MARCH POUTŪ-TE-RANGI HIGHLIGHTS

Brightest Stars

At this time of the year, we can see the three brightest stars in the night sky. The brightness of a star, as seen from Earth, is measured as its apparent magnitude. Pictured on the cover is Sirius, the brightest star in our night sky, which is 8.6 light-years away.

With an apparent magnitude of −1.46, this star can be found in the constellation Canis Major, high in the northern sky. Sirius is actually a binary star system, consisting of Sirius A which is twice the size of the Sun, and a faint white dwarf companion named Sirius B.

Sirius is almost twice as bright as the second brightest star in the night sky, Canopus, from the constellation Carina. Visible all year round, Canopus can be found high in the southern sky this month, with an apparent magnitude of −0.74.

Despite appearing dimmer than Sirius, Canopus has around eight times the mass of the Sun, with its light taking almost 310 years to reach our planet.

The third brightest star, Alpha Centauri, is also the closest star system to our solar system at 4.37 light-years away. Also known as Rigil Kentaurus, this star has an apparent magnitude of −0.27, and can be seen at all times of the year in the constellation Centaurus, currently just above the southern horizon.

Conjunction of Saturn and the Moon

A conjunction is when two astronomical objects appear close in the sky as seen from Earth. The planets, along with the Sun and the Moon, appear to travel across our sky roughly following a path called the ecliptic. Each body travels at its own speed, sometimes entering 'retrograde' where they seem to move backwards for a period of time (though the backwards motion is only from our vantage point, and in fact the planets are still orbiting the Sun normally).

Sometimes these celestial bodies will cross paths along the ecliptic line and occupy the same space in our sky, though they are still millions of kilometres away from each other.

On March 19, the Moon and Saturn will be in conjunction. While the unaided eye will only see Saturn as a bright star-like object (Saturn is the eighth brightest object in our night sky), a telescope can offer a spectacular view of the ringed planet close to our Moon. The Moon will be at a 21% illuminated waning crescent and Saturn will be visible to its east.

This conjunction will be best viewed from 2am, when the Moon and Saturn rise, until sunrise.

Image © Ian Griffin

THE SKY TONIGHT
TE ĀHUA O TE RAKI I TĒNEI PŌ

MARCH POUTŪ-TE-RANGI SKY GUIDE

PERPETUAL GUARDIAN PLANETARIUM

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MOON MARAMA PHASES

Phase	Date
First Quarter	Tuesday, 3 March
Full Moon	Tuesday, 10 March
Third Quarter	Monday, 16 March
New Moon	Tuesday, 24 March

