Thursday, March 15, 2018

Volunteering for Spring Break activities at McDonald Observatory, in west Texas. Thursday night had no visitor star party scheduled, so I used the 16" f/9 Ritchie-Creighton telescope, FL 3658mm with an 18 mm eyepiece yielding 203x. I looked at more of my Herschel 2500s. The computer has Sky X control software.

High thin haze and brisk wind from west at 7:20 PM. CSK says clear after 9 PM.

Telescope setup:

- Plug in cord and tighten, Turn power on mount.
- Sky X Startup -> connect telescope.
- Find home with software.
- Open dome.
- Find bright star near area to observe with software. Center star in FOV and synchronize on this star to help pointing. This worked to keep galaxies in FOV somewhere or just at the edge of FOV.

Clearing nicely at sunset. Strong wind persists. At 8:42 PM, sky clear overhead and clouds low in east are moving east. Light breeze from west.

Seeing and Transparency Very Good. Stars are steady.

NGC 3043	9:09 PM	203x-A small, thin, 3:1 faint uniformly lit glow. Had stellar core pop in once in center of glow.
NGC 2870	9:12 PM	203x – A small, <u>extremely faint</u> linear uniformly lit glow. Has an <u>extremely faint</u> field star off upper end.
NGC 2710	9:16 PM	203x – A small, <u>very faint</u> fat oval. Core area larger, bit brighter, 2:1. Very hard to see.
NGC 2692 UGC 4671	9:19 PM	203x-2 galaxies near. N2692 is a very small, roundish, faint glow with hare brighter tiny core. U4671 is to right of a field star. A very small, faint, uniformly lit oval.
NGC 2800	9:24 PM	203x – To upper right and touching a faint field star is this tiny, round, very faint glow with bit brighter core. Hard to see because field star touching lower right of halo glow.

NGC 3192	9:28 PM	203x – A small, very faint, fat oval. Seems to have a larger, hare brighter core but not sure. Seems something there at core. Not uniformly lit.
NGC 3600	9:31 PM	203x - A small, thin edge on. 4:1. Very dim. Has tiny, bit brighter core in center.
Seeing and direction.	Transparency very §	good. Wind persists outside dome. Looking towards east away from wind
NGC 3782	9:35 PM	203x – To left of 2 field stars and pretty centered above them is a small, fat, very dim, uniformly lit oval glow. Easy to see since its so faint.
NGC 3811	9:39 PM	203x – A small, dim fat to roundish glow. Has small, bit brighter core seen in center.
NGC 3870	9:42 PM	203x – A very small dim oval. 2:1. Has a larger, brighter core. Maybe bar for core seems linear and not a single core.
NGC 3922	9:45 PM	203x – A very small, thin oval. 2 upper right and close to an extremely faint field star. Very faint halo glow with brighter, linear core. Seems to be brighter along thin axis of galaxy.
NGC 3896	9:50 PM	203x – Above a larger, oval, brighter galaxy with large core (N3893) is
NGC 3893	.0 3896	N3896, a tiny oval, uniformly lit, <u>very faint</u> glow to right of a faint field star.
	EP82	
NGC 3928	9:52 PM	203x – A very small fat oval dim glow. Has larger, brighter core in center.
NGC 3906	9:55 PM	203x – A very small, extremely faint oval, uniformly lit smudge of light, ghostly glow. Almost not there.
NGC 3985	9:56 PM	203x - A very small oval. Very faint. 2:1 glow. Has tiny hare brighter core in center.
NGC 4358 NGC 4362	9:59 PM	203x – A very small, round faint glow with tiny hare brighter stellar core. Below is N4362, a dim, linear oval glow with hare brighter, larger core.

NGC 5007	10:03 P	Μ	203x – To right of a bright field star is this medium sized, circular,
			uniformly lit dim glow. It is very lopsided to right of field star so its not a
			glow of nebulae.
PGC 45617			To right of N5007 is a tiny, oval, very faint glow with tiny stellar core.
UGC 8214			Below these two are 3 UGC galaxies that look all the same. They are
UGC 8234			very small ovals, very faint glows with tiny cores.
UGC 8237	1000		
		(3)	P45617

48237

u 4214 48234

Seeing and Transparency good. Milky way soft but stars are steady.

