

AstroBlast - August, 2016

With the August New Moon, it was time for the ORAS AstroBlast convention!

<http://www.oras.org/astroblast.html>

While technically, this would be the second starparty held at the new observation site, it would be the 1st that weather-wise held promise for actual observing. The forecast was for a hot-one! Mid to upper 80's, so I packed plenty of extra water.

Wednesday 8/03/2016:

After putting in a half-day of work, I finished packing the car and hooked up to my Tab clamshell camper. Was on the road by 2:00pm. After a nice uneventful drive up I79 / I80, I arrived at the new location off of Rte 322 just shy of 4:00pm.

Stopped in at the ORAS club member building to check-in with Maryanne H and to see the progress that's been accomplished since I was last up in October 2015. The building's interior was coming along, with most of the paneling up and lights/electric installed. They even had phone service and internet up and running. More importantly, the restroom and shower were fully functional!!



(there's Tim S in the 'office')

I then headed up to the observing field, where I quickly picked a somewhat level spot on the hillside above the observatory building.



As there's no electricity on the observing field, the first thing I did was to setup the solar panel powering the camper. I then finished putting up my tent canopy for shade and assembled my telescope. (8" SCT on a CGEM mount with an 80mm Kson refractor and 50mm guidescope piggybacked). After which, I attached the StellaCam video-cameras, the ZWO ASi120MCC guider camera, and the new QHY Polemaster camera.



While organizing my camp, Tom H and Mike A stopped by for a visit. Both of them had been onsite since Monday and had great observing on Tuesday night.

After dinner, I then went for a walk down to the new yet to be finished observatory building. I learned the next day that they were waiting for a local steel company to fabricate the railing and roof roll-off hardware before completing the building. Eventually two telescopes will be installed: a 30" Reflector for visual work, and a 14" SCT for imaging. A warm-up room will be in the northern section of the building.



Once the Sun has set, most of the daytime clouds dissipated, but a few lingered around the southern horizon. After what seemed to be a long wait, Polaris finally put in an appearance, and I powered up the telescope and cameras with the field batteries and worked thru the Polemaster polar alignment routine. (what a slick tool!). Once I had a good polar alignment, I moved on to aligning the mount's GOTO, used my bahtinov masks to bring the cameras to a precise focus, and tweaked the 80mm & 50mm telescope optical alignment with the 8" SCT primary. Everything was ready to go! Except the sky. While I was finishing up the camera adjustments, a band of clouds came streaming out of the northwest, and soon had mostly covered the sky. After commiserating with Tom H, I decided to save the field batteries and powered down the equipment. After a few more minutes of cloud watching, I headed inside the camper to take a nap, setting the alarm for 1:00am.

Woke up right before the alarm went off, and looking out the camper window saw stars! Put the shoes back on and headed outside to find that most of the sky had cleared off, especially to the northeast. The Cygnus Milky-Way shone brightly overhead, streaming down thru Aquilia toward the southwest, before getting lost in the haze near Sagittarius. Over to the Southeast, the lights from the city of Clarion, about 15 miles away, was giving off a considerable light dome, enhanced by the low haze in that direction. To the northwest was a smaller dome from the Franklin/Oil City and Cranberry shopping area. Finally, there was a small glow along the southwestern horizon from the direction of Knox. But, due south looked good and dark, except for the clouds that persisted there. So I decided to work over in the northeast portion of the sky, which was the clearest and darkest horizon for the night, and began chasing down several 'Webb' Objects in Cassiopeia and Camelopardalis. These included a small galaxy - NGC1343 and several planetary nebula: Hb12 and M2-2. Also video-captured a number of faint 'Herschel' galaxies including NGC3901, 4127, and 5645. I then slewed the telescope over to Andromeda and picked-off several additional Herschel's including NGC13, 29, 39, and 108. By then it was after 3:00pm and I was getting tired, so I closed up the telescope and headed to bed.

Thursday 8/03/2016:

Woke at 10:00am to a warm camper. After a quick breakfast, I spent the morning charging up the field batteries with the solar panel. Denny H from the Kiski Astronomers arrived a little before noon and setup camp nearby. I had texted him the night before about the tall grass and vines on the observing field, so he brought his gas powered weedwacker and a rake, which we used to clear the area around our campers.

Steve and Debbie B also pulled in with their little Tab camper and setup over on the western side of the observing field.



That afternoon Denny and I took a stroll over to the new observatory and visited with Mike A, who had moved his tent inside of the building shell to get out of the heat. We then headed down to the club house building and sat inside where it was cooler. After a couple hours visiting inside with Maryanne H and Tim S, we headed back up to our campers to take a nap.



During the day the clouds began to build and the weather forecast went downhill. At sunset, Denny, Tom, and I checked the forecast and clearsky clock and the general opinion was that we might get a few good hours in before the sky completely clouded over sometime past midnight. So with a partly cloudy sky, we uncovered our telescopes and waited for darkness. Tim S walked up from the club building and dropped in for a visit, along with Tom H and Denny. After a few glimpses of the planets and a few stars, the clouds thickened up, obscuring most of the sky. As the mosquitoes were starting to bite, I headed in to change into long jeans and bug spray. For about the next hour the sky was mostly overcast with the occasional sucker hole, but by 11:00pm a general clearing came thru and the sky settled down. I powered up the telescope, cameras, and video monitors and continued with hunting the few remaining 'Webb' Objects starting with the elusive Sh2-61 nebula in Scutum. I then moved north to the Great Bear and picked up galaxy NGC4147. While there, I also chased down a number of 'Herschel-II' objects: NGC4271, 5447, and 5462 which are actually spiral arm knots associated with M101!

