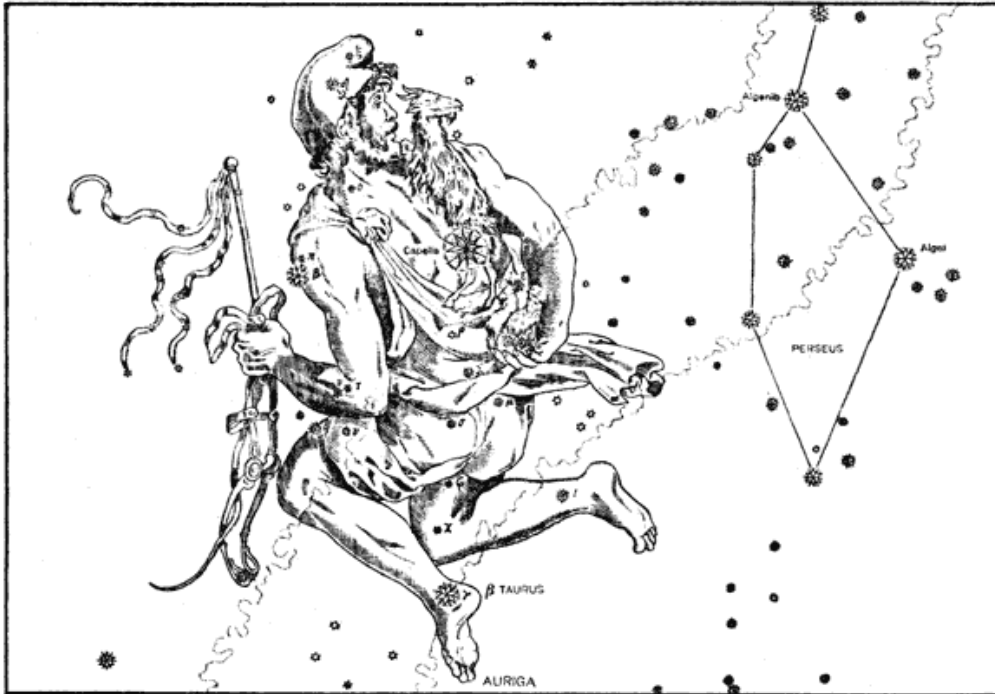


Observing in Auriga

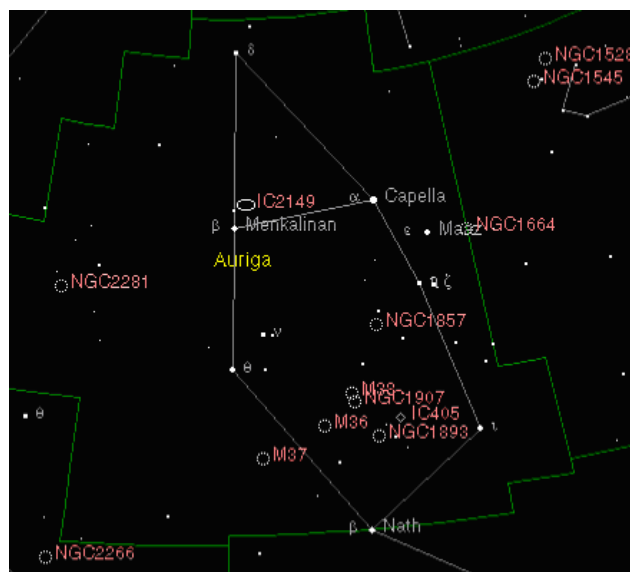


by Samuel George

Position in the Sky

- Right Ascension: 6 hours
- Declination: 40 degrees
- Visible between latitudes 90 and -40 degrees

Named Stars: Capella (Alpha Aur), Menkalinan (Beta Aur), Al Anz (Epsilon Aur), Haedi (Zeta Aur), Hoedus II (Eta Aur), Hassaleh (Iota Aur).



Auriga was portrayed as a charioteer who was seen carrying two to three children on his arm. He was also known as Erechtheus, son of Hephaestus (Roman: Vulcan). Hephaestus, who was crippled as a child, was believed to have invented the chariot for his father so that his son could move him about more easily.

Auriga has many interesting features including 3 open clusters and the 6th brightest star (0.08 magnitudes) in the sky Capella (alpha Aur, my favourite star) which is a yellow giant. Capella is actually a spectroscopic binary system which revolves around every 104 days. The double omega Aur can be viewed with small telescopes; it consists of a 5th magnitude and an 8th magnitude companion. Telescopes with an aperture of at least 100mm and a high magnification are required to split the tight double theta Aur.

The meteor shower of the Aurigids is generally observable between January, 31st, and February, 23rd. This shower is known for its bright fireballs.

There are several open clusters in this constellation, the most noticeable being M36, M37 and M38. About 60 stars belong to M36 (seen well with binoculars). A beautiful sight is the group of stars that make up the oval shape of M38. The richest of these three Messier objects is M37 which contains about 500 stars in total.

M36 (NGC 1960)

To the right is an image taken by Jan Wisniewski.¹ M36 is about 4,100 light years distant so that its angular diameter of 12' corresponds to about 14 light years. Many of these bright stars are rapidly rotating, as shown by their broadened spectral lines, an effect which is also found for members of the Pleiades (M45). If it were at the same distance this cluster would look very similar to the Pleiades.



M37 (NGC 2099)



M37 is the also the richest of the 3 open clusters in Auriga, containing about 150 stars brighter than magnitude 12.5, and perhaps a total of over 500 stars. It is 4400 light years away and has a visual brightest of about 6.2 magnitudes and an apparent dimension of 24 arc minutes.

The photograph to the left is by Martin Germano.²

M38 (NGC 1912)

This cluster lies only 2.5 degree northwest (preceding) of M36. Its brightest stars form a pattern resembling the Greek letter Pi. It is about 4,200 light years away and its angular diameter of about 20' which corresponds to about 25 light years; this is similar to that of its more distant neighbour M37. The image to the right was created from twelve images taken in January 1997 using BVR colours, at the Burrell Schmidt telescope of Case Western Reserve University's Warner and Swasey Observatory located on Kitt Peak, near Tucson, Arizona. The image is about 47.4 arc minutes in size.³



Cover Image: aer.noao.edu/web_plates/auriga.gif

¹ By Jan Wisniewski, <http://jwisn.freeyellow.com/> . On October 26th, 1998 through Ultima 8 f/6.3 from Sooke, BC, using Ektachrome P1600 colour film, exposed 20 min, autoguided.

² Taken with a self-built Newtonian on b/w film.

³ Courtesy of NOAO/AURA/NSF