SIDC Space Weather Briefing

22 December 2025-28 December 2025

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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 2025-12-22 00:00 to 2025-12-28 23:59

Active regions	18 active regions / complex magnetic types beta-delta, & beta-gamma-delta
Flares	# C-class flare: 32 # M-class flare: 4 # X-class flare: 0
Coronal Holes	1 elongated CH+, 1 CH-
CMEs	2 wide CMEs & a partial halo CME

Proton flux	Below 10 pfu threshold level
Electron flux	Exceeded 1000 pfu threshold level

Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	|B|: 0.39 - 9.72 nT // Bz: -6.66 nT to 6.32 nT // Speed: 375 - 840 km/s
Geomagnetic conditions	max KBel: 5.0, max Kp(NOAA): 5.0, Minor Storm conditions

All Quiet Alert: All quiet off

Solar Activity

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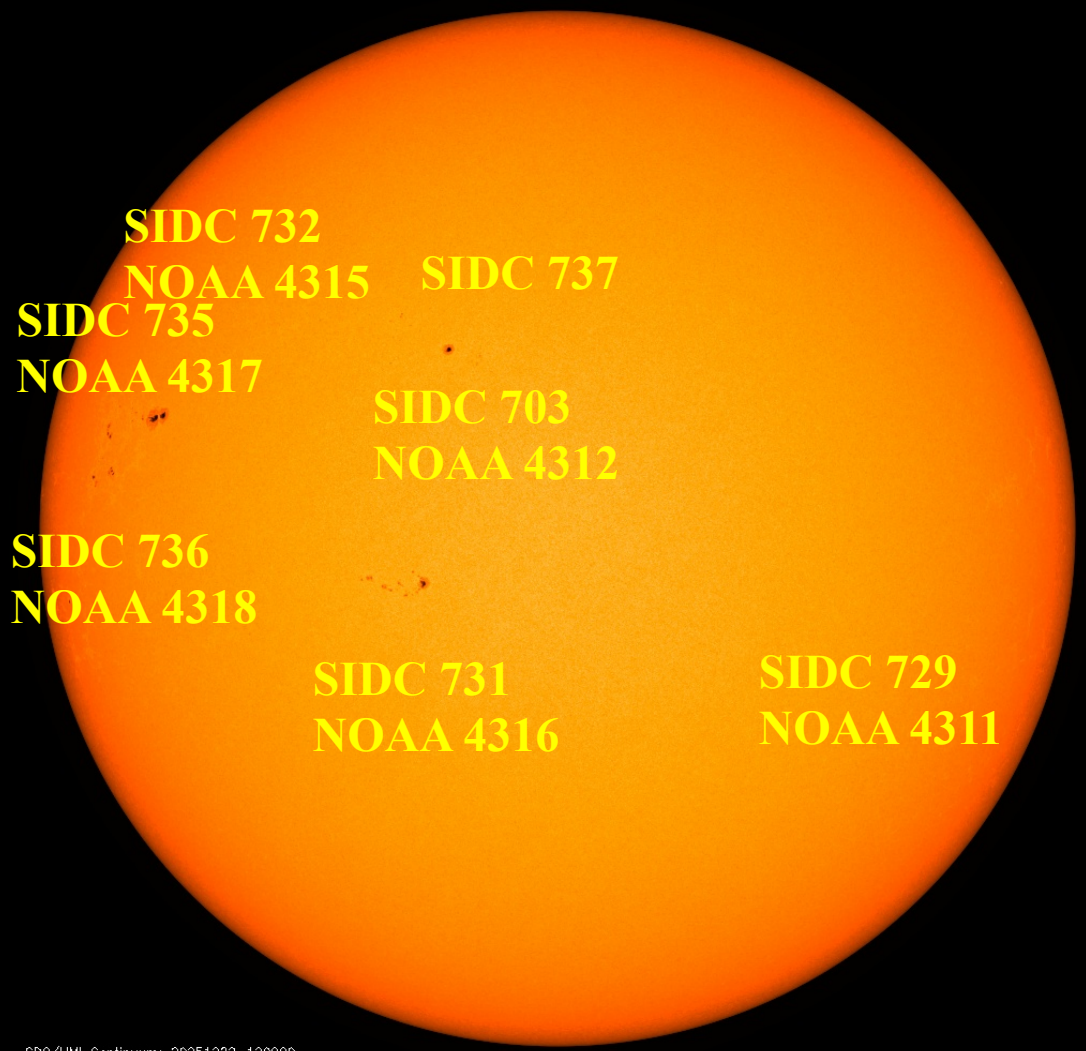
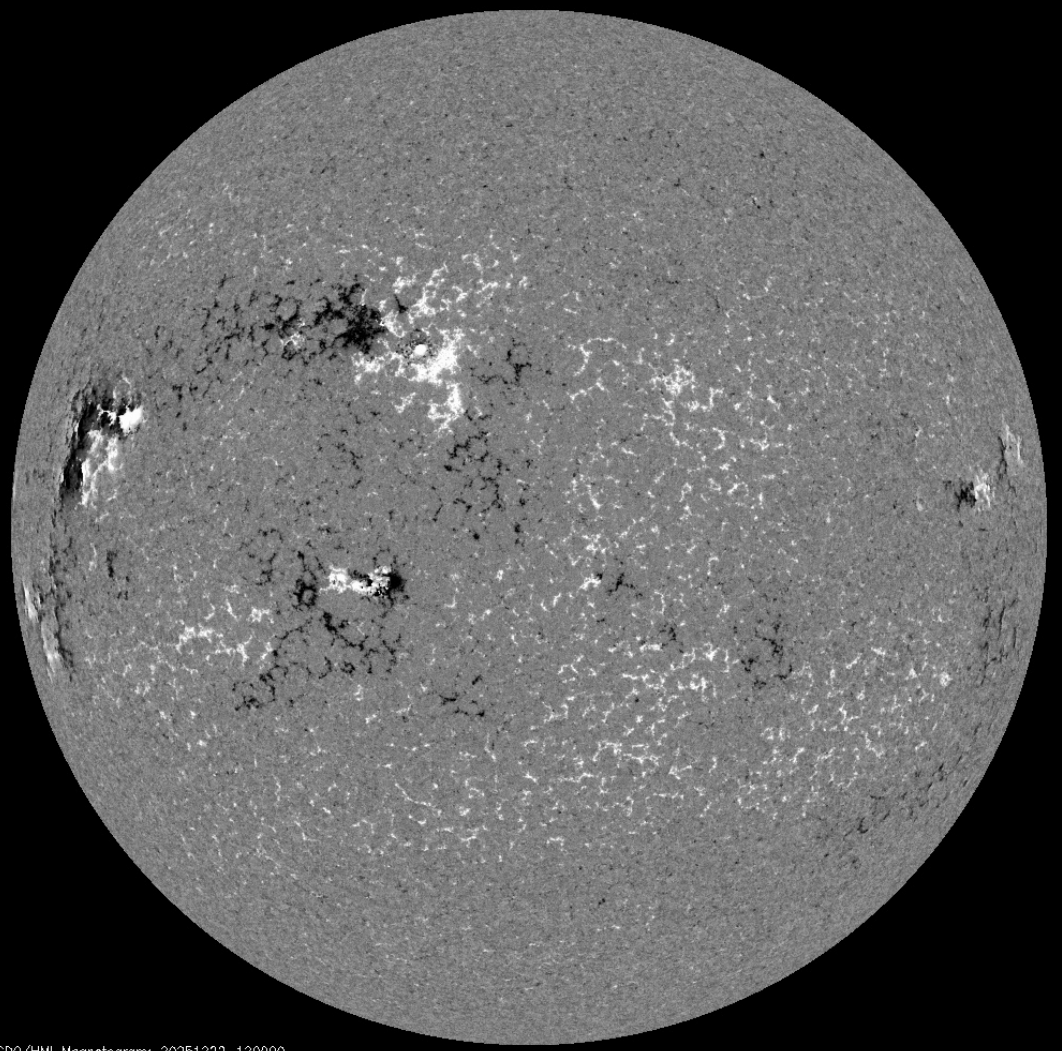
Solar active regions

