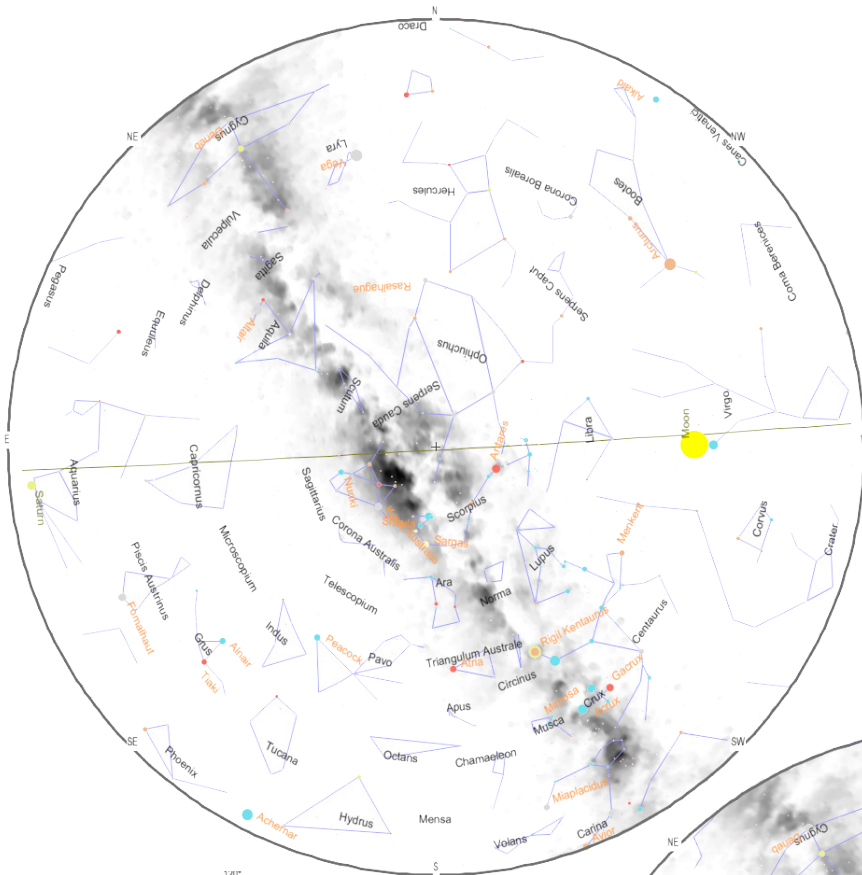


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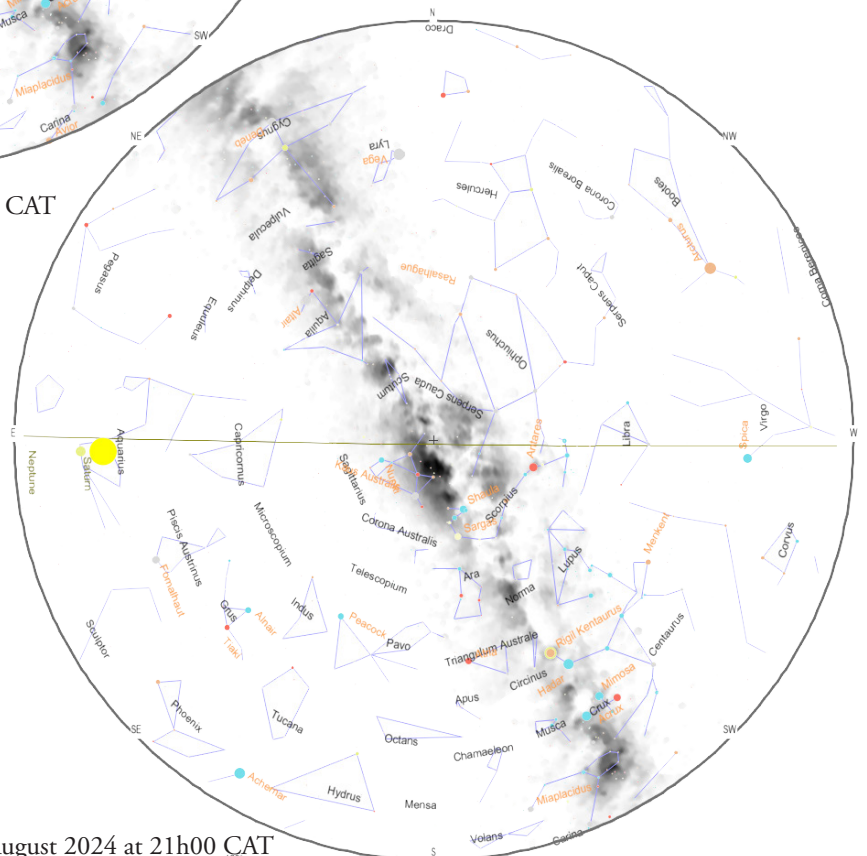
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Astronews August 2024

