SIDC Space Weather Briefing

16 June 2025-22 June 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 2025-06-16 00:00 to 2025-06-22 23:59

Active regions	14 ARs
Flares	# C-class flare: 45 # M-class flare: 8 # X-class flare: 2
Coronal Holes	1 large CH+, 1 large CH-, small CH+
CMEs	1 partial halo CME (June 18)

Proton flux	Nominal
Electron flux	Brief crossings above 1000 pfu threshold

Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	|B|: 2.11 - 10.71 nT //Bz: -8.56 nT to 8.91 nT //Speed: 268.8 – 630 km/s
Geomagnetic conditions	max KBel: 4.0, max Kp(NOAA): 4.33, Active conditions

All Quiet Alert: Off

Solar Activity

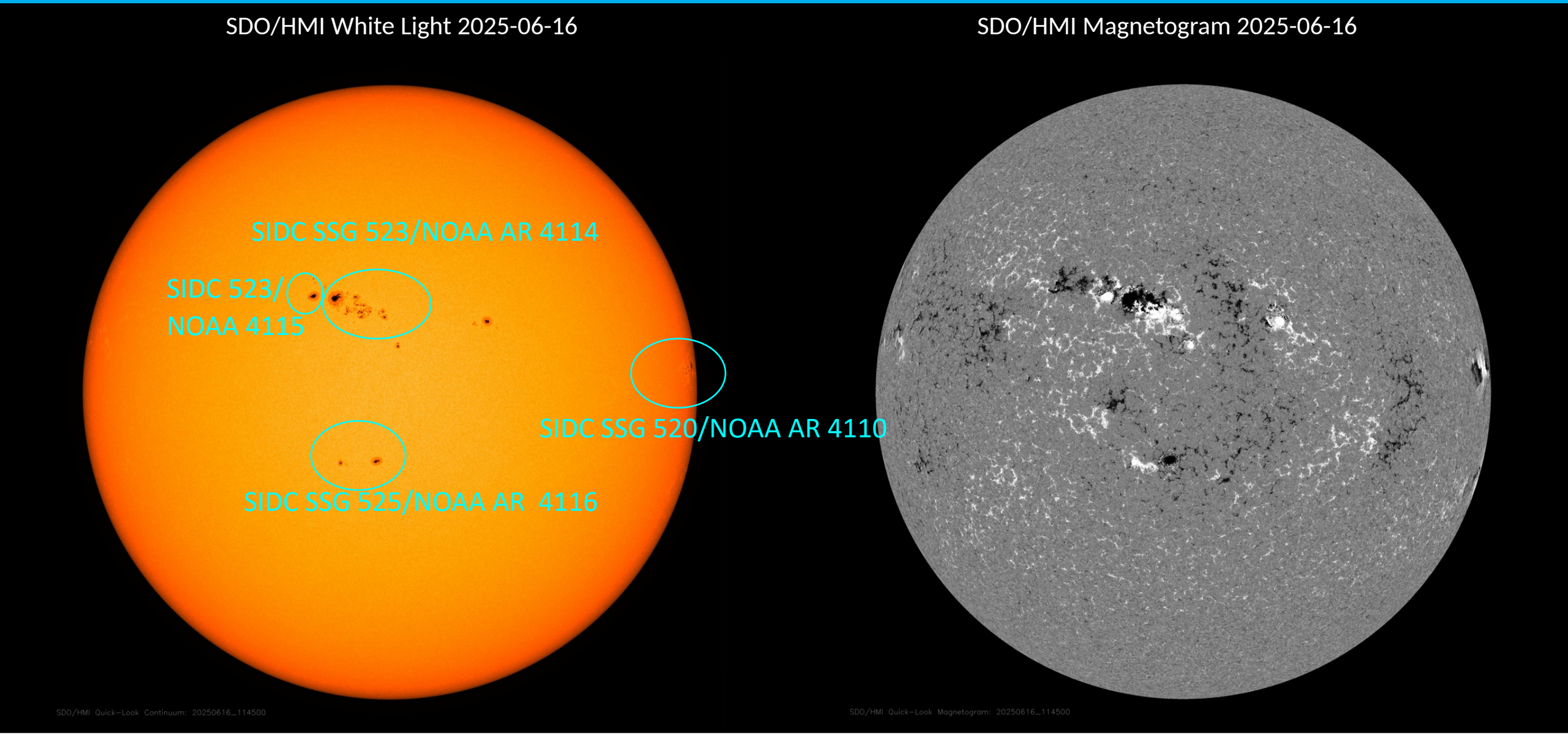
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Solar active regions