SDO/HMI White Light 2025-12-22

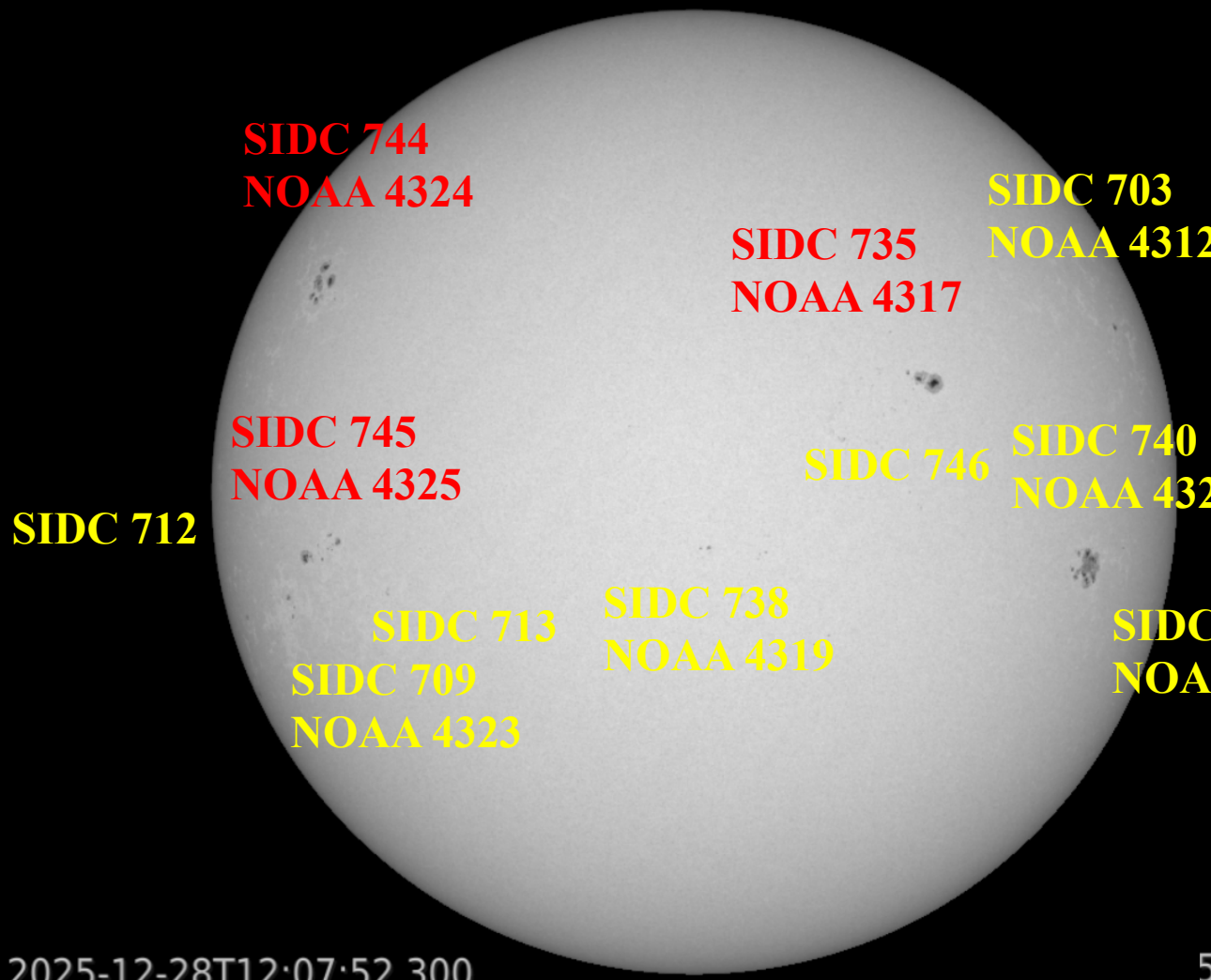


SDO/HMI Magnetogram 2025-12-22

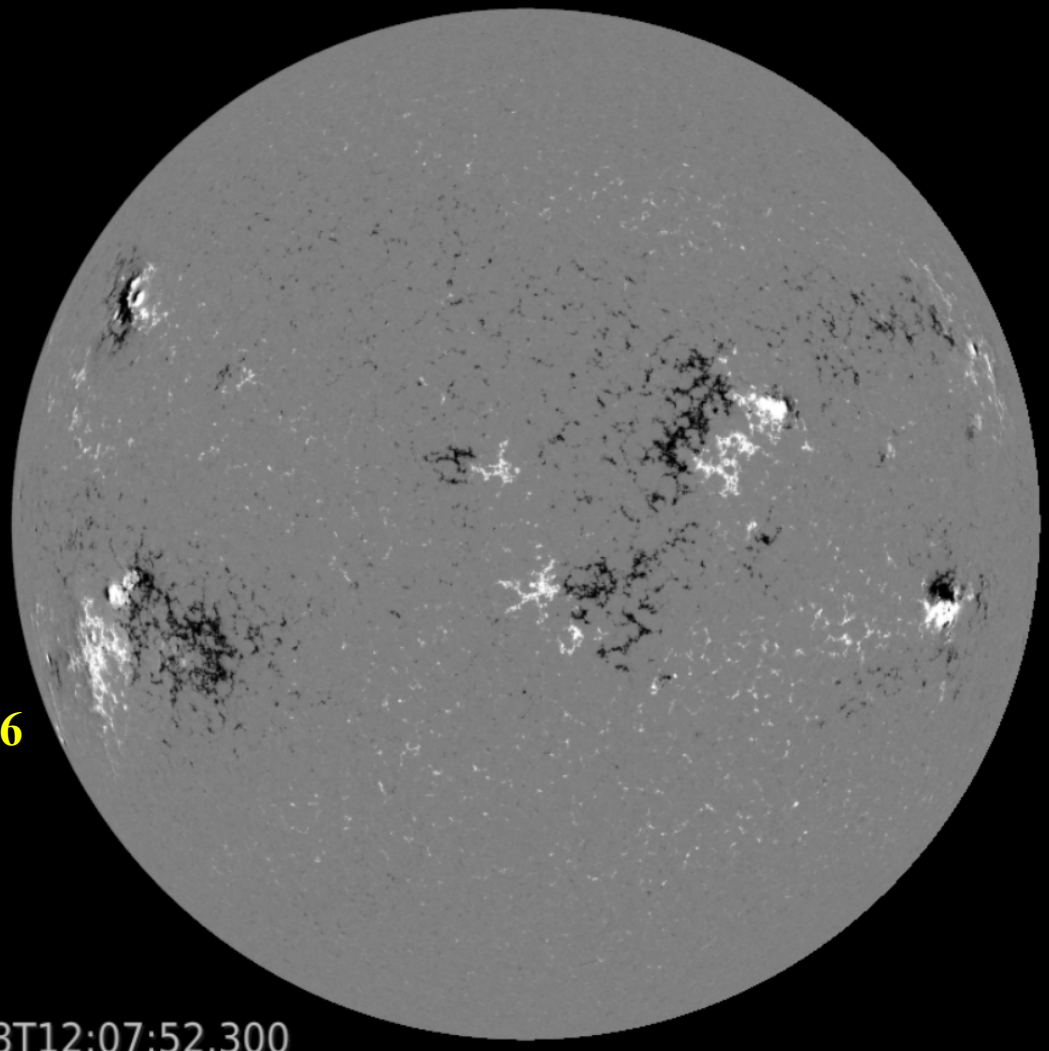


Solar active regions

SDO/HMI White Light 2025-12-28

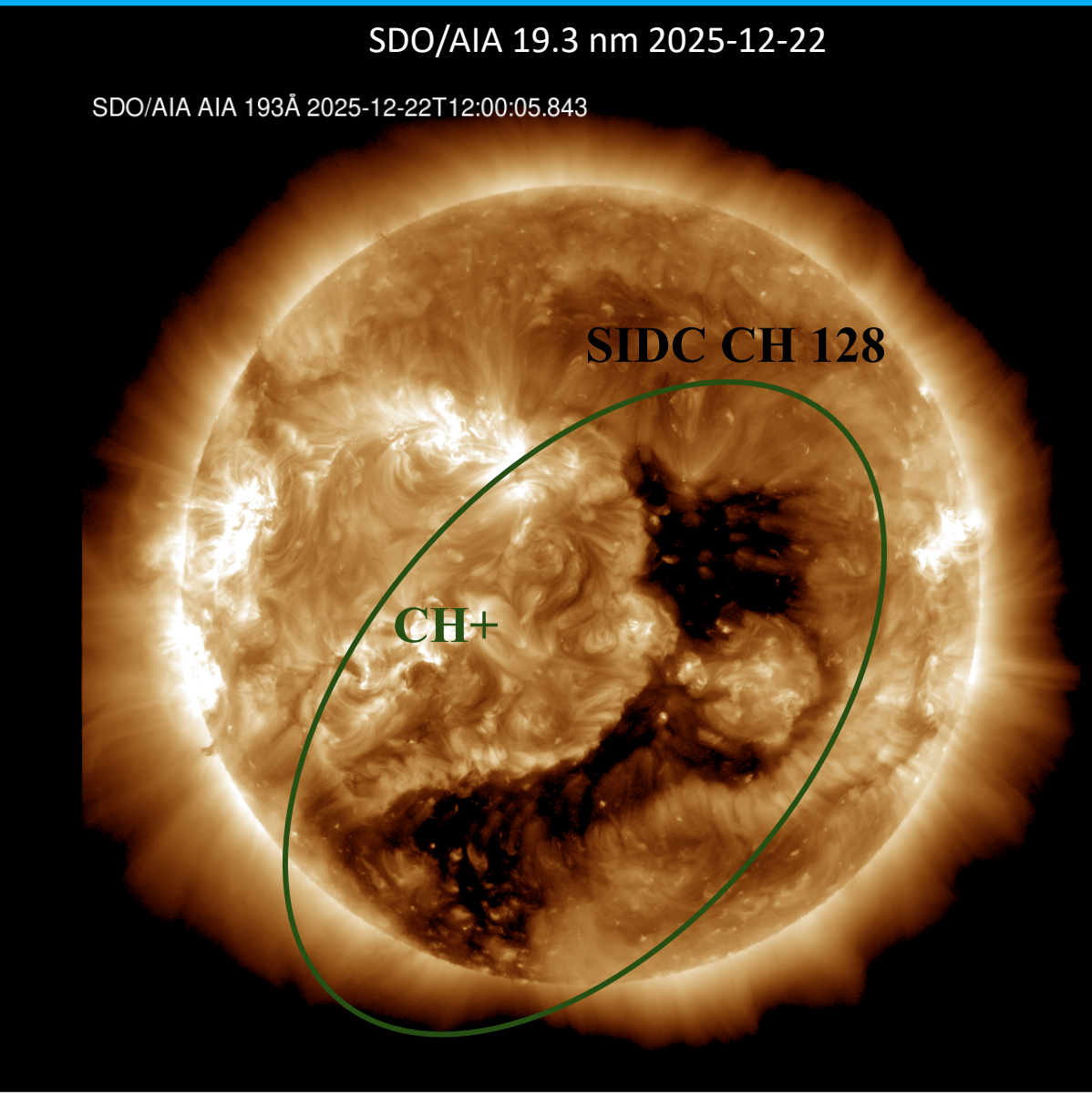


SDO/HMI Magnetogram 2025-12-28

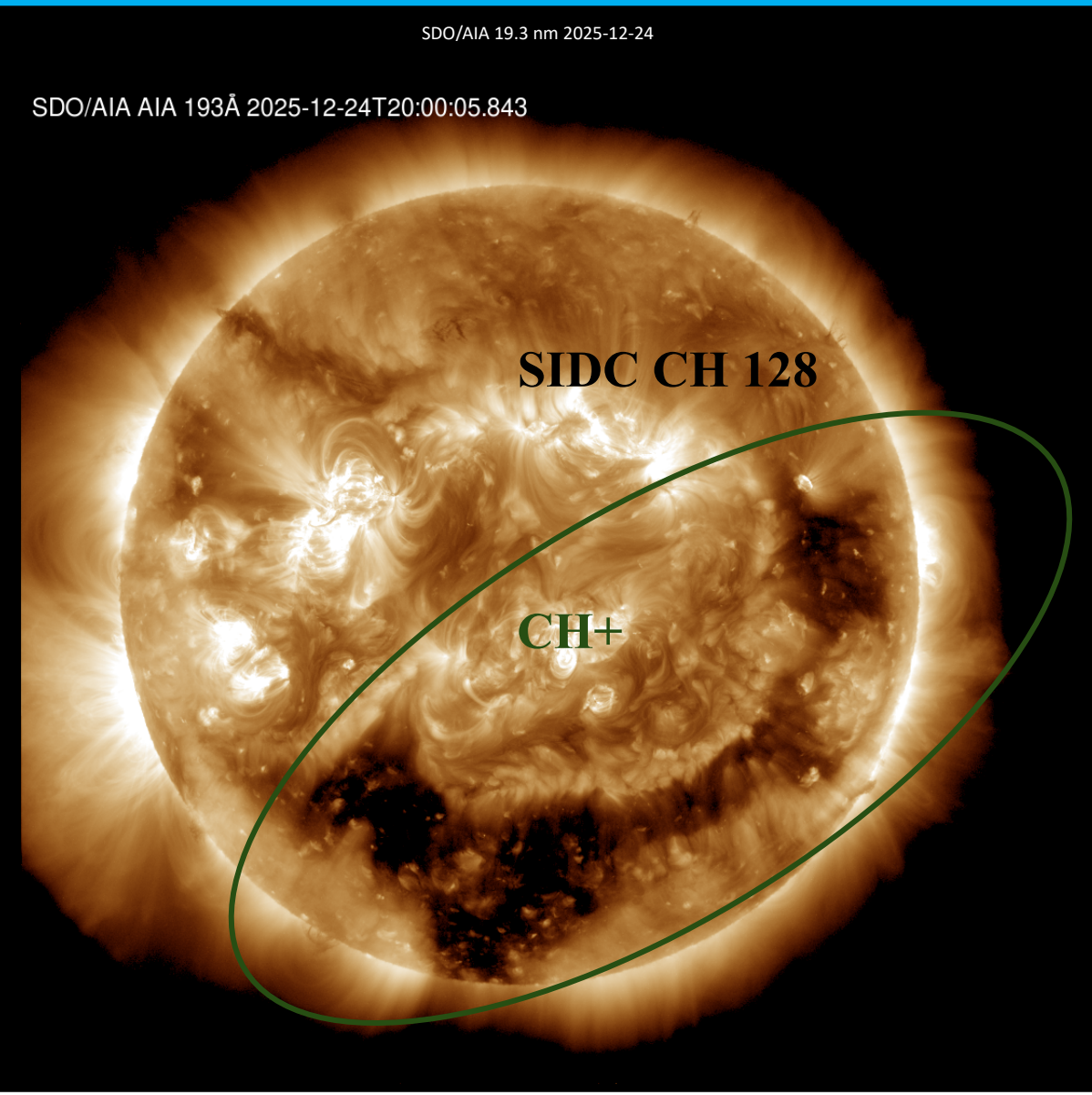


Coronal holes

SDO/AIA 19.3 nm 2025-12-22

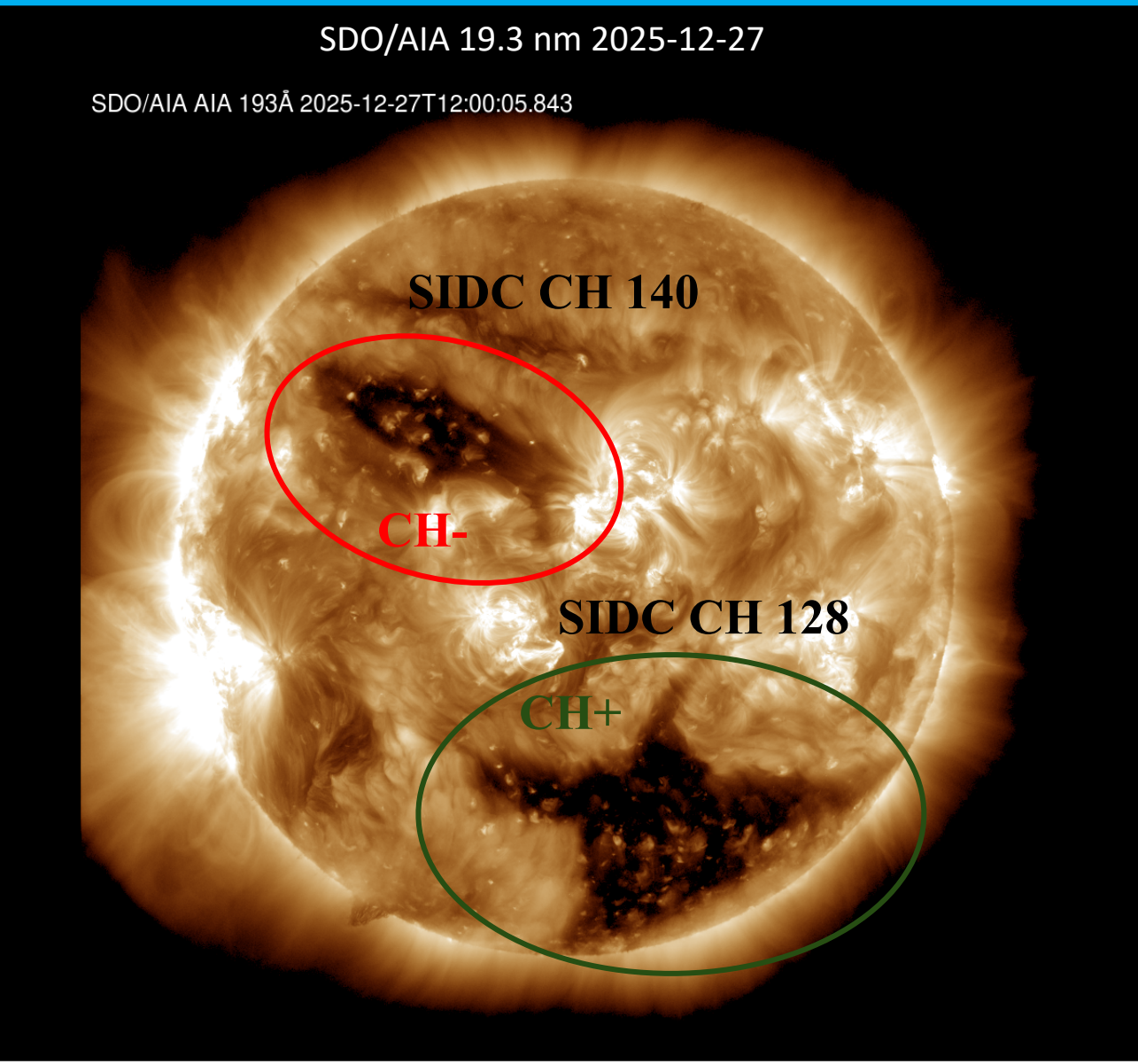


SDO/AIA 19.3 nm 2025-12-24

