



HURTIGRUTEN

Astronomy Voyage



Dr Darren (Das) Baskill
Astronomer at the University of Sussex, UK

The Aurora

Dr Das Baskill
University of Sussex

- Physics
- Variety
- Out of this world aurorae

AURORA FORECAST

< Previous Day

Current

Next Day >

FAQ

You are viewing 3-Day Forecast data in Alaska time.

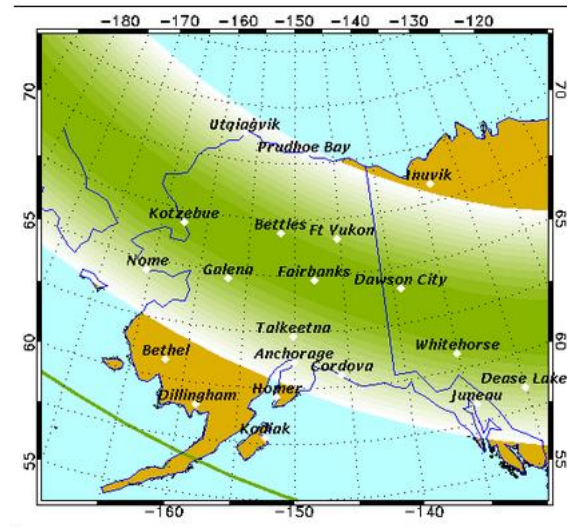
Saturday, March 22, 2025

Active Activity

Current



Time Zone: Local (Greenwich) v



N. America

Europe

N. Pole

S. Pole

Alaska

Forecast: Active aurora activity forecasted. If skies are clear, active auroral displays may

Read our FAQs to learn about these common questions [and more](#):

Viewing the Aurora

- [What time of year is best for seeing aurora?](#)
- [Can I see aurora during the summer months?](#)
- [Where is the best place to see aurora?](#)
- [Where should I view the aurora when I'm in Fairbanks, AK?](#)

Science of the Aurora

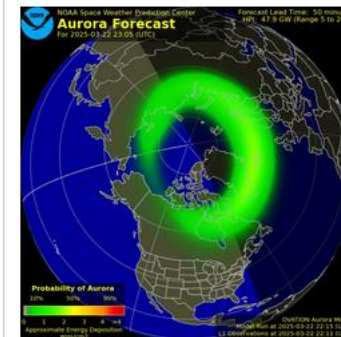
- [What are Kp numbers?](#)
- [What does the 2024-25 solar maximum mean for aurora?](#)
- [Can you predict where there will be aurora?](#)

Forecasting the Aurora

- [How accurate is the 3-day forecast?](#)

Current Activity

Watch the last few seconds of the animation to see what is predicted over your location in the next 30 minutes.

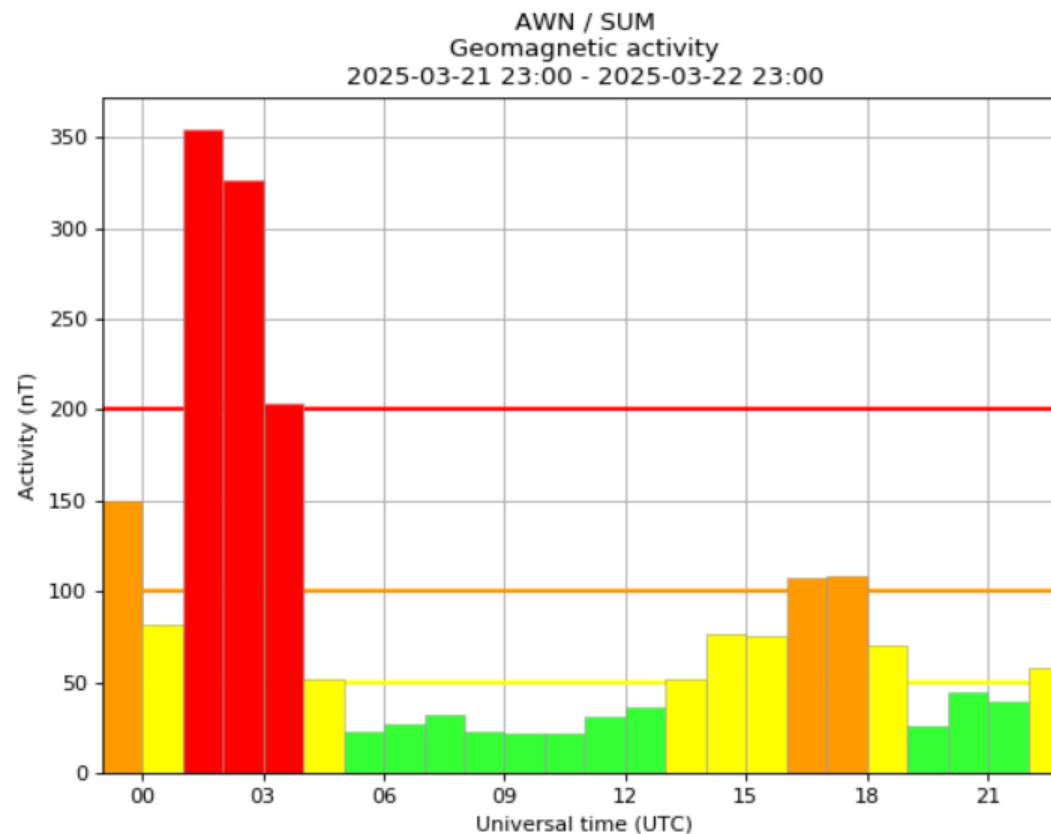
Source: [Space Weather Prediction Center](#)