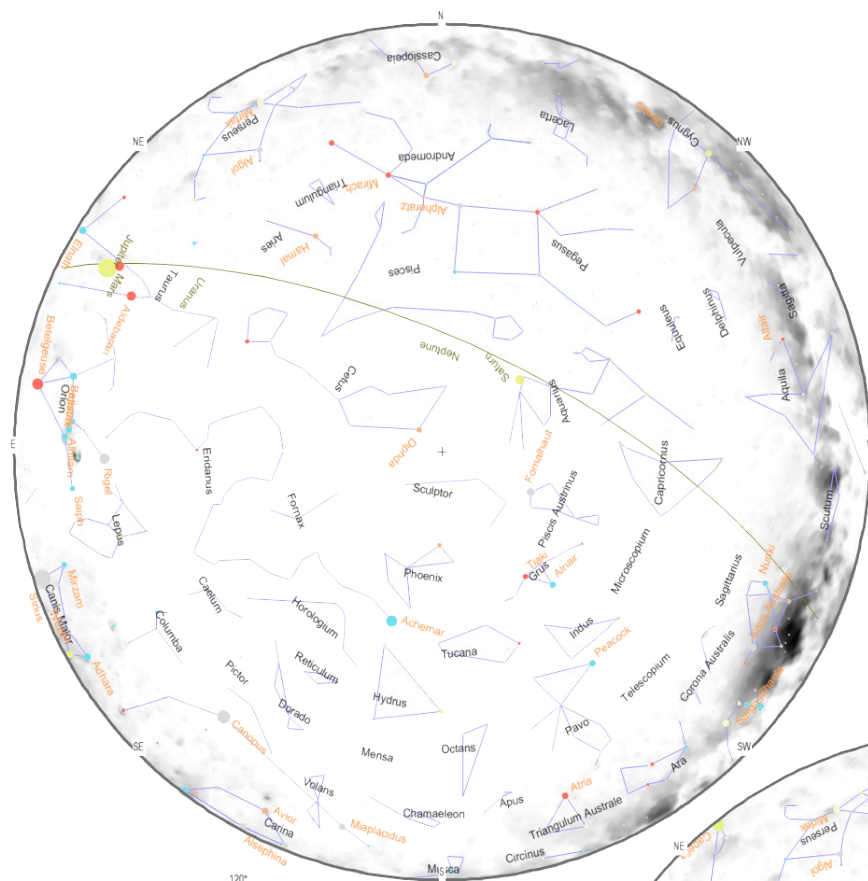
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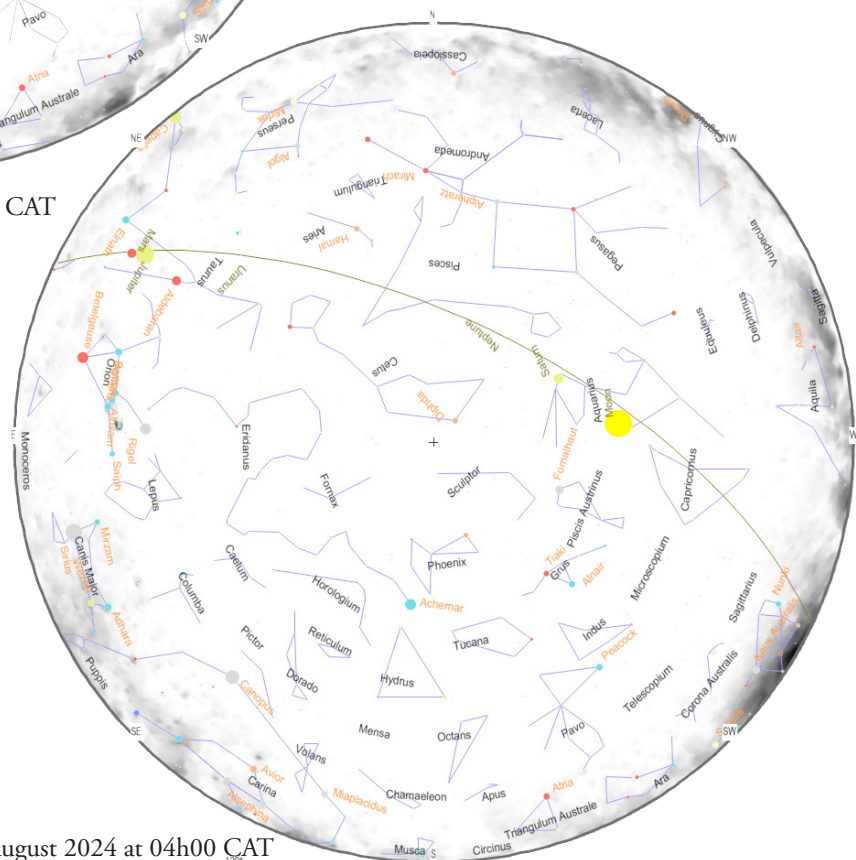
Skychart at Windhoek on 10 August 2024 at 21h00 CAT



