Friday, January 20, 2012

Mike Roos, Bruce Heath and I drove to near Crowell, TX and the Comanche Springs Astronomy Center to use their 20 inch and 30 inch telescopes. We left Colorado Thursday night and stayed in a Motel 6 in Raton, NM. We arrived at the CSAC facility about 4 PM Friday afternoon. We setup an 18 inch and two 20 inch scopes. The wind was ferocious and it made observing this night difficult.

Also, we found that the Sky Commanders had not been used for a couple of years and didn't work. The cables appeared to be bad and it was hard to find objects in this mode. I would center on M42 and then dial in my object, slew to it and hope the cables worked. Sometimes they did and often they didn't.

Tonight I used a 20 inch, f/4.5 Obsession with a 17mm eyepiece, yielding 134x. I also used the 30 inch f/4.5 Obsession with a 13mm eyepiece, yielding 263x.

Sky Fair. Strong wind from North. At sunset, sky was overcast but cleared shortly before 9 PM.

NGC 1110	8:55 PM	17mm – A faint, linear glow with hare brighter core. PA 5 o'clock.
NGC 1163	9:10 PM	17mm – A brighter, linear glow. Larger, bright core with very dim halo around on each side. PA 4 o'clock.
NGC 1145	9:14 PM	17mm – A very faint, thin, small sliver of light. PA 1 o'clock.
M-1-10-35	9:29 PM	17mm – A small faint fatter linear glow. Hare brighter core. To right and near a bright double field star. PA 2 o'clock.

Seeing is Great. Transparency is Great.

M-3-9-41	9:41 PM	17mm – A larger, <u>very faint linear glow with hare brighter</u> , tiny core. PA 1:30 o'clock. Most of what seen is halo glow.	
NGC 1247	9:46 PM	17mm – A very large, dim, uniformly glow. No core seen. PA 0 degrees.	lit, fat oval

is

NGC 1620	9:54 PM	17mm – A <u>small</u> , round brighter glow. Large bright core with bit of dim halo around it. Just below and very near a dim field star.
9		
NGC 1589	10:07 PM	17mm – A small round, faint halo glow. Has 2 star like points of light on halo glow. One very dim point of light at center of round glow. Above at 2 o'clock is a brighter field star, well outside of halo
		glow.
NGC 1886	10:15 PM	17mm – A very dim, linear glow with fatter core and hare brighter core. PA 3:30 o'clock.
M-4-14-11	10:27 PM	17mm – A small tilted oval with bright, larger core surrounded by a tiny bit of easy to see halo.
PGC 20903 (ESO 428-28)	10:39 PM	17mm – A <u>very</u> faint linear glow. Just below and to right of a <u>very</u> bright field star. PA 4 o'clock.
Seeing is Good. Tra persists.	insparency is Go	ood. Sky is steady. 36 degrees. Gusty wind from north
NGC 2217	11:15 PM	17mm – A larger oval glow. Large bright core surrounded by dim, easy to see halo.
NGC 3259 SN 2012a	11:26 PM	30 inch 13mm – Big, bright core with faint halo to upper left seen. Super nova is the brighter of 3 stars On lower part of halo glow. The faint field stars are near, pretty faint and form a triangle with SN.
NGC 2359	12:20 AM	30 inch 13mm – Nice. Saw lots of nebulosity to make helmet and faint nebulosity trailing off upper right of helmet.
Thor's Helmet		right of hemict.
	1:52 AM	20 inch 17mm – Nice. See both cores and lots of halo around both.

Wind was ferocious most of the night. By 2 AM, sky too soft to find anything but brighter Messier objects. Sky Commander DSCs had bad slippage. Will attempt to fix this afternoon to see if it works better tonight. Kept realigning on M42 and hoping no slippage before slew to next object. Sometimes OK, often not.

Despite conditions, I found a lot of galaxies I had not seen before. Doug and Russ ran the 30 inch scope for some Boy Scouts that arrived about 10 PM. I was setup just south of the roll off observatory where the 30 inch telescope was and would pop in to see what they were looking at throughout the night.

Saturday, January 21, 2012

Today is my sister's birthday. Called her about noon and wished her a Happy Birthday.

Clear and windy from south at sunset. 56 degrees.

7:00 PM

Venus

I used the 20 inch, f/4.5 Obsession telescope with a 17mm eyepiece tonight, yielding 134x.

