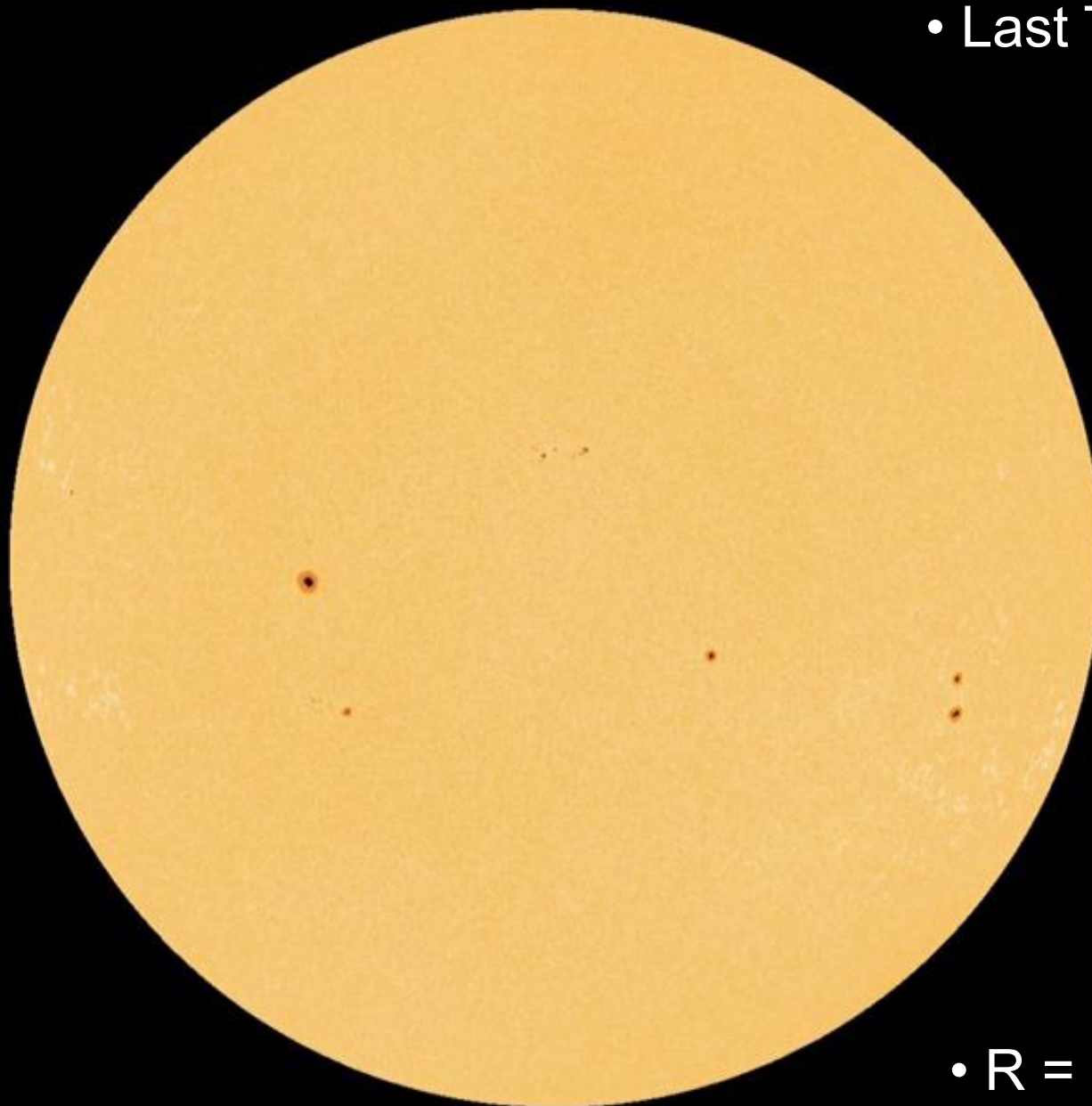


What's Up?

