SIDC Space Weather Briefing

17 November 2024-24 November 2024

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& the SIDC forecaster team

Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2024-11-17 12:00 to 2024-11-24 23:59

Active regions	17 regions on disk over the week (between NOAA AR 3889 and 3908)
Flares	# C-class flare: 42 # M-class flare: 15 # X-class flare: 0
Coronal Holes	2 small Negative Polarity CHs
CMEs	No Earth Directed CMEs

Proton flux	Exceeded the 10pfu threshold on Nov 21 and 22
Electron flux	Near / at the 1000 Pfu threshold at the start of the week

Solar wind and geomagnetic conditions

ICMEs	No ICMEs observed
Solar wind conditions	|B|: 1.27 - 12.72 nT //Bz: -10.33 nT to 9.21 nT //Speed: 277.6 – 500.5km/s
Geomagnetic conditions	max KBel: 4.0, max Kp(NOAA): 4-, Active conditions

All Quiet Alert: Not Quiet

Solar Activity

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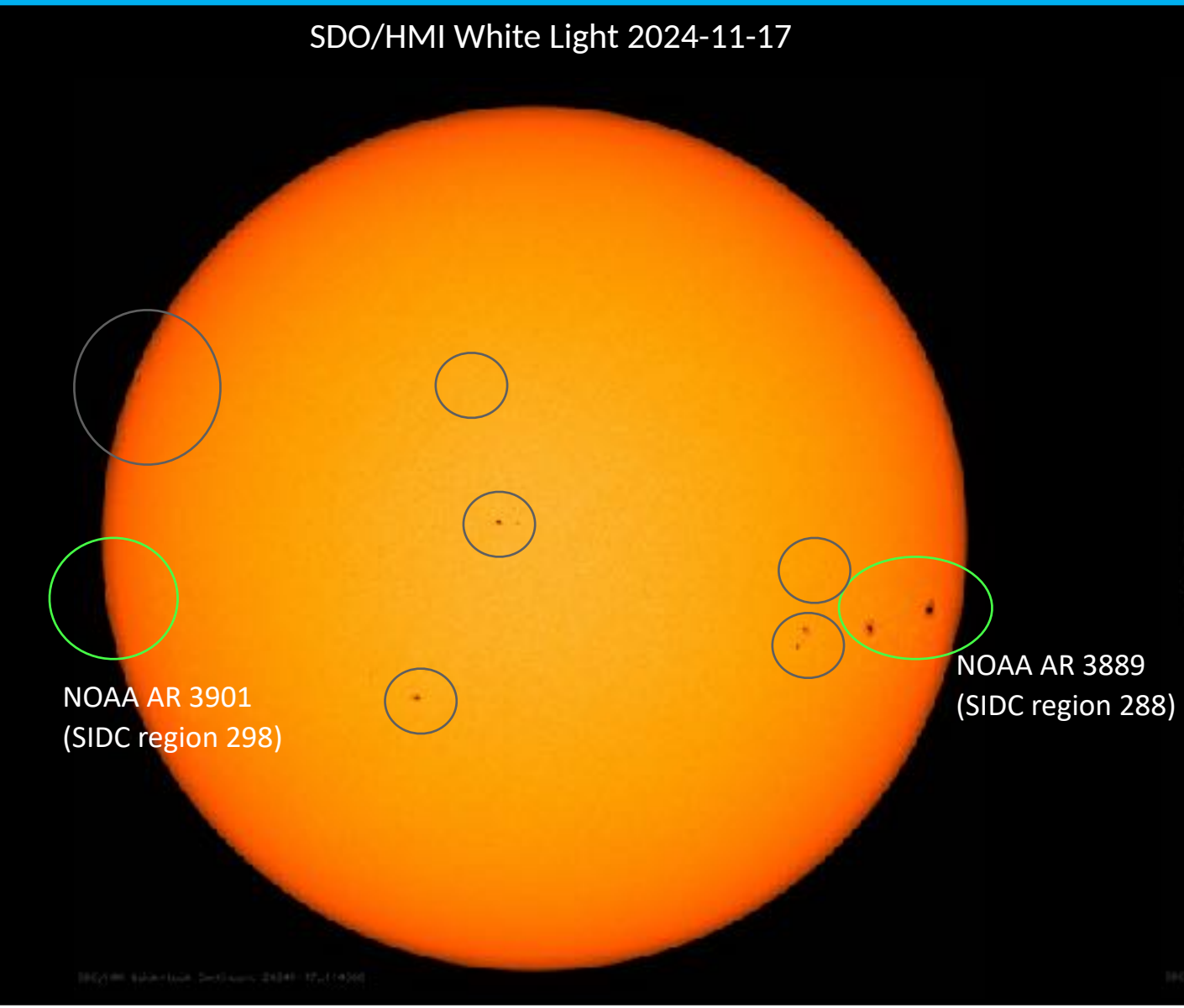
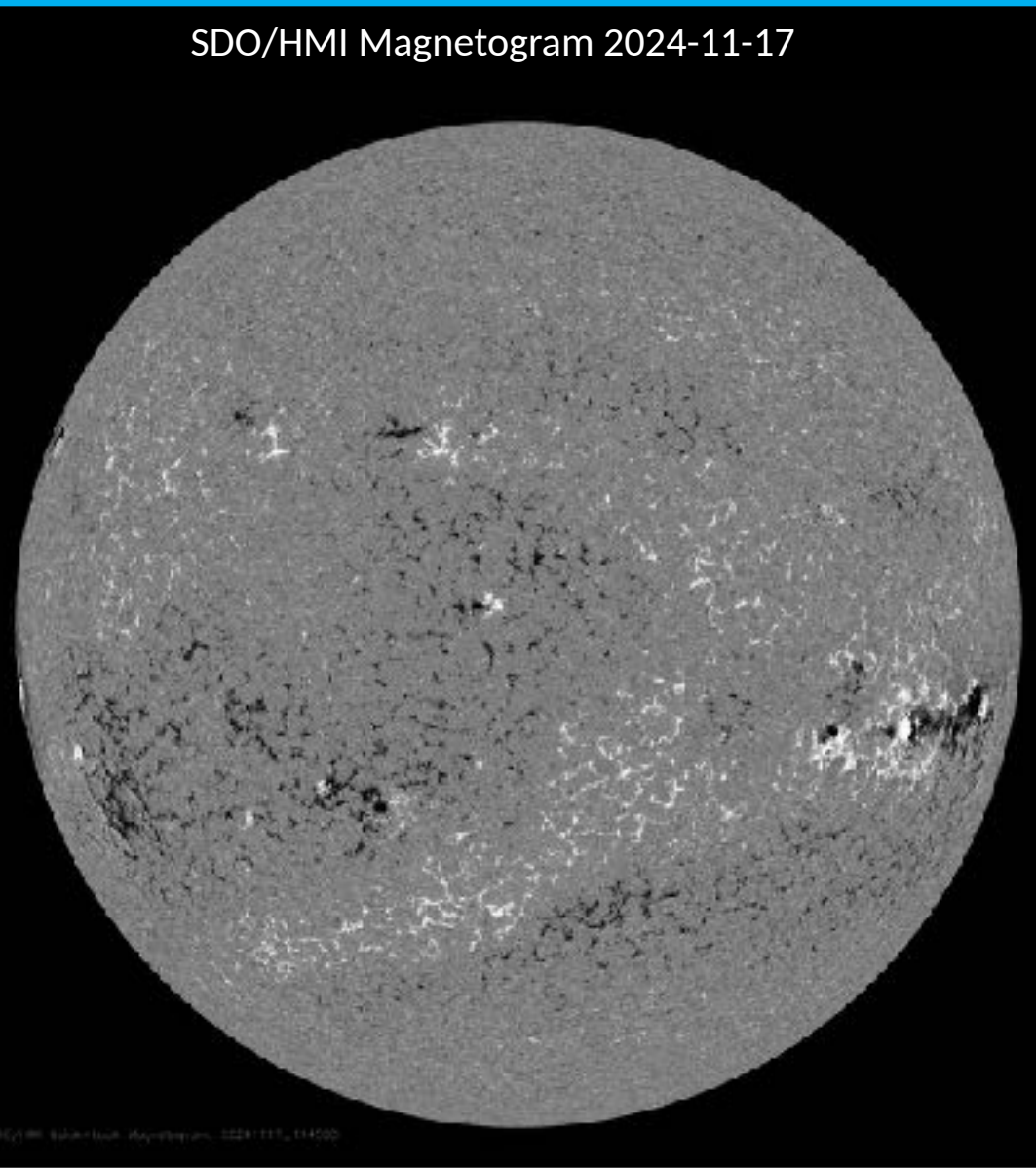
Solar active regions

