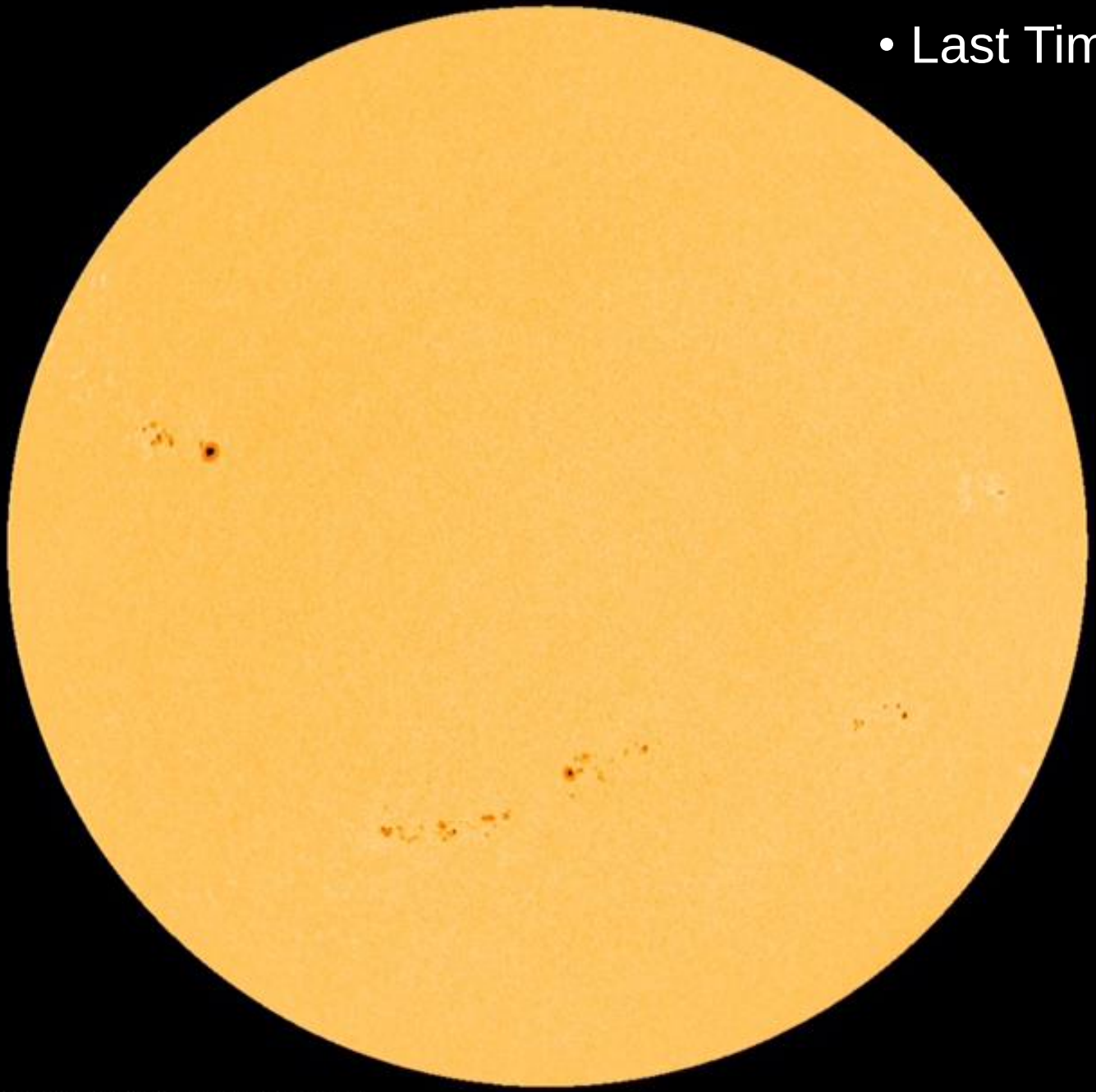
What's Up?