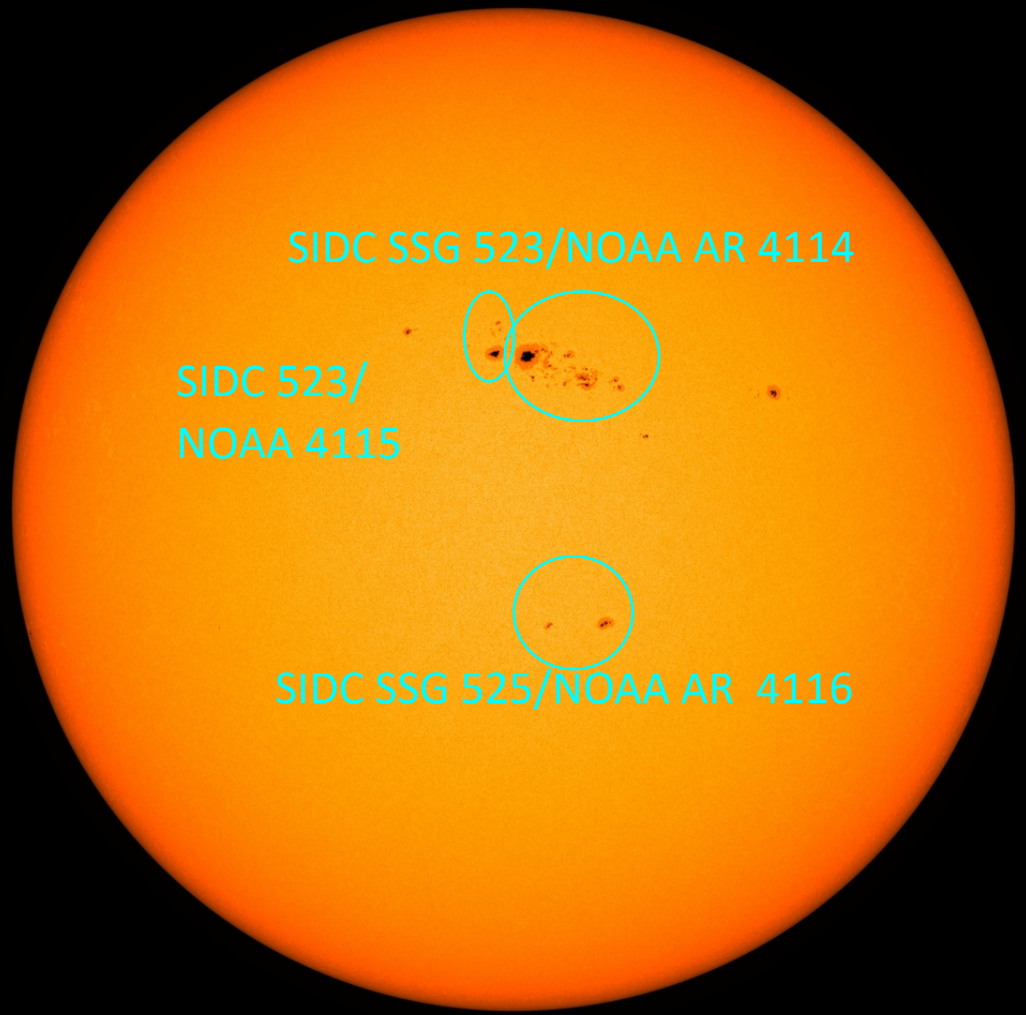
SDO/HMI White Light 2025-06-16

SDO/HMI Magnetogram 2025-06-16

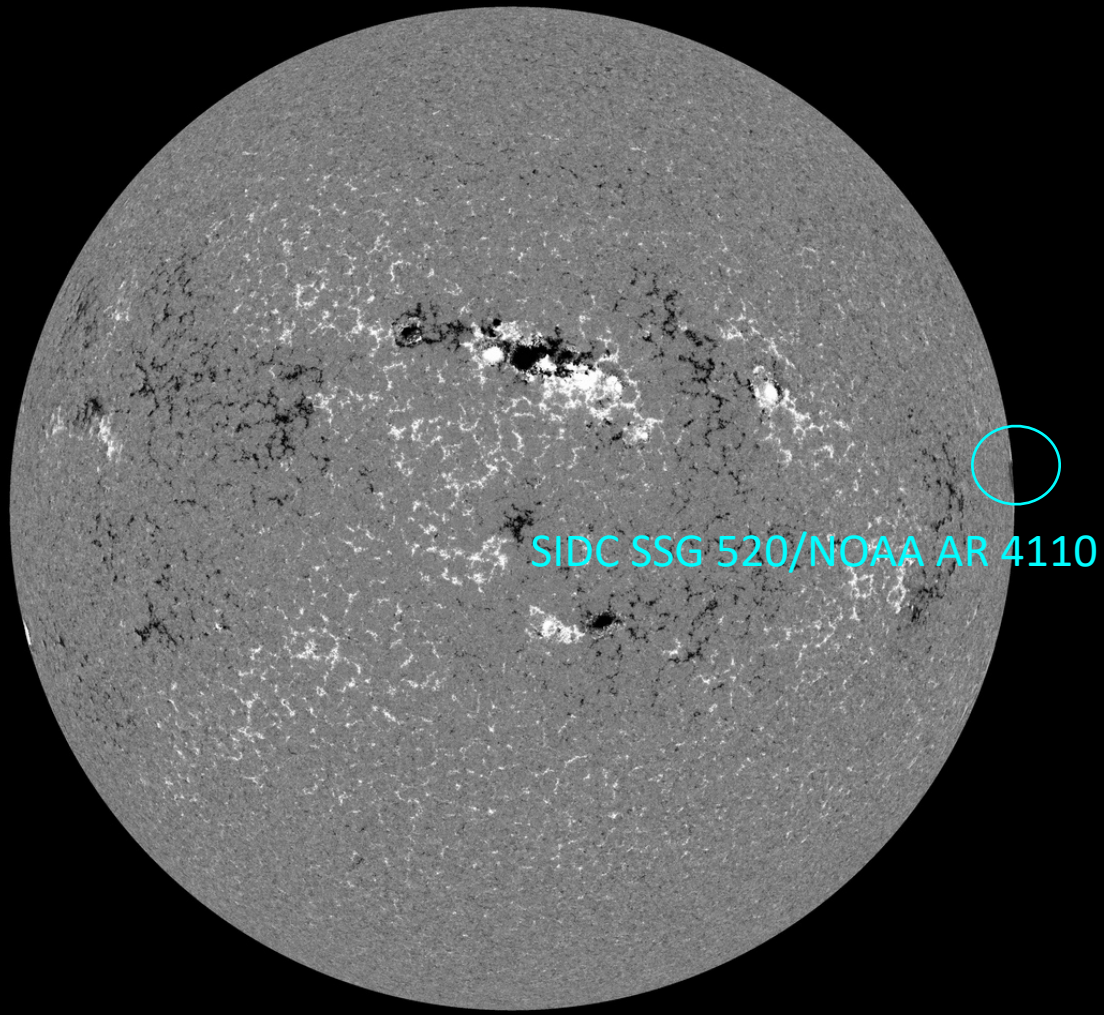


Solar active regions

SDO/HMI White Light 2025-06-17

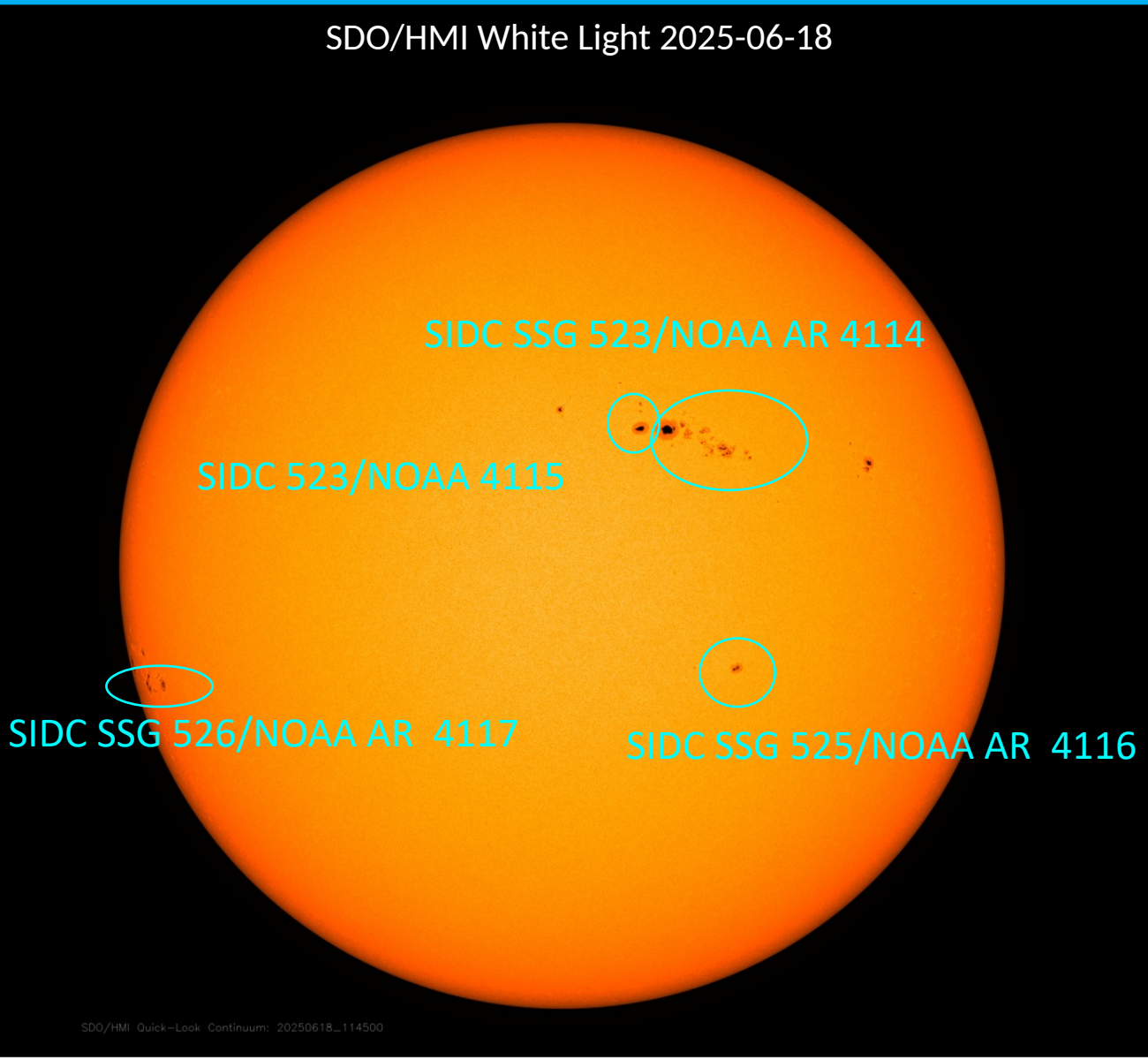


SDO/HMI Magnetogram 2025-06-17

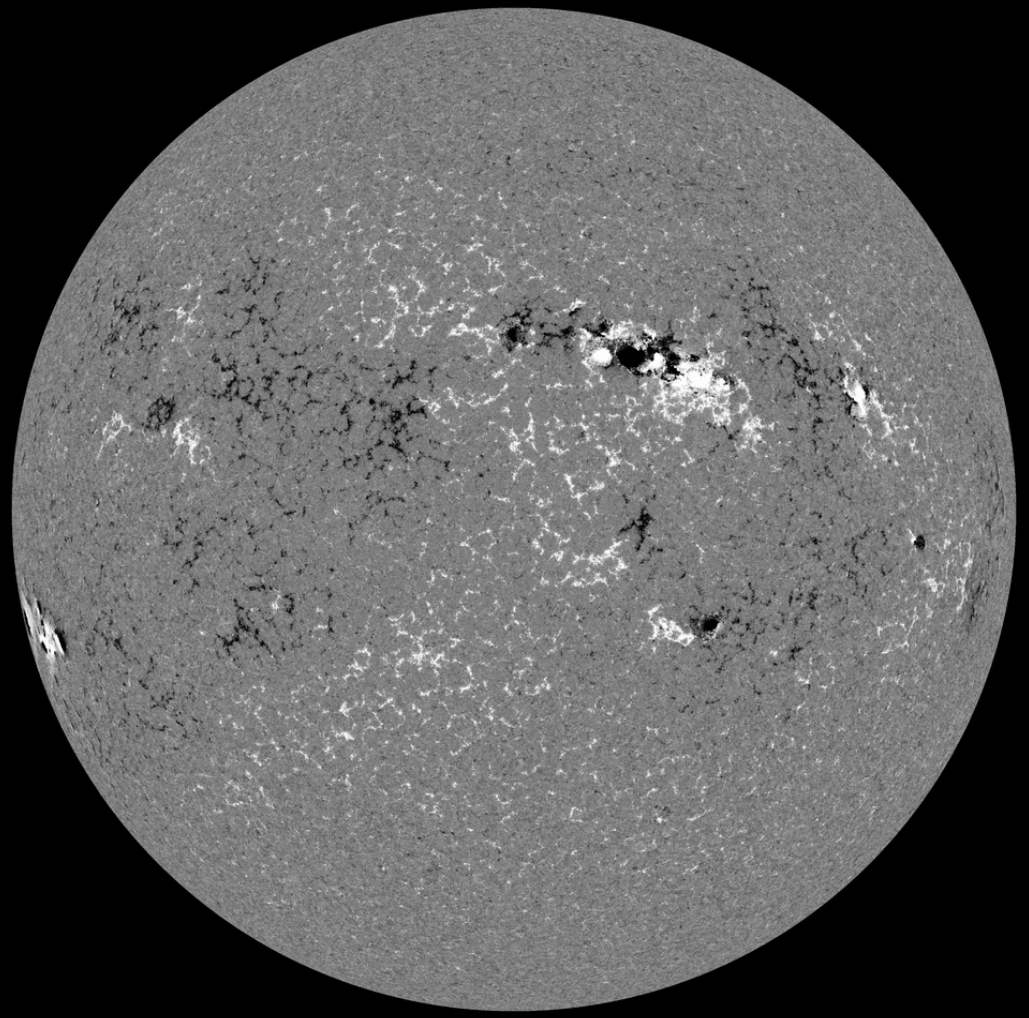


Solar active regions

SDO/HMI White Light 2025-06-18



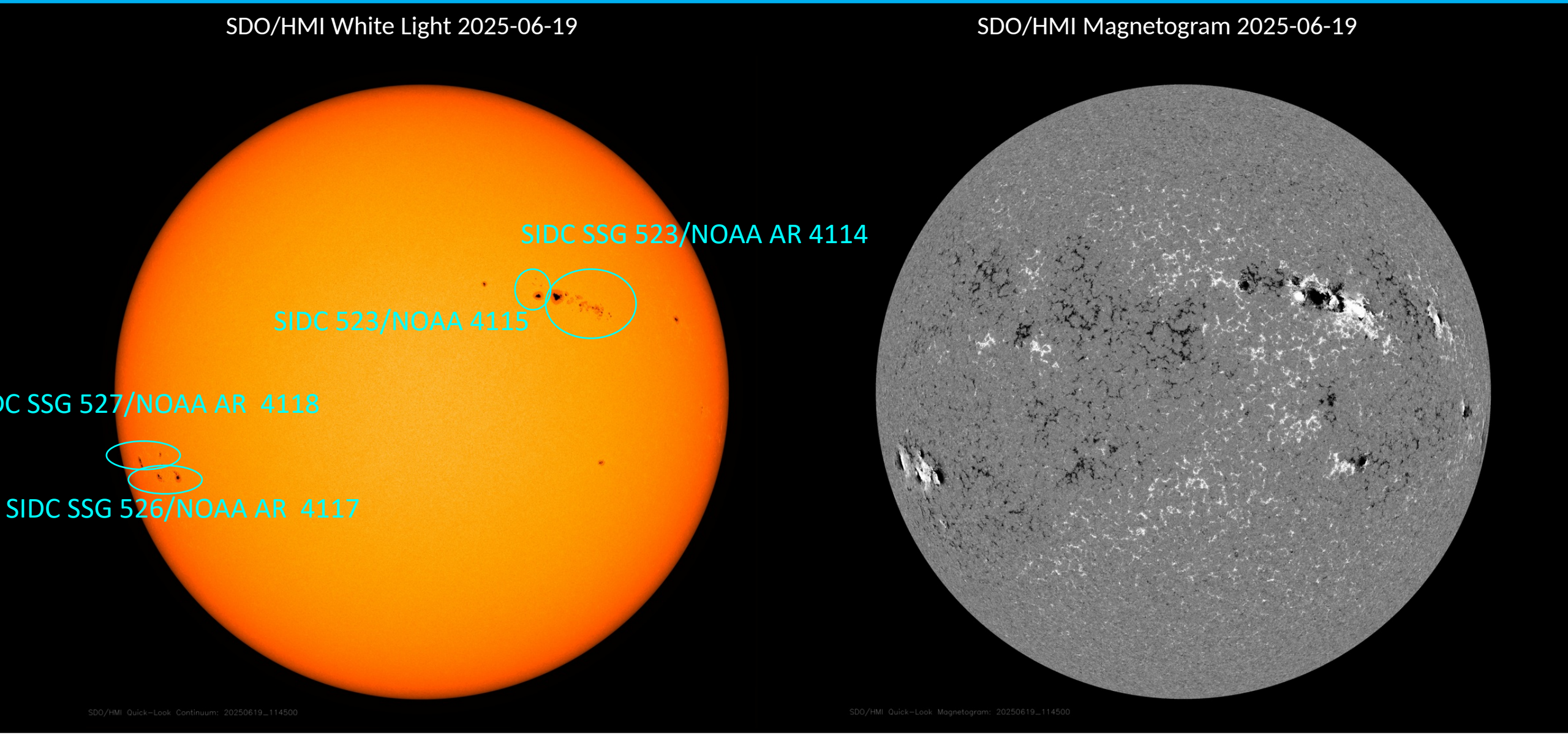