<https://www.gi.alaska.edu/monitors/aurora-forecast>

AuroraWatch UK

See the aurora borealis from the UK

AuroraWatch UK status:
Minor geomagnetic activity

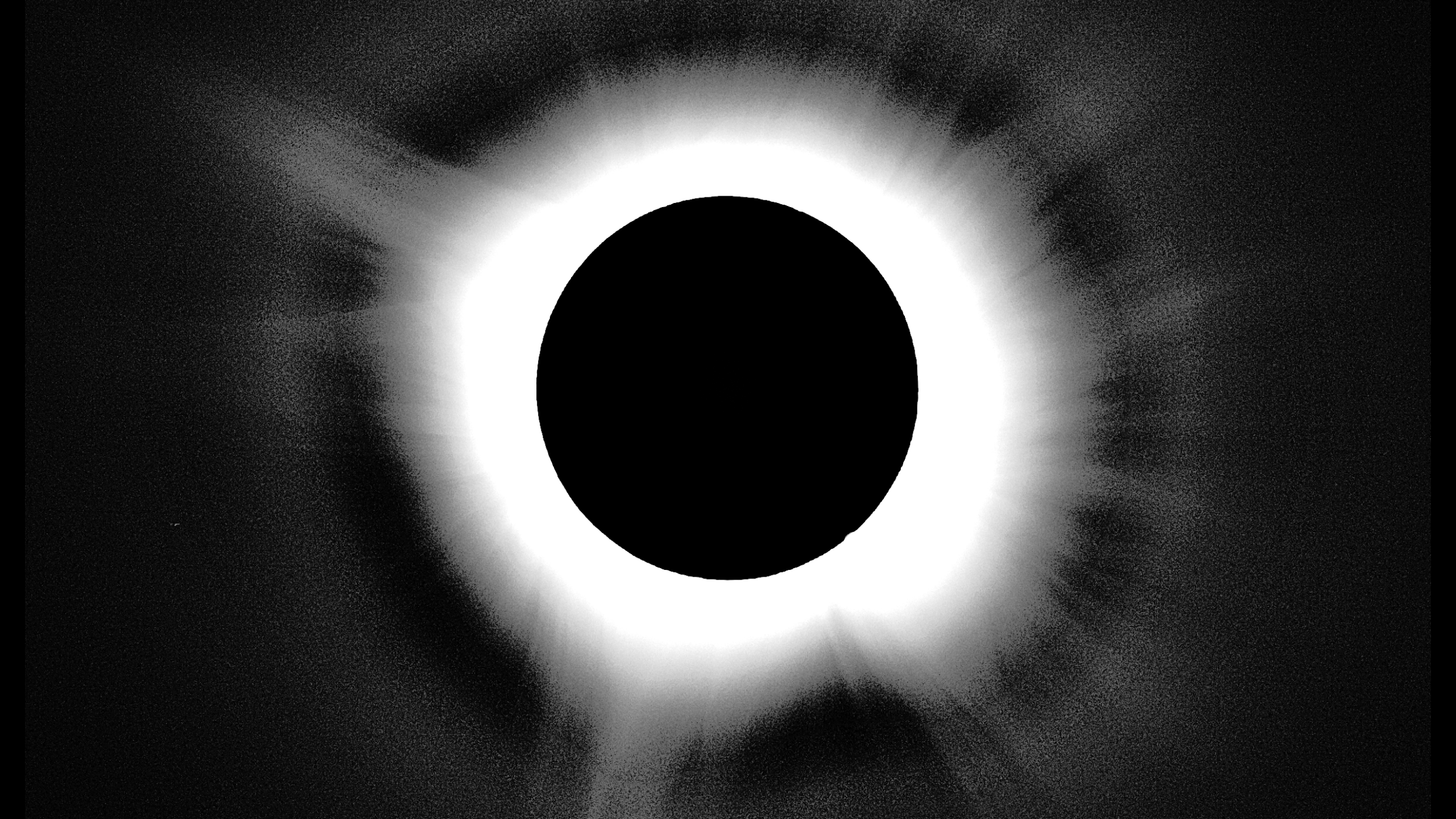


Activity plot

Magnetogram

Stackplot





THE SUN



4th August, 2024