SDO/HMI White Light 2024-11-17

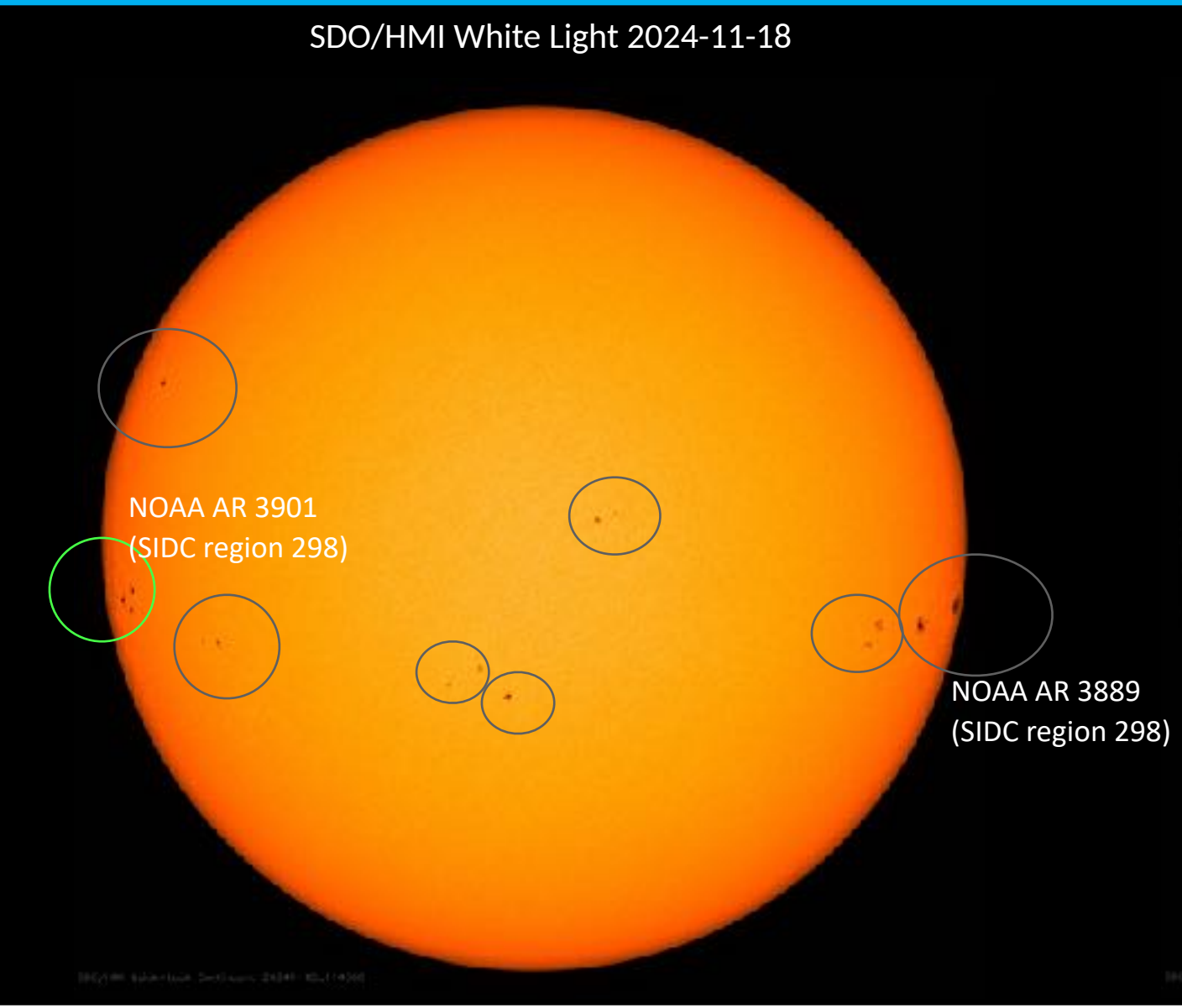


SDO/HMI Magnetogram 2024-11-17

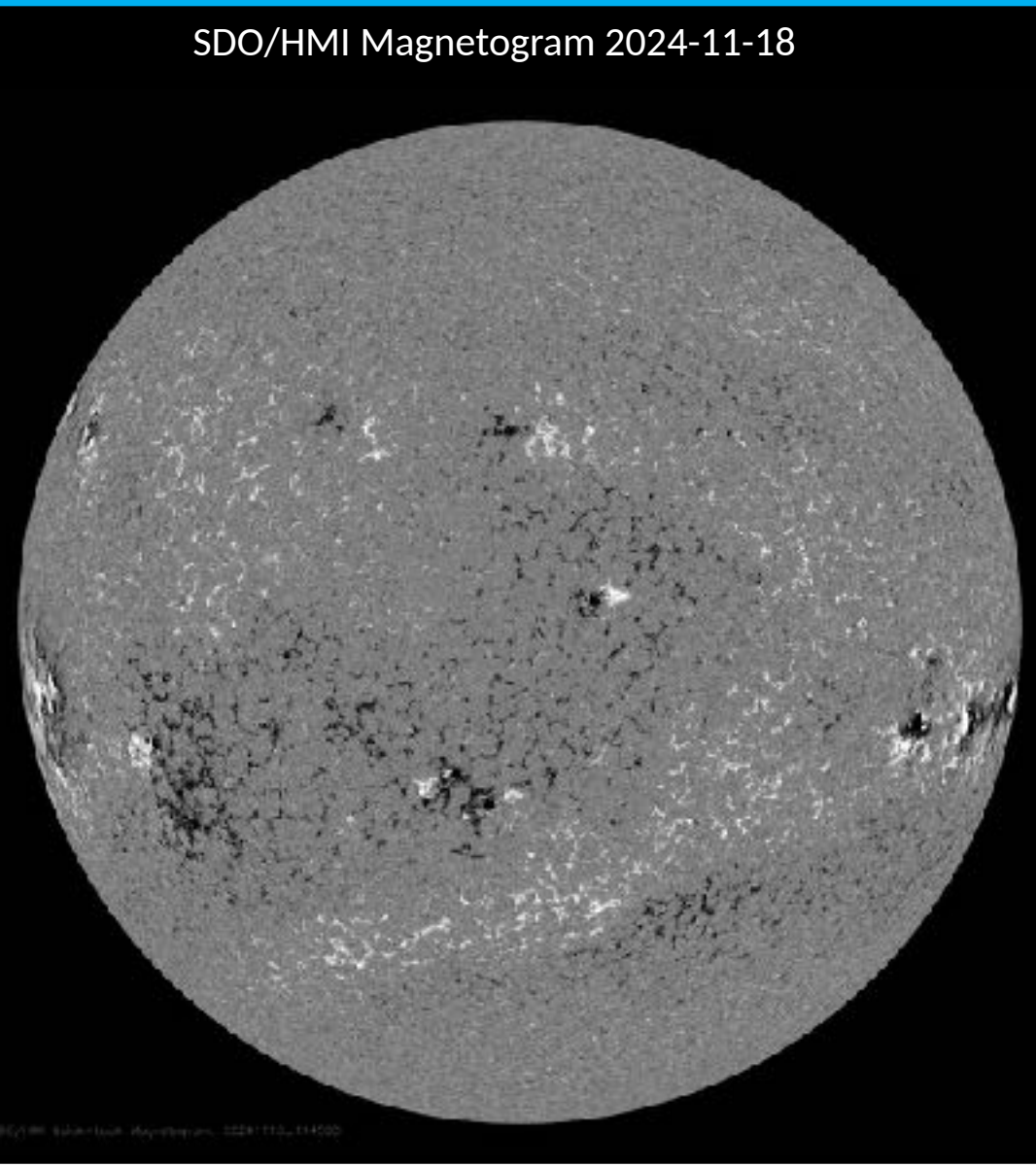


Solar active regions

SDO/HMI White Light 2024-11-18

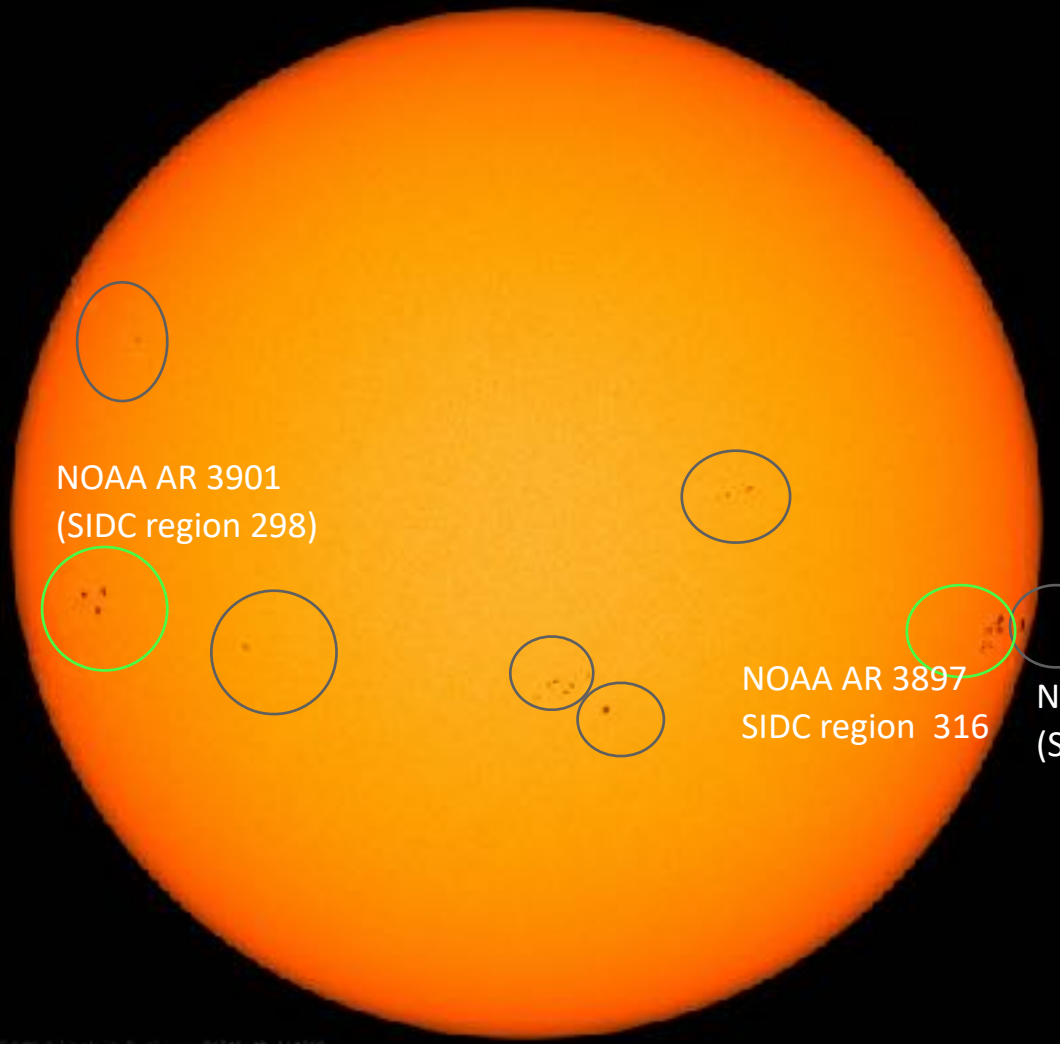


SDO/HMI Magnetogram 2024-11-18

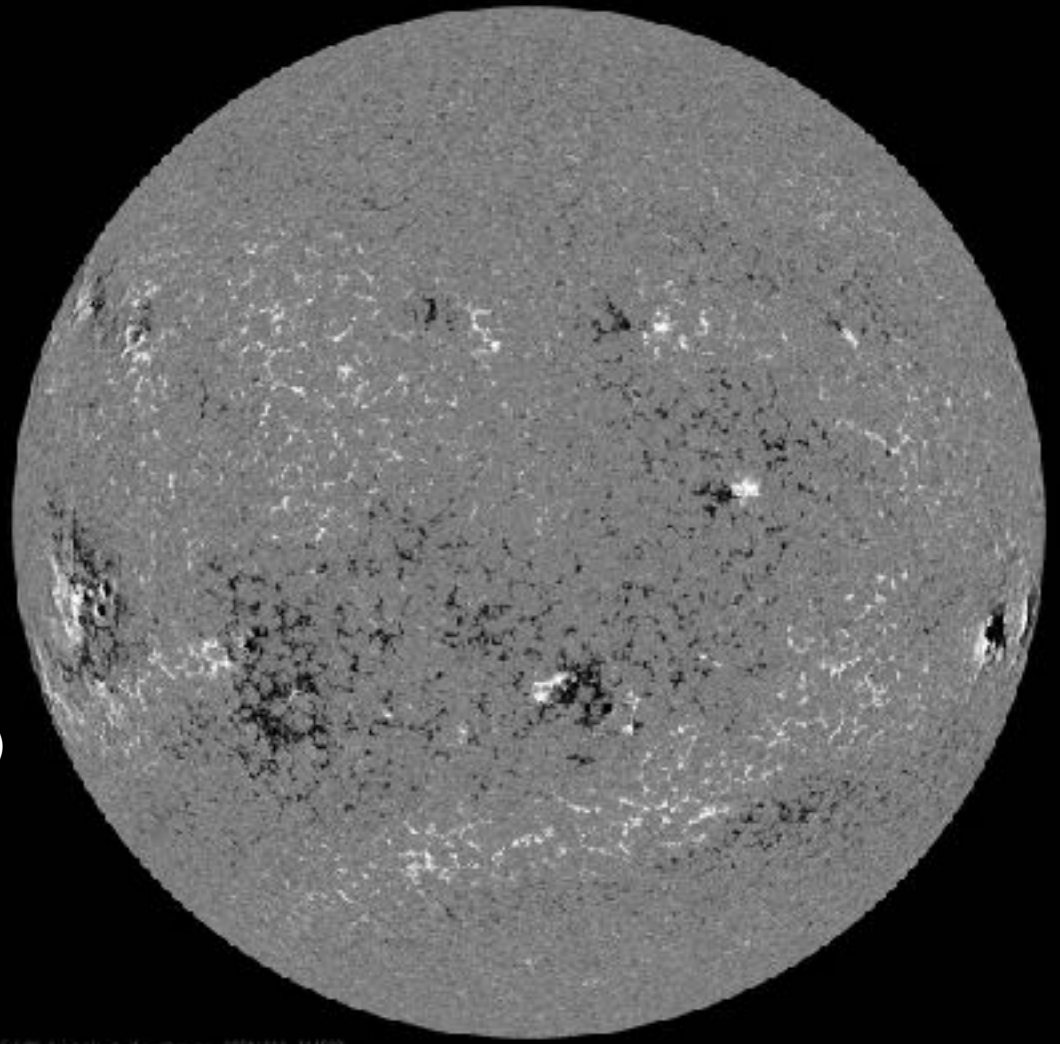


Solar active regions

SDO/HMI White Light 2024-11-19

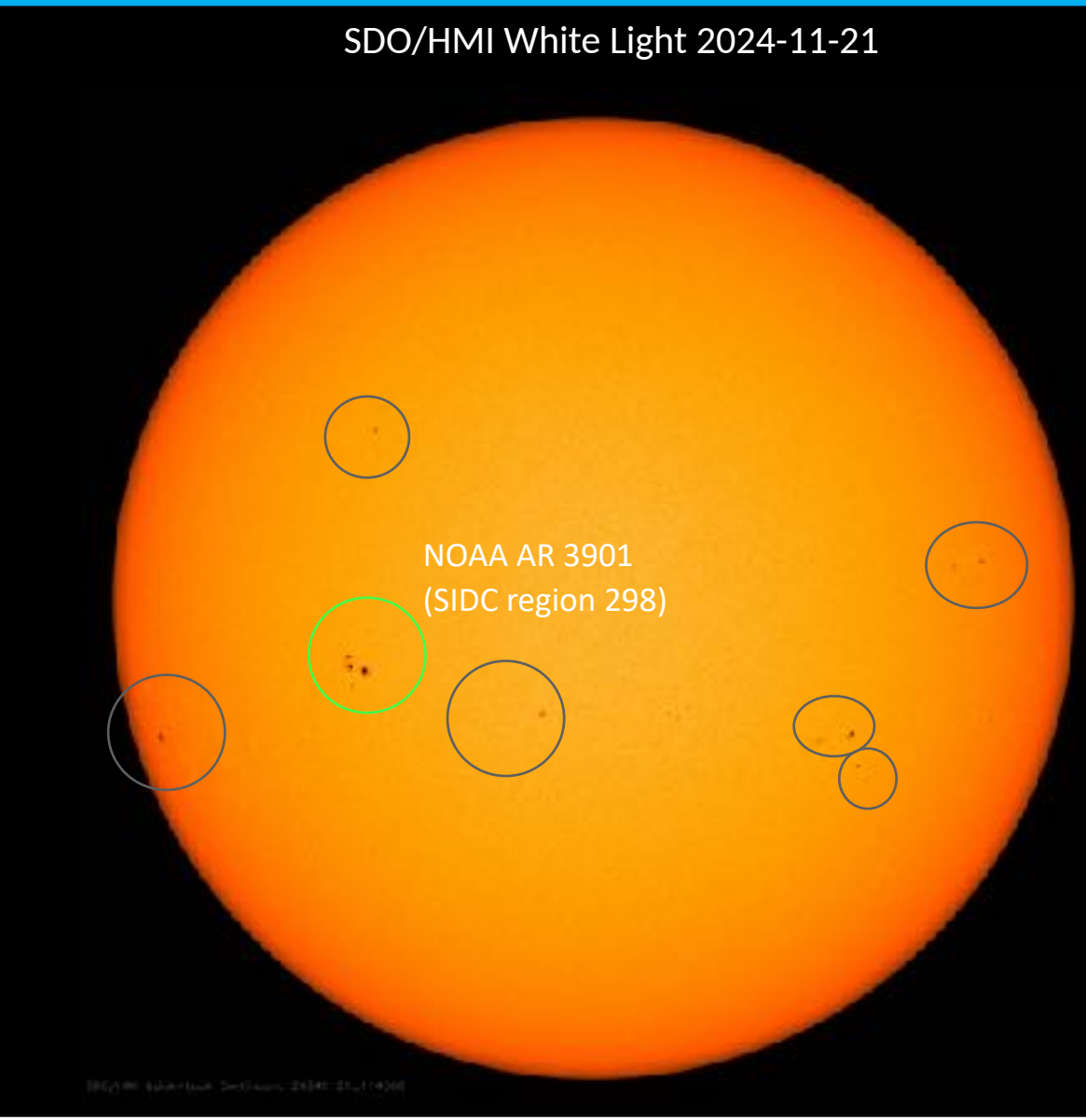


