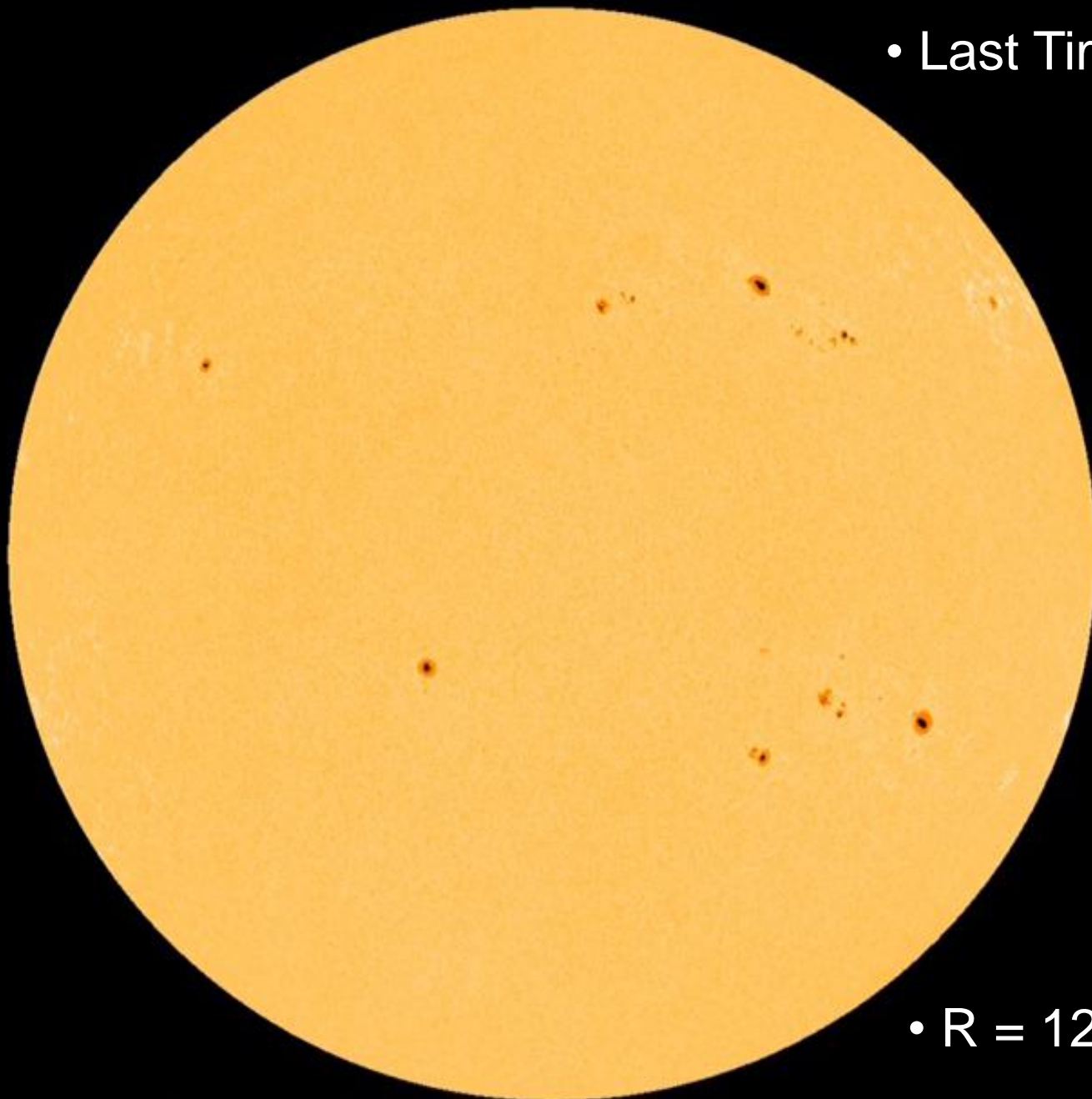


What's Up?

