

Observing Reports for: July 1, 2019, Carranza / July 1-2, 2019, Atsion

by Joe Stieber

July 1, 2019, at Carranza

I was able to get out late on Sunday night – actually Monday morning July 1 as I didn't pull out of my driveway until 12:10 am. I went to Carranza Field in Wharton State Forest, arriving shortly before 1 am. When I stepped out of the car, the sky was glorious with billowing Milky Way running through the Summer Triangle down into Sagittarius. In addition, it was comfortably cool and relatively dry – with no bugs!

I was fooling around with my camera and mount as planned, mainly taking some test shots. Perhaps I should have set up the scope instead, considering the fine sky conditions, but by then, it was too late as I didn't bring any scope accessories (in particular, no eyepieces). Oh well.

However, I did have my unaided eyes and my 15x56 binoculars, so I got in a little non-camera time. With unaided eyes, M7 and M8 were not difficult to see to the south. High above in the Summer Triangle, I could see the Coathanger, and in the northeast, the Double Cluster with unaided eyes. I couldn't convincingly see M13 high in the sky, but I haven't been able to see it reliably with unaided eyes in recent years. Age may be taking its toll.

I don't recall seeing M31 with unaided eyes either; for some inexplicable reason, I didn't really try. However, in the 15x56s, despite not being that high in the northeast, M31 was easy of course, but I was surprised how easy it was to see M110, despite its low surface brightness. I actually saw it without trying to do so. M32 was also easy to see, but careful inspection is needed to isolate this small, high surface brightness galaxy from nearby stars at relatively low binocular magnification. Not far away, M33 was not difficult in the binoculars. Caroline's Rose (NGC 7789), an open cluster in Cassiopeia, was a delicate binocular sight.

Scanning the Milky Way from the Summer Triangle down into Sagittarius and Scorpius with the 15x56s shows virtually innumerable objects (scratching the surface: M11, 26, 16, 17, 24, 21, 20, 8, 6, 7). I also spotted magnitude 9.6 Barnard's Star in Ophiuchus (the star with the highest known proper motion, 10.3 arc seconds/year) and without any filter, I could see wisps of the North America Nebula in Cygnus, next to the mini-Orion asterism.

Before I left about 2:30 am, Fomalhaut was visible above the treetops, so I used it as a guide to find Upsilon Aqr, then a degree west is the Helix Nebula (NGC 7293). From a darkish site, the Helix is relatively easy to see in binoculars without any filters, while at the same time, vexing to see in a scope without a nebula filter. My final binocular sighting of the night was magnitude 7.9 Neptune in Aquarius, my first sighting of it for this apparition.

July 1-2, 2019, at Atsion

I was also out Monday night, July 1-2, this time to Atsion in Wharton State Forest with the intention of observing with my 12.5-inch, f/5 dob. I arrived at 11:30 pm (my domestic responsibilities often delay my observing, but it was only an hour after the end of astronomical

twilight). Again, it was comfortably cool and bug free, but it seemed more humid and the Milky Way, while easily visible, was not billowing like it was Monday morning at Carranza.

My primary goal was a challenge to see the magnitude 15.3 galaxy, IC 1296 near M57, which would be nearly overhead around 1 am. Alas, using the 12.5-inch up to 338x (4.7 mm eyepiece), I could not see any sign of it. I shouldn't be too surprised as the limiting visual magnitude for this scope per the RASC Observer's Handbook 2019 (pg 49) is approximately 15.2 (stellar?) at a minimum of 318x. Hopefully, I can try again soon on a more transparent night, but I'm still not optimistic about seeing the galaxy with this scope. I wasn't able to see the central star in M57 either.

By time I looked at it after midnight, Jupiter was nice in the scope with three of the Galilean satellites spread out on the eastern side (Europa, Ganymede and Callisto) and one on the west (Io). The Great Red Spot was also easily visible, even though it was more than half-an-hour after the GRS transited the central meridian at 11:53 pm EDT. It was also an hour after Jupiter itself transited the celestial meridian at 11:23 pm. Saturn looked good in the scope too. The Cassini Division was clearly visible and some darkish banding was evident on the ball.

I looked at a number of other objects in the scope, but I'll forgo a tedious enumeration. However, using my 30 mm, 82° two-inch eyepiece, which provides a TFOV of 1.55°, plus a narrowband filter (passing O-III and H-Beta), segments of the North America Nebula and the Pelican Nebula (separated by the mini-Orion asterism) stood out nicely. I also looked at the Veil Nebula with the 30 mm + filter. Both the Eastern and Western segments stood out well, but I prefer the Eastern Veil with its exquisite detail and no overlap with a bright star like the Eastern Veil and 52 Cyg. I could also vaguely see fainter Pickering's/Fleming's Triangular Wisp between them.

Towards the end of the session, when it was far enough above the treetops, I looked at Neptune in the scope. It revealed a tiny, bluish disc. I think I was using an 11 mm eyepiece for 144x or an 8.8 mm eyepiece for 180x.

The last thing I looked at in the scope was Caroline's Rose (NGC 7789), which I had seen the morning before in my 15x56s. It's a delicate beauty in the scope with a large number of faint stars, with some thin arcs of roughly concentric stellar voids which result in the resemblance to a rose.