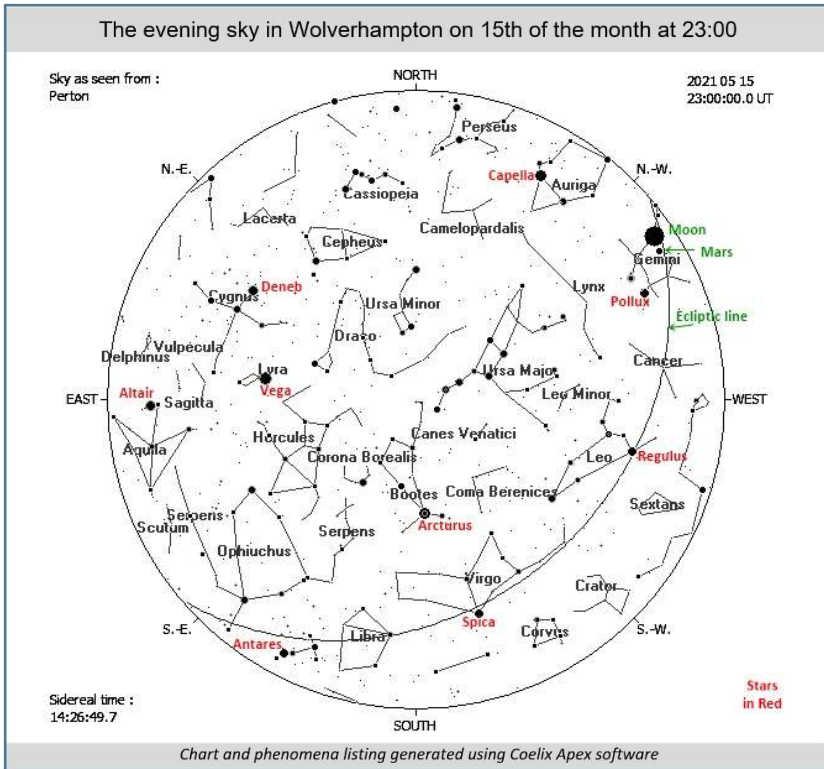


The Night Sky in May 2021

- a quick and easy guide



Monthly Guide Compiled
by Doug Bickley



MOON PHASES	
Third (last) quarter	3 May
New Moon	11 May
First quarter	19 May
Full Moon	26 May

Events this month to look out for:

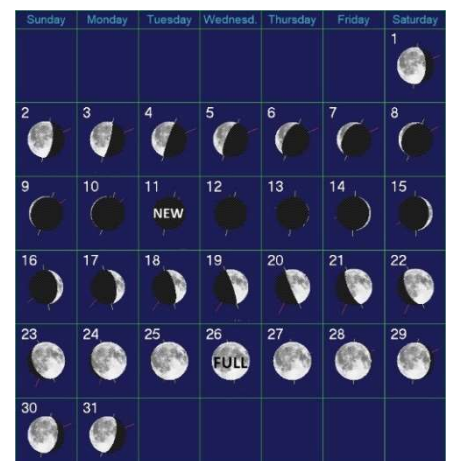
- 1 Mercury between Pleiades M45 and Venus (evening twilight)
- 3 Moon below right of Saturn (morning twilight)
- 4 Moon forms a triangle with Saturn and Jupiter (morning twilight)
- 5 Moon below Jupiter (morning twilight)
- 6 Eta Aquarid meteor shower (favourable, morning, see below)
- 13 Crescent Moon below left of Mercury (evening twilight)
- 15 Mars left of Crescent Moon close to Castor and Pollux (late evening)
- 17 Mercury at greatest eastern elongation, best evening apparition of year (evening twilight)
- 26 Full Moon near Antares (evening)
- 28 Venus and Mercury close together (evening twilight)

Moon

Full Moon is on 27 May and is the second supermoon this year. Many cultures refer to May's full moon as the Flower moon thanks to the abundant blooming that occurs as spring gets going properly. Other names include the hare moon, the corn planting moon, and the milk moon.

By the way the new moon will be a Micro New Moon. That's when the moon is at perigee, the point in the orbit farthest from Earth. Obviously a Micro New Moon is a good time to stargaze.

Moon phases this month are shown in this graphic:



generated using CoelixApex software

Planets this month:

Jupiter is in the SE in Aquarius. At the moment it is a morning planet but with a low altitude at the start of the month, Jupiter's visibility will have improved and it will reach an altitude of 20° three hours before sunrise. Jupiter reaches an equinox on 2 May and at that time the four largest Galilean moons will appear to interact with each other, this is worth viewing through a small or medium sized telescope.

