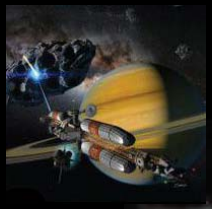
Marcham ASTRONOMY

18th March 2026

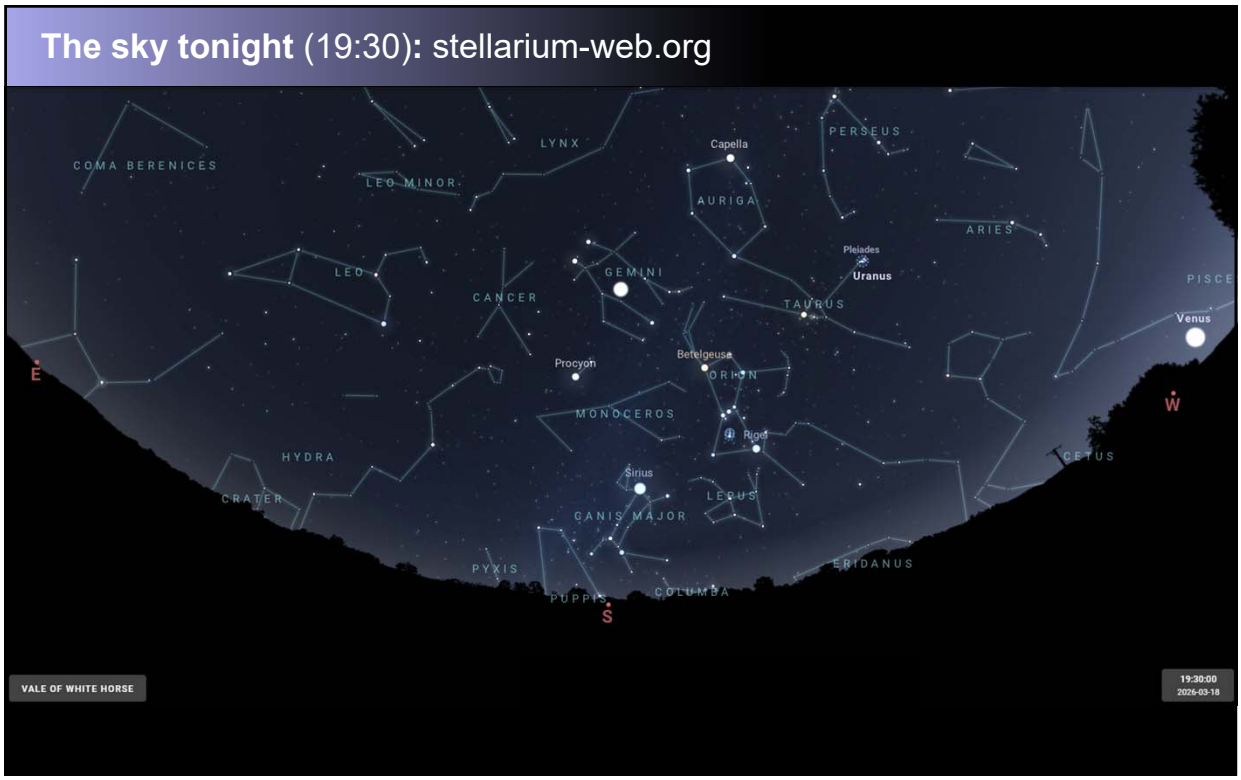
Tonight: Year 4 - Meeting No 31

- The sky tonight
- Recent news, sightings and Members' Matter
- Feature: "*Games in Space*" – Mark Buckley
- Forward look



The sky tonight (19:30)**:** stellarium-web.org

The sky tonight (19:30)**:** stellarium-web.org



In the news…

A ray of hope for cheap energy: solar farms in space

A British company says its technology will cost less than nuclear power and is aiming to get its first panels in orbit within two years

Ben Cooke, Environment Correspondent

Friday February 20 2026, 4.25pm, The Times

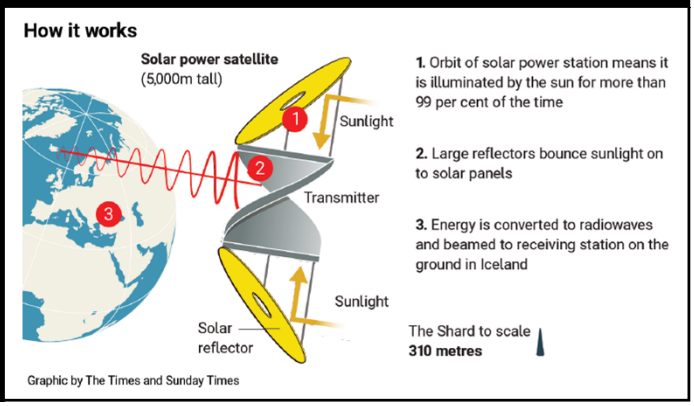
During the 1973 oil embargo, American scientist Peter Glaser patented a device for turning solar energy into microwaves and transmitting it across space.

In theory, it could supply the world with a constant stream of clean energy from enormous orbital solar farms, unaffected by sundown or cloud cover.

In 1981, the Reagan administration cut Glaser's funding.

Now space-based solar power's time may have come. Thanks to the plummeting cost of rocket launches, energy from orbital solar panels could prove cheaper than nuclear power stations.

Space Solar, a start-up based in Didcot, Oxfordshire, has outlined plans to put its first panels in space by 2028, hoping to install 15 gigawatts of space-based solar power by 2040, more than double the capacity of Britain's nuclear power stations.

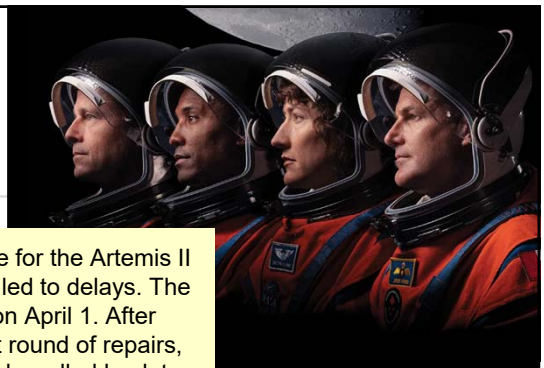


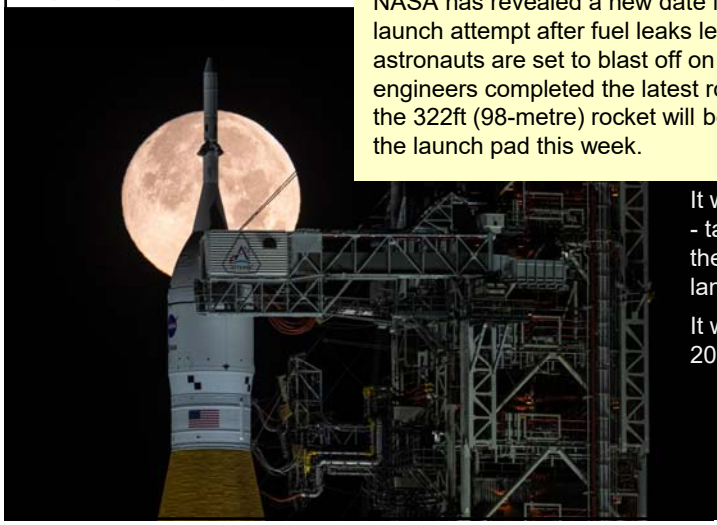
Nasa delays plans to land humans on the moon

