



DUNDEE ASTRONOMICAL SOCIETY

Sky Notes for March 2024

THE SUN



March 1 st	sunrise	7.03 am GMT	sunset	5.46 pm GMT
March 15 th	sunrise	6.26 am GMT	sunset	6.16 pm GMT
March 31 st	sunrise	6.43 am BST	sunset	7.49 pm BST

In mid-March, the sky is reasonably dark between 7.30 pm and 5.00 am GMT.

Wednesday March 20th is the Spring Equinox when the Sun crosses into the northern half of the sky, and spring officially begins in the northern hemisphere.

British Summer Time (BST) begins on Sunday March 31st; clocks should be put forward by one hour.

The Sun lies in the constellation of Aquarius for the first part of March, and then moves into neighbouring Pisces from Tuesday 12th onwards.

The sunrise, sunset and twilight times given here are for Dundee but generally apply across central Scotland.

THE MOON



The Moon is at waning gibbous phase at the start of March, coming up in the south-east after midnight.

Last Quarter is on Sunday March 3rd. The half-illuminated Moon rises in the early hours of the morning and is very low in the south at dawn.

The waning crescent Moon may be seen low above the south-east horizon for the next couple of mornings before it disappears into the bright dawn twilight.

New Moon is on the morning of Sunday March 10th, and the very narrow young crescent might be spotted low above the western horizon after sunset on the following evening, Monday 11th.

A few nights later, on Wednesday 13th, the crescent Moon will lie immediately to the right of Jupiter as the sky grows dark. On the following evening, Thursday 14th, the Moon will be well to the upper left of Jupiter, close to the Pleiades star cluster.

First Quarter is on Sunday March 17th, when the half Moon will be high in the south in the evening twilight, shining among the stars of Gemini.

March's **Full Moon** falls on the morning of Monday 25th. The Moon rises in the east almost an hour before sunset on Sunday 24th, and is in the south at midnight. The Moon sets again in the west shortly after sunrise on the 25th.

Late on the evening of Tuesday 26th, the broad waning gibbous Moon lies just to the left of the bright star Spica in the constellation of Virgo. By the end of the month the Moon is once again rising after midnight and appears low in the south at dawn.

OBSERVING THE MOON IN MARCH

Ken Kennedy

As March is probably the best month to observe the Moon near to first quarter and the features to be seen are very similar to those which I described in February, I will give a chronological list of dates and features best seen on these dates.

March 1st: The Moon is 21 days old and only at an elevation of 13°, transiting at 04.09 UT. **Last Quarter** is on March 3rd but the Moon remains at a very low elevation until:

March 10th: **New Moon**. Elevation 29°

March 11th: A very thin 1.4 day old Moon in west shortly after sunset. See if you can catch this very slim crescent!

March 12th: The 2.4 day old Moon a bit higher after sunset. Terminator passes through Mare Crisium, Langrenus and Petavius.

March 13th: 3.4 day old Moon sets at 23:20 UT. From north look for Endymion, complete Mare Crisium, and towards the south, the east end of Vallis Rheita.

March 14th: Transit at 16:00 UT, elevation 55°. Towards north, following Endymion, craters Atlas and Hercules, Proclus outside west wall of Mare Crisium, Large irregular crater Janssen to the west of Vallis Rheita.

March 15th: 5.4 days old, transit at 59°. To the North, Posidonius is well placed. Theophilus, Cyrillus and Catharina, west of Mare Nectaris, emerging from terminator. Note also Fracastorius and Piccolomini (at east end of Rupes Altai).

March 16th: 6.4 days, elevation 61° at 17:52 UT. Towards north, Aristoteles and Eudoxus exposed. Terminator over west side of Mare Serenitatis, Julius Caesar, just north of the east end of Rima Ariadaeus. Southwards is the complex of craters with Maurolycus standing out at a similar latitude to Janssen.

March 17th: 7.4 days at 62° elevation at transit. In easterly Mare Imbrium, Cassini, Aristillus and Autolycus close to the terminator. Mons Hadley and Bradley in Montes Apenninus. Rima Hyginus and

Triesnecker and rills ideally placed. Off southwards into the jumble of craters and Werner may stand out as a regularly shaped medium sized crater at a similar latitude to Piccolomini. If it is clear – a great evening for lunar observation!

March 18th: Another great evening for the Moon. North in the Montes Alpes. Plato is a must and just south of Plato, on the floor of Mare Imbrium, Mons Pico should be casting a long shadow. Archimedes with its ejecta blanket then Eratosthenes at the west end of Montes Apenninus. Further south to Mare Nubium and look for the thin line of Rupes Recta, beside the small crater Birt. South again to see Tycho very close to the terminator and Clavius emerging from shadow.