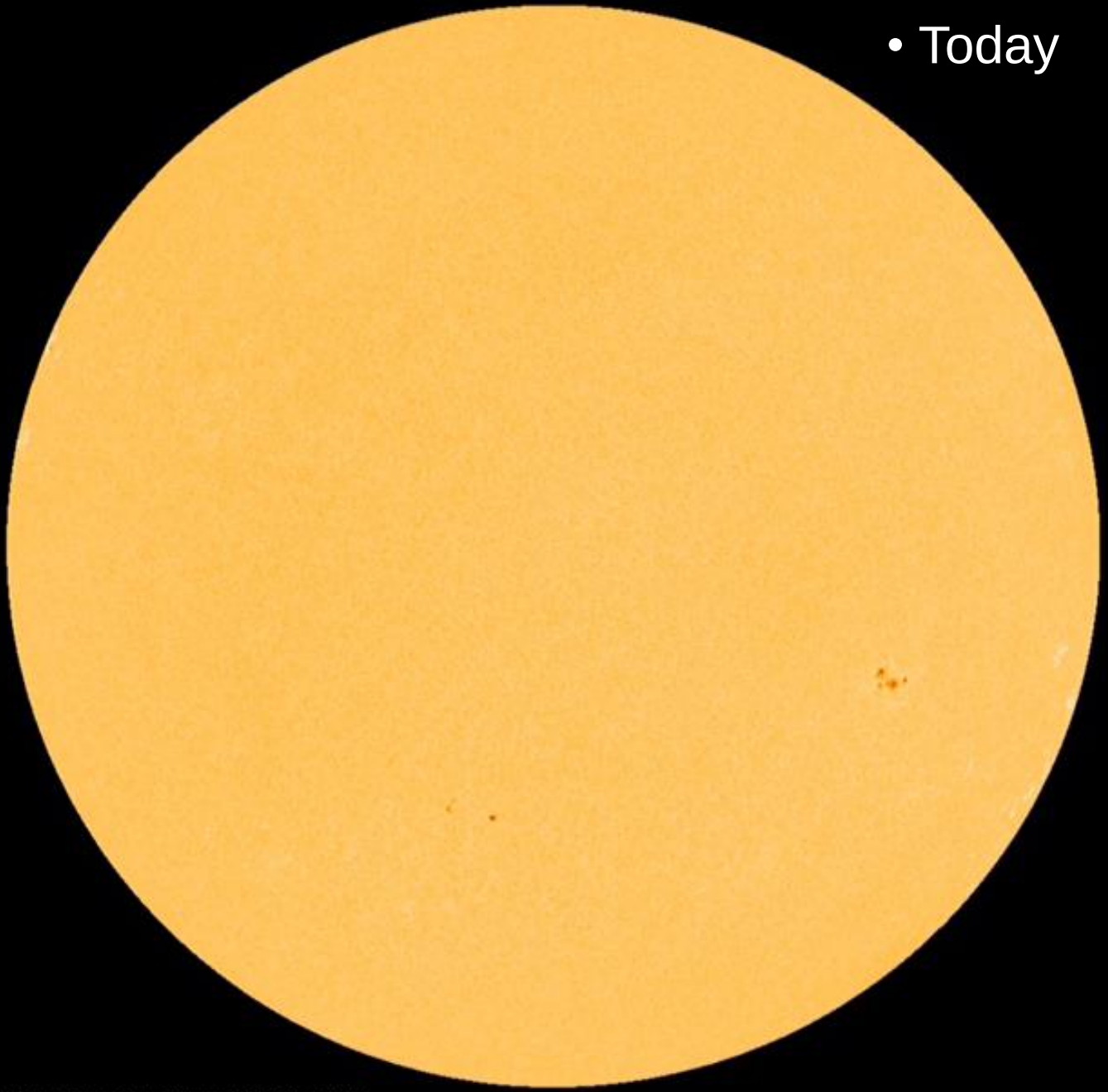
2022 October 24 to November 28

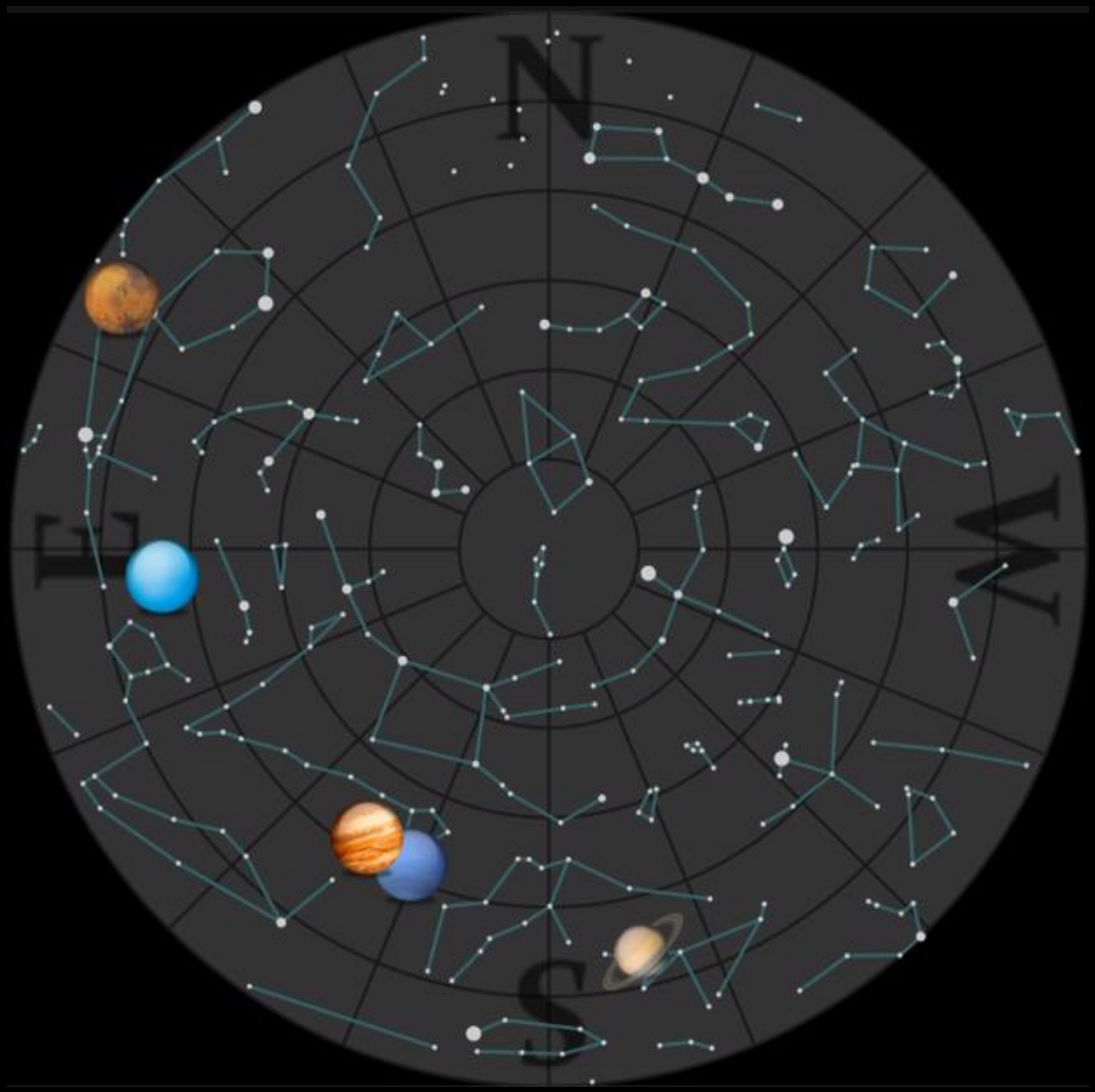
Bill Barton, FRAS

- Last Time

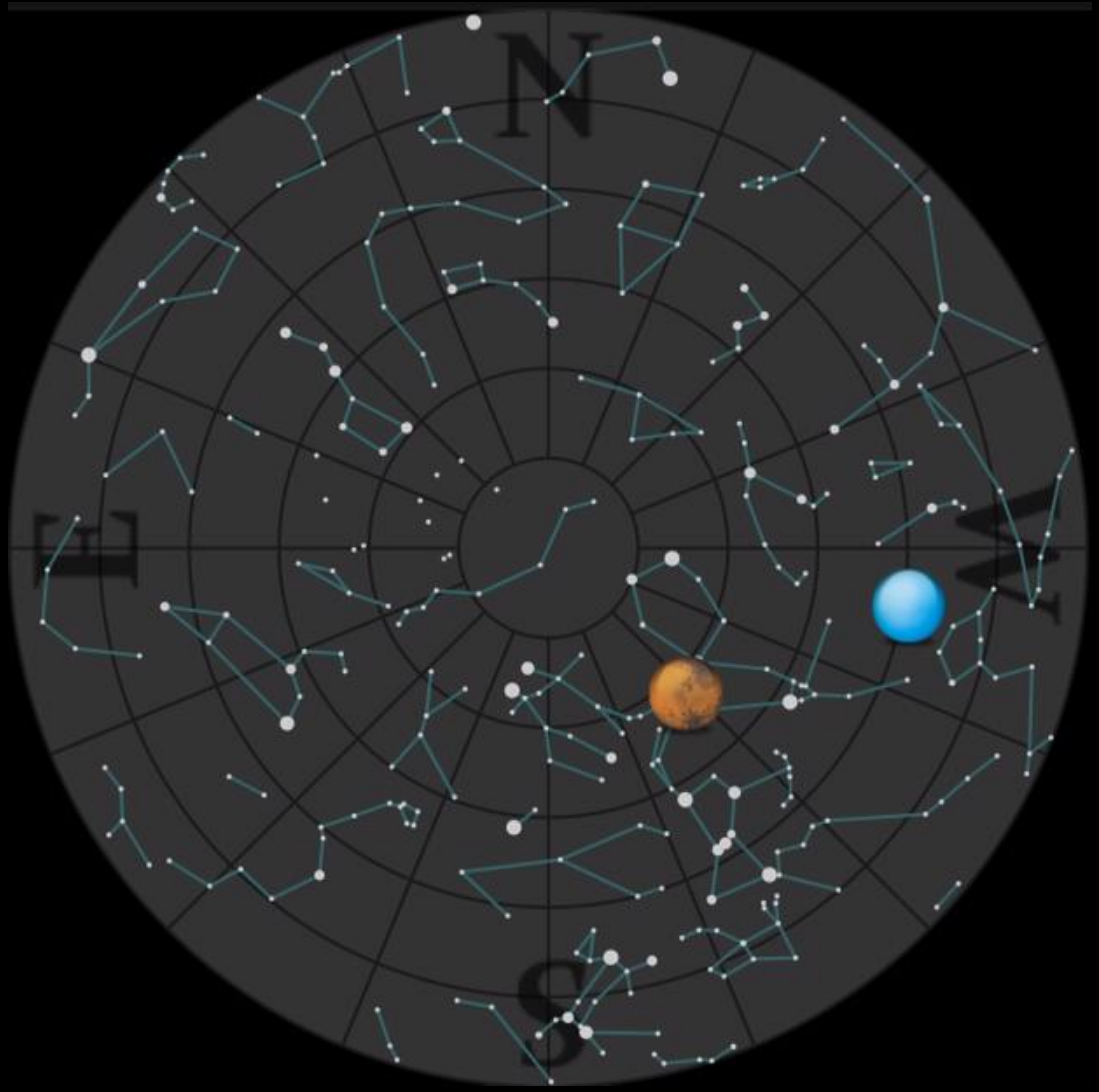


- Today





- The Sky 21:00 Tonight



- The Sky 06:00 Tomorrow

Inner Solar System

- Sun
  - Declination decreasing, solstice Dec. 21, perihelion Jan. 04
- Mercury
  - In morning sky, greatest elongation, Oct. 08 (18°), currently 10°
  - Superior conjunction Nov. 08
  - Then in evening sky, greatest elongation Dec. 21 (20°)
  - Today, rise 06:30, transit 12:00, set 17:30
- Venus
  - Superior conjunction Oct. 22
  - In evening sky greatest elongation Jun. 04, 2023 (45°), currently 1°
  - Today, rise 07:30, transit 12:40, set 17:45

Earth

- Time
  - 00:00UT ≈ 02:10ST today, BST ends 01:00, 30 Oct. 2022
  - Today, sunrise 07:35, transit 12:40, sunset 17:45
  - End of period, sunrise 07:35, transit 11:40, sunset 15:50
- Moon
  -  New, 25 (partial solar eclipse)
  -  First Quarter, Nov. 01
  -  Full, 08 (Frost Moon, & total lunar eclipse, but not visible)
  -  Last Quarter, 16
  -  New, Nov. 23
- Meteors
  - Orionids, Oct. 02-Nov. 07, peak Oct. 22, ZHR 20

