**The August Night Sky**

Bright stars and planets light up the evening sky. Five planets are visible and the constellations of Scorpius and Sagittarius and 3 galaxies are also prominent.

The winter months provide the best opportunities to view planets through a telescope. So wrap up warm and head out at night. During winter the Sun is low in our daytime sky. This means that any planets opposite the Sun in our night sky will be high above the horizon by the middle of the night.

**Matariki** appears low in the north-eastern sky in the winter, making it hard to see is some parts of the country. For these iwi stars like Rehua Antares or Puanga Rigel signal the new year.

**Autahi Canopus** twinkles colourfully on the south skyline, the brightest true star in the evening sky. Vega and Arcturus are the bright stars too – **Whanui** **Vega** low in the north, orange **Ruawāhia** **Arcturus** is in the northwest, often twinkling red and green as it sets. In the far south of NZ these 2 northern stars don’t rise very high but are familiar to those living in the north.

Midway down the southwest sky the bright Pointers, Beta and **Hakihea** **Alpha Centauri,** line up down and to the right to **Taki-o-Autahi** **Crux** the Southern Cross. Alpha Centauri is our closest star, Beta Centauri is a blue-giant star hundreds of light years away.

Red giant star **Rehua Antares** marks the heart of the Scorpion. The Scorpion's tail hooks around the zenith like a back-to-front question mark. Antares and the tail make the fish-hook of Maui. Below or right of the Scorpion's tail is 'the teapot' made by the brightest stars of **Sagittarius**. It is upside down in our southern hemisphere view.

The Sun and the planets are found in one plane, the ecliptic. The ecliptic crosses the plane of the Milky Way near the constellations of Scorpius and Sagittarius. In mid-winter the Ecliptic passes overhead around midnight and nearby planets and constellations are ideally placed for viewing through a telescope.

**Te MangoroaThe** **Milky Way** is brightest and broadest overhead and in a dark sky it can be traced down past the Pointers and Crux into the southwest. To the northeast it passes **Pou-tu-te-rangi** **Altair**, meeting the skyline right of **Whanui Vega**.

The galaxies Large and Small Clouds of Magellan **LMC** and **SMC** look like two misty patches of light low in the south, easily seen by eye on a dark moonless night.

**Mercury:** After an absence throughout most of July, Mercury returns to the evening sky in the west. At the beginning of the month it appears low in the northwest, setting about an hour after the Sun. By the end of August Mercury is setting due west two hours after the Sun. The thin crescent Moon will be near Mercury on the 29th and 30th. Mercury shows only a tiny disc in a telescope.

**Venus**: In August Venus sinks progressively closer to the Sun and becomes more difficult to see. From places with a low eastern skyline brilliant Venus might be seen in the dawn twilight. It rises about an hour before the Sun at the beginning of the month; 30 minutes before at the end. Venus is leaving us behind as it moves to the far side of the Sun and will reappear in the western evening sky at the end of the year.

**Mars:** rises around 1:30 a.m, as bright as Saturn but orange-red. At dawn mid-month, Mars is just above Matariki. To its right are similar orange stars: Aldebaran in Taurus and Betelgeuse in Orion. The last-quarter Moon will be near Mars on the morning of the 20th.

**Jupiter:** rises due east after 10 pm at the beginning of August, bright and golden. Rising earlier each night the planet appears soon after 8 pm by the end of the month. The near-full Moon will be by Jupiter on the night of the 15th-16th.

**Saturn:** emerges from the eastern horizon as the Sun sets in the west. Rising four minutes earlier each night, Saturn is well above the eastern skyline at dusk mid-month. It looks like a medium- bright star with a cream colour. The Moon will be near Saturn on the 12th. Saturn is at its closest distance for the year so well placed for telescope viewing. The ring and some moons may be visible.

<https://www.rasnz.org.nz/in-the-sky/the-evening-sky/august-evening-sky>

<https://www.stardome.org.nz/star-charts--sky-spotter>