

Sterling Reservoir Star Party 2003

Arrived Wednesday afternoon, April 23, 2003, in a driving rain. Forecast didn't look promising but Brian Kimball and I went anyway. Wednesday night broke to about 45 mins of sucker holes. Decided to do Binocular Messier objects.

- Messier
Binocular
- | | | |
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| 9:23 PM | M81 and M82 | M81 was easy to see oval of light-Fairly large. M82 was a long, slender sliver of light. |
| 9:30 PM | M97 | Faint circular glow. |
| 9:37 PM | M65 and M66 | M66 on left with both in same FOV. M66 brighter and larger than M65. Both linear along same line, almost parallel along their axis. |

Thursday, April 24, 2003, was cloudy and windy. No rain. After dark, one huge sucker hole drifted overhead from the west. Tried for two more Binocular Messiers in Leo but could not find them. That was all the sky for this night.

Friday, April 25, 2003, had a high haze at sunset. Seeing was OK and improved and softened throughout the night.

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| 8:55 PM | NGC 2489 | Very low, in hazy clouds of SW. Found 2 stars close to cluster, which was very faint. There was a glow where cluster should be with 5 stars seen in this glow with AV. |
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Waited for sky to improve, which it did. Did more Binocular Messiers.

- Messier
Binocular
- | | | |
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| 10:21 PM | M40 | Very close double star. Very dim. |
| 10:24 PM | M106 | Fairly bright. Linear in shape. Long. Little brighter in middle. |
| 10:28 PM | M51
M52 | Easy to see double circles.
Small circular glow with 1 bright field star on eastern side. |
| 10:35 PM | M95 and M96 | This is what I tried to find last night in the one sucker hole. M95 is on the right and is 2x as bright and big as M96. Both are rather dim. Both looked like out of focus stars, just round smudges. |
| 11:06PM | M64 | Oval glow with center brighter. Fairly bright and easy to see. |

Now on to Herschels.

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| 11:18 PM | NGC 2903 | Fairly large oval. Bright. Easily seen. Nucleus bright and oval and dims out in large oval halo. |
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- 11:23 PM NGC 3377 Very small yet extremely bright nucleus. Linear in shape. One part of nucleus is star like and dims quickly into very small halo which was had to see.
- 11:27 PM NGC 3412 Very small and dim. Halo appears to be circular, but may be oval. Star like point in nucleus. Nucleus is still brighter than halo and circular in shape, then dims quickly into halo.
- 11:32 PM NGC 3489 Cool. Oval in shape and elongated. On top end of halo is a dim field star, which is much dimmer than nucleus. Nucleus is bright and oval in shape.

The past few stand out easily in FOV. Sky is now steady and transparency is good. There is a little dewing and a light breeze from the south.

- 11:35 PM NGC 3521 Oval in shape. Nucleus is star point then gradually dims into halo. Easy to see.
- 11:41 PM NGC 3593 Very dim sliver of light. Nucleus is dim and diffused. Hint of a halo around a relatively brighter nucleus.
- 11:44 PM NGC 3607 Is the center galaxy of three in FOV. Largest and easiest to see. Circular and relatively bright nucleus and a nice circular halo.
- NGC 3608 To the left of 3607. Small and dimmer yet similar in appearance. Relatively brighter nucleus and dims into a circular halo.
- NGC 3605 Very faint, uniformly lit circular smudge.
- 11:54 PM NGC 3626 Very dim, circular with a star like nucleus which is centered in a dim, yet easy to see halo.
- 11:59 PM NGC 3640 A very small, dim patch of light. Almost uniformly lit. Might be circular in shape but hard to tell.
- 00:01 AM NGC 3655 Very small, dim smudge of light. Nucleus is just a hare brighter than rest of galaxy.

There are lots of galaxies in this area and I use the magnitudes to help determine if I am looking at the right galaxy. I also use the Night Sky to help when there are dim galaxies in the FOV or adjacent FOVs.

- 00:03 AM NGC 3686 Very dim, uniformly lit patch of light. Much dimmer than 3655. Oval in shape and much larger than 3655.
- 00:06 AM NGC 3810 This looks a lot like 3686. Oval, fairly large. Uniformly lit, yet dim.

