The Night Sky

Bright stars shine around the skyline, Ruawāhia **Arcturus** is in the northwest and Atutahi **Canopus**, the brightest star in the sky, in the south. Being just above the horizon, both stars are shining through a lot of air and so twinkle colourfully, Canopus, showing all colours, Arcturus glimmering red and green. On the northern skyline is bright Whanui **Vega** and **Deneb,** the brightest star in **Cygnus** the Swan. Later in the month **Pegasus** emerges from the northeastern horizon.

Higher up, orange Rerehu **Antares**, northwest of the zenith, marks the body of the Scorpion. Te tauihi, the Scorpion's tail hooks toward the zenith like a back-to-front question mark. It is 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.

Midway down the southwest sky are Te Taura o te Punga The Pointers, Beta and **Alpha Centauri**, Ranginui and Hakihea. They point down to Mahutonga **Crux** the Southern Cross. Alpha Centauri is the third brightest star. It is also the closest of the naked-eye stars, 4.3 light years\* away. Beta Centauri, along with most of the stars in Crux, is a blue-giant star hundreds of light years away.

North east of the zenith, is the medium brightness star **Fomalhaut**, and further right, in the southeast, is brighter Marere-o-tonga **Achernar**.

Te Mangoroa The **Milky Way** spans the sky from north to south, brightest and broadest overhead. 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 Milky Way is our edgewise view of the galaxy, the pancake of billions of stars of which the sun is just one. The thick hub of the galaxy, 27 000 light years away, is in Sagittarius. Dust clouds near us appear as gaps and slots in the Milky Way. Binoculars show many clusters of stars and some glowing gas clouds in the Milky Way.

Tuputuputu and Tioreore, the Large and Small Clouds of Magellan, **LMC** and **SMC**, look like two misty patches of light in the south sky. They are easily seen by eye on a dark moonless night. They are galaxies like our Milky Way but much smaller and further away.

On moonless evenings in a dark sky the Zodiacal Light is visible in the west. It appears as a faint broad column of light extending up past Mars and Spica. It is sunlight reflecting off meteoric dust in the plane of the solar system. The dust may have come from a big comet, many centuries ago.

Comet Nishimura which first appeared in Aug, may reach naked-eye visibility by the end of September. below and to the left of Mars.

The September equinox, arrives on the 23rd as the Sun crosses the celestial equator moving southward. This marks the first day of spring in the southern hemisphere and the first day of autumn in the northern hemisphere.

**MERCURY:** Mercury stays too close to the Sun to be visible for most of Spring.

**VENUS:** Known as the morning star,Venus is a very bright object in the pre-dawn east to north-eastern sky over the spring months. At its brightest on the 19th, in a telescope Venus will be a thin crescent in early September.

**MARS:** Appearing after sunset, low in the west and setting early, Mars shines red straight below white **Spica**. On the far side of the Sun, by late September the planet becomes increasingly difficult to see as it slips further into the glare of the setting Sun. The thin crescent Moon will be between Mars and Spica on the 17th .

**JUPITER:** In early September, Jupiter rises in the east, close to the Moon before midnight, but by dawn is in the northwest sky. It will be close to the nearly full Moon on the 27th.

**SATURN:** Due east and midway up the sky at dusk, later in the night Saturn will pass high overhead in the north. It provides us with stunning telescope views over spring, with steady cream-coloured light. Binoculars show Saturn as an oval, the planet and rings blended. Almost any telescope will separate the planet and the ring. The ring is ‘closing’ now as Saturn gets more edge-on to us. A bright Moon is close-by on September 27th.

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