Partial Solar Eclipse of 2022 Oct 25

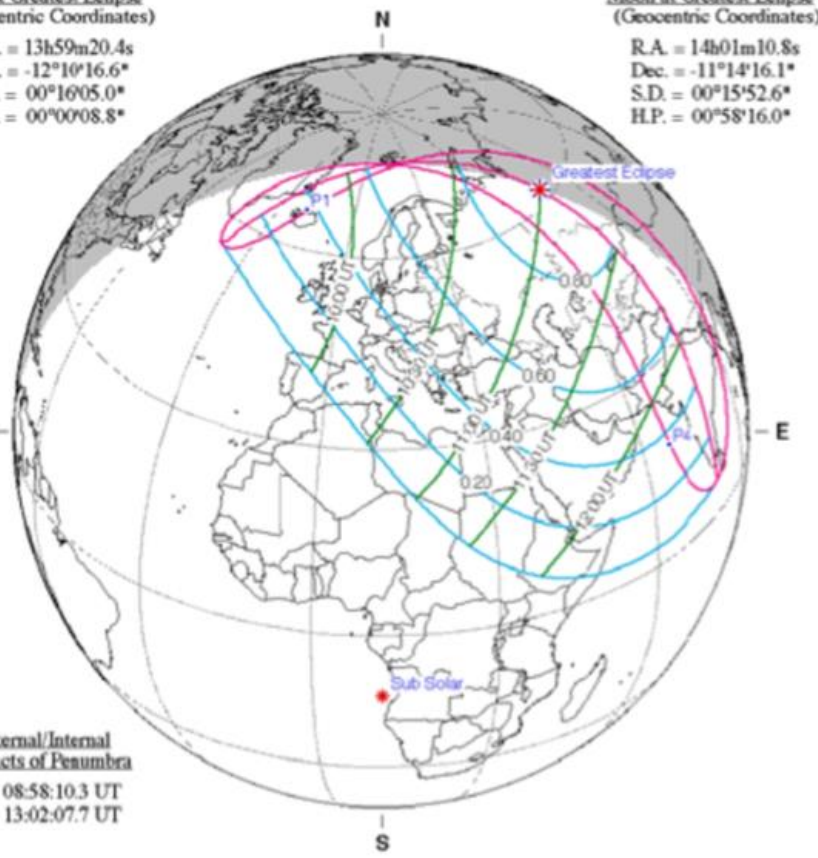
Geocentric Conjunction = 10:03:36.7 UT J.D. = 2459877.919175
Greatest Eclipse = 11:00:00.4 UT J.D. = 2459877.958338

Eclipse Magnitude = 0.8611 Gamma = 1.0700

Saros Series = 124 Member = 55 of 73

Sun at Greatest Eclipse
(Geocentric Coordinates)
R.A. = 13h59m20.4s
Dec. = -12°10'16.6"
S.D. = 00°16'05.0"
H.P. = 00°00'08.8"

Moon at Greatest Eclipse
(Geocentric Coordinates)
R.A. = 14h01m10.8s
Dec. = -11°14'16.1"
S.D. = 00°15'52.6"
H.P. = 00°58'16.0"



External/Internal Contacts of Penumbra
P1 = 08:58:10.3 UT
P4 = 13:02:07.7 UT

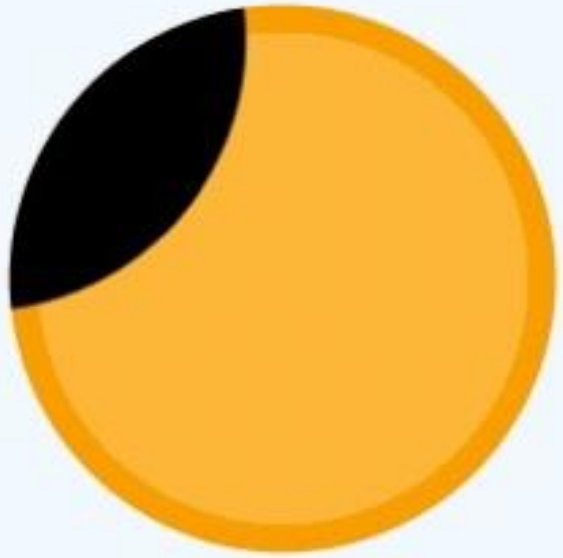
Ephemeris & Constants
Eph. = Newcomb/ILE
ΔT = 79.7 s
k1 = 0.272488O
k2 = 0.2722810
Δb = 0.0" Δl = 0.0"