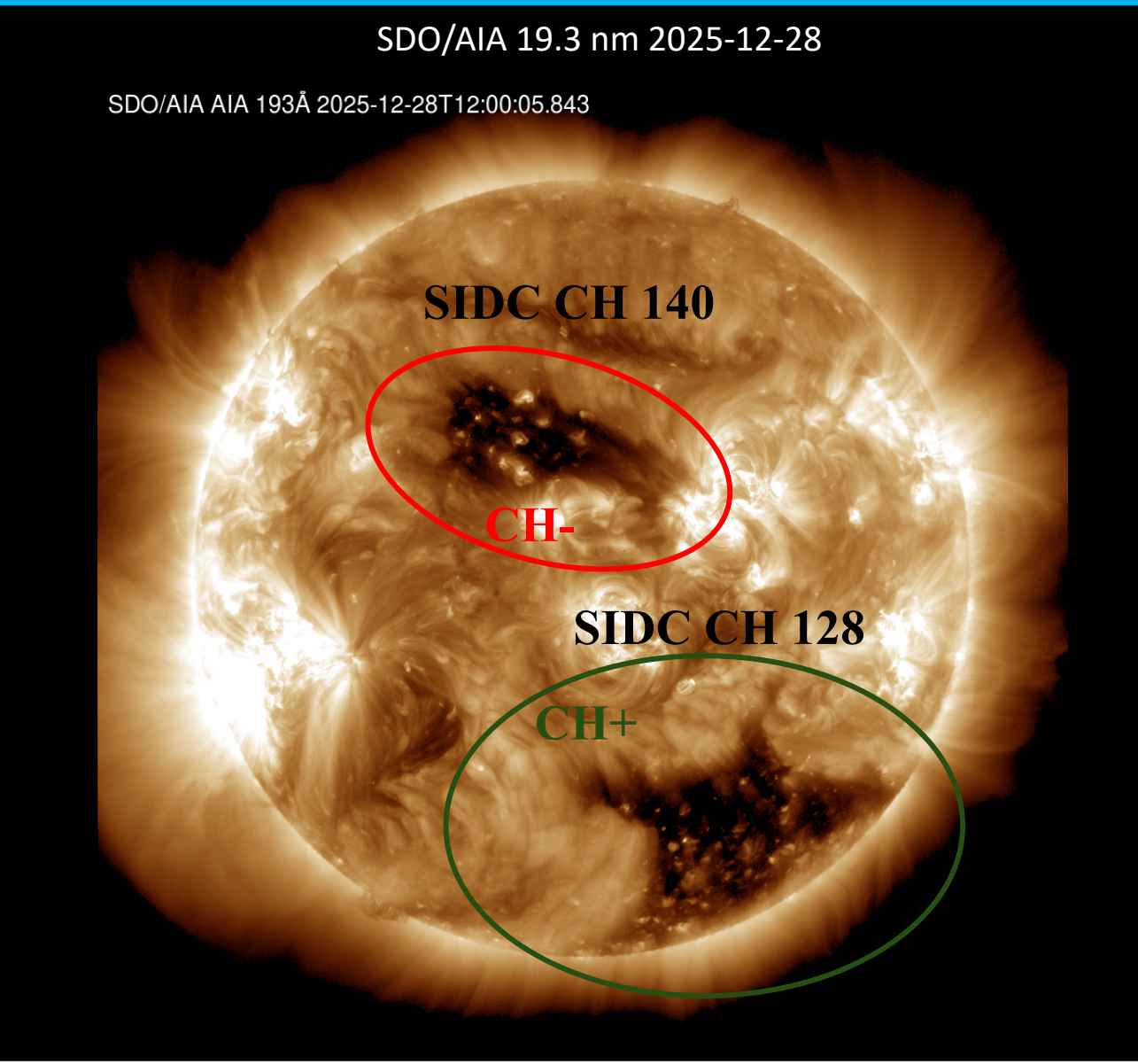


Coronal holes

SDO/AIA 19.3 nm 2025-12-27

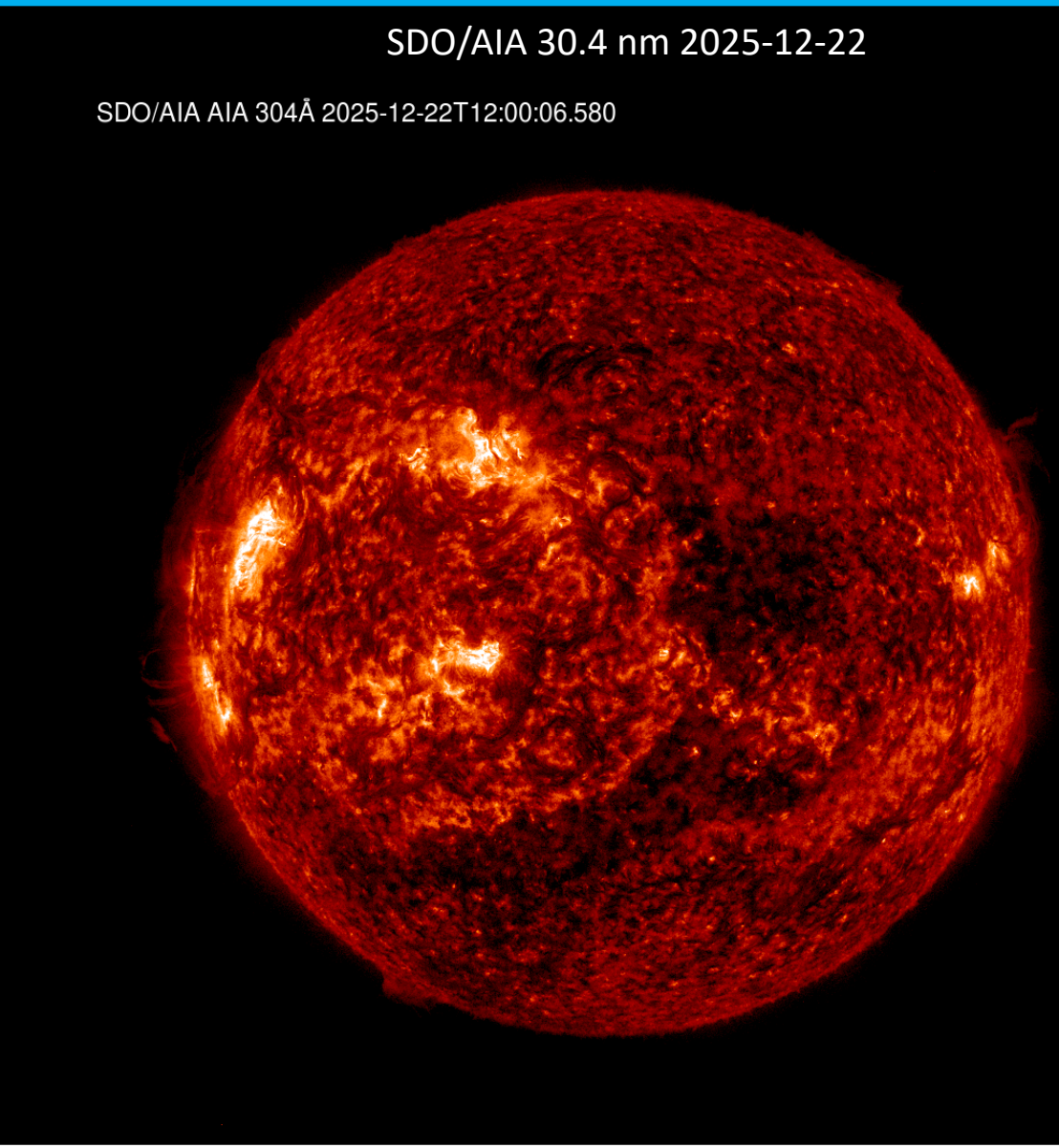


SDO/AIA 19.3 nm 2025-12-28

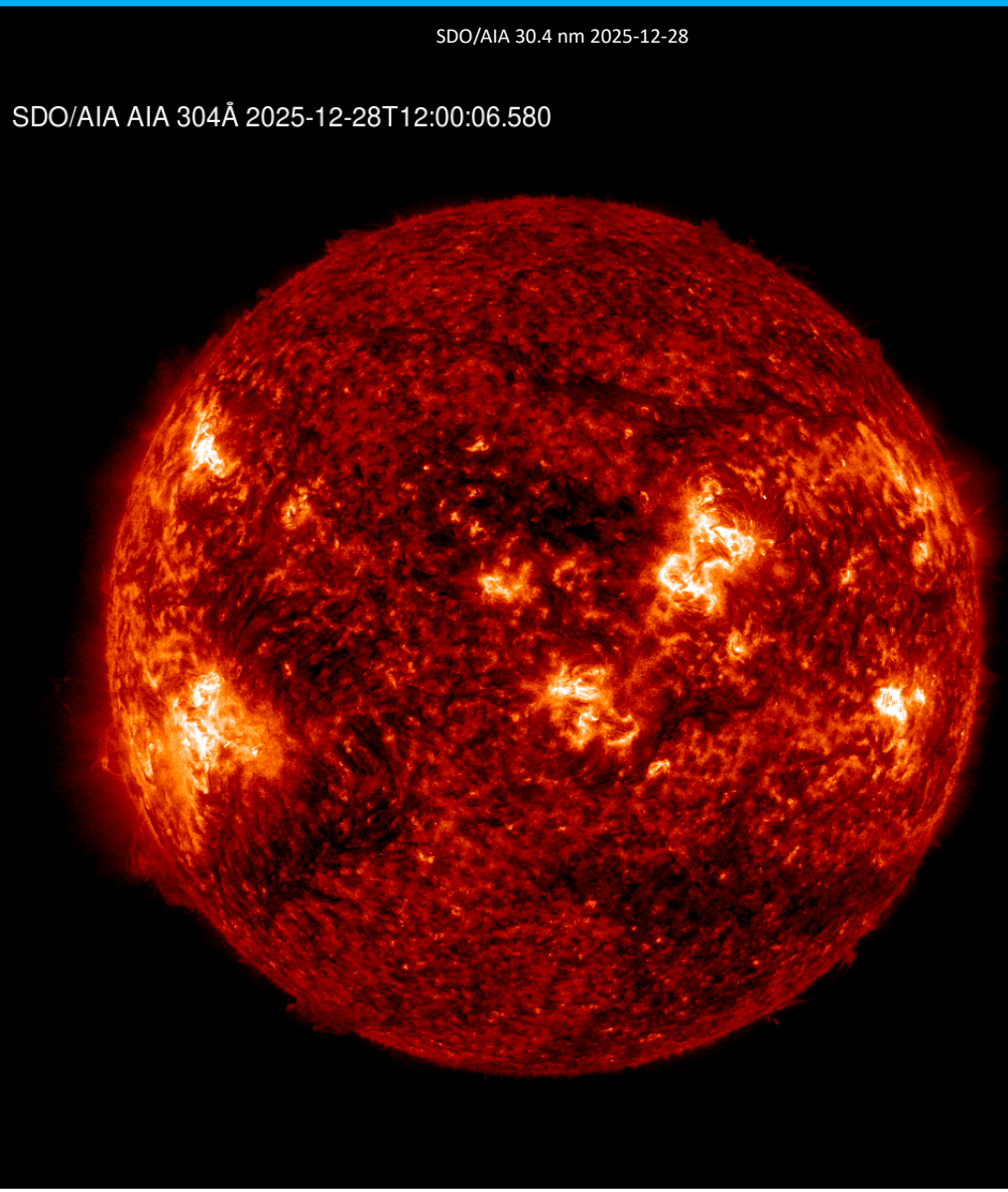


Filaments

SDO/AIA 30.4 nm 2025-12-22

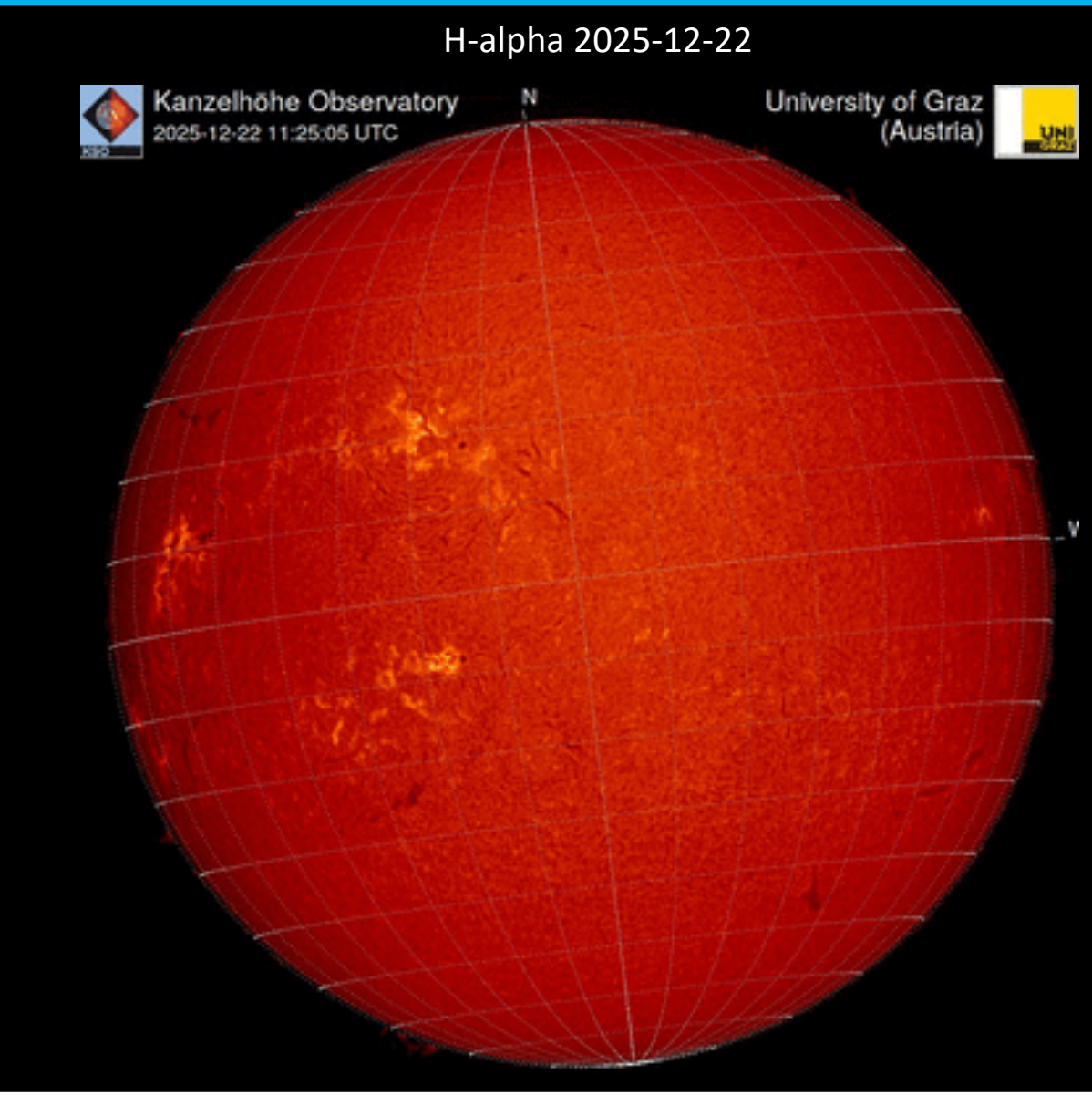


SDO/AIA 30.4 nm 2025-12-28

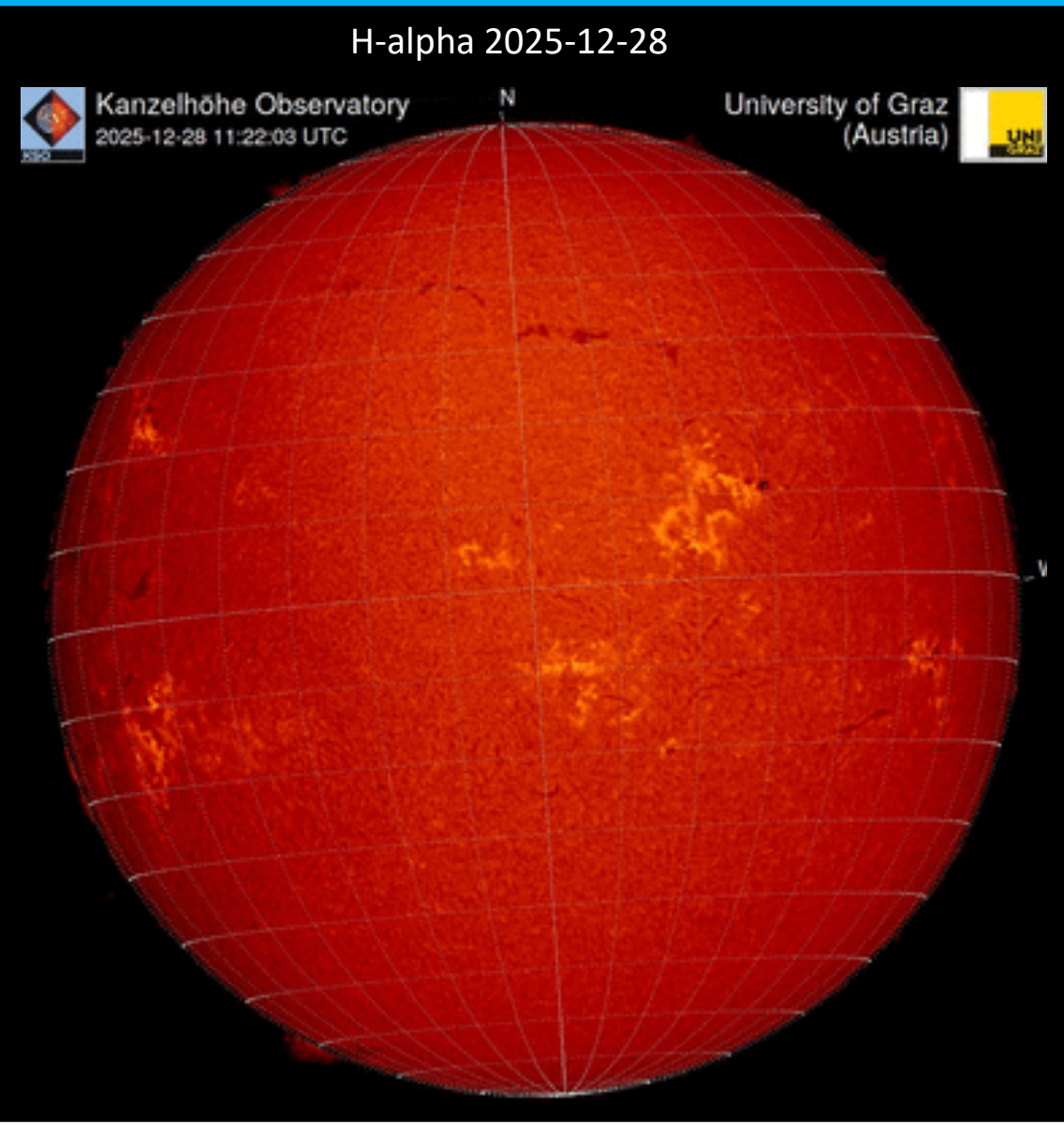


Filaments & Filament eruptions

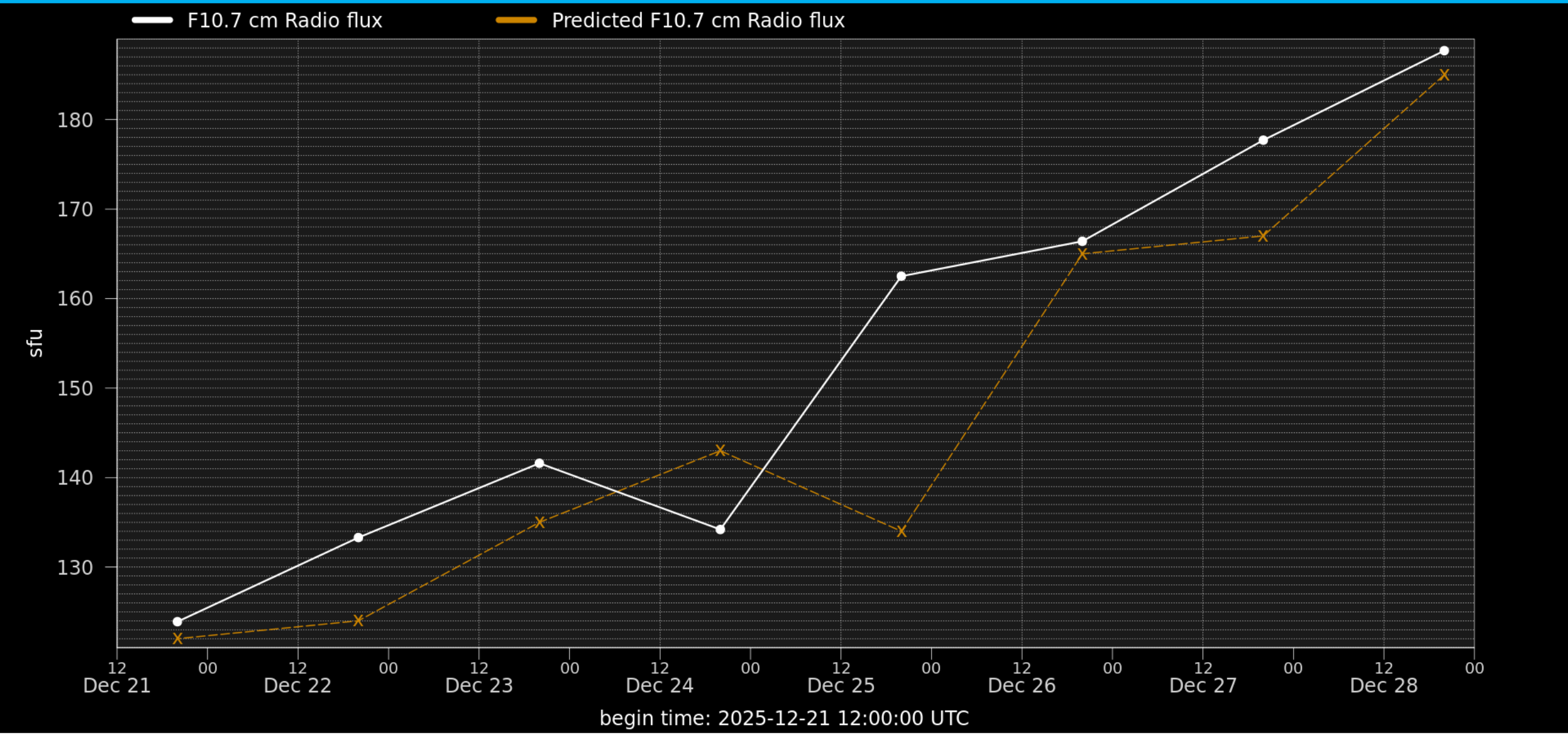
H-alpha 2025-12-22



