SIDC Space Weather Briefing

11 May 2025-18 May 2025

Micera Alfredo

& the SIDC forecaster team

Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2025-05-11 12:00 to 2025-05-18 23:59

Active regions	15 ARs, SIDC 469 (NOAA 4079, βγ), SIDC 494 (NOAA 4086, βγ), SIDC 496 (NOAA 4087, βγδ)
Flares	# C-class flare: 30 # M-class flare: 6 # X-class flare: 2
Coronal Holes	SIDC 104, SIDC 114
CMEs	Few CMEs/one Earth-directed

Proton flux	Mostly nominal/Increased on May 13
Electron flux	Mostly nominal/GOES 18 crossed the threshold on May 17 and 19

Solar wind and geomagnetic conditions

ICMEs	One glancing blow on May 17 (CME on May 12, 23:00 UTC)
Solar wind conditions	|B|: 1.07 - 22.31 nT //Bz: -18.16 nT to 16.42 nT //Speed: 304.5 - 750.0km/s
Geomagnetic conditions	max KBel: 4.0, max Kp(NOAA): 6.33, Moderate Storm conditions

All Quiet Alert: Off

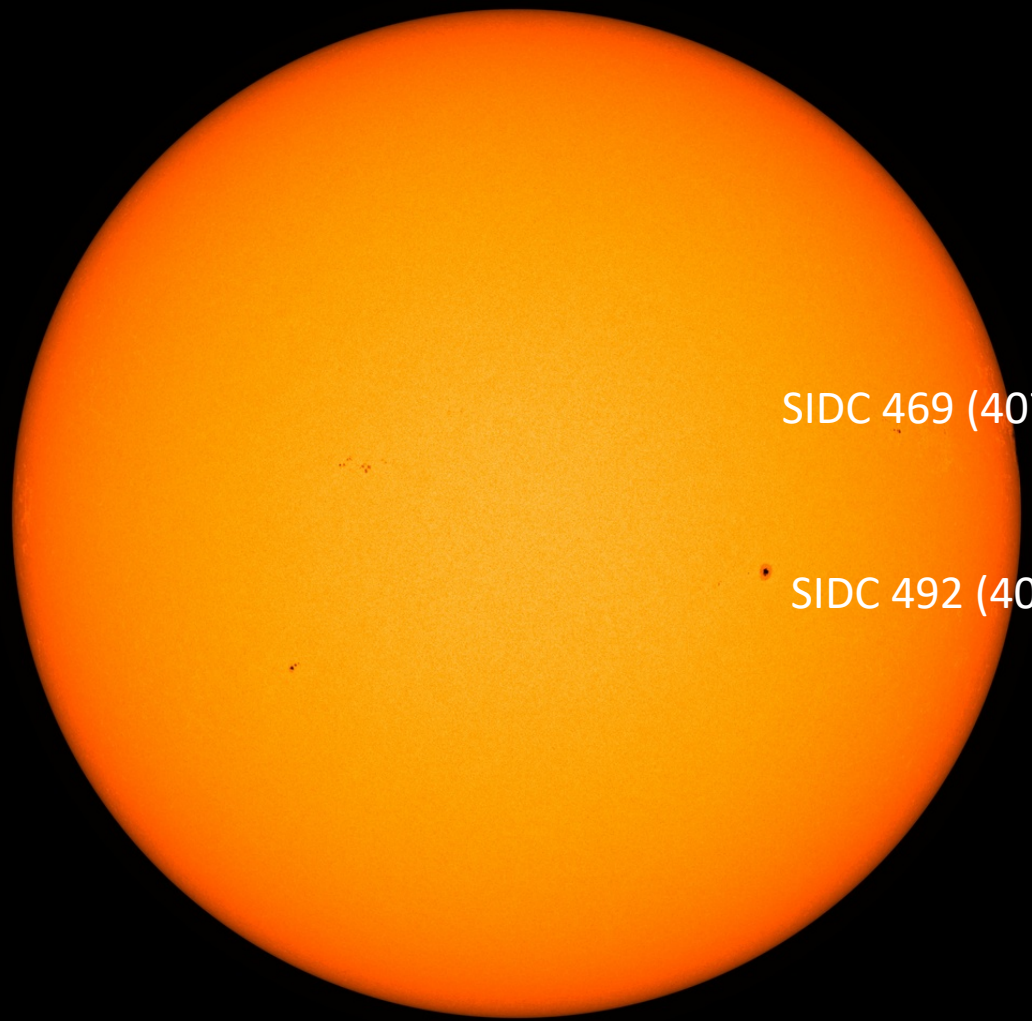
Solar Activity

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Solar active regions

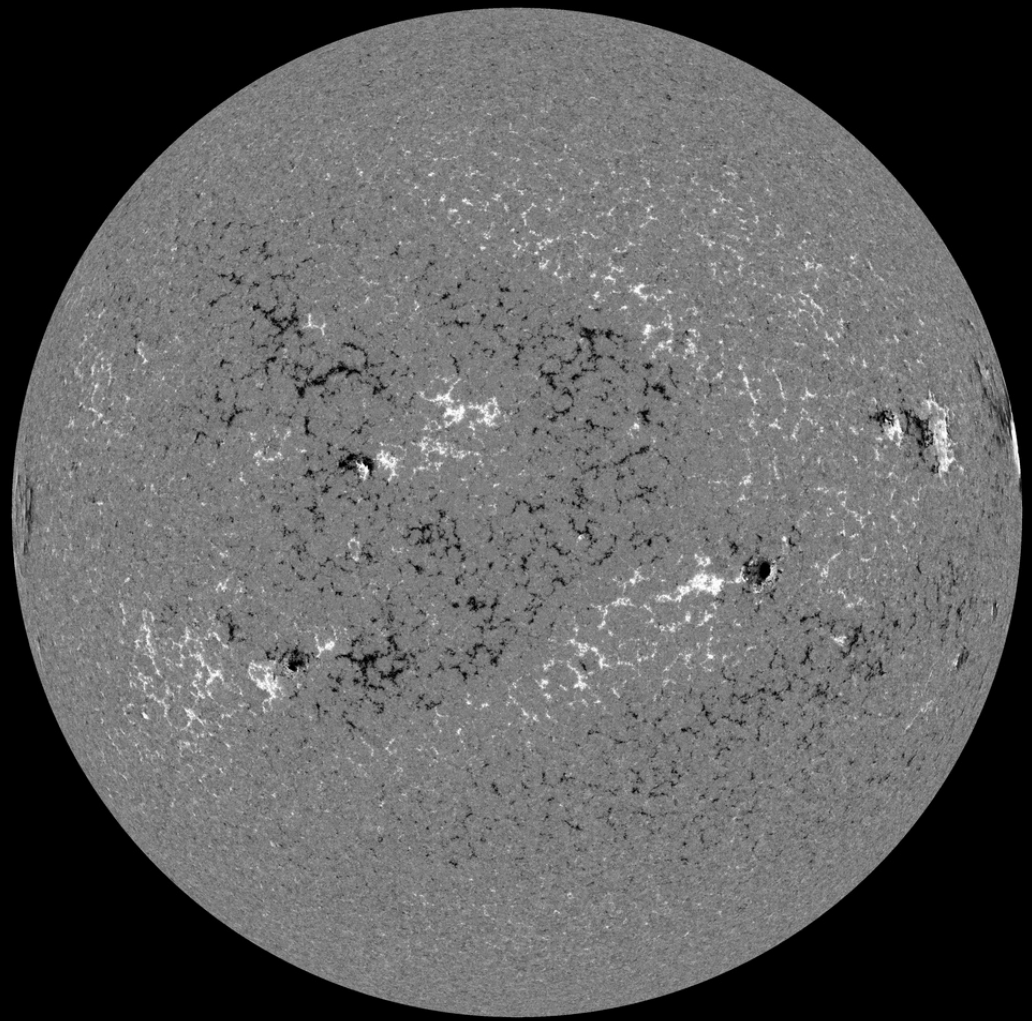
SDO/HMI White Light 2025-05-11



SIDC 469 (4079 βγ)

SIDC 492 (4082 α)