Skychart at Windhoek on 20 August 2024 at 21h00 CAT



Skychart at Windhoek on 10 August 2024 at 04h00 CAT



Skychart at Windhoek on 20 August 2024 at 04h00 CAT

We have included the morning sky in the Astronews. For the early risers, you can observe the rising of the summer constellations. In addition to some of the Planet especially Jupiter. On 14 August there will be a close approach of Mars and Jupiter passing within 18.4 arcminutes of each other

Moon Phases

04 Aug 2024	New Moon
12 Aug 2024	First Quarter
19 Aug 2024	Full Moon
26 Aug 2024	Last Quarter

Solar System

Planet Visibility	Rise	Culm.	Set
15 Aug 2024			
Mercury	07:24	13:14	19:05
Venus	08:20	14:08	19:57
Mars	02:53	08:16	13:39
Jupiter	02:52	08:16	13:40
Saturn	20:19	02:33	08:47

Mercury is not observable since it will soon pass in front of the Sun at an inferior solar conjunction.

Venus recently passed behind the Sun at a superior solar conjunction. From central Namibia, however, it will become visible above your western horizon, as dusk fades to darkness. It will then sink towards the horizon, setting 1 hour and 22 minutes after the Sun.

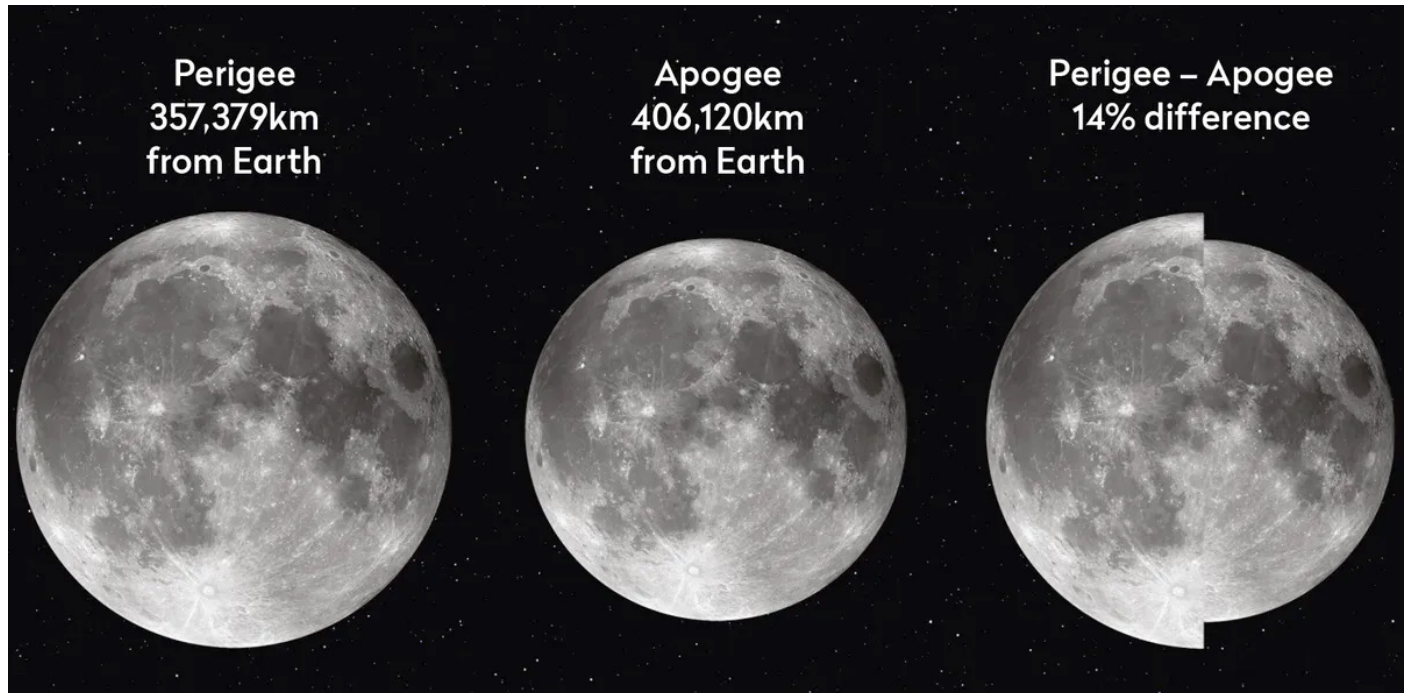
Mars is visible in the dawn sky, rising at 03:00 and reaching an altitude of 41° above the eastern horizon before fading from view at dawn.

