

SIDC Space Weather Briefing

08 December 2025-14 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 2025-12-08 00:00 to 2025-12-14 23:59

Active regions	15 ARs, most notable SIDC 709 (NOAA 4294, beta-gamma-delta), SIDC 712 (NOAA 4296, beta-gamma) , SIDC 713 (NOAA 4298, beta)
Flares	# C-class flare: 57 # M-class flare: 18 # X-class flare: 1
Coronal Holes	Returning SIDC CH 142 (-) has been crossing the central meridian since December 10.
CMEs	Multiple CMEs associated with persistent flaring activity

Proton flux	Mildly enhanced at the beginning of the week , below proton event levels (< 10 pfu)
Electron flux	Moderate levels at the beginning of the week and then nominal levels

Solar wind and geomagnetic conditions

ICMEs	ICME arrival on December 10
Solar wind conditions	B : 1.13 - 21.81 nT //Bz: -16.51 nT to 16.42 nT //Speed: 289.7 - 706.9km/s
Geomagnetic conditions	max KBel: 6.0, max Kp(NOAA): 6 +, Moderate Storm conditions

All Quiet Alert: Off

Solar Activity

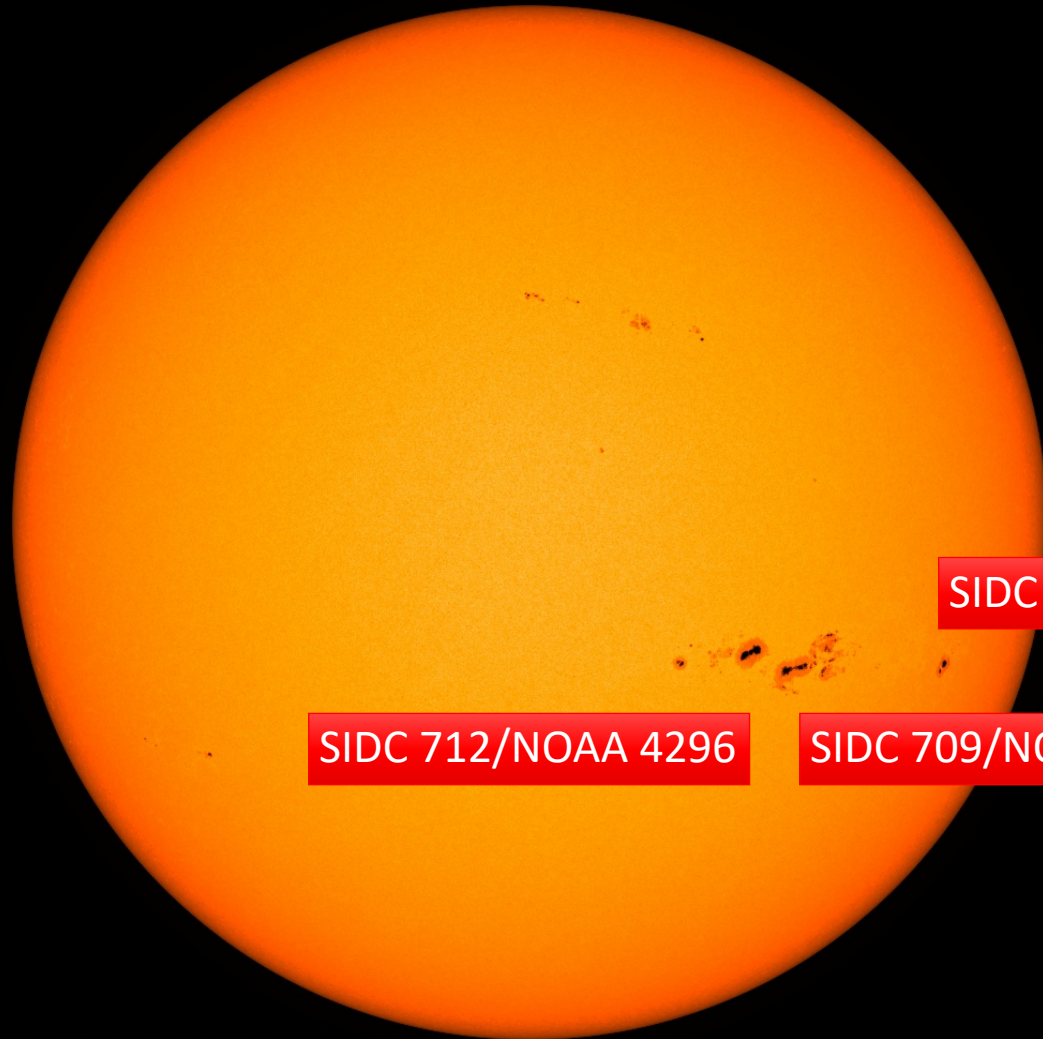


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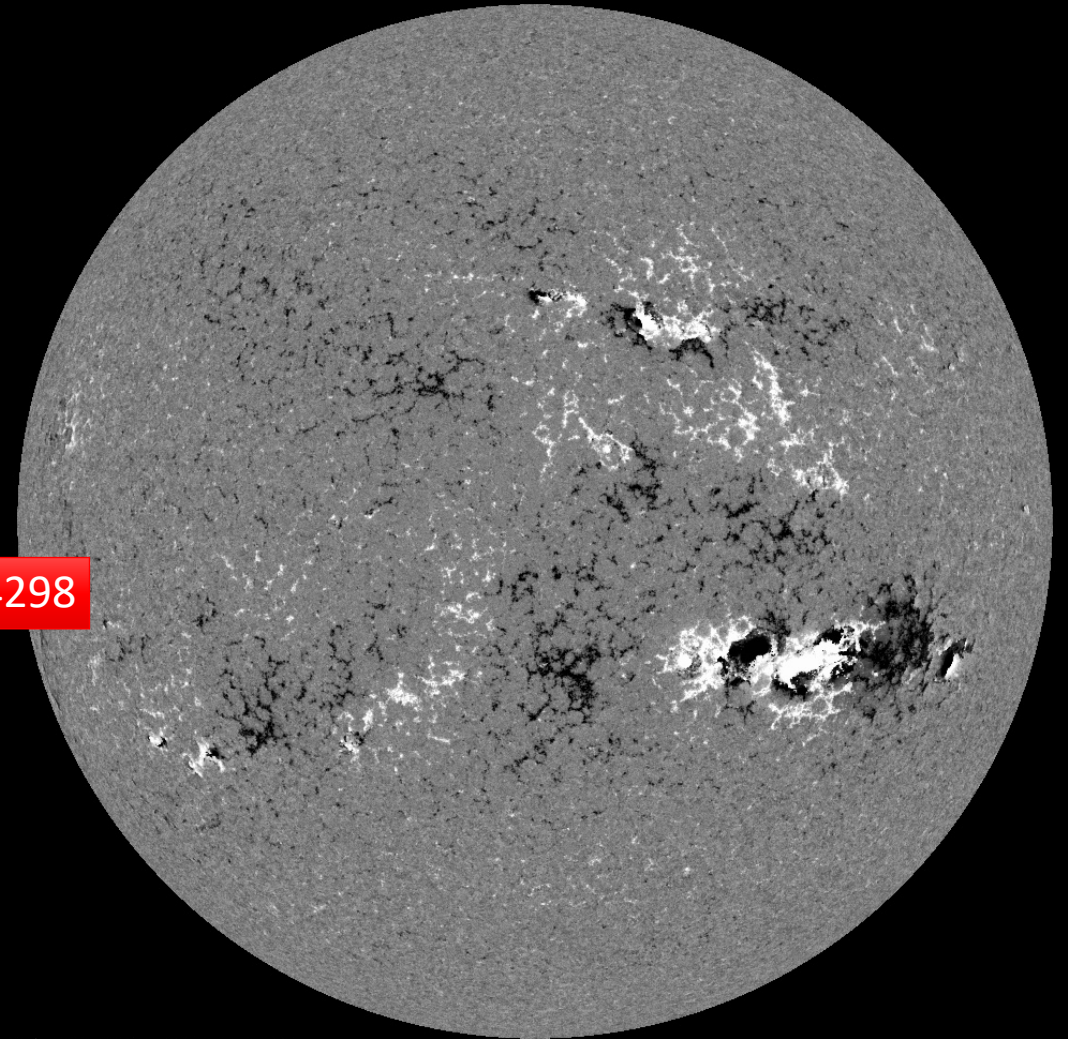
Solar active regions

