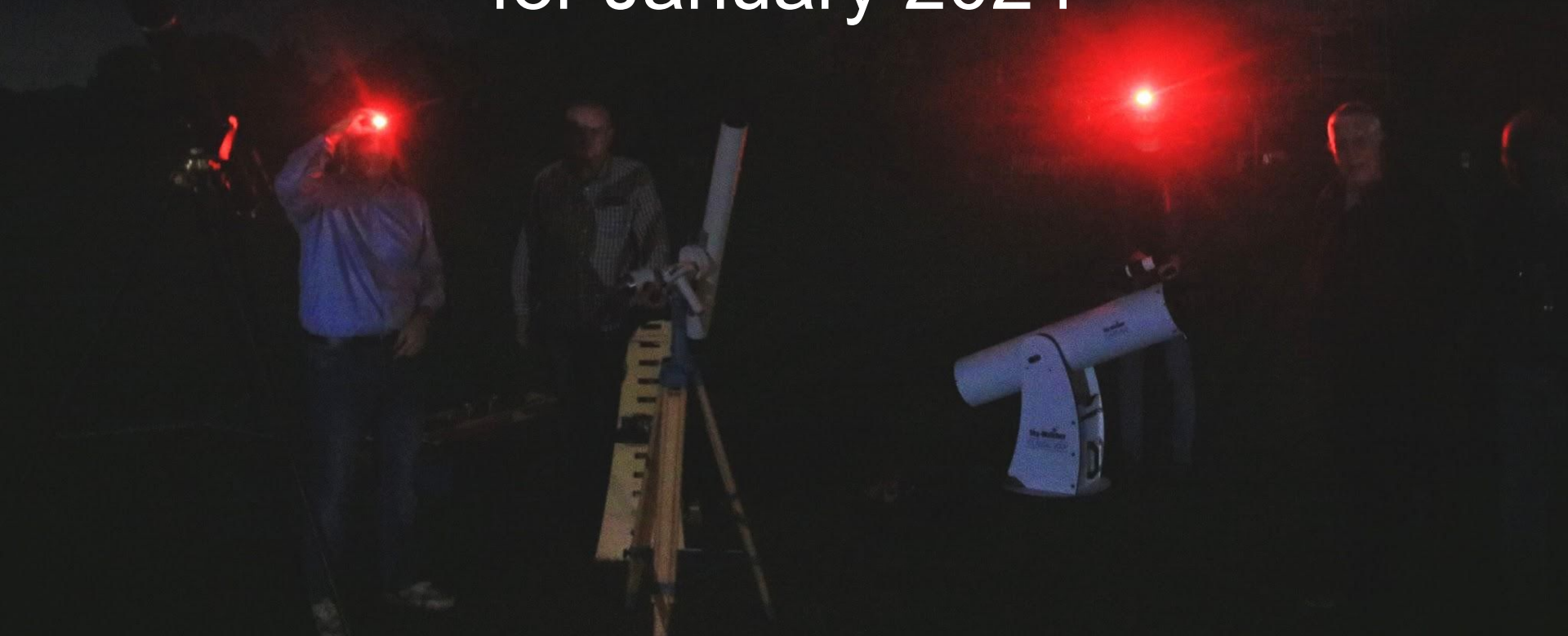




Orpington Astronomical Society

Observing Officer's report for January 2024



Sky chart

1/01/2024

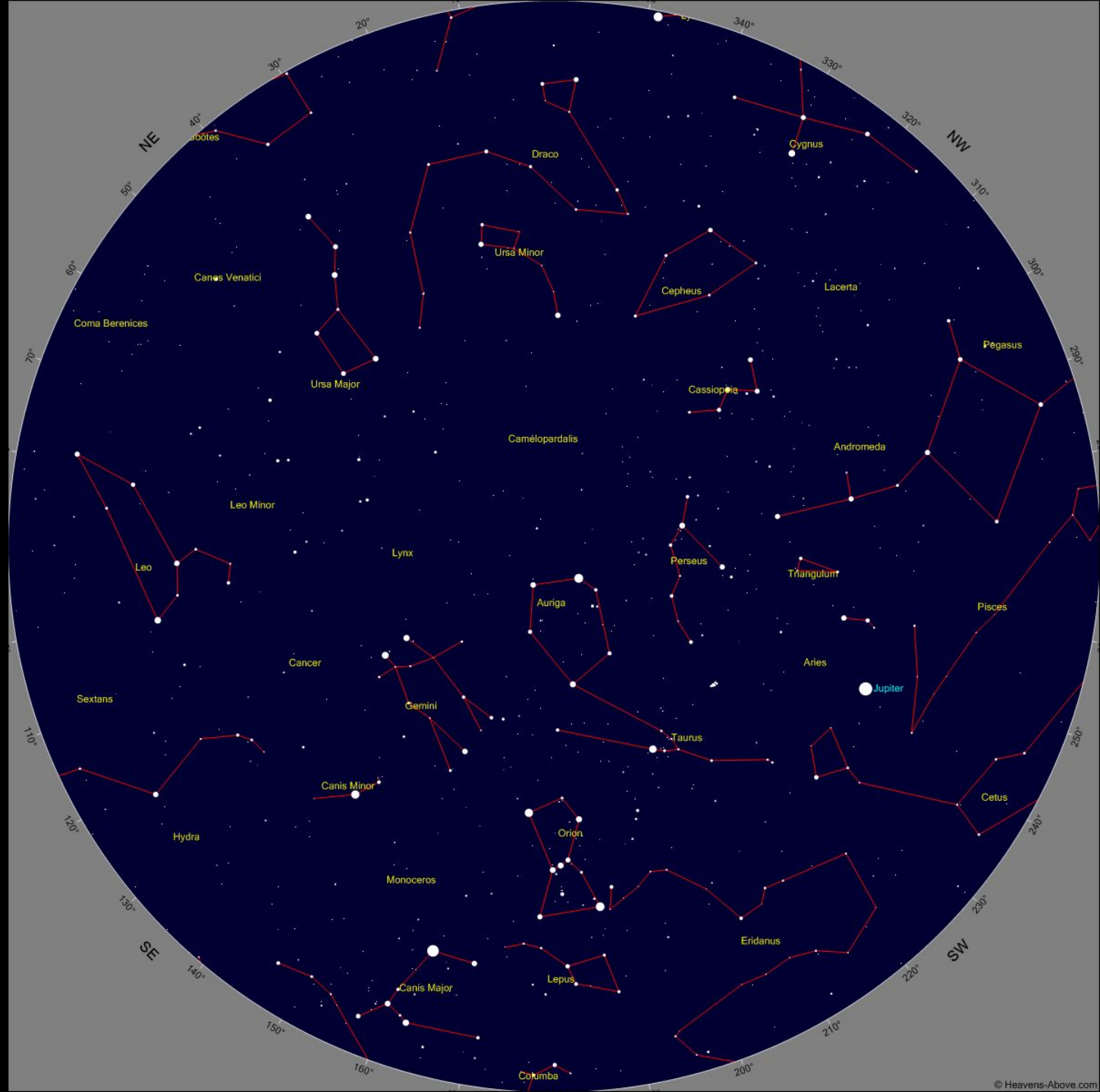
23:00

15/01/2024

22:00

28/01/2024

21:00



Source
<https://heavens-above.com/>

Phases of the Moon

3rd quarter



5th Jan
03:30

New Moon



11th Jan
11:57

1st quarter



18th Jan
03:52

Full Moon



25th Jan
17:54

Sun Phenomena in January

Date	Twilight starts *)	Rise	Set	Twilight ends *)	Day length
1 st	6:01	8:04	16:01	18:04	7:57
15 th	5:58	7:58	16:19	18:19	8:21
28 th	5:47	7:44	16:41	18:37	8:57

*) Astronomical twilight

Planets in December

Mercury - slightly difficult to see, later average visibility

Venus - good visibility @-4.0 - -3.9 mag but moving into daytime and becoming difficult to see