The organisation has conceded that its plans for putting humans on the surface were 'flawed', amid major changes to its Artemis lunar programme

Jacqui Goddard, Miami

Friday February 27 2026, 7.10pm, The Times





NASA has revealed a new date for the Artemis II launch attempt after fuel leaks led to delays. The astronauts are set to blast off on April 1. After engineers completed the latest round of repairs, the 322ft (98-metre) rocket will be rolled back to the launch pad this week.

a major shake-up of its
mme.

It will add an extra mission, switching Artemis III - targeted for 2027 - from a crewed landing on the surface to a practice mission to test the lander vehicles in low-Earth orbit.

It will then aim to set humans on the surface in 2028 - possibly twice in a year.

Nasa pulls off a real-life Armageddon with asteroid smash

For the first time, scientists have deliberately changed the course of a celestial body. Could it help save Earth from future catastrophic impacts?

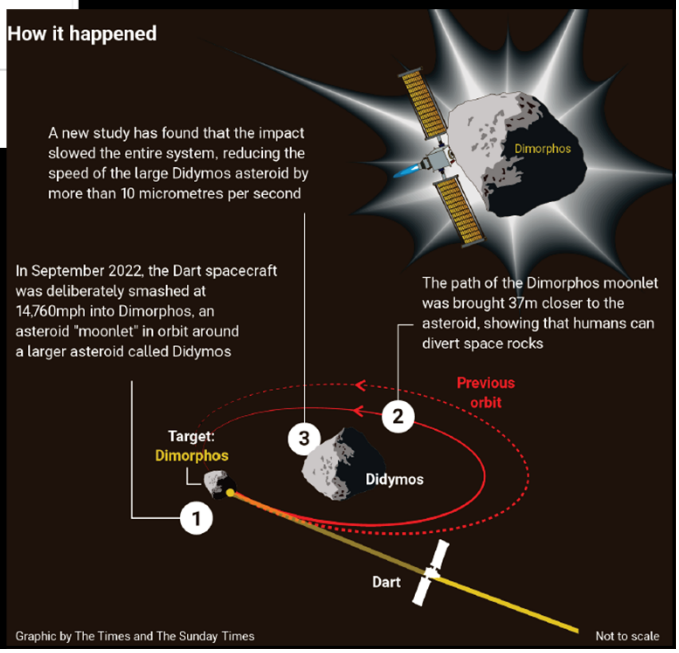
Kaya Burgess, Science Correspondent

Friday March 06 2026, 7.00pm, The Times

Nasa scientists changed the trajectory of an asteroid for the first time.

In 2022, Nasa smashed a spacecraft, called Dart, into an asteroid "moonlet" orbiting a larger asteroid. Remarkable footage was beamed back to Earth as Dart crashed into the space rock's rubble-strewn surface.

Analysis found that the mission succeeded in changing the path of the asteroid moonlet, Dimorphos, around its parent asteroid, Didymos, reducing its orbit period by 32 minutes and bringing the two about 37m closer.



https://www.youtube.com/watch?v=fFkePcWUMiM&pp=ygUUZGFydCBpbXBhY3QgYXN0ZXJvaWQ%3D

Avoiding Armageddon: nukes might work against giant asteroids

Experiments suggest a nuclear blast could alter the course of a 'planet-killer' space rock, making a real-life mission like the Hollywood blockbuster possible

Rhys Blakely, Science Editor

Friday March 13 2026, 1.12pm, The Times

If a large object were on a collision course with Earth, a nuclear device might be the only tool powerful enough to save the day. But, could the cure be worse than the disease? Rather than nudging it away or vaporising it entirely, a nuclear blast could shatter an asteroid into a shotgun blast of fragments, turning one existential threat into many.

That risk may be smaller than feared. An experiment, involving an ancient meteorite and the world's most powerful particle accelerator, suggests that iron-rich asteroids are tougher than previously assumed.

The team used two fragments of the **Campo del Cielo** meteorite, which is about 4.5 billion years old and crashed into Argentina roughly 4,500 years ago. One fragment was subjected to a beam of subatomic particles at CERN to mimic the searing radiation of a nuclear detonation.

The results, analysed at RAL in Oxfordshire, were reassuring. Rather than splintering, the iron-rich material proved remarkably resilient.

Dr Joe Kelleher, of the ISIS Neutron facility at RAL, said that the metal's crystal structure reorganised under intense radiation. It became less ductile but significantly stronger, behaving more like a high-grade industrial steel. radioactive

Interstellar comet 3I/Atlas is 'bursting with alcohol'

New observations suggest this interloper from another solar system formed in conditions very different to those that produced Earth

Rhys Blakely, Science Editor

Thursday March 12 2026, 2.45pm, The Times

The comet 3I/Atlas captured by the Hubble Space Telescope in July, when it was 277 million miles from Earth

New research from the ALMA observatory in Chile has revealed that 3I/Atlas contains exceptionally high levels of methanol.

Analysis of the light from the gas cloud showed that the ratio of methanol to hydrogen cyanide from 3I/Atlas, up to 120:1, was far higher than usually observed in typical comets.

This suggests that the comet formed in conditions quite different from those that shaped the solar system.

Earlier observations with the James Webb Space Telescope had already hinted that the object was unusual. When it was still far from the sun, Webb detected a coma dominated by carbon dioxide, another feature rarely seen so strongly in comets formed around our star.

Hydrogen cyanide appears to stream directly from the solid nucleus, as is typical for comets. Methanol, however, is released both from the nucleus and from tiny icy grains drifting through the coma, which act like miniature comets: as they are warmed by sunlight, their ice vaporises, releasing additional methanol into the surrounding cloud.

The Times, 12th March via James Burns

Briton donates millions to get look at unseen cosmic matter

News

Rhys Blakely Science Editor

A British billionaire is contributing tens of millions of dollars to an ambitious effort to observe one of the universe's most elusive structures: the faint cosmic web believed to be "the essential architecture of the universe".

Alex Gerko, founder of the trading group XTX Markets, is helping to fund the Massive Optical Telephoto Hyper-spectral Robotic Array (Mothra) telescope, currently under construction in Chile, Yale University said.

