working on a quick constellation capture of Cygnus. You can see the N. American Nebula by Deneb, and hints of the Butterfly Nebula by Sadr in the center of the FOV. The constellation of Lyra with Vega is visible to the upper right. It will be fun to come back to Cygnus later this summer for more widefields!

(SeeStar S30-Pro: 60 second exposures in Milky-Way Mode, Alt-Az Mount, IR filter, stacked for 5 minutes, then AI noise reduction applied in-app)

While finishing the Arp209 observations, around 1:30am, more widespread clouds rolled thru, eventually prompting me to power down the main 8” scope around 2am.
But at 2:30am the south mostly cleared with the summer Milky Way well placed, rising to the meridian.

After putting the 8” to bed, (Frost on the telescope, outdoor down to 30 deg!), I decided to use the S30-PRO to capture a few more observations, first doing a partial mosaic in Stargazing Mode of the Antaries region in Scorpius with Rho-Oph. I then did a Milky-Way Mosaic of Sagittarius rising, showing detail all the way to Altair in Aquila. The clouds were a hindrance, but it was a promising view for a clearer night!



(SeeStar S30-Pro: 60 second exposures, Alt-Az Mount, Milky-Way Mode, IR filter, stacked for 3 or 12 minutes, then AI noise reduction applied in-app)

Called it a night at 3am, shutdown the S30-Pro, and plugged it in to charge, then headed indoors to bed.

Here’s the AllSky time-lapse from Monday night: https://youtu.be/RsFZ8g0izLM

Tuesday 05/12/2026:
Slept in till 10:30am.
Visited with the guys for a bit then headed indoors for brunch. Alexi headed home a little before noon. Dean S worked on finishing mowing the western field while Dean M installed several new power outlets on the main west field power pedestal.
It was going to be a warm sunny day, so I got out the camper window awnings and the easy-up wind break.

The Dean's and I spent the afternoon tearing out my camper fridge trying to figure out why it had stopped working. Finally determined it had a bad power switch.

At 5pm, the three of us met at Dean S for refreshments. Around 5:30pm, Tim S joined us. The sunny sky began to give over to clouds as a front moved in from the northwest. There would be No observing tonight. A little before 7pm, everyone headed over to the observatory warm room where we zoom -in for the ORAS Board meeting.

Afterwards we spent the remainder of the evening back in Dean S's camper 'lounge'. Headed back to my camp at 10:30 to phone home, then read till midnight when I called it a night

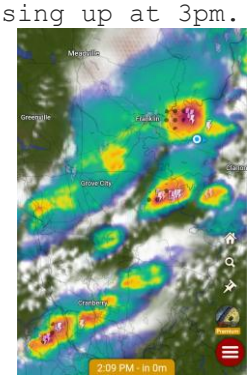
Wednesday 05/13/2026:
Woke at 7:30am to the sound of rain hitting the camper roof. The rain lolled me back to sleep, so I rolled back over till 8:30am. After breakfast, we waited till it warmed up around 11am, and the three of us assembled several new club picnic tables for the outdoor classroom. They look nice and should last for a long time.

We then carted the boxes down to the fire pit by the Jones Building and burned them. While there we unlocked the main building, restroom, and shower for use by any attendees of the Spring Stargaze which starts this afternoon.

(this photo is for Gary who likes to burn things,,,, ☺)

The Internet kept cutting out during the day with "Jones has no Internet access" messages. Dean M called the provider who determined there was a problem on our pole. A crew was dispatched to fix the issue on the pole.

At 2pm, a line of thunderstorms moved in, sending up scurrying back to camp to batten down. The wind had already half-stripped the easy-up side walk so I hurriedly packed that away and headed inside the camper to ride out the storm. After a few strong wind gusts and a brief heavy shower, the storm was over in 5 minutes. But another stronger storm cell was behind it heading our way with near continuous thunder. Fortunately it passed to our north, throwing only a little rain and hail towards us. It continued to rain off-n-on for the next 45 minutes, finally easing up at 3pm.



