

The Sun

It is May and the days are getting longer. Back in March, at the equinox, the Sun was above the horizon for 12 hours. At the beginning of May, the Sun will be above the horizon for around 14 hours 50 minutes. By the end of May this will have increased to around 16 hours 15 minutes.

The Sun has been more active of late. It can be observed in perfect safety by logging on to one of the solar internet sights. These show up to date images in a variety of wave lengths. As I write this the App on my phone shows a cluster of 7 sunspots in white light together with an image in ultraviolet which shows the magnetic flux patterns in the plasma around the site of the spots. It is a simple matter to follow the progress of these from day to day or more frequently if you wish.

The Moon

The Moon will be at last quarter on May 3rd and will be new on May 11th. It will be at first quarter on May 19th and will be full on May 26th.

The Planets

Mercury

The planet Mercury puts on an evening show this month. It is at greatest elongation on 17th May but will be visible for most of the month. At the beginning of the month, about 40 minutes after sunset, the planet will be shining at magnitude -1.1 in the west north west at an altitude of around 10°. Precise altitude and azimuth data for the date and time of your intended observation can be obtained from planetarium programmes

such as Stellarium. Unusually the planet will be visible for long enough for phase changes from gibbous to crescent to be discernible.

Venus

Venus is to be found in the same part of the sky but lower, between 2 and 5° of altitude 40 minutes after sunset. It will be shining brilliantly at around magnitude -3.9. Venus and Mercury's paths will cross at the end of the month.

Mars

Mars is still visible among the stars of Gemini during the first half of the month shining at magnitude +1.6 but will soon be lost in sunsets glare.

Jupiter and Saturn

Jupiter and Saturn are morning objects and are pulling further from the Sun as the month progresses. Jupiter will be found shining at magnitude -2.4, low among the stars of Aquarius. Saturn will be found low among the stars of Capricornus shining at magnitude +0.6.

Uranus and Neptune

Uranus and Neptune are both too close to the Sun for viewing during May.

Navigating the Night Sky

I would now like to continue our exploration of navigating the night sky. To recap, we are taking each of the twelve Zodiac constellations, one per month and locating them and learning their basic shapes. We are using other stars to find them by "star hopping" and so gradually learning how all the constellations fit together. We have chosen the Zodiac constellations as a start point, not because we want to go fortune telling

but because the Zodiacs are well placed for observing. In addition the ecliptic, the path of the Sun across the sky, crosses them all.

As we orbit the Sun, one of the 12 Zodiacs is well placed each month, so each Zodiac is associated with one of our 12 months. We will look at how this works on another occasion.

So far, we have looked at Cancer the Crab in March and Leo the Lion in April. This month, May, we are going to look at Virgo the Virgin, often shown as a woman with a sheaf of wheat in her arms.

The most easily recognised part of the constellation is a kite shape. The brightest star in the constellation marks the bottom of the kite. This star is Spica which can be found by a useful technique which involves the Plough and the constellation Bootes thereby showing how Virgo, Bootes and the Plough fit together in the sky.

First find the Plough. The handle of the Plough curves downwards. Follow the curve and you will come to a bright orange star. This is Arcturus in the constellation Bootes which you can add to your list of recognisable constellations. Now move downwards, approximately the same distance as Arcturus is from the last star of the Plough, and you will find Spica. This is remembered by saying "Arc to Arcturus then spike to Spica". I recommend that you consult a star atlas to learn the star patterns. Many of the stars that form the shapes of constellations are only visible when the sky is very clear. Also, it is surprising how much cannot be seen when the Moon is in the sky. I find that a pair of low magnification binoculars are useful for bringing dimmer stars into view while preserving a sense of their shape.

Having found the kite of Virgo look above and to your right and you should see Leo the Lion. Then look below and a little to the right of the kite and you should see Corvus the Raven and Crater the Cup both which you have been seen before.

If you look at the space above Virgo's kite, the tail of Leo and Arcturus in Bootes you will be looking at the constellation Coma Berenices – Berenices Hair. Unusually the constellation has no bright stars but is full of deep sky objects. It contains, for example, 8 Messier objects, all of which are galaxies. Patrick Moore describes Coma as “giving the impression of being a vast dim cluster”. It is worth scanning the area with a pair of binoculars before taking a telescope to specific targets like the Messiers. Planetarium programmes such as Stellarium will help you to select and locate specific targets.

There is a legend attached to the constellation. It is said that Ptolemy, King of Egypt went to battle with the Assyrians. His wife Berenice vowed that if he returned safely, she would cut off her hair and put it on the Temple of Venus. The King returned safely, and the Queen kept her vow. To acknowledge her sacrifice Jupiter the king of the gods put Berenice's shining tresses in the sky.

I think that is enough for this month. I will talk more about this area of the sky at one of our forthcoming AAA meetings.

Until then, clear skies.