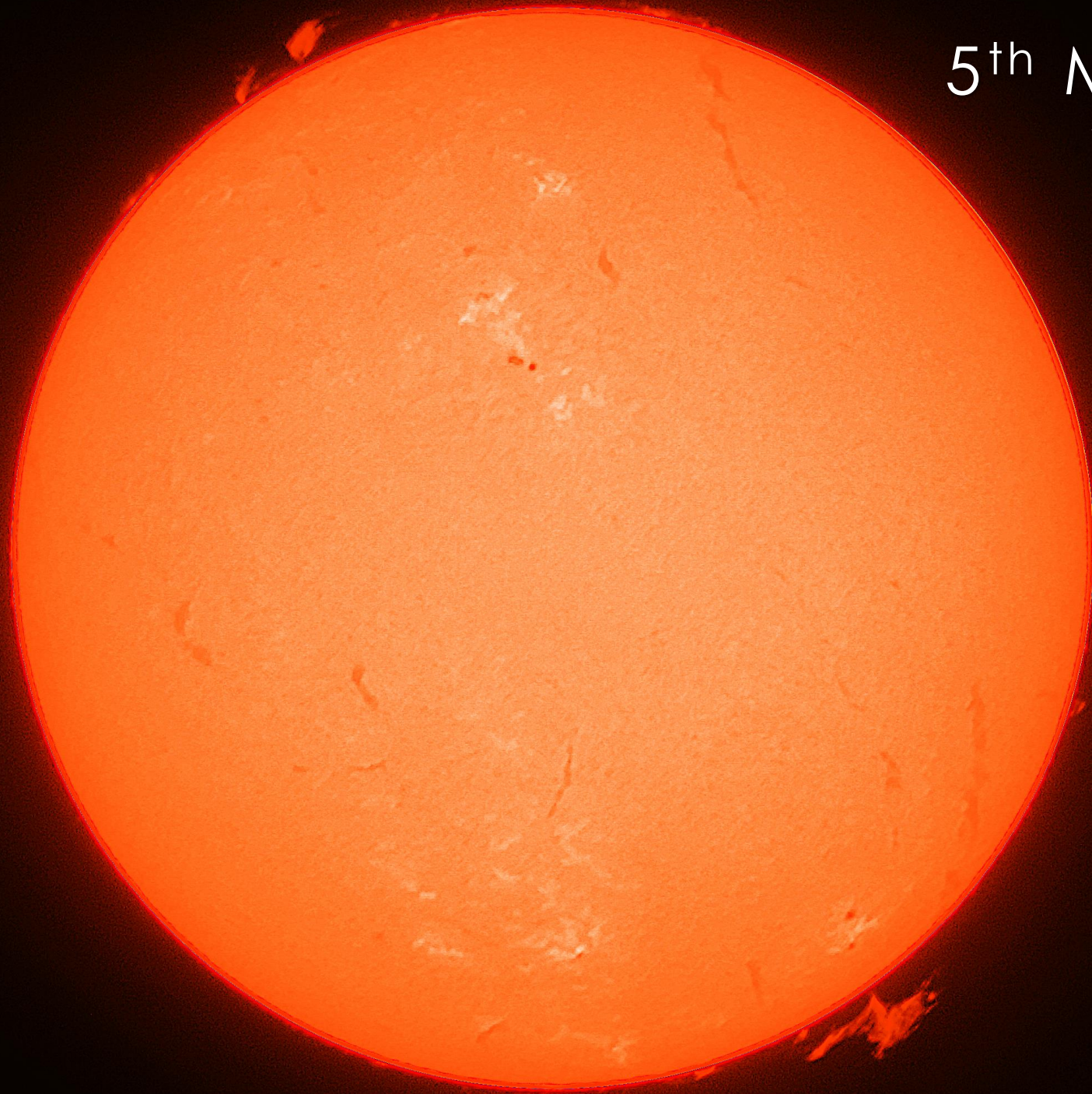
THE SUN

5th March, 2025
10:32 UT

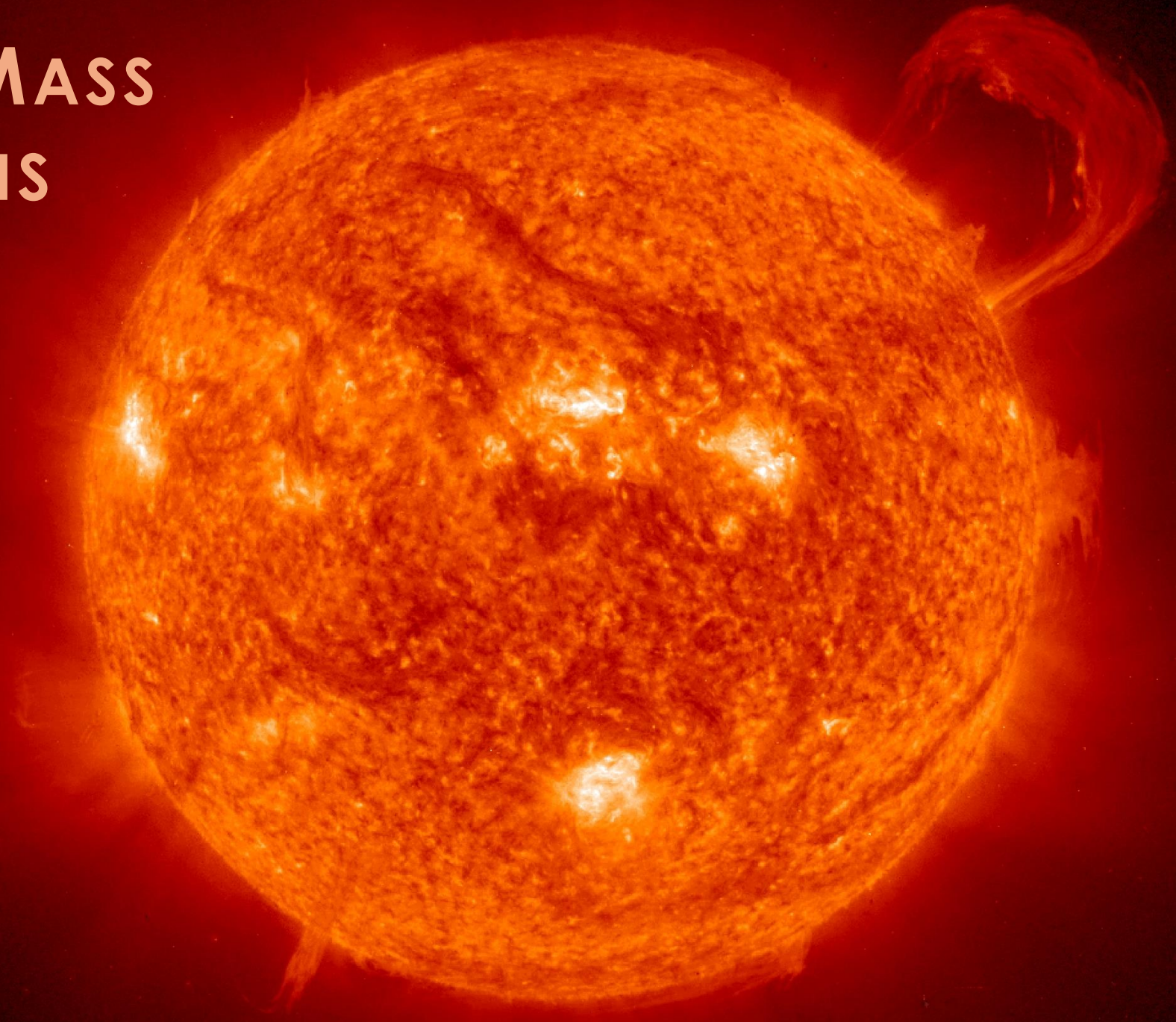


THE SUN

5th March, 2025
14:57 UT

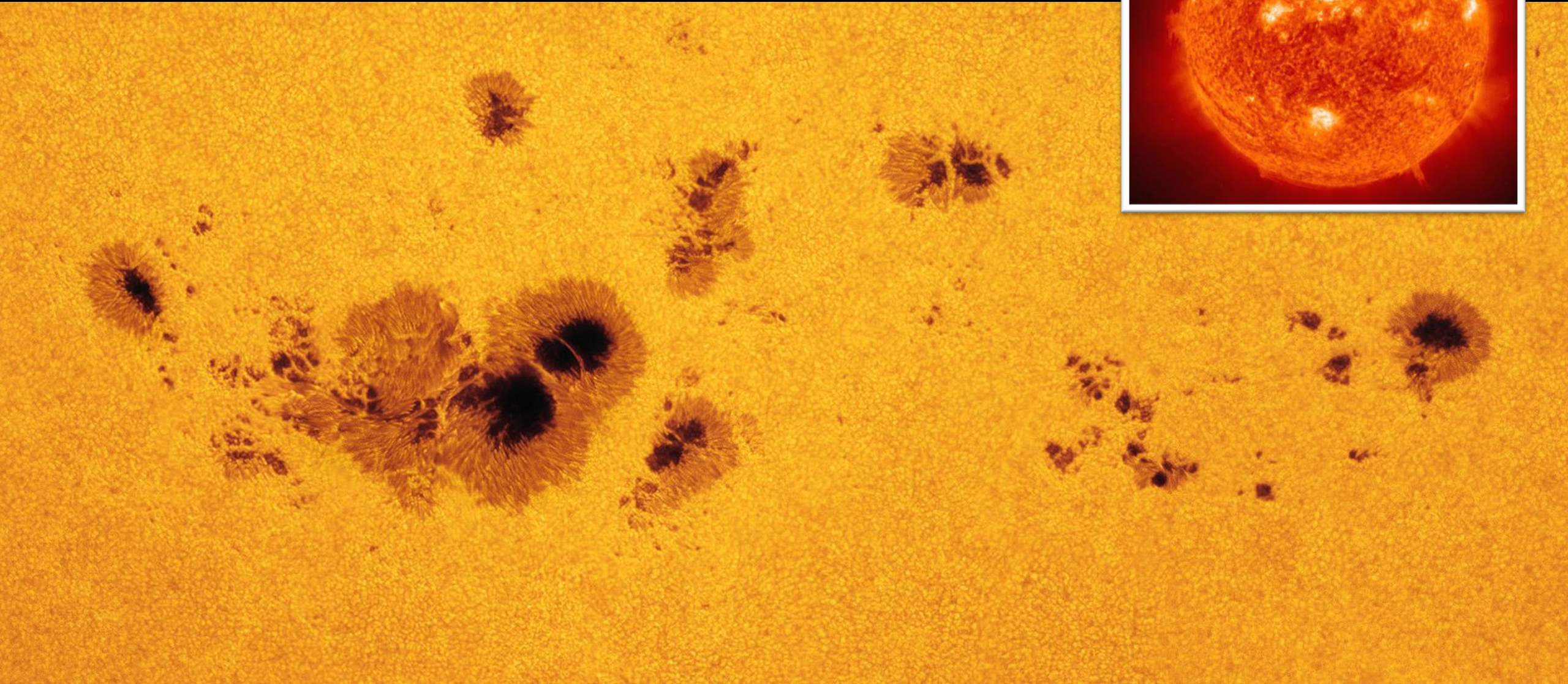
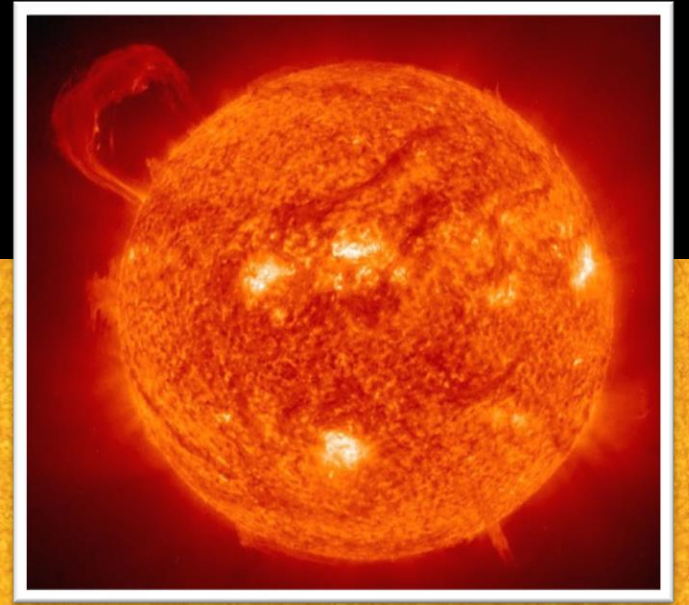


CORONAL MASS EJECTIONS



SOHO Solar Observatory (Nasa/Esa)

