

SIDC Space Weather Briefing

24 November 2024-01 December 2024

Katsiyannis Thanassis

& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2024-11-24 12:00 to 2024-12-01 23:59

Active regions	SIDC sunspot groups 298 (NOAA AR 3901), 302 (3910), 322 (3905), 323 (3906)
Flares	# C-class flare: 32 # M-class flare: 7 # X-class flare: 0
Coronal Holes	Very small CH with positive polarity crossed on 28 Nov
CMEs	Partial halo CMEs on 25 & 27 Nov

Proton flux	Very low levels
Electron flux	Very low levels

Solar wind and geomagnetic conditions

ICMEs	ICME arrival on 29 Nov
Solar wind conditions	B : 0.19 - 16.9 nT //Bz: -9.76 nT to 14.23 nT //Speed: 260 – 470 km/s
Geomagnetic conditions	max K _{Be} : 4, max K _p (NOAA): 5-, Minor Storm conditions

All Quiet Alert: Not Quiet

Solar Activity

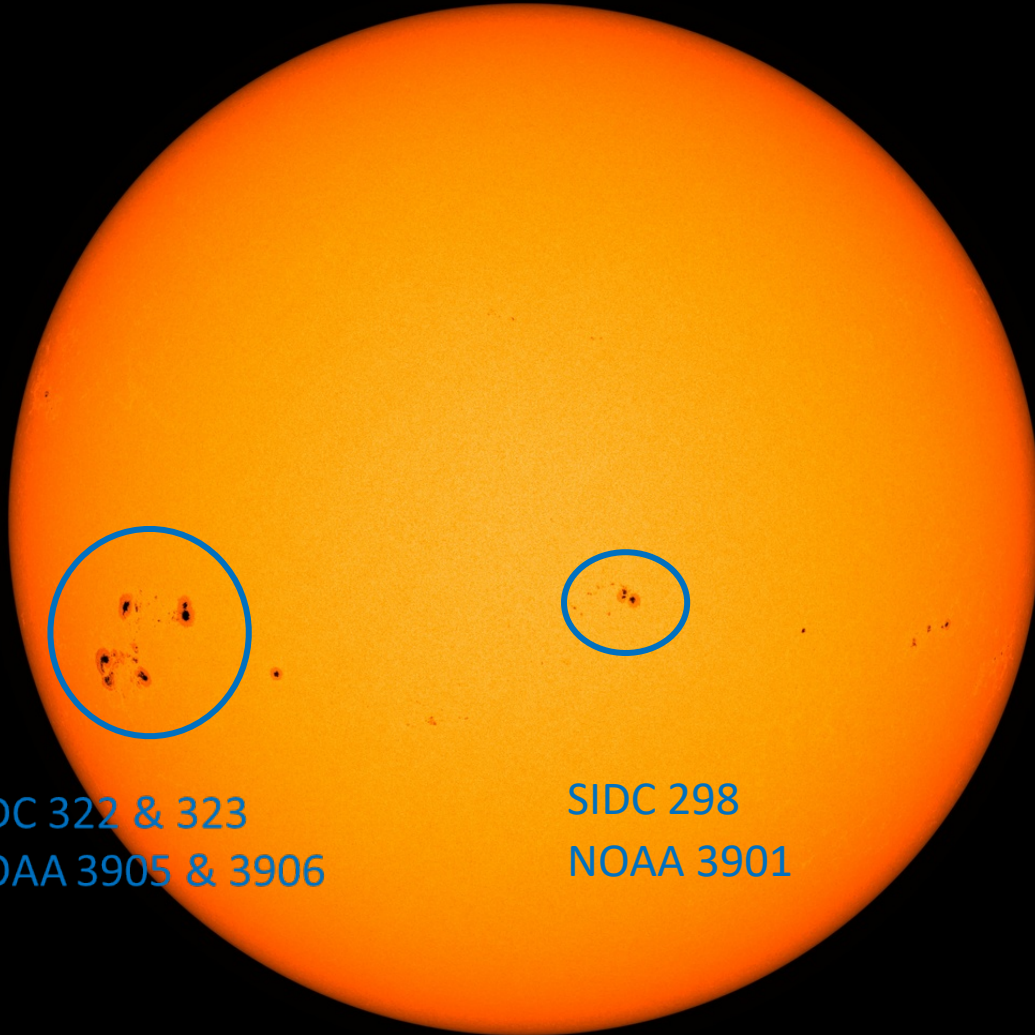


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Solar active regions

SDO/HMI White Light 2024-11-24

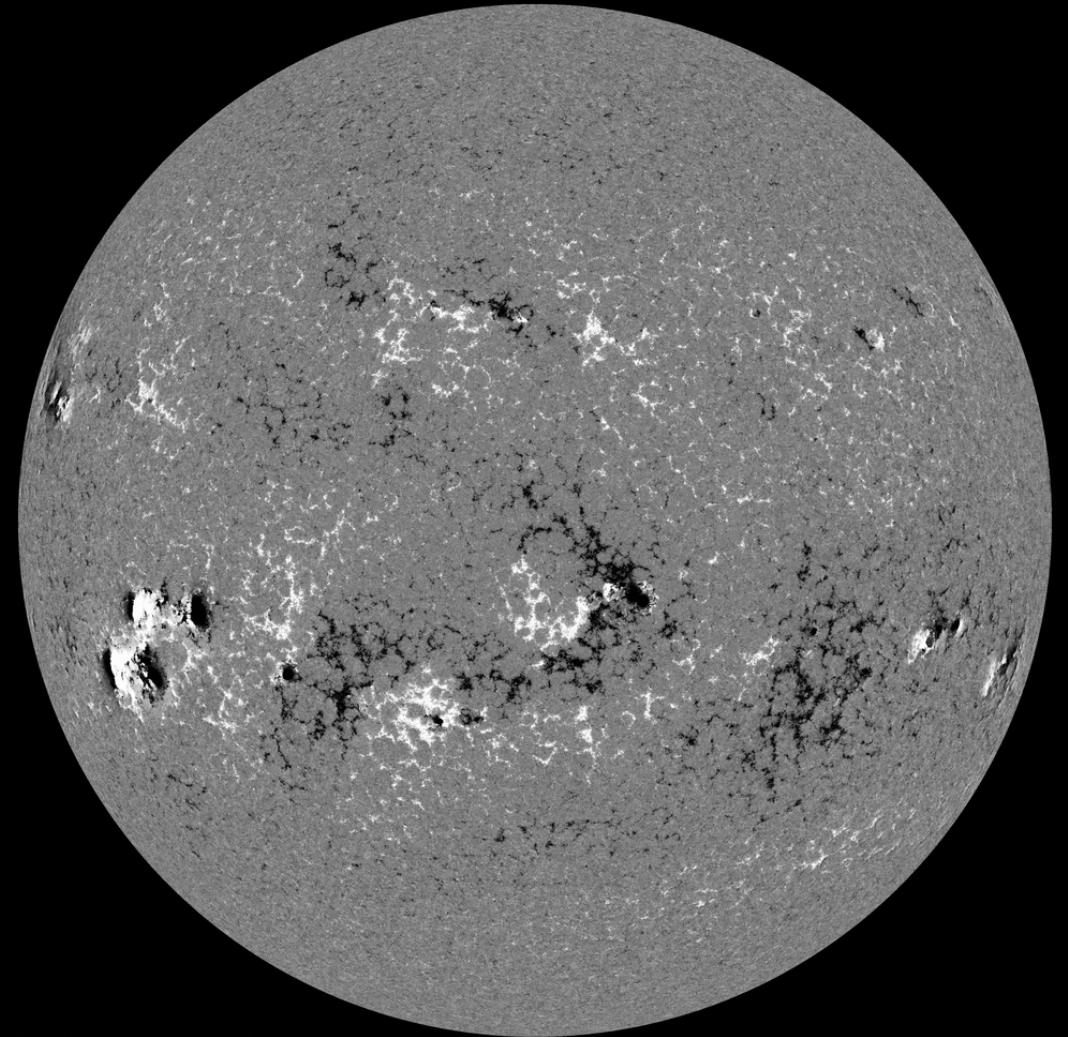


SIDC 322 & 323
NOAA 3905 & 3906

SIDC 298
NOAA 3901

SDO/HMI Quick-Look Continuum: 20241124_114500

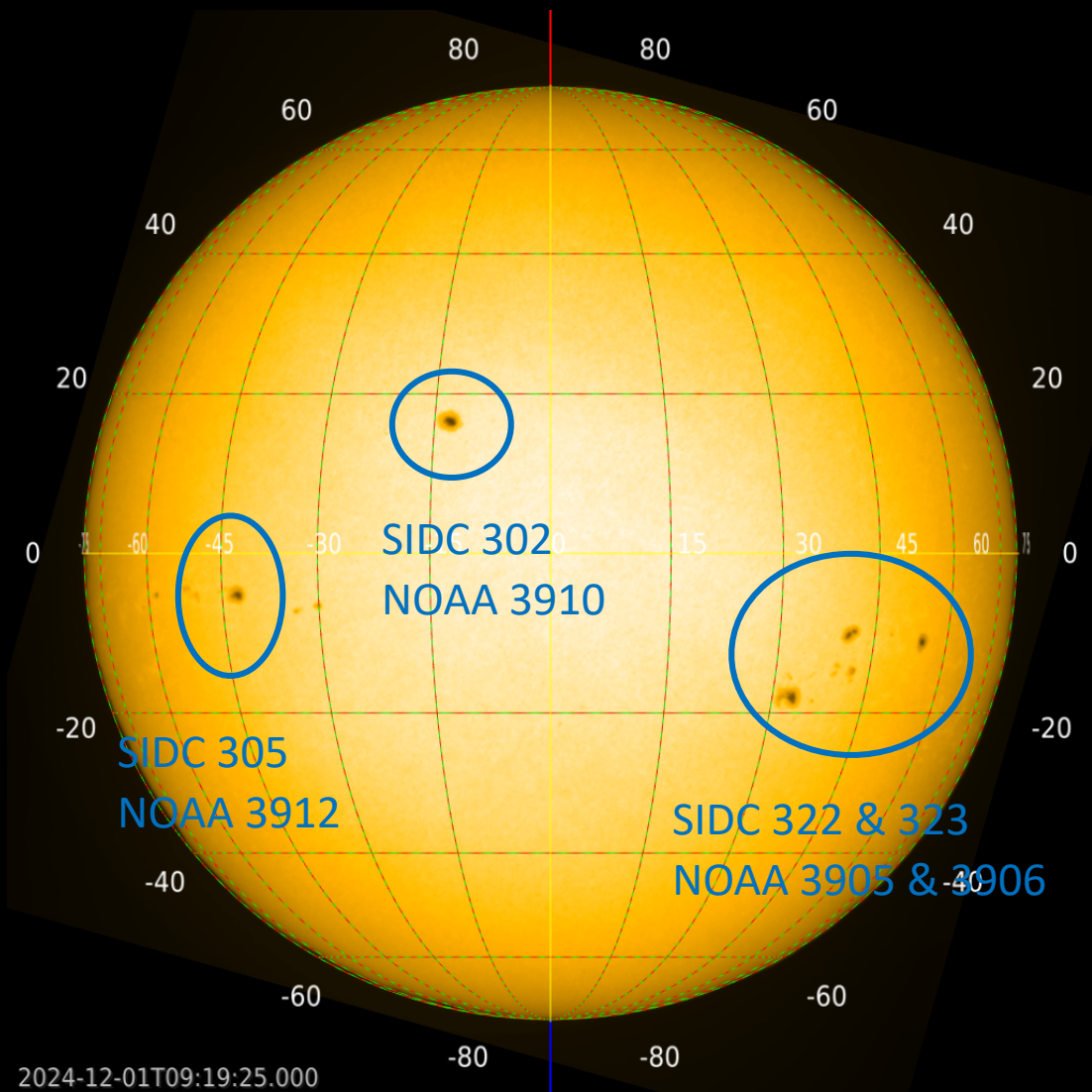
SDO/HMI Magnetogram 2024-11-24



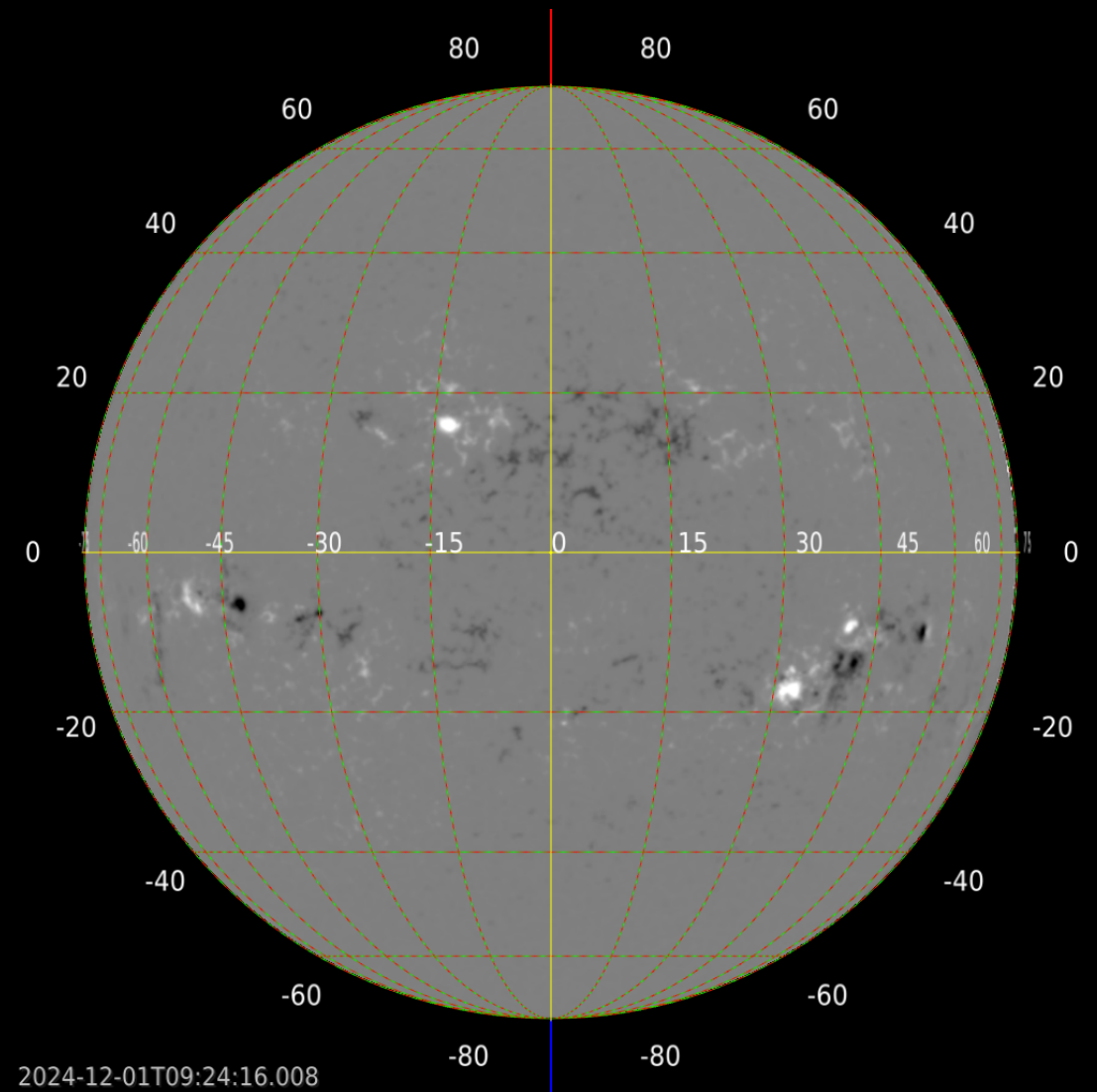
SDO/HMI Quick-Look Magnetogram: 20241124_114500