Saturn is in the SSE in Capricornus. It is also a morning object at mag +0.7 but at a low altitude.

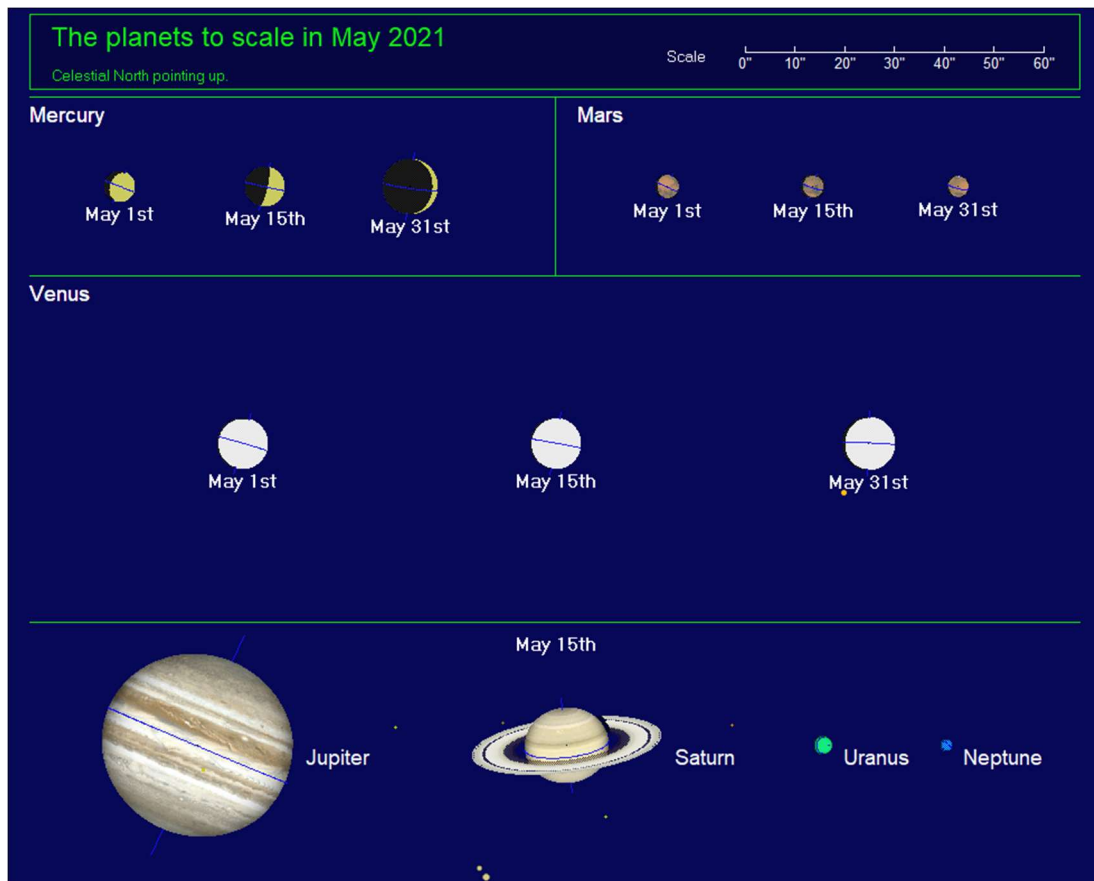
Mars is in the West in Gemini and its apparent size is still getting smaller as it pulls further from the Earth. You will need to look more closely as the evening twilight skies are lighter now.

Venus is in the NW in Taurus. It is now an evening planet, setting 50 minutes after the Sun on 1 May and 1.5 hours at the end of the month. On 28 May Mercury at mag +2.2 and Venus will appear very close low in the West. Venus at mag -3.9 is quite bright in the sky now but because it is on the far side of its orbit from Earth it will appear small.

Mercury is in the WNW in Taurus albeit at a low altitude. May is a good month for observing Mercury and since many people haven't seen the smallest planet it is worth a try. It will appear bright at the start of May when it is relatively near to the Sun, but will dim by mid-month when it is farthest from the Sun. On 1 May Mercury shines at mag -1.0 and sets 90 minutes after the Sun, Venus will be 5° away on this date, close to the Pleiades open star cluster, M45. Given clear skies it should be clearly visible. On 28 May Mercury will shine at mag +2.2 close to Venus but very low in the West.