SDO/HMI Magnetogram 2025-06-18



Solar active regions

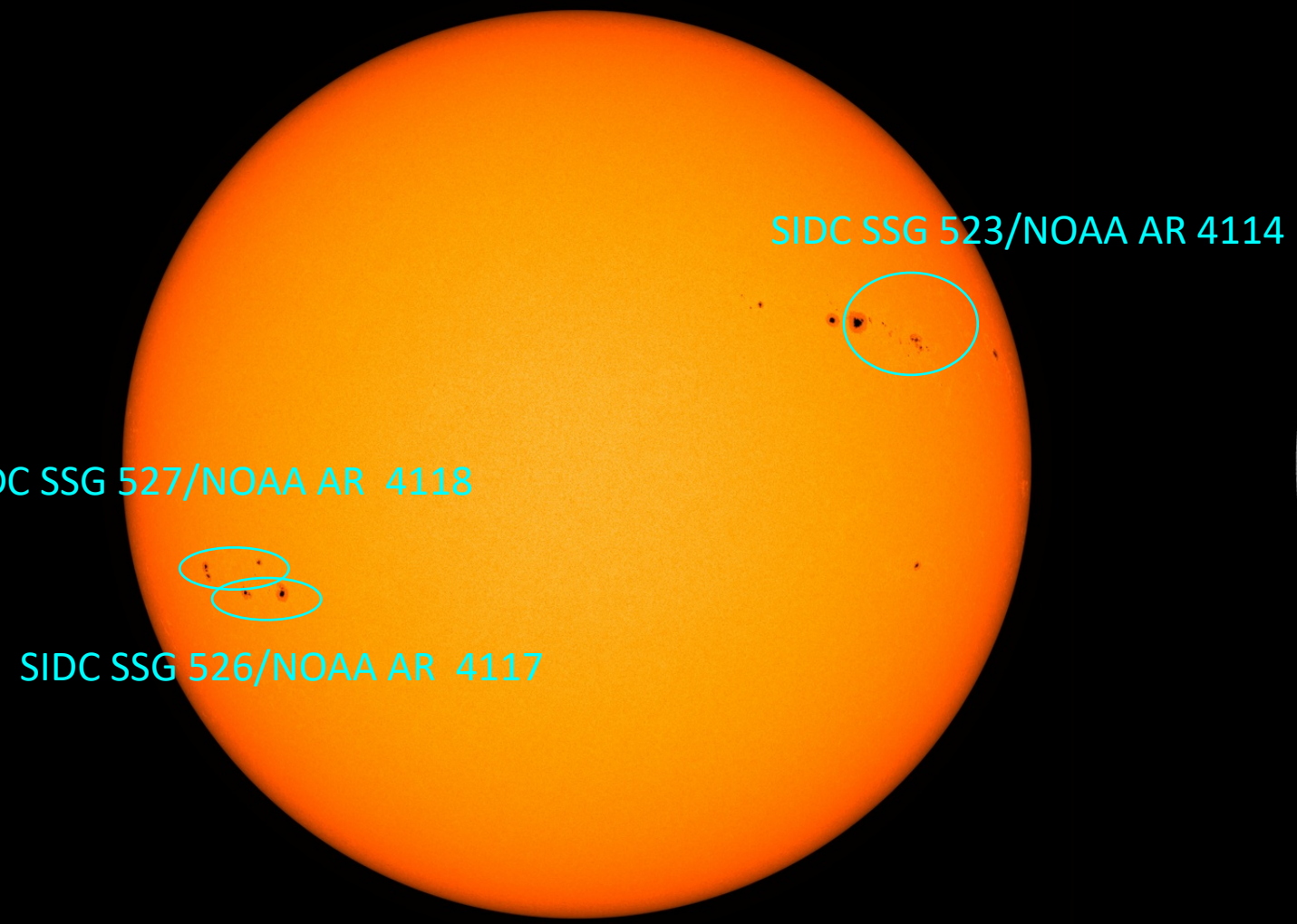
SDO/HMI White Light 2025-06-19

SDO/HMI Magnetogram 2025-06-19

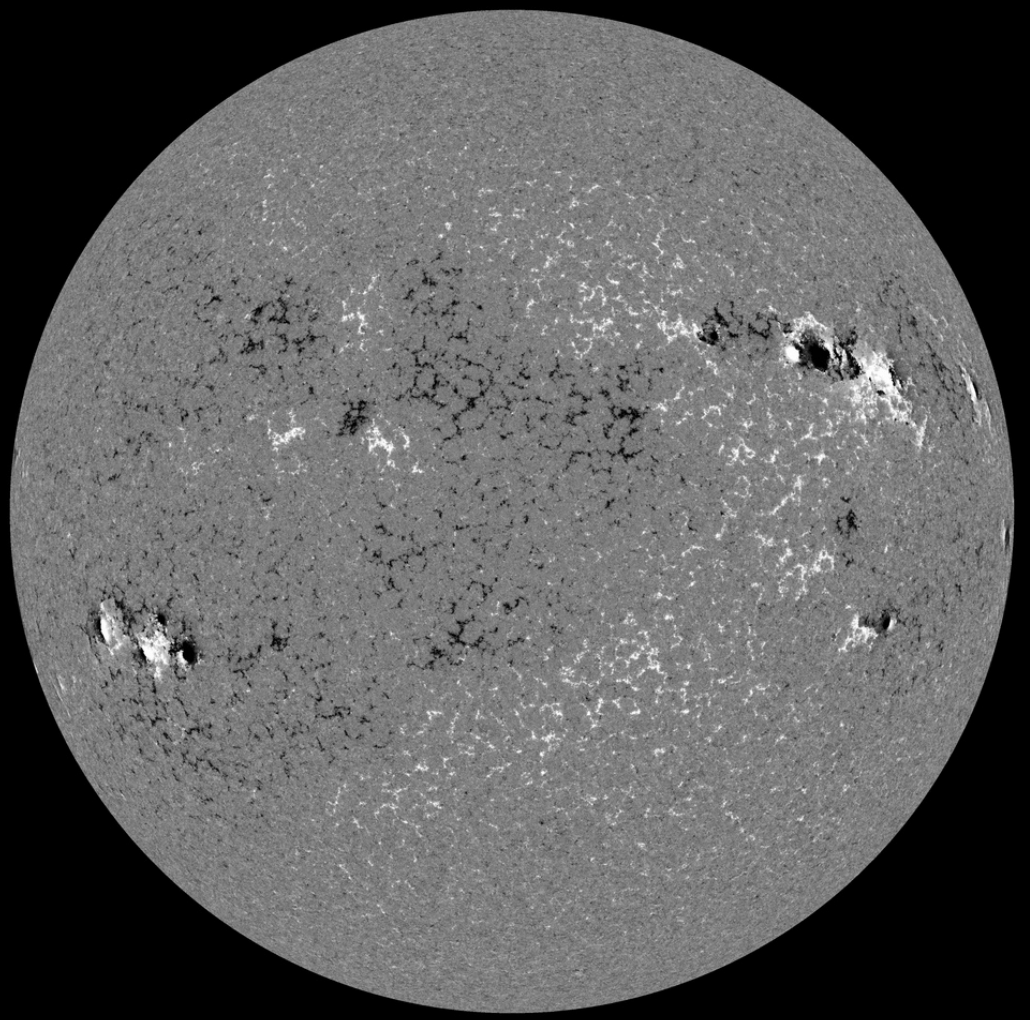


Solar active regions

SDO/HMI White Light 2025-06-20

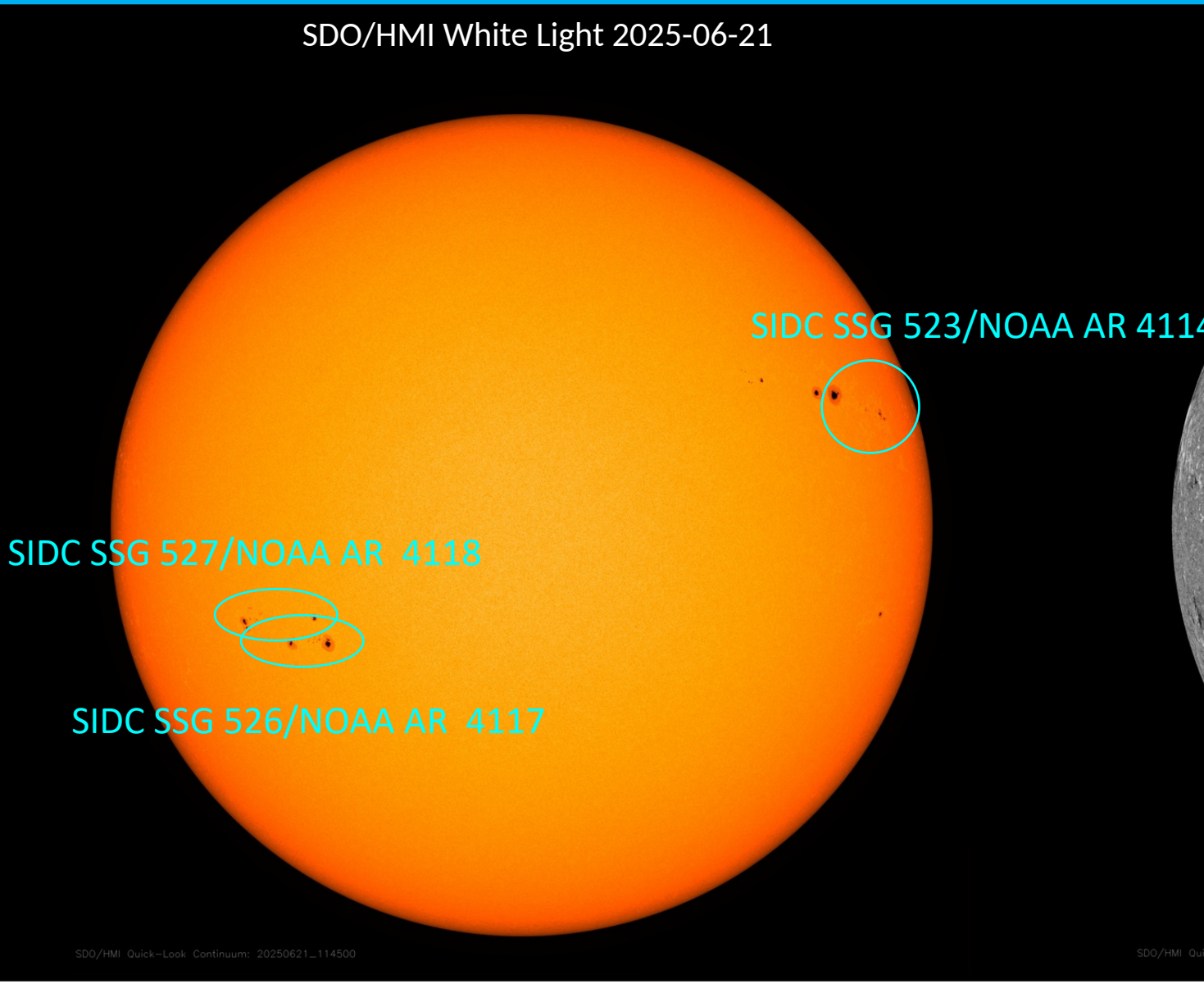


SDO/HMI Magnetogram 2025-06-20

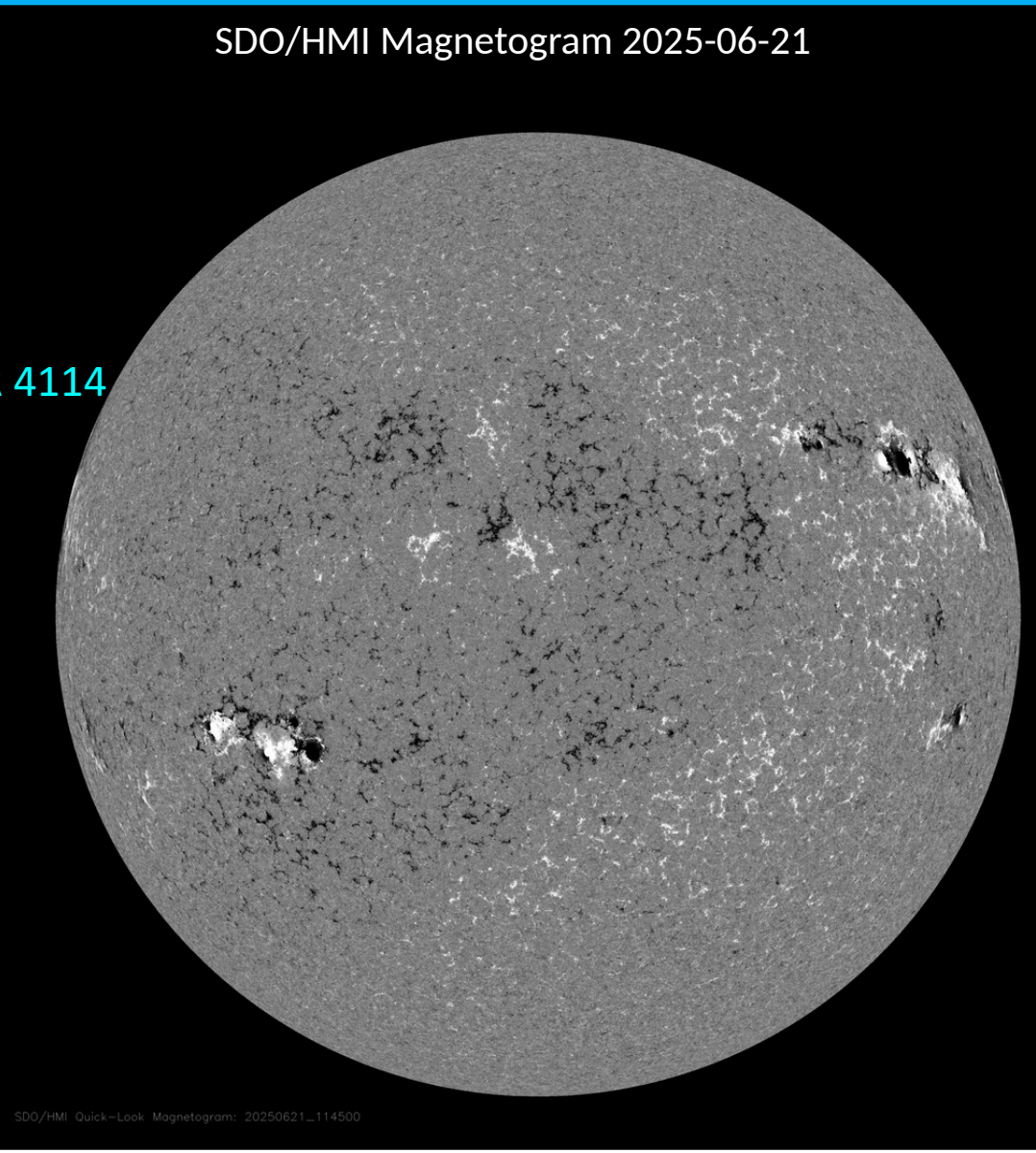


Solar active regions

