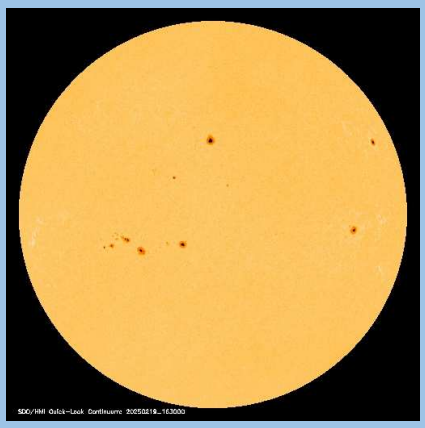
Newsletter

Wiltshire Astronomical Society

March 2025

Inside:



SOHO Photo
Sunspots visible 19 Feb 2025

Upcoming Observing Session

Prime Session **Friday 21st March 2025**
Back Up Friday 28th March 2025

Start time 19:30 Hrs.
Please look out for a confirmation email from Chris that the session is either ON or OFF (Also shown on the Members Facebook page)
Location:
Red Lion Pub carpark SN15 2LQ
W3W - airbag.shudders.losing

Sign up to the Observing Mailing List here: https://wasnet.org.uk/observing/

Advance Notice

We are planning a special Partial Solar Eclipse viewing session on Saturday 29th March 2025 at the usual viewing area or very nearby depending on permissions. This will be daytime event with the eclipse starting at 10.07 GMT **(This does not replace our usual observing sessions).**

Various special viewing instruments will be available as well viewing glasses. These will all be well supervised to ensure safety of all those attending.

The committee will make further updates relating to this event, with announcements made via email and on both the members Facebook page and the public Facebook page.

If any members want to help and bring along any suitable viewing please let one of the committee know or via the contact@wasnet.org.uk

Wiltshire AS Contact Info:

Chairperson: Simon Barnes

Newsletter: Simon Barnes

Treasurer and Membership: Sam Franklin

Speaker secretary: Position Vacant

Observing Sessions coordinators: Chris Brooks, Jon Gale,

Web coordinator: Sam Franklin

Committee Member: Tracey Kelly

Contact the Society here:

Email: contact@wasnet.org.uk

Website url: https://wasnet.org.uk/

Follow our Public Facebook Page
https://www.facebook.com/Wiltshire-Astronomical-Society-154077261327030/

Join the members only Facebook group:
https://www.facebook.com/groups/wiltshire.astro.society/

Committee Page:

https://wasnet.org.uk/committee/

Member Society

2025 Upcoming Speakers:

4th March	**Was Einstein 100% Right?**	Professor Malcom MacCallum (Z)
1st April	**Astronomical Causes of Climate Change**	**James Fradgley** (Z)
6th May	**Lunar Geology**	Barry Fitzgerald (Z)
3rd June	**6 various topics TBA**	Society Members (Z)

****Interested in Joining the Society? See https://membermojo.co.uk/was/**

Report from the Chair

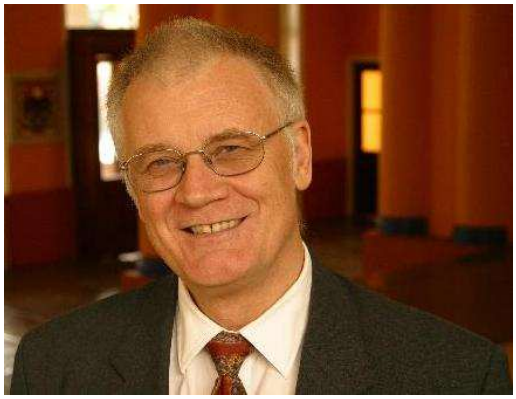
Hello Members.
I would like to remind you about the June meeting where we are looking for volunteers to give 10 minute presentations about an astronomical topic that is their main interest. Or if they have questions that maybe can be answered by other members. Please consider this, this type of meeting can help to connect to other members. I would appreciate if you could let me know by email to contact@wasnet.org.uk

I have received one draft logo to update our logo you see at top left of this page. Send us your ideas, it does not even necessarily have to be a drawn logo, thoughts written down will also be welcome.