Solar active regions

USET White Light 2024-12-01



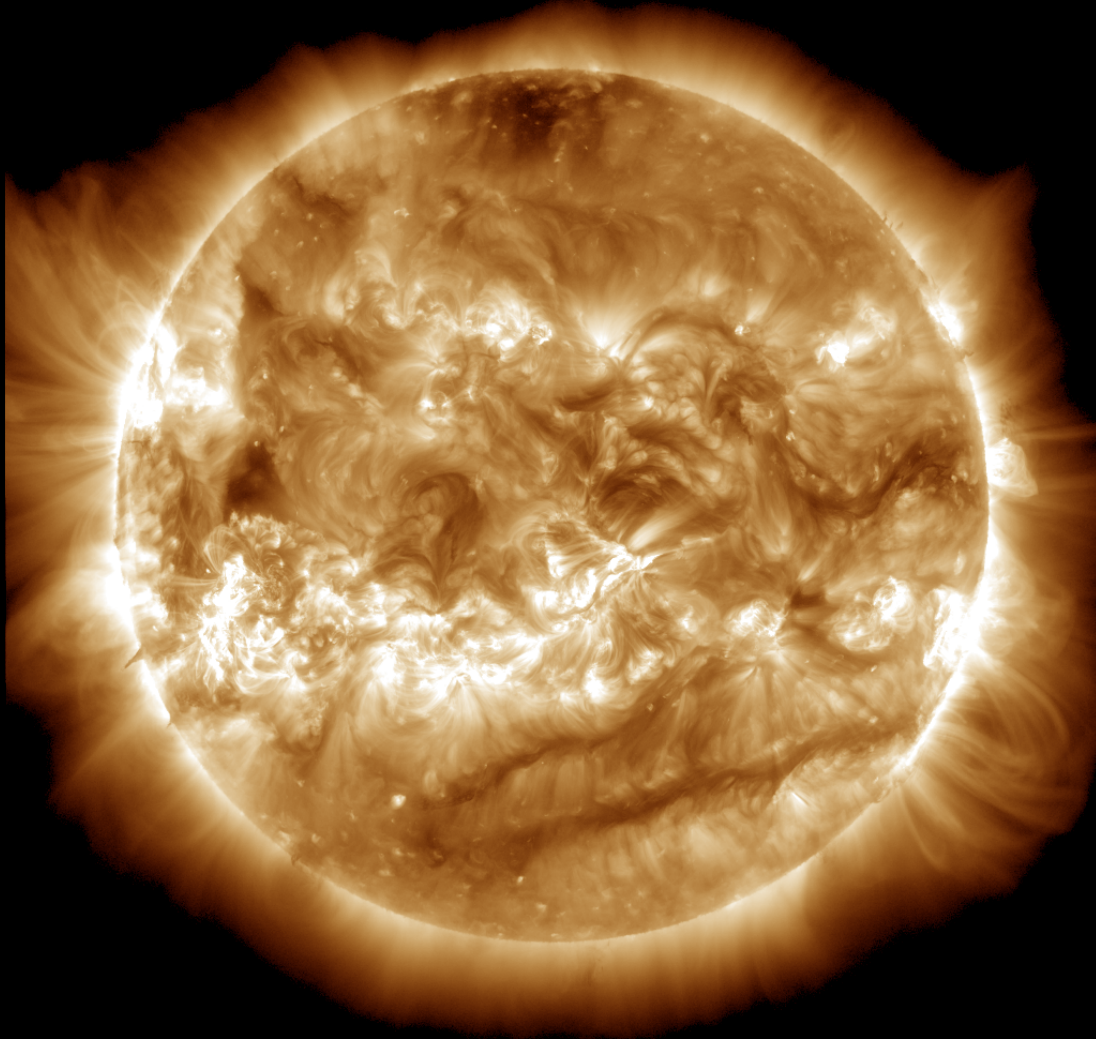
GONG Magnetogram 2024-12-01



Coronal holes

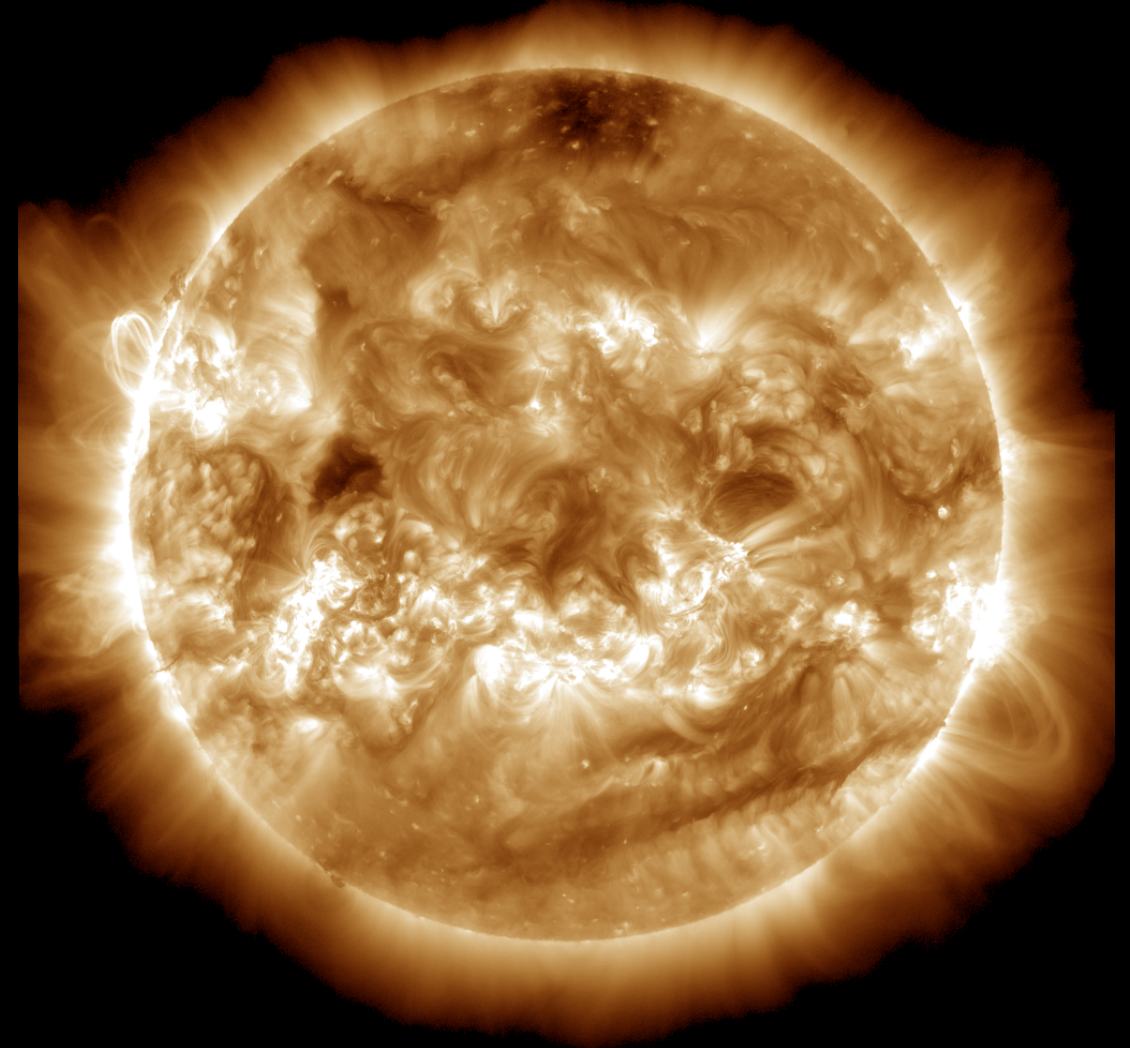
SDO/AIA 19.3 nm 2024-11-24

SDO/AIA AIA 193Å 2024-11-24T12:00:05.843



SDO/AIA 19.3 nm 2024-11-25

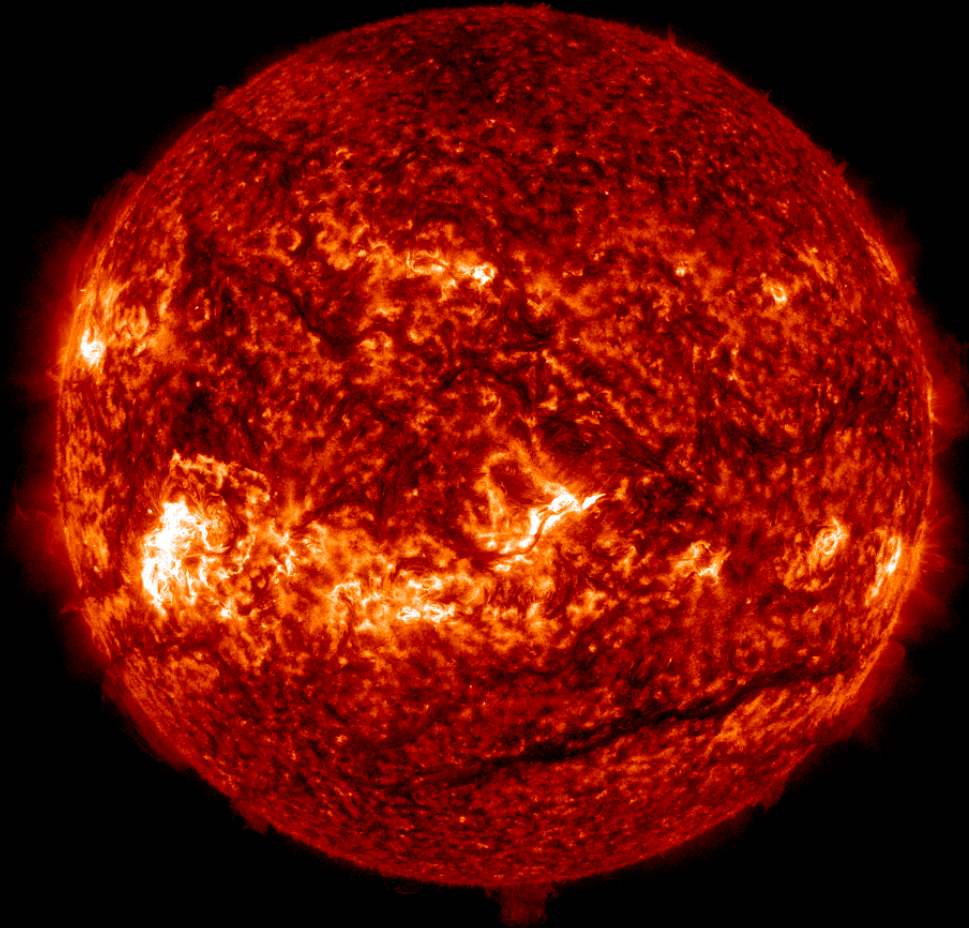
SDO/AIA AIA 193Å 2024-11-25T12:00:05.843