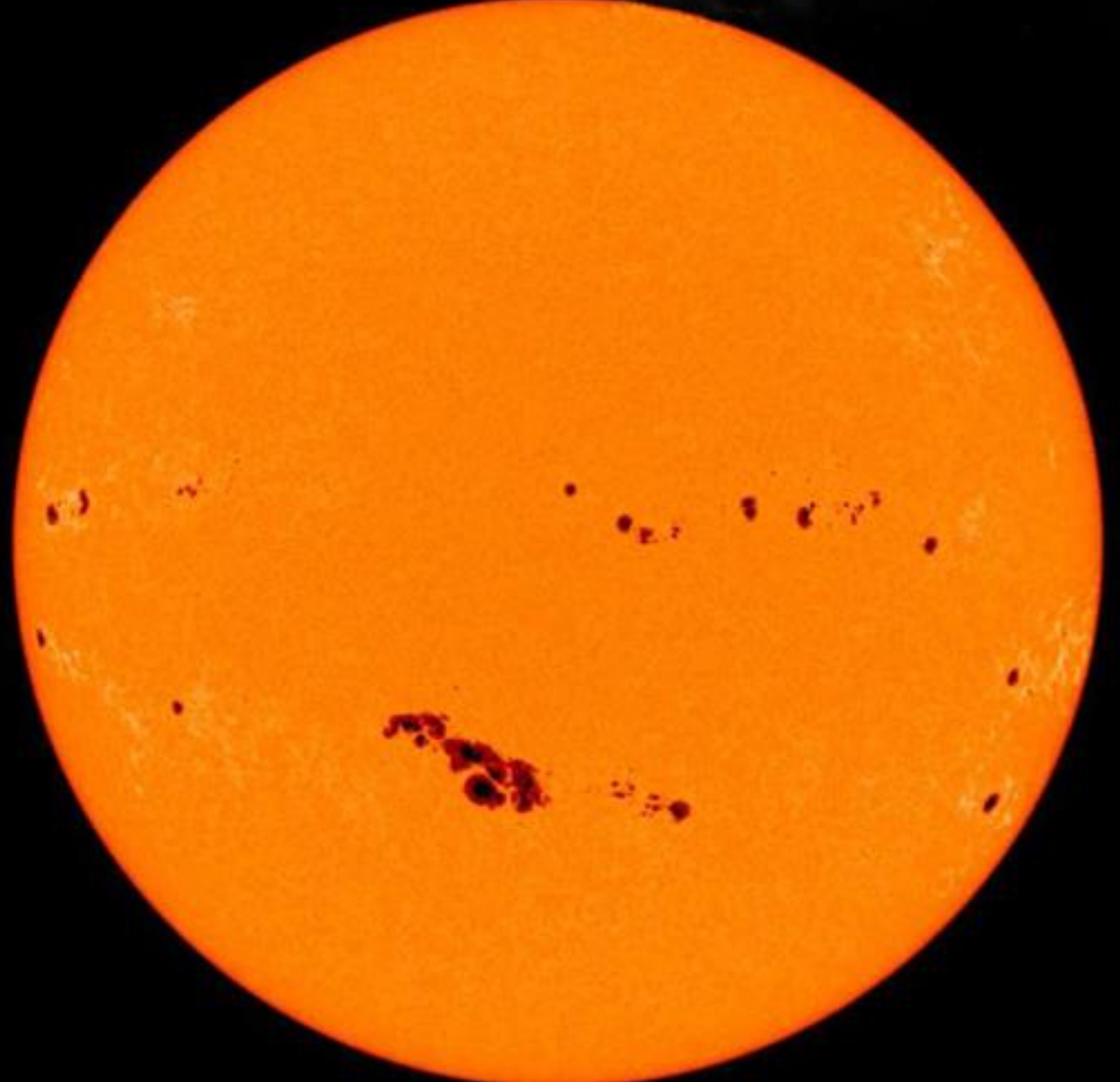
SUN SPOTS



SUN SPOTS



Solar Minimum



Solar Maximum

SUN SPOTS

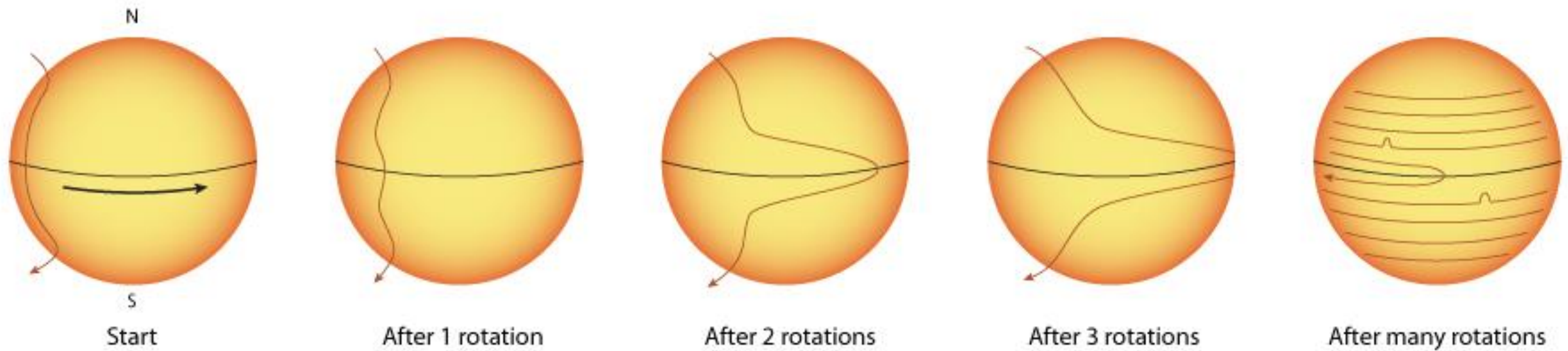
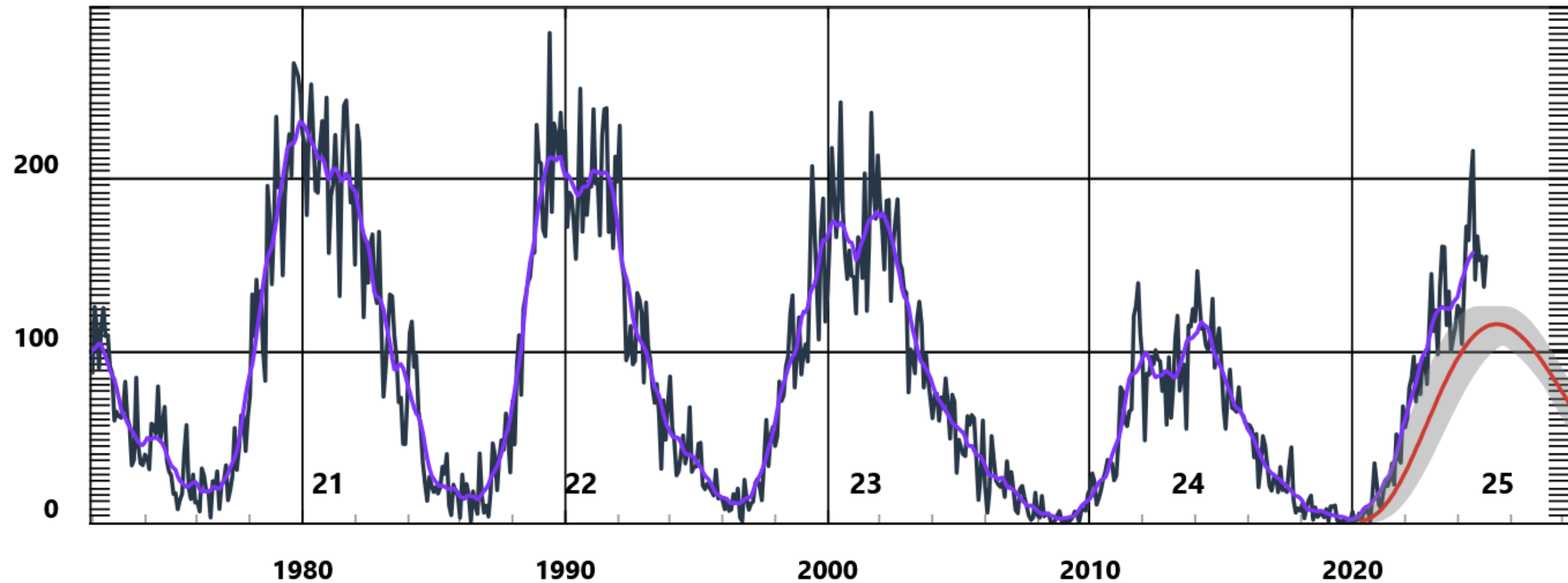
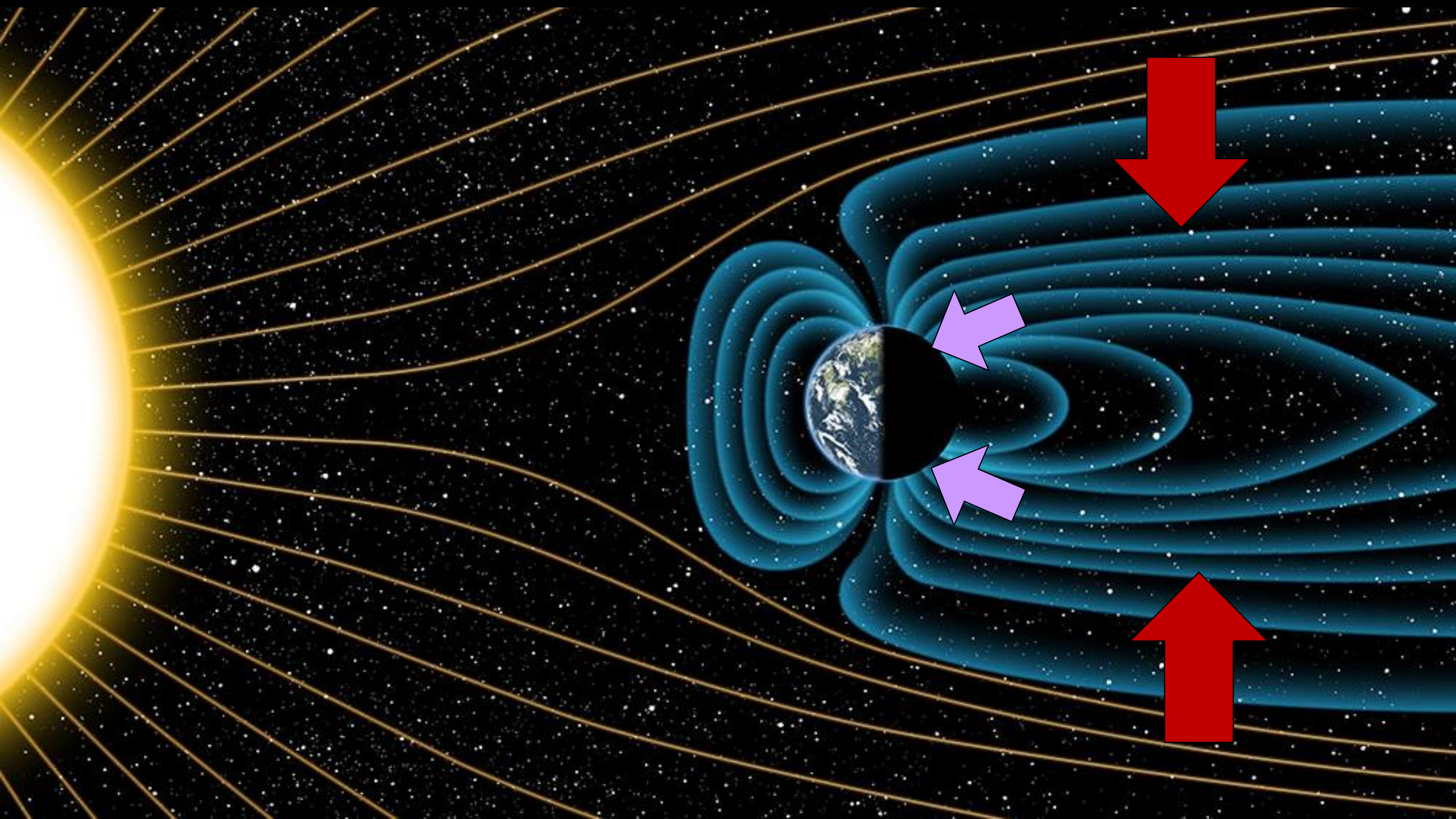