SDO/HMI White Light 2025-12-08



SDO/HMI Continuum: 20251208_120000

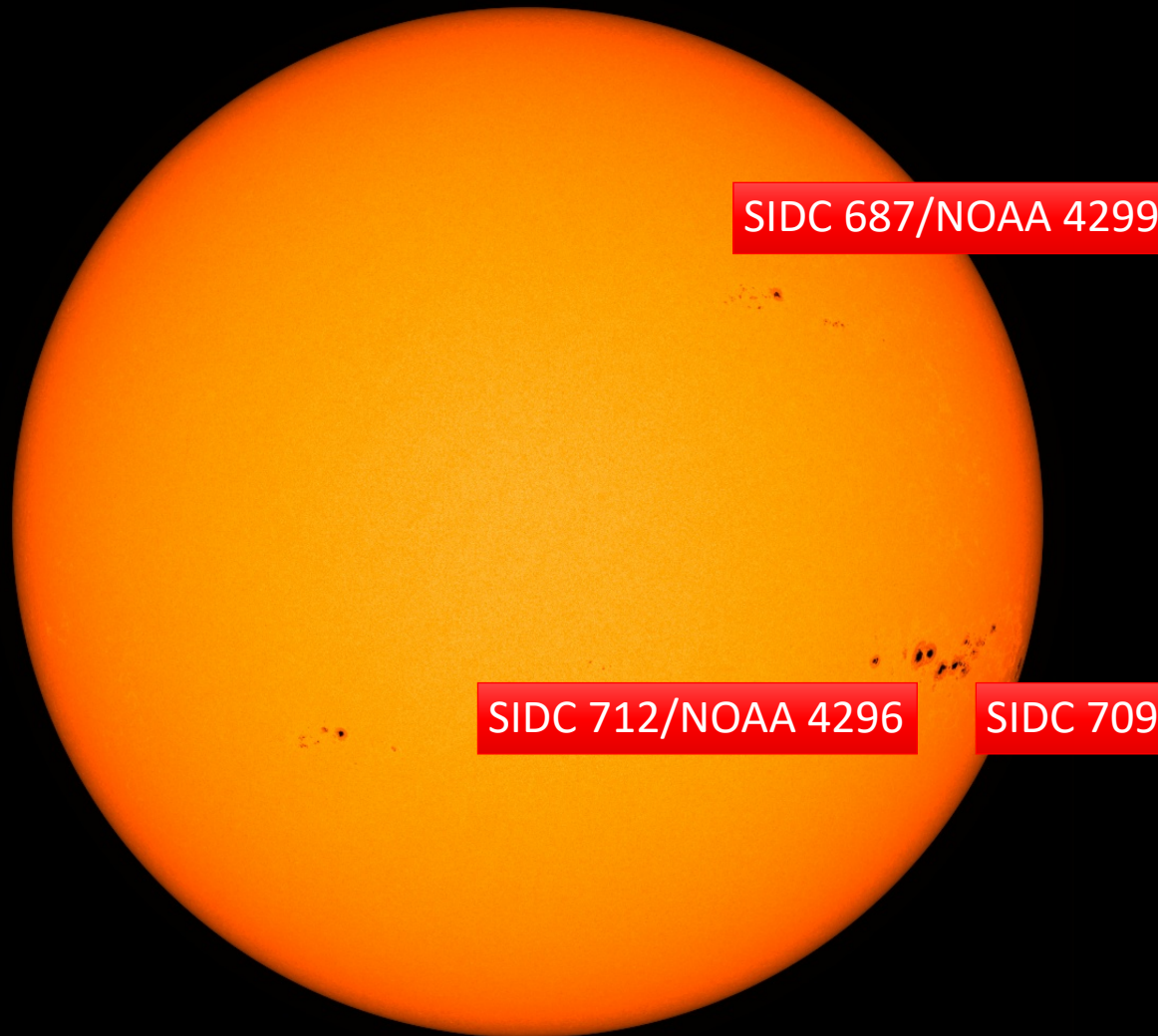
SDO/HMI Magnetogram 2025-12-08



SDO/HMI Magnetogram: 20251208_120000

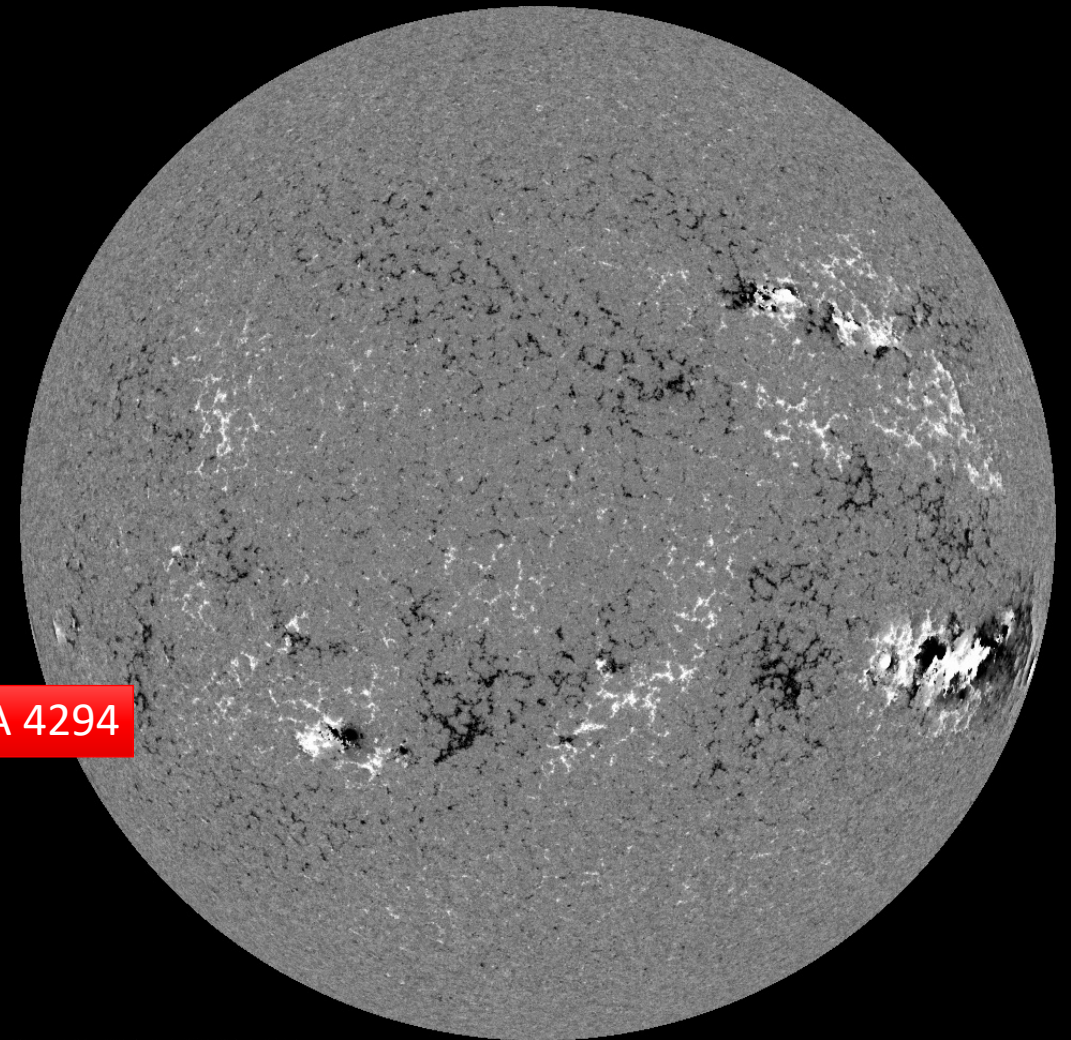
Solar active regions

SDO/HMI White Light 2025-12-10



SDO/HMI Continuum: 20251210_120000

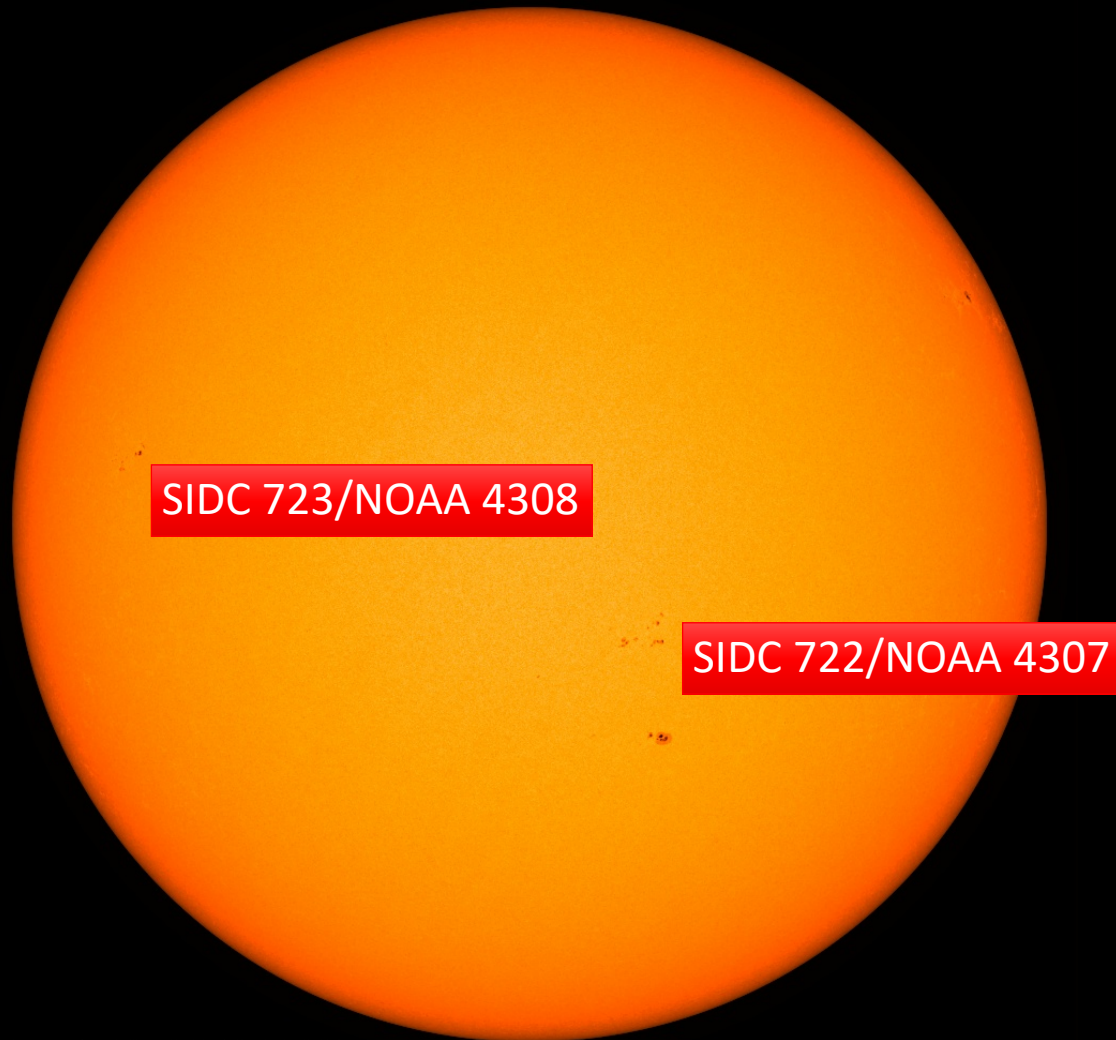
SDO/HMI Magnetogram 2025-12-10



SDO/HMI Magnetogram: 20251210_120000

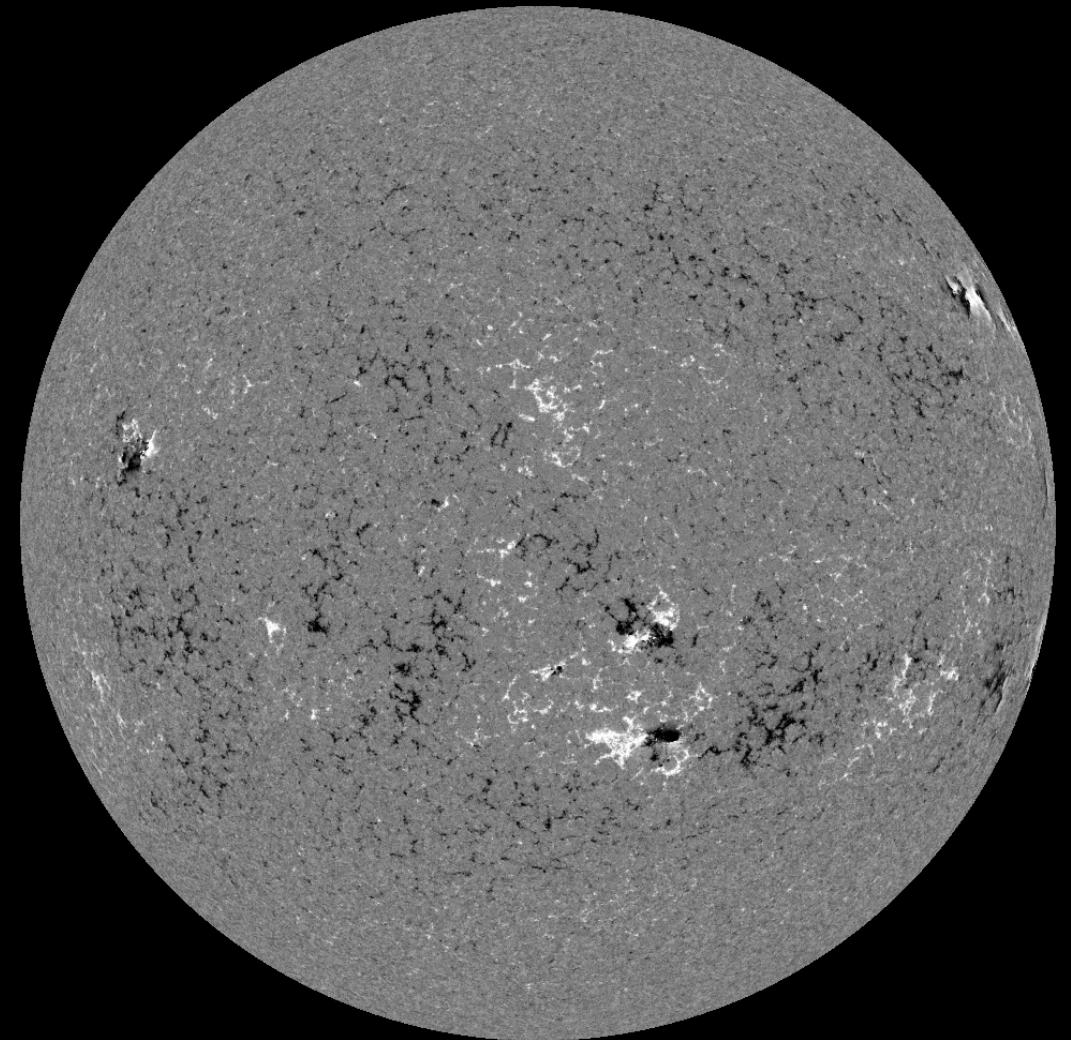
Solar active regions

SDO/HMI White Light 2025-12-13



SDO/HMI Quick-Look Continuum: 20251213_120000

SDO/HMI Magnetogram 2025-12-13

