SIDC Space Weather Briefing

08 September 2024-15 September 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 2024-09-08 12:00 to 2024-09-15 23:59

Active regions	NOAA 3806, 3811, 3814, 3825 (X1.3 @ 12/9 09:43 UTC, X4.5 @ 14/9 15:29 UTC)
Flares	# C-class flare: 14 # M-class flare: 21 # X-class flare: 2
Coronal Holes	Two crossings 10/9 (northern negative): 14/9, 12 Sep (southern positive): 15/9
CMEs	Four CMEs: 9, 10, 13, 14 Sep

Proton flux	9 Sep (weak, short-lived), 14 Sep (increase)
Electron flux	Above threshold 14 & 15 Sep

Solar wind and geomagnetic conditions

ICMEs	11, 12, 16 Sep
Solar wind conditions	|B|: 0.71 - 29.91 nT //Bz: -26.3 nT to 17.41 nT //Speed: 316.2 - 622.6km/s
Geomagnetic conditions	max KBel: 6.0, max Kp(NOAA): 7.0, Major Storm conditions

All Quiet Alert: Not quiet

Solar Activity

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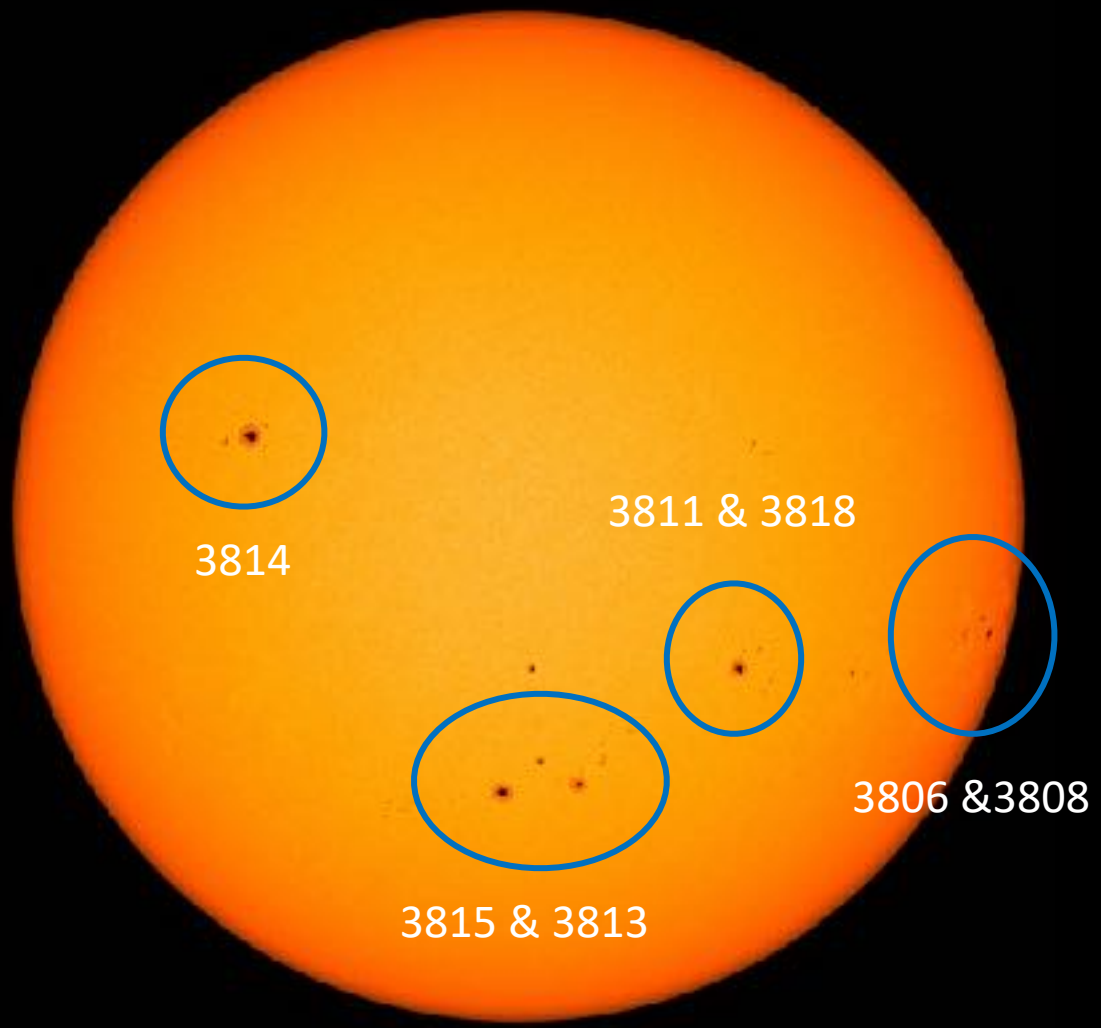
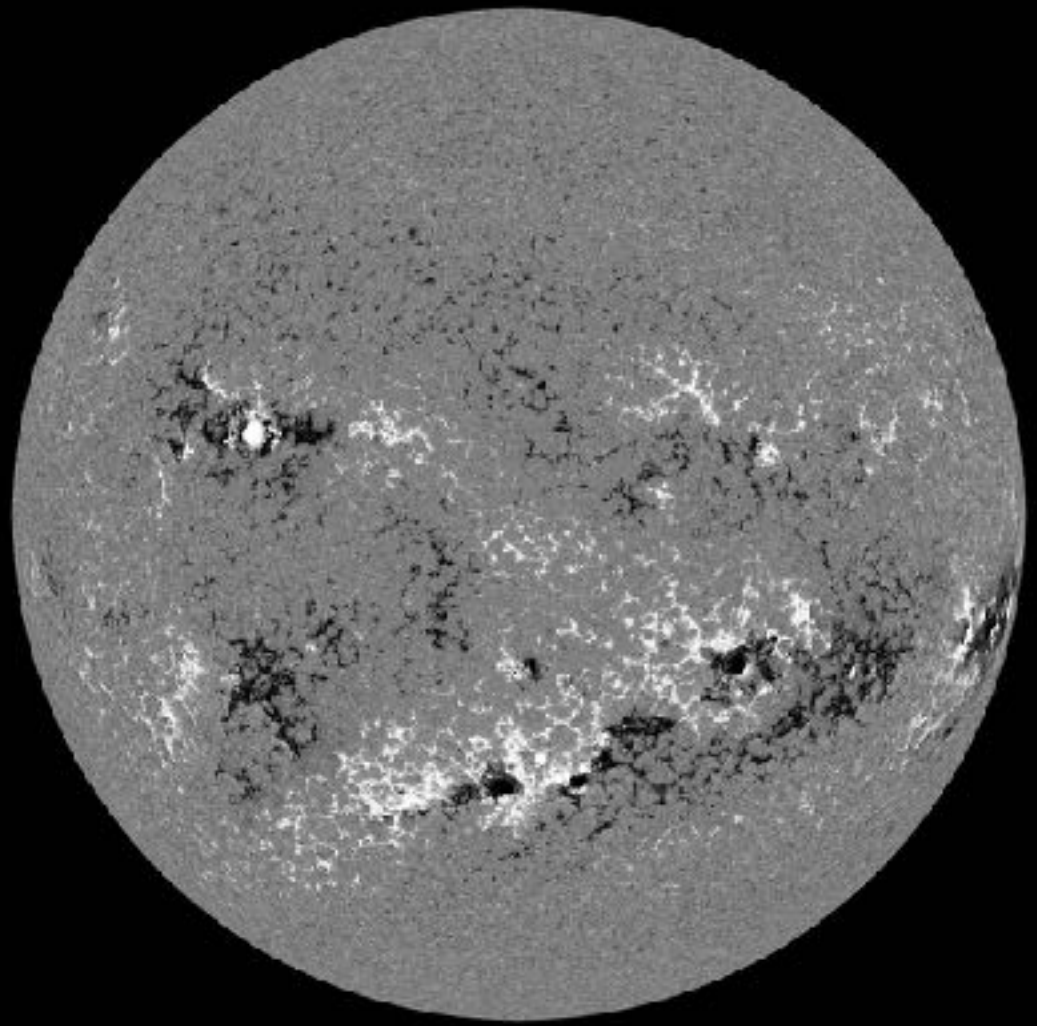
Solar active regions