Around 4pm, took a late afternoon nap. Gary S arrived around 4:30pm and setup next to Dean S and to my north. Two other ORAS club members, Les and Randy arrived for the Stargaze with a small cargo trailer and tents and setup to my south.

At 5:30 Gary Dean S and I gathered under Dean's awning for happy hour. (Dean M had left to go assist Chris T with an ORAS library program in Meadville. We commiserated about the cloudy, damp, and cold weather for tonight. Again, no observing later

At 6:30p , I headed back to camp to fix dinner and phone home. I decided to get out my laptop and work on the images from Monday night. A little before 9pm, Dean S dropped over to visit, followed shortly afterwards by his brother Gary. After about an hour of visiting, they headed back to their camps and I finished up working with my laptop. Stepped outside around 11pm to find the sky still clouded over and the air chilly and damp. Stayed up till about midnight reading.

Thursday 05/14/2026:

Woke to a dreary cool morning. Cloudy, 42 degrees and spitting raindrops. The forecast showed a little sunshine breaking thru this afternoon with a high of 48! Doesn't look good for any observing tonight.

After breakfast, I walked down the main road and watched Penn Fencing install the metal posts for the solar system model. Dean M and I then walked out the location of the proposed north power pedestal. With a drizzle settling in, I headed back to my camper to warm-up inside.

After lunch, Gary S assembled his new widefield telescope and mount inside the observatory warm room to practice. A little after 2pm, ORAS member Dave R arrived and setup his pickup truck camp on the south field.

At 5pm, Dean M, Gary, and I joined Dean S over in his camper for snacks where we discussed the latest astro software and current events. As we were breaking up a little after 6pm, Tim S dropped in to visit. I headed back to my camper for dinner and the nightly phone home.

At dusk, Mark pulled in with his camper and setup to my east. The wet weather had eased-up, but we were still socked-in with clouds. Around 9:30pm, the group gathered in Dean M's camper for fresh baked brownies and drinks. Headed back to the camper at 11pm and stayed up till midnight.

Friday 05/15/2026:

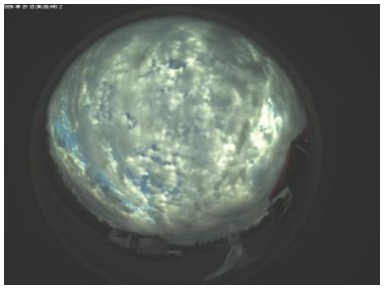
Woke to a sunny morning. The clearing line had gone thru a little before dawn and with the warm sunlight, the outdoor temp was already up to 50 deg and a light breeze was drying off the observing field.

After breakfast, Gary, Randy, Dave, Dean S and I tackled lowering the observatory AllSky camera to investigate the condition of its done enclosure and why it had stopped working. Other than internal condensation, the dome looked to be on good shape. Dean M was able to unscrew the lock ringing holding the dome onto the main body and after letting the parts dry out, I cleaned the dome and camera lens and re-assembled the AllSky. I then got the AllSky laptop to successfully recognize the camera and run the acquisition software.

Around noon, Dean S and Dean M brush hogged the outer field. I gave them a hand attaching the mower to the tractor.

ORAS members Dave H and Tom from WV arrived and setup on the western field to the north of Dean M. Mid-afternoon, ORAS member Susan and John P arrived and pitched their new tent on the west field to Dean's south, and Susan assembled her widefield imaging kit.

Gary and I looked at temporary mounting the ORAS AllSky outside on a short pole, but decided to hold off. Headed back to my camper and got in an afternoon nap.
Late in the afternoon, the sky went back to mostly cloudy. But towards sunset it cleared.




Our little traveling group met for dinner over at Dean S's camp, brats and sauerkraut! Afterwards, I assembled the blackout tent, and started up the AllSky cam, along with prepping my observation notes for the night. I then went for a walk about and visited with everyone on the field as their uncovered their telescopes for the night.









Interesting talk with Tom on his DIY camera plate-solving finder that he 3D printed. At camp, Dean S was flying his drone.