I then headed up to Hercules and took a number of deep exposures of a section of galaxy cluster Abell-2151 centered on the NGC6041 area. About the time I finished that, a little after 1:00am, the clouds rolled back in. Denny and I covered up the telescopes and as we were about to head in for the night, it once again cleared off. So we grabbed our chairs and sat back for a little naked-eye observing. There were a number of bright meteors with long trails, several of which we could trace back to Perseus. The Milky-Way from Cassiopeia in the northeast to Cygnus overhead, down to Sagittarius in the southwest showed lots of nice detail. The rift in Cygnus was prominent, with the spur heading over into Ophiuchus easily visible, along with a number of bright Messier's including M7, M8, and M17. Over in the east, the Andromeda Galaxy also showed nicely. Overall, with the exception of the light-dome from Clarion in the southeast, the skies at the new ORAS site are very good! Finally around 2:00am, we called it quits and headed in to bed.

Friday 8/05/2016:

Slept in till mid-morning and woke up to a partly cloudy sky. A quick check of the weather radar showed showers to the north, and around 10:00am, we got a little spritz. It then cleared off to a sunny and very warm, humid day. After brunch, Denny and I loaded up my car with the field batteries and drove them down to the club building for recharging. My camper fridge wasn't keeping cool and I wanted the solar panel dedicated 100% to it. With the doors all opened and indoor ceiling fans running, it was cooler inside the club building than back at the campers, so we decided to again spend the afternoon there, reading magazines and chatting with Mike, Maryanne, Steve and Deb. With the batteries fully charged, we drove back up to the campers and kept to the shade. All afternoon, the forecast had been calling for thunderstorms and they finally arrived at 7:30pm, sending everyone running to close windows. A strong microburst roared out of the west over the treetops nearly sending Denny and my staked-down tent canopies flying. I thought I was going to lose another canopy with the wind nearly stripping the fabric off the tent frame and ripping out several sidewall tie-down loops. Only by our physically holding on to them saved the tents from becoming kites.



Fortunately, the steady rain held off long enough for the wind to die down and for me to get my tent back together. After about an hour, the rain drizzled to a stop and the fog began to move in. After visiting with Denny and Tom, I headed in to read and early to bed. Around 3:00am, was awakened by the sound of rain hitting the camper roof,,,,,

Saturday 8/06/2016:

Thanks to rain, I had a good night's sleep and was up early to a partly-sunny pleasantly cool morning. Hung-out for awhile with Denny and Mike down at the club members building. Then headed back up to camp for reviewing some of the video-capture from Thursday night and reviewed my observing plans for tonight. At lunchtime, Bob K from the Kiski Astronomers drove in, so Denny, Bob, and I went for a walk to show Bob the site. Afterward, we spent the afternoon sitting around our camps shooting the breeze and trying to keep out of the Sun. A little later Tom H strolled over and joined us. Bob filled us in on his July trip to Cherry Springs, along with the latest software upgrade for our Polemaster alignment camera.



At 5:00pm, we strolled down to the club house where about 16 of us gathered for the pizza party and door prize drawing. After stuffing ourselves, Bob, Denny, and I kept up the Kiski Astronomers tradition with all three of us taking home multiple prizes!



At 7:00pm, we walked back up to the campers and said goodbye to Bob who was heading back home. Denny and I decided to pack up our tent canopies for the night and then prepared our telescopes for the evening.

All day the sky was a beautiful blue, and with sunset, the few daytime heating clouds cleared off for the night, leaving just a smudge of haze to the southwest. It was going to be a great night!! With the temperature dropping into the low 70's, I changed into jeans and a light jacket and then prepared my observing books and plans, waiting for full darkness. I went for a quick walk and snapped a few photos. Here's Denny and a neighbor Randal, Tom and Mike ready for observing.



Soon the sky grew dark with the planets and a thin crescent moon shining thru the dusk that Debbie B was observing with her binoculars.



Before long, the Milky-Way and countless stars glowed from horizon to horizon!
I decided that tonight was very faint fuzzy night! Spent the next several hours hunting Local Group galaxies including the Ursa Minor Dwarf - UGC9749, and the Draco Dwarf - UGC10822. I then headed back up to Hercules to capture the second half of Abell-2151 galaxy cluster, and while there decided that, as it was a great night, to re-do the 1st half too, shooting multiple 3 minutes video exposures with the StellaCam-3 on the 8" SCT.

After midnight, an occasional bank of fog would roll onto the lower observing field, but other than a slight hint of mistiness at camp, it didn't really bother me.
I did crank up the dew heaters to high for the rest of the night to keep the optics clean, and eventually the metal parts of the telescope was dripping off the dew.
Denny was having power issues with his laptop, which finally died on him, so he shut down his telescope and did a little naked-eye viewing, and eventually headed in for bed.

By 3:30am, I was the only one left still observing. But by then I was starting to get cold, as the temps had dropped into the mid-50's, and with thinking about having to break camp and head home later that morning decided to reluctantly call it a night.
The sky had given us an awesome reward for the last 4 days of sweltering heat!

Sunday 8/07/2016:

After a restless short sleep from having too much caffeine, I rolled out of bed and began packing the inside of the camper. Denny, Tom, Mike and the others were already up tearing down their telescopes and readying to leave. I soon joined in the outside packing, and was on the road home by 11:00am.

So to sum it all up, the new ORAS observatory site is starting to take shape and has a promising future ahead of it. I look forward to being able to observe from the location, hopefully again later this year, and to future AstroBlast's under dark skies!!!

Larry McHenry

Astronomical Webportal: <http://www.stellar-journeys.org/>