2025 November 24 to December 22

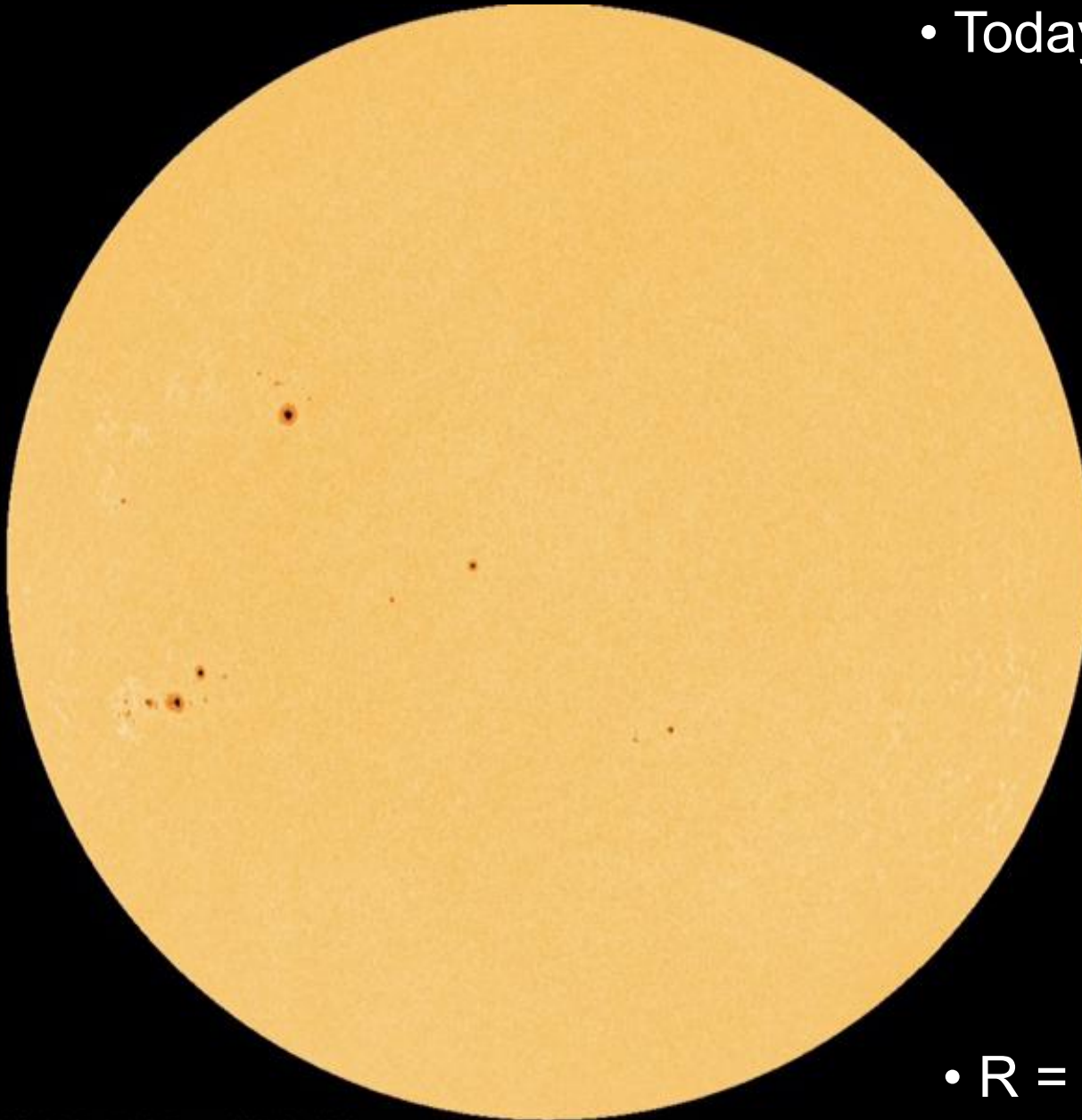
Bill Barton, FRAS

- Last Time



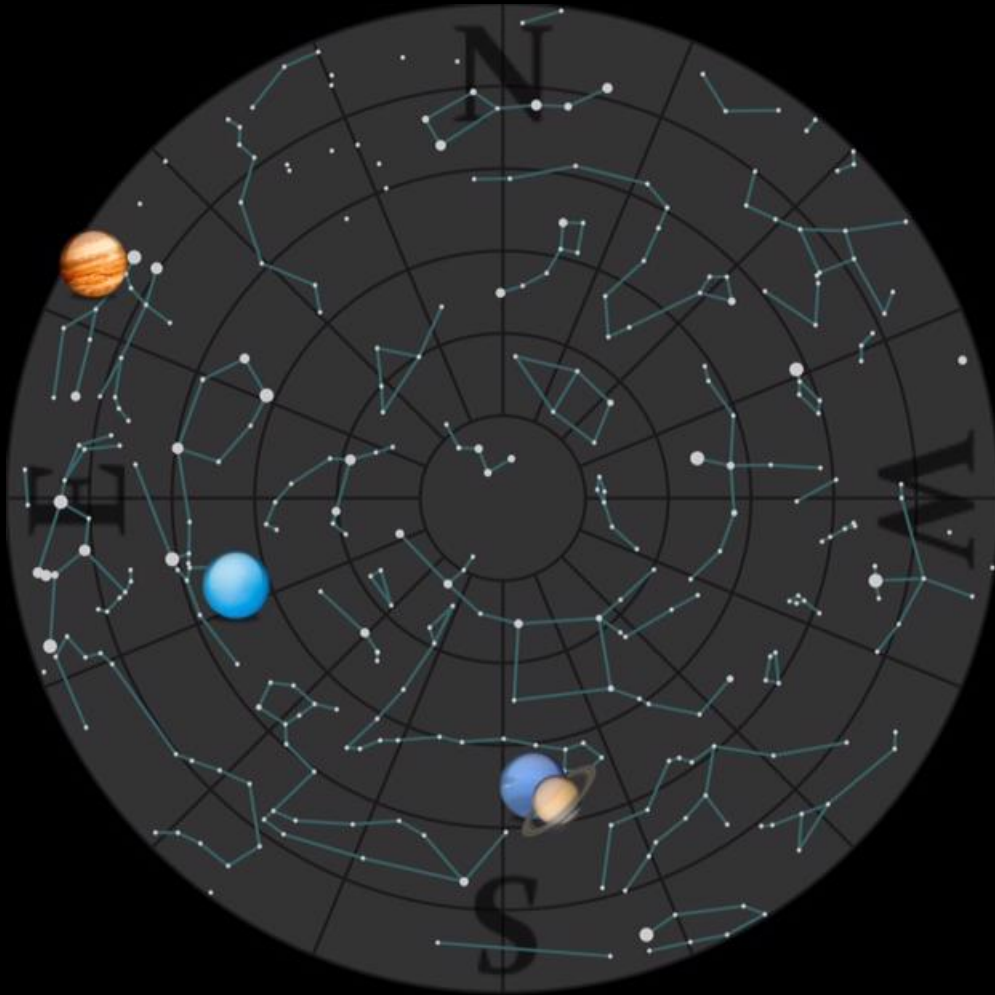
- $R = 92$

• Today

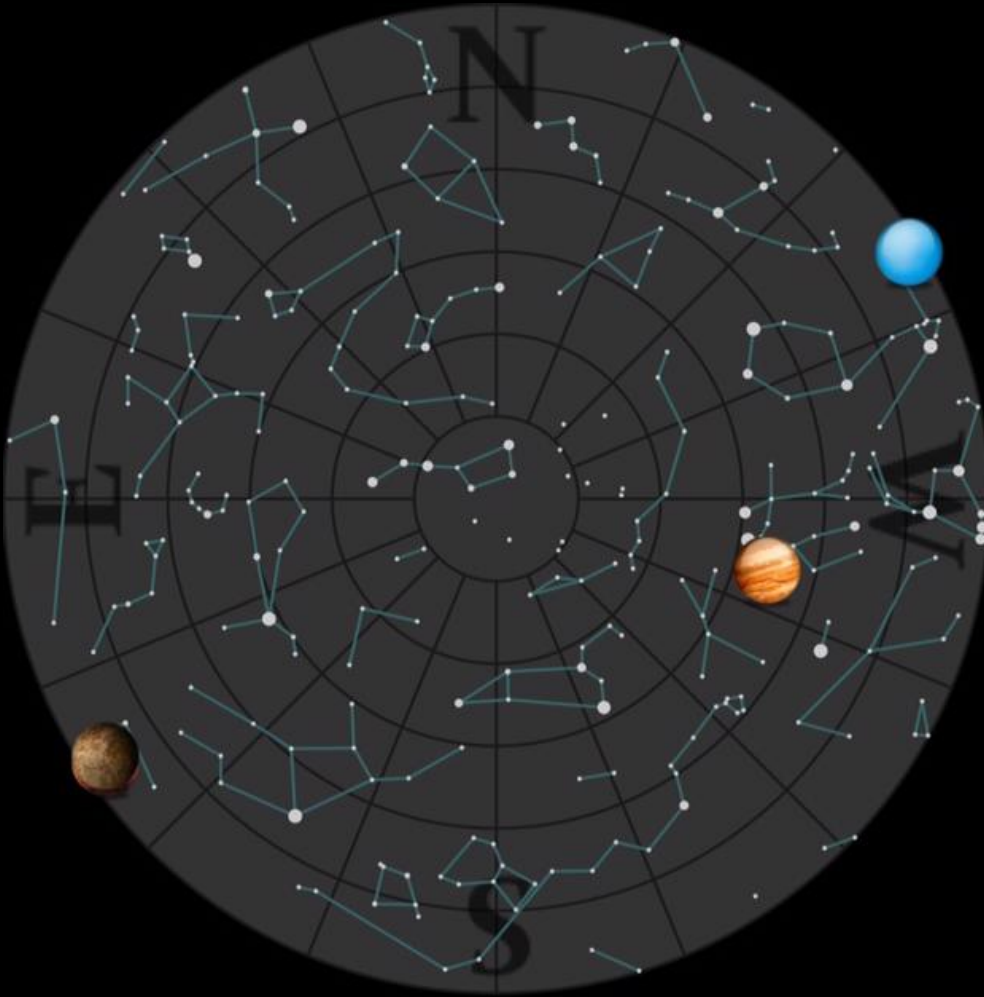


• $R = 79$

- The Sky 20:00
Tonight



- The Sky 07:00
Tomorrow



Inner Solar System

- Sun
 - Declination decreasing, Solstice December 21
 - Last sunspot min., Apr. 2020, max., now?
- Mercury
 - Inferior conjunction November 20, in the morning sky, greatest elongation December 08 (21°), currently 10°
