

SIDC Space Weather Briefing

18 August 2024-25 August 2024

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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 2024-08-18 12:00 to 2024-08-25 23:59

Active regions	17 ARs on disk over the week: NOAA AR 3796, 3800 and 3801 were the most active
Flares	# C-class flare: 35 # M-class flare: 17 # X-class flare: 0
Coronal Holes	2 small CH+
CMEs	One small CME detected with possible Earth directed component

Proton flux	Nominal levels below 10 pfu threshold
Electron flux	Nominal levels below 1000 pfu threshold

Solar wind and geomagnetic conditions

ICMEs	No ICME arrival
Solar wind conditions	B : 1.8 - 11.71 nT //Bz: -10.18 nT to 8.61 nT //Speed: 282.2 - 424.5km/s
Geomagnetic conditions	max K _{BeI} : 4.0, max K _p (NOAA): 3.67, mostly quiet to unsettled, isolated active period

All Quiet Alert: Not all quiet

Solar Activity

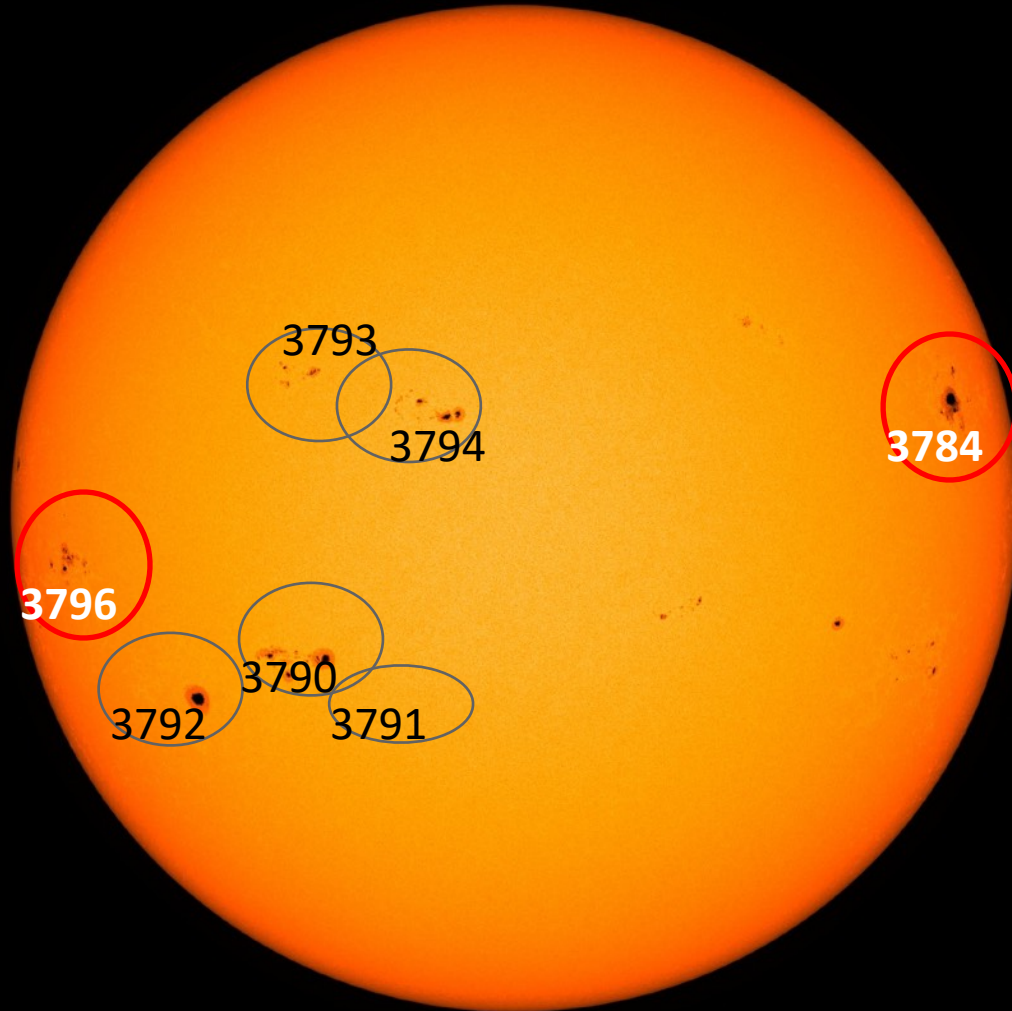


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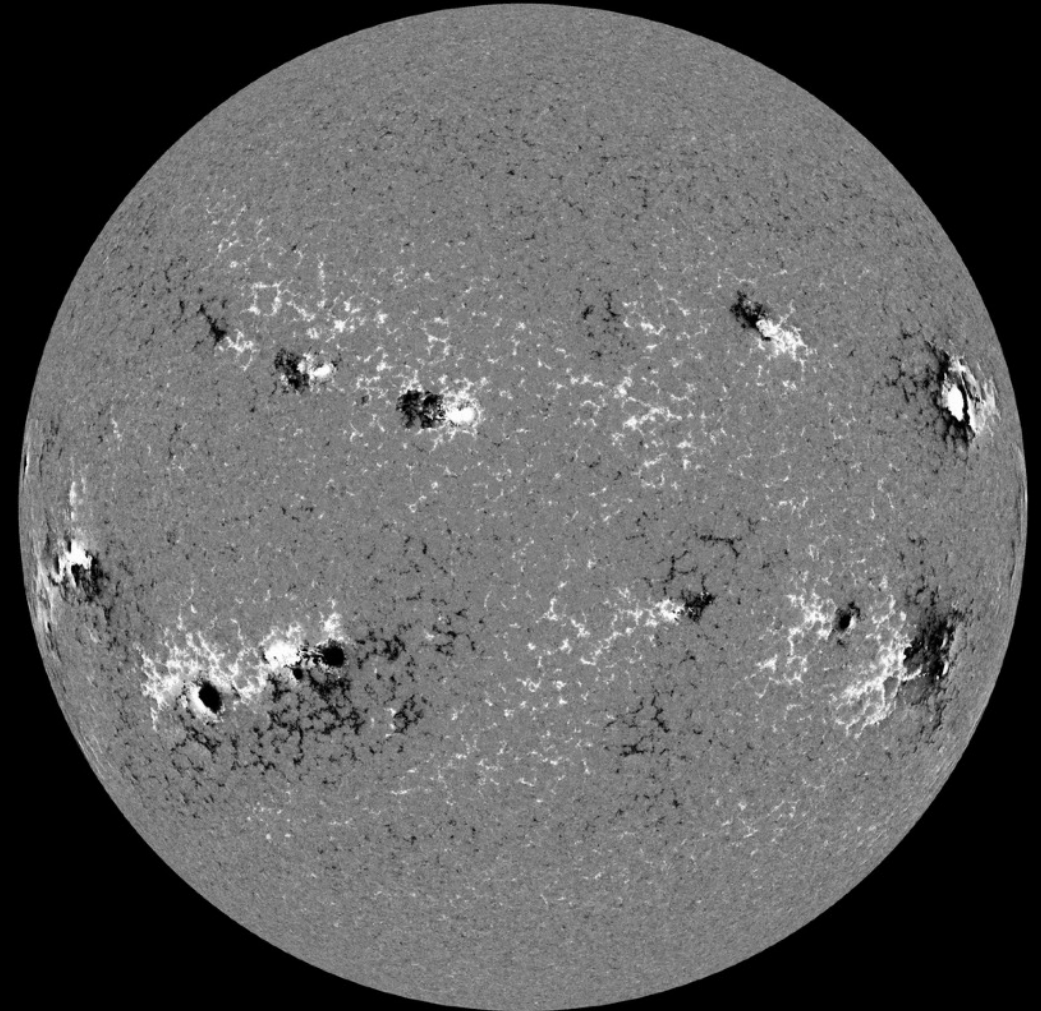
Solar active regions