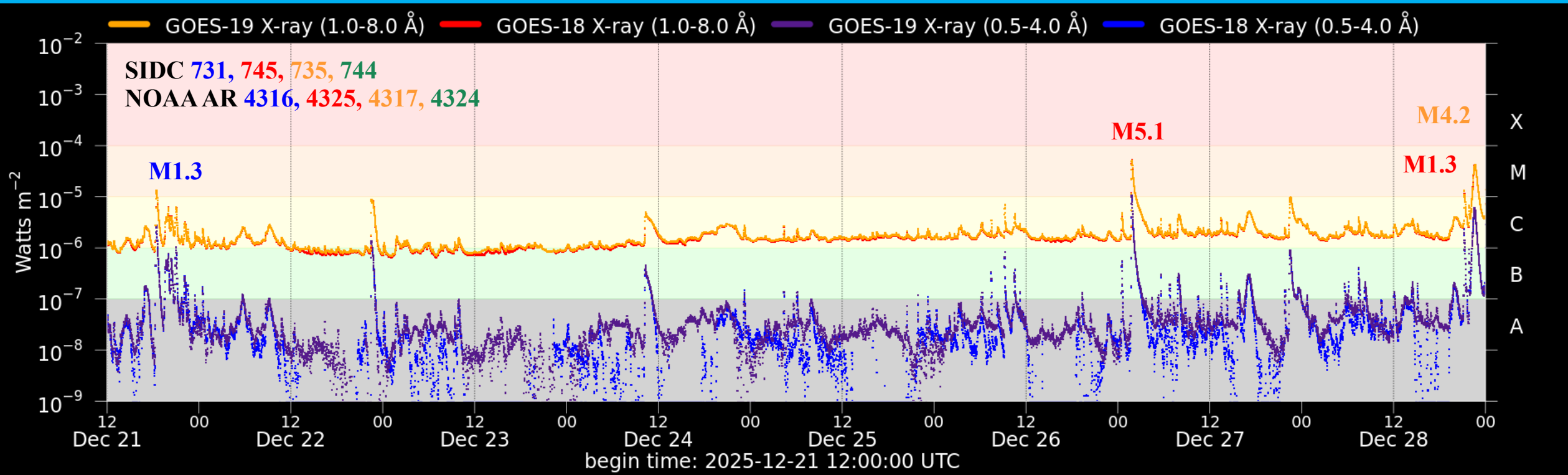
H-alpha 2025-12-28



Solar F10.7cm radio flux



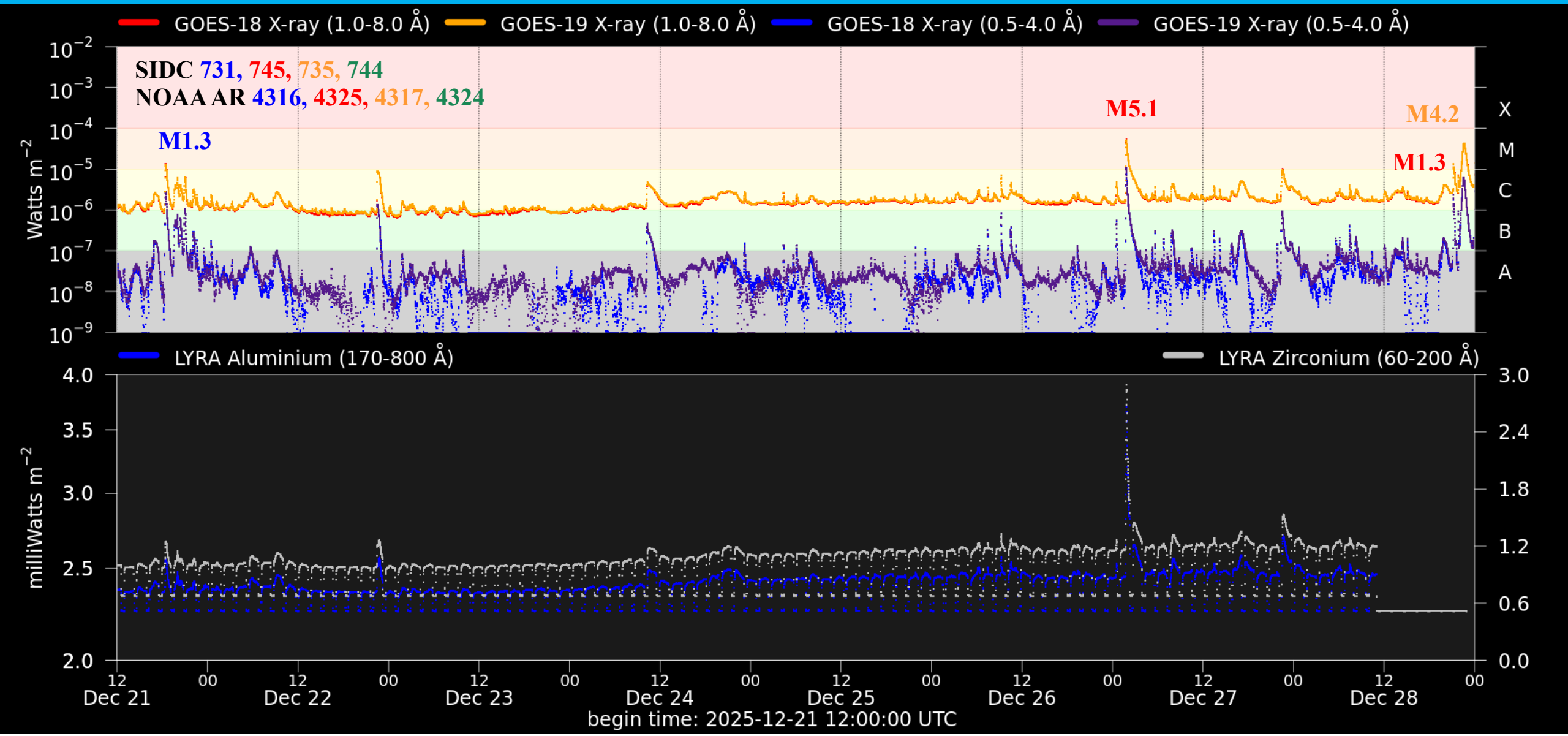
Flaring activity



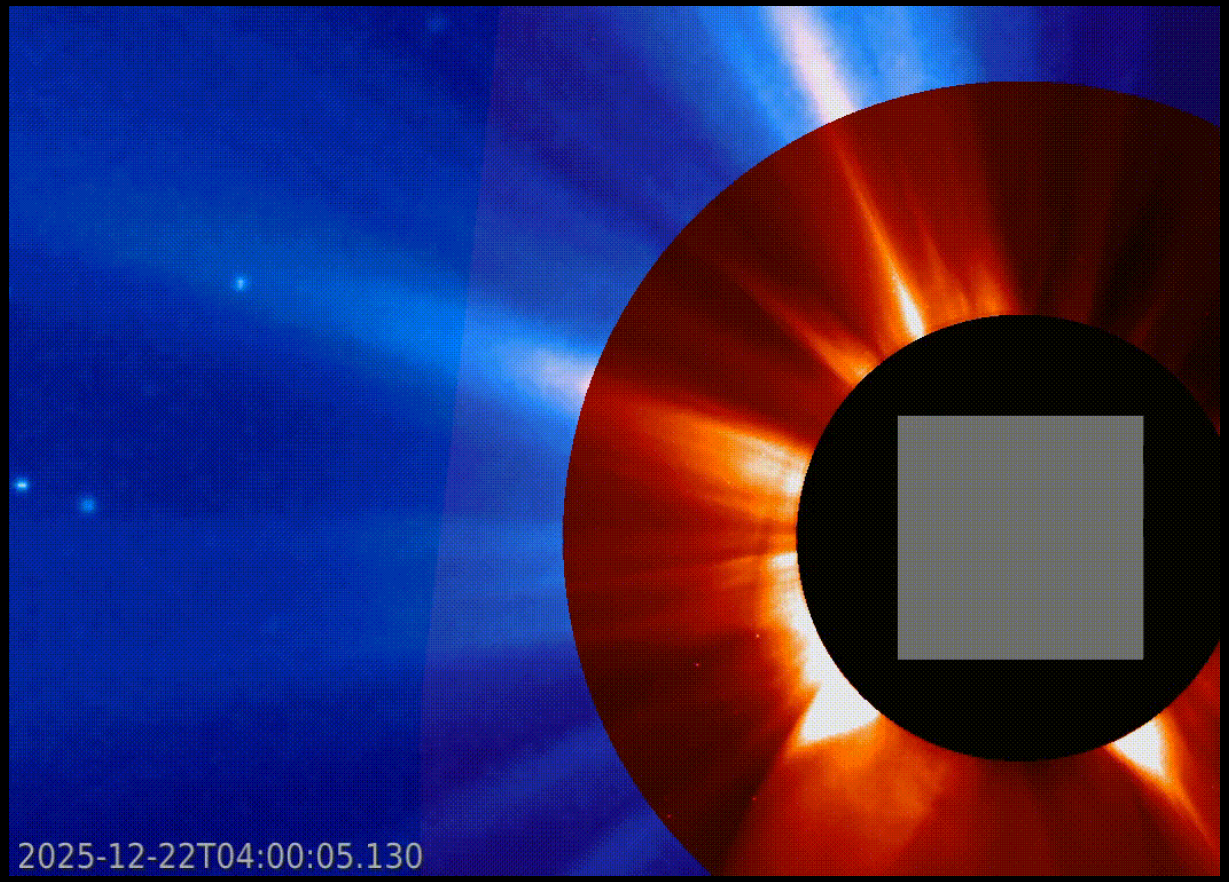
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

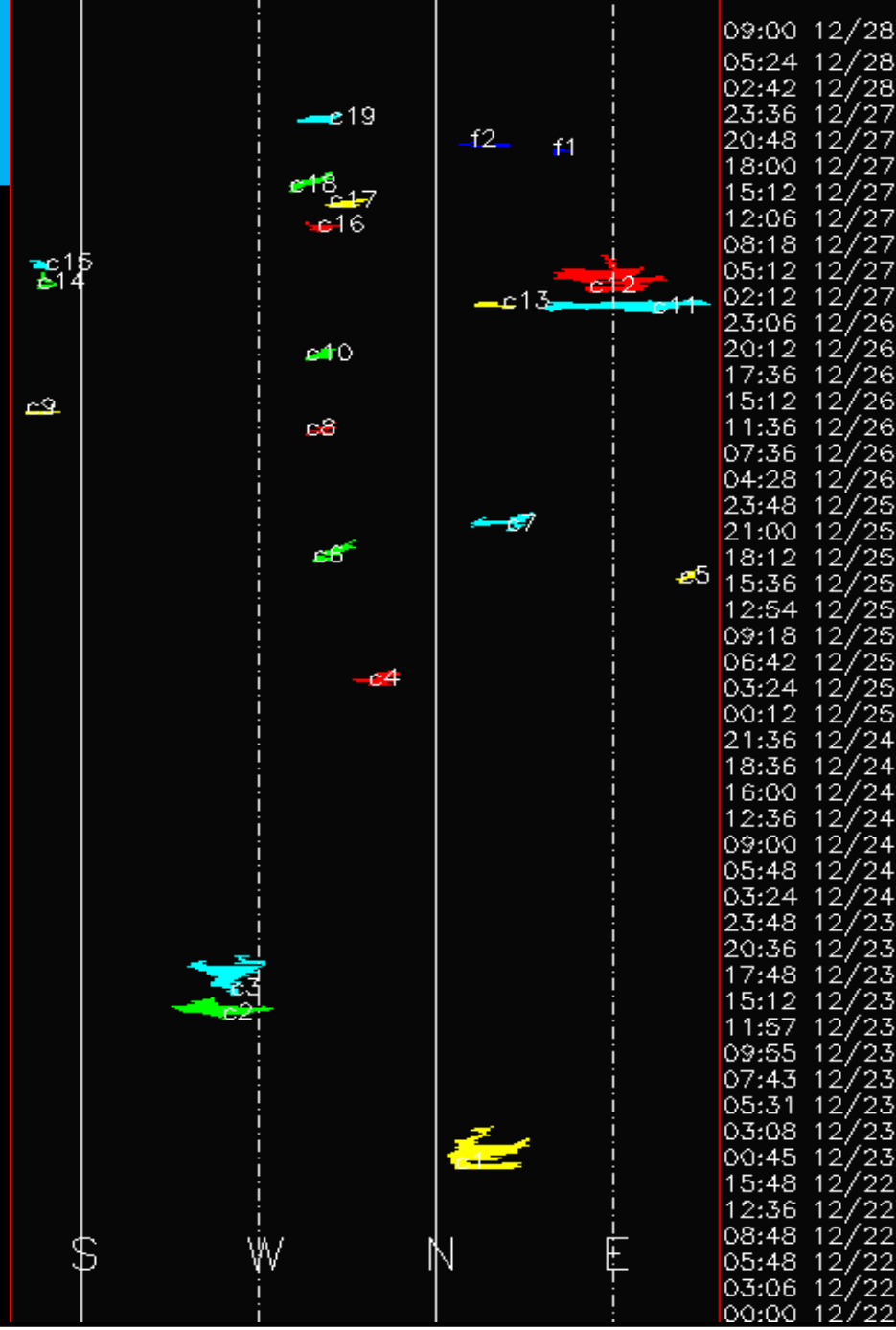
Issue date	2025-12-21	2025-12-22	2025-12-23	2025-12-24	2025-12-25	2025-12-26	2025-12-27	2025-12-28
Probability (%)	93|40|04	90|34|01	90|49|01	90|49|05	90|49|01	90|49|11	90|49|06	90|49|25
