

Monday October 4, 1999 – Arrived at 2:30P and setup camp. Monday night was a clear, steady night. The skies here are very good. Can see 5th-6th magnitude stars easily. Milky Way shown good, with spiral arms very prominent. There was a meteor shower happening this week. Many long, bright meteors were seen as well as some flying thru the eyepiece when I was looking at various objects. The Air Force was conducting refueling at night training and on Saturday night, I saw the lights of the tanker followed by a single aircraft. This night was spent looking at favorite objects and getting acquainted with the constellations again. Dave had a 24" Dob telescope setup near me. Rusty had an 18" Dob on a newly built computerized guiding and locating system by Mel Bartels and Dean had a 10" Netwonian on an equatorial mount. He took many guided photos during OTSP.

Tuesday October 5, 1999 – Skies are good. Milky Way was prominent but not as good as I have seen in Ft. Davis, TX. Saw M13 w/newly collimated telescope (bought collimating tool). Meteors streaking from S-SE all night with some very bright and long.

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| NGC 7009 | 8:45P | Saturn Nebula – At 40mm, greenish fuzzy star. 13mm, blue-green in color and is elongated. w/AV saw faint wings-Last night in 24" telescope, wings easily seen. |
| NGC 6992-95 NGC 6979 | 9:04P | Veil Nebula – West part-lots of filaments and knots in 24" with UHC filter. Rather dim but easily seen. Move scope to follow arc so see the whole structure. At the bottom of the arc, away from the main filament, saw another knot (NGC 6979). The twisting of the filaments and knots is awesome. East is very bright corkscrew shape. In my scope, couldn't find east near 52 Cygni. 40mm-West-UHC enhances view. arcs thru several FOVs. Can see knots and filaments easily. While looking at 52 Cygni, a satellite went thru middle of FOV. It was still just a point source. No angular displacement. Saw a satellite in the 24" go across FOV also. While looking in my scope, a faint meteor short across the FOV. These were neat added treats to an awesome object. |
| NGC 6940 | 9:47P | Open cluster seen best in the 8x50 finder. There is a faint glow that covers an elongated area-few bright field stars-but overall, most stars (book said 100)are very dim and contribute to the glow. |
| NGC 7000 | 10:05P | 40mm w/UHC-North American Nebula-pushed scope around to see all of shape-matches the shape on the chart very well w/Mexico up-can see some field stars-nebula appears to be blochy (not uniform brightness)-w/UHC over 8x50, shape is easily seen again. Mexico is up and the nebula is fatter at the bottom. |
| Pelican Nebula | 10:10P | Can see nebulosity at 56 and 57 Cygni-easy to see if you sweep the telescope across the area-can see nebula has <i>bounds</i> -very dim though-its just a hint that something is there. |
| NGC 246 | 10:50P | 40mm-right triangle, w/star at 90 degrees seems to be right in the middle of a diffused nebula-O3 filter makes it oval-w/a.v. can see oval shape. 32mm-not very bright-fills 1/2 FOV-using O3 filter see oval shape and w/a.v can see faint ring shape. UHC filter shows oval shape, central star and ring structure. |
| NGC 6934 | 11:45P | 32mm-very small-see granularity on circle shaped object-no member stars stand out-its obvious in the FOV yet small. 13mm-its brighter and bigger-brighter nucleus with diffused halo-w/a.v. can see granularity of stars. |
| NGC 1647 | 1:19A | 40mm-circular shaped Open Cluster-Fills FOV- has several blue-white stars-its in a star rich field w/ very faint stars behind it- some members are to E of cluster (a bit outside the original FOV). |
| NGC1817 | 1:45A | Identified position with 3 positioned stars. 10-12 stars in 1807 that are bright-very loose cluster. Pull NGC1807 scope to North to find 1817. Almost fills FOV at 40mm.Very loose association-4 brighter stars on left side of FOV- other stars in FOV much dimmer than these 4. |

NGC 2022 2:45A 40mm-I tried to focus on this guy and realized it was what I was looking for. VERY BRIGHT as compared to the other stars in FOV. O3 filter shows blue-green planetary-very tiny but bright.
13mm-bigger oval-no ring shape or star seen.

Seeing was good all night. A smokey haze at sunset from grass fires to the south of here. By midnight, stars overhead not twinkling much. I heard that transparency was fair to good. I thought it was a great night.

Wednesday October 6, 1999 – Skies were clear but there was a very steady wind all night that made observing impossible.

Thursday October 7, 1999 – Cloudy and slight drizzle all day and after dark, the wind kicked up and was gusty with hard rain during these gusty periods. A couple of tents were lost but the camper did alright. I put my telescope away Thursday morning before it started to rain so it spent the night in the back of my truck, nice and dry.

