

The March night sky now heralds the spring constellations as we head towards the vernal equinox on March 20th. The spring night sky contains many fine objects to view with both binocular and small telescopes and this month has a few notable events of special interest. Venus shines brightly low in the west into early evening and reaches greatest elongation [46°] on March 24th, small telescopes show its phase which will be 50% or Dichotomy. The phase of the planet decreases to a thin crescent as the Earth – Venus distance decreases at inferior conjunction in early June.

The Milky Way stretches from the constellation of Auriga, marked by the bright star Capella in the east up into Perseus and through the 'W' shaped constellation of Cassiopeia high overhead and down along the cross shaped constellation of Cygnus low in the west. This faint band of stars best seen on dark moonless evenings

In the north Ursa Major, The Plough or The Great Bear is seen low with its handle or tail pointing to the horizon mid evening. Use the right hand pair of stars Dubhe and Merak (The pointers) to find the faint pole star Polaris and the position of North.

The seven sisters' (Pleiades, M45) star cluster are easily recognisable to the unaided eye as a small group of stars above the characteristic 'V' shaped asterism of the 'Hyades' star cluster in the constellation of Taurus also noted for the bright, red foreground star Aldebaran. In Arabic Al Dabaran is 'The follower' of the Pleiades across the skies, in old English colloquially known as 'the eye of the bull'. The Moon occults the star Epsilon Tauri on March 29th, disappearing (dark limb) 7.15 pm and reappearing (on the bright limb) at 8.25pm.

By early evening the familiar winter constellations of Orion (The Hunter) is now slipping into the western skies making way for the spring constellations rising in the east. Orion looks a little odd; the red super giant star Betelgeuse is obviously fainter at around +1.6m. The star is a long period variable but is currently undergoing an unusually deep fading. Telescopes at ESO VLT facilities in Chile have found the star is surrounded by dark dust material obscuring the star, possibly expelled from the star as it approaches the end phase of its life; Betelgeuse is one candidate for a supernova outburst – sometime in the next 100,000 yrs!

The constellation of Gemini is easily recognised by the two bright stars Castor and Pollux and the characteristic rectangular shape of stars. The western end of the constellation is embedded within the rich star fields of the Milky Way. M35 an open cluster seen as a misty patch in binoculars is a very nice sight when viewed telescopically.

The spring constellation of Leo rises by mid evening, the brightest star Regulus and the 'reversed question mark' shaped star asterism of 'The Sickle' makes this an easily recognisable constellation. Leo stretches eastward and is marked at the tail end by the star Denebola. Leo contains some moderately bright galaxy pairs visible in moderate sized telescopes on moonless evenings. M65/M66 and NGC 3628 form the famous galaxy triplet, all three galaxies being visible in the same telescopic field of view.

Mid way between Castor and Pollux (Gemini) and Regulus (Leo) lies the obscure constellation of Cancer (the Crab), with faint stars in the shape of an inverted 'Y' the most striking feature is the splendid open cluster M44 (The Beehive Cluster) or Praesepe. The cluster is visible to the unaided eye as twice the apparent size of the Moon misty patch, is a magnificent sight when viewed with binoculars or low magnification telescope. To the south of M44 lies another nice open cluster M67.

This is a prelude to the galaxy rich spring skies visible in the coming months as the constellations of Virgo and Coma Berenices can now be seen rising by late evening. The Virgo cluster of Galaxies has many relatively bright galaxies visible in moderate sized telescopes on moonless clear evenings March 20th (the equinox) has equal day and night, the Sun now crosses north of the celestial equator, Spring in the northern hemisphere has begun. Note that UK clocks change to BST (add 1 hour) on Sunday March 29th

Comet C/2017 T2 Panstarrs is positioned in our evening skies in the constellation of Cassiopeia /Perseus brightening to 9th integrated magnitude [binocular/ Telescopic in a dark sky] as it heads northward towards perihelion in May. See notes. Comet C/2020 A2 Iwamoto races northward as telescopic 12m object –difficult.

Planets in March 2020

Mercury reaches greatest elongation [26°] on March 24th but is poorly placed in dawn twilight.

Venus shines brightly in early evening skies and reaches greatest elongation [46°] on March 24th.

Mars is placed in dawn twilight and is in conjunction with Jupiter on March 20th

Jupiter shines brightly low in dawn twilight, low in the constellation of Sagittarius

Saturn is low in UK skies in 2020, pre dawn in the constellation of Sagittarius.

