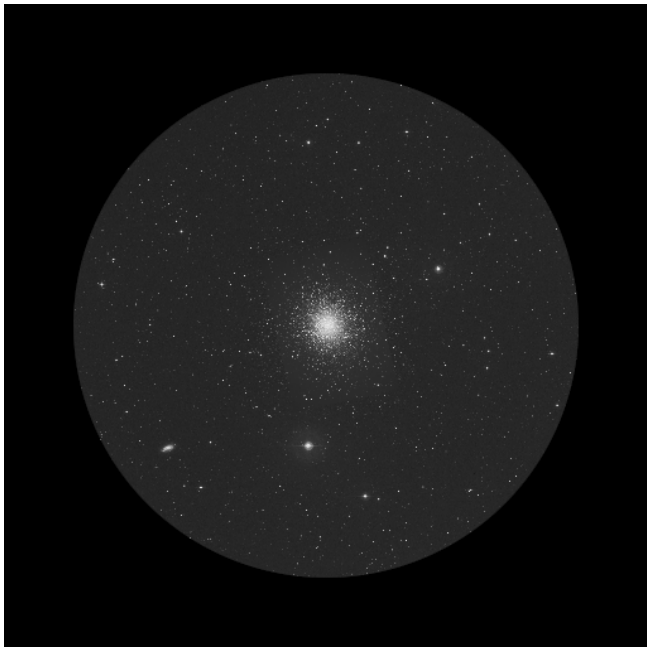
Messier 13

Hercules 16h 41m +36º 27' *Hercules Globular Cluster*

Data of the sky region at the time of the observation ..... **SQM-L 21.4 IR -4.2º Temperature 20º**
Data of the night ..... **Sun alt: -35.7º Moon alt: -31.0º**
Data of the object ..... **Alt: 44.2º Az: 286.9º**
Telescope ..... **Stargate 18"**



Nagler 31mm (70x - 1º 10' - 6.6mm)

This object can never disappoint in any telescope as long as one observes it from a dark sky. It is a beauty, a gift of nature for our enjoyment.

The field is very nice with few stars, some of them of an important magnitude standing out together with the object in the eyepiece field, as for example HIP81848 at 6 o'clock with a magnitude of 6.68. The lack of stars is appreciated because the globular cluster stands out even more. Also, it should be noted that in the field itself NGC 6207 is easily observed as an elongated blob, the galaxy that always accompanies this magnificent globular cluster.

The size of the object is impressive, despite these low magnifications it already occupies perfectly more than 1/10 of the eyepiece. And its shape is always spherical with a multitude of arms that extend out of the cluster not in a straight line but in curves. The sensation of three-dimensionality is enormous as one is able to resolve stars even in the innermost part of the core.

It is very bright, no averted vision is needed, it is completely evident. Two levels of brightness are also very clearly visible, one more intense in its interior and the other slightly less bright in the outermost part. The stars of the arms are of a similar magnitude to the stars that form the cluster and therefore the overall feeling is magnificent.

As a detail, I would highlight the color of the stars that are resolved in the interior of the cluster. The tonality of many of them is reddish and they look like small rubies shining in a white cotton ball.

It is beautiful. And one of the reasons is because its size in this eyepiece allows you to see it as a part of our galaxy, an amazing object floating in the immensity of the cosmos. Mind-blowing.

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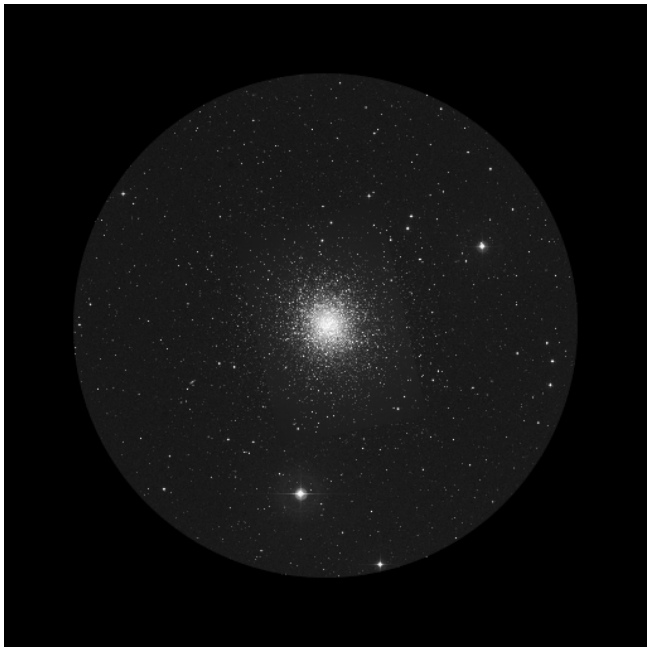

Nagler 22mm (98x - 50' - 4.7mm)

How gorgeous and what a joy to be able to expand the previous view. The cluster has grown a lot and the infinite number of stars that are resolved in it makes your head explode. They are resolved all over the object with such a beautiful reddish hue and with an incredible punctuality that you don't believe you can be seeing such a punctual light source.