Illustration by José Francisco Salgado, PhD (Adler Planetarium)

SOLAR CYCLE





Aurora

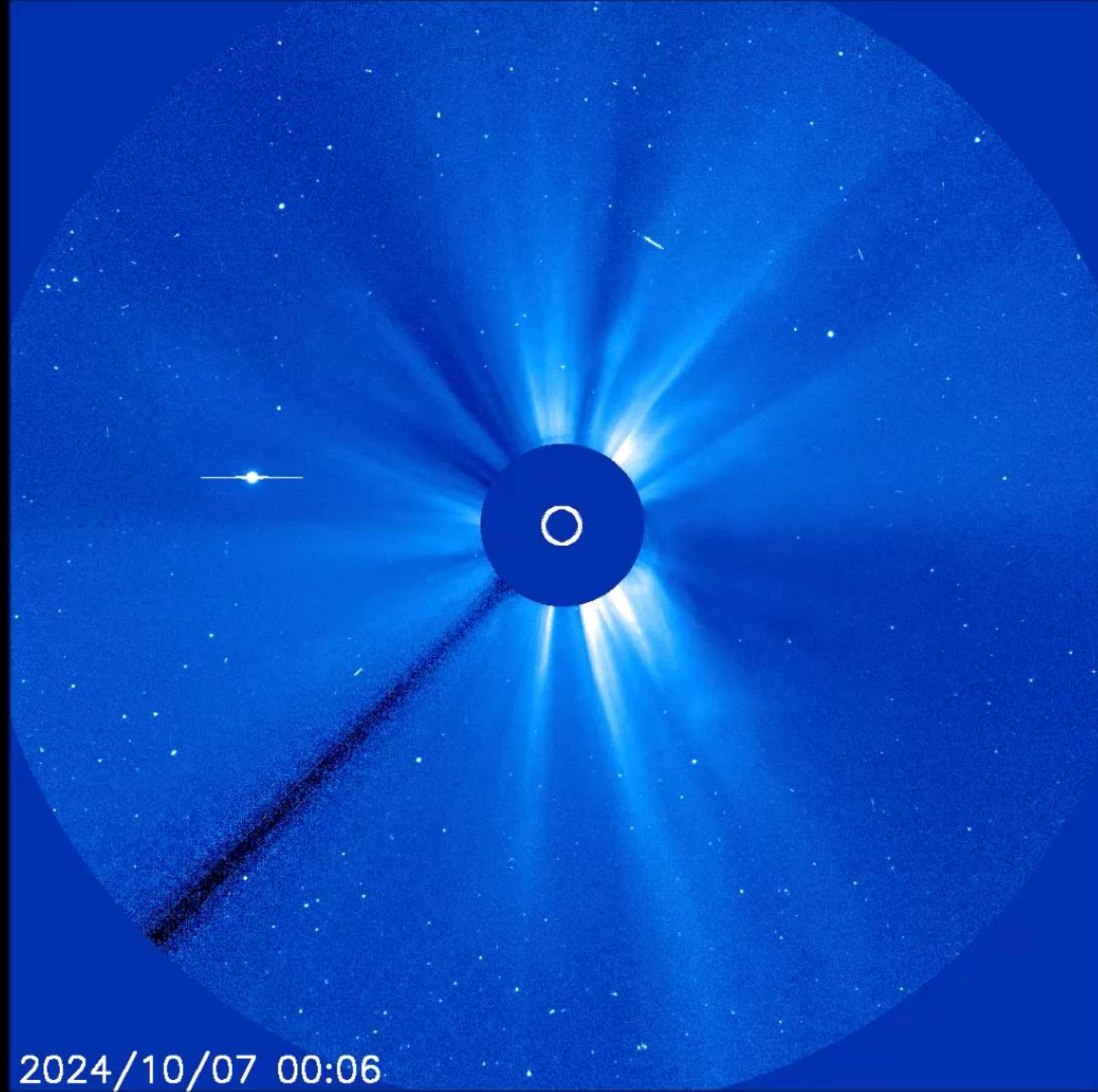




A photograph of a vibrant aurora borealis (northern lights) display over Brighton. The sky is filled with vertical streaks of bright green and yellow light. The foreground shows the dark silhouettes of trees and the city lights of Brighton at the bottom.