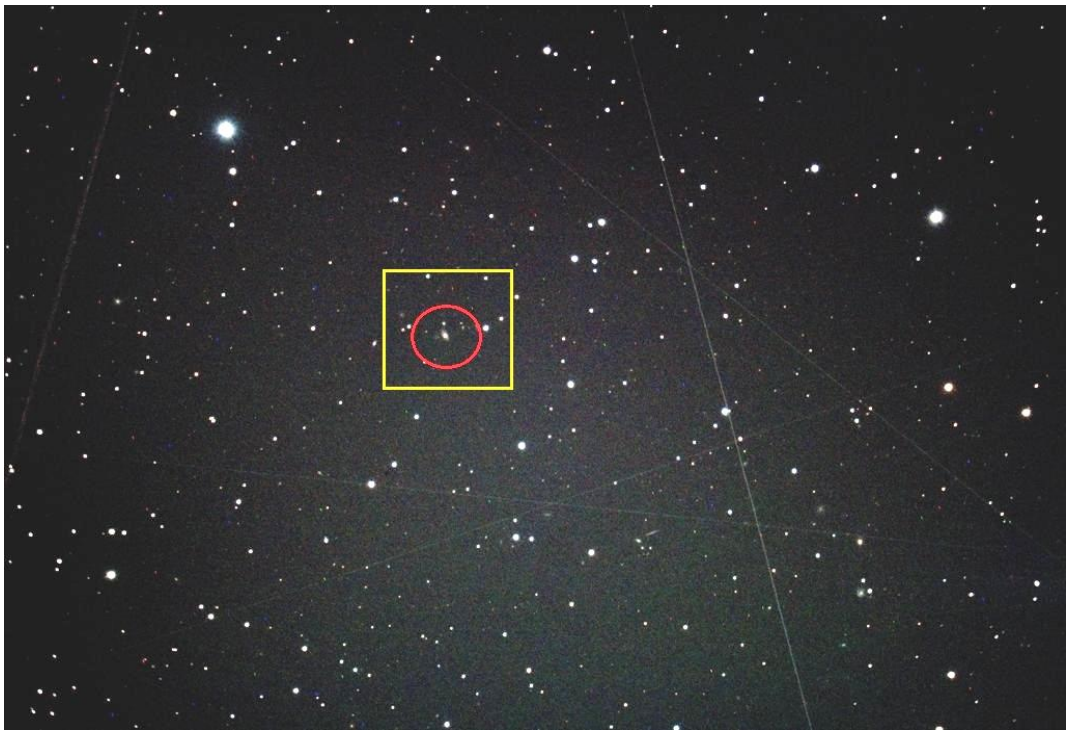

At dusk I phoned home, then changed into my heavier observing clothes.
With darkness falling, I powered-on the 8" telescope and S30-Pro. I slewed the 8" across the meridian to bright Regulus in Leo, where I focused the camera, and let the scope linger until it was fully dark. I then quickly polar-aligned the S30-Pro and sent it off to capture the 'Whirlpool Nebula' M51 in Canes Venatici. What a beautiful clear night it had become! Outdoor temps dropped down to around 45 deg, but I was toasty warm 68 deg inside the blackout tent.

For every astronomical camping journey I always like to try to plan an EAA observation of some type of exotic hard to see object that pushes the boundaries of either the capabilities my equipment or the site location. Such as low elevation objects like 'Omega Centauri' or the 'Vela Supernova Remnant', or extremely small & faint objects like 'Cassiopeia A' or 'Keplers Supernova Remnant'. Also I look for off-the-beaten-path interesting objects such as 'Frosty Leo' or 'Draculas Chivito' protoplanetary nebula.

