

SIDC Space Weather Briefing

15 September 2025-21 September 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 2025-09-15 00:00 to 2025-09-21 23:59

Active regions	19 ARs, most notable SIDC 621/NOAA 4216,4222 & SIDC 637/NOAA 4220
Flares	# C-class flare: 28 # M-class flare: 1 # X-class flare: 0
Coronal Holes	Multiple CH- and 1 CH+
CMEs	No Earth-directed CMEs

Proton flux	Nominal levels
Electron flux	Moderate levels

Solar wind and geomagnetic conditions

ICMEs	No clear arrivals
Solar wind conditions	B : 0.17 - 18.15 nT //Bz: -16.47 nT to 12.13 nT //Speed: 282 - 857 km/s
Geomagnetic conditions	max K _{Be} : 5.0, max K _p (NOAA): 6.67, Major Storm conditions

All Quiet Alert: Off

Solar Activity

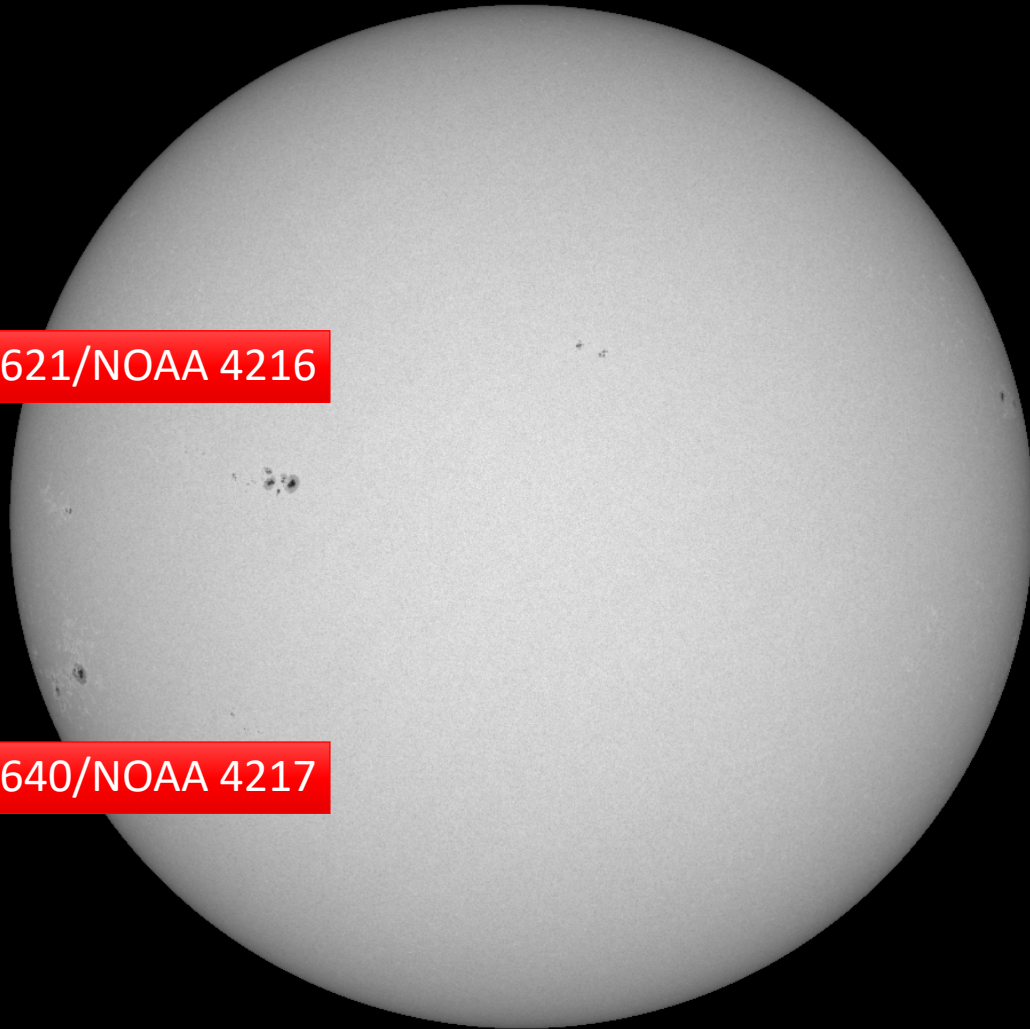


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Solar active regions

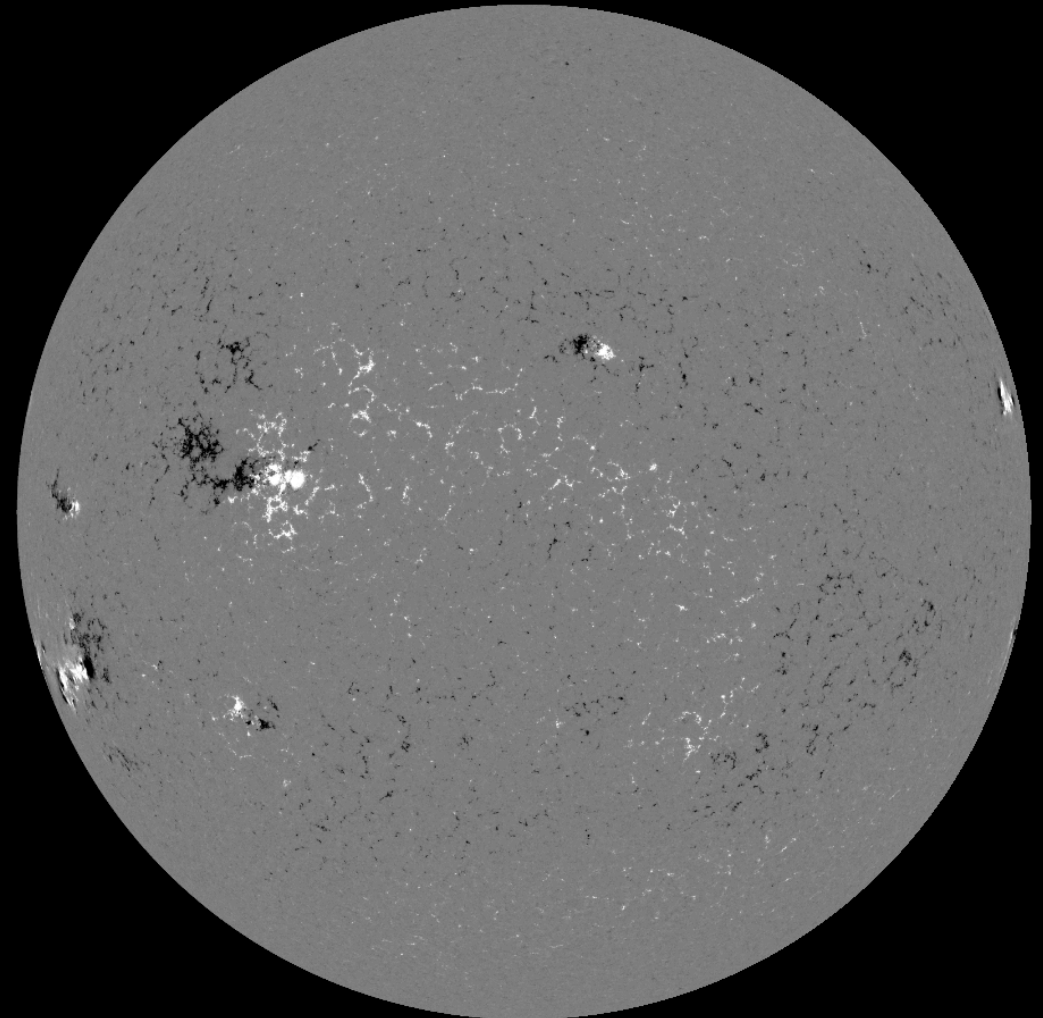
SDO/HMI White Light 2025-09-15



SIDC 621/NOAA 4216

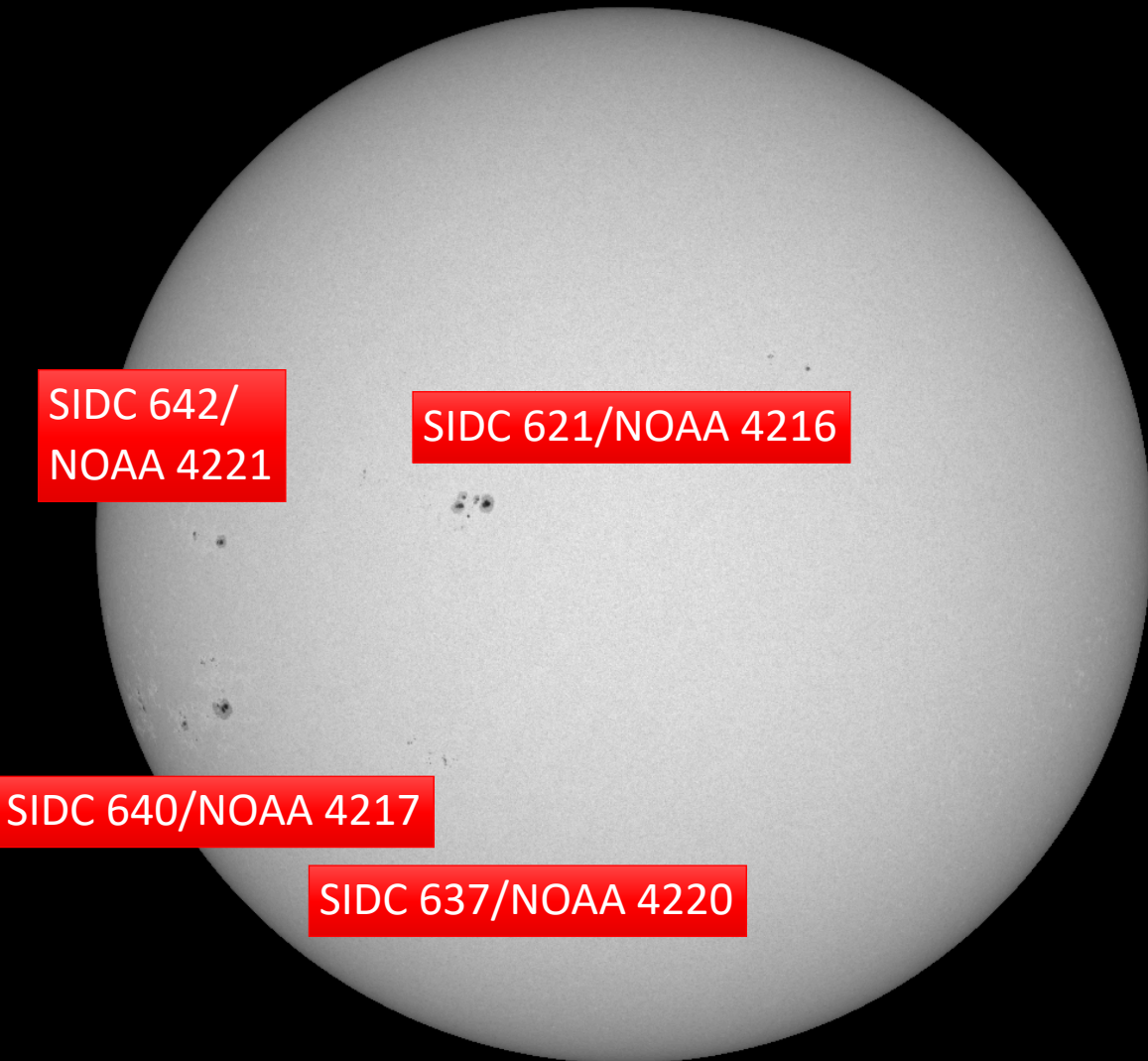
SIDC 640/NOAA 4217

SDO/HMI Magnetogram 2025-09-15

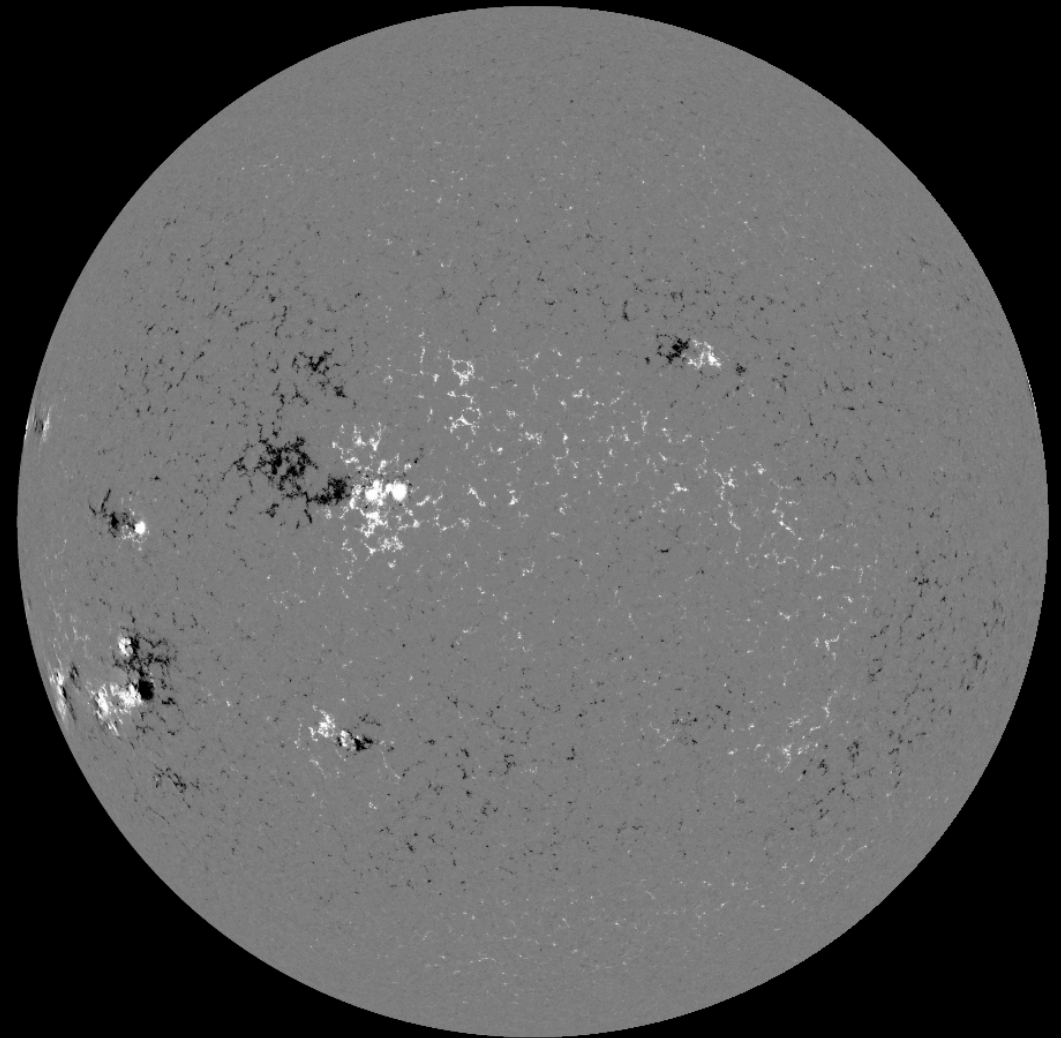


Solar active regions

SDO/HMI White Light 2025-09-16

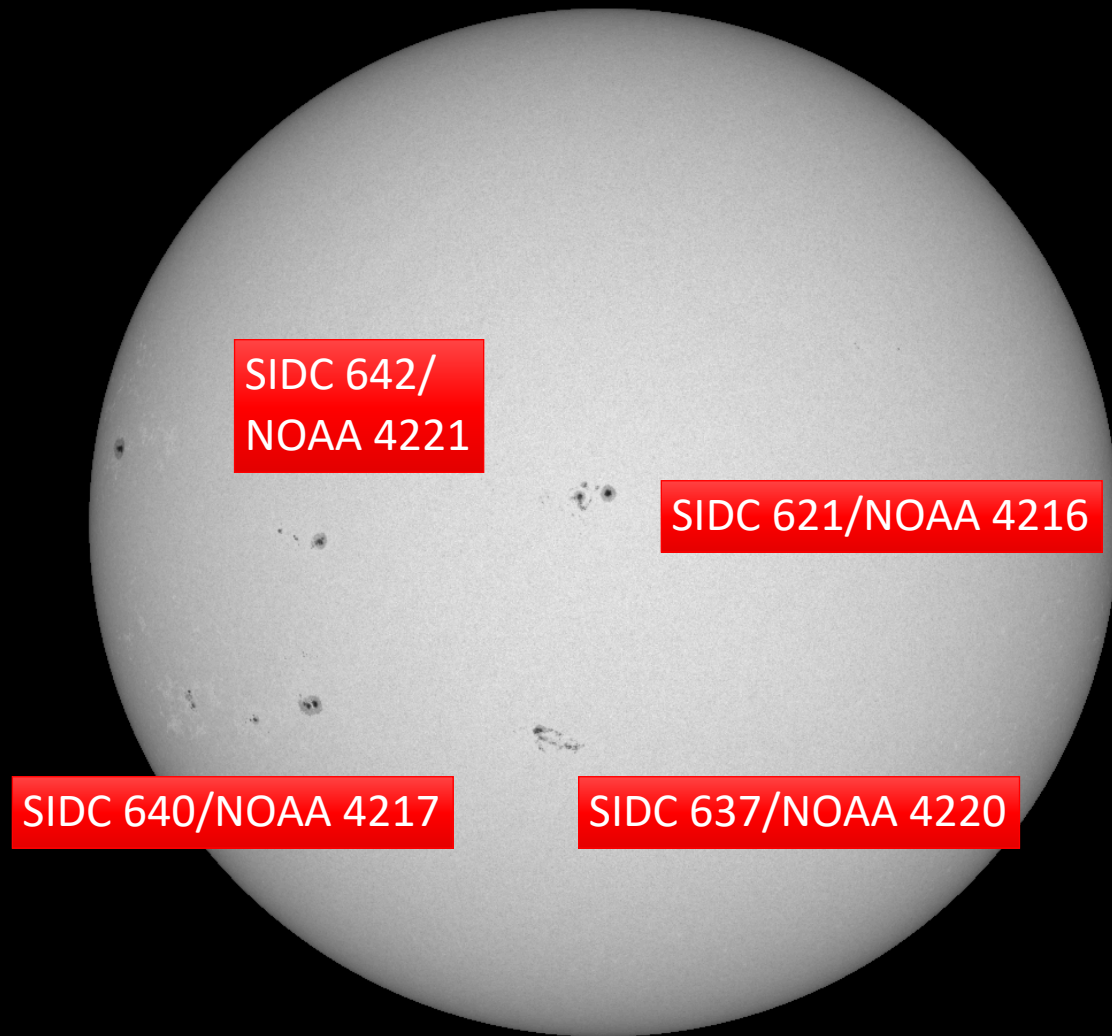


SDO/HMI Magnetogram 2025-09-16

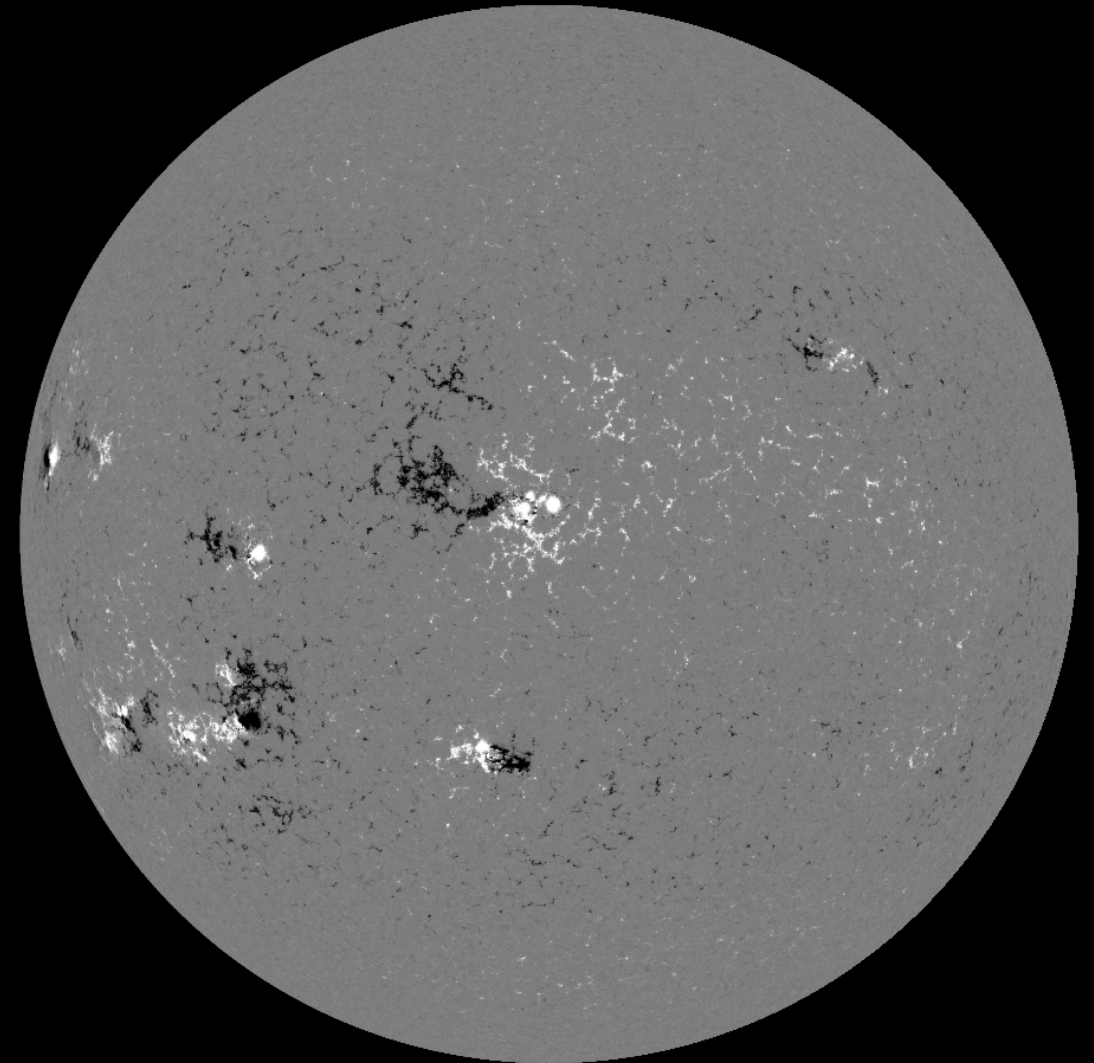


Solar active regions