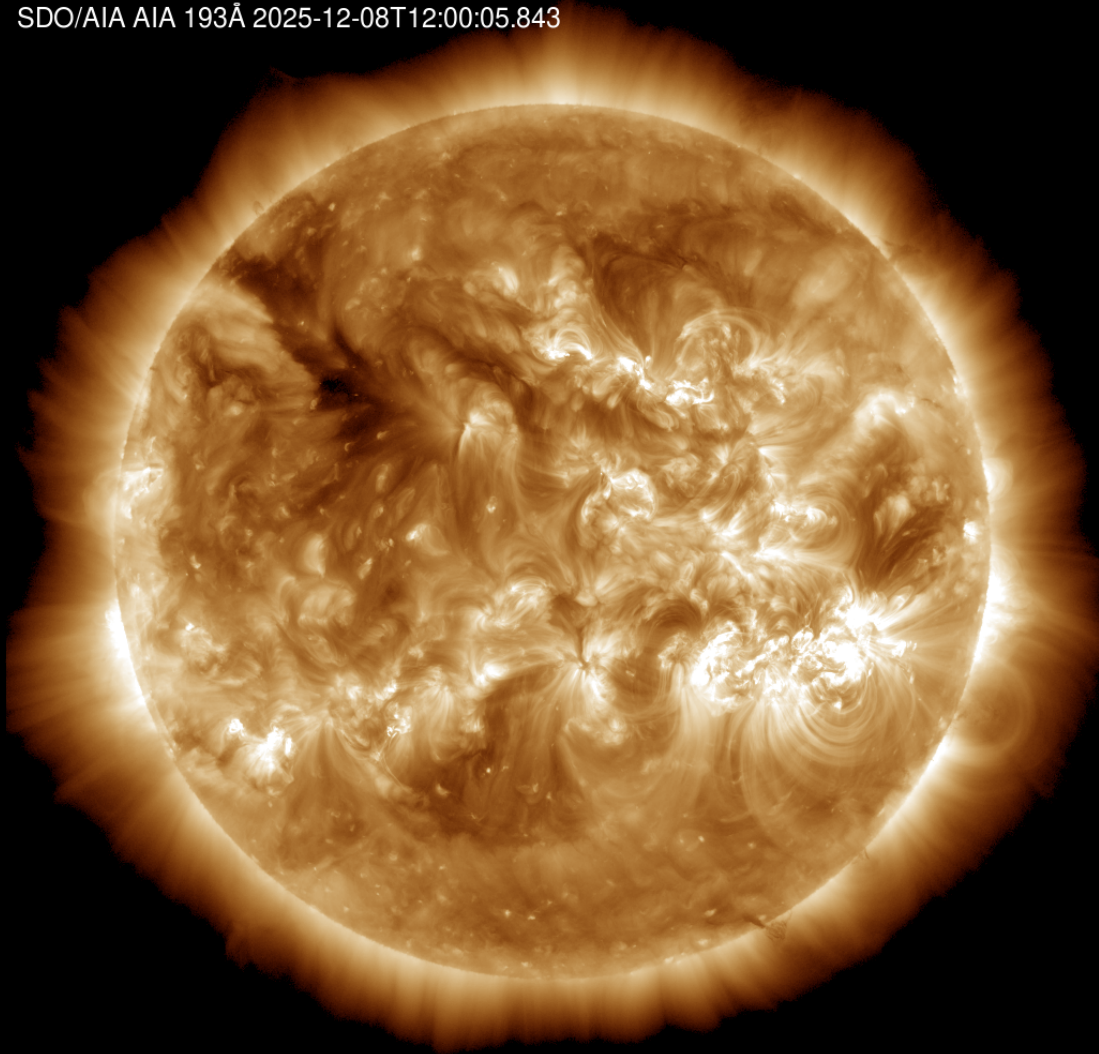


SDO/HMI Quick-Look Magnetogram: 20251213_120000

Coronal holes

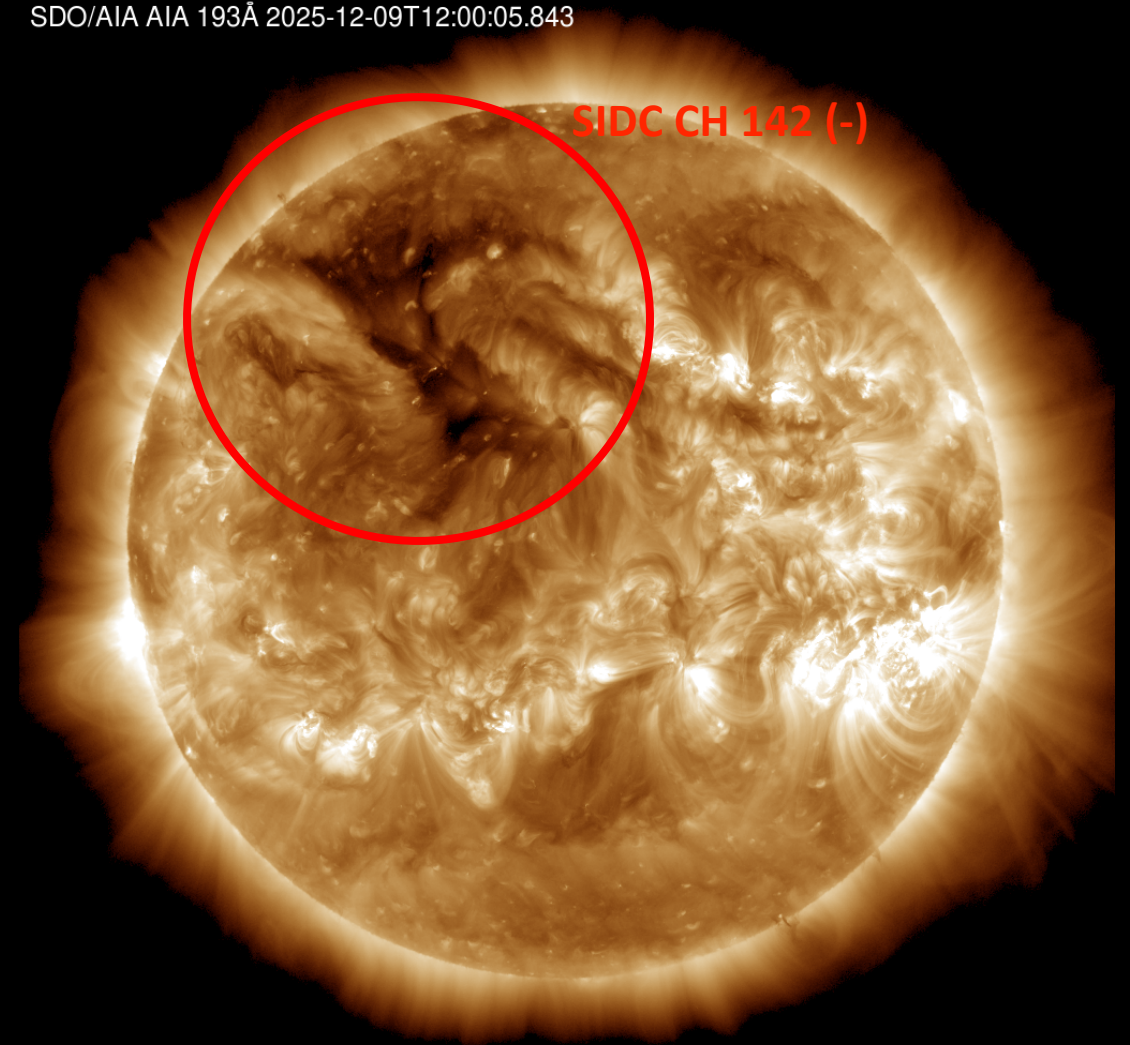
SDO/AIA 19.3 nm 2025-12-08

SDO/AIA AIA 193Å 2025-12-08T12:00:05.843



SDO/AIA 19.3 nm 2025-12-09

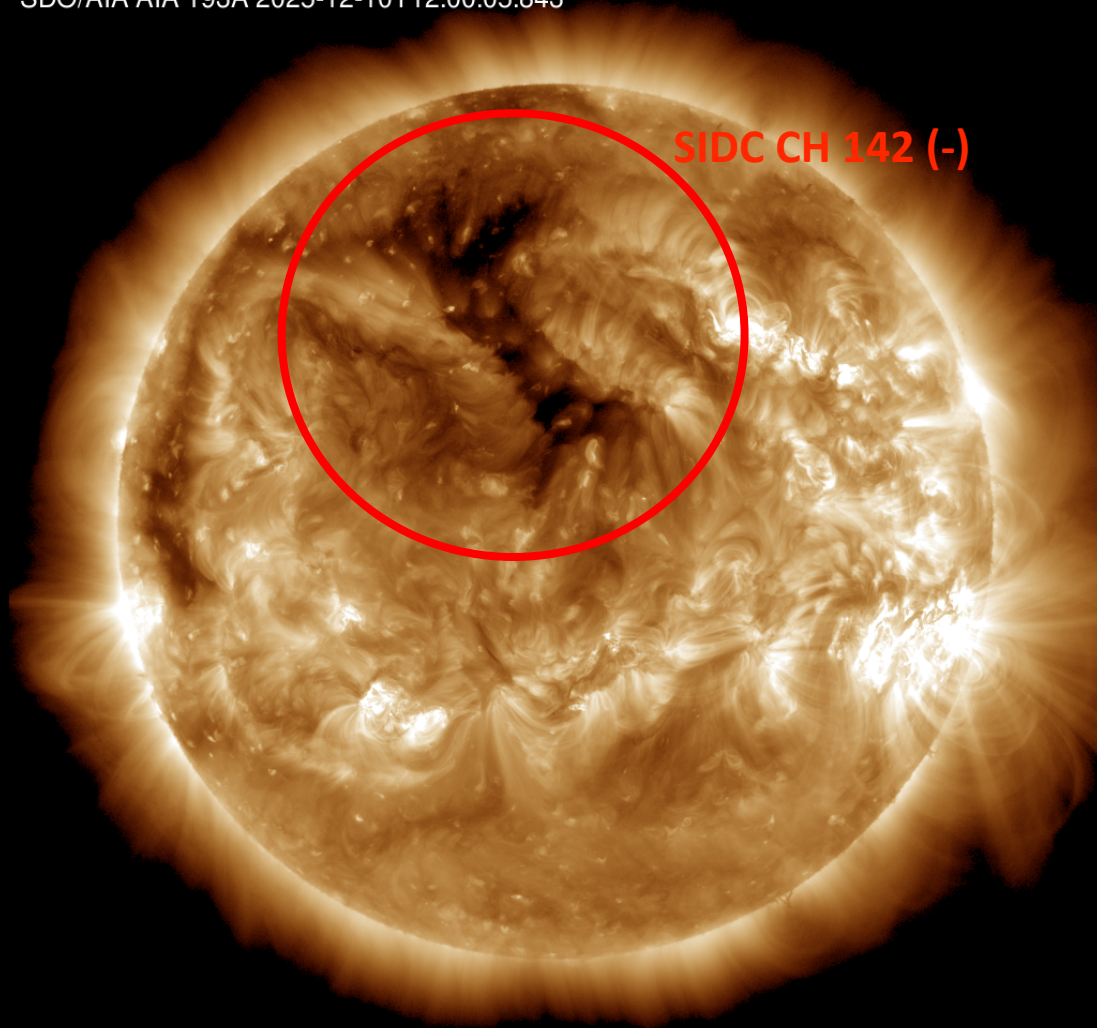
SDO/AIA AIA 193Å 2025-12-09T12:00:05.843



Coronal holes

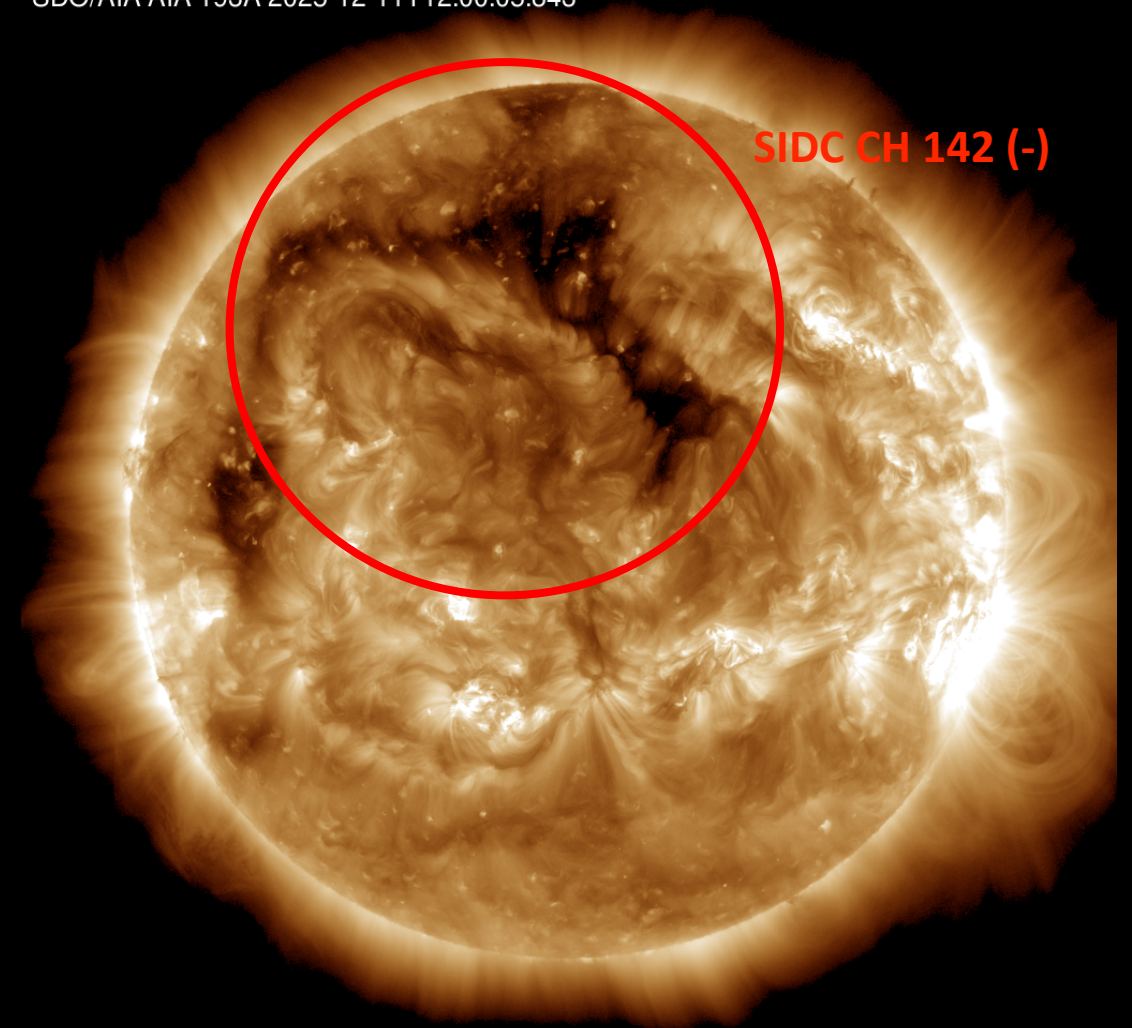
SDO/AIA 19.3 nm 2025-12-10

SDO/AIA AIA 193Å 2025-12-10T12:00:05.843



SDO/AIA 19.3 nm 2025-12-11

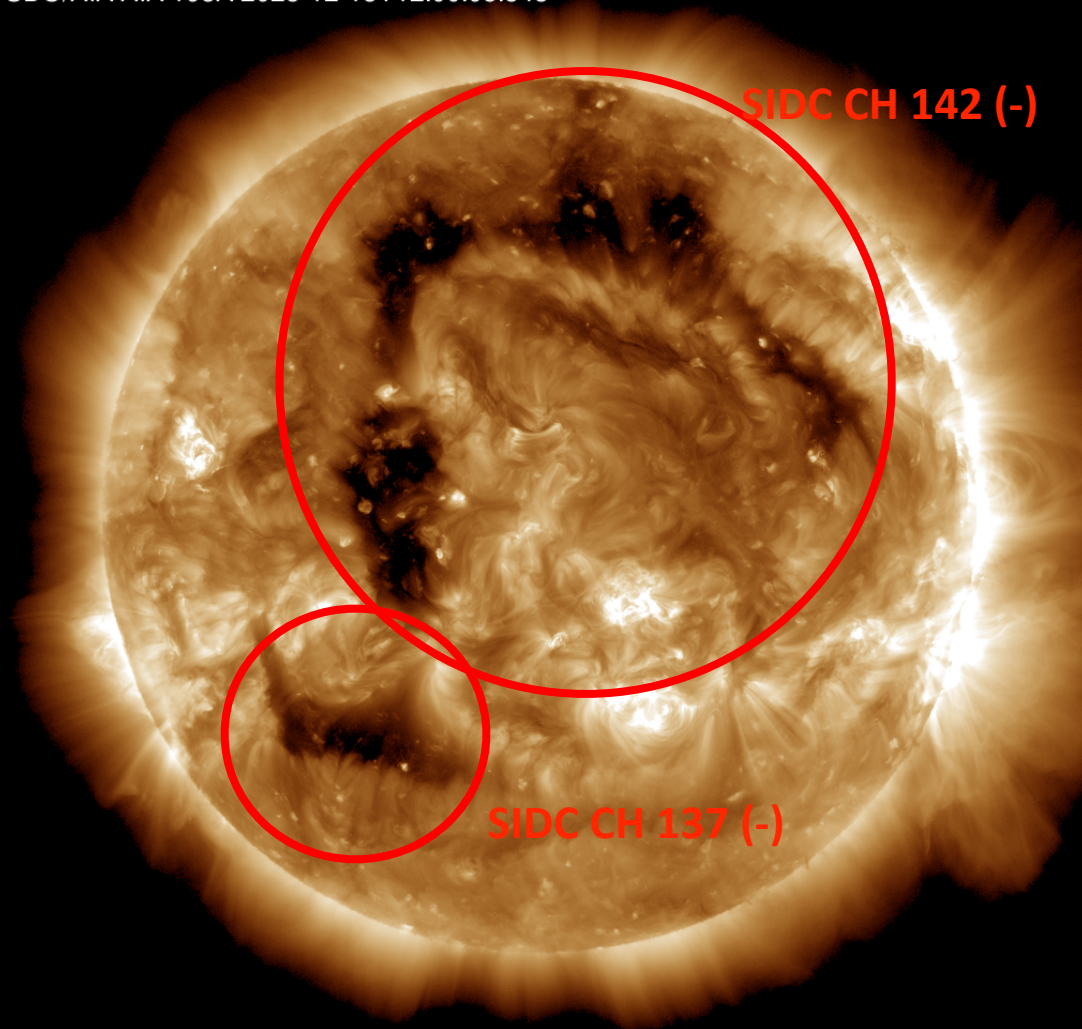
SDO/AIA AIA 193Å 2025-12-11T12:00:05.843