One more reminder! Any suggestions for a different hall venue with WiFi?
Please read last months Newsletter for further details.

Welcome to our March 2025 Zoom Speaker:
Professor Malcolm MacCallum M.A., Ph.D., F.I.M.A., F.R.A.S., F.Inst.P.

Topic: "Was Einstein 100% Right?"



Speaker biography:

Emeritus Professor of Applied Mathematics, School of Mathematical Sciences, Queen Mary, University of London,

Golden Oldies Editor and Associate Editor,
"General Relativity and Gravitation"

Webmaster, Old Maidstonian Society and St. John of Jerusalem Festival Chorus, Hackney as well as many other eminent positions.

Interests: Most aspects of classical non-Newtonian gravity theory.
Computer algebra applied to differential equations (nothing to do with gravity).
In general relativity and gravity theory, my particular interests are in spacetime invariants and their applications; exact solutions of the Einstein equations; applications of algebraic computing; anisotropic and/or inhomogeneous cosmologies; theory of gravitational waves; black holes; and asymptotics. I have also written on twistor theory, and on thermodynamics.
In computer algebra, I am interested in the design and applications of manipulators for use in differential geometry and gravity theory, and in the solution of ordinary differential equations, and I use in particular REDUCE and SHEEP/CLASSI in those applications.

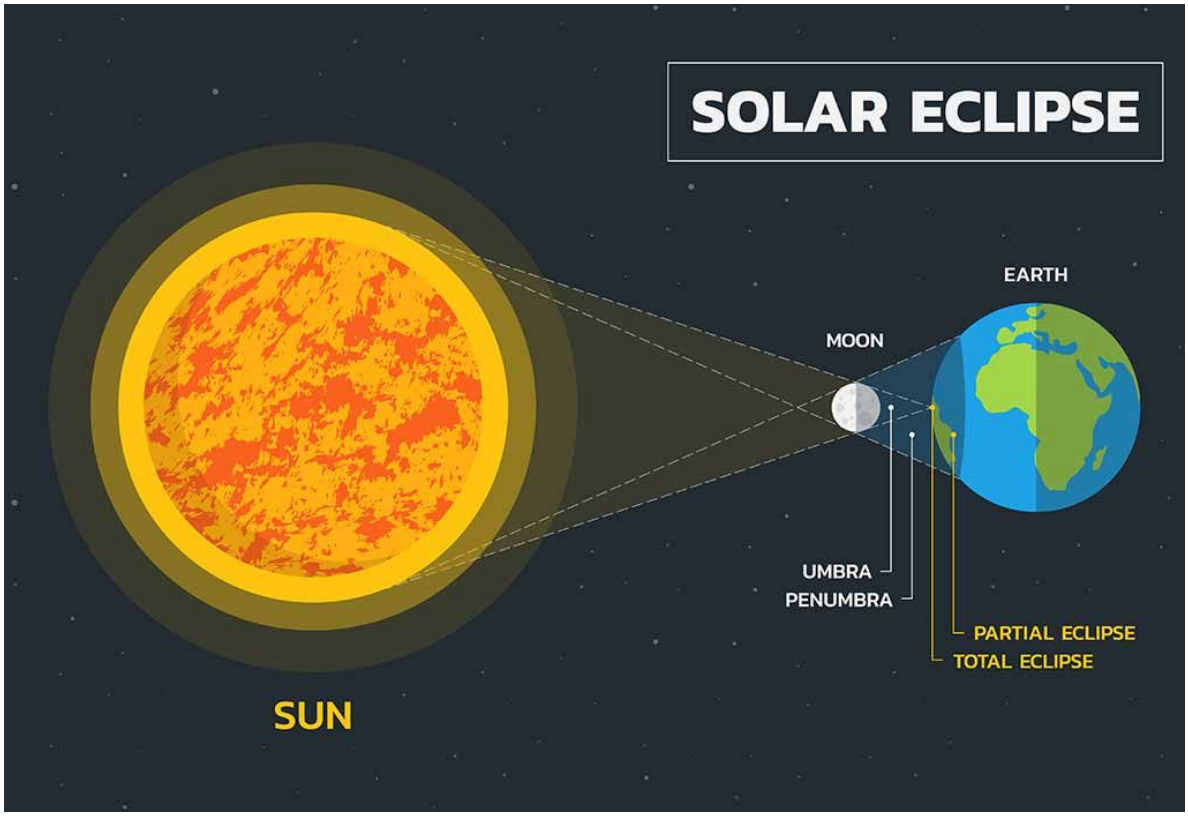
I have recently become interested in quantum computing, but more as a spectator than a participant.

