

## Sunday, April 24, 2022

At 3RF. Clearing nicely from NW to SE. Was not predicted to be clear tonight. Will use #749, the 20" f/5 telescope. Sky Commander says encoders working beautifully.

7:10 pm. Brisk, gusting wind from east. Predicted to be gone at sunset.

Will try to find the last 2 ancient constellations. Then try for the super novae in NGC 4647. Then onto the Herschel relooks. Met Jerry, the new curator living here at 3RF. Really a nice guy. I like his vision for the future of this place.

Almost sunset. 7:57 pm. Light persistent breeze from east. 63 degrees. Need stocking hat to keep head warm. Will be a cool evening. Ready with layers to stay warm. Clouds overhead this morning. Started to break up this afternoon and not they are low in the SE sky, heading that way. Sky seems clear of dust. Might be a good night.

Sunset at 8:15 pm. Moonrise is at 4:15 am tomorrow. Had about a 2-hour nap. See a hazy western horizon where sun just set.

9:06 pm. Sky darkening. See 6 stars seen in the trapezium that is low in the west. Polaris B nicely seen.

Not quite dark enough for galaxies. Found the 2 ancient constellations with my binos. When darker, will try to see them naked eye. Should be easy to see.

M51            9:38 PM        13 mm – Awesome. Nice spiral arms.

Seeing and Trans very good. 53 degrees. Bright lightening seen in SE clouds.

NGC 4389    9:47 PM        13mm – A medium sized, dim oval with linear glow down Center that is easy to see.

NGC 4392                    Above and in same FOV as N4389 is a tiny, very faint oval with tiny, hair brighter core.

NGC 4145    9:55 PM        13mm – A larger, round dim glow. To right of a bright field star. Has larger, hair brighter core that dims slowly into halo. Easy to see. Almost uniformly lit except for core area.

NGC 4156    10:00 PM      13mm – A small, faint, roundish glow with tiny, very faint stellar core.

NGC 4151                    Below, near and to right of N4156 is a larger, round dim halo glow with bright, larger core in center.

Saw both ancient constellations naked eye.

|          |          |  |
|----------|----------|--|
| NGC 4218 | 10:07 PM | 13mm – A small, fat, almost round oval. Dim. To upper right of a bright field star. Has a hint of a larger core that is barely seen.           |
| NGC 4357 | 10:11 PM | 13mm – A long, fat oval, 3:1, <u>very faint</u> . Has a tiny, <u>very faint</u> stellar core in center of halo glow.                           |
| NGC 4460 | 10:14 PM | 13mm – A long thin 4:1 edge on. A bright field star to right. See a larger, bit brighter core and then a bit brighter down the center of arms. |

Seeing and Transparency very good. 49 degrees.

|           |          |   |
|-----------|----------|---|
| NGC 4625  | 10:19 PM | 13mm – A small, roundish, very dim glow with hint of a larger, hair brighter core in center.  |
| NGC 4618  |          | Above is this larger glow with larger core. Seems another galaxy below N4625 but may be a spiral arm. Nice.   |
| NGC 4655  | 10:27 PM | 13mm – A tiny, <u>very faint</u> glow. Has a tiny stellar core. Looks like a planetary nebula with tiny bit of halo around it or an out of focus star.  |
| NGC 4707  | 10:33 PM | 13mm – A <u>very faint</u> round glow. Centered under a bright field star. Field star hid glow but this is only star in area with a halo glow under it. ST4 (Sky Tools 4) shows a star in center of galaxy. |
| NGC 4704  | 10:38 PM | 13mm – A very small, <u>very faint</u> roundish glow. Has a uniformly lit halo with tiny hint of a stellar core in center.  |
| NGC 4741  | 10:41 PM | 13mm – A very small, <u>very faint</u> glow with hint of a core. Fat oval. Not round.   |
| NGC 4263  | 10:49 PM | 13mm – A fat, almost round very faint, uniformly lit oval. This is also designated as NGC 4265.   |
| NGC 4365  | 10:59 PM | 13mm – A larger, bright galaxy with larger core.  |
| NGC 4366  |          | To right of N4365 is this very small, <u>extremely faint</u> oval glow.   |
| NGC 4370  |          | To right of N4366 is a small, uniformly lit dim oval glow.  |
| PGC 40453 |          | To right and near N4370 is this small sliver of a faint, uniformly lit glow.  |
| NGC 4409  | 11:10 PM | 13mm – A larger halo glow under a bright field star. Hard to see halo glow because of the field star. But it is there and ST4 shows the star. This is also designated as NGC 4420.                          |

NGC 4541 11:18 PM 13mm – A long thin tilted oval that is dim. Has a hint of a core in center. Otherwise uniformly lit.