Filaments

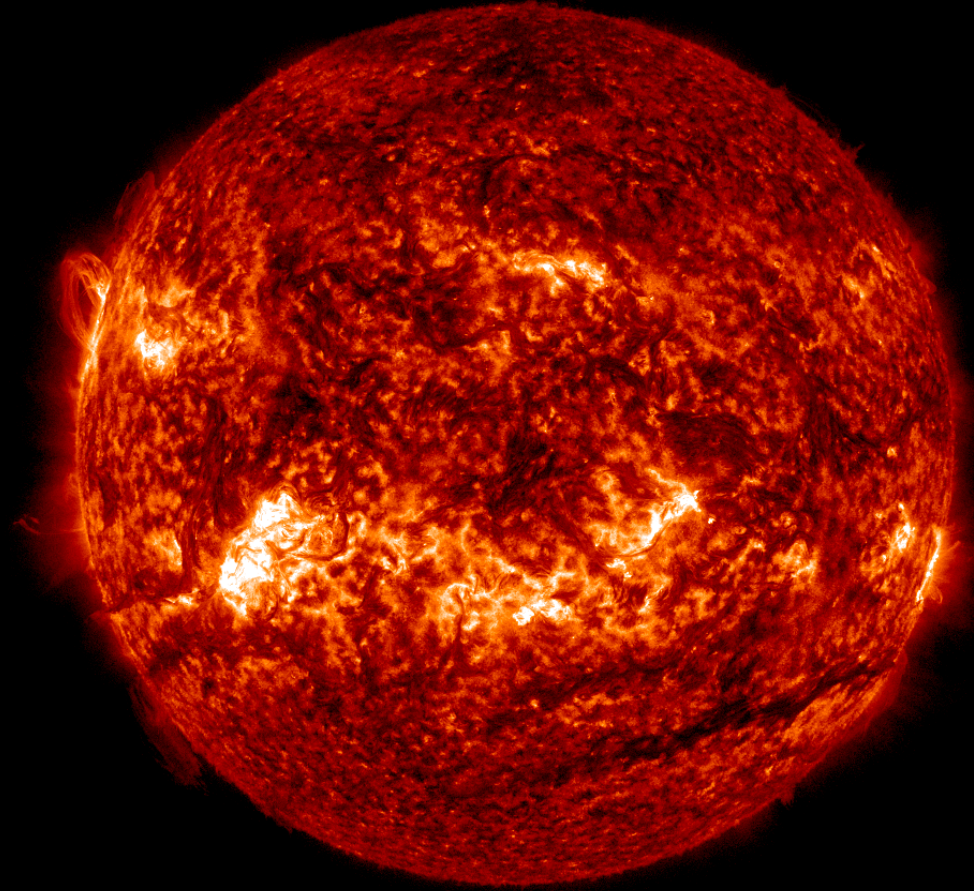
SDO/AIA 30.4 nm 2024-11-24

SDO/AIA AIA 304Å 2024-11-24T12:00:06.580



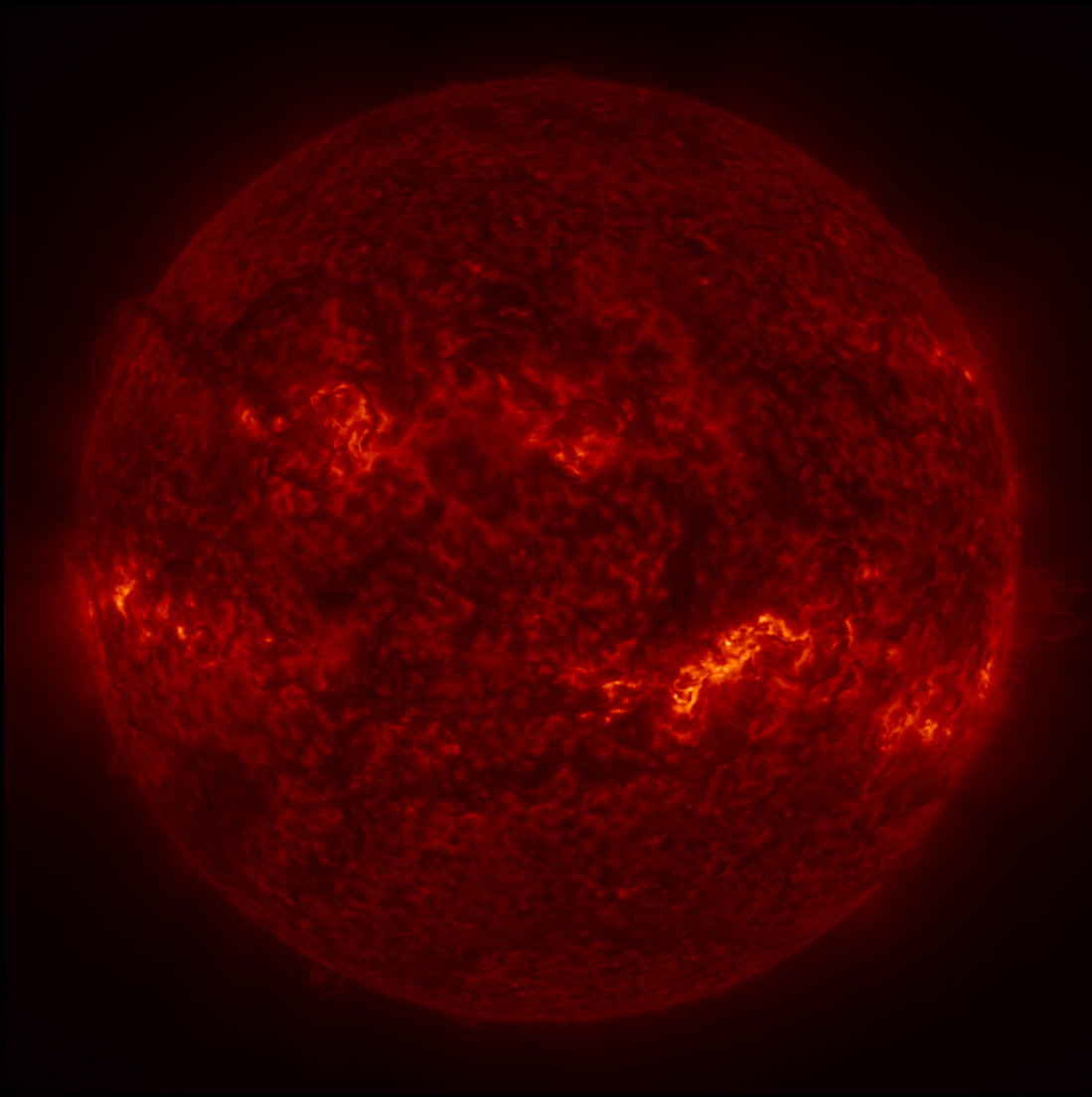
SDO/AIA 30.4 nm 2024-11-25

SDO/AIA AIA 304Å 2024-11-25T12:00:06.580

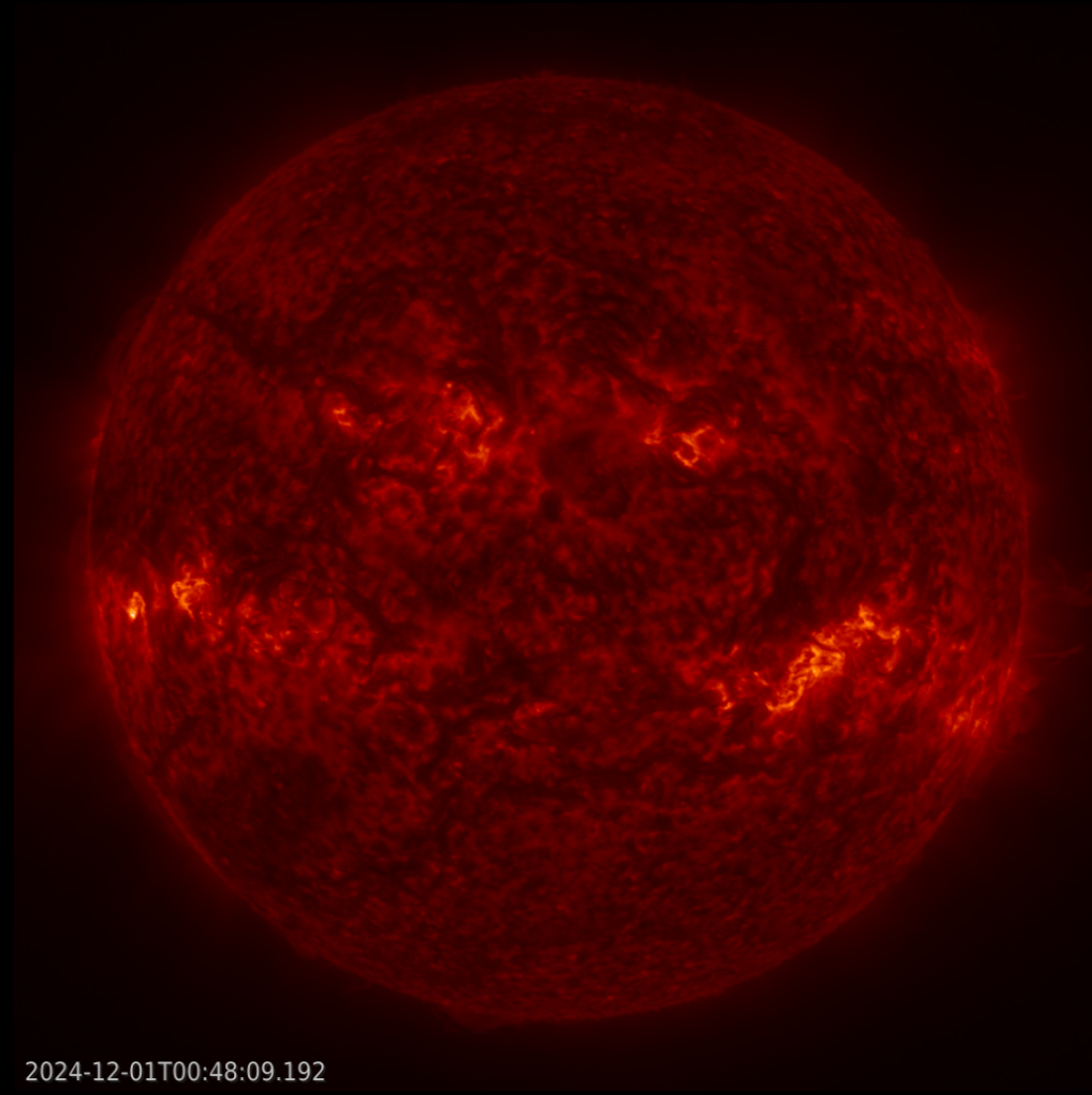


Filaments

SUVI 30.4 nm 2024-11-30



SUVI 30.4 nm 2024-12-01



2024-12-01T00:48:09.192

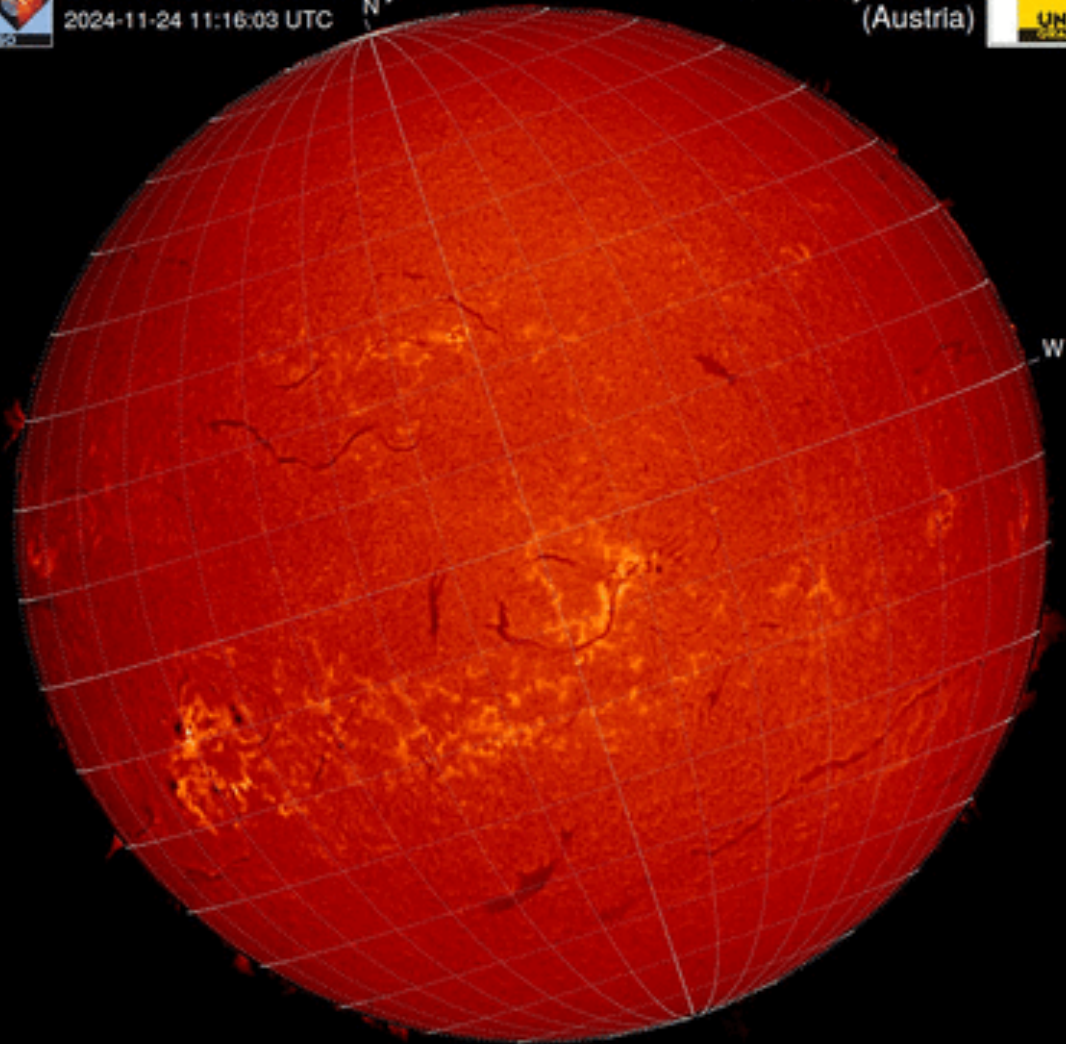
Filaments & Filament eruptions

H-alpha 2024-11-24



Kanzelhöhe Observatory
2024-11-24 11:16:03 UTC

University of Graz
(Austria)