Observed (#)	08|01|00	04|00|00	01|00|00	03|00|00	04|00|00	04|01|00	04|00|00	04|03|00

Solar X-Ray and UV flux



Coronal Mass Ejections



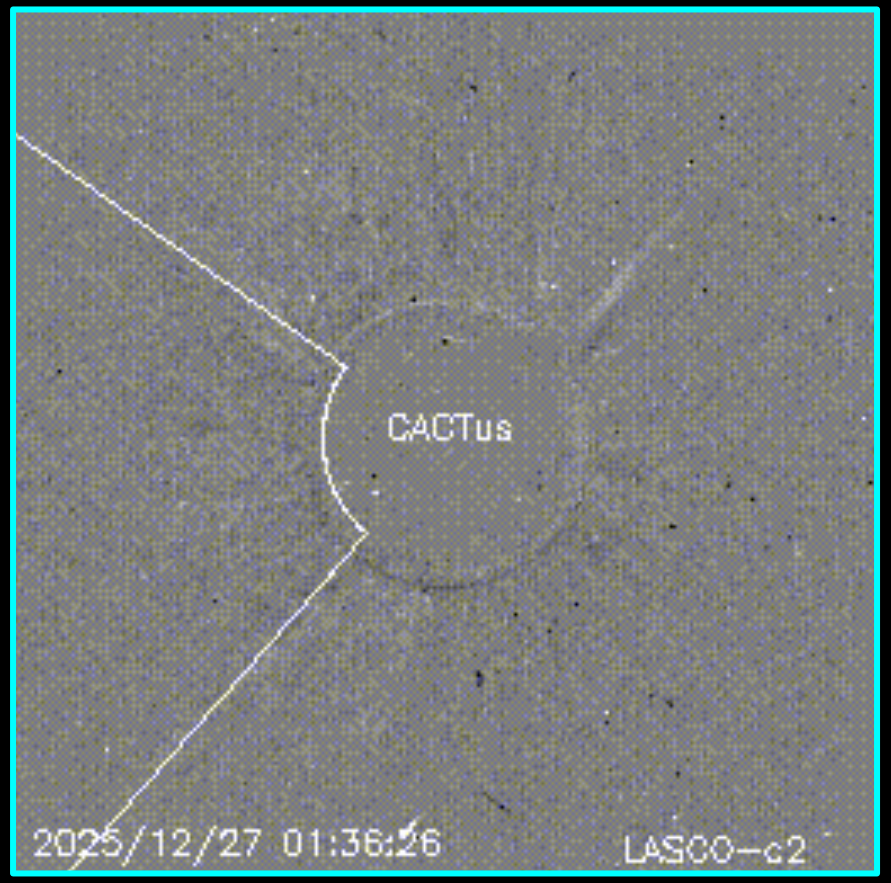


CME:
Observation: 10:36 UTC on Dec 22
Possibly associated with a filament eruption around 09:00 UTC on the SE quadrant (S02 E37) of the Sun.
Speed = 400 km/s, Ang. width = 90 deg

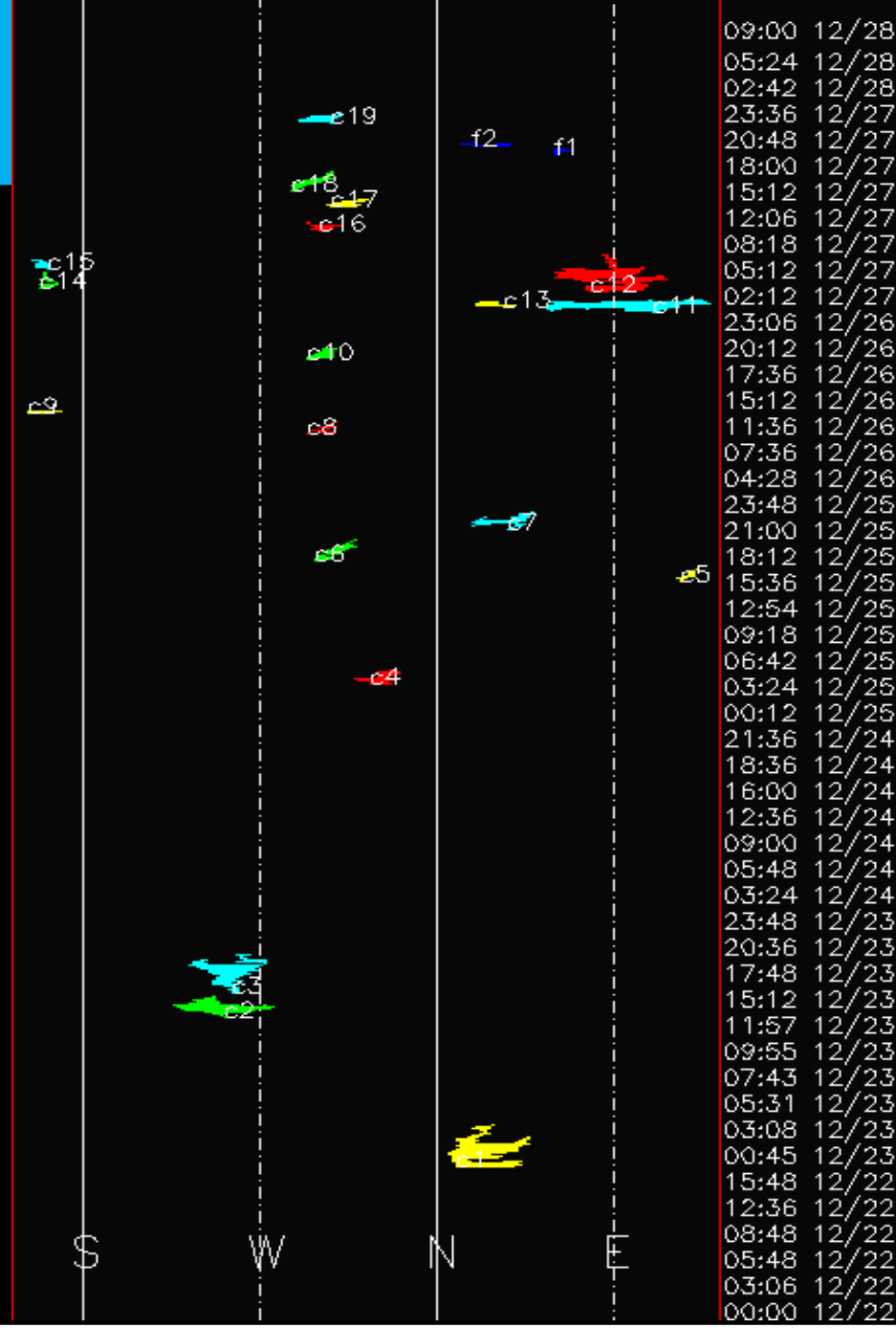
Prediction: Glancing blow on Dec 25T23:00