Partial Solar Eclipse on 29 March, 2025

Just two weeks after the total lunar eclipse, a partial solar eclipse will grace the skies. On 29 March 2025, this event will be visible from northeastern North America, parts of Europe and the Arctic. Observers in Europe, including the UK, will see the eclipse mid-morning, with coverage varying (London: 31%, Cardiff: 35% and Edinburgh: 41%).

All observers must use solar eclipse glasses or solar filters to safely view any part of the event!!!

The event begins at 10:07 GMT with maximum coverage at 11:03 and ending at midday.



Moon—March 2025 Phases with Rise and Set Times

March 2025

Sun	Mon	Tues	Wed	Thur	Fri	Sat
23 Sun: 07:08 17:41 Moon: 05:06 11:33	24 Sun: 07:06 17:42 Moon: 05:51 12:46	25 Sun: 07:04 17:44 Moon: 06:23 14:10	26 Sun: 07:01 17:46 Moon: 06:46 15:40	27 Sun: 06:59 17:48 Moon: 07:04 17:10	28 Sun: 06:57 17:50 Moon: 07:18 18:39	1 Sun: 06:55 17:51 Moon: 07:31 20:08
2 Sun: 06:53 17:53 Moon: 07:44 21:39	3 Sun: 06:51 17:55 Moon: 07:58 23:10	4 Sun: 06:48 17:56 Moon: 08:15 ——	5 Sun: 06:46 17:58 Moon: 08:38 00:42	6 Sun: 06:44 18:00 Moon: 09:12 02:10 First Qtr., 16:33	7 Sun: 06:42 18:02 Moon: 10:00 03:27	8 Sun: 06:40 18:03 Moon: 11:04 04:26
9 Sun: 06:37 18:05 Moon: 12:19 05:08	10 Sun: 06:35 18:07 Moon: 13:40 05:37	11 Sun: 06:33 18:08 Moon: 14:59 05:57	12 Sun: 06:31 18:10 Moon: 16:15 06:11	13 Sun: 06:28 18:12 Moon: 17:29 06:22	14 Sun: 06:26 18:13 Moon: 18:40 06:32 Full Moon, 06:57	15 Sun: 06:24 18:15 Moon: 19:51 06:42
16 Sun: 06:22 18:17 Moon: 21:02 06:51	17 Sun: 06:19 18:19 Moon: 22:14 07:02	18 Sun: 06:17 18:20 Moon: 23:28 07:16	19 Sun: 06:15 18:22 Moon: —— 07:33	20 Sun: 06:12 18:24 Moon: 00:42 07:57	21 Sun: 06:10 18:25 Moon: 01:53 08:30	22 Sun: 06:08 18:27 Moon: 02:55 09:19 Last Qtr., 11:31
23 Sun: 06:06 18:29 Moon: 03:45 10:23	24 Sun: 06:03 18:30 Moon: 04:21 11:41	25 Sun: 06:01 18:32 Moon: 04:48 13:06	26 Sun: 05:59 18:34 Moon: 05:07 14:34	27 Sun: 05:57 18:35 Moon: 05:23 16:04	28 Sun: 05:55 18:37 Moon: 05:36 17:34	29 Sun: 05:52 18:39 Moon: 05:49 19:05 New Moon, 10:59
30 Sun: 05:50 18:40 Moon: 06:02 20:38	31 Sun: 06:48 19:43 Moon: 07:19 23:14	1 Sun: 06:45 19:44 Moon: 07:40 ——	2 Sun: 06:43 19:46 Moon: 08:10 00:47	3 Sun: 06:41 19:48 Moon: 08:54 02:13	4 Sun: 06:38 19:49 Moon: 09:54 03:21	5 Sun: 06:36 19:51 Moon: 11:08 04:09