 - 'good observing opportunity'
 - Today, rise 06:35, transit 11:05, set 15:30
- Venus
 - In the morning sky, greatest elongation May 31, (46°) currently 10°
 - Superior conjunction January 06, 2026
 - today, rise 06:25, transit 10:55, set 15:25

Earth

- Time
 - 00:00UT $\approx$ 03:15ST today
 - Today, sunrise 07:30, transit 11:40, sunset 15:50
 - End of period, sunrise 08:00, transit 11:50, sunset 15:45
- Moon
 -  First Quarter, November 28
 -  Full, December 04 ('Cold or Long Night' Moon)
 -  Last Quarter, December 11
 -  New, December 20
- Meteors
 - Geminids, December 04-17, peak 14th, ZHR 100+

Lunar Occultations

- Thursday, December 04
 - Pleiades
 - 17 Tauri, mag 3.7, disappearance dark limb 03:14, recovery bright limb 04:00
 - 20 Tauri, mag 3.9, disappearance dark limb 03:35, recovery bright limb 04:31
 - η Tauri (Alcyone), mag 2.9, disappearance dark limb 04:31, recovery bright limb 04:43
- Friday, December 12
 - α Leonis (Regulus), mag 1.4, disappearance bright limb 07:27, recovery 08:28 (sunrise 07:50)