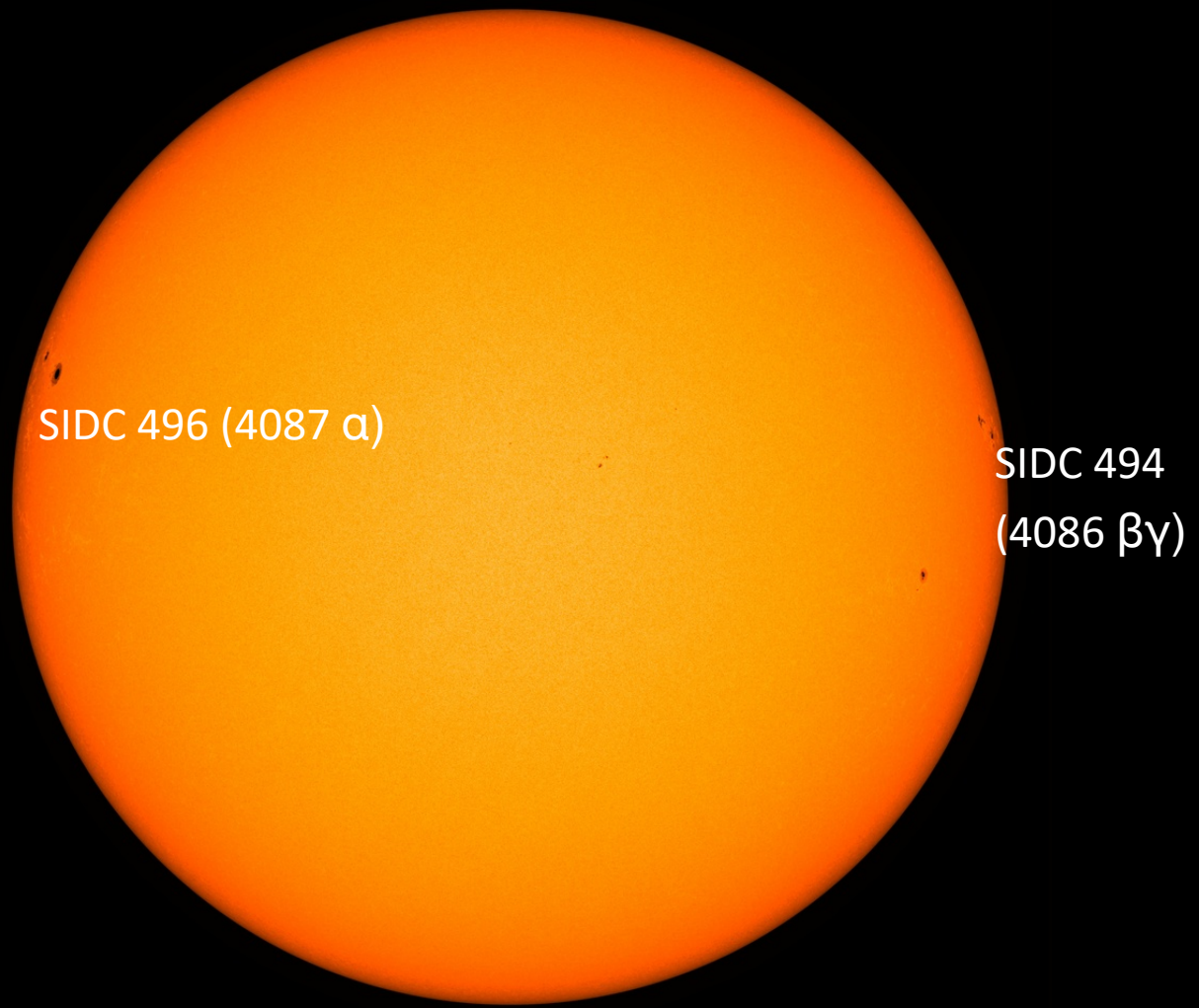
SDO/HMI Magnetogram 2025-05-11

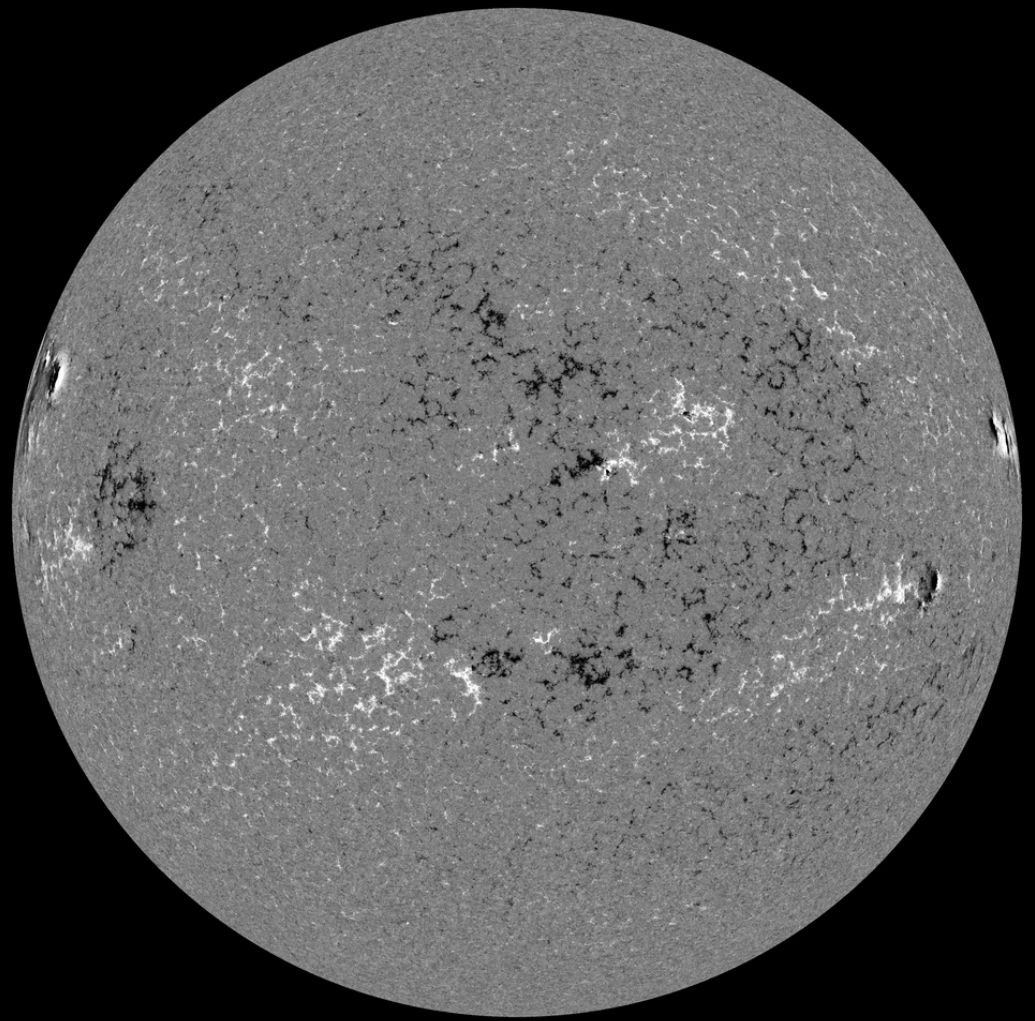


Solar active regions

SDO/HMI White Light 2025-05-13

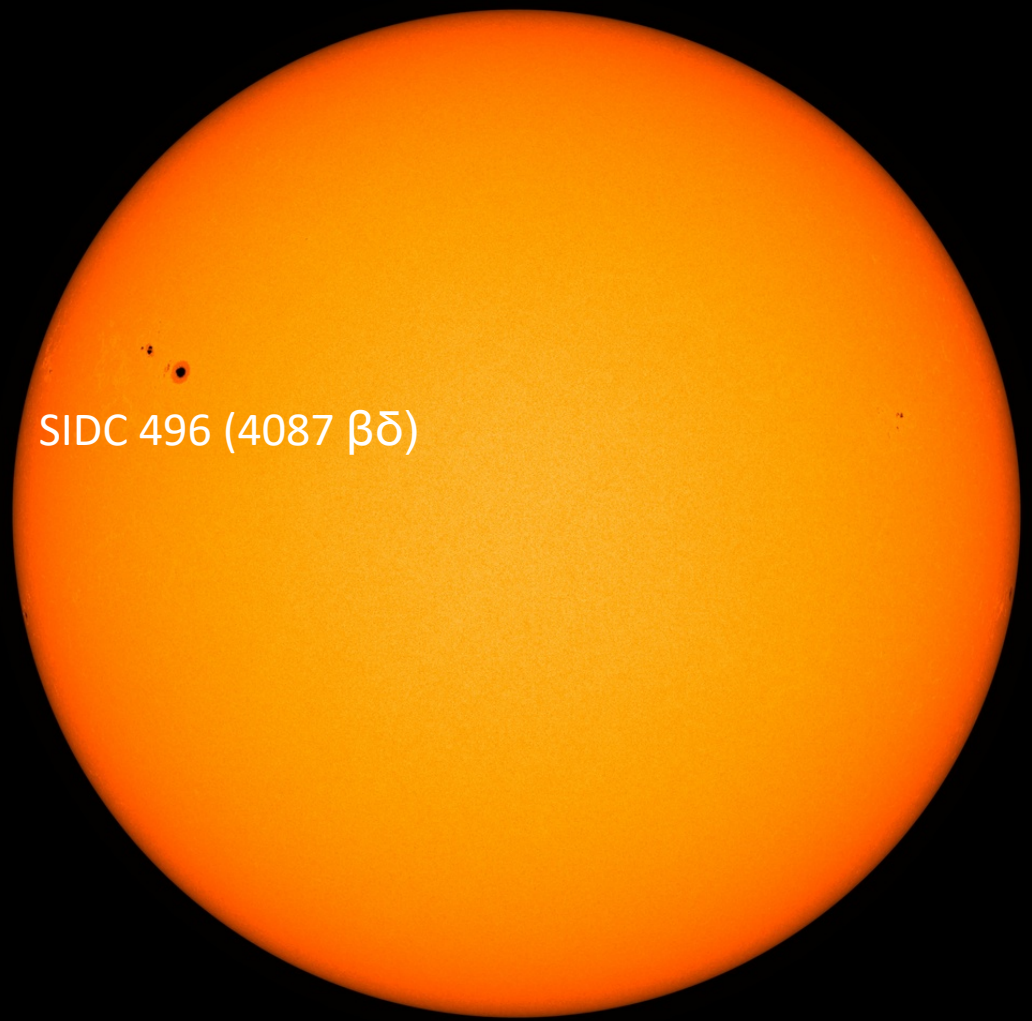
SDO/HMI Magnetogram 2025-05-13



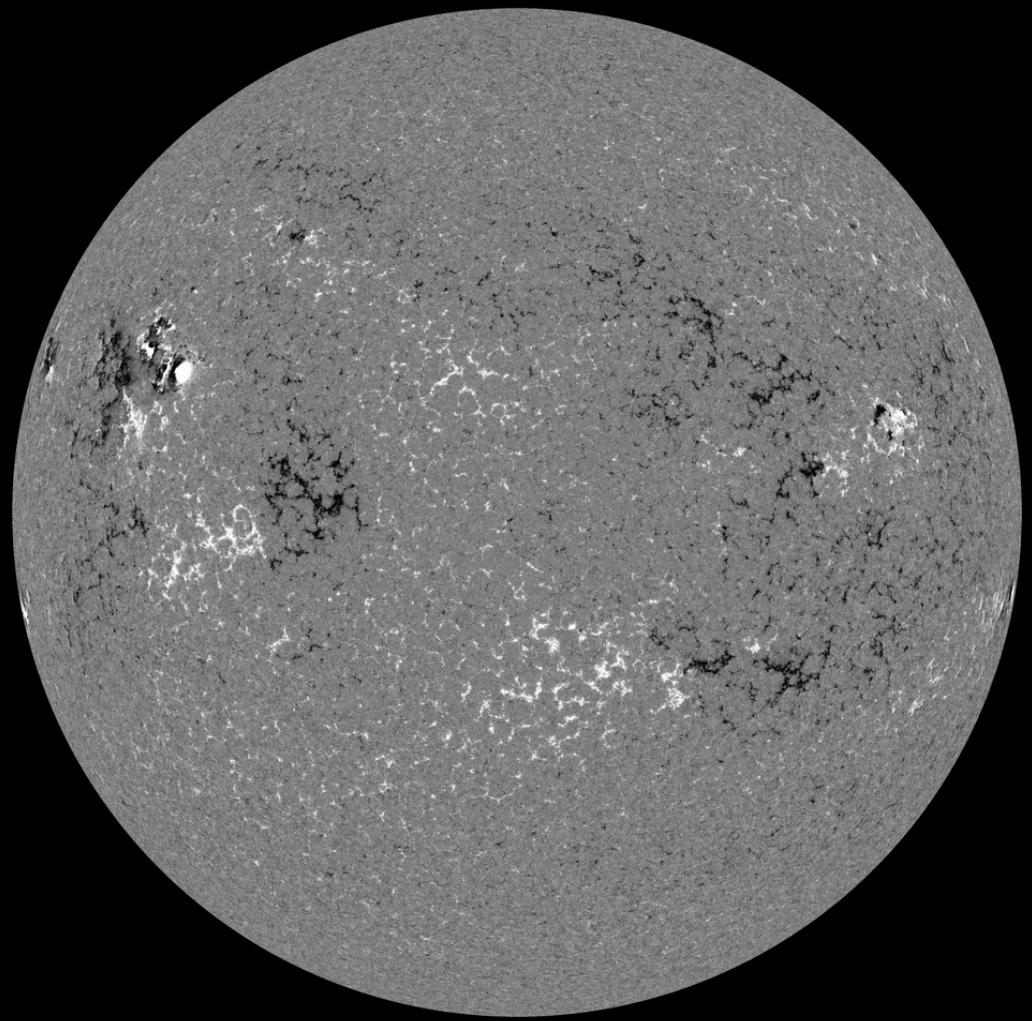


Solar active regions

SDO/HMI White Light 2025-05-15

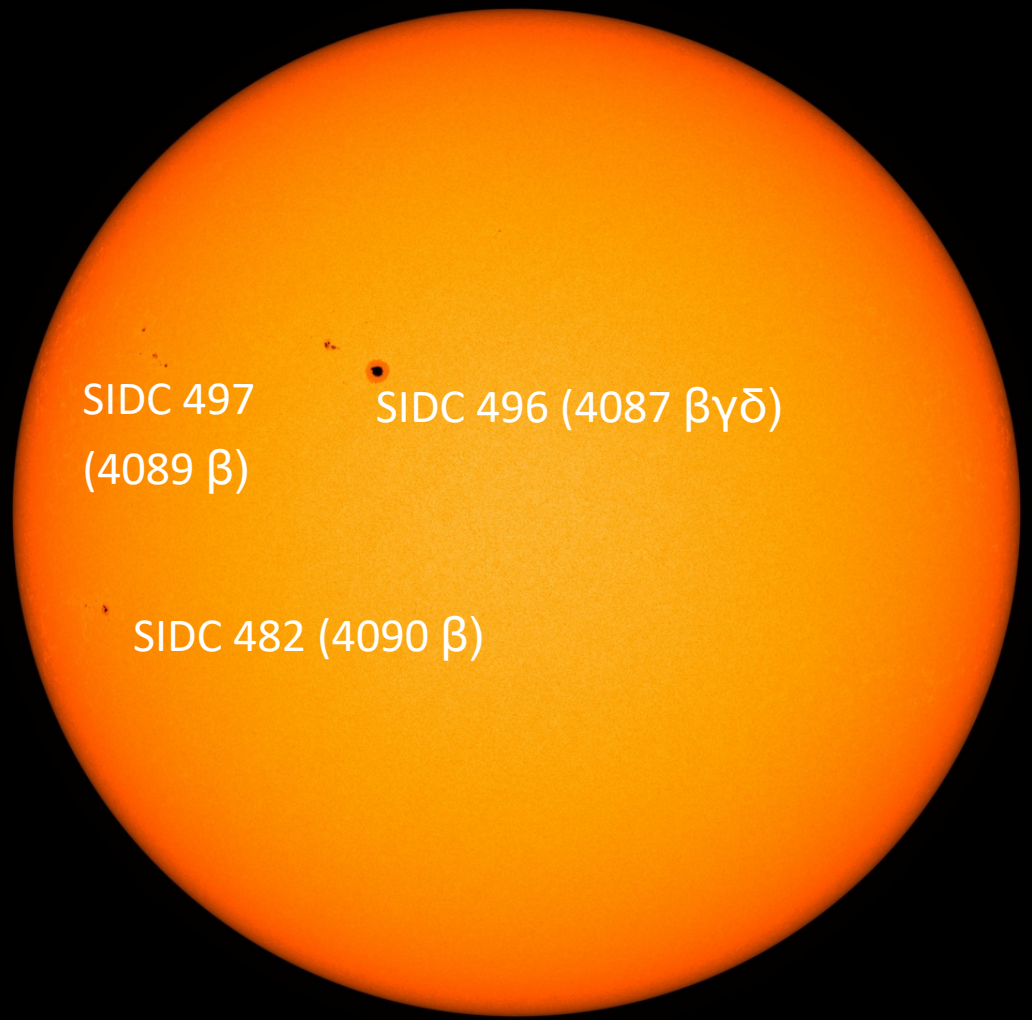


SDO/HMI Magnetogram 2025-05-15

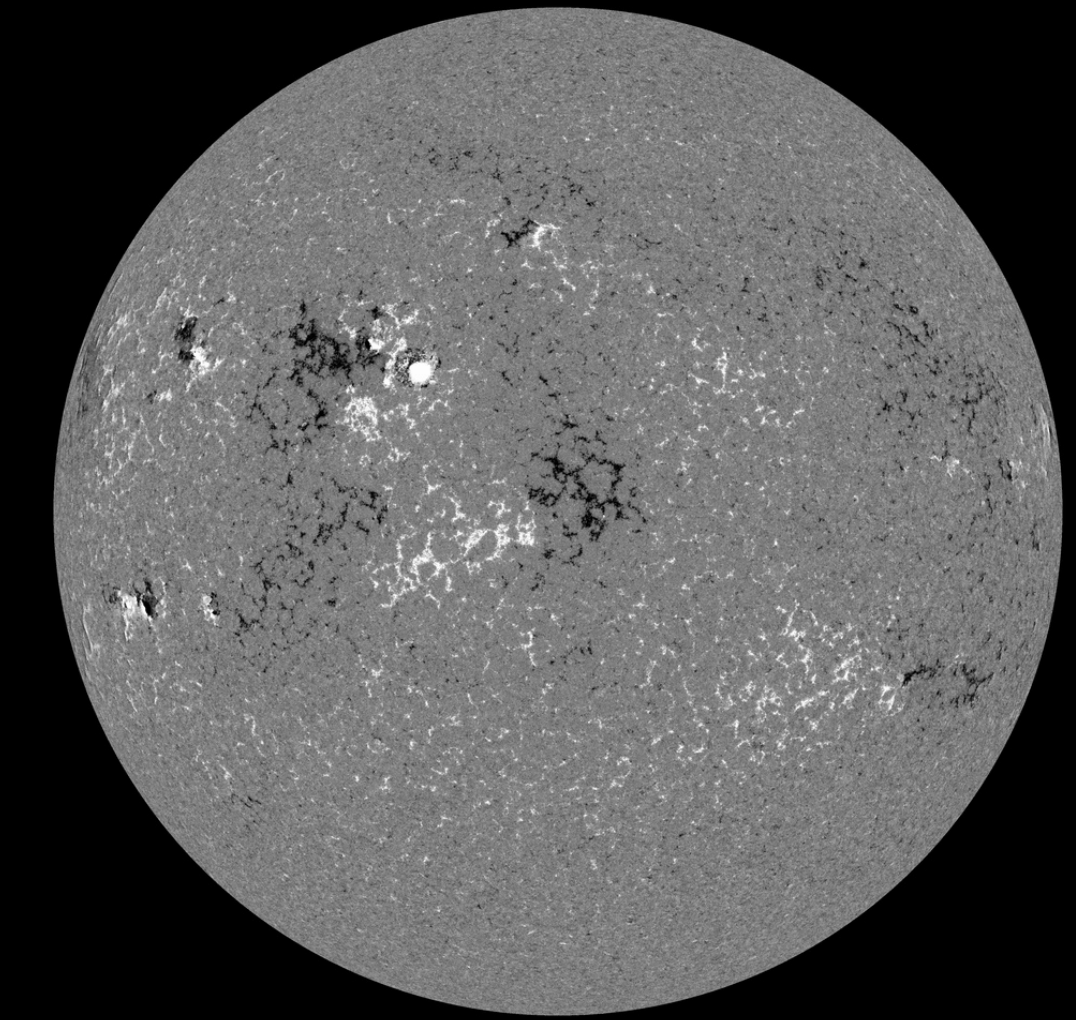