2023 April 24 to May 22

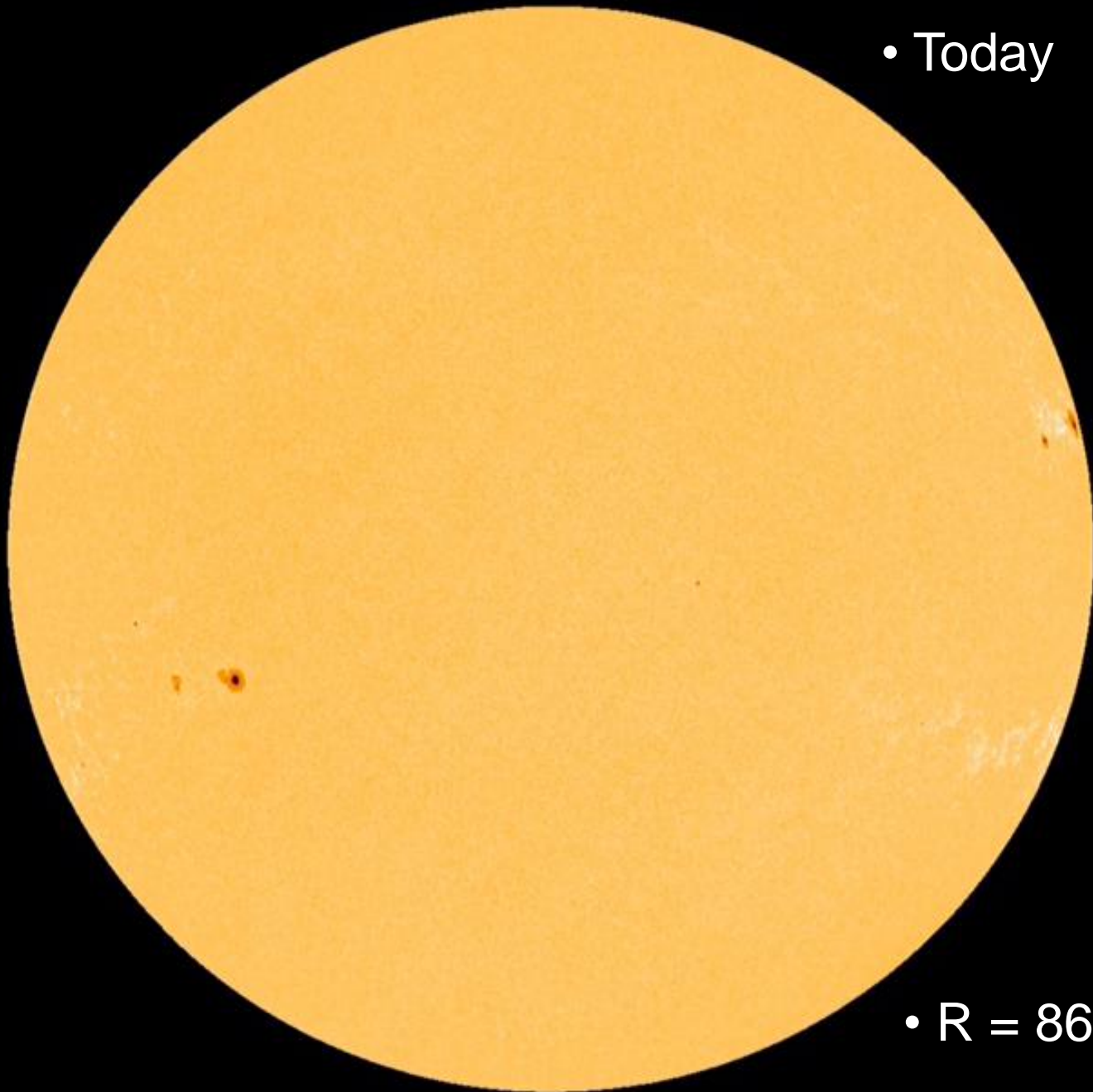
Bill Barton, FRAS

• Last Time



• R = 125

• Today



• R = 86

Relative Sunspot Number

$$R = k(10g + s)$$

where

R = Relative Sunspot (Wolf or Zürich) Number

k = observer factor (experience, aperture)