Aurora

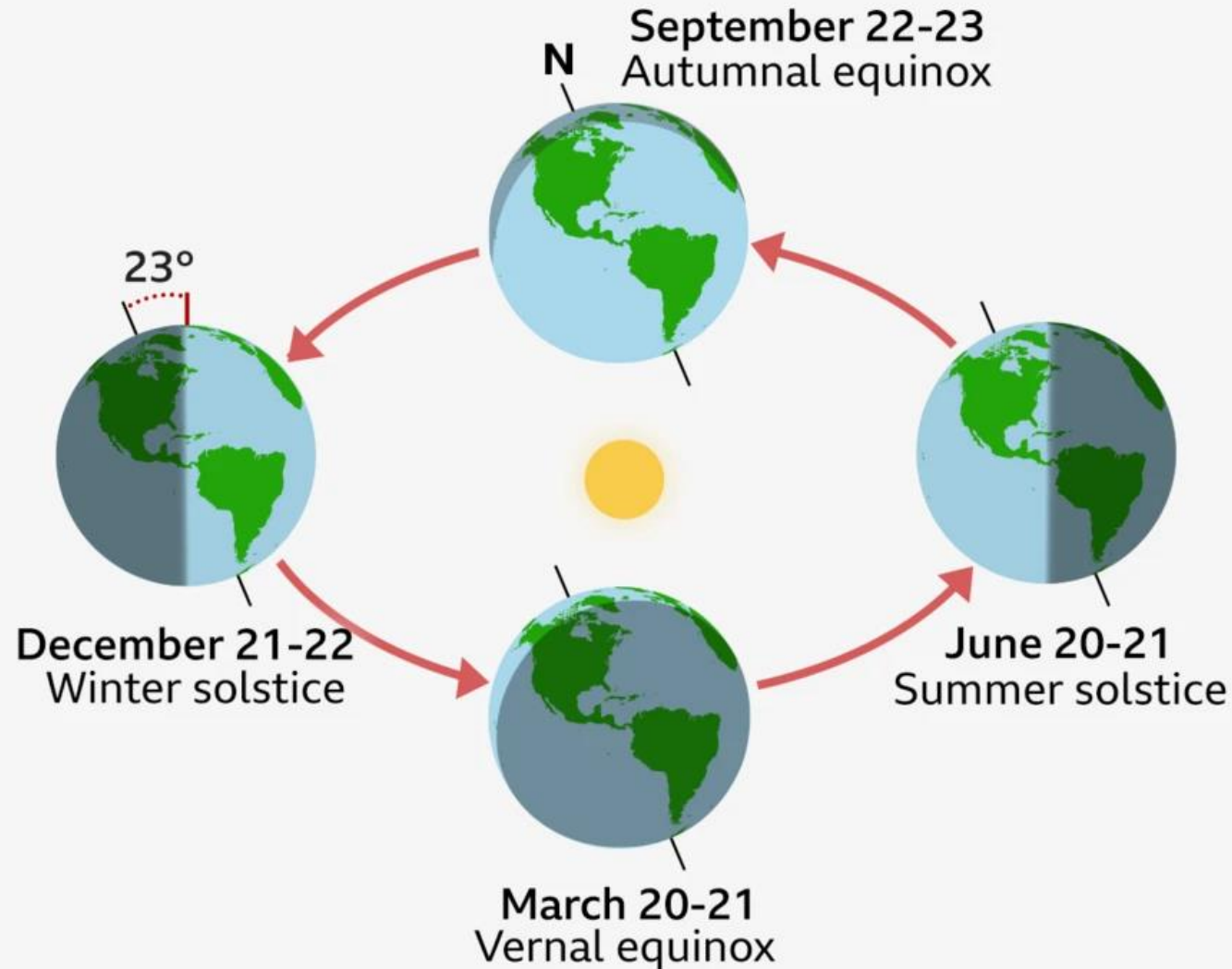
Over Brighton!



2024/10/07 00:06

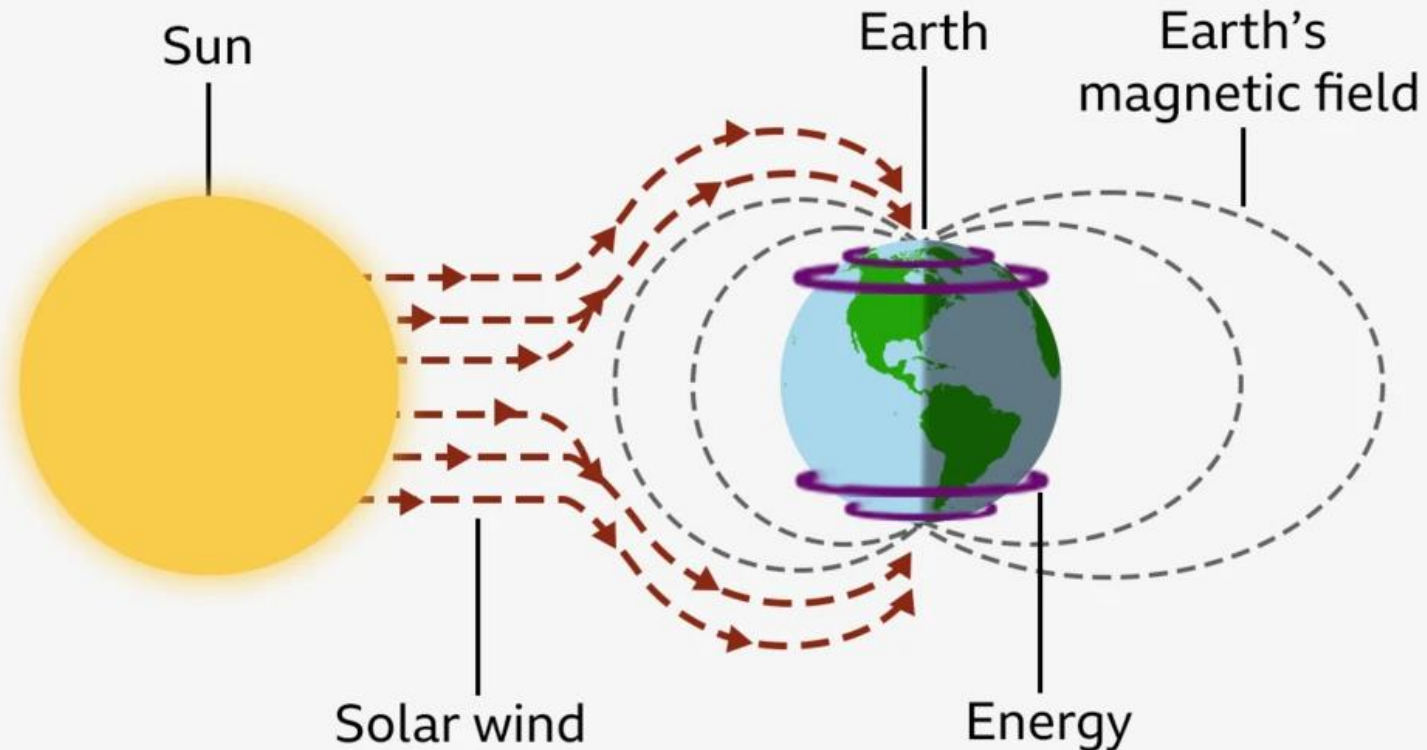
How the Russell-McPherron effect can make the aurora stronger

At **solstice** the Earth is tilted towards or away from the Sun but at **equinox** there is no tilt in relation to the Sun