Observation: Didn't arrive to Earth

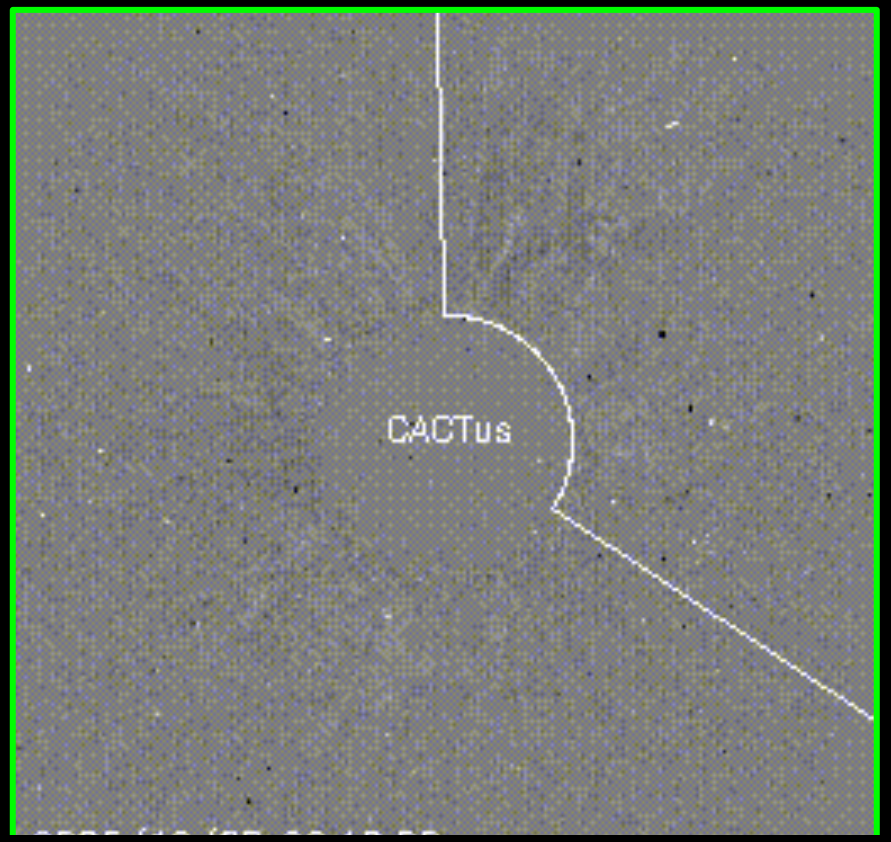
Coronal Mass Ejections



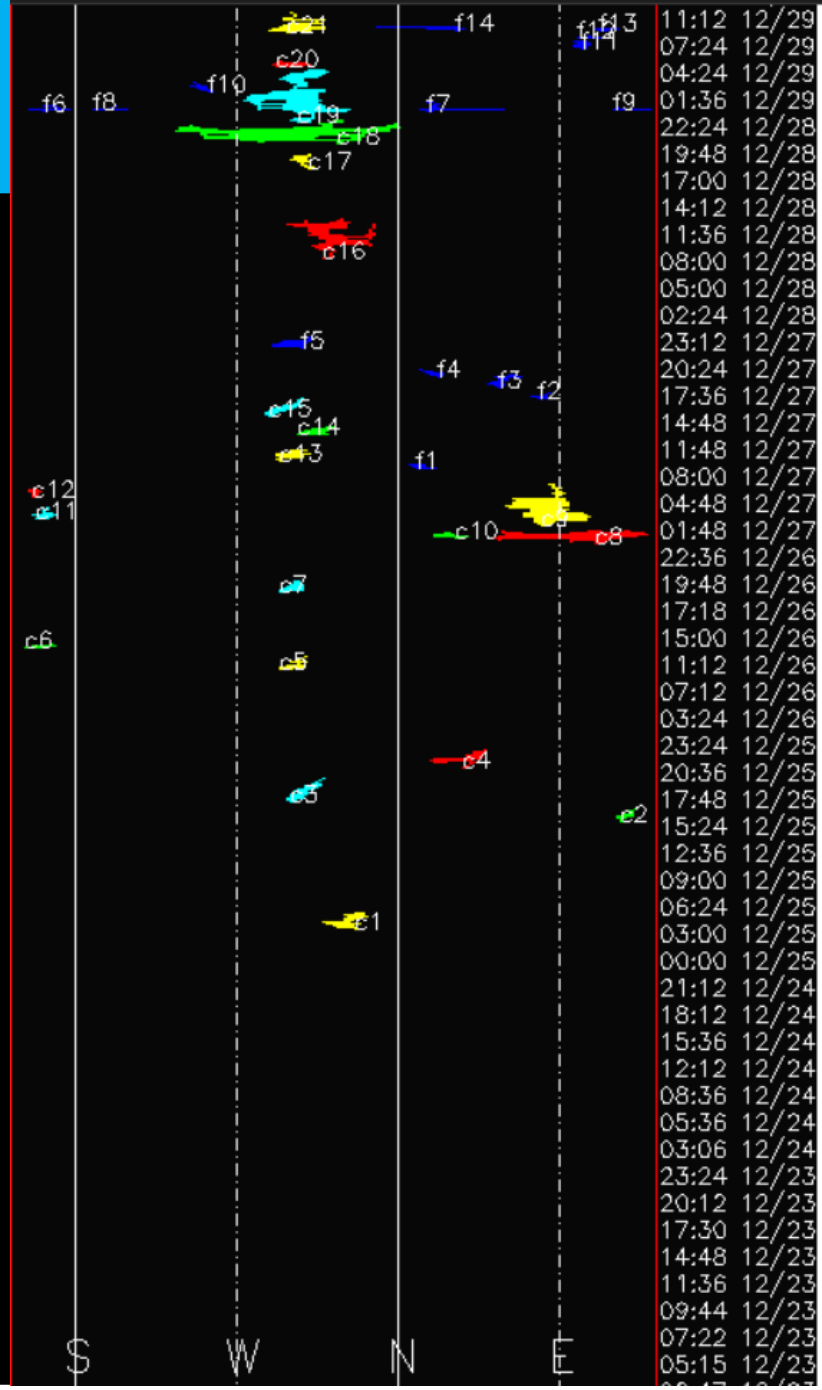
CME:
Observation: 02:24 UTC on Dec 27
May possibly be associated with M5.1 flare (peak at 01:50 UTC on Dec 27) fom SIDC Sunspot Group 745 (NOAA AR 4325), but the source is not very clear. Possibly associated with type II radio emissions at 01:47 UTC on Dec 27. Speed = 350 km/s, Ang. width = 90 deg.
Prediction: Not expected at Earth.



Coronal Mass Ejections



Partial halo CME:
Observation: 23:00 UTC on Dec 28
Associated with M4.2 flare (peak at 22:39 UTC on Dec 28) fom SIDC Sunspot Group 735 (NOAA AR 4317)
Speed = 450 km/s, Ang. width = 120 deg.
Prediction: Glancing blow possible on Jan 01.



Solar Wind and

Geomagnetic Activity

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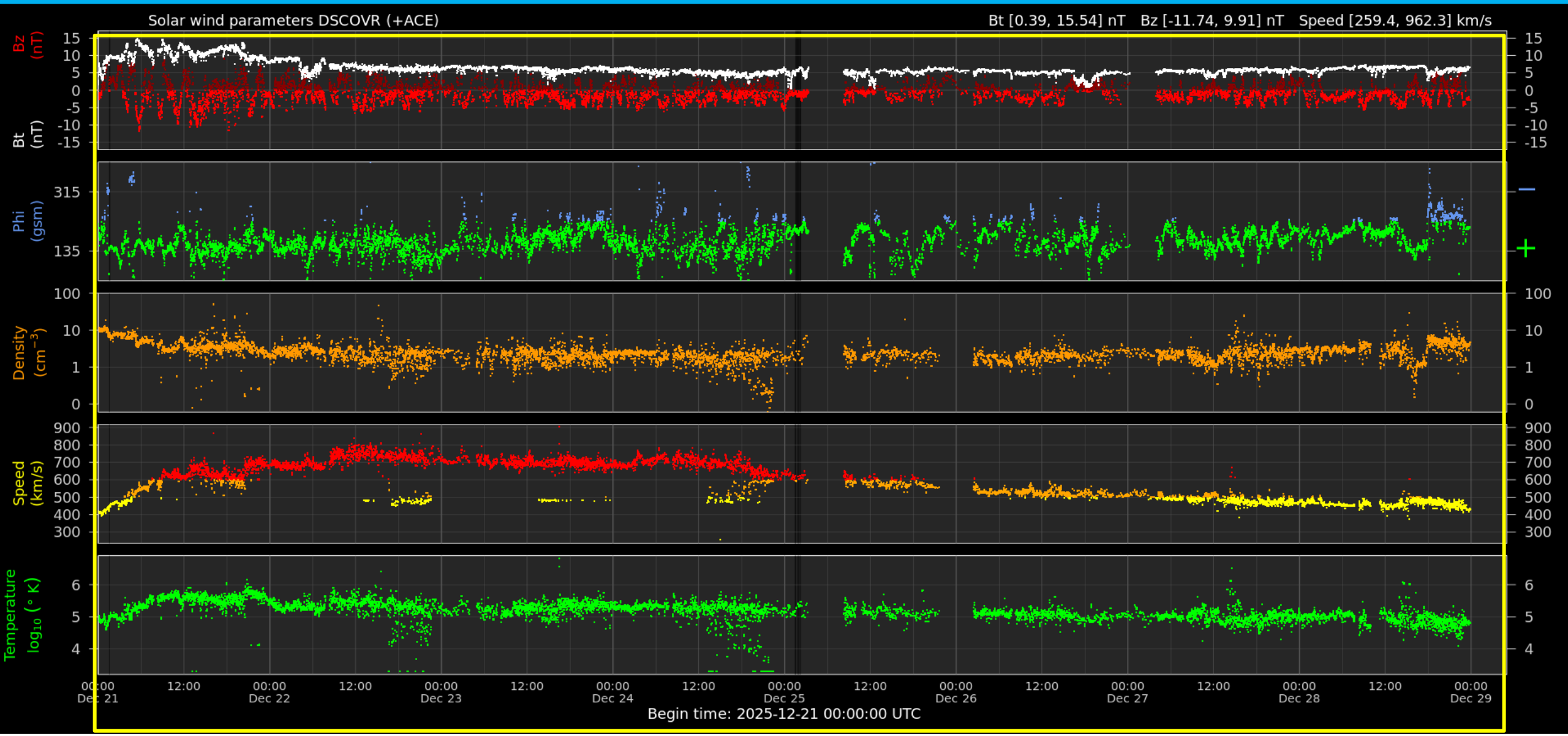
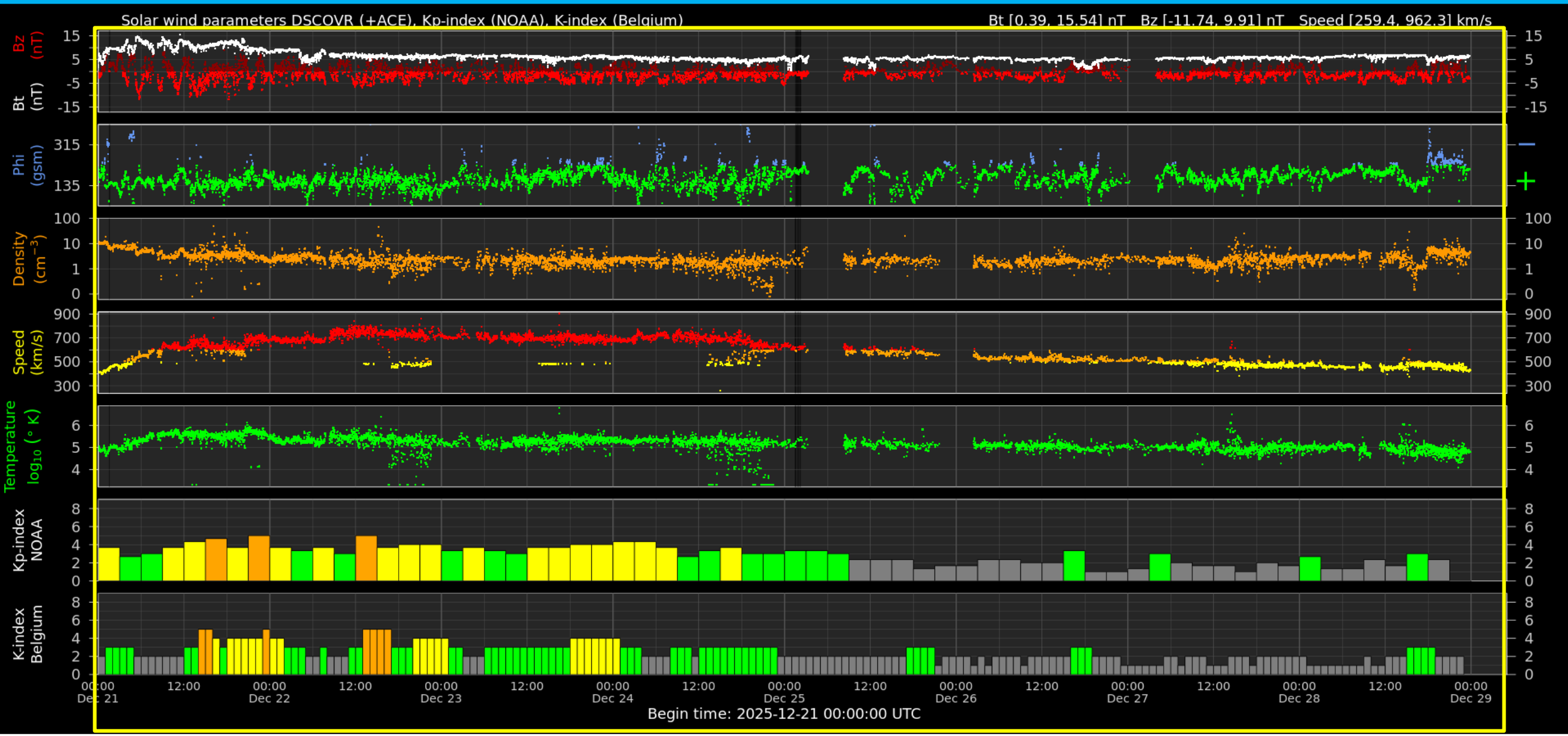
Solar wind parameters