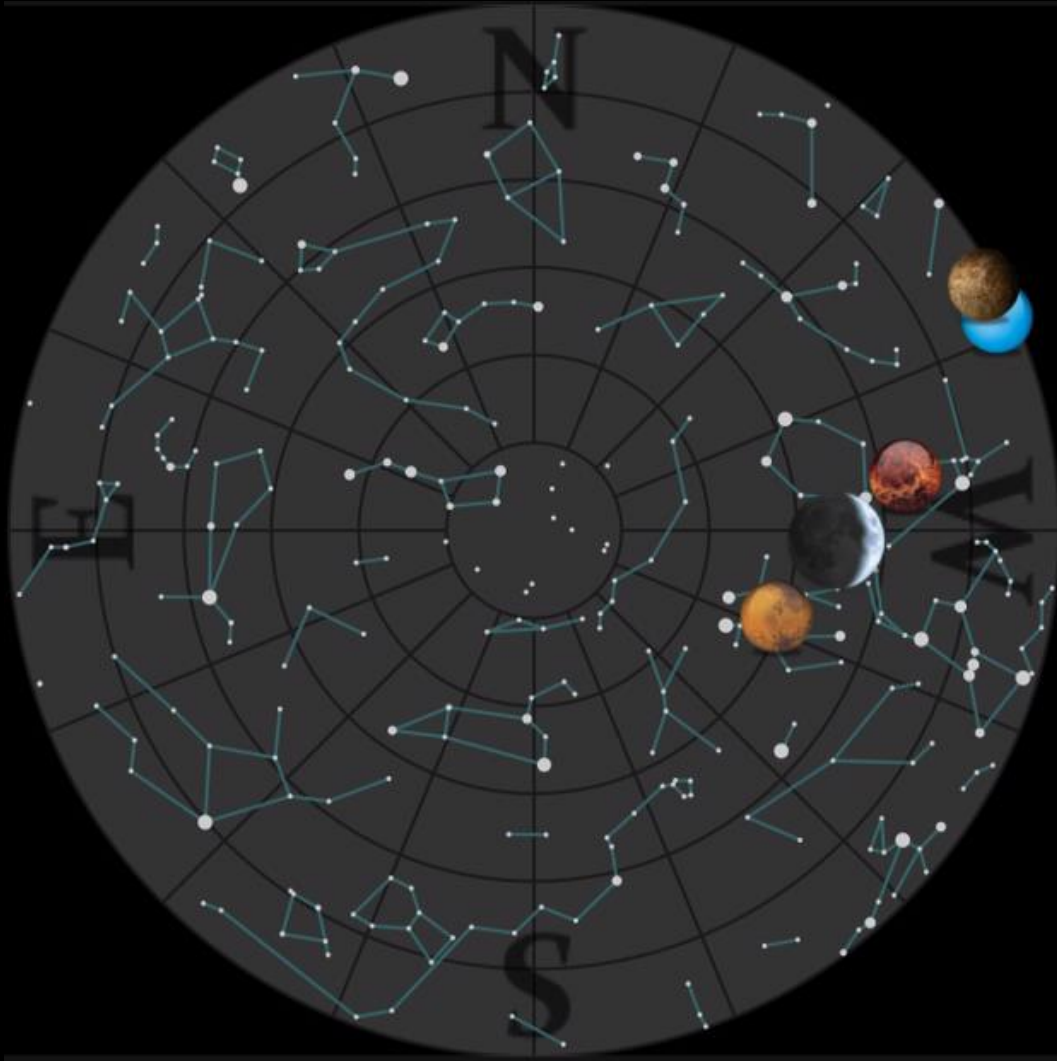
g = number of groups (a sunspot $> 10^\circ$ from neighbour)