Uranus is placed in evening twilight and close to Venus in early March (same 10x50 binocular FOV on March 9th)

Neptune is at conjunction on March 8th and is positioned in our daytime skies – best seen in autumn skies

Moons phases in March 2020

New Moon	Mar 24th	Moonless, best time for deep sky observing. (Solar eclipse)
First Quarter	Mar 2nd	Best days to see shadow details in lunar craters (early evening)
Full Moon	Mar 9 th	Best days to see bright ray craters like Copernicus / Tycho.
Last Quarter	Mar 16 th	Moon visible in daytime skies. Do not look directly at the Sun.

Experience the Moon Illusion at moonrise /moonset, against foreground objects such as trees or buildings, the moon looks rather large (an optical illusion) – watch Full Moon rise March 9th. Moon is close to perigee March 10th so the apparent size is slightly increased 33`28” making it a `Super moon`

Spring Equinox March 20th 03:50 UT, Sun crosses back north of celestial equator. Spring in N.Hemisphere begins

Meteor showers Virginids show some slow meteors with long trails, peaking during April

The highlights of the month.

Venus dominates the early evening twilight - small telescopes show a 50% phase

March skies, Milky Way visible high overhead on moonless evenings in darker skies.

Double cluster, on the Perseus /Cassiopeia border high overhead, nice pair of star clusters.

Pleiades (Seven Sister's) star cluster (M45) now low in south west, best seen with binoculars.

Beehive cluster (M44) visible to the unaided eye but best seen with binoculars.

Telescopic triplet of galaxies M65/M66/NGC3628 in the constellation of Leo.

Virgo cluster of Galaxies - the brightest member galaxies can be detected with moderate telescopes.

Comet C/2017 T2 Panstarrs brightens to 9th magnitude – Telescopic / binocular object (see notes)

Lunar occultation of star Epsilon Tauri Mar 29th evening 8.15 pm BST (disappears), 9.25 pm BST (reappears) – Binoculars / Telescope required. Epsilon Tauri is a member of the Hyades star cluster