SDO/HMI White Light 2025-09-17

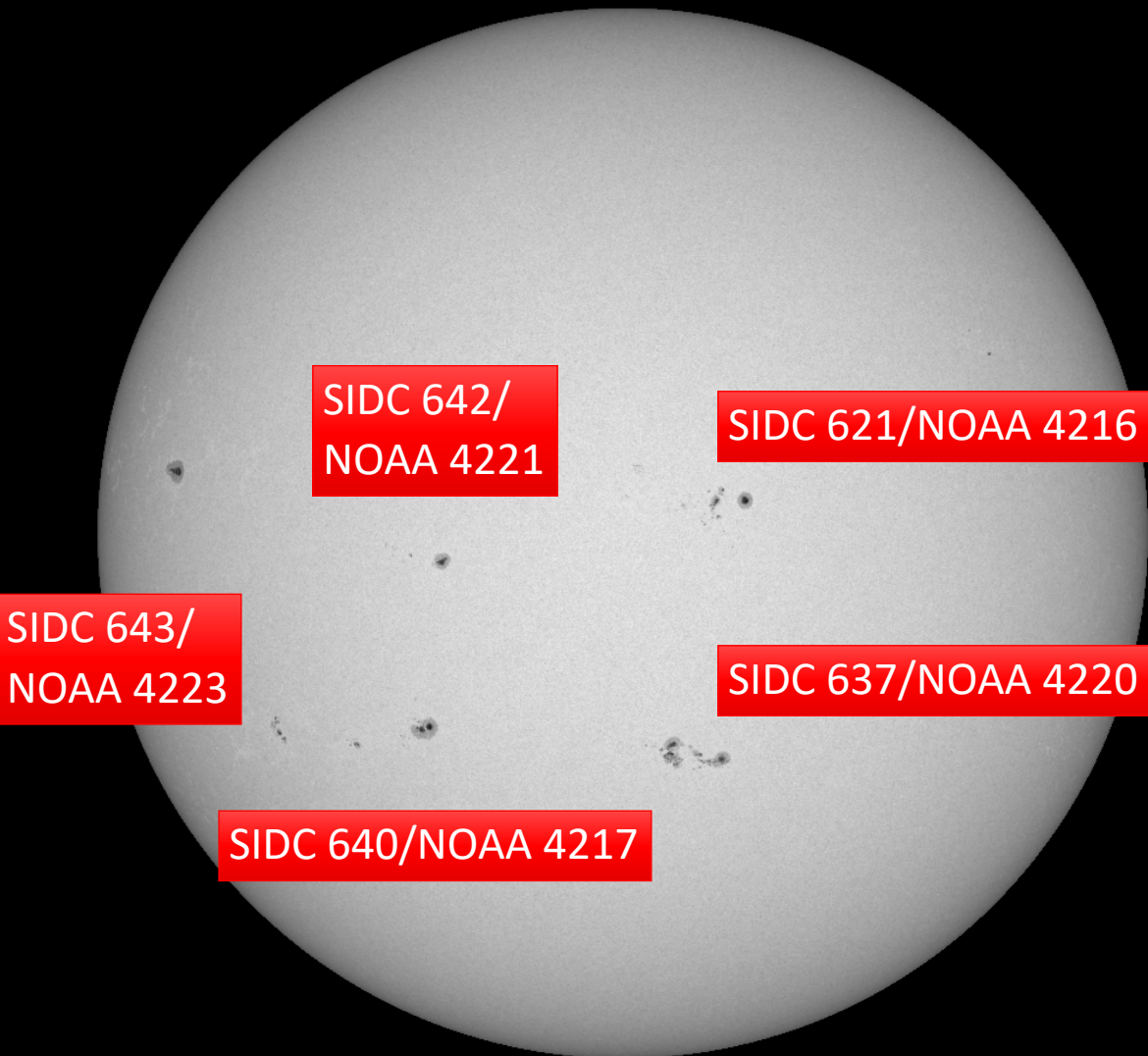


SDO/HMI Magnetogram 2025-09-17

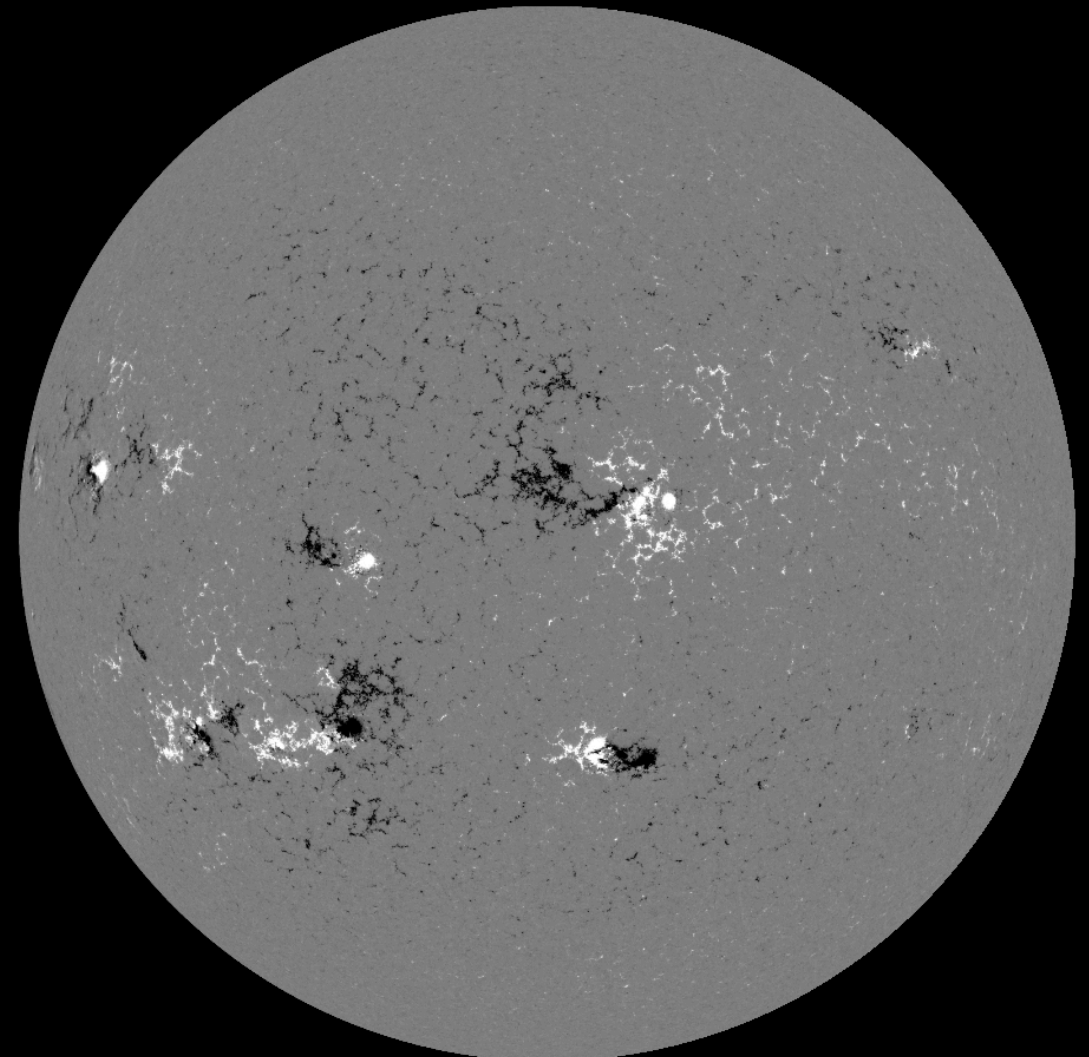


Solar active regions

SDO/HMI White Light 2025-09-18

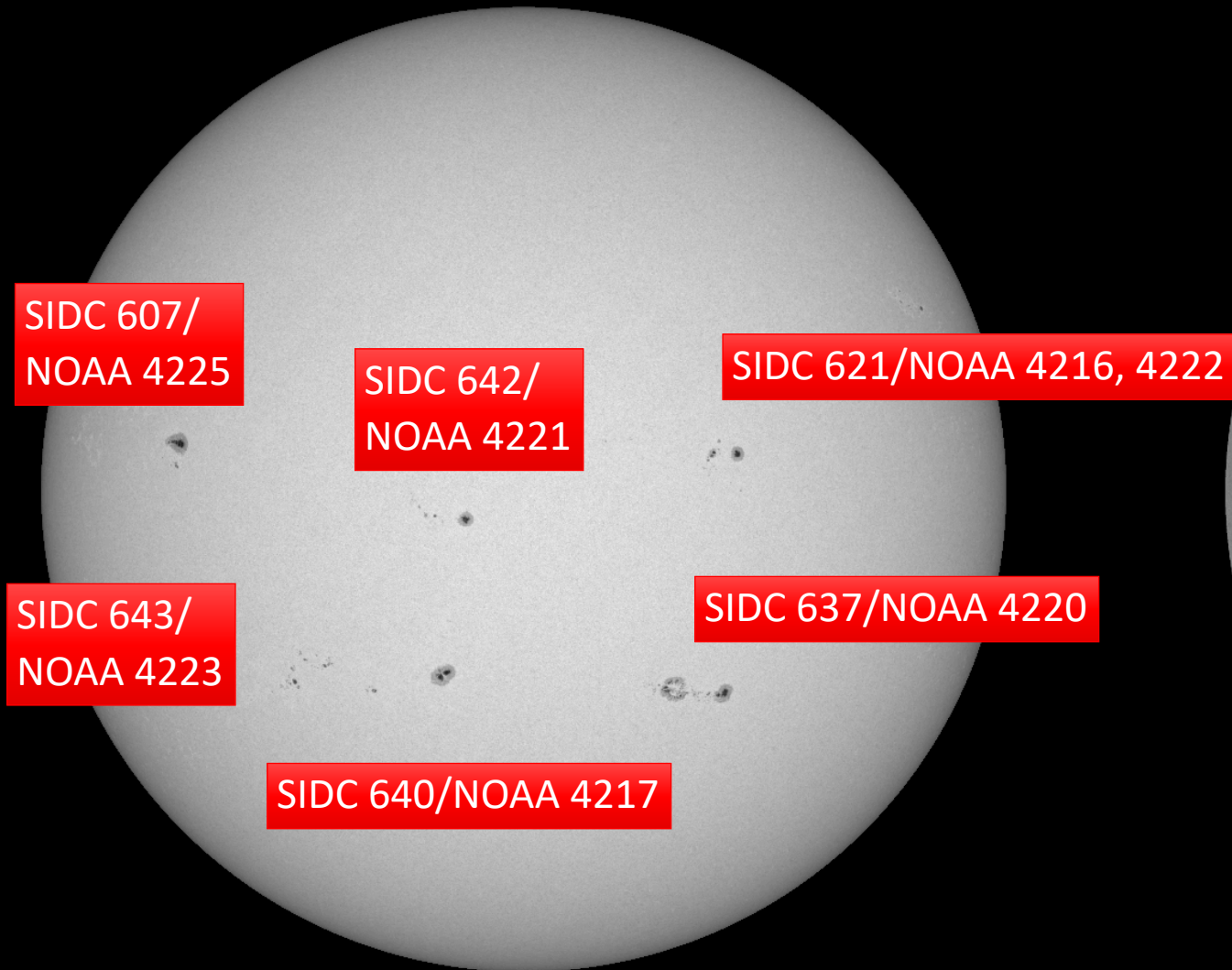


SDO/HMI Magnetogram 2025-09-18

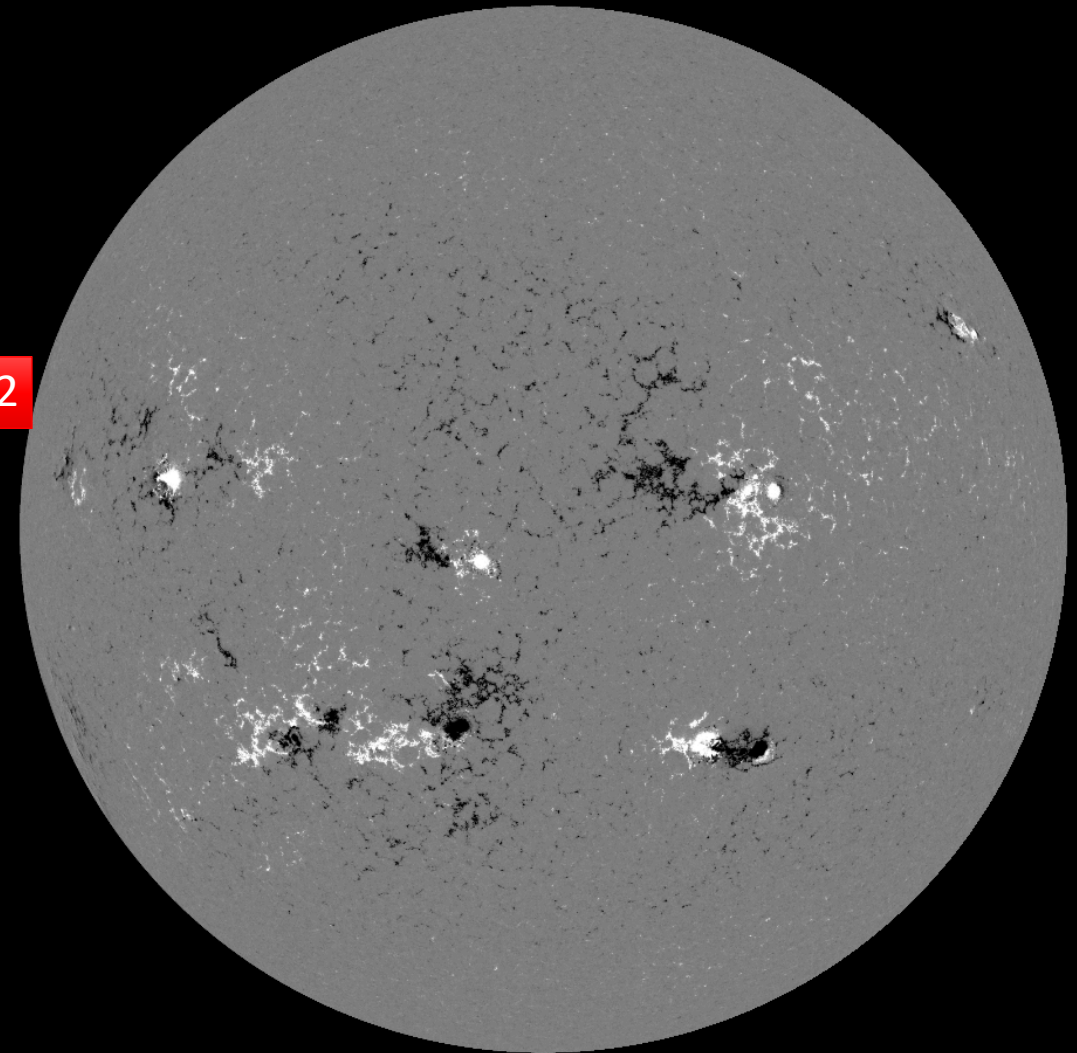


Solar active regions

SDO/HMI White Light 2025-09-19

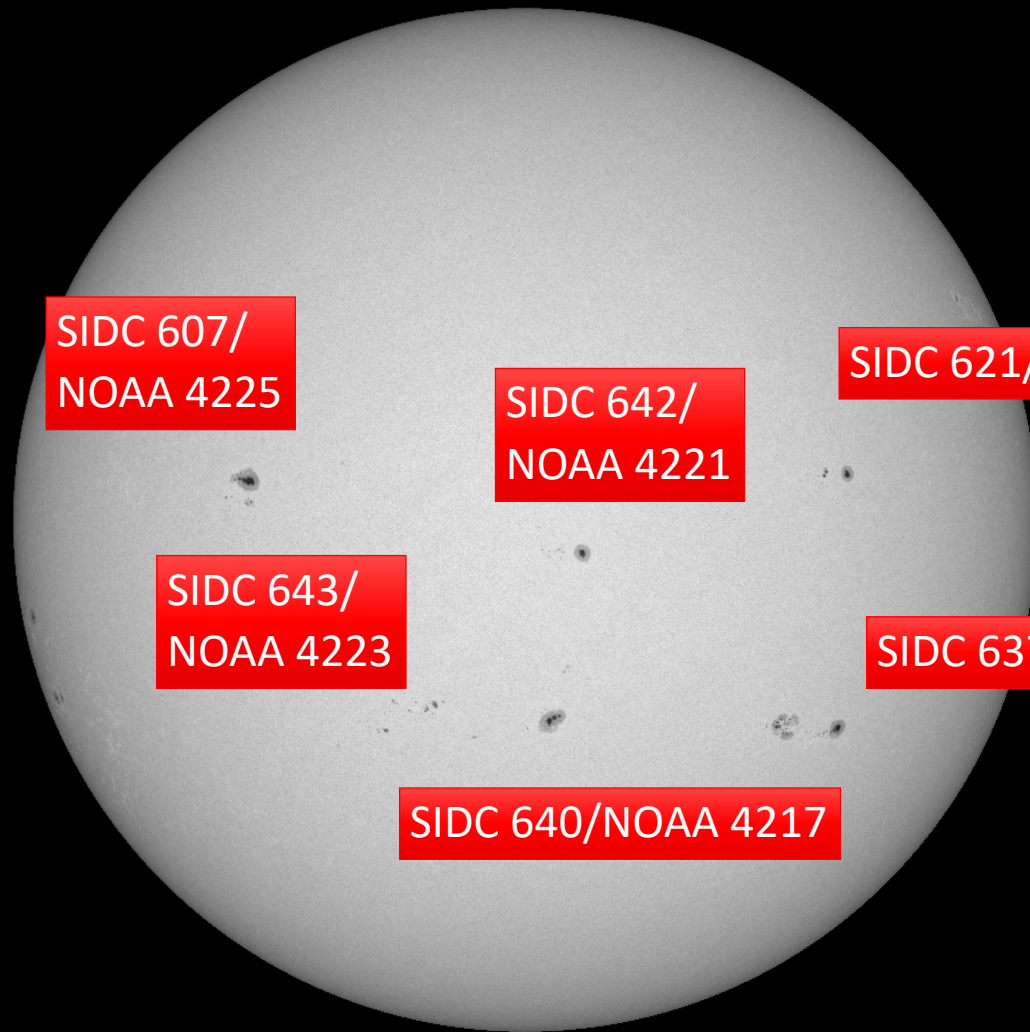


SDO/HMI Magnetogram 2025-09-19

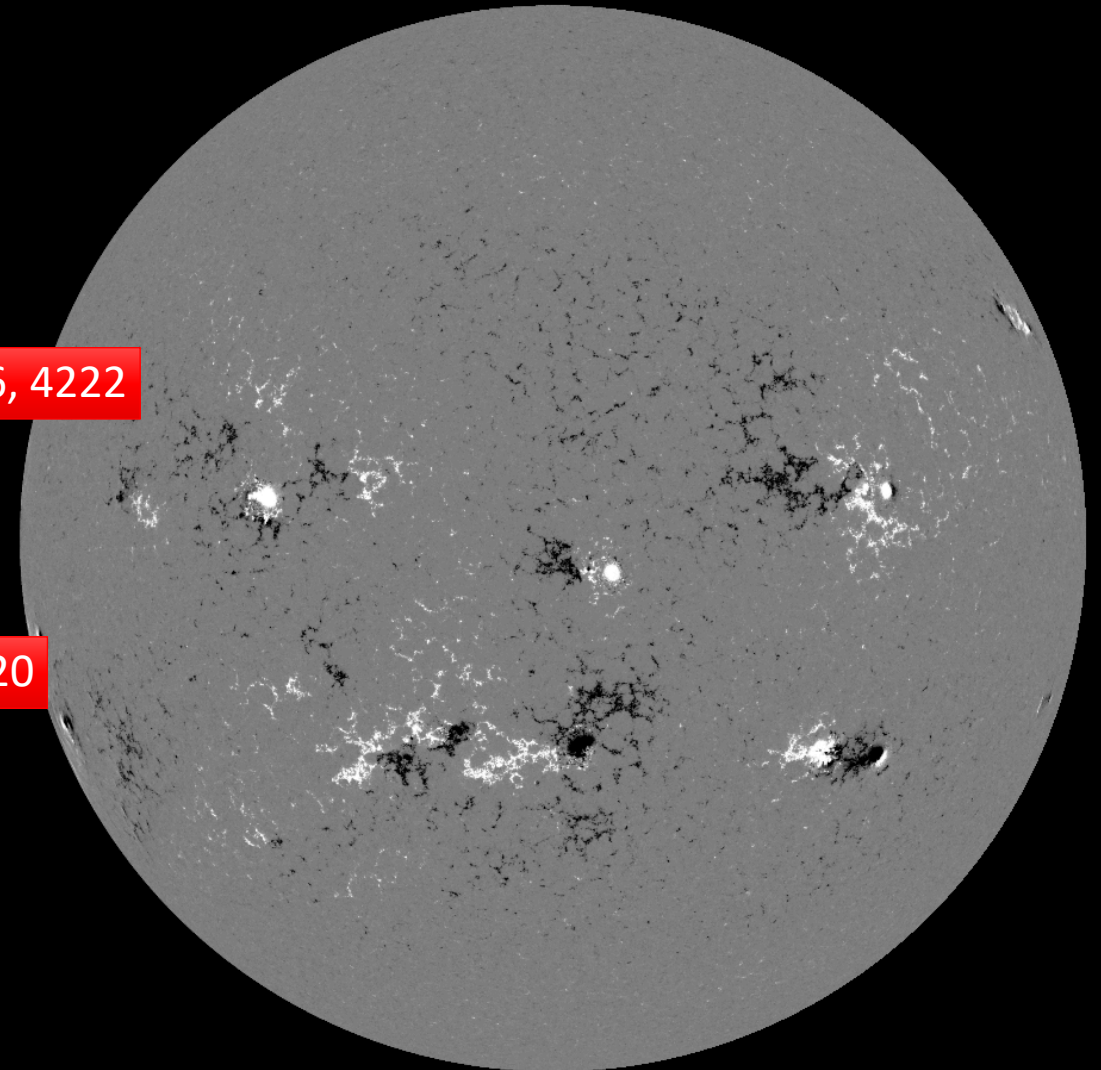


Solar active regions

SDO/HMI White Light 2025-09-20

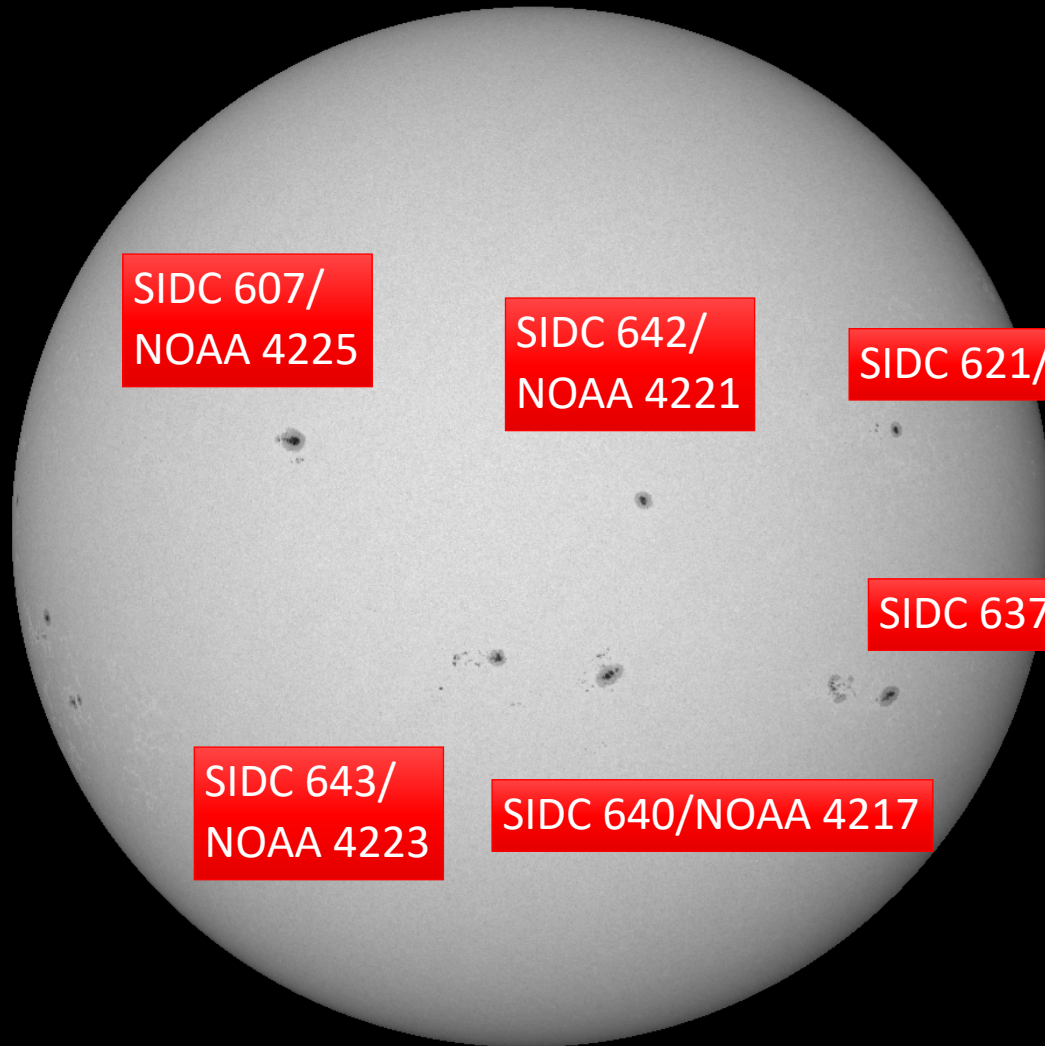


SDO/HMI Magnetogram 2025-09-20

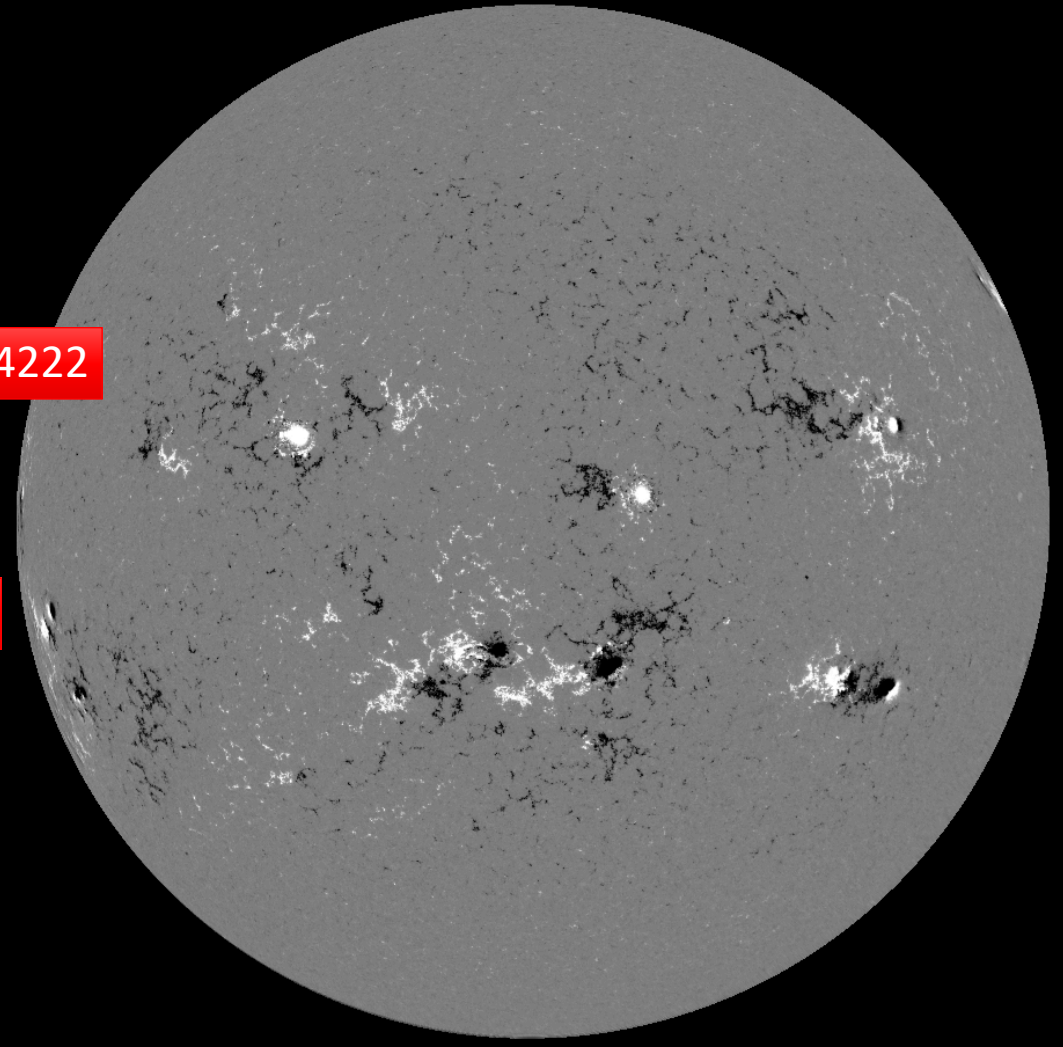


