

THE SOUTHERN HEMISPHERE



With Glenn Dawes
Catch five planets close to the Moon, and discover the Ink Spot, a deep-sky treasure in Sagittarius

When to use this chart

1 July at 00:00 AEST (14:00 UT)
15 July at 23:00 AEST (13:00 UT)
31 July at 22:00 AEST (12:00 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.

JULY HIGHLIGHTS

This month all five naked-eye planets can be seen close to the Moon. In the early evening of 15th, the full Moon is 6° from Saturn. Then as the Moon's phase wanes, it visits Jupiter separated by 5° on the morning of the 19th. Next up, three days later, the last quarter Moon is only 3° from Mars. On the 26th, having now slipped into the dawn glow, its thin crescent is 8° from brilliant Venus. Finally, after new Moon on the 30th the two-day old Moon is 5° from Mercury.

STARS AND CONSTELLATIONS

The most southerly zodiacal constellations are high in July's evening sky. The easily recognised constellations of Sagittarius (with its Teapot asterism) and Scorpius, the Scorpion, also coincide with the Milky Way's centre. The two flanking constellations are identifiable under dark skies, with the 'smile' of Capricornus to the east and kite-shaped Libra to the west. You can also view the dark and bright lanes (nebulae) that make up our Galaxy's 'hub'.

THE PLANETS

View Saturn in the eastern evening sky, rising around 20:00 mid-month. Located in Capricornus, it stands out in a barren part of the sky, with only the star Fomalhaut rivaling its brightness. Neptune follows two hours later, while

Jupiter joins the show, rising about 23:00. The early morning sees Mars and Uranus arriving and converging: they close July only 2° apart. Venus continues to drop towards the Sun, and this month is the last time we see it outside dawn's glow.

DEEP-SKY OBJECTS

Let's take a trip into Sagittarius, the Archer. Starting at the 'spout' star of the Teapot, Gamma² (γ²) Sagittarii, moving north you'll pass through a Milky Way region full of stars. When you have gone 2° you will encounter a distinctive dark nebula, Barnard 86 (RA = 18hr 02.9m, dec. = -27° 52'). It has a high extinction level, hence its nickname, the Ink Spot. The nebula is 6 arcminutes across, which tapers to a point at the northern end, with

a mag. +6.6 star on the western edge. Eastwards of this 'Spot', in the same eyepiece field, is open cluster NGC 6520, which consists of around two-dozen faint stars scattered over 2 arcminutes, just north of a pair of brighter stars. Sagittarius is home to numerous globular clusters and there are two conveniently close to the 'spot'. NGC 6540 is 0.7° eastwards and the fainter Djorgovski 2 is only 0.2° westwards.

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