Geocentric Libration
(Optical + Physical)
l = -4.55°
b = -1.38°
c = 18.60°
Brown Lun. No. = 1235

0 1000 2000 3000 4000 5000
Kilometers

F. Espenak, NASA's GSFC - Fri, Jul 2,
sunearth.gsfc.nasa.gov/eclipse/eclipse.html

Local Circumstances for Ipswich	
1st Contact	10:07:51
Mid Eclipse	11:00:25
4th Contact	11:54:46
Max. Obs.	28%



Occultations

- Lunar
  - none of note this period

Conjunctions

- None of note this period

Outer Solar System

- Mars
  - Opposition Dec. 08 (17.1/25.6”=0.667). Today, rise 20:00, transit 04:20, set 12:40
- Jupiter
  - Conjunction Apr. 11, 2023. Today, rise 16:50, transit 22:45, set 04:40
- Saturn
  - Conjunction Feb. 17, 2023. Today, rise 15:30, transit 20:10, set 00:30
- Uranus
  - Opposition Nov. 09. Today, rise 18:10, transit 01:45, set 09:20
- Neptune
  - Conjunction Mar. 15, 2023. Today, rise 16:35, transit 22:20, set 04:00

OASI Events

- Orwell Park Open Weekend
  - from 19:30, Friday & Saturday, Oct. 28/29

- Lecture Meeting
  - 20:00, Friday Nov. 18, hybrid meeting on Zoom and at St Augustine's Community Hub, Bucklesham Rd., Ipswich, IP3 8TJ, Dr Matt Bothwell, “How Fast is the Universe Expanding?”

Local Societies Events

- DASH (Darsham Village Hall, 7:00pm, Sundays)
  - Nov. 06, Bill Barton, “Cecilia Payne (1900-1979)”
  - Nov. 20, observing meeting

- LYRA (Parkhill Hotel, Oulton, 7:30pm, Tuesdays)
  - Nov. 08, Michael Poxon, “Name That Star!”

- AAA (Hawstead Village Hall, 7:30pm, Wednesdays)
  - Oct. 26
  - Nov. 09, Paul Whiting, “Radio Astronomy”
  - Nov. 23

National Events I

- BAA AGM
  - 17:30-20:00, Wednesday, Oct. 26, Institute of Physics, 37 Caledonian Rd., London

- BAA Christmas Meeting
  - 14:00-18:00, Saturday, Dec. 10, same location
  - Gordon McKay, Controversies in Astronomy part 1
  - Simon Kidd, Asteroid Occultations… an observer's view
  - Nick James, Sky Notes

  - booking now open

National Events II

- SPA Meeting
  - 14:00, Saturday, Oct. 29, Gustave Tuck Lecture Theatre, University College London, Gower St, London WC1
    - Prof Gillian Wright, The JWST, Launch to Science
    - Robin Scagell, skynotes
    - Tony Sizer, The Ring of Mystery

- FAS Convention
  - 10:00, Saturday, Nov. 12, Martin Wood Lecture Theatre, Clarendon Laboratory, Parks Rd, Oxford
    - Women in Astronomy

