THE SOUTHERN HEMISPHERE



With Glenn Dawes

Take a December dip to find doubles in Eridanus, the River, and a bright beacon in the Water Snake

When to use this chart

1 Dec 00:00 AEDT (30 Nov, 13:00 UT)
15 Dec 23:00 AEDT (12:00 UT)
31 Dec 22:00 AEDT (11:00 UT)

The chart accurately matches the sky on the dates and times shown for Sydney, Australia. The sky is different at other times as the stars crossing it set four minutes earlier each night.

DECEMBER HIGHLIGHTS

The Geminid meteor shower, active around 4–17 December, has put on reasonable displays in recent years. This year's maximum is expected on the 14th. With the Moon approaching first quarter, the late evening and morning (15th) will offer dark skies. With their radiant lying near the 'twin' star Castor, look in the general direction of Gemini, which will be well placed in the northern sky. A couple of dozen bright, medium-speed meteors per hour can be expected at the peak.

STARS AND CONSTELLATIONS

The constellation of Hydrus, the Water Snake, sits almost entirely between the two Magellanic Clouds. Although faint overall, its three brightest stars make an obvious isosceles triangle that stands out in this barren region. Brightest is Beta Hydri, the closest reasonably bright star to both the South Celestial Pole and the SMC. Beta is 3° from the Cloud's southern edge and just fits in the same low-power binocular field as the impressive globular cluster 47 Tucanae.

THE PLANETS

Evenings finds Neptune and Saturn in the northwest. Jupiter rises just before midnight, immediately followed by Mars. Beginning 5° apart, they slowly separate and close the month 13° apart. Regulus spends December between these outer worlds, a nice morning triple conjunction. Venus rises around an hour before dawn begins. Mercury is briefly visible deep in the Sun's glow for the first week of December, returning to solar conjunction at month's end.

DEEP-SKY OBJECTS

This month, a visit to the south of Eridanus, the River, starting with brilliant double star p Eridani (RA 1h 39.8m, dec. –56° 12'), just 1° north of Achernar. This pair of sixth-magnitude yellow stars are 11 arcseconds apart. Swimming 20° upstream (to the northeast) finds a further brilliant double, Theta (θ) Eridani or Acamar (RA 2h 58.2m, dec. –40° 18'). This naked-eye star consists of two pale-blue mag. +3.2 and +4.3 members, 8 arcseconds apart.

A short paddle 3.7° east of Theta finds lenticular galaxy NGC 1291 (RA 3h 17.3m, dec. –41° 07'). At mag. +9, its most striking feature is a very bright nucleus. It is surrounded by a near-circular 2-arcminute halo, giving the look of an unresolved globular cluster.

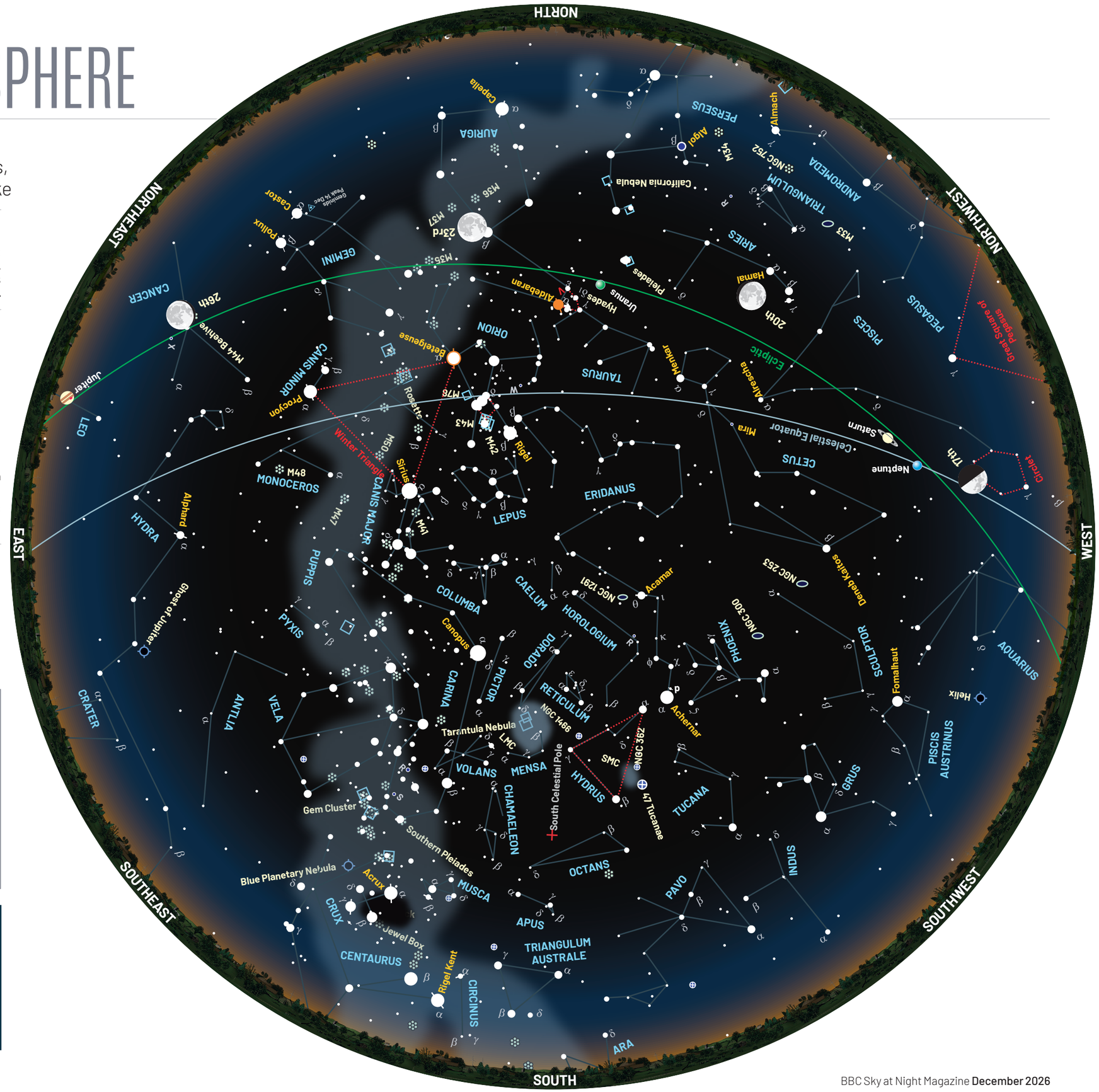


Chart key

- GALAXY
- OPEN CLUSTER
- GLOBULAR CLUSTER
- PLANETARY NEBULA
- DIFFUSE NEBULOSITY
- DOUBLE STAR
- VARIABLE STAR
- COMET TRACK
- ASTEROID TRACK
- METEOR RADIANT
- QUASAR
- PLANET

STAR BRIGHTNESS:
- MAG. 0 & BRIGHTER
- MAG. +1
- MAG. +2
- MAG. +3
- MAG. +4 & FAINTER

CHART: PETE LAWRENCE