Mars - extremely difficult to see

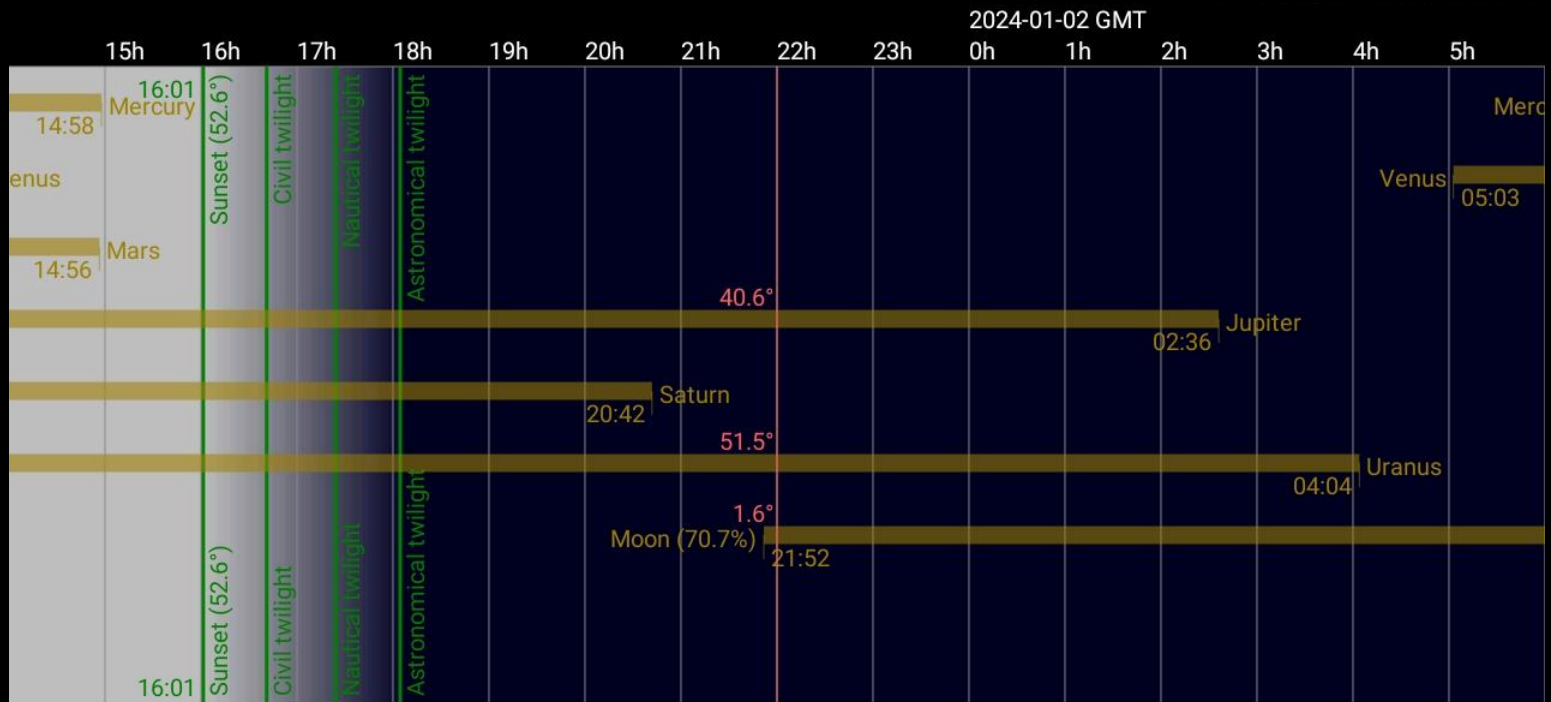
Jupiter - perfect visibility @-2.4 mag

Saturn - average visibility @1.0 mag but moving into daytime and becoming difficult to see

Uranus - average visibility

Neptune - very difficult to see

1st January



15th January



28th January



28 Dec 00:28 Mercury-Mars planetary conjunction (not visible due to proximity of Sun)

12 Jan 14 h: Mercury in greatest western elongation
Poor visibility due to shallow angle of Ecliptic. Just before the sunrise, Mercury will be no higher than 10° above the horizon.