It will be the largest observatory of its kind, combining 1,140 telephoto camera lenses. It has been developed by the astronomers Pieter van Dokkum of Yale and Roberto Abraham of the University of Toronto. Their goal is to capture the first direct image of the cosmic web, the vast network of diffuse ionised gas that scientists believe underpins the formation of galaxies.

Van Dokkum told the Financial Times that Gerko was spending "tens of millions of dollars" to support the project after the billionaire sent them an email "out of the blue" seeking to invest it. According to last year's Sunday Times Rich List, Gerko is worth about £8.7 billion.

"All galaxies are connected by seen cosmic matter," Van Dokkum said in a statement released by Yale. "We want to construct a telescope to take the first picture of it."

Astronomers believe that dark matter, which is invisible, forms a kind of scaffolding on which galaxies form and evolve. The structure has proved extremely difficult to observe directly. Faint gas threading the web emits only a dim glow.

"It's our origin story, the engine by which galaxies in the universe grew," Van Dokkum said, adding that it had been "so hard to study".

The new telescope builds on an idea used by another instrument known as the Dragonfly telescope, which combined multiple camera lenses to detect very faint astronomical objects. That project led to discoveries including a population of "ultra-diffuse" galaxies. Mothra takes the concept further. Thirty sets of 38 lenses equipped with specialised filters will observe the same region of sky. Together the lenses act like a single giant instrument roughly 4.8 metres across.

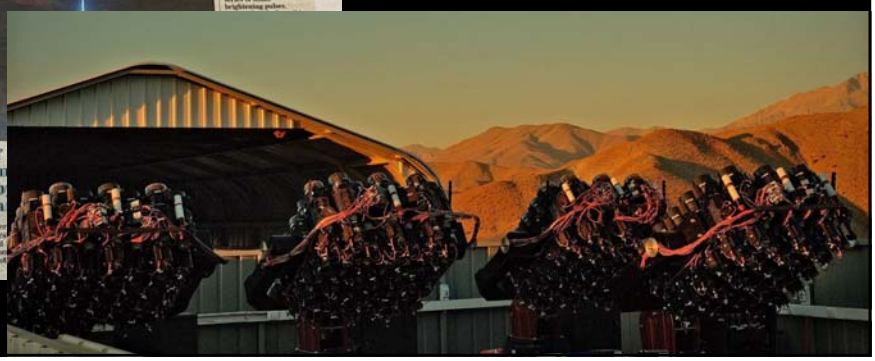
"We had this idea of using the lenses to look at gas rather than stars," Van Dokkum said. "Gas can show you where the dark matter is."

The project hopes to move unusually quickly for a major astronomical instrument and researchers expect the telescope to be fully operational by the end of the year.

"That is an ambitious project to build something astronomers have wanted for a long time: a practical way to directly see the cosmic web in emission and to get it done in a couple of years," Abraham said.

Alex Gerko is helping to fund the Mothra telescope, below, which is due to be ready in December

Fabric of space-tim... twisted b... 'magneta...

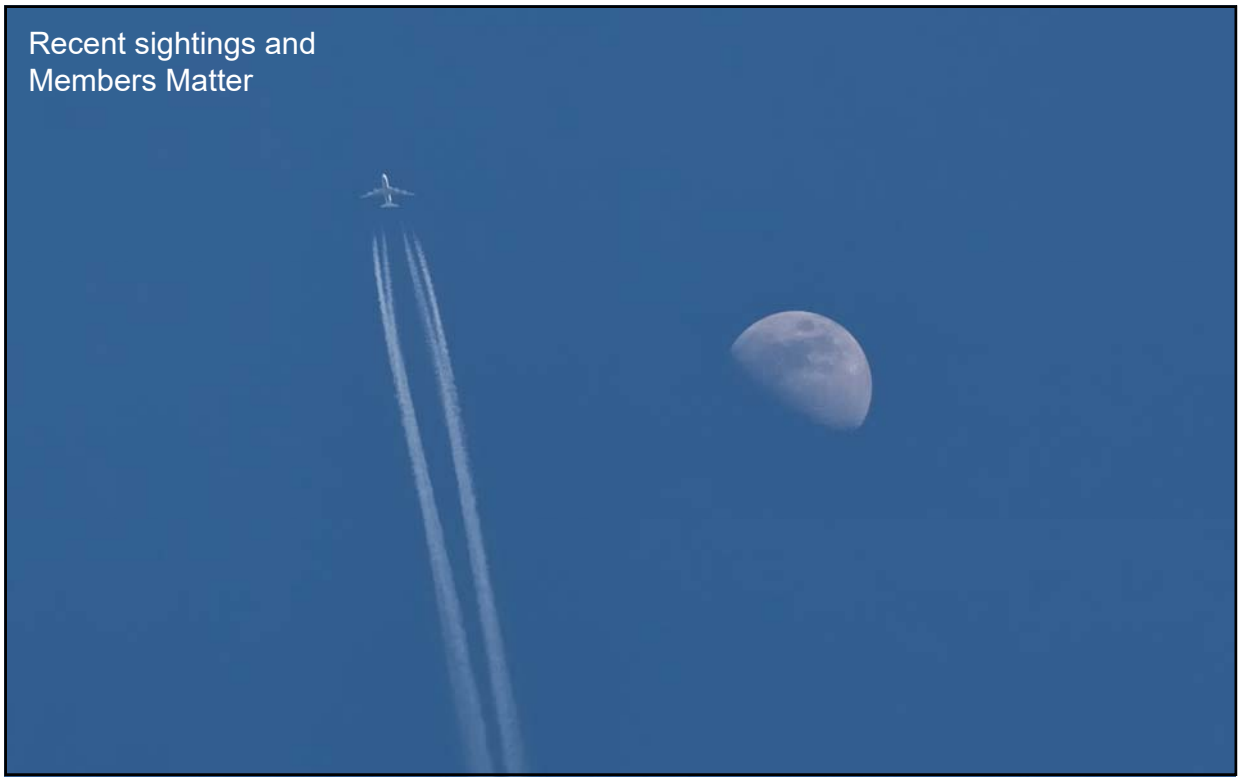


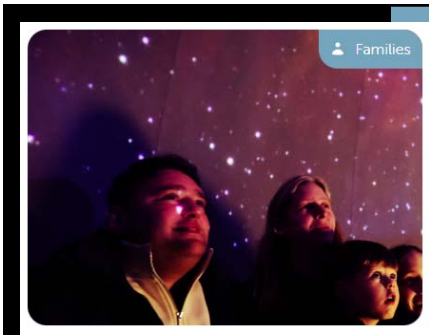
The British billionaire Alex Gerko, founder of trading group XTX Markets, is funding the development of the so-called MOTHRA telescope in central Chile.

Its goal is "to detect the cosmic web, the essential architecture of the universe", said Pieter van Dokkum, astronomy and physics professor at Yale University and co-founder of the MOTHRA project.