Solar active regions

SDO/HMI White Light 2025-05-17

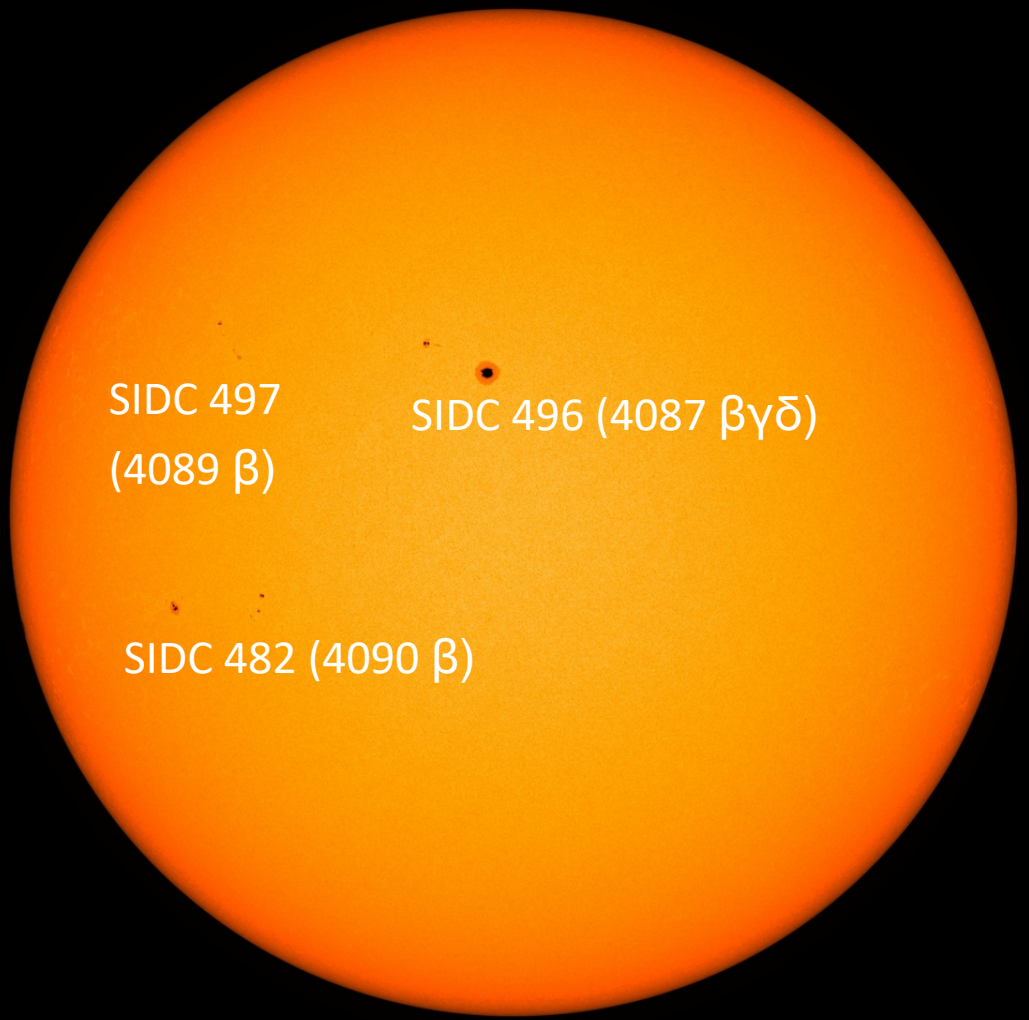


SDO/HMI Magnetogram 2025-05-17

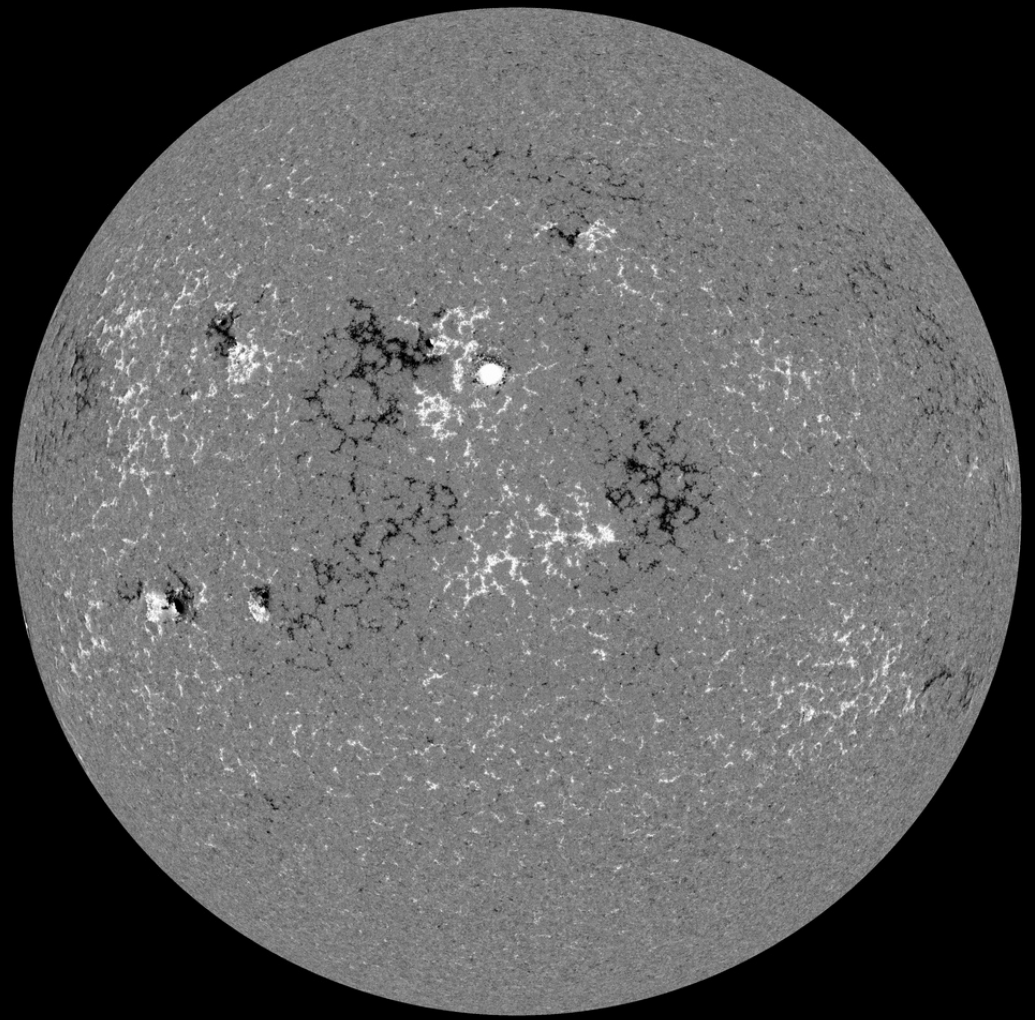


Solar active regions

SDO/HMI White Light 2025-05-18

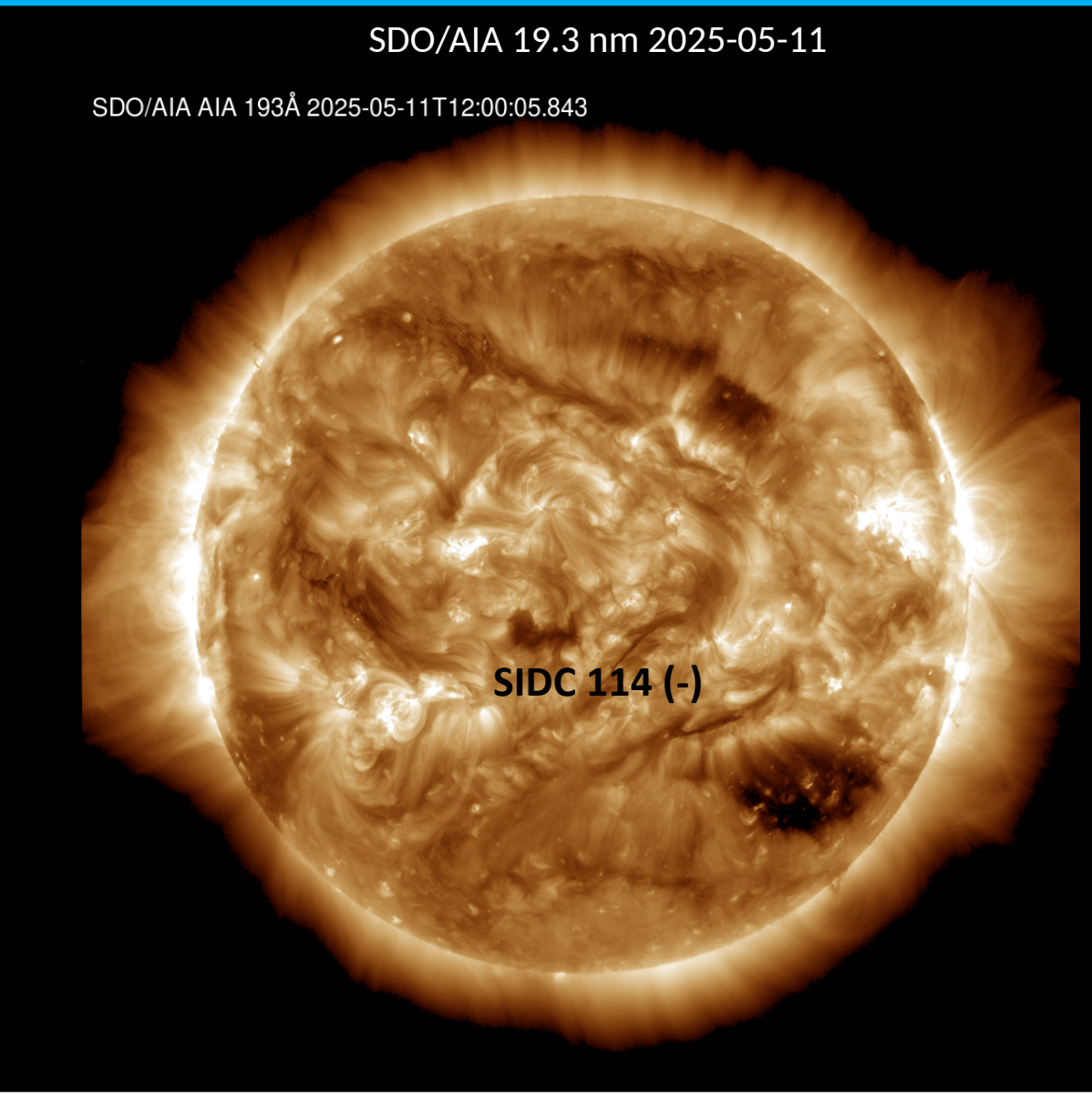


SDO/HMI Magnetogram 2025-05-18

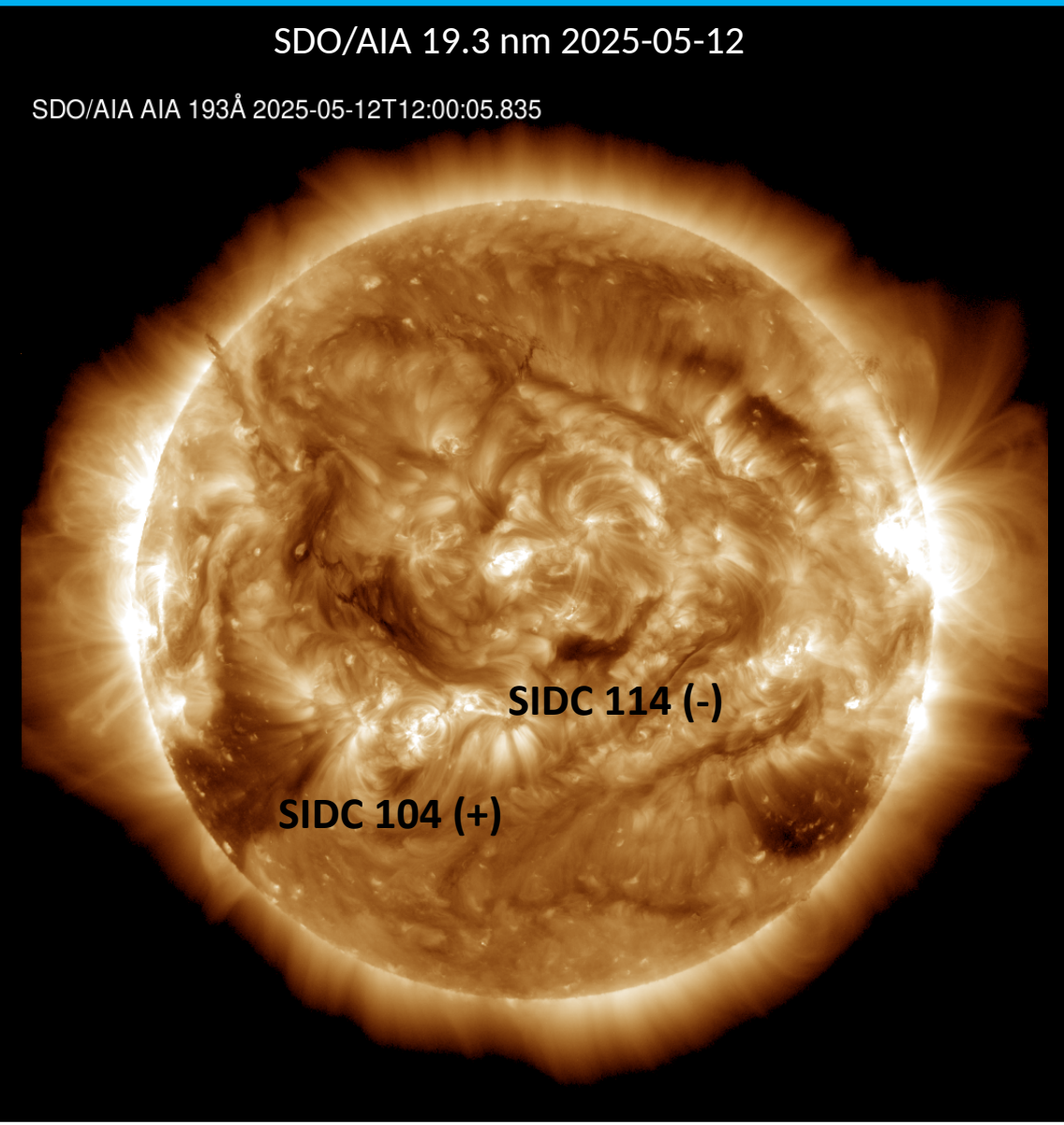


Coronal holes

SDO/AIA 19.3 nm 2025-05-11

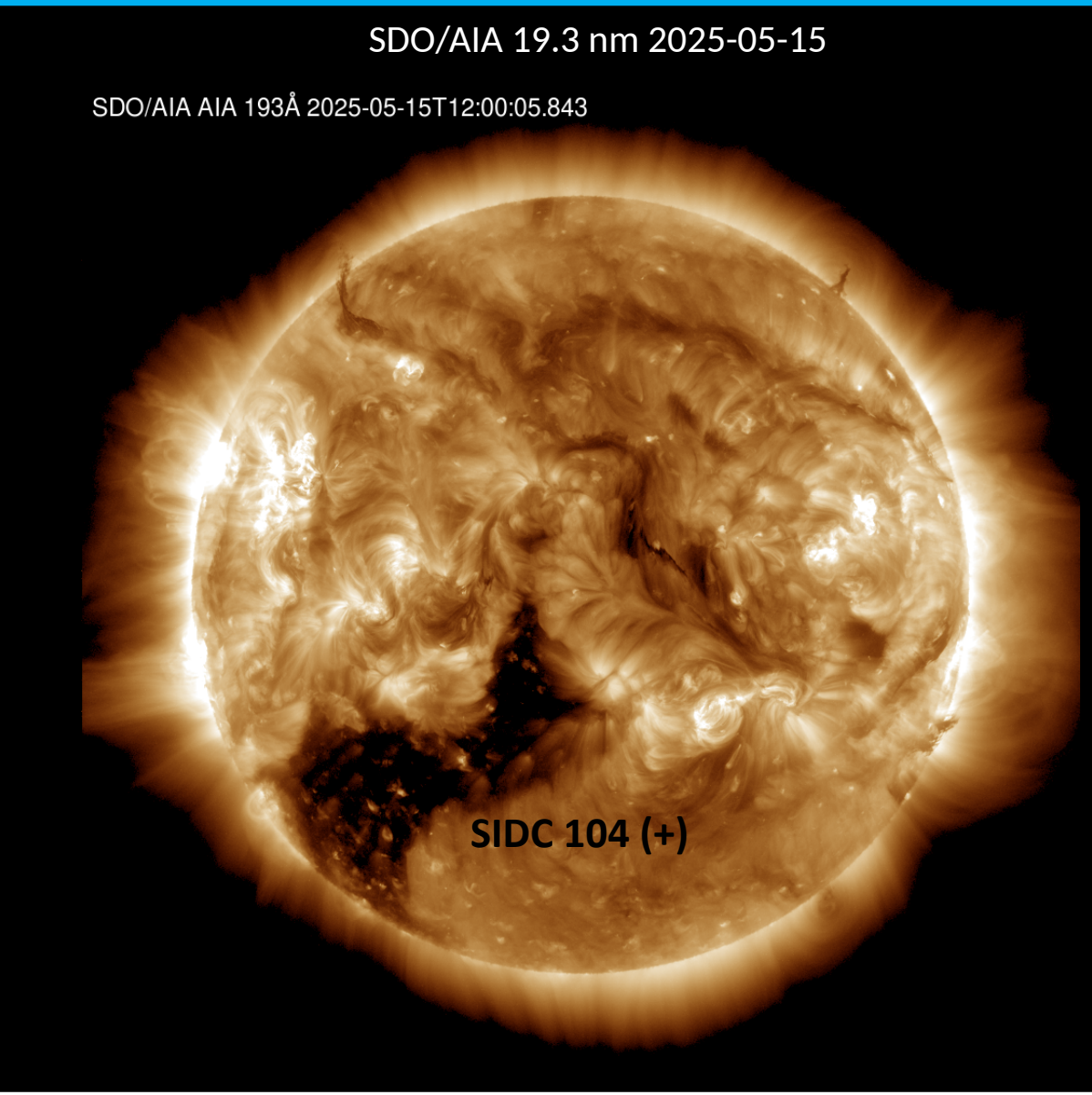