Solar active regions

SDO/HMI White Light 2025-09-21



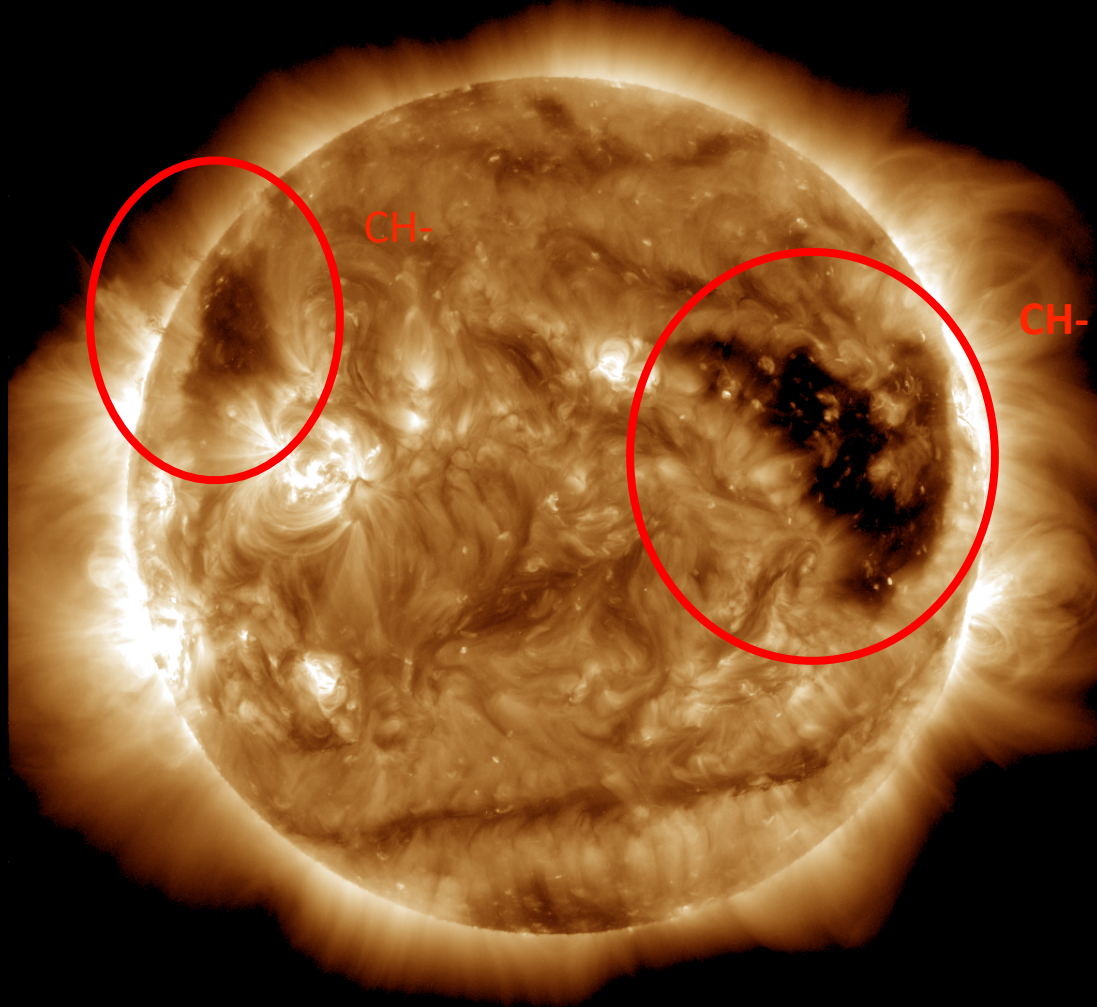
SDO/HMI Magnetogram 2025-09-21



Coronal holes

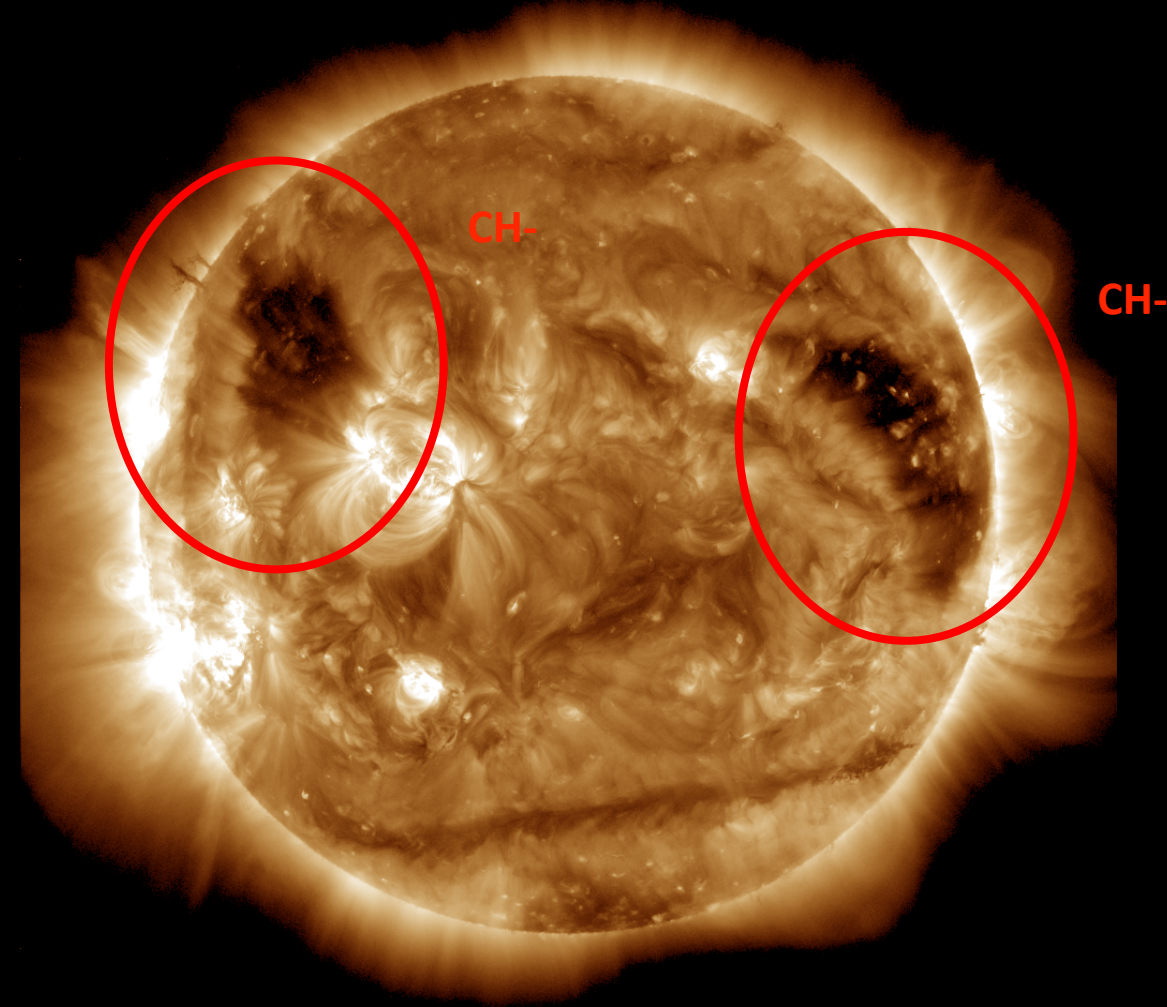
SDO/AIA 19.3 nm 2025-09-15

SDO/AIA AIA 193Å 2025-09-15T12:00:05.843



SDO/AIA 19.3 nm 2025-09-16

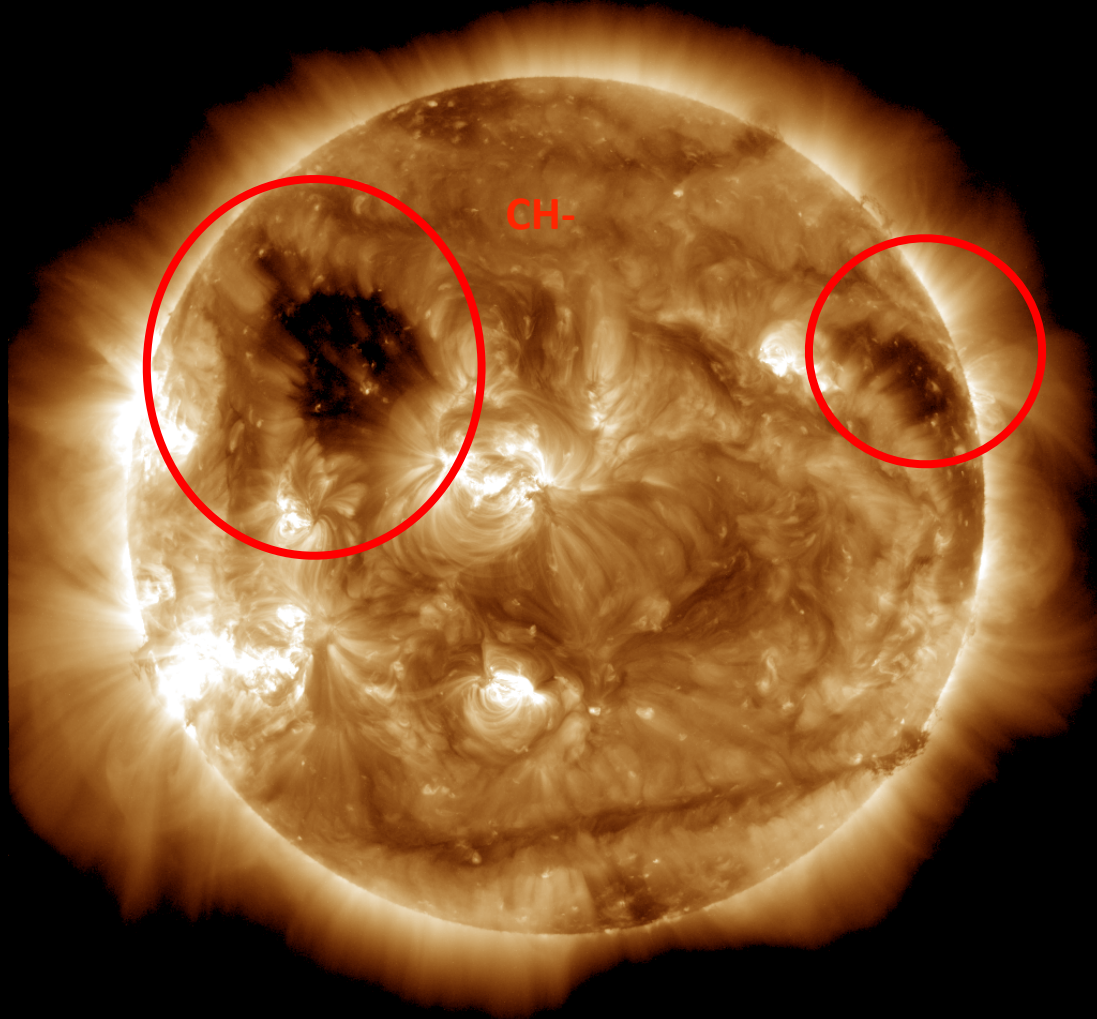
SDO/AIA AIA 193Å 2025-09-16T12:00:06.869



Coronal holes

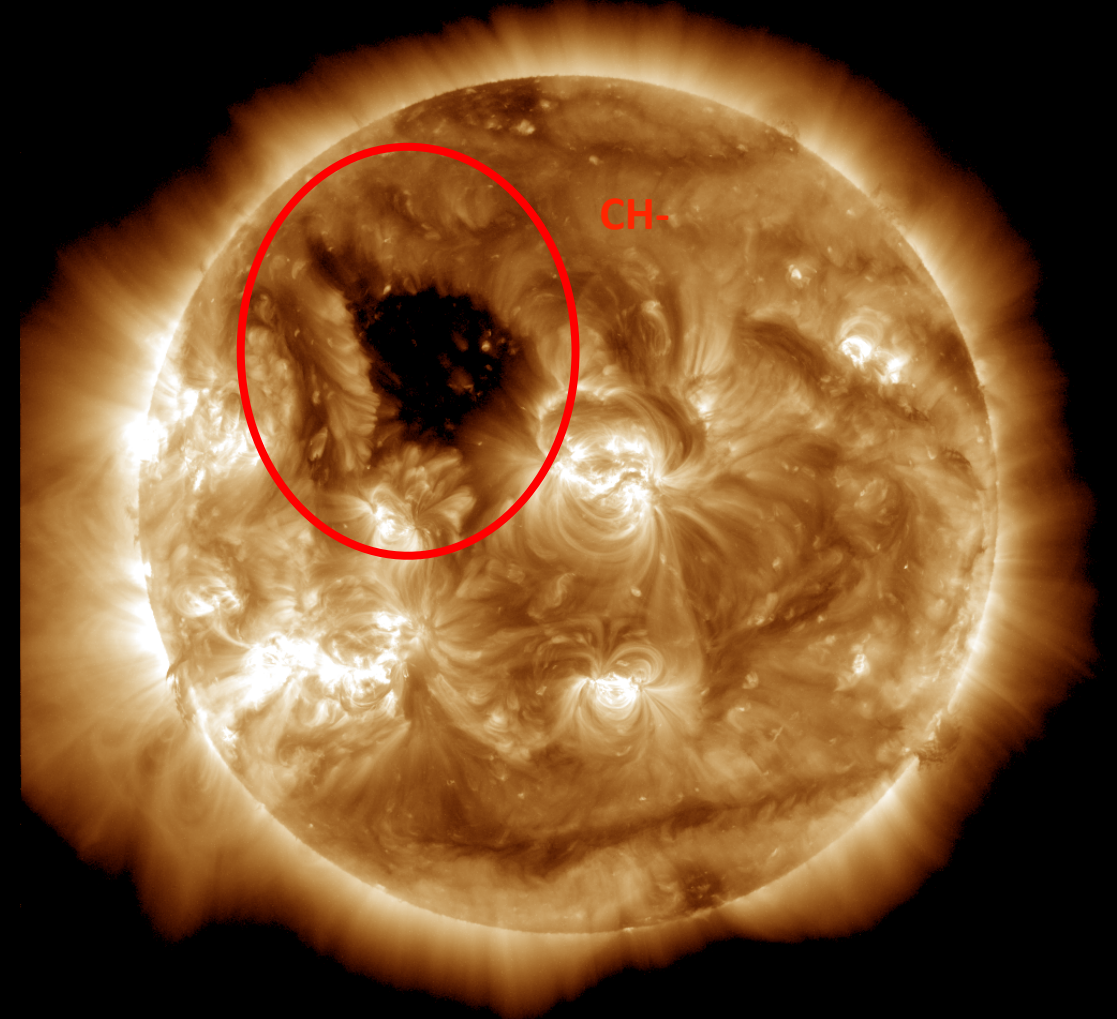
SDO/AIA 19.3 nm 2025-09-17

SDO/AIA AIA 193Å 2025-09-17T12:00:05.842



SDO/AIA 19.3 nm 2025-09-18

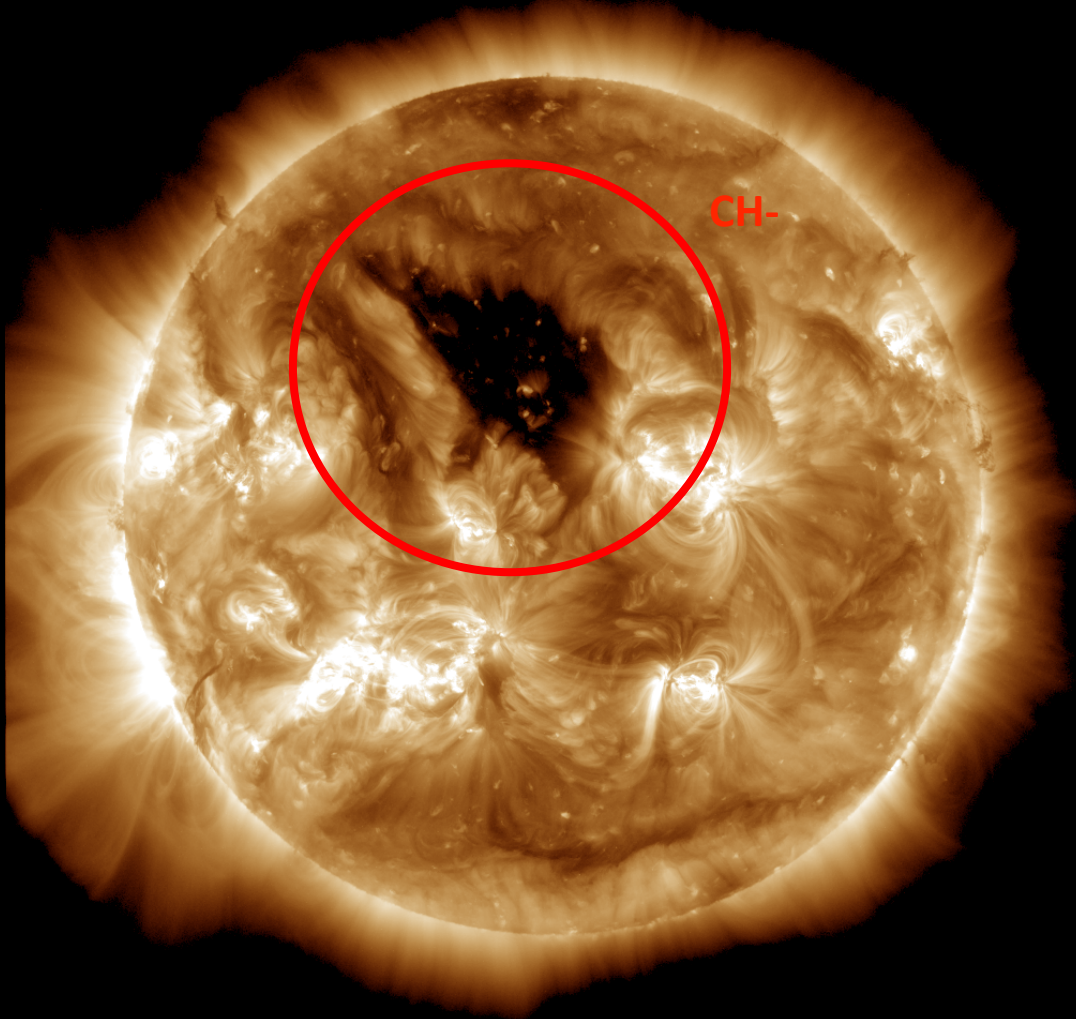
SDO/AIA AIA 193Å 2025-09-18T12:00:05.843