I determined early on that the Sky Commander DSCs were not working again. I brought my 8x50 finder scope and found a finder scope bracket that Bruce and I wire-tied onto the 20 inch where the Telrad mount was. I found that I missed the Telrad for it is a nice combination to zero in on the part of the sky where you can then look through the finder scope to find the object.

17mm – Nice, Very bright, A fat gibbous phase.

venus	7.00 FW	1/IIIII – Nice, very origin. A fat globous phase.
Seeing Fair. Transpa	rency poor.	
UGC 11994	7:28 PM	17mm – A <u>faint</u> smudge of uniformly lit glow. Oval in shape with 3-4 field stars on glow. Easy to see though. PA 3:30 o'clock.
UGC 711	7:42 PM	17mm – An <u>extremely</u> faint linear smudge of light. PA 3 o'clock.
PGC 1665 (UGC 260)	7:48 PM	17mm – An <u>extremely</u> faint, uniformly lit, flat cigar shaped glow. PA 2:30 o'clock.
IC 10	8:29 PM	17mm – A large oval faint flow just below a brighter field star. Has lots of field stars on glow.
NGC 1415	8:41 PM	17mm – A nice, dim, oval galaxy with larger, brighter core and bit of dim halo around it.
NGC 1395	8:46 PM	17mm – A small, slender linear glow. Goes from 2 – 8 o'clock in FOV. Small. Has brighter core with slight bulge in this area of glow.
NGC 1426	8:49 PM	17mm – A circular glow with arms. Has large bright core with lots of detail in core. Seems to have a brighter stellar part then some less bright knots around this one. Core looks different from any others I've ever looked at.

NGC 1385	8:56 PM	17mm – A "lopsided" circular glow. Small. Uniformly lit circular glow. It seems to have a bit of extremely faint halo glow trailing off the lower right of circular glow.
NGC 1371	8:58 PM	17mm – A cigar shaped glow with large brighter core in center of halo glow. Small.
M-4-8-57	9:03 PM	17mm – A small oval. Has a small bright core surrounded by a bit of dimmer core. All surrounded by a lot of halo glow. Nice.
Seeing OK. Transpare	ency OK.	
NGC 1255	9:08 PM	17mm – A large, uniformly lit glow. Basically oval in shape but seems more glow on left hand side than right side which seems to taper off while left side rounded.
NGC 1288	9:15 PM	17mm – A <u>very</u> faint round small smudge of uniformly lit glow.
NGC 1300	9:18 PM	30 inch 13mm – A large oval glow with brighter core and a linear box shape. Pretty faint halo glow.
NGC 1344	9:21 PM	17mm – A nice, small, oval glow with larger bright core that is brightest in center and dims quickly to halo. Core is oval in shape matching halo glow shape.
NGC 1326A&B	9:34 PM	17mm – A round glow with brighter core that is not stellar but a bit extended. Maybe the 2 cores of this pair. Dim, yet easy to see a bit of halo around these.
NGC 1326	9:34 PM	17mm – Then below NGC 1326A&B and near and to right is a small, round glow with tiny star like core. Looks like an out of focus star yet other stars in FOV are pinpoints.

Seeing OK. Transparency OK.

Seeing OK. Transparency OK.			
NGC 1436	9:40 PM	17mm – A small round glow. Smaller bright core that dims slowly into dim halo glow.	
IC 2006	9:42 PM	17mm – A small, round, very dim glow. Has a hare brighter core area.	
NGC 1484	9:47 PM	17mm – An <u>extremely</u> faint, tiny round glow with hint of something in core at center of glow.	
NGC 1291	9:53 PM	17mm – Very low along horizon. A large brighter oval. Has small, oval brighter core surrounded by lots of faint halo glow. A faint field star on lower part of halo glow.	
PGC 11812 (ESO 300-14)	9:57 PM	17mm – An <u>extremely</u> faint small oval smudge of light.	
NGC 2188	11:24 PM	17mm – Vertical in FOV. A long, larger, fat sliver of uniformly lit light. Easy to see. Pretty dim. PA 0 degrees.	
29 degrees now. Seeing OK. Transparency Fair.			
NGC 2310	11:33 PM	17mm – Another thin, slender, long galaxy. Core area a hare brighter. Pretty dim. PA 4 o'clock.	
NGC 2206	11:38 PM	17mm – An <u>extremely</u> faint, round halo glow. Small with 2 tiny star like cores on glow on each side of the center of the glow.	
NGC 2223		17mm – A small round dim glow with small, hare brighter core seen in center of glow. A faint field star, approximately same magnitude as core is at 5:30 o'clock to core and on halo glow.	
NGC 2325	11:51 PM	17mm – A small thin oval, going from 11-5 o'clock in FOV. Not uniformly lit but glow looks mottled. Faint field star near top of galaxy on glow.	
PGC 20363	12:05 AM	17mm – A very faint fat oval glow. Uniformly lit. Very small.	

