ORAS – Astroblast: August, 2018

So far this year, summer has been a wet and humid season. With the calendar rolling to mid-August, it was time for the Oil Region Astronomical Society's Astroblast convention, and the Perseid Meteor Shower.

Wednesday 8/8/2018:

Decided to take an extra day off work, so after breakfast at home, finished hooking up the Nissan Murano SUV to the Tab camper, waited till the morning rush hour died down and headed north thru Pittsburgh toward Clarion. The drive started out with drizzly weather, but the fog and low clouds soon lifted to a mostly cloudy day. Arrived at the ORAS observatory around 1:00pm to find Kiski & ORAS member Denny H setup on the east side of the observatory with his new camper. Tom H was also there on the same side. I pulled in between the two and soon had my camp organized.

Denny and I then gave Tom a tour of the observatory and telescopes. While inside, the first of several waves of showers rolled over the observing field. Later, ORAS member Maryann H and Garret arrived and spent time down at the classroom building getting it prepared for later in the week. Dan H and his friend Barb pulled in with a small A-liner camper and setup that and a couple of tents just to the north of the observatory.

I spent mid-afternoon assembling my Celestron 8" SCT optical tube and CGEM mount in hopes of getting in a polar alignment later that night. Denny and I then headed over to the observatory to install a few accessories on the two 14" SCT's (Meade LX200GPS on an Alt/Az mount, and a Celestron on an Orion GEM mount) for the weekend. While there another torrential rain went over and dropped an extended 20 minutes deluge, coming down in sheets. It was quite noisy under the metal observatory roof while it was being pounded by the rain.

After dinner, Tom, Denny, and I visited each other's camps while we waited to see if a predicted weather clearing from the northwest was going to make it to our area. Around 9:00pm, the sky began to clear, buy soon a very heavy fog began to build on the field and within minutes it was so thick that you couldn't see the tree-line. Tom and I tried to polar align our mounts, and while I finally gave up, Tom was able to finish. We sat around for a few more minutes socializing, but with everything getting damp from the fog, we all headed inside our campers. I stayed up awhile longer and read, but called it a night at 11:00pm.

Thursday 8/8/2018:

Woke to a still heavy fog lying on the field.
The weather forecast for tonight looked promising, but for now we were inside a cloud!

After breakfast, Denny, Tom, Dan and I sat around under Denny's Camper awning talking. Around Noon, Bob K from Kiski & ORAS arrived and after he had setup camp, we all headed over to the observatory to review the roof opening winch system that we had installed last month. After some discussion, we decided to modify the work that we had previously done, so Denny and I made a quick trip to the local hardware store, and the crew spent the afternoon re-cabling the roof and revised the system down to only needing one winch to open and close.

During the afternoon, a number of other ORAS and Astroblast attendees arrived and setup camp, including Steve and Deb B, bringing the total number of attendees camping to about 20 amateurs.

At seven, the keynote open house speaker, Tiffany Wolbrecht of the Youngstown State University planetarium gave a presentation on what to see in the night sky to a full house in the classroom.

Afterwards, we opened the observatory roof and gave a tour of the facility and then views of the planets to a large public group of about 75 attendees.
Tim S led off by demonstrating how to use the observatory's 30" GOTO Dobsonian reflector, and Bob, Denny, and I helped by running the two 14" SCT's.

As it grew dark, a thin haze began moving in from the north and soon the deep-sky objects began to fade from view. But using the Meade 14" SCT visually, I was able to show attendees M11 – the 'Wild Duck' star cluster, along with the planets Jupiter and Saturn. By 11:00pm, the sky was mostly overcast, so I closed up the Meade telescope and spent a few minutes talking with the visitors. I then walked back over to my camper, and while there noticed that the northern sky had cleared, so I uncovered my 8" telescope, finished polar aligning, focusing and adjusting the guidescopes and video-cameras before calling it a night at 1:00pm.

Friday 8/10/2018:

Woke to a partly hazy sky. After breakfast, we again sat around under Denny's awning with Bob, Tom, Dan, Denny, and I, swapping work stories. (Dan had the best!)
The day became hot and humid, with dark clouds occasionally going overhead, threatening rain. We tried to keep to the shade and pulled out our neck coolers and soaked them in ice-water to keep cool. With an iffy weather forecast for the weekend, a few of the attendees pack-up and headed home, but more arrived to take their place, including John and Kelly O with their new little storage trailer.

Late afternoon, the clouds began to build and the weather radar showed storms in the area. Finally around 6:30pm during the group dinner put on by the ORAS folks, it began to thunder and soon a heavy downpour settled over the field.

At 7:30pm, with most of the attendees down at the members building in the classroom, George G from PGH gave his 'Chile' talk about going to the major observatories as part of Tim S's NSF group. Tim followed up with a discussion of the NSF Chilean/American outreach program that he has established. It was very interesting! I then gave an informal 'Intro to Video Astronomy' talk and passed around video camera equipment to a small group that stayed. Afterwards, I headed back to camp under a drizzly sky to read awhile before heading early to bed.

Saturday 8/11/2018:

Once again, woke to a damp, foggy morning. After breakfast, we all walked down to the swap meet at the members building and also looked over the door prizes. By mid-morning the Sun was out and had burned off the fog and the observing field was drying out nicely. At lunch, Denny headed home to attend a concert that night in Pittsburgh, while Bob and I sat in on an 'Astrophotography 101' talk by Samara Nagle. At 3:00pm, I gave my talk on Halton Arp and his peculiar galaxies to a filled classroom. Then Dan H gave a talk on repairing a cracked SCT corrector. Later that evening I had the chance to look through Dan's repaired SCT, and I couldn't really tell that it had been damaged.