Realigned SC to make sure it was accurate.

NGC 4600 11:28 PM 13mm – A small dim, uniformly lit oval glow.

Seeing and transparency good. 44 degrees.

NGC 4599 11:31 PM 13mm – A very small, very faint roundish glow with larger, bit brighter stellar core.

NGC 4642 11:35 PM 13mm – A small tilted, uniformly lit dim oval glow.  
NGC 4653 Below N4642 is a nice, long thin tilted oval. This is a brighter one. Has large core that dims into halo glow.

NGC 4799 11:42 PM 13mm – A very small, thin, 3:1 dim glow. Has a bit brighter linear core area. Not uniformly lit.

NGC 4834 11:52 PM 13mm – A very small, very faint thin uniformly lit oval glow.

NGC 5446 12:02 AM 13mm – A very small, very faint oval glow. Hard to see it's shape. Has a hint of a larger complex core glow that is best seen with AV.

NGC 5463 12:17 AM 13mm – A hard one to find. It is very small and slender. 2:1. Has a brighter stellar core that hides the halo. Seems to have two cores. Maybe FS on lower part of glow. Once core centered on halo.

NGC 5570 12:37 AM 13mm – A very small, thin vertical 2:1 extremely faint glow. Has 2 extremely faint stars on glow. One in center and one below center but on halo glow.

Seeing and Transparency Good. 49 degrees.

NGC 6103 12:55 AM 13mm – A very small, very faint, uniformly lit fat oval glow.

NGC 4630 1:02 AM 13mm – A small, tilted oval. Dim. Hint of a bit brighter core but pretty uniformly lit.

NGC 4632 1:05 AM 13mm – A medium sized dim tilted oval. Has a larger, hair brighter core area.

|          |         |  |
|----------|---------|--|
| NGC 4633 | 1:09 AM | 13mm – A small, uniformly lit, very dim oval glow.   |
| NGC 4664 | 1:13 AM | 13mm – A nice, bright edge-on tilted oval with large, bright core. Also has the designation of NGC 4665. |

By 1 AM, galaxies were harder and harder to find, so I packed it in. Could smell moisture in the air yet no dew on stuff. Could smell the sewage treatment plant also. In the beam of my white headlamp, I could see *flakes* of something in the air. They were larger than dust. Never figured out what that was.

Saw Omega Centauri, M13 and M57. All very nice views. When walking back to my cabin, the sky was soft. Only the brighter stars were seen and the Milky Way was barely there.

Sky Commander didn't move in Azimuth once. I realigned it and it worked. Had to realign a few times because large swings of scope seemed to lose counts. It also could be that the sky was going and the galaxies I was looking for had disappeared from view. I put a new battery in the SC the next day and will use it that way the next night and see if that helps.

## Monday April 25, 2022

There is a brisk wind from NE now. 7:30 pm. 73 degrees. Predicted to be less wind by 9 pm.

Met Jeff from Dallas. He is an imager and setup on the grass field next to dome.

Sunset at 8:15 pm. Wind dying down nicely. Now light breeze once in a while from NE. Cloudy haze along SE horizon. Sun lights up a haze in the west also.

9:00 pm. Wind almost gone. Very light from NE now and then.

Made the cursor on laptop big and black. Last night it was smaller and yellow and was very hard to find in the dark under the red film over the screen. Now it is easy to see it on the screen with the red filter film.

MCG 02-27-40      9:42 PM      13mm – A long, thin, very faint edge on. 6:1 or longer. Uniformly lit.

NGC 5003      9:51 PM      13mm – I think I see it. There is a brighter field star on top of this extremely faint, small roundish glow underneath. Very subtle but matches ST4 star field and to right and a bit from the MCG galaxy described above.

NGC 5040      10:09 PM      13mm – A small, extremely faint, lenticular shape. See tiny, extremely faint stellar core.