Jupiter becomes visible at around 03:01, **Saturn** is currently approaching opposition and will reach its highest point in the sky at 02:30. It will be lost to dawn twilight above the northeastern horizon before fading from view in the morning sky. **Saturn** is currently approaching opposition and is visible as a morning object, becoming accessible around 21:10, when it reaches an altitude of 11° above your eastern horizon.

Other Occurrences

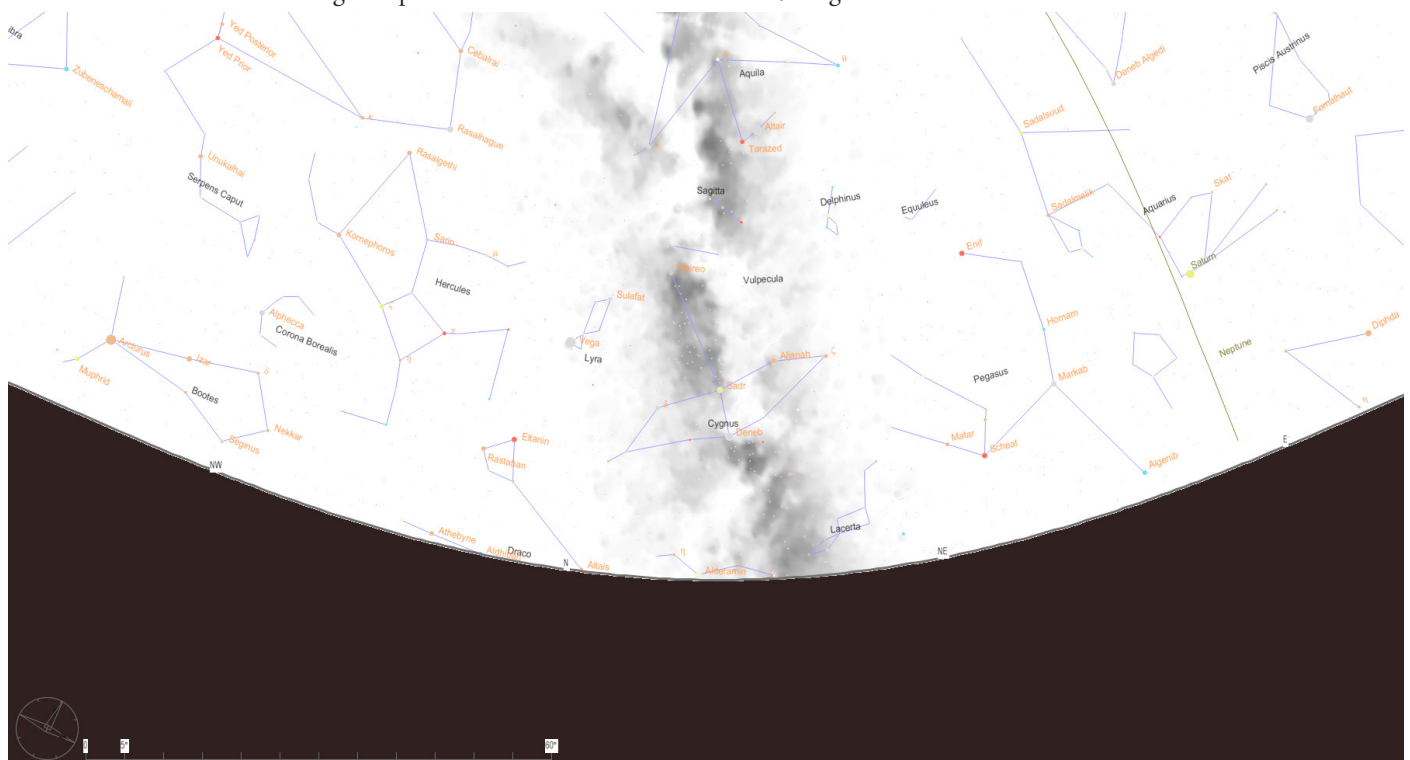
Full Moon on 19 August

It could be called a supermoon as the Moon is close to Perigee the nearest point to Earth. When it reaches full phase, the Moon will lie at a declination of 15°39'S in the constellation Aquarius. It will lie at a distance of 361,000 km from the Earth. The graphic below shows the size of this month's full moon in comparison to the largest (perigee) and smallest (apogee) possible apparent size of a full moon.



19 August 2024. Moon Rise 17:18 - Moonset 07:01 - Phase 100%

