

SIDC Space Weather Briefing

08 October 2023-15 October 2023

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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 2023-10-08 12:00 to 2023-10-15 23:59

Active regions	NOAA AR 3451, 3452, 3460, 3467
Flares	# C-class flare: 32 # M-class flare: 2 # X-class flare: 0
Coronal Holes	Crossing completed in 9 Oct
CMEs	Back-sided partial halo

Proton flux	Nominal
Electron flux	Bellow limit

Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	B : 0.11 - 24.57 nT //Bz: -15.75 nT to 22.76 nT //Speed: 257.3 - 569.7km/s
Geomagnetic conditions	max KBel: 3, max Kp(NOAA): 4-, active conditions (13/10 15:00-18:00 UTC)

All Quiet Alert: Not quiet

Solar Activity

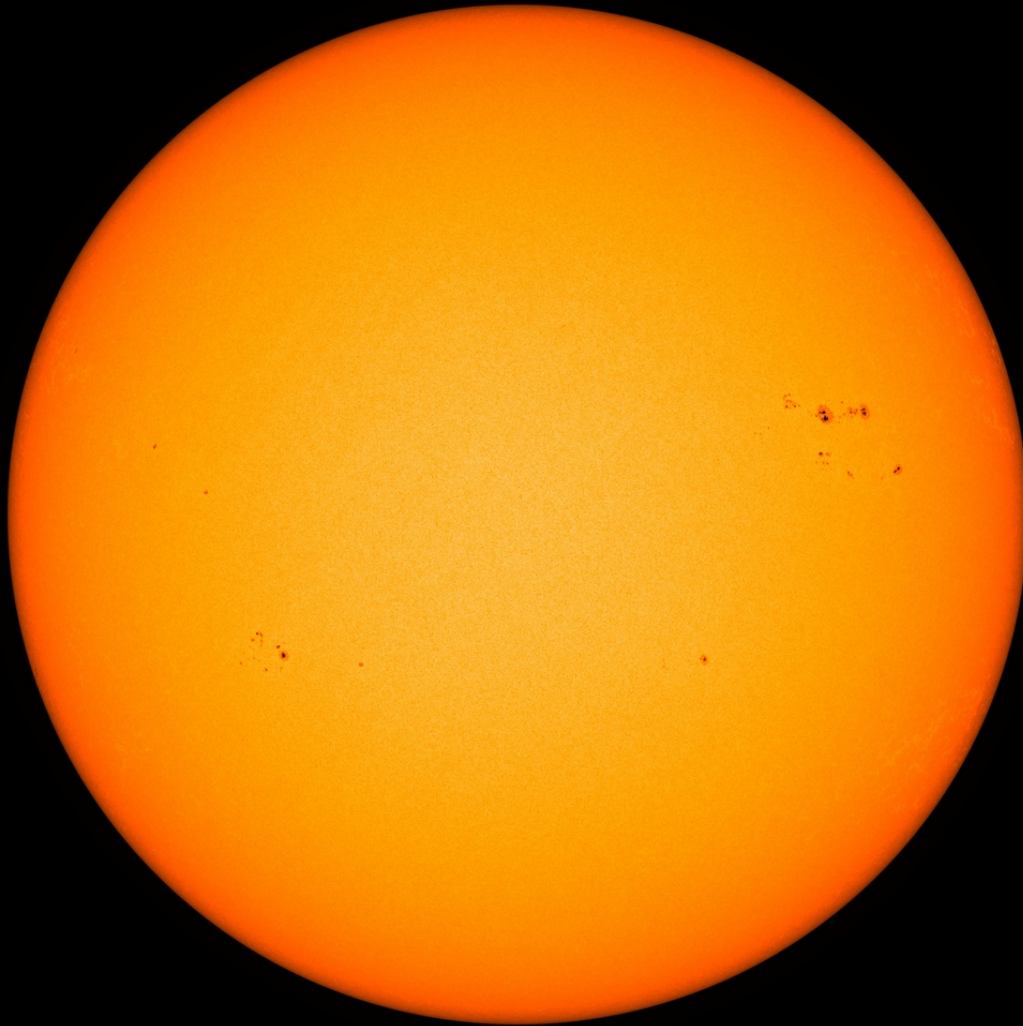


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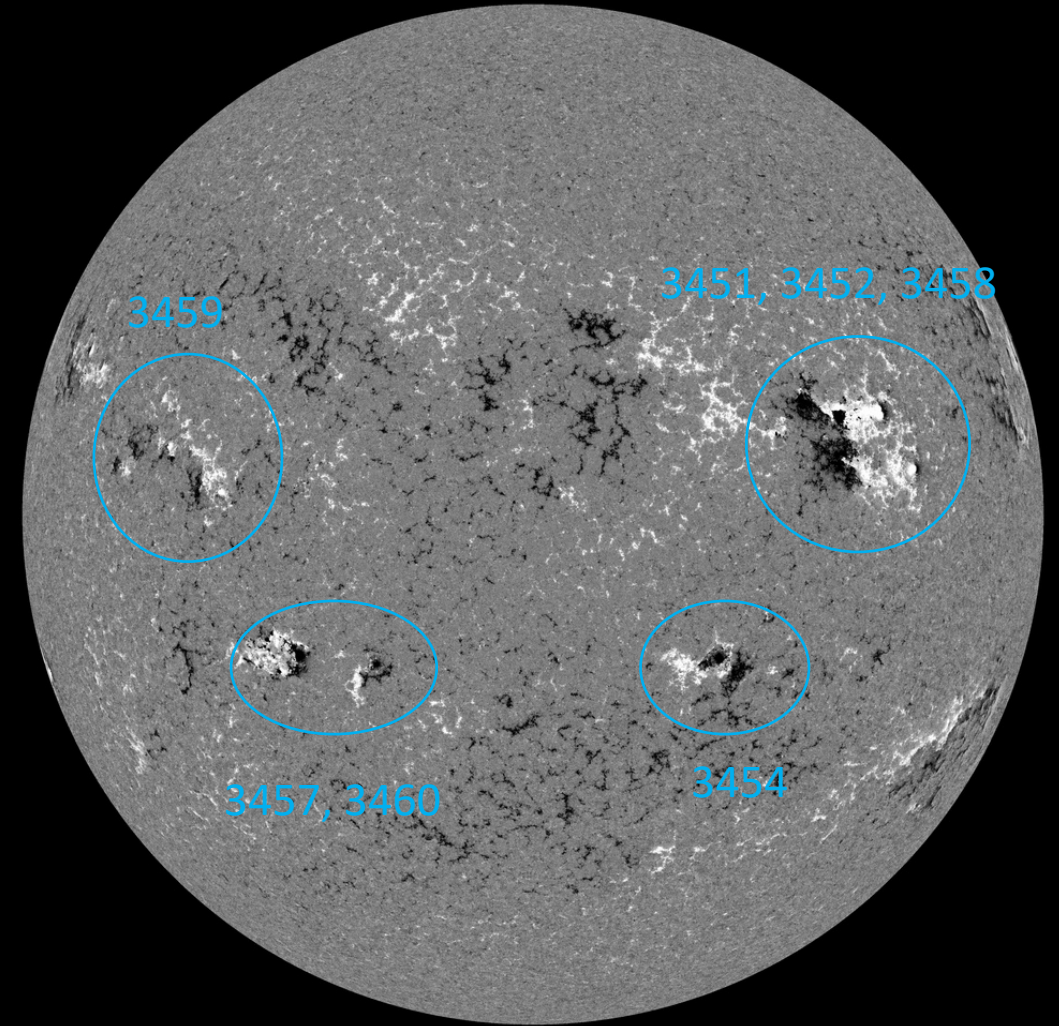
Solar active regions