HSS: recurrent SIDC CH 128 +

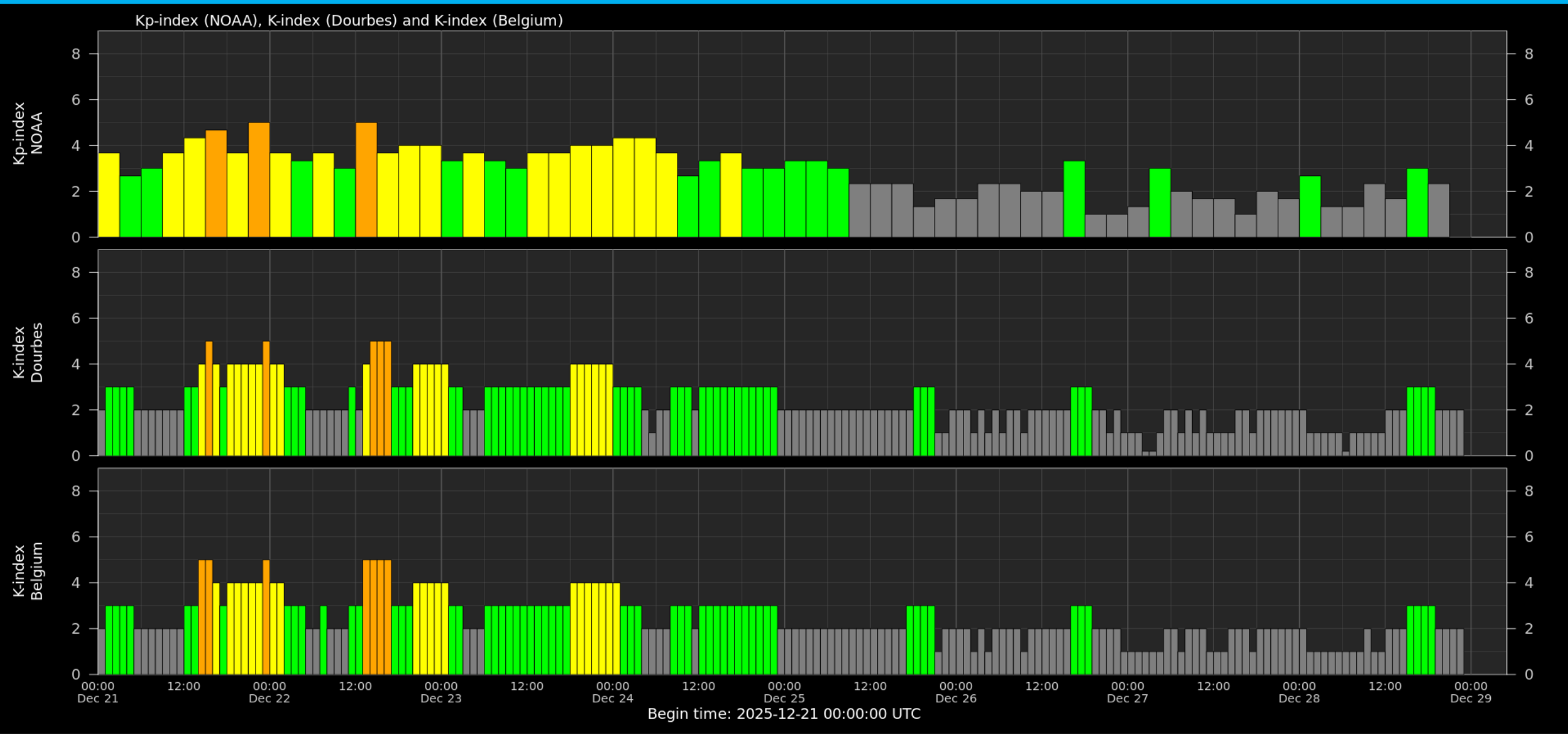


Solar wind parameters & K-indices

HSS: recurrent SIDC CH 128 +



Geomagnetic activity (K-indexes)



Energetic Particles

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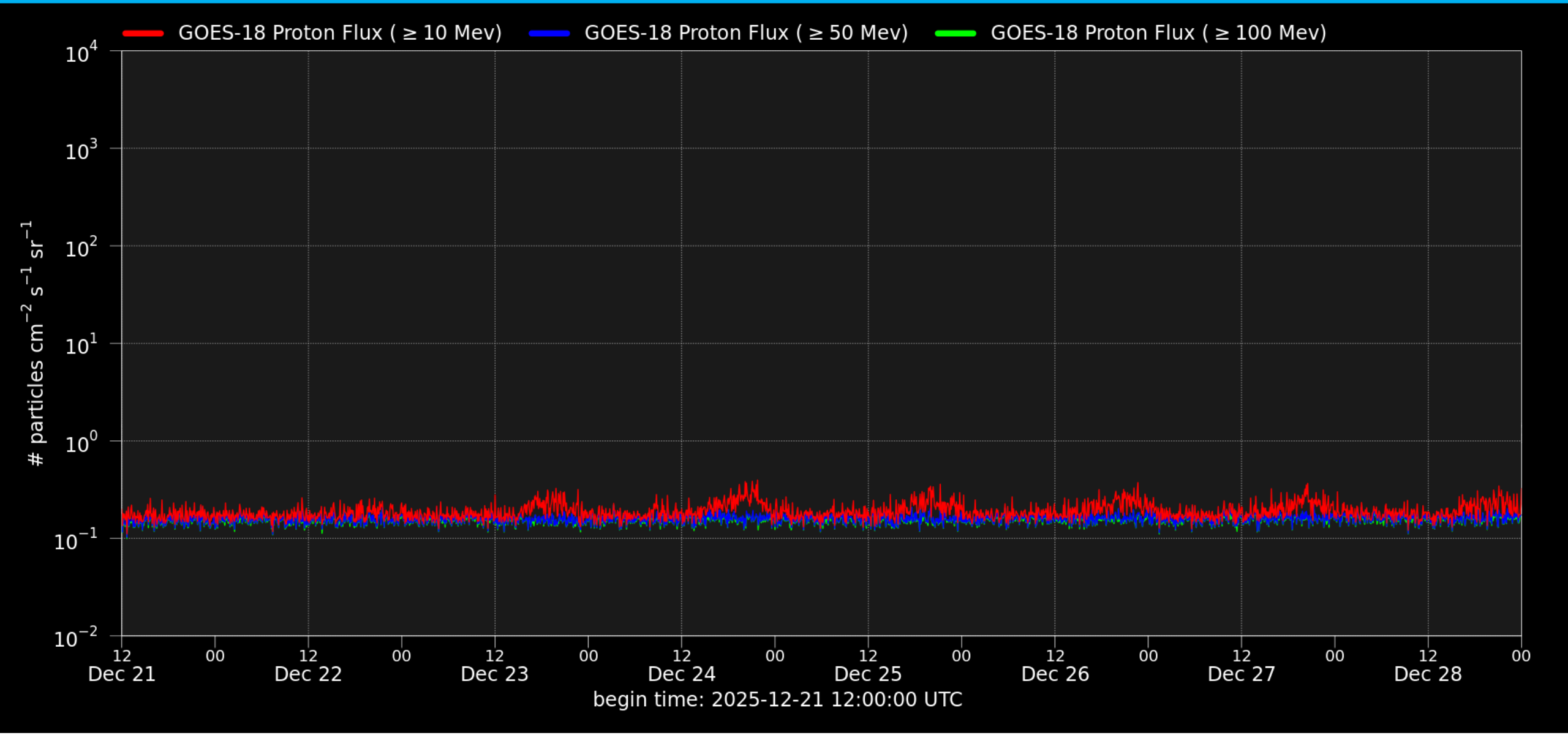
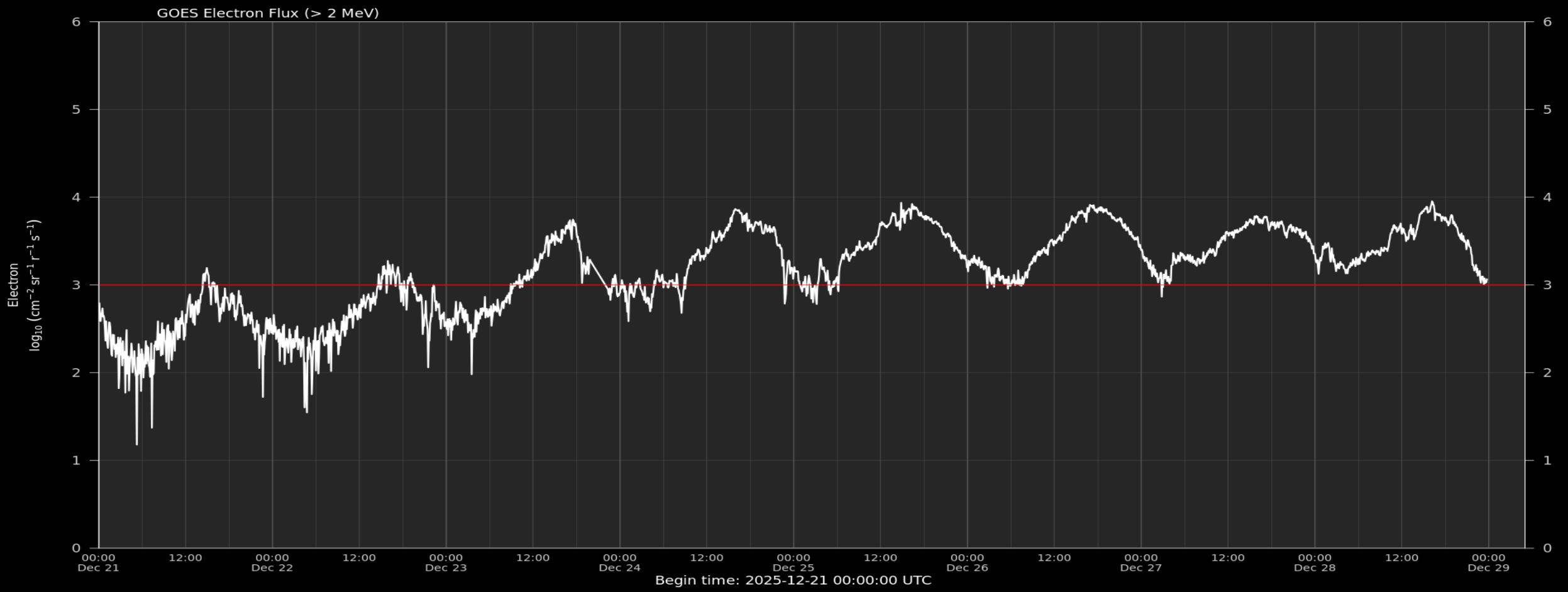
Solar proton flux