SDO/AIA 19.3 nm 2025-05-12

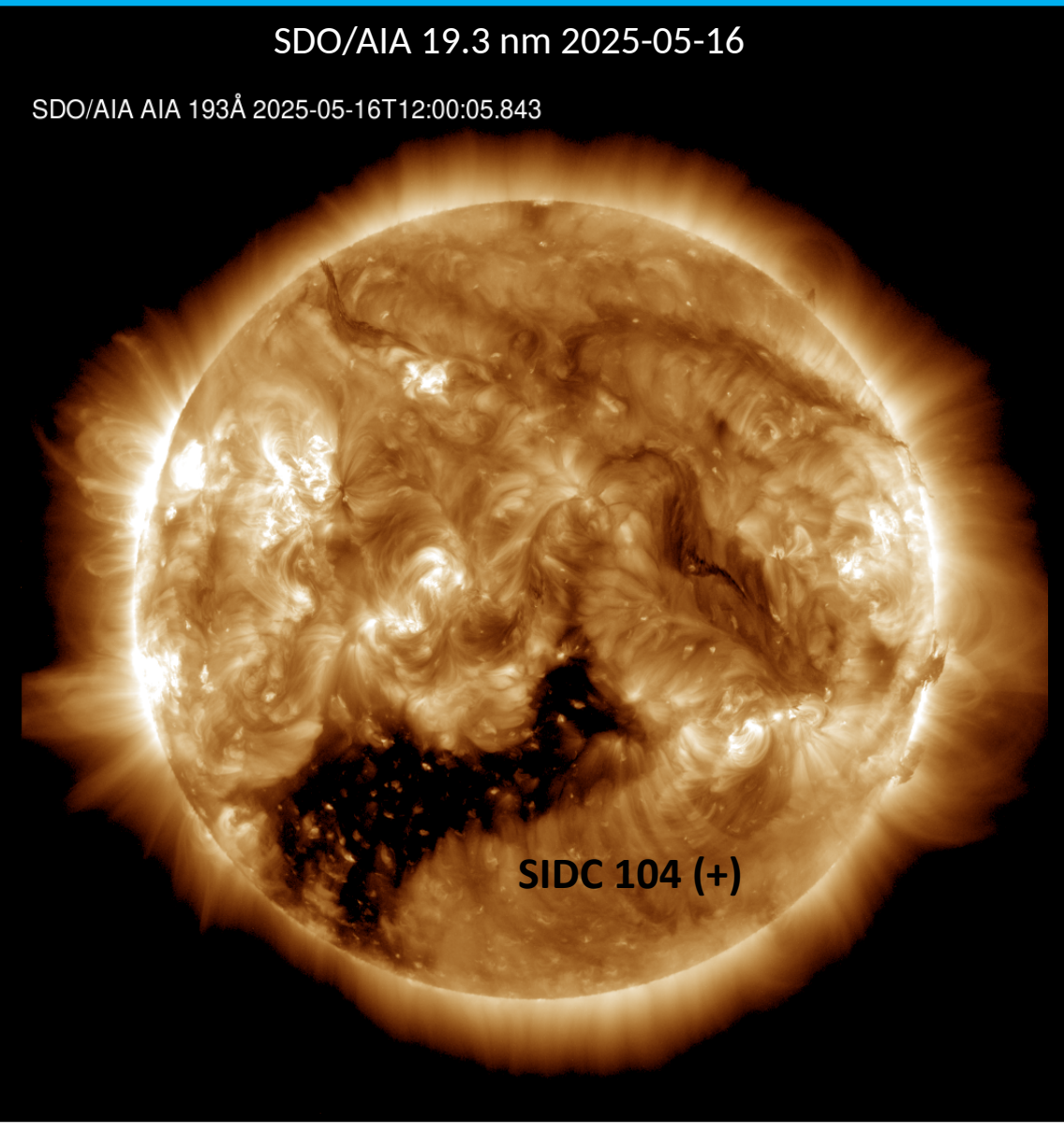


Coronal holes

SDO/AIA 19.3 nm 2025-05-15

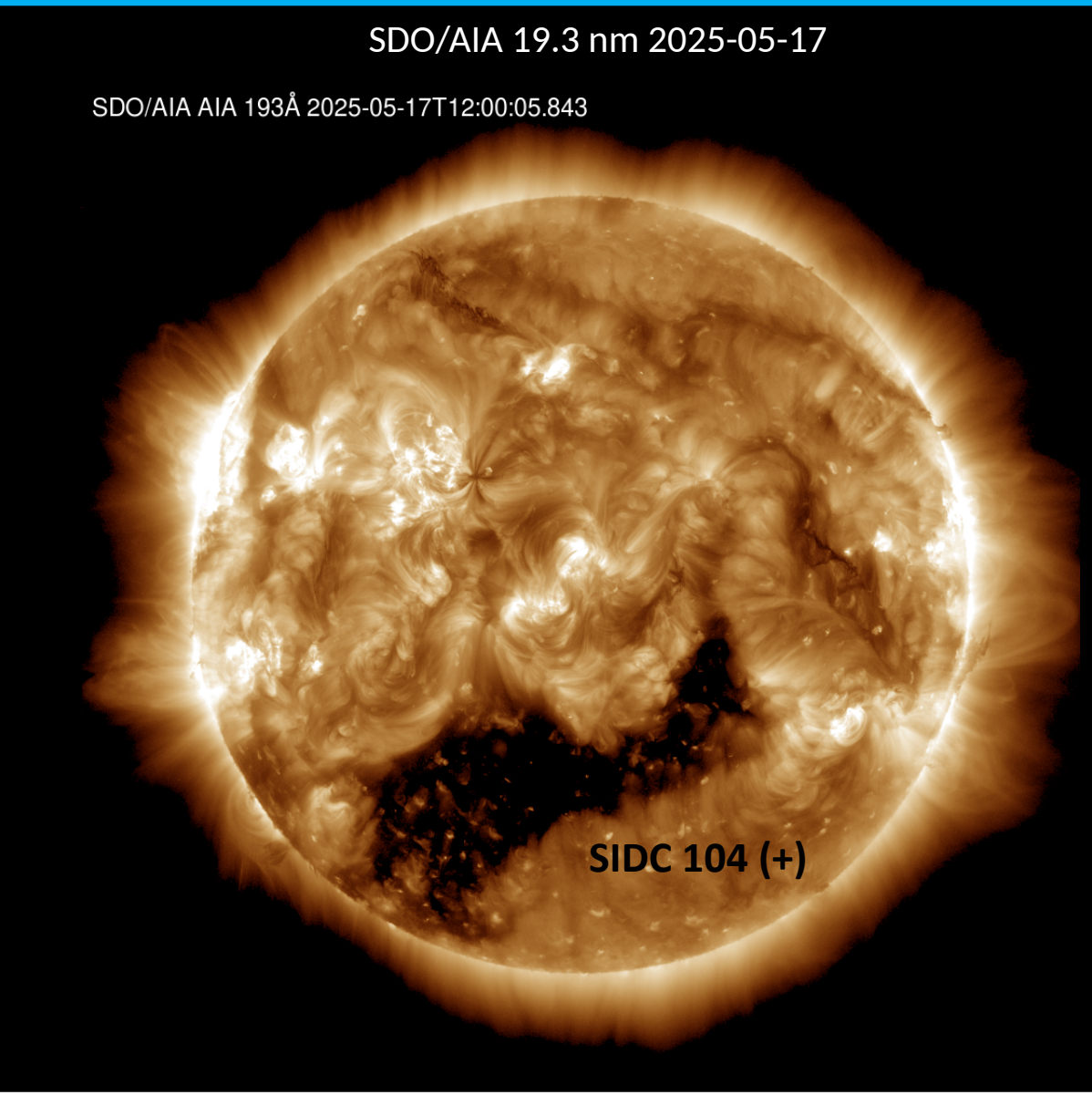


SDO/AIA 19.3 nm 2025-05-16

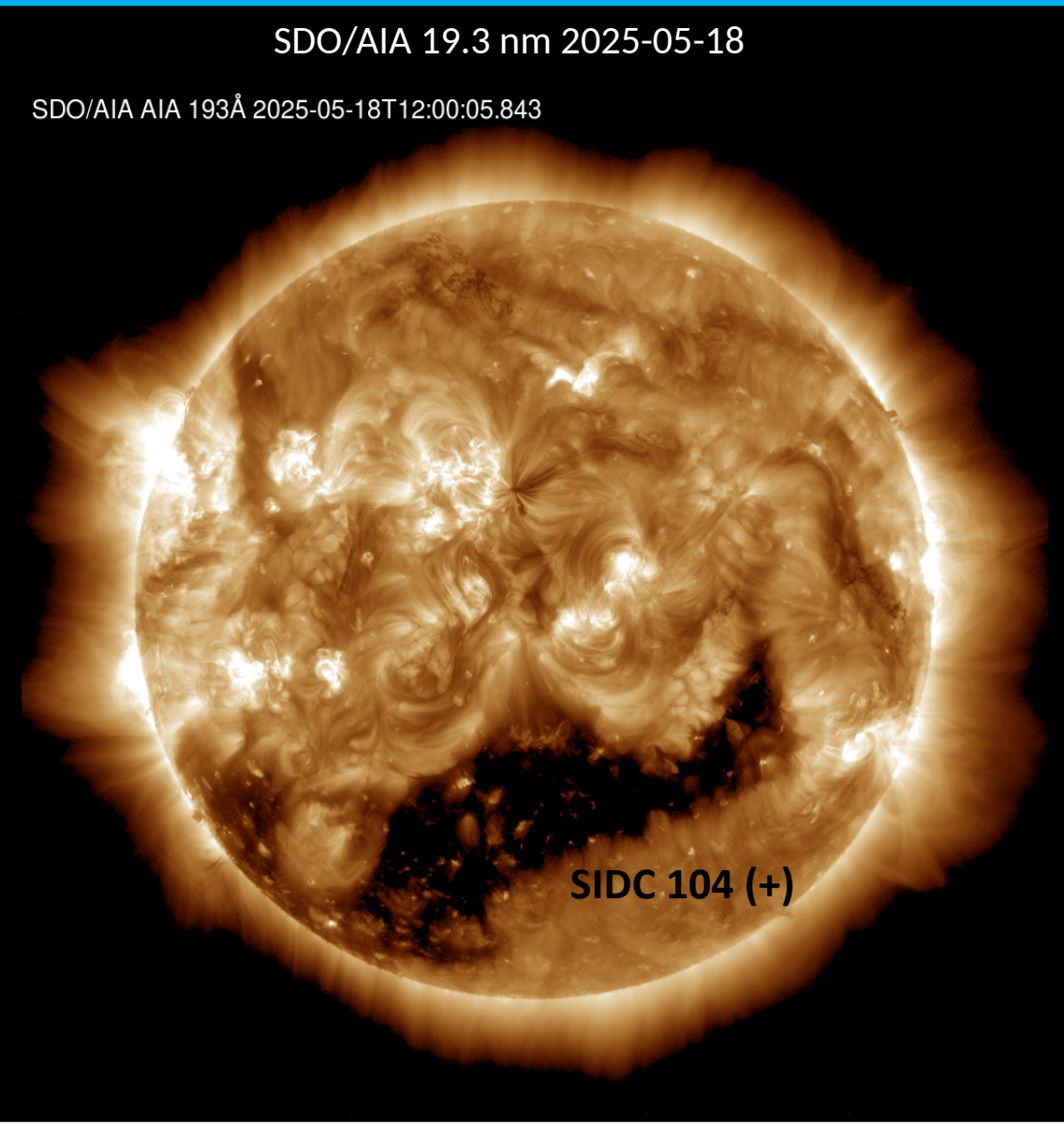


Coronal holes

SDO/AIA 19.3 nm 2025-05-17

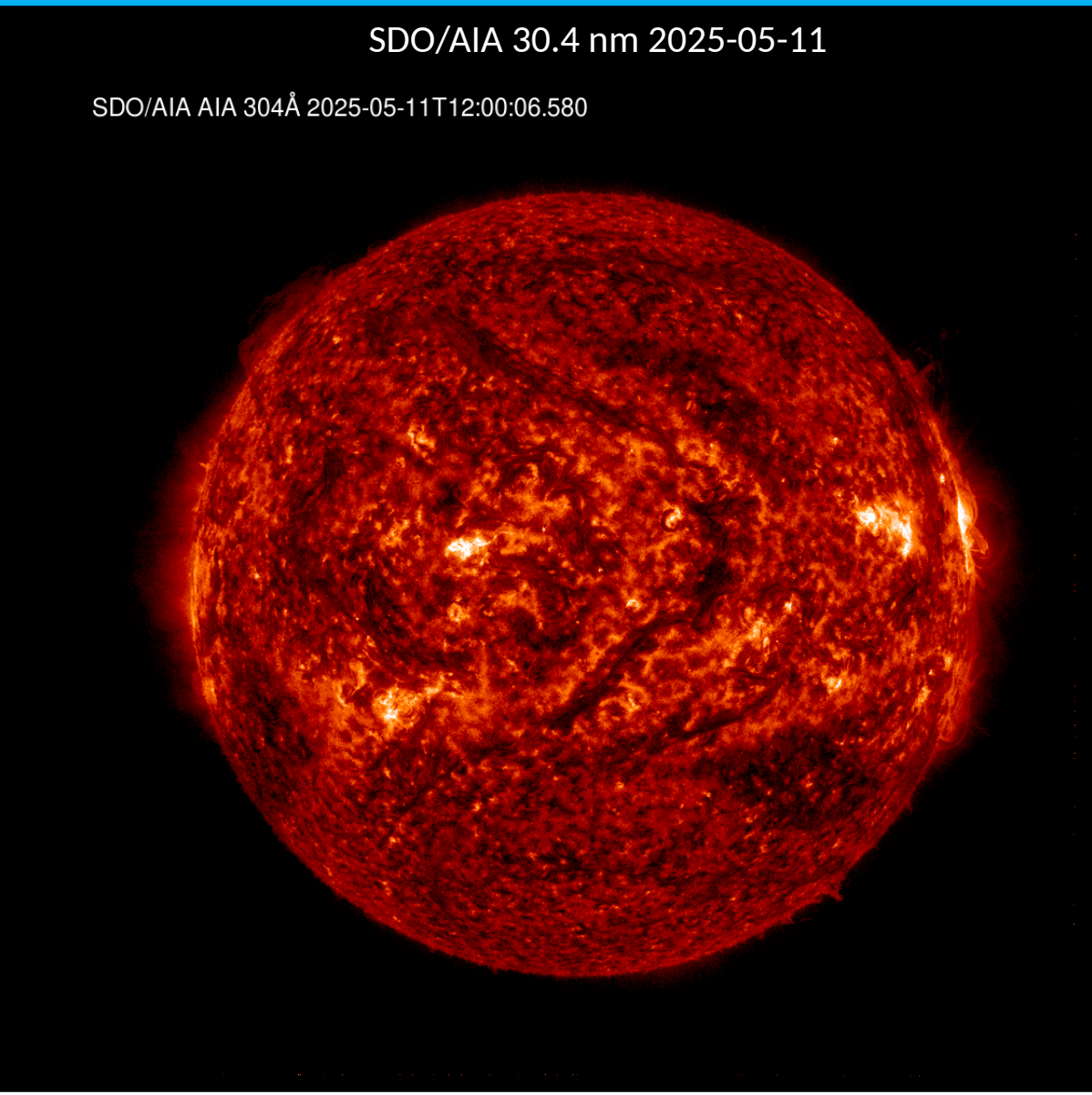


SDO/AIA 19.3 nm 2025-05-18

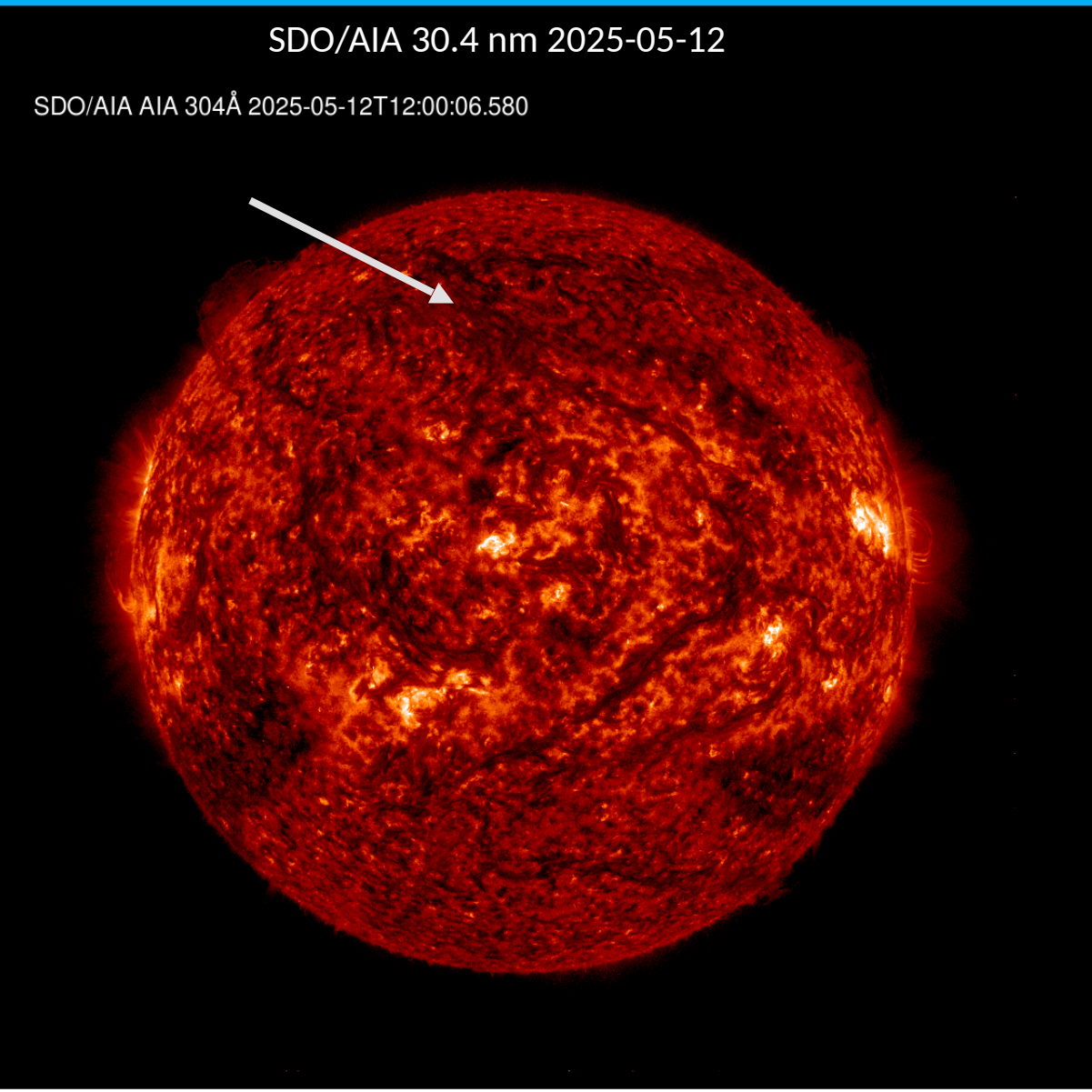


Filaments

SDO/AIA 30.4 nm 2025-05-11

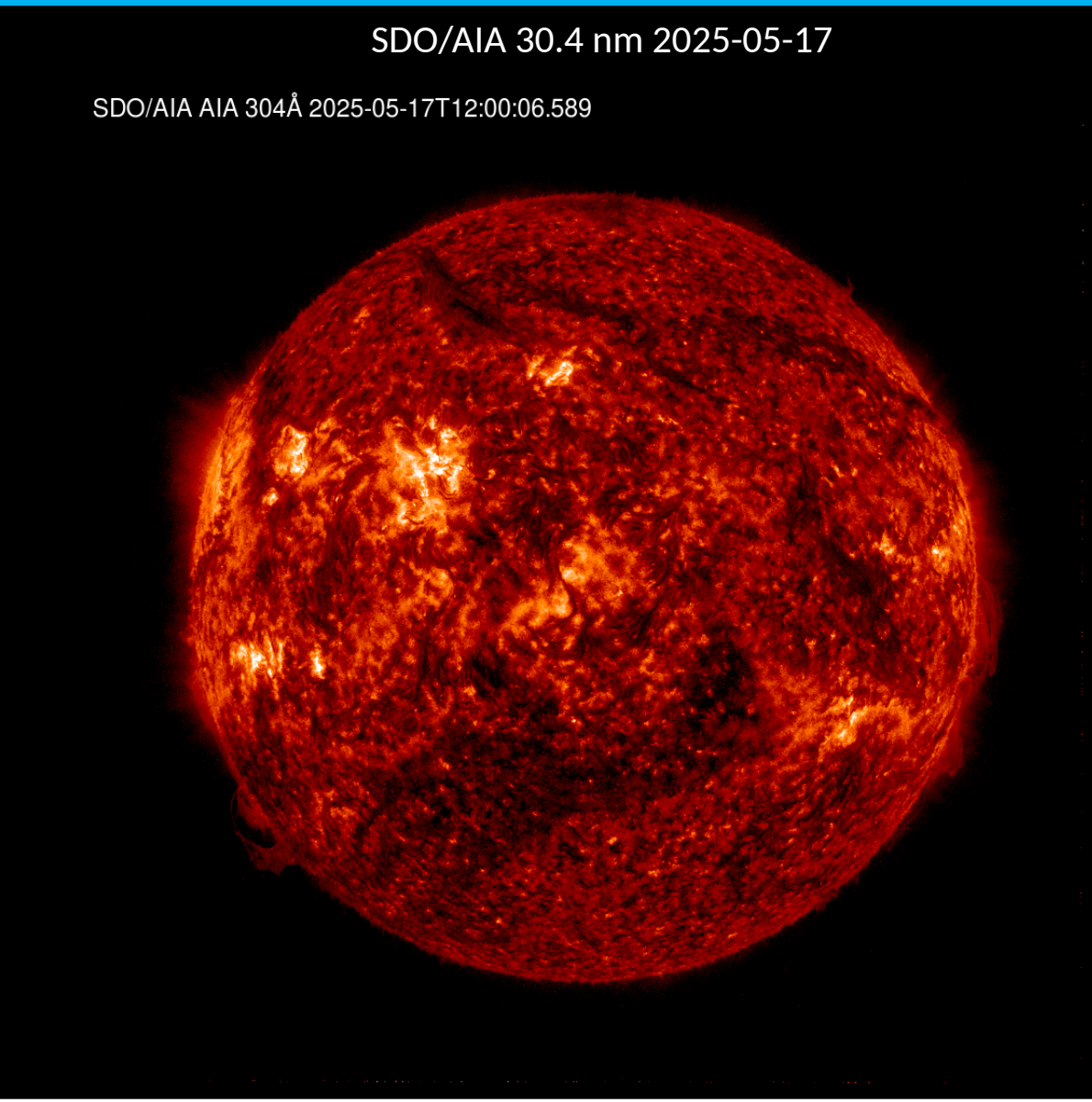


