

## Star Gazing at Cape St Albans

Kangaroo Island is a great place in South Australia for stargazing and witnessing shooting stars as the pristine natural environment around Cape St Albans has very little light pollution. It is therefore the ideal spot to explore the night sky, either from your bed peeking through the sky light or by relaxing on the GlamSwag on the deck of your CABN X with a hot cuppa or a glass of Kangaroo Island wine in your hands.

To enhance your stargazing experience, we recommend using the CABN X pocket telescope as well as accessing a night sky map or using recommended Apps. For the most up to date information on constellations and planets and to view an interactive night sky map we recommend visiting TimeandDate.com. You may also want to check out Apps such as Star Walk, SkyView Lite, or Star Tracker Apps which all offer real time intuitive stargazing information by using your camera to precisely spot and identify stars, planets, galaxies, and constellations.

Now let's get started. With the right conditions, you may witness a stunning display of stars, galaxies and planets that can be truly awe-inspiring: The Southern Cross, the Magellanic Clouds, the Milky Way and planets such as the Venus, Mars, Jupiter, and Neptune.

The Southern Cross is the most well-known star pattern in the southern sky and considered Australia's oldest symbol, reflecting the country's culture, history, and identity. It is a group of four stars that form a cross shape also known as Cruz Australia. The stars are named Alpha (Acrux), Beta (Mimosa), Gamma (Gacrux), and Delta (Intercrus), in order of brightness. Did you know that the Southern Cross is one of the three prominent symbols on the Australian flag along with the Union Jack and the Commonwealth Star? Due to its distinct shape and position, the Southern Cross has been used for navigation purposes by mariners and explorers in the southern hemisphere for centuries. It serves as a navigational aid in determining southward directions, as the long axis of the cross points towards the South Pole.

Just above the Southern Cross, witness the Magellanic Clouds, two neighboring galaxies that are visible with the naked eye as fuzzy patches of light in the southern sky. The Large Magellanic Cloud is about 160,000 light-years and the Small Magellanic Cloud (SMC) is about 200,000 light-years away from us, and contain millions of stars, gas, dust, and star clusters. These clouds have been named after the explorer Ferdinand Magellan, who first documented their existence during his voyage around the world in the early 16th century. The Magellanic Clouds serve as important laboratories for understanding the processes of star formation, galaxy interactions, and the evolution of dwarf galaxies.

Now focus on the Milky Way which stretches across the sky like a celestial river. The Milky Way is Australia's home galaxy, which contains about 100-200 billion stars and has a diameter of about 100,000 light years. The Earth and our Solar System are located about 25,000 light years away from the centre of the Milky Way. From Cape St Albans we see it as a band of faintly glowing light that stretches across the sky from horizon to horizon and is most visible during winter (June to August), when it passes overhead at night. You can see many bright stars, star clusters, nebulae (clouds of gas and dust), and dark patches (dust lanes) along the Milky Way.

Now see whether you can recognise any of the planets in our solar system. Depending on the time of year, you may find Venus, Mars, Jupiter, Neptune, Saturn, and Mercury. How can you spot them? Planets typically appear as bright, non-twinkling objects in the night sky, easily distinguishable from the surrounding stars.



Venus is the brightest planet in the night sky and appears as a brilliant, white object. It is often referred to as the "evening star" or "morning star" due to its visibility during twilight.

Mars is known as the "Red Planet" and appears as a bright, reddish-orange object. To spot Mars, it's best to look for a bright, non-twinkling star-like object with a distinct reddish hue.

Jupiter is the largest planet in our solar system and appears as a very bright object shining with a steady, non-twinkling light. Jupiter can be identified by its intense brightness and its distinct creamy-white or yellowish colour.

Like Jupiter, Saturn is a gas giant and renowned for its magnificent ring system. To spot Saturn, look for a bright, pale-yellow object in the night sky that features a steady glow with a ring.

Use your telescope to spot Mercury, the closest planet to the Sun which is often challenging to observe due to its proximity to the sun's glare. Be sure to exercise caution and never look directly at the Sun.

If you want to spot Uranus and Neptune the two outermost gas giants in our solar system, you also require the telescope, a moonless night and maybe a star chart, star map or star-gazing app as they are much fainter than the other visible planets.

Congratulations! Tonight, you have witnessed some of the wonders the universe has to offer. The sky is a treasure trove of celestial marvels, and we hope this experience has ignited a lifelong love for stargazing within you.