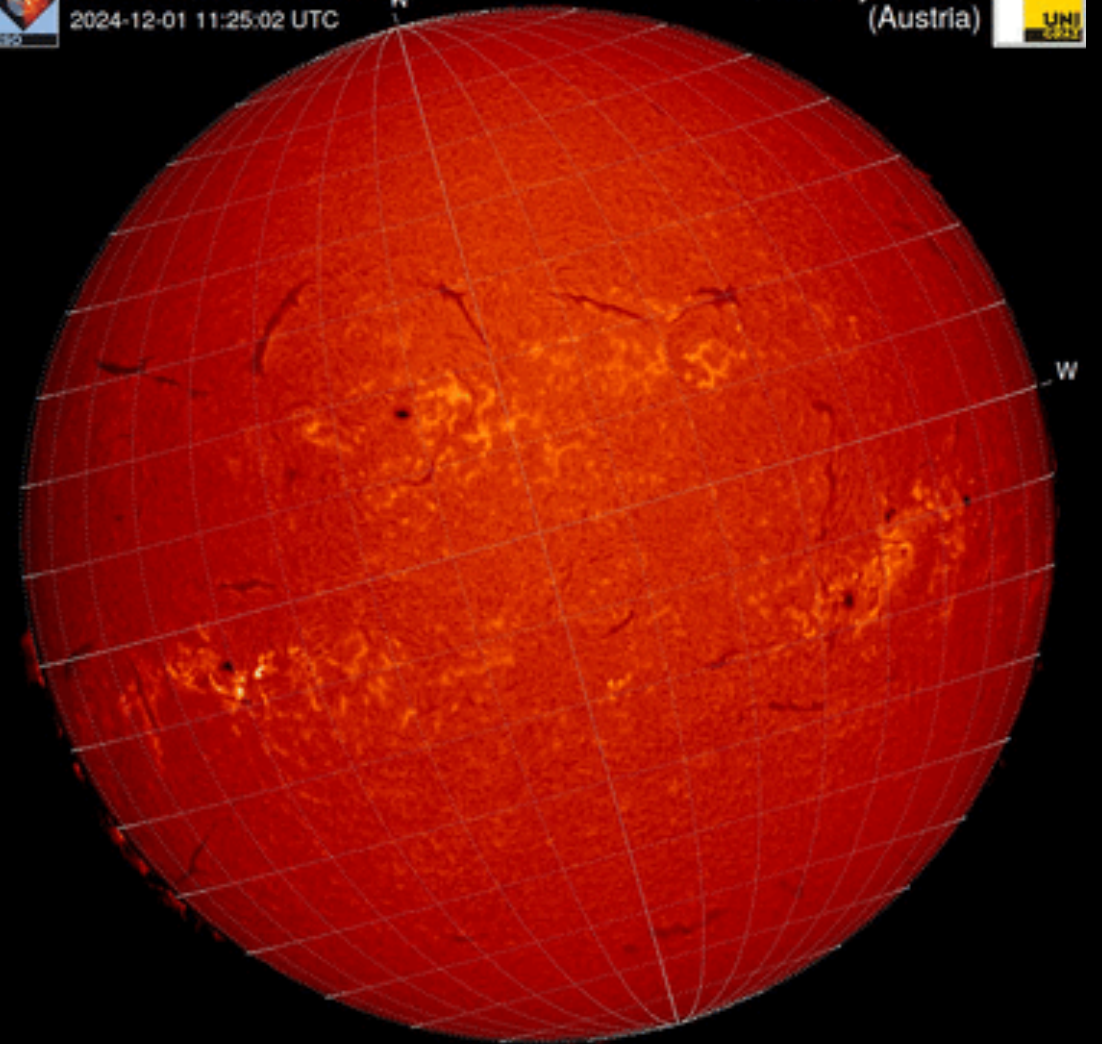


H-alpha 2024-12-01

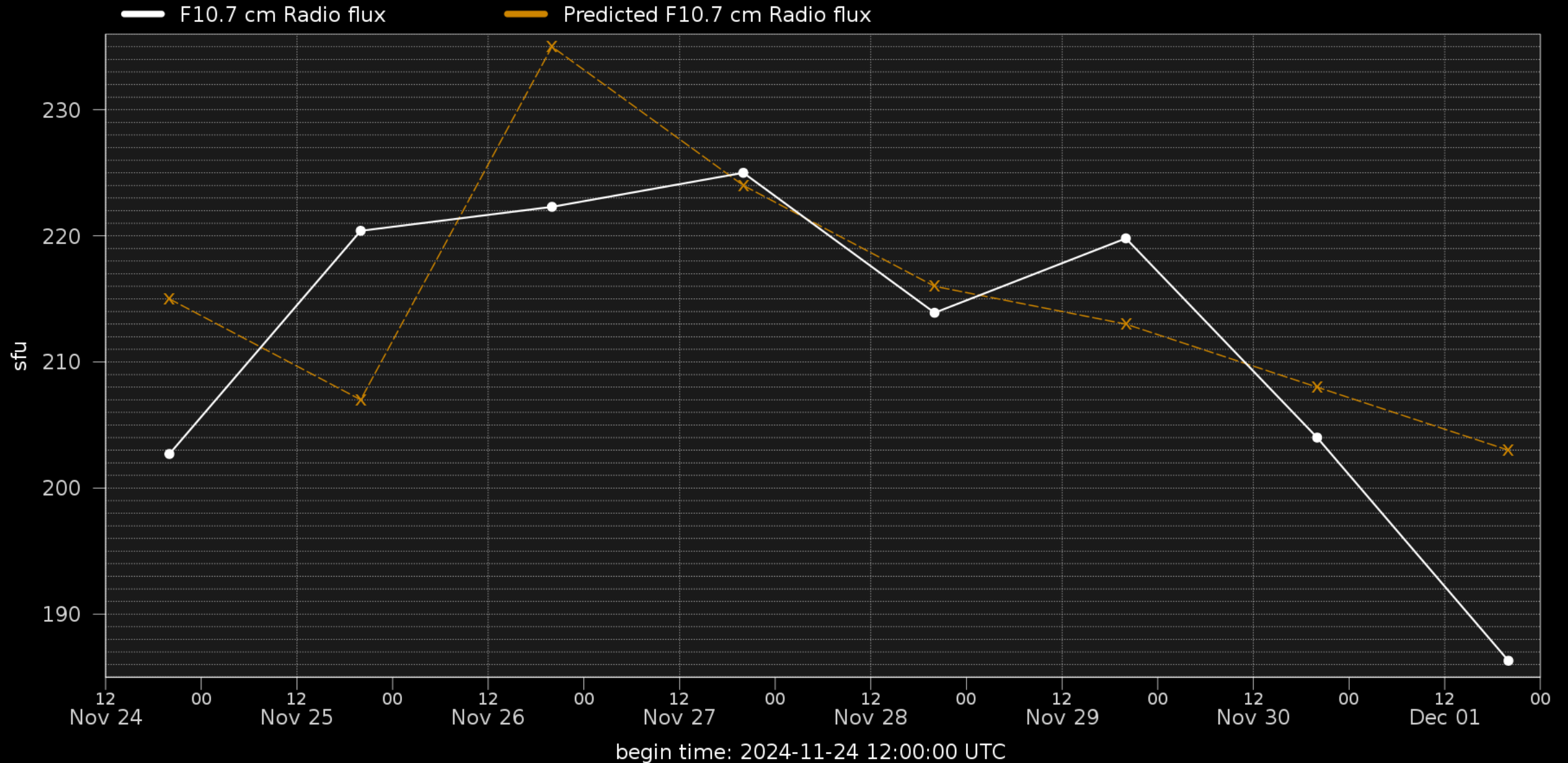


Kanzelhöhe Observatory
2024-12-01 11:25:02 UTC

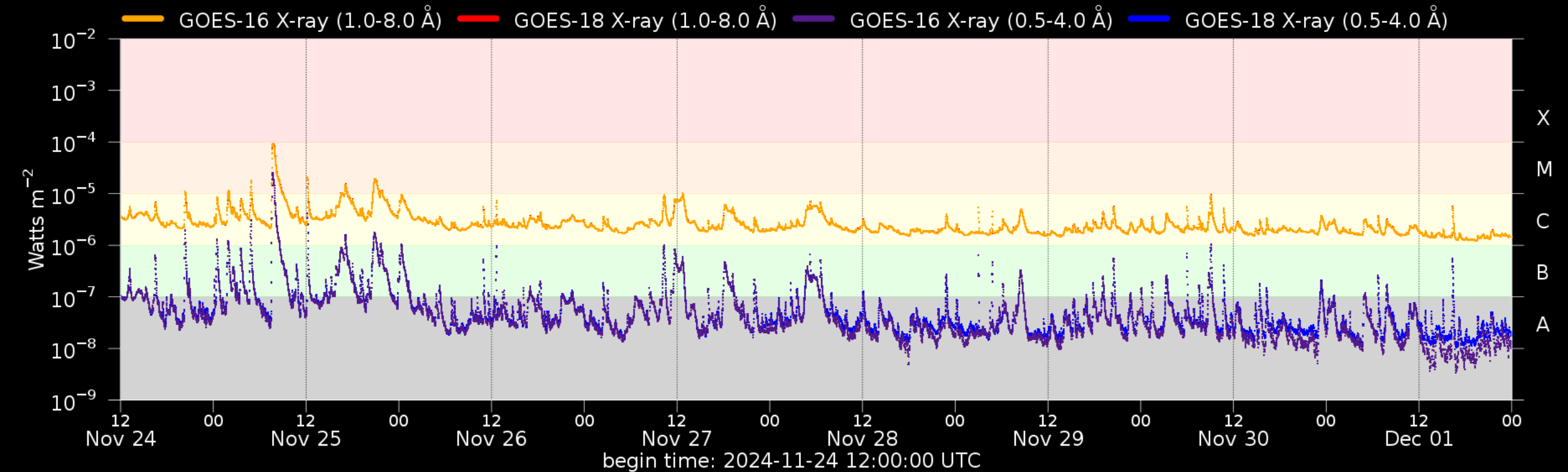
University of Graz
(Austria)