SDO/AIA 30.4 nm 2025-05-12

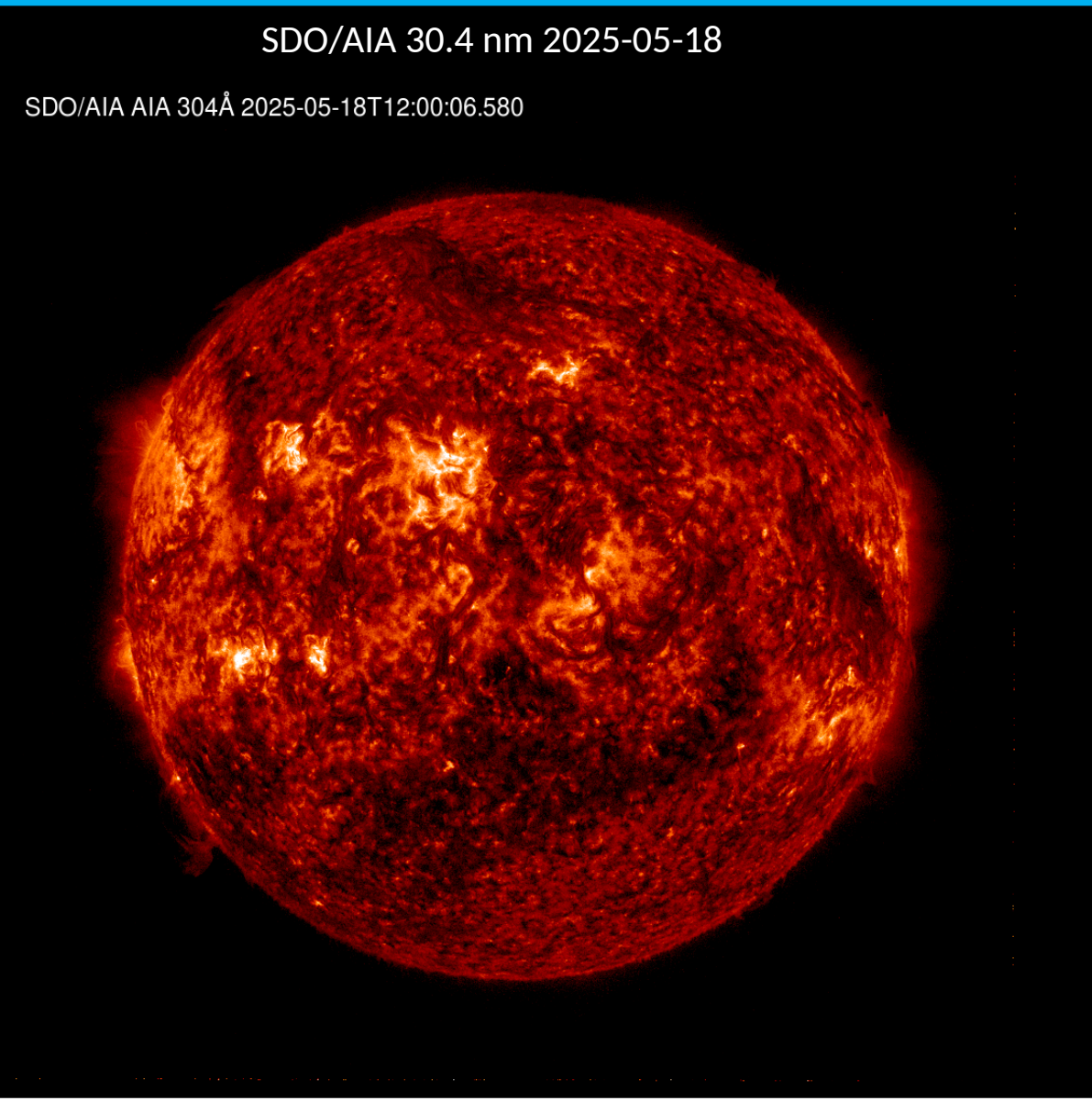


Filaments

SDO/AIA 30.4 nm 2025-05-17

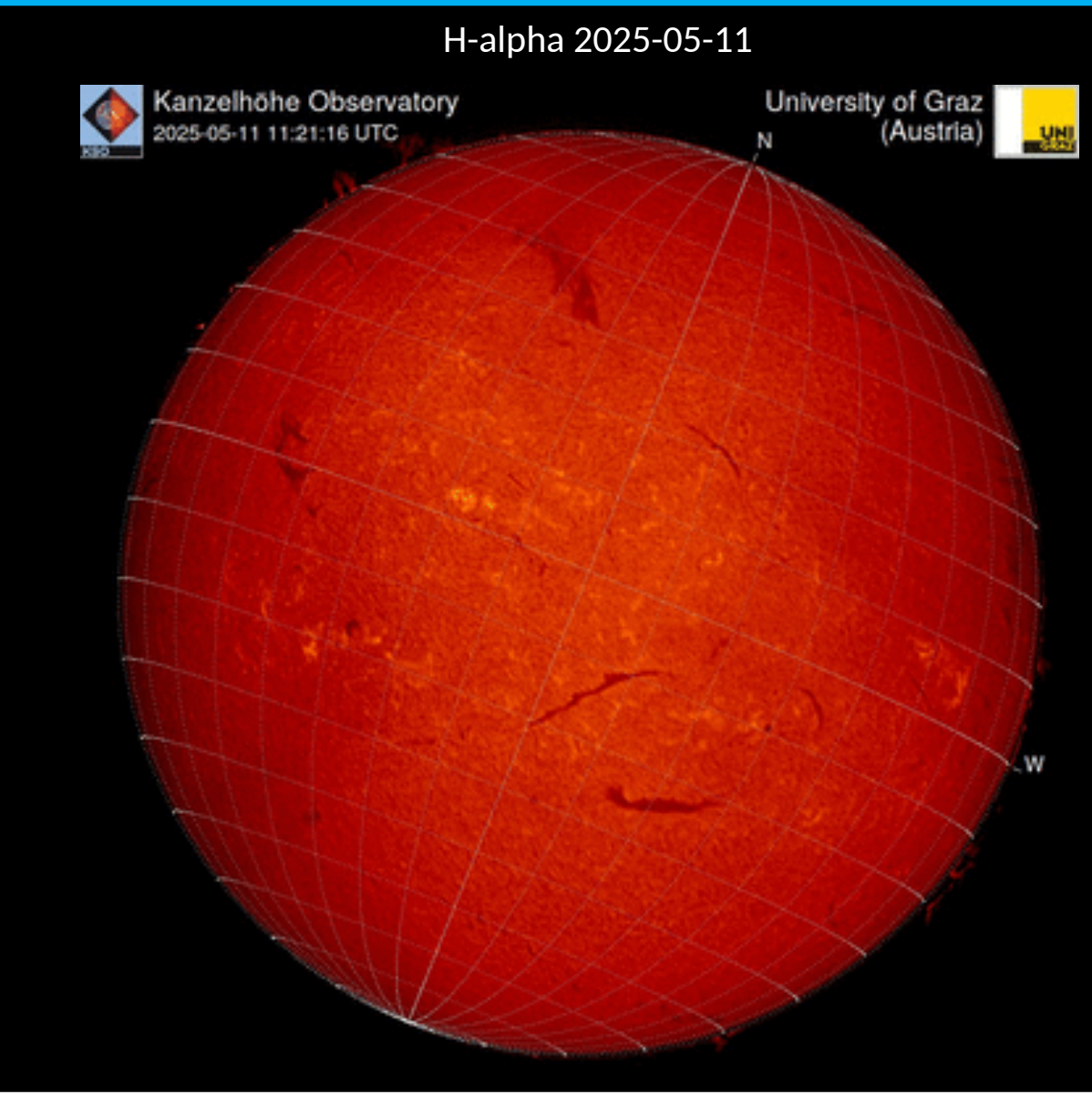


SDO/AIA 30.4 nm 2025-05-18

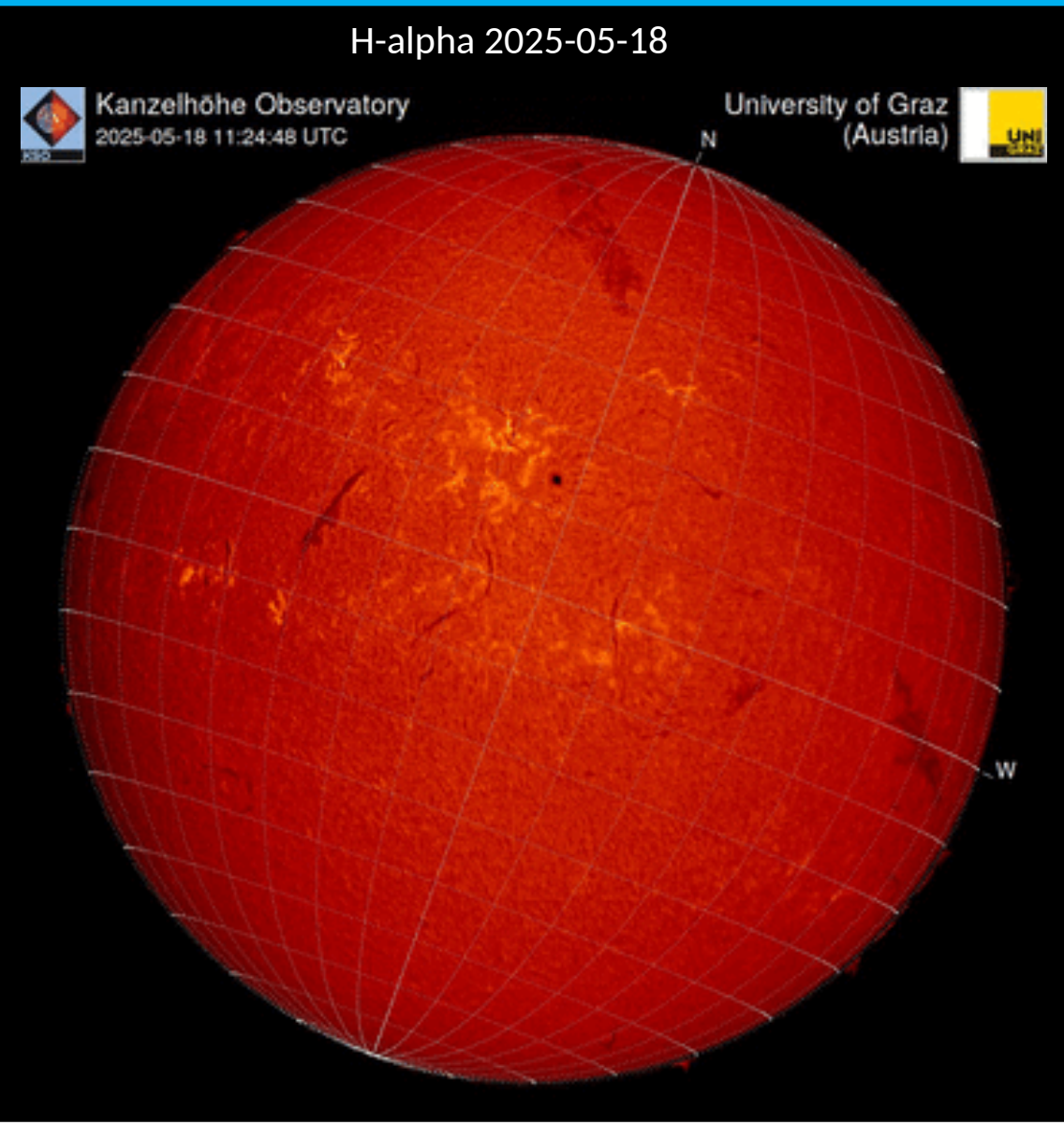


Filaments & Filament eruptions

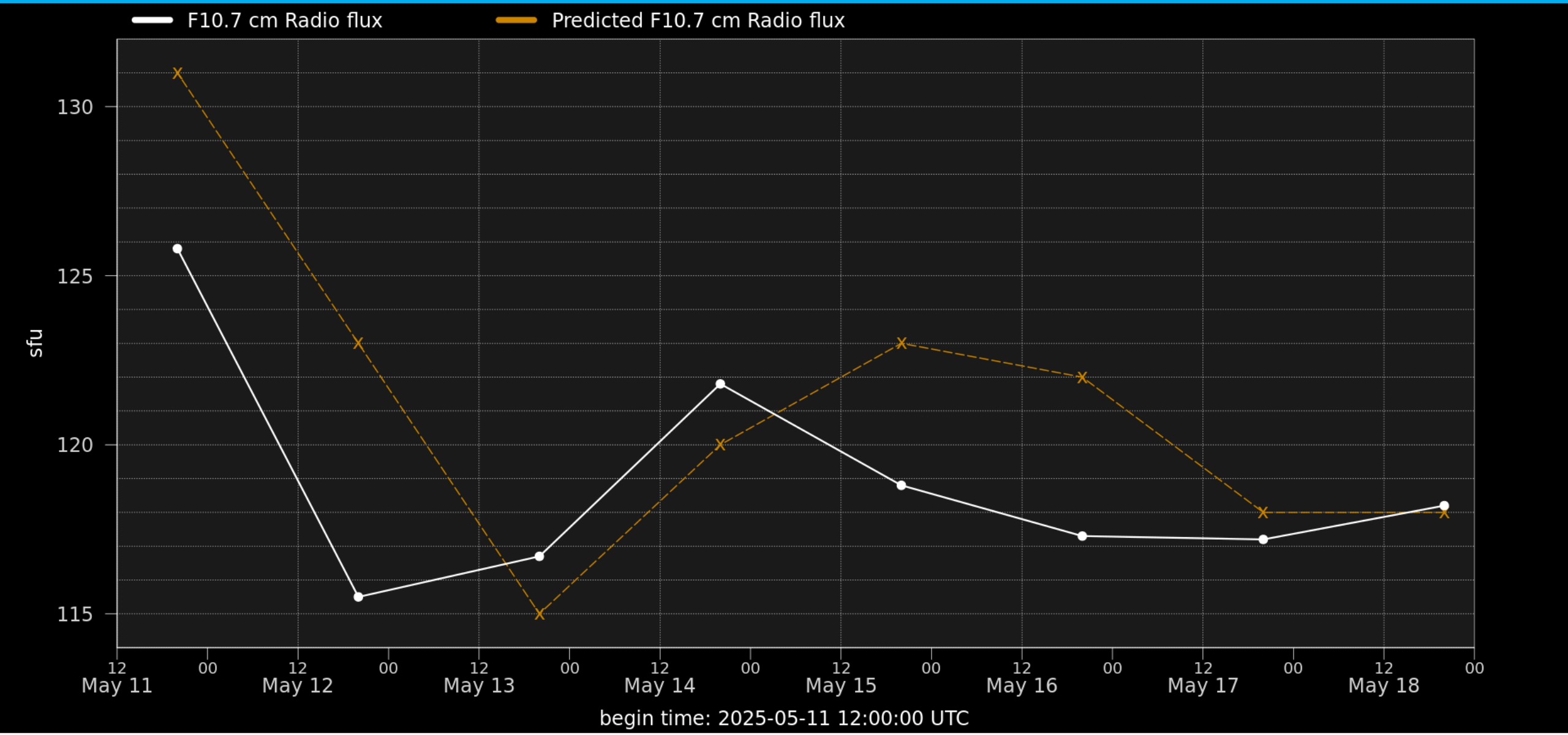
H-alpha 2025-05-11



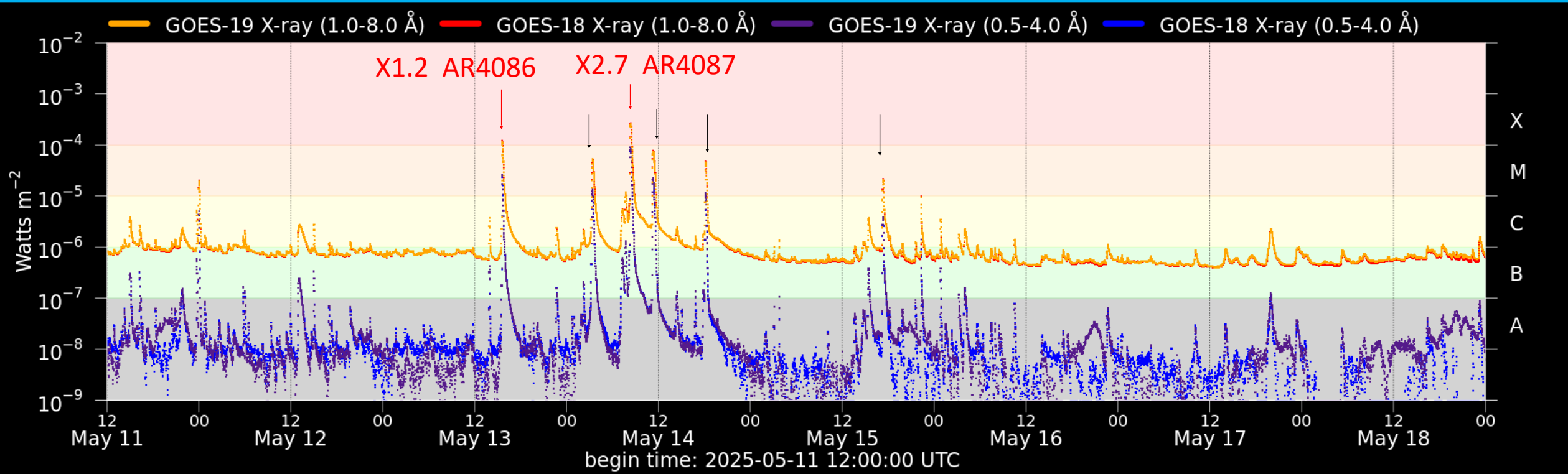
H-alpha 2025-05-18



Solar F10.7cm radio flux



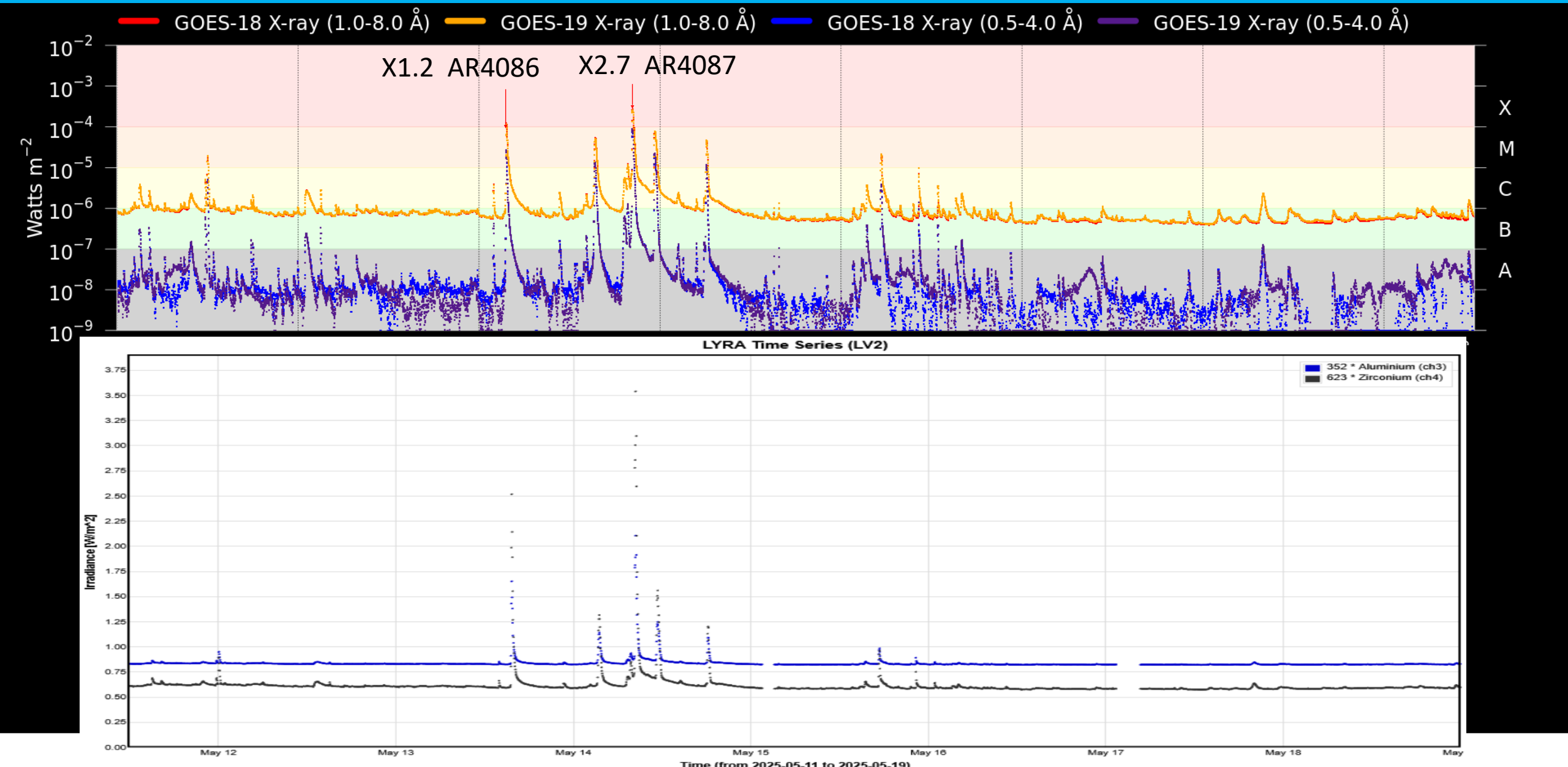