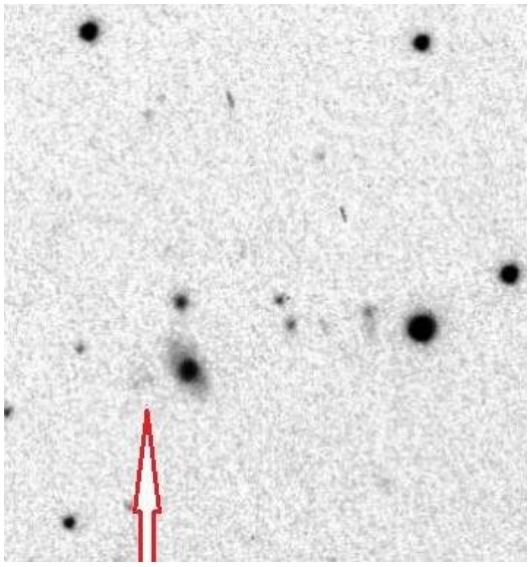
Tonight, I was looking for an object that I had read about in the recent Vol-12 of the "Annals of the Deep Sky" book series located in Leo Minor called 'Hannys Voorwerp'. This object is a gaseous clumpy ionized star-forming region associated with the small barred spiral galaxy IC2497, and appears like a diffuse appendage coming from the galaxy's core. The +15.8 mag IC galaxy is visible in medium size telescopes, making it a possible EAA observation with my 8" SCT optical tube. (The latest astrophysical info on 'Hannys Voorwerp' including what the heck is a "Voorwerp", and professional images can be found starting on page 382 of Vol-12). I've found a few amateur images of this object, including this link to a CloudyNights observation:
https://www.cloudynights.com/forums/topic/995480-ic-2497-and-hannys-voorwerp/

So it looks to be definitely challenging! ☺

After rechecking the focus on the 8”, I slewed the telescope up to Leo Minor and the location of IC2497. The galaxy is very small and I had to greatly zoom the FOV and pan around to actually find it. After taking a few short images to help confirm and center the galaxy, I began taking deep livestack exposures using the narrowband L-eNhance Ha-OIII filter. After nearly a half-hour, other than the IC galaxy, I really couldn’t see anything where the Voorwerp object should be. Upon a closer read of the Annals book description, I switched over to the L-Pro broadband filter and restarted the livestack. Within a few sub exposures the view of the inclined disk and bright oblong core of IC2497 greatly improved, and I could tell there was something there beside the galaxy. Here’s the full-size camera FOV (4144x2822) showing just how tiny the galaxy is:

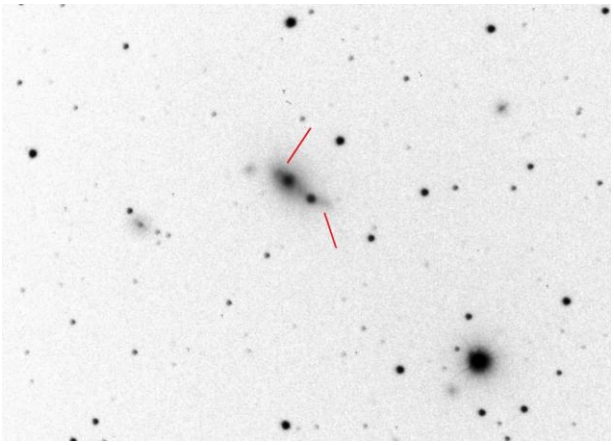


It was ‘Hannys Voorwerp’! Very small and incredibly faint, not a pretty picture, but there it was. A successful EAA observation at the limits of my equipment! Here’s a greatly cropped positive and negative view of ‘Hannys Voorwerp’ & IC2497:



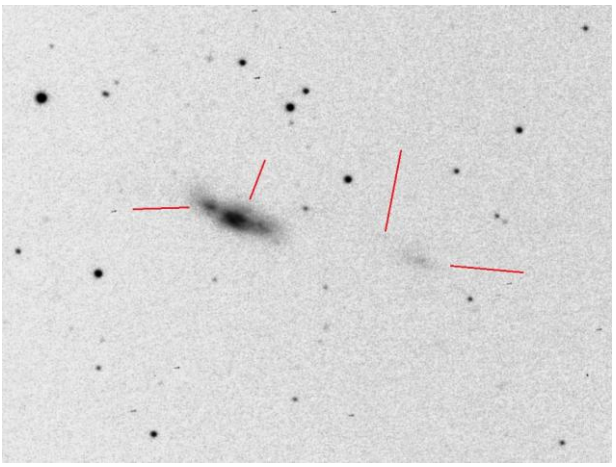
(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