The κ-Cygnid meteor shower will be active from 3 August to 25 August, producing its peak rate of meteors around 17 August. At this time, the Earth's rotation turns Windhoek to face optimally towards the direction of the incoming meteors, maximising the number that rain vertically downwards, producing short trails close to the radiant point. The shower is expected to reach peak activity at around 21:00 CAT on 17 August 2024. There will be interference during that period because of the full moon on 19 August



Constellation of the Month

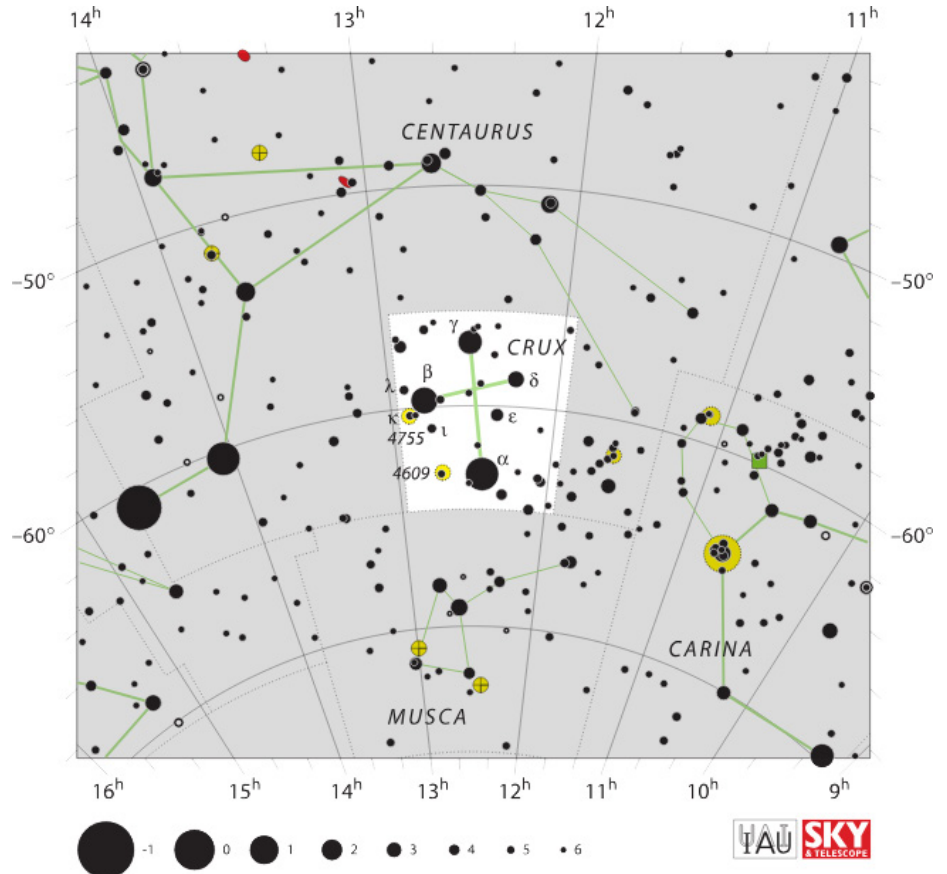
by Simon van der Lingen

The Southern Cross

Because our Solar System is tilted about 60% to the plane of the Milky Way, our Southern Hemisphere skies always show a better view of the Milky Way than the Northern Hemisphere and Namibia's dark, clear winter skies only add to the spectacle, providing arguably the most majestic view of our home galaxy anywhere on the planet.