SDO/HMI White Light 2024-09-08

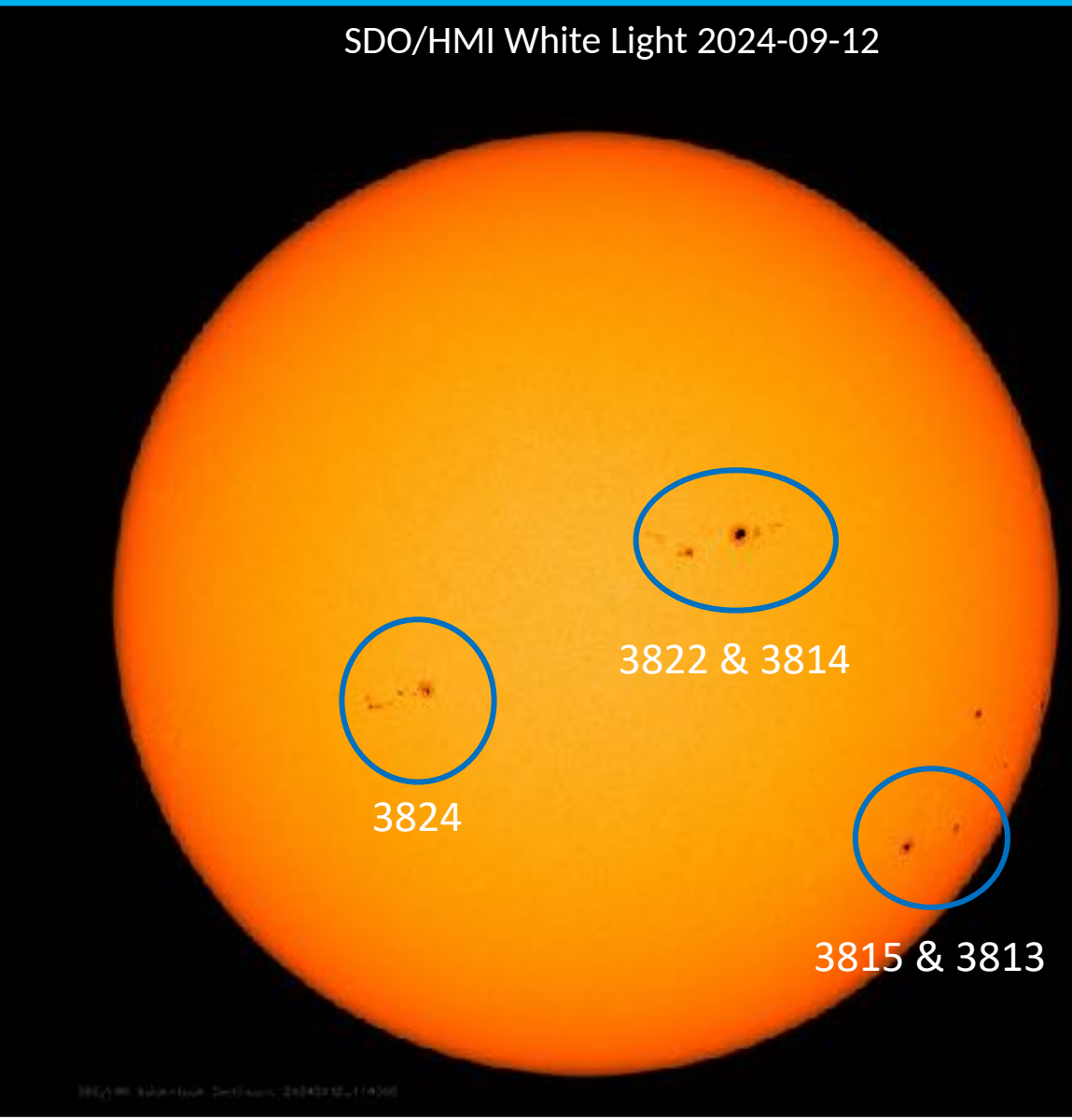


SDO/HMI Magnetogram 2024-09-08

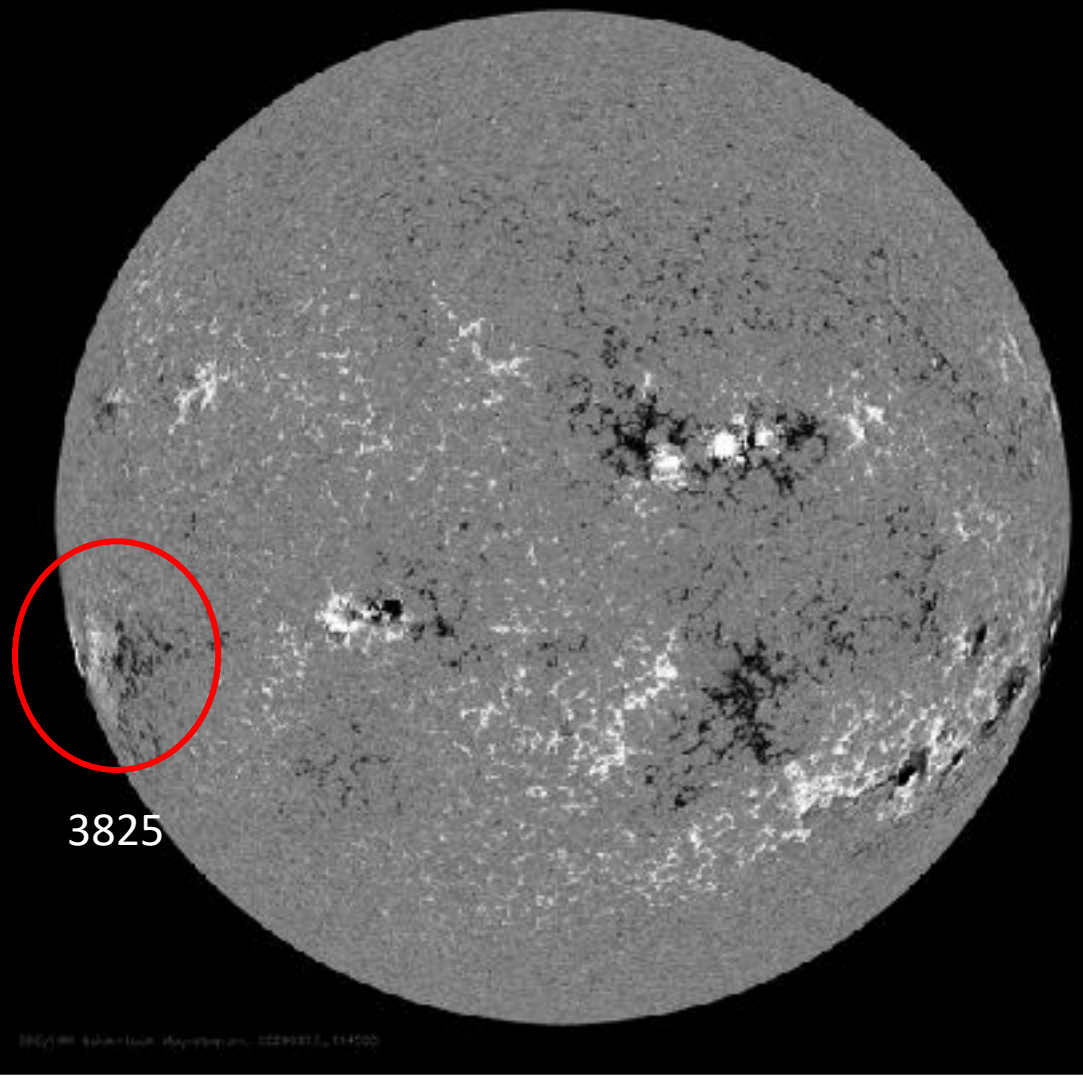


Solar active regions

SDO/HMI White Light 2024-09-12

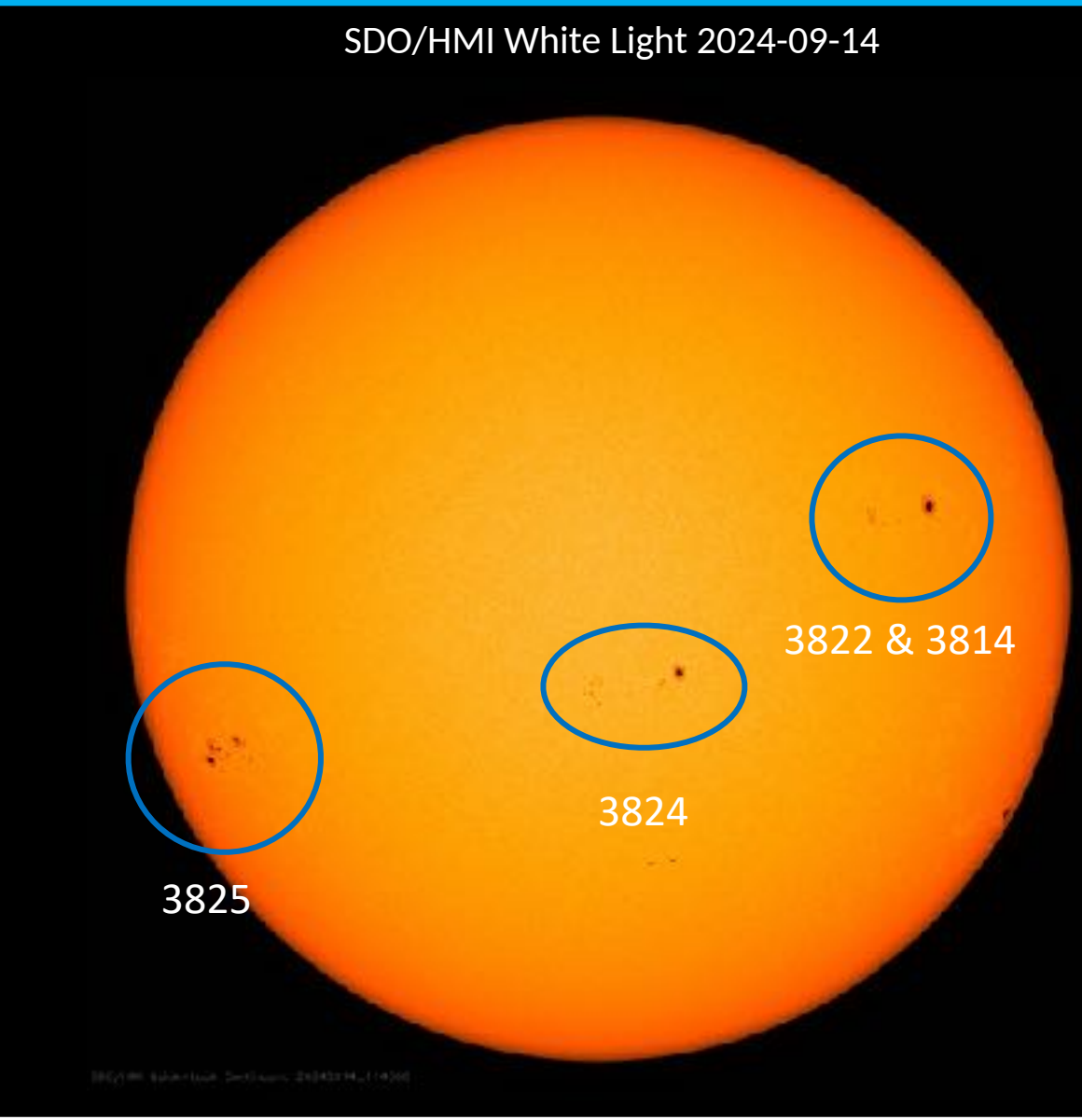


SDO/HMI Magnetogram 2024-09-12