Flaring activity



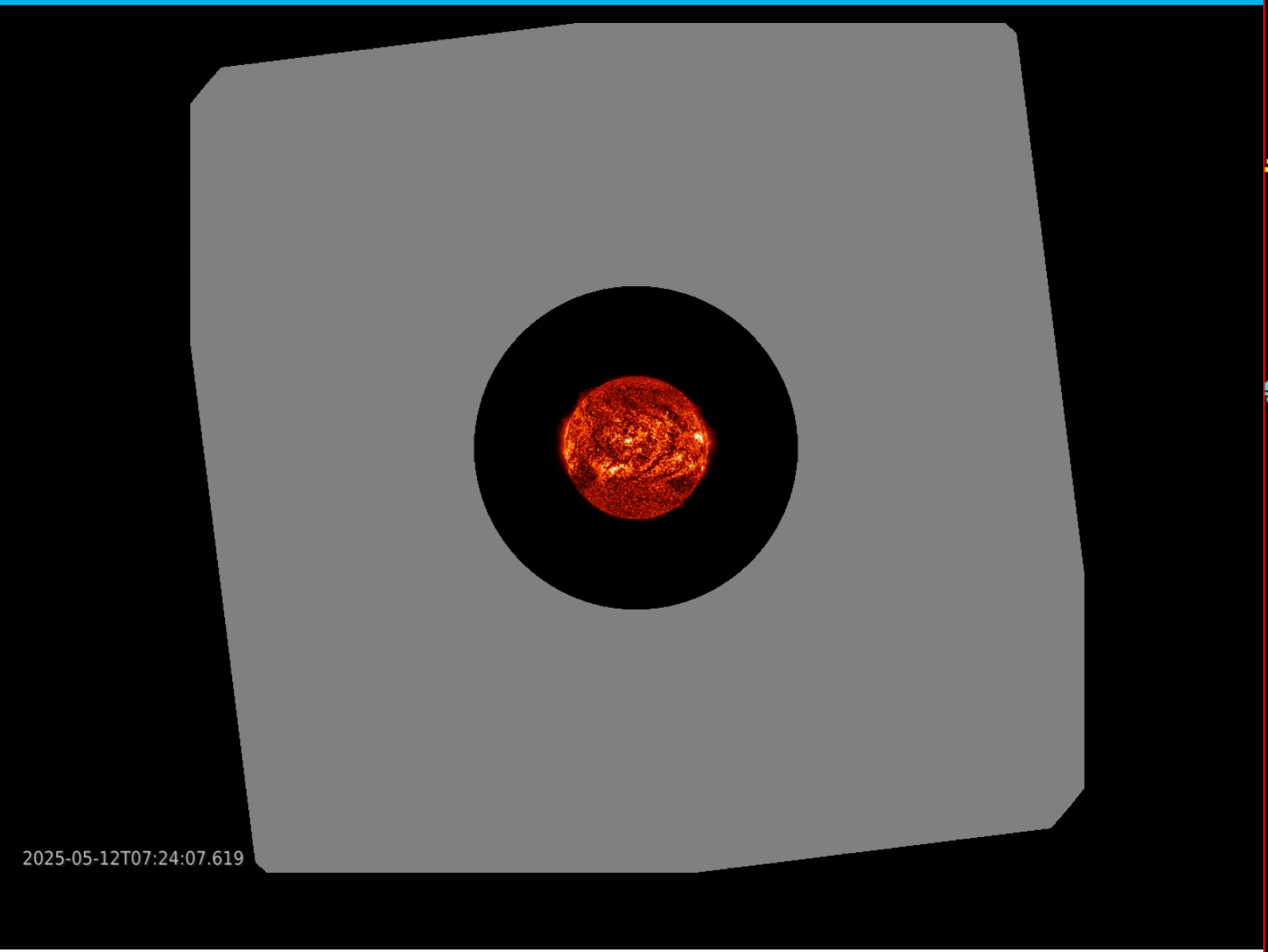
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

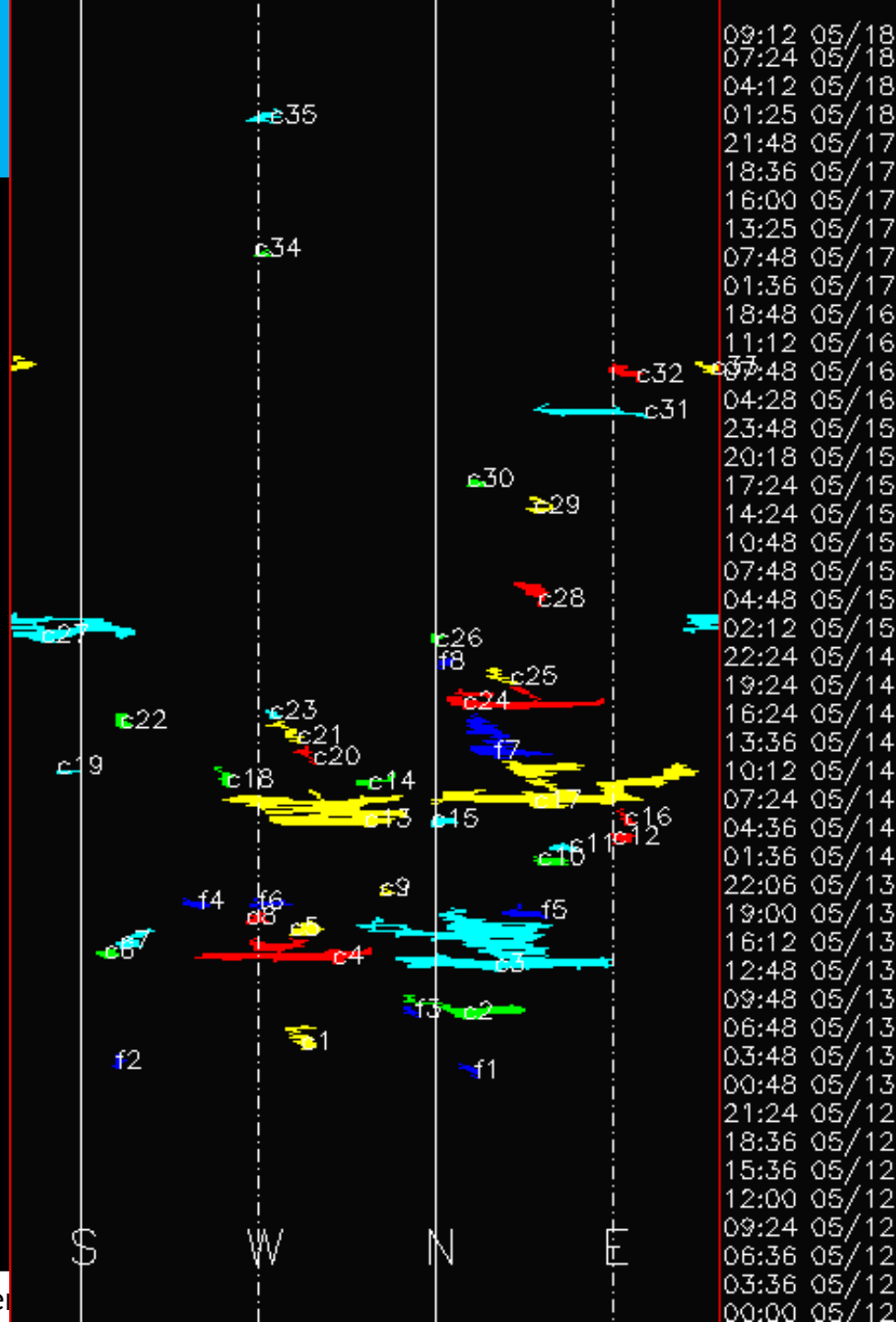
Issue date	2025-05-11	2025-05-12	2025-05-13	2025-05-14	2025-05-15	2025-05-16	2025-05-17	2025-05-18
Probability (%)	99|10|01	78|23|01	89|32|01	93|36|10	88|30|05	94|35|10	71|10|05	75|15|01
Observed (#)	08|01|00	03|00|00	04|03|02	03|01|00	09|01|00	01|00|00	01|00|00	01|00|00