SDO/HMI White Light 2024-08-19



SDO/HMI Quick-Look Continuum: 20240819_114500

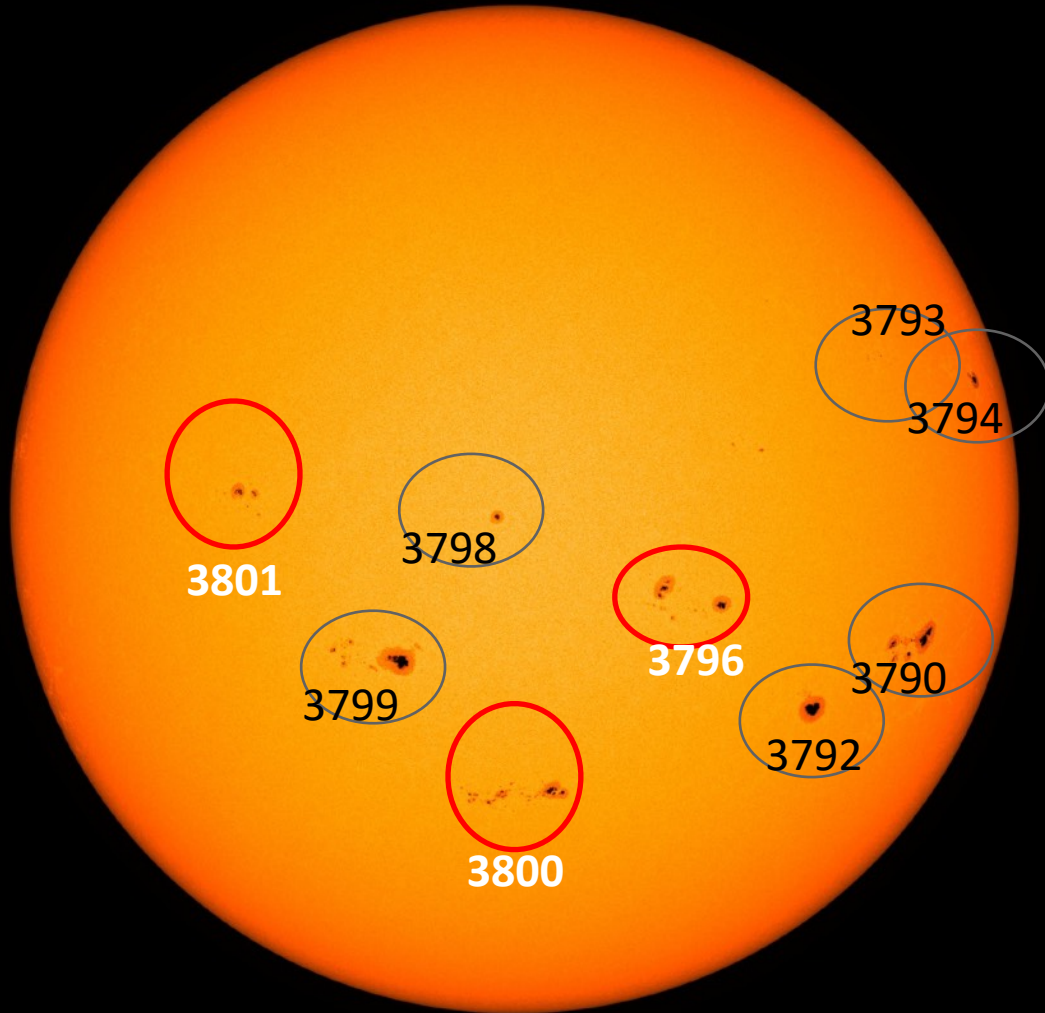
SDO/HMI Magnetogram 2024-08-19



SDO/HMI Quick-Look Magnetogram: 20240819_114500

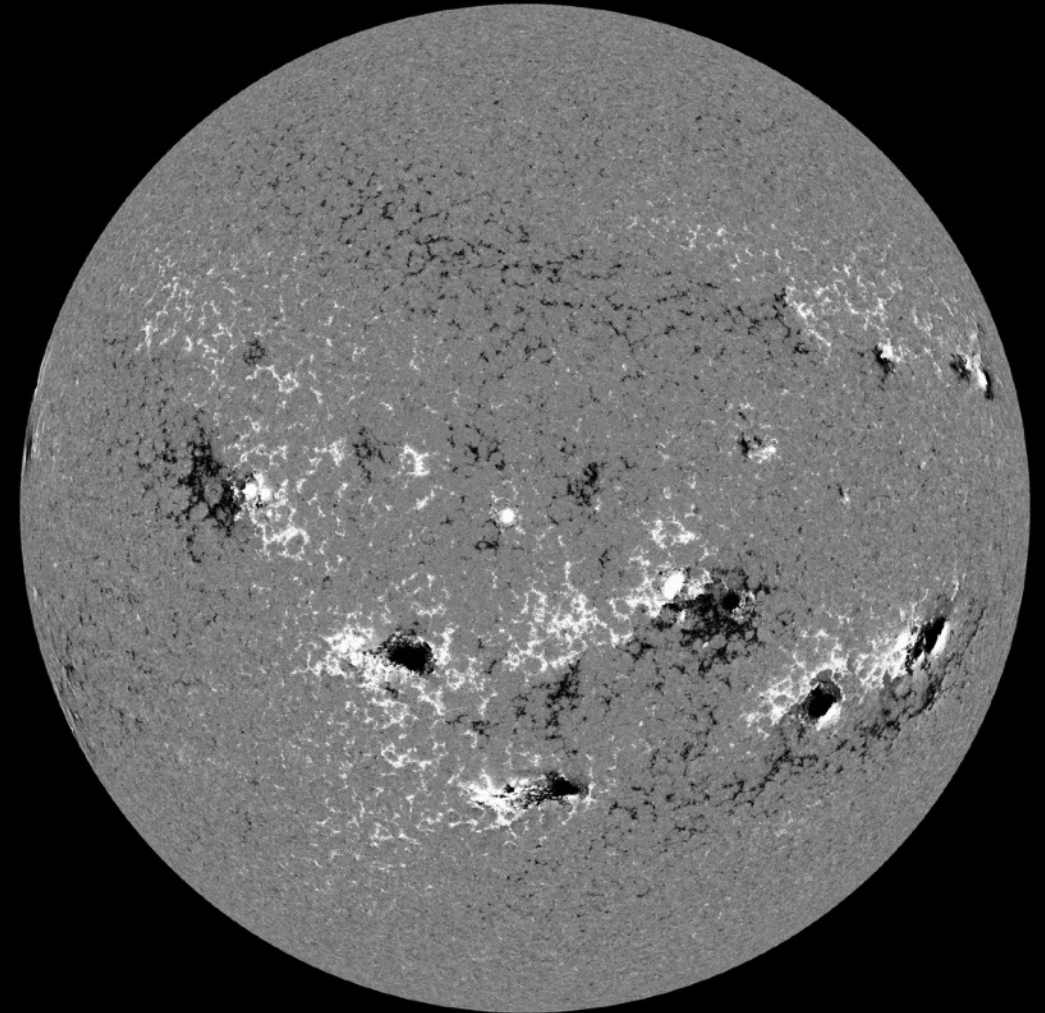
Solar active regions

SDO/HMI White Light 2024-08-25



SDO/HMI Quick-look Continuum: 20240825_114500

SDO/HMI Magnetogram 2024-08-25



SDO/HMI Quick-look Magnetogram: 20240825_114500

Coronal holes

SDO/AIA 19.3 nm 2024-08-19



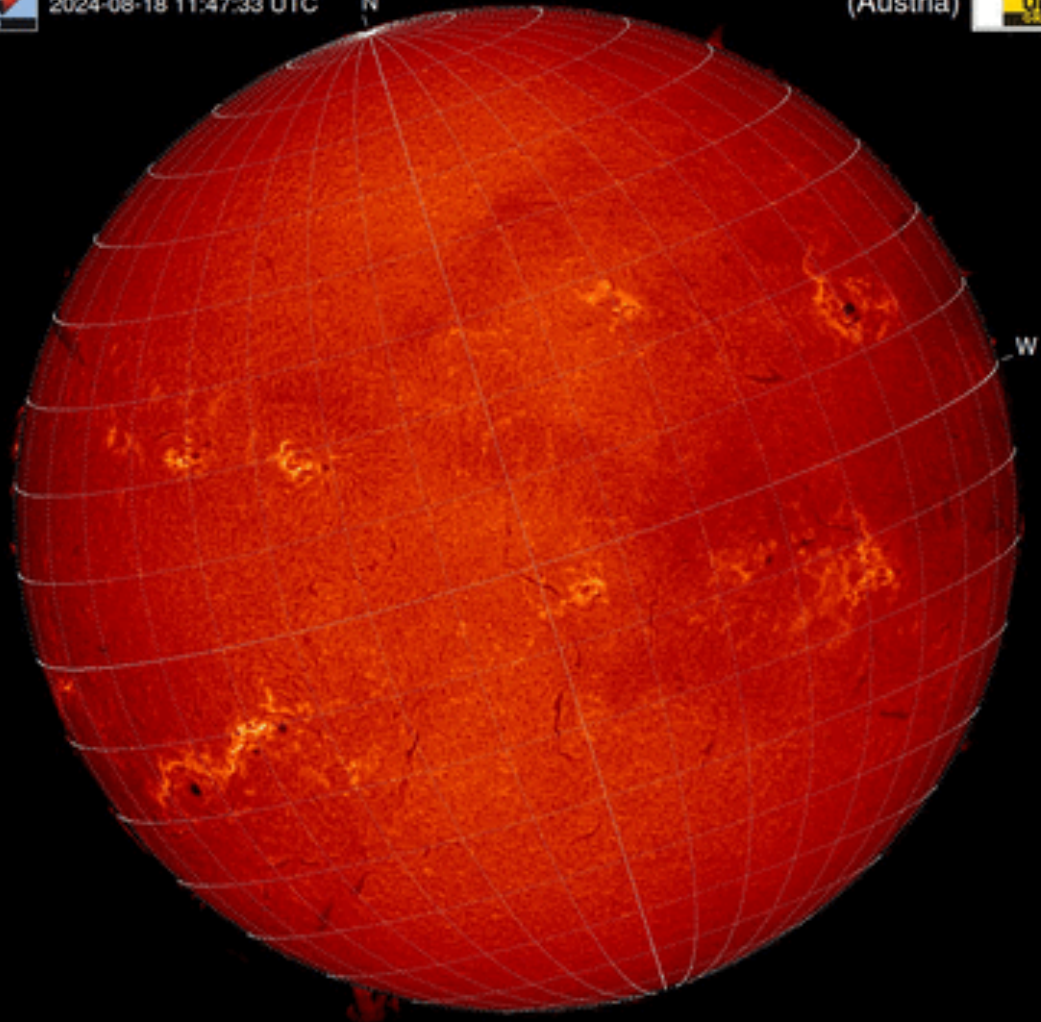
Filaments & Filament eruptions

H-alpha 2024-08-18



Kanzelhöhe Observatory
2024-08-18 11:47:33 UTC

University of Graz
(Austria)

