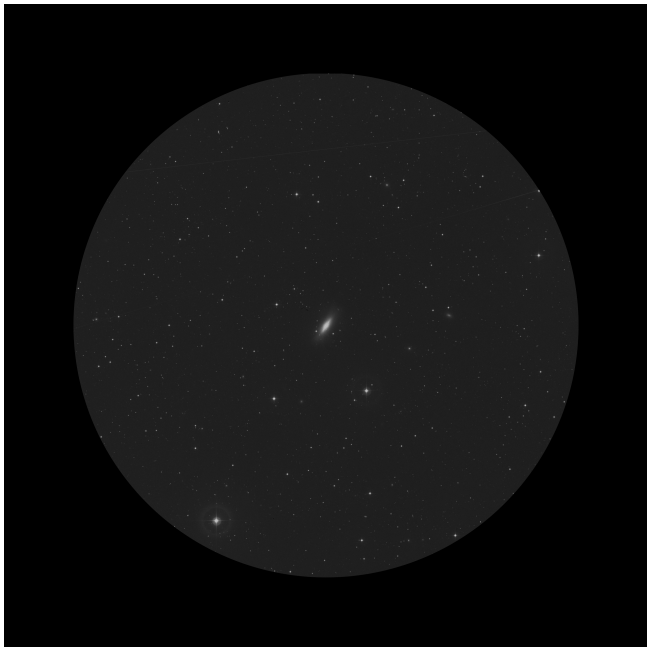
Data of the sky region at the time of the observation.....**SQM-L 21.35 IR -5.3º Temperature 22º**
Data of the night.....**Sun alt: -28.6º Moon alt: -20.9º**
Data of the object .....**Alt: 51.4º Az: 314.5º**
Telescope .....**Stargate 18”**



Nagler 31mm (70x - 1º 10’ - 6.6mm)

The area in which M102 appears is not very rich in stars, it is one of those typical areas outside our Milky Way where you don't see stars of much brightness, which allows you to place the galaxy in the center of your eyepiece. There are a couple of stars very close to the galaxy that frame it quite well.

The galaxy looks very small, with a distinctly oval shape on a 7 - 1 axis. The nucleus is clearly evident, very bright compared to the fainter outer arms. Striking is the size of the nucleus which is almost as large as the outer arms.

I can't see any detail because the galaxy is too small, but given its brightness I'm sure it will withstand high magnification.

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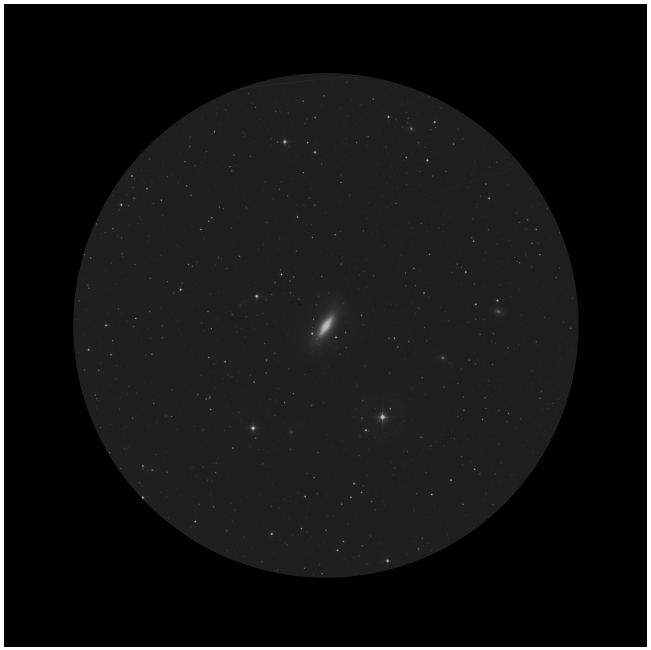

Nagler 22mm (98x - 50’ - 4.7mm)

The galaxy is growing in size and looks much better. Now I can see a spindle shape in its brighter nucleus. This spindle is further extended at its ends by a fainter halo that I understand will be the arms of the galaxy.

The contrast has also increased so that I can see a difference in brightness between the central nucleus and its sharp spindle-shaped extension. The core is more spherical, with greater thickness and higher brightness intensity. However, the next section of the galaxy is a little less bright and with a very sharp conical shape (hence the image of the spindle used in the old spinning wheels). Surrounding all this structure I can see a much fainter halo that is more evident at the ends than in the central part.

It is a curious galaxy at these low magnifications and very bright. I keep adding magnifications to try to discover new details.