s = number of sunspots

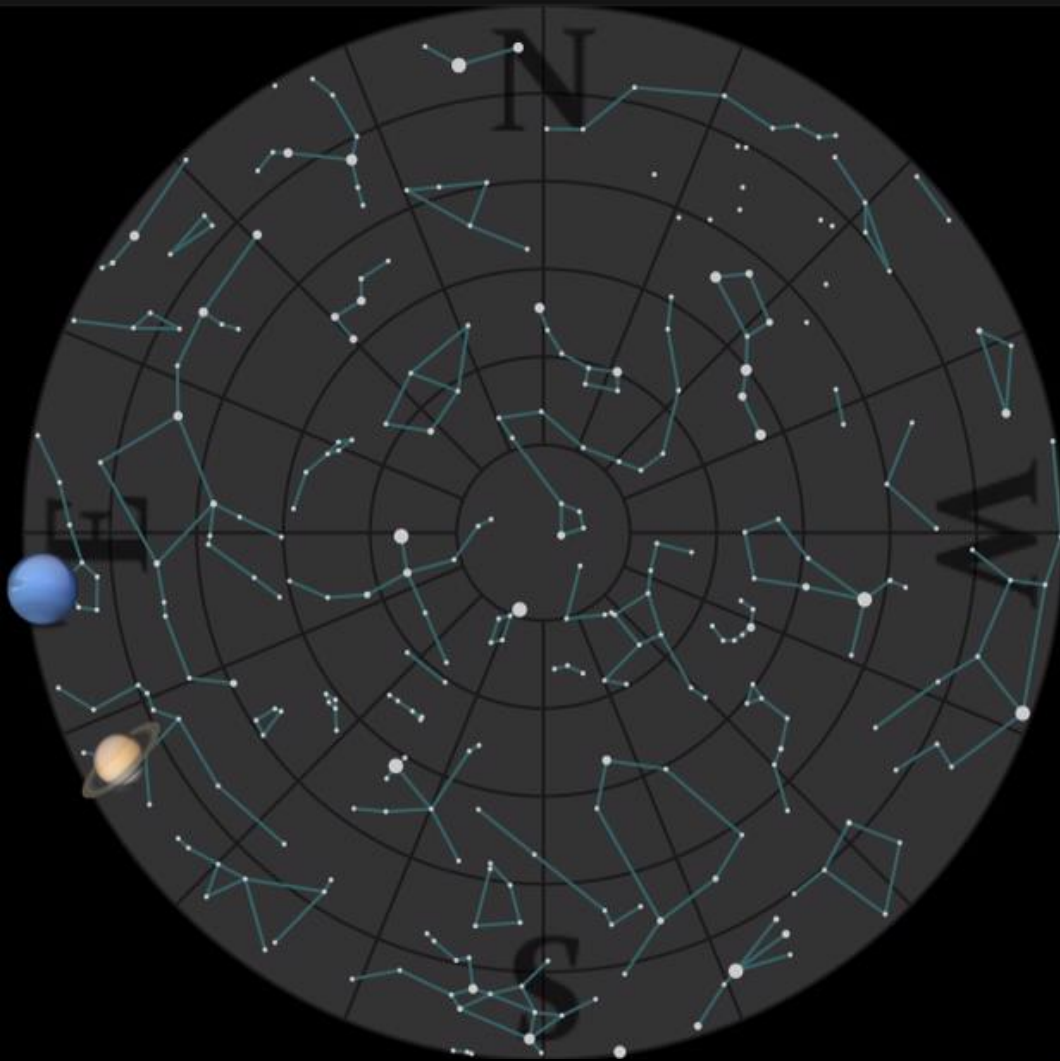
A running index of solar activity since 1848 (Rudolf Wolf (1816-1893), Zürich), reconstructed back to 1818 (daily) and ultimately 1700