Outer Solar System

- Mars
 - Conjunction January 09, 2026. Today, rise 08:35, transit 12:30, set 16:20
- Jupiter
 - Opposition January 10, 2026. Today, rise 19:20, transit 03:30, set 11:30
- Saturn
 - Opposition September 21. Today, rise 13:45, transit 19:20, set 01:00
- Uranus
 - Opposition November 21. Today, rise 15:30, transit 23:20, set 07:20
- Neptune
 - Opposition September 23. Today, rise 13:45, transit 19:30, set 01:30

OASI Events

- Friday November 28, from 20:00
 - Committee Meeting, via Zoom
- Monday December 15, from 20:00
 - 'The Search for Earth 2.0: Why we Think it Exists and How we're Going to Find it' pre-recorded Zoom talk by Jessie Christiansen
- Wednesday December 17, from 20:00
 - Christmas Meal, Newbourne Fox, booking now open
 - Observatory shut

Local Societies Events

- DASH (Darsham Village Hall, 7:00pm, Sundays)
 - November 30, 'Astronomy in Uzbekistan', Chris Mead
 - December 14, Observing/Christmas Social Meeting
- SAS (Cavendish Memorial Hall, 7:30pm, Tuesdays)
 - December 02, 'The Very Latest on Dark Matter & Dark Energy', Matt Bothwell
- AAA (Whepstead Village Hall, 7:30pm, Wednesdays)
 - November 26, 'Observing the Night Sky'
 - December 10, 'The Story of Terrestrial & Extra-Terrestrial Impacts', Andrew Green
- DAG (Diss)
 - Informal on FaceBook & WhatsApp