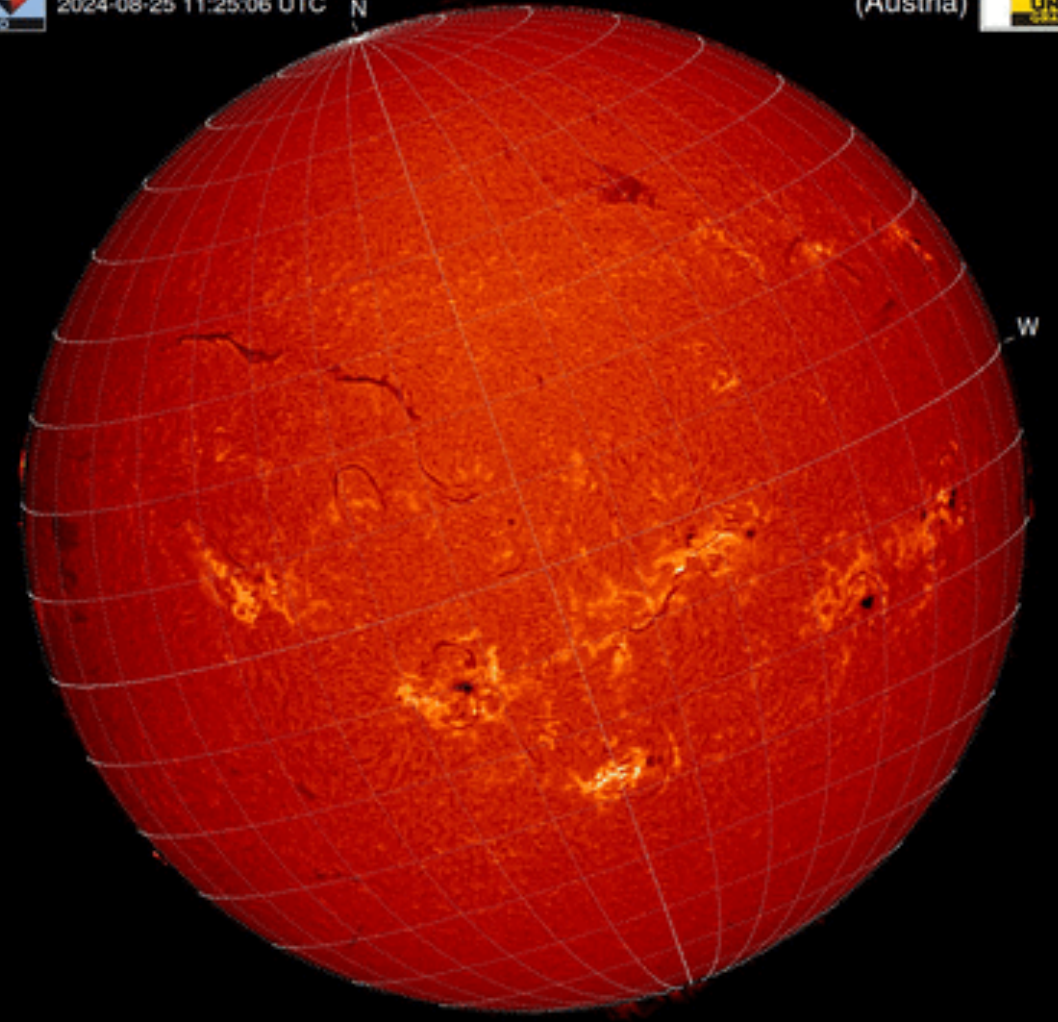


H-alpha 2024-08-25

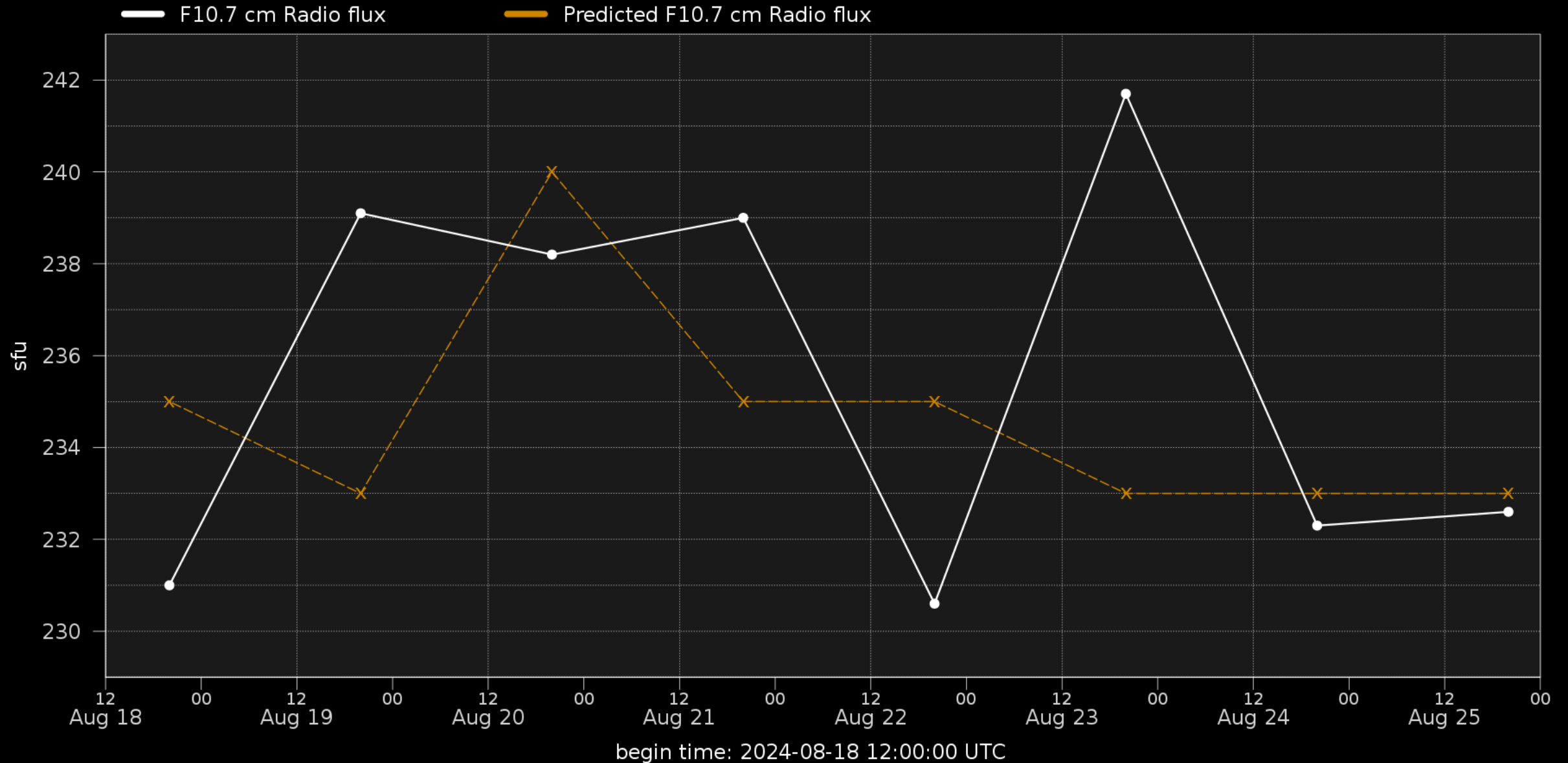


Kanzelhöhe Observatory
2024-08-25 11:25:06 UTC

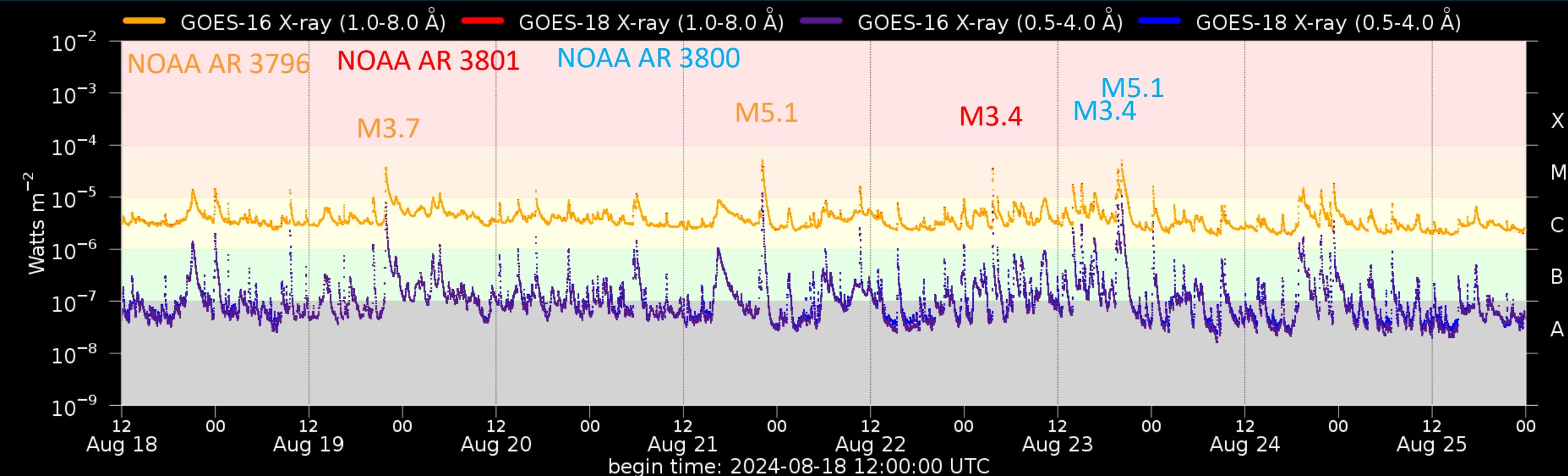
University of Graz
(Austria)