SDO/HMI Magnetogram 2024-11-19

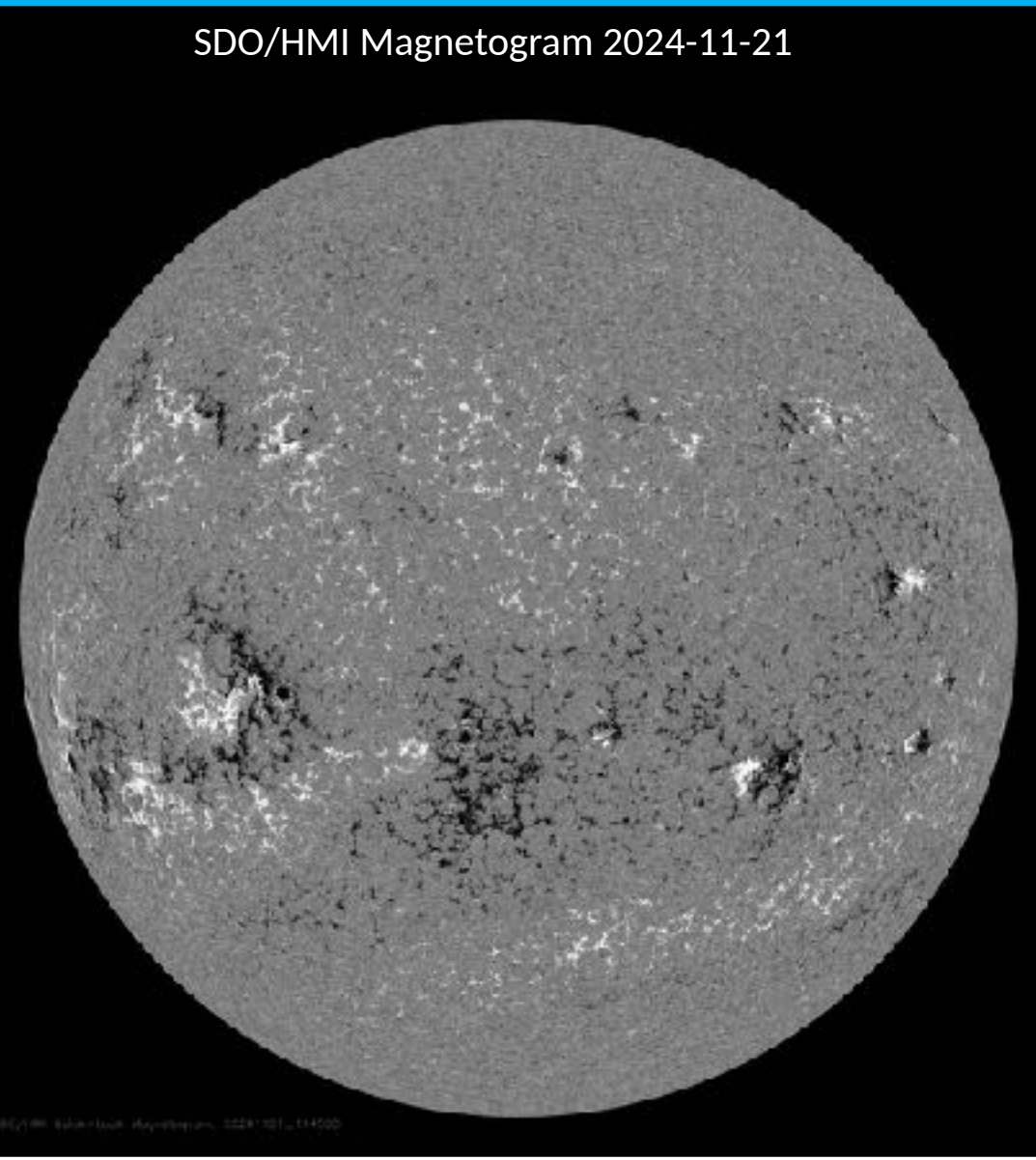


Solar active regions

SDO/HMI White Light 2024-11-21

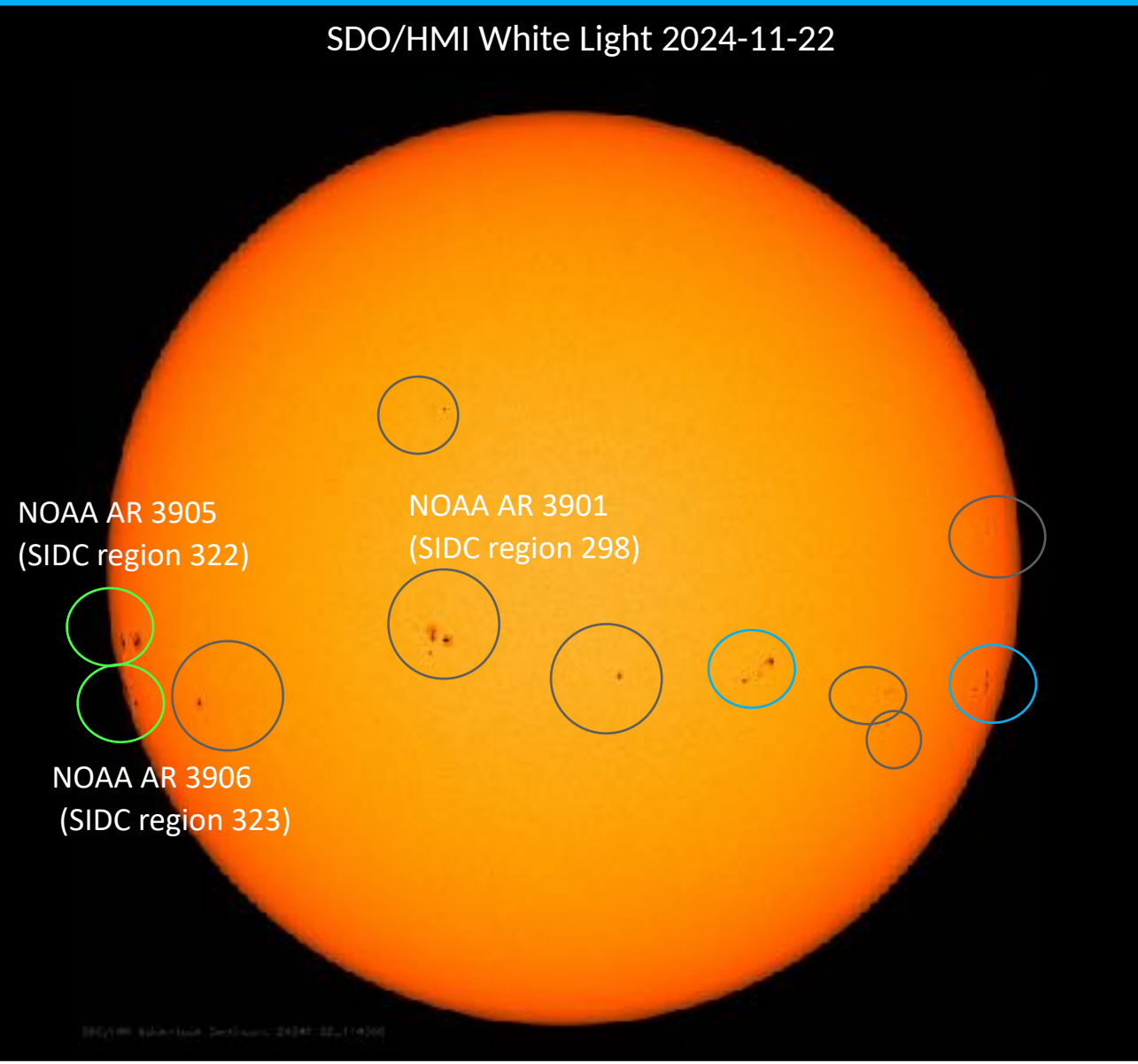


SDO/HMI Magnetogram 2024-11-21

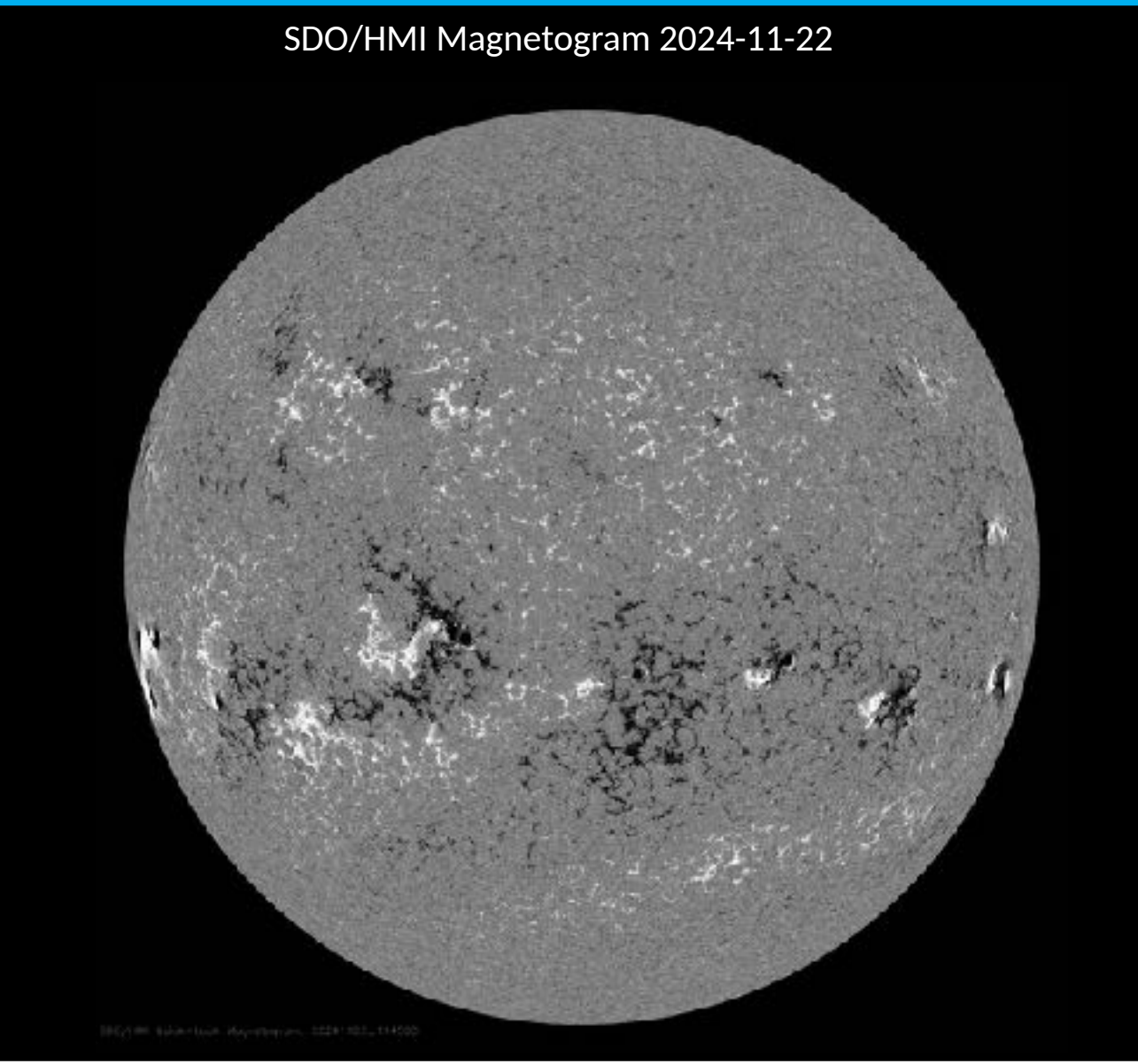


Solar active regions

SDO/HMI White Light 2024-11-22

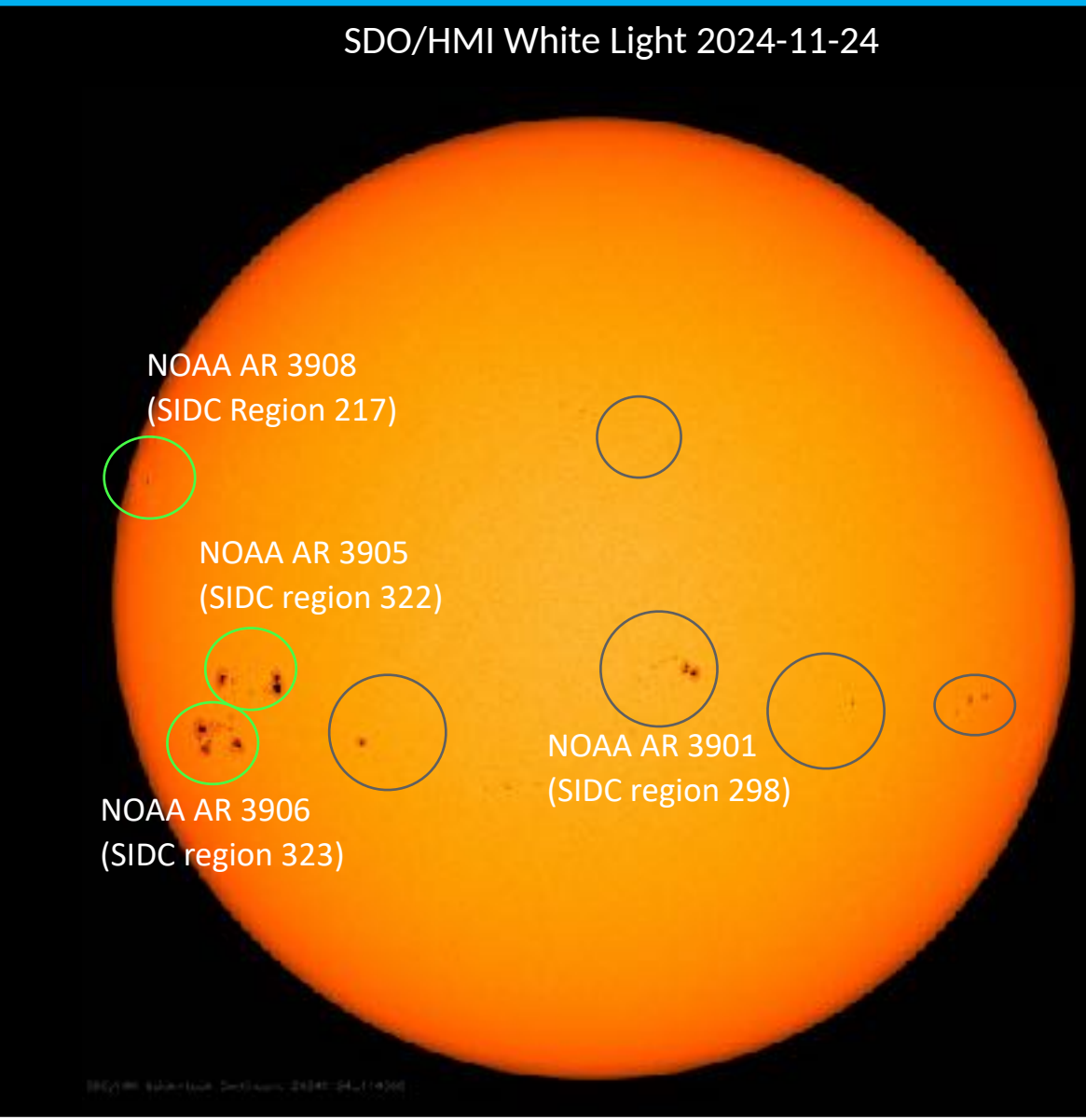


SDO/HMI Magnetogram 2024-11-22

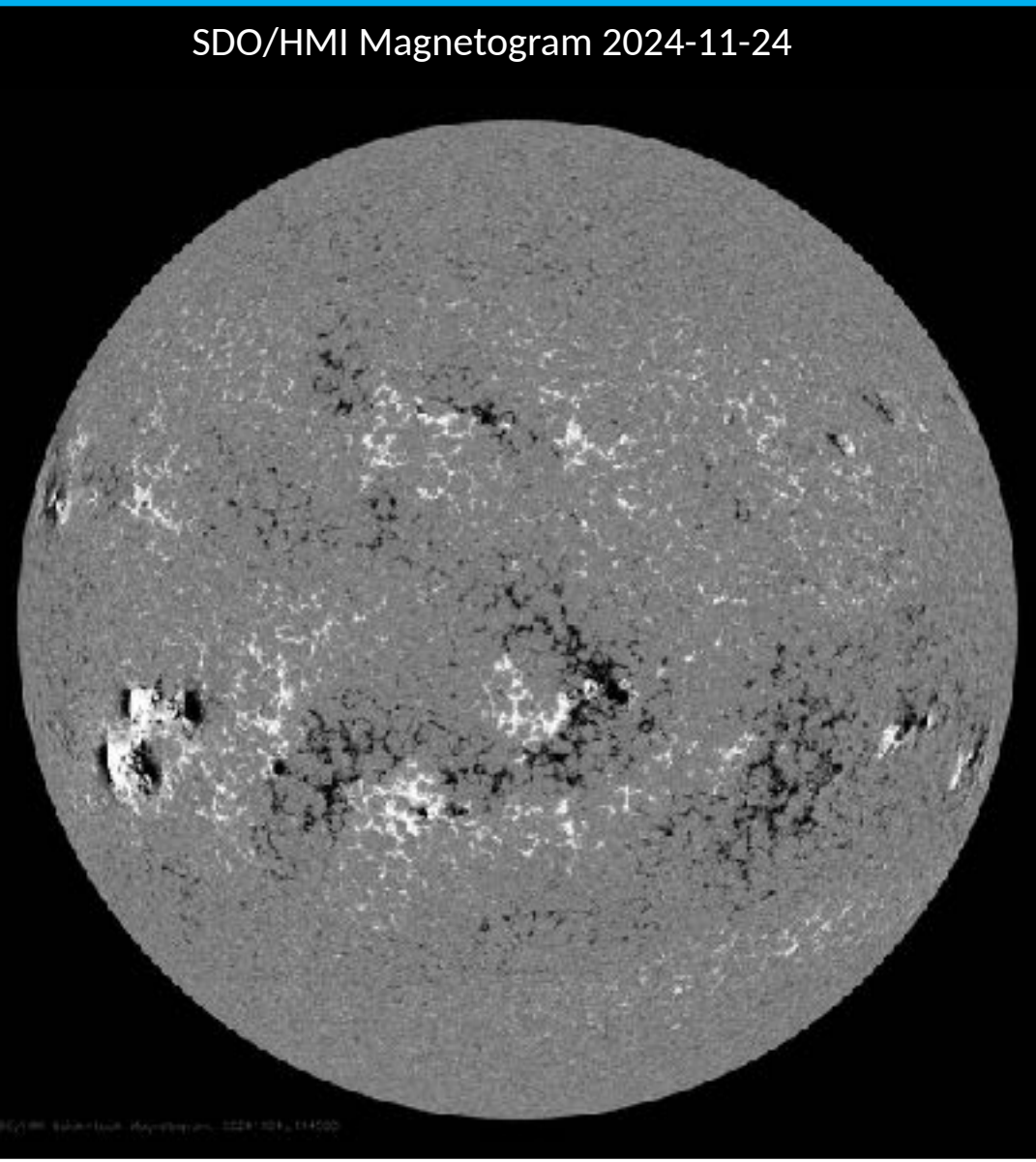


Solar active regions