Coronal holes

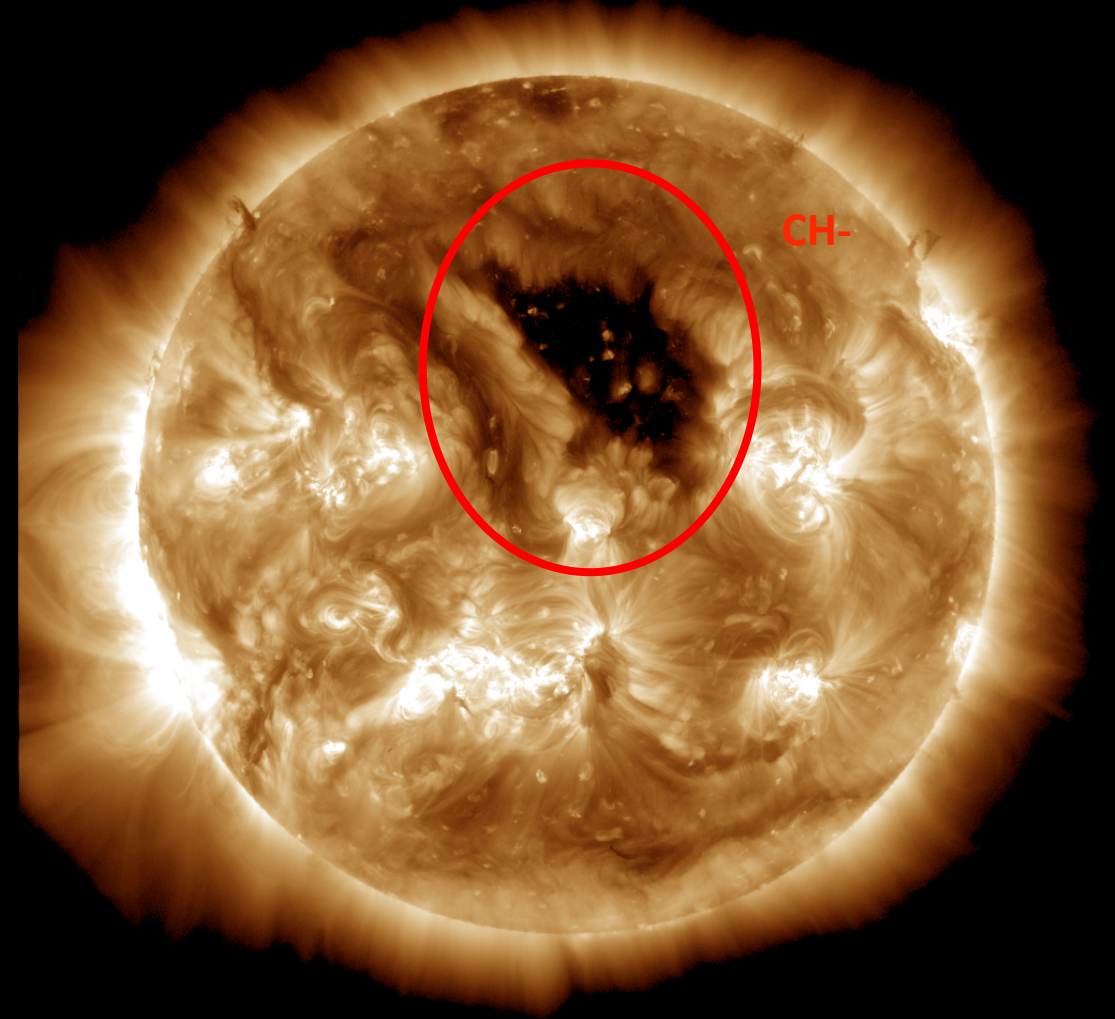
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SDO/AIA AIA 193Å 2025-09-19T12:00:05.843



SDO/AIA 19.3 nm 2025-09-20

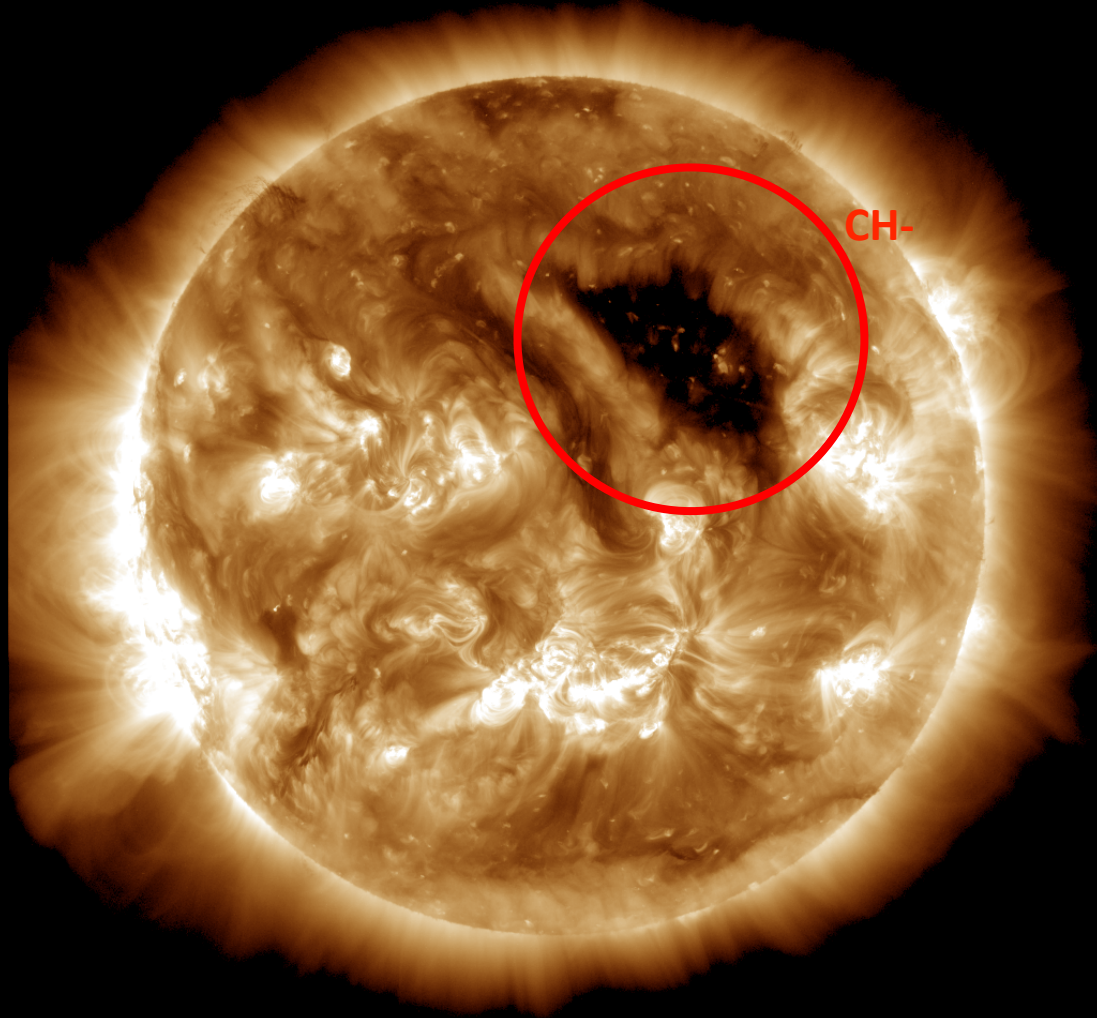
SDO/AIA AIA 193Å 2025-09-20T12:00:05.843



Coronal holes

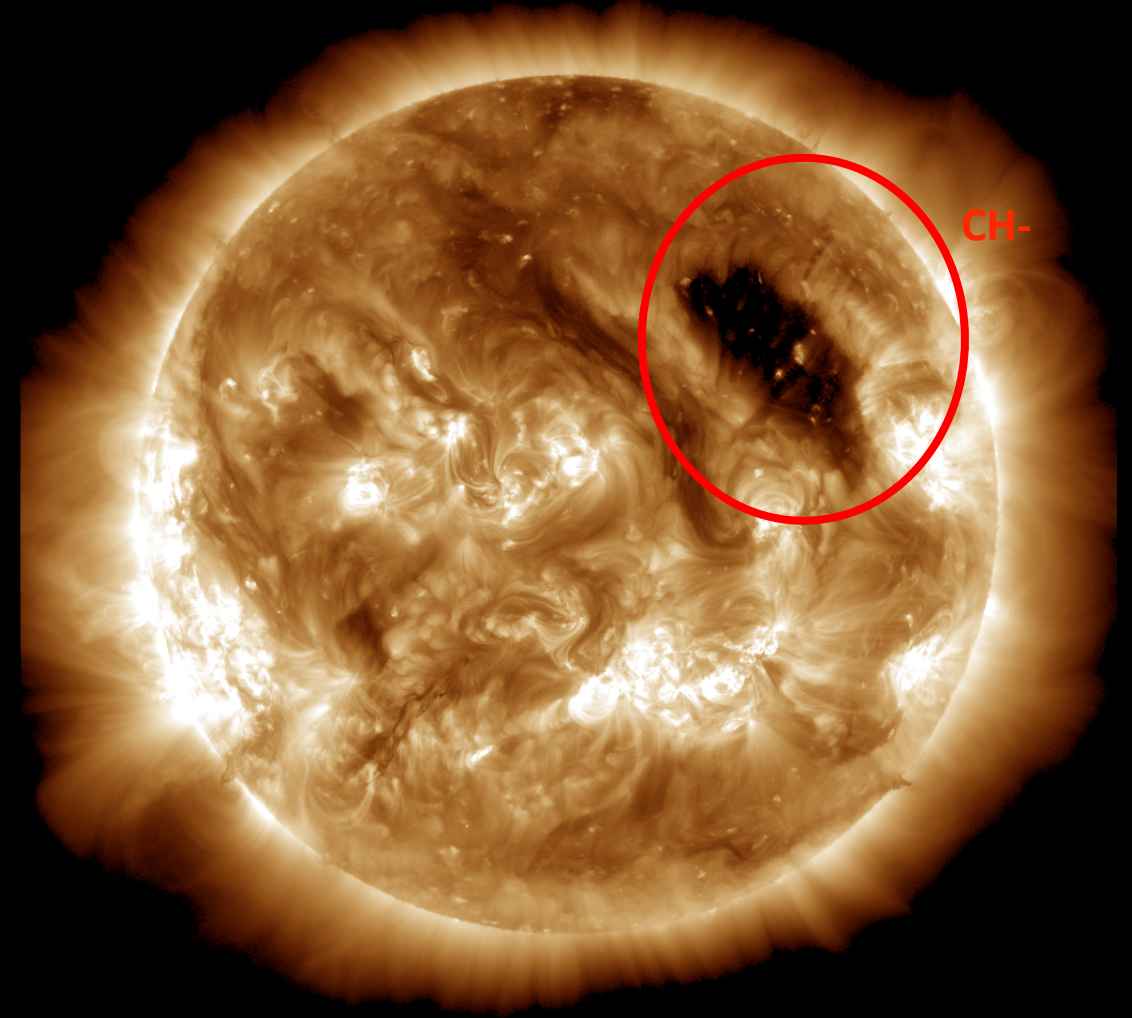
SDO/AIA 19.3 nm 2025-09-21

SDO/AIA AIA 193Å 2025-09-21T12:00:05.843



SDO/AIA 19.3 nm 2025-09-22

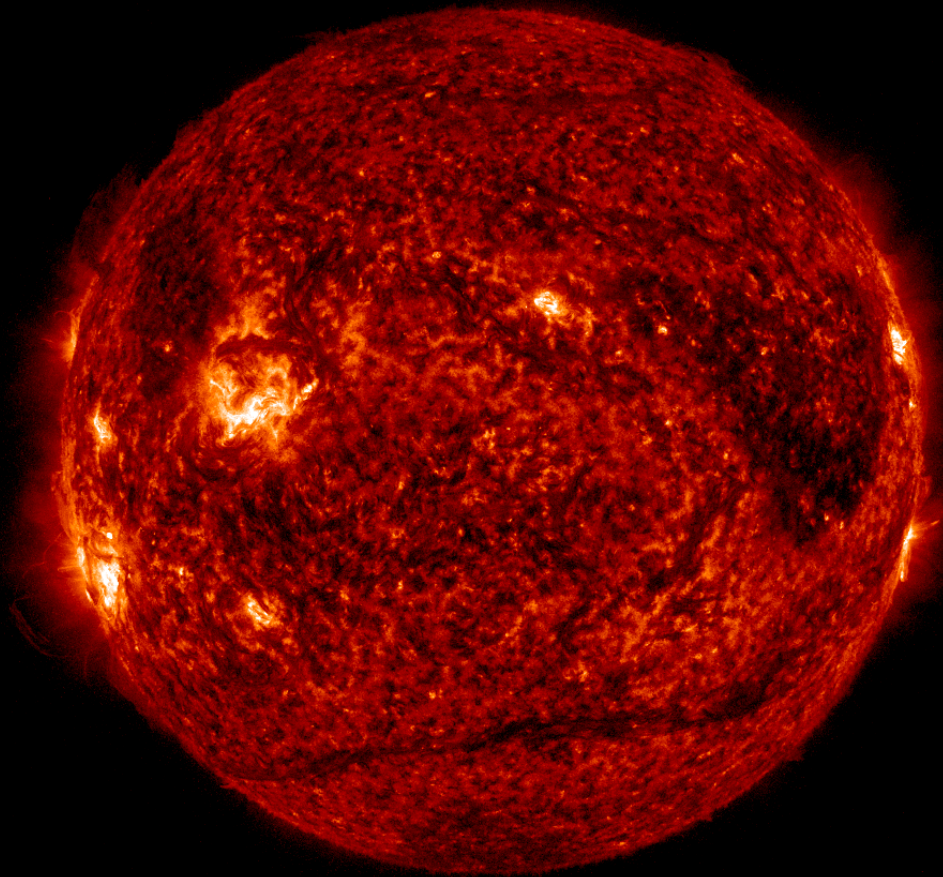
SDO/AIA AIA 193Å 2025-09-22T08:42:05.843



Filaments

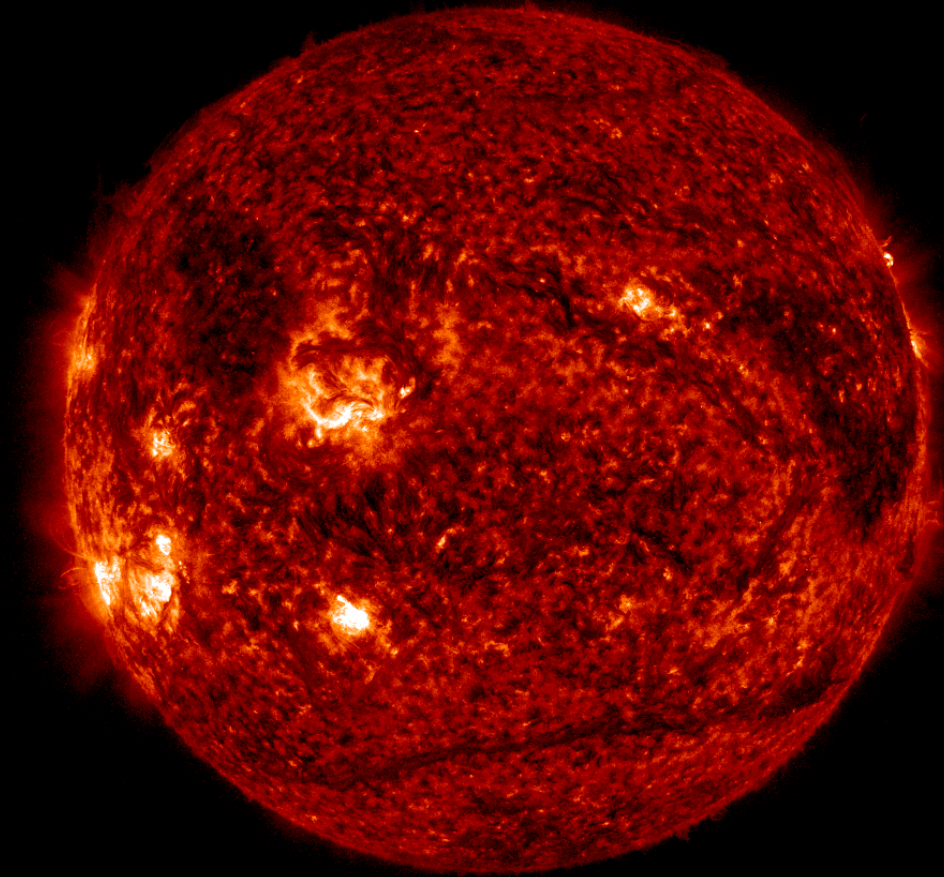
SDO/AIA 30.4 nm 2025-09-15

SDO/AIA AIA 304Å 2025-09-15T12:00:06.580



SDO/AIA 30.4 nm 2025-09-16

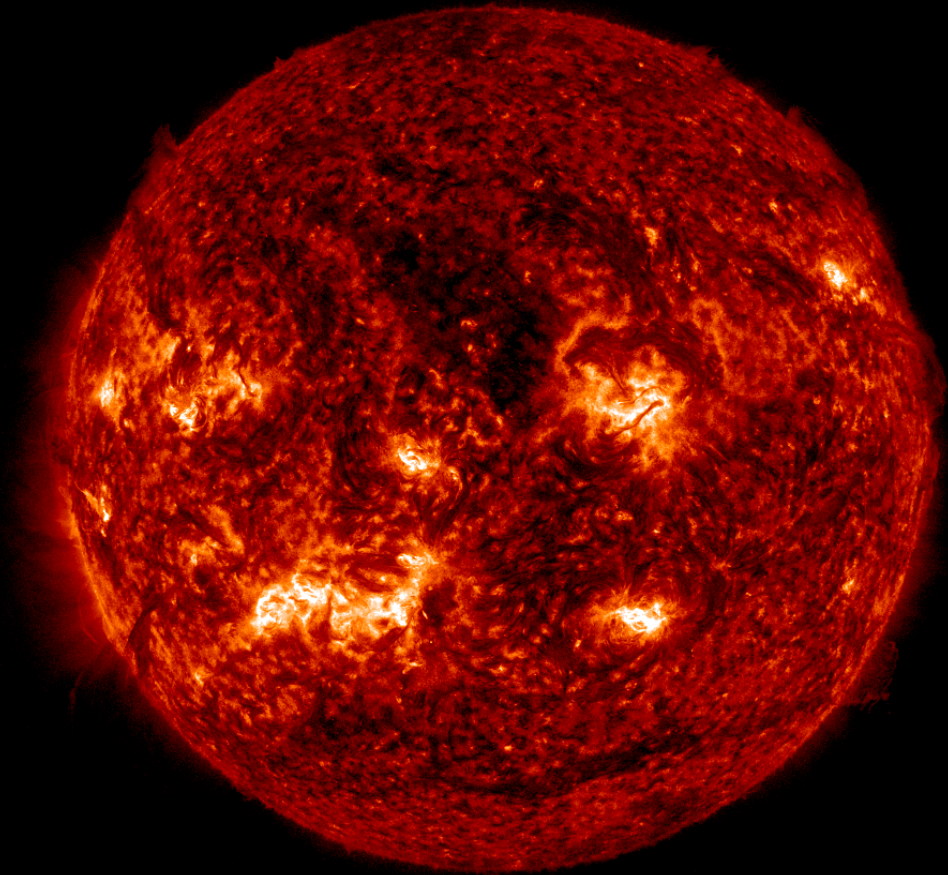
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Filaments

