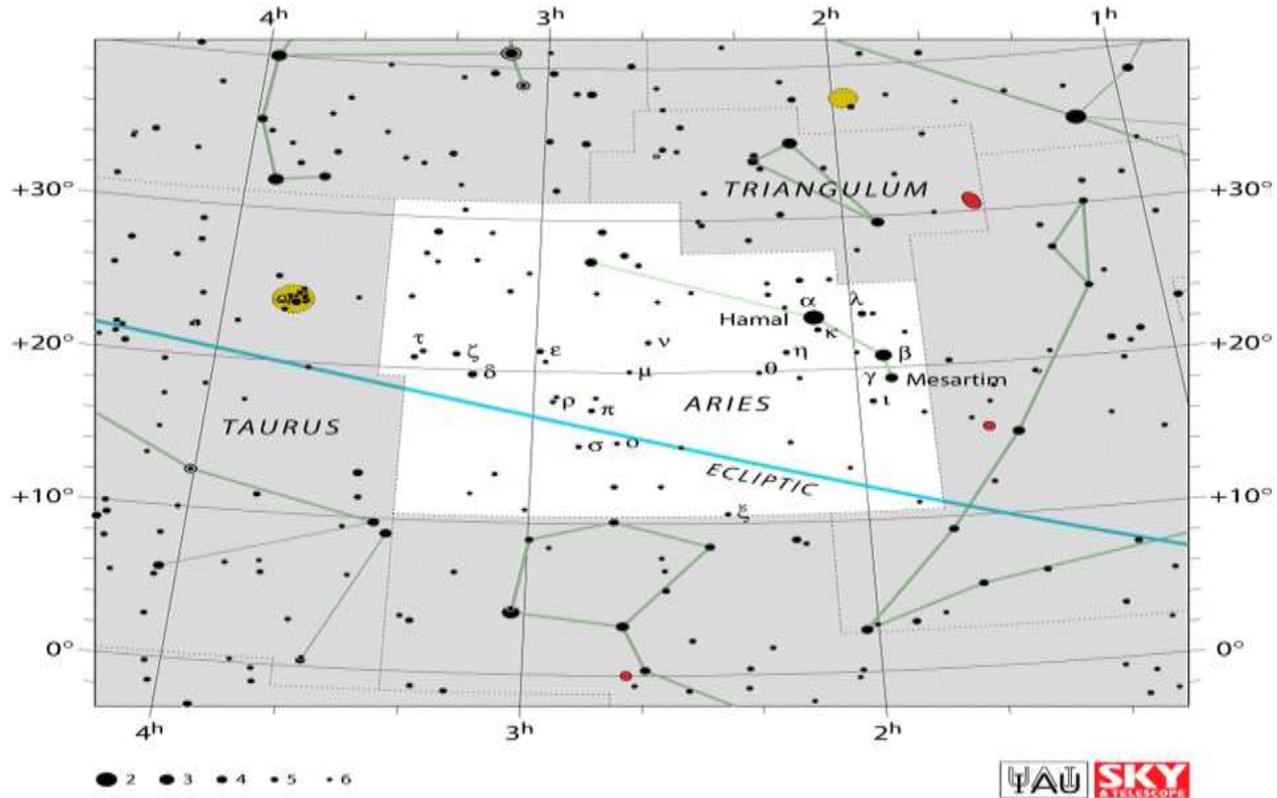


Binocular Observing November 2020 by Andrew Lohfink.



The Night Sky  
November 2020.

# Aries Constellation.



## 14 Arietis – A Binocular Triple Star.

Aries is a small constellation just below Triangulum which contains 4 bright stars in a gentle arc shape. Often overlooked it contains 2 binocular targets of note – the first being the triple star 14 Arietis. This system lies about 2.5 degrees north of Alpha Arietis ( Hamal). The brighter two members are easy in 50mm binoculars but the third star is fainter and closer to the primary and can be challenge and may need 70mm binoculars.