	NGC 3897	10:13 PM	203x – A very small oval, very faint glow. Has hare brighter stellar core.
	NGC 3971	10:16 PM	203x – A very small, <u>very faint</u> roundish glow with brighter stellar core.
*	NGC 4097	10:19 PM	203x – A very small, very faint over to lower left and near a dim field star. Has a bright stellar core in center of b it of halo glow.
	NGC 4190	10:21 PM	203x – A medium sized fat oval. Extremely faint, uniformly lit ghostly glow.
	NGC 4163	10:22 PM	203x – A small fat oval to roundish, <u>extremely faint</u> glow. Uniformly lit.
	NGC 4229 NGC 4227	10:25 PM	203x – N4229 is a small, thin oval, very dim. Has brighter stellar core. N4227 is to left and near and a very small, thin, very faint oval. Has hare
4227		4229	brighter core.
	NGC 4401	10:28 PM	203x - A small fat oval. Uniformly lit. Extremely faint smudge of light. Almost not there.
	NGC 4317	10:32 PM	203x – 5 very faint stars for a medium sized Z pattern.
	NGC 4272	10:35 PM	203x – A very small, very faint thin oval with hare brighter core.

NGC 4174 10:41 PM NGC 4175 NGC 4173 417 NGC 4169 4169	lit thin oval glow. Upper left is N4175, a very small, thin, uniformly lit edge on. Very faint. To right is N4174, a tiny stellar looking out of focus
NGC 4134 10:47 PM NGC 4132 NGC 4131 내 34	203x – Top is N4134, a very small, thin linear glow with hare brighter tiny core. Center is N4132, a very small, extremely faint fat uniformly lit oval glow. Bottom is N4131, a very small, thin over. Very faint with brighter core.
0 4132	
® 4131	
NGC 4286 10:50 PM NGC 4283	203x – N4283 is right galaxy and a larger oval with large, bright core. To left is N4286 a very small oval with larger, brighter core that dims
4286 428	slowly to edge.
NGC 4196 10:54 PM	203x – A very small, very faint oval with larger, bit brighter core.
NGC 4209 10:54 PM	203x – To left of N4196 is an <u>extremely faint</u> roundish, very small glow. Uniformly lit.
NGC 4275 10:57 PM	203x – To lower right of a dim field star is this small, fat oval to round, uniformly lit glow.
NGC 4101 11:00 PM	$203x$ – A very small, $\underline{\text{very faint}}$ oval glow. Has hint of a hare brighter core that is seen with AV.
NGC 4018 11:03 PM	203x-A very small, very faint oval with bright stellar core. Looks like an out of focus star.
NGC 4021 11:05 PM	203x – A very small, thin oval. <u>Very faint</u> with brighter stellar core.

center of oval along axis.

NGC 4253

10:37 PM

203x – A very small, thin, very faint oval. Has a brighter linear core in

	NGC 4015	11:05 PM	203x – A very small, thin oval. Very faint with tiny, hare brighter core.
	NGC 4007	11:08 PM	203x- Just above a brighter field star. A tiny round uniformly lit glow with maybe hare brighter larger core. Not sure because field star is so overpowering.
	NGC 4162	11:10 PM	203x – A small tilted oval. Very dim. Has a complex core of 2-3 stellar points in center of glow.
	NGC 4213	11:12 PM	203x – A tiny oval <u>very faint</u> glow with tiny, bit brighter core.
	NGC 4067	11:15 PM	203x – A small very faint oval glow with hint of a hare brighter complex stellar core. Maybe tiny linear bar.
	NGC 4200	11:17 PM	203x – An <u>extremely faint</u> , small oval glow with tiny, very faint stellar core.
×	NGC 4193	11:19 PM	203x – A <u>very faint</u> thin oval glow. 2:1. Uniformly lit.
	NGC 4037	11:21 PM	203x – A medium sized fat oval. Uniformly lit. <u>Extremely faint</u> ghostly glow. Almost not there.
	NGC 4262	11:24 PM	203x – a very small dim round glow with larger, bright core.
	NGC 4126	11:26 PM	203x – A very small oval, <u>very faint</u> glow with tiny, hare brighter stellar core.
	NGC 4049	11:28 PM	203x-An <u>extremely faint small oval uniformly lit glow.</u> Ghostly. Almost not there.
	Seeing and Trar	nsparency good.	Wind from west is brisk. Nice and comfortable inside dome.
	NGC 3805	11:32 PM	203x – A very small thin tilted over. Very faint. Has a complex core area, maybe linear core. Extremely faint.
	NGC 3821	11:36 PM	203x - A very small, very faint thin oval glow. Has 2 <u>extremely faint</u> stars on glow. Once centered and maybe a core and other just below this one but on halo glow.