Coronal holes

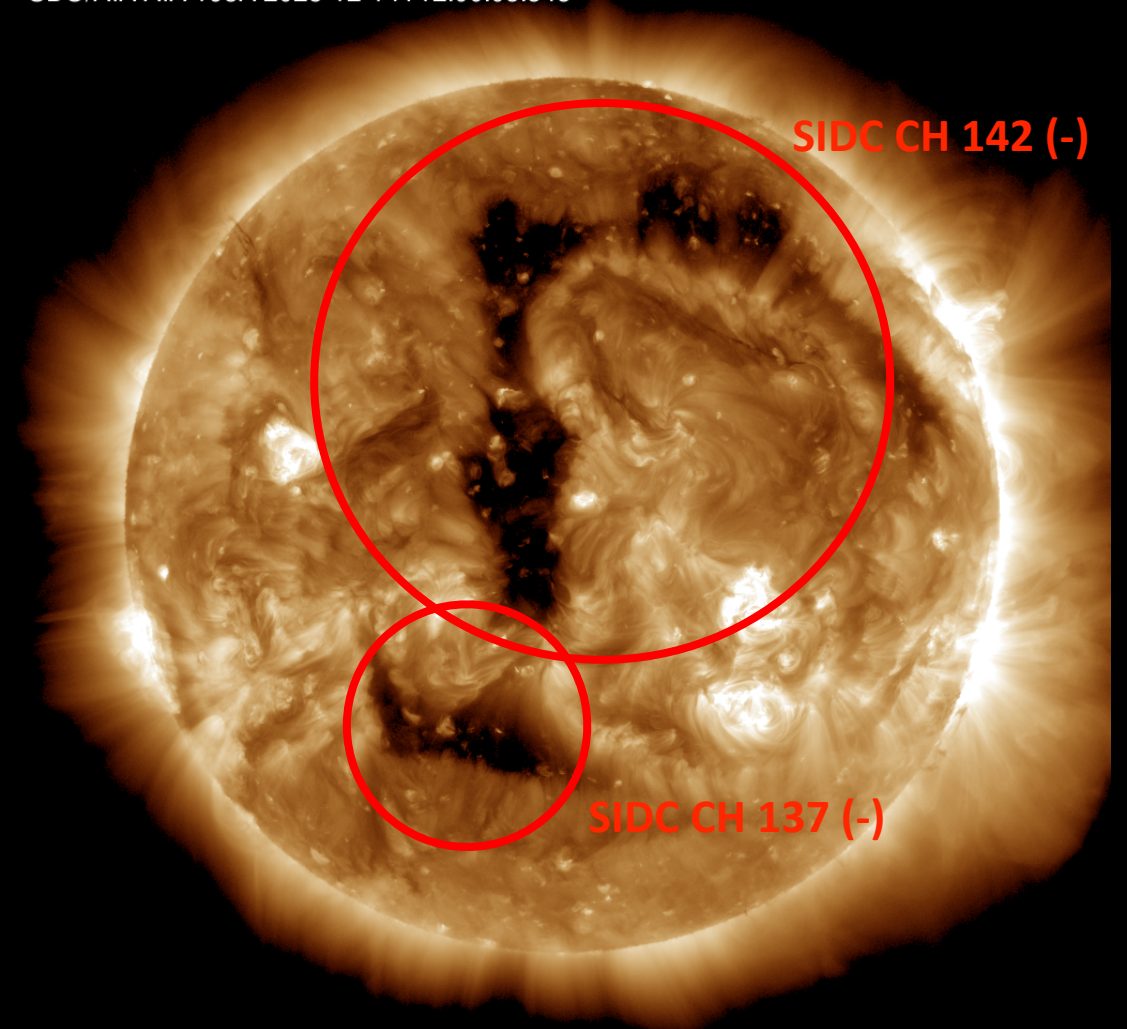
SDO/AIA 19.3 nm 2025-12-13

SDO/AIA AIA 193Å 2025-12-13T12:00:05.843



SDO/AIA 19.3 nm 2025-12-14

SDO/AIA AIA 193Å 2025-12-14T12:00:05.843



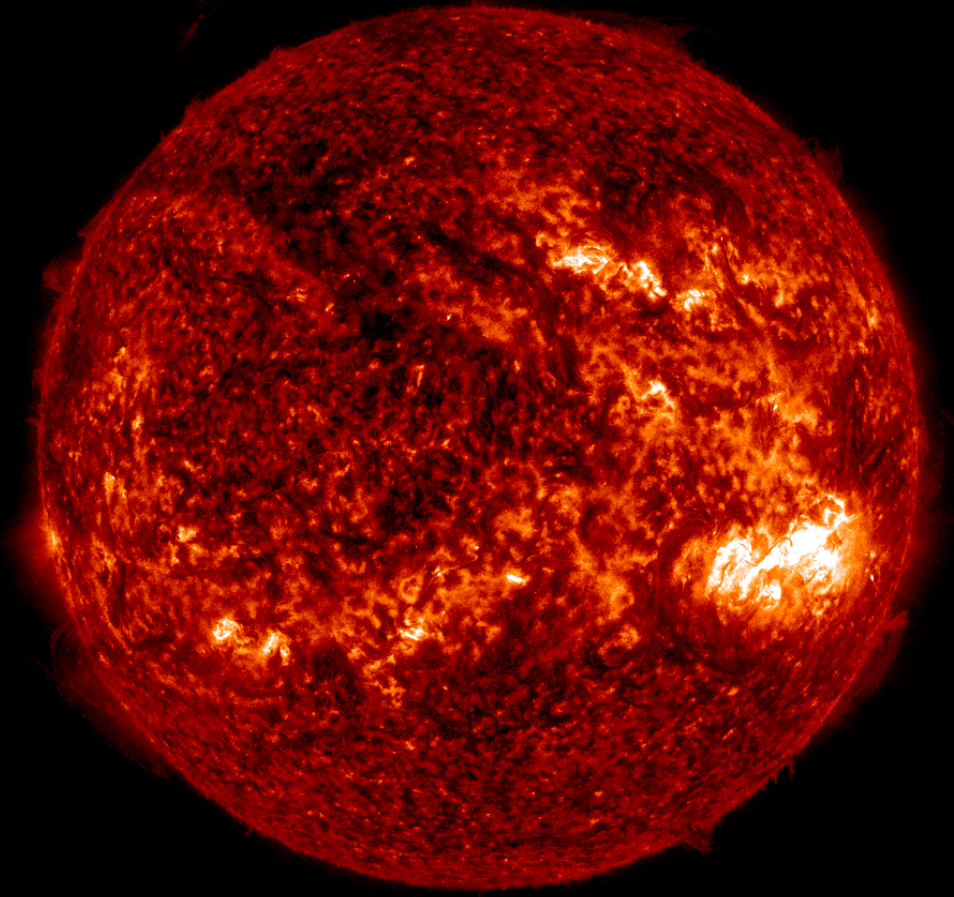
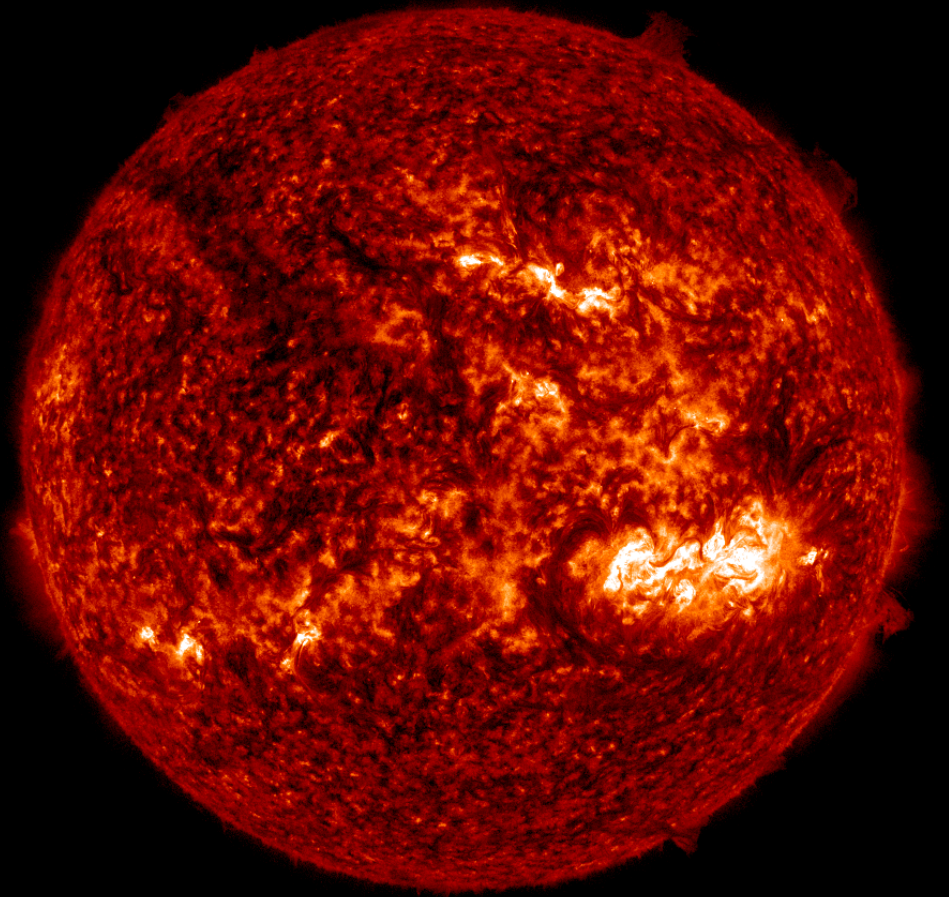
Filaments

SDO/AIA 30.4 nm 2025-12-08

SDO/AIA AIA 304Å 2025-12-08T12:00:06.572

SDO/AIA 30.4 nm 2025-12-09

SDO/AIA AIA 304Å 2025-12-09T12:00:06.597



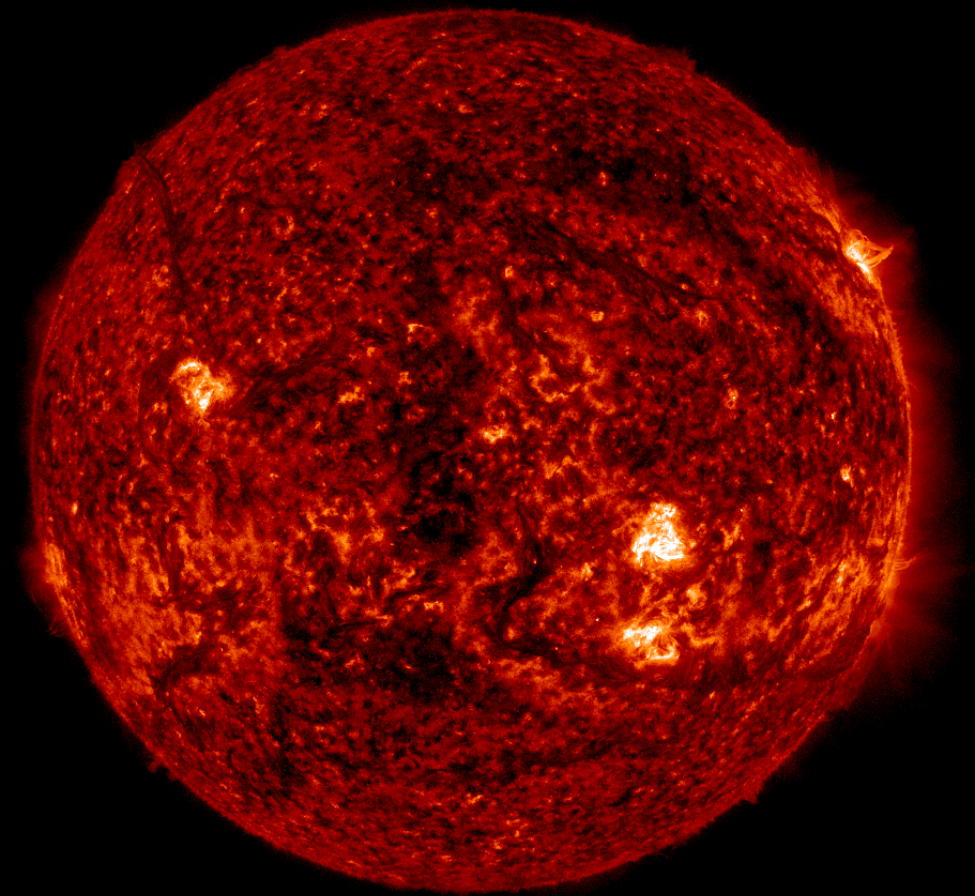
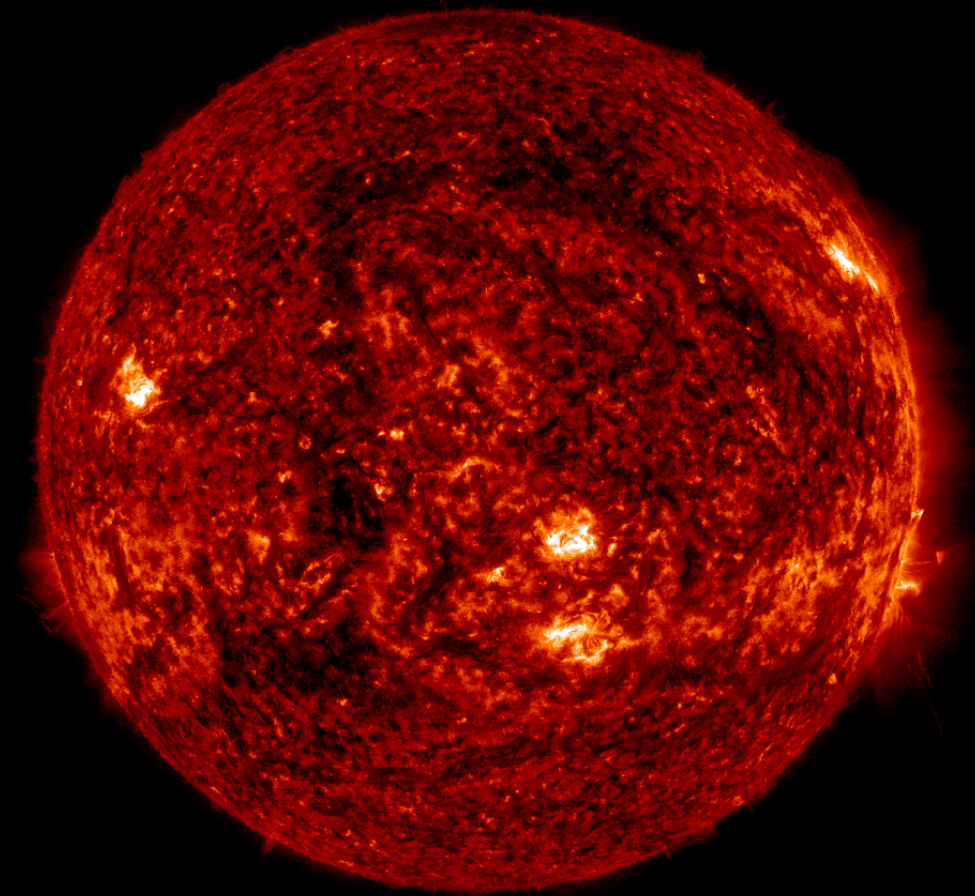
Filaments