SDO/HMI White Light 2024-11-24

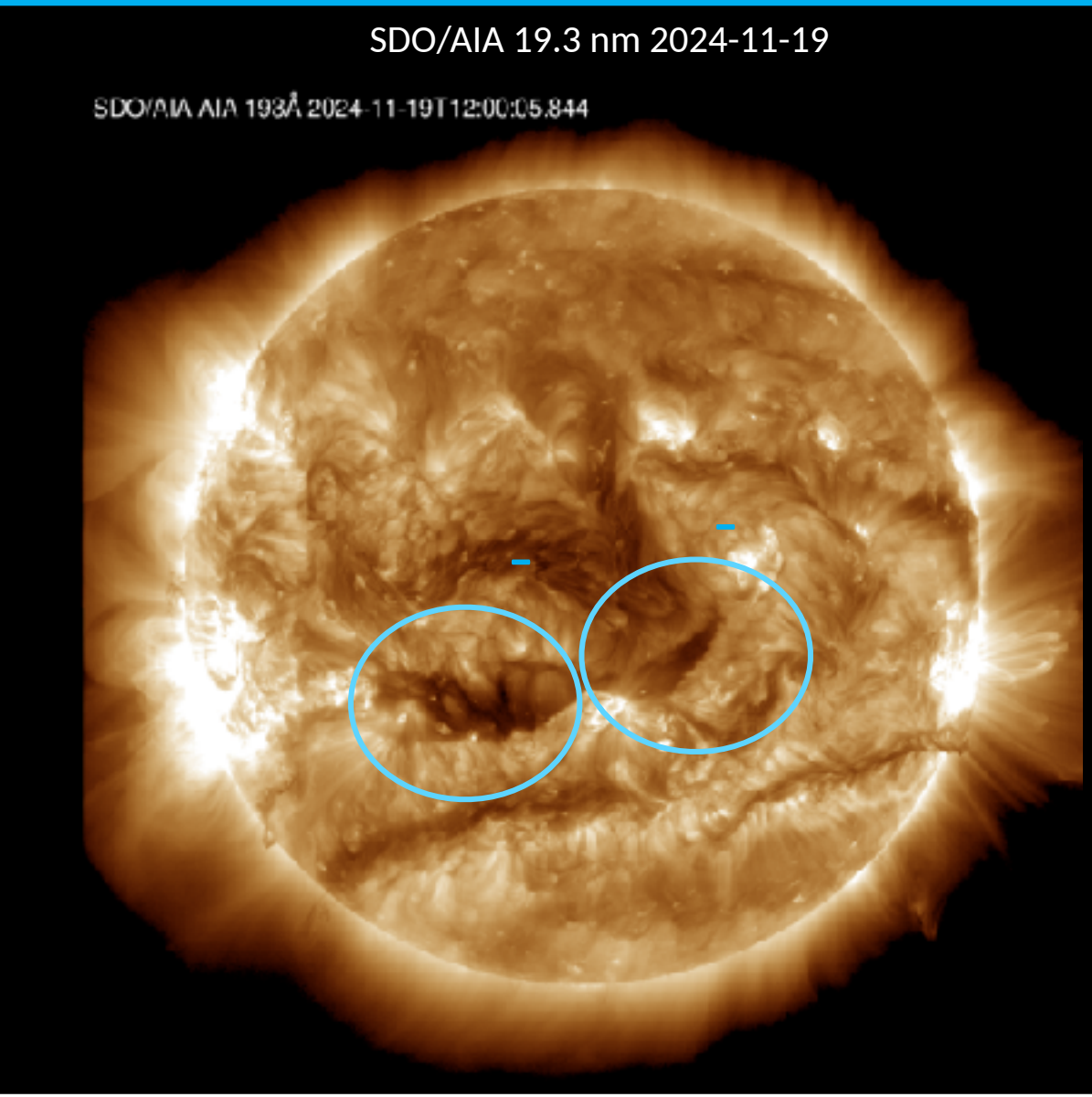


SDO/HMI Magnetogram 2024-11-24

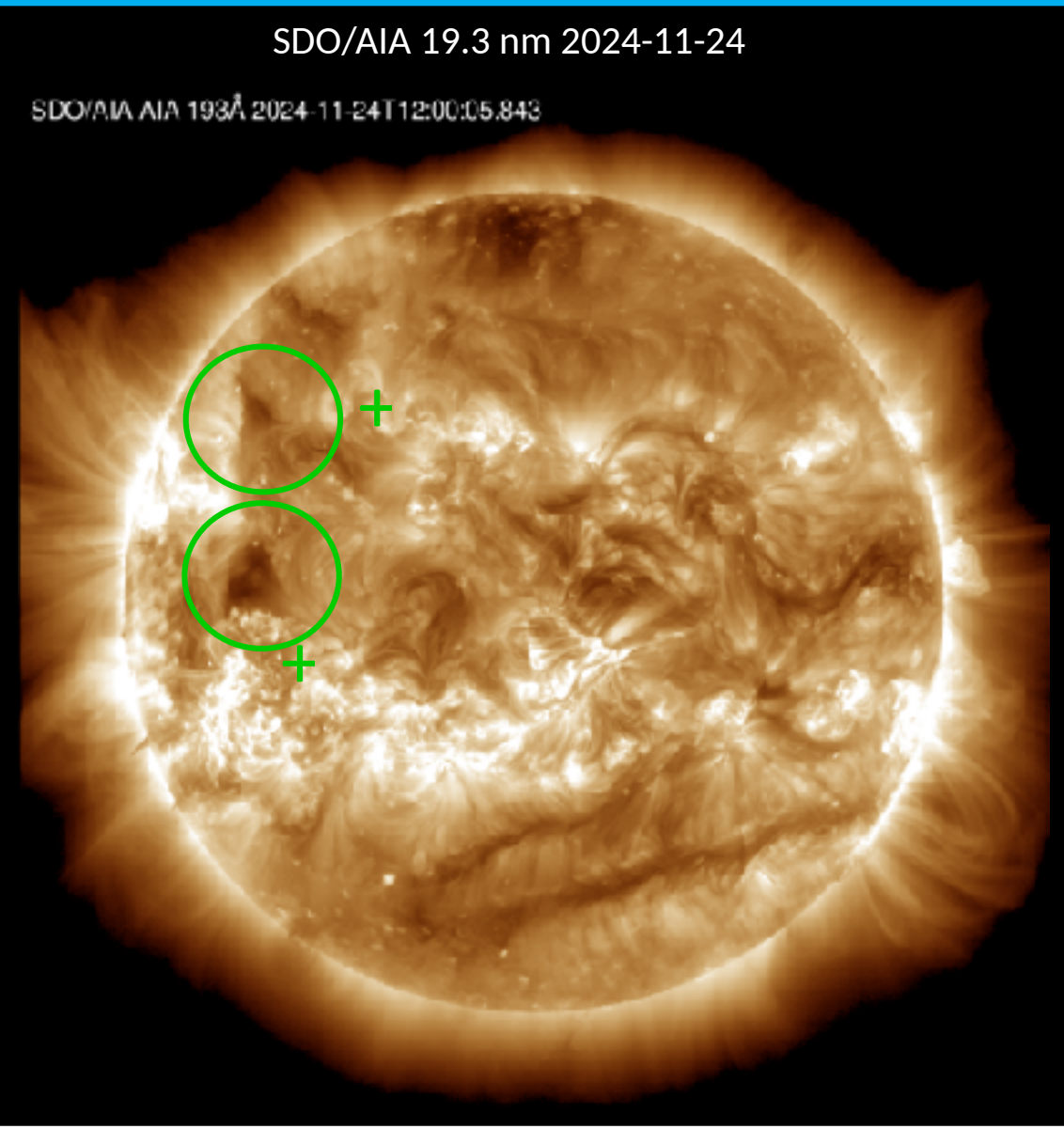


Coronal holes

SDO/AIA 19.3 nm 2024-11-19

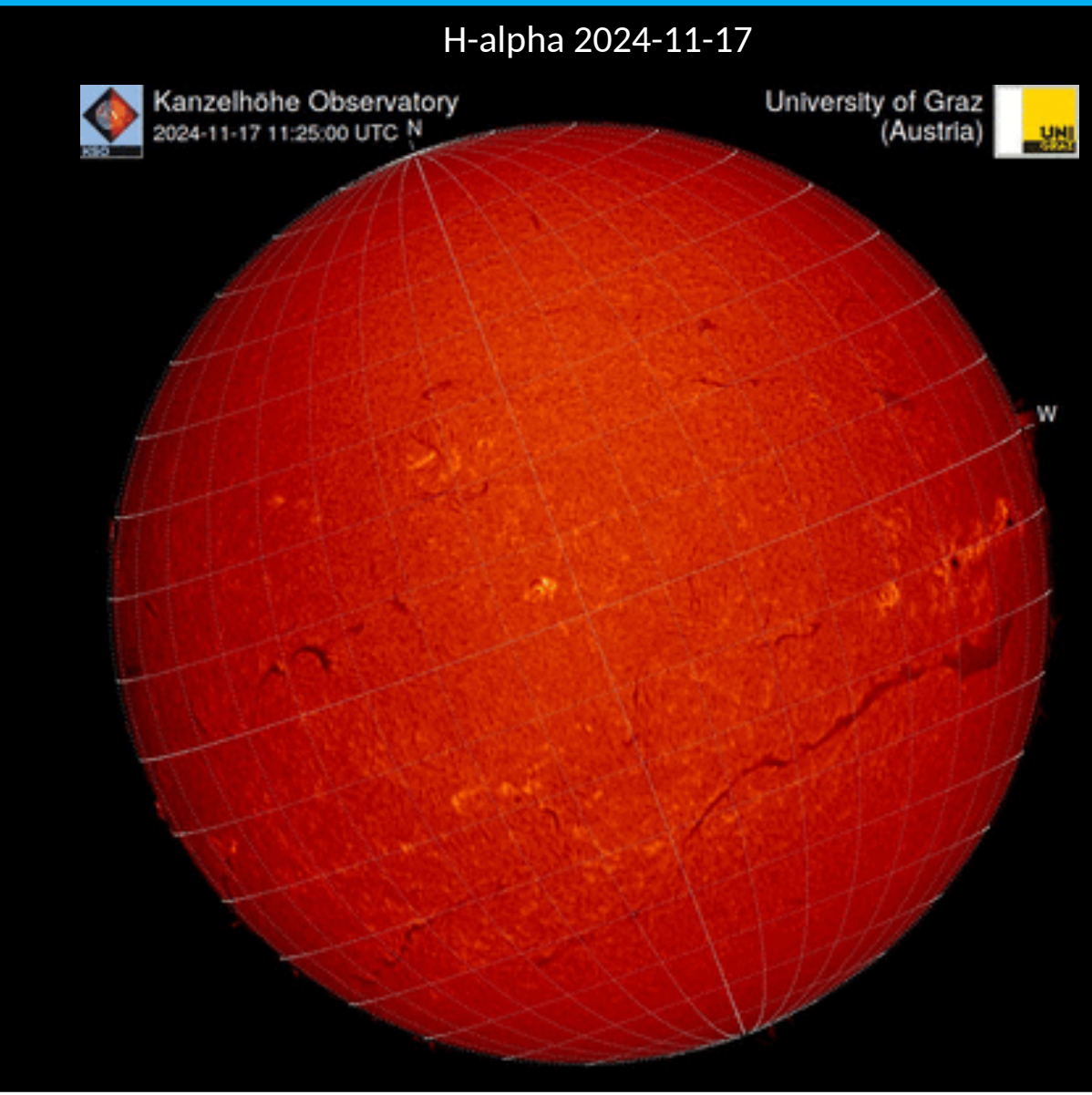


SDO/AIA 19.3 nm 2024-11-24

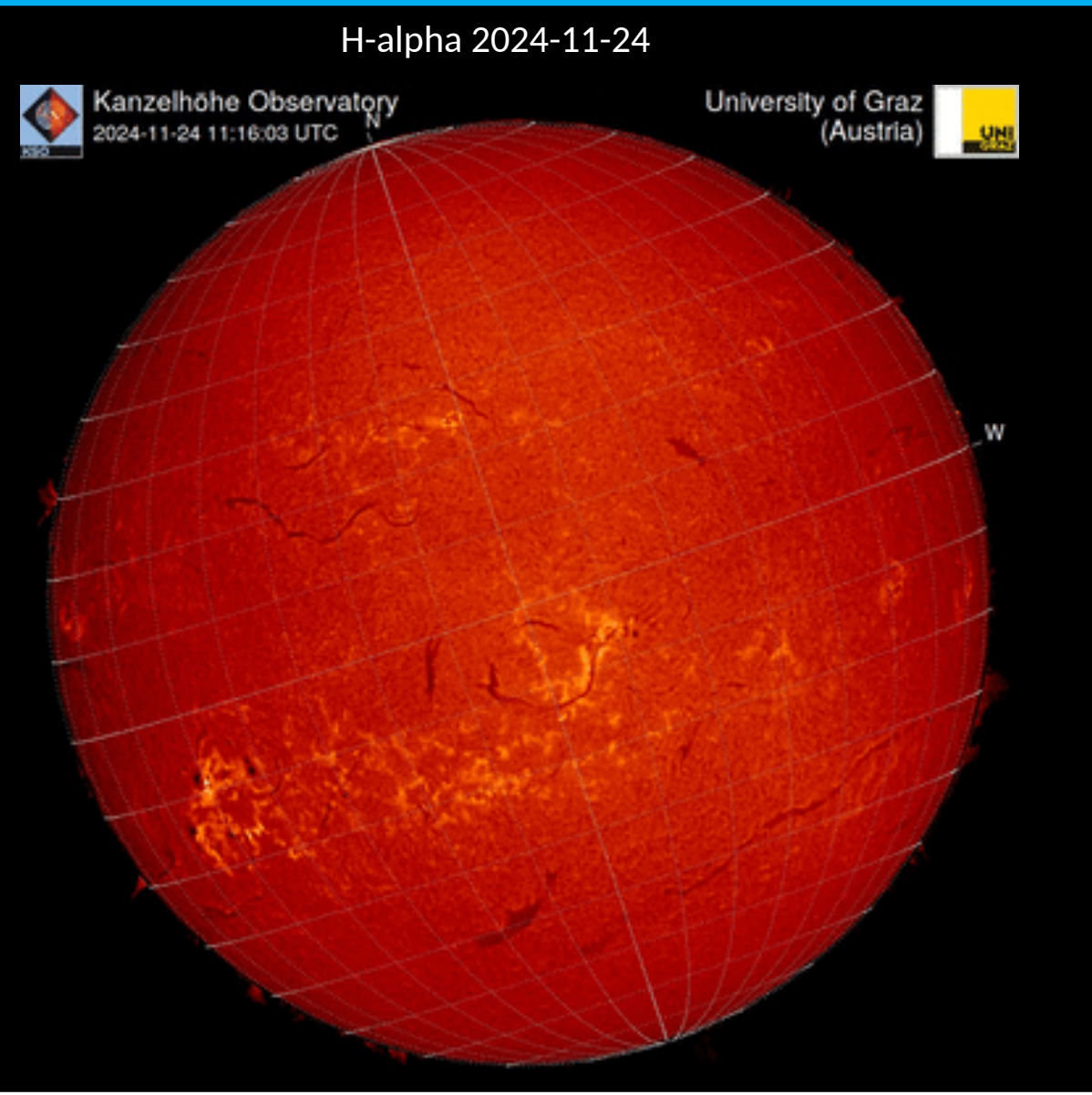


Filaments & Filament eruptions

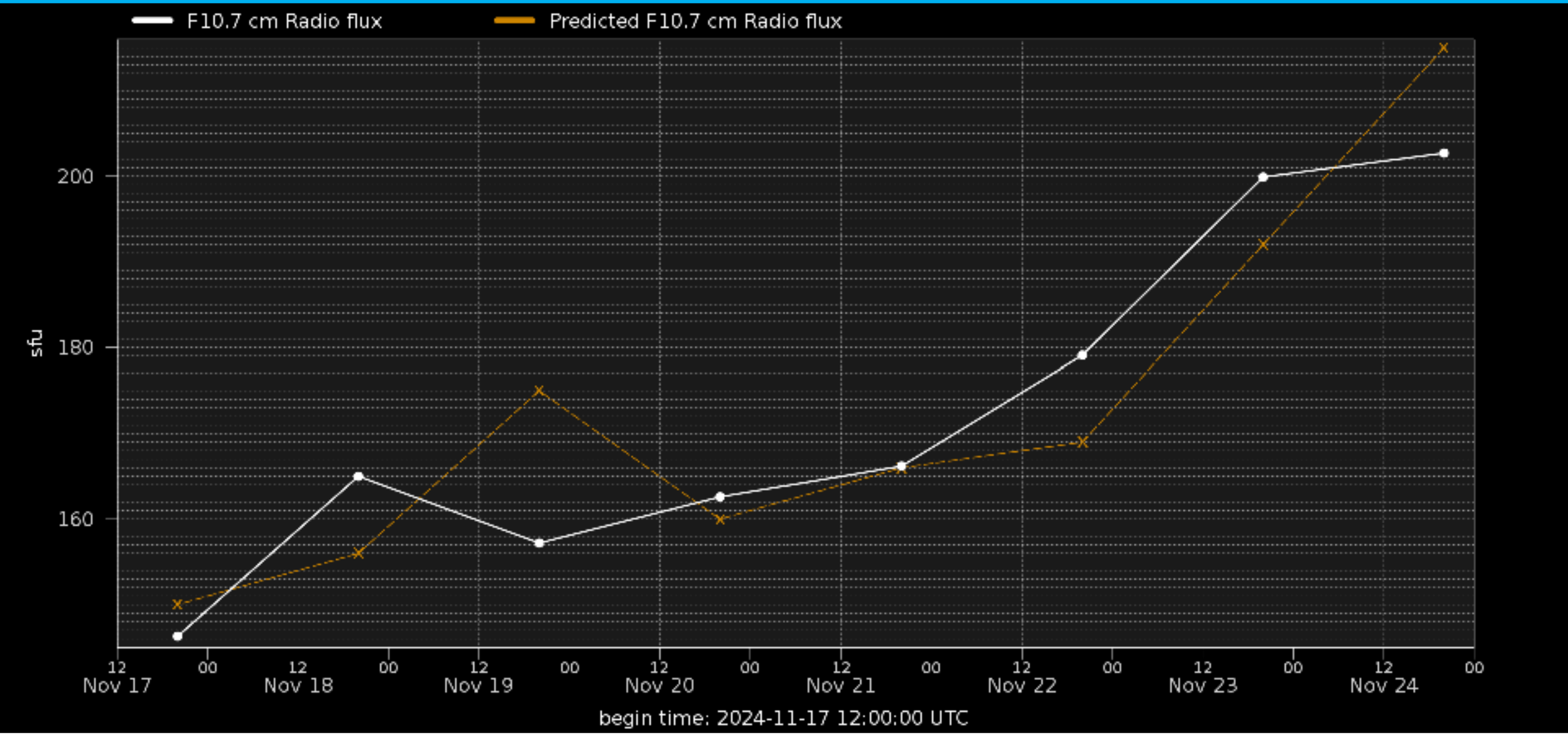
H-alpha 2024-11-17



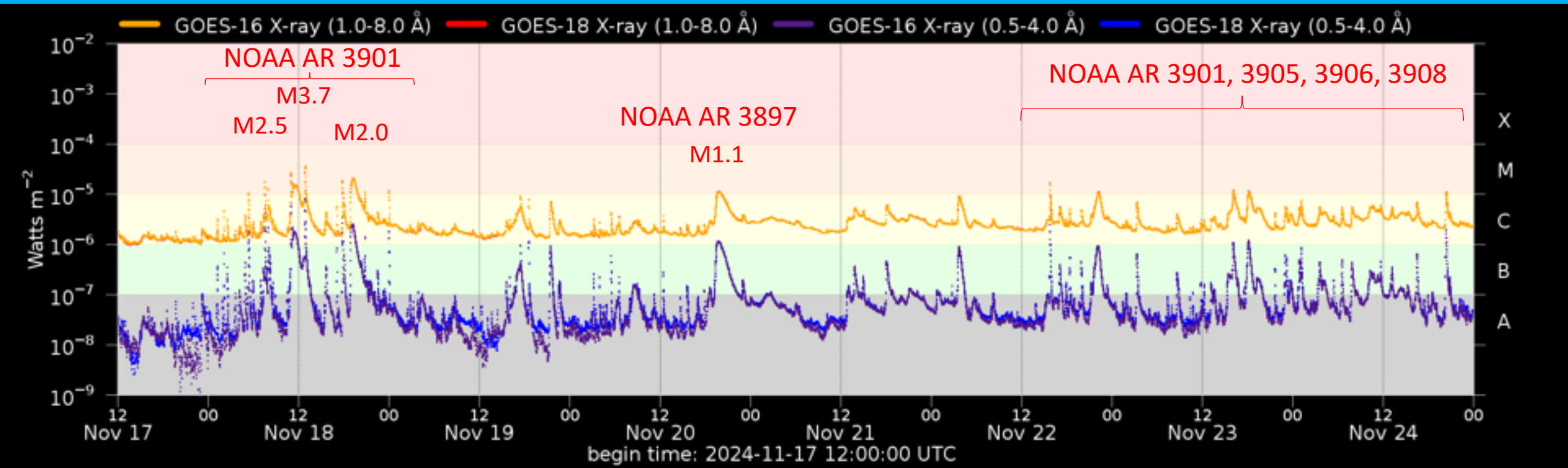