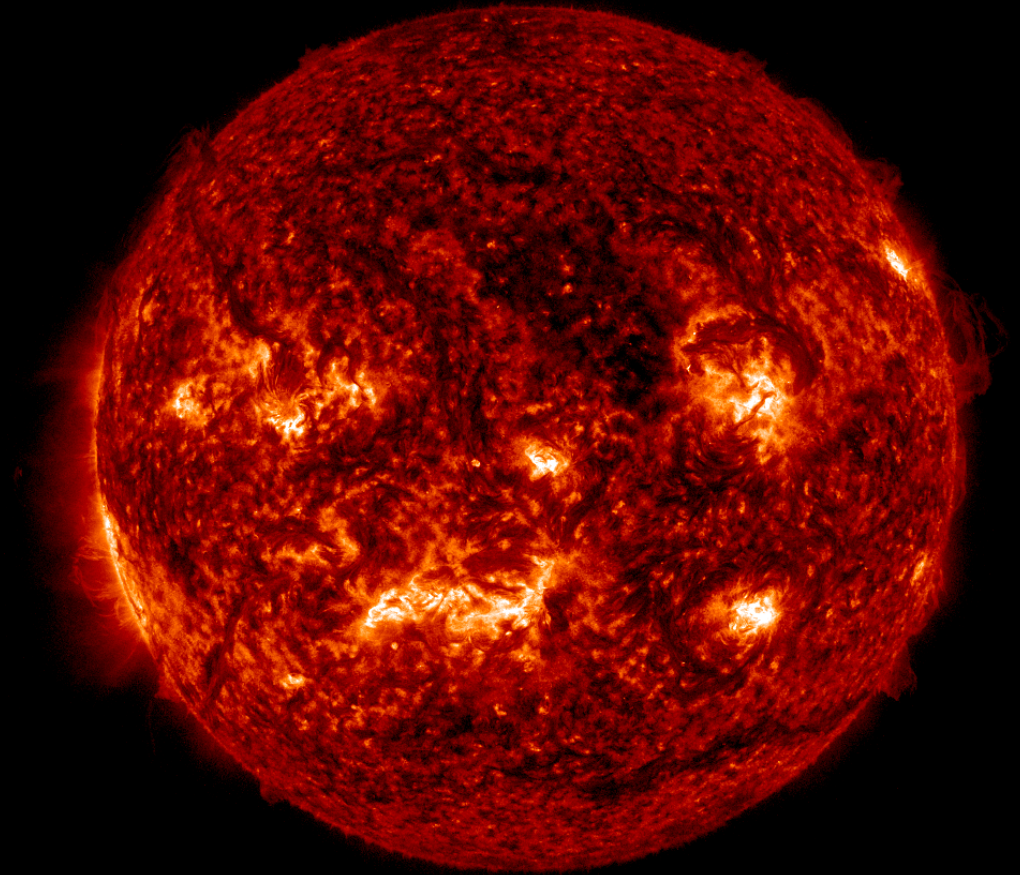
SDO/AIA 30.4 nm 2025-09-19

SDO/AIA AIA 304Å 2025-09-19T12:00:06.580



SDO/AIA 30.4 nm 2025-09-20

SDO/AIA AIA 304Å 2025-09-20T12:00:06.580



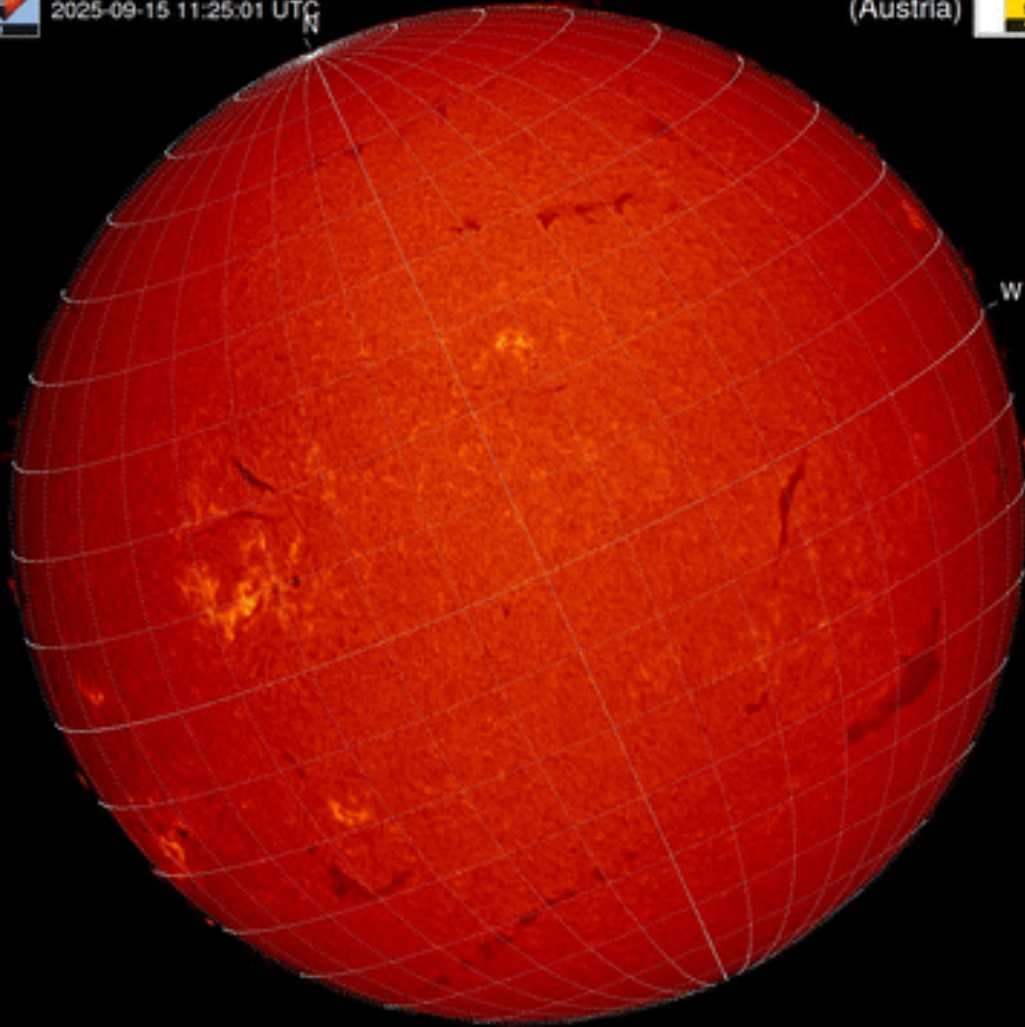
Filaments & Filament eruptions

H-alpha 2025-09-15



Kanzelhöhe Observatory
2025-09-15 11:25:01 UTC

University of Graz
(Austria)

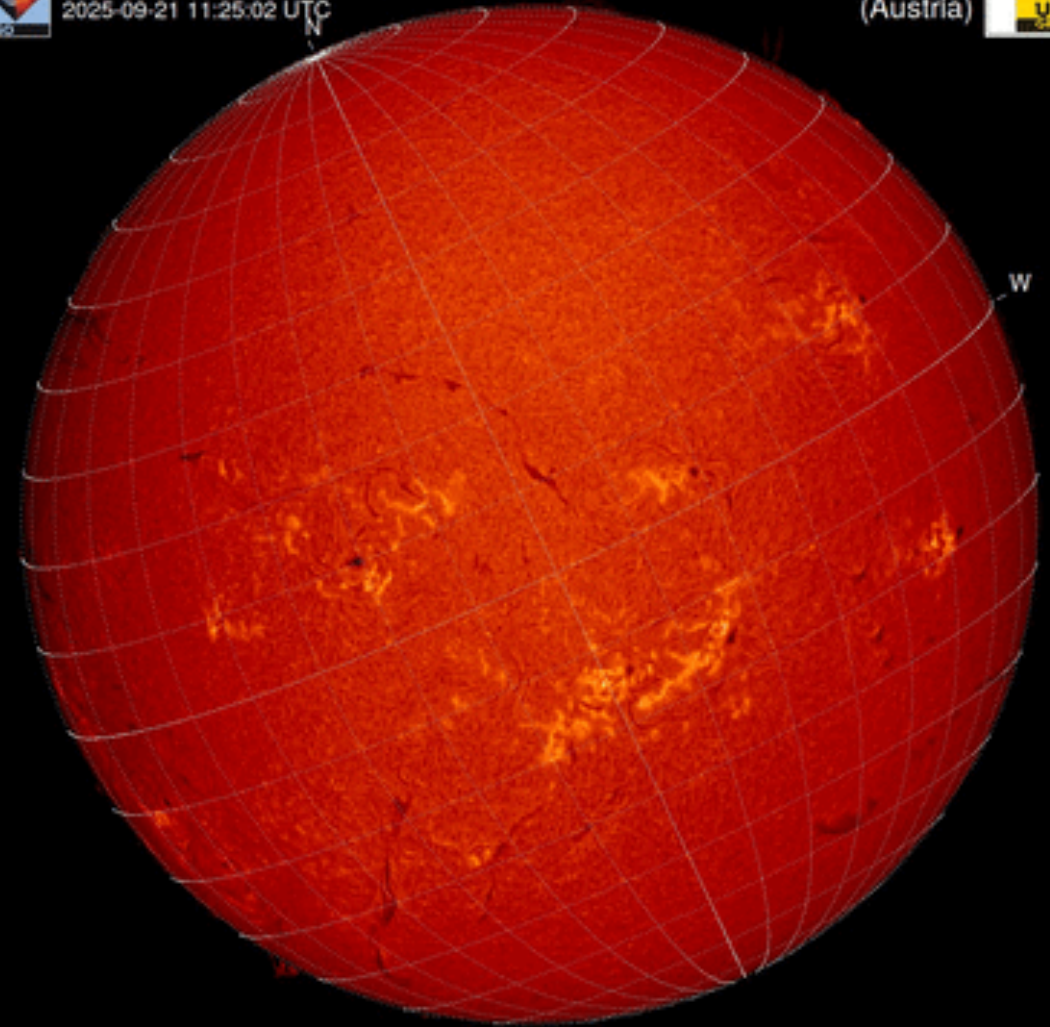


H-alpha 2025-09-21

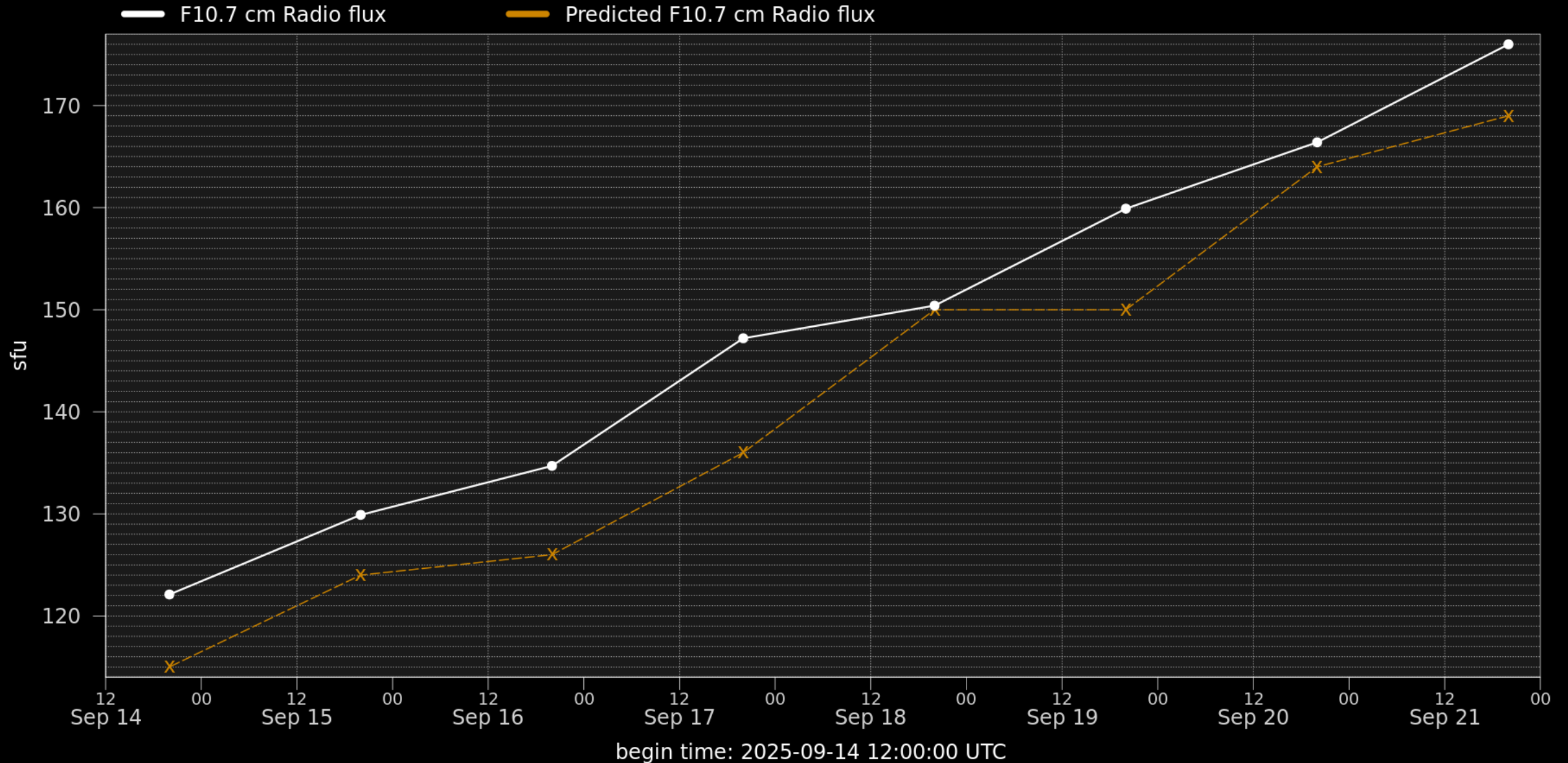


Kanzelhöhe Observatory
2025-09-21 11:25:02 UTC

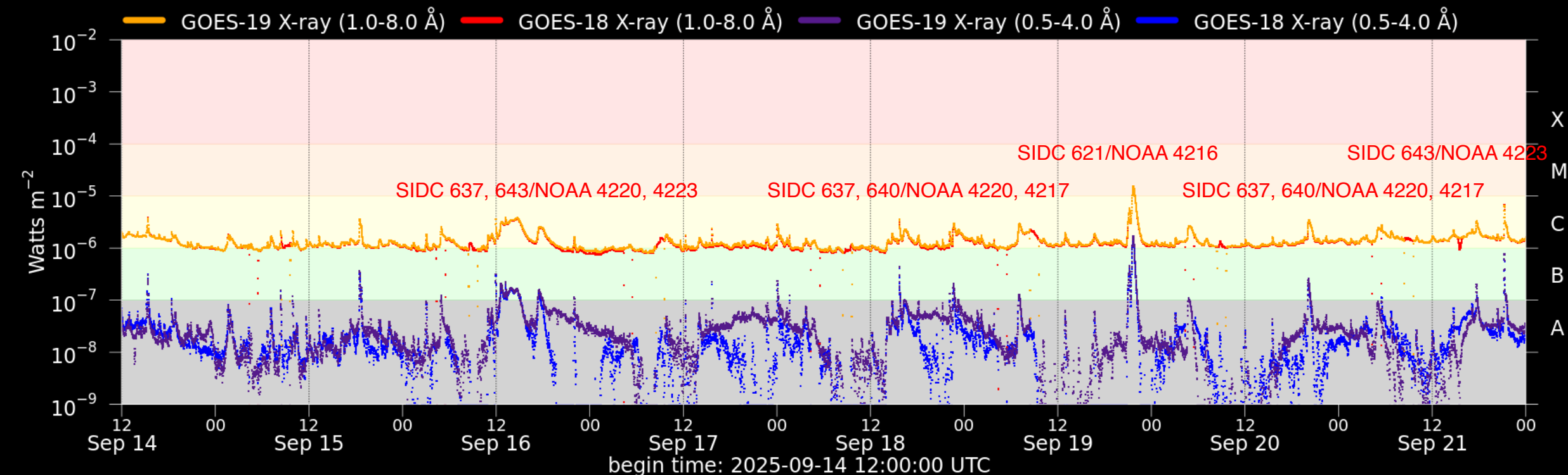
University of Graz
(Austria)



