

March 4, 2000.
Pawnee Grasslands.

Scope was setup by 5:30PM. About 10 people viewing tonight here. Watched sun drop below mountains in Jim Sapp's refractor.

NGC 1980 7:07 P Surrounds the bottom star of the sword. Iota Orionis. Definitely see nebulosity around this star. 13mm fills ½ FOV. Then you sweep up to the Orion nebula and there is nebulosity all the way. Orion Nebula overwhelms this 13 mm EP. Then going beyond the Nebula and the nebulosity continues and is easily seen. The nebulosity forms a 'line' between the nebula and Iota Orionis.

NGC 1999 7:15 P Another star embedded in nebulosity below Iota Orionis. 32mm star is prominent. The nebulosity is just around the star and not very far away. 13mm easier to see and is centered on star. Very faint with a.v. it is easier to see.

Stars are steady and Sirius is not twinkling. Winter Milky Way is overhead and there are lots and lots of stars. Can see light dome of Greely, Ft. Collins and Cheyene. To the NE it is completely dark.

7:22P – The space station was bright and easily seen. Went thru the belt of Orion and had disappeared by the time it reached Canis Major.

NGC 2169 7:30P Open cluster in Orion in right arm. Put the scope on V-Orionis (right star of elbow) and moved the scope to a rich, little open cluster. Shows best at 20mm. About 8 stars same brightness and 16-18 other stars in cluster. Stars in 2 groups. 1 grp together in triangular shape, 3-4 to left of this in a line and 3-4 above these two configurations.

NGC 2160 With binoculars, look at winter Milky Way, M45 and Beehive cluster.

NGC 2194 7:39P 32mm faint glow-w/a.v. can see member stars. Went to 73 and 74 Orionis and when both in FOV, then moved 1 more FOV to NW and found cluster. 20mm see member stars easier. Cluster is compact, together. About 20 stars with varying brightness. 9 are about the same brightness with the rest much fainter.

Saw a 5th star in the trapezium, in between the two stars on the left side. Much fainter than the other 4. Brian Kimball's suggestion so see this 5th star.

NGC 2509 8:35P Open cluster in Puppis. 32mm fairly compact, faint cluster. In a star rich field, but can see cluster bcs there is a haze of stars together. Below bright field star on finder card. See member stars very easy. 20mm fills ½ FOV. Gives best view. Many stars. Compact. 15 stars about the same brightness, together in cluster.

NGC 2479 8:43P Use star to leap frog to get to 2479. 32mm-Very faint, open cluster. Has several members. Circular in shape. At 20mm-fills FOV-shows many more stars about 50 stars. All are of similar brightness.

NGC 2440 9:05P On same finder card as above 2. 32mm-very bright in the field of stars it is in. It has a greenish color, but is star like. With OIII filter, it stands out prominently.

NGC 2539 9:21P Open cluster next to 19 Puppis. 32mm-put 19 Puppis on right side of FOV, cluster dominates the FOV. Several stars about same brightness. Elongated, linear in shape. Not circular. 30-40 about same brightness and others that are dimmer.

NGC 2627 9:33P On finder card, to right of a star. 32mm-fairly dim cluster. See member stars easily.

20mm-fills FOV. Seems to be in 2 pieces. Main group has field stars in it (meteor shot in front of EP). Most about same brightness, with rest much fainter.

- NGC 2567 9:50P Open cluster. 32mm-Loose association. Many member stars. Small in FOV. Most stars of same brightness.
- NGC 2571 9:55P Move north from 2567. 32mm-find another cluster. Has about 4-5 relatively brighter than rest. rest dimmer. Star at edge of FOV (on correct side) which coincides with Tirion star chart.
- NGC 2422 (M47), NGC 2423 just above it to the North and NGC 2438 (Planetary embedded in M46)
10:10P 32mm-2422 fills FOV. 1 bright star in it, about 10 stars of same brightness, little dimmer than 1st, then many other stars much dimmer than these. 2423 is much fainter than 2422. 2-3 stars brighter than rest. Loose grouping of stars roughly in a circular shape. Then move to east to 2438, still with 32mm and OIII filter. Very easy to see. Oval in shape. w/o OIII filter, can see a smudge in the M46 open cluster. M46 is circular in shape, maybe 100 stars. Stars fall into 2 levels of brightness. 20mm-w/o filter, see it better. w/filter, very dominate. w/a.v. can see faint ring shape and maybe once in a while when the seeing steadies, see the central star.

Spent the remainder of the evening visiting and looking through other peoples' scopes. Left Pawnee about 11:30P. This was an awesome place with very steady skies. Don't park where I did for when cars come from the west down the road, their headlights hit my scope. But there was plenty of warning and I hid my eyes to preserve my night vision.