NGC 2280 NGC 2272	12:12 AM	17mm – A tiny, dim, oval clot with brighter core area. N2272 is a dim, small uniformly lit oval. N2280 on left hand side of 2 brighter field stars and N2272 is on right hand side.
NGC 2566	12:50 AM	17mm – A small, faint oval glow in star rich FOV. 2 faint field stars on glow, one of which may be a core.
Still 29 degrees.	Slight breeze from	southeast. Sky OK. Transparency OK.
NGC 2559	1:00 AM	17mm – A small roundish glow. Center hare brighter than edge. Uniformly lit in center. In star rich FOV but no stars on glow.
Used the 30 inch rest of the night.		n eyepiece (263x) and 17mm eyepiece (202x) for the
NGC 4244	1:06 AM	13mm – A <u>long</u> slender uniformly lit galaxy, pencil thin. PA 5:30 o'clock.
	1:23 AM	13mm – An extremely faint, larger, oval of uniformly lit glow. Lots of faint fields stars on glow making it hard to see.
PGC 24175	1:27 AM	13mm – A <u>tiny</u> slightly oval galaxy. Larger brighter core with tiny bit of dim halo around it. Looks like an out of focus star.
PGC 25152	1:33 AM	13mm – A tiny, faint glow with faint stellar core on glow. Looks like out of focus star.
NGC 5016	1:47 AM	13mm – A fatter small uniformly lit oval. PA 2 o'clock.
NGC 4565 NGC 4562	1:55 AM	17mm – Nice. Long, slender. Stretches across FOV. Dust lane obvious and central core nice and bright. PA 0 degrees. Then below it is N 4562, an extremely faint linear smudge of light. Makes a "T" with N4565.
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(ESO 435-19)	2,101111	of focus star. Linear. PA 4 o'clock.
PGC 28909 (IC 2531)	2:14 AM	17mm – A larger, linear, long uniformly lit, <u>very</u> faint glow. PA 3 o'clock.
31 degrees. Seeing (Good. Transpare	ency Good. Stars steady.
M-1-24-1	2:23 AM	17mm – A faint, longer, slender uniformly lit glow. PA 4 o'clock. Has a very bright field star below it and touching left of center and above and right of center is an <u>extremely</u> faint field star touching it also.
NGC 3044	2:33 AM	17mm – A nice edge on. Easy to see. Long and slender. Slight bulge seen at center. Hint of dust lane bisecting it. Uniformly lit. PA 2:30 o'clock.
M 1-26-12	2:45 AM	17mm – A small, long, oval and uniformly lit. PA 2 o'clock. There is a faint field star just off lower end

17mm – A tiny, very faint galaxy. Looks like an out

PGC 28840

2:10 AM

Sky quickly fogged over after this. Was looking for another galaxy, couldn't find it and looked up to see just the 1st and 2nd magnitude stars shining through the pea soup of clouds. Called it a night. Can't wait to use the 30 inch all night tomorrow night.

of galaxy.

Sunday, January 22, 2012

There was a huge dust storm today. The sky was grey from all the dust. Mike, Bruce and I drove to Copper Breaks State Park, north of Crowell to take a shower. It cost us \$3 each to get into the park. The hot water felt good.

Then we drove top Quanah, TX to eat lunch in this thriving metropolis.

By sunset, the wind had died down to a soft breeze and it was clear. Very remarkable given all the dust that was probably still in the air.

I used the 30 inch f/4.5 all night with Mike Roos. We used the 31mm eyepiece (111x), a 13mm eyepiece (263x), and the 31mm eyepiece with a 1.6x Barlow, yielding a 19mm eyepiece (180x).