The telescope will use 1,140 telephoto lenses in linked arrays to capture images of the universe including, crucially, the incredibly faint gases between galaxies that trace the dark matter distribution across the universe.

Recent sightings and
Members Matter





Starry Night – Family Stargazing Evening

February 20, 2026

Science Oxford Centre

Science Oxford Presents Starry Night, an evening of family stargazing, planetarium show and activities.

Science Oxford
Part of THE OXFORD TRUST

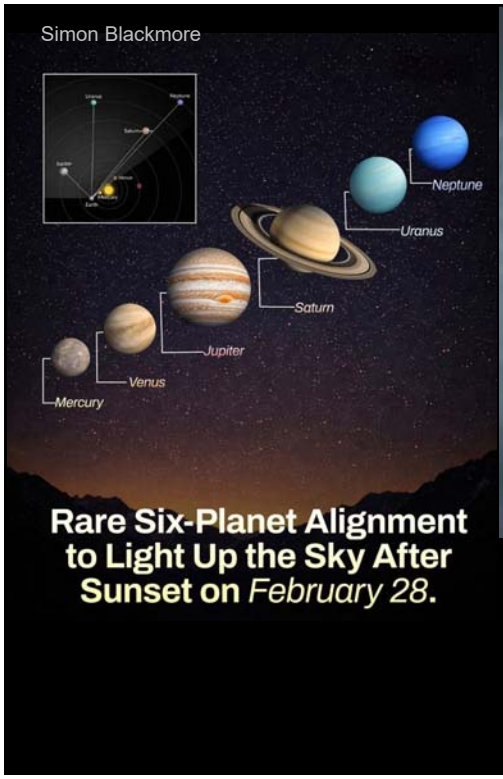
Photos © Simon Blackmore


Photos © Simon Blackmore

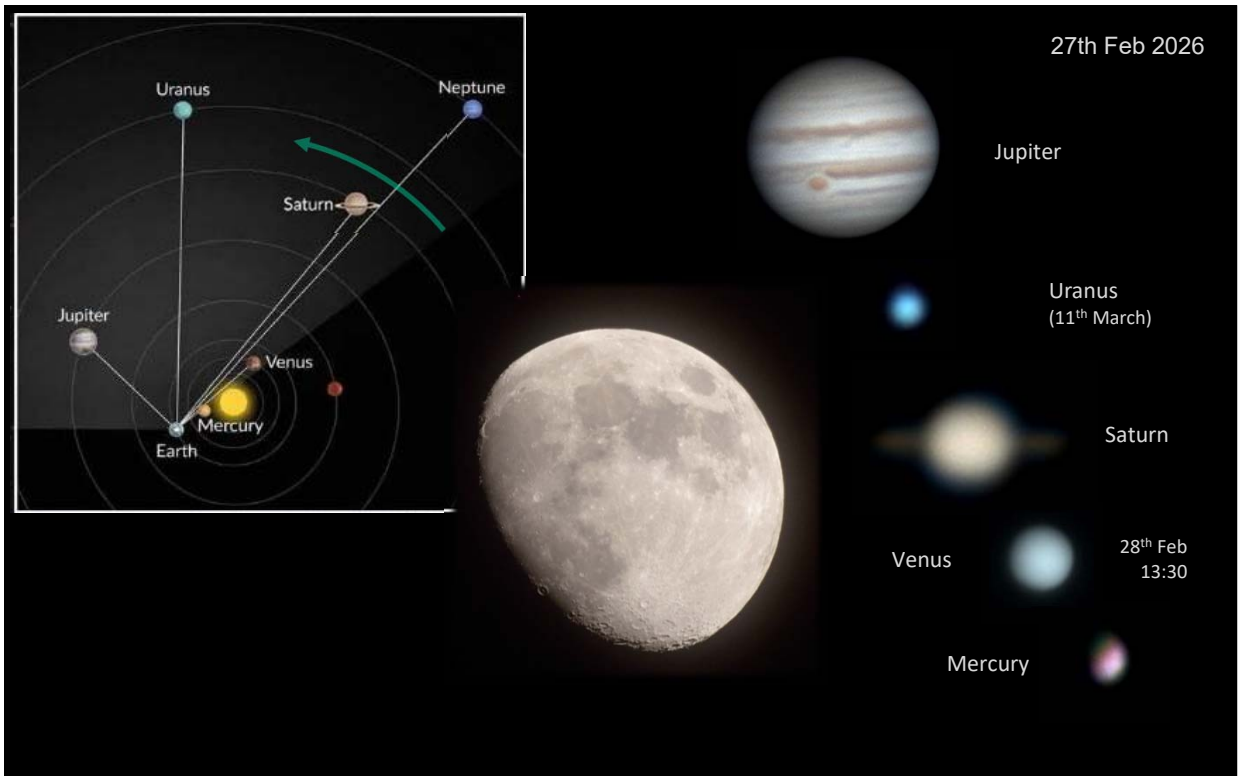

© Jason Warner, FyreFly Studios
…and we saw a bright shooting star – probably satellite debris

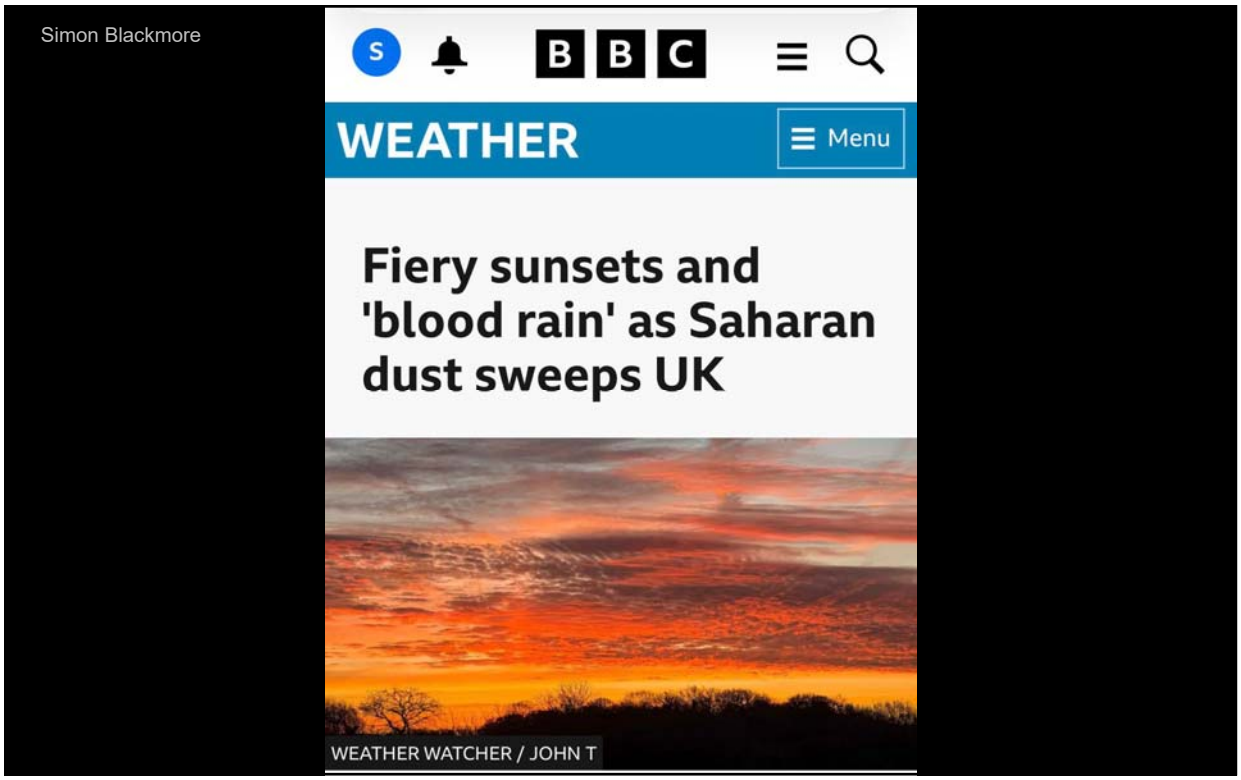
Kevin Corbett
24th February 19:47
'First try with a compact camera'