Uranus and **Neptune** are not visible this month.

Here is a graphic showing the apparent planet sizes to scale in mid-month:



generated using CoelixApex software

Meteor Showers

Eta Aquarids

The Eta Aquarids meteor shower is expected to peak on the morning of 6 May and although the best views of this major meteor shower are had from the southern hemisphere, northern observers can still expect to see a maximum hourly rate of about 20 or so meteors but these tend to be faint.

The Moon will be a 27% waning crescent so observations will be better than for the Lyrids last month. The radiant of the shower is in the constellation Aquarius, but meteors can appear from almost any point in the sky. The Eta Aquarids shower is one of two showers that occur when the Earth passes through debris left behind by Halley's Comet, the other shower being the Orionids, which peaks during the second half of October each year.

As ever, out Top tips for meteor watchers to maximize your enjoyment and success rate are:

- *Find a place where artificial lights do not spoil your viewing.*
- *You won't need any special equipment, you should be ok with just your naked eyes.*
- *A blanket or a comfortable chair is useful - viewing meteors, just like any other kind of star gazing, is a waiting game, and you need to be comfortable. Take a warm drink and relax.*
- *Check the weather and moonrise and set times for your location and plan around these.*
- *Some people mistakenly think that, since meteor showers have radiant points, you should look in the direction of the shower's radiant point to see the most meteors. Not so! The meteors can appear in all parts of the sky.*

We would be interested to know if any of you see, or more especially manage to photograph, any meteors. Please let us know.

An update from last month.

Here is a shot of a Lyrid meteor taken last month on 22 April by Doug Bickley:



(Canon DSLR and 18mm lens on tripod, this is a crop of part of the full frame)

International Space Station (ISS) forecast time for evening passes visible this month

Data taken from the Heavens Above website, please recheck nearer the chosen day to get updates.

[source: <https://www.heavens-above.com/>]

Date	Mag	Transit time	Start			High point	End		
			Time	Alt.degs.	Az.		Time	Alt.degs.	Az.
14-May	-1.7	01:53	21:51	10°	SSE	11°	21:53	10°	ESE
14-May	-3.3	06:21	23:25	10°	SW	39°	23:31	10°	E
15-May	-2.9	05:58	22:38	10°	SSW	29°	22:43	10°	E
16-May	-2.5	05:19	21:50	10°	SSW	22°	21:56	10°	E
16-May	-3.8	06:41	23:26	10°	WSW	61°	23:33	10°	E
17-May	-3.6	06:34	22:39	10°	WSW	49°	22:45	10°	E
18-May	-3.2	06:21	21:51	10°	SW	39°	21:58	10°	E
18-May	-3.9	06:46	23:28	10°	W	76°	23:35	10°	E
19-May	-3.8	06:44	22:40	10°	WSW	70°	22:47	10°	E
20-May	-3.7	06:41	21:53	10°	WSW	61°	21:59	10°	E
20-May	-3.9	05:54	23:29	10°	W	74°	23:35	16°	ESE
21-May	-3.8	06:45	22:42	10°	W	77°	22:49	10°	E
22-May	-3.8	06:45	21:54	10°	W	76°	22:01	10°	E
22-May	-3.7	04:56	23:31	10°	W	56°	23:36	26°	SE
23-May	-3.8	06:26	22:43	10°	W	66°	22:50	12°	ESE
24-May	-3.8	06:44	21:56	10°	W	74°	22:03	10°	ESE
24-May	-3.0	04:02	23:33	10°	W	34°	23:37	28°	S
25-May	-3.3	05:38	22:45	10°	W	44°	22:51	16°	SE
26-May	-3.5	06:38	21:57	10°	W	56°	22:04	10°	ESE
26-May	-2.1	02:57	23:35	10°	W	19°	23:38	18°	SSW
27-May	-2.4	04:47	22:47	10°	W	26°	22:52	16°	SSE
28-May	-2.8	06:11	21:59	10°	W	34°	22:05	10°	SE
29-May	-1.4	03:29	22:49	10°	WSW	14°	22:52	10°	S
00-Jan	-0.8	00:15	21:20	10°	SW	10°	21:20	10°	SW
00-Jan	-1.1	03:55	20:31	10°	WSW	15°	20:35	10°	S

Phenomena of the month of May (generated using Coelix Apex software):