SDO/HMI White Light 2023-10-08



SDO/HMI Quick-Look Continuum: 20231008_114500

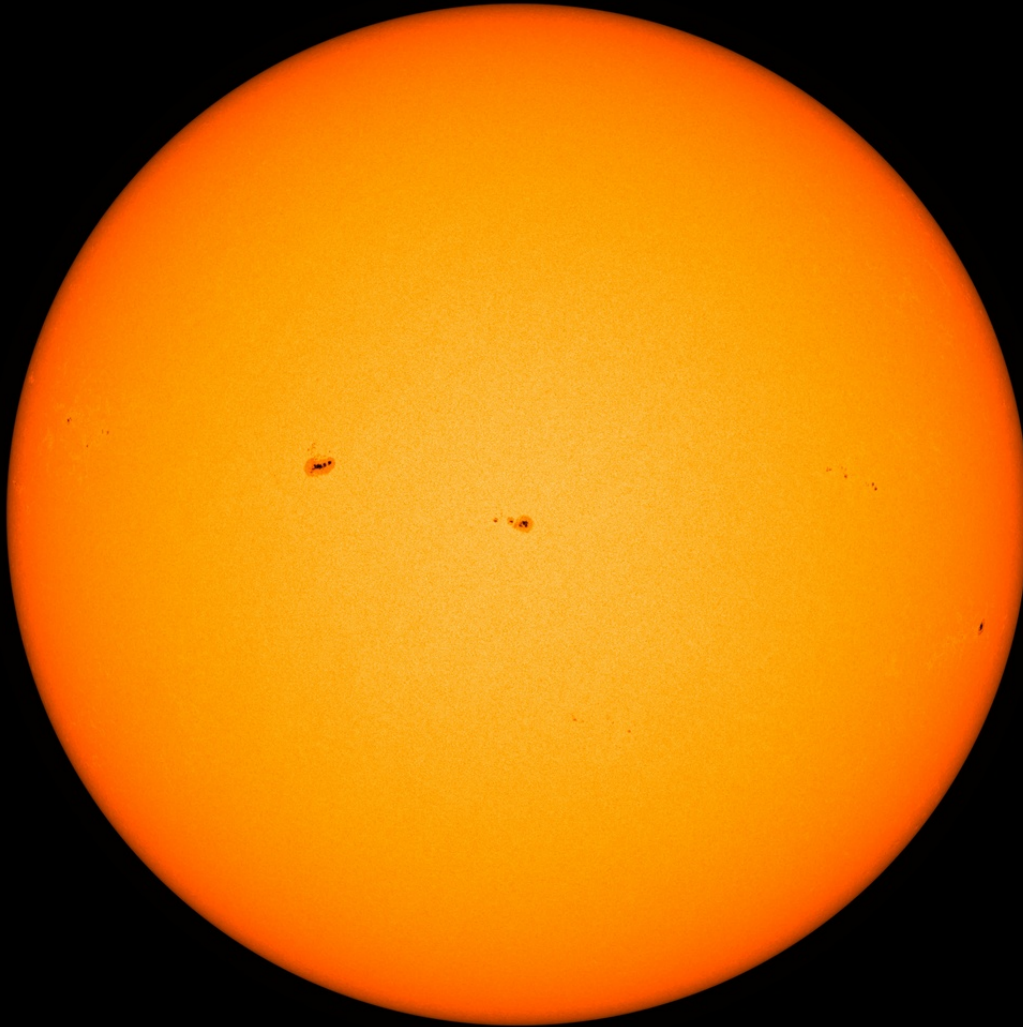
SDO/HMI Magnetogram 2023-10-08



SDO/HMI Quick-Look Magnetogram: 20231008_114500

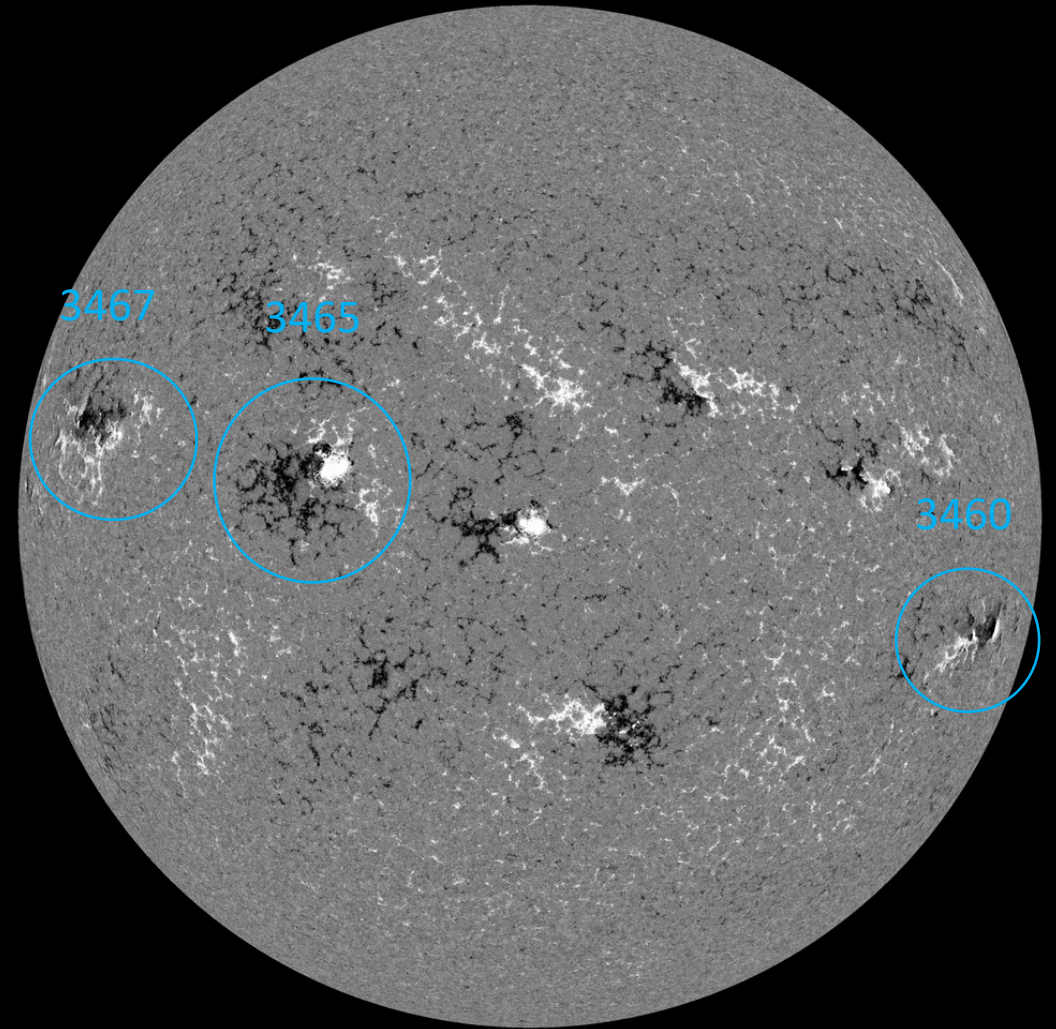
Solar active regions

SDO/HMI White Light 2023-10-15



SDO/HMI Quick-Look Continuum: 20231015_114500

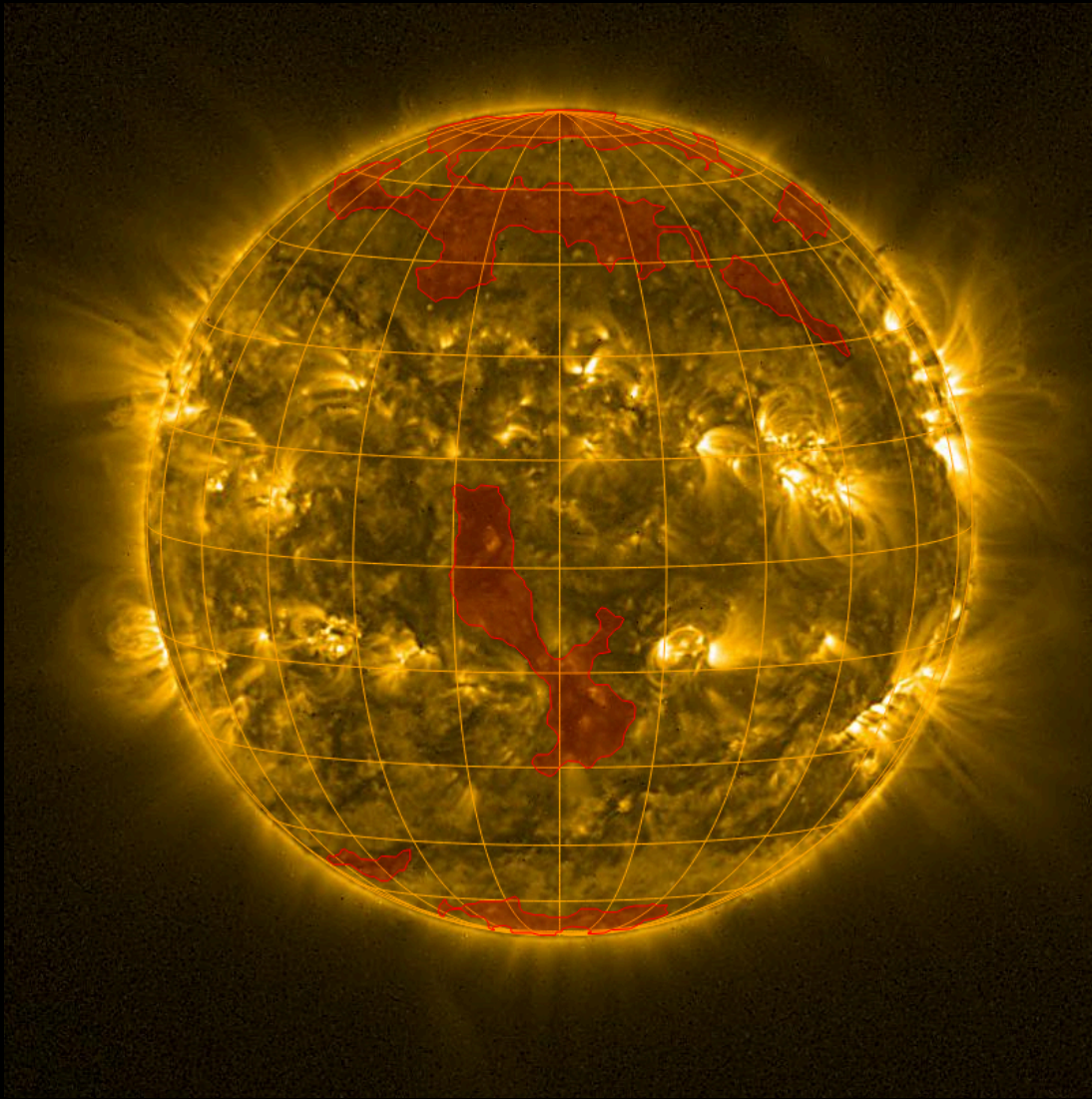