SDO/HMI White Light 2025-06-21



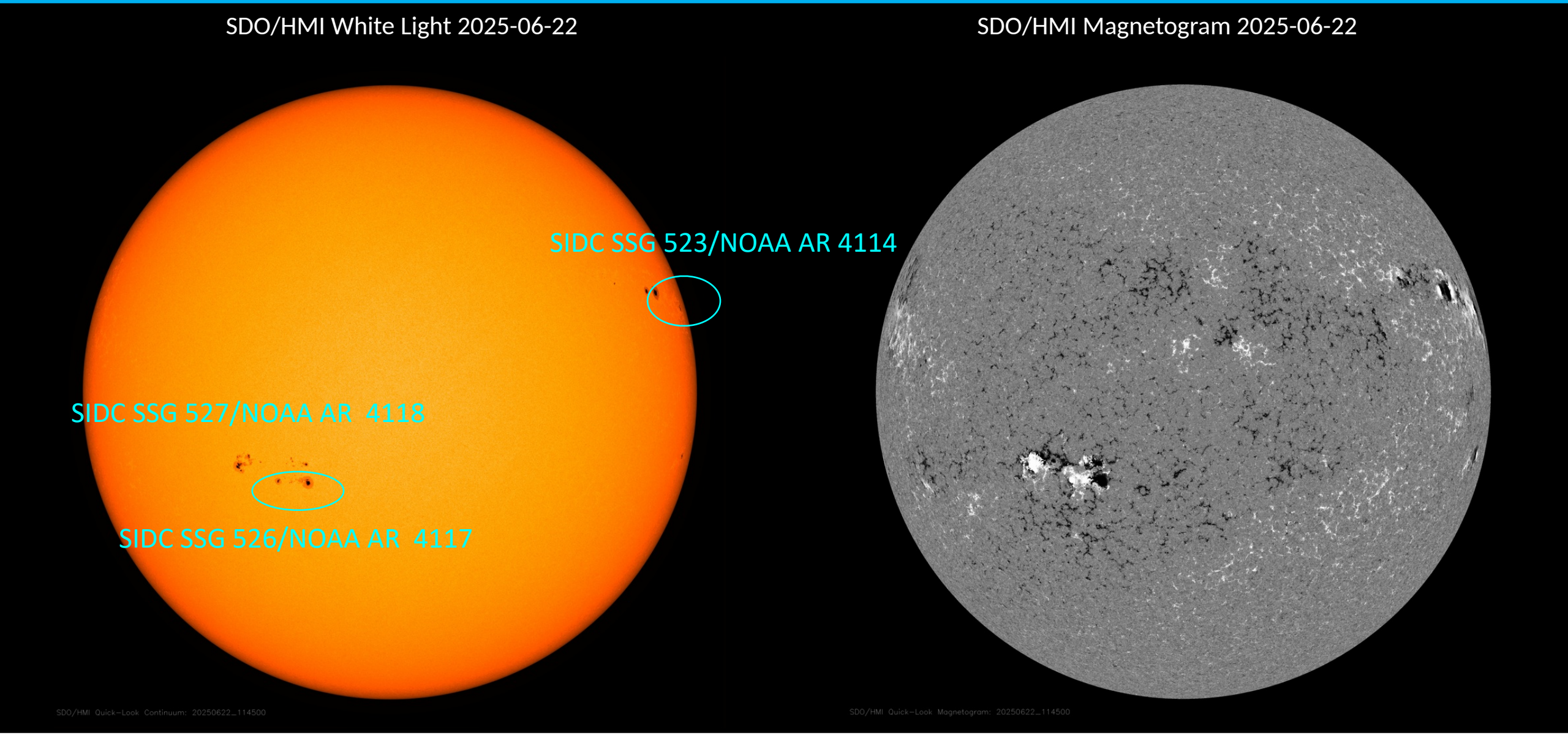
SDO/HMI Magnetogram 2025-06-21



Solar active regions

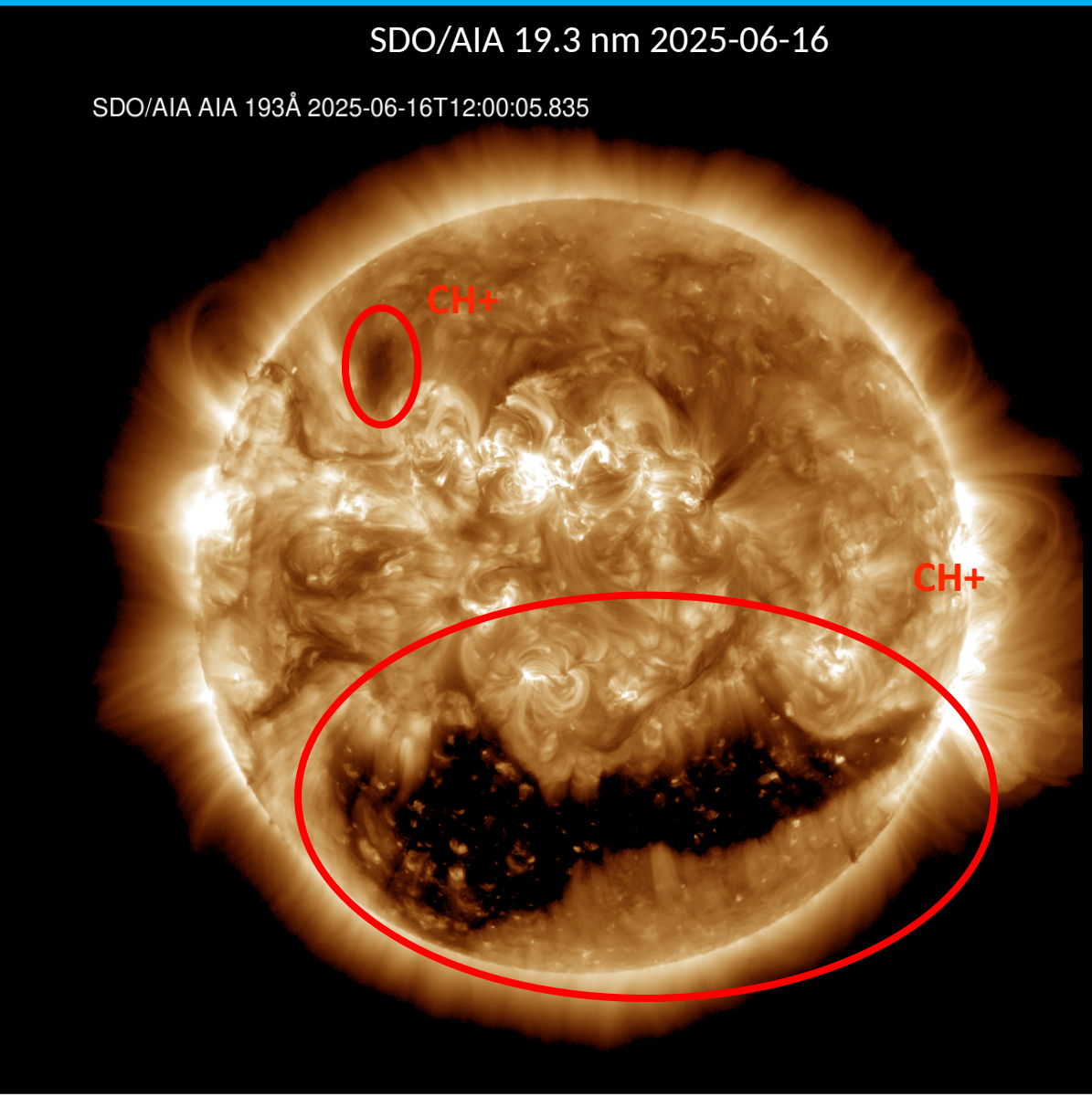
SDO/HMI White Light 2025-06-22

SDO/HMI Magnetogram 2025-06-22

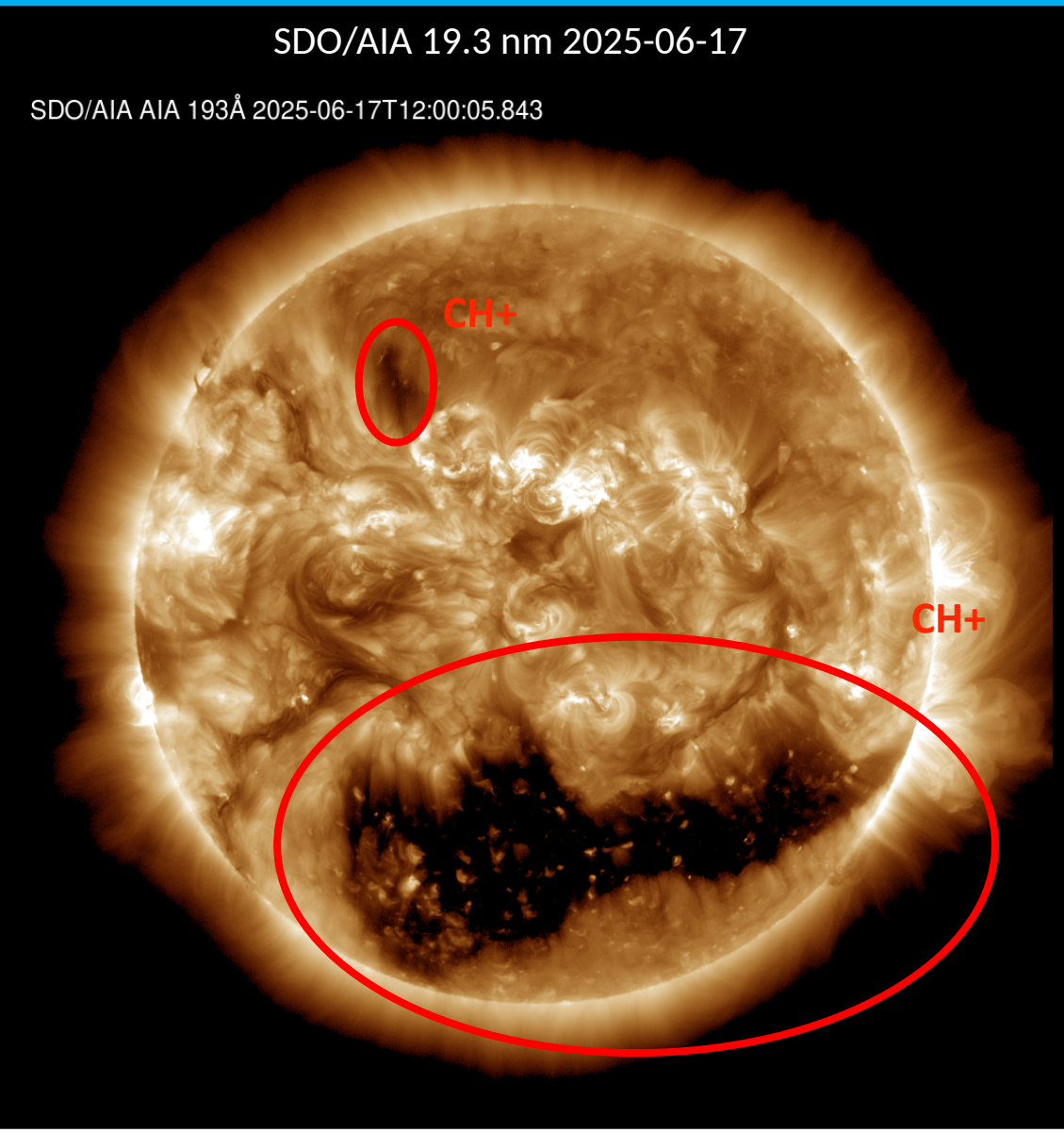


Coronal holes

SDO/AIA 19.3 nm 2025-06-16

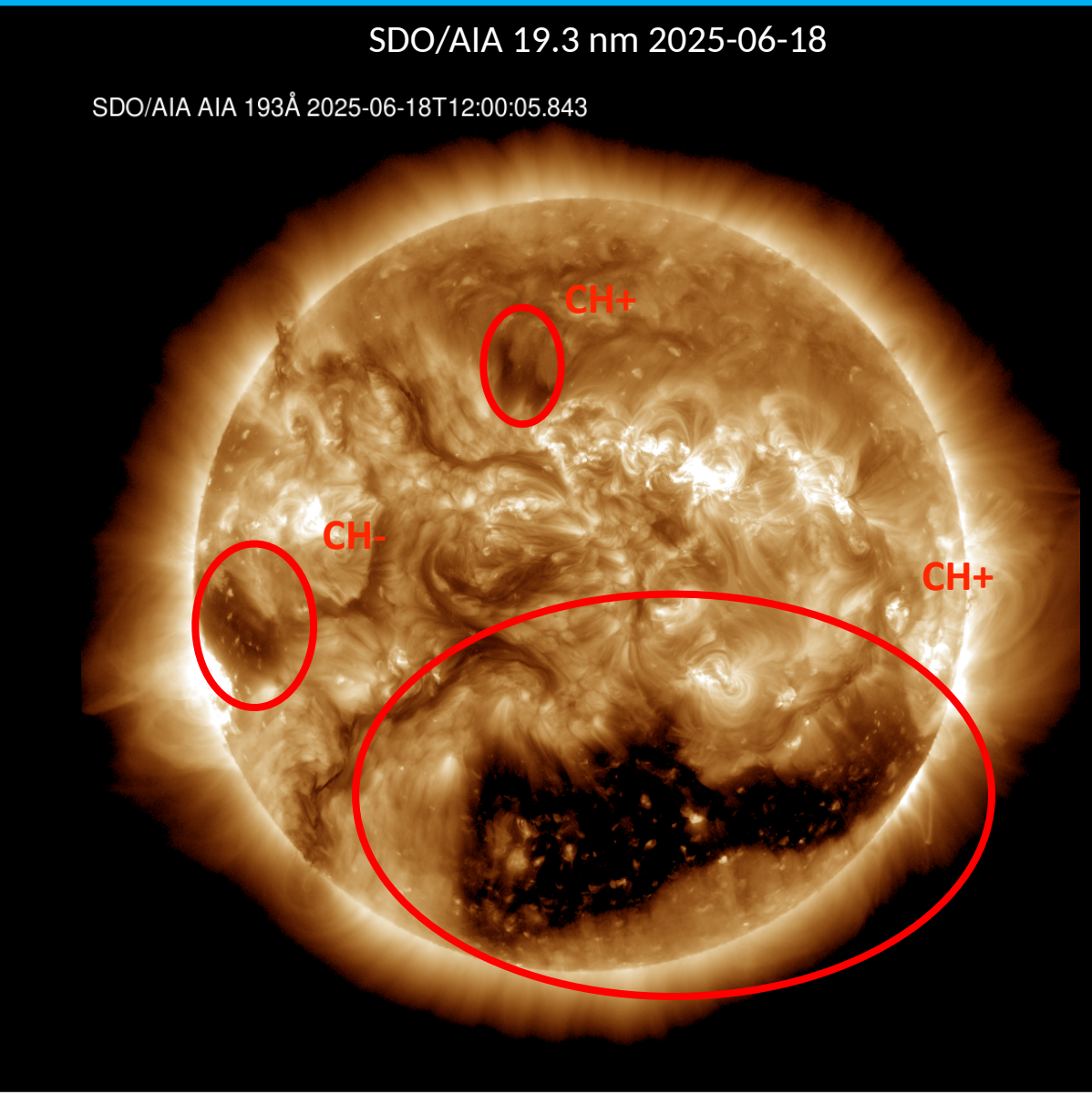


SDO/AIA 19.3 nm 2025-06-17

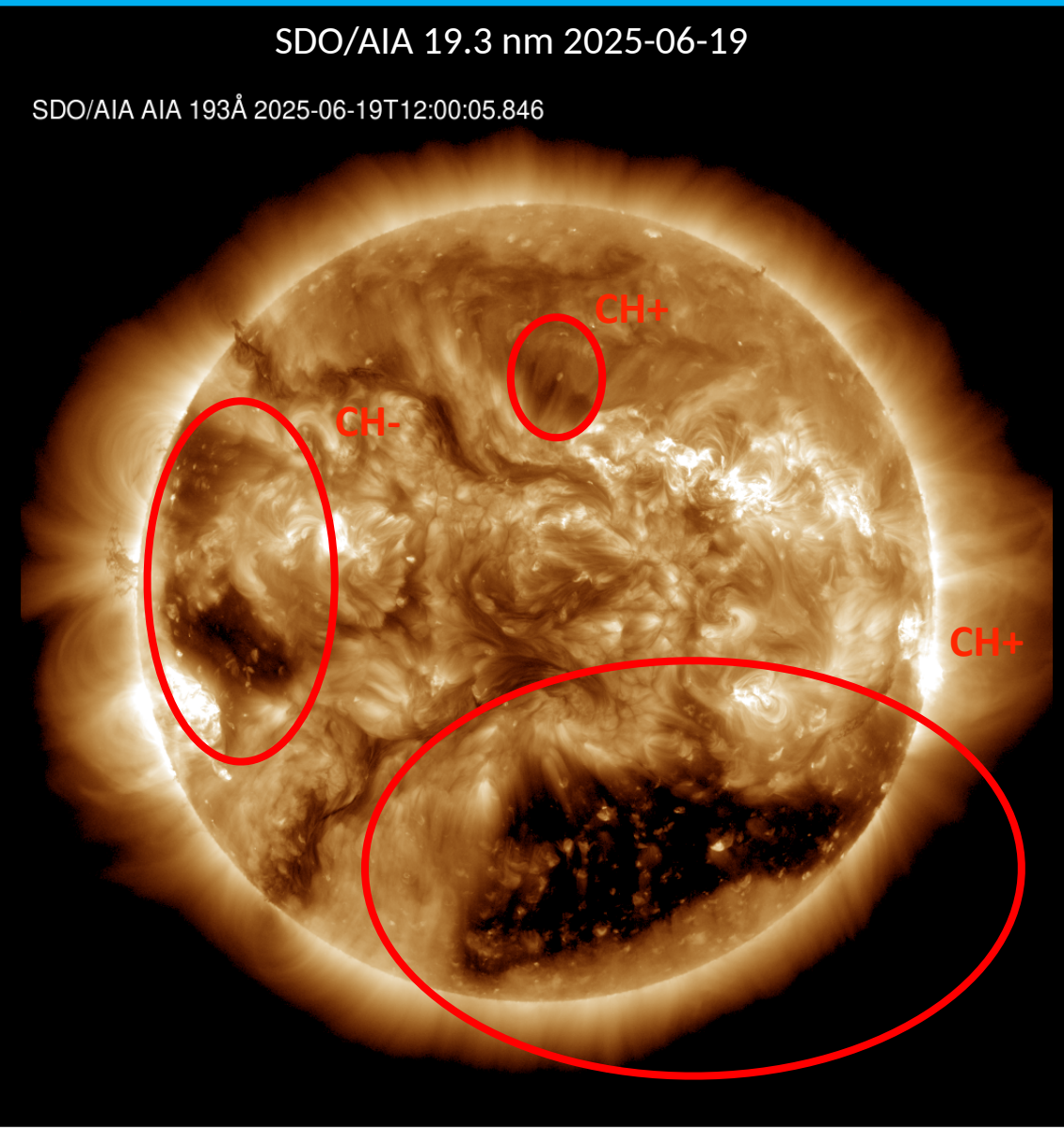


