

M33 – Triangulum Galaxy

This is my image of M33 - shot from my setup in Castilléjar, Spain in September, 2022. M33 is a spiral galaxy about 2.7 million light years away and part of the Local Group. It has an apparent magnitude of 5.72, which one would think would make it easy to see in an eyepiece but that light is spread out over a large area, so it actually is rather dim. This image is about 31 hours of exposure, so it is quite deep and you can see a lot of detail. In fact, I am kind of amazed at what I can see here. Take a look at the link to my Astrobin page for a larger version. There is a kind of figure 8 loop of stars on the center right edge. It really looks like it is part of the galaxy but it's 2.7 million light years away, so is that structure a foreground milky way object? I can also see bubble-like structures, particularly in the bottom right edge. Am I imaging planetaries in M33? Not sure but I'm having fun examining this image in detail.

This image was shot with Red, Green, Blue, Luminance and Ha filters. The red that you see is primarily from the Ha filter. Those are likely star forming regions within that galaxy. I spent a lot of time processing this image because of the high dynamic range within it. I think I got it fairly right, so I'm satisfied with it.

The individual exposures were as follows:

Red	23 x 300 seconds
Blue	73 x 300 seconds
Green	72 x 300 seconds
Luminance	78 x 300 seconds
Ha	75 x 300 seconds
Total	30.9 hours

Astrobin link: <https://astrob.in/pmrw3w/0/>

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