The March 2025 lunar eclipse will also be visible in parts of Europe, including the UK, though observers there will only catch the early phases before moonset.

In the UK, the eclipse will be only partially visible just before moonset in the pre-dawn hours of 14 March.

Here's when to see the first two phases of this total lunar eclipse from the U.K. (GMT):

Penumbral eclipse begins: 3:57 a.m. GMT (14 March)

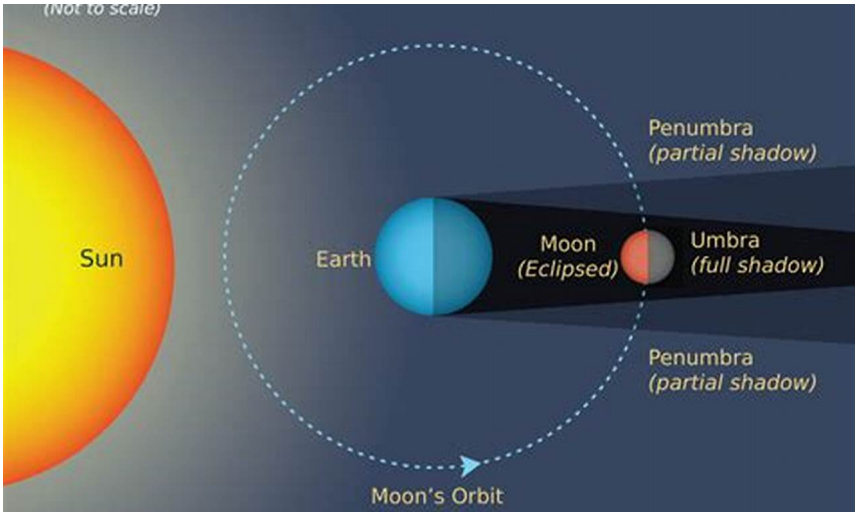
Partial eclipse begins: 5:09 a.m. GMT

Moonset at 6:22 a.m. GMT (London)

