

# THE SOUTHERN HEMISPHERE



With Glenn Dawes

Get ready for favourable Geminids and discover spectacular sights near the Small Magellanic Cloud

## When to use this chart

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

## DECEMBER HIGHLIGHTS

The Geminids are among the finest and most reliable of the annual meteor showers. Active from 7 to 17 December, they peak on the 14th. The radiant is low in the north (near the Twin stars Castor and Pollux), but it's well placed in the early morning hours, crossing the meridian around 2am. With a new Moon on the 13th, there will be no lunar interference. The Geminids produce bright, medium-speed meteors and have peaked at 100-plus meteors per hour in past years.

## STARS AND CONSTELLATIONS

If the Milky Way passing overhead in all its glory is typical of winter, then the Clouds of Magellan, high in the south, are indicative of summer. Above the small cloud is the first-magnitude star Achernar. Flanking it are Canopus (in the southeast) and Fomalhaut (southwest), the three forming an equidistant straight line separated by 40°. Left (south) of Fomalhaut, lies the distinctive Grus constellation, another of the few markers to this barren, far-southern sky.

## THE PLANETS

Mercury is visible low in the evening twilight before being lost to the Sun's glare mid-month. Saturn is moving into the northwest sky, setting late in the evening. Neptune trails it, departing around midnight mid-month. Jupiter continues to

dominate the evening sky, transiting around the end of twilight. Uranus follows an hour later. Venus remains unmissable, low in the east at dawn. The month closes with Mercury and Mars returning to the morning, low in the dawn sky.

## DEEP-SKY OBJECTS

Starting from Achernar, move 10° southwest to discover Beta 1 and 2 (β<sup>1</sup> and β<sup>2</sup>) Tucanae (RA 0h 31.5m, dec. -62° 58'), consisting of two nearly matched 4th-magnitude stars, pale blue and white respectively, separated by 27 arcseconds. They have a fainter mag. +5 companion Beta 3 (β<sup>3</sup>) 9 arcminutes away, making Beta Tucanae a good binocular double as well (and it's visible to the naked eye under dark skies too!).

On the western edge of the Small Magellanic Cloud (SMC) lies the spectacular globular cluster NGC 104, better known as 47 Tucanae (RA 0h 24.1m, dec. -72° 04'). Second in brilliance only to Omega Centauri, this mag. +4.1 citadel of stars is naked-eye visible. It has a large halo (0.4° across) with stars easily resolved on the edge. Its extremely bright core shows numerous stars spread across its background glow – awesome!

## Chart key

GALAXY	DIFFUSE NEBULOSITY	ASTEROID TRACK	STAR BRIGHTNESS: ● MAG. 0 & BRIGHTER ● MAG. +1 ● MAG. +2 ● MAG. +3 ● MAG. +4 & FAINTER
OPEN CLUSTER	DOUBLE STAR	METEOR RADIANT	
GLOBULAR CLUSTER	VARIABLE STAR	QUASAR	
PLANETARY NEBULA	COMET TRACK	PLANET	