	Date	Hour	Description of the phenomenon
	yyyy mm dd	hh:mm	
1	2021 05 02	09:39	Close encounter between the Moon and Pluto (topocentric dist. center to center = 2.8°)
2	2021 05 03	13:34	Close encounter between the Moon and Saturn (topocentric dist. center to center = 4.5°)
3	2021 05 03	14:50	LAST QUARTER OF THE MOON
4	2021 05 04	02:06	Close encounter between Mercury and the Pleiades (topocentric dist. center to center = 2.2°)
5	2021 05 04	17:46	Close encounter between the Moon and Jupiter (topocentric dist. center to center = 5.1°)
6	2021 05 05	15:50	Meteor shower : Eta Aquarids (50 meteors/hour at zenith; duration = 38.0 days)
7	2021 05 06	16:02	Close encounter between the Moon and Neptune (topocentric dist. center to center = 4.7°)
8	2021 05 08	06:00	Meteor shower : Eta Lyrids (3 meteors/hour at zenith; duration = 11.0 days)
9	2021 05 11	13:59	NEW MOON
10	2021 05 11	16:54	Moon at apogee (geocentric dist. = 406512 km)
11	2021 05 12	18:13	Close encounter between the Moon and Venus (topocentric dist. center to center = 1.4°)
12	2021 05 13	14:49	Close encounter between the Moon and Mercury (topocentric dist. center to center = 2.6°)
13	2021 05 15	23:29	Close encounter between the Moon and Mars (topocentric dist. center to center = 0.6°)
14	2021 05 16	23:46	Close encounter between Venus and Aldebaran (topocentric dist. center to center = 5.8°)
15	2021 05 17	06:00	GREATEST EASTERN ELONGATION of Mercury (21.9°)
16	2021 05 19	14:13	FIRST QUARTER OF THE MOON
17	2021 05 19	17:24	Close encounter between the Moon and Regulus (topocentric dist. center to center = 4.0°)
18	2021 05 25	20:52	Moon at perigee (geocentric dist. = 357311 km)
19	2021 05 26	06:14	FULL MOON (total eclipse of the Moon fully visible in Perton)
20	2021 05 28	23:46	Close encounter between Mercury and Venus (topocentric dist. center to center = 0.4°)
21	2021 05 29	15:36	Close encounter between the Moon and Pluto (topocentric dist. center to center = 3.0°)
22	2021 05 30	22:52	Close encounter between the Moon and Saturn (topocentric dist. center to center = 5.0°)
23	2021 05 31	17:46	Close encounter between Mars and Pollux (topocentric dist. center to center = 5.3°)

WOLVERHAMPTON ASTRONOMICAL SOCIETY LECTURES

- Given the current situation regarding the coronavirus in the UK, and following the current Government advice to avoid all unnecessary social interaction for the foreseeable future, we have put on hold our usual face to face meetings. But the good news is that we haven't cancelled events but simply moved them online, so we can continue to bring you great talks in your own home!
- We continue to try and bring you some of the best speakers around and we have an exciting line up for the coming season.

It has been decided that for the coming year Wolvas subscription will be only £10 per annum and you can sign up now our website www.wolvas.org.uk

Lectures online will only be available to paid-up members of Wolverhampton Astronomical Society.

Here is a taster for upcoming lectures (all starting at 7.30pm on YouTube followed by Zoom Q&A).

I would also encourage you as a member to join in our informal Monday evening talks on Zoom where we can all share our tips and tricks. These evenings have proved popular with beginners who need specific advice, and at the moment is the nearest thing to face to face that we can offer.

17 May

Damian Hardwick – Inventor, Investigator and Innovator: The life of Sir John Herschel

14 June

Paul Money – Why Are There No Green Stars?

This is the end of our 2020/21 lecture programme, however we are busy planning for the next season of lectures. As well as some talks from members, our speakers will include:

Dr Steve Barrett – Liverpool University
Dr Julian Onions – Nottingham University
Alexander Binks – Keele University
Professor Ian Morison

We have regular Monday evening chat nights on Zoom, the first 30 minutes is always for beginners to ask questions and during this time we always give basic astronomy advice sometimes, with a short talk.

Invitations to these sessions are emailed to members.

These sessions are proving to be very popular.

We will also be trying to arrange some observation sessions (Covid rules compliant). Details will be emailed to members.

Watch out for updates

As well as our webpage www.wolvas.org.uk we will be posting details of events on social media, so keep an eye on our Facebook (<https://www.facebook.com/wolvasuk>) and Twitter (<https://twitter.com/wolvasuk>) accounts for the latest updates and news.