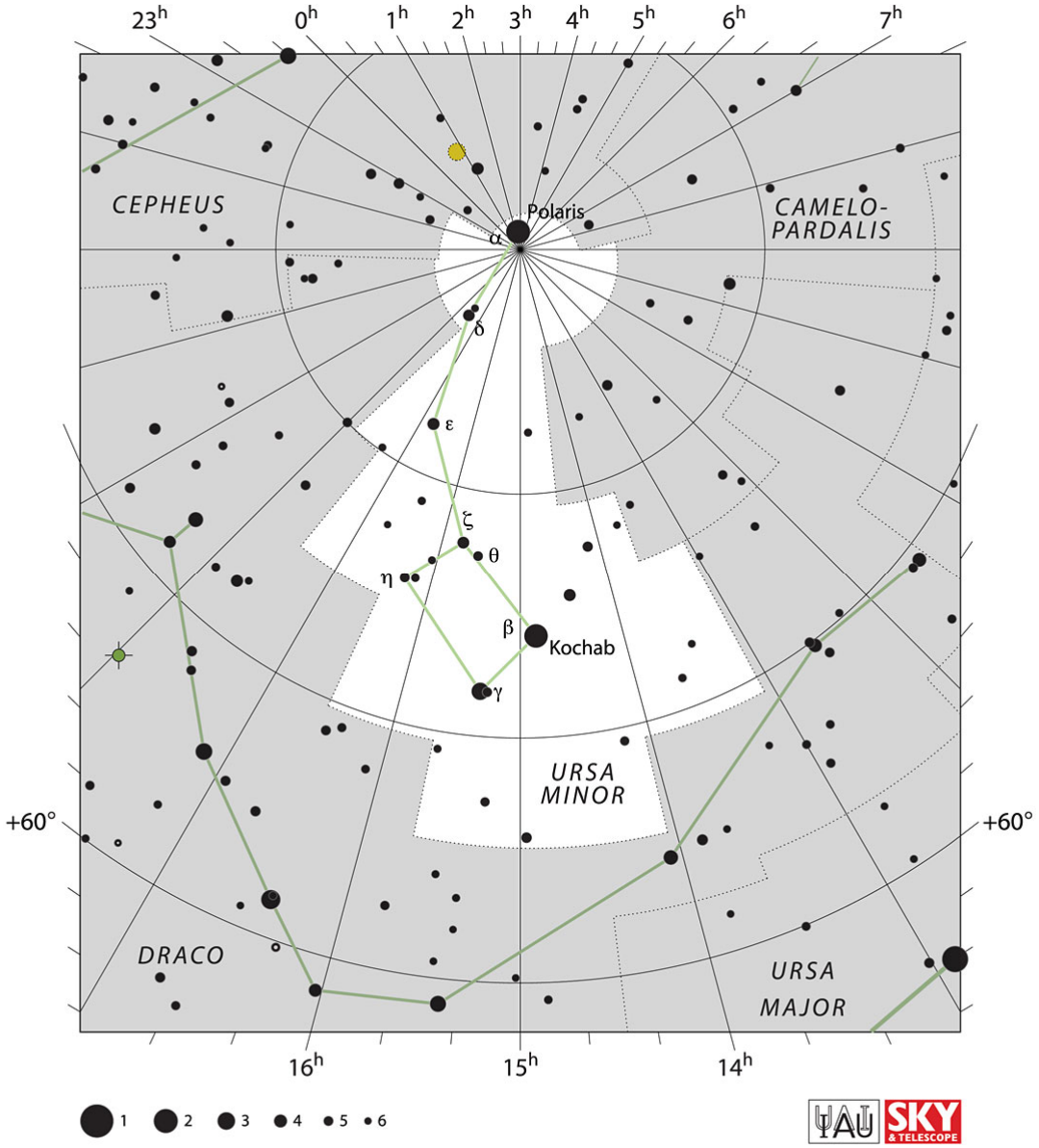
Sadly for observers in the eastern regions of the UK, the Moon will set just a few minutes before totality.

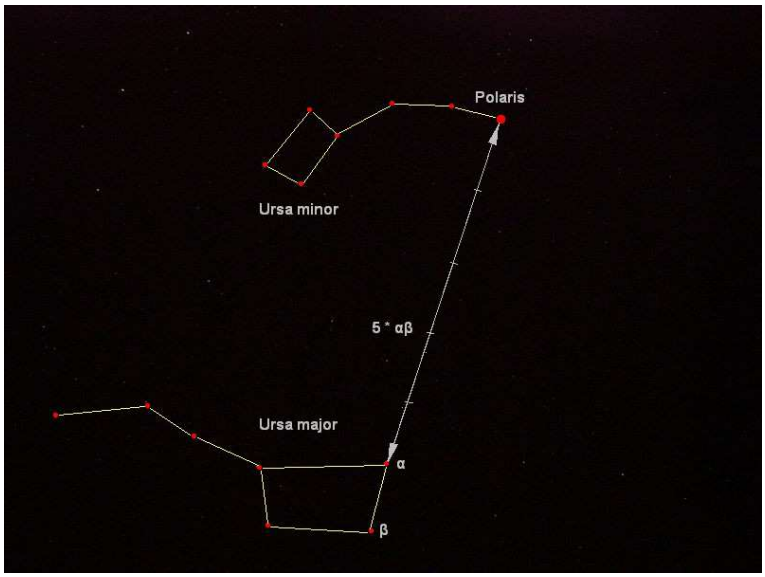
Those farther west will get the chance to witness totality for a short time before moonset, but since the moon will be setting — a time when it's already orange because of refraction by Earth's atmosphere — it's arguable whether totality will be noticeable at all.