How the Russell-McPherron effect can make the aurora stronger

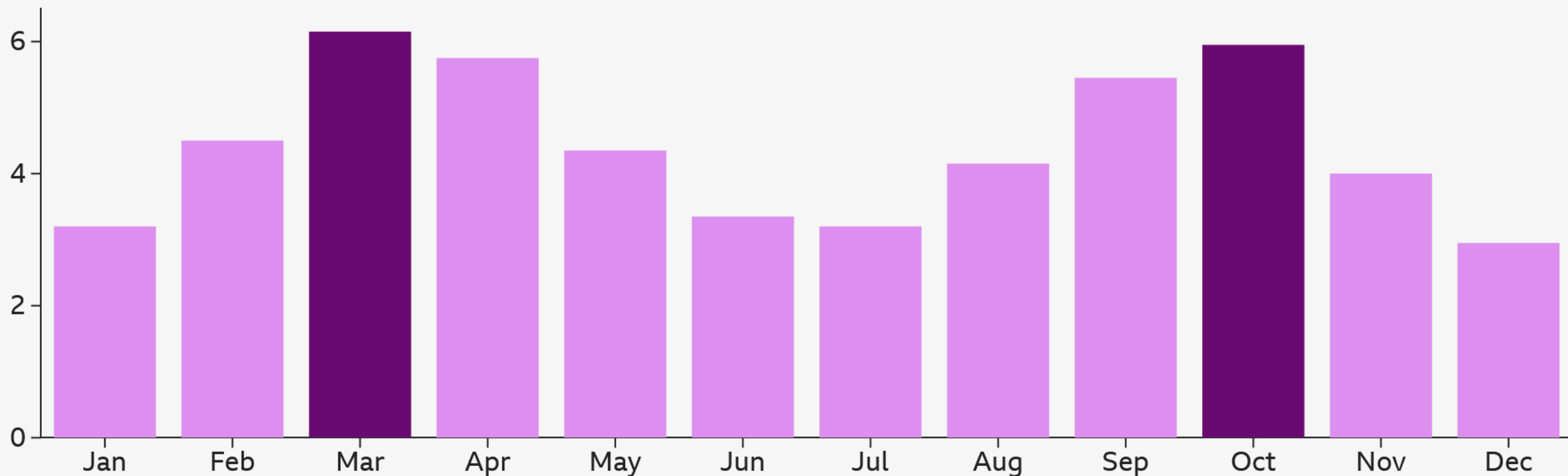
When there is no tilt - at **equinox** - the magnetic field of the solar wind is more attracted to the Earth's magnetic field - resulting in more energy entering the atmosphere and **stronger aurora**



Stronger aurora more likely in spring and autumn

Effects are caused by 'geometric disturbances' - which increase around **equinox months**

Average number of geometrically disturbed days each month 1932-2007



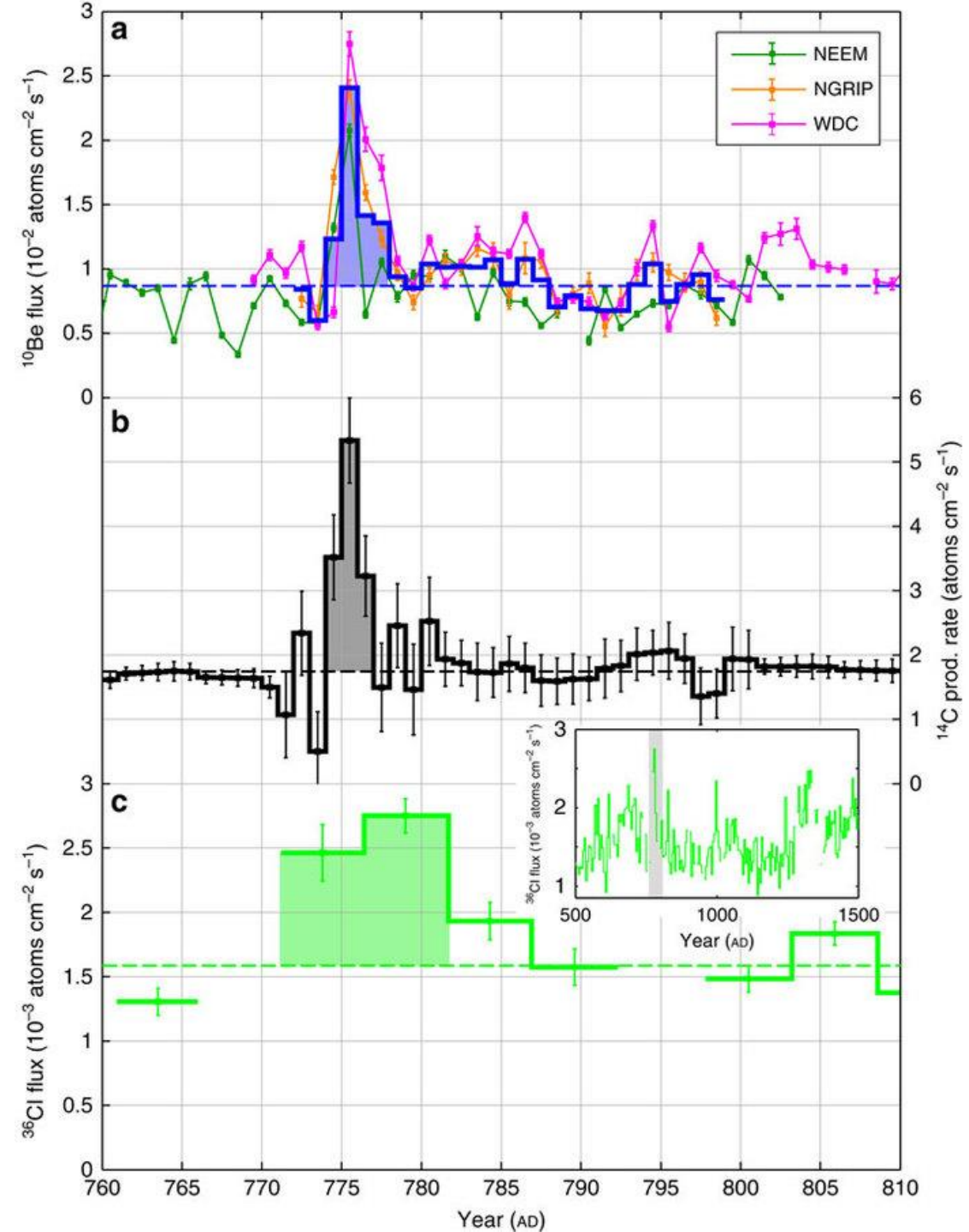
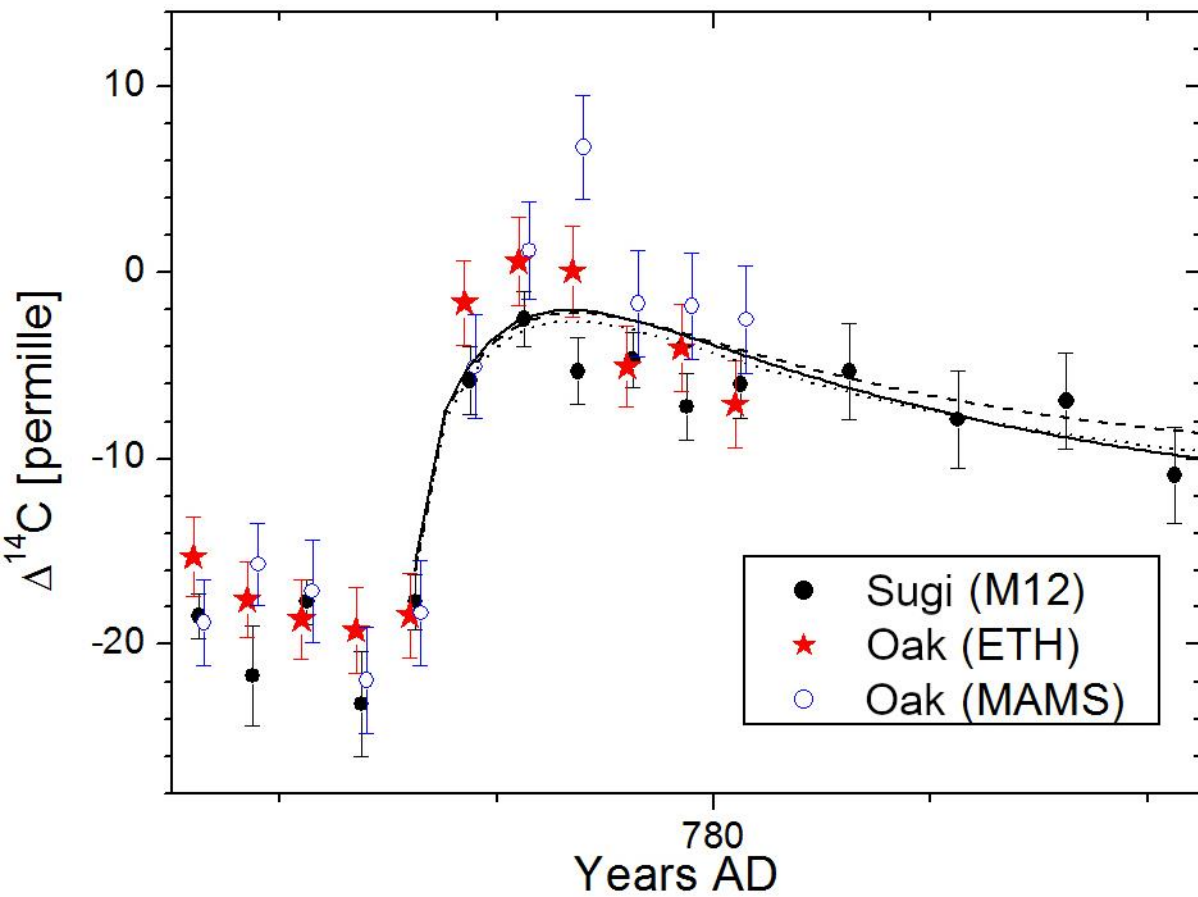
Source: Nasa physicist David Hathaway