Solar F10.7cm radio flux



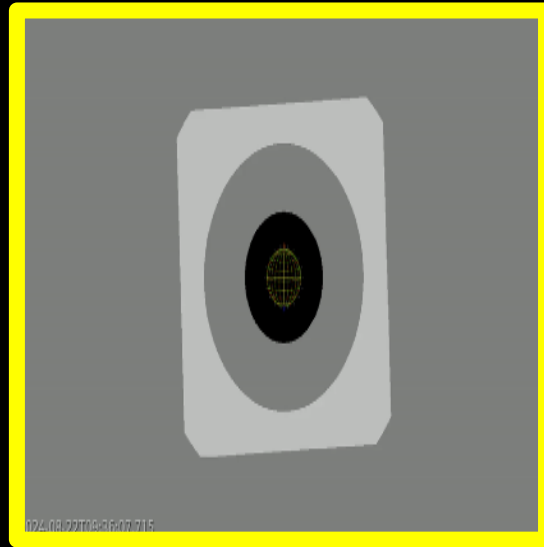
Flaring activity



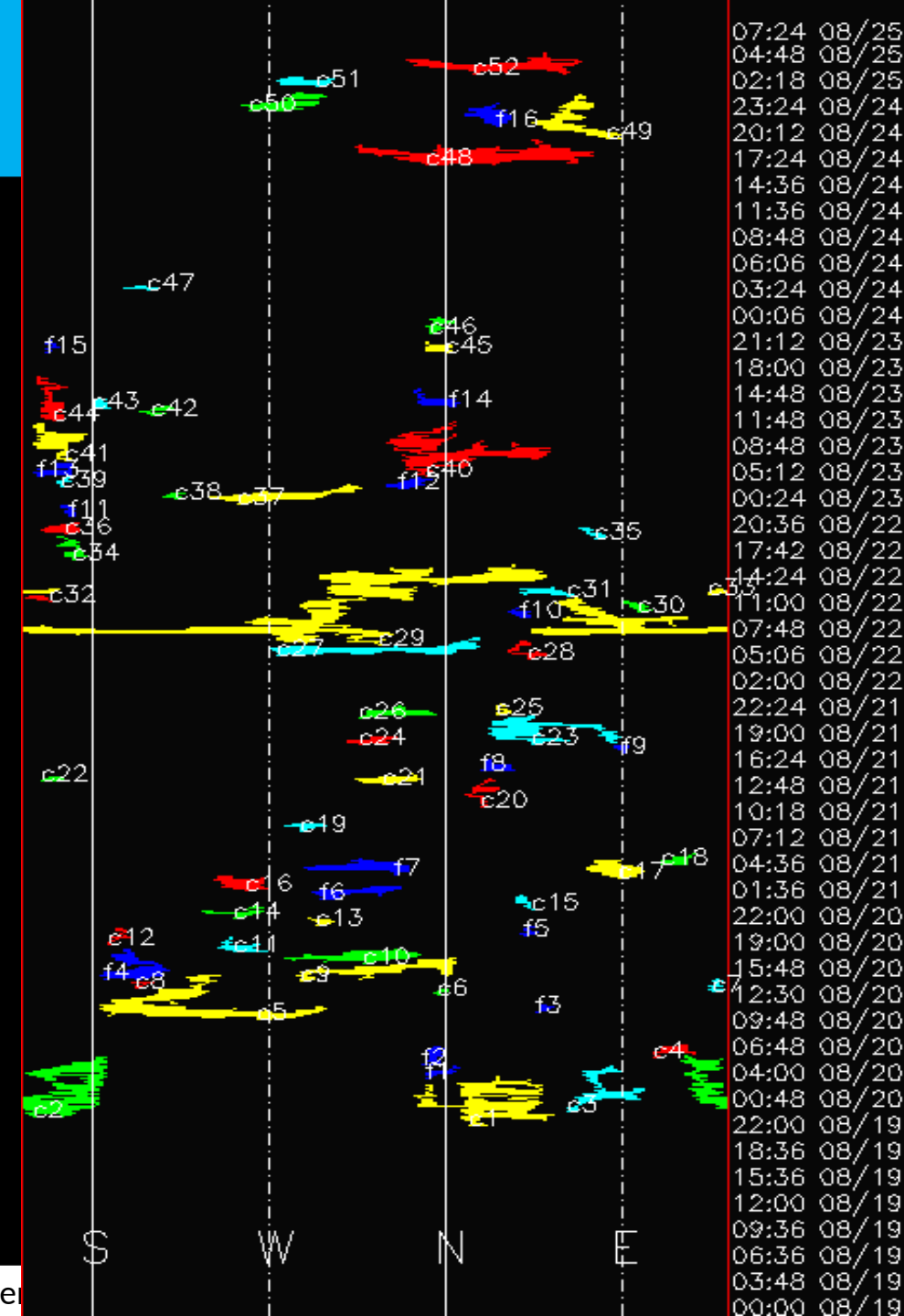
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2024-08-18	2024-08-19	2024-08-20	2024-08-21	2024-08-22	2024-08-23	2024-08-24	2024-08-25
Probability (%)	99 80 20	99 80 20	99 85 20	99 85 10	99 85 10	99 75 05	99 85 05	99 85 05
Observed (#)	05 02 00	00 00 00	04 02 00	03 02 00	08 02 00	04 06 00	08 03 00	03 00 00

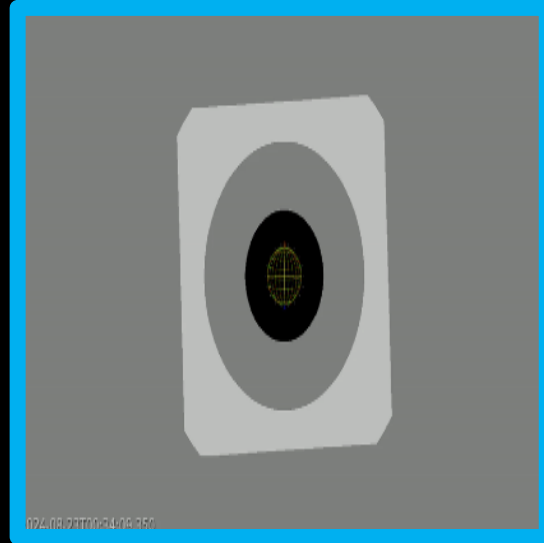
Coronal Mass Ejections



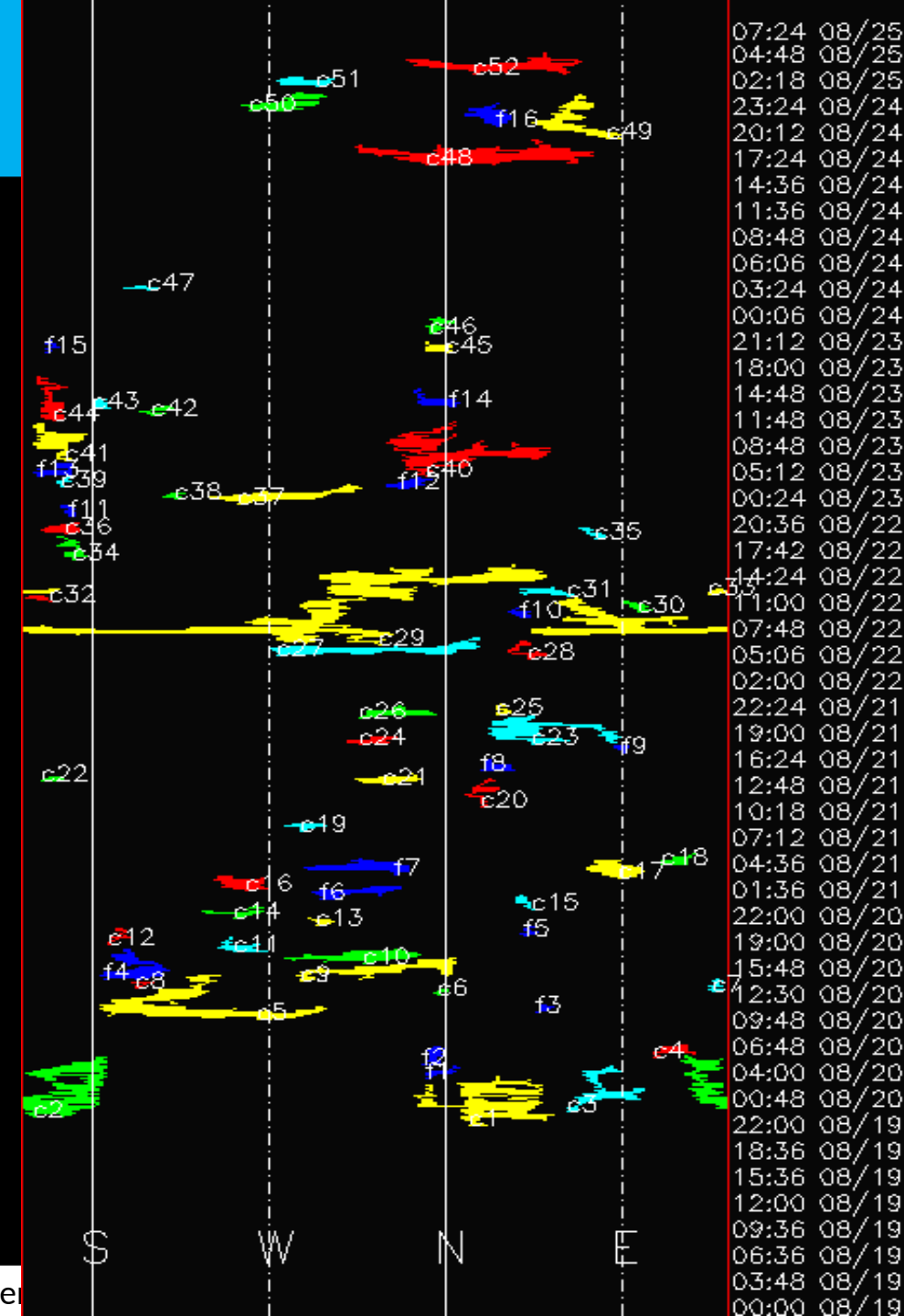
The halo-CME detection issued by Cactus on 2024-08-22T21:03 is the result of a combination of several narrow Coronal Mass Ejections. None of these CMEs are Earth directed.