It is at that moment, when you are focusing your gaze on the punctuality of the stars that you perceive the different gradients of the cluster itself. Its inner part much brighter and the outer ones gradually losing brightness, having clearly distinguishable brightness levels. In addition, the arms are a marvel. You can easily go through them, starting from the same point where they are born and follow them extending beyond the globular cluster. And you can also walk through them with your eyes as you count each of the individual stars, of similar magnitude, that form the arm you have decided to observe. It is as if the cluster is expanding in space, trying to reach far beyond its concentrated core. As if the stars wanted to escape the gravitational pull of that immense ball of stars. And there are hundreds of stars in those arms separated from their outer halo.

And when one refocuses the view on the object's core to resolve each star in its interior, then even more stars appear as individual dots. Making the whole even more magnificent, more grandiose, almost without letting you breathe from the amount of stars you can count or intuit.

In addition to the contrasts, the different level of brightness in the object, what leaves you frozen are the colors you see. Revealing the garnets of the stars inside, those small reddish grains with the white glow of the cluster itself and with the brutal contrast of a dark, black sky around it. It really is a stunning image.

It is pure pleasure to enjoy this image. With the 31mm it was a shock to see it in that eyepiece because I did not expect to see M13 with so much brightness and at the same time with so much detail, in a not very large size. But now with the 22mm it is pure pleasure, as I said, as the cluster is much larger but equally delicate, with myriads of individual stars.

I am so stunned by the image that I keep asking myself why I find it so beautiful and I think I must add something else to the description. The HARMONY. And that is that the object, despite its multitude of details, is very well-balanced. Yes, the stars that you resolve within are brighter than the background brightness of the cluster, but they are to such a slight degree that they do not break the whole but stand out as small treasures that do not dazzle the whole. The word that comes to mind is just that, a delightful harmony in their beauty.

Outstanding.

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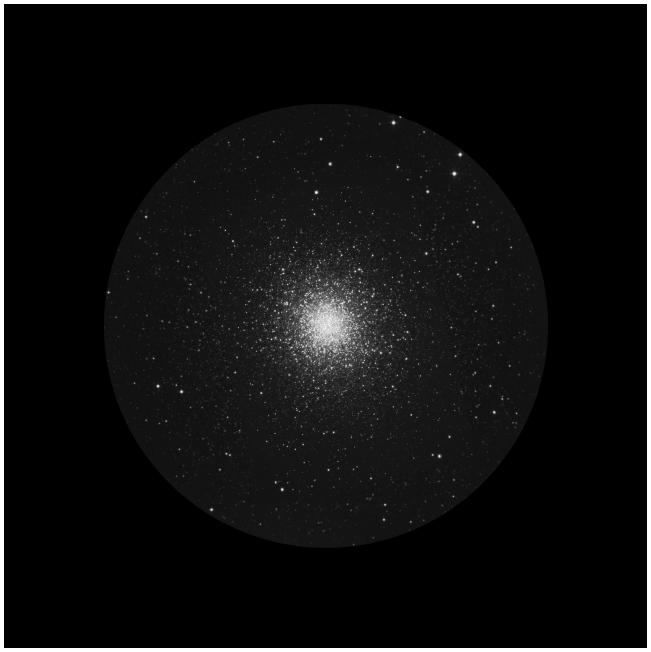
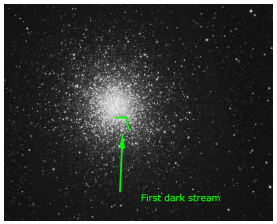


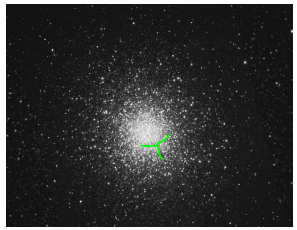
Delos 14mm (154x - 28' - 3mm)

Woooowwww! What an overwhelming image!! The object has grown (well, and the eyepiece field has also shrunk from 82º to 72º) until it occupies almost a quarter of the eyepiece. Now it is impossible to observe anything other than the cluster itself.