2023 Look Ahead

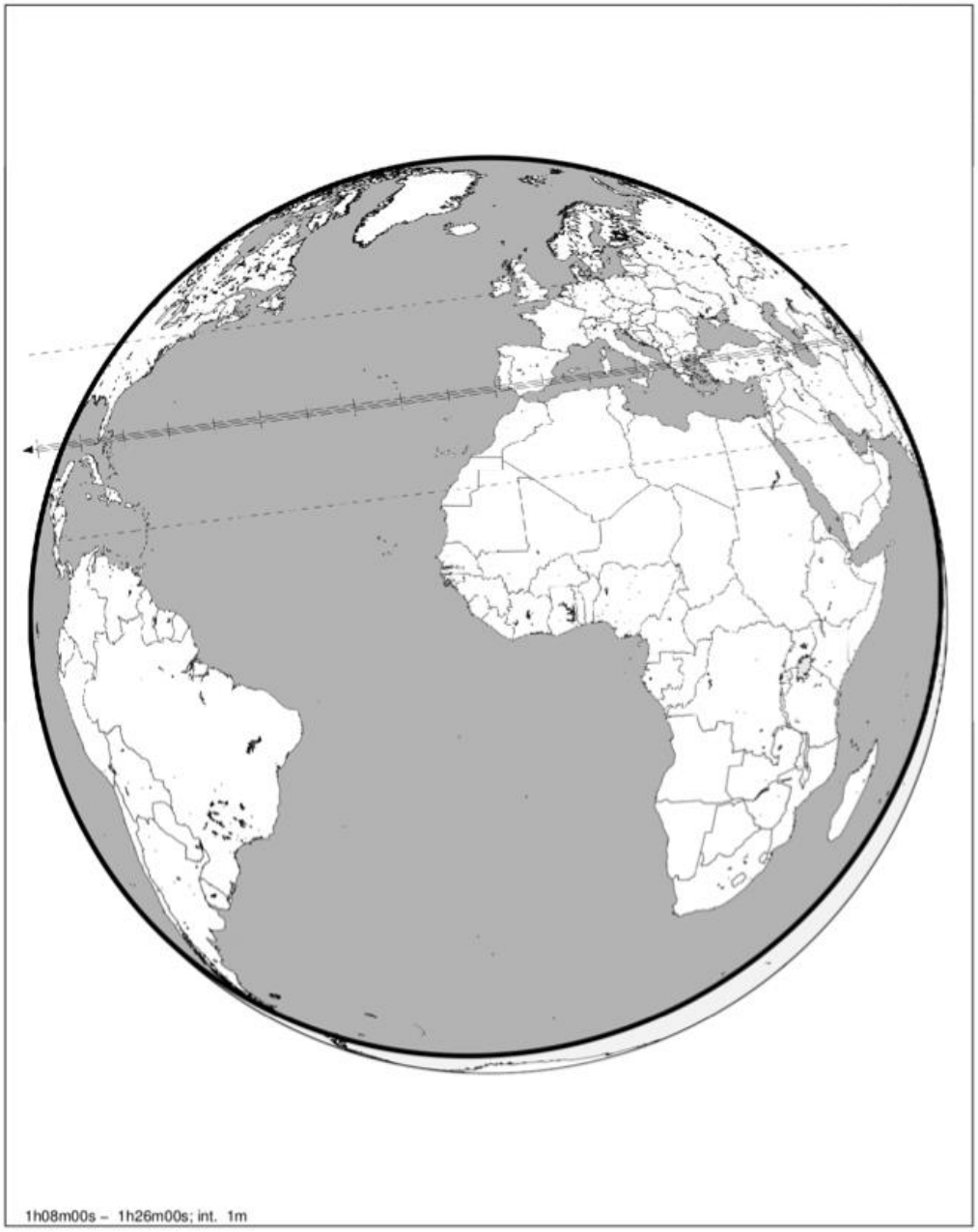
- A slight partial lunar eclipse on Oct. 28 is the only one visible from the U.K. in 2023

- Lunar Occultations
  - Jan. 01, 22:35, Uranus grazing a line in South Norfolk, a very close approach over Suffolk
  - May 17, 13:48 daylight graze of Jupiter on a line crossing extreme Northern England, so again a near miss for us
  - Nov. 09, 09:47-10:47, daylight occultation of Venus

- Possible Asteroid Occultation
  - Dec. 12, 01:10-01:20, Betelgeuse, mag 0.5 occulted by 70km⌀, 319 Leona, mag 14.2, 13 mag drop, max 6.9 secs.
  - Southern Europe/Caribbean, we might be on the ’edge’?

319 Leona & HIP 27989

2023 dec 12 $1^h16.8^m$ U.T.



1h08m00s – 1h26m00s; int. 1m