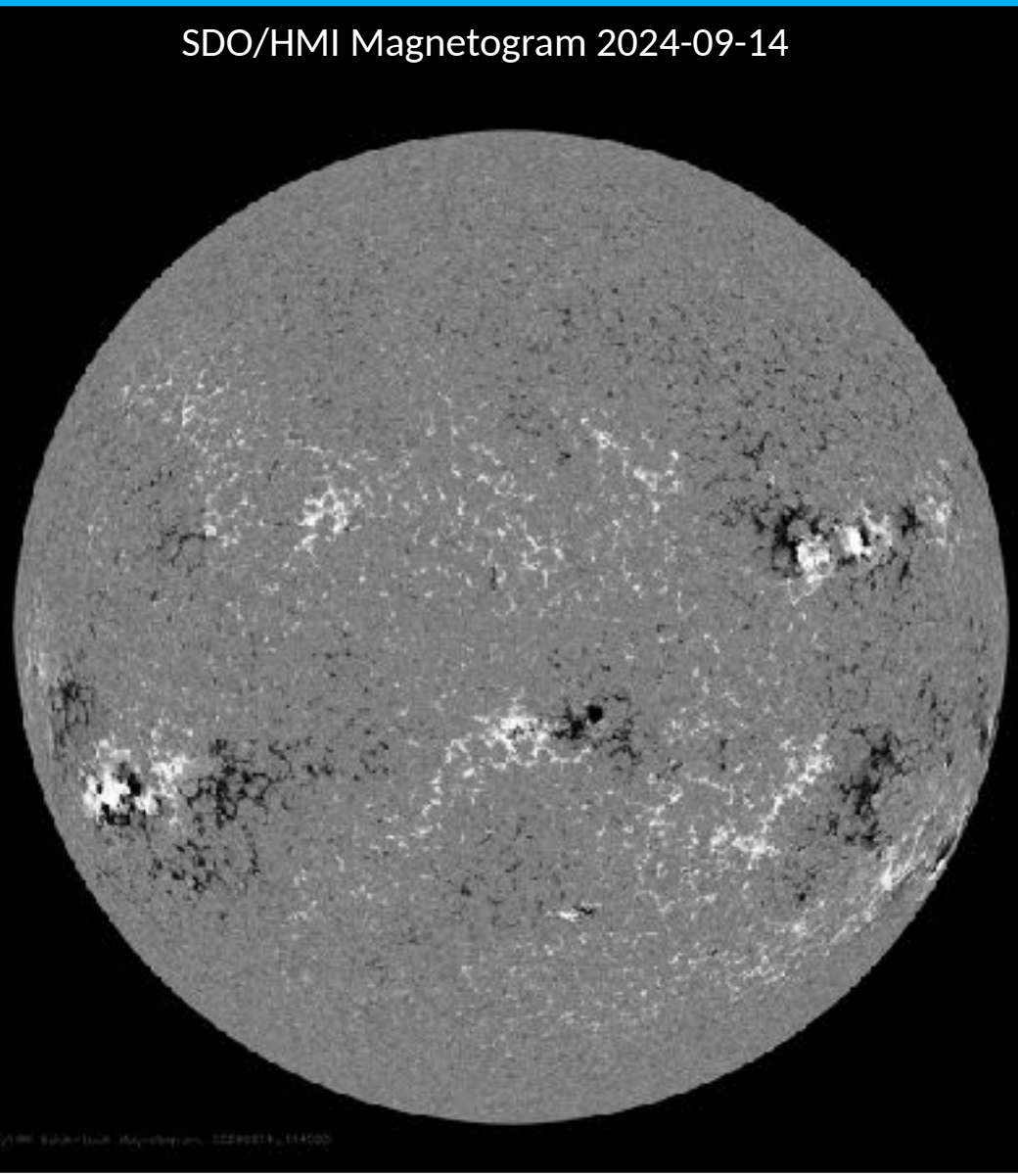


Solar active regions

SDO/HMI White Light 2024-09-14

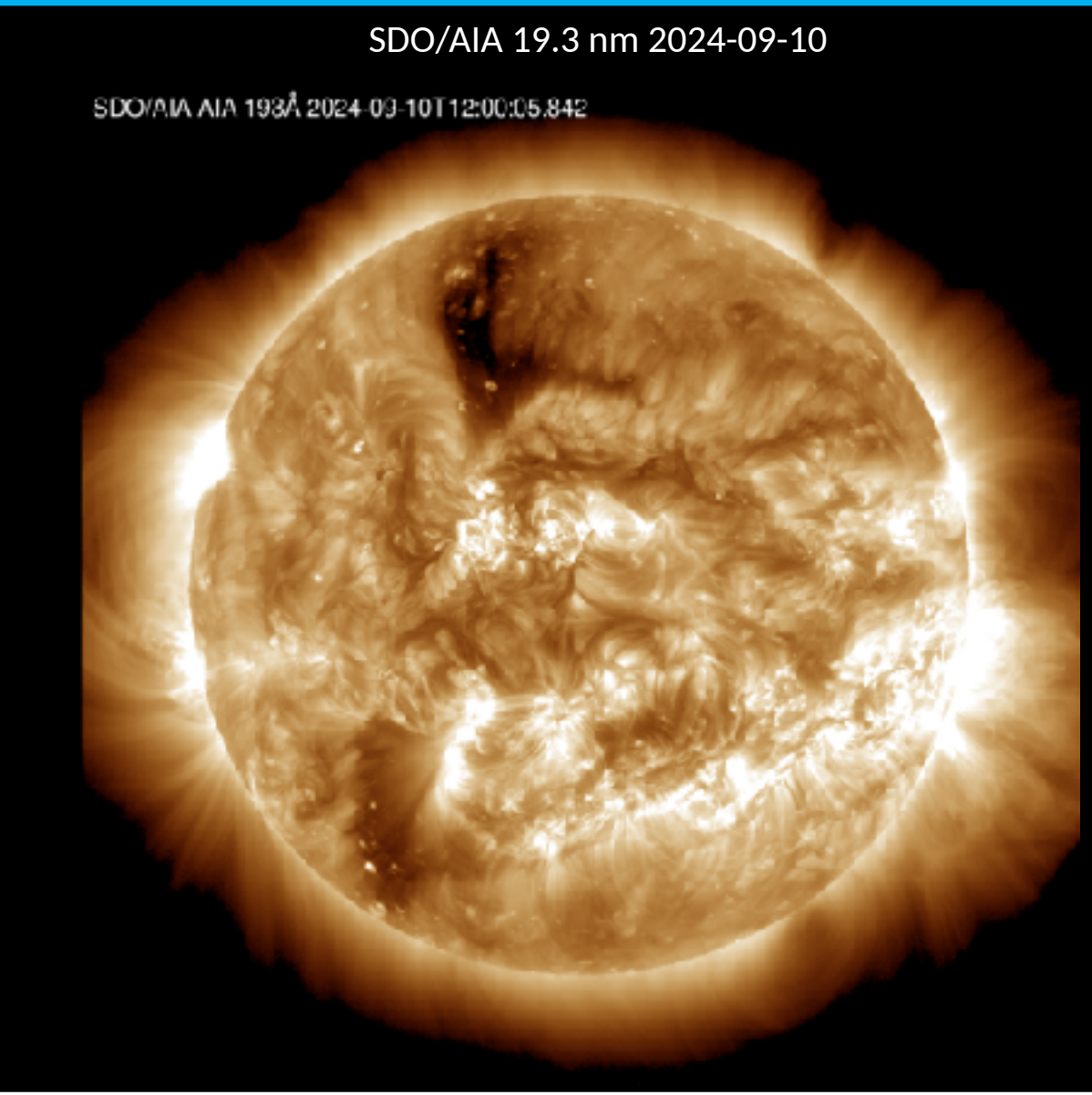


SDO/HMI Magnetogram 2024-09-14

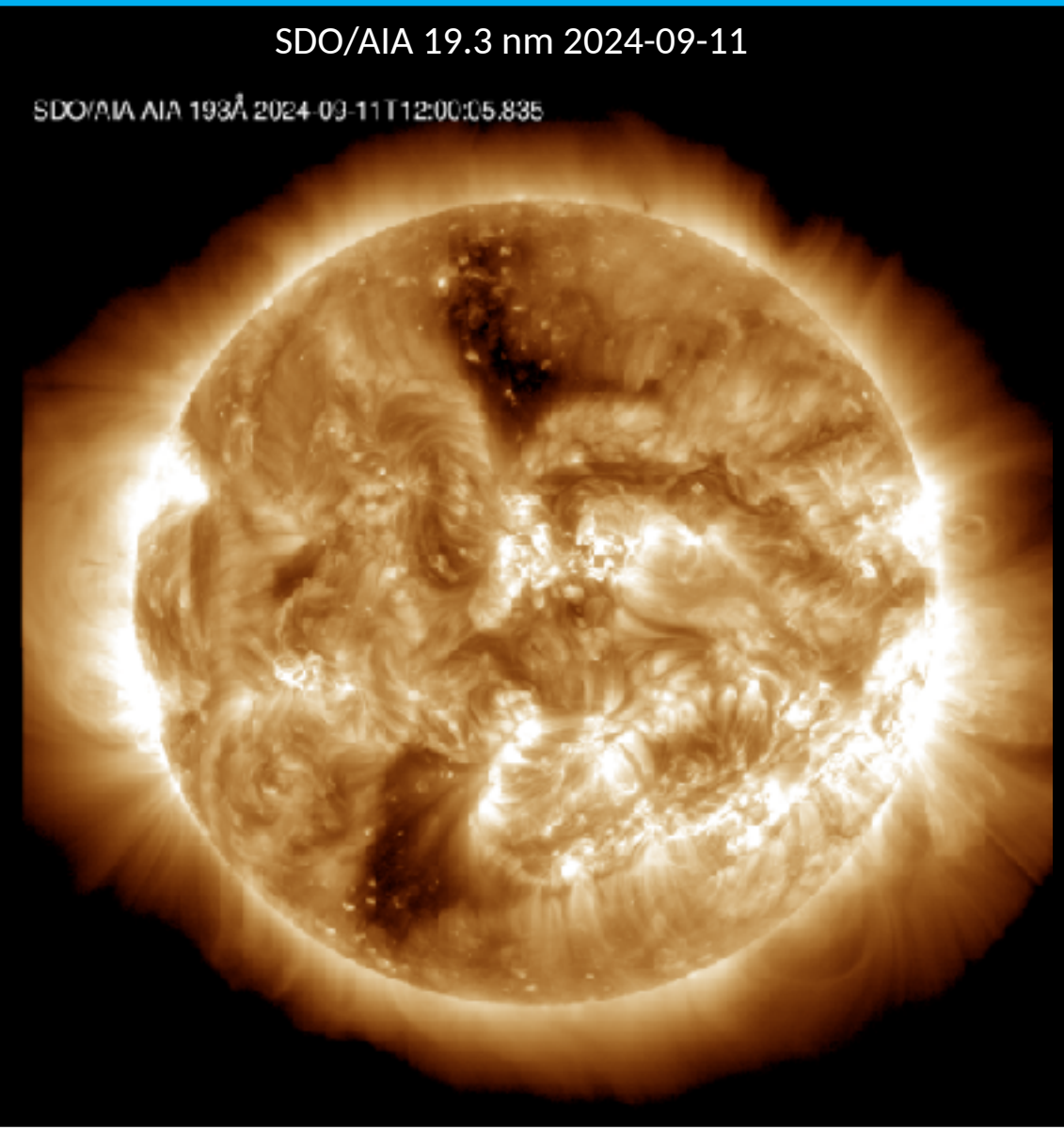


Coronal holes

SDO/AIA 19.3 nm 2024-09-10

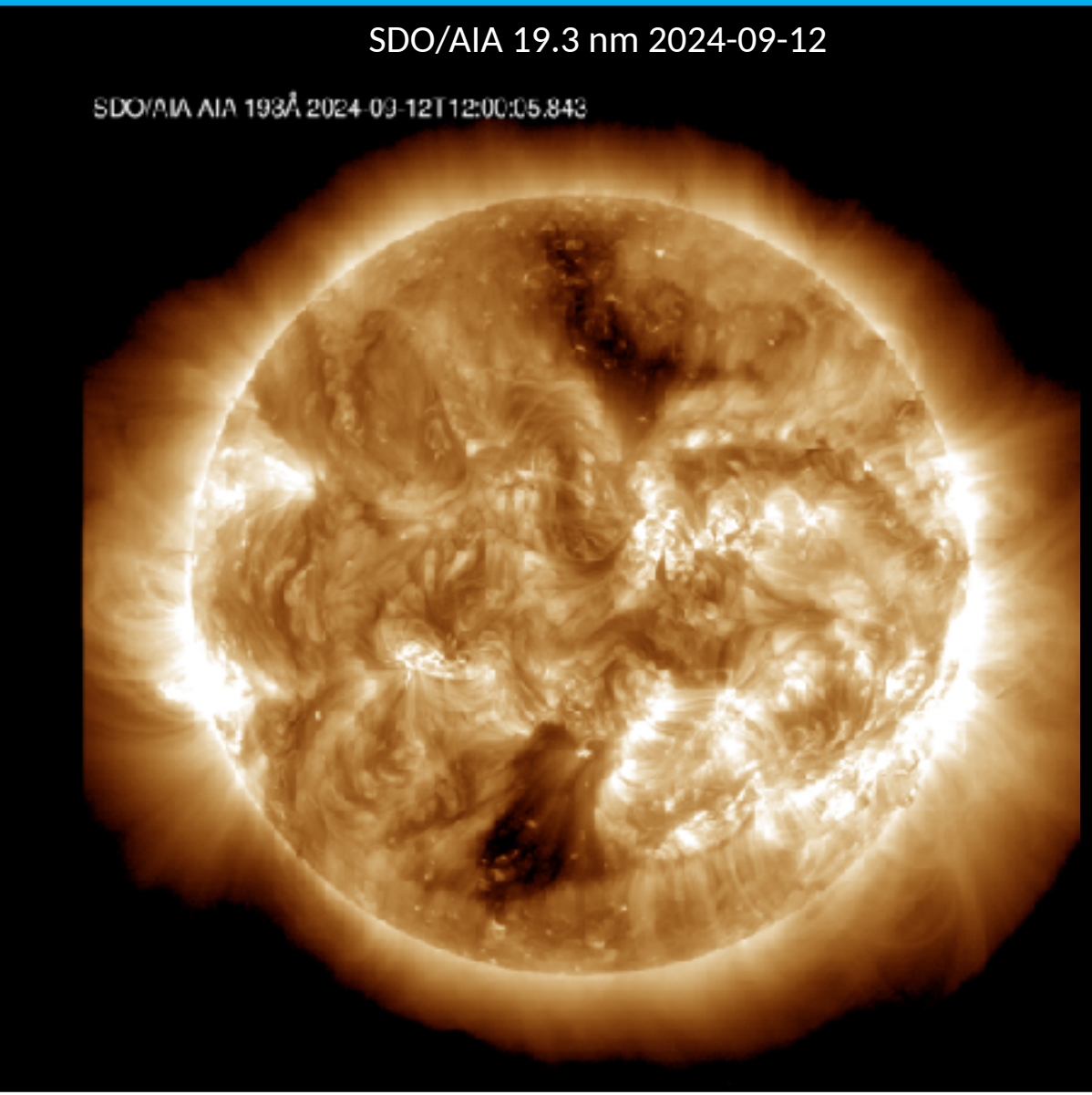