What strikes me most at this magnification is that I begin to see a kind of black rivers within the cluster itself. It is clearly visible using the side view and focusing on the 5 o'clock zone of the cluster.



It takes me a few minutes to see it correctly. The first zone with little brightness that I observe and that I imagine as a dark river is the one that forms a kind of 7 but with the long bar of the number not vertical but inclined towards 5 o'clock. After a few minutes of observation I realize that there is another zone equally darker that starts from the same vertex of that 7 but towards 1 o'clock. And it is then, when seeing the set of these three streams when one can imagine the famous shape of the symbol of the Mercedes-Benz in the cluster.



To be honest, it is quite evident, and this fainter area contrasts clearly using averted vision. Moreover, it is perfectly visible that it is not in the center of the cluster but on one side of it.

It is very impressive because one does not expect to see something '*dark*' inside such a bright object. It is your mind that generates a contrast that is spectacular. I mean, it is clear that I am not seeing something black but it is less bright than the rest that surrounds it, but my brain transforms it into black rivers meandering through the cluster.

Unbelievable. I am hallucinating with the very different view I get of the object as I add more magnification.

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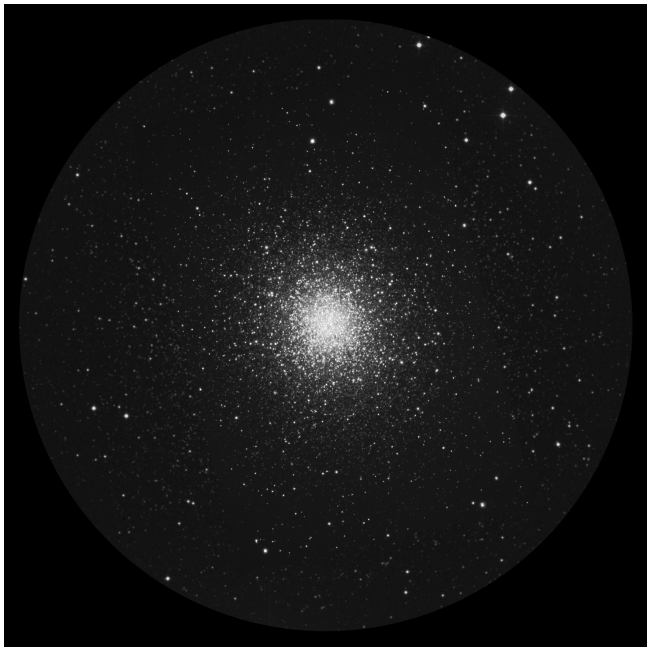

Ethos 10mm (216x - 27' - 2.1mm)

What a JOY!!! My brain is so getting used to the vision of those dark rivers that allows me, even without using the averted vision and therefore focusing the vision on resolving the stars inside the cluster, to continue seeing them.

I describe in my voice notes that the rivers are not the same degree of darkness, the faintest, the least dark is the one that goes towards the interior of the nucleus towards 9 o'clock. The one that goes towards 1 and 5 o'clock are darker, have less brightness and stand out more in the cluster as a whole.

With this eyepiece I still see a lot of field and the contrast with the black sky in the background is wonderful. A complex and very bright object with dark structures inside challenging you to observe it as best as possible. Quite a challenge and a pleasure.

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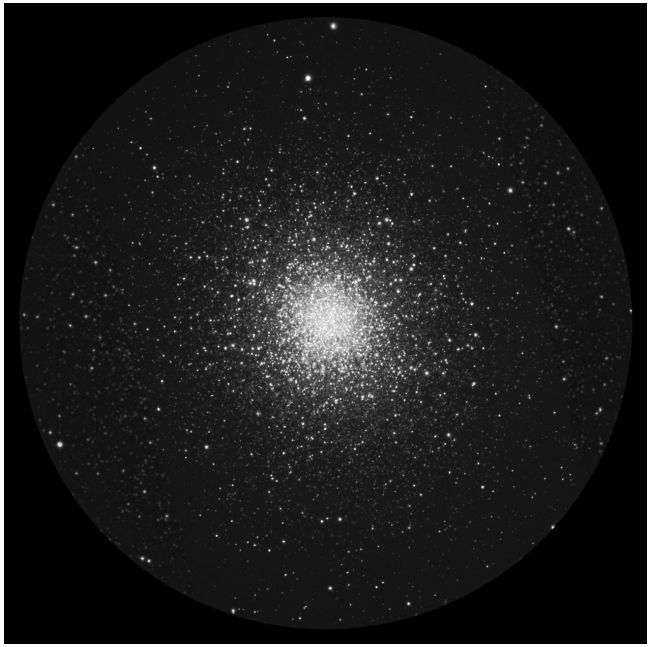
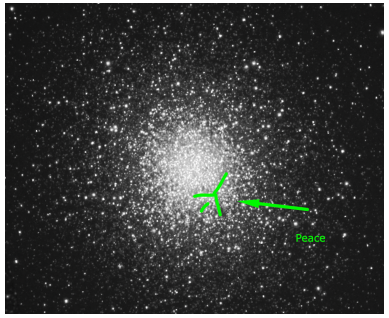


