



Oct 1 at 11pm NZDT
 Oct 15 at 10pm "
 Oct 30 at 9pm "

 Galaxies
 Nebulae and clusters
 Planetary positions for 15th of the month

Night sky - October 2010

The **Milky Way**, consisting of billions of stars in the spiral arms and the center of our galaxy, is shown in gray, as are our very close neighbor galaxies the **Large and Small Magellanic Clouds (LMC and SMC)**. The path of the planets through our sky, known as the **ecliptic**, is roughly indicated by the golden dashed line through the planets and the constellations of the Zodiac. The Sun and Moon also follow this path, rising in the east and setting in the west. Hold the chart above your head facing directly south and the night sky above you will closely match the chart as you see it. As the Earth turns, the sky appears to rotate clockwise around the South Celestial Pole (**SCP** on the chart). Tekapo is located 44 degrees south of the equator, so everything inside a 44 degree circle (blue) with its center at the South Celestial Pole remains above our horizon all year.

Crux, the Southern Cross, is moving low to the west of south as it circles clockwise around the celestial pole. The brighter of the two Pointer stars, **Alpha Centauri**, is our nearest stellar neighbor that is visible to the naked eye (except for our Sun, of course). It is a binary star, two stars orbiting each other once every 80 years and it takes almost 4 1/2 years for its light to reach us. **Canopus**, the second brightest star in the sky, is more than 70 times more distant from us than Alpha Centauri and yet appears much brighter in our sky because it is around 13,000 times more luminous.

The broad central bulge of our galaxy and the constellations **Scorpius** and **Sagittarius** are moving west and soon will be gone for the summer. Red giant star **Antares** glows orange at the heart of the Scorpion. **Vega** is almost gone shining brightly just above the northwest horizon. Saturn has set as we moved around to the far side of the Sun from it, but **Venus** and dim **Mars** remain in the west, Venus very bright and dropping rapidly each night setting three hours earlier by the end of the month. We are moving away from **Jupiter** now which shines brightly and is moving westward each night. Jupiter is never quite as bright as Venus.

Notes by Freidl Hale of Tekapo Starlight and Alan Gilmore of Mt John Observatory - University of Canterbury.