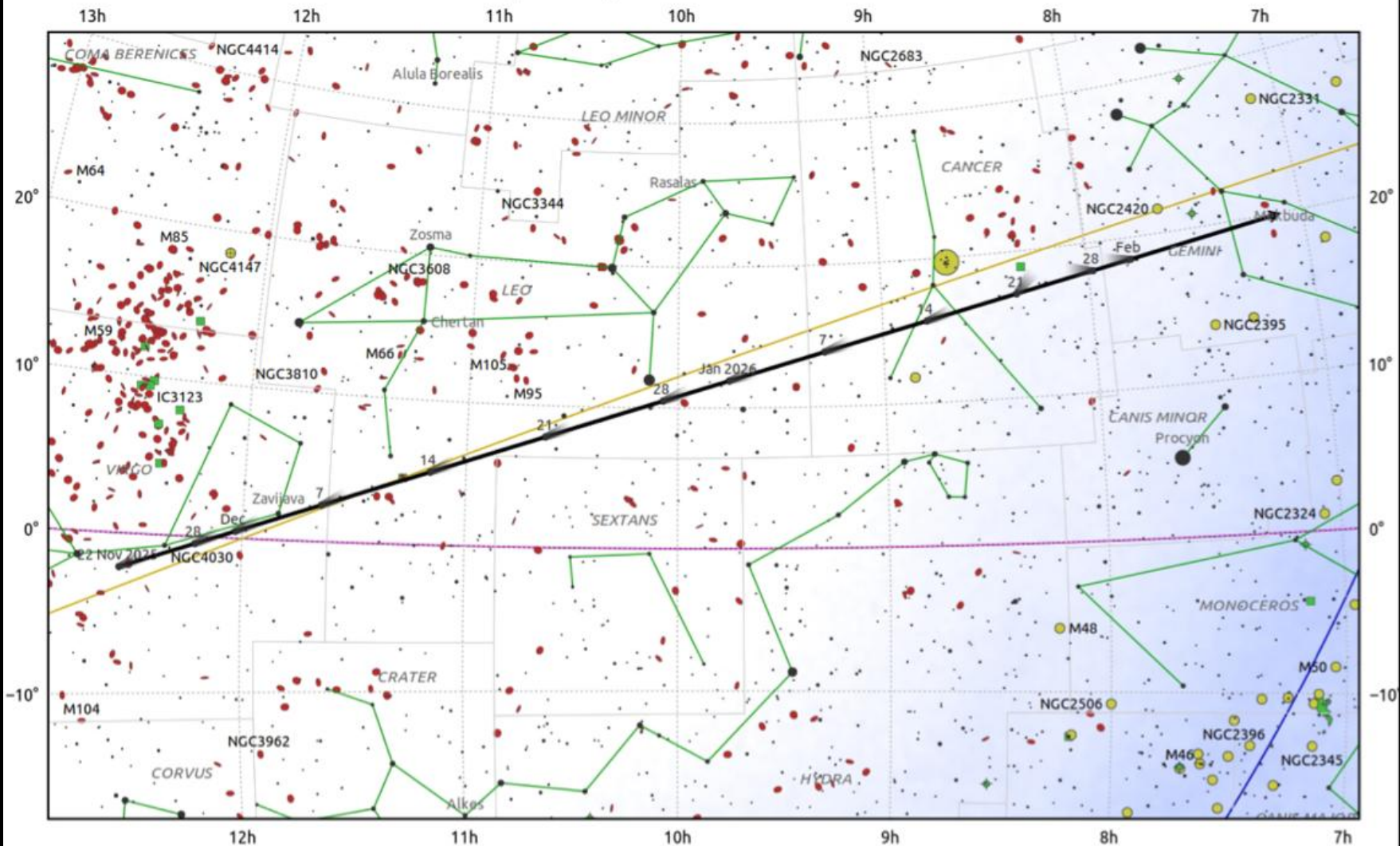
National Event

- British Astronomical Association
 - Christmas Meeting
 - Institute of Physics, London
 - Saturday December 06, 14:00-18:00
 - 'Parker Solar Probe & Solar Orbiter Spacecraft', Prof Timothy Horbury
 - Adventures in Martian Deep Time, Tales of the Perseverance & Curiosity Rovers', Sanjeev Gupta
 - Sky Notes, Nick James
 - free booking open, also live streamed

Interstellar Comet

- 3I/ATLAS
 - C/2025 N1 (ATLAS)
 - Discovered, 1 July 2025, 4.5AU, +18 mag
 - Size, 0.2 to 3½ miles diameter
- Perihelion, 29 October 2025, 1.4AU
- Perigee, 19 December 2025, 1.8AU
- Previous objects
 - 1I ('Oumuamua), 2017, &
 - 2I (Borisov), 2019

The path of 3I/ATLAS from 2025 November 22



© Dominic Ford 2011-2025. Chart generated 22 Nov 2025. Date markers placed at midnight UTC. Downloaded from <https://in-the-sky.org>