Coronal holes

SDO/AIA 19.3 nm 2025-06-18

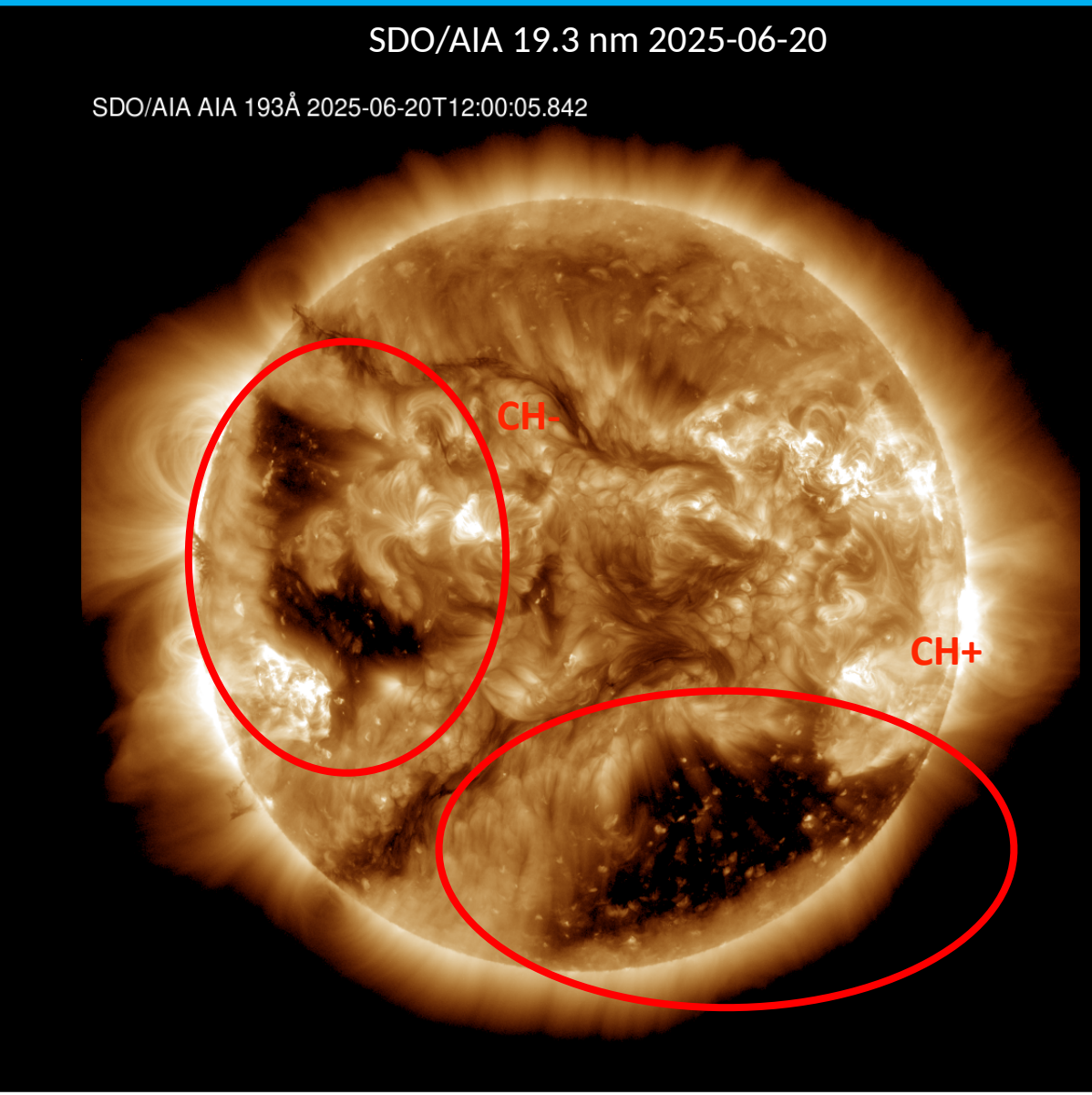


SDO/AIA 19.3 nm 2025-06-19

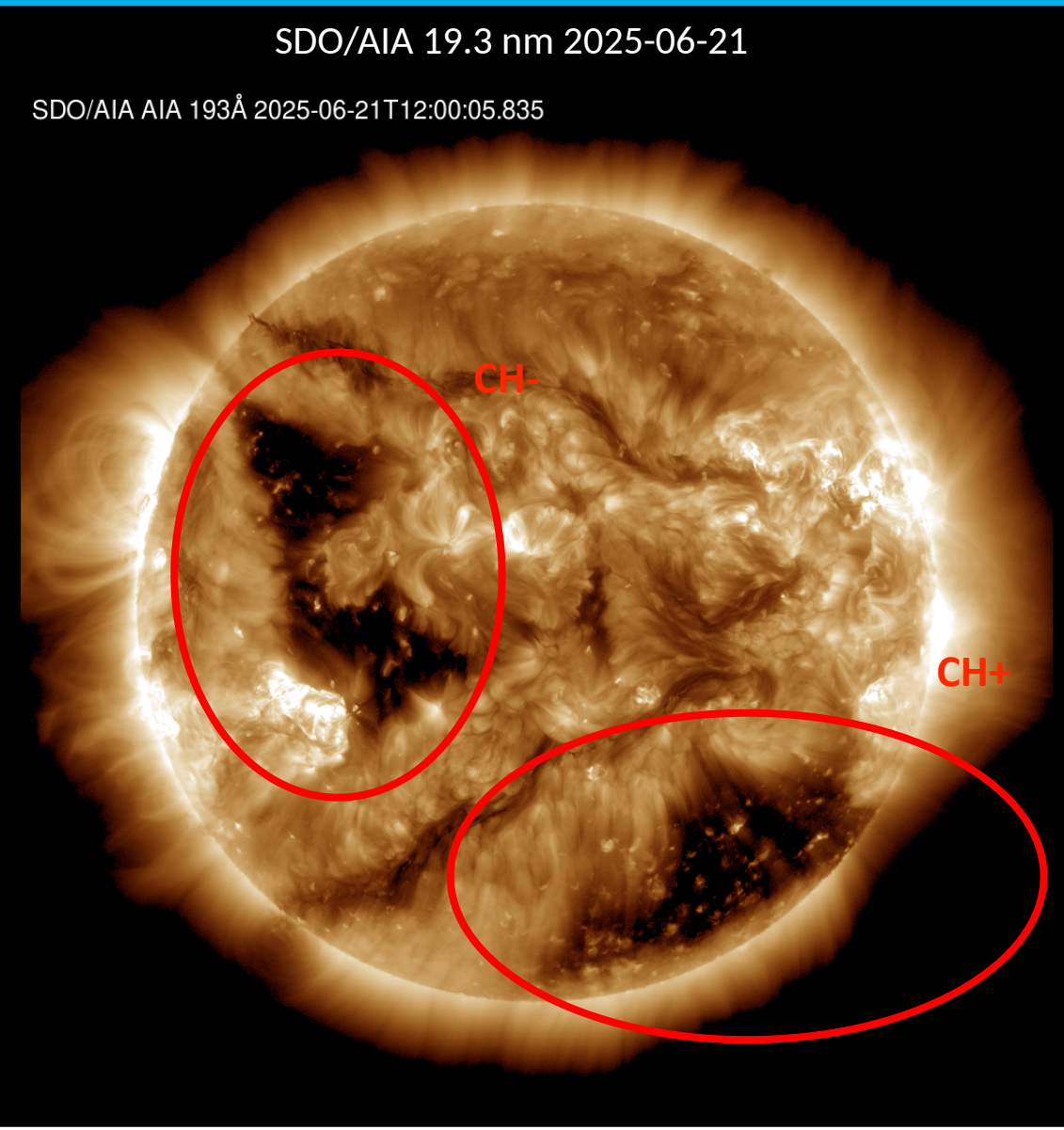


Coronal holes

SDO/AIA 19.3 nm 2025-06-20

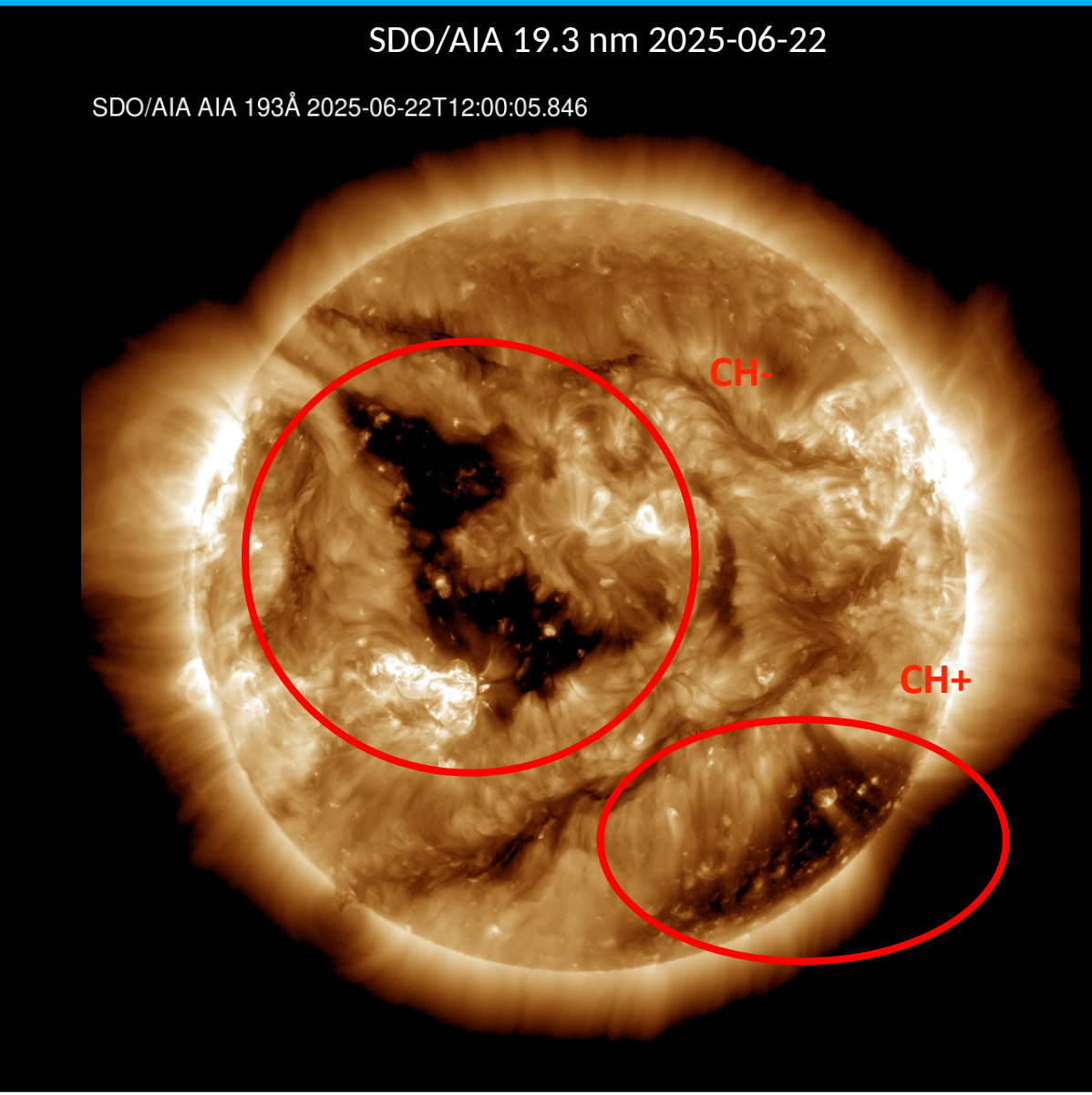


SDO/AIA 19.3 nm 2025-06-21

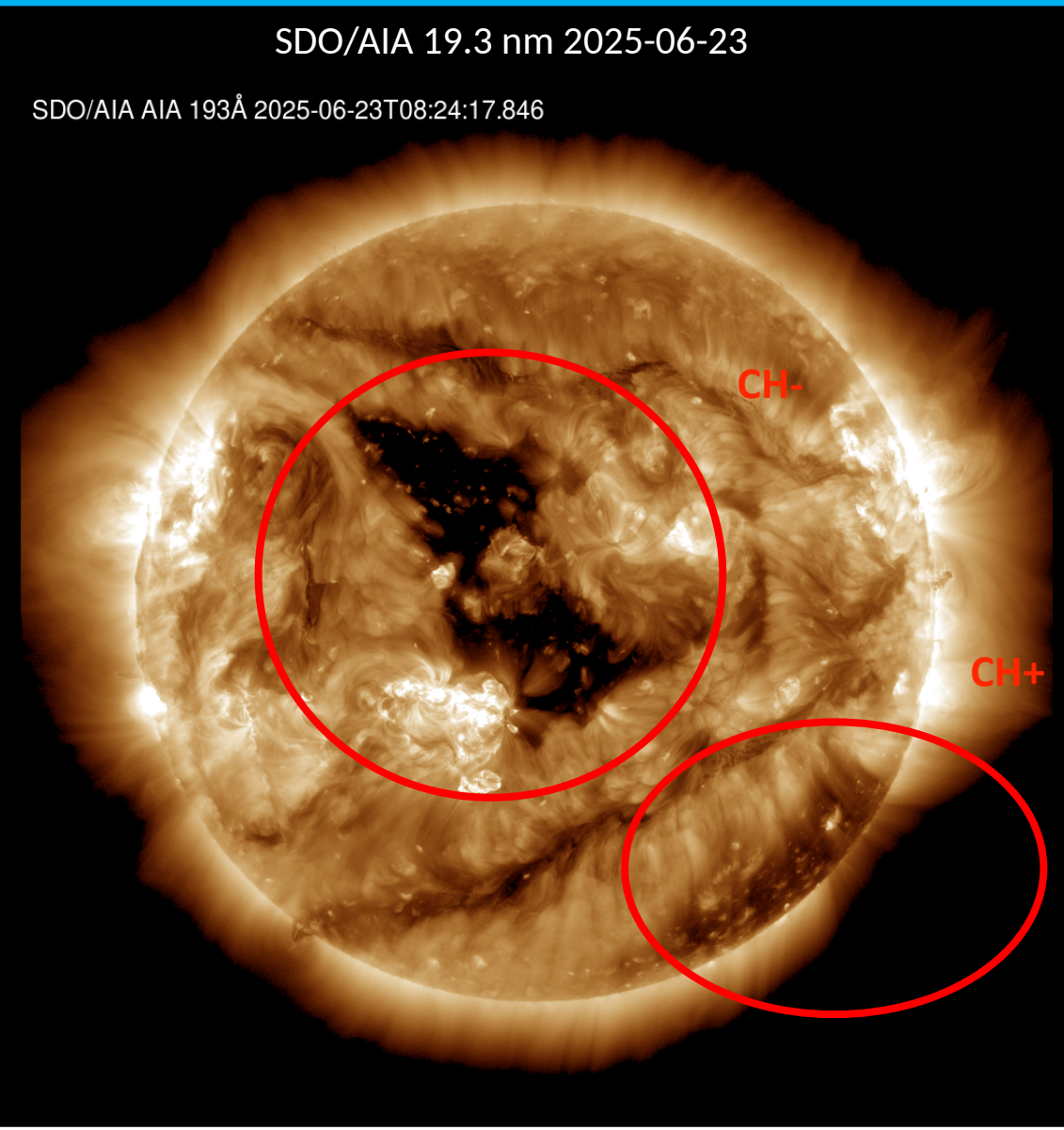


Coronal holes

SDO/AIA 19.3 nm 2025-06-22

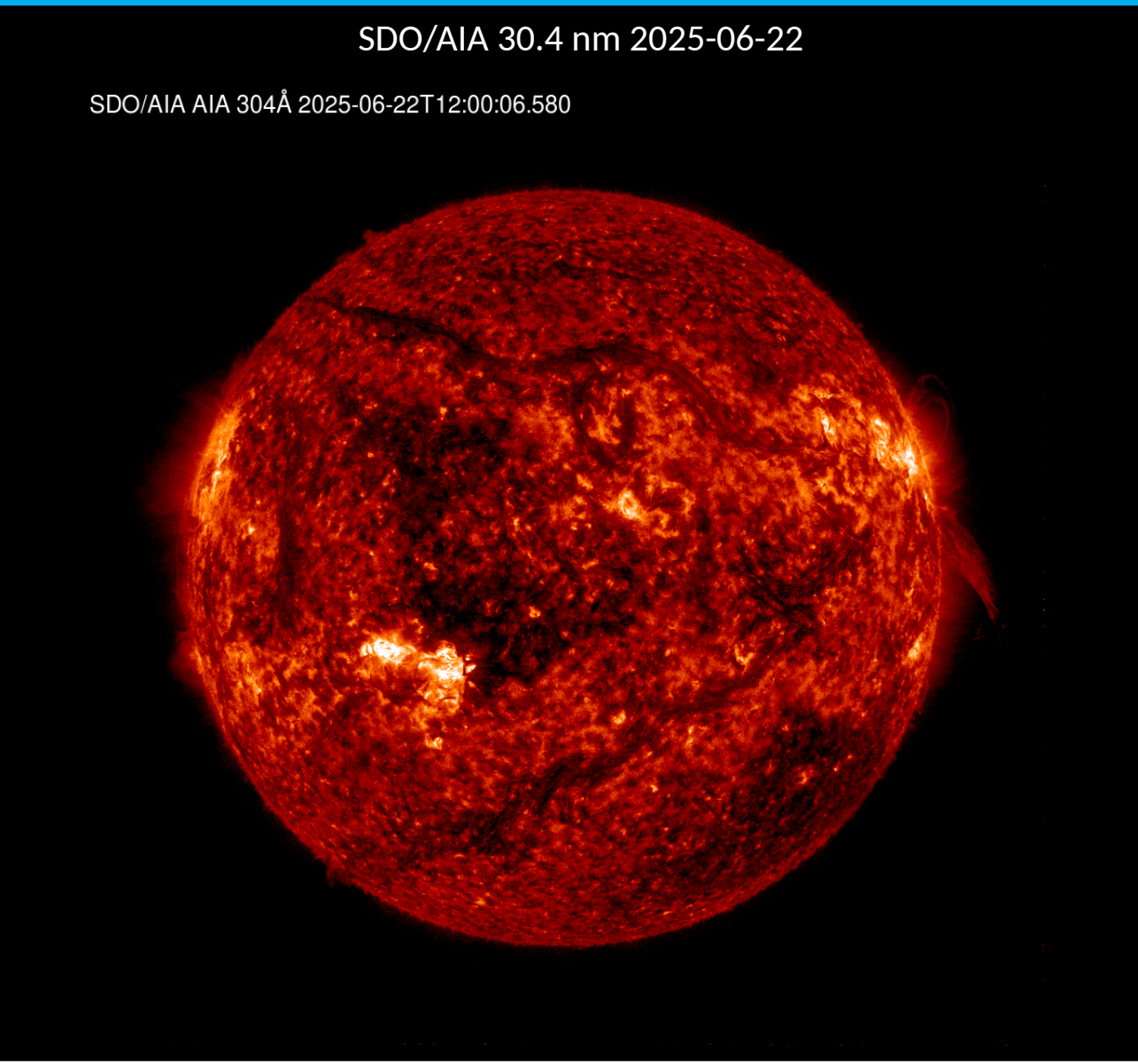