What is certain is that the preceding partial eclipse, featuring Earth's shadow moving across the lunar surface, will be worth observing if the skies are clear.



Constellation of the Month





Ursa Minor constellation lies in the northern sky. The constellation's name means "the smaller bear" or "the lesser bear" in Latin. The Little Bear is also notable for marking the location of the north celestial pole. It is home to Polaris, the North Star. Polaris marks the end of the Little Dipper's handle and the tip of the Little Bear's tail.

Ursa Minor is the 56th constellation in size, occupying an area of 256 square degrees. It is located in the third quadrant of the northern hemisphere (NQ3) and can be seen from locations between the latitudes between +90° and -10°.

Ursa Minor contains four stars with confirmed planets and has no Messier objects. The brightest star in the constellation is Polaris, the North Star (Alpha Ursae Minoris), with an apparent magnitude of 1.97. The constellation contains 39 visible stars (brighter than magnitude 6.50). There is one meteor shower associated with the constellation: the Ursids. The Ursid meteor shower peaks between December 18 and 25 every year. It is produced by the periodic comet 8P/Tuttle (Comet Tuttle).

Ursa Minor contains five named stars. The proper names of stars that have been officially approved by the International Astronomical Union (IAU) are Baekdu (8 Ursae Minoris), Kochab (Beta Ursae Minoris), Pherkad (Gamma Ursae Minoris), Polaris (Alpha Ursae Minoris), and Yildun (Delta Ursae Minoris).

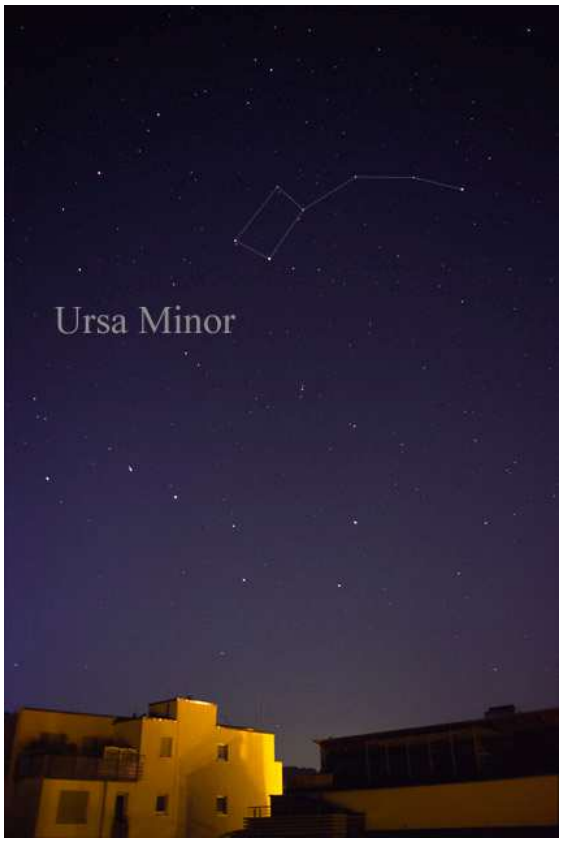
The Diamond Ring (or Engagement Ring) is a telescopic asterism that appears close to Polaris. It can be used to pinpoint the location of the north celestial pole. The asterism can be seen in binoculars and small telescopes.

The Diamond Ring is composed of 9th magnitude and brighter stars that form a circle almost a degree across near the border with the constellation Cepheus. The ring appears on one side of Polaris, while the north celestial pole appears on the other. The diameter of the ring is only a little larger than the separation between the North Star and the pole.