27 Jan 14:58 Mercury-Mars planetary conjunction (not visible due to proximity of Sun)

Ursids meteor shower

Period: 17–26 Dec

Peak: 22–23 Dec

Maximum intensity: 10 meteors per hour

Parent: 8P/Tuttle

The Ursids have a particularly narrow stream, prompting veteran meteor observer, Norman W. McLeod, III (Florida) to comment that the Ursids "must be a compact stream like the Quadrantids. You have to be within 12 hours of maximum to see much."

<https://web.archive.org/web/20130724160438/http://meteorshowersonline.com/showers/ursids.html>

Quadrantids meteor shower

Period: 28 Dec–12 Jan

Peak: 3–4 Jan

Maximum intensity: 110 meteors per hour

Parent: 2003 EH

Unlike other meteor showers that tend to stay at their peak for about two days, the peak period of the Quadrantids only lasts a few hours. This year's prediction indicates for the evening on 3rd January.

The Quadrantids is also sometimes called Bootids after the modern constellation, Boötes.



**The next Observing evening will be held here
at the OVMH on Thursday 18th January
at 20:00.**

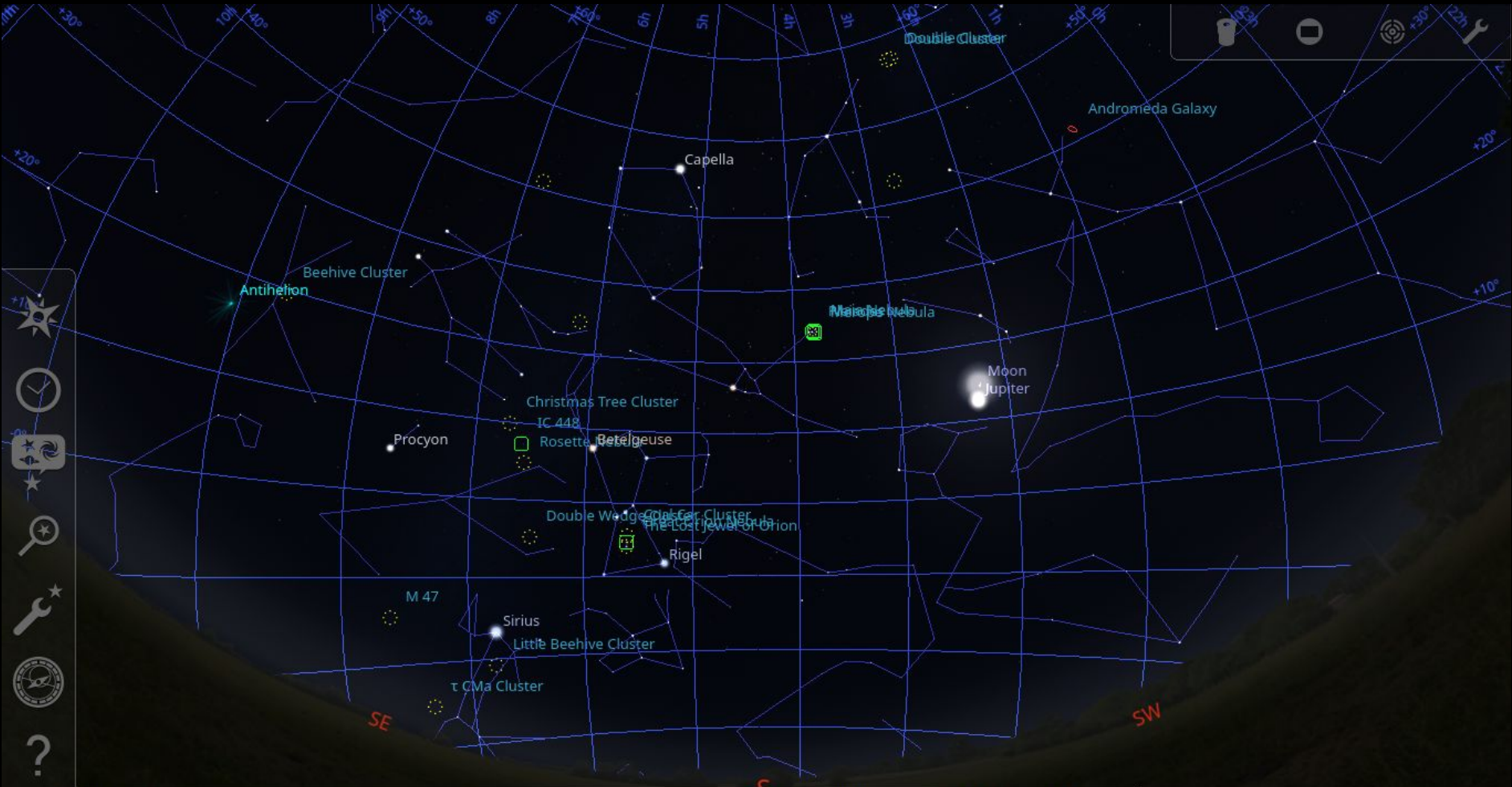
At the observing evening we will be observing:

- Moon (7 days old, 57% lit)
- Jupiter in very close proximity of the Moon (3° apart)
- Pleiades and Hyades over southern horizon
- Great Orion Nebula and possibly Rosette Nebula over eastern horizon [BBC Sky at Night - Rosette Nebula](#)
- Andromeda Galaxy, Double Cluster over western horizon

Sunset 16:24

Astronomical twilight: 18:23

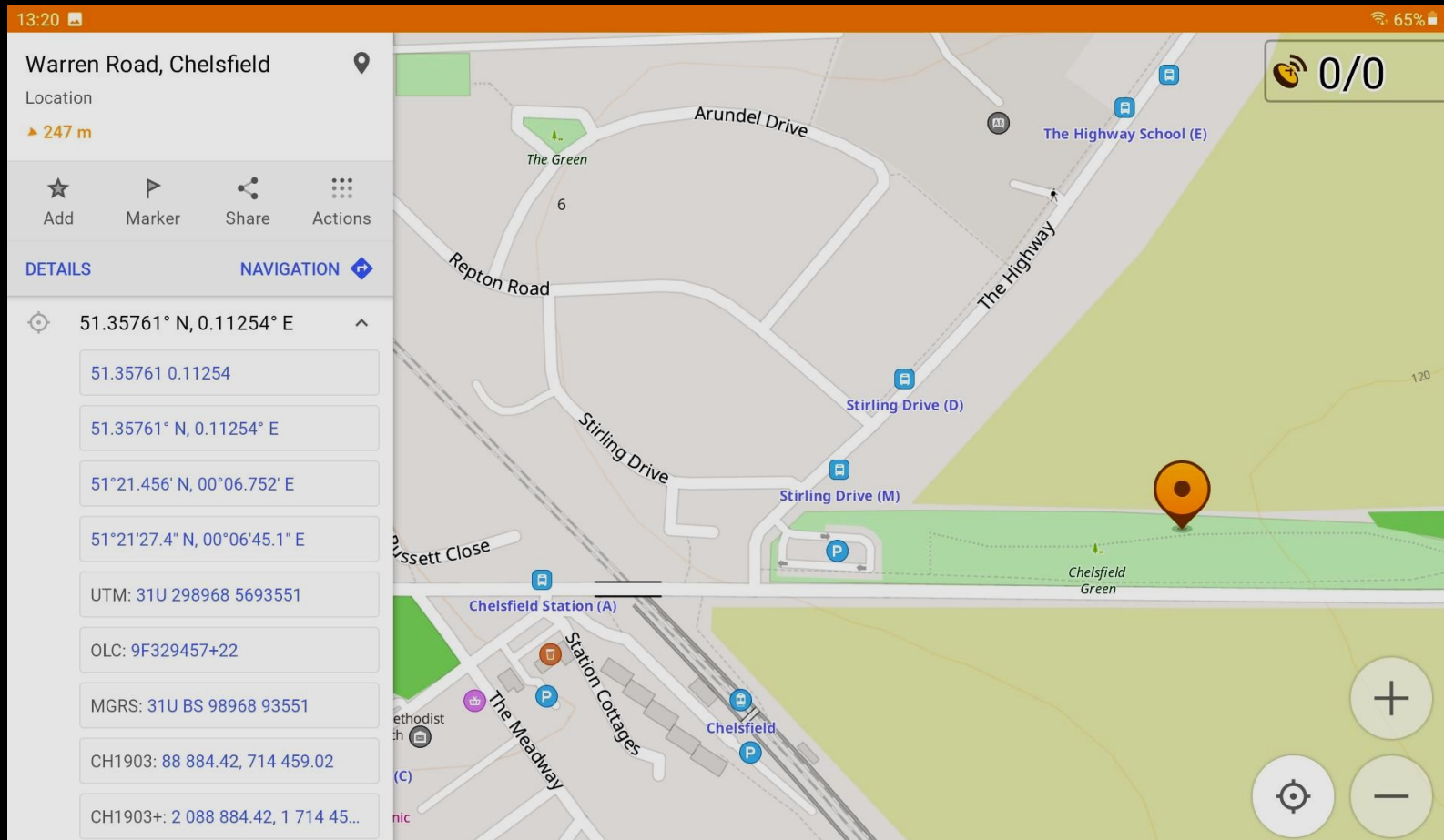




Earth, Orpington, 62 m

FOV 111° 17.9 FPS 2024-01-18 20:30:00 UTC+00:00

Informal meetings at Chelsfield Green