NGC 7479	8:20 PM	31mm – A dim, uniformly lit oval glow. Larger in size.
NGC 7448	8:25 PM	31mm – A dim, small oval uniformly lit glow.
NGC 100	8:33 PM	31mm – An almost not there, extremely dim, longer sliver of light. 13mm shows its <u>extreme</u> faintness as well as a slight central bulge and long tapered arms. PA 4 o'clock.
NGC 524	8:37 PM	31mm – A nice small fat oval with larger, brighter core that dims slowly into lots of halo glow. PA 4 o'clock.
NGC 522	8:43 PM	31mm – A small, <u>very</u> dim linear glow. w/AV, see slightly larger bulge in core area. PA 5 o'clock.
NGC 2357	8:47 PM	31mm – An <u>extremely</u> ghostly sliver of light, seen w/AV. Short in length. PA 3 o'clock. 13mm shows uniformly lit, slender glow.
NGC 2424 NGC 2445	8:53 PM	13mm – A very dim edge on. See central bulge with brighter core and short, tapered arms. PA 5 o'clock. Below and to right is a small smudge of light (N2445).

UGC 1281	9:04 PM
PGC 2002217	
PGC 212844	
A)	
/#/	
0	P212844

18210

13mm – An extremely faint, tilted oval with larger, hare brighter core. PA 1 o'clock. Almost not there. Then above and to right is P2002217, a small, round fainter smudge of light. Then below P20002217 is P212844, an extremely dim smudge of light. Tiny and round.

43 degrees. Sky is great. Transparency good.

UGC 2082	9:10 PM	13mm – A <u>very</u> faint, longer, larger, slim uniformly lit glow. PA 0 degrees.
A		
NGC 973 IC 1815 PGC 9751 PGC 213029	9:17 PM ICI815 973 P9751	13mm – A small, slim, uniformly lit glow. <u>Very</u> faint. PA 4 o'clock. Then above and to right is a small, dim, round glow with hare brighter core (IC 1815). Then below and to right is a tiny round uniformly lit smudge of light (P9751). Then near and to left is a tiny, linear smudge of light (P213029).

40 degrees. Seeing OK. Transparency OK.

UGC 1999 9:26	in amongst	n <u>extremely</u> faint smudge of light nestled 4 stars in a line. 2 nd star from right on side of glow. PA 3:30 o'clock.
UGC 433 9:36 (PGC 2458)		slender, very dim small uniformly lit :30 o'clock.
UGC 542 9:41 (PGC 3133)		dim, small, slim glow. Larger hare re area. PA 2 o'clock.
NGC 392 9:46 NGC 394 NGC 397	brighter co smaller ver	394 is the top one and is round with re. To right is N397, the 2 nd brightest. A rsion of N394 with dimmer core. Below the smallest round glow with dimmest core 3.

Hickson 10 NGC 542 NGC 536 NGC 537 NGC 529	9:50 PM	13mm – Brightest is a small N536, linear, uniformly lit glow. 2 bright field stars below glow and near it. N529 is a dim, uniformly lit, small round glow. N531 is an oval, extremely dim smudge of light. N537 is a small, extremely faint round smudge of light. To left of field stars is an extremely faint linear smudge of light of N542.
NGC 2146	10:04 PM	13mm – A very large tilted oval with a large bright core that dims quickly into lots of halo surrounding it. PA 0:30 o'clock.
NGC 1560	10:07 PM	13mm – A <u>very</u> long, slender, uniformly lit glow. Lots of stars around it with 2-3 on glow. PA 5:30 o'clock.
UGC 4550 (PGC 24490)	10:16 PM	13mm – An <u>extremely</u> faint ghostly small linear glow. PA 3 o'clock.
NGC 2507	10:22 PM	13mm – A larger, very dim tilted oval. w/AV can see it has a tiny star like core. Core area seems to have a texture. Most of what is seen is halo glow.
NGC 3245	10:31 PM	13mm – A bright oval with nice, large bright core.
NGC 3245A	10:31 PM	13mm – An <u>extremely</u> faint linear thin glow. PA 3:30 o'clock.
38 degrees. Seeing F	air. Transparen	cy Fair.
IC 2233		19 mm – An <u>extremely</u> ghostly glow, larger, linear, barely there. PA 2:30 o'clock.
UGC 4277	10:44 PM	19mm – An <u>extremely</u> ghostly glow. Cigar shaped. PA 2 o'clock.
IC 2461	10:52 PM	19mm – A larger, <u>very</u> faint glow. See has larger, <u>hare</u> brighter core. PA 3:30 o'clock.
11:14 PM. Sky over brighter Messier obj	150 150	og like clouds. 35 degrees. Decided to look at

12:14 AM 31mm - Nice.