Solar X-Ray and UV flux

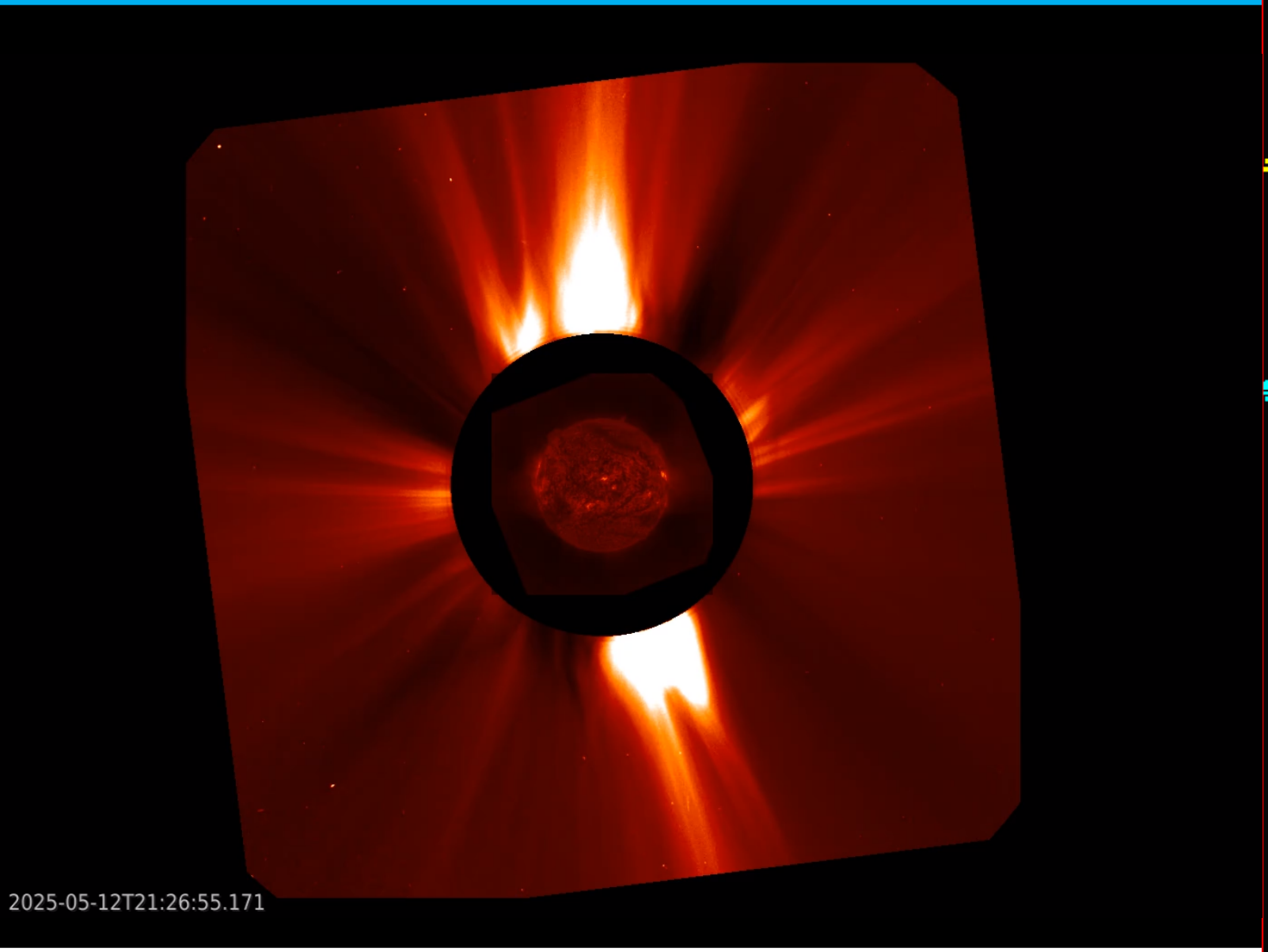


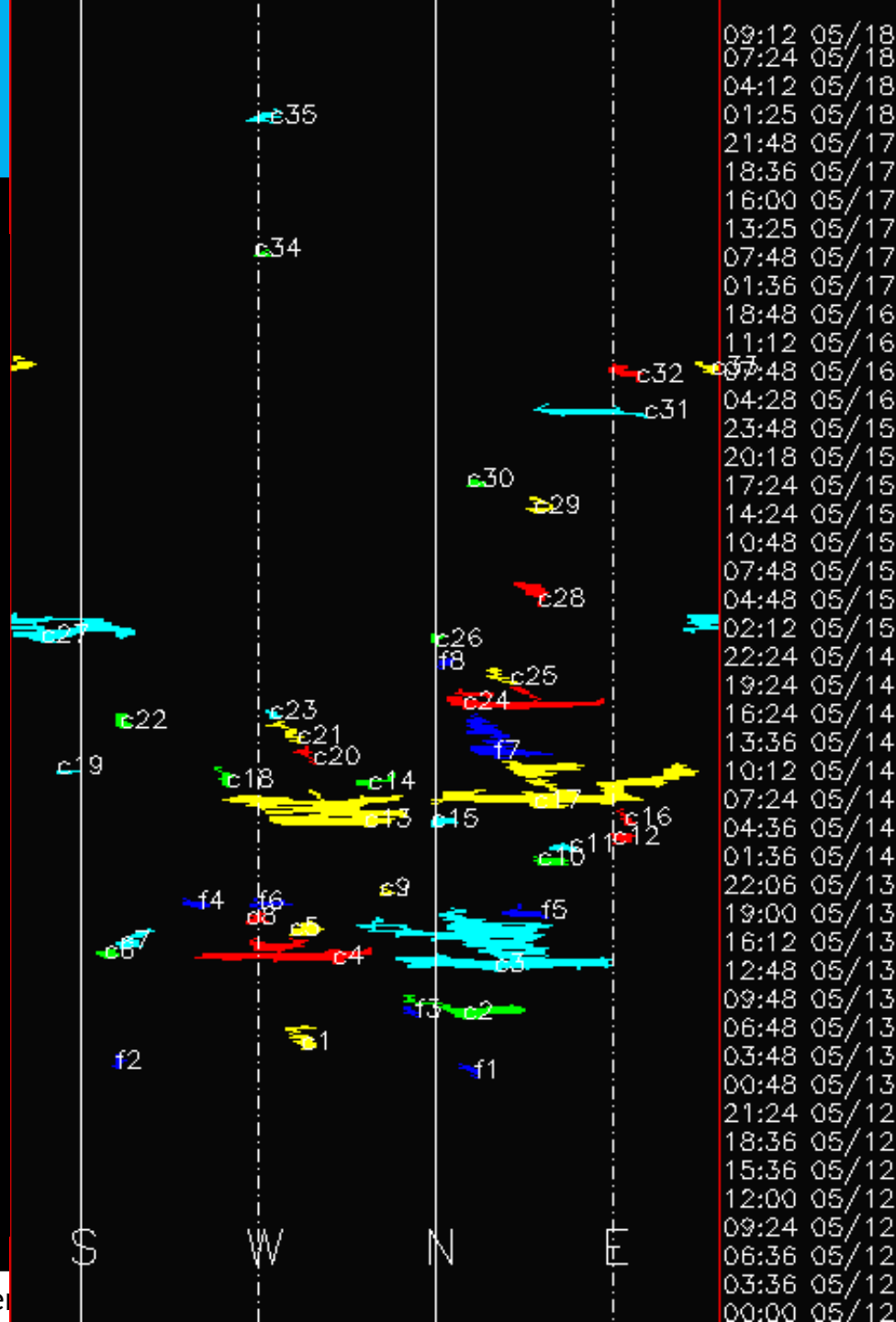
Coronal Mass Ejections



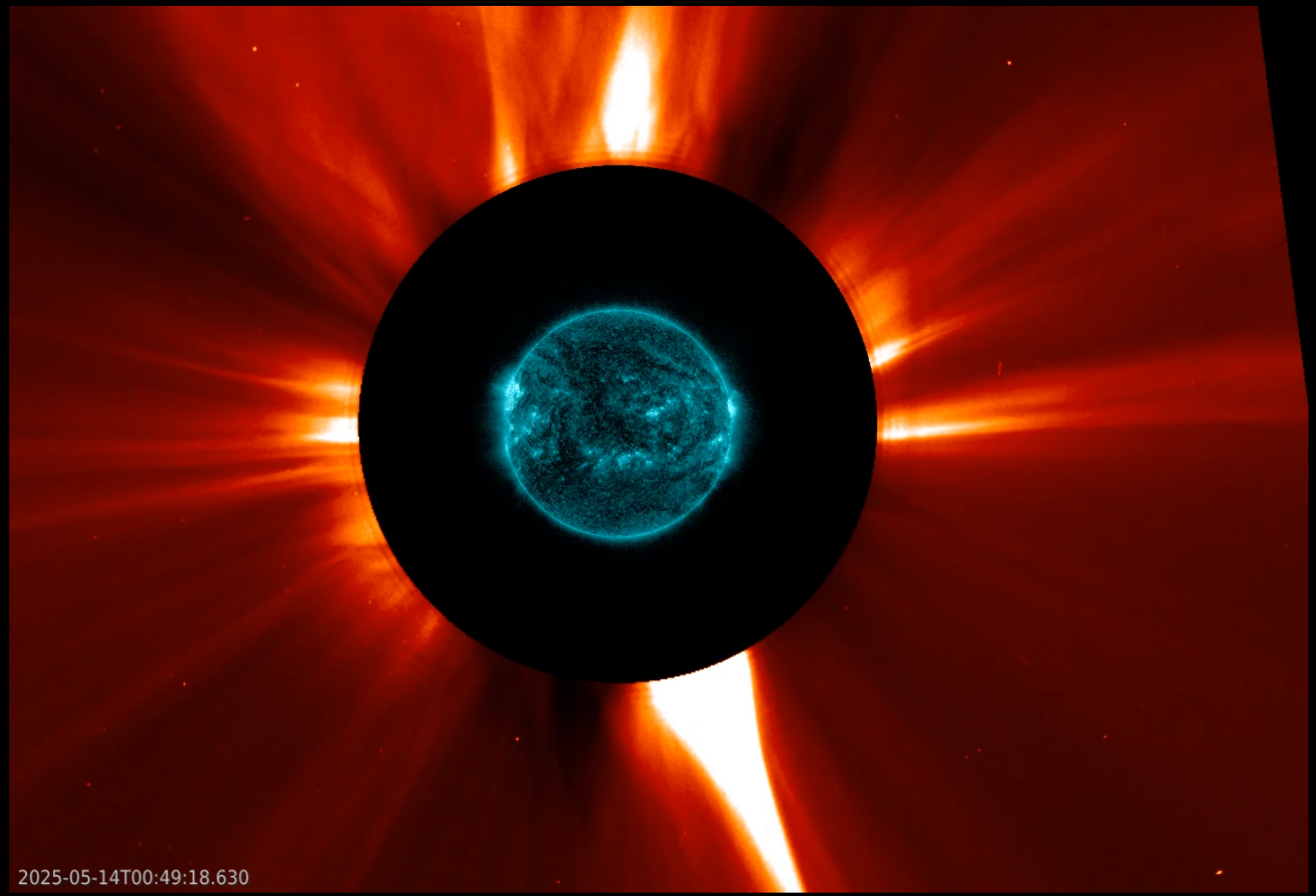


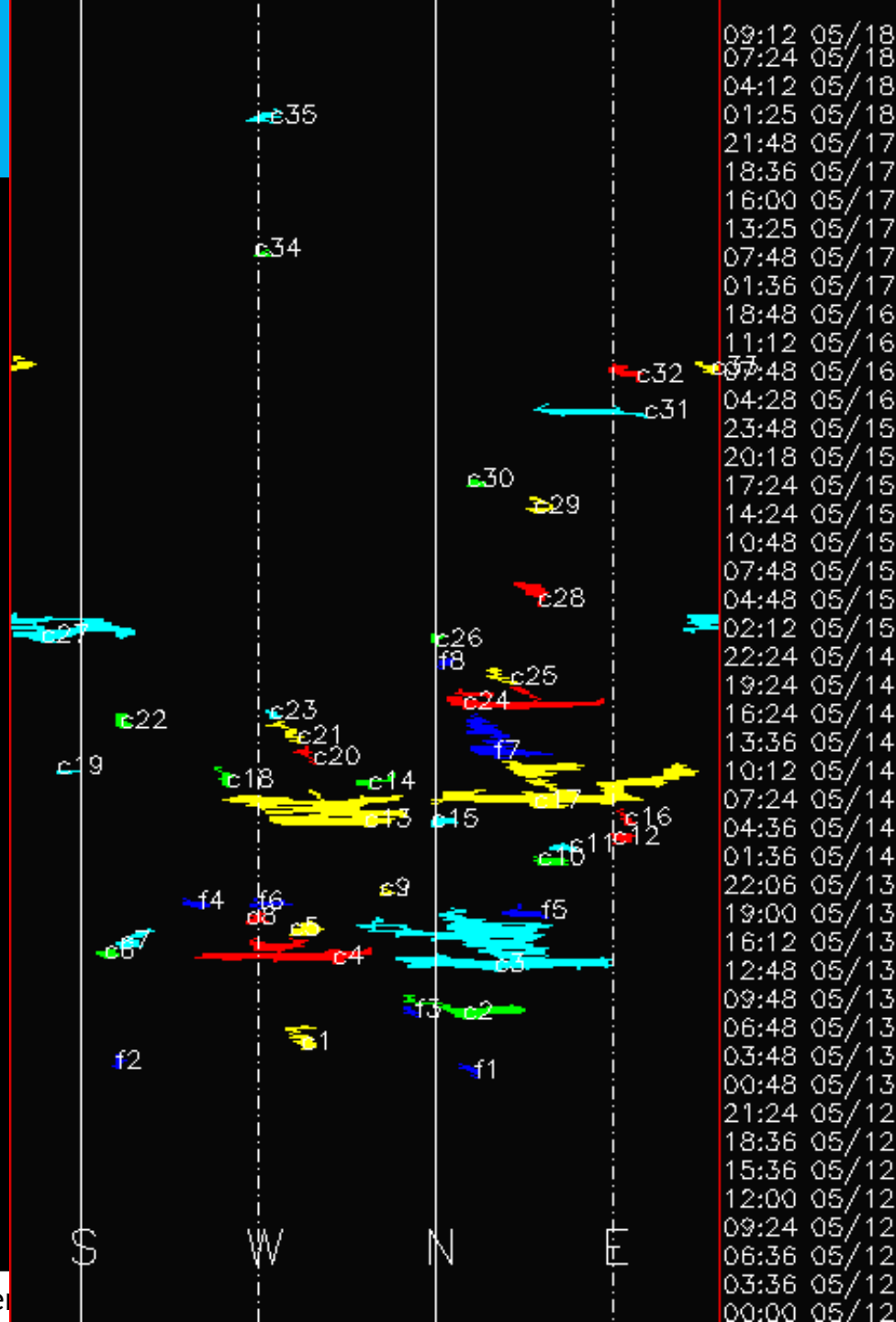
Coronal Mass Ejections





Coronal Mass Ejections





Solar Wind and

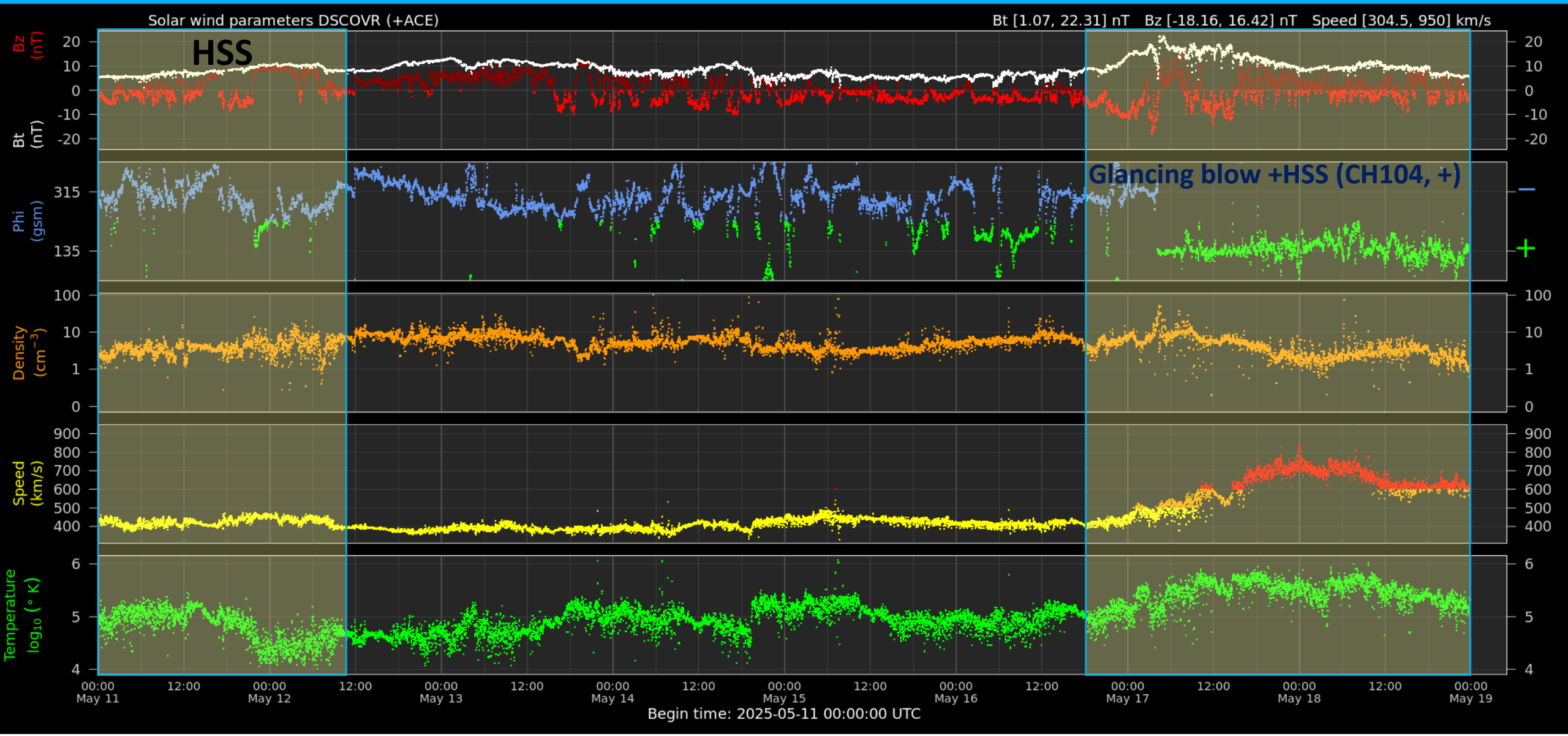
Geomagnetic Activity



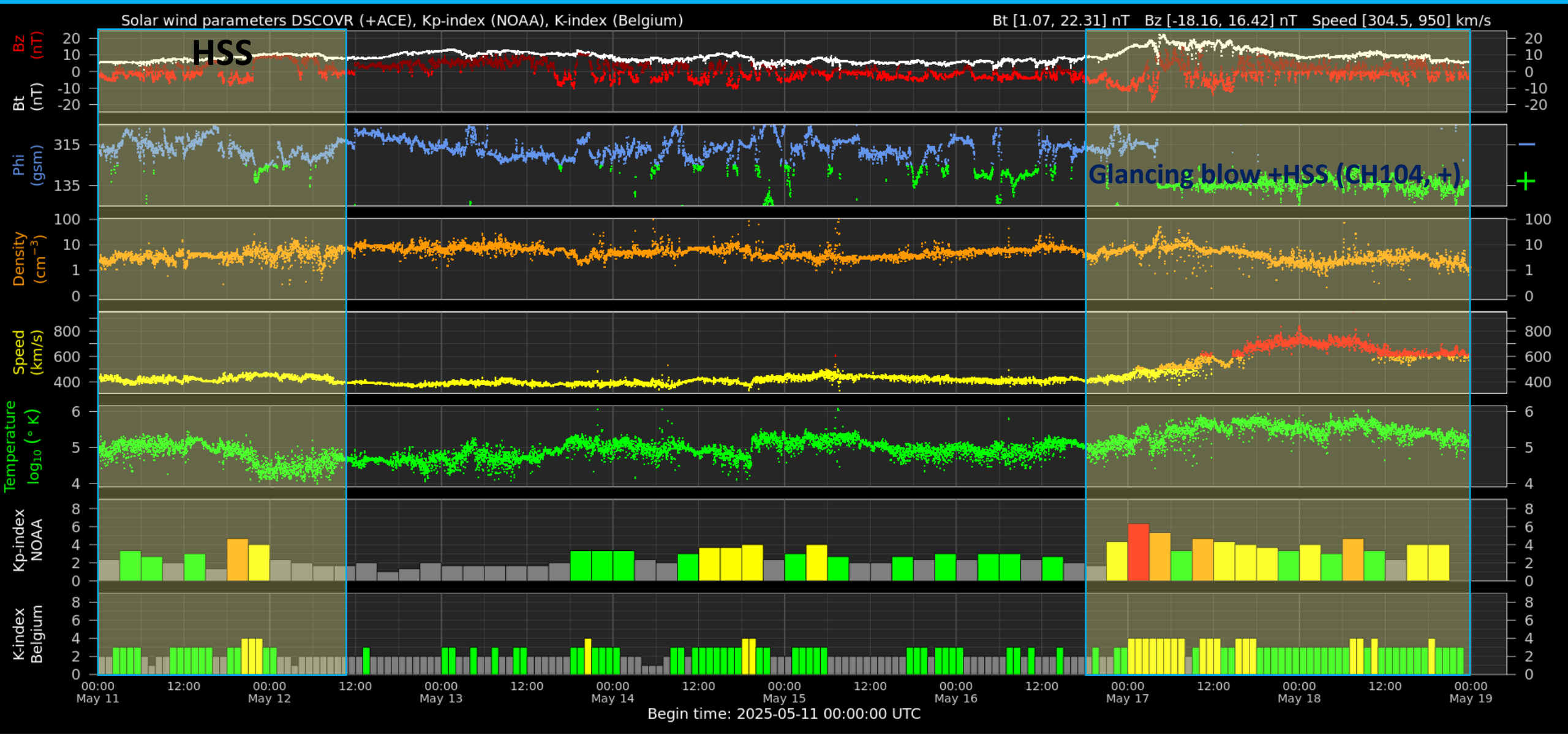
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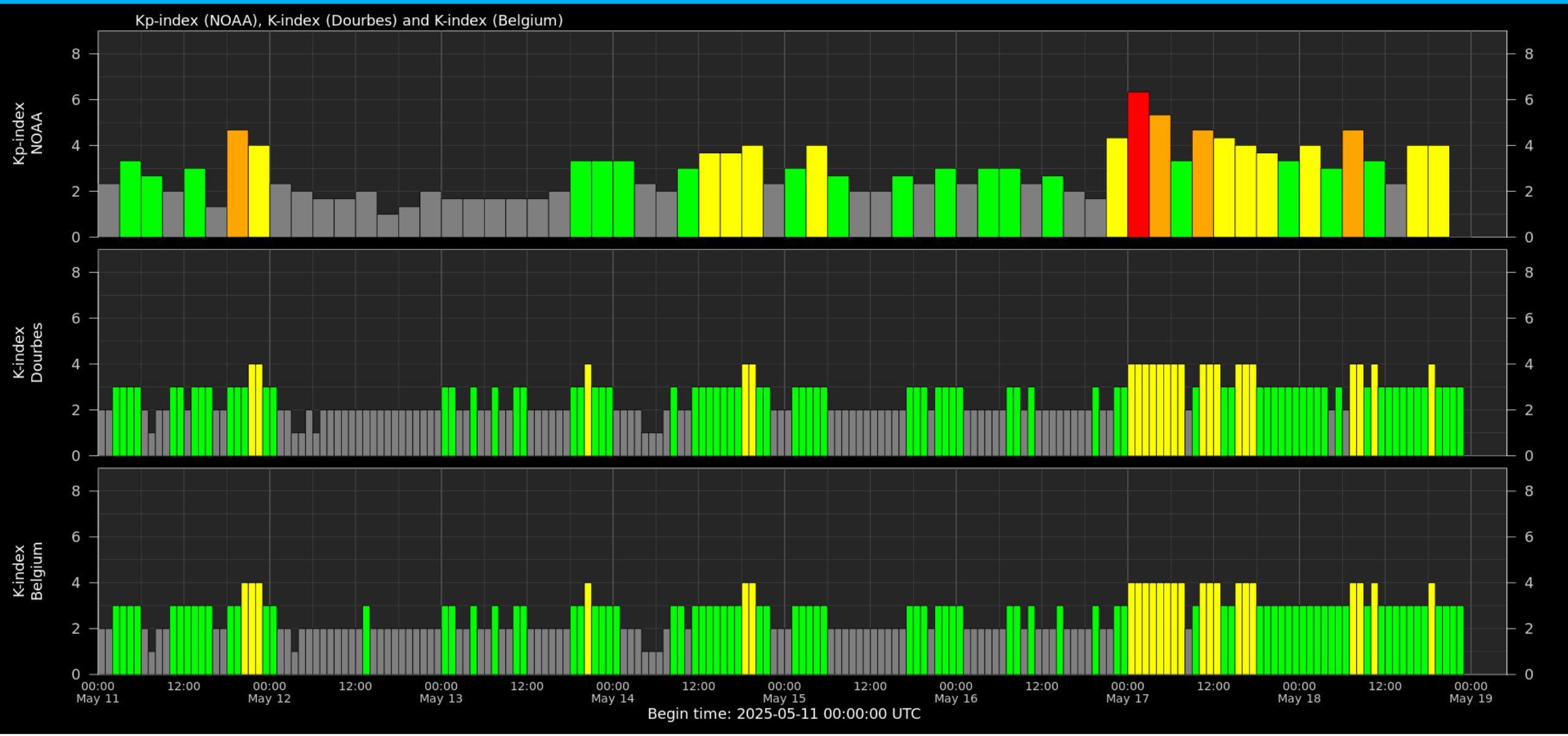
Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