Solar F10.7cm radio flux



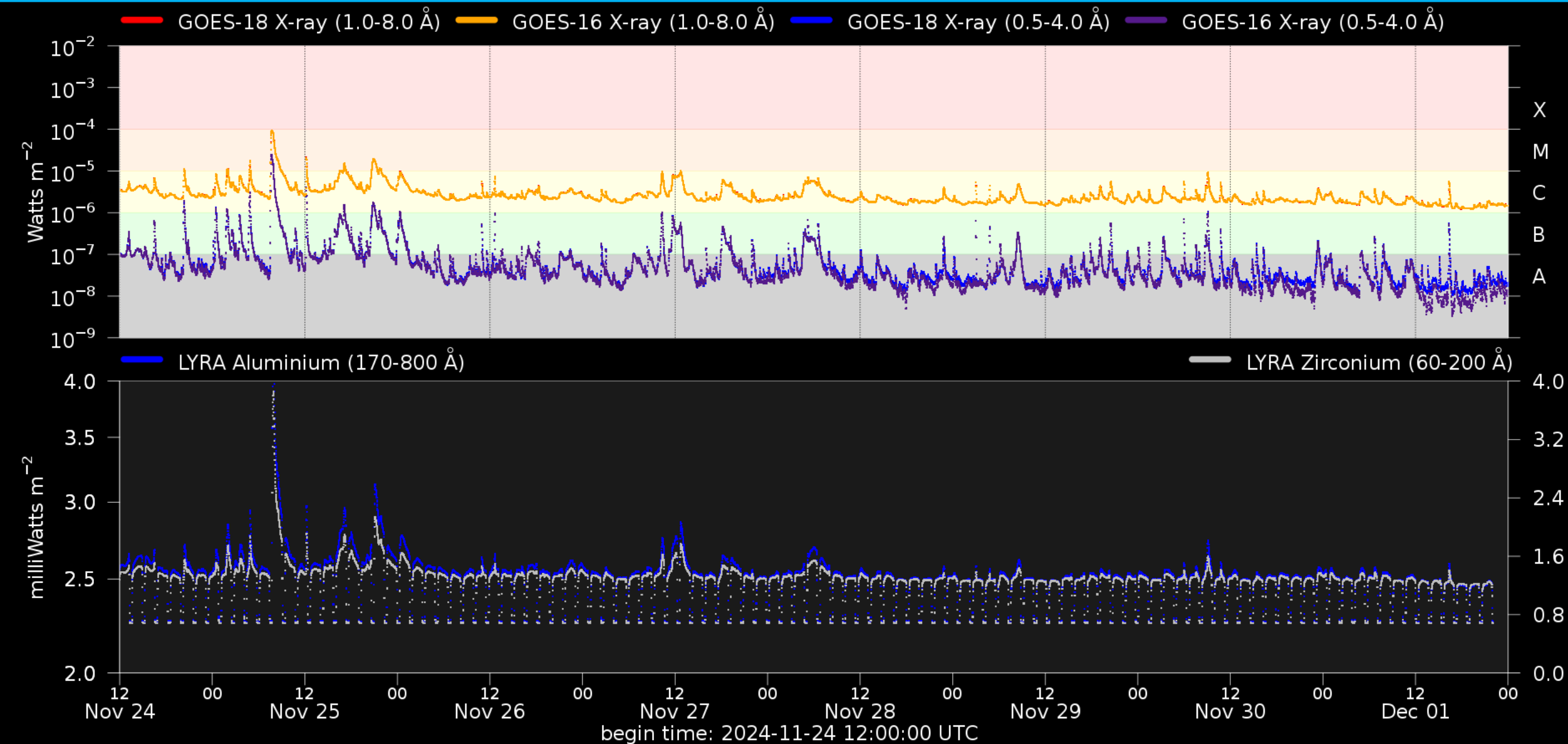
Flaring activity



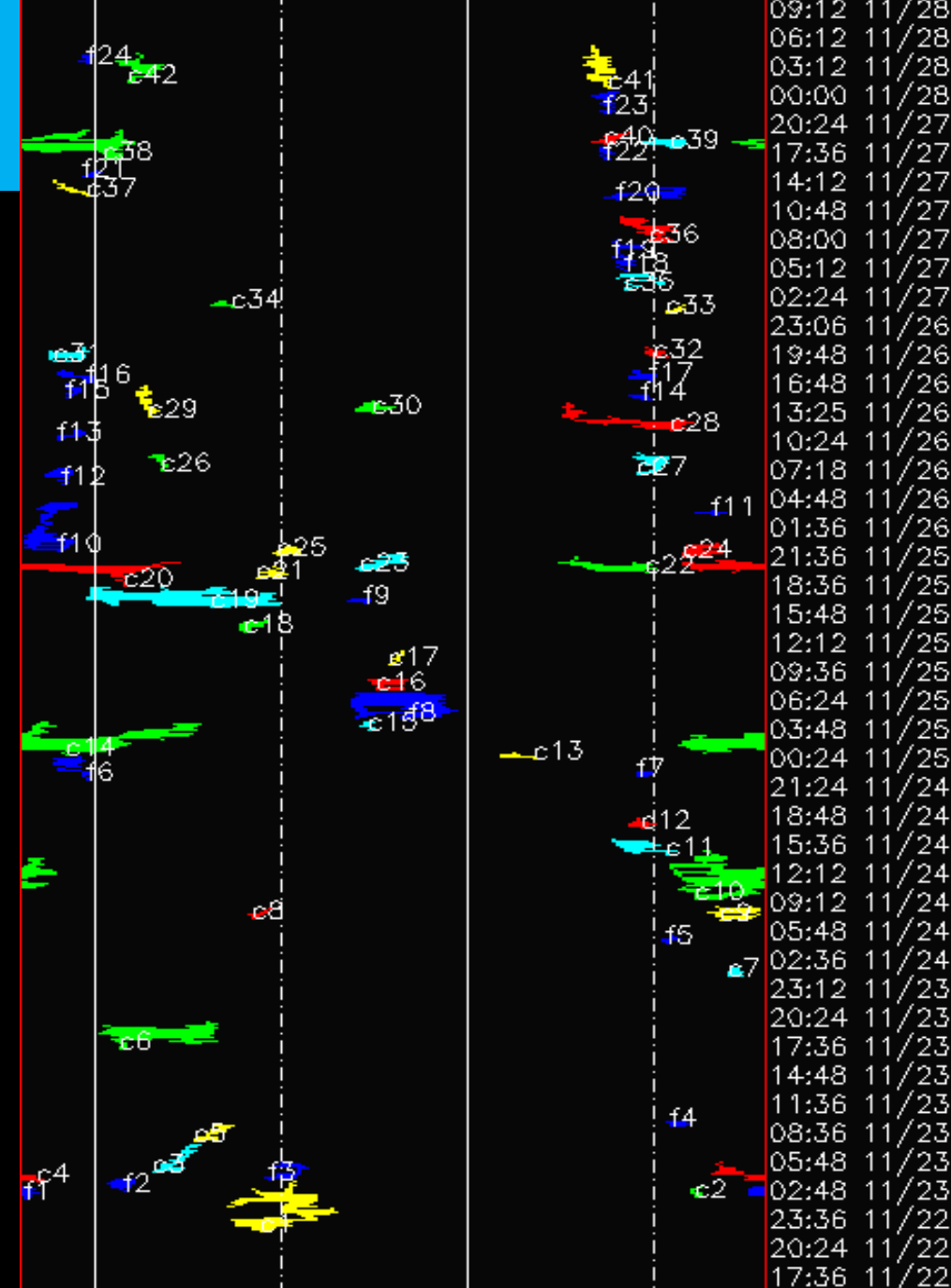
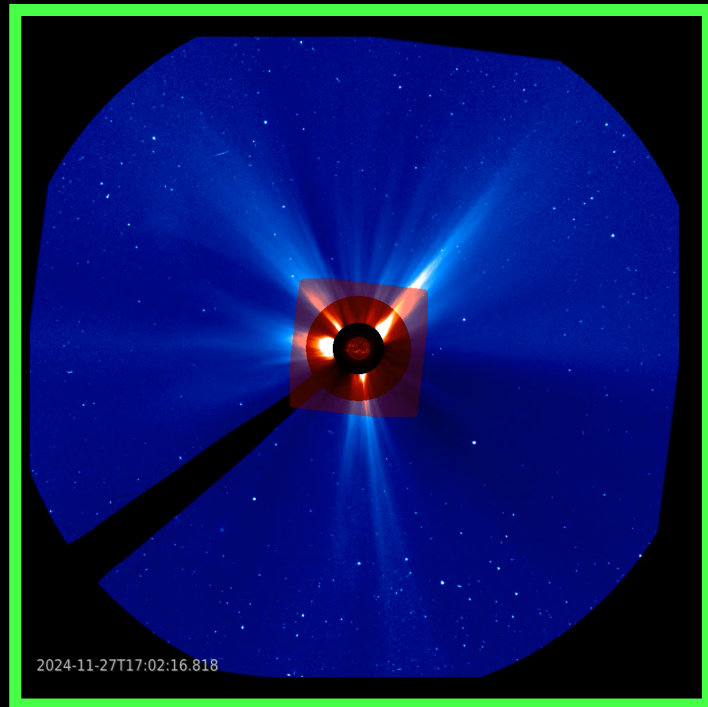
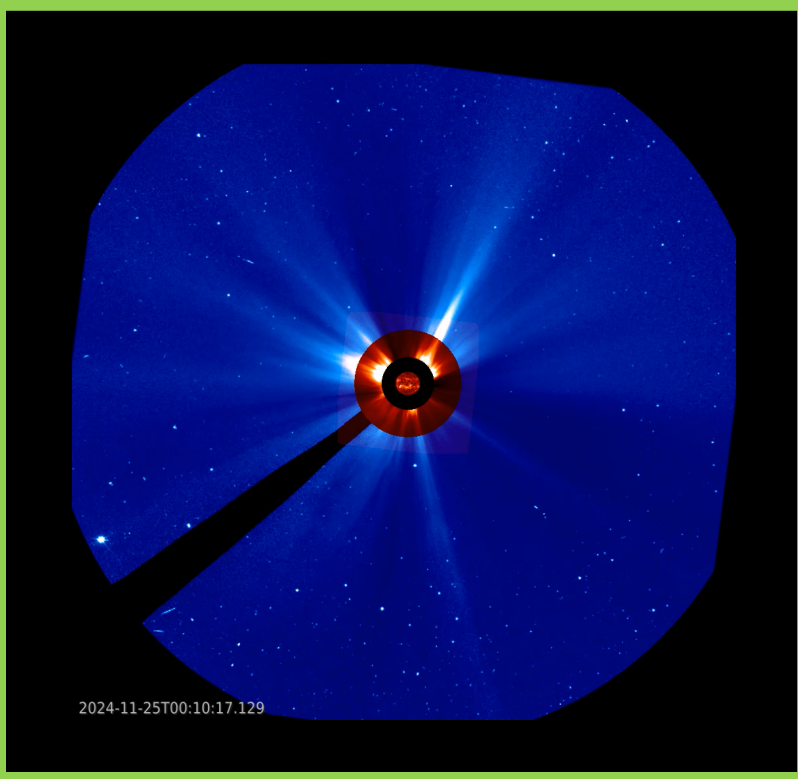
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2024-11-24	2024-11-25	2024-11-26	2024-11-27	2024-11-28	2024-11-29	2024-11-30	2024-12-01
Probability (%)	99 50 05	99 90 40	99 95 30	99 85 40	99 90 20	99 80 15	99 90 20	99 70 10
Observed (#)	03 04 00	04 03 00	04 00 00	05 00 00	04 00 00	08 00 00	03 00 00	01 00 00

