

## Friday, September 30, 2005

Arrived at Pawnee Grasslands about 4:30 PM and setup under clear, but windy skies. Winds calmed down a lot at sunset with a light breeze that moved the scope a bit coming from the north, most of the night.

A note, my mirror was coated with a film of dust that had accumulated over the past year, mostly at Pawnee. That is why the last couple of times I didn't see galaxies and other objects very good. I plan to re-look at some objects with a clean mirror. I did put a few light scratches in the coating. All I noticed that when looking at Altair, to do the FOV width, I noticed ghost stars now and then. Otherwise, I saw galaxies and such, and the limiting effects were the atmosphere in seeing these guys tonight and not the scratches on the mirror's surface.

From the time I could see Altair, until about 8 PM, I timed the drift of this star across the FOV of several eyepieces I had to determine the true FOV of these eyepieces.

EP	Avg Time of Drift	True FOV
6 Ortho	53"	13.1'
20 Ortho	72"	17.8'
40 Ortho	206"	51.0'
10 Plossel	42"	10.4'
13 Plossel	60"	14.9'
19 Wide Field	173"	42.9'
32 Blue	215"	58.25'

$$\text{FOV (arc min)} = (\text{time}) \times (2506845) \text{ (cos dec)}$$

NGC 6526 8:16 PM I re-looked at this one with a clean mirror. I determined that this was a lot closer to M8 than the finder chart indicated. Its an easy to see glow, that is best seen with the UHC filter. I see the 3 stars on the finder chart in the nebulosity. This nebulosity is just an extension of the flow of gas from M8 and is all around this area and around these 3 field stars. The gas cloud is triangular in shape. There is a slight dim of a gap between the nebulosity glow of M8 and where this triangular patch of glow starts.

The sky is steady and the seeing if fair to OK.

NGC 6239 8:39 PM Faint, uniformly lit glow. Fat oval shape. Definitely not circular.

NGC 6155 8:51 AM Very small, very dim round glow with a hint of a hare brighter nucleus. Near a much brighter field star.

NGC 6058 8:57 PM 19mm. Small round glow with central star easily seen with AV. O3 doesn't add much. 10mm. Nice round shape with central star seen with direct vision. O3 dims this view of it a lot.



NGC 6166 9:04 PM Small, very dim glow. Maybe a bit oval in shape with a hint of a ~~tiny~~ <sup>tiny</sup> hare brighter nucleus.

NGC 6181 9:16 PM Dim, oval shaped, uniformly lit patch of light. Easy to see though. Stands right out in FOV.

NGC 6548 9:32 PM Small, dim round glow with a brighter, tiny nucleus.

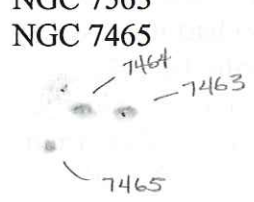
NGC 6720 9:34 PM M57. 19mm. Nice, bright fat oval with a glow across the center of the oval. Easy to see. O3 gives a better view. 10mm. Seeing not good tonight so more power doesn't give a better view. O3 still makes it better. Central star not seen.



NGC 6814 9:52 PM Small, round glow with a tiny, relatively brighter star like nucleus ~~seen~~ <sup>seen</sup> with AV. UHC filter doesn't yield a better view of this. Appears to be round.



NGC 7464 10:24 PM 3 galaxies in FOV. 7463 is the biggest of the 3. All 3 are round and faint. 7463 has a tiny, brighter nucleus glow. 7464 is the 2nd biggest. Round, with a hint of a hare brighter nucleus. 7465 is the smallest, Its round, with a tiny, star like nucleus seen. All 3 are easy to see and stand right out in the FOV.



The wind has kicked up a bit from the North. Moves the scope around a lot and making it hard to study the faint galaxies. I have to lean on the scope to dampen out the vibrations to see and then I only get a couple of seconds of steady scope to see the objects.

NGC 7332 10:51 PM 7332 is a nice oval shape with a nice, large bright nucleus. The nucleus starts our bright and dims evenly into the halo. Nice. 7339 is perpendicular to 7332 and it is a tiny, dim sliver of like. Its like a line in the FOV. Much dimmer than 7332.