SDO/AIA 19.3 nm 2024-09-11

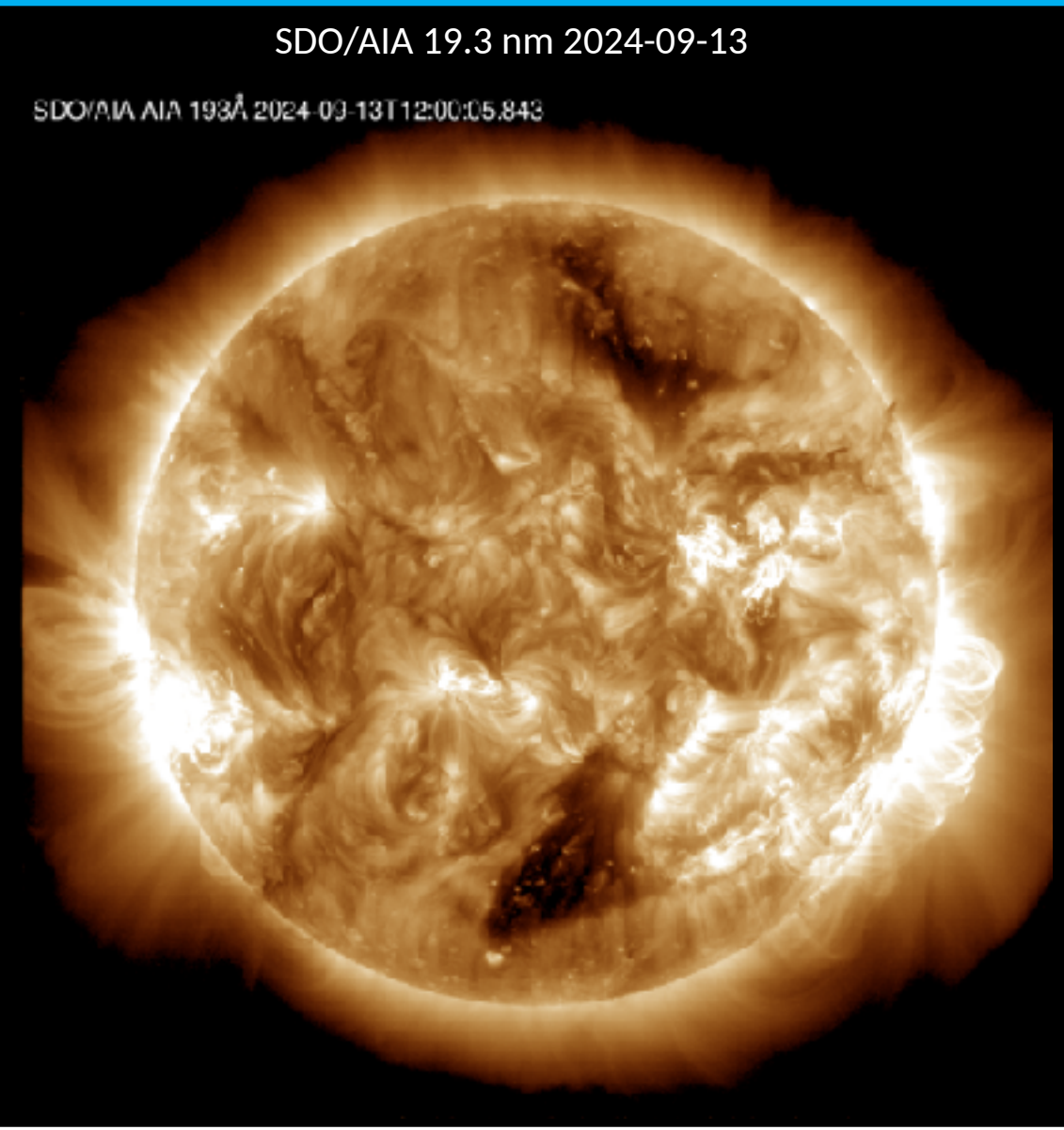


Coronal holes

SDO/AIA 19.3 nm 2024-09-12

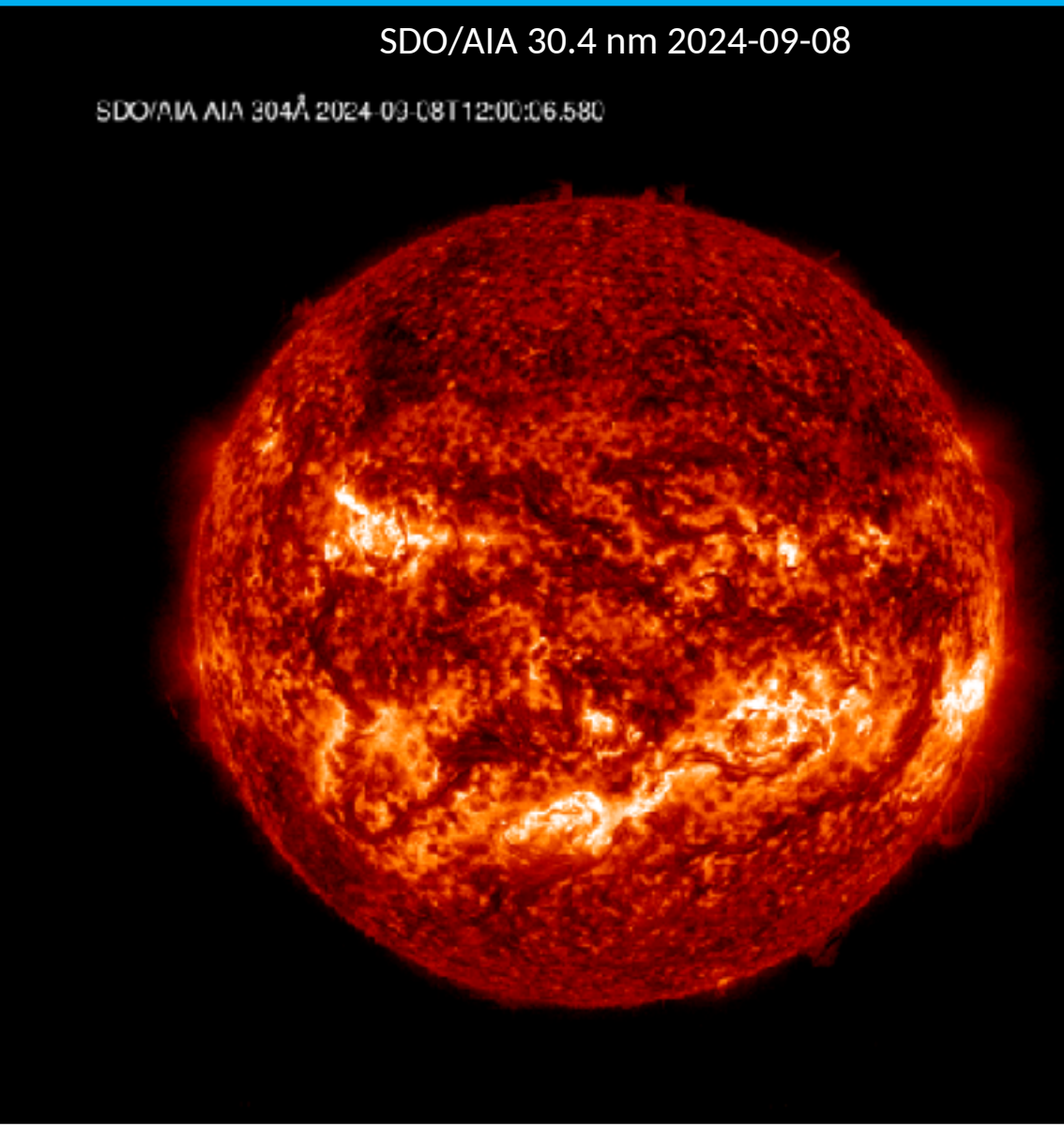


SDO/AIA 19.3 nm 2024-09-13

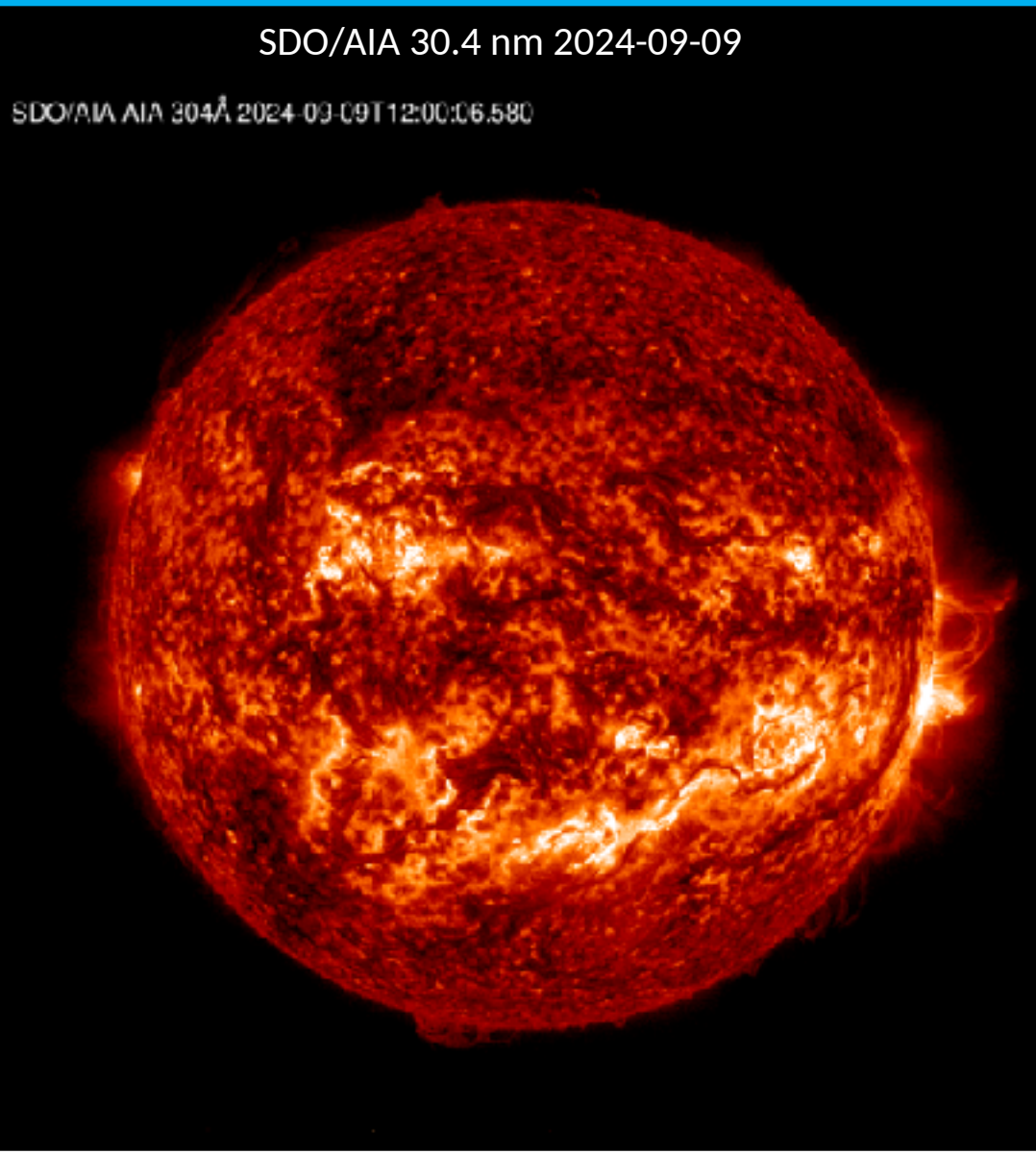


Filaments

SDO/AIA 30.4 nm 2024-09-08

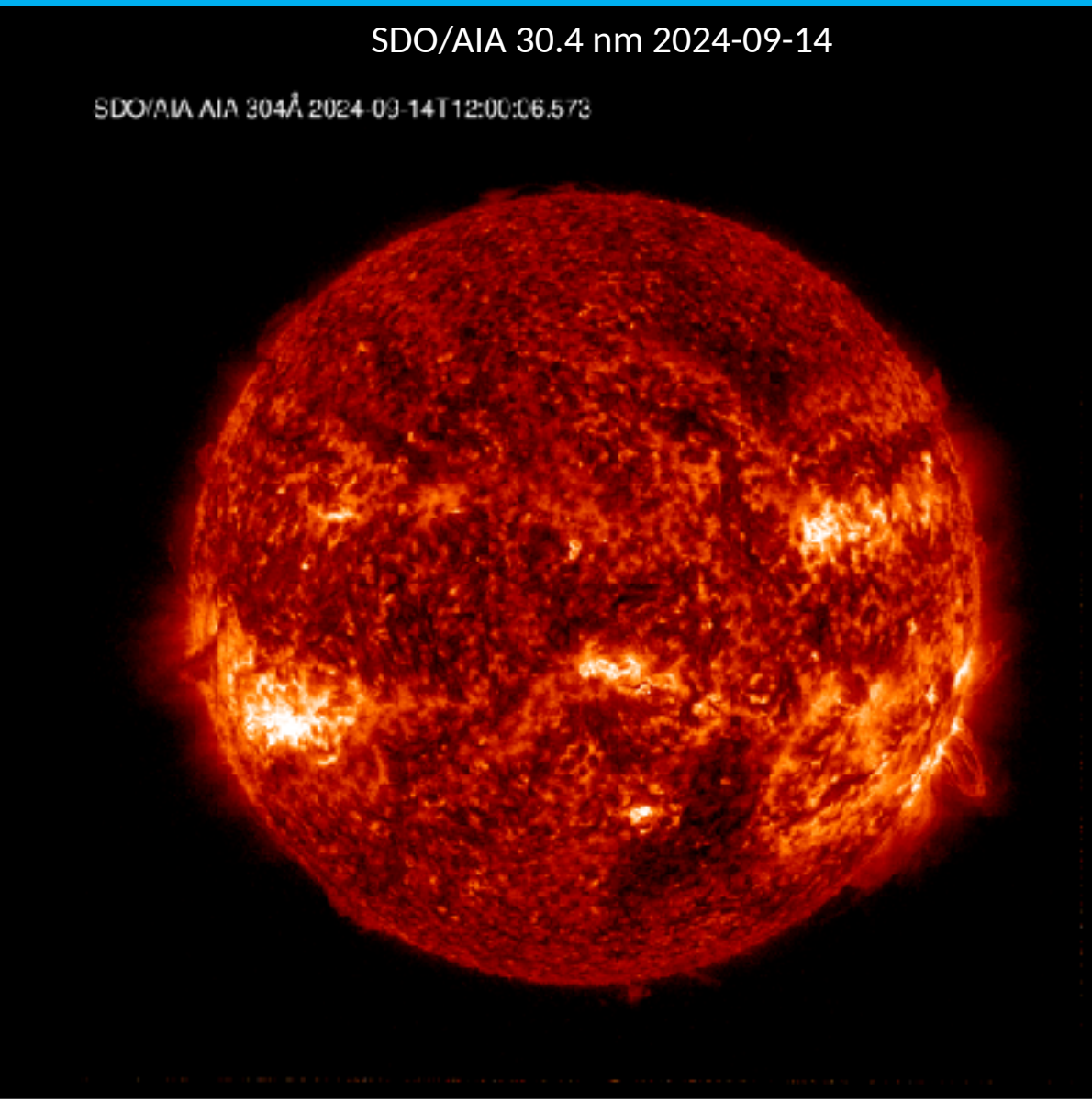