SDO/HMI Magnetogram 2023-10-15



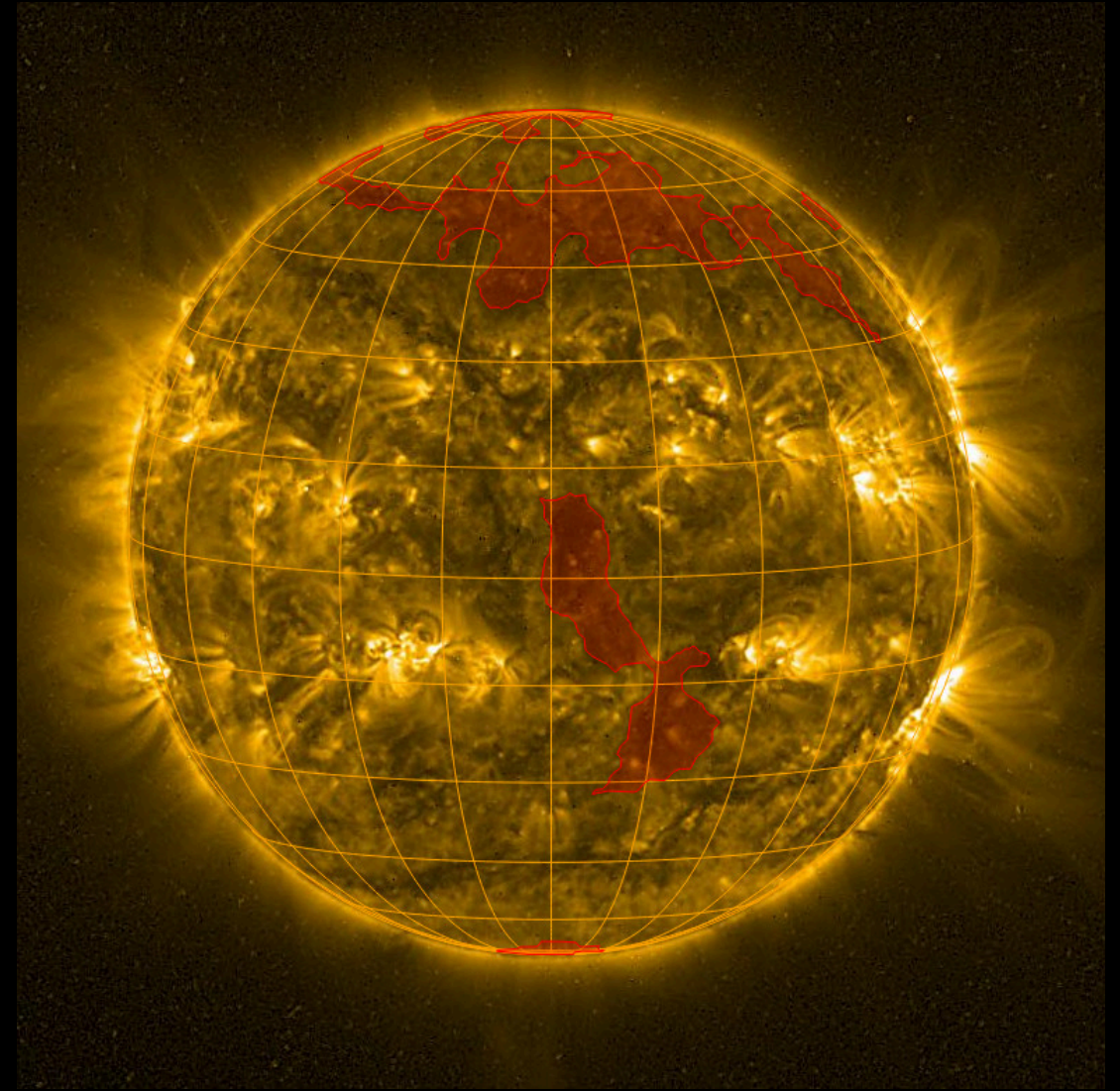
SDO/HMI Quick-Look Magnetogram: 20231015_114500

Coronal holes

SDO/AIA 19.3 nm 2023-10-08



SDO/AIA 19.3 nm 2023-10-09



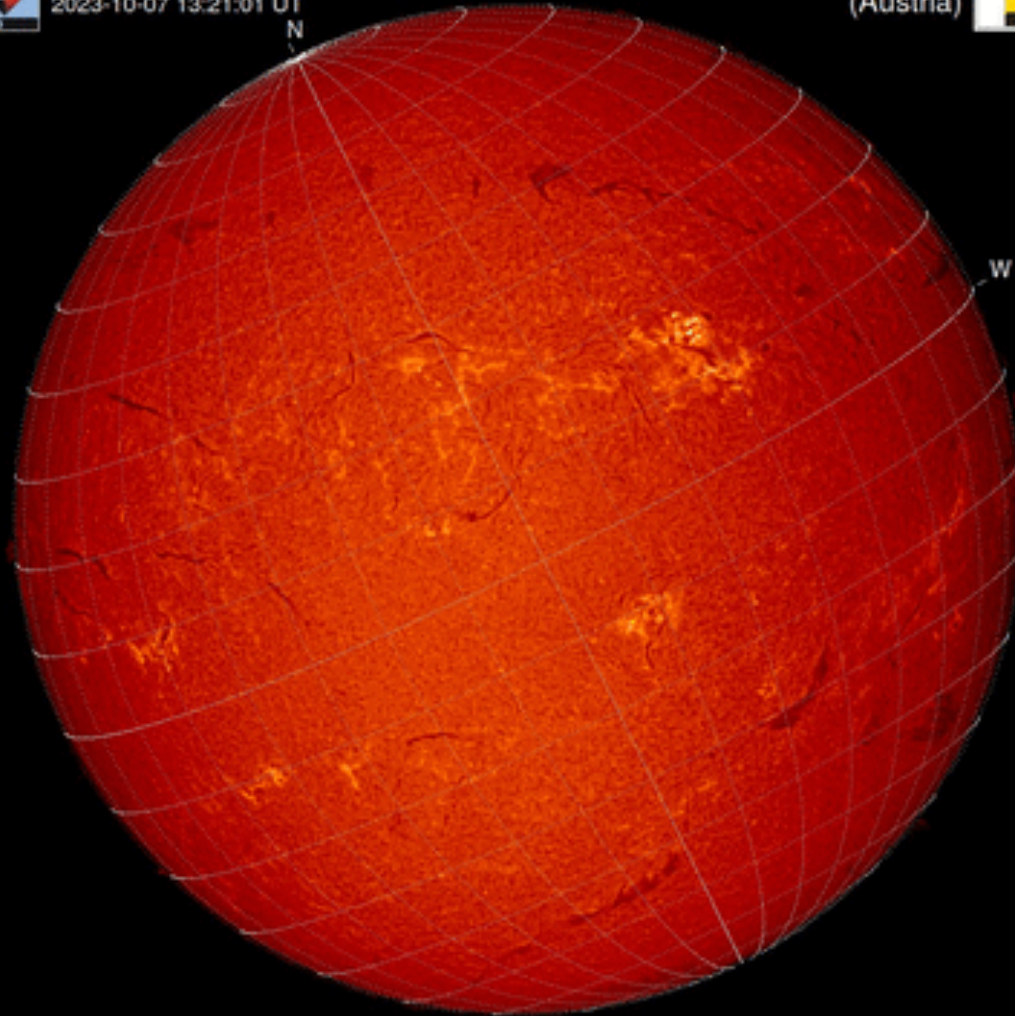
Filaments & Filament eruptions

H-alpha 2023-10-08



Kanzelhöhe Observatory
2023-10-07 13:21:01 UT

University of Graz
(Austria)