PLANETS WHETŪ AO

Venus
Meremere-tū-ahiahi

1 March until 9.50pm
15 March until 9.24pm
31 March until 8.56pm

In Aries

Mars
Matawhero

1 March after 1.51am
15 March after 1.42am
31 March after 1.35am

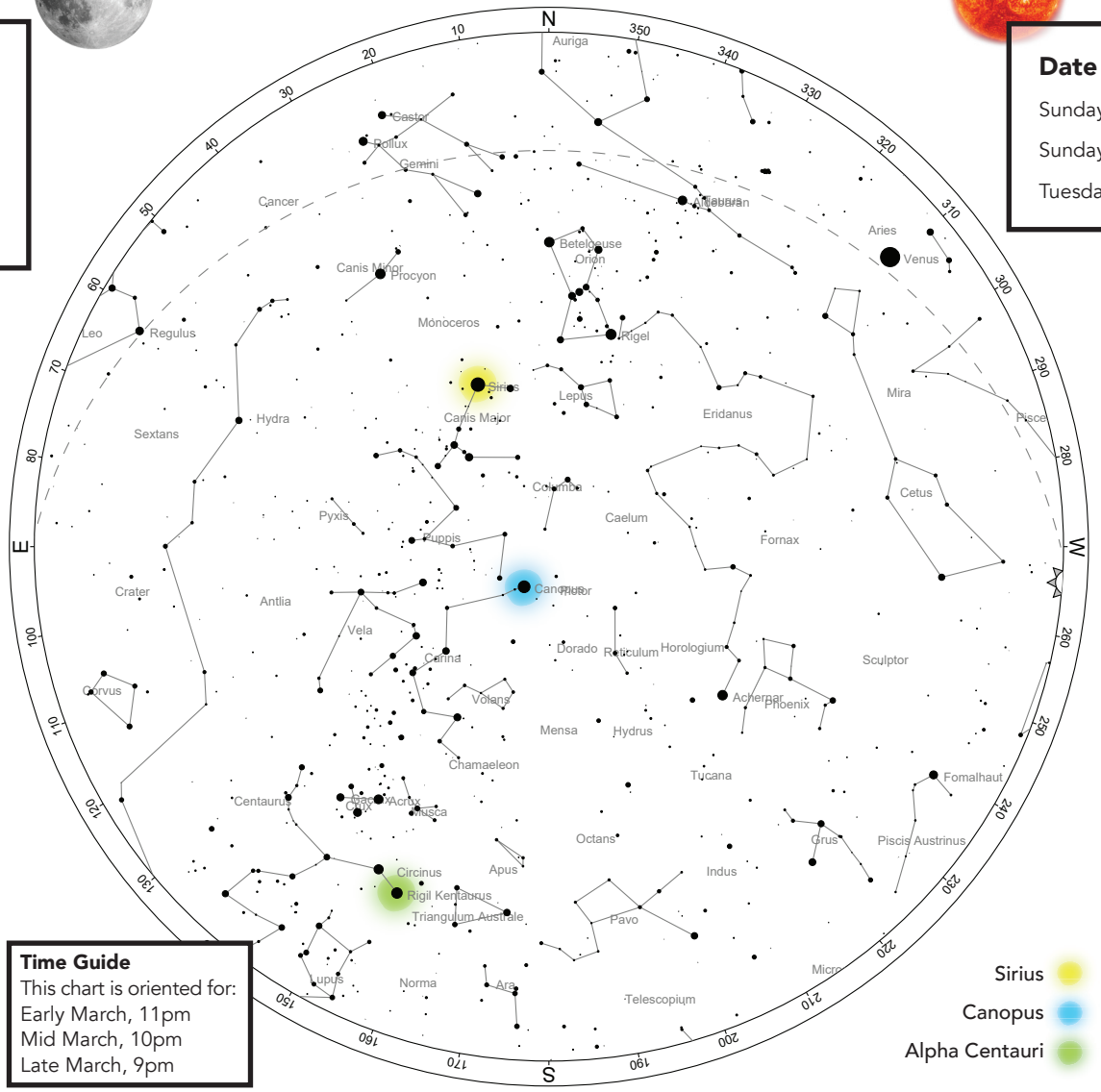
In Sagittarius

Jupiter
Hine-i-tīweka

1 March until 2.44am
15 March until 2.01am
31 March until 1.10am

In Sagittarius

MARCH POUTŪ-TE-RANGI 2020



Time Guide
This chart is oriented for:
Early March, 11pm
Mid March, 10pm
Late March, 9pm

Sirius
Canopus
Alpha Centauri

How to use this chart: Hold the chart up to the sky and rotate it, so the direction you are looking matches the direction printed on the bottom. For example, if you are looking south, place 'S' at the lower edge. Stars rise in the east and set in the west like the Sun. As the Earth turns, the sky appears to rotate clockwise around the south celestial pole. The sky makes a small shift to the west every night, as the Earth rotates around the Sun.

SUN RĀ RISE / SUNSET

Date	Rise	Set
Sunday, 1 March	7.13am	8.25pm
Sunday, 15 March	7.33am	7.59pm
Tuesday, 31 March	7.54am	7.28pm

MOON AT APOGEE

Because the Moon doesn't orbit our planet in a perfect circle, its distance from Earth varies throughout its monthly journey. Each month, the Moon moves between being at its farthest position from Earth, which we call apogee, to its closest position to Earth, called perigee, only two weeks later.

This year, the Moon's apogee will take place on 24 March. On this day, the Moon will be 406 692 kilometres away from us, compared to its average distance of approximately 384 400 kilometres.

In this particular instance, the Moon at apogee will coincide with a new moon, an event which is known as a micromoon. To us here on Earth, a micromoon appears about 14% smaller than a supermoon, which occurs when a full moon happens at perigee.