SDO/AIA 30.4 nm 2025-12-13

SDO/AIA AIA 304Å 2025-12-13T12:00:06.580

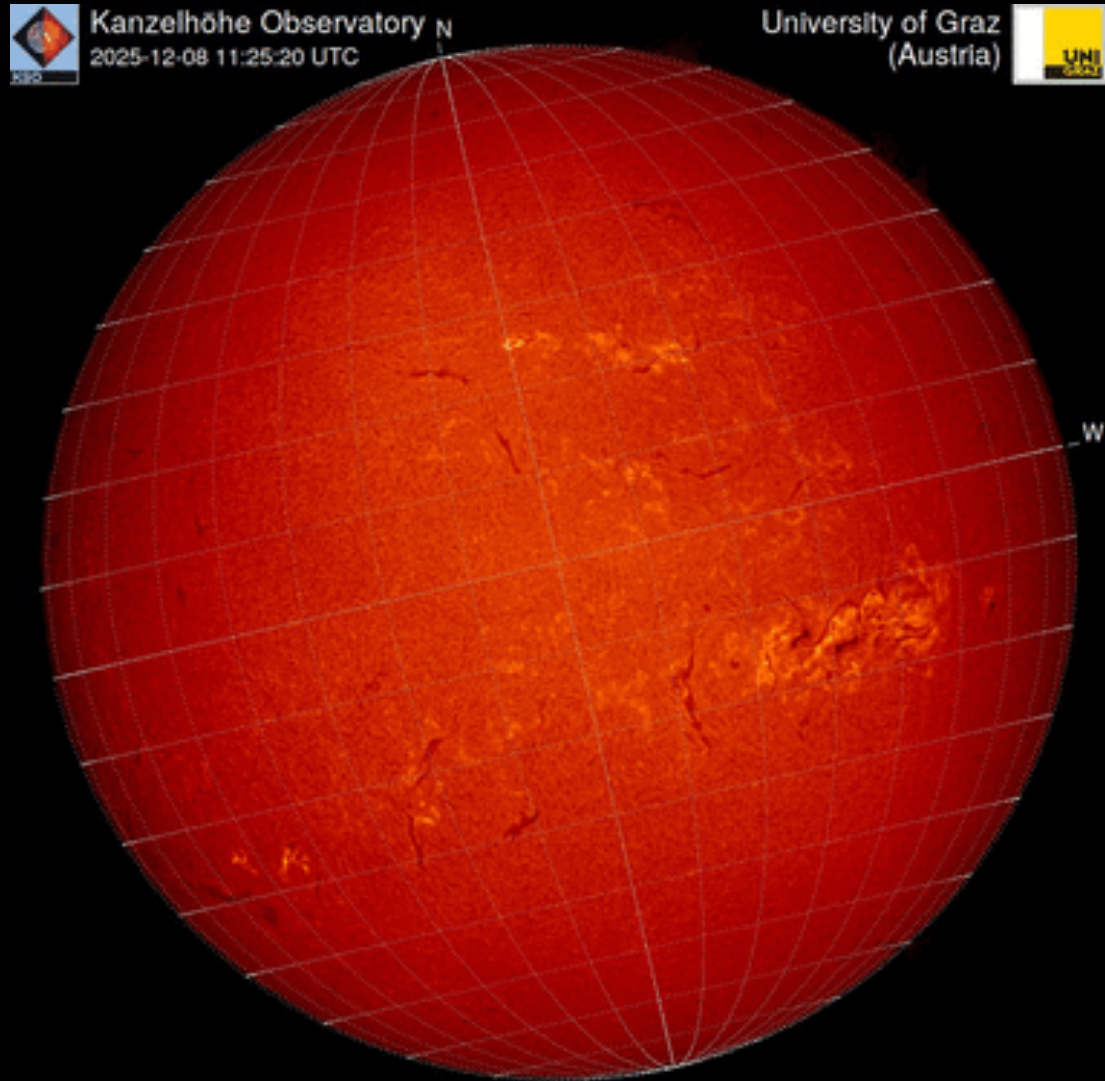
SDO/AIA 30.4 nm 2025-12-14

SDO/AIA AIA 304Å 2025-12-14T12:00:06.580

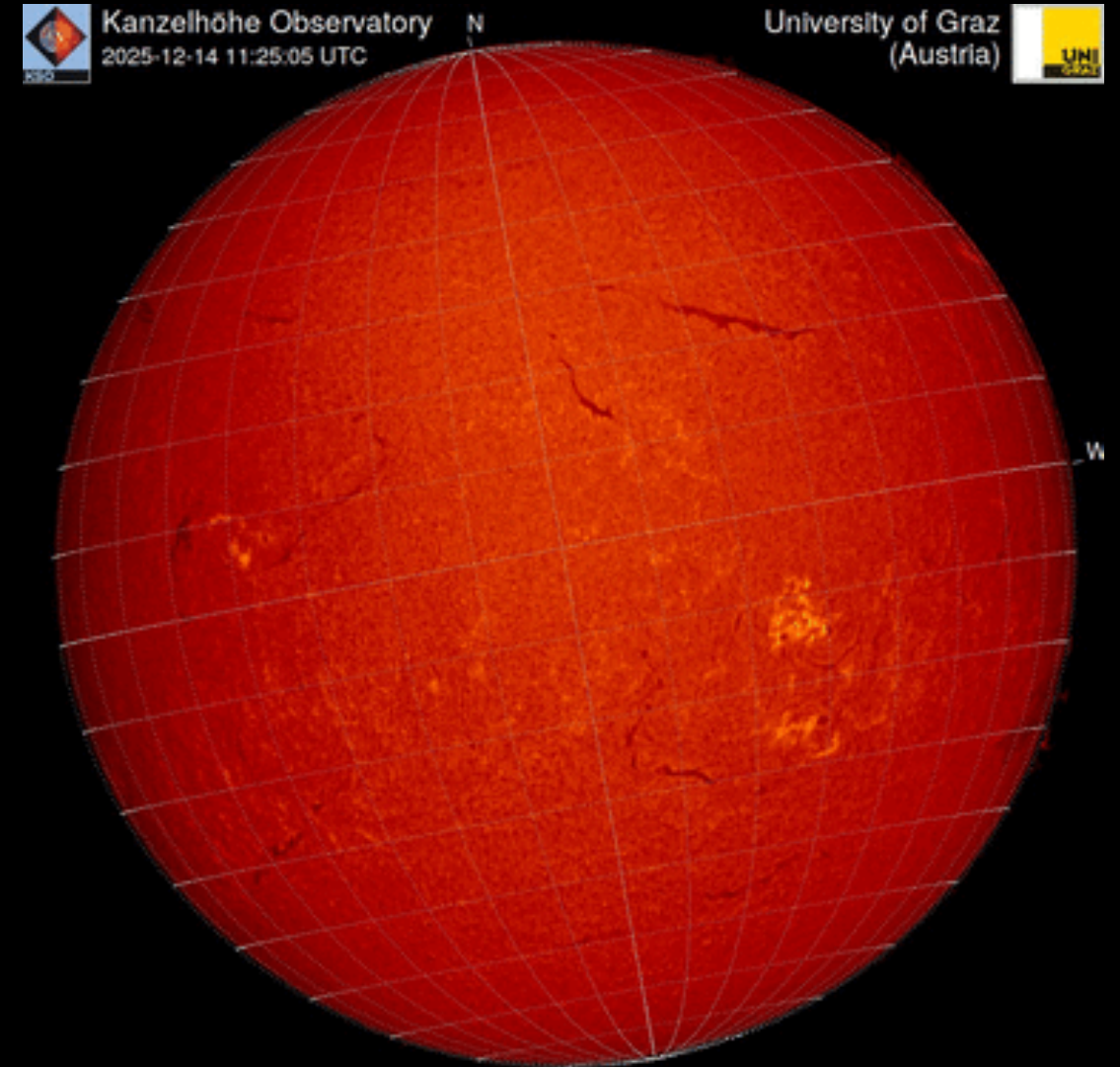


Filaments & Filament eruptions

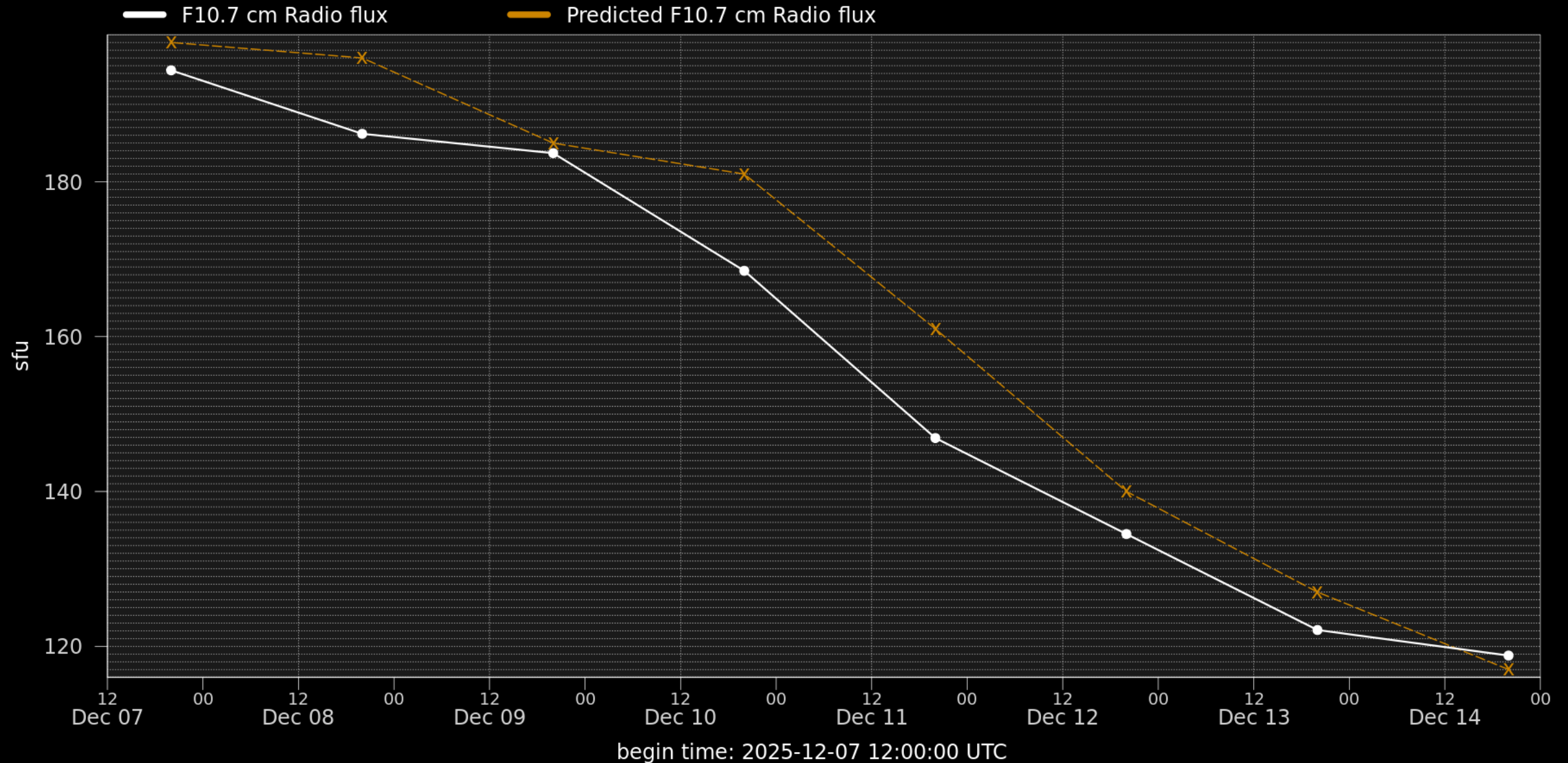
H-alpha 2025-12-08



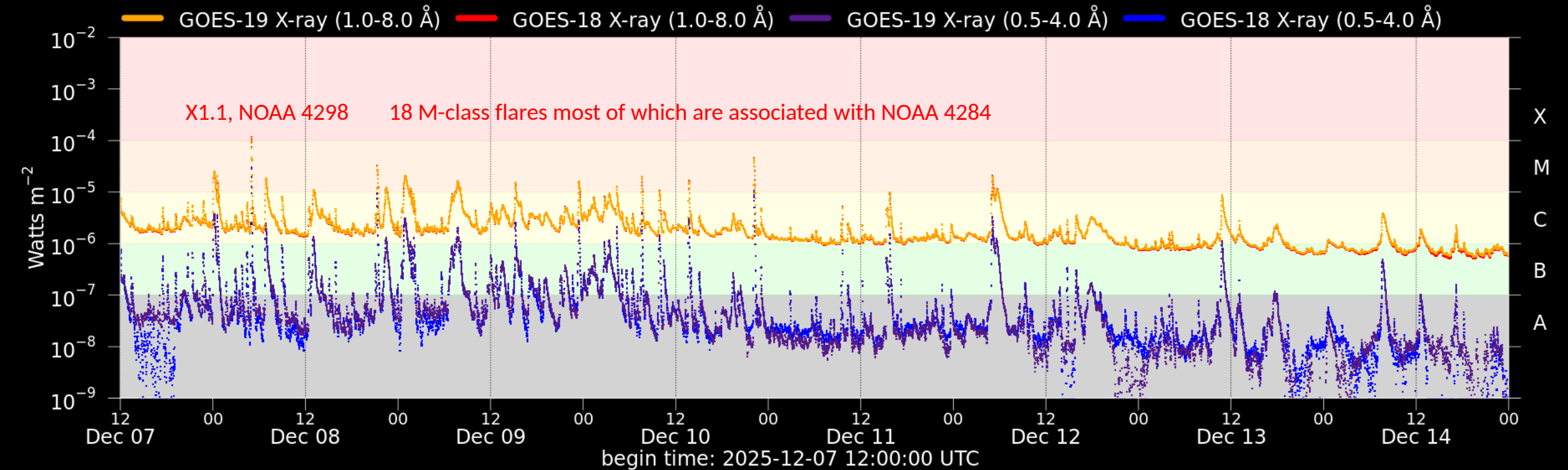
H-alpha 2025-12-14



Solar F10.7cm radio flux



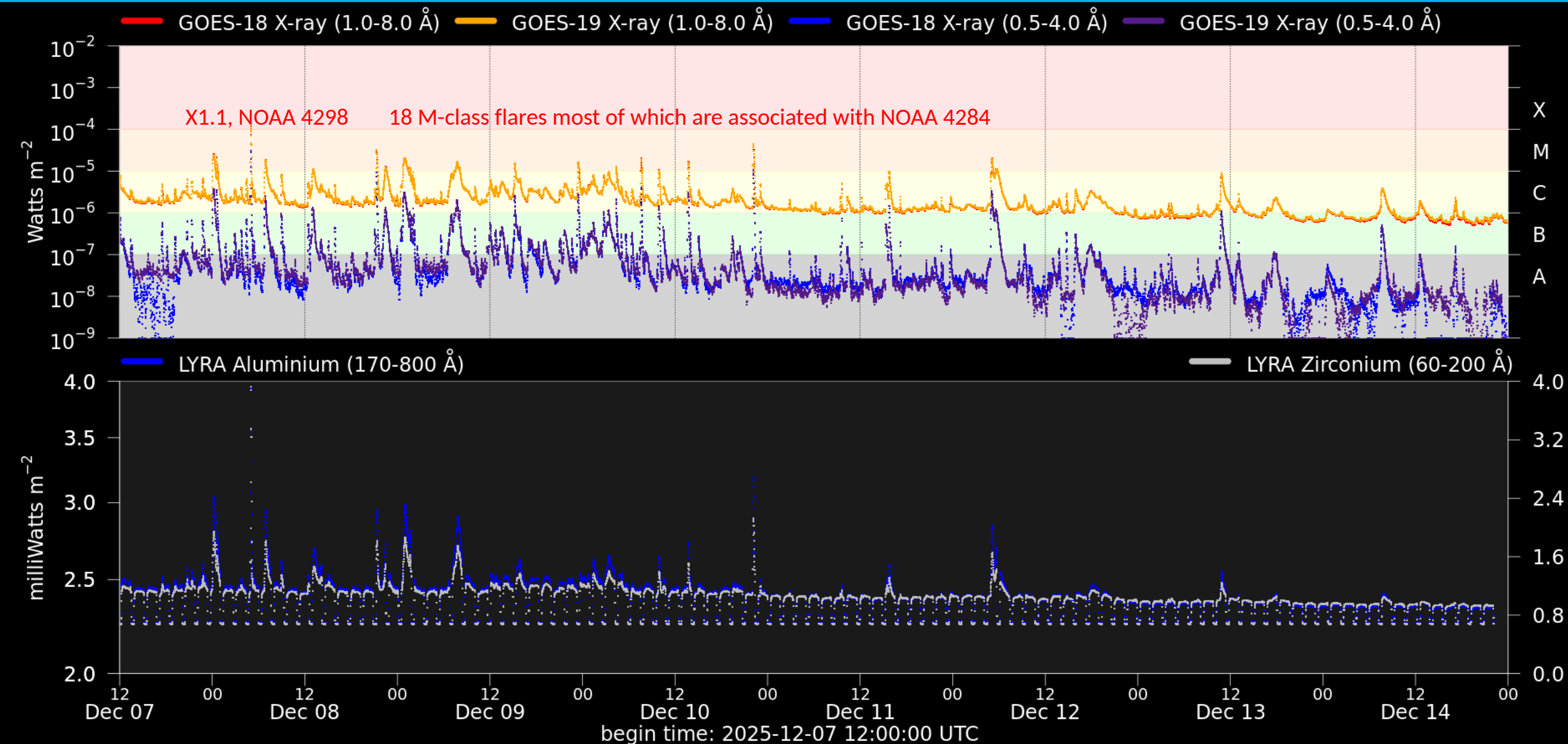
Flaring activity



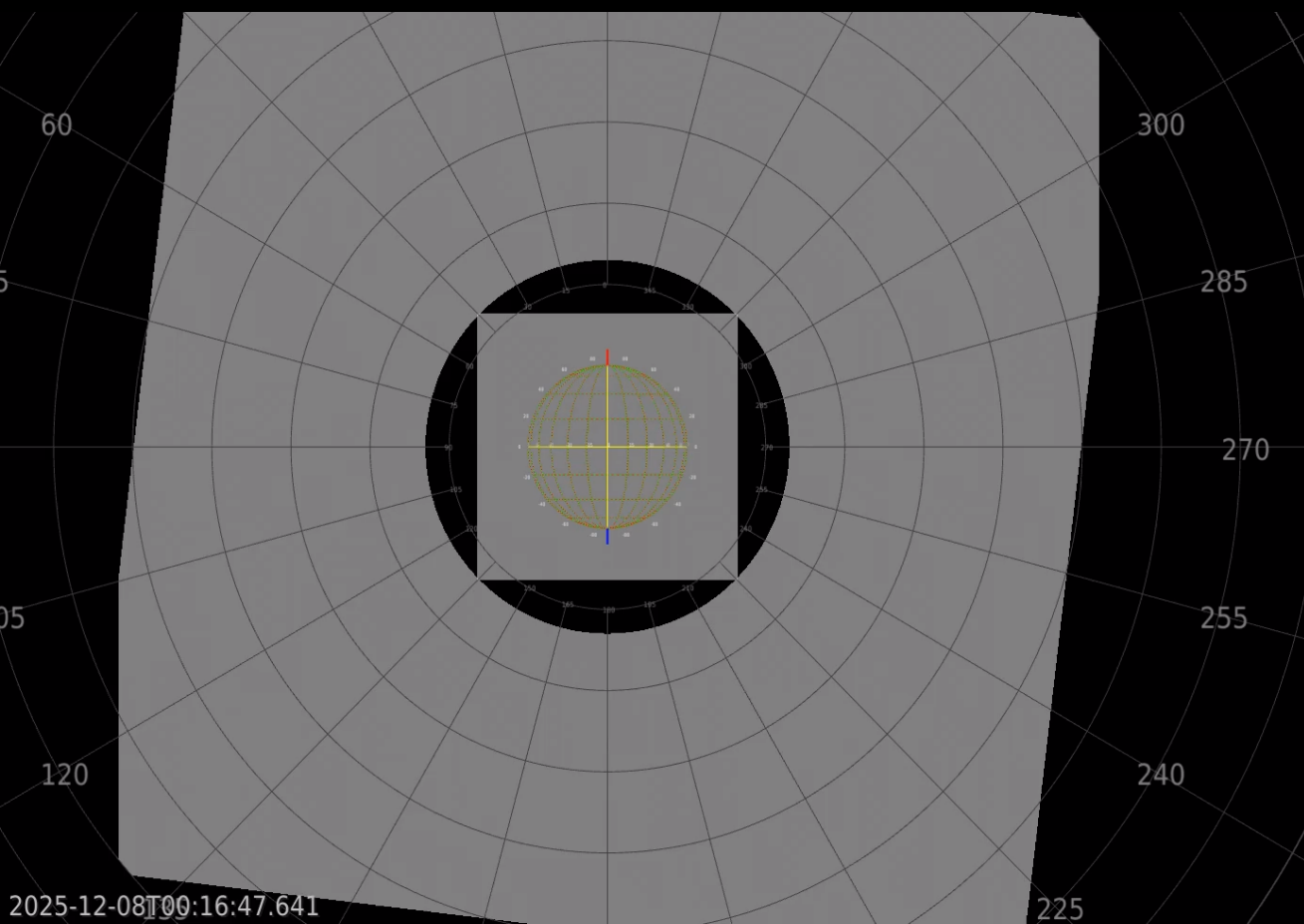
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-12-07	2025-12-08	2025-12-09	2025-12-10	2025-12-11	2025-12-12	2025-12-13	2025-12-14
