THE SOUTHERN HEMISPHERE

With Glenn Dawes

Catch the year's best sight of Mercury and try to find our pretty targets in Canis Major

When to use this chart

1 Jan at 00:00 AEDT (13:00 UT)
15 Jan at 23:00 AEDT (12:00 UT)
31 Jan at 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.

JANUARY HIGHLIGHTS

Enjoy Mercury's best return to the morning sky for 2023. It can be found just under Sagittarius's teapot, brightening from mag. +1.4 to –0.1 during this time. Gaining altitude quickly, by midmonth it rises around an hour before sunrise. A small telescope shows a 9.3-arcsecond crescent disc shaped like a three-day-old Moon. By 30 January, the disc has shrunk to 6.8 arceseconds, with its phase now gibbous, and it reaches its maximum altitude, rising two hours before the Sun.

STARS AND CONSTELLATIONS

Being summer, the Sun is highest in the daytime sky as it follows its path through the heavens (the ecliptic). The constellations it passes through define the zodiac, although astronomical and astrological borders differ greatly. At night the situation is reversed, with the zodiacal constellations lowest in the sky. Its most northerly location (winter solstice) lies near the border of Taurus and Gemini, halfway between the Hyades and Gemini's twin stars, Castor and Pollux.

THE PLANETS

Venus is low in the early evening twilight, but given its brilliance it is easy to find. As Saturn approaches conjunction it is soon immersed in the twilight glow, passing Venus on 22nd. Mars is transiting around the end of twilight, leaving plenty of time to view. Neptune and Jupiter depart around 23:00 midmonth, followed by Uranus two hours later, then Mars at about 02:00. Later in January, Mercury returns to the morning sky, being observable in the dawn glow.

DEEP-SKY OBJECTS

This month, a trip to Canis Major. Located only 3° southwest of Sirius are the three naked-eye 'Nu' (ν) stars, in a flattened triangle 1° across. The centre one, Nu¹ CMa is an excellent double star with components of mag. +5.8 (yellow) and +7.4 (pale yellow), 17 arcseconds apart.

Here's a pair of open star clusters: NGC 2384 (RA 07h 25.2m, Dec –21° 01) and, 8 arcminutes northwest, NGC 2383. The more conspicuous of the two, NGC 2384 is a compact 5-arcminute hazy oval made up of stars of 8th magnitude and fainter, with a close pair of 9th-magnitude stars on the western edge. NGC 2383 has a triangle of 10th-magnitude stars surrounded by a haze of 11th- to 13th-magnitude stars. The clusters are located in a busy Milky Way star field, complete with a handful of scattered 7th- to 8th-magnitude luminaries. Pretty!

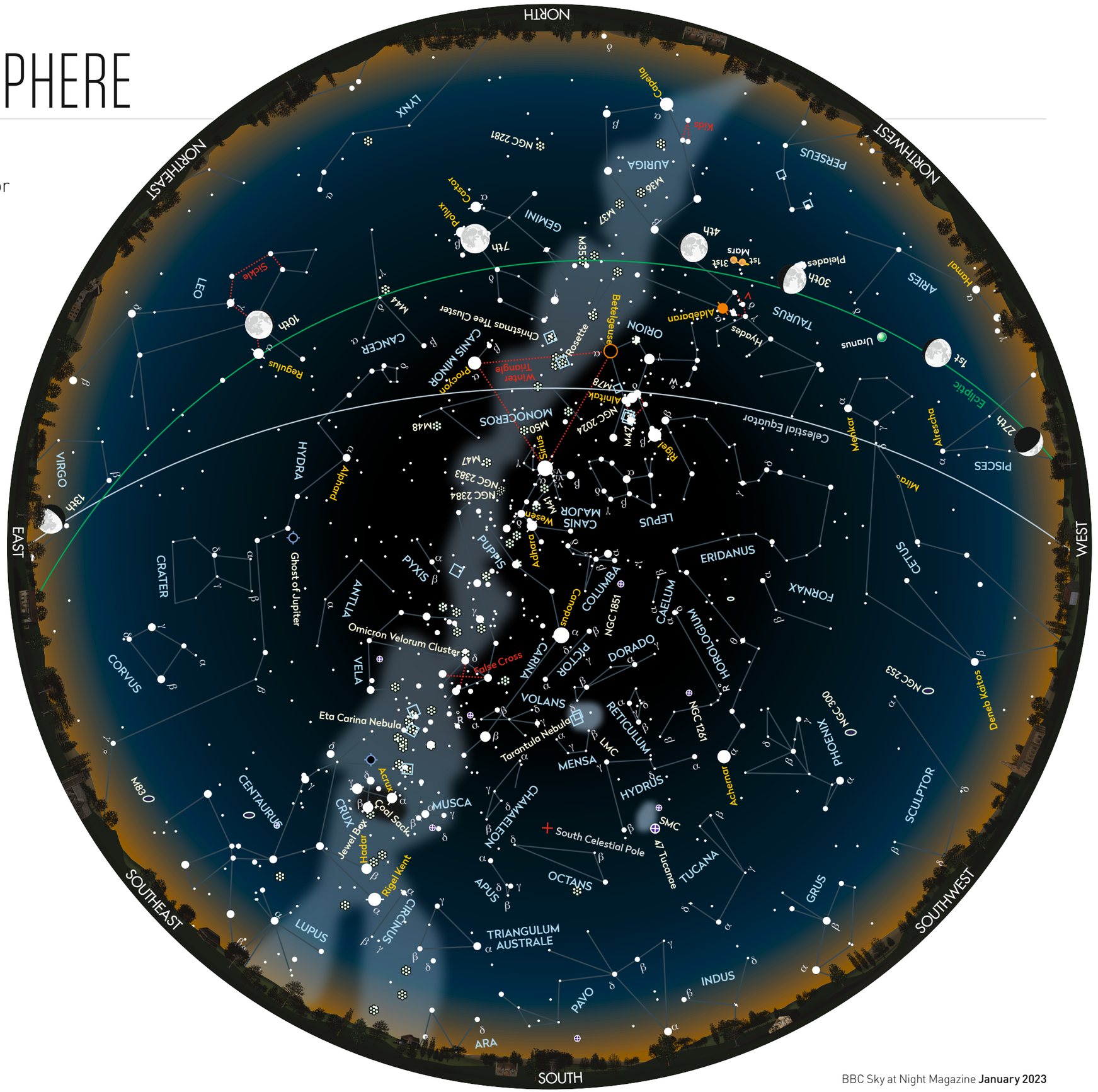

Chart key

- 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

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