

Forthcoming CAWAS Meetings		
Friday 8th March	Mary McIntire	Star Trails
Friday 12th April	Dr. Andrew Green	In Search of the Aurora
Friday 10th May	Mike Frost	Lady Pioneers of the BAA

BAA Saturday 9th March 09:30 - 17:00	Practical Astronomy Show Kettering Conference Centre, Thurston Drive, Kettering. NN15 6PB.
Saturday 23rd March 09:30 - 17:30	Deep Sky Section Annual Meeting Shurdington Social Centre, Bishop Road, Cheltenham. GL51 4TB.
Friday 5th April 19:00 to Sunday 7th April 15:00	Winchester Weekend Sparsholt College, Westley Lane Sparsholt, Hampshire SO21 2NF.

Observing sessions take place at 19:00 (clock time) with RADAS members at Barby Cricket Club on Friday 8th & Saturday 30th March

March	Event	
Monday 11th	Moon near Mars	
Thursday 14th	Moon - first quarter	☾
Friday 15th	Mercury inferior conjunction	
Thursday 21st	Moon - full	☉
Wednesday 27th	Moon near Jupiter	
Thursday 28th	Moon - last quarter	☾
Friday 29th	Moon near Saturn	
April	Event	
Tuesday 2nd	Moon near Venus	
Friday 5th	Moon - new	●
Tuesday 9th	Moon near Mars	
Wednesday 10th	Jupiter stationary	
Thursday 11th	Mercury greatest elongation west	
Friday 12th	Moon - first quarter	☾

Coventry and Warwickshire Astronomical Society
The society usually meets on the second Friday in the month, at Earlsdon Methodist Church Hall. The meetings begin at 19:15 and end at 21:30.

Web Site: <http://www.covastro.org.uk>

Mailing list
Join the CAWAS mailing list and receive irregular information of astronomical events and CAWAS news.

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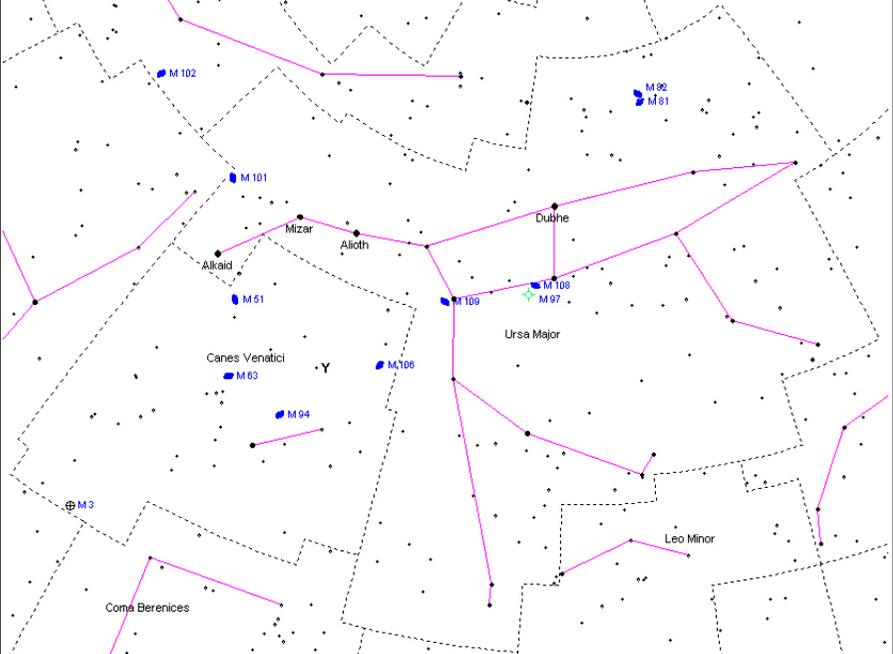
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Coventry and Warwickshire Astronomical Society

Sky Notes

March 8th to April 12th 2019 No. 258



The Great Bear and the Hunting Dogs

At this time of year Ursa Major (The Plough) passes overhead and hence is ideally placed for viewing its magnificent pair of bright galaxies M81, a spiral and M82, a starburst. Further south, lying near to the barred spiral galaxy M108 is the Owl Nebula, M97, a planetary nebula resembling the face of an owl. Not to be outdone, the neighbouring constellation of Canes Venatici contains the famous Whirlpool Galaxy, M51, with its close companion NGC5195 and on its southern boundary the globular cluster M3. Then hiding within the constellation is Y Canum Venaticorum. Called La Superba by the 19th century astronomer Angelo Secchi, it is a carbon-rich variable star (mag. +4.9 - 5.9) and is one of the reddest and coolest stars known with a temperature of just 2750 °C.

Time given in these skynotes is Co-ordinated Universal Time (UTC) known as GMT here in the UK. BST starts on March 31 at 01:00 GMT, so from that time onwards add one hour to get clock time.