Can also be monthly or annual smoothed

- The Sky 21:00
Tonight



- The Sky 05:00
Tomorrow



Inner Solar System

- Sun
 - Declination increasing, equinox Mar. 20, solstice Jun. 21
 - Last sunspot min., Apr. 2020, next max., Jul. 2025 ($R \approx 115?$)
- Mercury
 - In evening sky, greatest elongation Apr. 11 (19°), currently 12° , mag +3.5 decreasing (-2 to +5)
 - Inferior conjunction May 01
 - Then in morning sky, greatest elongation May 29 (25°)
 - Today, rise 05:45, transit 13:30, set 21:20
- Venus
 - In evening sky, greatest elongation Jun. 04 (45°), currently 40°
 - Inferior conjunction Aug. 13
 - Today, rise 07:10, transit 15:40, set 00:10

Earth

- Time
 - 00:00UT \approx 14:10ST today
 - Today, sunrise 05:40, transit 12:50, sunset 20:10
 - End of period, sunrise 04:50, transit 12:50, sunset 20:55
- Moon
 - 🌒 First Quarter, 27
 - 🌕 Full, May 05 ('Milk or Flower' Moon) penumbral lunar eclipse, not visible from the U.K.
 - 🌑 Last Quarter, 12
 - 🌑 New, 19
- Meteors
 - Eta Aquarids, Apr. 19-May 28, peak 5-7, ZHR 40

Outer Solar System

- Mars
 - Conjunction Nov. 18, opposition 2025 Jan. 16. Today, rise 09:20, transit 17:50, set 02:20
- Jupiter
 - Conjunction Apr. 11, opposition Nov. 03. Today, rise 05:30, transit 12:15, set 19:00
- Saturn
 - Conjunction Feb. 16, opposition Aug. 27. Today, rise 04:00, transit 09:15, set 14:20
- Uranus
 - Conjunction May 09, opposition Nov. 13, Today, rise 06:10, transit 13:45, set 21:20
- Neptune
 - Conjunction Mar. 15, opposition Sept. 19, Today, rise 04:40, transit 10:30, set 16:25

OASI Events

- Newbourne
 - May 1 & 22 (no meeting on May 8)
- Committee Meeting
 - May 26, 20:00

Local Societies Events

- DASH (Darsham Village Hall, 7:00pm, Sundays)
 - May 07, Shaun Reynolds, 'Astrophotography: Light of the Night'
 - May 21, Solar Observing Meeting
- LYRA (Parkhill Hotel, Oulton, 7:30pm, Tuesdays)
 - TBA
- AAA (Whepstead Village Hall, 7:30pm, Wednesdays)
 - April 26, Solar Eclipses, the JWST
 - May 10, Matt Bothwell, 'Gravitational Waves'
 - May 24, Art & Astronomy, Observing the Planets

National Events I

- Society for Popular Astronomy
 - 14:00-17:00, Saturday Apr. 29, Gustav Tuck Lecture Theatre, UCL, Gower St., London WC1, Prof Paola Pinilla (UCL-MSSL), 'Probing Planet Formation Around Other Stars' and John Chapman-Smith 'Solar Observing'
- British Astronomical Association
 - 10:00-18:00, Saturday May 13, Spring Meeting - Cosmology: Galaxies and Stars, National Museum, Cardiff, CF10 3NP, entry fee applies
 - 10:00-17:00, Saturday May 20, Historical Section Meeting, Birmingham & Midland Institute, 9 Margaret St., Birmingham, B3 3BS, entry fee applies

National Events II

- Gresham College
 - 18:00-19:00, Wednesday May 31, TBA in central London & online, Prof Katherine Blundell, 'The End of the Universe'. Free registration required.