H-alpha 2024-11-24



Solar F10.7cm radio flux



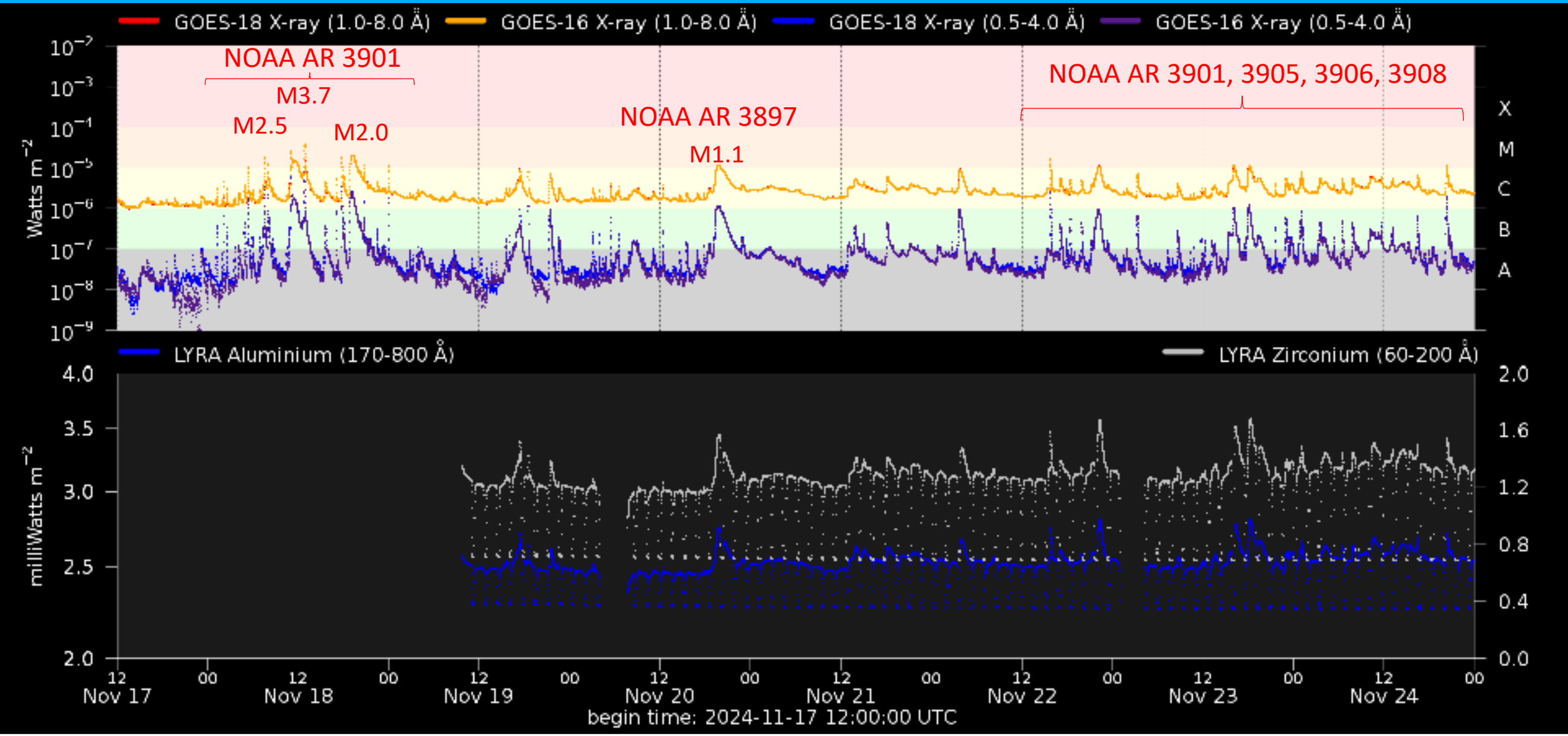
Flaring activity



Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2024-11-17	2024-11-18	2024-11-19	2024-11-20	2024-11-21	2024-11-22	2024-11-23	2024-11-24
Probability (%)	95|45|05	99|50|10	99|60|15	99|50|05	99|40|05	99|55|05	99|50|05	99|50|05
Observed (#)	11|04|00	04|05|00	07|00|00	02|01|00	02|00|00	06|02|00	09|02|00	01|01|00