Probability (%)	99 90 25	99 94 20	99 92 18	99 94 10	99 87 16	99 91 10	84 25 01	89 32 01
Observed (#)	13 03 01	06 06 00	11 05 00	09 02 00	05 02 00	07 00 00	02 00 00	04 00 00

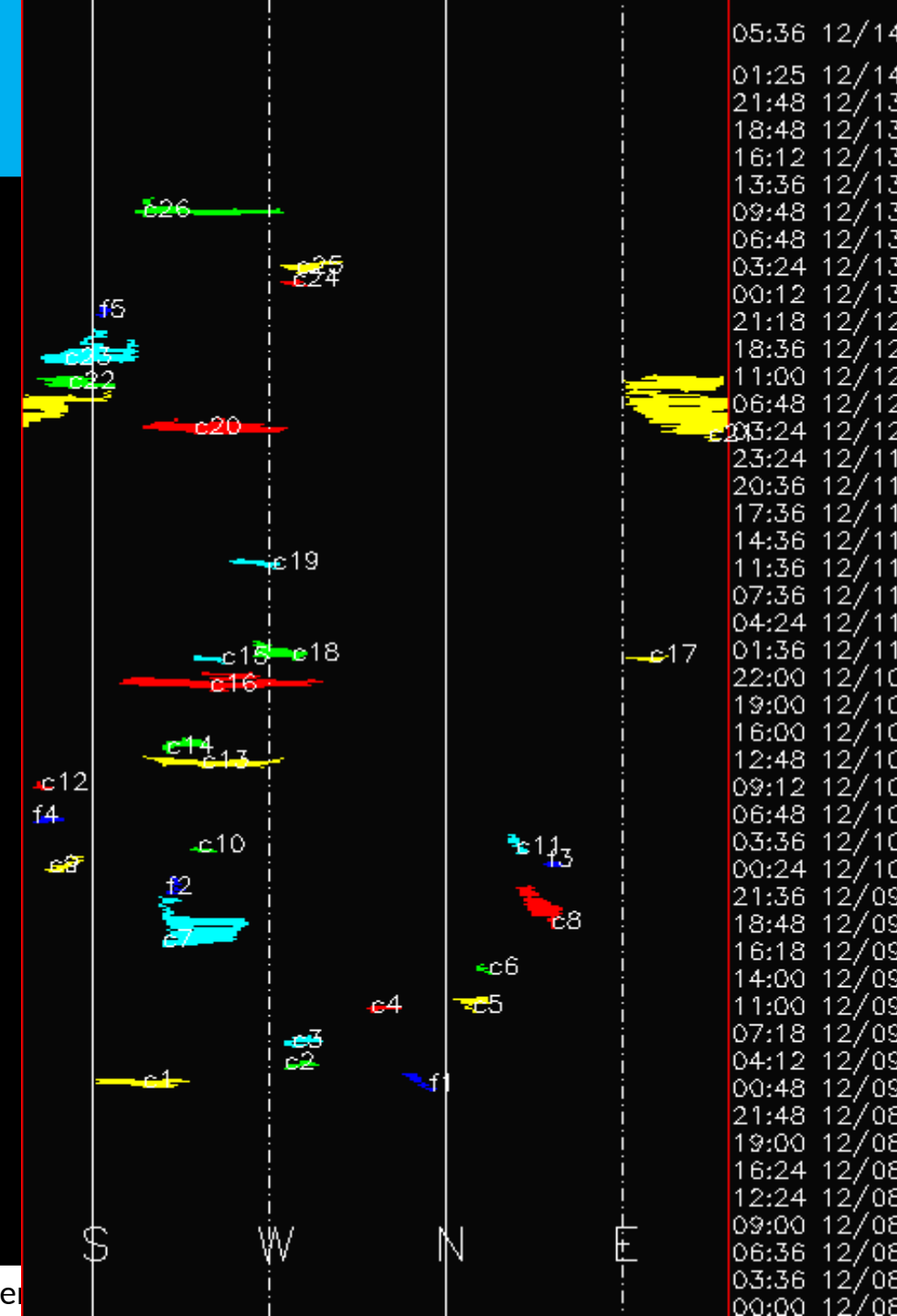
Solar X-Ray and UV flux



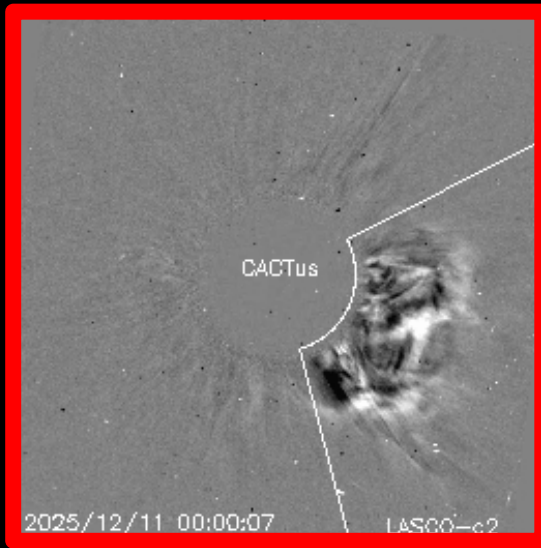
Coronal Mass Ejections



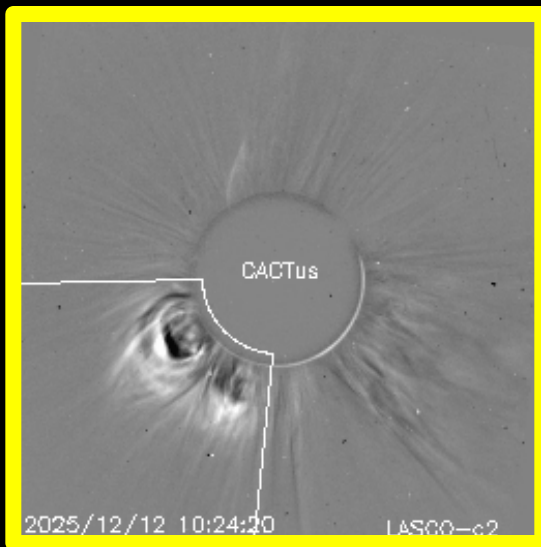
Dec 09:
Associated with
X1.1
flare,
lifting off
the west
limb. Not
expected
to arrive
at Earth.



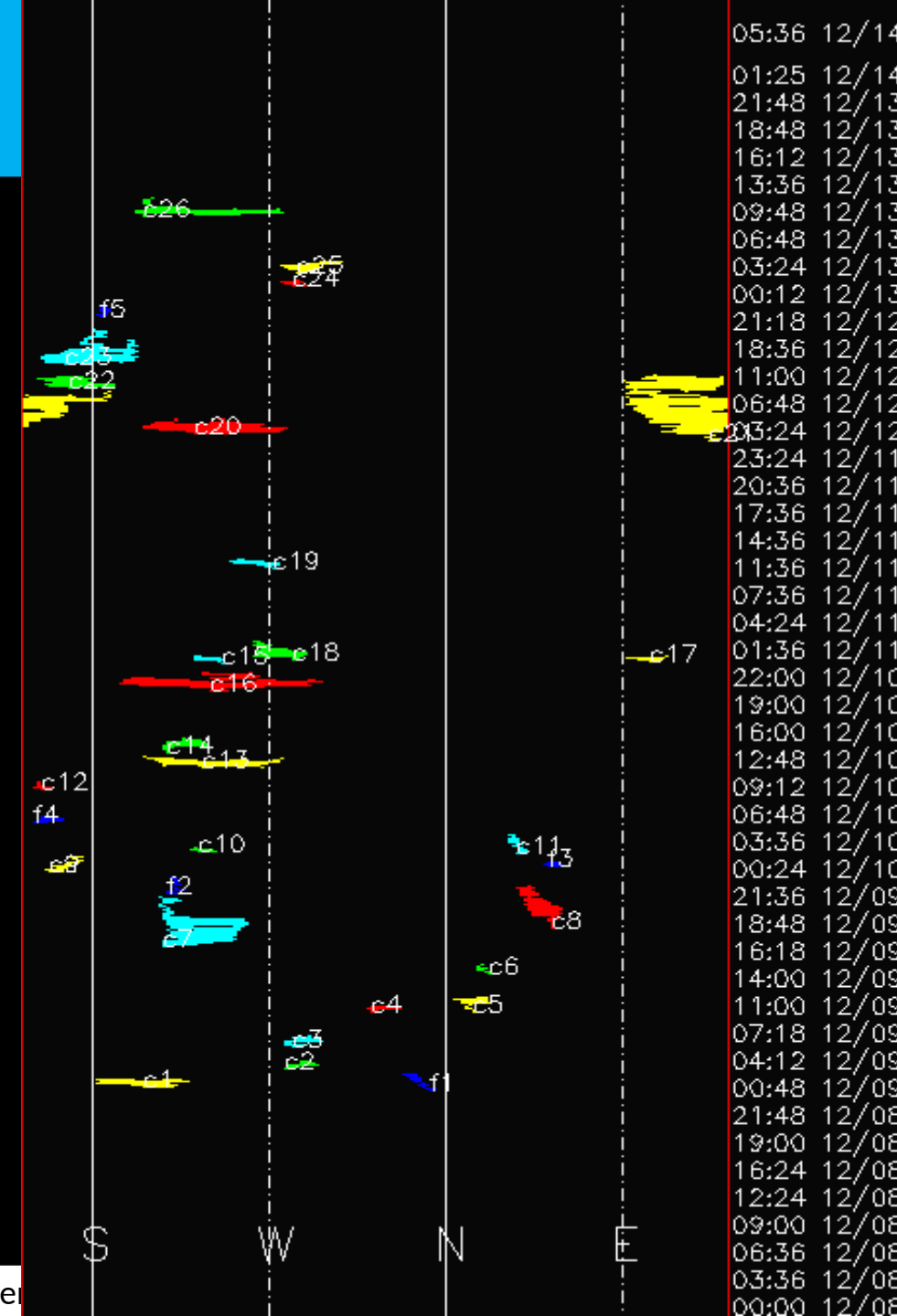
Coronal Mass Ejections



Dec 11:
Associated with M4.4 flare.
Not expected to arrive at
Earth.