Keep an eye on WhatsApp channel as these might be announced at a short notice.

Few more words on halos

Sky News “Unbelievable' moon 'halo' delights onlookers in UK”

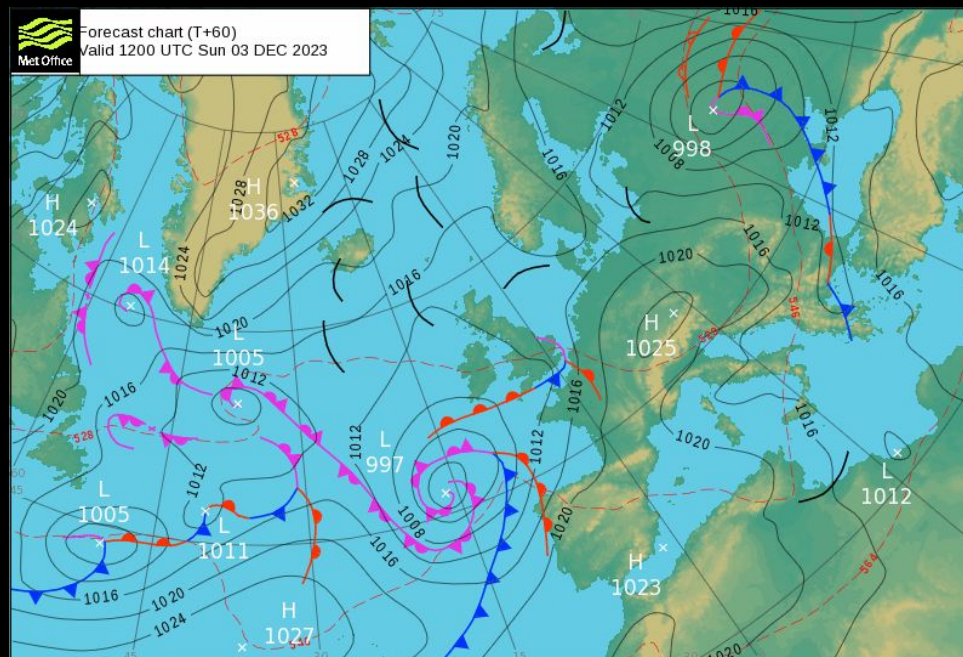
BBC News “'Halo' spotted around the Moon across England”
and “Some described witnessing the occurrence as “amazing”,
with others described it as “very weird” and “like a night time
rainbow”

“According to the Met Office, the halo can mean rainfall might be
approaching.”