Coronal Mass Ejections



CME detected in LASCO C2 data at 02:06 UTC on August 23.
May impact on Earth early 27 August 2024



Solar Wind and

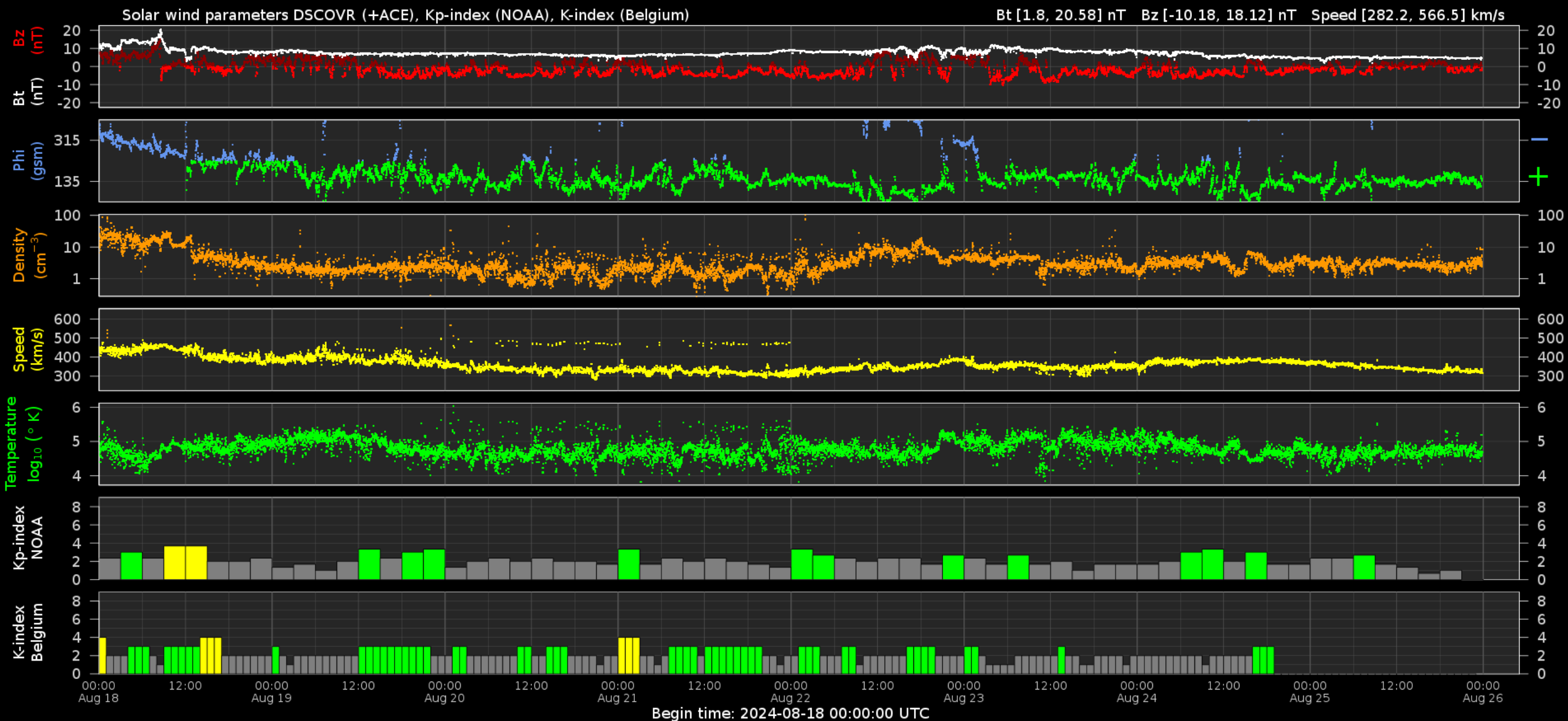
Geomagnetic Activity



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Solar wind parameters & K-indices