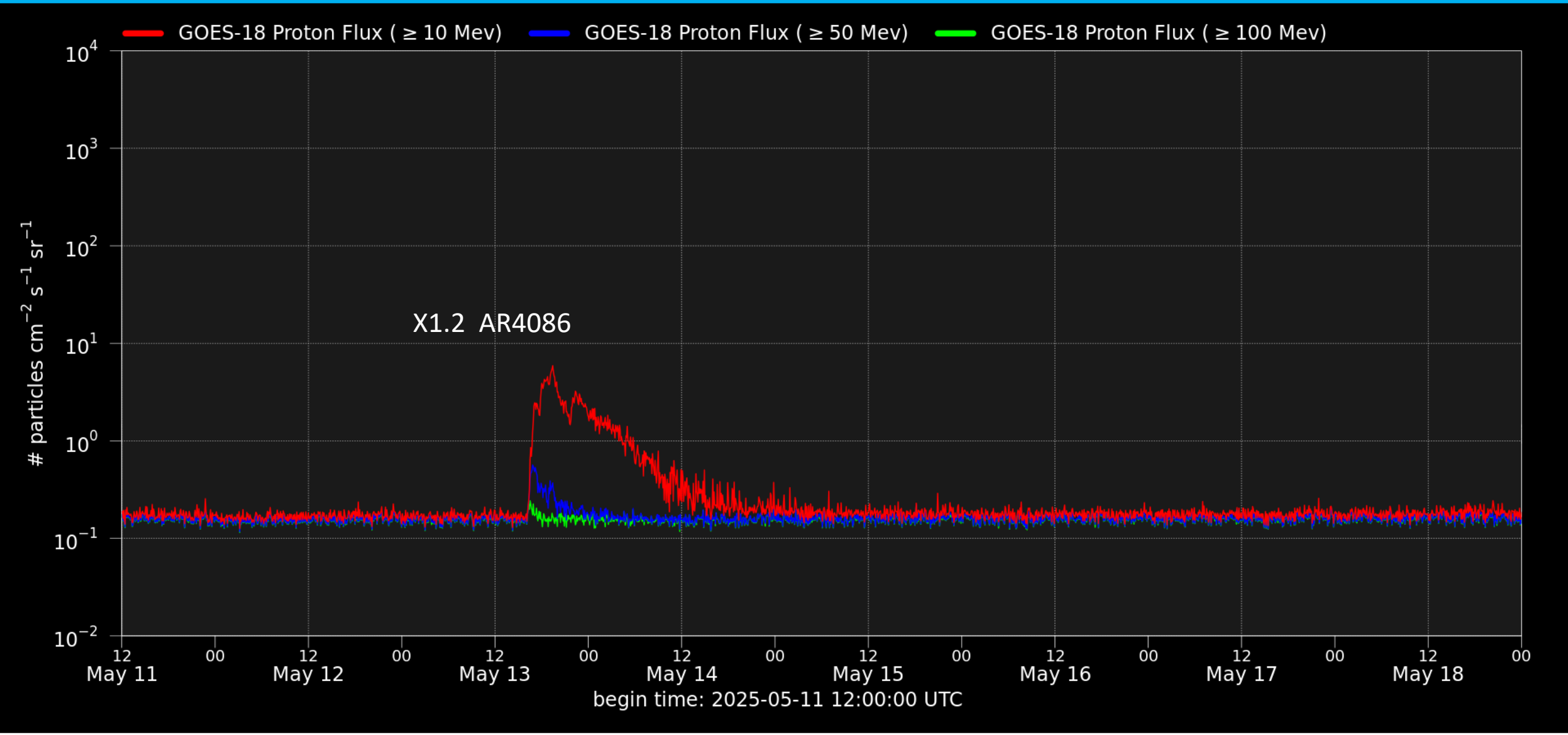
Energetic Particles



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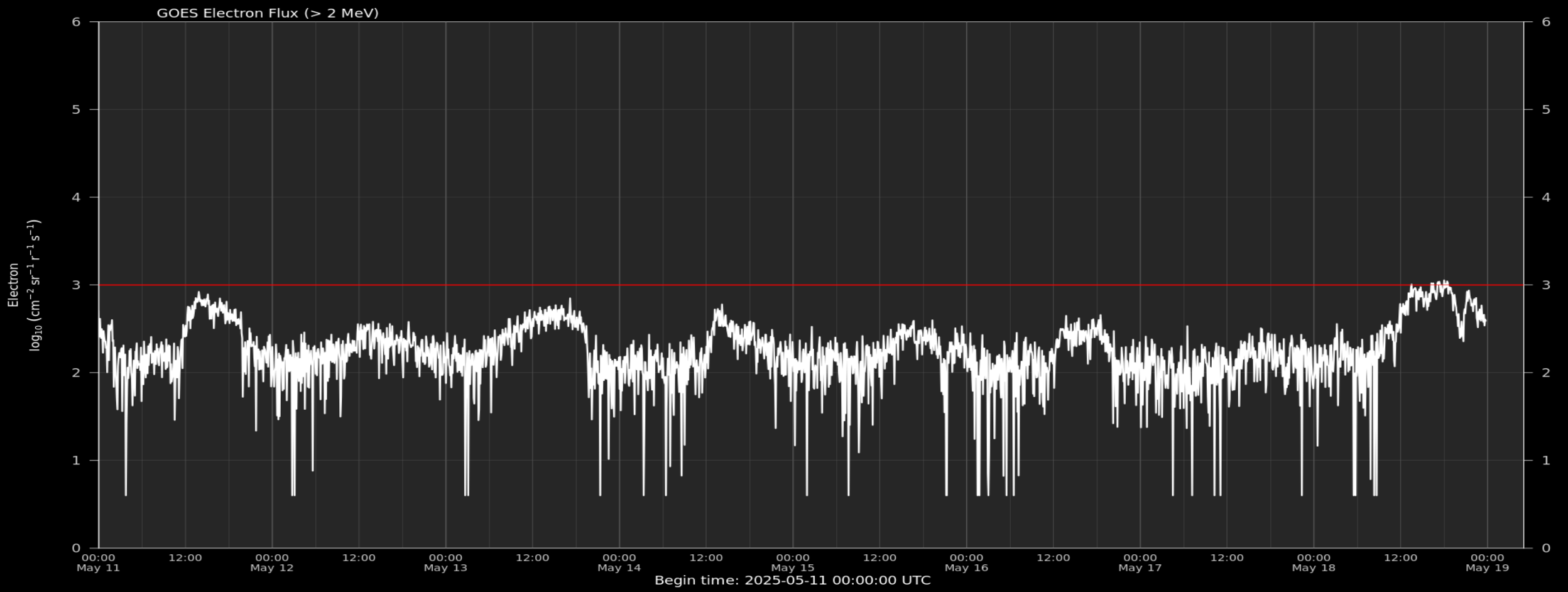
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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

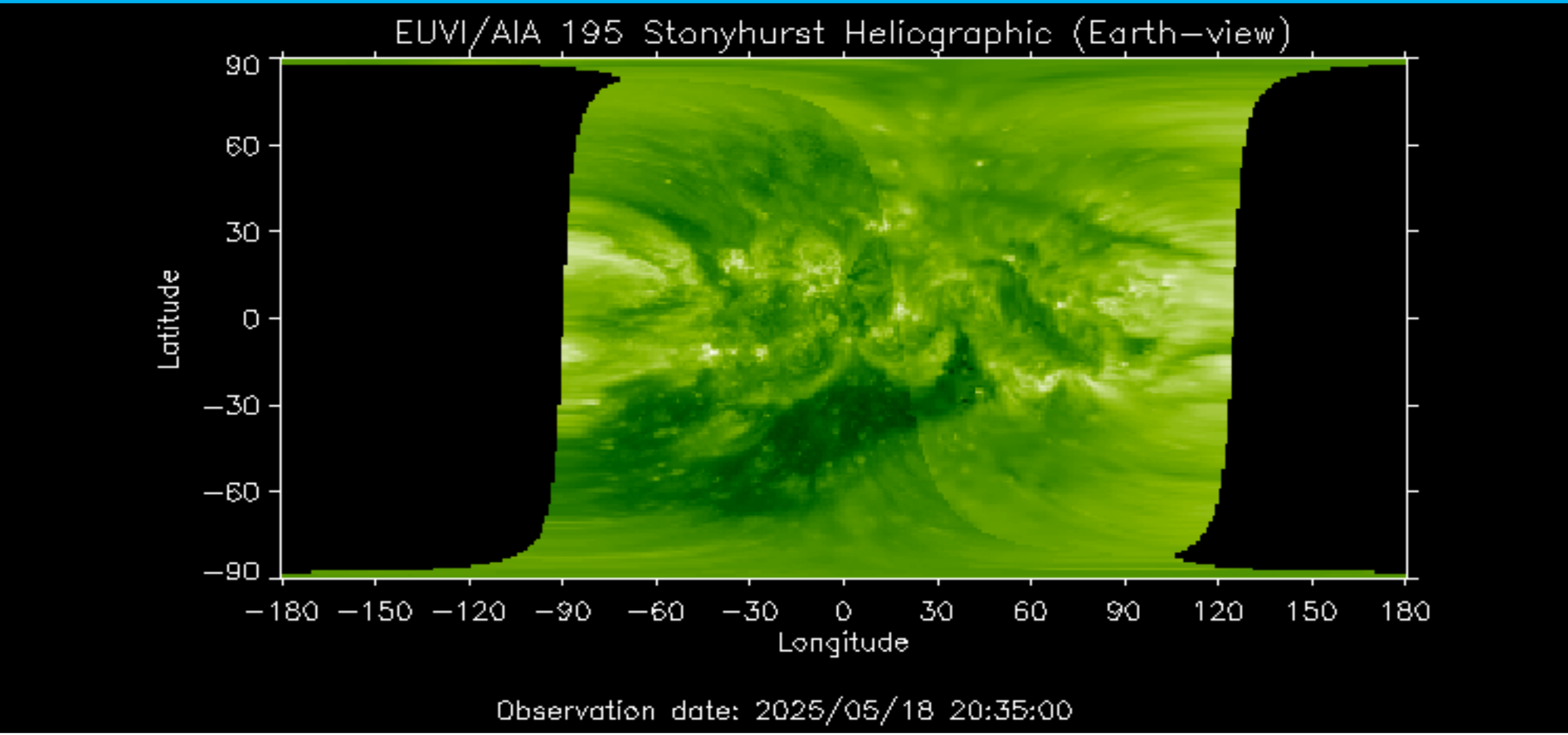


Outlook

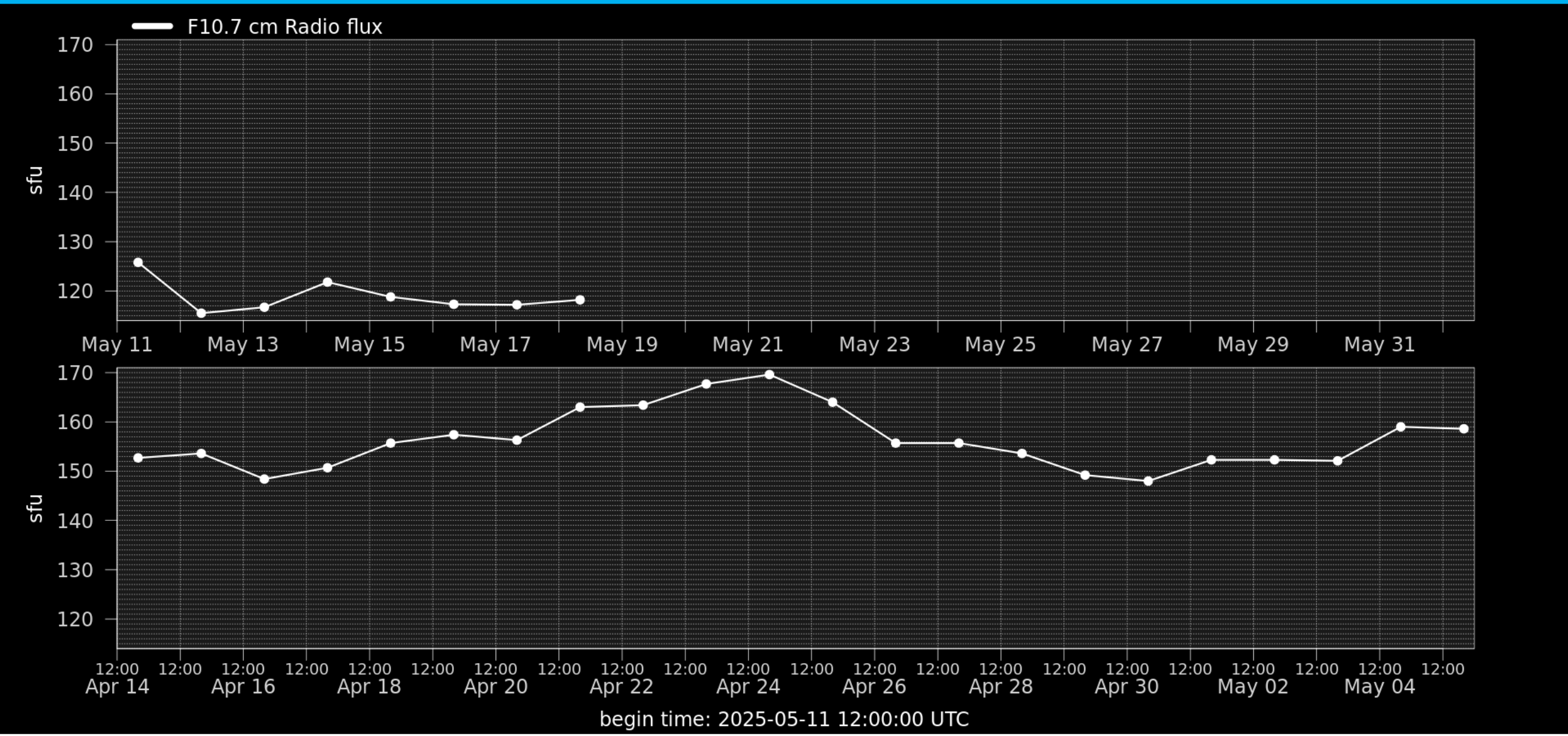
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Outlook: Solar activity



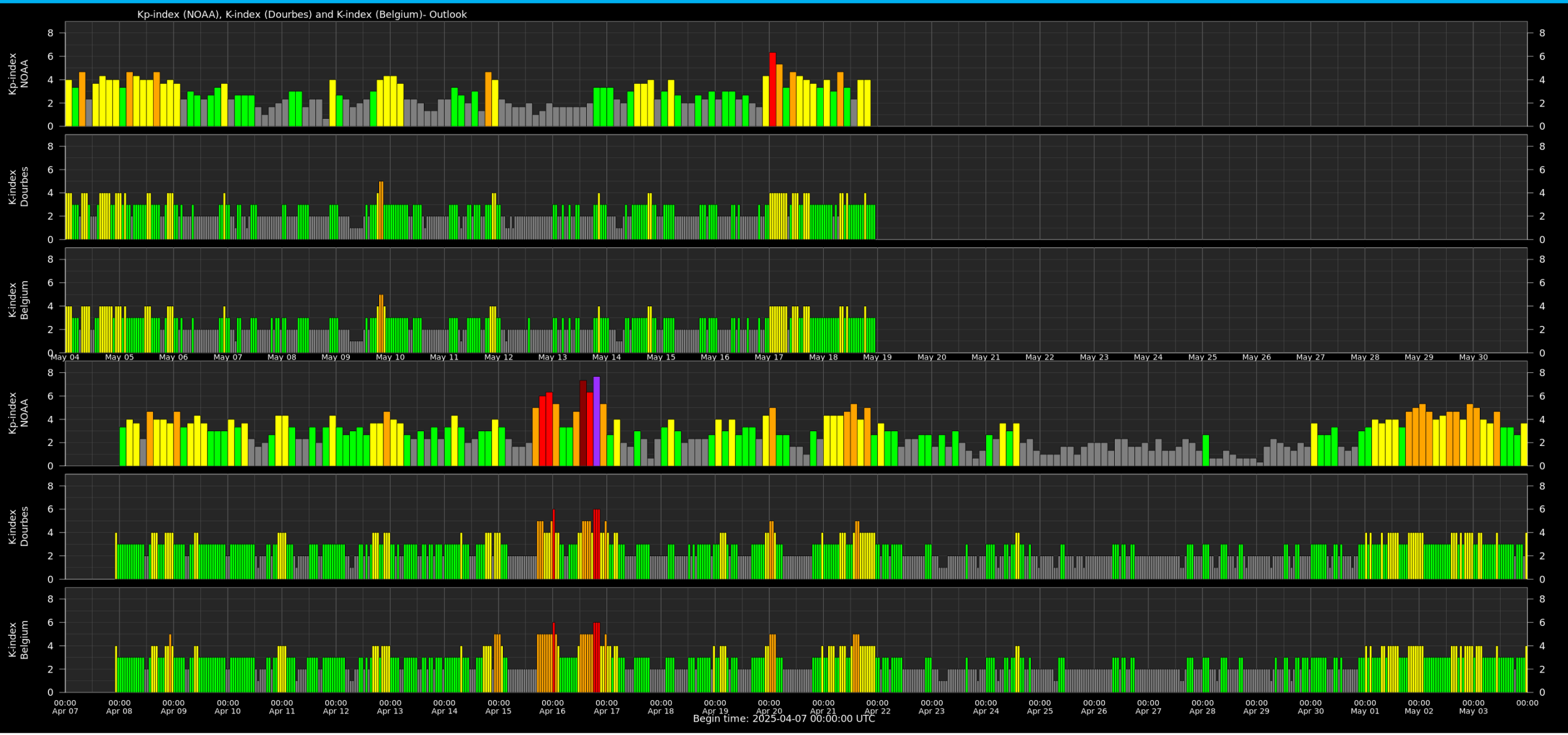
Outlook: Solar F10.7cm radio flux



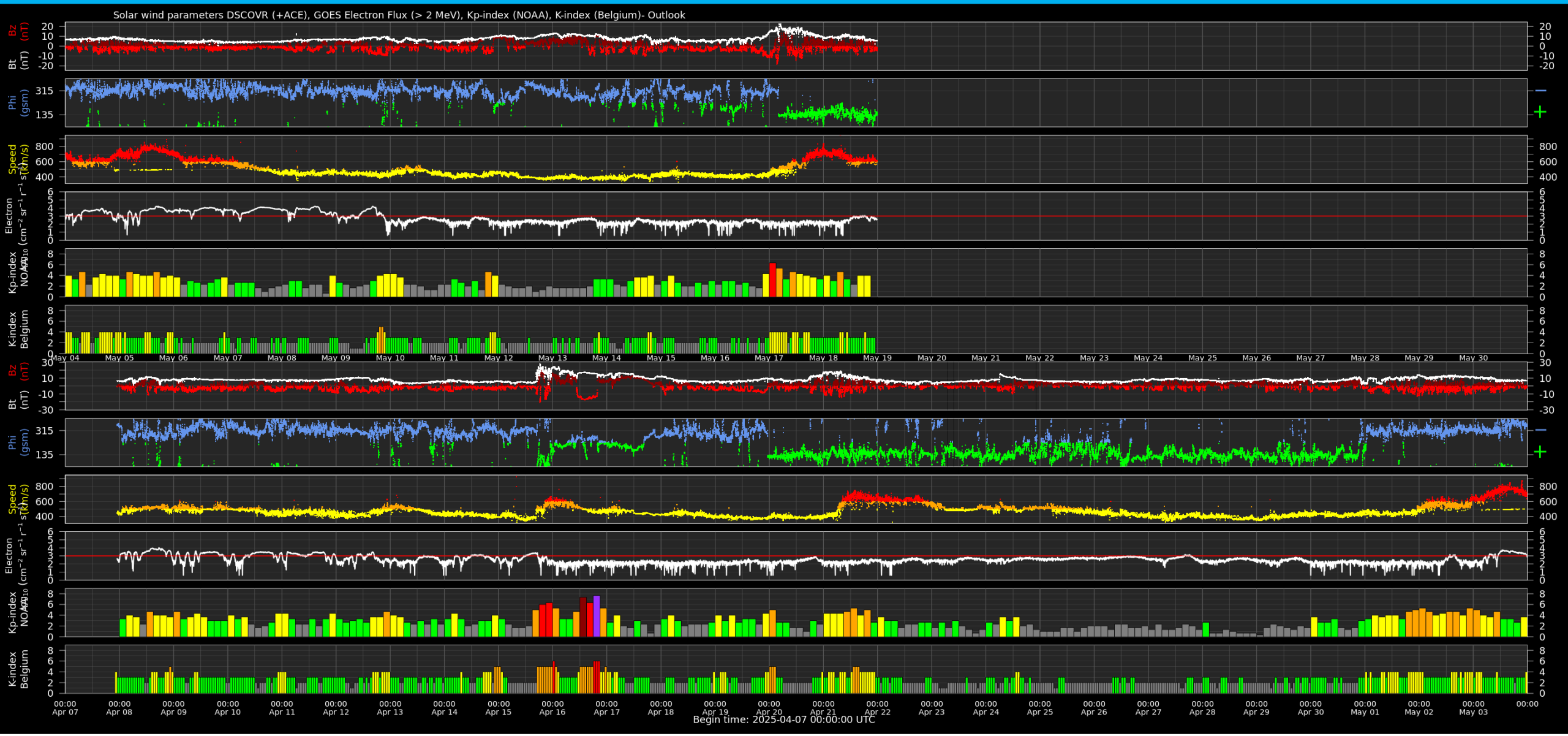
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecasus related events

HF SWF advisories (X flares)

HF PSD advisories (Moderate storm)

GNSS Scintillation

SIDC Space Weather Briefing

See you at our next briefing!

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