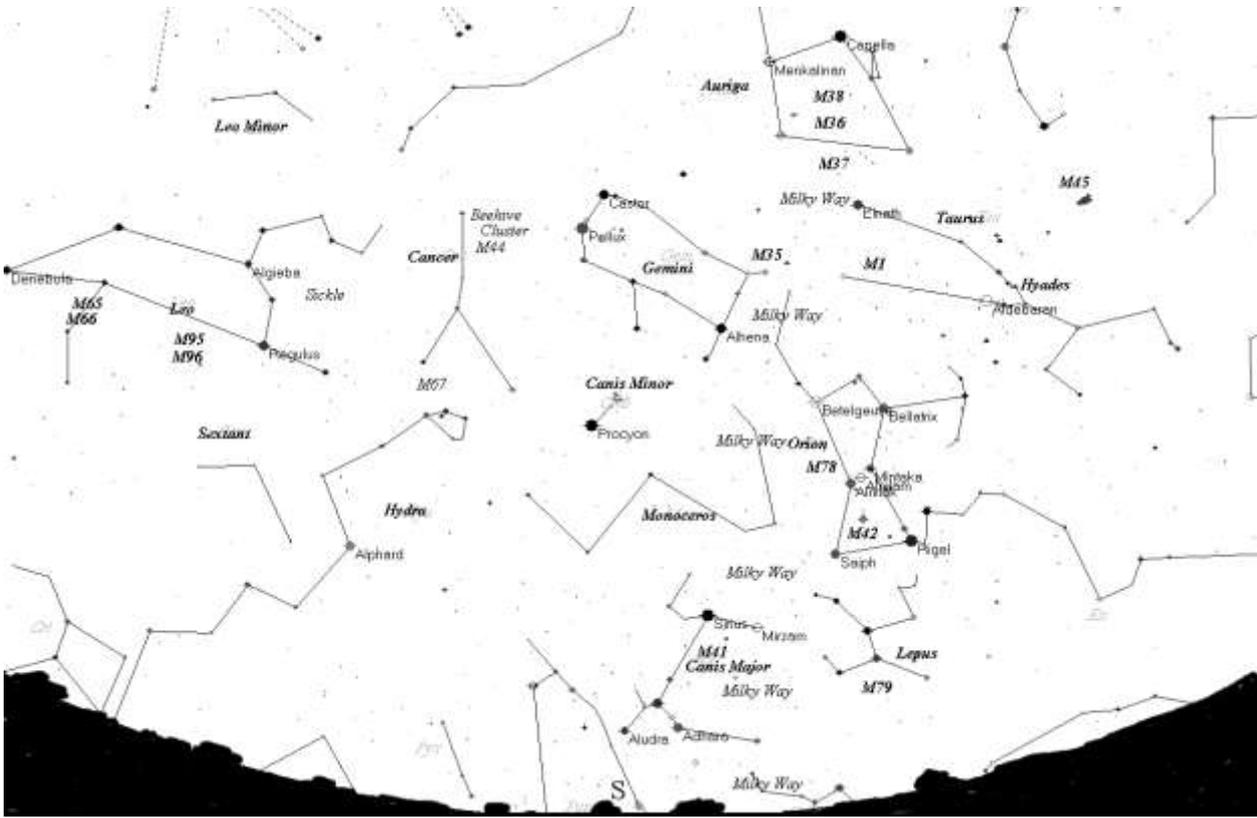
Moon visibility

The first chance to see the crescent moon is on March 25th [**Only look after the Sun has completely set**]

The 1.86% thin waxing crescent Moon is located low in twilight skies

More detailed sky notes and LAS Newsletters, Finder charts are available to LAS members via the Members` page on the LAS Website www.lutonastrolink.org.uk

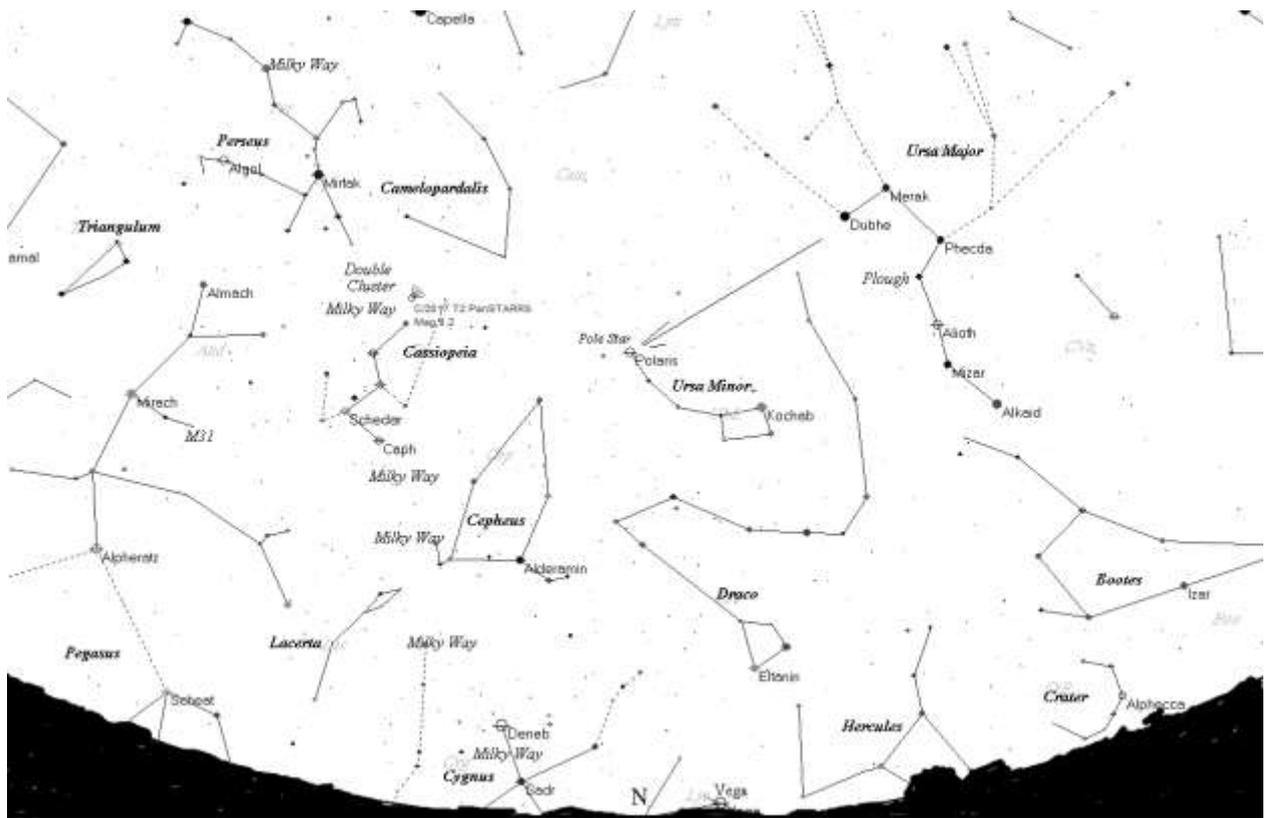
Sky looking south at 8pm, mid March 2020