M81/M82

	NGC 2903 NGC 2905	12:14 AM	31mm - Nice, large tilted oval with nice bright core. Then to left, just below field star is N2905, a tiny, faint halo glow with star like core. Looks like an out of focus star.
	M97, M106	12:24 AM	31mm - Nice.
	Sky improving a bit. (Clear Sky Clocl	k says at 2 AM, it is supposed to get better.
	NGC 2775	12:52 AM	31mm – A small, round galaxy. Large core that dims slowly to dim halo.
	NGC 3365	12:56 AM	31mm – A ghostly sliver of light. Sky poor. Slender, sliver of light. PA 5:30 o'clock.
	NGC 2811	12:59 AM	31mm – Nice. Faint little galaxy with brighter core and short tapered arms off each side. PA 4 o'clock.
	NGC 3115	1:02 AM	31mm – Nice bright tilted oval. Round bright core with hare less bright bar seen down center of halo glow.
	NGC 3242	1:07 AM	19mm – Nice small round planetary nebula. Central star seen once in a while.
	UGC 5708	1:12 AM	19mm – A ghostly glow between two field stars. Brighter field star on bottom. PA 4 o'clock.
	NGC 2548	1:21 AM	19mm – Nice, bright Open Cluster. Lots of bright blue white stars of 3-4 magnitudes.
	NGC 2874	1:28 AM	19mm – 2 galaxies in FOV. Top one is N2874, an
	NGC 2872	1,20 AIVI	edge on, dim, with hare brighter core. Bottom one is
	NGC 2873	13	N2872, is brighter, oval to round, with small bright core. Then above these two and to right is a round
2	8744		smudge of light seen once in a while of N2873.
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Finally got out of bed at 11 AM and sky was clear. Wind from southwest.

Sky tonight is predicted to be good tonight till midnight.

Seeing fair. 31 degrees. Transparency fair.

NGC 3024 NGC 3020 NGC 3019	1:38 AM	19mm – 3 galaxies in FOV. N3024 and N3020 are both large, faint oval halo glows. Both have tiny, hare brighter cores seen with AV. Then above these two is N3019, a small edge on, uniformly lit glow.
NGC 3279	1:46 AM	19mm – A dim, linear glow. Easily seen. PA 175 degrees.
NGC 3454 NGC 3455	1:49 AM	19mm – A thin, <u>very</u> faint glow. PA 5 degrees. Uniformly lit. Then on the other side of a brighter field star is this <u>very</u> faint, round-oval uniformly lit glow of N3455.
6 2345	5	

Sky Fair. Transparency Fair. 31 degrees.

NGC 3501	1:55 AM	19mm – A thin, faint glow. w/AV see slightly larger bulge in center. Longer arms off each side. PA 4 o'clock.
NGC 3802 NGC 3801	2:01 AM	19mm – A small, fat oval uniformly lit glow. Then above and to right (N3801) and above and to left
NGC 3803	3801	(N3803) are 2 tiny, roundish almost not there smudges of light.
Ŋ	3802	
UGC 6594	2:09 AM	19mm – An <u>extremely</u> ghostly glow of a sliver of light. PA 1 o'clock.
UGC 7170	2:15 AM	19mm – An extremely ghostly glow. Long and thin. PA 2 o'clock.

2:22 AM. 31 degrees. Sky just went south, again all at once. Only brightest stars peeking through the soup.

Saturn and Mars were awesome in 30 inch. Even with pea soup we were looking through. Waited till 3:30 AM for sky to clear and it didn't.

Woke up just before sunrise to see clouds everywhere.

Monday, January 23, 2012

Used 30 inch scope again tonight. My friend Gary Carter joined Bruce and I on this scope. Bruce and I tag-teamed objects from each of our lists all night.

Jupiter

7:01 PM

31mm – Awesome. GRS and 4 moons visible. Lots of individual bands seen and 1 shadow transit.