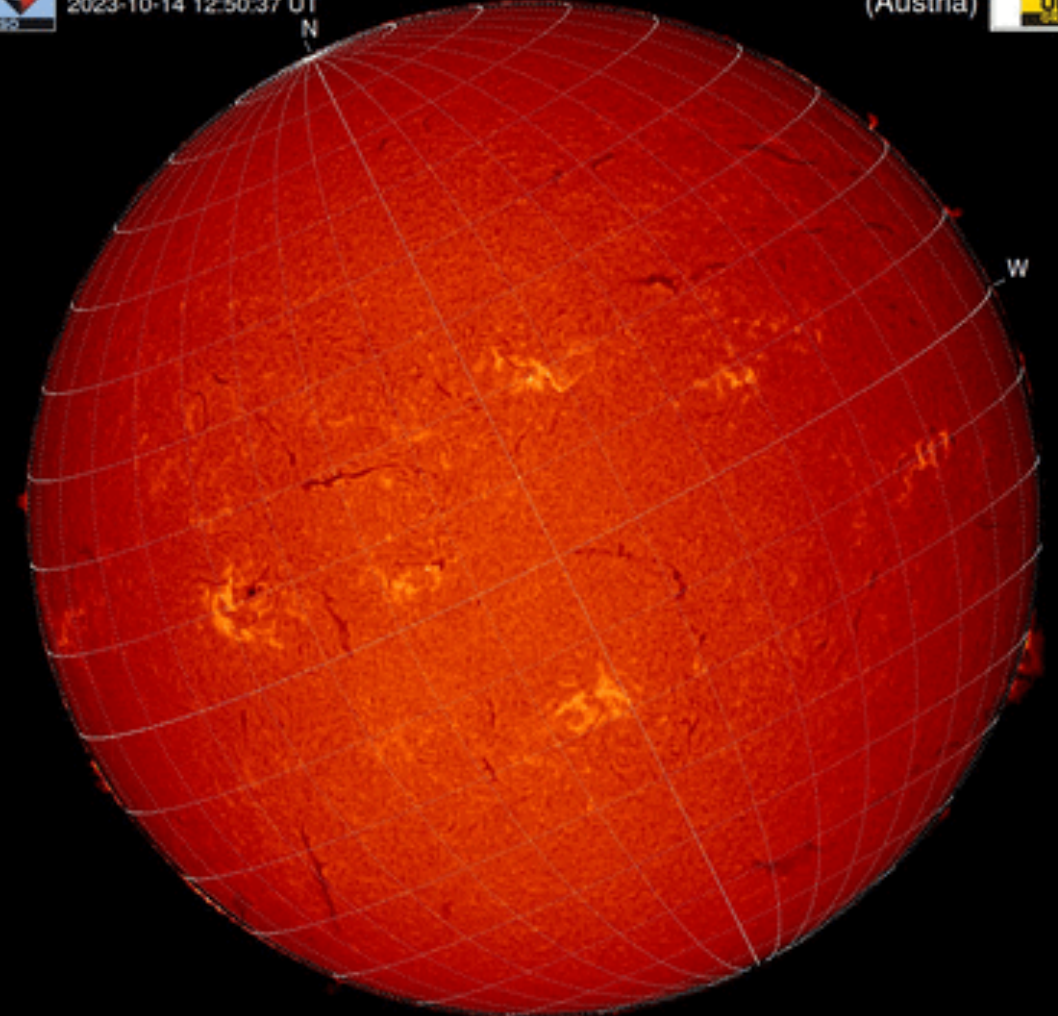


H-alpha 2023-10-15

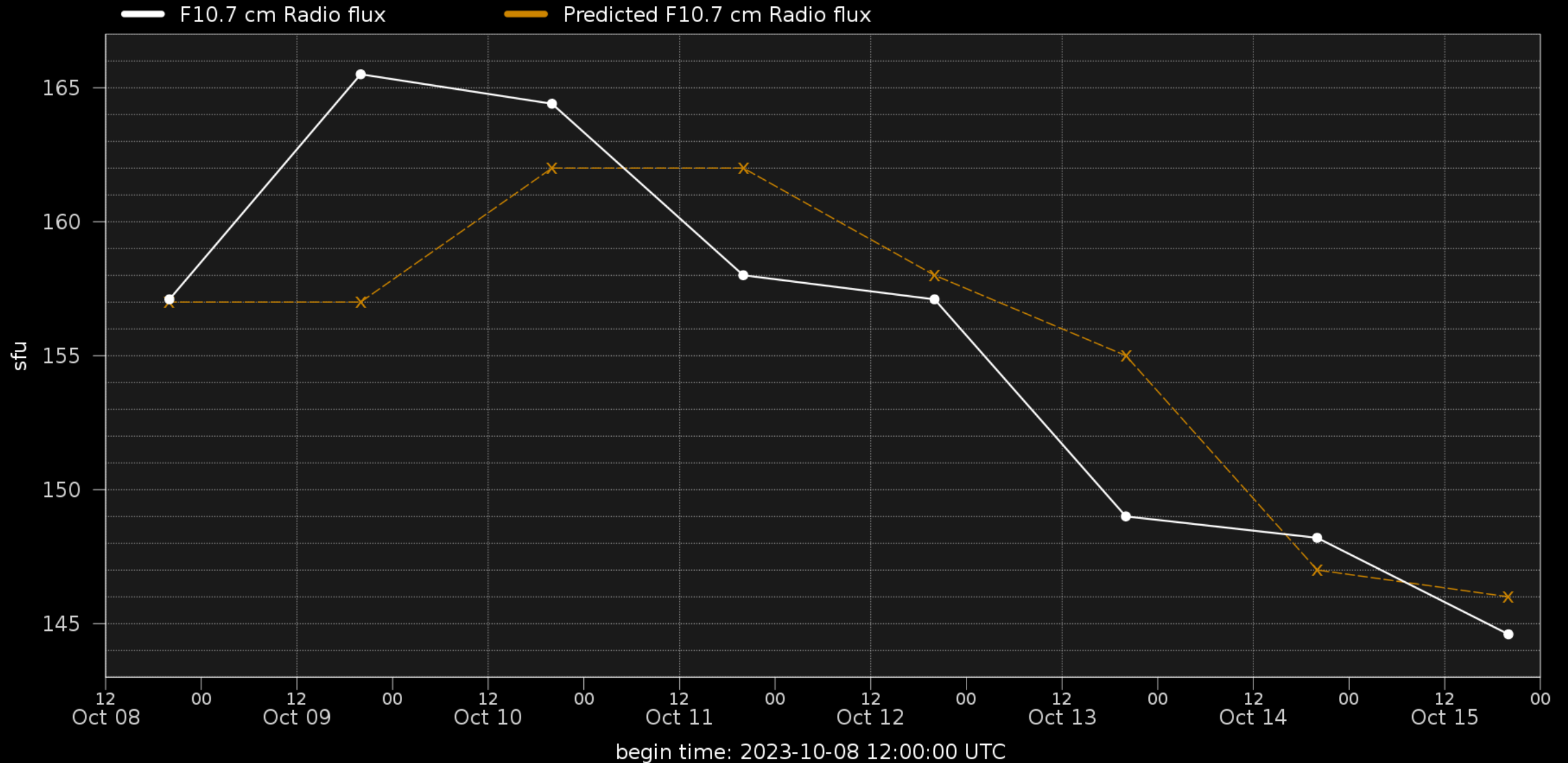


Kanzelhöhe Observatory
2023-10-14 12:50:37 UT

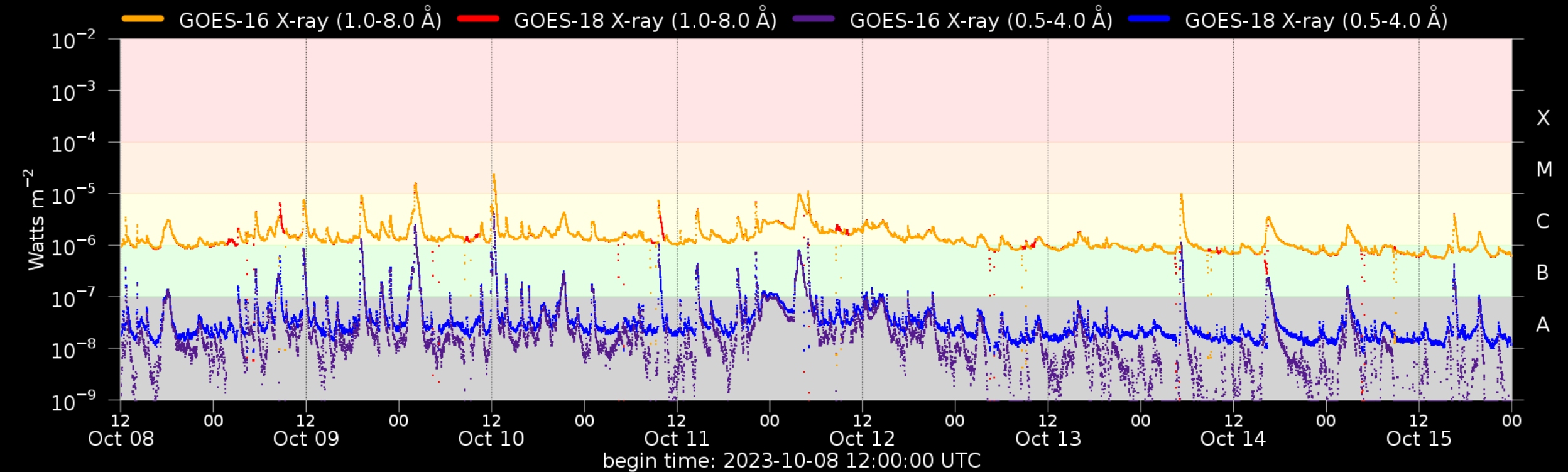
University of Graz
(Austria)