SDO/AIA 30.4 nm 2024-09-09

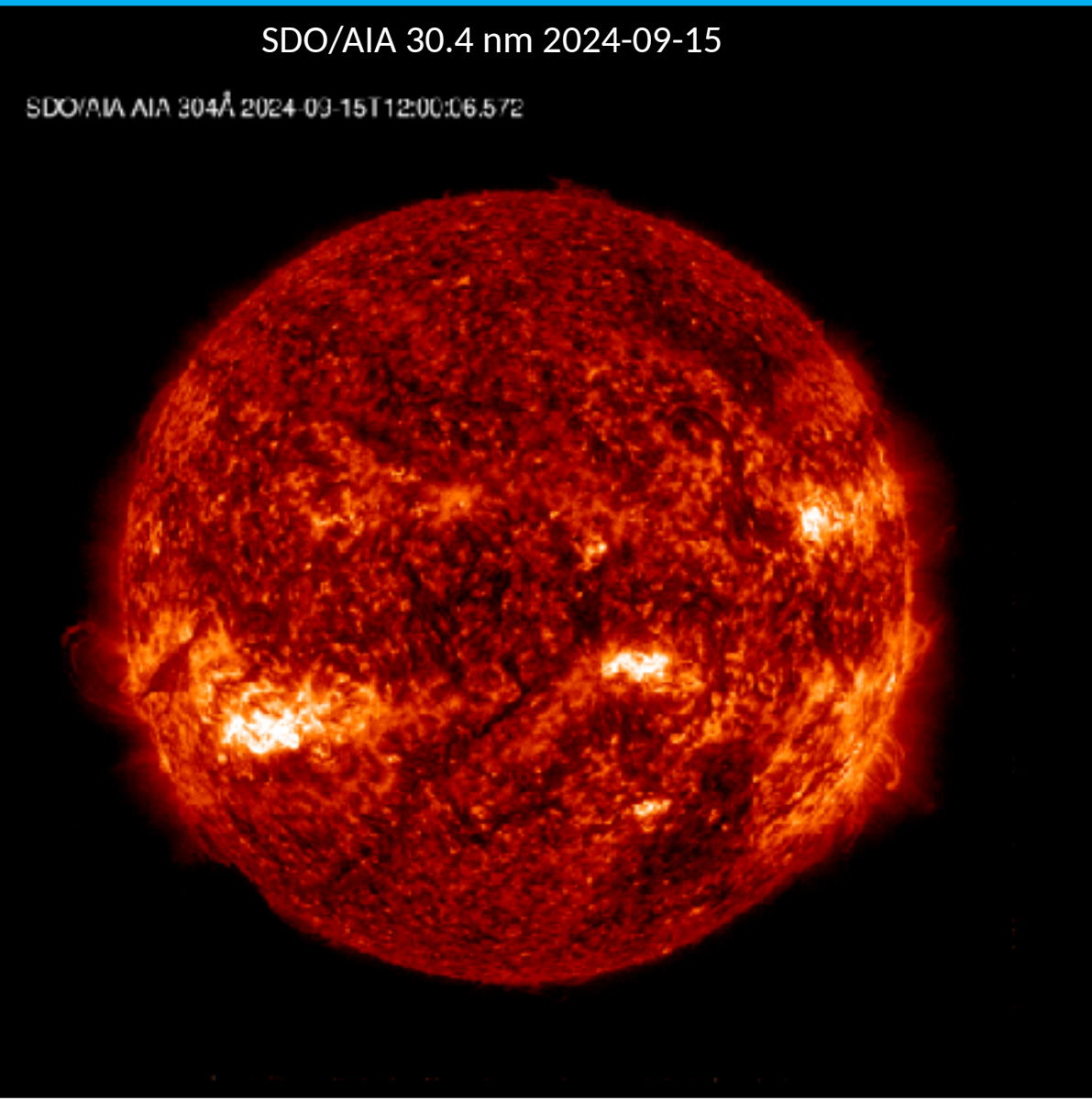


Filaments

SDO/AIA 30.4 nm 2024-09-14

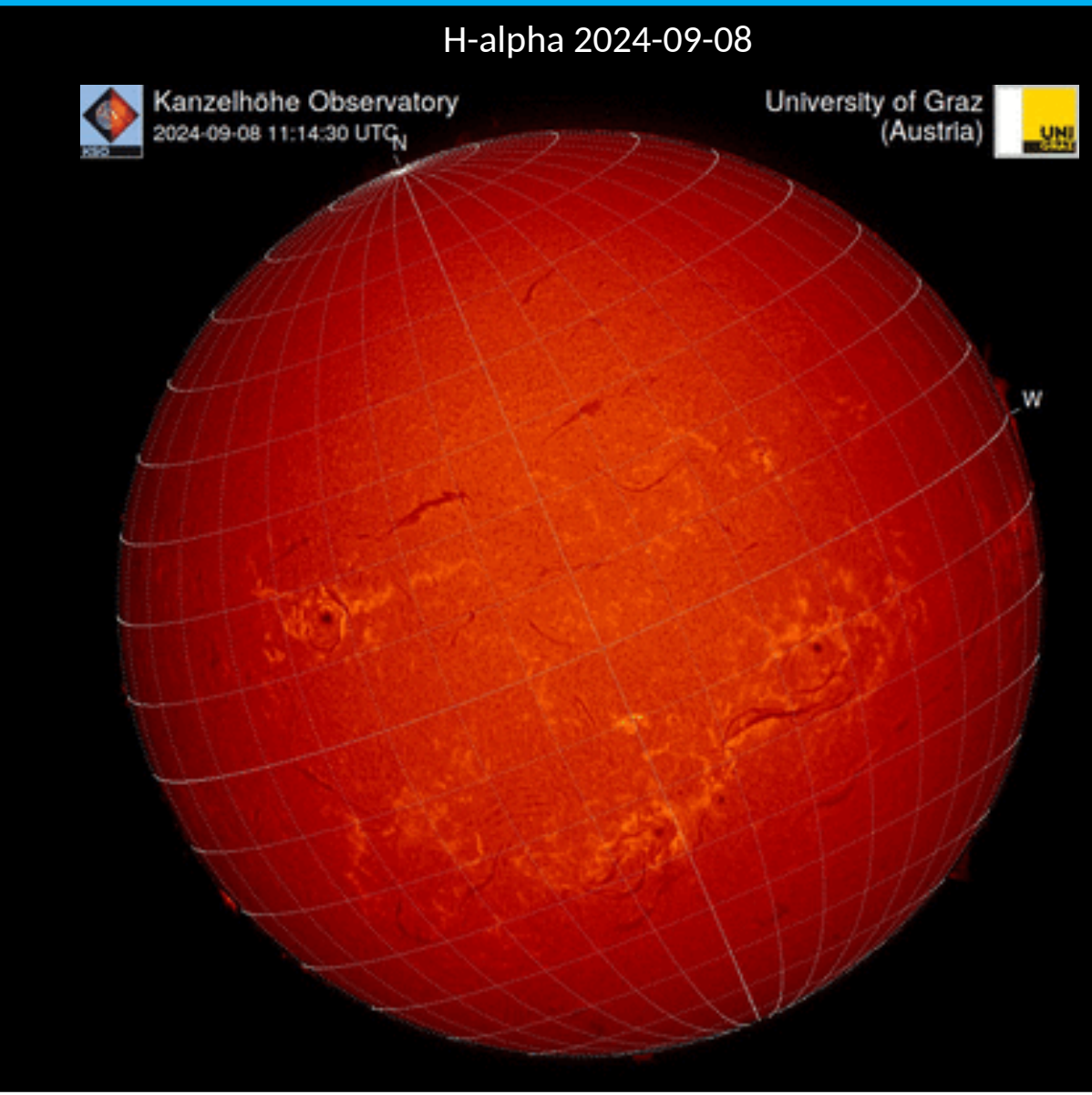


SDO/AIA 30.4 nm 2024-09-15

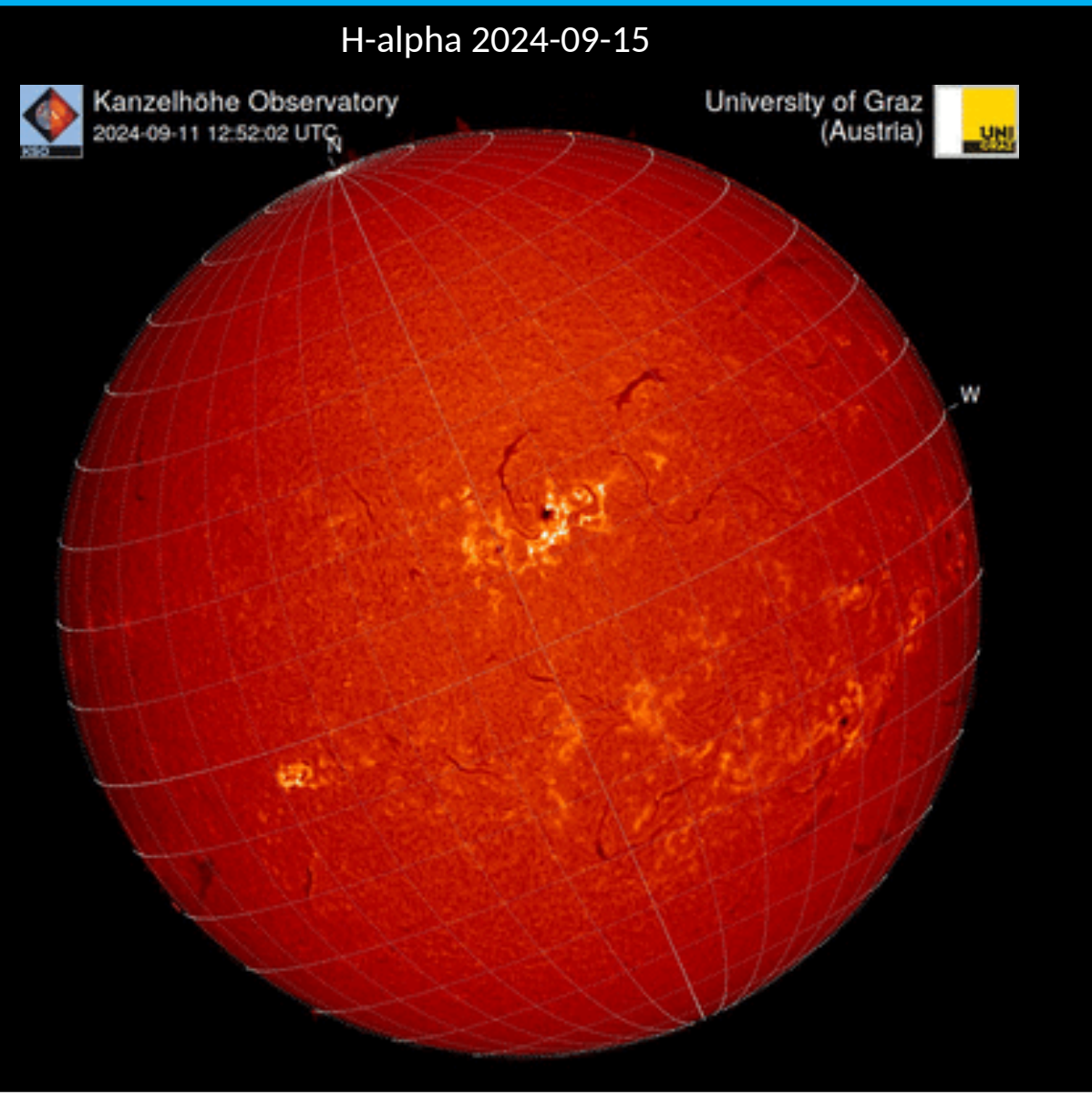


Filaments & Filament eruptions

