**The February Night sky**

The warmer Summer nights are an ideal time to start learning key landmarks of the night sky. First look north and find the three bright stars in a line, often called ‘The Pot’. These stars make up the ‘Belt of Orion’, one of the most distinctive guides of the night sky.

Extend the line of the Belt stars to the right (east) and you will find Sirius, a white star, the brightest in the sky. Extending the line to the left (west) from the Belt and you will find the orange star, Aldebaran, the brightest star in the constellation Taurus. Continuing that line further to the left and you will find the beautiful star cluster, the Pleiades – known to us in Aotearoa as Matariki.

Back at Orion’s Belt, identify the bright stars Rigel (white) and Betelgeuse (reddish) which are above and below the belt, respectively. Those two bright stars, together with two slightly fainter ones enclose most of Orion with the belt being in the middle. A small line of fainter stars above the belt marks Orion’s sword. One of these ‘stars’ is the magnificent Orion Nebula (M42), the closest massive star-forming region to us. It is a stunning sight even in backyard telescopes.

Roughly overhead around 10pm there are two bright stars. The brightest of them is Canopus, the second brightest star in the sky. Canopus, Atutahi to Māori, was a key guide star used by the Polynesian voyagers – while today it is used to guide interplanetary spacecraft.

The fainter of the two, lying west of Canopus, is Achernar which marks the end of the meandering constellation of Eridanus (the River). Extending a line from Canopus passed Achernar brings you to Fomalhaut, the brightest star in the constellation Pisces Austrinus (Southern Fish).

Crux, the Southern Cross, is in the southeast. Below it are Beta and Alpha Centauri, often called 'The Pointers'. Alpha Centauri is the closest naked-eye star, 4.3 light years away. Beta Centauri is a blue-giant star hundreds of light years away, as are most of the stars in Crux.

On dark nights, you can see 2 galaxies with your naked eye - the Large and Small Magellanic Clouds (LMC & SMC on star charts). To Māori they were Pātari-rangi or Ngā Pātari. They are high in the southn sky. Explored with binoculars or a telescope each shows a myriad of star clusters and gaseous nebulae.

The Milky Way is brightest in the southeast toward Crux. It can be traced up the sky, fading where it is nearly overhead. It becomes very faint east, or right, of Orion. The Milky Way is our edgewise view of the galaxy, the pancake of billions of stars of which the sun is just one.

**MERCURY**: Mercury stays close to the Sun, setting in the twilight soon after sunset low in the eastern sky between the planets Jupiter and Saturn.

**VENUS** : This bright planet rises in the southeast an hour before the Sun in early February. It gradually slips lower as it moves to the far side of the Sun, rising 30 minutes before the Sun at the end of the month.

**MARS** : Mars is a prominent object in the northwest sky, setting about midnight. By the end of February Mars will be nearing the Matariki star cluster, passing it in the first week of March. The moon will be above and left of Mars on February 10th.

**JUPITER AND SATURN:** These 2 giant planets will be visible in the pre-dawn eastern sky, somewhat separated, from mid February.

Sources: Stardome Observatory and Royal Astronomical Society