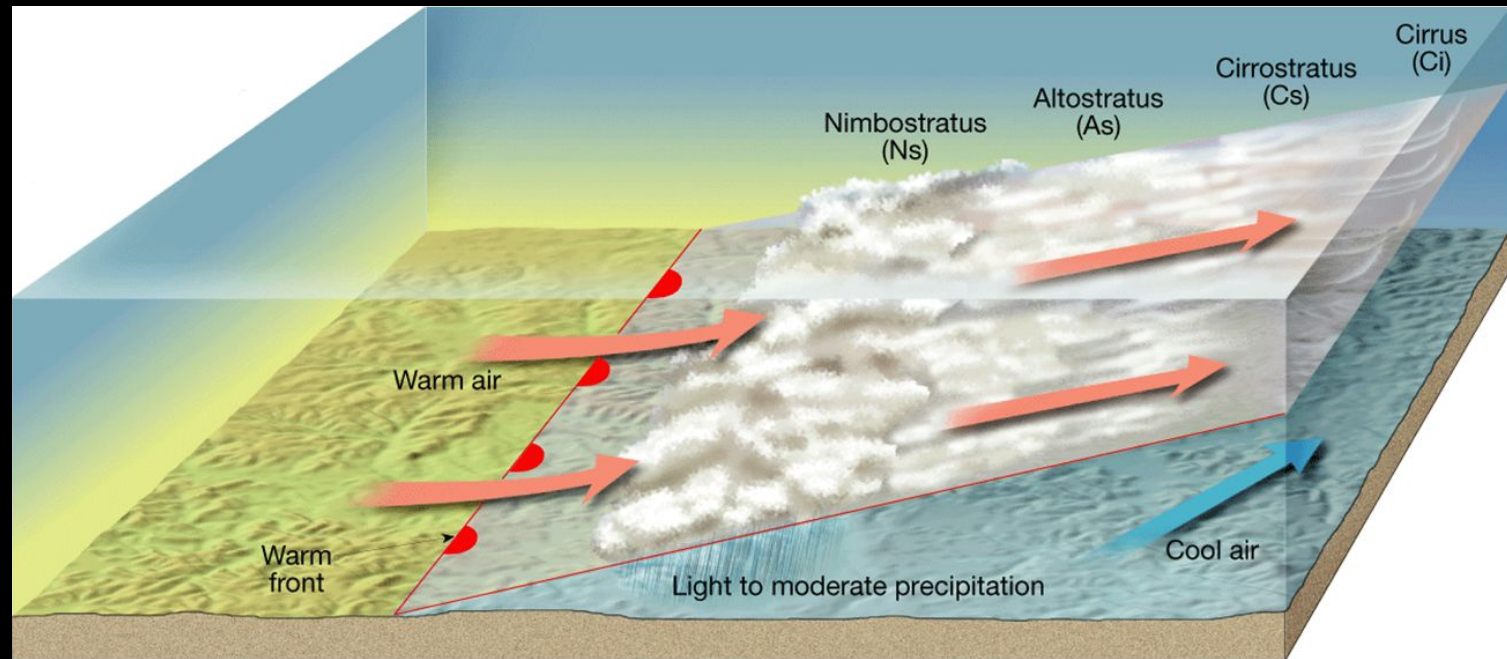
Mirror “Spooky 'halo' around the moon spotted across England
in rare space phenomenon”

A **weather front** is a boundary between two air masses. It can be thought of like the frontline in a battle, where the warm and cold air masses represent opposing sides.

Across a front, there can be large variations in temperature and humidity, as warm air comes into contact with cooler air.



Warm weather front



The first clouds, that indicate an approaching warm front tend to be mostly high cirrus at first. They are followed by cirrostratus and lower cloud formations as the front approaches.

Cirrus is a genus of high cloud made of ice crystals.

Weather and astronomy

The boundary between the two air masses has a gradual slope, sometimes as shallow as 1:200.

With the cirrus clouds usually forming anywhere above 4,000 meters (13,000 feet) above sea level, the front line is located well behind the horizon, sometimes even hundreds of miles away.

Precipitation associated with the weather front is likely to arrive about 6 to 8 hours after the first cirrus cloud formations.

Clearing and warming is usually rapid after frontal passage.

... to be continued

Thank you