- 00:09 AM NGC 3900 Very small, dim patch of light. Brighter than previous two, yet much smaller in size. Hare brighter nucleus than halo. Hard to tell the shape, but I would guess circular.
- 00:24 AM NGC 3912 Moved from 3900 S a bit to find this. This is the faintest galaxy I have seen yet. Very faint, oval smudge of light that is uniformly lit.
- 01:14 AM NGC 3245 Faint. Small. Circular. Relatively brighter nucleus that is easy to see.
- 01:16 AM NGC 3277 Very small, faint patch of light. Nucleus is a lithe brighter than halo, but not much halo seen.
- 01:18 AM NGC 3294 Very dim, uniformly lit, linear (elongated) sliver of light.
- 01:21 AM NGC 3344 Very dim. Elongated sliver of light. Sitting on top of a 2nd star of a double. Nucleus is a bit brighter than elongated halo.
- 01:24 AM NGC 3395 95 is oval and uniformly lit and 2x bigger than 96. Both about
NGC 3396 same brightness. 96 is uniformly lit and at a right angle to 95. They are close together.
- Seeing has soften up quite a bit in the last hour.
- 01:27 AM NGC 3414 Small, circular and relatively dim. Nucleus is a bit brighter and extended. Halo is dim and small. Not much of it to see.
- Many of these past few galaxies are easy to see with AV.
- 01:31 AM NGC 3432 Long and linear. Uniformly lit and easy to see. Has 3 field stars at the top end of it.
- 01:33 AM NGC 3486 Small, oval, uniformly lit dim patch of light.
- 01:35 AM NGC 3504 Very small, round patch of light. Nucleus is star like and has brighter part around that. Nucleus is a bit brighter than small halo.
- 01:52 AM NGC 4030 Irregular shaped glow nestled between 2 field stars. Uniformly lit.
- 01:54 AM NGC 4179 Small, linear shaped patch if light with nucleus a bit brighter than halo, which extends left and right from nucleus.
- 01:57 AM NGC 4216 Linear oval, which may be an almost edge on view. Extends

approx. 1/3 across FOV. Brighter nucleus with a bit of a bulge then dimming into easily seen extended halo.

02:02 AM NGC 4261 Small circular galaxy. Small, circular nucleus which is relatively brighter but small surrounded by a very dim halo.

02:10 AM NGC 4273 There are 4 galaxies in FOV that form a Y with the base pointed at the 2 o'clock direction. 73 is the brightest. Has somewhat brighter nucleus and is circular in shape.

4281 \ 4270 NGC 4281 Is linear and smaller than 73. Dim and uniformly lit.

NGC 4270 Is uniformly lit and circular in shape.

4273 NGC 4266 Is smaller than 70, uniformly lit and circular in shape. 66, 70 and 81 are of the same brightness.

02:12 AM NGC 4365 Small, circular, uniformly lit but relatively bright. W/AV see star like nucleus which stands out from a relatively bright galaxy.

02:15 AM NGC 4371 VERY small, round dim galaxy. W/AV see nucleus dim into halo.

02:18 AM NGC 4429 Oval. Elongated. Nucleus is uniformly lit and diffuses into halo evenly.

02:25 AM NGC 4435 Both in same FOV. Right is 38 and is a bit bigger. Uniformly lit
NGC 4438 nucleus diffuses into dim, circular halo. 35 is on left. Bit smaller than 38 but nucleus more defined and brighter. 35 may be elongated up and down next to circular 38.

02:27 AM NGC 4442 Very small, uniformly lit but relatively bright for its size.

02:32 AM NGC 4478 Looks like a comet. Bright in the center and dims out to nothing in a circular halo.

NGC 4476 1/4 the size of 78. Small, dim uniformly lit smudge of light.

02:33 AM NGC 4526 elongated (linear) oval in shape. Large, relatively bright nucleus holds its magnitude then stops at a hint of a halo extending from each side of it.

02:39 AM NGC 4527 Very faint. Uniformly lit. Dim. Linear (elongated) smudge of light.

