Kiski Astronomers at Cherry Springs - July, 2010

A small group of Kiski Astronomers decided to head up to Cherry Springs Park for the July New Moon.

Tuesday 7/6/2010:

Bob K and I made the drive up on Tuesday July 6th. For the past several days, the region was suffering thru a heat-wave, with the Pittsburgh air temperatures hovering in the 90's. We figured that with Cherry Springs' higher elevation, ~2400 ft, it should be a good 5 - 8 degrees cooler.
The drive up was mostly uneventful, other than a few delays due to road construction. I arrived at the park around 2:30 pm to find Bob K in the process of setting up camp. He had arrived only about a half-hour earlier, having been stuck in a road construction delay on I80 that I missed.
All during the drive up, the haze and low clouds kept building. At the park, it was hot and humid. Thank goodness for the neck coolers that my wife Suzanne made for us. They really worked at keeping you cool.

After getting our camp in order and setting up the telescopes, we rested in the shade best as we could. Gone were the 'Friendly Flies' of last month, now replaced by astronomical numbers of small green knats and mosquitoes. There were a few other campers already there and several more arrived later in the afternoon, for about a dozen folk's total.
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-01.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-02.jpg

At sunset, we uncovered the telescopes for them to cool down and waited for Polaris. It was obvious that the sky was not going to be very clear that evening. It also continued to stay warm and humid. Once Polaris began to twinkle, we sat about the business of polar aligning. That was made a little difficult by the lingering haze and cloud banks that kept passing through. But, after a half-dozen alignment iterations, I was ready to go. I did a little imaging to test out the alignment and cable connections, capturing the little globular starcluster NGC-5466 in Bootes. I then spent the rest of the evening playing with my new Samsung camera. (a Samsung SDC-435, 1/3" color CCD chip, with up to 8 seconds integration exposure time ~ $150).
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-01.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-02.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-03.jpg

I had removed the internal IR filter and wanted to see how it would do.
I re-imaged the same bright Messier deep-sky objects, using the 80mm Bosma f6 refractor that I had used last month. (M13, M17, M27, M51, M57).
< old picture links with IR filter in place>
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-dark.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-M13.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-M17.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-M27.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/SDC-435-test-M57.jpg

< new picture links with IR filter removed>
http://home.comcast.net/~lemastro/vidcap/images/dark-sam-bosma-80.jpg
http://home.comcast.net/~lemastro/vidcap/images/M13-samsung-noIR-bosma-80.jpg
http://home.comcast.net/~lemastro/vidcap/images/M17-samsung-noIR-bosma-80.jpg
http://home.comcast.net/~lemastro/vidcap/images/M27-samsung-noIR-bosma-80.jpg
http://home.comcast.net/~lemastro/vidcap/images/M57-samsung-noIR-bosma-80.jpg

Bob and I were pleasantly surprised at how well the camera worked with the 80mm refractor. It gave comparable images with what the StellaCam-II was showing with the Meade 8" LX200GPS SCT.
I decided that tomorrow night, I would mount the Samsung camera on the 8" SCT and see how well it would do with a larger aperture. We finally grew tired of fighting clouds and called it a night ~ 1:00 am.

Wednesday 7/7/2010:
Wednesday dawned mostly cloudy and cooler. The NOAA weather radio was calling for better conditions, still hot, but less humid.
Later, when we got our internet access working, the CSSP Clearskyclock showed excellent sky conditions for the coming evening. During the mid-morning, Bob and I took a short hike along the gas pipeline clear-cut that the park was promoting as a hiking trail. We didn't go far, as the grass and weeds were nearly hip high, but instead walked over to the north campgrounds and the open-air sky theater area.
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-03.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-04.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-05.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-06.jpg

After that we lounged around the campsite or out under the trees by the shelter house, reading, napping, and trying to stay cool. Unfortunately, all the bugs were also waiting for us in the shade, and you practically had to take a batch in 'Off' to keep the bugs off.
Late that afternoon, Bob N unexpectantly arrived.
He had noticed the forecast and decided to come up a day early.
Bob setup camp with us, and unloaded his telescope.
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-07.jpg
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-08.jpg

At sunset, the sky cleared off beautifully, and before too long we were observing and imaging!!
While Bob N worked on getting his telescope aligned, Bob K began imaging over in the Sagittarius Milky-Way, and I started working on my constellation survey project, with the 1st stop in Coma Berenices.
Here's a picture of Bob's telescope in action:
http://home.comcast.net/~lemastro/vidcap/images/milky-way-telescope.jpg