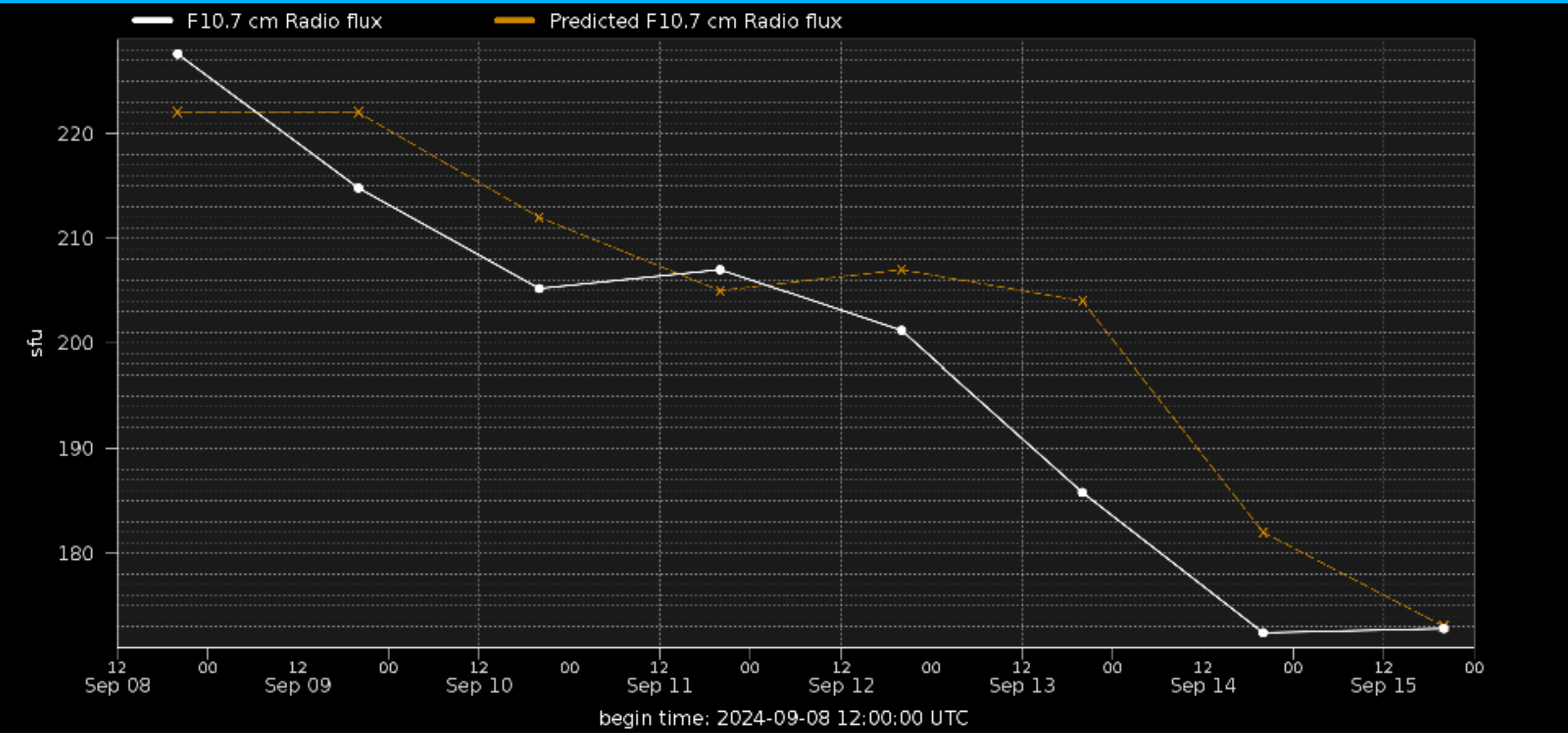
H-alpha 2024-09-08



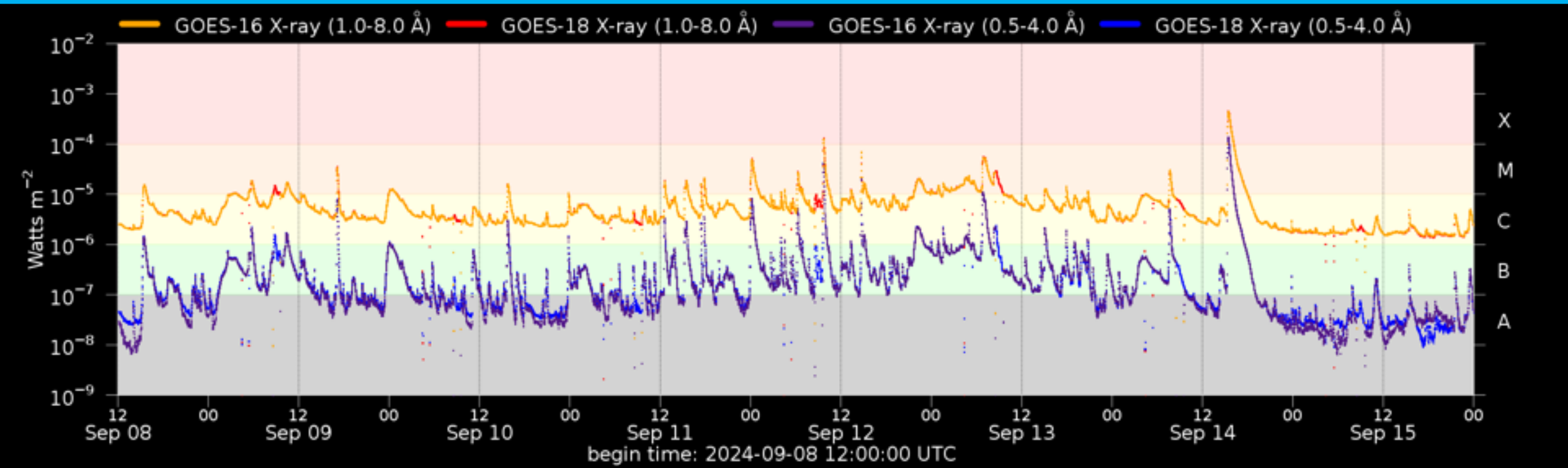
H-alpha 2024-09-15



Solar F10.7cm radio flux



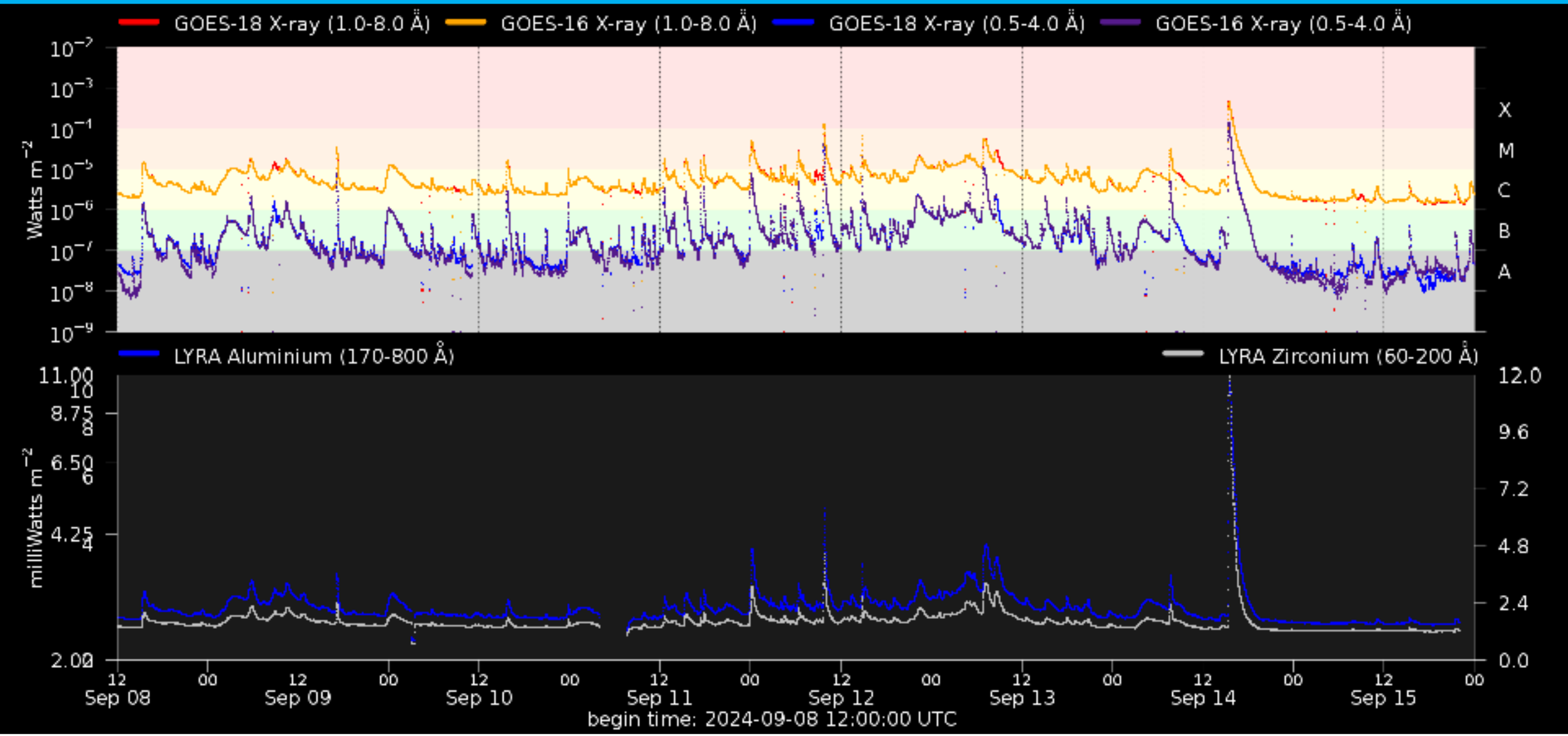
Flaring activity



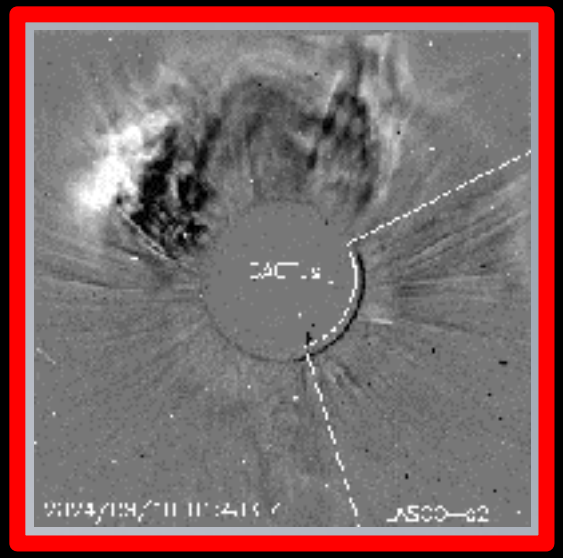
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