02:43 AM NGC 4535 Linear and oval. Nucleus is uniformly lit and large compared to total size which is small. Hint of halo around this large nucleus.

Milky Way is coming and going in what you can see. It is never really good though. The seeing is steadily worsening and the notes are damp.

02:47 AM NGC 4536 Oval, uniformly lit faint smudge of light.

03:10 AM NGC 4203 Relatively bright. Looks like an out of focus star. Small and round.

03:15 AM NGC 4245 Dim and irregular shaped. Nucleus is a bit brighter than halo.

Sky is too soft. Going to wait till tomorrow night to do more observing.

Saturday, April, 26, 2003.

High thin clouds at sunset. A lot less than last night. It is already warmer tonight than at this time last night.

Had several people visit my scope for the official star party night. Jupiter has the shadow of Io on it and then Io emerged from behind Jupiter. It moves so fast. I showed the people Jupiter, Saturn, M42, M36, M13 and then the galaxies I was looking at.

09:21 PM NGC 2489 5-6 stars easily seen on top of a circular glow.

10:00 PM NGC 2613 Small, faint and oval. Nucleus is a bit brighter than the halo.

10:09 PM NGC 2974 Small and faint. Just below a field star. Like a large out of focus star. The nucleus is a little brighter than halo.

10:14 PM NGC 3115 Nice edge on. Long sliver of light. Nucleus is bright and oval. Halo extends out each side of nucleus quite a bit. $1/3 - 1/2$ way across FOV.

10:19 PM NGC 3166 2 galaxies in FOV. This is the top one in FOV. More circular than 69. Bright nucleus and easy to see halo.

NGC 3169 Next to a field star. Oval in shape. A bright nucleus fades into the halo.

10:26 PM NGC 3621 Large and faint. This is low, on the SW horizon. Uniformly lit. Nestled inside 4 field stars that make a cross shape. Oval in shape.

10:37 PM NGC 4361 Small. Round planetary nebula. Uniformly lit but dim. Central star easily seen. Stands right out in the middle of the glow.

10:51 PM NGC 2976 Faint. Uniformly lit elongated oval. Large and easy to see. A field star is just below it.

10:59 PM NGC 2985 Very small, oval patch of light. Bright nucleus diffuses into a very small halo.

11:03 PM NGC 3077 Very small and dim. Appears to be circular. Large nucleus that is uniformly lit and much brighter than halo.

11:08 PM NGC 3184 Very faint, uniformly lit smudge of light. Field star at top of galaxy. This one is large in area.

A huge set of clouds just passed by for the last hour, with a lot of wind. The temperature has dropped and the sky is much softer than before the clouds passed.

00:09 AM NGC 3198 Oval. Uniformly lit. Fairly large in FOV.

00:13 AM NGC 3610 Very small and round. Bright nucleus with not much halo seen. Looks like out of focus star.

00:16 AM NGC 3613 Very much like 3610. Nucleus is a bit larger than 3610 and not much halo seen.

00:18 AM NGC 3619 In same FOV as 3613. Very faint patch of light. Maybe oval in shape. W/AV, can see a relatively bright, tiny nucleus.

00:20 AM NGC 3631 Small, round patch of light with a relatively bright nucleus.

00:23 AM NGC 3665 Small. Round. Faint. Nucleus is small but brighter than halo.

Sky is not as transparent as it was before the clouds moved through.

00:28 AM NGC 3675 Nice edge on. Nice central bulge. Nucleus is bright and dims evenly into arms on each side that extend a bit from the nucleus.

00:35 AM NGC 3726 Elongated oval. Uniform brightness, but dim. Situated between 2 field stars.

00:40 AM NGC 3729 2 galaxies in FOV. This is the smaller one to the left. Small, circular and uniformly lit. There is a field star at the bottom edge.

NGC 3718 Is much larger and just as dim. Oval in shape. Has 2 field stars on the rhs and 1 on the lhs bounding this galaxy.

00:44 AM NGC 3813 Small, very dim sliver of light that is uniformly lit.

00:47 AM NGC 3877 Elongated oval. Dim. Small. Has a hare brighter nucleus.