NGC 1131 7:11 PM

NGC 1129

PGC 10953

MGC 7-7-3

MGC 7-7-5

MGC 7-7-6

PGC 10978

P10978

P10953

M7-7-5

13mm – There are two galaxies together. See both small cores on glow, bottom core (N1129) hare brighter than upper right (N1131). Both circular halo glows. Then below (P10953) is a tiny out of focus star with a tiny, star like core with a bit of halo around it. Then below this (M 7-7-3) is an even smaller one. Faint star like core with tiny bit of halo around it. Then below this one (M 7-7-5) is a tiny, very faint circular smudge of light. To left of bright ones (N1131 and 1129) is (M 7-7-6) a dim, round circular glow with star like core. Then to the left of this one and is a dimmer, tiny round glow with star like cores of P10978.

Abell 426	7:24 PM	13mm – 25+ galaxies seen. From NGC 1250 to NGC 1291 and beyond. Most are lots of halo glow with stellar cores.
		Some lens shaped fainter ones just smudges of light. See all on my pictures I printed plus 6 more beyond N1291 on the
PGC 12850 NGC 1330 NGC 1334 NGC 1335		line and to the left of it. About 5 FOVs in length total. A tiny, round, uniformly lit glow. A small, round, easy to see glow with tiny star like core. A small, round, easy to see glow with tiny star like core. A small, round, easy to see glow with tiny star like core.
PGC 13113		A tiny, round, uniformly lit glow.
PGC 13280		A tiny, round, uniformly lit glow.
PGC 12430		A tiny, round, uniformly lit glow.
PGC 12416		A tiny, round, uniformly lit glow.
NGC 1277		A small, round, easy to see glow with tiny star like core. A small, round, easy to see glow with tiny star like core.
NGC 1278 NGC 1274		A small, round, easy to see glow with tiny star like core.
IC 1907		A small, round, easy to see glow.
NGC 1272		A small, round, easy to see glow with tiny star like core.
NGC 1272		A small, round, easy to see glow with tiny star like core.
NGC 1275		A small, round, easy to see glow with tiny star like core.
PGC 12386		A tiny, round, uniformly lit glow.
PGC 12345		A tiny, round, uniformly lit glow.
PGC 12358		A tiny, round, uniformly lit glow.
NGC 1270		A small, round, easy to see glow with tiny star like core.
NGC 1267		A small, round, easy to see glow with tiny star like core.
NGC 1268		A small, round, easy to see glow.
PGC 12336		A tiny, round, uniformly lit glow.
NGC 1270		A small, round, easy to see glow.
NGC 1260		A small oval, easy to see glow.
NGC 1259		A small, round, easy to see glow.
IC 310		A small, round, easy to see glow.
NGC 1084	7:39 PM	13mm – Large oval uniformly lit glow.
NGC 1909 Witch Head N	7:45 PM Nebula	31mm – With UHC filter, see "glow" of Witch Head Nebula. General brightening in FOV. See texturing on glow of something there.
UGC 4719	7:54 PM	19mm – A long, slender, ghostly glow. Very faint. Has 2 field stars on each end of glow. Then between 2 stars is this extremely faint glow of nucleus in center of glow. PA 5 o'clock.
NGC 278	8:07 PM	19mm – A nice round glow. Larger. Has brighter core that dims slowly into halo glow.

NGC 1513	8:13 PM	19mm – A larger, semi-concentrated group of 40+ stars of 3-4 magnitudes. Forms an upside down "e".
King 7	8:15 PM	31mm – Overwhelms FOV. Lots of blue white stars seen in a concentrated area.
Tr 2	8:32 PM	31mm - 10-20 bright blue white stars with 1 in center that is pale white in color. Very loose.
NGC 1023	8:45 PM	19mm – A nice, large, bright tilted oval. Has large core with nice long extended arms that dim slowly into nothing.
NGC 1342	8:49 PM	19mm – Approx 50 blue white stars of 3-4 magnitudes. Very loose and boxy in shape.
NGC 2820 IC 2458 NGC 2814	8:55 PM	17mm – A long, thin brighter pencil. Uniformly lit. PA 4 o'clock. Then below it is IC 2458, a very faint, tiny, round smudge of light. Then away and 2 right is NGC 2814, another small edge on with hare brighter center area. Bit brighter than N2820.
UGC 4719	9:04 PM	17mm – A <u>very</u> faint linear glow with tapered arms. PA 4:30 o'clock. Center area hare brighter than very edge.
39 degrees. Se	eeing Good. Tra	ansparency Good. No wind.
NGC 3079 MGC 9-17-6 MGC 9-17-18	9:15 PM	17mm – A nice, long, bright edge on with slightly large bulge. Bisecting dust lane seen w/AV. Then below and right of center is M 9-17-6, a dim, round, uniformly lit smudge of light. Then below and bit left of center is M 9-17-18, a tiny, small, round, uniformly lit smudge. This one is a bit brighter and bigger than smudge on right hand side.
NGC 3310	9:19 PM	17mm – A small, round, brighter galaxy that has a tiny, dim star like core.
NGC 2950 MGC 10-14-3 MGC 10-14-2		17mm – A small round glow with large bright core. Then just below it and touching is M 10-14-39, a very dim, round glow with star like core. Then away from these 2 and to right is this tiny round smudge of light of M 10-14-29.

