The February Night Sky

Takurua Sirius and Atutahi Canopus, the brightest stars, are found overhead, Takurua, just to the north and Atutahi a bit south, both white in appearance.

Takurua is called the Dog Star as it marks the head of Canis Major the big dog, upside down to us.

Procyon, in the northeast below Sirius, marks the smaller of the two dogs that follow Orion

the hunter across the sky.

Below and left of Sirius are bluish Puanga Rigel and orange Pūtara Betelgeuse, the brightest stars in Orion. Between them is a line of three stars – Tautoru Orion's belt – often referred to as the bottom of the pot. The handle of the pot is Orion's sword, a fainter line of stars above Tautoru. At the centre of this constellation is the Orion Nebula; a glowing gas cloud which can be seen in binoculars. Orion is high towards the north this month.

Continuing the line of Orion's belt finds the Matariki and Matamata kāheru Hyades star clusters below left and Sirius above right. Matamata kāheru is an upside down V-shaped group of stars that make the face of Taurus the bull. Orange star Taumatakuku Aldebaran makes one eye of the bull on one tip of the V. Very low below Orion, those in Northland might spot the bright star Capella on the north skyline.

Māhutonga Crux, the Southern Cross, is in the southeast, with the Kaipatiki Diamond and Pīawai False Crosses easily spotted above it. Below Māhutonga are the pointers Beta and Alpha Centauri. Alpha Centauri is the closest star and visible to the naked eye. Māhutonga, Beta Centauri is a blue-giant star hundreds of times further away, as are most of the stars in Crux.

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

The Diamond Cross points to two small galaxies high in the south. Ngā Pātari The Clouds of Magellan, LMC and SMC are high in the south sky, easily seen by eye on a dark moonless night.

There’s an extra day this month, a Leap Day, that helps our calendar stay synchronized to the apparent motion of the Sun and stars.

Whiro MERCURY: Through early February this planet will be below and right of Venus in the east. It also looks like a star but is much fainter than Venus. Whiro begins the month close to Mars and, though initially easier to see, quickly slips into the Sun’s glare over the ensuing days. Marama the Moon will be above Whiro on the 9th.

Kōpū VENUS: This planet is so bright it is often called the morning star and this month it rises in the East two hours before sunrise. Over the month it will slowly descend as Kōpū leaves us behind and moves to the other side of the Sun. Marama will be near Kōpū on the 8th. Kōpū will pass close to Mars on the 22nd, but being 100X brighter Mars will be hard to see.

Matawhero MARS: This month Matawhero rises in the southeast before the beginning of twilight and will be easier to see as it further separates from the Sun. Over February this faint reddish planet also moves higher in the dawn as earth catches up with it. On the 7th a slender crescent Marama, bright Kōpū, & ochre Matawhero will be seen together. Matawhero will be just to the right of Kōpū on the 22nd.

Kōpūnui JUPITER: This planet is so bright it is known as the evening star, appearing in the northwest soon after sunset and setting around midnight. We are moving to the far side of the Sun from Kōpūnui, hence its slow fall, night to night. Marama will be near Kōpūnui on the15th.

Rongo SATURN: At this time of year faint Rongo is visible briefly before sunrise just south of west and very low in the sky. Over February it becomes increasingly difficult to see til it is lost from view. Rongo is below and left of Marama on the 11th.

References: <https://www.stardome.org.nz/star-charts--sky-spotter> Text by Alan Gilmore, Mt John Observatory.

<https://cosmicpursuits.com/night-sky-this-month/>