Simon Blackmore

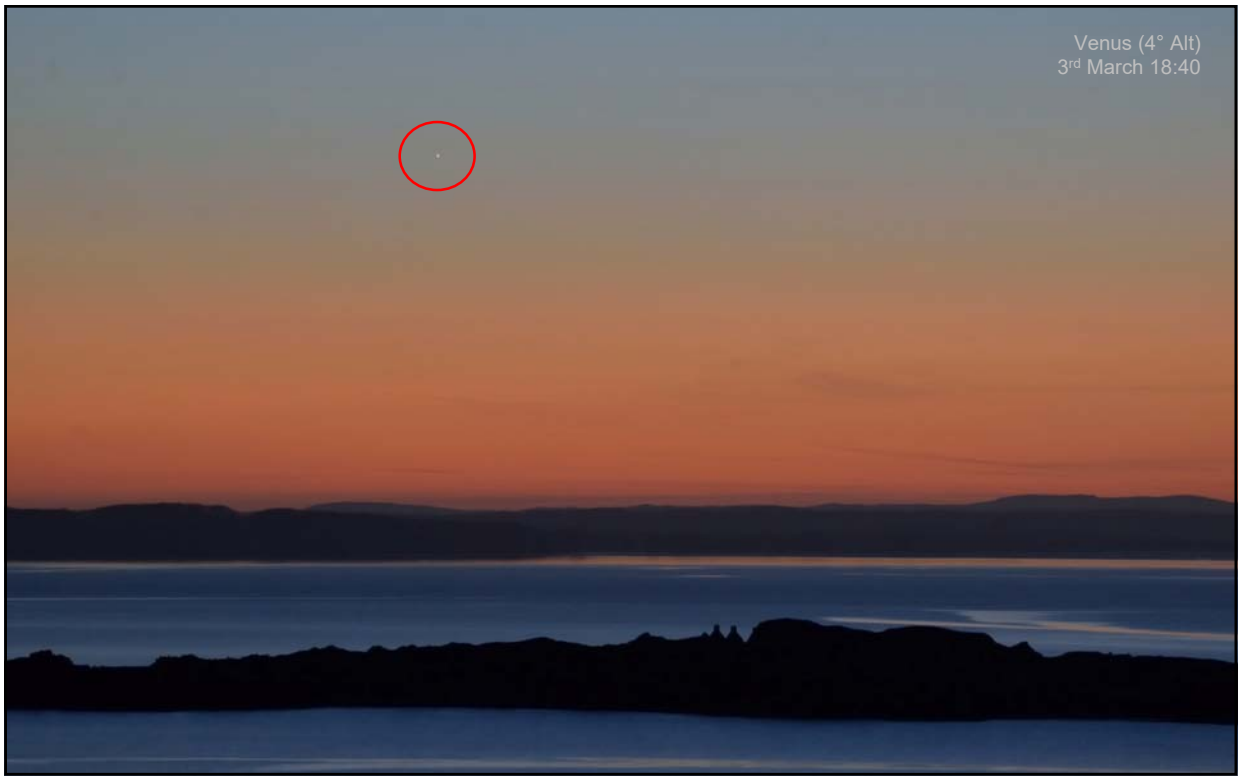


Moon Jupiter and Betelgeuse veiled in cloud - Saturday, 28 Feb 2026 9:10 pm


27th Feb 2026
Uranus
Neptune
Saturn
Jupiter
Venus
Mercury
Earth
Jupiter
Uranus
(11th March)
Saturn
Venus
28th Feb
13:30
Mercury


Simon Blackmore
BBC
WEATHER
Menu
Fiery sunsets and 'blood rain' as Saharan dust sweeps UK
WEATHER WATCHER / JOHN T