M10-14-39 R M10-14-29

NGC 2841 9:35 PM	17mm – A nice, large bright tilted oval. Has larger brighter core and halo arms that extend a long way and just
	disappear.
NGC 3184 9:39 PM	17mm – A dim, large, tilted oval. Has hare brighter large core seen.
NGC 3264 9:44 PM	17mm – An irregular, roundish to oval shaped, <u>very</u> dim, uniformly lit smudge of light that is nestled between 2 faint
	field stars.
NGC 3895 9:45 PM NGC 3894	17mm – A <u>very</u> faint oval smudge of light. Has <u>hare</u> brighter, larger core area. Then above and to right (N3894)
MGC 10-17-69	another tiny oval glow with hint of have brighter core. To
MGC 10-17-73	left is an <u>extremely</u> faint smudge of light (M 10-17-69).
MGC 10-17-72	Straight above is a larger extremely faint smudge of light
M 10-17-73	(M 10-17-73). To right of this one is a faint, linear glow with hint of hare brighter core area (M 10-17-72).
~ M 10-17-	7 Z
A d	
F3 894	
UGC 5173 9:57 PM	17mm – A dim glow with 2 field stars or 1 core and 1 field star on glow. PA 0 degrees.
	W 18 18 1 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1

37 degrees. Sky still holding. Stars steady. Seeing and transparency good.

NGC 3158	10:02 PM	17mm – 8 galaxies in FOV. Small, round bright core with
		hint of halo around it.
NGC 3160		A tiny smudge of linear light.
NGC 3152		A round, extremely dim glow.
NGC 3163		A round glow with larger core and bit of halo around it.
NGC 3159		Tiny, round, extremely faint glow.
NGC 3161		Tiny, round, extremely faint glow.
NGC 3150		Tiny, round, extremely faint glow.
NGC 3151		Tiny, round, extremely faint glow.

37 degrees. Transparency and sky fair. Clear Sky Clock predicted this about this time.

NGC 2547	11:30 PM	10x35 Binocs – 7 bright blue white stars. Big and very loose.
NGC 2670	11:35 PM	10x35 Binocs – A noticeable, easy to see round glow.

NGC 2395	11:40 PM	10x35 Binocs – Dimmer. $7 - 10$ stars surrounds a bright, blue white star. A bit compact.
UGC 6667	11:50 PM	17mm – An <u>extremely</u> faint ghostly sliver of light. PA 4 o'clock.
NGC 4157	11:53 PM	17mm – A <u>long</u> , brighter edge on. Brighter core area with slight bulge and very faint tapered arms. PA 0:30 o'clock.
NGC 4183	11:55 PM	17mm – A <u>long</u> , thin, <u>extremely</u> faint linear glow with hare brighter central bulge and star like core on bulge. <u>Nice</u> edge on. PA 0-15 degrees.
NGC 4244	11:59 PM	17mm – A nice, <u>long</u> , uniformly lit bright galaxy. It's fatter in middle and thinner near edge. Approx 5/8 FOV long. PA 5:30 o'clock.
	in rank wanda	
12:10 AM. Sk	y soft. Clouds 1	moving in from northwest.
NGC 4222	12:19 AM	17mm – A Beauty. Nice. Long. Bright. Has larger, very bright core and long tapered arms. PA 0-10 degrees.
NGC 4216 NGC 4206 PGC 4580060	12:22 AM	17mm – A nice edge on. PA 0-10 degrees. Long tapered arms with large bright core. Then below it is a thin, short, uniformly lit, very faint sliver of light of N4206. P4580060 is a dim halo glow on left hand side of N4216's arm. You can see on this side there is an oval halo glow where on right hand side has long tapered arm. Quite different.
The same of the sa	1170/	
M51	12:33 AM	17mm – Awesome. Even though seeing gone, see spiral arms and bridge. Both cores large and bright.
NGC 4088	12:42 AM	17mm – A long, dim, vertical, lens shaped uniformly lit glow.
NGC 4026	12:44 AM	17mm – A long oval, faint, uniformly lit smudge of light.
NGC 4051	12:46 AM	17mm – A nice tilted oval. Long with larger brighter core.
Mars	12:53 AM	17mm – Nice. Nice polar cap on right hand side and some orange and green surface detail. See haze on top which Gary says are clouds.

