**SKY GUIDE AUTUMN March to May 2020**

We’re passing the autumn equinox and the nights are getting longer and cooler. Summer’s dominant constellation, Orion, is moving off the celestial stage.

By mid-April the sky has moved around and the summer landmark, Orion, is now setting in the early evening followed soon after by the ‘Dog Star’, Sirius. Looking north, there are a series of zodiac constellations with familiar names dating back to antiquity.

From west to east you can see Gemini low in the north-west, marked by the two bright stars, Pollux and Castor. Cancer (the Crab) is quite inconspicuous and hard to pick out if you are competing with city lights or bright moonlight.

On the other hand, looking east of Cancer, Leo is easy to pick out because of its bright, orange star, Regulus. East of Leo lies Virgo with its brightest star, Spica. Above Spica there is a conspicuous quadrilateral marked by four stars forming a handy signpost; this is the constellation of Corvus (the Crow).

This procession of constellations will cross the northern sky from east to west as the night goes on, followed later by Libra, Scorpius and Sagittarius. Jupiter and Saturn rise in Sagittarius after midnight.

Turning to the southern sky, the key landmark to locate is Crux (the Southern Cross), the iconic constellation of the Southern Hemisphere. At this time of year face south and look up high and you should pick it out without difficulty. Just to be sure, check that the two bright stars of Centaurus (commonly called the Pointers) are pointing to the top of the Cross. In mid-autumn around midnight, Crux and Centaurus are at their highest point above the southern horizon.

Following an imaginary line up the sky from the Pointers and on through Crux, you will find the constellations of Carina, Vela and Puppis. There are a number of different patterns you will come to recognise here but most people pick out the distinctive shape of the False Cross. It isn’t a real constellation but its pattern is so obvious that astronomers call it an asterism. It consists of two stars from Carina and two from Vela, all having roughly equal brightness. The brightest star in Carina is the brilliant Canopus. It is the second brightest star, second only to Sirius and the most luminous star within 700 light-years.

Continue the imaginary line past the False Cross, following the centre of the Milky Way, and you will find the large constellation of Puppis. While this isn’t a household name, it is quite bright and passes overhead in New Zealand.

This trio of important southern constellations — Carina, Vela and Puppis — once made up a single, huge constellation called Argo Navis (the mythical ship of Jason and the Argonauts). Argo Navis was created in the 2nd century but in the 17th century it was divided into three constellations.

At this time of year if you can see the autumn night sky on a moonless night away from city lights, you can easily pick out the disc of our galaxy, the Milky Way, looking like a ghostly cloud stretching across the sky.

It is the combined light of some of the estimated 200 billion stars that make up our galaxy. It spans the sky from the south-eastern horizon passing through the Pointers, Crux, Carina, Vela and Puppis and then passes between Orion and Gemini in the north-west.

The bright planets, Jupiter and Saturn, rise in the north-east after midnight.

**Mercury**During this period Mercury is difficult to spot. It is very low in the east before sunrise with the best chance being around 22 March when it will be close to the thin crescent Moon. In late May, Mercury will be very low in the western sky soon after sunset and close to Venus on 22 May.

**Venus**
Venus is very bright low in the north-western sky after sunset during March. However, it sets closer to sunset each day until May when it will be very hard to see. It will be close to Mercury on 22 May.

**Mars**
Mars is visible in the pre-dawn sky low, in company with Saturn and Jupiter. It will move closer to Jupiter during March, closest around 21 March and then to Saturn on 1 April. It will be high in the pre-dawn sky during May.

**Jupiter**
Rises after midnight in the eastern sky with Mars and Saturn and is quite high in the sky before dawn. The Moon joins the trio on 19 March. Jupiter is close to Mars around 21 March. Jupiter will be nearly be overhead in the pre-dawn sky during May.

**Saturn**
Rises after midnight in the eastern sky with Mars and Jupiter and is quite high in the sky before dawn. Mars is close to Saturn on 1 April and the Moon joins the three planets on 16 April. Saturn is nearly overhead in the pre-dawn sky during May.