Ethos 8mm (270x - 22' - 1.7mm)

I never stop being amazed with each eyepiece change. A new river appears on the scene and the famous Y-shape that might remind you of the Mercedes-Benz symbol transforms into the peace symbol representing a dove's footprint.



The new river appears between the two rivers that previously ran at 9 o'clock and 5 o'clock. It is fainter than any of the previous three but can also be seen. But there is even more in the 9 o'clock eyepiece area there is another dark line going into the cluster. It is fantastic to be able to see M13 at 270x as I am still resolving the cluster and the stars in it but it is so large that I can see it in zones. Diverse zones, with accumulation of stars here and there and lack of stars in other regions. It is mind-blowing. I can't wait to jump to the next eyepiece to see what new secret it reveals.

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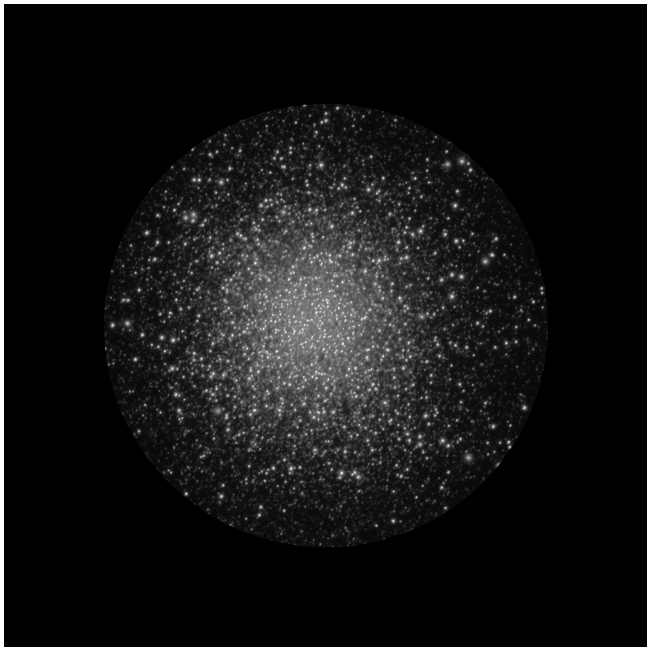

Delos 4.5mm (480x - 9' - 1mm)

BEYOND WORDS. I really don't know how to describe the wonder I am seeing. I simply have no words. It's as simple as that. I try again and again but I fall short in the description I make in my voice memos.

But I'm going to try. The first thing is that the dark rivers have multiplied. Well, to be accurate it's not that they have multiplied, it's that I now clearly see clusters of stars between different parts of the cluster. Clusters of stars with perhaps half a magnitude less than those in the background, which makes them brighter and makes the background appear dim, although it is not. It is a bright ball that emanates light from all sides. Although overall it has lost brightness from the previous eyepiece, the object is so bright that I even appreciate that fading.

But there is one thing that makes the image not so beautiful and it is the complexity of focusing at these magnifications. It is very difficult for me to get the stars to look totally spot on, but I get pretty good focus.

When I get that focus that I am satisfied with, is when I notice the number of clusters of individual stars with 5 or 10 of them at most that are surrounded by areas of lesser brightness. The object has become a very complex structure that is very difficult to describe adequately.

And I have never seen it this way before. It is mind-boggling to review the well-known Messier objects with an 18" because they really change completely. I think, in this card, I have made up for my lack of words to describe what I see with the image that I have managed to generate and that accompanies this description. I like to think you can see very well those slightly brighter, individual stars that stand out above the cluster itself; and how they are grouped chaotically in clusters of perhaps 4, 6, 9, 12 stars. And, on the other side, the thousands of background stars that give that overall fainter glow which create in your mind the image that the cluster is crisscrossed by several dark rivers. Breathtaking indeed.