NGC 4330	12:55 AM	17mm – Small edge on. Dim yet easy to see. Has larger, hare brighter core. PA 0 degrees.
NGC 4197	12:59 AM	17mm – An <u>extremely</u> dim, uniformly lit glow. Fatter in middle. PA 2 o'clock.
NGC 3810	1:05 AM	17mm – A dim tilted oval with small brighter core.
NGC 5526	1:09 AM	17mm – A small, brighter, yet dim thin sliver of light. PA 2 o'clock.
NGC 3938	1:15 AM	17mm – A larger, dim, uniformly lit oval glow.
NGC 5229	1:19 AM	17mm – An <u>extremely</u> ghostly glow, fatter sliver of light. PA 1 o'clock.
NGC 5023	1:23 AM	17mm – A <u>long</u> , <u>very</u> faint, thin uniformly lit sliver of light. PA 5:30 o'clock.
UGC 8146	1:32 AM	17mm – An <u>extremely</u> faint, small edge on. See bigger central bulge and tapered arms. PA 0 degrees.
NGC 4289	1:42 AM	17mm – A small, <u>extremely</u> faint edge on. PA 3:30 o'clock.
NGC 4038 NGC 4039	1:47 AM	17mm – Nice. Bright. Right hand side looks like a uniformly lit, upside down comma. Left hand side looks like a uniformly lit 6. Best I've ever seen these two.
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NGC 4356	1:52 AM	17mm – A <u>very</u> dim, <u>long</u> thin uniformly lit edge on. Just below a bright field star almost in middle of glow. PA 2 o'clock. Looks like a flying saucer.
NGC 4197	1:55 AM	17mm – An <u>extremely</u> faint edge on. Hint of a central bulge. PA 1:30 o'clock. Bottom has defined flatness. Uniformly lit.
NGC 4289	1:58 AM	17mm – An <u>extremely</u> faint, small, uniformly lit edge on. PA 3:30 o'clock.
NGC 4517	2:00 AM	17mm – A dim, <u>long</u> (1/2 FOV long) fat most of its length then quickly tapers into arms at each end. PA 15 degrees.

38 degrees. Sky OK. Transparency Fair.

UGC 7522	2:03 AM	17mm – A <u>very</u> dim, tapered edge on. Middle fatter. Uniformly lit. Bright field star on lower tapered arm at edge. PA 0 degrees.
NGC 4173	2:11 AM	17mm – PA 2 o'clock. A <u>very</u> dim, large, fat central area. Brighter. Out of this large core area are 2 short stubby arms.

Sky going again...

NGC 5379 2:15 AM 17mm – A small, dim oval with brighter, larger core surrounded by a bit of halo glow.

UGC 9242 2:27 AM 17mm – PA 1 o'clock. An extremely ghostly sliver of light.

Seeing poor. Transparency poor.

NGC 5714 2:21 AM 17mm – PA 5 o'clock. A <u>long</u>, needle thin galaxy that is uniformly lit. Nice.

Sky was now gone for rest of the night. Brighter stars seen through haze. Gary and I rolled the roof over the 30 inch and then sat up another hour talking in the classroom area. I really enjoyed hanging out with Gary again. Like old times with a good friend.

Tuesday, January 24, 2012

Woke up about 10:30 AM to a totally overcast sky. Predicted to rain today, so we packed up and left the 3RF ranch about noon. Drove to Amarillo, TX, saw their zoo of about a dozen cages and stayed in the Motel 6 there. Had dinner at a Texas Roadhouse restaurant.

Drove home on Wednesday, with clear skies, and dry roads.