New (Wolf) Moon
3rd March

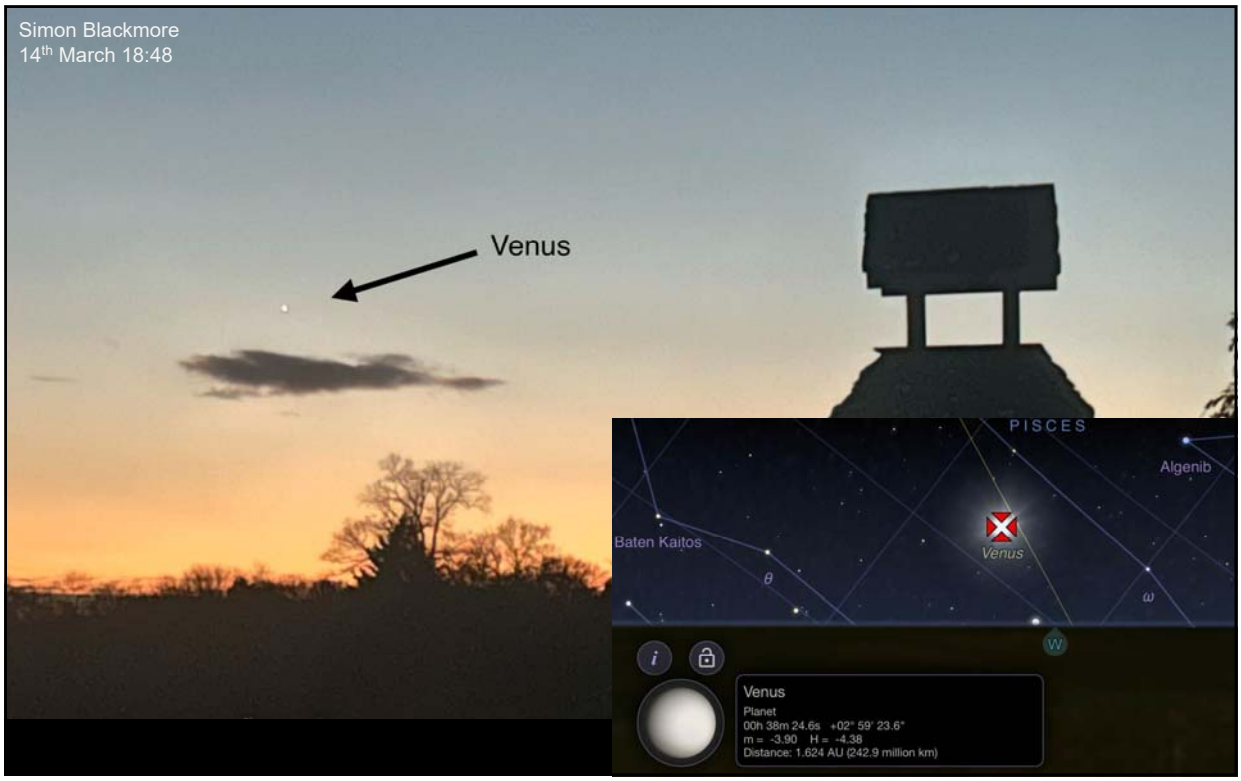

Venus (4° Alt)
3rd March 18:40


Venus and Saturn
3rd March 19:02


Venus and Saturn
3rd March 19:05
Venus: 0.5° Alt
Saturn: 4.5° Alt

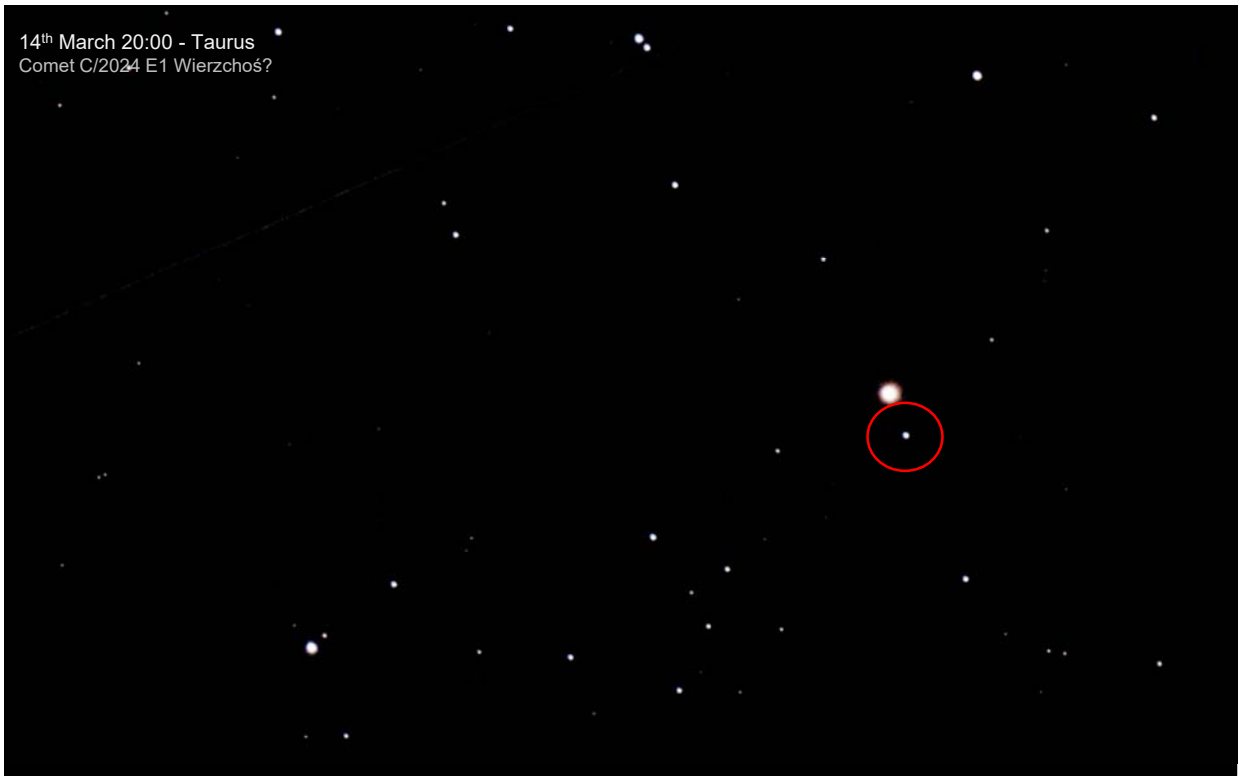

Venus (7.5° Alt)
11th March 18:34


Bartle Frere
14th March 06:22


Simon Blackmore
14th March 18:48
Venus
PISCES
Algenib
Baten Kaitos
Venus
θ
ω
W
i
Venus
Planet
00h 38m 24.6s +02° 59' 23.6"
m = -3.90 H = -4.38
Distance: 1.624 AU (242.9 million km)


Venus – Anson Field
14th March 18:58 (5° alt)


Venus – Anson Field
14th March 19:12 (3° alt)