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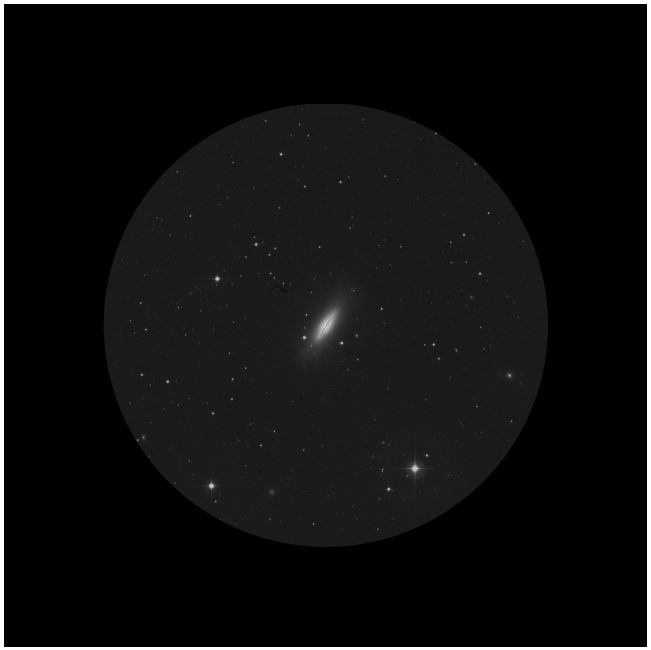

Delos 14mm (154x - 28’ - 3mm)

How cool to observe the galaxy grow with each new magnification I add to the telescope!

I didn't point it out in the description of the galaxy using the 22mm eyepiece because I couldn't confirm it 100% but in this new eyepiece it is evident that the galaxy has a band of dust that divides it in half.

It is more evident in the core area than in the narrow area of the arms. It is not a very wide band of dust, on the contrary, it is a thin line that is difficult to observe and only appears using the averted vision. But if you perform the exercise that I have described many times, its observation is evident. This exercise consists first in identifying if the brightness of any part of the galaxy is homogeneous or we observe some anomaly even if we are not able to describe it. If we reach this conclusion, it is now a matter of time to go through the structure we are seeing with averted vision and patience. I started in the core following the line from 9 to 3 o'clock. And I saw how the brightness was first quite intense, to fall more or less in the middle and increase again at the other end.

Due to the small thickness of this dust band compared to the size of the core, the dust line continuously appeared and disappeared when using averted vision. However, once you confirm that it is there, it only takes a few minutes of observation to reveal its presence to the eye.

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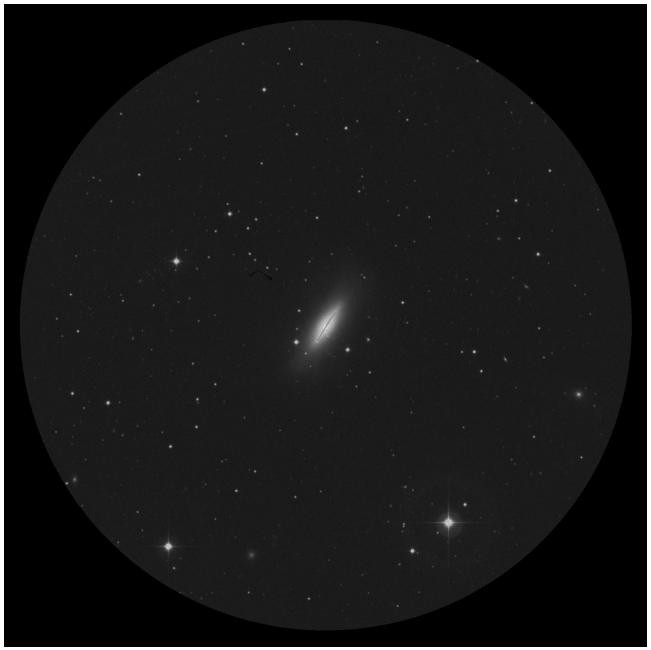

Ethos 10mm (216x - 27’ - 2.1mm)

The image with this eyepiece is quite similar to the one I had previously observed with the 14mm. Now the observation is more comfortable, since it allows to see a wider field in the eyepiece, and the galaxy has a larger size. But except for that detail, the image is quite similar.

So I move on to the next eyepiece, trying to reduce the exit pupil and to see if I discover new details or contemplate the galaxy in a different way.

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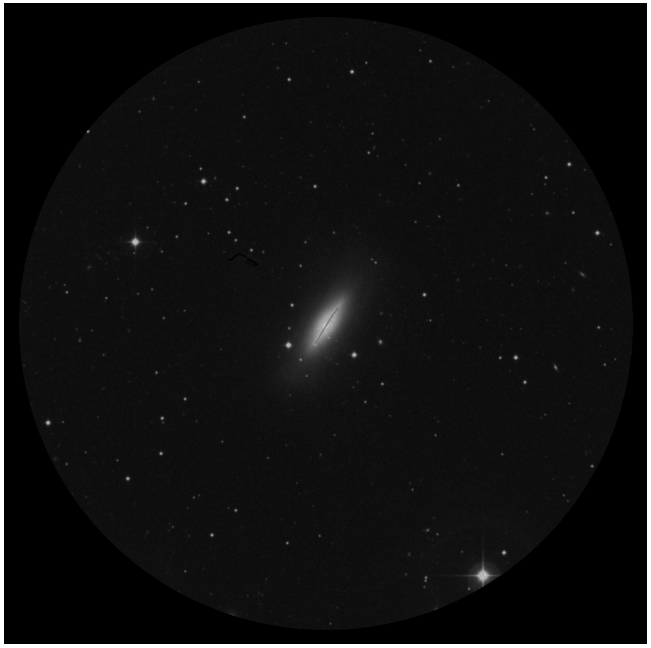