Seeing and Transparency OK. 52 degrees. 15.0 mag galaxies very elusive.

NGC 4998      10:14 PM      13mm – Found the star field and giggled scope. An extremely faint, very small, uniformly lit oval was seen once in a while.

NGC 5361      10:17 PM      13mm – An extremely faint, small, thin oval. Has tiny stellar core in center.

NGC 4927      10:22 PM      13mm – An extremely faint, very small uniformly lit lens shaped glow. Just below a very faint field star.

NGC 5900      10:34 PM      13mm – a ghostly small thin oval glow. Teases my eye when I tap the scope. Forms an equilateral triangle with 2 other stars and it's ghostly glow is there at the apex.

|          |          |  |
|----------|----------|--|
| NGC 5312 | 10:39 PM | 13mm – A very small, <u>very faint</u> thin oval. Has 2 brighter stars on glow. One is the core and one is below the core one.                                   |
| NGC 5187 | 10:43 PM | 13mm – A very small, very faint, w/AV see a 2:1 oval glow with hair brighter complex core. There are a couple of bit brighter areas in center of core.           |
| NGC 5199 | 10:46 PM | 13mm – A <u>very small</u> , roundish, <u>very faint</u> glow with larger, bit brighter stellar core.  |
| NGC 4923 | 10:51 PM | 13mm – A very small, roundish, very faint glow with a couple of brighter areas in core.  |
| NGC 4921 |          | To right of N4923 is a larger than N4923 round glow with tiny, hair brighter core.   |
| NGC 4919 |          | Above N4923 and N4921 is a very faint, small, fat, uniformly lit oval.   |
| NGC 4647 | 10:56 PM | 13mm – A small, brighter galaxy. Tilted oval with larger core. Below and 1 galaxy width away is a tiny spec of star light which might be the new super novae.    |
| NGC 4872 | 11:14 PM | 13mm – It is touching N4874. N4874 is a small, fat oval. Has small, hair brighter stellar core. Can see N4872's tiny stellar core at 11 o'clock on N4874's glow. |
| NGC 4874 |          |  |
| NGC 4871 |          | Below is a very small oval. It is very faint and has a stellar core.   |
| NGC 4889 |          | To right is N4889. A very small, very faint oval glow with hair brighter core.   |
| NGC 4886 |          | To left is N4886, a <u>very tiny</u> , hint of a glow very near N4886 and has a stellar core.  |
| NGC 4869 |          | Above and to left is this <u>very small</u> , <u>very faint</u> roundish glow with tiny stellar core.  |

Seeing and Transparency Good. 47 degrees.

|          |          |   |
|----------|----------|---|
| NGC 4668 | 11:58 PM | 13mm – A medium sized, fat oval. Very dim. Uniformly lit. |
|----------|----------|---|

Not finding 14.5 magnitude galaxies. Did a realign of SC on Spica and went to brighter galaxies.

Seeing and Transparency OK. Sky looks soft.

|          |          |   |
|----------|----------|---|
| NGC 4690 | 12:02 AM | 13mm – A small, very faint tilted oval with large, bit brighter core. |
|----------|----------|---|

NGC 4688 12:08 AM 13mm – A medium sized, roundish dim glow. Pretty uniformly li. Maybe hint of a core seen. Could be a larger core.

43 degrees. Very slight breeze from SE.

NGC 4701 12:25 AM 13mm – A long, slender, very faint tilted oval. 3:1. Has a hint of a larger complex core seen.

NGC 4713 12:28 AM 13mm – A medium sized, very dim fat oval glow. Has tiny, hair brighter core area.

NGC 4765 12:37 AM 13mm – A very small, very faint thin oval. Has 2-3 brighter areas in core seen with AV down center of galaxy.

NGC 4772 12:41 AM 13mm – A small, dim, lens shape. Has large, bright core that has many brighter areas. Core surrounded by tiny bit of halo. Core is most of what is seen.

NGC 4771 12:44 AM 13mm – A long, slender, fat vertical, very dim glow. 5:1. It's long. Uniformly lit.

NGC 4808 12:48 AM 13mm – A very small, dim fat oval to round glow. Has a hair brighter bar down center of halo glow.