Solar F10.7cm radio flux



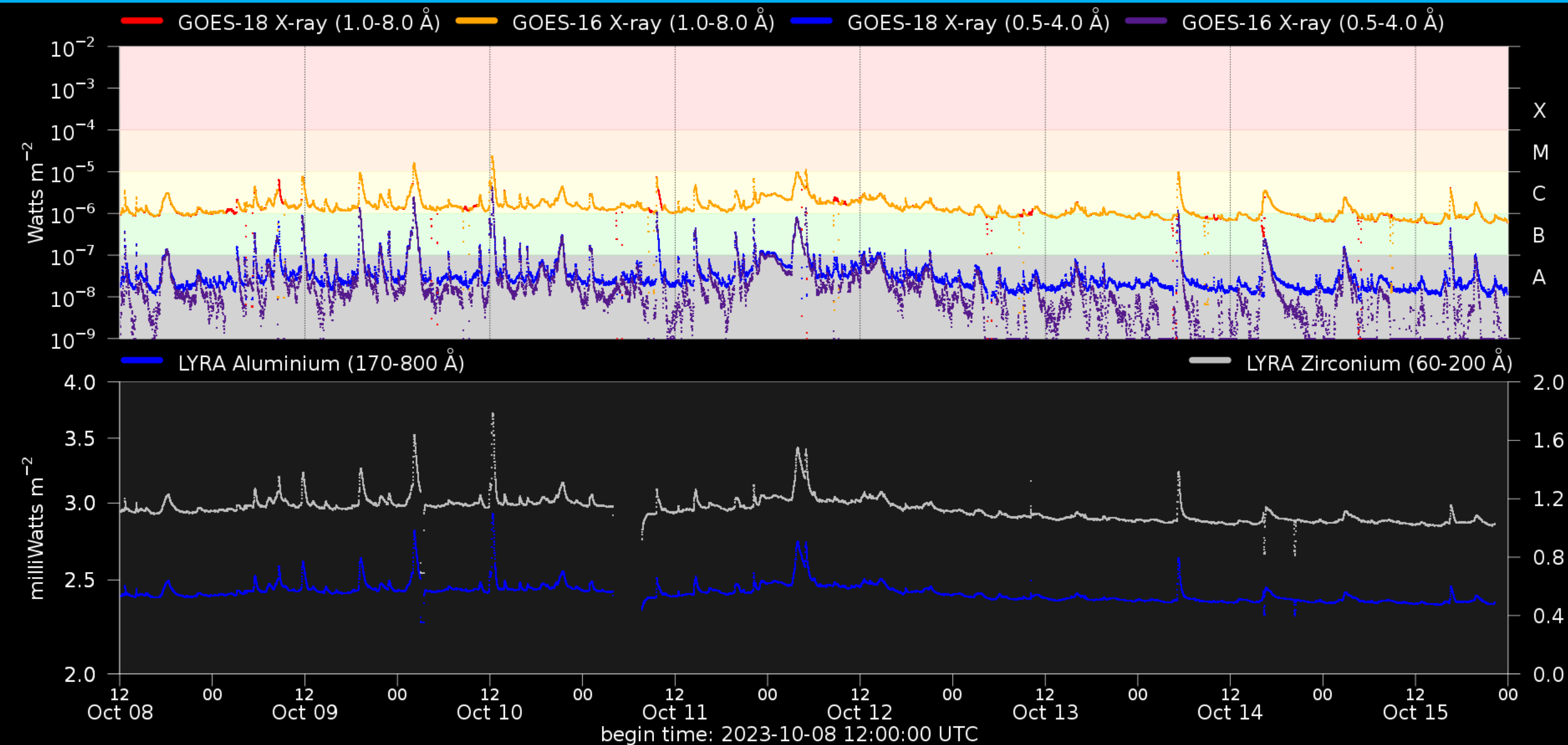
Flaring activity



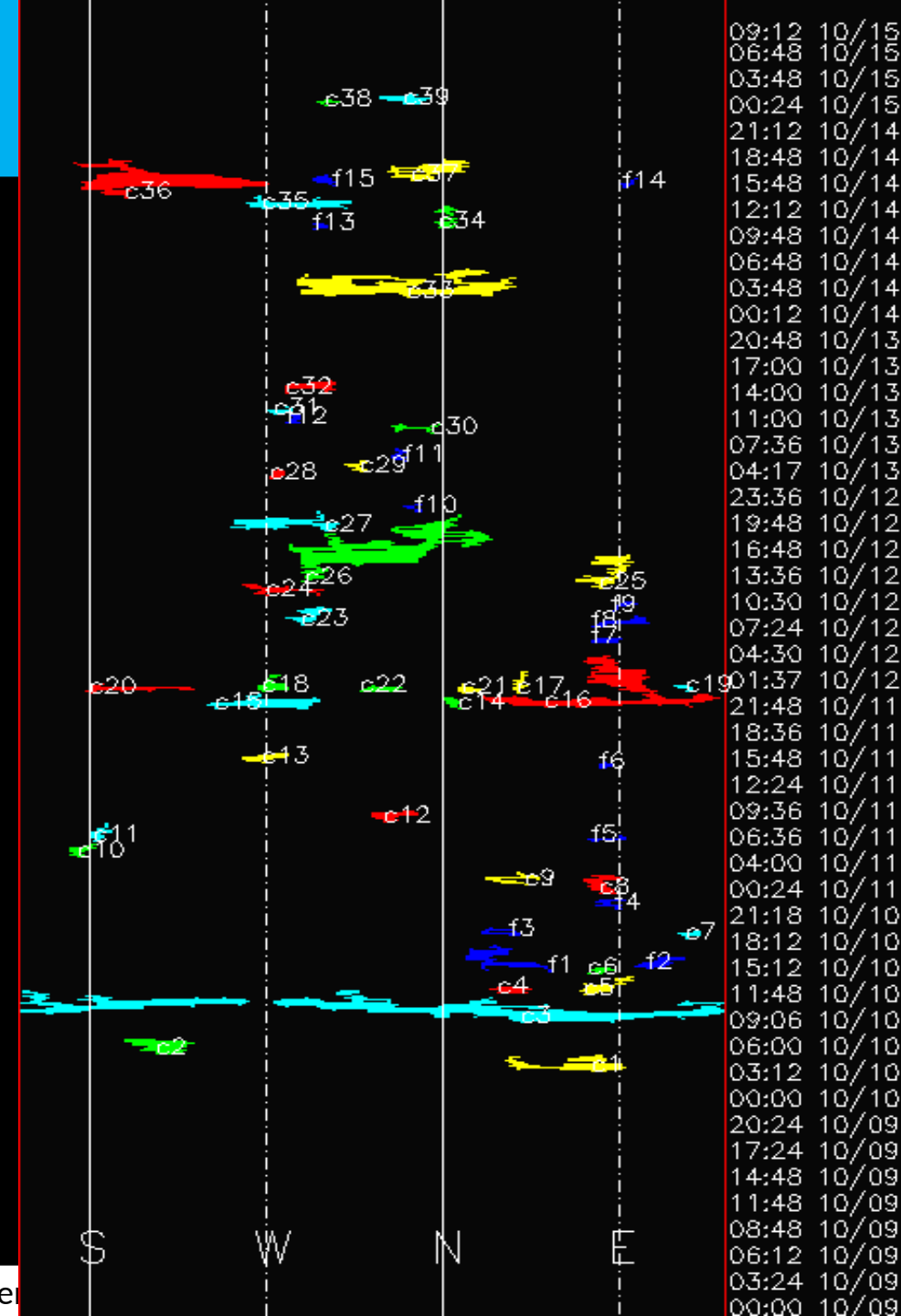
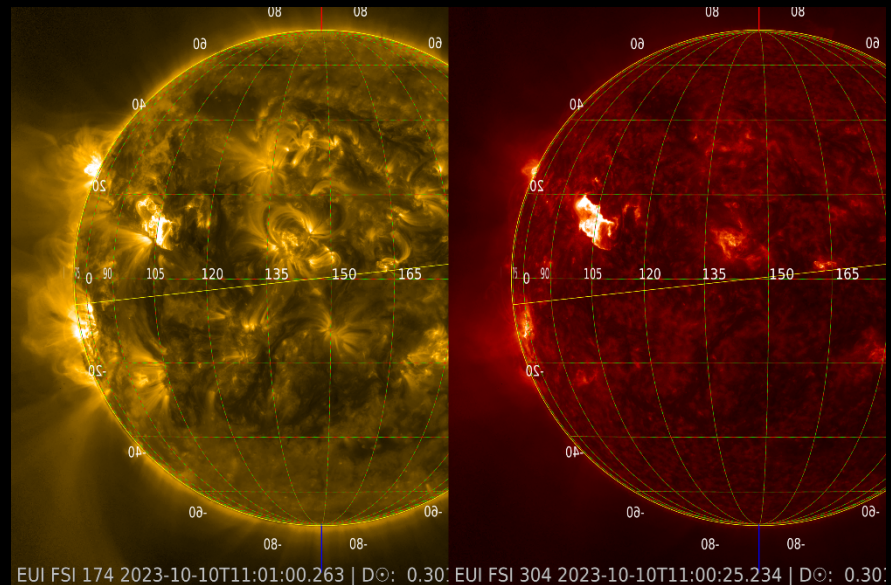
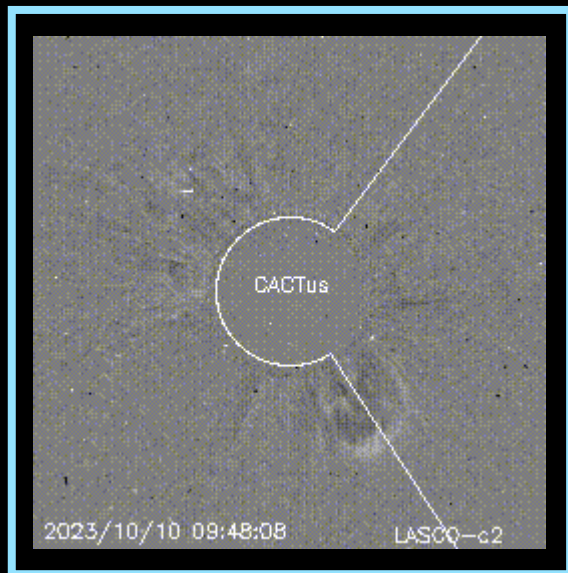
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-10-08	2023-10-09	2023-10-10	2023-10-11	2023-10-12	2023-10-13	2023-10-14	2023-10-15
Probability (%)	95 40 05	98 40 05	99 35 01	99 15 01	99 35 05	98 20 01	80 25 01	90 05 01
Observed (#)	07 00 00	07 01 00	06 01 00	07 00 00	01 00 00	01 00 00	02 00 00	01 00 00