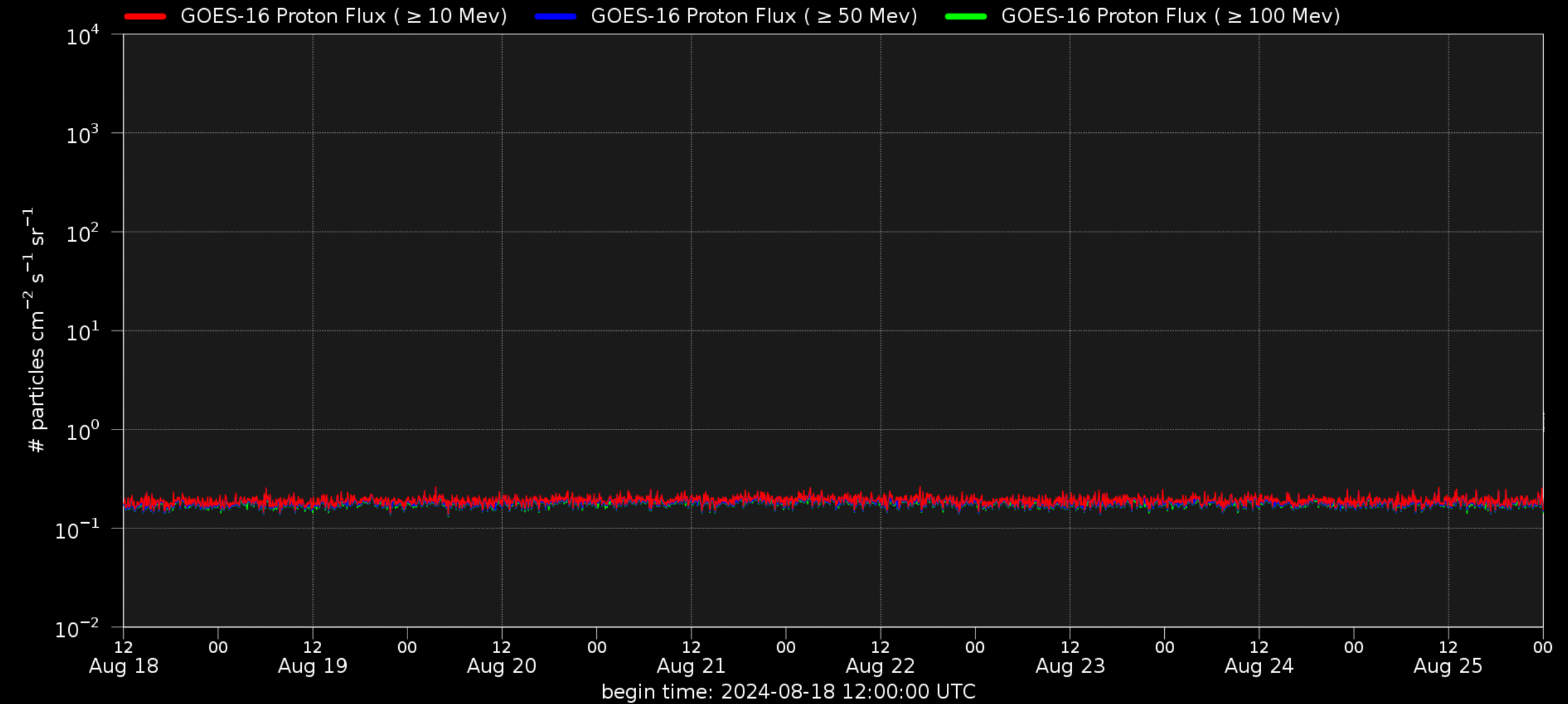
Energetic Particles



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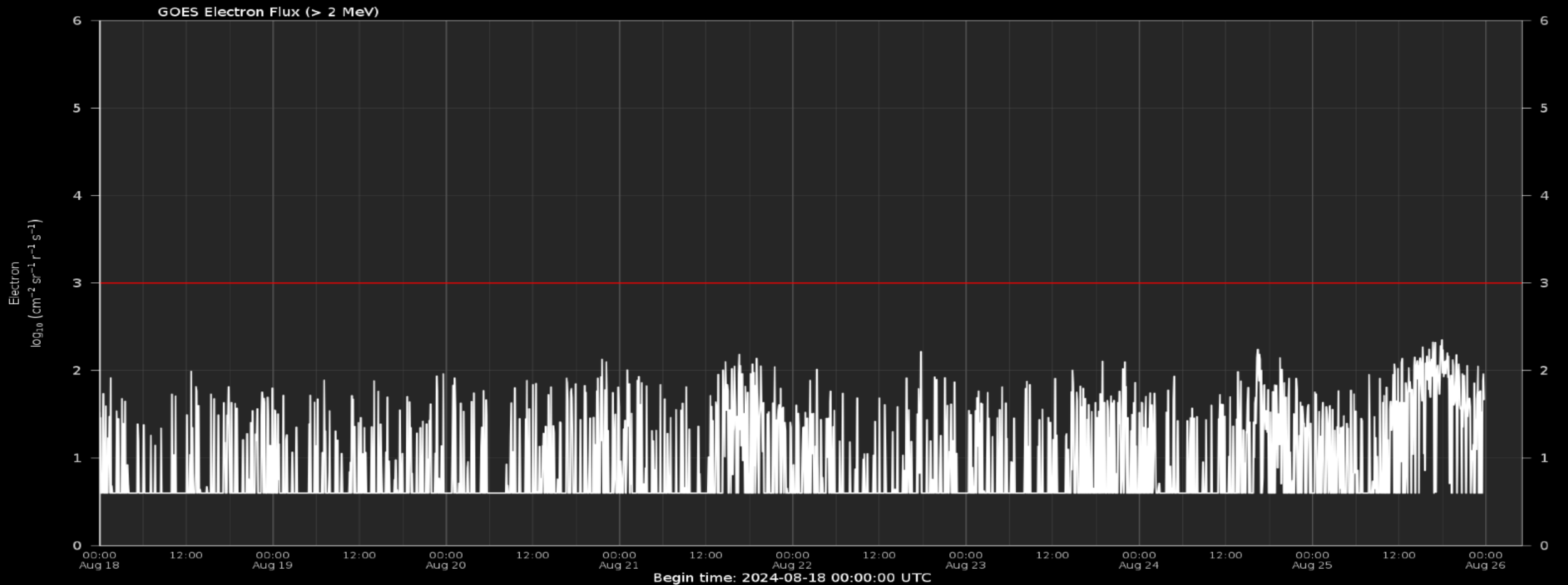
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