Dec 12:
Associated with a prominence
eruption at the southeast
limb. Not expected to arrive
at Earth. Type IV Radio
Emission observed.



Solar Wind and

Geomagnetic Activity



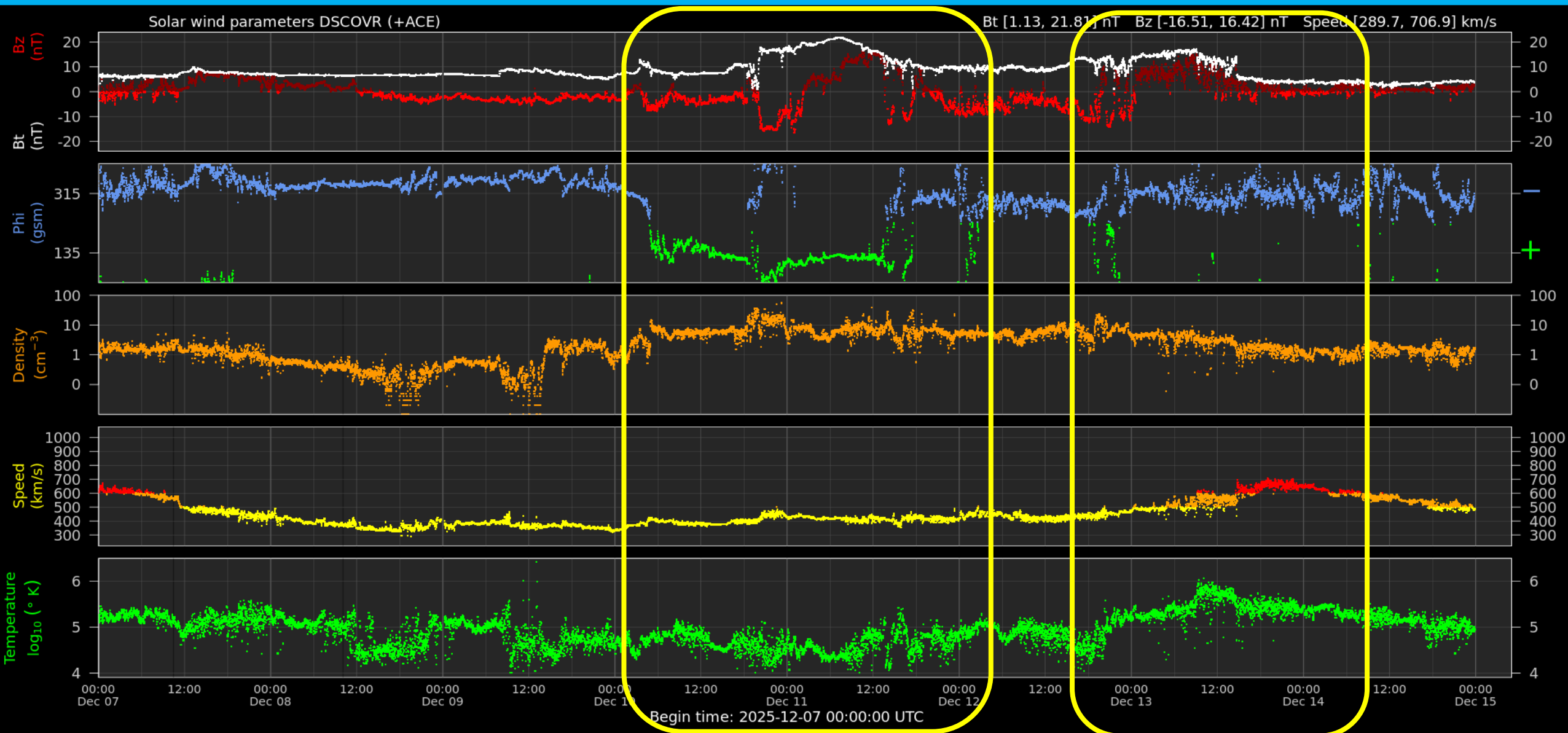
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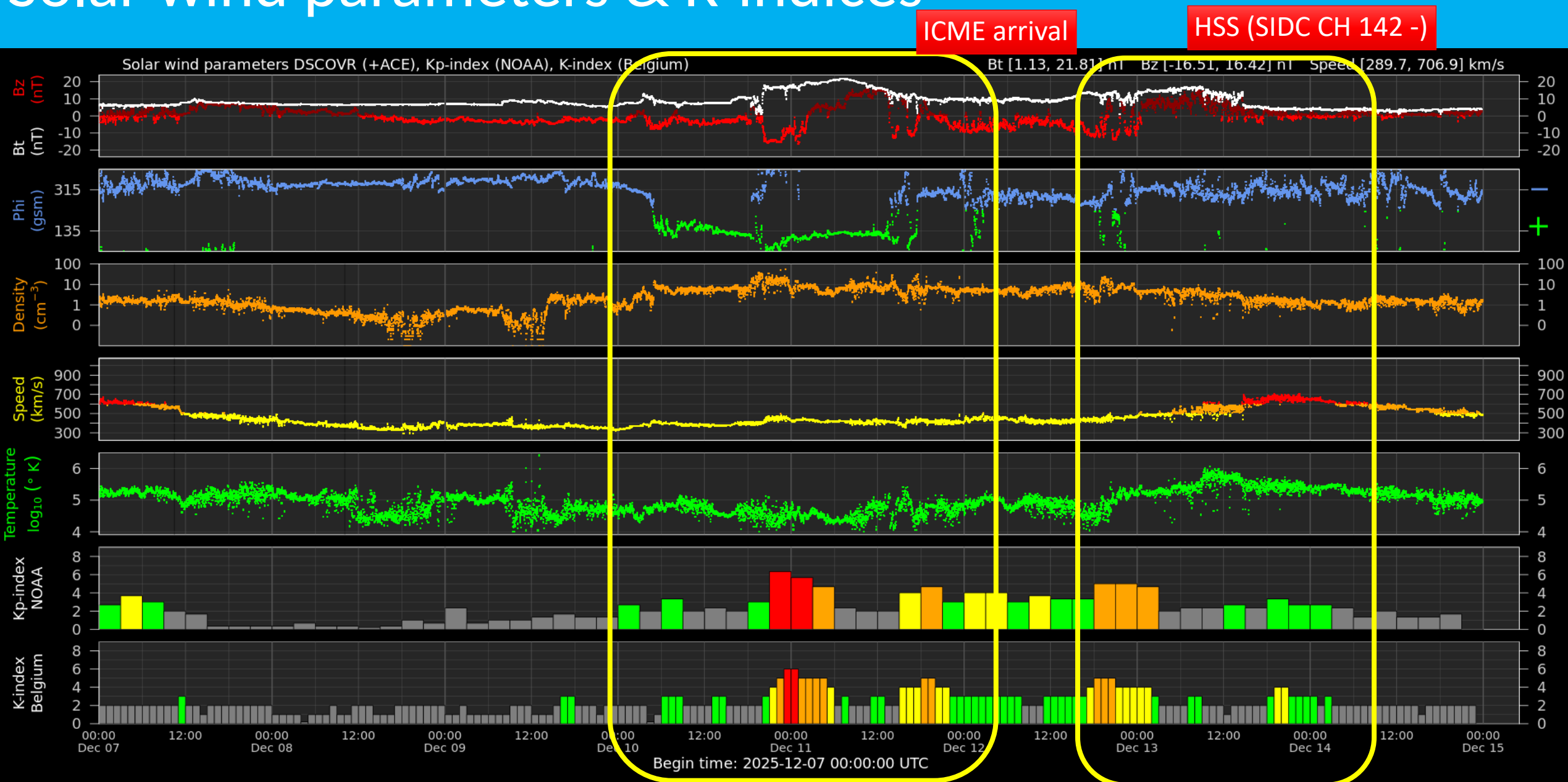
Solar wind parameters

ICME arrival

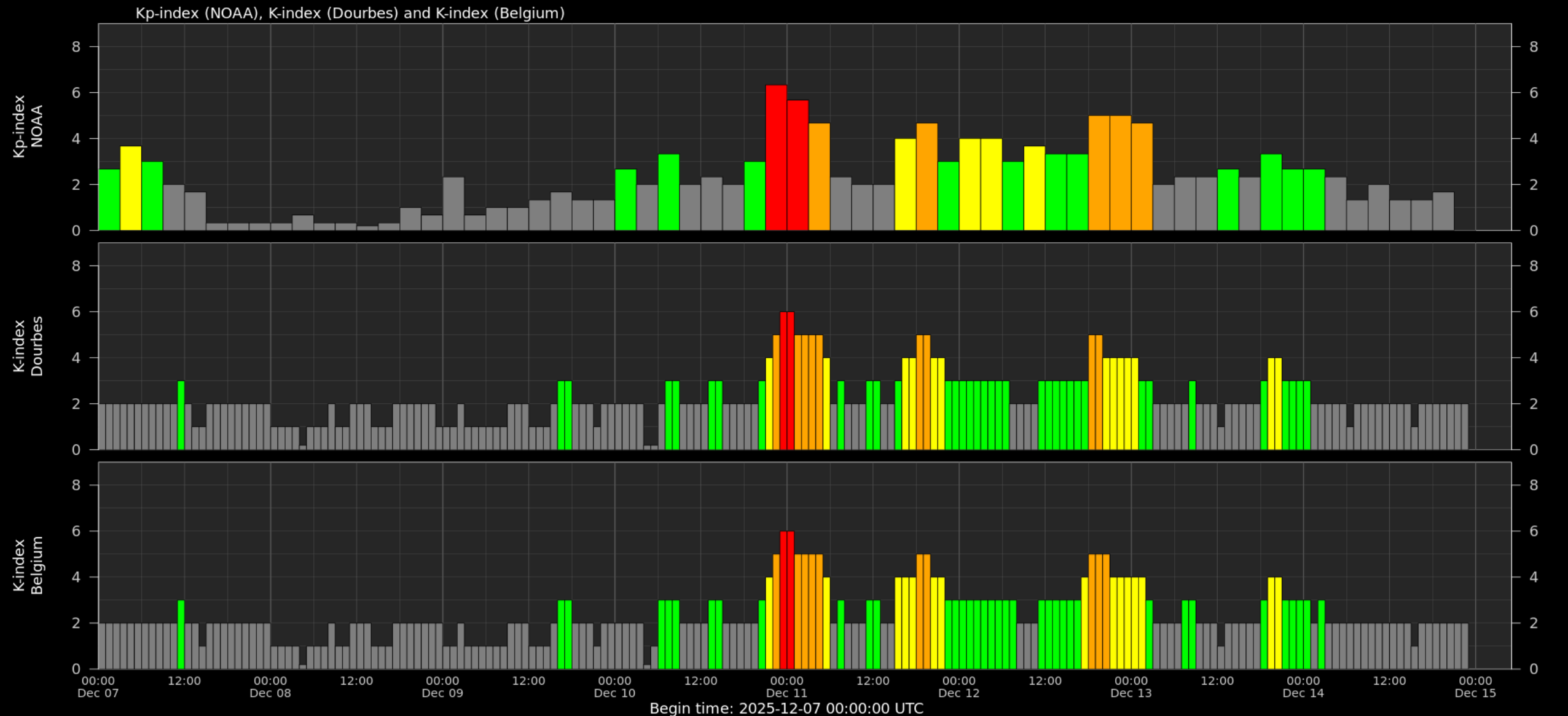
HSS (SIDC CH 142 -)