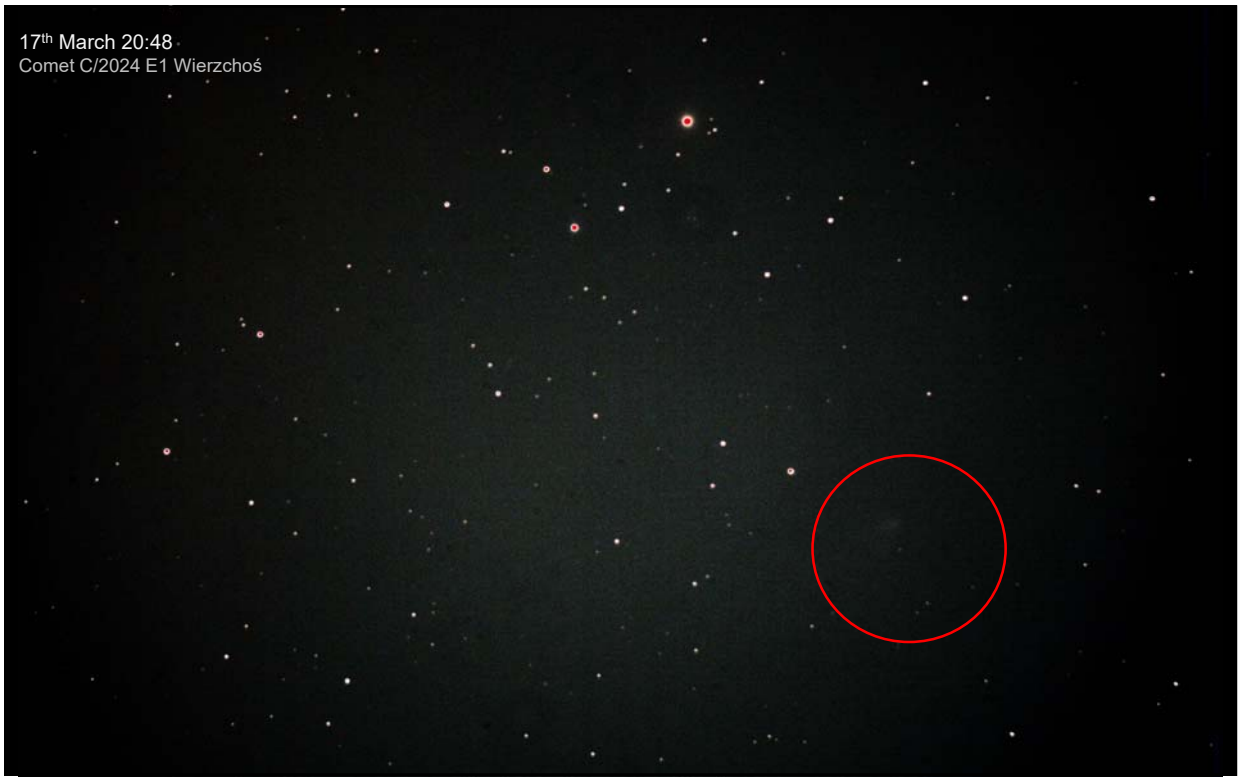

14th March 20:00 - Taurus
Comet C/2024 E1 Wierzchoś?

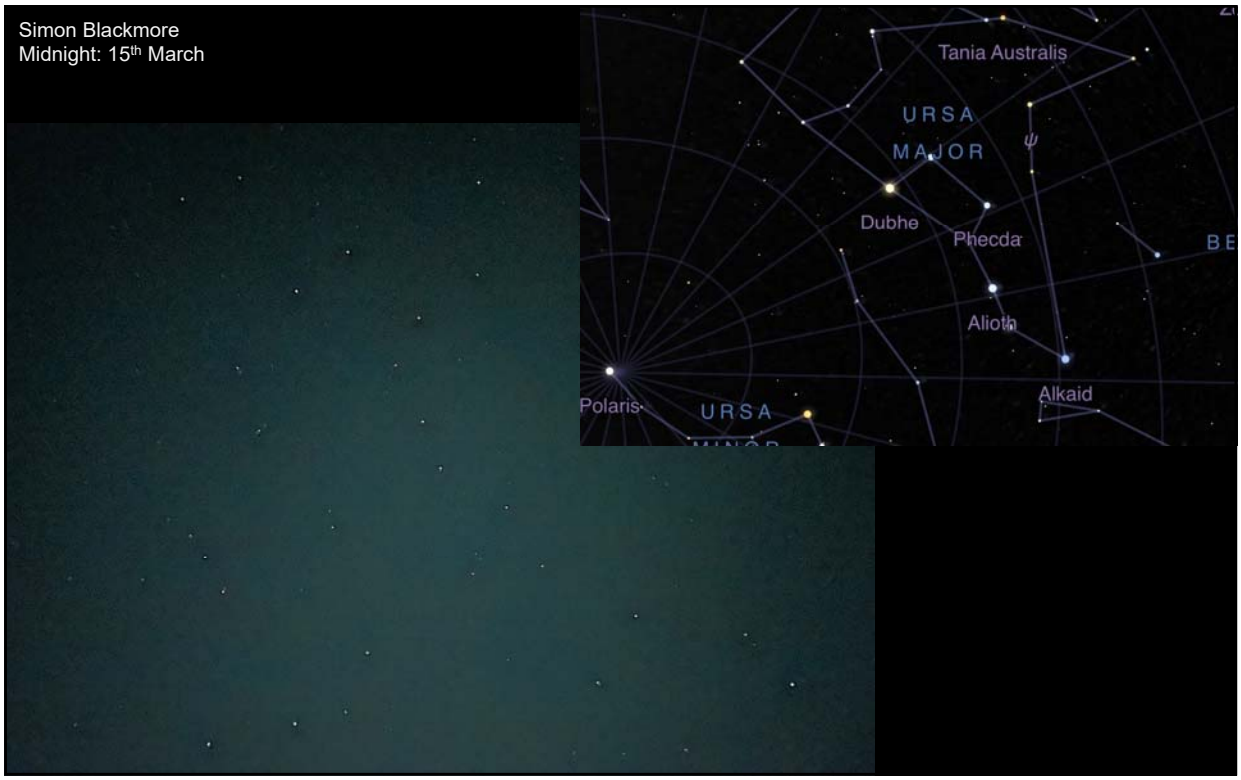
Comet C/2024 E1, obtained on 2026 March 8 (20:41UT) with 29-cm, f/2.2 astrograph and ASI 6200 MC camera. Exposure time was 50x60 seconds. Image scale is 2.47 arc sec/pixel. Image was taken at E-EYE observatory in Spain.

https://cobs.si/


17th March 20:03
Comet C/2024 E1 Wierzchoś


17th March 20:27
Comet C/2024 E1 Wierzchoś


17th March 20:48
Comet C/2024 E1 Wierzchoś


Simon Blackmore
Midnight: 15th March
Tania Australis
URSA
MAJOR
Dubhe
Phecda
Alioth
Alkaid
Polaris
URSA

Simon Blackmore

Early science in Oxford

The instruments above are on loan from the Museum of the History of Science that now occupies the original Ashmolean Museum building on Broad Street.

1 **Equinoctial ring dial with quadrant.** This type of portable sundial was invented in the 1600s. Time, based on the position of the sun, could be calculated in the northern and southern latitudes using this adjustable dial. Made by Gilbert & Gilkerson in London, around 1800. Brass and silvered brass. L1063.5

Simon Blackmore
British Museum

Quadrant of Richard II

Quadrants were used to tell the time by measuring the altitude of the sun. They were also desirable precision instruments used by the learned and wealthy. This quadrant is engraved with a crowned and chained white hart (deer), the badge of Richard II, king of England (reigned 1377–99). This might be the quadrant mentioned in a list of Richard's possessions that he stored at the Tower of London.

Dated 1399
England
Brass

The Chaucer Astrolabe

Medieval courts promoted scientific knowledge. The English poet and courtier Geoffrey Chaucer (about 1343–1400) describes an astrolabe similar to this one in a treatise written in 1391. Astrolabes measured the altitude of the sun or stars to determine the time and to make astrological predictions. On the back of this example is the date 1326, making it the oldest dated European astrolabe.