Sun moves north from Aquarius into Pisces crossing the celestial equator at 21:58 on March 20 - the Vernal Equinox.

March 8th	Rise 06:37	Set 17:57	Dec $-4^{\circ} 52'$
April 12th	Rise 05:16	Set 18:59	Dec $+8^{\circ} 42'$

Moon The Golden Handle is visible on March 16, then at 19:54 on March 19 the Moon passes through perigee (Earth centre to Moon centre = 359,387.2km) so making the full Moon of March 21 another 'super moon' with an angular diameter of 33.456'.

Mercury (+2.1 9.6" to +0.7 7.6") moves from Pisces into Aquarius and as it passes through inferior conjunction on March 15 it moves into the morning sky. However, as it is always close to the eastern horizon at sunrise it will not be visible, even at its greatest elongation west of 27.7° on April 11.

Venus (-4.0 14.9" to $-3.9 12.4''$) moves from Capricornus into Aquarius and is visible very low down in the ESE just before sunrise, gradually moving north and closer to the sun as the month progresses. On April 2 the rising thin crescent Moon lies 3 below Venus.

Mars (+1.3 5.1" to +1.5 4.4") moves from Aries into Taurus (passing between the Hyades and Pleiades at the beginning of April and joined by the crescent Moon on April 9) and can be seen high in the west for the first half of the night, setting as last month around 23:25 each day. On March 11 the Moon lies 6° to the south.

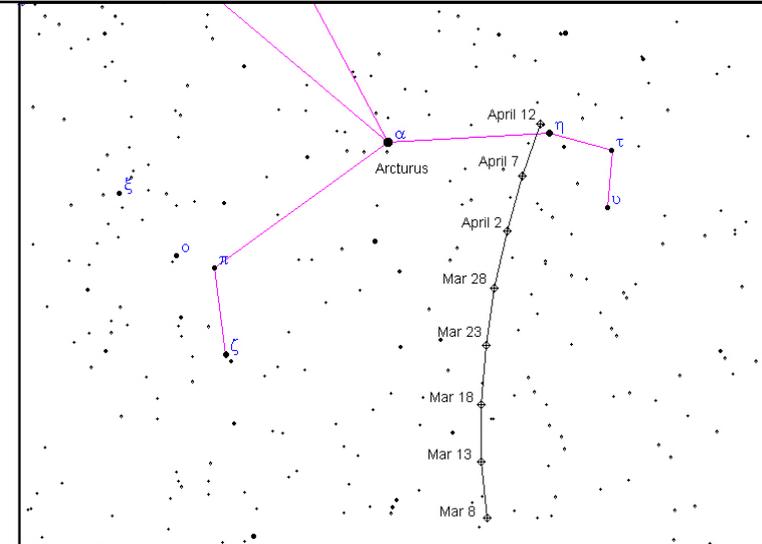
Jupiter (-2.1 37.0" to $-2.3 41.2''$) lies in Ophiuchus and can be seen low down in the south in the early hours of the morning, rising at 02:40 at the beginning of the month and 00:30 at the end. On the morning of March 27 the Moon lies 1° to the north and on April 10 Jupiter passes through its stationary point and starts to move retrograde.

Saturn (+0.6 15.7" to +0.5 16.6") lies in Sagittarius and is visible low down in the ESE in the early hours of the morning, rising at 04:30 at the beginning of the month and 02:20 at the end. On March 29 the Moon lies 1° to the south.

Uranus (+5.9 3.4") lies in Aries and is visible in the west for around an hour before sunset at the beginning of the month, but is gradually lost in the Sun's glare at the end, as it heads towards conjunction next month.

Neptune (+7.8 2.2") lies in Aquarius and is not visible this month as it is too close to the eastern horizon at sunrise. Despite this, on April 3 Mercury passes 26' to the north and on April 10, Venus 17' to the south.

Easter this year is on the wrong date! Traditionally defined as the first Sunday following the first full Moon on or after the vernal equinox, Easter Sunday should be on March 24 (as the equinox is on March 20 and the full Moon on March 21). However, it is given as April 21, one lunation later. The reason for this is that the church uses its own 'ecclesiastical' full moon and decrees that the equinox is always on March 21 regardless of its actual date. It is ironic that the reform of the calendar by Pope Gregory XIII and its leap year rules gives us our date of March 20 this year.



Asteroid 2 Pallas reaches opposition on April 6 at 16:48 when it passes within 1.6 AU of the Earth and brightens to mag. +7.9. However, it will not be due south at local midnight until April 19 due to its position north of the ecliptic. The chart above shows its path through Boötes.

Reiner Gamma is the best known example of a lunar swirl. These enigmatic features of high albedo are mainly on the Moon's far side and are associated with magnetic anomalies. Current theories are that the higher magnetic fields deflect the solar wind and reduce its weathering effects in the region. The arrow in the picture shows its location in Oceanus Procellarum.