Using the Samsung SDC-435 camera at the 8" SCT's prime focus, I vidcaptured the small Globular NGC-5053, and several bright galaxies - NGC-4147, 4064, & 4274. I then sidetracked for awhile, joining Bob K in imaging the brighter Messier Objects over in Sagittarius, M8 - the Lagoon nebula, M20 - the Triffid, and M17 - the Swan using the Samsung color camera on the 8" SCT.
http://home.comcast.net/~lemastro/vidcap/images/M08-samsung-noIR-8sct.jpg
http://home.comcast.net/~lemastro/vidcap/images/M16-samsung-noIR-8sct.jpg
http://home.comcast.net/~lemastro/vidcap/images/M17-samsung-noIR-8sct.jpg
http://home.comcast.net/~lemastro/vidcap/images/M20-samsung-noIR-8sct.jpg

While standing there with Bob K, admiring the naked-eye Milky-Way star clouds over in Sagittarius, we observed an interesting local phenomena - a gas well burn off. It was around 11:00 pm, Bob had just mentioned that he couldn't recall there being a bright section of the Milky-Way to the lower left of the Teapot. Suddenly the glow considerably brightened into a fan shape that arched up close to Scutum, obscuring the real Milky-Way. You could see it clearly thru gaps in the tree-line all the way to the ground. It lasted for several minutes, and then suddenly faded away. Wish I could have captured an image of it.

A little later, I gave a little videoastronomy demo for several general public who had stopped in to see the night sky. They were quite impressed with the color images on my old Commodore Monitors mounted in the back of my teardrop camper. While not perfect, the Samsung color camera proved to be a great deep-sky camera. And very in-expensive!!!
http://home.comcast.net/~kiskiastronomers/images/conventions/kiski-cs-072010-09.jpg

The public visitors picked a great evening to visit Cherry Springs, as the Milky-Way beautifully arched overhead. After the visitors left, I went back to my survey over in Hercules, now sliding into the western sky, and re-imaged the Great Hercules Starcluster - M13, along with another globular NGC-6229, and galaxy NGC-6181, and planetary nebula NGC6210.
http://home.comcast.net/~lemastro/vidcap/images/M13-samsung-noIR-8sct-BW.jpg

As the night was getting old, toward 4:00 am, the waning Crescent Moon began to rise above the pine trees along the eastern edge of the observing field. I decided to wrap up for the evening by using the StellaCam-EX camera and my Canon widefield lens set to 5.5mm for constellation shots of Pegasus and Andromeda. After that I headed for bed. What a great night of videoastronomy!!!!

Thursday 7/8/2010:

After just a few hours of sleep, I awoke around 8:30am to a warm camper. The fans had stopped running and the power was out. In talking with a park worker, we learned that a tree had gone down along a nearby road, taking with it the power lines to the entire area. The power company was out fixing the line, but it might take the entire day. So after breakfast, with the temperature already jumping up into the 80's, Bob, Bob, and I spent the late morning and early afternoon over at the pavilion trying to stay cool.

While taking a nap around 2:00 pm, the electric company fixed the downed line and the power was back on!! Hurray!!!!!
I prepared my observing list for the evening, and we waited for the sun to set. All during the day, the sky conditions looked promising, but late into the afternoon, a haze began to settle in. It persisted after sunset into the evening. Pretty much everything 20 degrees and down was washed out, including the much coveted Scorpius and Sagittarius southern regions of the sky. Once you got a good 40 degrees up, the conditions improved enough to allow imaging of the brighter deep-sky objects such as starclusters.
I made the most of it by focusing my survey work on objects in the constellations of Sagitta and Vulpecula, where I bagged a number of open clusters: NGC-6873, 6793, 6800, 6815, 6938, Collinder 399 - the 'Coat Hanger', and planetary nebulas NGC-6879 & 6886. I also was able to image a few bright galaxies over in Bootes: NGC-5248, 5676, and 5689.
For the planetaries and galaxies, I used the Samsung Camera on the 8" SCT, and for the clusters, I used the StellaCam-II on the 80mm Bosma f6 refractor.

We didn't have as many public visitors tonight as on Wednesday, but there was a family from North Carolina with two daughters who were very knowledgeable about constellation mythology for beginners. (Cathy, Zack, Tess, & Carrie). I showed them my videoastro setup, while Bob k demonstrated what his SBig CCD camera could do. I gave them my Edmund Scientific starfinder to help them along with the hobby. They were a fun group to have visit!!