Friday October 8, 1999 – Sky is beautiful.

NGC 6960 8:04P 32mm-UHC filter-little S from 52 Cygni to the left-fills $\frac{3}{4}$ of FOV-leaves the star fainter, gets brighter in the middle of the S and then gets dim again at the top of the S-appears to twist.
25mm-shows it dimmer and bigger-no additional detail seen.

Tonight will have lots of dewing problems.

NGC7000 9:08P

NGC 7142 9:15P 25mm-small, circular cluster in shape-3 brighter field stars at the bottom of the FOV-rest of stars (12-20) are blue-white and are of the same brightness.

NGC 7160 9:19P 25mm-1 brighter star a bit brighter than the rest of the stars-about 25 stars in a very open, loose association-saw in Phil Perdue's 10" f/10 Cassegrain-fills FOV with cluster.

NGC ~~7142~~
869 9:21P 40mm-Phil's telescope with auto point system. 2 bright stars and the rest are dimmer-very loose association in the center of FOV.

V Aquila 9:34P Star hop to red giant-very tiny but red.

Saturday October 9, 1999 Air is still. Skies are beautiful. Humidity is down from last night. Should be a gorgeous night.

M13 7:50P 40mm-see member stars where last night these were washed out. Let eye watch it and the member stars just pop-out.

M51 7:55P Fill FOV of 40mm-See M51 and member galaxy-see hint of dust lane in M51-it was low in the NW but still the view was great.

NGC 7479 9:14P 32mm-see faint, sliver of light (barred spiral)-w/a.v. can see this sliver (bar) that is brighter than an extended halo and goes right thru the middle. Identified position wrt trapezium below alpha pegasus and this is $\frac{1}{2}$ way between these objects.
20mm-little bigger-easier to see bar in the heart of the extended nebulosity (halo)-vaguely see the hook on the right top part of galaxy (hooks up in FOV)-other night in the 24", the top hook was easy to see hooking to left and the bottom hook was much fainter, but able to see it hooked down. Basically, in my scope it is a bright bar in the middle of a halo.

NGC 7662 9:37P 32mm-pl. neb. in Andromedia very small-uniform brightness. Blue-green in color.

13mm-bigger-uniform brightness-no ring structure seen- can tell it has extended halo.
40mm is a tiny, fuzzy dot.

Looking for Herschel Objects is best with the 32mm because they are easier to spot.

- NGC 869 9:46P Double Cluser-869 more Easterly-32mm-2 bright stars, like eyes, at one edge of the
NGC 884 cluster-these 2 stars are brighter than the others in this cluster-several stars in an open, but
circular pattern. 884 is more open-all stars similar in brightness. 869 was a tighter
grouping of stars than this cluster.
- NGC 7217 11:25P 25mm-fairly small object-easy to see bcs it is a fuzzy object-w/a.v. has brighter nucleus
with diffused halo-circular in shape-bright part of nucleus is starlike.
- M33 11:38P 32mm uniform brightness with starlike nucleus-can see CCW rotation of arms-very nice,
NGC 598 face-on galaxy.
- NGC 891 11:54P 32mm-edge-on galaxy-extends $\frac{1}{4}$ way across FOV-slight central bulge-bulge area is a
little bit brighter than the ends of the arms-still a very dim object with the noticeable
brightening.
- M1 9mm Nagler with O3 filter-can see that it is splochy-not of uniform brightness anymore.
25mm Plossel with O3 shows the splochy pattern also. Very cool.

Meteors all evening-not as many as the other night, yet 3 have gone thru the eyepiece when I was looking at something.

- NGC 1514 12:40A pl. nb. no O3 can see a hint of a nebulosity surrounding the central star-w/O3 filter see
the nebulosity is a ring and the central star is very bright.
- NGC 253 12:41A Thru Rusty's 18" scope. A tilted oval, spiral-easy to see arms and dust lanes. Mottled-
arms extend CCW.

Middle of the Veil Nebula thru Dean's scope (10" f/6 Newtonian) and O3 filter-
nebulosity is very faint and splochy. Move scope up and down to see it all.

Sunday October 10, 1999 - Woke up about 7:30A because someone was playing music loud and wanted us up.
Couldn't get the camper to fold down. One leg kept sticking. I think the wind had somehow locked it up. Finally got
it down and left the camp. Arrived home about 3:00P in the afternoon.

*Also look @ M57 thru 24". It was humongous. Never saw it so
large + Bright. w/av, saw central star once.*