Solar F10.7cm radio flux



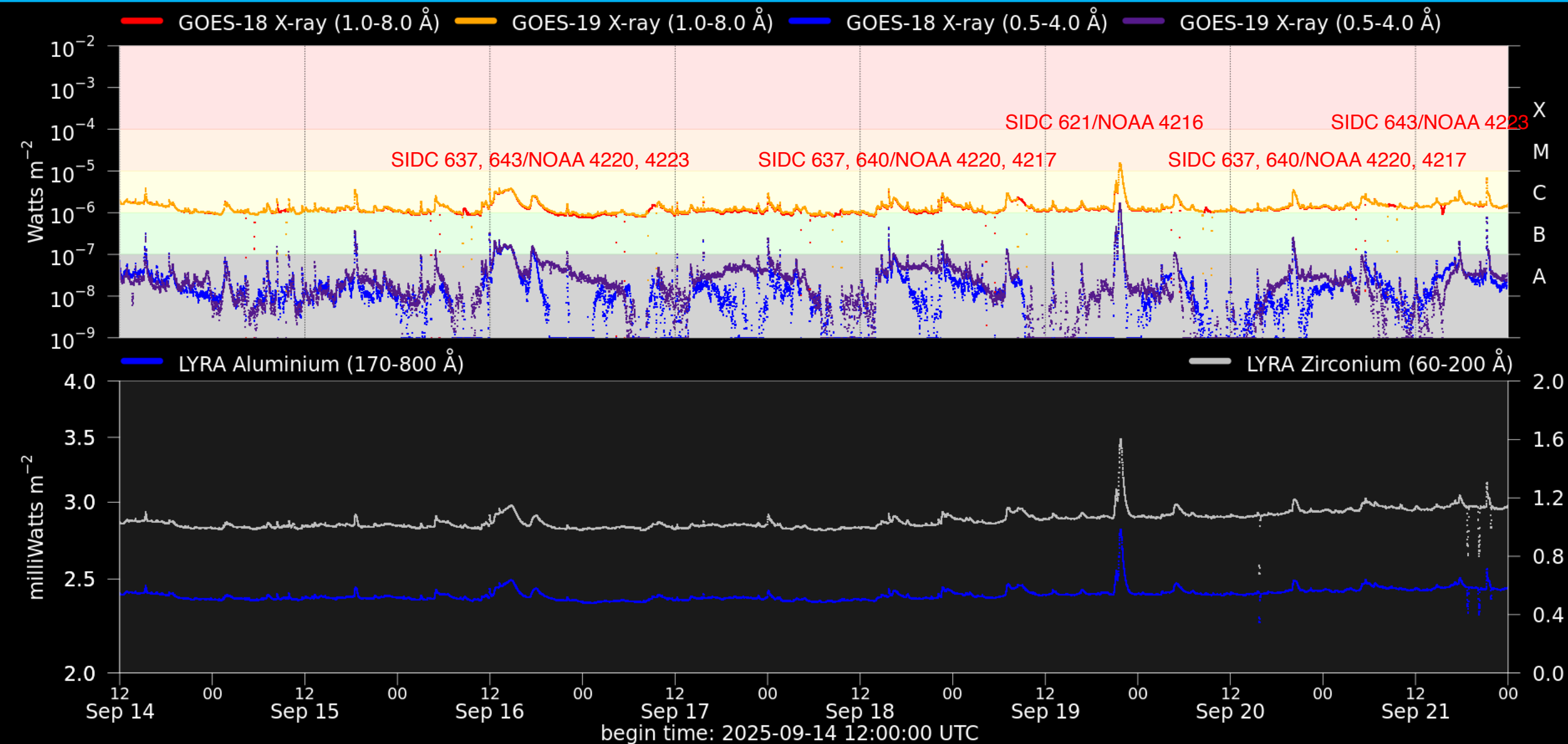
Flaring activity



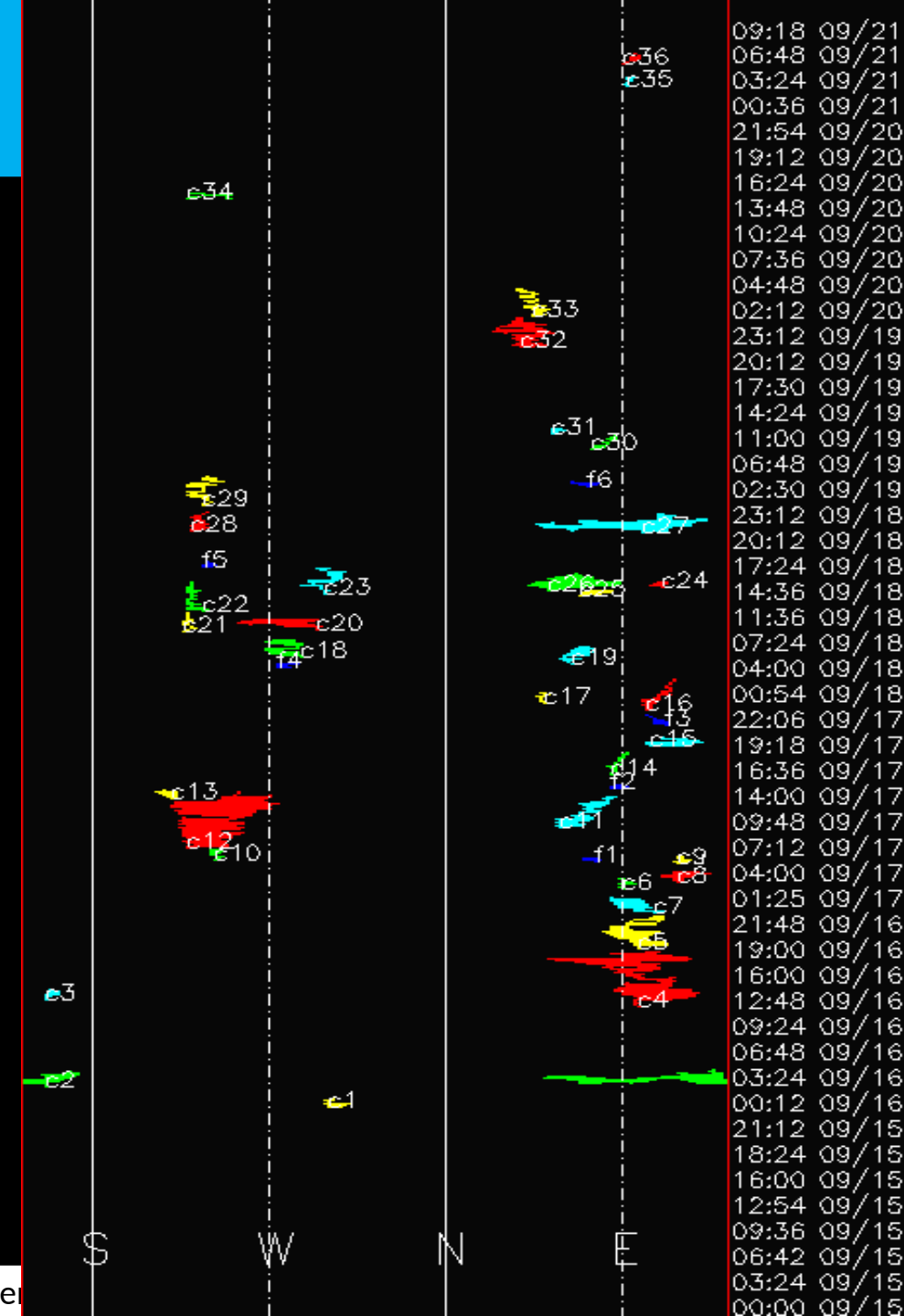
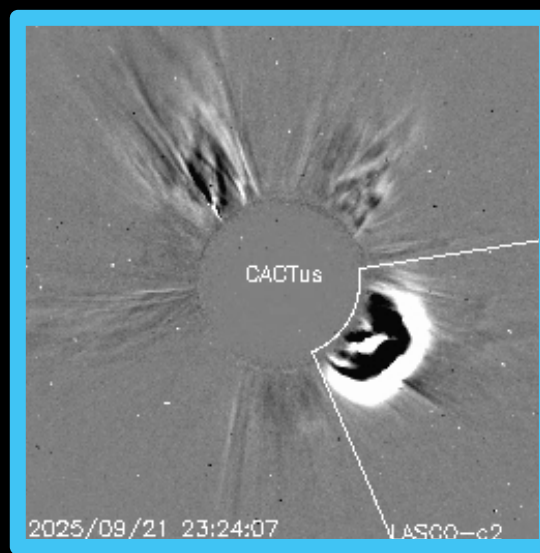
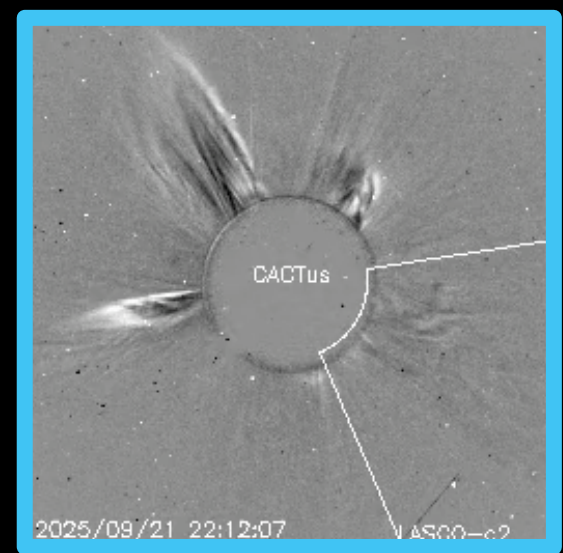
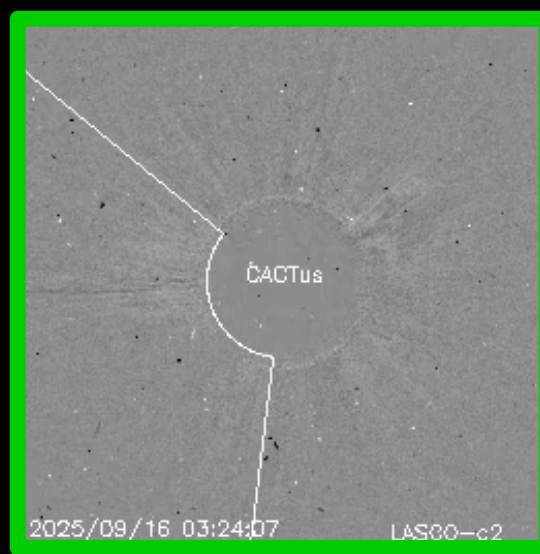
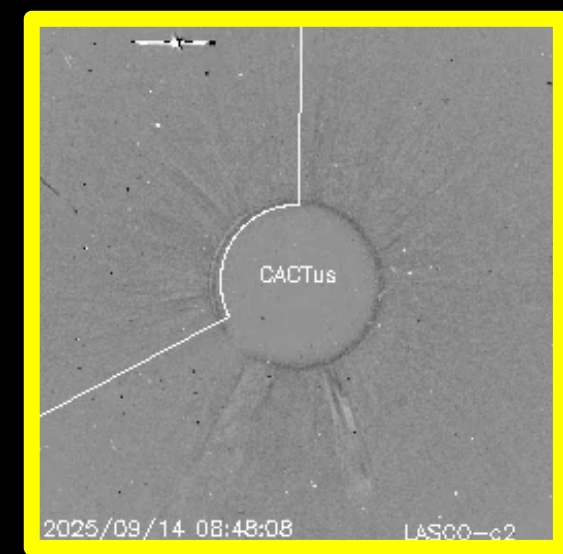
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-09-14	2025-09-15	2025-09-16	2025-09-17	2025-09-18	2025-09-19	2025-09-20	2025-09-21
Probability (%)	90 49 15	94 34 01	99 56 04	96 44 04	98 51 04	99 60 04	99 70 04	99 63 02
Observed (#)	07 00 00	05 00 00	01 00 00	05 00 00	04 00 00	03 01 00	01 00 00	02 00 00

Solar X-Ray and UV flux



Coronal Mass Ejections



Solar Wind and

Geomagnetic Activity

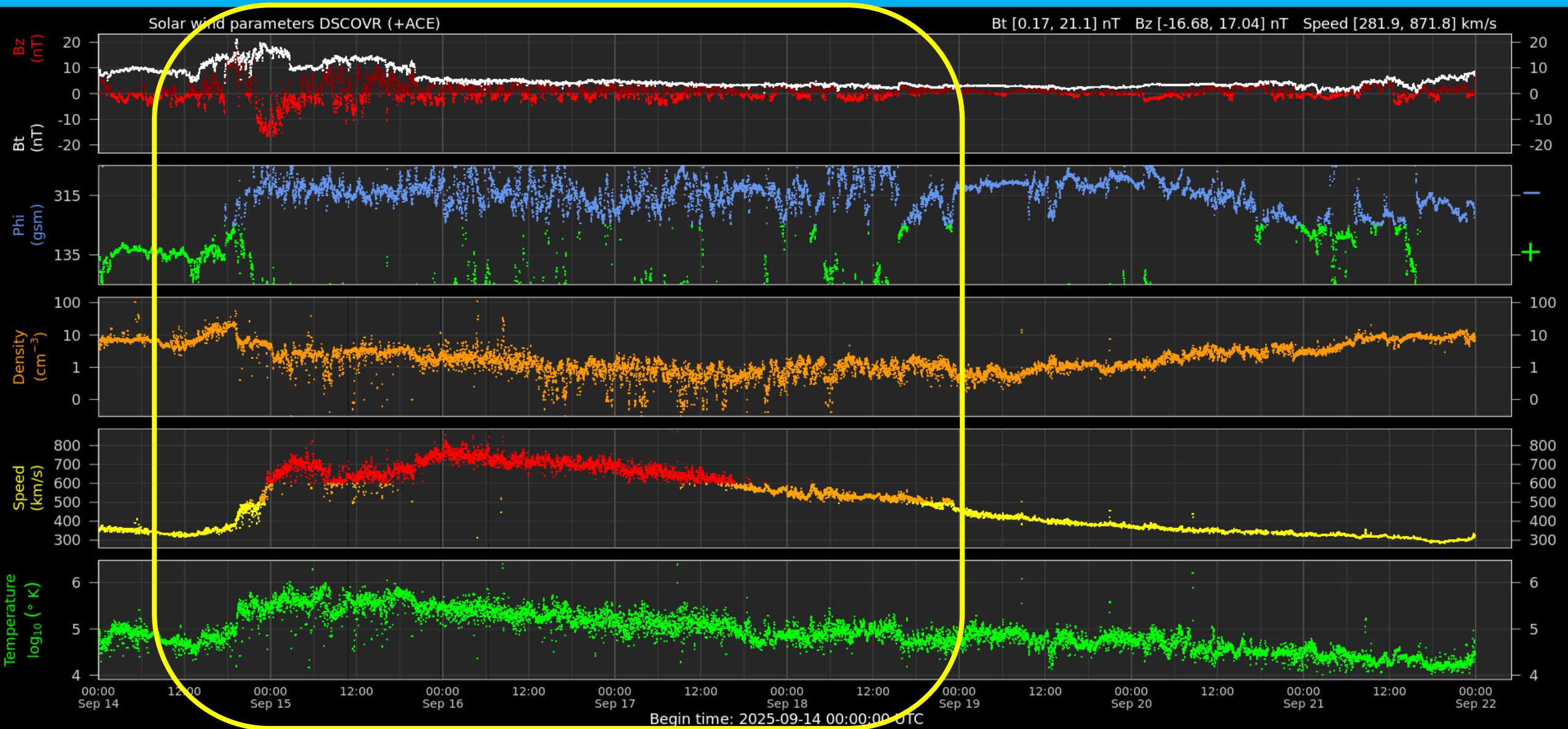


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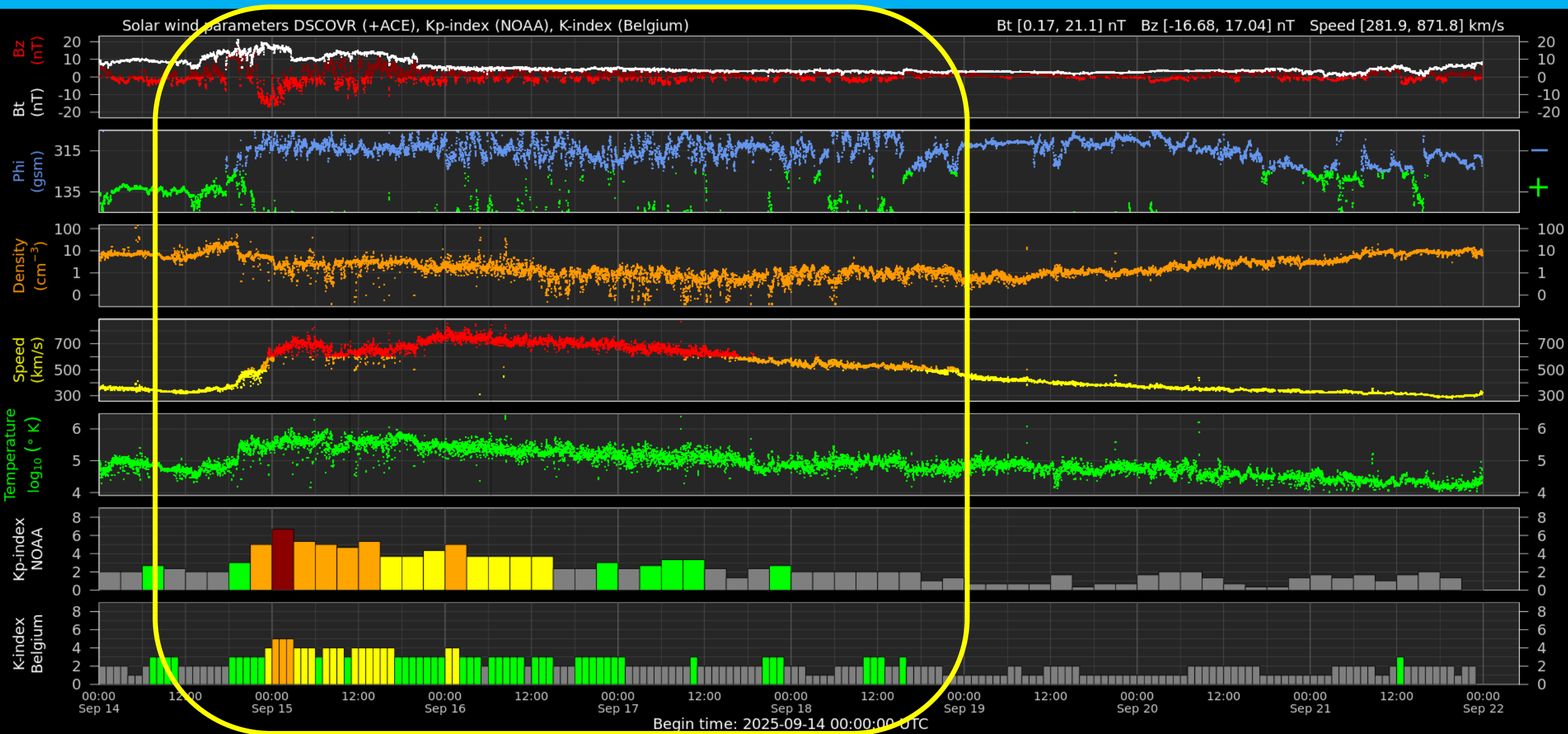
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Solar wind parameters

HSS + ICME?