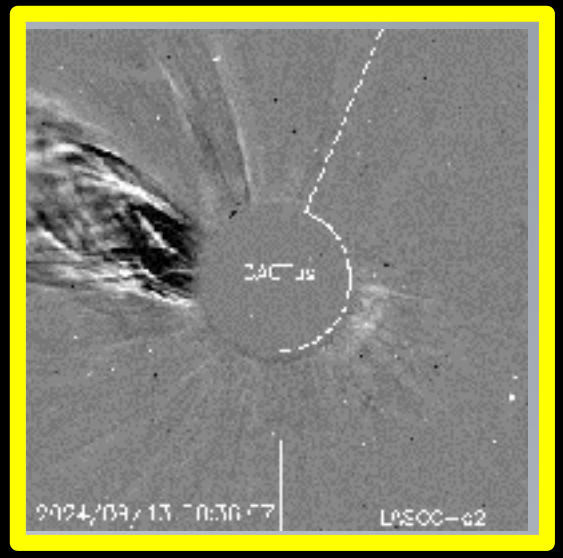
Issue date	2024-09-08	2024-09-09	2024-09-10	2024-09-11	2024-09-12	2024-09-13	2024-09-14	2024-09-15
Probability (%)	99|30|05	99|80|10	99|80|10	95|45|05	99|95|45	99|75|10	99|90|10	99|90|40
Observed (#)	00|02|00	02|02|00	04|02|00	03|07|01	00|04|00	00|04|00	02|00|01	03|00|00

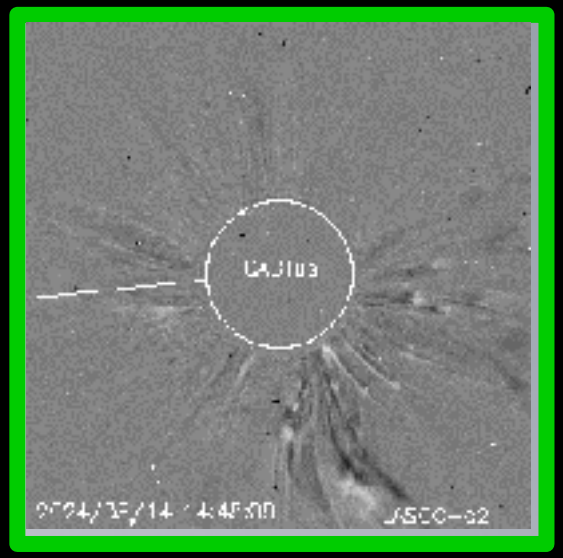
Solar X-Ray and UV flux

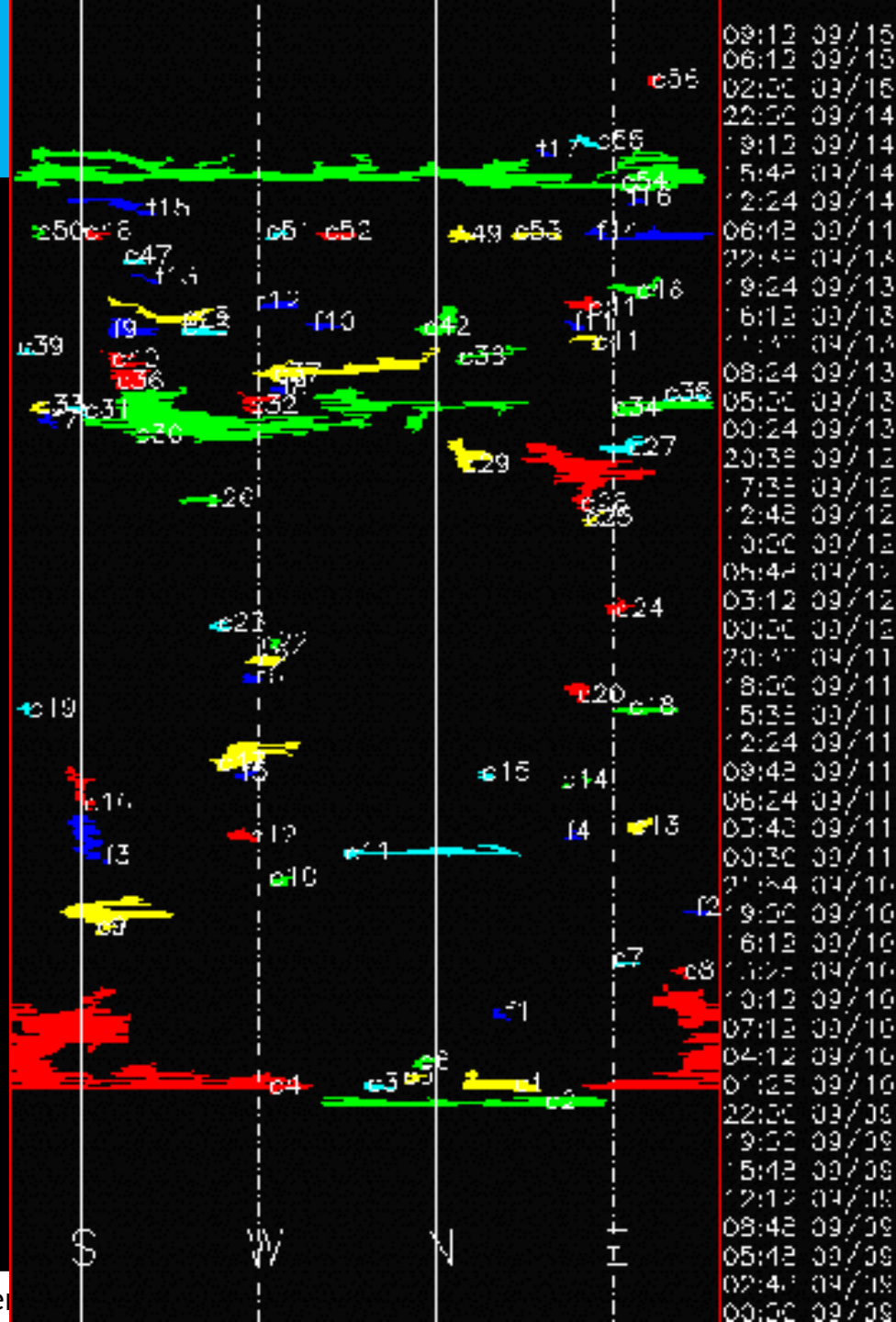


Coronal Mass Ejections









Solar Wind and

Geomagnetic Activity

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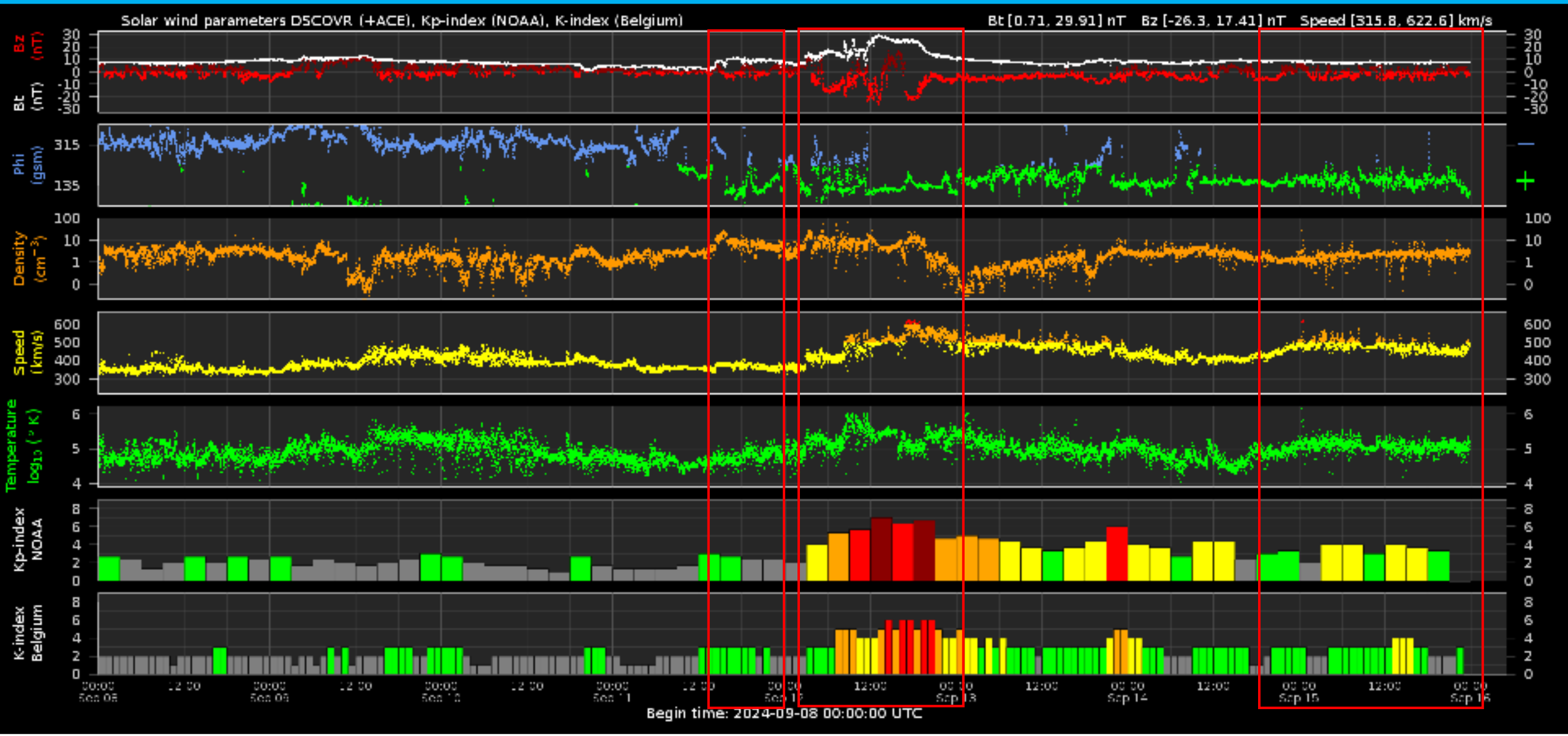
Solar wind parameters & K-indices