During my talk, Ed K from the Kiski club arrived and afterwards setup on the observing field by Denny's camper.

At 5:00pm, all the attendees headed up to the observatory for a training session by Tim S on opening/closing the observatory roof with help from Bob K, and on how to use the 30" GOTO Dob. That was followed by the pizza party and doorprize raffle back down at the members building. Tom H won several prizes including a nice large edition of the Sky Atlas-2000 Field addition, and I ended up winning a series of Orion planetary maps – Moon, Mars, Jupiter, and Saturn, which I then donated to the observatory.

At dusk, we opened up the observatory, with Tim S running the 30" Reflector and I on the Meade 14" SCT. (the Celestron 14" was having a power issue, so we left that turned off). During the early evening, there was a large thunderhead/cloud off to the east, slowly moving away from us, that was throwing cloud-to-cloud lightning bolts. It was quite entertaining, but we kept a watchful eye on it, ready to close up the observatory roof. Both telescopes were giving great views of Jupiter, Saturn, and later Mars, but the 30" shone in viewing deep sky objects. The spiral arms of the Whirlpool Galaxy – M51 was a hit, along with the Dumbbell and Ring Nebula's – M27 & M51. After about an hour, I turned over the Meade 14" to one of Dan's friends and helped him attach a DSLR camera to the flip mirror. He already knew how to operate a Meade LX200 telescope, so once he was able to image on his camera, I headed back to my camper and uncovered my 8" and powered up the cameras and computer.

I then gave a quick video-astronomy tour to about a dozen attendees of the brighter Messier Objects including the galaxy M51, M8 the Lagoon, M17 the Swan, and M16 the Eagle nebula's. Once everyone had moved on, I pulled out my list of Herschel Objects and began working faint galaxies in Ursa Major low in the NW, and then higher up in Draco. These included NGC3674, 3725, 3733 and 3737 in the Great Bear, and NGC2938, 2963, 3057, 3155, 3252, 3465 and 3562 in the Dragon. A total of 21 new objects for my Herschel survey. By 2:30am, being the last one still standing, I decided to call it a night.

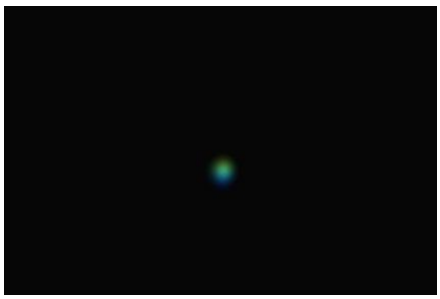
Sunday 8/12/2018:

Slept in late and missed Bob pulling out for home. After 'brunch', I dis-assembled my 8" telescope and took down the easy-up tent. My plans for the night were to use the observatory telescopes for planetary work and watch for meteors. For the Perseids, I setup two video-cameras: my R2 all-sky domecam and a Samsung fisheye vidcam on a tripod. Most of the attendees packed up and headed home, including Tom H, but Ed and Dan were staying, and Denny was coming back later in the day to also stay overnight. Mid-afternoon, Denny arrived back on the field, and had stopped beforehand and picked up a few items that we installed in the shower and restroom, (hooks, paper holders, and a shower tray). Afterwards I decided to take a late afternoon nap so that I could make it thru the night meteor watching. Later, we sat around in the shade discussing the observatory and our observing plans for the night.

At sunset, Tim S returned and opened up the observatory for about a dozen guests. Tim showed them several deep-sky objects with the 30", while I used the Meade to let them observe the planets. Denny and Dan worked thru several issues with the Celestron to get it up and running and began imaging with it, while Ed was in the observing field using his personal equipment. After the guests finally left, Tim turned over running the 30" to us and also headed home for the night. While we all took turns using the 30" reflector on the showcase deep-sky objects, Denny iron-out the last kinks in the Orion Equatorial mount got a number of nice images with the Celestron including those of M27 the Dumbbell Nebula, and M57 the Ring Nebula. While Denny was doing that and Dan and Ed using the 30" to explore deep space, I put the Meade and my ZWO ASI120MC USB-camera to use video-imaging the planets, particularly Mars. The global Martian dust storm was finally settling, and surface detail was visible. In addition to the south polar ice-cap, Syrtis Major was prominent on the meridian. Here's a few picture of Mars from the evening, showing the planet rotating (toward the left) over a two hour period.







(Jupiter, Saturn, and Uranus)

Around midnight, a group of about 20 locals arrived to see the meteors. They were pleasantly surprised to find the observatory open and their being able to look thru the telescopes. One little boy in particular really wanted to see Mars, and he went home happy, having seen it both thru the eyepiece and on my laptop's monitor with the ZWO camera that I was using. They had brought lawn chairs with them, and after settling into their chairs outside on the gravel road, I gave them a green-laser tour of the constellations that they all enjoyed. After about an hour, as it was getting a little chilly, they packed up and headed home. At 2:00am, we shut down the telescopes and closed up the observatory to watch the Perseids. Shortly after 2:30am, we had a nice burst of meteors, with a number of good ones including a great bolide at 2:40am. But soon after, the shower died down, so by 3:00am, we all headed in to bed.

Monday 8/13/2018:

We were up early to a sunny sky. After a bit of last minute packing and hooking up campers the four of us headed for home, with Denny and I being the last ones out and closing the gate behind us. About two hours later, I was pulling into my driveway.
So this brings to a close the 2018 ORAS Astroblast. While a small event, it was still a fun time, with great observing at a decently dark-sky site!
Looking forward to using the now operational observatory and facilities more often!!!

Larry McHenry
Astronomical Webportal: http://www.stellar-journeys.org/