Magnitude scale: · 7.0 · 6.0 · 5.0 · 4.0 • 3.0 • 2.0 ● 1.0 ● 0.0

— The Equator — Ecliptic Plane — Galactic Plane

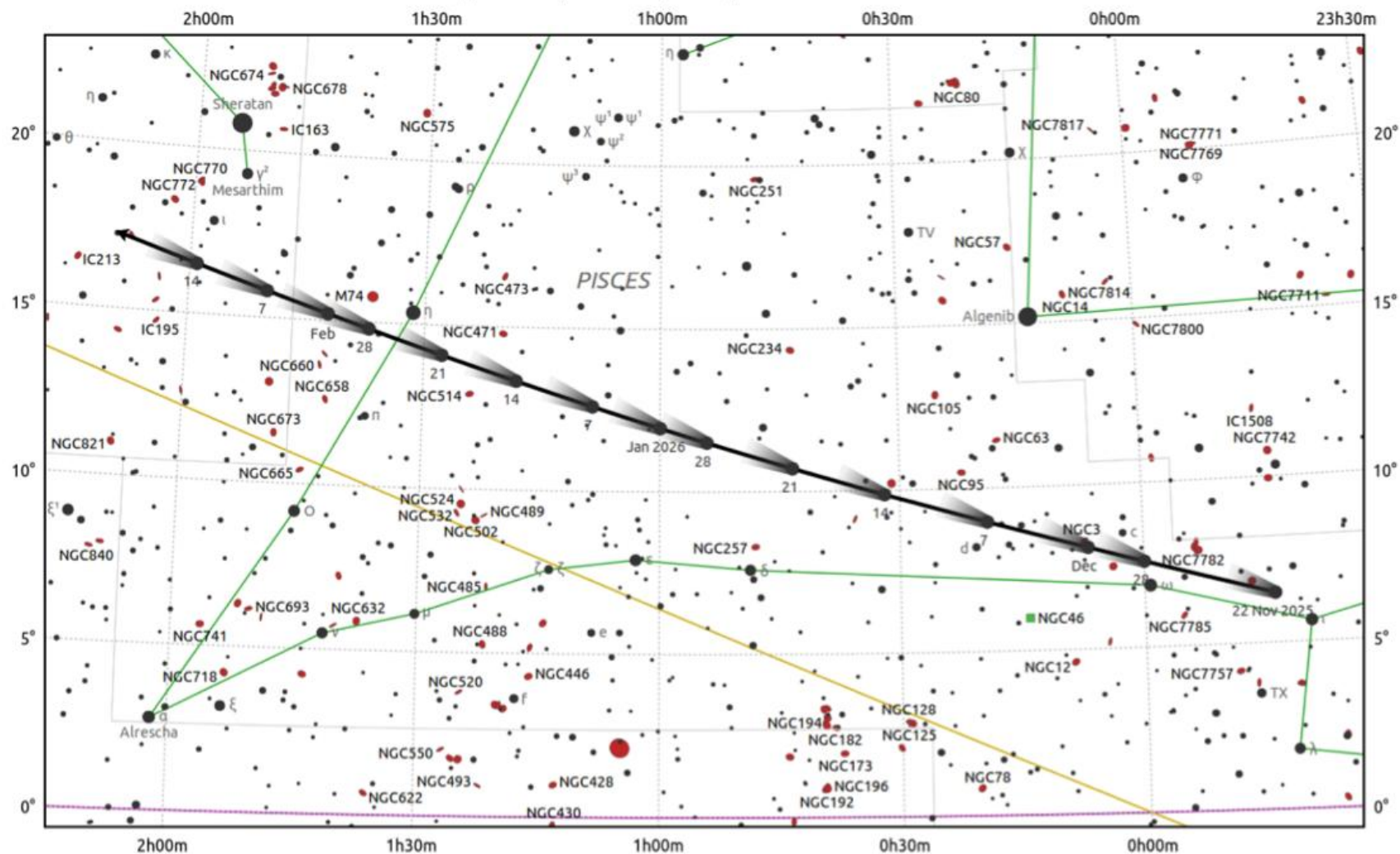
 Galaxy
  Bright nebula
  Open cluster
  Globular cluster
  Planetary nebula

Date	Mag
2025 Dec 1	15.8
2025 Dec 14	16.4
2025 Dec 15	16.4
2026 Jan 1	17.4
2026 Jan 15	18.4
2026 Jan 16	18.4
2026 Jan 31	19.5
2026 Feb 1	19.6
2026 Feb 15	20.5

Solar System Comet

- C/2025 R2 (SWAN)
 - Discovered, 11 September
 - Perihelion, 12 September, 0.5AU
 - Perigee, 20 October, 0.26 AU

The path of C/2025 R2 (SWAN) from 2025 November 22



Magnitude scale: • 8.0 • 7.0 • 6.0 • 5.0 • 4.0 • 3.0 • 2.0

— The Equator

— Ecliptic Plane

— Galactic Plane

Galaxy

Bright nebula

Open cluster

Globular cluster

Planetary nebula

Date	Mag
2025 Dec 1	11.0
2025 Dec 5	11.3
2025 Dec 15	11.9
2025 Dec 22	12.4
2026 Jan 1	12.9
2026 Jan 11	13.4
2026 Jan 15	13.5
2026 Feb 1	14.2
2026 Feb 6	14.4
2026 Feb 15	14.7