

Observing Report for August 11, 2019, Atsion, Swede Run & Backyard

by Joe Stieber

August 11, 2019, Morning at Atsion

Given that the Perseid meteor shower peak is predicted for the night of August 12-13, 2019, but with a nearly-full moon in the sky, I made a last-minute decision to go to Atsion on Sunday morning, August 11, 2019, when there would be a two-hour window of darkness between moonset at 2:26 am EDT and the beginning of astronomical twilight at 4:24 am.

I left the house at 1:37 am, stopped for gas, and arrived at 2:25 am. Five minutes after arrival, the State Police pulled in to check on me (I presume they were regular stacies since they were wearing bullet-proof vests). Anyway, I had my first opportunity to use the WAS permit and it worked fine. I've previously dealt with State Park Police at Atsion, but they have yet to be interested in the permit.

I originally had plans to set up the 16-inch, but I didn't feel like lugging it out that late, so I just took my 15x56 binoculars and my 88 mm apo spotting scope. However, I was even too lazy to set up the spotter; instead, I just sat in my lawn chair with the binoculars, facing the darker skies to the east at Atsion.

The sky was clear and transparency was pretty good. The air was cool, I'm guessing down into the 50's °F range, so I wore a winter jacket to complement my shorts. For reference, M31, the Double Cluster in Perseus, and the "eyes" of NGC 457 (the ET or Owl Cluster) were all easily visible with unaided eyes.

I saw a bunch of things in the 15x56s. The Pleiades, the Alpha Persei Association, the Double Cluster in Perseus and Kemble's Cascade were all a spectacular view. The Muscle Man cluster near the Double Cluster showed well too.

I found three of my intended solar system targets in the 15x56s, Neptune, Uranus and Vesta, all without using a chart (although I did double check the charts later). I think I glimpsed Uranus naked eye. After you follow these guys for a bit, you get to know the location and the slow change in position over the course of an apparition.

I also looked for comet C/2017 T2 (PANSTARRS) in the horns of Taurus, but not a hint of it. SkyTools shows it at a manageable magnitude 8.4, but a comet summary linked on the Comet Mailing List this morning had it at magnitude 14. No wonder I couldn't see it (and I'm not sure why SkyTools is so far off).

Anyway, with the first meteor at 2:45 am, I started jotting notes for them. I saw a total of twelve (12) meteors through 4:03 am, of which nine (9) were plausibly Perseids — they more-or-less traced back to the radiant near Perseus' hat.

That may not sound like many, but it's way more than I usually see on the Perseid peak night, which typically coincides with a Perseid rain shower, clouds or poor transparency, and/or the moon interfering. The only time I really saw a "shower" for them was around 10 years ago at the Pit when I watched for four hours, reclining in a chaise lounge. We saw somewhere between 100 and 200 meteors, I forget the exact number. It was crystal clear that night and the first-quarter moon had set about 1 am.

August 11, 2019, Morning at Swede Run

After I left Atsion at 4:16 am, I stopped at Swede Run in Moorestown, NJ, and spotted Mercury with unaided eyes at 4:55 am. This was the third morning in a row I've seen it with unaided eyes at Swede Run and is the first morning of this elongation that the magnitude was negative (-0.11 per SkyTools).

August 11, 2019, Evening in Backyard

I happened to look at WinJUPOS around 9 pm on Sunday evening, August 11, and saw that there were several Jovian events about to occur that would be worth seeing. These events included a transit of the

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Great Red Spot, an Io occultation and Ganymede entering and leaving Jupiter's shadow east of the disc. There was also an occultation egress of Ganymede, but it had already occurred at 7:15 pm EDT. Since the sky was clear, I set up the 88 mm apo spotting scope on the back patio to watch, mostly at 60x.

The first event observed was Ganymede entering the western side of Jupiter's shadow, about 22 arc seconds east of the disc. I first noticed some dimming at 9:26 pm, and the last glimmer of light was seen at 9:39 pm. For a brightness comparison, Io was at a similar spacing from the western limb of Jupiter (and closing in). By then, the GRS was detectable towards the eastern limb (seeing was below average).

Next, I saw Io first kissing the western limb of Jupiter's disc at 10:34 pm and the last blip of it vanished at 10:39 pm. The GRS was easily visible now as it approached the central meridian of Jupiter, even though the seeing remained mediocre. At the predicted CM transit time of 10:50 pm, the GRS looked centered.

At this point, with Ganymede being eclipsed and Io occulted, Jupiter appeared to have just two Galilean satellites, Europa and Callisto, both west of the disc.

The last event observed was Ganymede emerging from Jupiter's shadow. The first pinprick of light was seen at 11:56 pm, but I did not see it return to full brightness as Jupiter disappeared into tree leaves just about midnight. I had already moved from the back patio to the side of the house to avoid the tree, but I couldn't get a clear path after midnight.

Before I watched for the GRS transit, I took the opportunity to look at Saturn, about 4° east the Moon. Although it was a little past the neighbor's roof, seeing was awful (rippling from heat waves) and I could not see the Cassini Division. I then looked at the Moon and it too was rippling, but with so many features on the lunar surface, it was still an amazing sight.

Oddly, at 10:40 pm, I saw a dark, diamond-shaped silhouette cross the Moon, moving from west to east (right to left), a little above center (the path was tilted from the 2 o'clock to the 8 o'clock positions). The silhouette was about the size of the crater Plato (bigger, I think, than the ISS for most crossings I've seen). It took 2 to 3 seconds, so it was longer than the typical ISS pass, but not long enough to really study. The diamond also rocked circumferentially as it crossed. Looking up with unaided eyes after the crossing, I saw nothing.

Then at 10:45 pm, I saw a similar pair of diamonds cross the moon along roughly the same west to east path, but they looked smaller than the first, and at 10:46, I saw a star-shaped silhouette cross from west to east. The star was rocking or rotating, but this time, around a vertical axis.

These "UFOs" are exactly that, unidentified, but probably something mundane like released balloons or perhaps the floating lanterns made from paper bags with candles, which seems to be a recent fad.