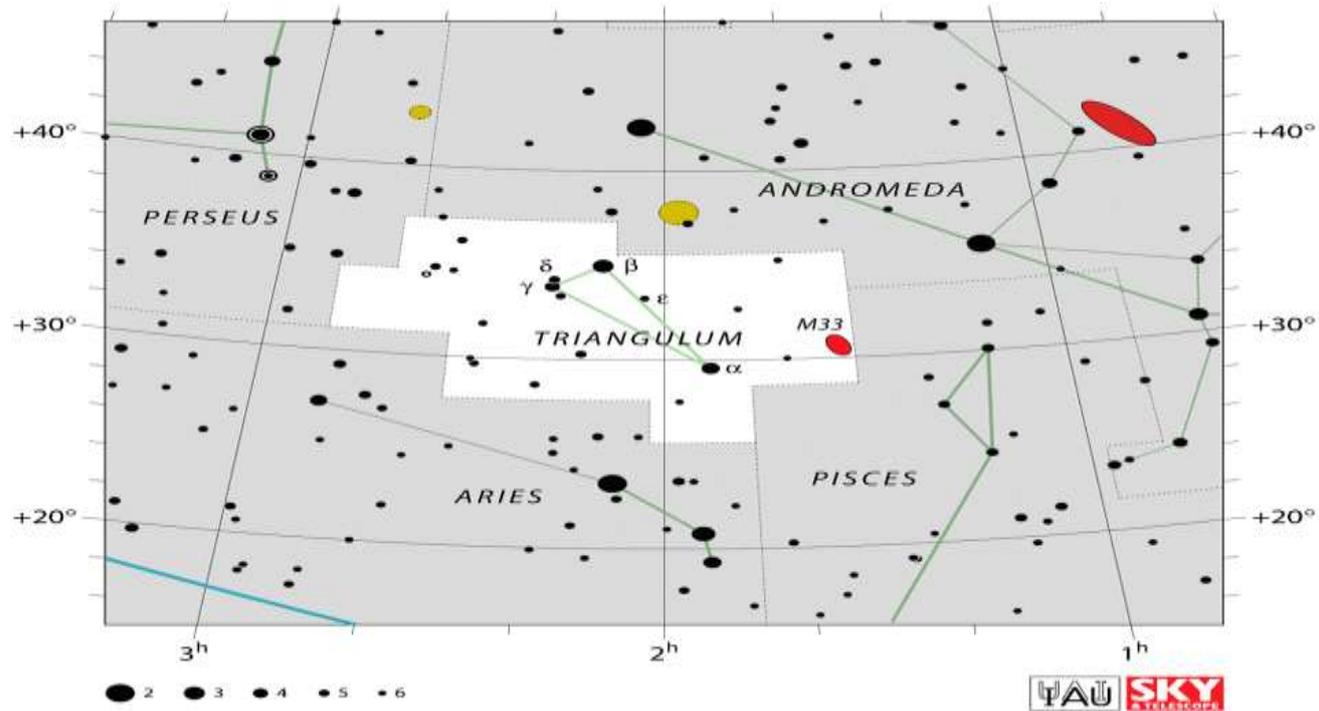


## Gamma Arietis – A Challenging Double Star.

Gamma Arietis is the star at the west end of the gentle arc of 4 stars in Aries. It can be split with mounted binoculars at x16 but this is a challenge and x20 may be needed. It is one of the best equal brightness doubles in the night sky and lies about 160 light years distant.