Crux, represented on 5 National Flags is something of a Southern Hemisphere icon and at its very best in July and August; looking stunning against a beautiful Milky Way stretching across the evening sky. Crux, more familiarly the Southern Cross, is the smallest of all 88 of the Constellations. Unsurprisingly, there is no Greek mythology regarding Crux, but the reason may not be what you think. As the Earth spins on its axis, it also wobbles very slightly, a phenomenon called Axial Precession. Each wobble lasts about 26,000 years, so it's pretty slow and can be safely ignored in normal human lifespans for all but the most exacting astronomical calculations. The Ancient Greeks could see Crux on their Southern Horizon until about 400AD and regarded Crux as merely part of Centaurus, who was included in Greek Mythology. Southern African mythology interprets the four brightest stars of Crux as male giraffes, and the two nearby Pointers (in Centaurus) as females.

Crux was rediscovered by Northern Hemisphere astronomers, thanks to the epic sea journeys of explorers like Ferdinand Magellan and Amerigo Vespucci, and recognised as a separate constellation almost a century later, around 1600.



Alpha Crucis is the southern-most star in the constellation and also the brightest. It is actually a complex system of six stars, two of which are massive, very bright stars each about 16 times as massive as our Sun and thousands of times brighter. Each of these two primary stars also has smaller partners, and each of the partners in turn has their own smaller partner.

Moving clockwise, Beta Crucis (Mimosa) is also not a single star, but a binary with two

large, very young stars each 10 and 16 times as massive as our Sun, orbiting each other every five years.

Gamma Crucis at the top of the Cross is a singleton about 50% more massive than our Sun but old enough that it has become a Red Giant, swollen to 100 times as big as the Sun and destined to collapse into a White Dwarf in the relatively near future. Gamma Crucis is the nearest Red Giant to us and will likely leave a beautiful planetary nebula behind when it dies.

Delta Crucis is another single star of about nine solar masses, big enough to be very hot and very bright, but old enough to be on the point of becoming a Red Giant as well. In 2018, the International Astronomy Union formally named the star Imai, in recognition of the name traditionally used by the Mursi people of Ethiopia.

Look for Herschel's Jewel Box, a beautiful Open Cluster, close beside Mimosa. Originally discovered by Abbé de Lacaille, the prolific French astronomer who spent five years watching the stars from the Cape of Good Hope between 1750 and 1754. Curiously, the Cluster was named not by Lacaille, but by the English Astronomer

John Herschel in the 1830's. The Jewel Box is a small cluster, visible only as a "fuzzy blob" to the naked eye, but regarded as one of the most beautiful sights of the Southern Skies through even a modest telescope.

Overlapping the boundary of Crux into the constellation Musca lies the Coalsack Nebula, a huge cloud of gas and dust, mainly particles of frozen carbon monoxide and water ice. To the Incas, the Coalsack represents a hole kicked into the Milky Way by the Creation God, Ataguchu, where the dislodged portion became the Small Magellanic Cloud. Australian Aboriginals see the Coalsack as the head of a Celestial Emu whose body is discernable in other dark areas of the Milky Way, and by some Southern African Cultures, it is the head of a giraffe.

Outside, but long associated with Crux, look for the Pointers Alpha and Beta Centauri, where Alpha Centauri is the closest star to us; and for the nearby Diamond and False Crosses in Carina and Vela constellations. Look through binoculars at the head of the Diamond Cross to make out another beautiful Open Cluster, the Southern Pleiades.

The Southern Cross, small but bright and easily found, is a useful gateway into a fascinating part of the night sky.

Credits

SkyChart: Cartes du Ciel/Wikipedia, Data: <https://in-the-sky.org/> / ASSA Sky Guide 2024, Pictures: Wikipedia



Kappa Crucis Cluster, NGC 4755