SDO/AIA 19.3 nm 2025-06-23

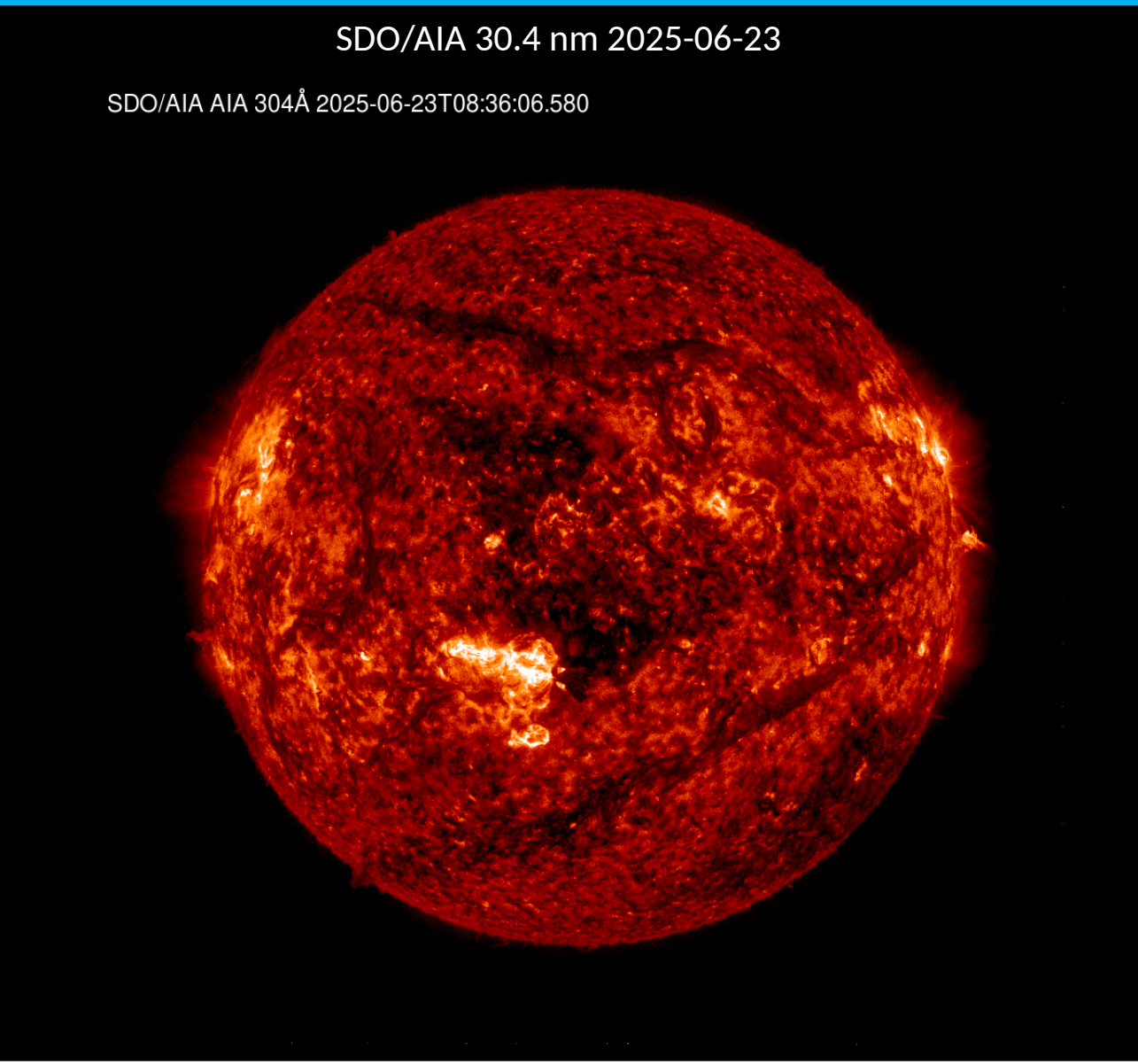


Filaments

SDO/AIA 30.4 nm 2025-06-22

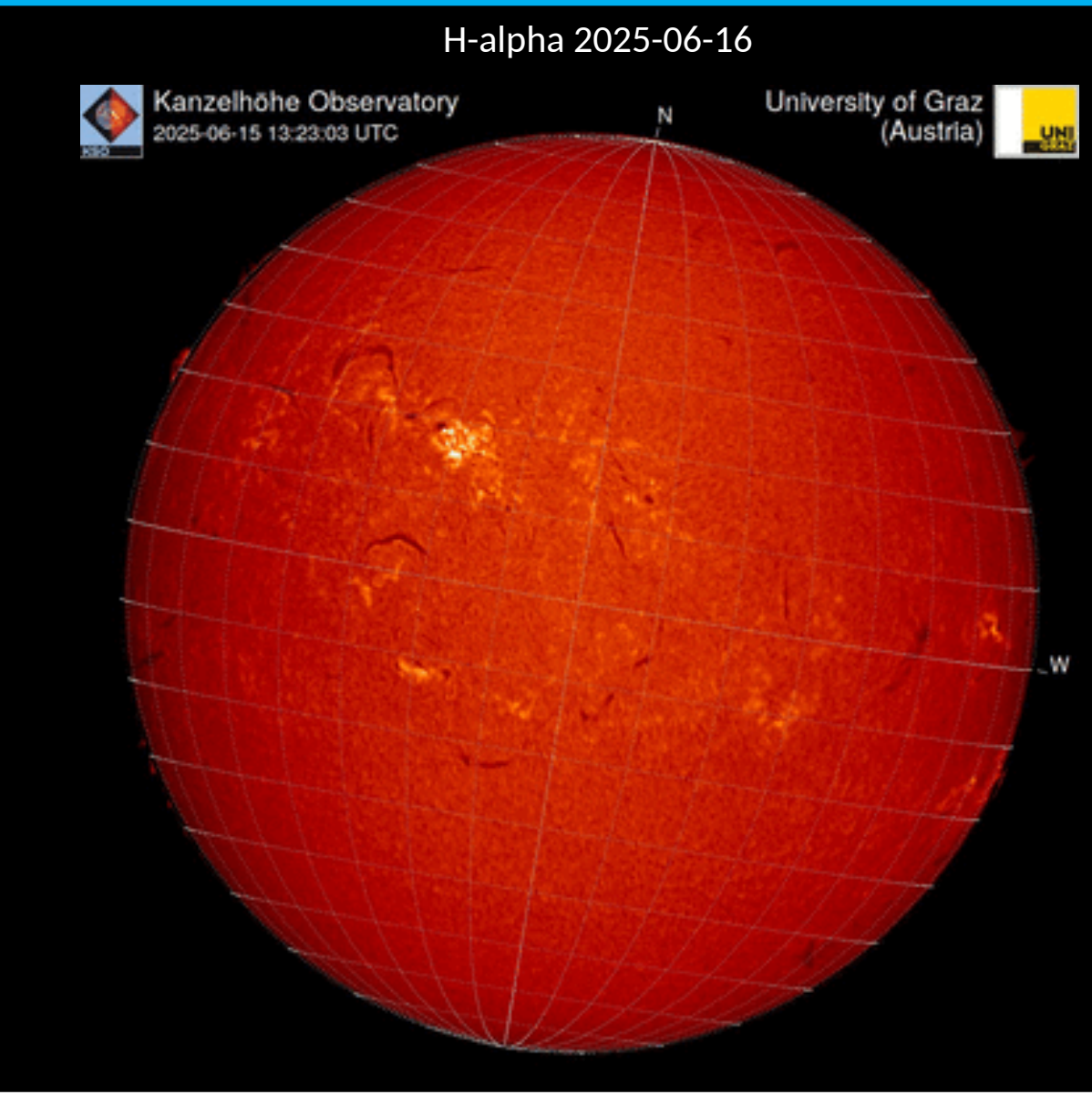


SDO/AIA 30.4 nm 2025-06-23

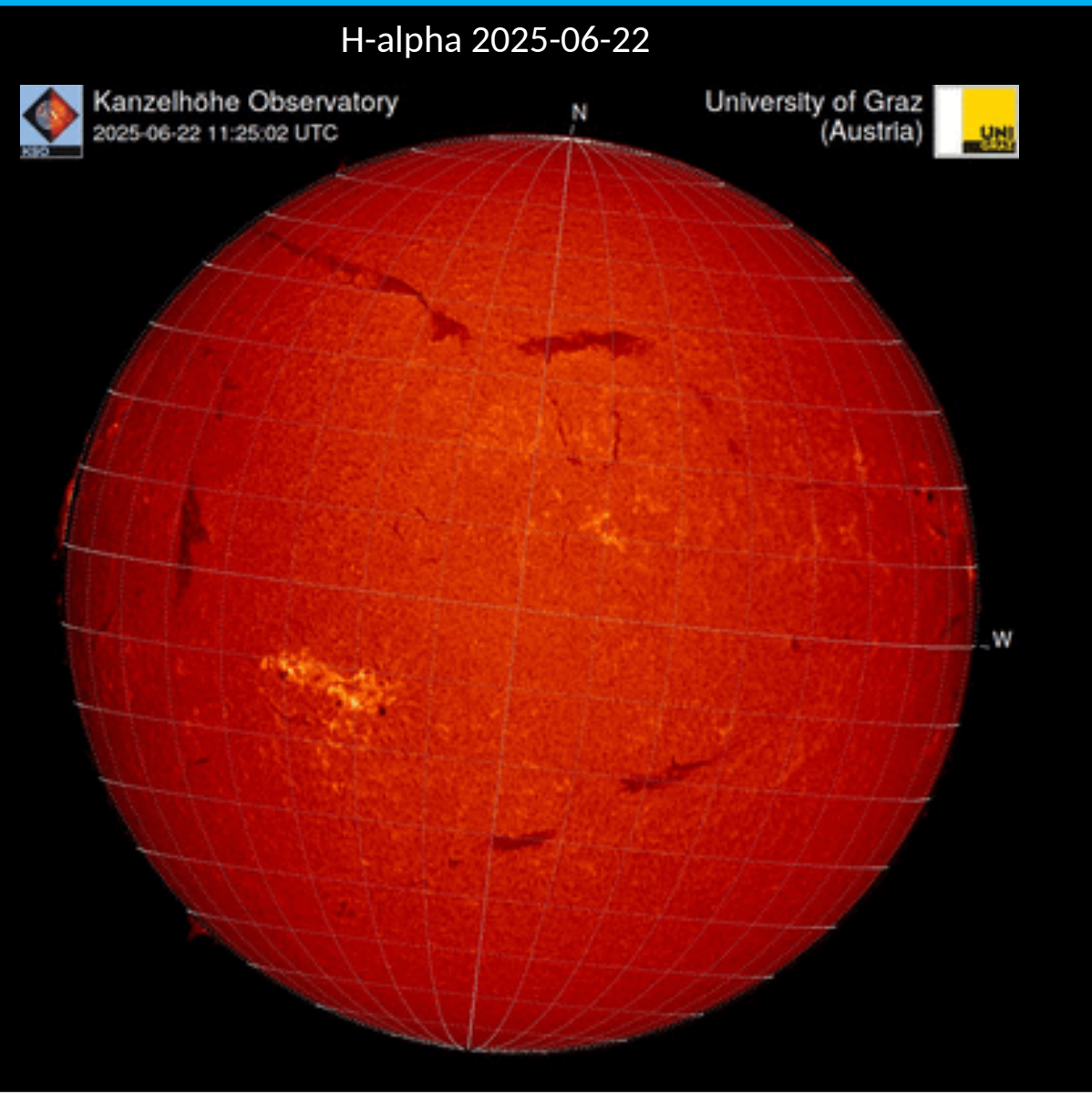


Filaments & Filament eruptions

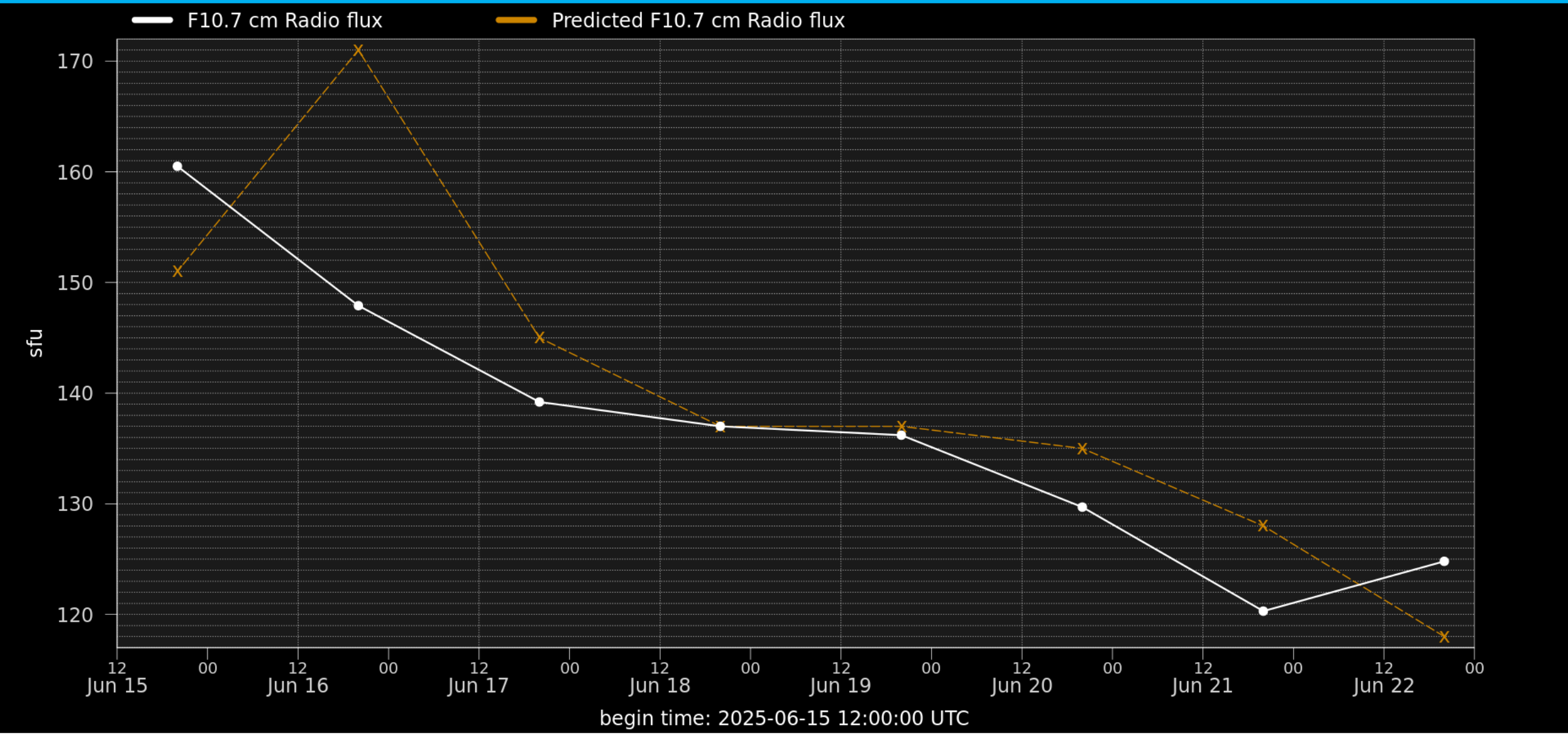
H-alpha 2025-06-16



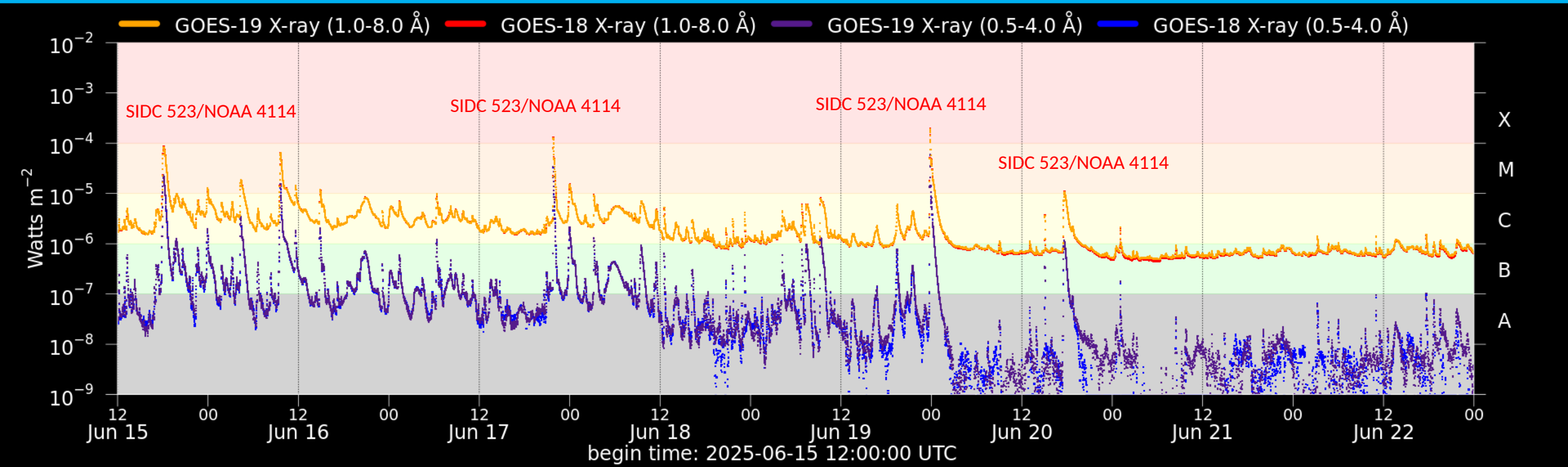
H-alpha 2025-06-22



Solar F10.7cm radio flux