Dated 1326
England
Brass

Tonight's Feature

"*Games in Space*" – Mark Buckley

Looking forward…

What to see in the coming month

March

- 19th: very thin crescent Moon after sunset
- 20th: Crescent Moon and Venus in conjunction (daytime) and *Spring Equinox*

Planets visible: V, J, U Moon: Full: 3rd Mar New: 19th Mar

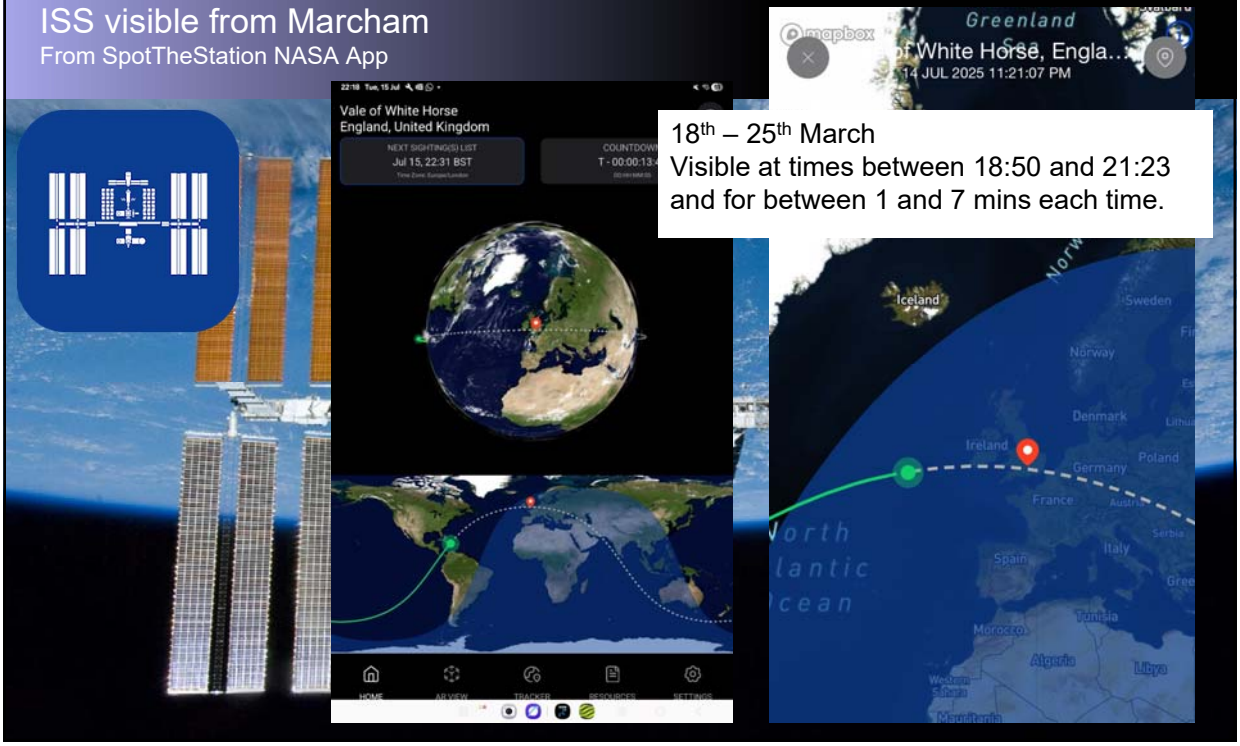
April

- 3rd : Mercury at greatest Western elongation (early morning in E, but very low in sky)
- 19th: Thin crescent Moon above Pleiades and Venus (evening – W sky)
- 24th: Uranus and Venus in conjunction (within 1°) late evening around 22:00 in NW sky
- …and we are into the *Galaxy Season*

Planets visible: (Me), V, J, S, U Moon: Full: 2nd Apr New: 17th Apr

ISS visible from Marcham

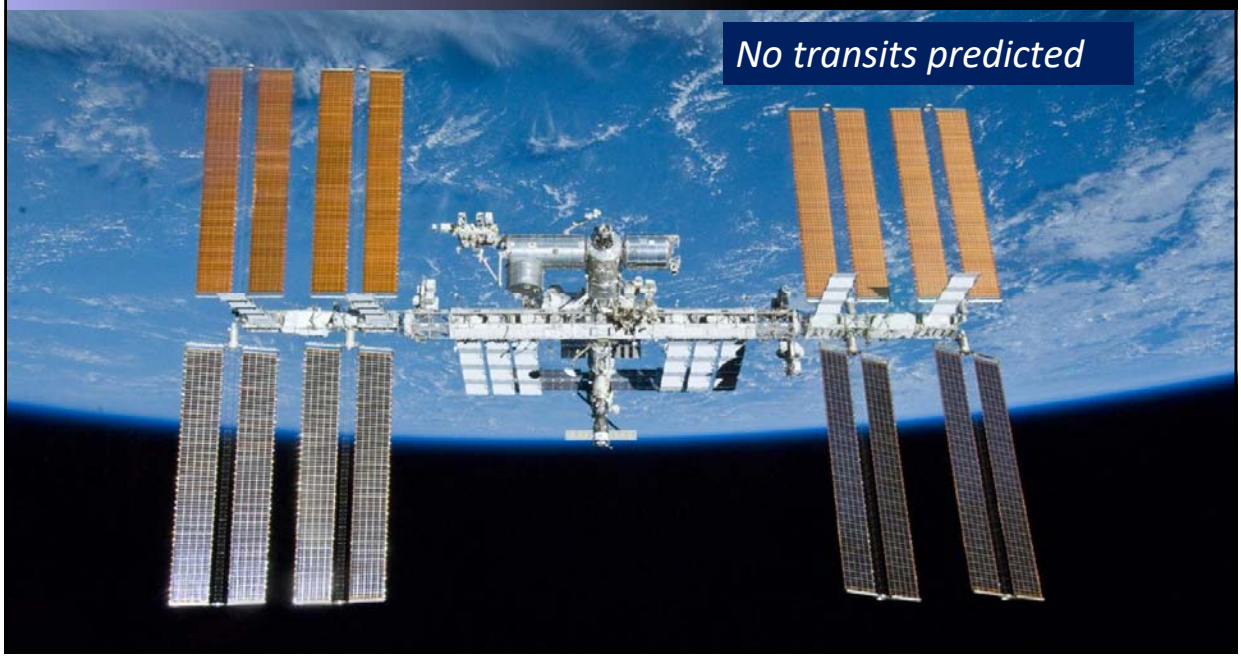
From SpotTheStation NASA App



18th – 25th March
Visible at times between 18:50 and 21:23
and for between 1 and 7 mins each time.

ISS transits visible from Marcham

transit-finder.com



Future meetings…

- Apr 15th : *"Steeple Aston Observatory"*
  – Tim Haymes
- May 13th: *"Robotic exploration of asteroids, Comets and KBOs"*
  – Jon Pineau, Stellar Solutions

All Wednesdays at 7:30pm

Marcham ASTRONOMY

WhatsApp Group

Marcham Star Gazers – 20 members

- To share images with group members
- Alerts: what's happening now
- Notify last-minute telescope sessions

Marcham Star Gazers
WhatsApp group