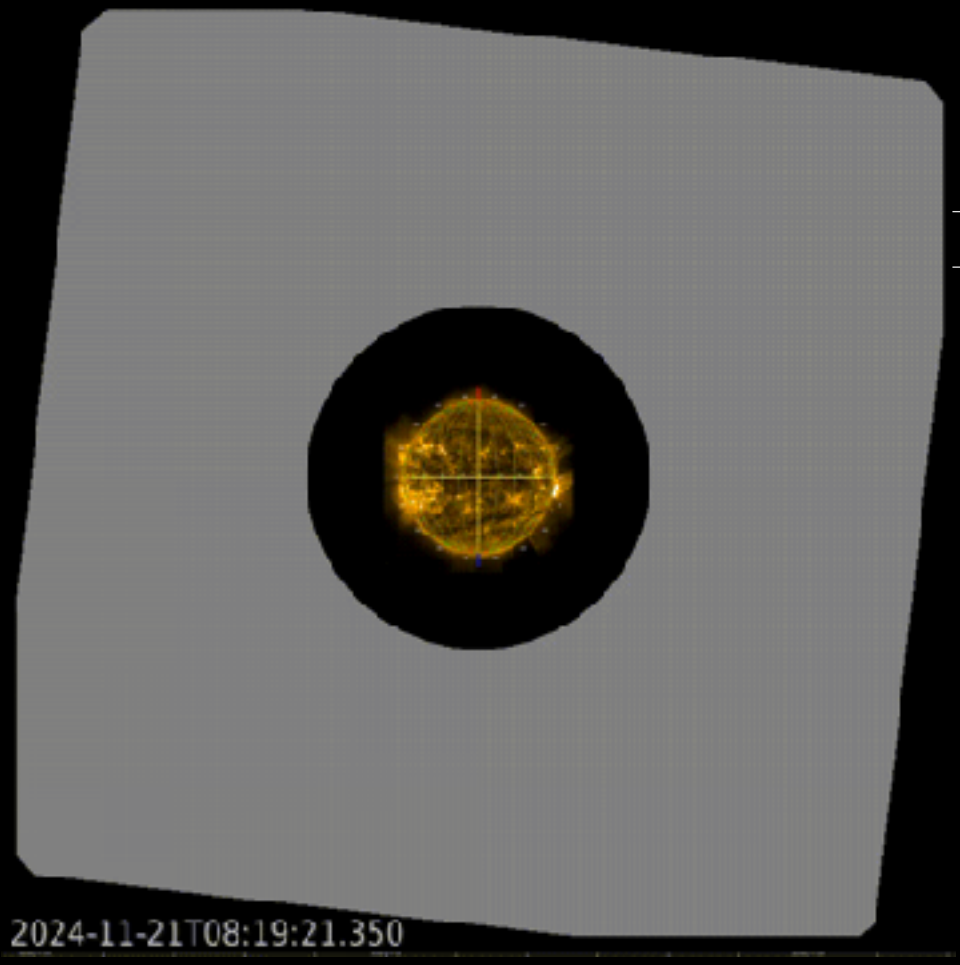
Solar X-Ray and UV flux

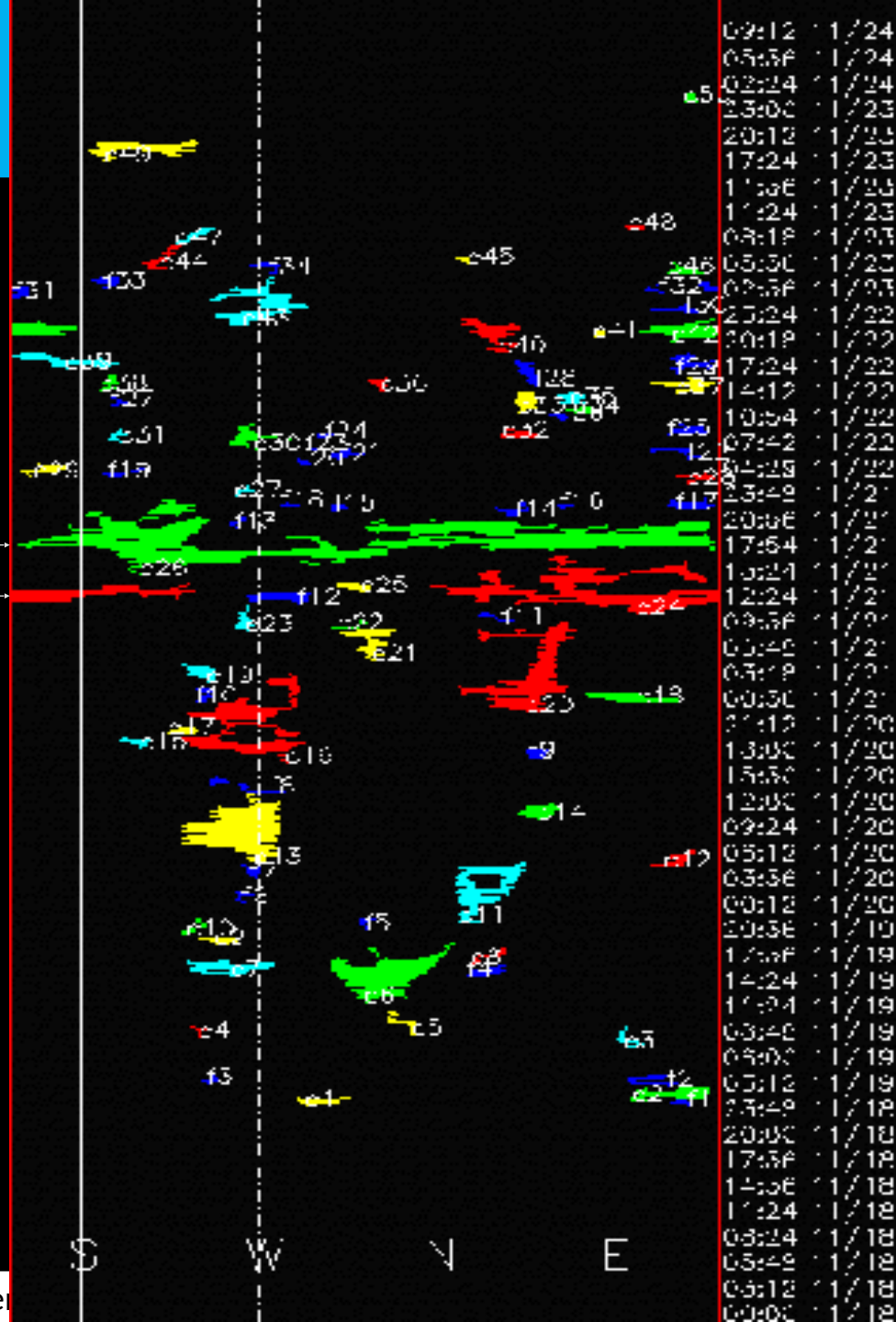


Coronal Mass Ejections

No Earth directed CMEs:

2 Halo CMEs were detected - both from beyond the limb - Backsided





Solar Wind and Geomagnetic Activity

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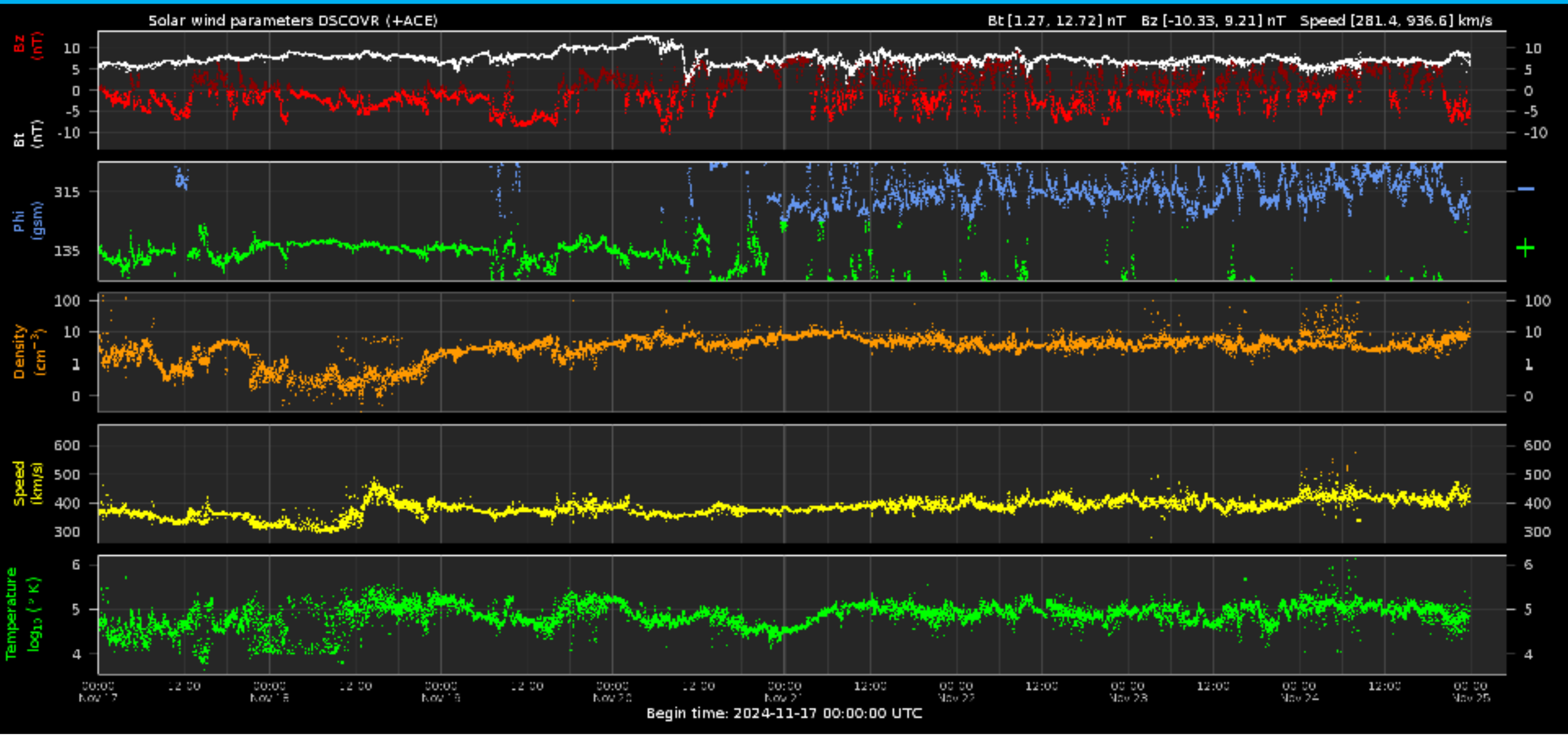
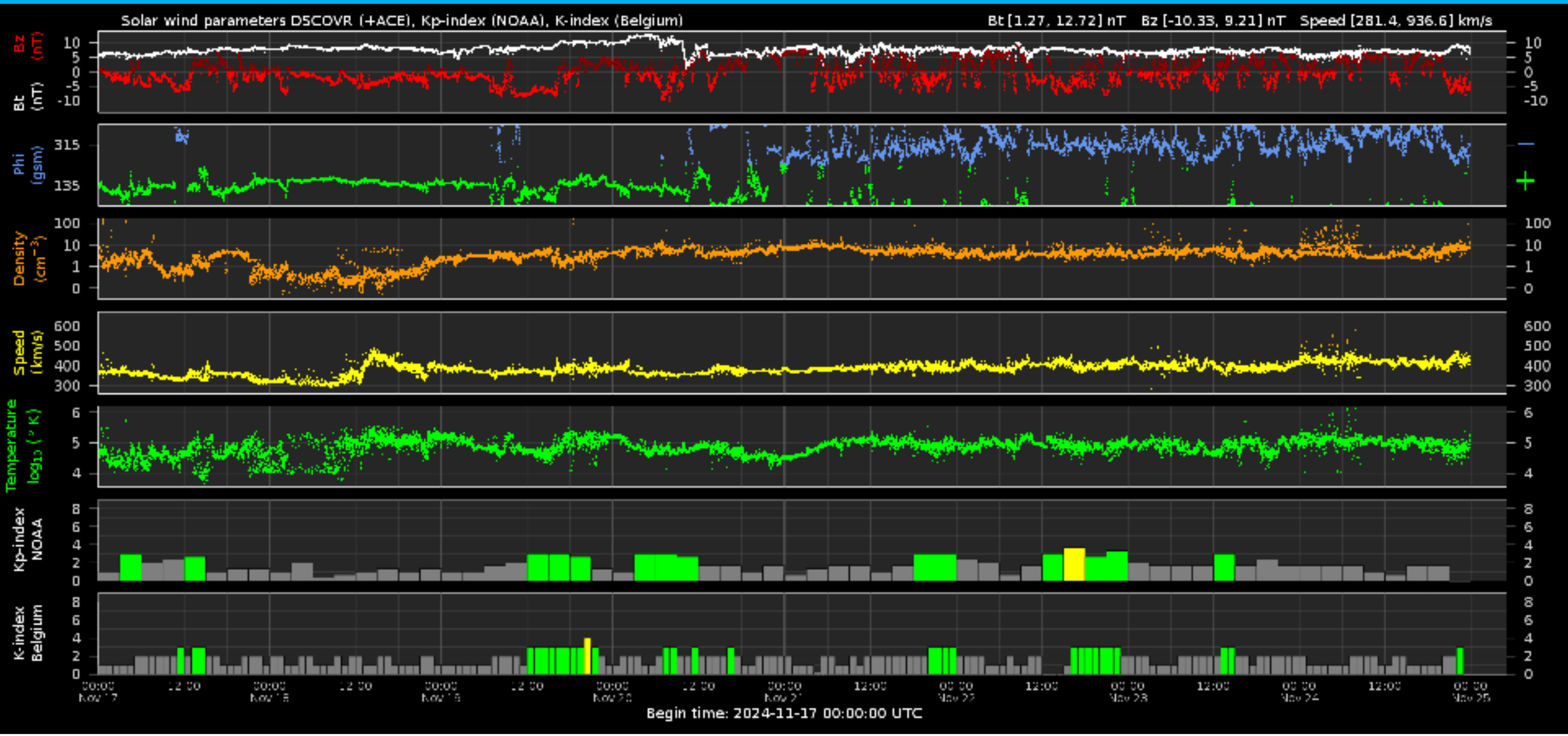
Solar wind parameters