Its 58 degrees now. Still a light breeze from the North. The sky is steady and the transparency is OK.

NGC 7623 11:41 PM  
NGC 7619  
NGC 7626



7619 is the biggest of the 3, with 7623 just a hare smaller and 7626 just a tiny halo. All 3 have a nice nucleus glow. 19 and 23 are bright, circular nucleus that dims into a nice round halo. 7626 has a tiny halo with a star like nucleus seen on halo glow.

NGC 7541 11:58 PM  
NGC 7537



7541 is a nice, edge on sliver of light. Faint field star at edge of bottom right of galaxy. Very faint circular glow of 7537 just above it. Glow of both are uniformly lit. 7541 very easy to see.

NGC 7562 00:06 AM



Oval or round in shape. A dim halo with a tiny, relatively brighter nucleus seen. With AV, a stellar nucleus pops into view, otherwise can tell the nucleus is a bit brighter, but tiny with respect to the halo seen.

NGC 7742 00:26 AM

Small, round with fairly bright core and a tiny bit of halo around core. Very faint field star to lower right and right next to it. Very easy to see.

Wind is from NE now. Its picked up a lot and bouncing the scope a lot. Still 58 degrees.

NGC 7785 00:47 AM



Small, round, dim glow with a hint of a hare brighter nucleus. Nestled amongst 3 field stars.

NGC 7392 00:58 AM



Huge glow. Uniformly lit. Fills little over half the FOV of 19mm. Can barely see it without O3 but with O3, stands right out. Several stars seen on glow without O3 and a star in the center of glow if probably the central star. Of all the stars on the glow, this one is tiny and faintest.



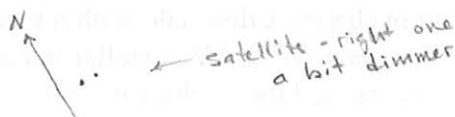
NGC 246 01:14 AM Very faint. Found it with O3 filter in place. O3 gives best view of it. Round with 4 stars on the glow, one of them right in the middle. This is probably the central star of PN. This star is bright without the O3 filter. Can see the contrast of the glow, but very hard to see without O3 filter. Clicking O3 in and out can tell which star of 4 seen on glow is the central star.



Wind is from the south now. 55 degrees. Sky still steady.

NGC 636 1:40 AM Small, round dim glow with relatively brighter nucleus. Nucleus is larger than tiny. Easy to see.

Sky is turning soft right now. I saw a dual satellite pass through the field of view heading north. I looked at heavens-above and it was not TiPS. This happened at 1:52 AM and while I was looking at NGC 337. This was really cool.



NGC 337 1:50 AM Round to oval shape. Hard to tell. Uniformly lit glow. Stands right out.

NGC 357 1:59 AM Small, dim, maybe round uniformly lit glow.

NGC 217 2:03 AM Elongated oval. Dim, small with maybe a hare brighter nucleus.

NGC 151 2:15 AM Round glow. Easy to see with a relatively brighter, large nucleus glow.



NGC 428 2:34 AM Small, dim, round or oval shaped. It was hard to tell the exact shape for it was so dim. Maybe a hint of a slightly brighter nucleus.

NGC 175 2:53 AM Very dim, round, uniformly lit smudge of light.

52 degrees now. Sky fairly steady. Seeing fair to OK. For the past 2 hrs, I have been smelling smoke. At first, I thought it might be a prairie fire, but I didn't see a red glow on the NW horizon. It smelled more like a forest fire. From the position of the jet stream,

going over southern California and up into Wyoming, then a light NW breeze from Wyoming, I bet I was smelling the smoke from the LA fires.

NGC 1162	3:19 AM	Small, round dim glow with a tiny, stellar nucleus seen in center.
NGC 1172	3:40 AM	Small, round, dim glow with hare brighter nucleus.
NGC 1199	3:40 AM	About the same as 1172. Small, round glow with tiny, relatively brighter nucleus.
NGC 1209	3:40 AM	Oval glow with relatively brighter, compact nucleus seen on glow.

Its 49 degrees now, after looking at those last 3 galaxies, the sky is completely gone now. Stars are fat circles. There is a warm breeze from the NW. I would like to revisit these last 3 galaxies when the sky is more stable. I bet there is a better view waiting when the sky is more transparent.