Solar X-Ray and UV flux



Coronal Mass Ejections



Solar Wind and

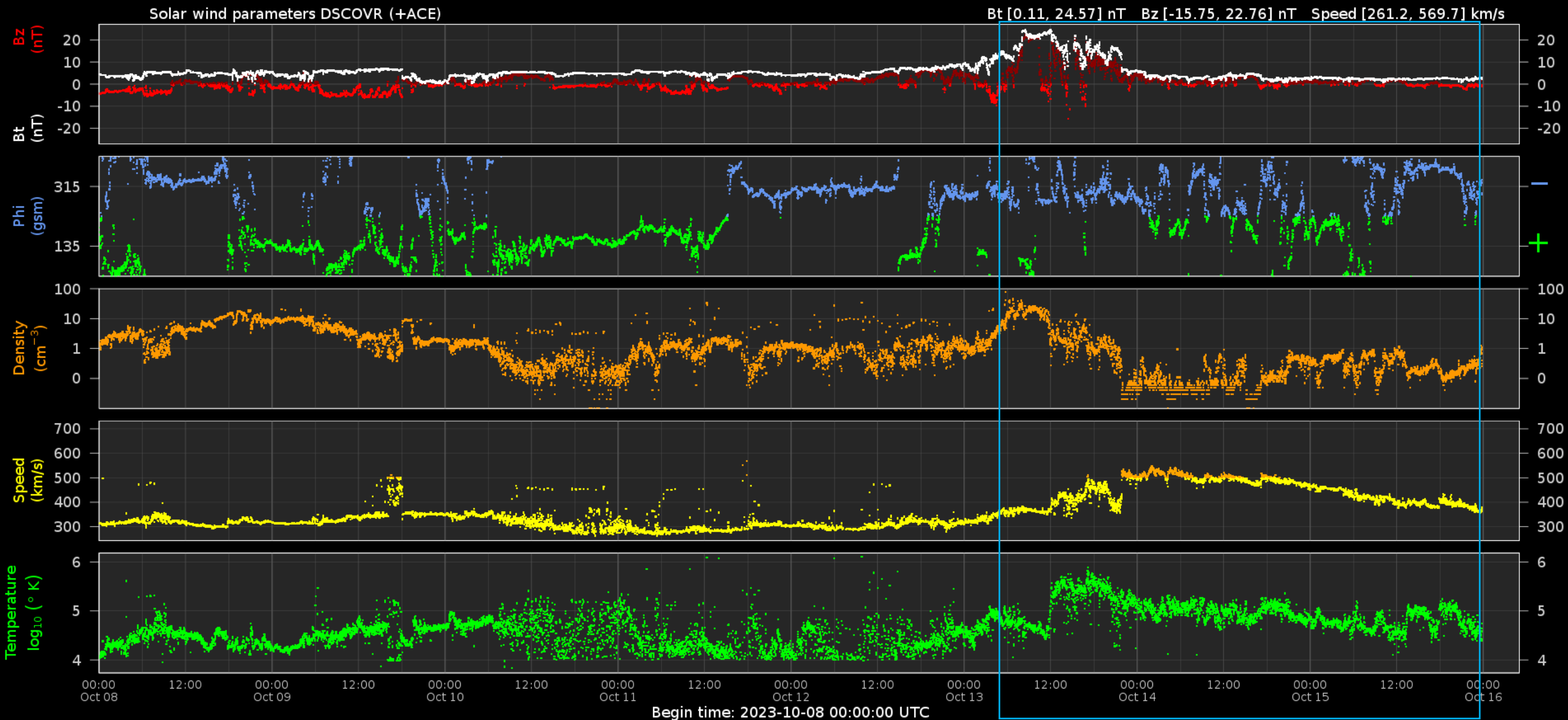
Geomagnetic Activity



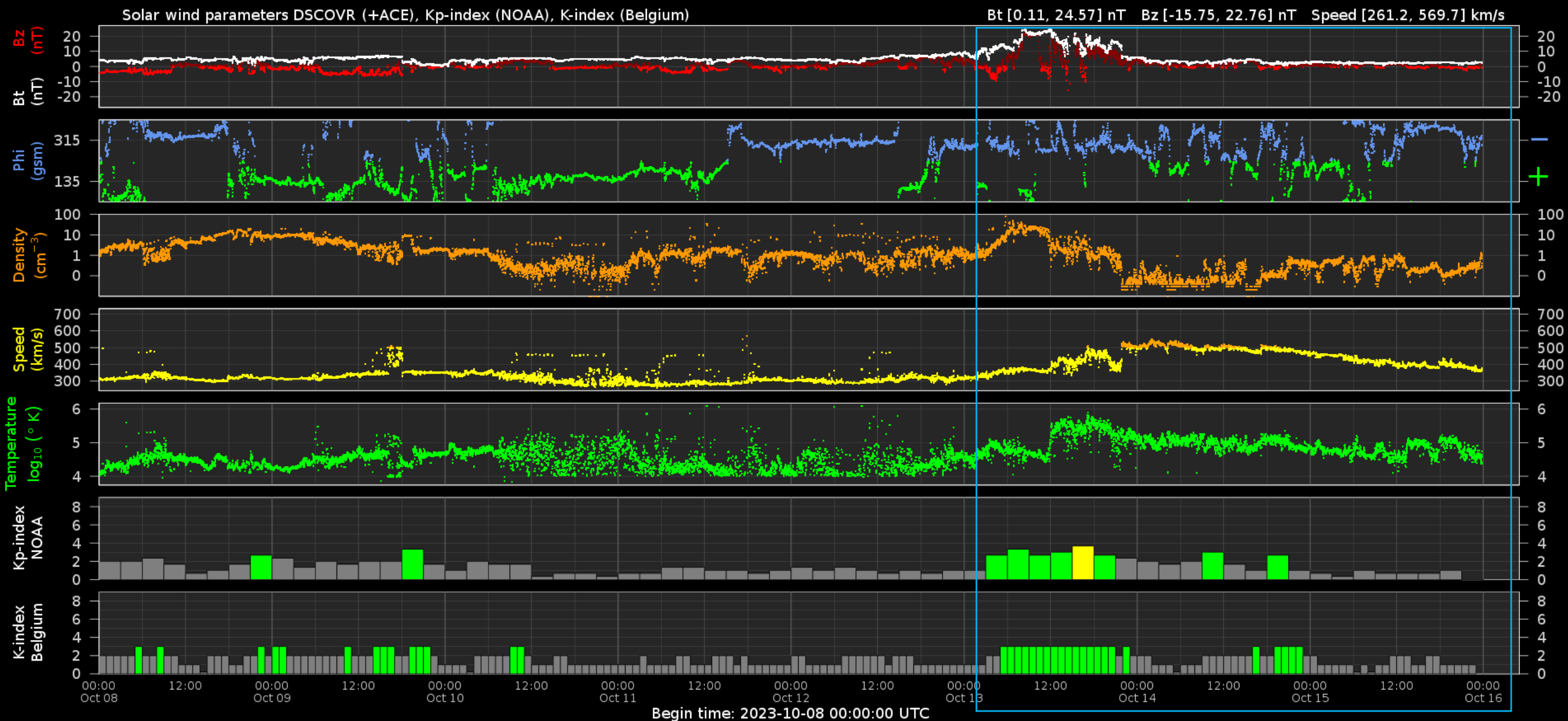
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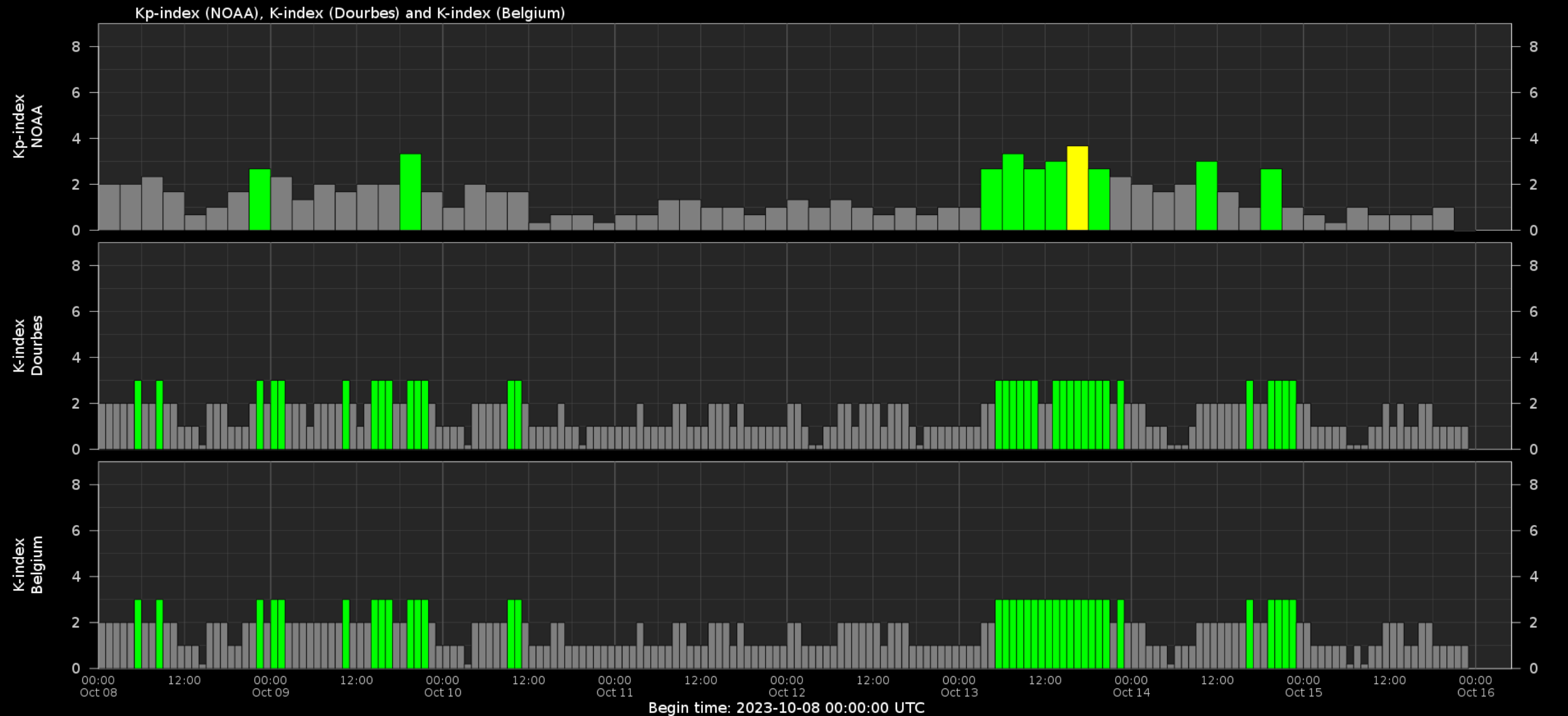
Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



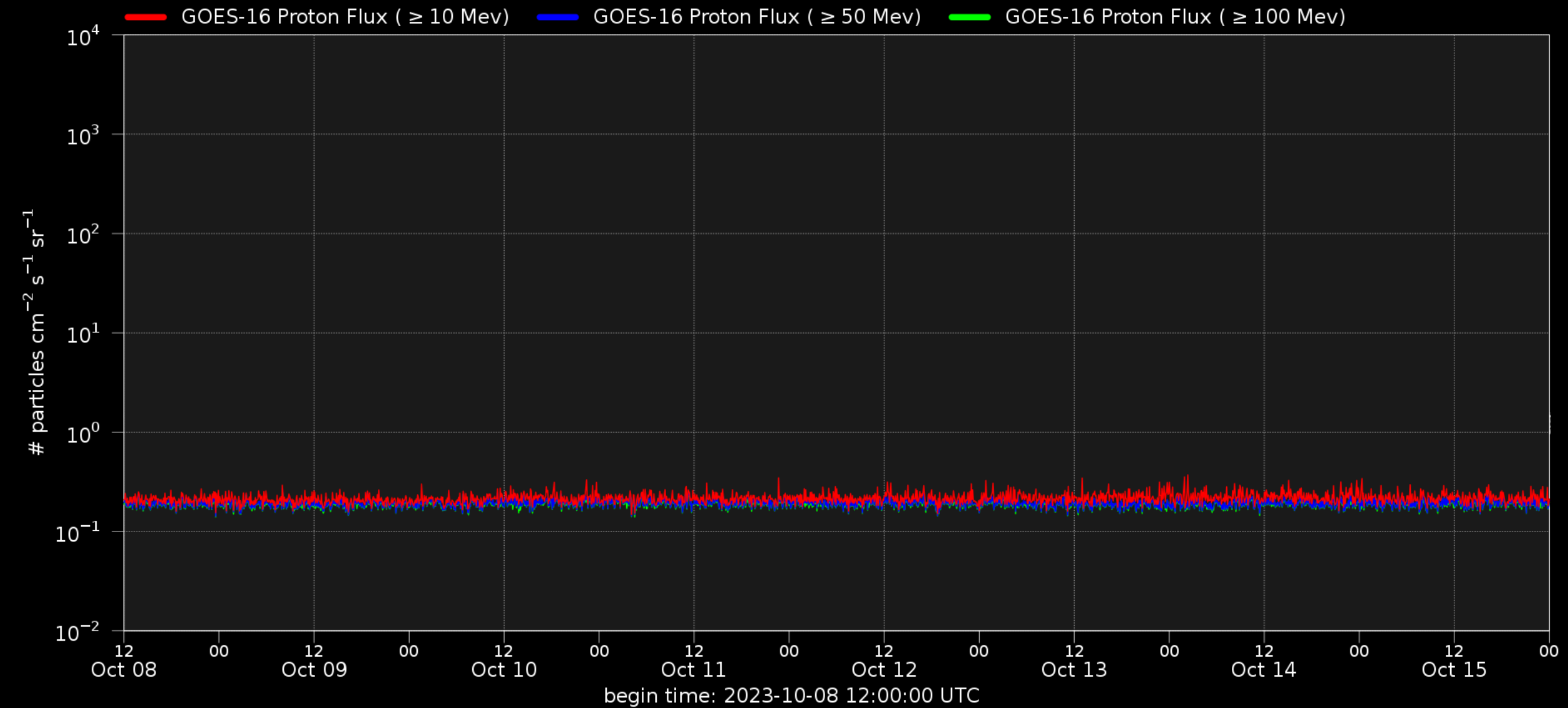
Energetic Particles



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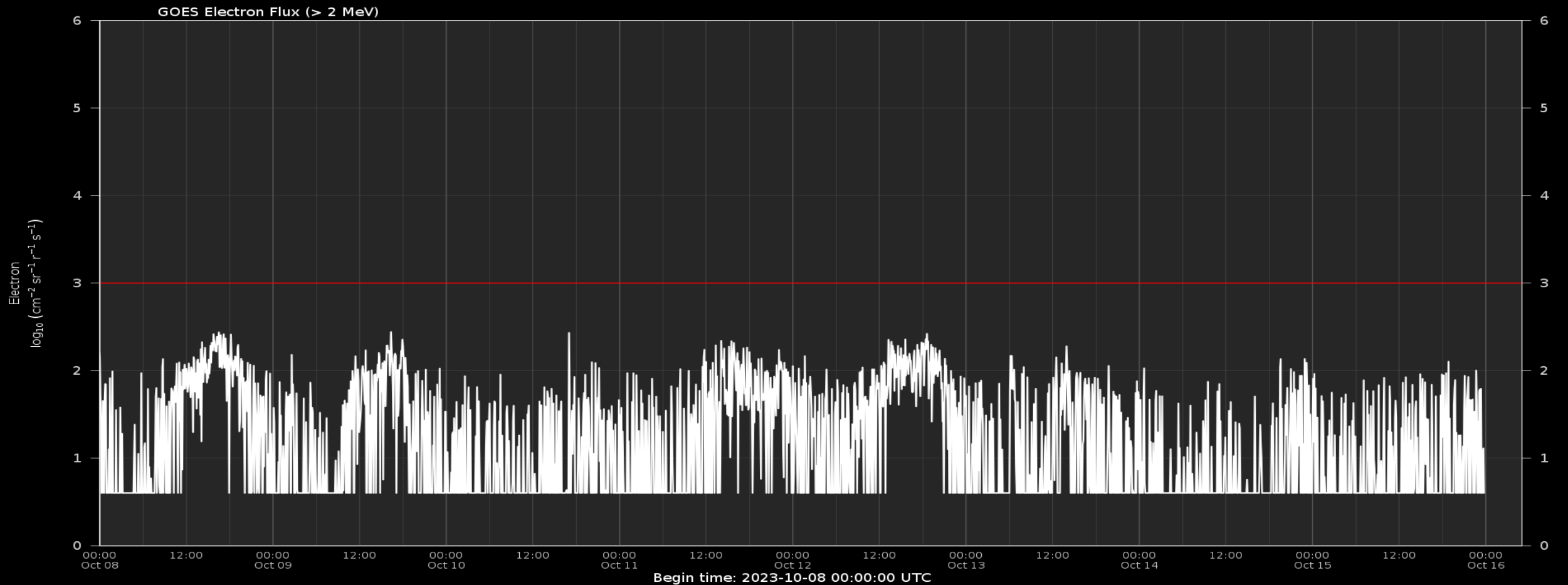
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



