Messier 9

Ophiuchus 17h 19m -18º 30’

Data of the sky region at the time of the observation ..... **SQM-L 21.4 IR -13º Temperature 13º**
Data of the night ..... **Sun alt: -27.5º Moon alt: -26,9º**
Data of the object ..... **Alt: 33.2º Az: 184,6º**
Telescope ..... **Stargate 18”**

Nagler 31mm (70x - 1º 10’ - 6.6mm)

M9 is at the base of a dark nebula or Barnard 64 that is visible in the 31mm eyepiece. The field is very rich in stars but there is a region starting at 11 o'clock and extending towards 9 o'clock where the stars disappear. The quality of the sky is not enough to see this area darker than the sky background itself, so it does not stand out as in other occasions I have seen a Barnard object in better skies. However, it is evident the lack of stars that delimits this region of stardust. And it is curious to see both objects in the same eyepiece field.

Regarding the size, the globular cluster is quite small, not surprising since it is 26,000 light years away from us. In the eyepiece it does not occupy even 1/10 of the eyepiece field.

Its shape is typical of globular clusters, a compact sphere of stars, mottled. That is to say, it is possible to intuit what stars are in its interior without being able to resolve them completely.

And regarding its magnitude it is a faint object although it stands out clearly in the eyepiece mainly because of the concentration of stars. There are no different brightness levels but it shows a fairly uniform appearance. Or rather, some stars of the outer halo are resolved, but almost all the brightness comes from the central area of the cluster in which individual stars are intuited.

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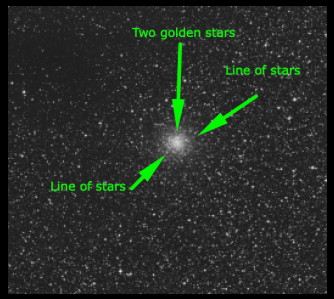
Nagler 22mm (98x - 50’ - 4.7mm)

The cluster has increased considerably in size, making it much more pleasant to observe and allowing me to describe it much better.

Its shape is still totally spherical, no change in this aspect.

But its brightness and the stars that are resolved has changed quite a lot. I am now able to see stars all over the object, not only on its outermost edge. It is true that the wind has calmed down and helps to see more detail in the core of the cluster. In particular I see in its 12 o'clock region a couple of stars that are very well resolved and there is also a row of stars approaching them. It is great to be able to differentiate so well the stars that make up the cluster. Also I love their punctuality and slightly more golden color that makes them stand out like gems in a cotton cloud. Using the averted vision I can make the fainter areas of the cluster appear and disappear, always leaving the stars fixed. With this set I also observe a curious row of stars at 7 o'clock that slightly modifies the shape of the cluster, breaking its round shape.

In spite of its small size, it is interesting because of the number of stars that I can resolve without much effort.



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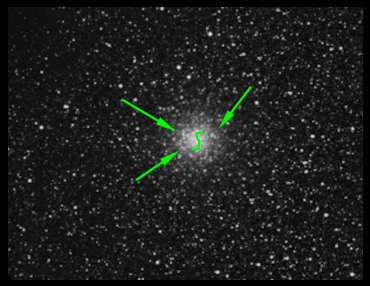
Delos 14mm (154x - 28’ - 3mm)

It is great to be able to fit the object with this eyepiece as it begins to take on a significant size.

In order to delimit the innermost part of the cluster I use a couple of asterisms that catch my attention. The first is at 1 o'clock, a series of three stars in a line. The second is at 10 o'clock a pair of stars very close together. And at 7 o'clock the aforementioned row of stars.

In addition to these stars I am also able to resolve others in the center, and with them I am able to perceive curious shapes. These shapes are due to an accumulation of brightness by slightly brighter stars in the very center of the core. The one that strikes me the most is the elongated f-



shape or mathematical integral symbol that runs through the core of the object from north to south. By playing with the averted vision the object begins to lose its uniformity and appears as a multitude of individual stars grouped towards its center. The averted vision also allows me to perceive the different levels of brightness in the stars inside the globular cluster itself.

And perhaps that is one of the things that strikes me most about globular clusters of this type, namely that they are easily resolvable. Their lack of uniformity in the nucleus. It is very complicated to describe but in the end it is to be aware that that cloud of brightness is actually thousands, tens of thousands of individual stars occupying a minimum space. It's mind-boggling. I am able to count up to twenty individual stars in its interior.

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Ethos 10mm (216x - 27’ - 2.1mm)

Note that I don't want to confuse you, the cluster is still small in the different eyepieces, even in this eyepiece it doesn't occupy a quarter of it, but it allows you to resolve the stars so well that it really catches your attention and seems bigger than it really is.

With this eyepiece I simply confirm everything I have already described with the 14mm without providing more details. Simply the observation is much more comfortable because the object is bigger and the field available to me is wider, but the details are the same, with nothing else to emphasize.

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Ethos 8mm (270x - 22’ - 1.7mm)

Undoubtedly, M9 requires high magnification to show its inner beauty because when I go to 270x I discover new details.

I realize that the uniform spherical shape of the cluster that was present with the 31mm begins to disappear, to be replaced by a disjointed grouping of stars of different magnitudes that draw bright shapes and fainter gaps.

To try to describe the object better: it is a globular cluster with a large outer halo of the same size as its central core, in which stars are resolved to the innermost part of it. The stars are grouped in rows or curved like arms protruding from the brightest region. So many of them are resolved that dozens of different magnitudes can be counted.

Its spherical shape is appreciated but it is far from being a cluster with a high degree of uniformity.

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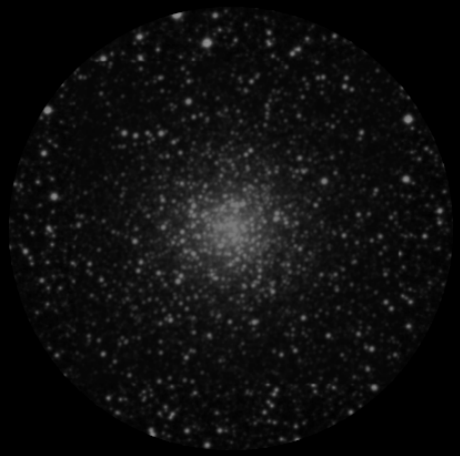
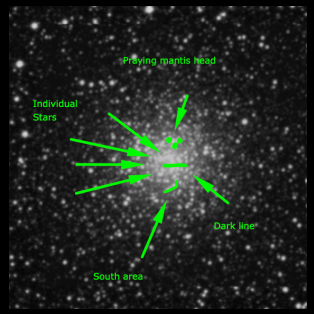


Delos 4.5mm (480x - 9’ - 1mm)

Wonderful how the object has changed with these magnifications. It is one of the globular clusters that is most grateful to reach high magnifications because it allows to identify the stars more clearly.

Now I see a peculiar star formation that reminds me of the head of a praying mantis, just in the north of the globular cluster, with three stars very close together. That part is the northern end zone of the integral symbol I saw before. And ow, I see its southern part much more curved and clearly separating from the center of the core. Finally, in the innermost part of the cluster I see how the stars are separated from each other by a dark line.



I also count dozens and dozens of stars around these brighter areas. It is amazing to be able to resolve stars so easily in so many parts of the cluster. I think tonight's seeing must be pretty good as you can really still see the stars very punctuated even at 480x.

It is magnificent how I was able to get so deep into the cluster and get information from it. Amazing, honestly.