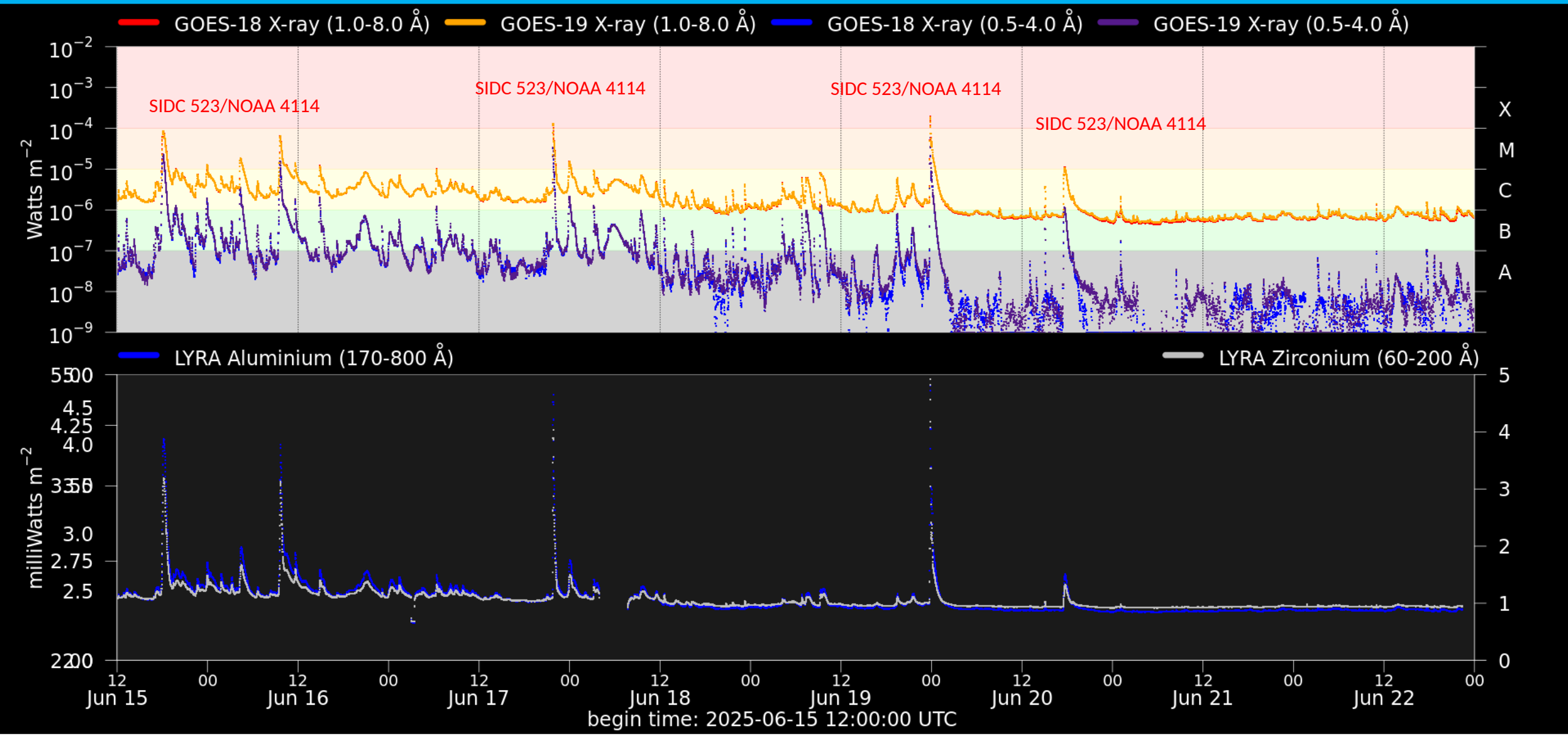
Flaring activity



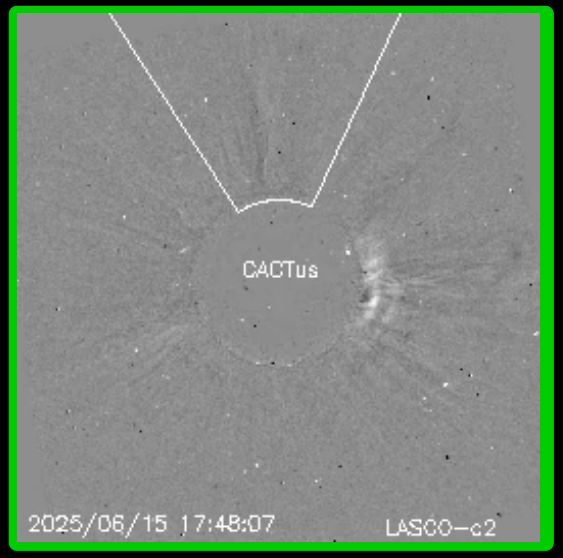
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-06-15	2025-06-16	2025-06-17	2025-06-18	2025-06-19	2025-06-20	2025-06-21	2025-06-22
Probability (%)	99|73|15	99|85|15	99|85|20	99|65|05	99|60|10	99|55|05	97|45|01	98|38|01
Observed (#)	09|04|00	05|01|00	05|01|01	13|00|00	04|01|01	03|01|00	02|00|00	04|00|00