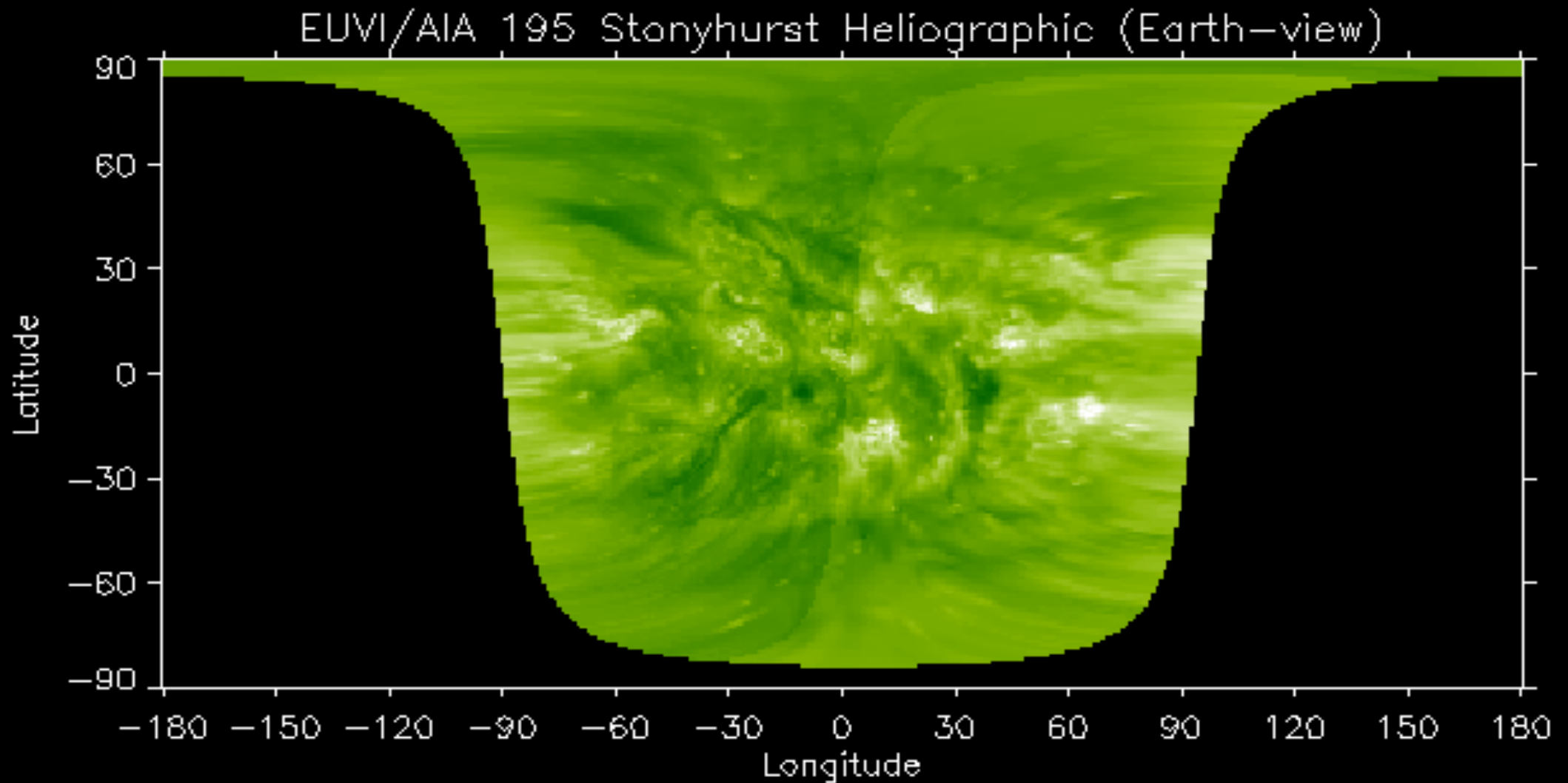
Outlook



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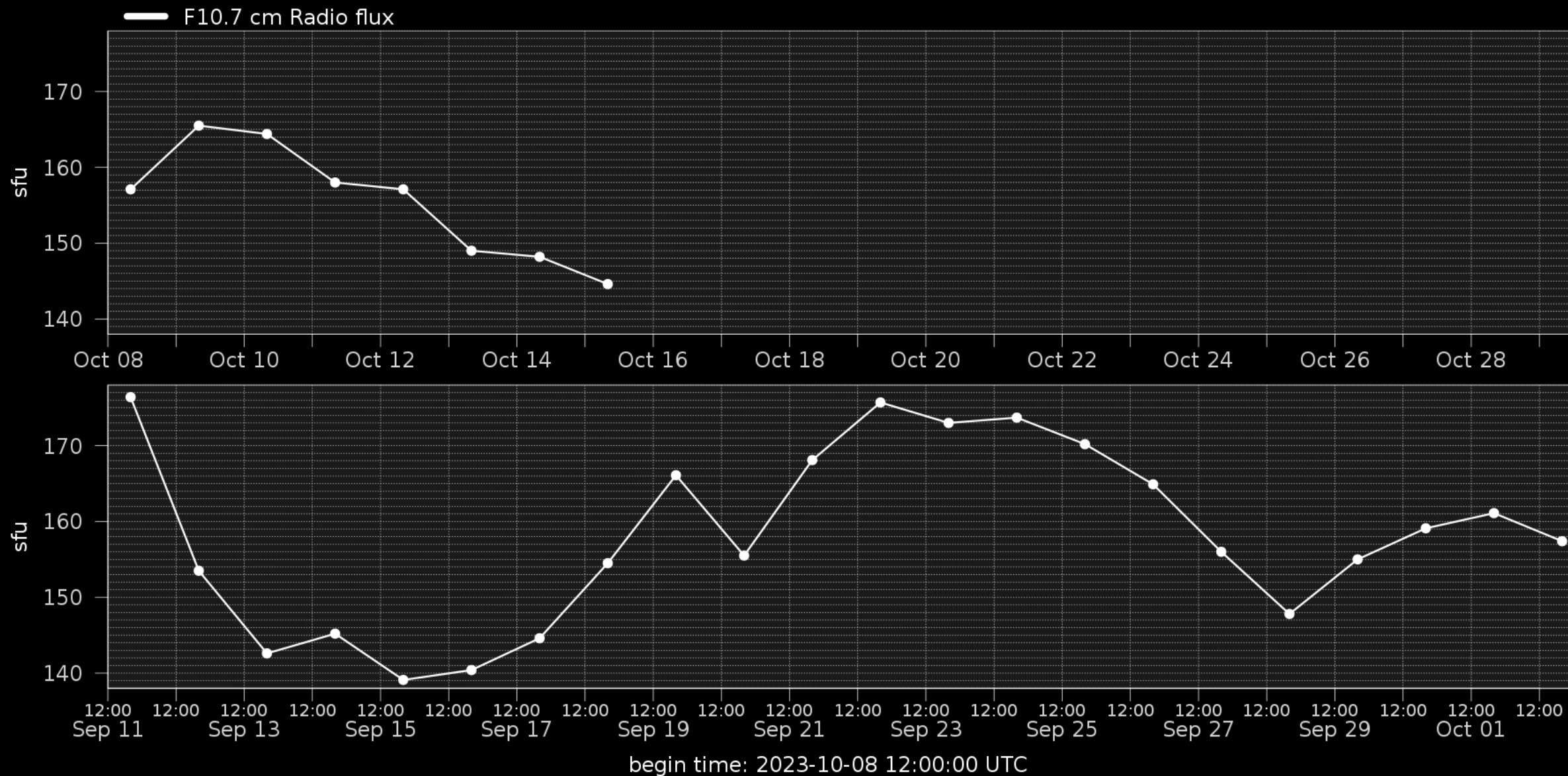
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Outlook: Solar activity



Observation date: 2023/10/15 14:35:00

Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook



Pegasus



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Pegasus related events

Daily GNSS disturbances continue

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