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



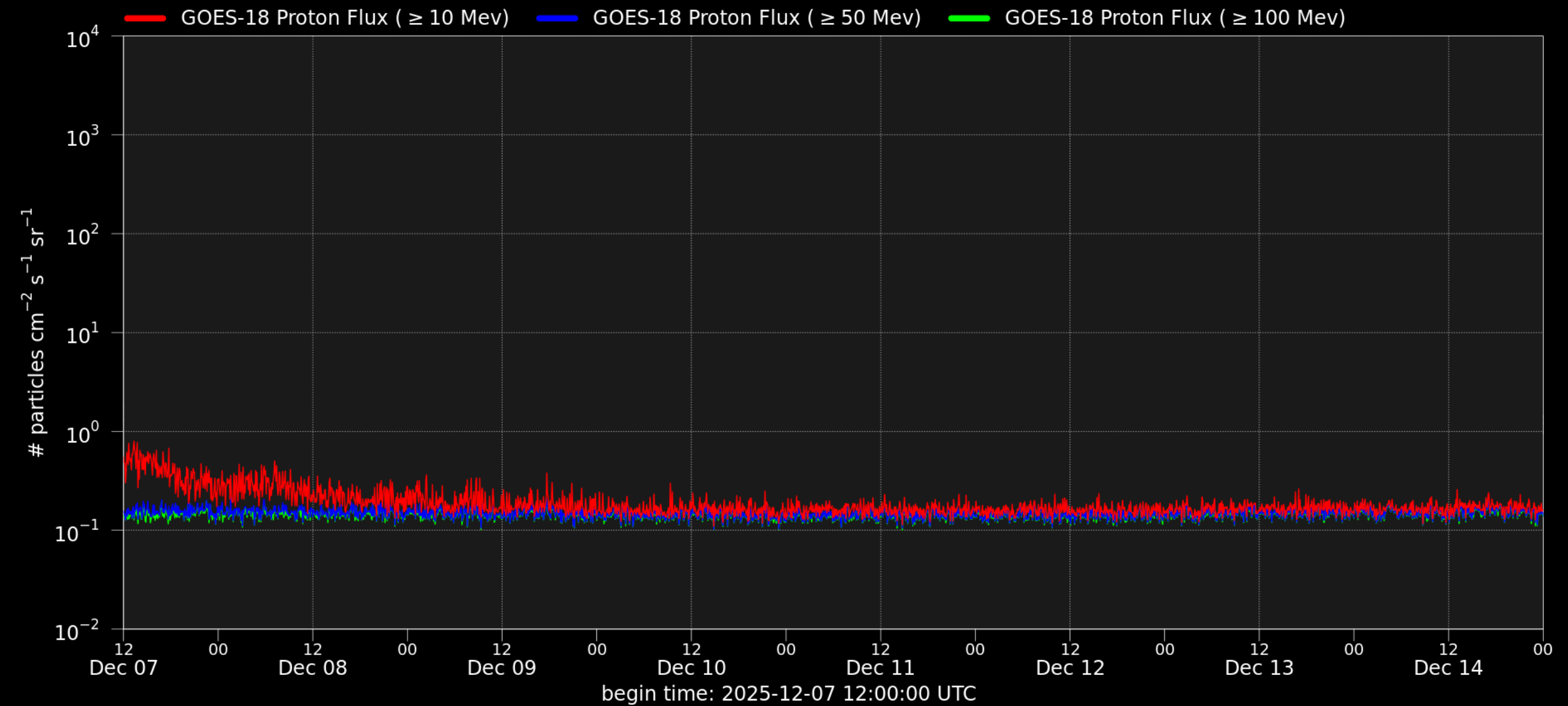
Energetic Particles



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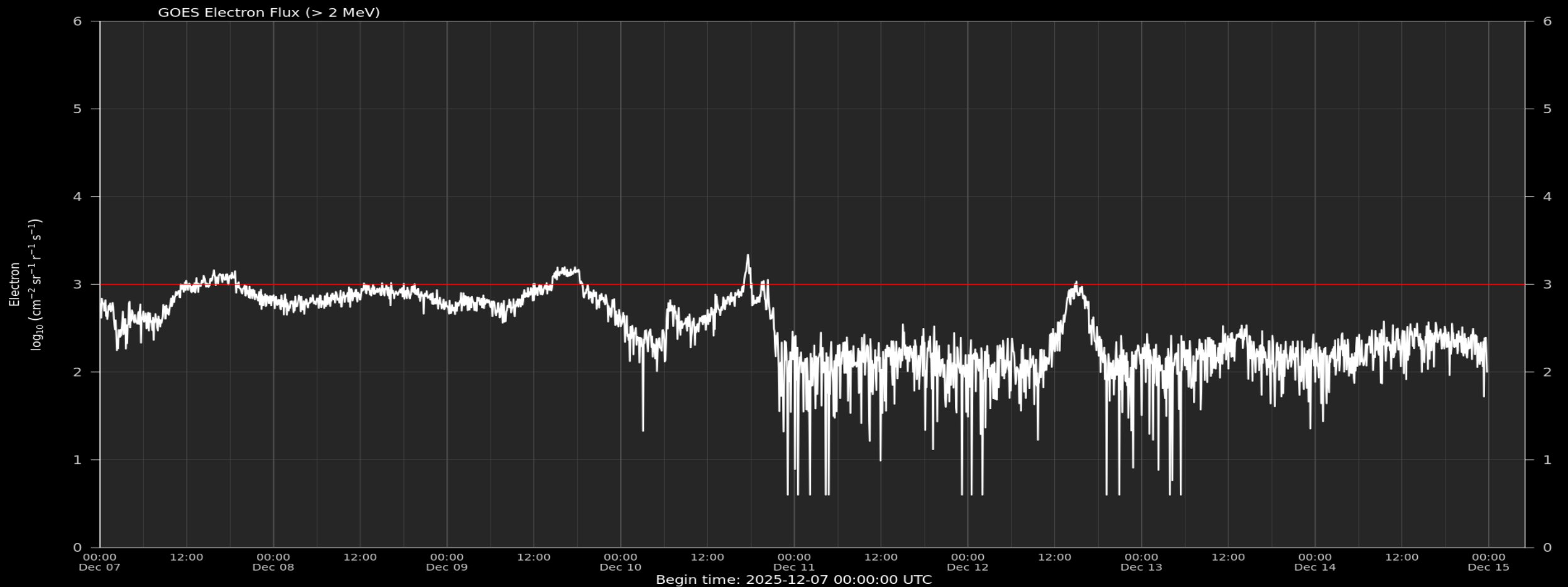
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



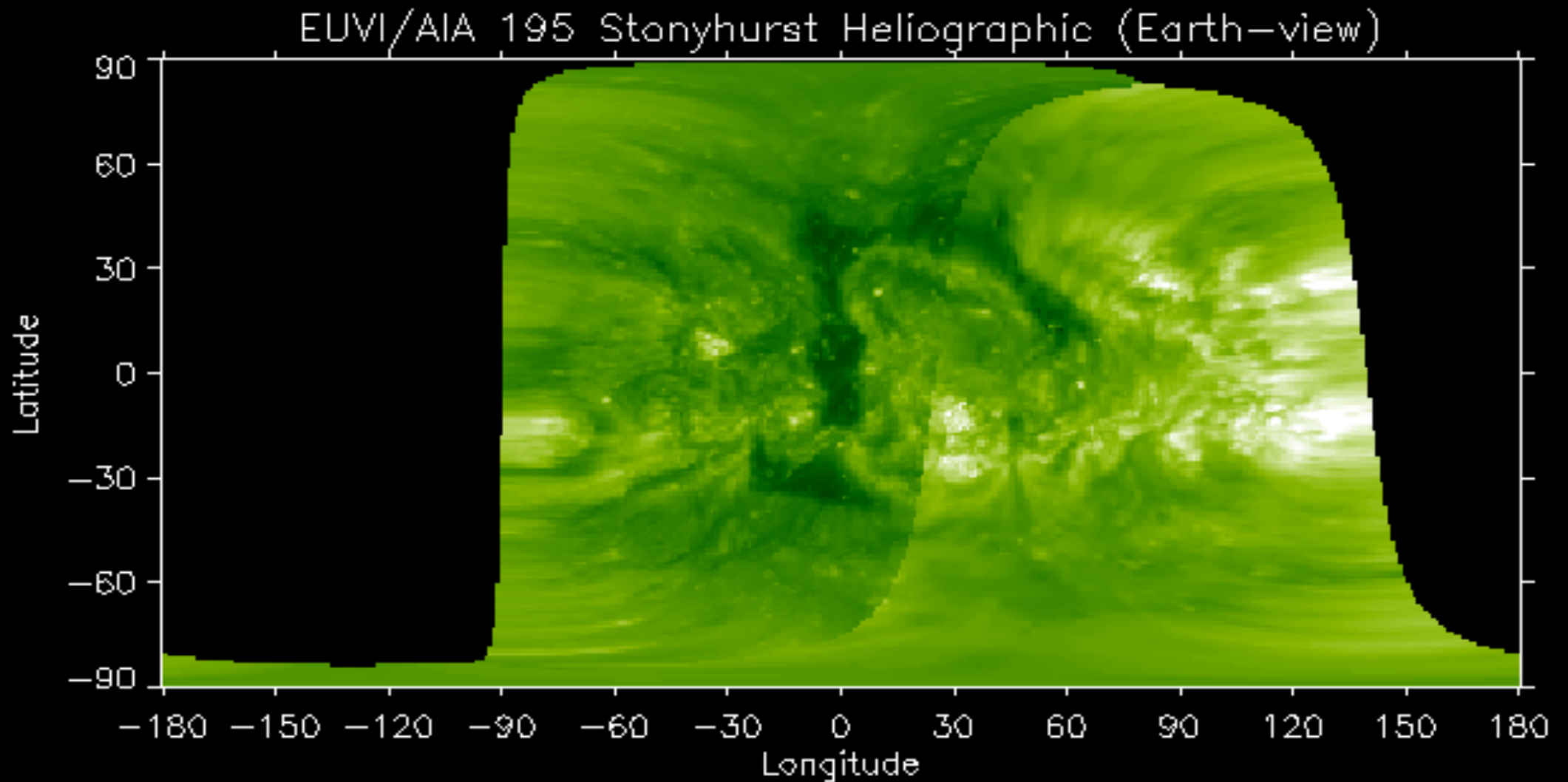
Outlook



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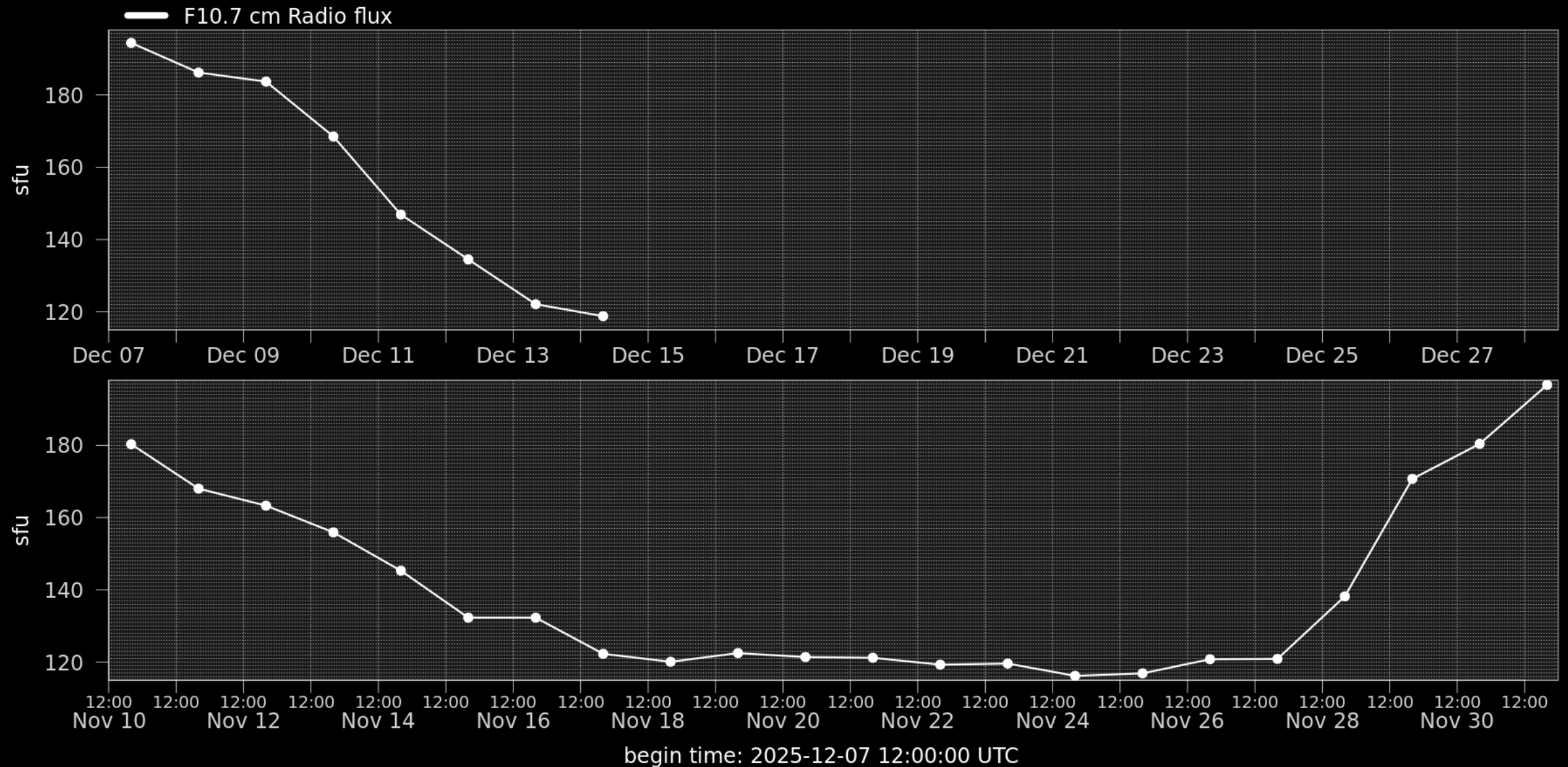
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Outlook: Solar activity

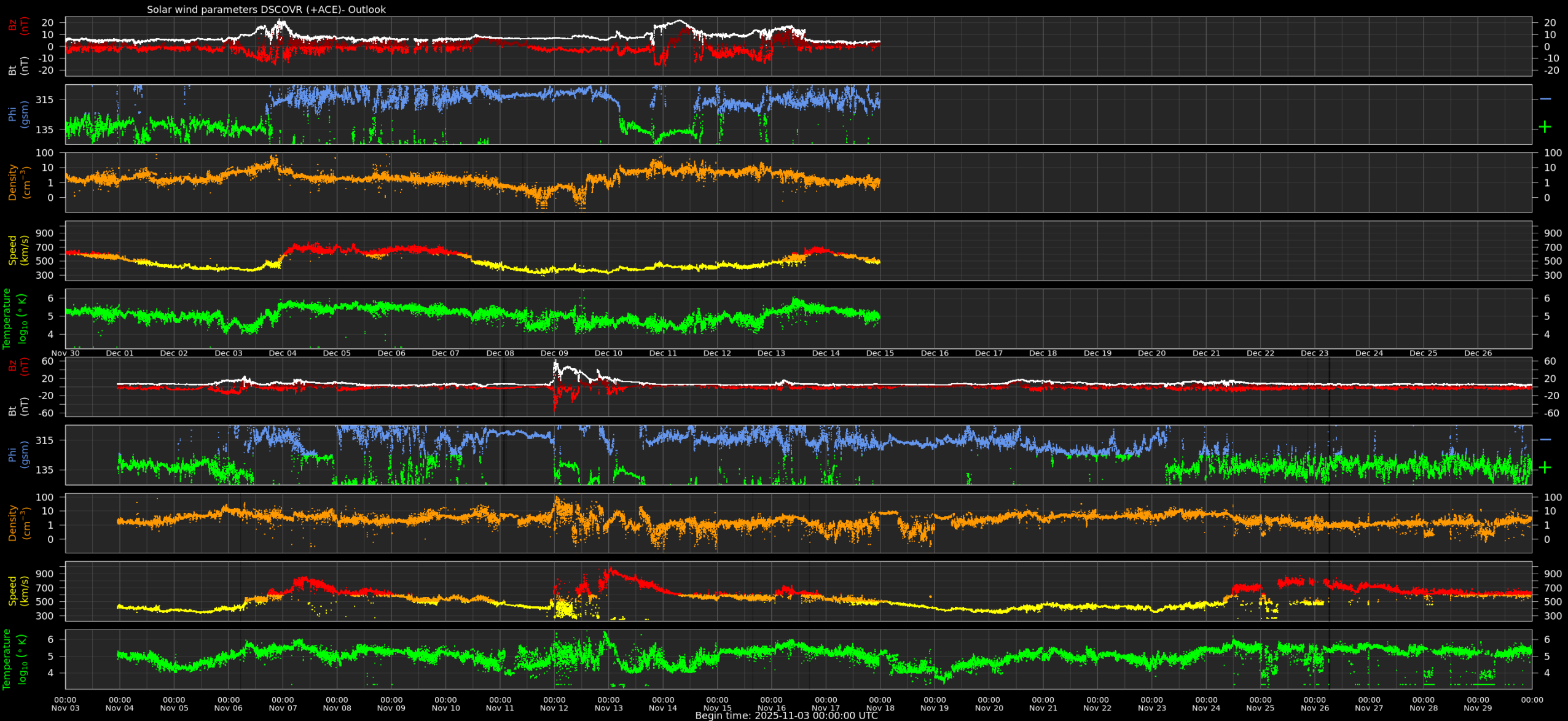


Observation date: 2025/12/14 20:55:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecarus related events

GNSS Scintillation Advisories

HF PSD Advisories

HF SWF Advisory

SIDC Space Weather Briefing

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