After wrapping up the extended Voorwerp observation, I returned to hunting Arp Peculiar Galaxies. My first Arp target of the night was NGC4933 (Arp176) in Virgo, near Spica. This object is a trio of interacting galaxies – NGC4933A, B and C, with the brightest and largest being spiral galaxy NGC4933B at +12.7 mag. The 'peculiarly' is a faint tail coming from +15.2 mag elliptical galaxy NGC4933A, along with a smaller tail off of 4933B. The third galaxy is +15.3 Irregular NGC4933C. Also in the FOV is IC4134, PGC963933, and PGC965387. Here's the observation:



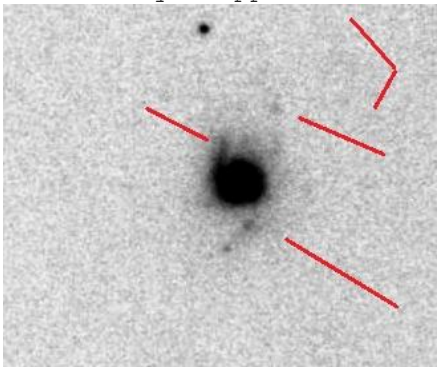
(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

Next up was Arp205 – NGC3448 in Ursa Major, near bright star Merak. This +12th mag asymmetrical spiral galaxy is interacting with nearby +17th mag galaxy MCG+9-19-72 causing material to be ejected from both, along with a bright knot in the main galaxy.



(8" SCT – same tech specs as above).

Close by was my third Arp target, Arp217 – NGC3310. This +10.8 mag object was a real oddball face-on barred spiral galaxy, displaying multiple off-centered knots in its core, along with thin wisps of spiral arms. Here's the heavily cropped observation:



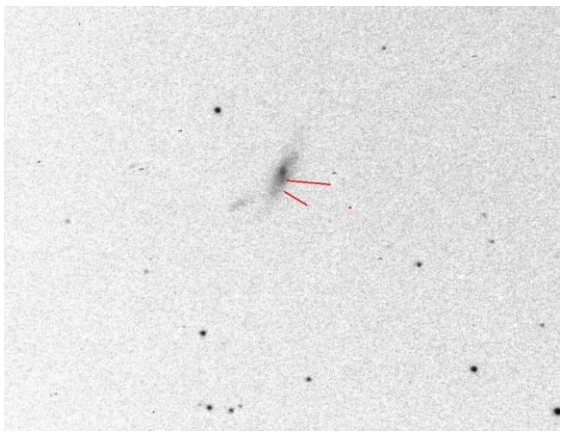
(8" SCT – same tech specs as above).

In-between EAA observing 'Hannys Voorwerp' and the first couple of Arp galaxies with the 8" SCT, the S30-Pro completed capturing the 'Whirlpool Nebula' M51 in Canes Venatici, and then M101 – "Pinwheel Galaxy" in Ursa Major. The little scope did a great job on the two galaxies, but the S30-Pro's FOV is just a bit too wide for doing most galaxy work.

(SeeStar S30-Pro: 60 second exposures in StarGazing Mode, EQ Mount, IR filter, stacked for 60 minutes, then AI noise reduction applied in-app)

While I was having fun with Arps and the SeeStar, Dean S was continuing collecting data on "Markarian's Chain" in Virgo, while Dean M was imaging the ring galaxy called "Hoaggs Object" in Serpens. Gary was working out issues with his new widefield kit. Earlier in the evening, around 10:45pm, Les dropped over for a visit and I showed him my EAA setup.