Ethos 8mm (270x - 22’ - 1.7mm)

Without a doubt this eyepiece is the best performing with the galaxy. The image is simply overwhelming.

The size of the galaxy is surprising, it has gone from being a small galaxy in the center of the eyepiece to occupy almost a fifth of the entire eyepiece.

But what is undoubtedly most striking is the dust band. The image it generates in contrast to the brightness of the galaxy is PRECIOUS. In this eyepiece a very thin line appears, surprisingly narrow, but at the same time very contrasted against the intense brightness of the galaxy. It is a sort of pyro-etched black line in the galaxy, with the blight-black color that stains any sheet of paper.

The outermost halo is very faint but still visible with averted vision. It is precisely the contrast in brightness that makes this galaxy so beautiful to look at. Perhaps a more accurate description would be:

The brightest part of the galaxy is observed as a central, very bright, totally spherical bulge. This bulge is divided right down the middle by a very thin band of dust of a very contrasting dark color, a pitch-black compared to the bright white of the central nucleus. The next structure that is clearly observed is a bright region with an elongated or, rather, sharply pointed shape that extends along the 1 - 7 axis, creating the spindle shape of the galaxy. This region, although bright, is slightly less bright than the central bulge. Finally, there is a thin halo that increases the size of the galaxy and surrounds it. This halo is very faint, although it is well resolved with averted vision.

It is an image that looks photographic.

To my mind comes the first image I saw with the 31mm that showed me a very small galaxy with almost no detail. Now it is totally different.

I can't stop looking at the dust band. I have to use the averted vision to reveal it and I don't always succeed but when it appears it takes my breath away as it is such a thin line and so black contrasted with the brightness of the galaxy that it is overwhelming. It looks as if someone has drawn it, like something artificial. Very BEAUTIFUL.

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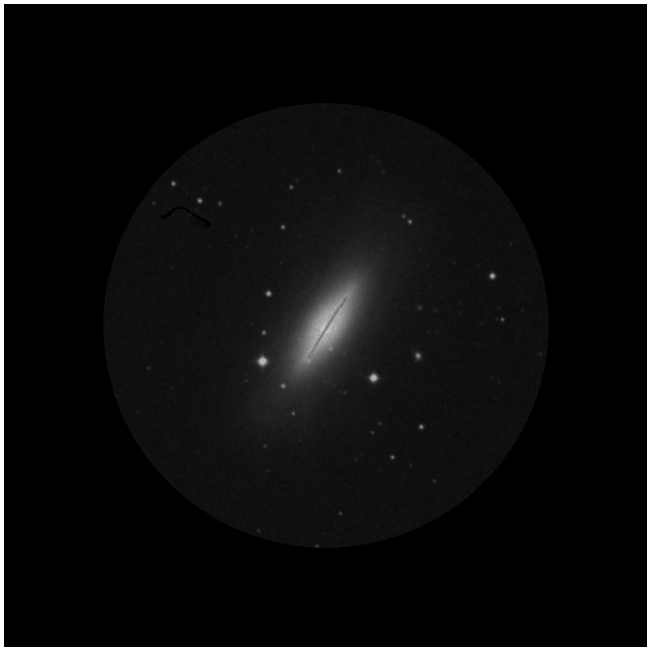

Delos 4.5mm (480x - 9' - 1mm)

What a magnificent surprise the 4.5mm eyepiece is!!!! If the previous eyepiece showed the galaxy in all its beauty, with this new eyepiece I have a simpler version of it (the outer halo has disappeared) but much more evident.

Now the dust band is revealed without using averted vision and it is a joy to be able to contemplate it without any hurry. In my voice notes I mention: '*Few objects show such beauty with such simplicity. It is nothing more than a simple edge-on spiral galaxy but with a dust band so beautiful that it captures your attention for minutes on end*'.

And that is exactly what I experience. Minutes pass by almost without my noticing contemplating such a beautiful object with such a large size and with such contrasting details even at these magnifications. The contrast between bulb and dust band is magnificent. In addition, having lost the faintest details of the galaxy, it appears more contrasted against the background because only the brightest part of it "survives". So now we see a very bright galaxy, with a very beautiful, very bright, totally spherical nucleus that is surrounded by a bright but narrowing structure at its edges. This object is divided by a thin, intensely dark band of dust. It has no more, but it is marvelous.

SUPERB.