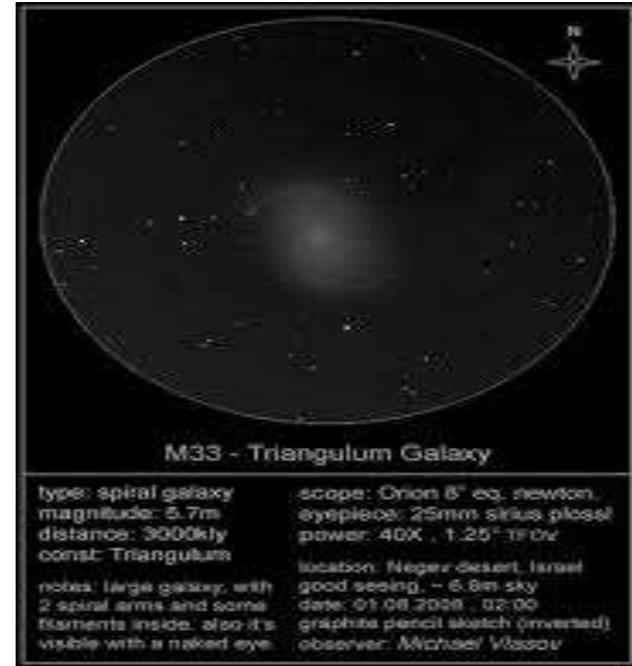


# Triangulum Constellation.

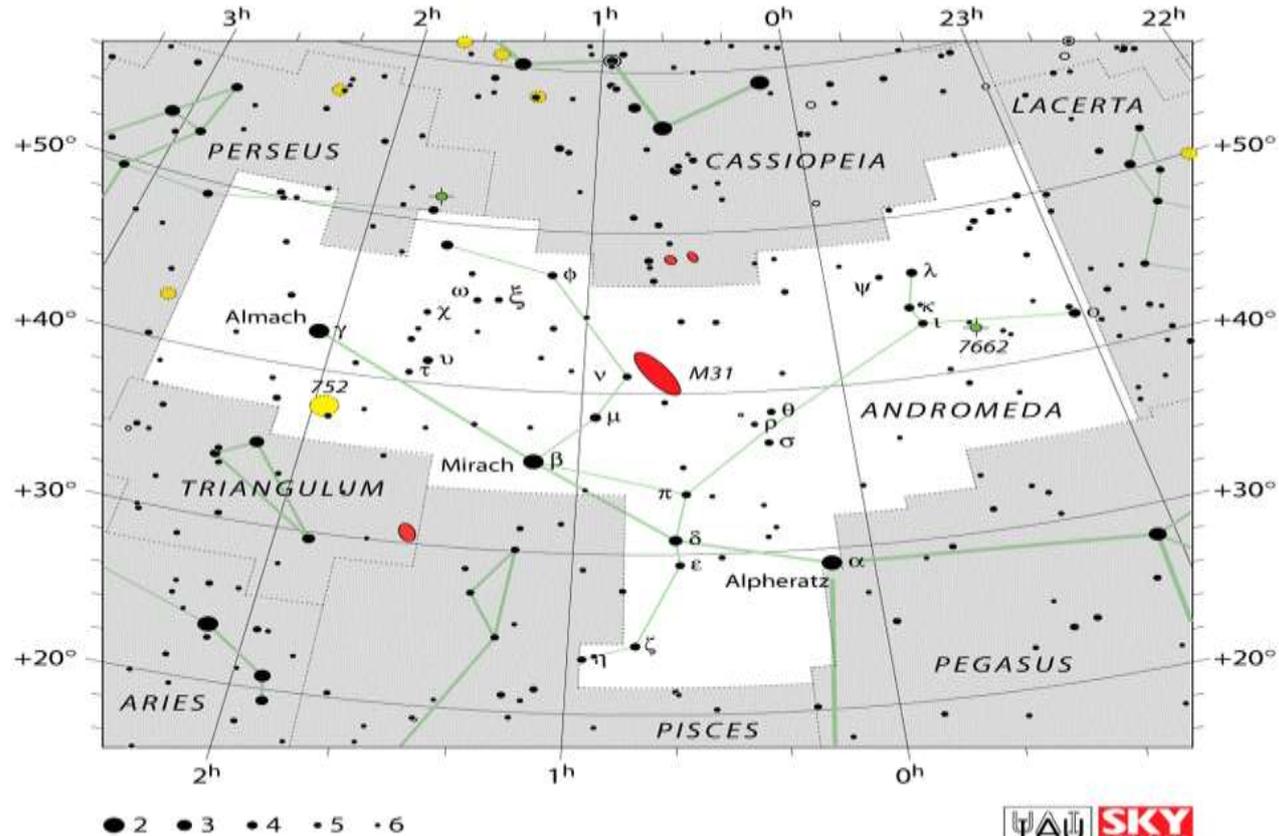


# Messier 33 – The Pinwheel Galaxy.

As its name suggests The Triangulum Constellation is a triangle of stars north of Aries. M33 (The Pinwheel Galaxy) has a low surface brightness so is best observed in the low magnification of binoculars rather than a telescope and a dark sky may also be needed. It lies just over 4 degrees from Alpha Trianguli in the direction of Beta Andromedae. Simply pan your binoculars in the correct direction and look for a milky fuzziness. With time and patience and averted vision some subtle shading can be made out hinting at the spiral arms. M33 is the third largest of our local group of galaxies.



# Andromeda Constellation.



## NGC 752 – An Open Cluster.

Imagine a line from Alpha Trianguli to Gamma Andromedae and about two thirds along closest to Gamma Andromedae lies the open cluster 752. It can be seen in all sizes of binoculars but higher magnifications reveal more stars. If your field of view is wide enough you can observe the double star 56 And south west of the cluster – a beautiful orange double – in the same field of view (the bottom of the opposite image). The cluster lies 1,300 light years distant and was discovered by Caroline Herschel.



# Messier 31 – The Andromeda Galaxy.

- .M31 is perhaps the most famous object in the night sky.
- .It is best seen in binoculars as a wide field of view is needed to frame this large object.
- .It lies about 2.5 million light years away and is visible to the naked eye.
- .Imagine a line from Beta And extended through Mu And approximately the same distance. M31 appears first as a milky glow.
- .M31 is an elongated shape which extends across the whole field of view of binoculars.
- .With Patience and averted vision you should see the brighter central glow of the nucleus.
- .The galaxy light also drops off suddenly in the north west edge due to a large dust lane.

# The Andromeda Galaxy.



## Messier 31 and 110 – Companion Galaxies.

Binoculars will also show two companion galaxies of M31. The easiest to see is M32. To the south west of M31 there is a small triangle of stars. With averted vision the most westerly of these stars is blurred and fuzzy and is actually the companion galaxy M32 (at the bottom of the image opposite). M110 is more difficult to observe and may need dark skies but appears as a fuzzy slightly elongated whiteness north of M31 (the top of the image opposite). The three galaxies in the same field of view is one of the best binocular views in the night sky.