March 19th: The 9.4 day old Moon brings us Copernicus, the outstanding crater for this evening which is just south of the Montes Carpatius which are worth a look. South to Mare Nubium again and the relatively isolated crater Bullialdus always catches the eye. Further south and Clavius is fully exposed with Blaucanus close on its south-west side and Moretus, south again, standing out with its central peak.

March 20th: 10.4 days and transiting at 55° at 21:20 UT. The terminator is sliding off the western end of Sinus Iridum so have a look at Promontorium Laplace. Kepler and Gassendi are just waiting to emerge into light as the terminator passed over Mare Humorum. A good night to look for the arcing rills of Rimae Hippalus to the east of Mare Humorum.

March 21st: Sinus Iridum is out of shadow and bright Aristarchus is just emerging. Kepler and its ray system is now well clear of the terminator, but move south to find the large bay of Letronne, just north of Gassendi which is nicely placed for examination of its floor. More southerly, look for the elongated crater Schiller with the odd ridge on its north-west floor.

March 22nd: Aristarchus and Herodotus with the Vallis Schroteri are well clear of the terminator. Can you see nearby flooded crater Prinz with its delicate sinuous rilles? Towards the south, just north-east of Schiller, the large crater Schickard with its mottled floor can be seen.

March 23rd: The 13.4 day old Moon transits at 40° at 23:27 UT. Most notable on this night is the emergence of dark floored Grimaldi. Have another look at the shading of the floor of Schickard.

March 25th: **Full Moon** at 35° transit elevation. Libration is quite neutral so have a general look at the various maria and note the differences in colour and shading.

March 26th: As the Moon starts to wane, its elevation also drops and by the 27th has reached 18°. Transit is at 01:25 UT but you may like to have a look at Vallis Rheita with opposite illumination – but the Moon's elevation will be quite low in late evening.

For the remainder of March, the Moon is at a very low elevation and rises late, so it's probably best to await the new moon in April.

THE PLANETS



Mercury is at **greatest elongation** from the Sun on March 24th, the best evening appearance of the planet this year. It begins to appear low in the west in the evening twilight during the second week of March; on Friday 15th it will be setting an hour-and-a-half after the Sun. For several days on either side the 24th it will be setting two around hours after sunset and will be visible as a bright 'star' of magnitude -0.2 around 10° high above the western horizon as the sky gets dark.

Venus rises shortly before the Sun during March and will be hidden in the bright glow of dawn.