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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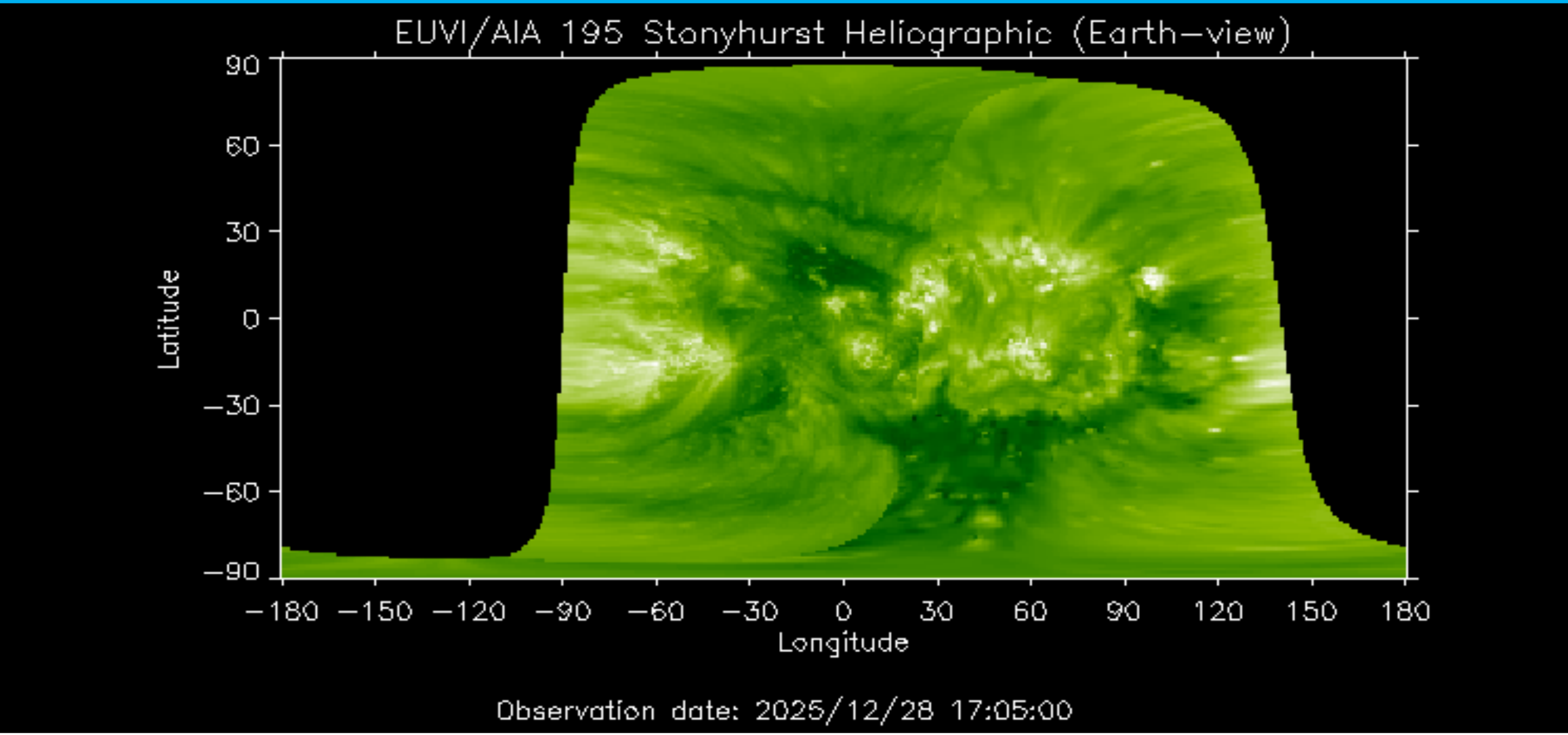
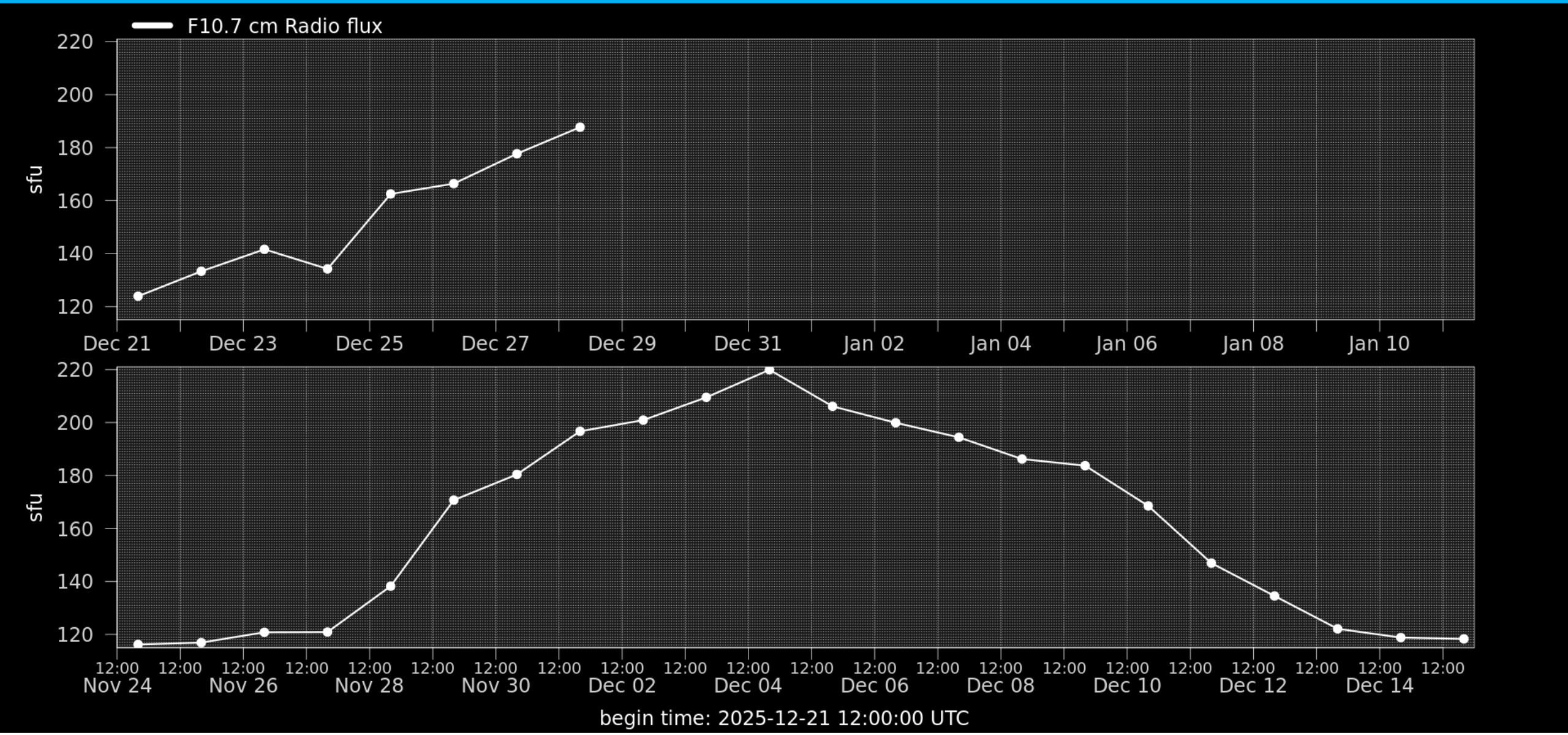
Outlook: Solar activity

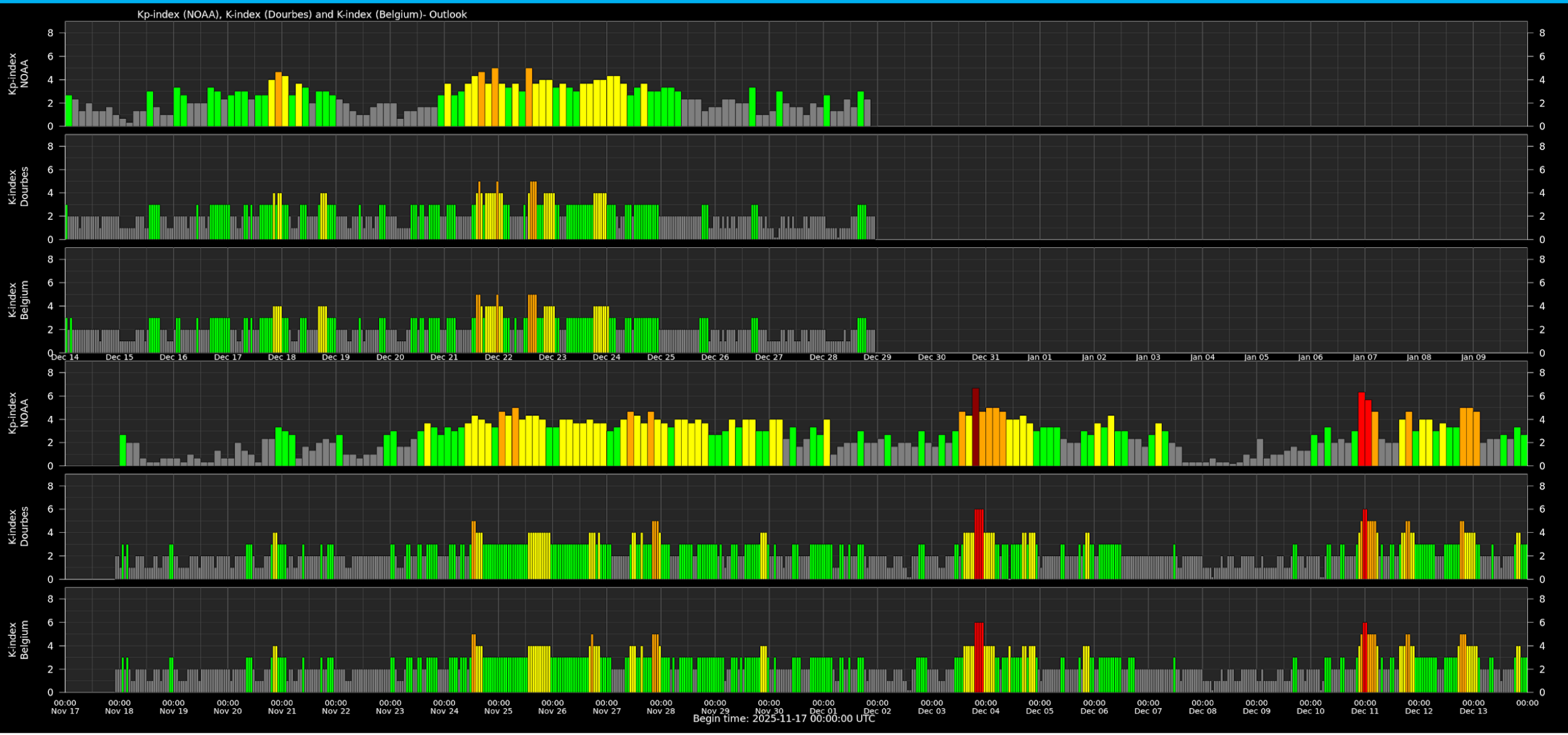


Outlook: Solar F10.7cm radio flux

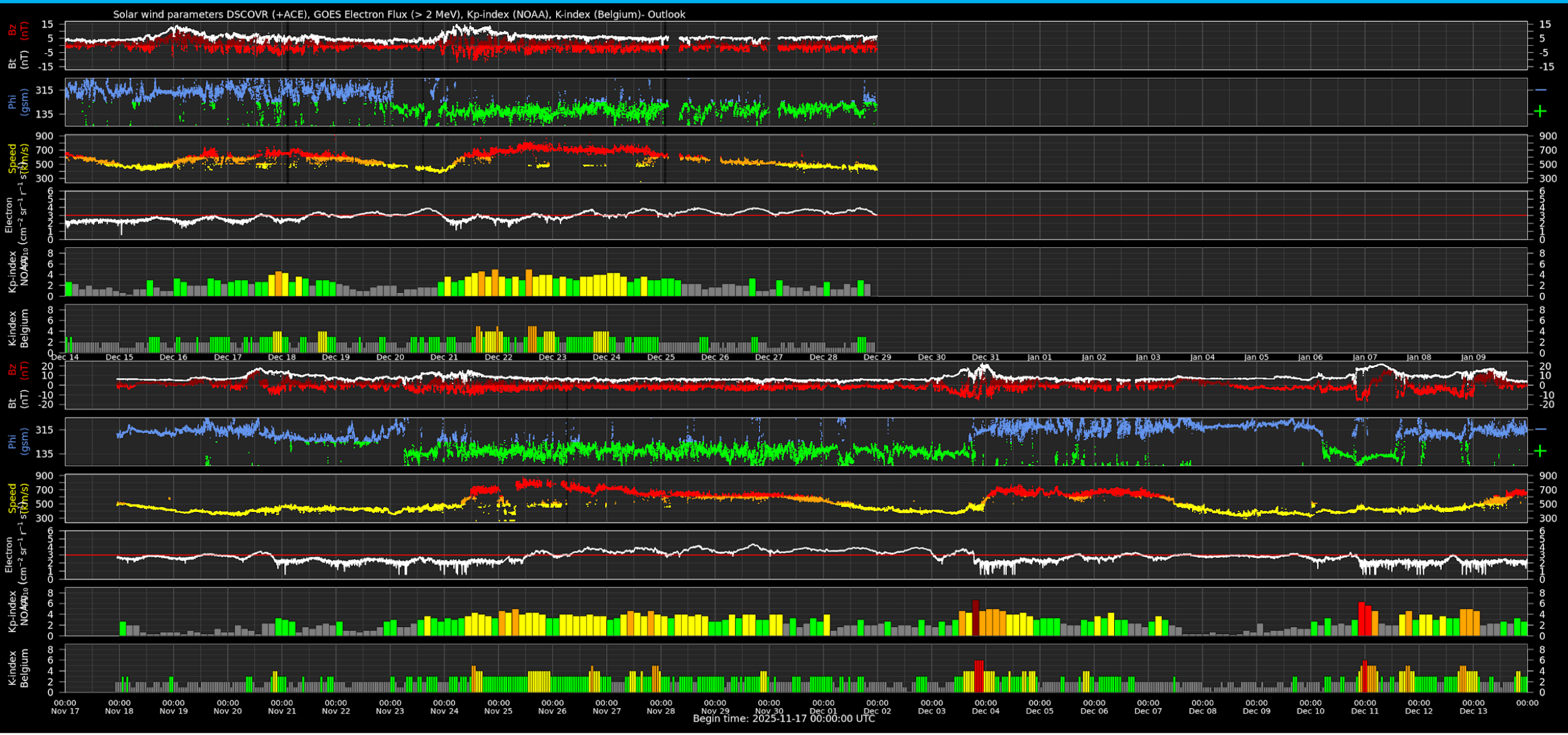


Outlook: Solar wind parameters

Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecasus related events

GNSS Scintillation Advisories

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