Solar wind parameters & K-indices



Energetic Particles

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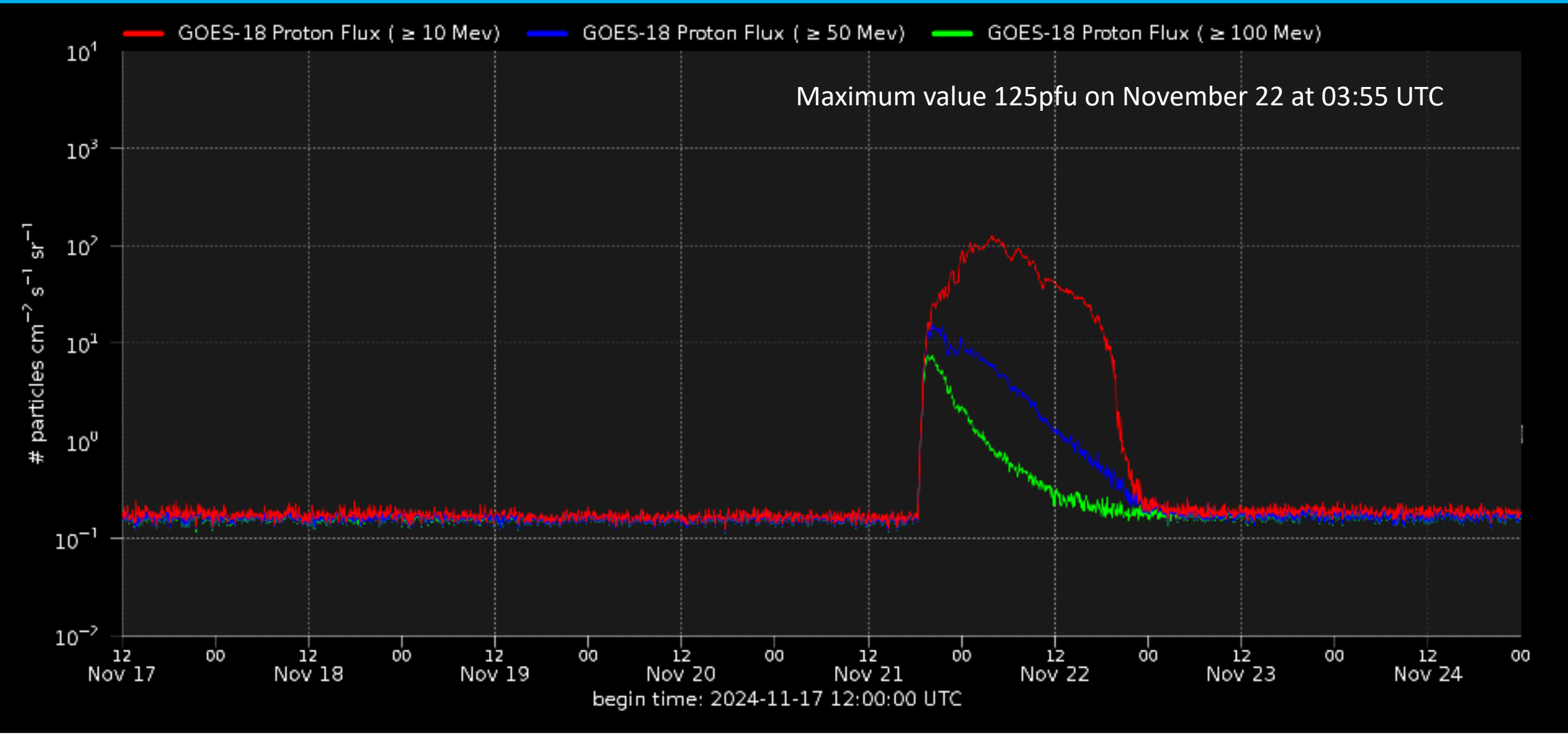
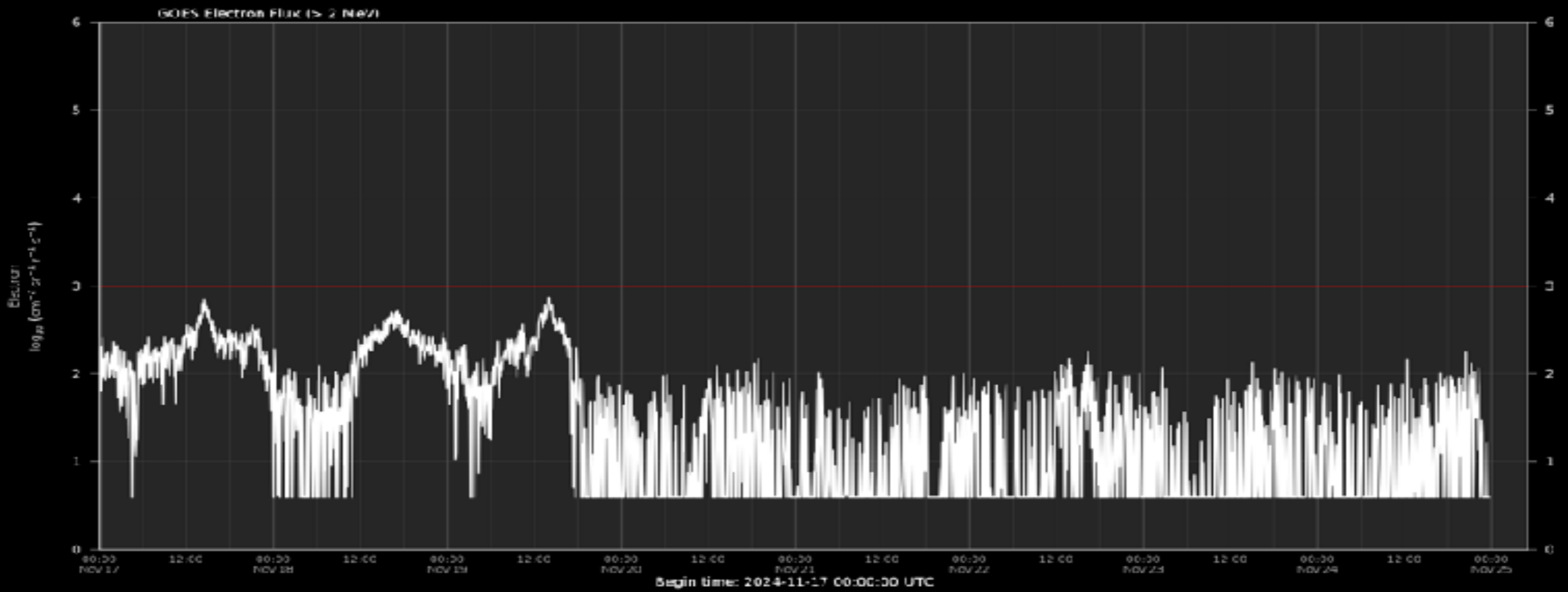
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php



Outlook

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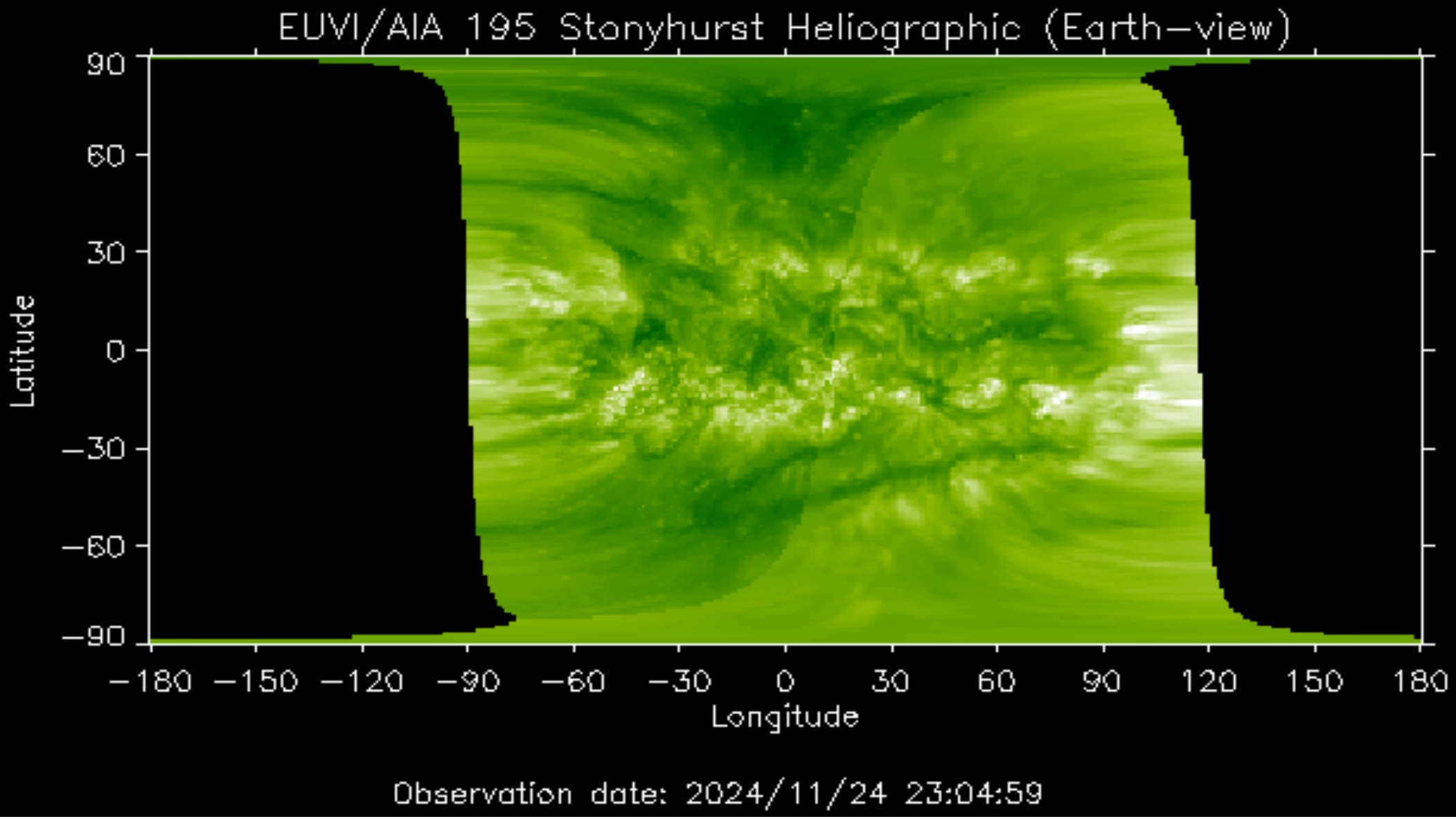
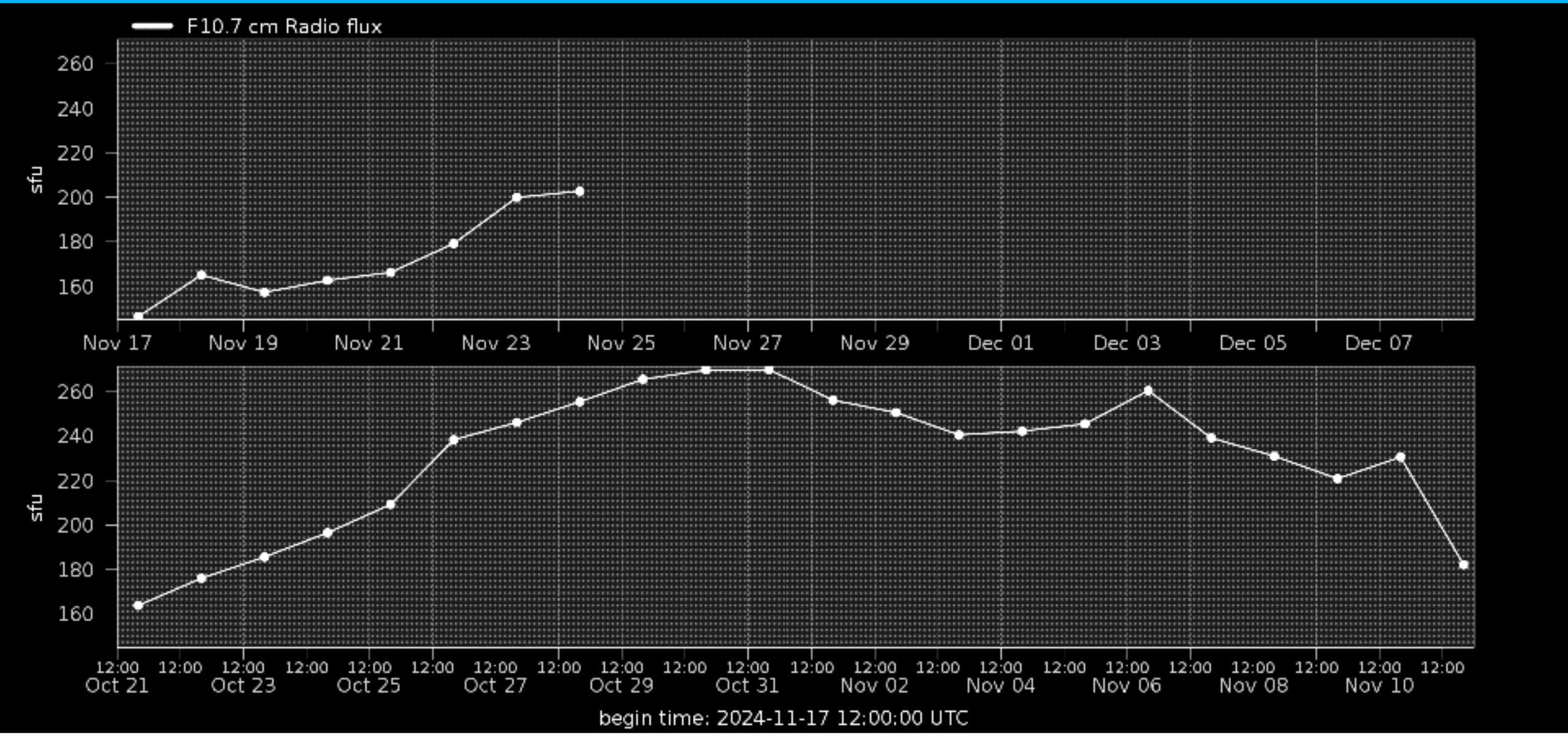
Outlook: Solar activity