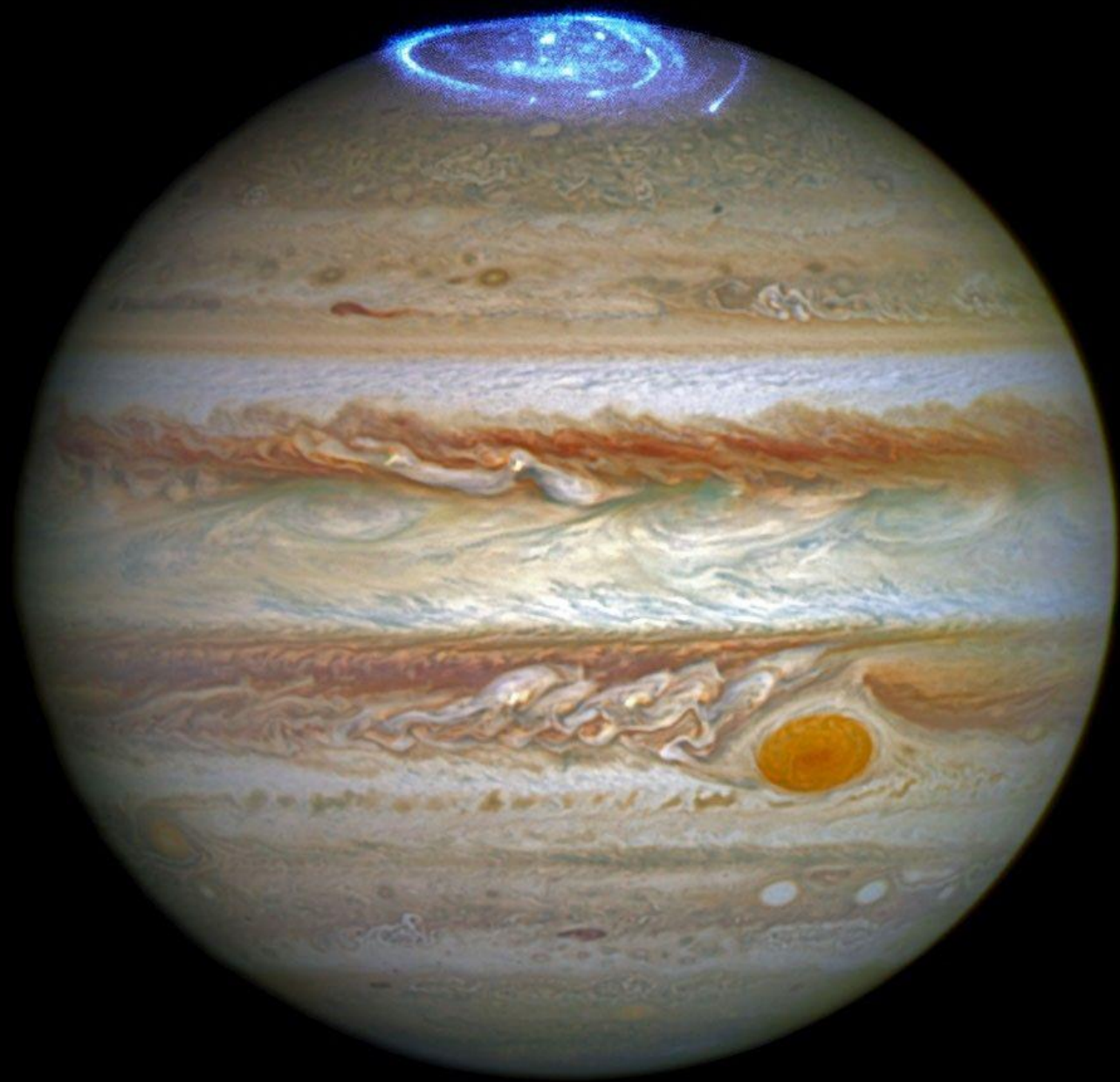
STEVE

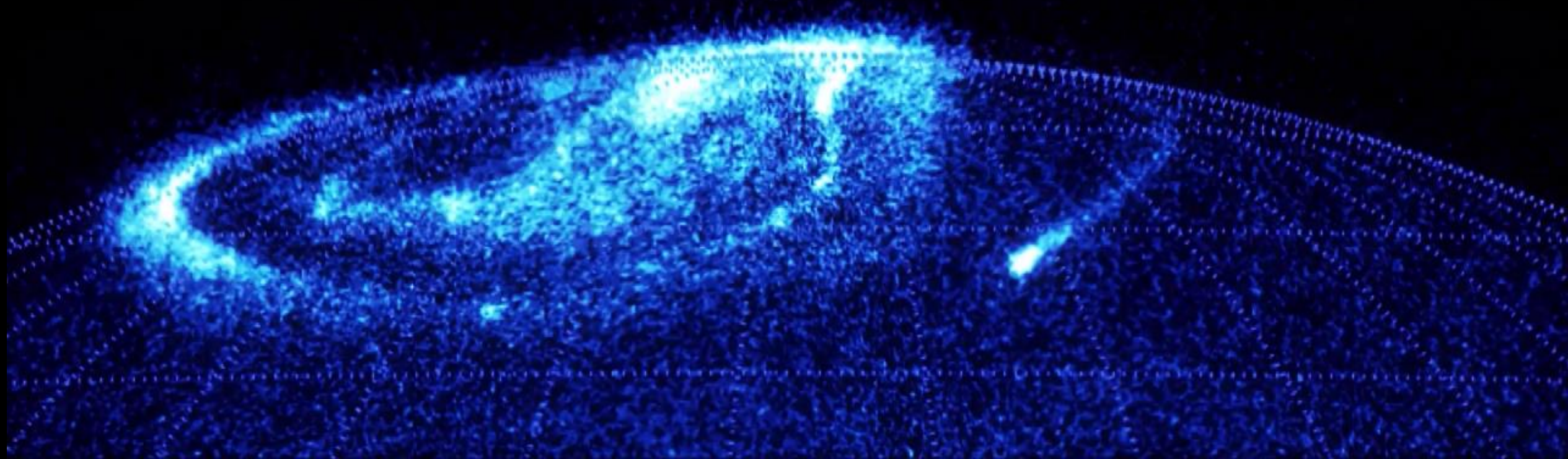


774–775 carbon-14 spike

Seen in tree rings and ice cores world wide. The 1.2% increase in ^{14}C is 20x expected.







An artistic rendering of three Saturn-like planets, each with a prominent ring system, arranged in a diagonal line from the bottom left to the top right. The planets are depicted with yellowish-orange bands and a bright blue aurora visible on the lower-left limb of each planet. The background is solid black.

Even discovered Exoplanets by looking for signatures of their aurora (Low-frequency ($\nu \lesssim 150$ MHz) radio-waves detected, possibly from aurora around an Earth-sized planet in a 1 to 5 day orbit.