Energetic Particles

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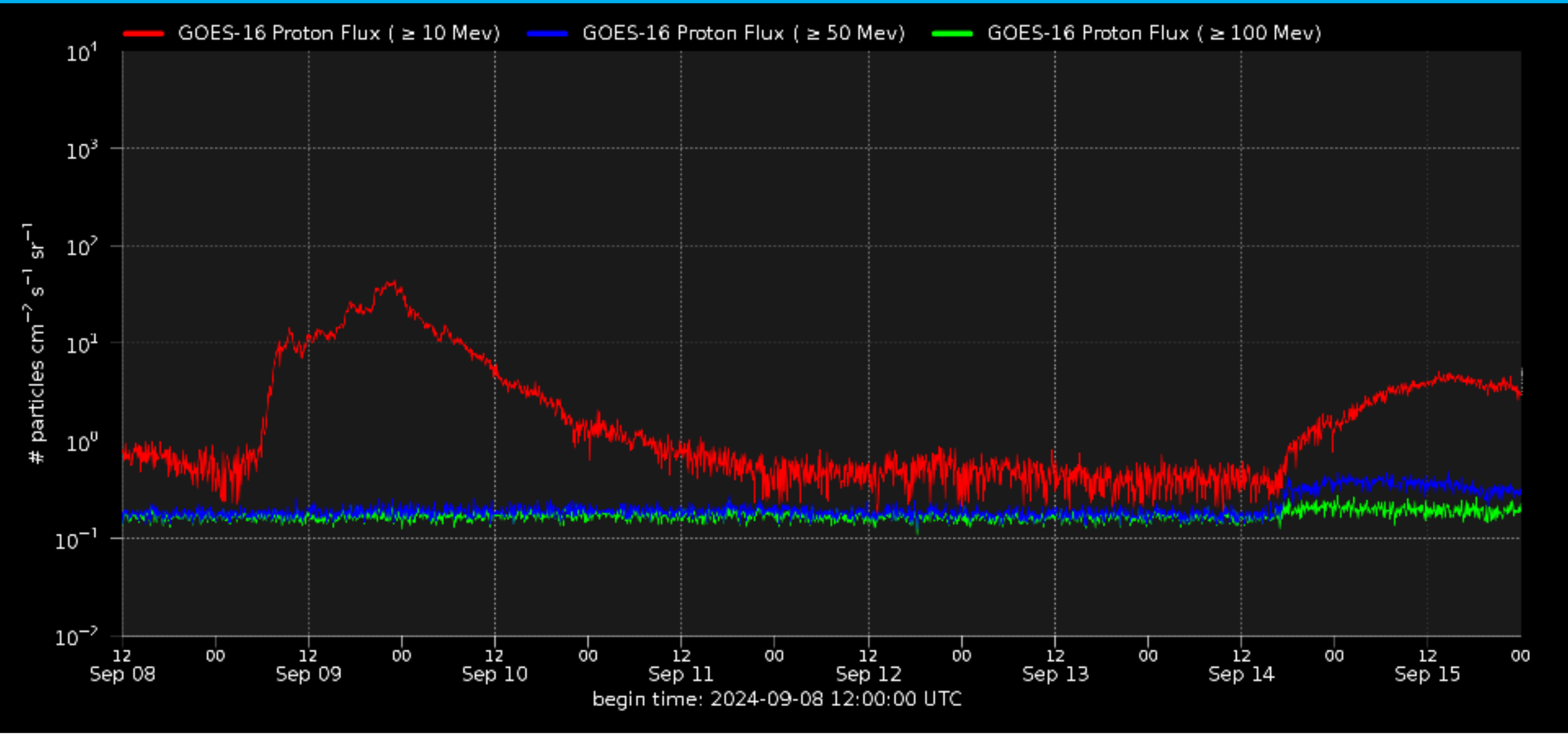
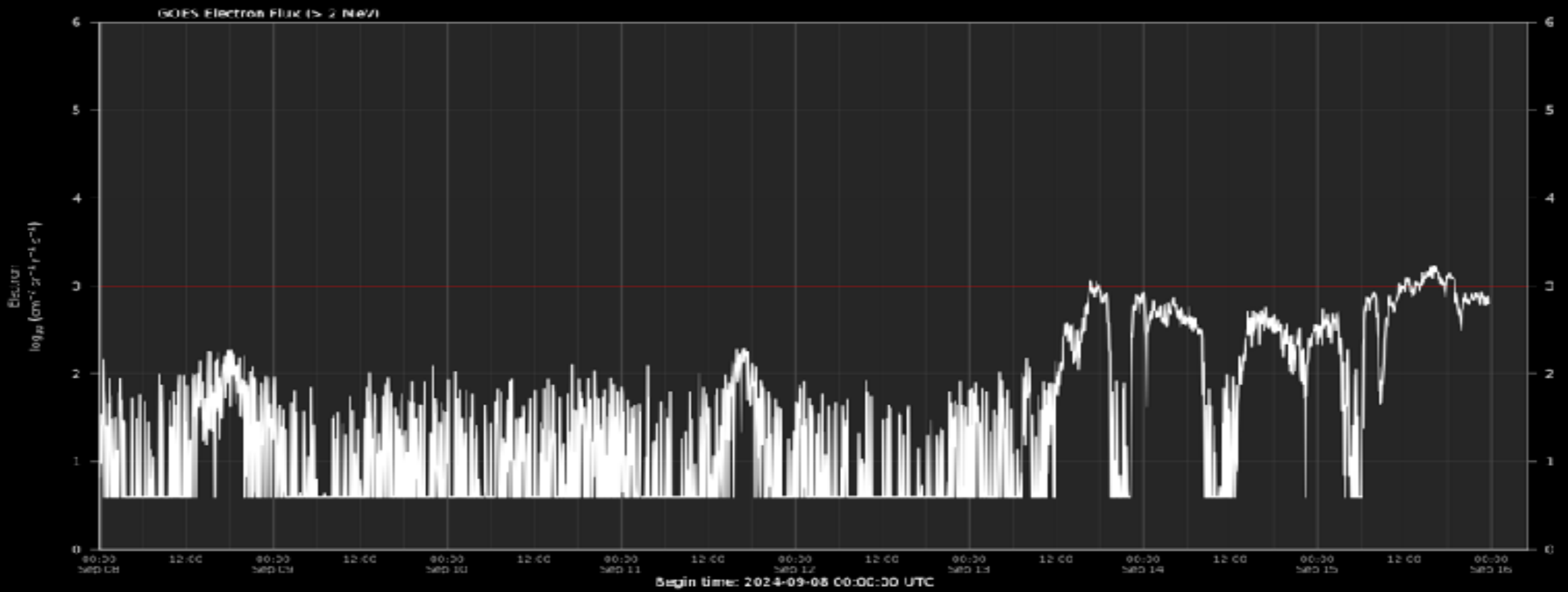
Solar proton flux



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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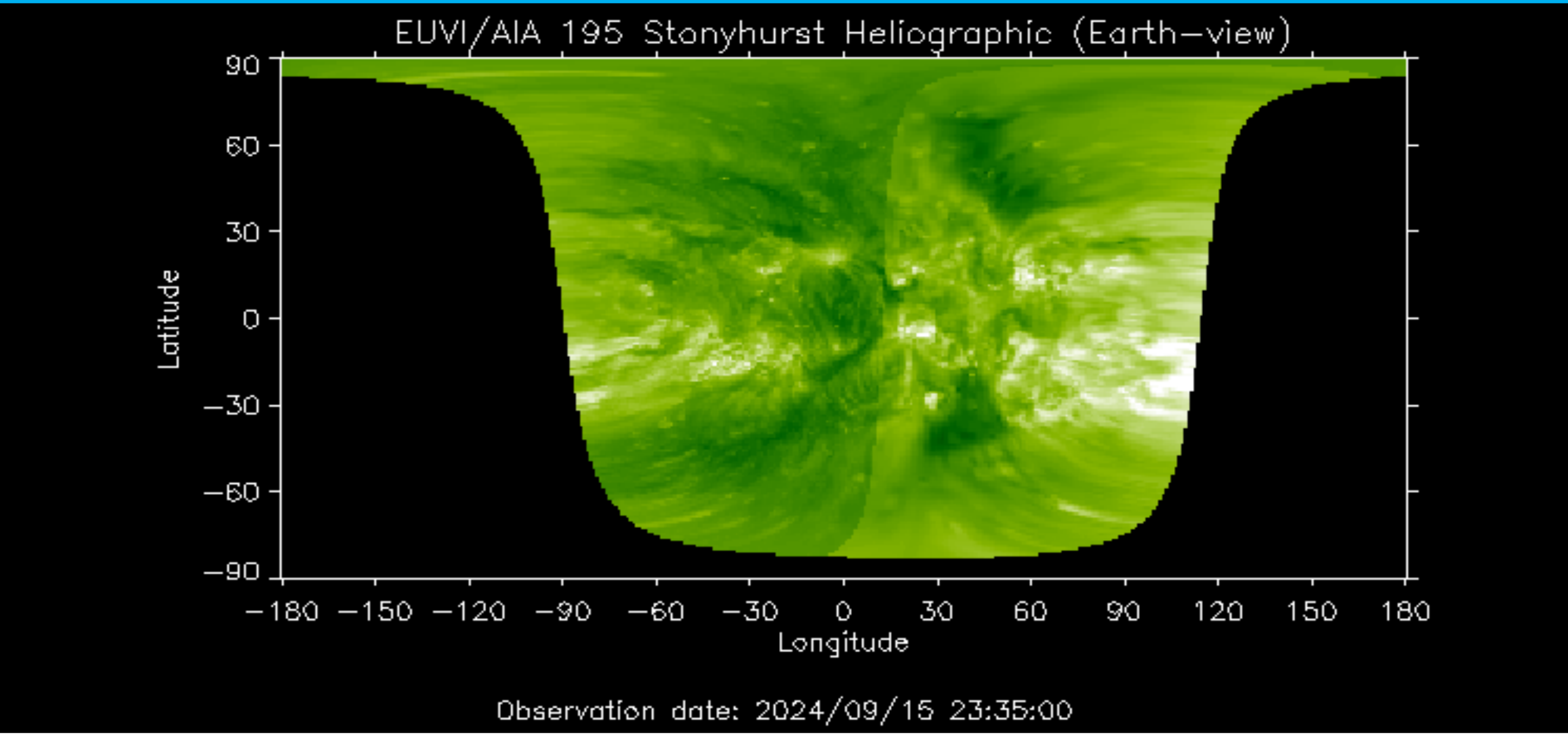
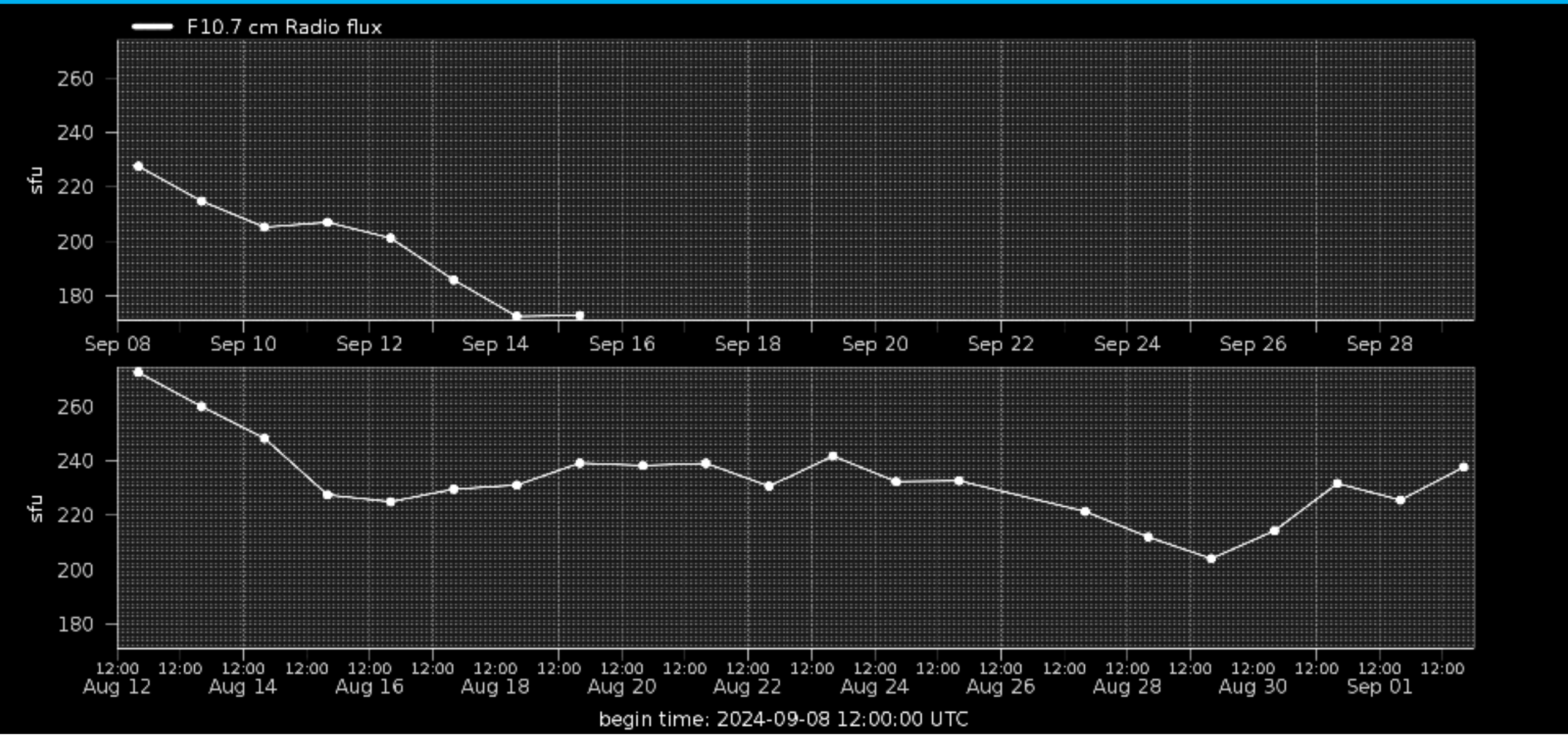
Outlook: Solar activity



Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook

PECASUS

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Pecasus related events

ICAO Advisories issued for

- GNSS (AS, PS, VTEC): 31
- HF-COM (PSD, PCA, SWF): 27

SIDC Space Weather Briefing

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