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



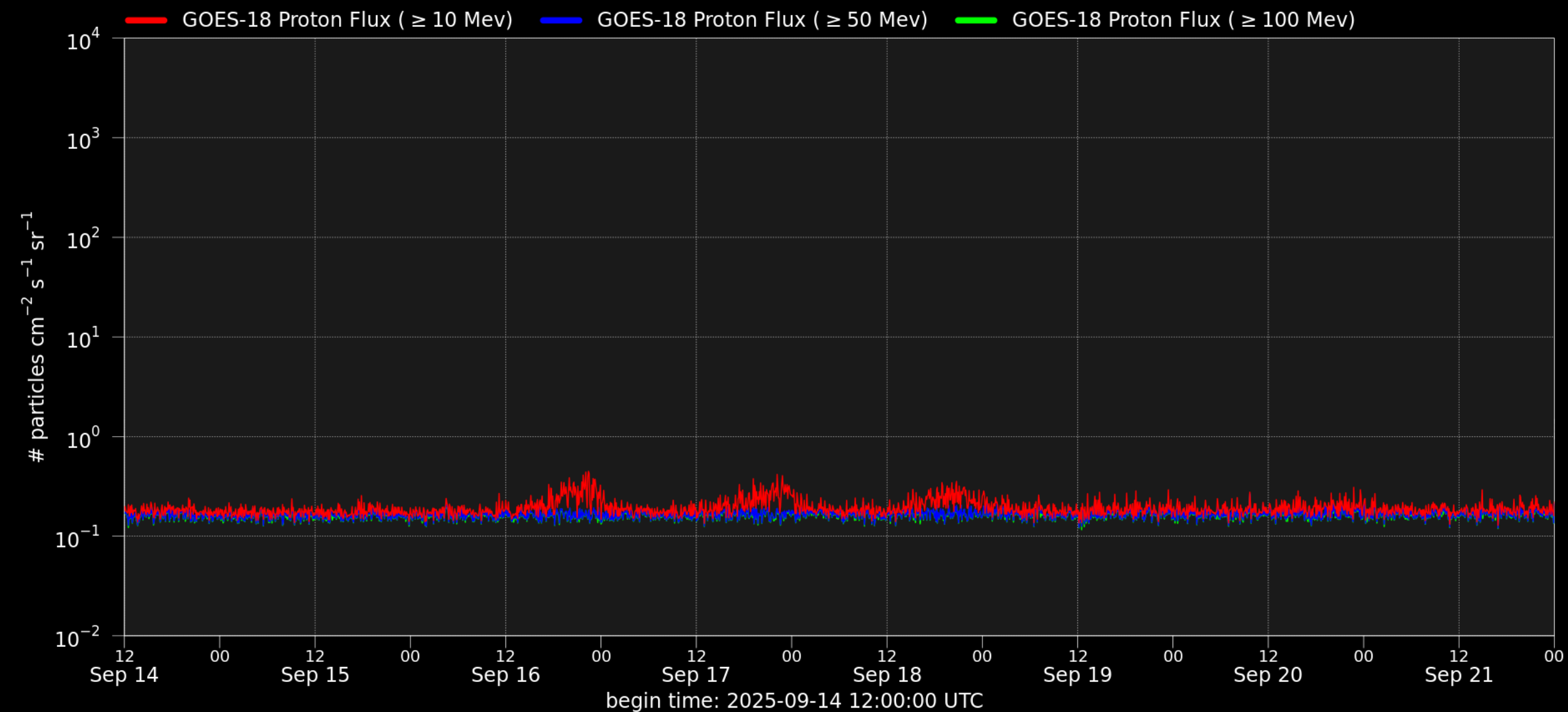
Energetic Particles



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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



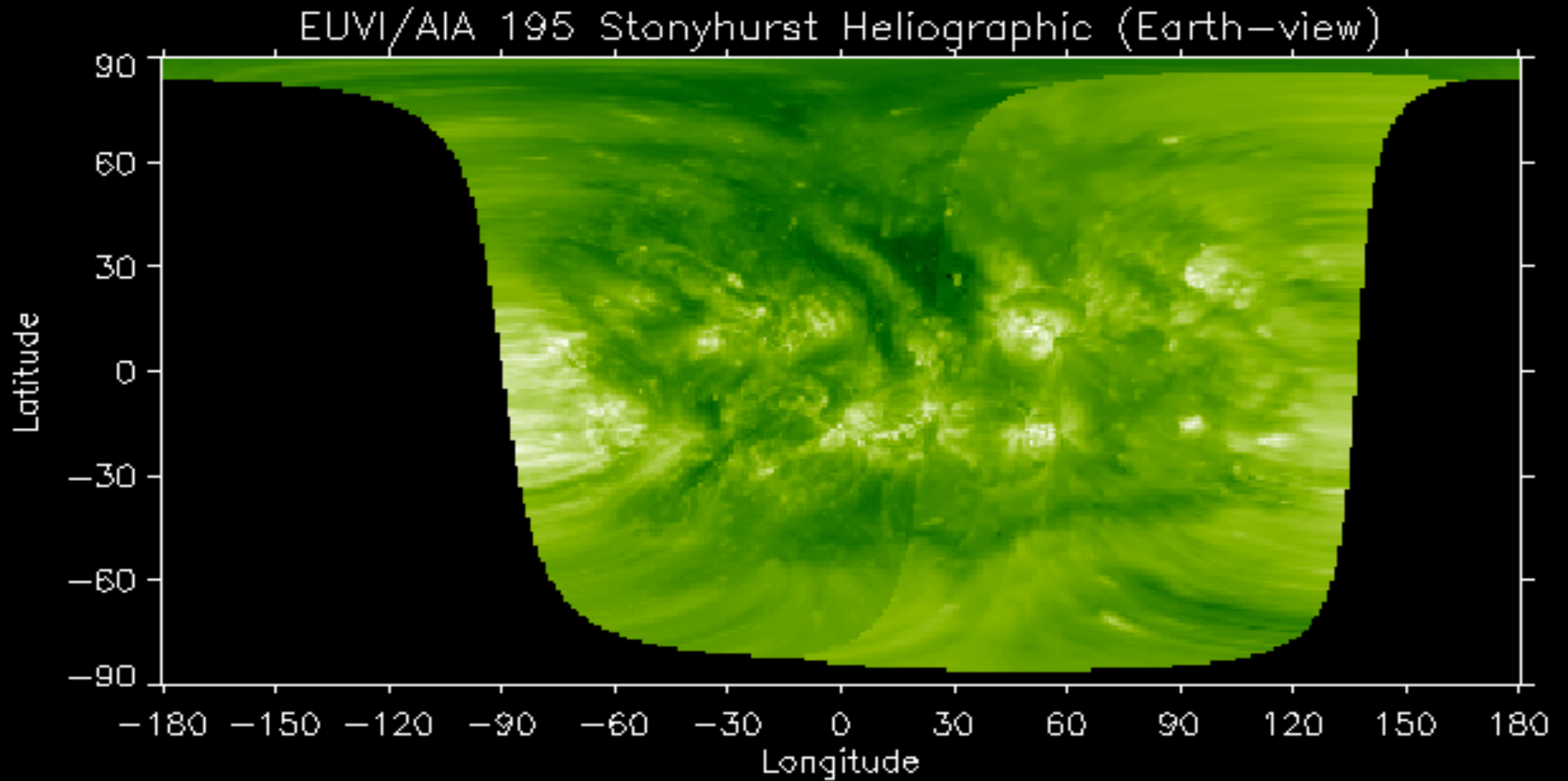
Outlook



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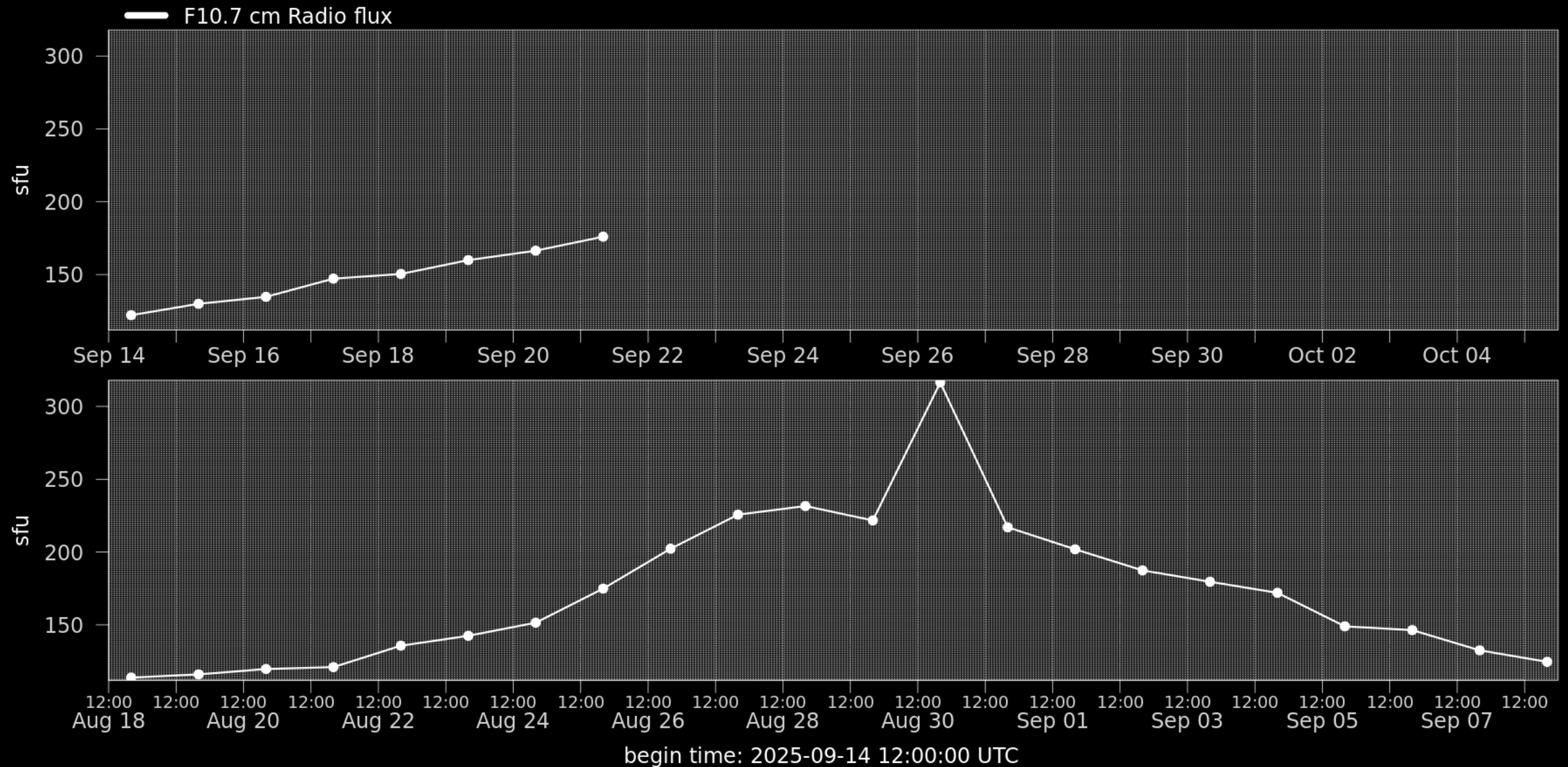
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Outlook: Solar activity

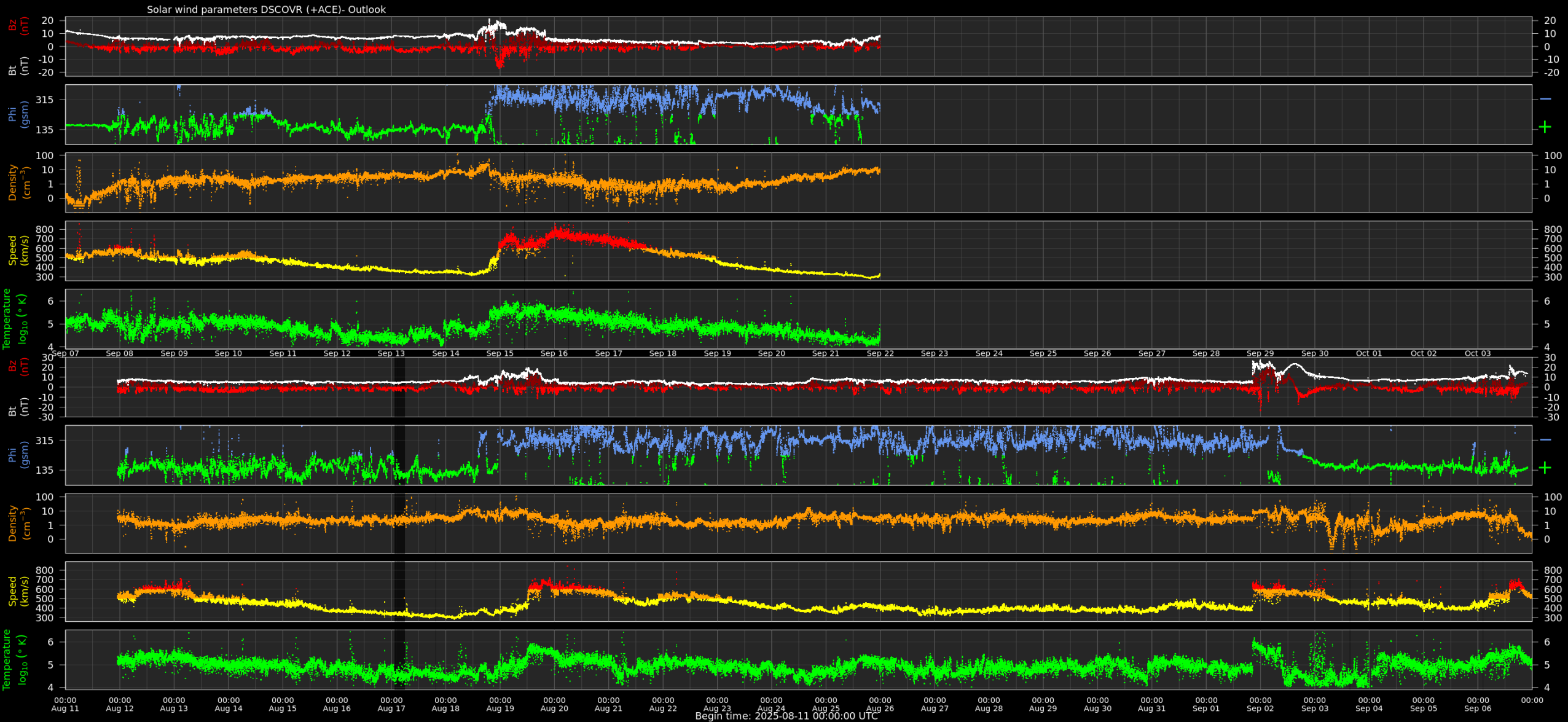


Observation date: 2025/09/21 22:55:00

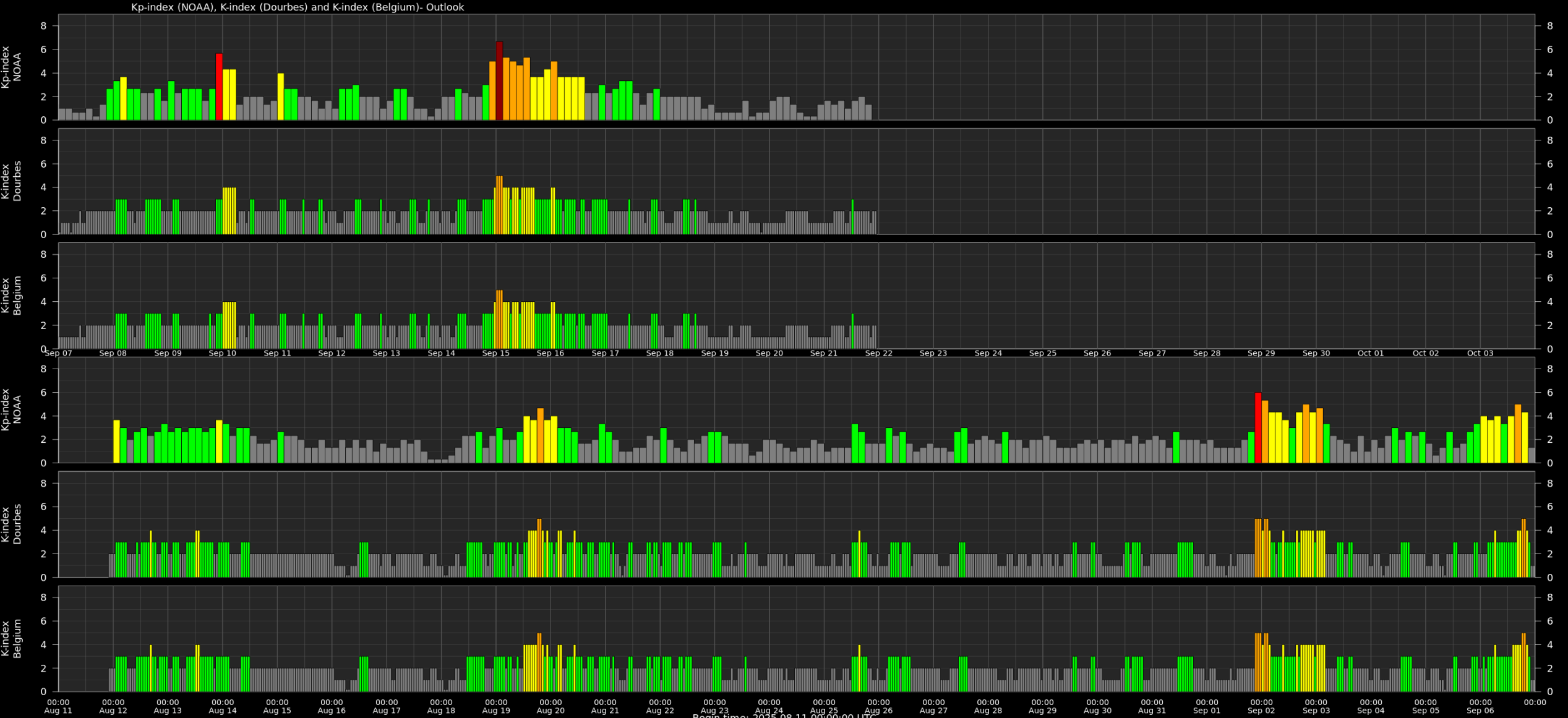
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



PECASUS



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Pegasus related events

PSD, Scintillation

SIDC Space Weather Briefing

See you at our next briefing!

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