NGC 38	851	11:43 PM	203x – Lots of galaxies in FOV. N3851 is a very small oval, very faint with tiny brighter core.
NGC 38	244		An <u>extremely faint</u> , tiny oval smudge of light.
			A very small, extremely faint uniformly lit oval glow.
NGC 38			
UGC 66			A thin, linear uniformly lit, very faint glow. Very small.
NGC 38			An <u>extremely faint</u> , round, tiny, uniformly lit glow.
NGC 38			A tiny <u>very faint</u> oval glow with hint of a hare brighter stellar core.
NGC 38			A tiny <u>very faint</u> oval glow with hint of a hare brighter stellar core.
14	, 37	४५५	
3845	恭		
20100	R	· ULLA	77
3951 -	. w		
2.041	Ø	gy	
_		3837	
38	47	1021	S.
Noone		44.47.614	
NGC 38	884	11:47 PM	203x – to upper right of a bright field star is a very small, very faint oval
			glow with hare brighter core.
	Movement Mi	2 and a second warmen	
NGC 38	883	11:52 PM	203x – A very small, <u>extremely faint</u> oval. Uniformly lit smudge of light
			to right of a dim field star.
NGC 39	37	11:55 PM	203x – A very small, thin, <u>very faint</u> oval. Has complex, brighter core.
			Maybe a bar.
NGC 39	40	11:57 PM	203x – A very small, <u>very faint</u> oval with tiny, hare brighter stellar core.
Seeing	and Trar	sparency good.	Wind is gusty outside.
NGC 39	947	11:59 PM	203x – a very small, extremely faint oval. Uniformly lit glow.
NGC 39	54	12:01 AM	203x – A very small, very faint oval with hare brighter stellar core.
NGC 40)61	12:07 AM	203x – A very small, very faint oval with hare brighter stellar core.
NGC 40		22107 /1111	A very small, very faint oval with hare brighter stellar core.
NGC 40			A very small, very faint oval with hare brighter stellar core.
NGC 40			A tiny, very faint oval with hare brighter core.
NGC 40	770		A tilly, <u>very laint</u> oval with hare brighter core.
		NOT ARREST 115	
	C	4061	
4674	c0x 655	4069	
1511			
	47%	4070	

NGC 4098	12:09 AM	203x – Right galaxy. Very small, very faint oval with hare brighter stellar core.
NGC 4095		Center galaxy. A tiny oval very faint glow with 2 cores seen.
NGC 4092		Left galaxy. A very small, very faint almost uniformly lit glow. Maybe hint of a hare brighter stellar core.
4092	nite.	
4095	4098	
NGC 4158	12:12 AM	203x-A small, very dim oval. Has larger, hare brighter core area that dims slowly to edge.
NGC 4565	12:14 AM	203x – Nice. Fills FOV from top to bottom. Center seen nicely.

This was a great night on the mountain. Telescope worked beautifully. I did a synchronize star on bowl of Big Dipper and all the galaxies were in the FOV, often just at the edge. The wind gusted all night but I never felt it inside the dome for I was always pointing downwind with the slit.

To put 16" scope away:

- Shutdown Sky X software.
- Shut off display
- Double push control knob to park the telescope.
- Power off telescope.
- Close dome.