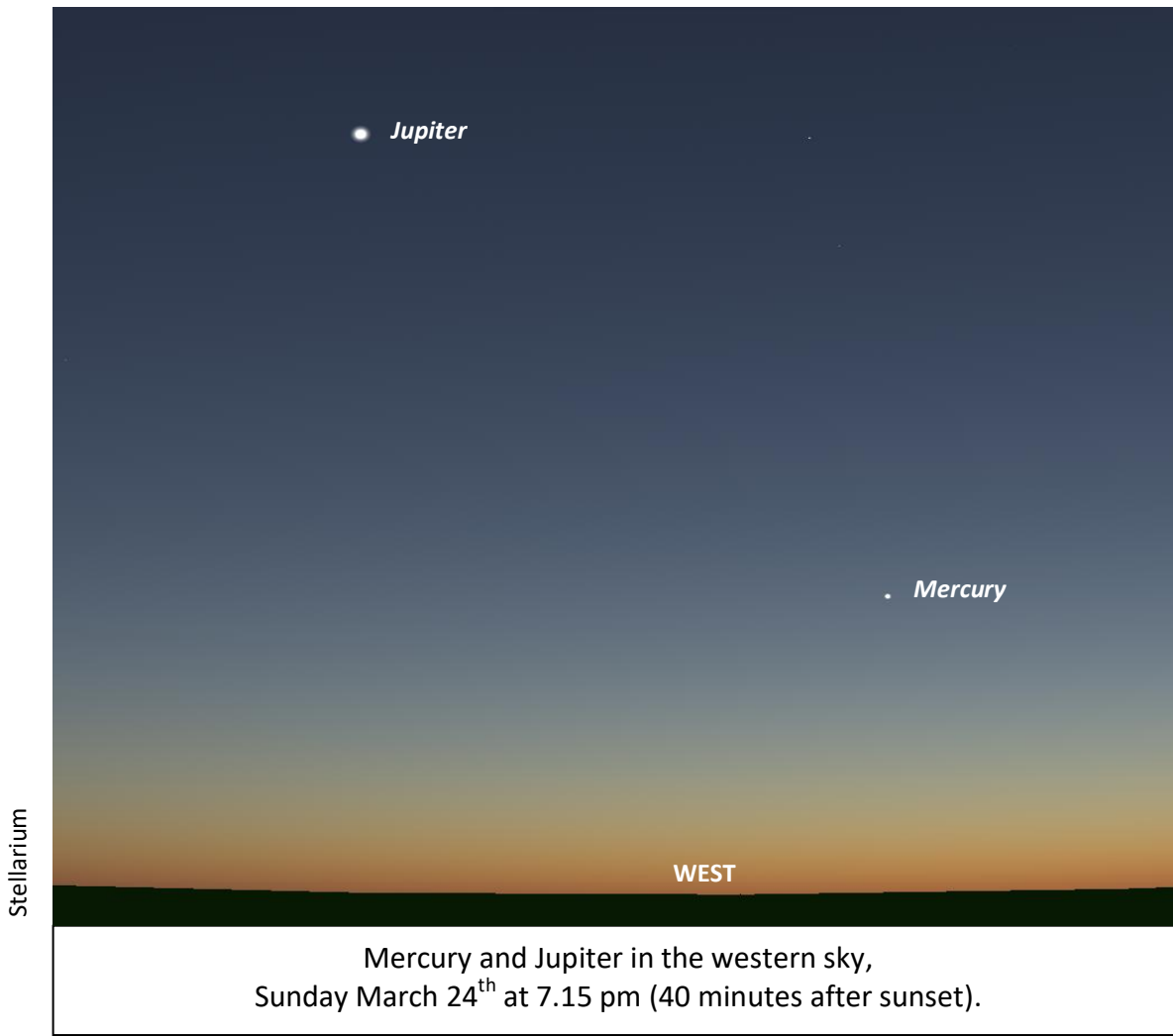
Mars is also rising less than an hour before the Sun and it too will be out of view this month.

Jupiter continues to shine brightly at magnitude -2.2 in the evening sky, appearing high in the south-west in the twilight at the beginning of March. However it slowly sinks lower each evening and is now setting in the west before midnight.

Saturn is rising only minutes before the Sun, and won't be visible this month.

Uranus, at magnitude 5.8, lies to the upper left of Jupiter, and over the course of the month the distance between the two objects shrinks from 8° on the 1st to just 3.5° on the 31st. The two planets may then be seen in the same binocular field, but will be low in the north-west by the time it gets dark.

Neptune is in conjunction with the Sun this month and won't be visible.





THE STARS

March is a month of changes in the sky; the winter constellations have slipped into the south-west, and the spring stars are now climbing higher in the south-east.

The hourglass outline of **Orion** the Hunter is dipping lower in the evenings, though you can still follow the line of his belt to the left towards **Sirius**, the Dog Star. Sirius appears to sparkle even more strongly as it approaches the horizon. To the upper right of Orion is the V-shaped head of **Taurus** the Bull and the star cluster of the **Pleiades** or Seven Sisters.

High above Orion is the bright star **Capella**, in the constellation of **Auriga**, and also the twin stars of **Gemini**, **Castor** and **Pollux**. Between Gemini and Sirius, to the left of Orion, is **Procyon**, the Little Dog Star.