Ursa Minor does not host any particularly bright deep sky objects that can be easily observed in binoculars and small telescopes. The constellation does not contain any objects listed in the Messier and Caldwell catalogues. However, it is home to a single object listed in the Herschel 400 catalogue, the spiral galaxy NGC 6217. NGC 6217 is a barred spiral galaxy that appears about 2.5 degrees east-northeast of Zeta Ursae Minoris. The galaxy has an apparent magnitude of 11.2 and lies approximately 67.2 million light-years away. It has an apparent size of 55,000 light-years. It can be observed in 4-inch and larger telescopes.

NGC 6217 is classified as a starburst galaxy with an active galactic nucleus. A supernova, SN 2018gj, was detected in the galaxy in 2018. It was a Type II supernova that peaked at magnitude 14.4.

NGC 6217



Mercury reaches its highest point in the sky on 8th March (mag –0.4)

Venus passes 6.3^{0}N of **Mercury** (mag –4.4) and will be visible at dusk. Its crescent will be deceasing during the course of the month

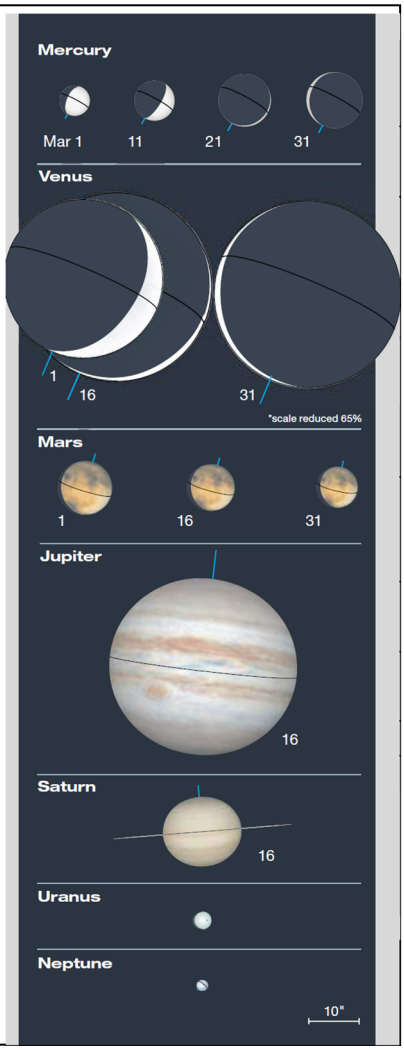
Mars Will be visible during the first half of the night, its magnitude ranging between –0.2 and 0.4.

Jupiter at magnitude –2.3 to –2.1 is best viewed before midnight, located in Taurus.

Saturn sets with the Sun.

Uranus at magnitude 5.8 is above the horizon a few hours before midnight at mag 5.8

Neptune will lie in Pisces at magnitude still at mag 7.8.



Other key moments during March:

1st March— Mercury 0.4^{0}N of the Moon (at mag –1.0) : Moon at Perigee, 361,967km

5th March— Pleiades0.6^{0}S of the moon.

6th March— Jupiter (mag-2.3) 5.6^{0}S of the moon.

9th March– Mars 1.7^{0}S of the moon

14th March– Full Moon at 06.55

14th March– Total Lunar Eclipse begins at 03.57 **GMT**

20th March– Vernal Equinox at 09.02

29th March— New Moon at 10.58

28th March— BST begins

29th March– Partial Solar Eclipse starts at 10.07 **GMT**

For further information about the current night sky, you can go to various web pages e.g., Sky and Telescope

https://skyandtelescope.org/observing

or the British Astronomical Society

https://britastro.org/news/sky-notes

ISS Sightings

I have decided to omit the ISS sightings page going forward. This data is readily available by going to the various web pages that provide such information for the public. It does not make sense to fill these pages with data that is so easily available elsewhere. This data can be tailored to a location and most members I would imagine have access to the internet. There are also Apps for your phone or tablet that sightings can be found. I have been using the Heavens Above web page, where data for many other vehicles can be accessed.

Suggested ISS Data web pages:

https://www.heavens-above.com

https://www.spotthestation.nasa.gov/home.cfm