## CARINA the Keel (Pronounced kah-RYE-nah)

## Chart showing Carina (/31-constellation/178-carina#chart)

Carina the keel was part of the extensive Argo Navis, the ship of the Argonauts, until subdivided in the 1750's by the French celestial cartographer Nicolas Louis de Lacaille. As a part of Argo Navis, Carina's origin goes back to Greek times, and is associated with the legend of Jason and the Argonauts who sought the Golden Fleece. Carina lies in the Milky Way, providing rich star fields and clusters for binoculars.

To find Carina look towards the south and up about 70° at this time of the year. You should be able to orient yourself by using Crux, the Southern Cross, and Canopus to help find the area around Carina.

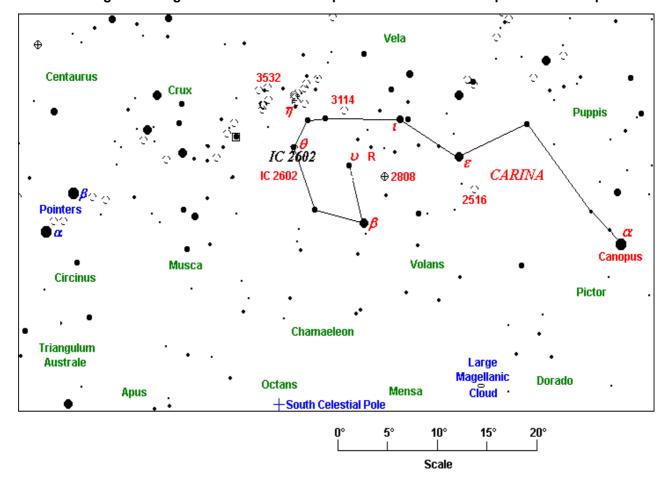


Chart showing Carina high to the south about 11 pm NZDT mid March or 8 pm NZST mid April.

## Details of some of the objects shown in the chart.

 $\alpha$  Carinae, Canopus at magnitude -0.72 is the second brightest appearing star in the sky. It is a yellow-white supergiant 1200 light years away. It is named after the pilot of the fleet of King Menelaos, and appropriately enough this star is now often used as a guide for navigating spacecraft.

 $\beta$  Car, Miaplacidus is a magnitude 1.7 star. It is 200 times more luminous than the Sun at a distance of 110 light years.

ε Car, Avior has a magnitude 2.2. It is a red star 5600 times more luminous than the Sun, 630 light years away.

I Car, Turais also has a 2.2 magnitude but is not red. It is 4900 times as luminous as the Sun and 690 light years away.

 $\theta$  Car is a magnitude 2.8 blue-white star 750 light years away at the centre of the open cluster IC 2602. This open cluster known as the southern Pleiades, is a fine bright cluster of about 30 stars easily shown in binoculars and small telescopes. The cluster is easily visible to the unaided eye from a dark sky site.

NGC 2516 is a bright beautiful open cluster visible to the unaided eye from a dark site when the Moon is absent. It is a glorious sight in binoculars or a small telescope, when its scattered groups and irregular sprays of stars can be

seen. Three bright orange stars contrast well with the rest of the cluster members.

NGC 3372 is a great diffuse nebula visible to the naked eye as a brilliant patch of the Milky Way surrounding the giant star  $\eta$  (eta) Carinae. It is one of the showpieces of the southern sky. Small telescopes and binoculars will show its dark lanes, the most famous being the "keyhole" because of its distinctive shape. The erratic variable star  $\eta$  Car is surrounded by a shell of gas thrown off in the star's 1843 and later outbursts. With high magnification the fuzzy area surrounding the star appeared like a little man - hence the name "Homunculus" nebula. At present the star is brightening quite rapidly, but it still has some way to go to reach its magnitude of -1 that it attained in 1843.

NGC 3532 is a bright cluster of 150 stars covering 10 of the sky (twice the diameter of the Moon). It is visible to the unaided eye and a glorious sight in binoculars. Small telescopes show small straight and curved lines and a number of bright orange stars.

NGC 3114 is another very beautiful open cluster suitable for binoculars and small aperture telescopes. The stars appear very numerous in elegant pairs, triplets and small groups, but there is little concentration towards the centre.

R Carinae is a red giant variable star of uncertain distance, varying between 4th and 10th magnitude every 150 days.

u Car is a double star with white components of magnitudes 3.1 and 6.0 divisible in small telescopes.

## Visibility

Carina is a circumpolar constellation as seen from the latitude of New Zealand. Thus it is visible throughout the year. The constellation is spread over a large arc of the sky so that Canopus in the east is due south and highest about 5 hours before the western end.

 $\epsilon$  Car, near the centre of Carina, is highest in the sky, and due south, at about 10.30 pm NZDT in mid March and 7.30 pm NZST in mid April.