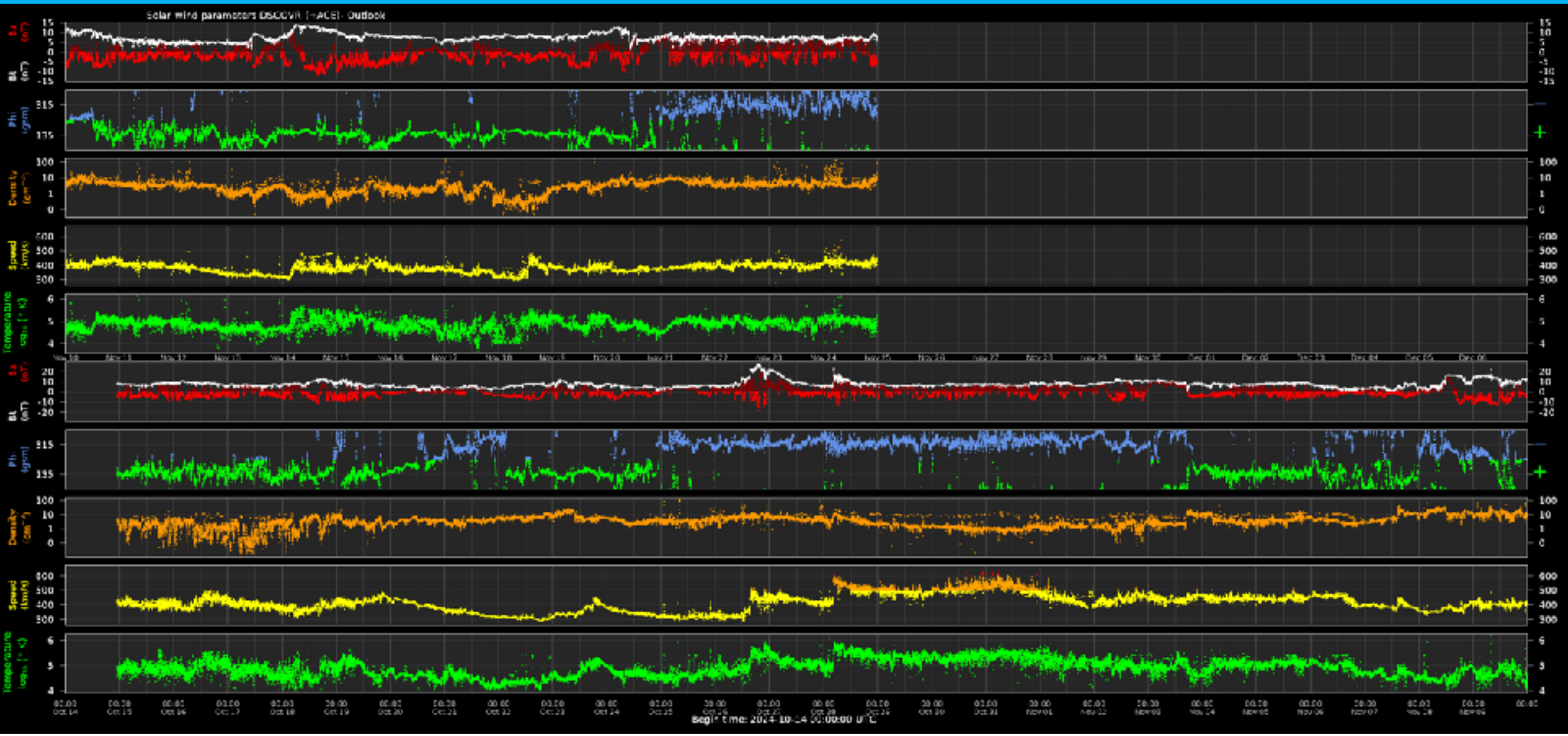


New expected active region over the north-east limb (produced M9.4 flare)

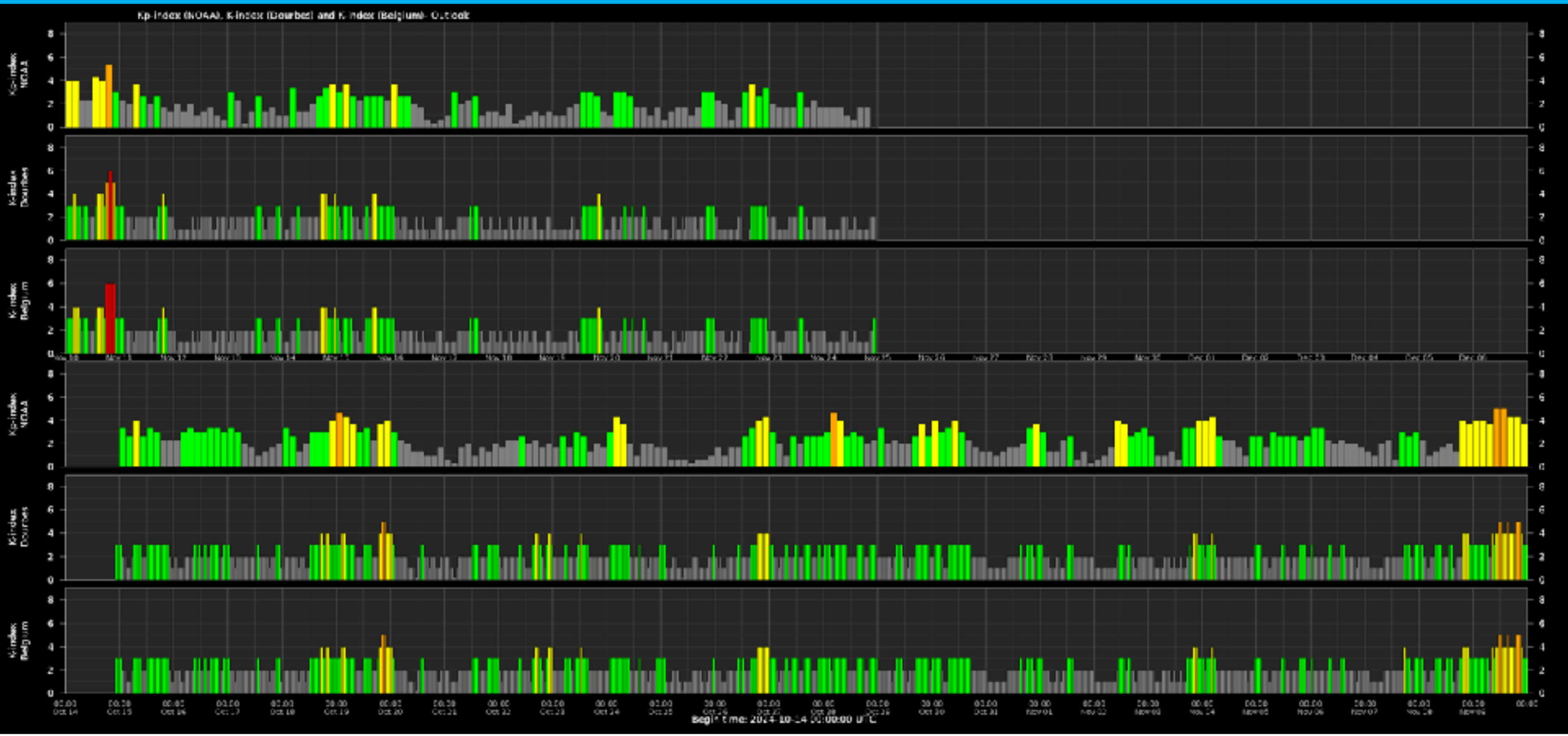
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook

PECASUS

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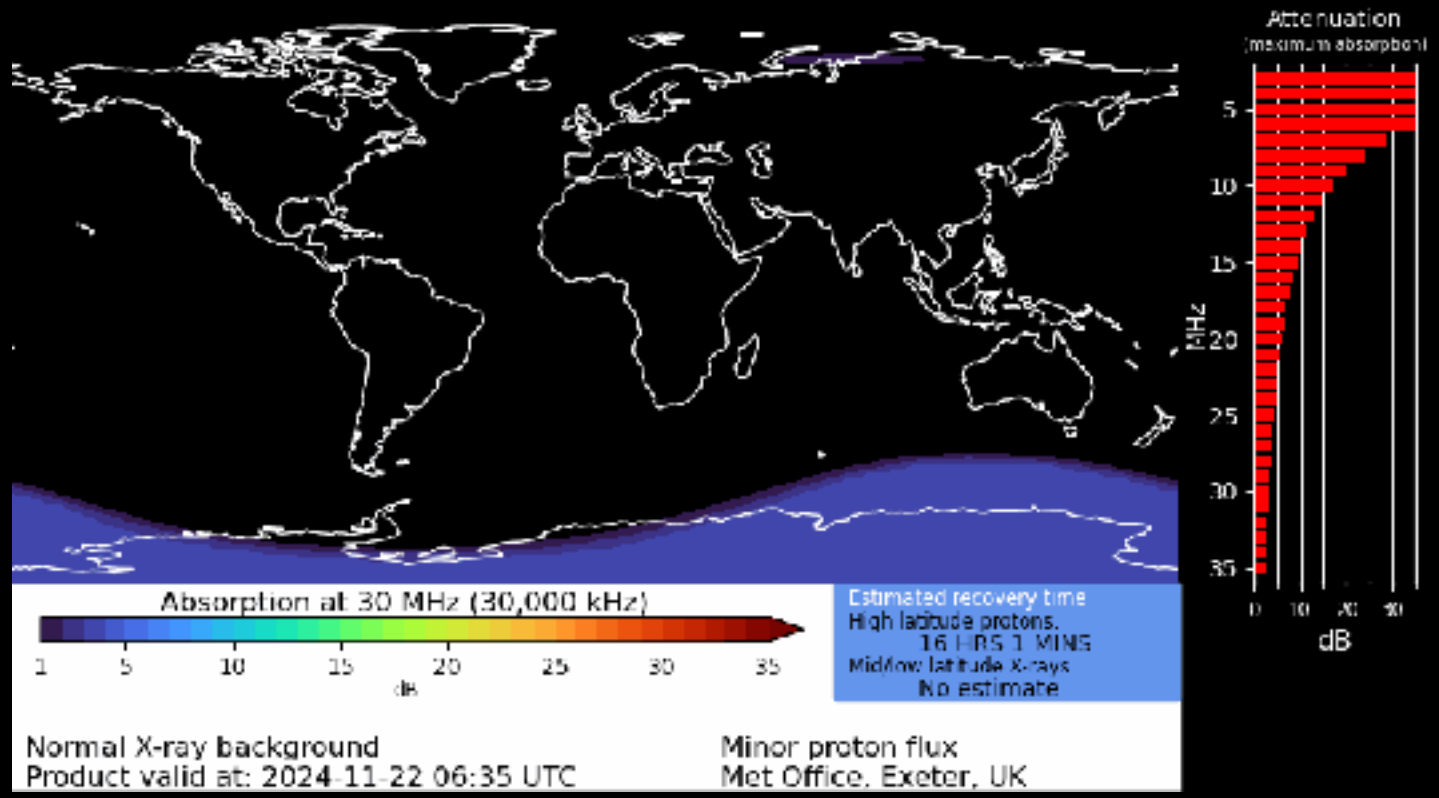
Pecasus related events

Scintillation Advisories

Polar Cap Absorption advisories during proton event



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See you at our next briefing!

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