Orion is placed in the south west, draw a line through the belt stars, down to the bright star Sirius (which can appear to twinkle at low elevation) . Also known as The Dog Star, Sirius is in the constellation Canis Major (Greater Dog), whilst the star Procyon is in the constellation Canis Minor (Lesser Dog). Extend a line through Orion's belt upwards to find the red star Aldebaran in the constellation of Taurus and the Seven Sister's star cluster.

Gemini is placed high in the south with Castor leading Pollux across the sky. To the south east the constellation of Leo is noted by the bright star Regulus and the 'Sickle' asterism of stars and outstretched body resembles a crouching lion , with the star Denebola at the tail end. Between Pollux and Regulus, binoculars show the nice 'Beehive' star cluster M44 in the constellation of Cancer.

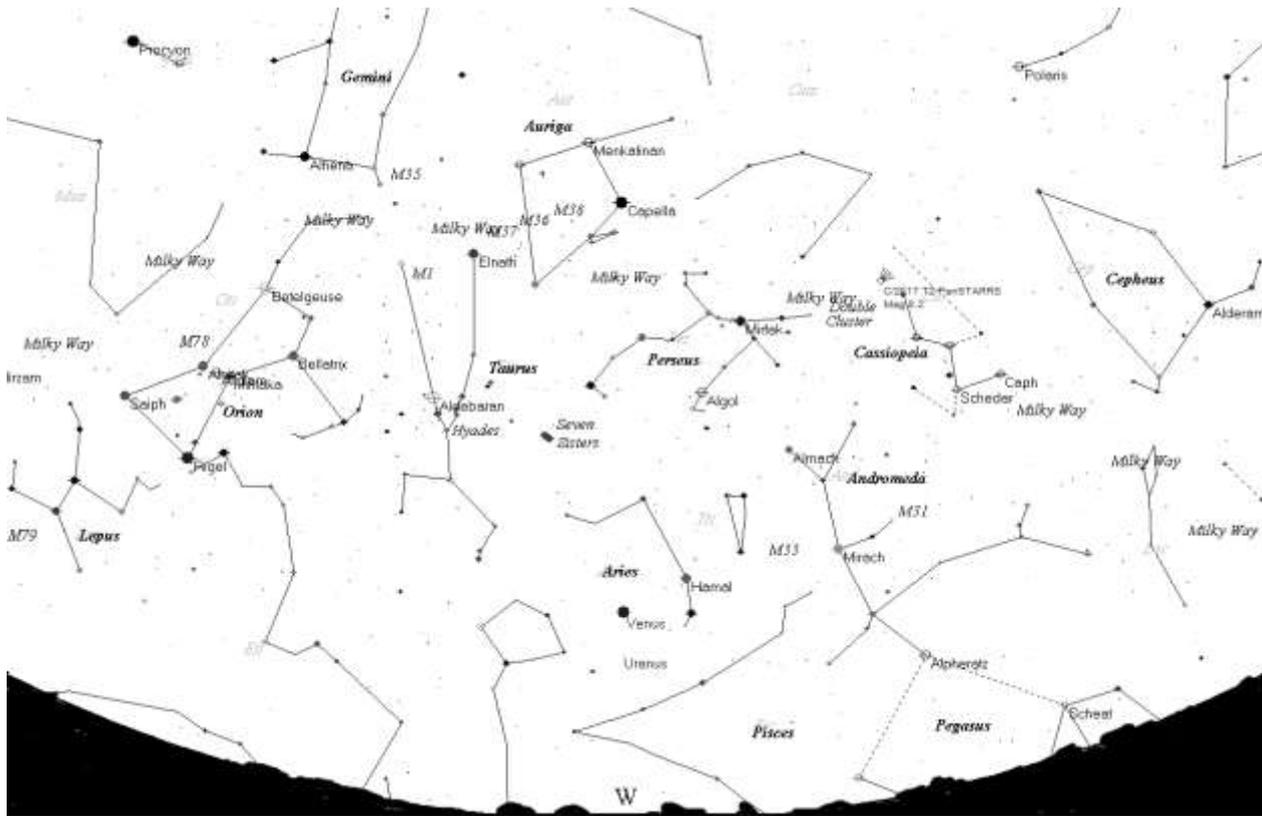
Sky looking north at 8pm mid March 2020



The Plough stands on its handle follow the pointer's Dubhe and Merak to find the polestar Polaris

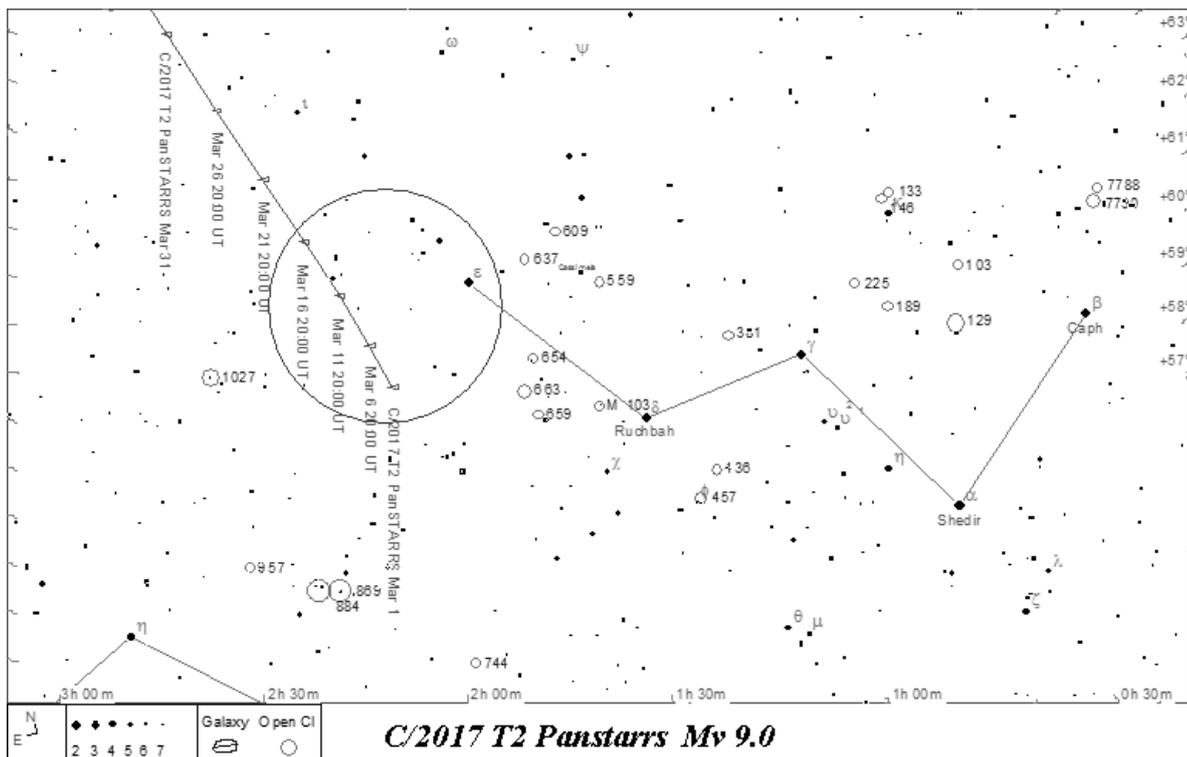
The `W` shaped constellation of Cassiopeia looks more like an `M` and is on the opposite side of the polestar to the Plough.

Sky looking west at 8pm mid March 2020



Venus shines brightly low in the west shortly after Sunset. Later in the evening Pegasus and Andromeda stand vertically sink towards the western horizon. In March the ecliptic is inclined steeply around the time of the equinox.

Comet C/2017 T2 Panstarrs - brightens to 9th magnitude (Large Binocular / Telescopic) but in rich star field is a challenge on darker moonless evenings even from a dark observing site.



LAS Finder chart for Comet C/2017 T2 Panstarrs