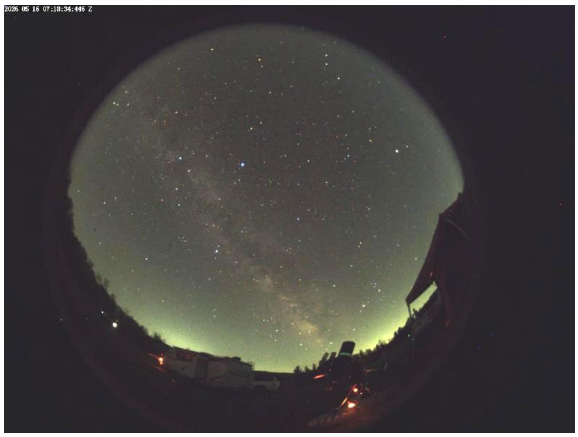
I continued with hunting Arps in Ursa Major, with the next target being Arp280. The main galaxy, +12.6 mag NGC3769, is a small barred spiral interacting with an even smaller +14.7 mag spiral – NGC3769A. Some dusty dark lanes and a few bright knots are barely visible. Object was more diffuse looking than expected. (8" SCT – same specs as above).



Around 11:00 a few clouds drifted thru the SW. At midnight it was KitKat O'Clock! Stopped in at Dean S to find Gary and Tim hanging out. More clouds to the south at 12:30am, had to dodge clouds for the remainder of the night.

I had just started working on Arp220 – IC4553 over in Serpens, trying to get in an observation in-between sucker holes, but the image was just too 'fuzzy', that I ended the attempt and shutdown the 8" telescope. While closing out the scope, putting on the lens caps, I realized that the dew heater had stopped and the optics were coated! That probably explains why the earlier observation of Arp280 lacked sharper detail.

Before shutting down the SeeStar, around 2:30am, the sky cleared to the south displaying the center of our Milky Way rising to the meridian, so I slewed the S30-Pro over to Rho Oph and Antaries, and started a deep mosaic.



(SeeStar S30-Pro: 60 second exposures in Stargazing Mode – 30mm lens, native FOV, EQ Mount, IR filter, livestacked for 1 hour and 15 minutes, AI noise reduction applied)

Around 3:45am, the sky began to go hazy and I was forced to cut short the S30 mosaic before it had finished. Still, looks pretty nice! Called it quits at 4am. In bed by 4:30.

No time-lapse video for tonight.

Saturday 05/16/2026:

Slept in late, till 10am. It was a warm partly sunny morning. Everyone was out packing up in preparation for the afternoon storms moving in. After breakfast, I broke down the telescopes and easy-up canopy, packing everything in the car. By 1pm, only the Dean's, Gary, Susan, and I were left.

Gary and I spent a little time figuring out how long the new power and data cables for the ORAS AllSky camera needs to be, and Dean S used his power saw to cut the new mounting pipe. Next time we're back to ORAS, we'll hopefully reinstall the camera.

With raindrops falling, I headed I doors to read and take a nap. Dean S and Gary setup Gary's new widefield mount back inside the observatory to work thru a few software kinks. Woke from nap at 4:50pm just in time to sit thru a hard downpour.

Around 6:30pm, I drove down to the Jones Activities Building for the monthly public night.
Due to circumstances, our scheduled presenter was unable to attend, so I volunteered to give my new talk on Wolf-Rayet Shells to the small crowd present and online. The session went well.
Afterwards we closed up the building and the Dean's, Gary, Tim, and I headed back up the foggy field to Dean S's camper for refreshments. Around 11pm, the group broke up and I headed back to my camper.
After reading for a bit, I called it a night and was in bed by midnight.

Sunday 05/17/2026:

Up at 8am to finish packing the inside of the camper. After a quick breakfast, I hitched up the camper, said goodbye to the guys, and pulled out for home around 10:30am. After a drive into sunnier and warmer skies, a little after 1pm I was backing the camper down the driveway and looking at the yard work that I need to do. Lol!

So ends my trip to the ORAS Spring Stargaze.
Six nights, with two being usable for observing, but both of those somewhat cut short by clouds. That brings the 2026 tally so far up to 17 nights camping, with only 6.5 clear nights, and 10.5 cloudy/rainy nights. Still in a hole!
But overall, setting aside the bad weather, it was a successful informal starparty.
And regardless of the weather, it’s always a good time spent with astro-friends.

Hopefully with the start of summer next month, we can leave this wet spring behind one and for all for clearer dark sky nights. Next month also brings the Cherry Springs Star Party at Cherry Springs Star Park, and I am greatly looking forward to returning to the park after being away nearly a year.

Larry McHenry
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