Solar X-Ray and UV flux



Coronal Mass Ejections



Solar Wind and

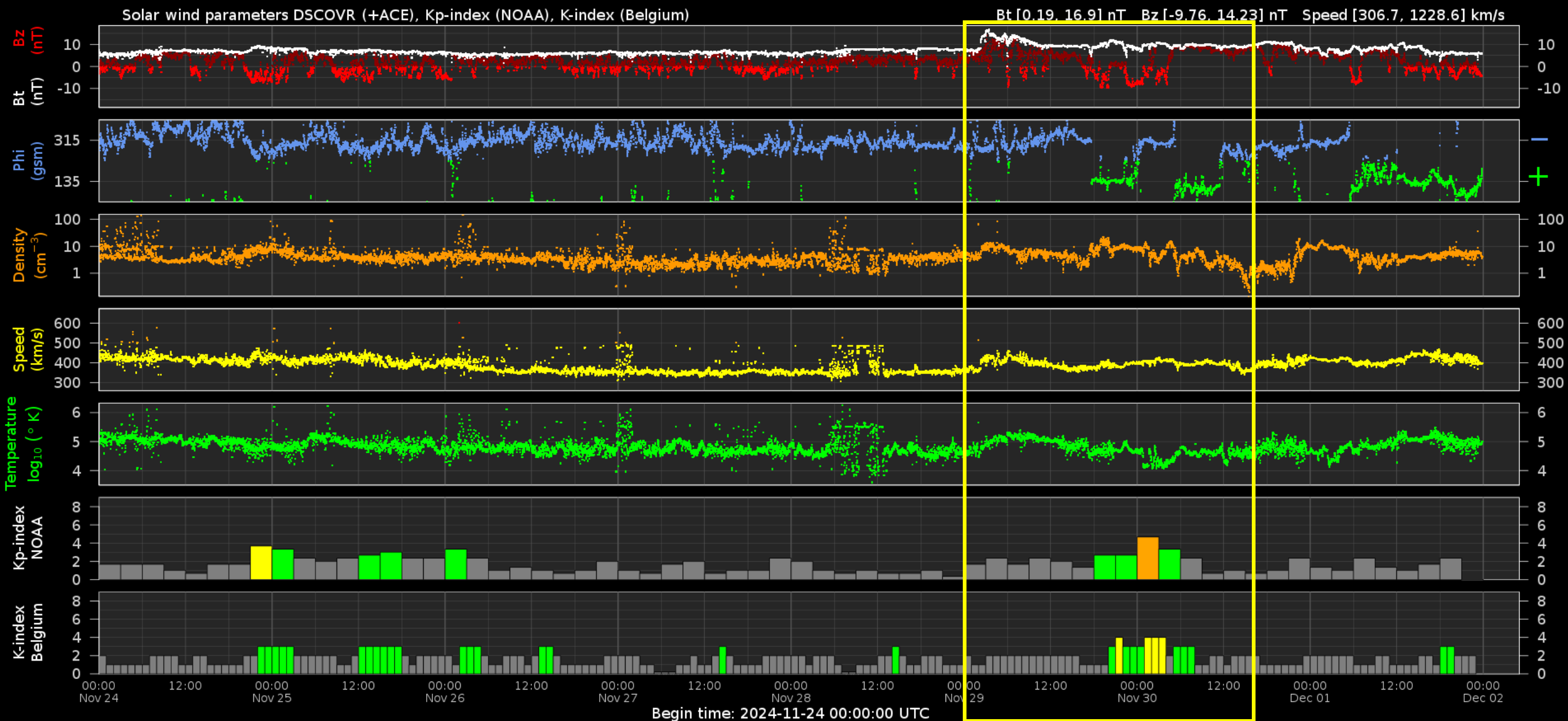
Geomagnetic Activity



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Solar wind parameters & K-indices



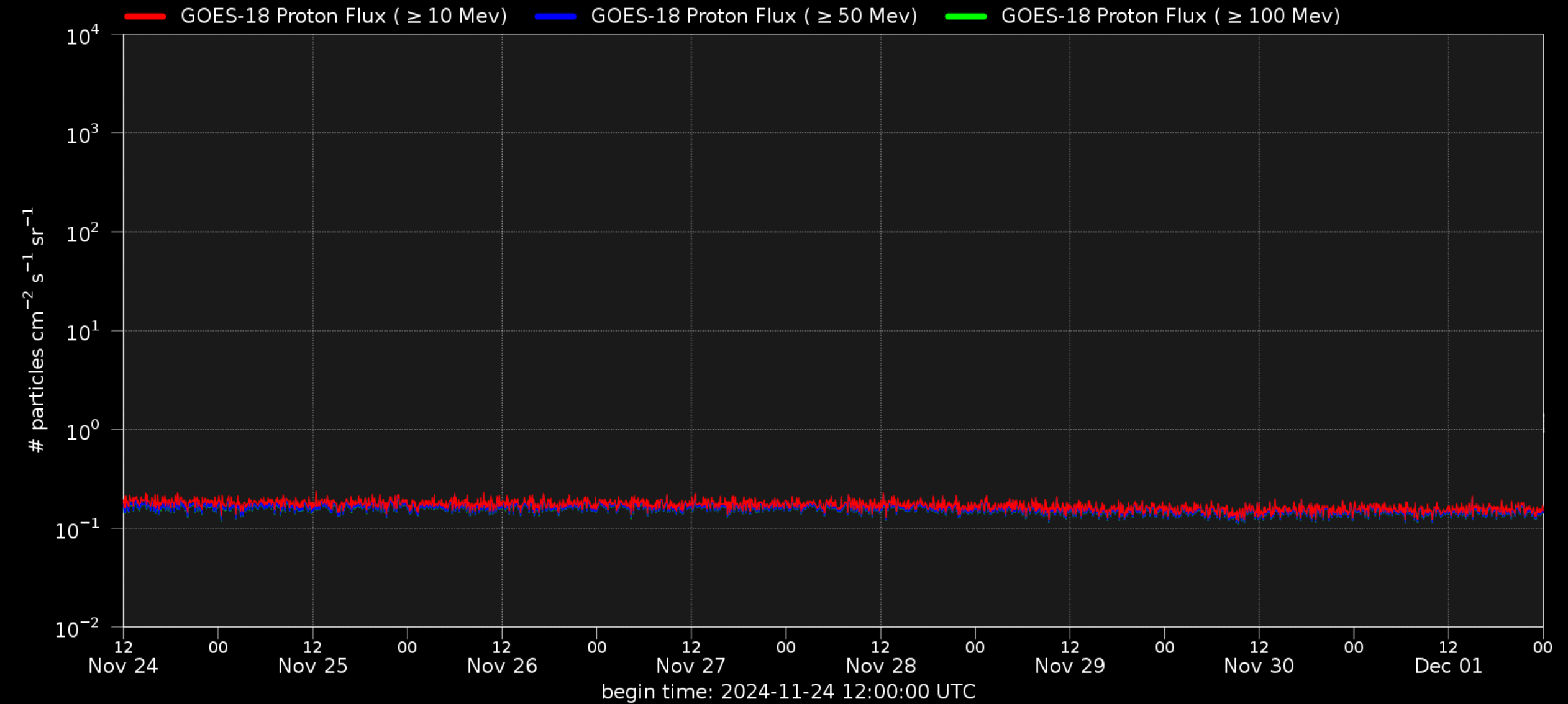
Energetic Particles



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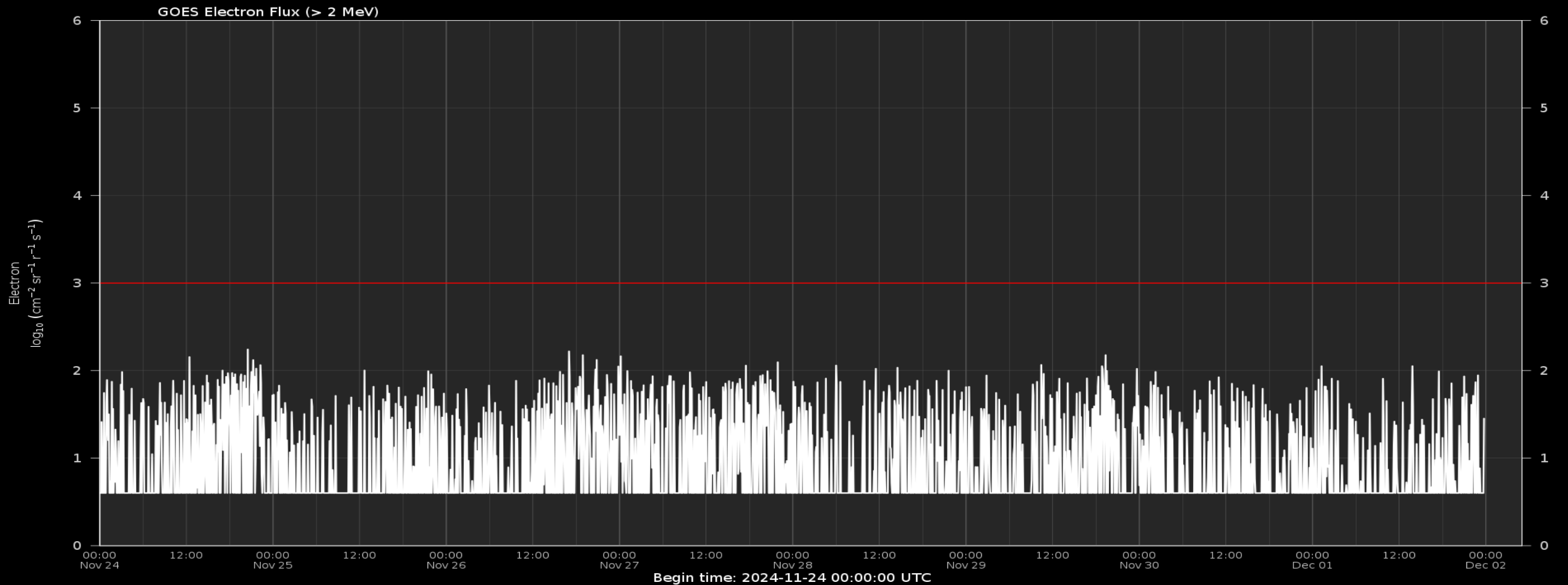
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