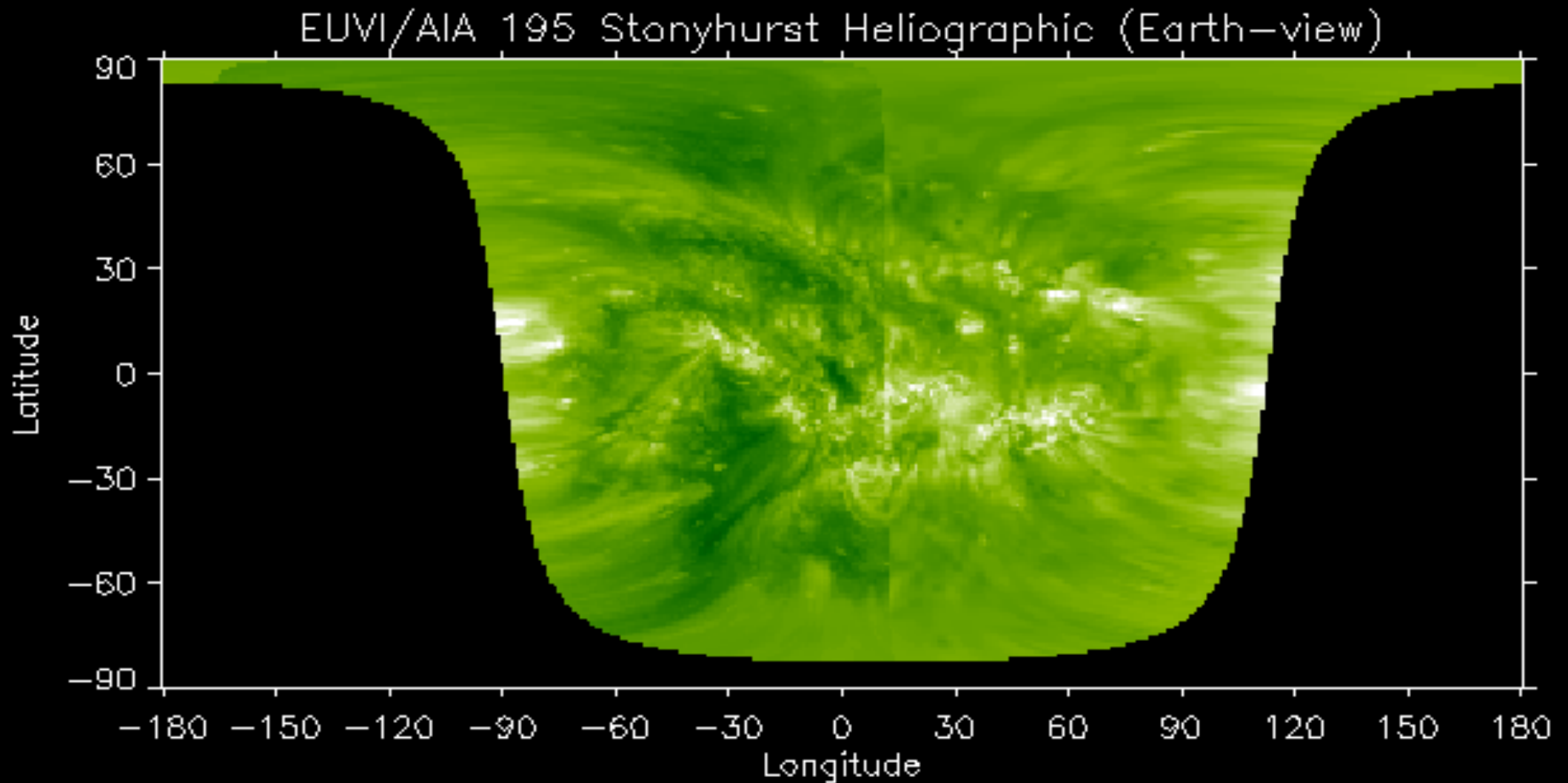
Outlook



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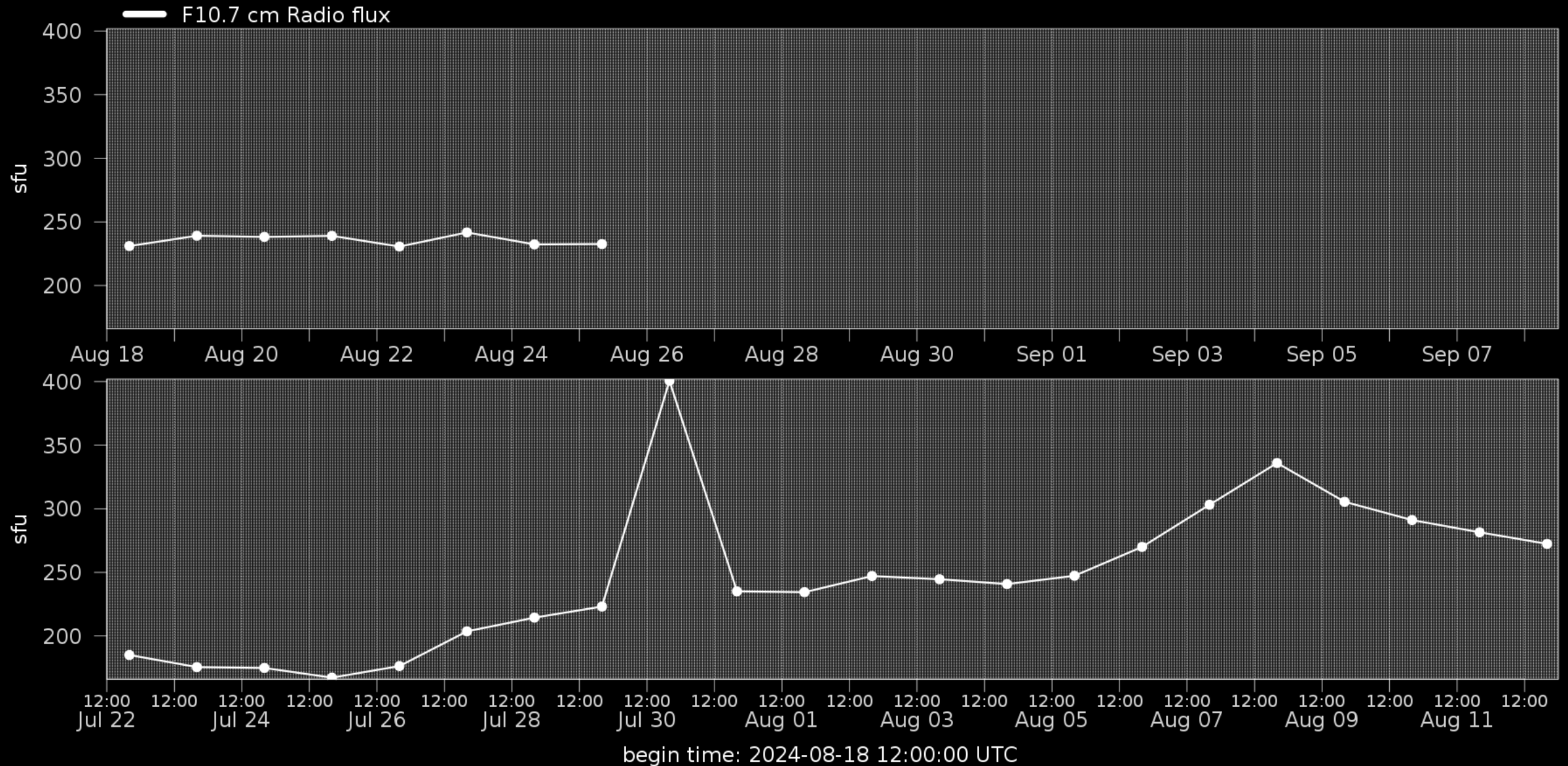
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Outlook: Solar activity



Observation date: 2024/08/25 23:05:00

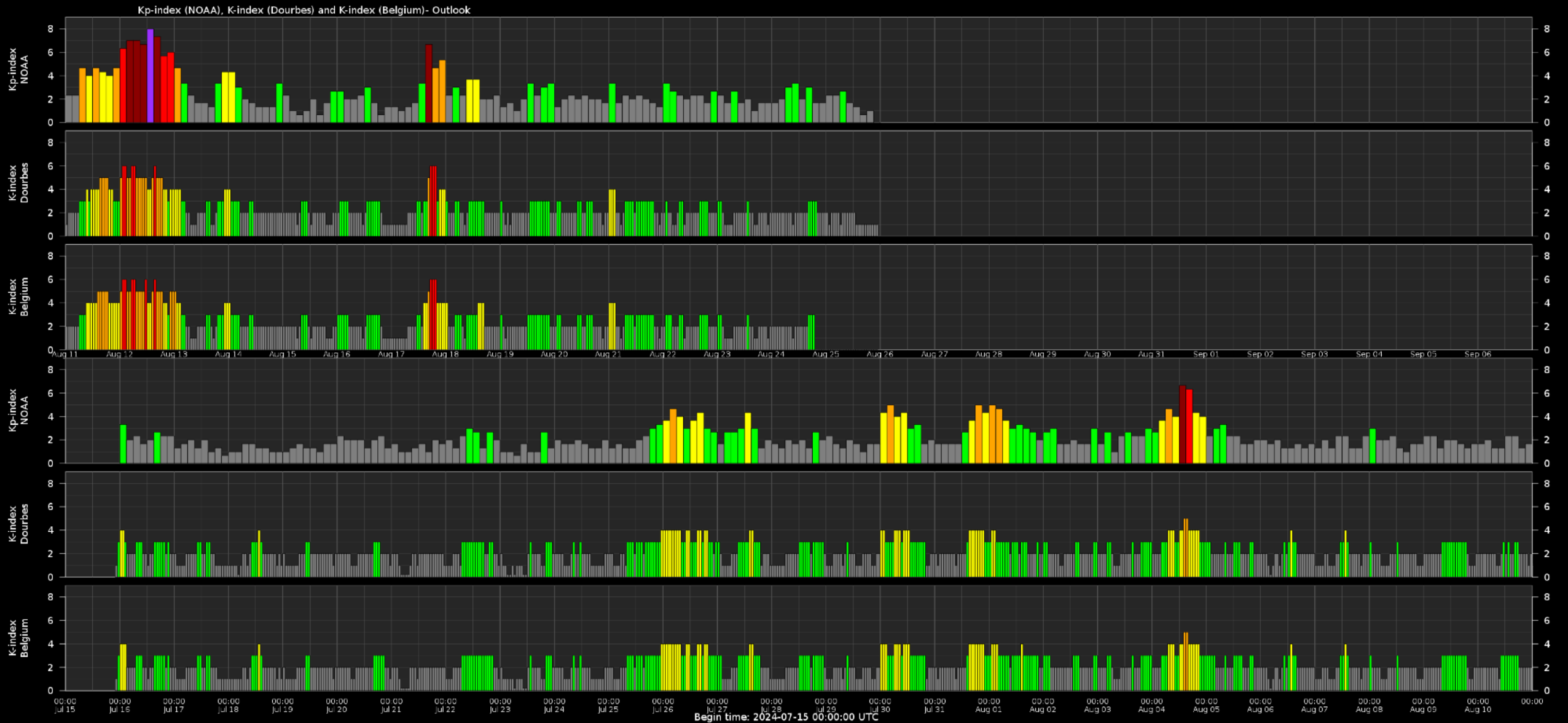
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



PECASUS



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Pegasus related events

HF COM advisories at the beginning of the week due to Post Storm Depression.

GNSS advisories - due to Amplitude and Phase Scintillation due to equatorial plasma bubbles.

SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



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