The haze continued to build over the course of the evening, giving our home galaxy a very 'Milky' appearance. A little past midnight, Bob K packed up his telescope, and Bob N held out till 1:00 am.
I continued on till around 2:00 am, then called it quits and broke down the imaging equipment and most of the SCT telescope accessories as it was looking more like rain before dawn.

Friday 7/9/2010:
Friday dawned partly cloudy and cooler. The weather radio indicated that the storm front was on the way, and would arrive sometime after lunch. Both Bob's decided to break camp and headed home.
After checking the internet satellite and radar images, and the forecast for Saturday, I decided to ride out the storm and stay for more observing Saturday evening. All afternoon the storm clouds slowly built. As the radio was calling for severe storms and 2+ inches of rain, I packed away most of the 'outdoor' camping items - chairs and things that I didn't want blowing round or getting wet.
Finally at 5:30 pm, the storm hit!! A little lightning, moderate winds, and a heavy downpour that lasted around an hour. After about two hours the storm let up. The weather radar showed the storm ending sooner than expected. The predication for Saturday showed clear overnight. But for the rest of the evening, it was going to continue to lightly drizzle. I stayed in the camper and spent some time on my netbook processing some of the images from the past few days. Later, I watched a movie and went to bed early.

Saturday 7/10/2010:

I slept in and when I finally roused, the sky was blue, with the Sun shining, and a light breeze drying out the observing field. It was going to be a fine day!! I spent the morning finishing up a little reading, and then worked that afternoon on re-assembling my telescope and preparing for the nights observing. The CSSP clearskyclock was showing Saturday night as being even better than Wednesday evening.
All day, people began to arrive and setup telescopes. There were several 20+ dobs on the field by day's end. Eventually, there were over 100 astronomers on the field.

At sunset, I strolled across the road to the 'Stars n Parks' program being held at the outdoor sky theater.
Looked like they were going to have a large crowd of attendees ~150.
I helped one of the volunteers get a stubborn Meade Lightswitch 6" SCT autoscope to work. It needed the polar alignment redone.
Wished I could have stayed and helped out longer.

Once dark, I went back over to my campsite to focus and align the cameras and began observing.
To complete my testing of the Samsung SDC-435 camera, I took several widefield Milky-Way images using the Canon CCTV lens set to 5.5mm.
http://home.comcast.net/~lemastro/vidcap/images/dark-sam-canon-5.jpg
http://home.comcast.net/~lemastro/vidcap/images/milky-way-2.jpg
http://home.comcast.net/~lemastro/vidcap/images/scutum-07102010.jpg
http://home.comcast.net/~lemastro/vidcap/images/summer-triangle.jpg

Had several visitors drop by after the parks program ended at 11:00 pm., including the family from NC, who had stayed over for the weekend.
Once the public crowd died down, I started my survey program and spent the next 4 hours imaging various NGC objects (starclusters, planetary nebula, and a few galaxies), around the Summer Triangle, including Lyra, Aquila, Delphinus, Sagitta, and Vulpecula.
NGC - 6703, 6709, 6738, 6749, 6755, 6772, 6773, 6781, 6791, 6795, 6804, 6804, 6814, 6823, 6830, 6834, 6840, 6843, 6858, 6882, 6885, 6904, 6950, 6954, 6972, Harvard-20, and IC-4954-55.

Late in the evening, well past midnight, the Milky-Way arched overhead with an almost 3-D look. The dark rift in Cygnus stood out prominently, along with the individual dark nebula in the Scutum / Sagittarius region.
I was tempted to grab a chair and binoculars and lose myself among the stardust, but I wanted to finish the observing list for the night, allowing me to 'finish' my survey of several of the smaller constellations.

Finally around 4:00 am, I took a break and took a walk around the observing field to look thru some of the telescopes. Made it back to my camp in time to greet the dawn, and packed away my cameras in the growing light of morning. It was a fabulous night of observing!!!

If you want to view any of the various deep-sky objects that I imaged over the past week, please visit my Constellation Tour page:
http://home.comcast.net/~lsmch/constellationtour1.htm

(but give me a few week to get them all processed!!!!)

Sunday 7/11/2010:

Slept in till about 9:00 am. After a quick breakfast, I finished breaking down the 8″ SCT, packed away the camping gear, and got the teardrop trailer ready for the road. Left for Pittsburgh around noon.
The drive home was uneventful, but scenic.
So even though it was much hotter than I preferred, the Kiski July trip to Cherry Springs was a success!
Think I'll skip August and head up when it's cooler – Black Forest Star Party in September!

Larry McHenry
Astronomical webportal:
http://home.comcast.net/~lsmch/