00:50 AM NGC 3893 Small, round, uniformly lit but very faint. Has a field star on the

- top of it.
- 00:53 AM NGC 3898 Small and round. Nucleus has a star like point, surrounded by a bright nucleus. Can see a hint of halo.
- 00:55 AM NGC 3938 Larger than the last few. Dim with a hare brighter nucleus.
- 00:58 AM NGC 3941 Very small and round yet with a very bright nucleus. Nucleus is about all you can see. Ringed by a very faint hint of halo.

Milky Way is almost not there. Worse than last night.

- 01:02 AM NGC 3945 Much small and dimmer than 3941. Nucleus is a bit brighter than halo. Overall dim.
- 01:04 AM NGC 3949 Small. Oval. Good surface brightness but uniformly lit. Still dim though.
- 01:06 AM NGC 3953 Dim, oval patch of light with a hare brighter nucleus.
- 01:09 AM NGC 3982 Very small. Very dim, circular, uniformly lit patch of light.
- 01:11 AM NGC 3998 Very small yet bright nucleus that is star like. Hint of halo around nucleus. Circular. Looks like an out of focus star.
- 01:14 AM NGC 4026 Small edge on. Oval nucleus and bright. Dims into short, stubby arms on each side.
- 01:18 AM NGC 4036 2 galaxies in FOV. This one is small, linear and dim. Nucleus is a bit brighter with halo very hard to see.
NGC 4041 Circular. Uniformly lit and a bit dimmer than 4036.
- 01:22 AM NGC 4051 Small oval and dim. Uniformly lit. Has a field star at top on lhs and a brighter field star on middle rhs at the edge.
- 01:24 AM NGC 4088 Large, oval, uniformly lit, but very dim.
NGC 4085 In same FOV as 4088. VERY faint smudge of light. May be oval in shape. Very small compared to 4088.
- 01:30 AM NGC 4102 Small, oval patch of light. Little brighter nucleus than halo.
- 01:34 AM NGC 5322 Small and round with bright nucleus. Halo just a bit dimmer.

A strong wind has kicked up from the North now.

01:36 AM NGC 5473 Small and round with a hare brighter nucleus that dims into halo.

01:38 AM NGC 5474 Larger than 5473. Round, uniformly lit patch of light that is uniformly lit.

Gary Garzone setup right next to me. Look at NGC 253 in his scope, medium power through his 30". The galaxy stretches clear across the FOV with the dust lane very prominent. M104 was just as awesome through his scope. You could see the top part lit up very well, the dust lane and a hint of light underneath the dust lane.

Milky Way is almost not there. Worse than last night.

01:02 AM NGC 3017 Much smaller and dimmer than 3011. Nucleus is a bit brighter than halo. Oval dim.

01:04 AM NGC 3049 Small, Oval. Good surface brightness but uniformly lit. Still dim though.

01:06 AM NGC 3053 Dim, oval patch of light with a hare brighter nucleus.

01:09 AM NGC 3082 Very small. Very dim, circular, uniformly lit patch of light.

01:11 AM NGC 3098 Very small yet bright nucleus that is star like. Hint of halo around nucleus. Circular. Looks like an out of focus star.

01:14 AM NGC 4020 Small edge on. Oval nucleus and bright. Dims into short, stubby arms on each side.

01:18 AM NGC 4036 2 galaxies in FOV. This one is small, linear and dim. Nucleus is a bit brighter with halo very hard to see.

01:20 AM NGC 4041 Circular. Uniformly lit and a bit dimmer than 4036.

01:21 AM NGC 4051 Small oval and dim. Uniformly lit. Has a field star at top on lrs and a brighter field star on middle lrs at the edge.

01:24 AM NGC 4088 Large, oval, uniformly lit, but very dim.

01:25 AM NGC 4082 In same FOV as 4088. VERY faint smudge of light. May be oval in shape. Very small compared to 4088.

01:30 AM NGC 4102 Small, oval patch of light. Little brighter nucleus than halo.

01:31 AM NGC 5722 Small and round with bright nucleus. Halo just a bit dimmer.

A strong wind has kicked up from the North now.