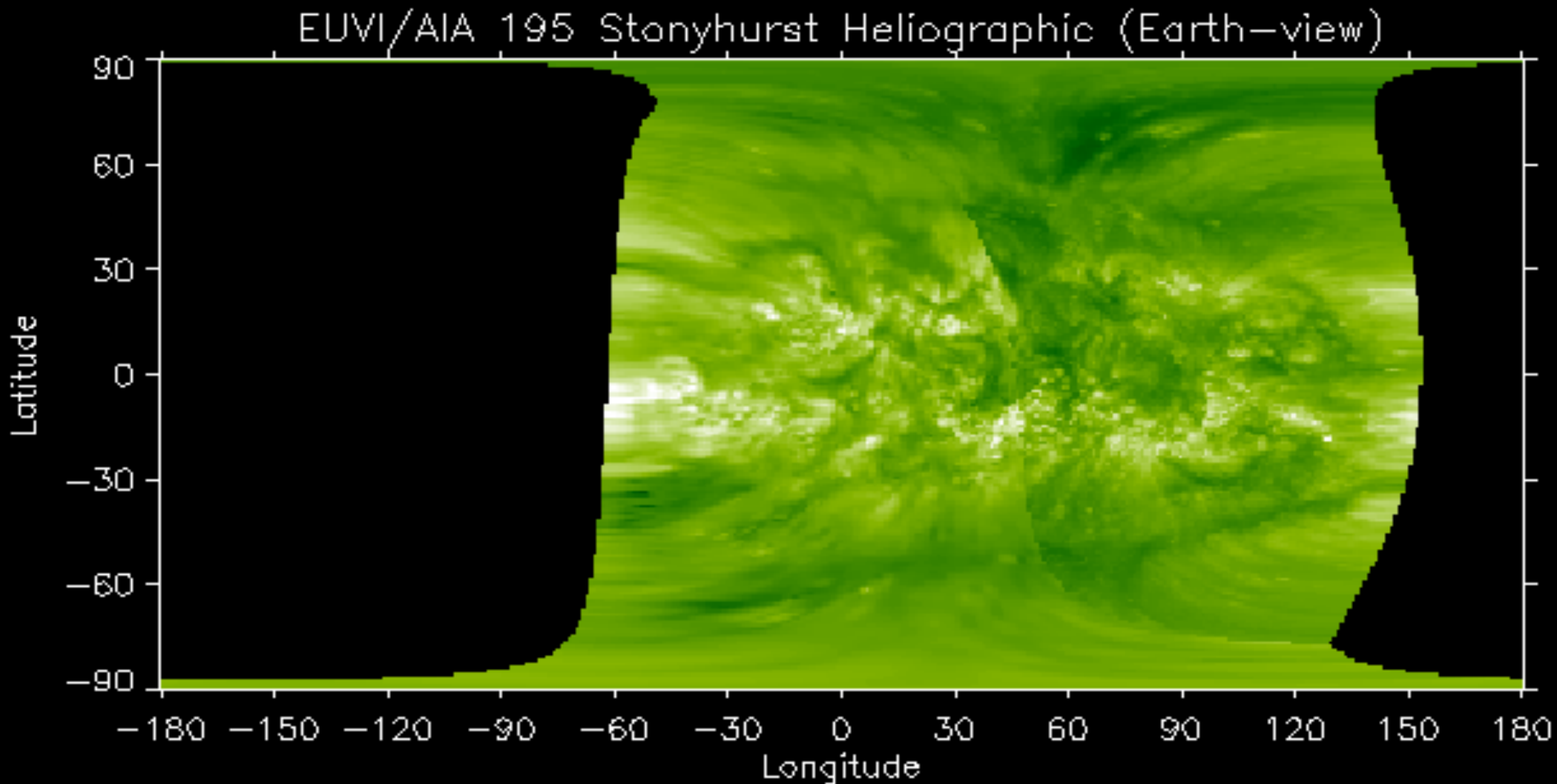
Outlook



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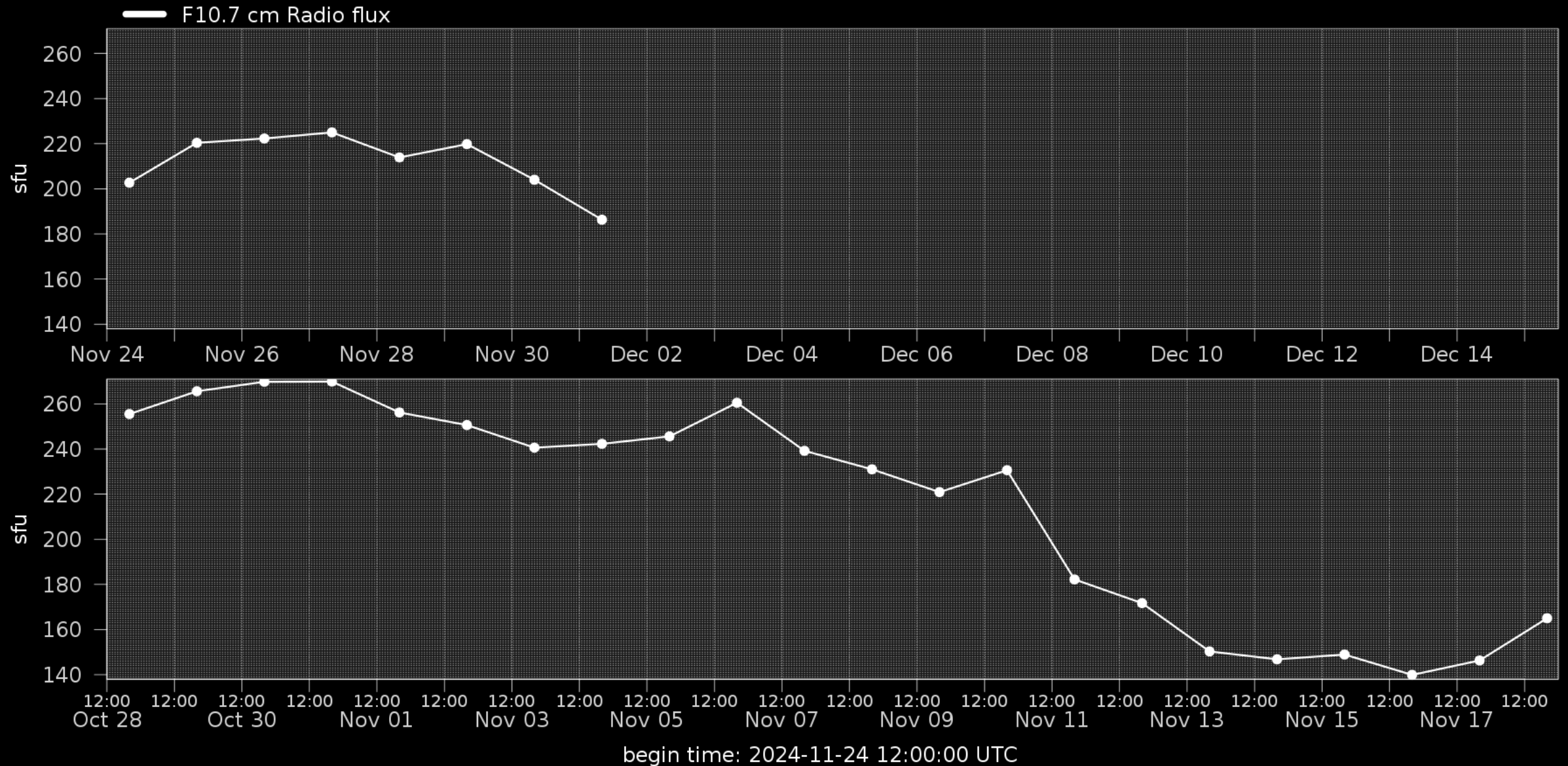
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Outlook: Solar activity

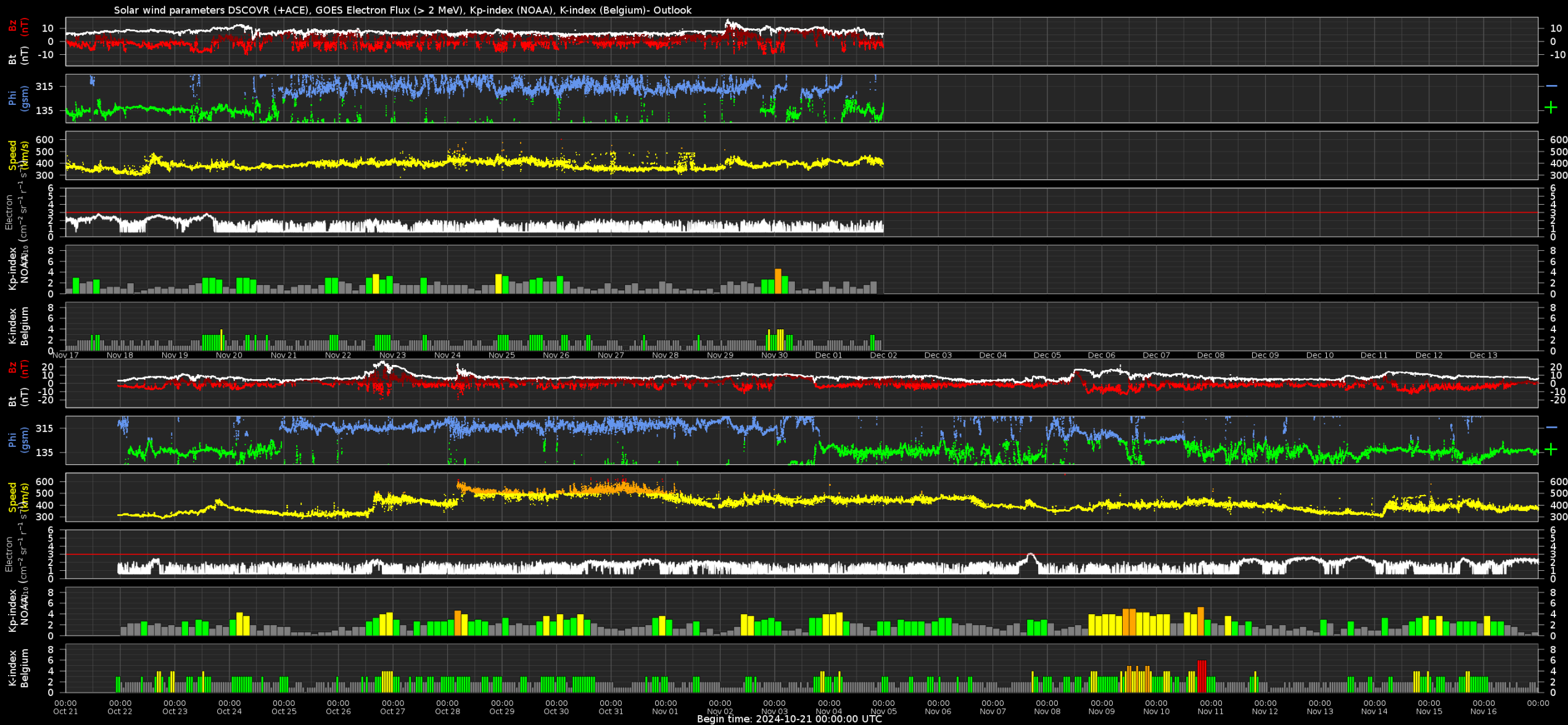


Observation date: 2024/12/01 19:35:00

Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook



PECASUS



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Pecausus related events

Amplitude and Phase Scintillations (GNSS) advisories issued daily.

SIDC Space Weather Briefing

See you at our next briefing!

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