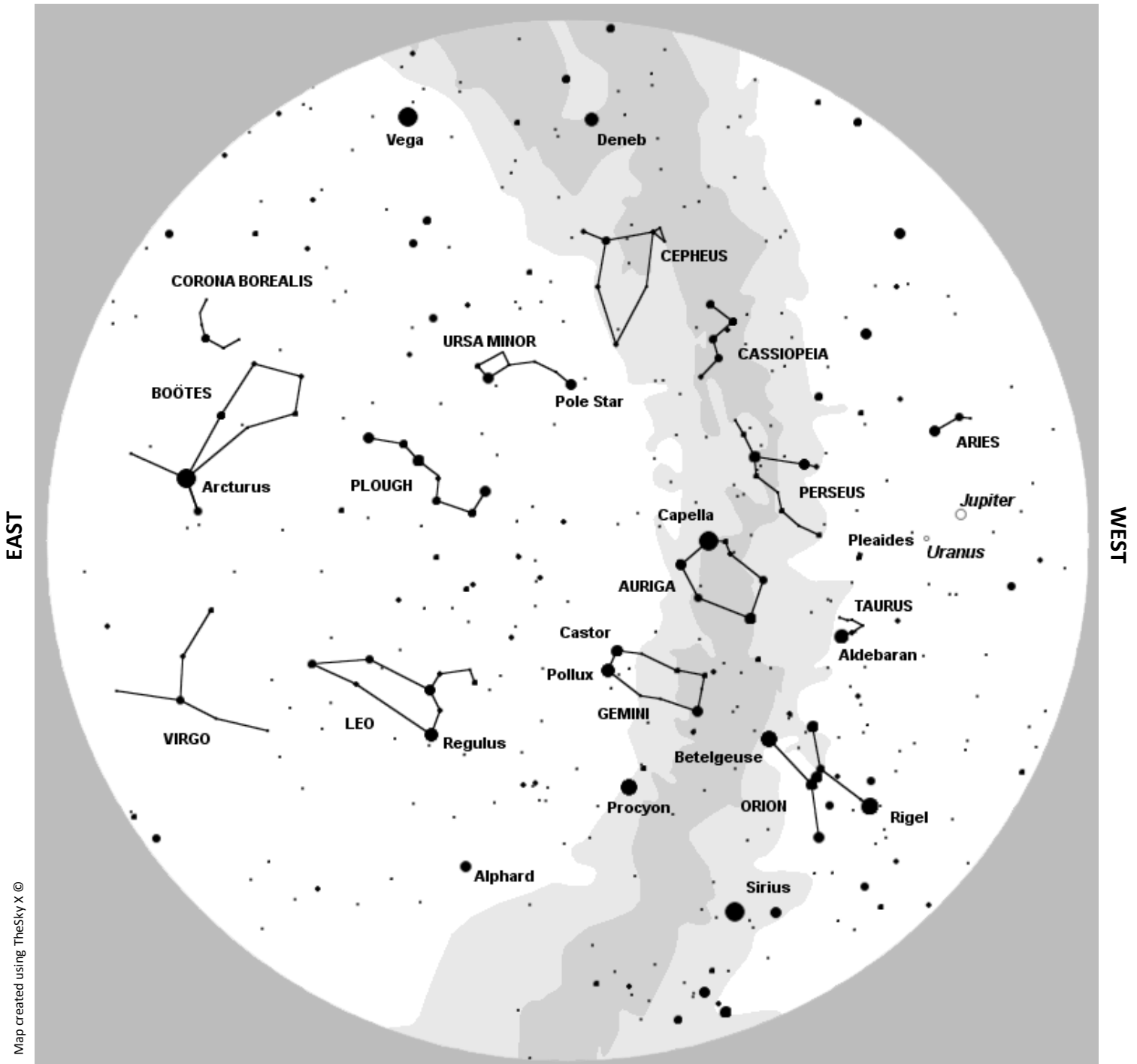
Lower in the north-west are the stars of **Perseus**, the 'W' of **Cassiopeia**, and the faint outline of **Cepheus**. Just above the northern horizon are the bright stars **Vega** and **Deneb**, which rise into the north-east in the early hours of the morning.

The seven stars of the **Plough** are almost overhead, with the two 'pointer' stars showing the way to the **Pole Star**; the curve of the Plough's handle leads down to the bright red giant star **Arcturus** in the east. Arcturus sits at the base of the kite-shaped constellation of **Boötes** the Herdsman. To the north-east of Boötes is the distinctive semi-circle of stars representing **Corona Borealis**, the Northern Crown.

High in the south-east is the distinctive shape of **Leo** the Lion, its head marked by the curve of stars known as the 'Sickle' with the star **Regulus** at the bottom. To the lower right of Regulus is a bright yellow star, **Alphard**, brightest star in the long and straggling constellation of **Hydra**, the many-headed serpent of mythology. Between Leo and Boötes, nearer the horizon, are the stars of the zodiacal constellation **Virgo** which form the pattern of a large and distorted 'Y'.

The **Milky Way** appears as a faint band of light stretching from Deneb in the north, through Cassiopeia, Perseus and Auriga, into the south-west past Gemini and Orion. As we move into spring, the Milky Way sinks lower towards the west and becomes less prominent.

NORTH



EAST

WEST

SOUTH

THE SKY AT 9 PM GMT IN MID-MARCH

The map above shows the night sky as it will appear from central Scotland at the time and date shown. The point in the sky directly overhead is at the centre of the map; the outer circle is the horizon with the cardinal compass points in the direction shown.

The map shows the brighter stars that are visible to the unaided eye. Some of the more distinctive constellations are outlined. The positions of the planets are plotted for the middle of the month.