NGC 5146 12:54 AM 13mm – A very small, extremely faint fat oval glow. Has hint of a bit larger core. It is maybe a bar.

NGC 5184 12:59 AM 13mm – A medium sized, faint fat oval that is longer than it is wide. Maybe mottling on halo. Maybe hint of a core. Not uniformly lit.

NGC 5183 To left of N5184 is a galaxy half the size of N5184 and faint. Has a linear, very faint core with a stellar center.

Seeing and Transparency Good. 42 degrees. No wind.

14.0 magnitude or fainter galaxies not revealing themselves tonight.

NGC 4747 1:11 AM 13mm – A long, thin tilted oval. Extremely faint. Uniformly lit.

NGC 4793 1:23 AM 13mm – A long, thin oval. Extremely faint. Uniformly lit. Small.

NGC 4816 1:26 AM 13mm – A very small, very faint thin oval. Has bit brighter, larger core seen with AV.

MCG 05-31-13 To left and near N4816 is a tiny, extremely faint oval. With AV see a tiny stellar core that is easy to see on such a small glow.

NGC 4944 1:52 AM 13mm – A very small, slender, tilted oval that is very faint. Has a larger, brighter core seen with AV.

NGC 4839 1:56 AM 13mm – A very faint, long, thin, 3:1 uniformly lit glow.

2:30 am. I cannot find any galaxies anymore, not even a 12.8 magnitude one. Time for bed.



## Tuesday April 26, 2022

There is a thin haze extending from the west to the SE along the horizon. Overhead also. Long jet contrails persist in this haze. Light breeze from SE. Will swing the 20" around and see what I can see. Leveled the scope better tonight which might improve pointing accuracy. Probably smoke related to the many fires in Arizona and New Mexico.

7:53 pm. 70 degrees.

9:20 pm. Saw Mercury, I think, in west. Nice disk and maybe a gibbous phase.

61 degrees. High thin clouds drifting overhead from the west. Light breeze from SE.

NGC 4932     9:50 PM     13mm – A very small, extremely faint glow with brighter stellar core. Almost not there. Matches the ST4 star field.

NGC 4892     9:55 PM     13mm – A long, slender extremely faint, uniformly lit glow. Tapped scope and it appeared nicely once.

Seeing is good. Transparency OK. The above two galaxies are at the limit of what the sky is going to show. I will go to brighter galaxies.

NGC 4889     10:00 PM     13mm – A medium sized, very faint fat oval with a larger, brighter core.

NGC 4874     To left of N4889 is this small oval with a brighter stellar core.

NGC 4869     Above and to left is a very small, extremely faint smudge of light. Oval shaped. Can see if pop into view often.

NGC 4987     10:13 PM     13mm – A very small, very faint oval with larger, complex, bit brighter core.

NGC 5410     10:16 PM     13mm – A medium sized, long oval. Extremely faint. Uniformly lit.

NGC 3854     10:44 PM     13mm – A very small, very faint thin tilted oval with couple of hair brighter areas in core. Other designation is NGC 3865.

NGC 3853     10:50 PM     13mm – A very small, very faint oval with a complex core. Has 2-3 brighter areas in core but not connected in a bar. Hard to tell.

NGC 3816     10:52 PM     13mm – A small, faint tilted oval. Has hair brighter, larger faint core and a field star on lower part of halo glow.

|                          |          |  |
|--------------------------|----------|--|
| NGC 3869                 | 10:55 PM | 13mm – A small, faint, longer tilted oval. Has brighter, larger core. Maybe a short bar.   |
| NGC 3861<br>MCG 03-30-94 |          | 13mm – A very small, faint glow with 2 brighter cores. The core below center is the MCG galaxy.                                    |
| NGC 3827                 | 11:03 PM | 13mm – A very small, faint fat oval. Pretty uniformly lit. My eye thinks there is a larger core area. Not sure. Not seen directly. |

Sky is gone! M101 is barely there. The Sky Commander is spot on tonight. Reseating the cables to start the night may have helped.

Light breeze from SE feels warm. 57 degrees. Can't find a 12.8 magnitude galaxy near zenith.

11:55 pm. Decided to pack it in. Looked at other ST4 lists and the items on these lists would be hard to see with this sky. Only brighter stars are now seen.

I saw many galaxies tonight that I didn't think the early evening sky would let me see.