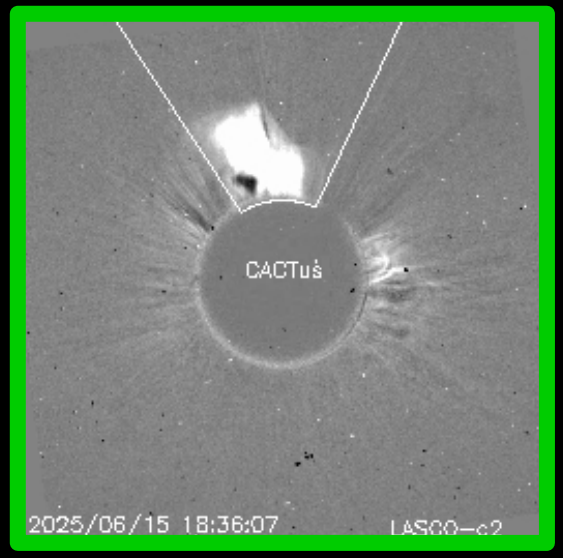
Solar X-Ray and UV flux

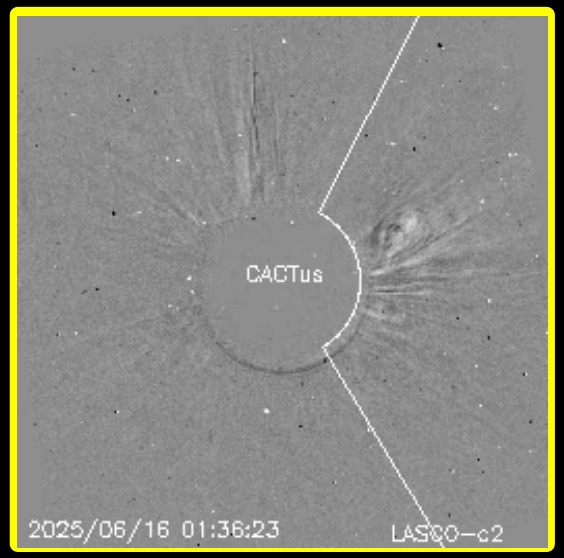


Coronal Mass Ejections

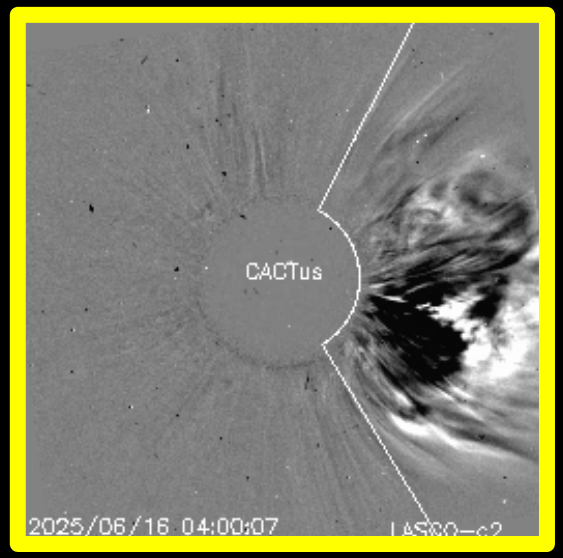


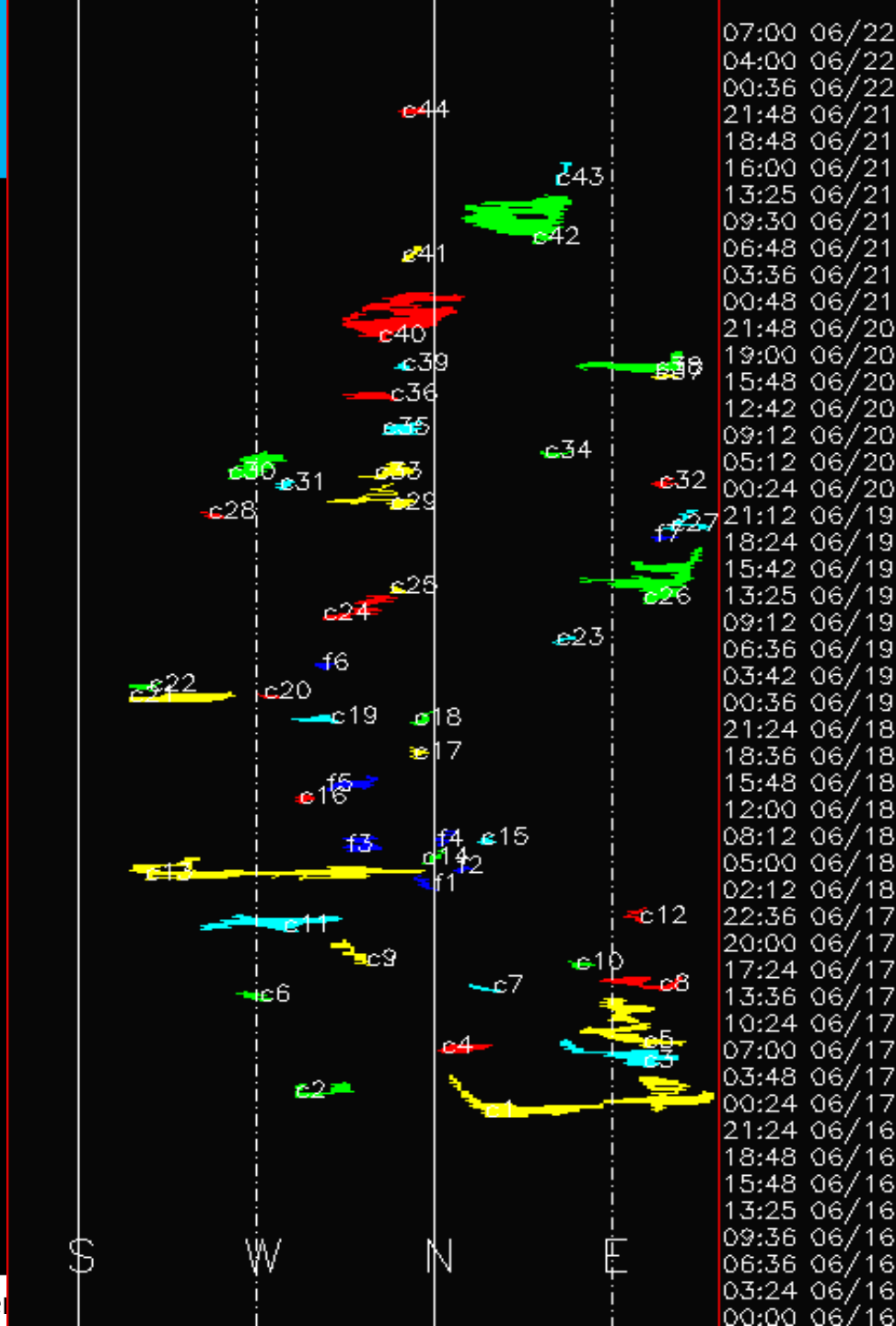
Narrow, Fast Speed > 1000 km/s, possible shock on June 18





Wide, slow, Speed < 400 km/s





Solar Wind and

Geomagnetic Activity

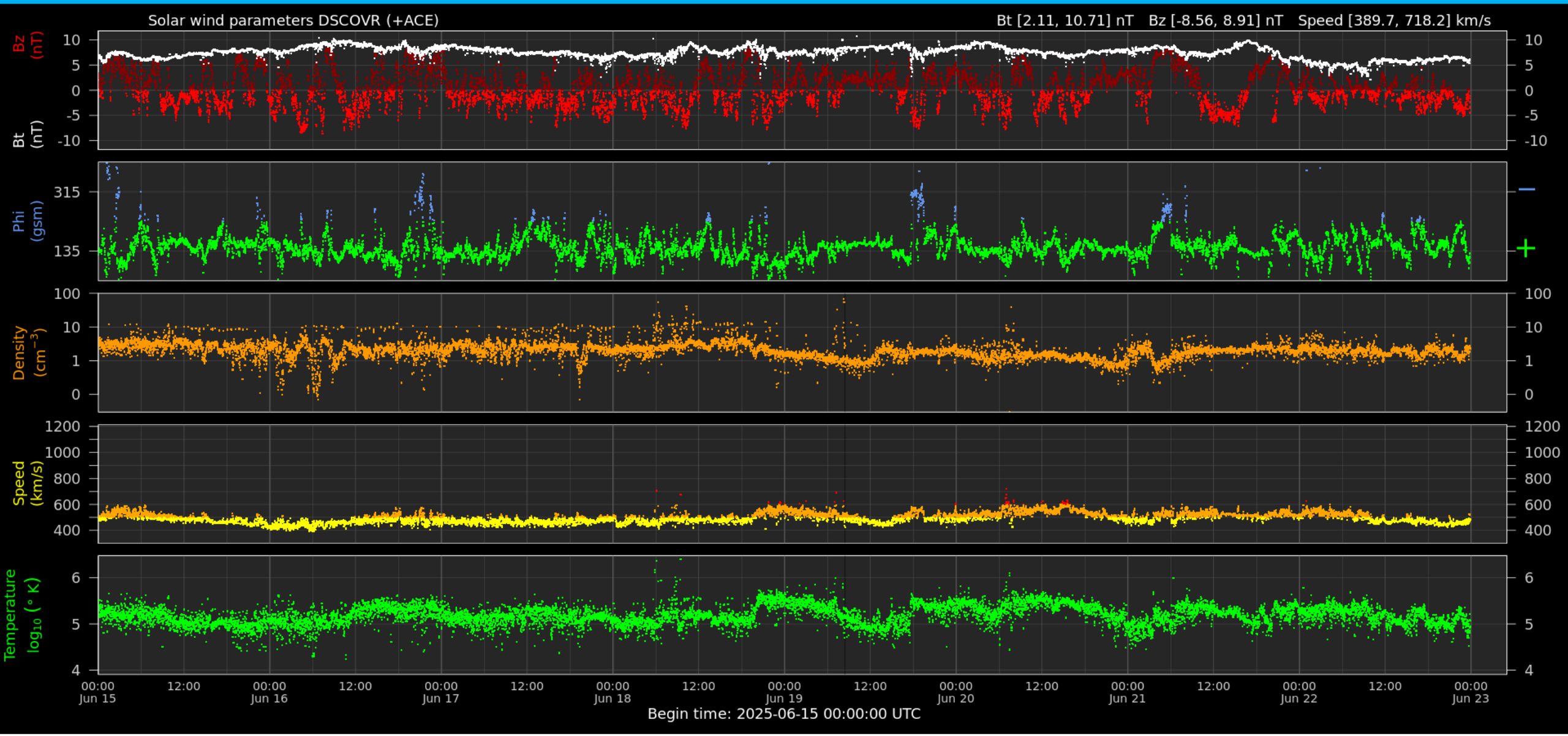


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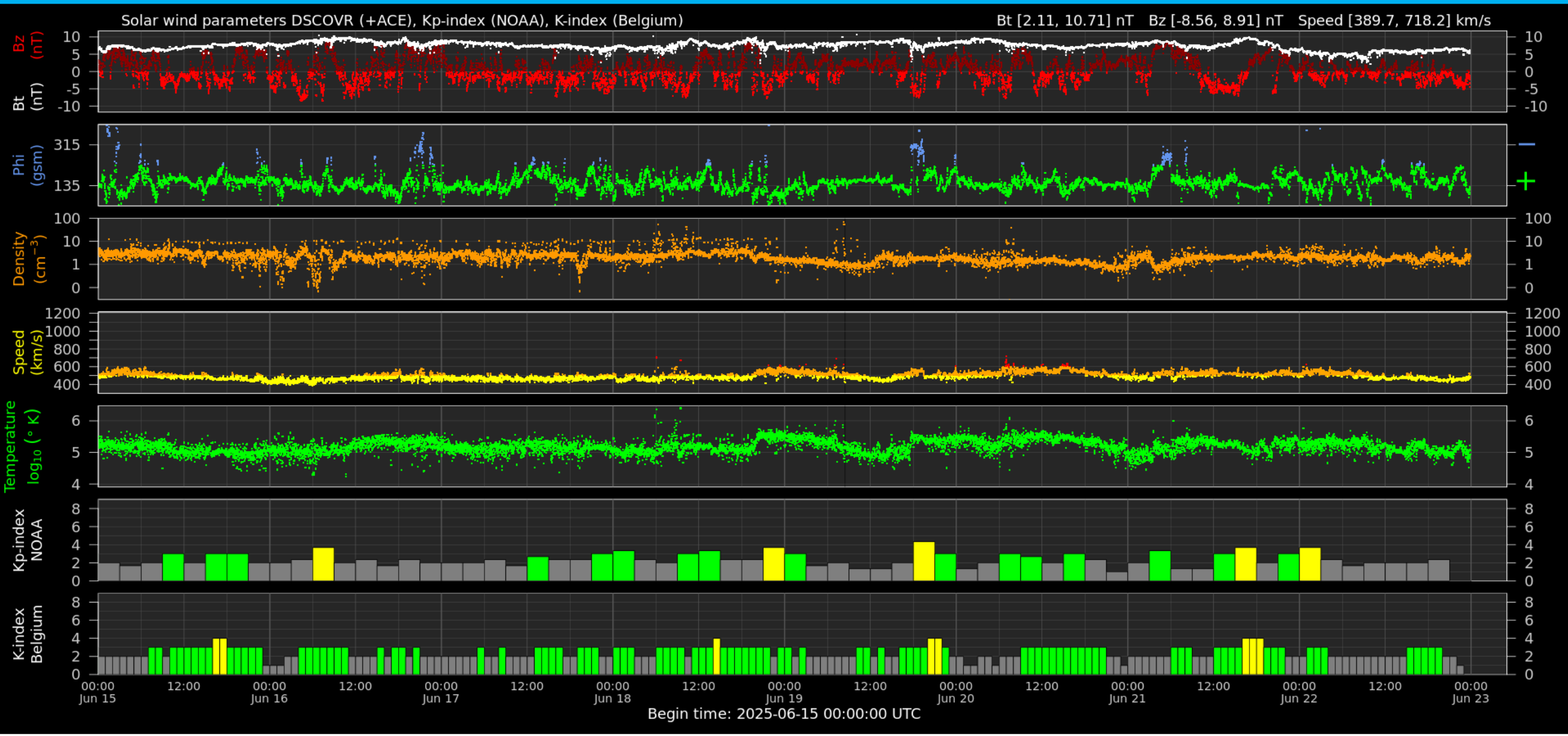
Solar wind parameters

HSS from CH+

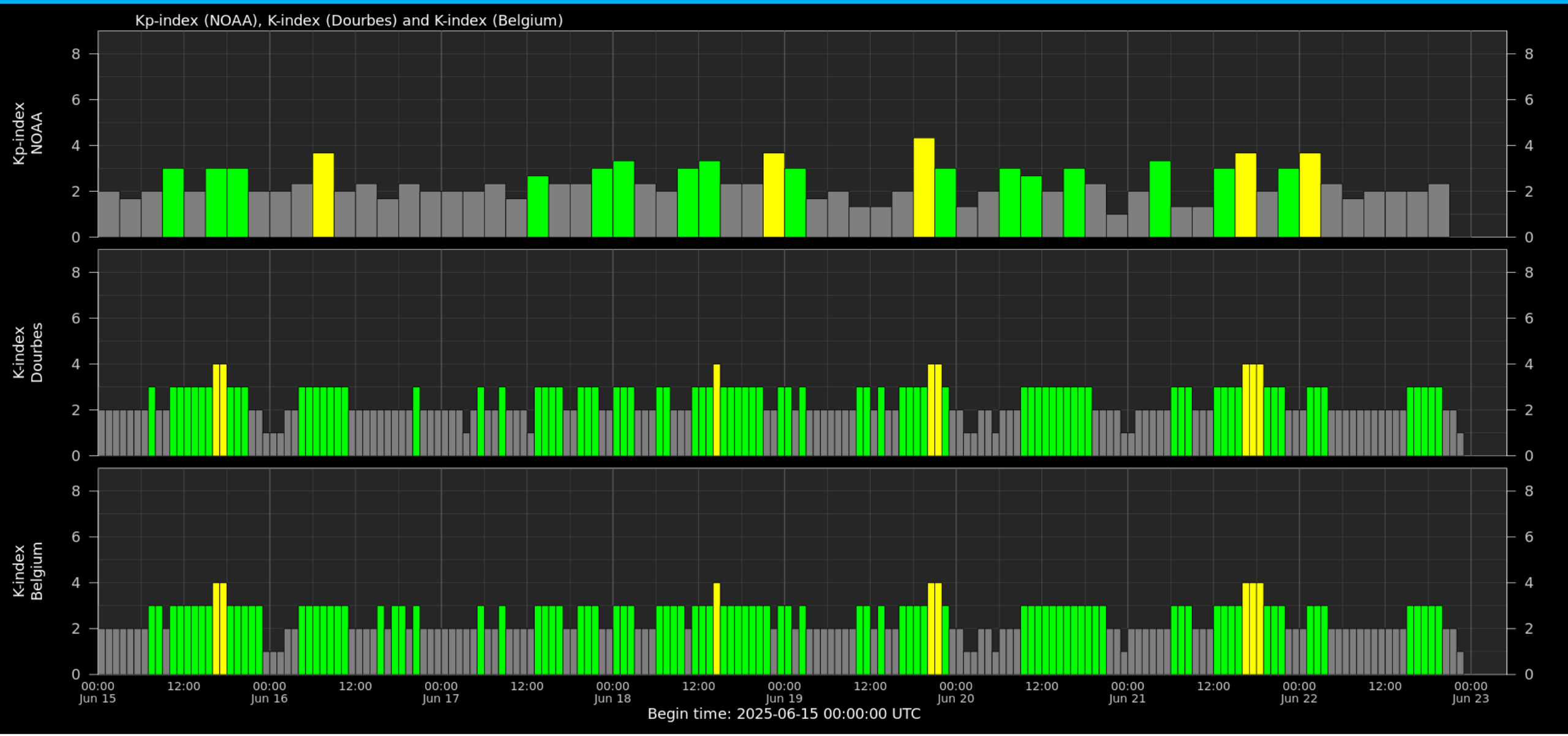


Solar wind parameters & K-indices

HSS from CH+



Geomagnetic activity (K-indexes)



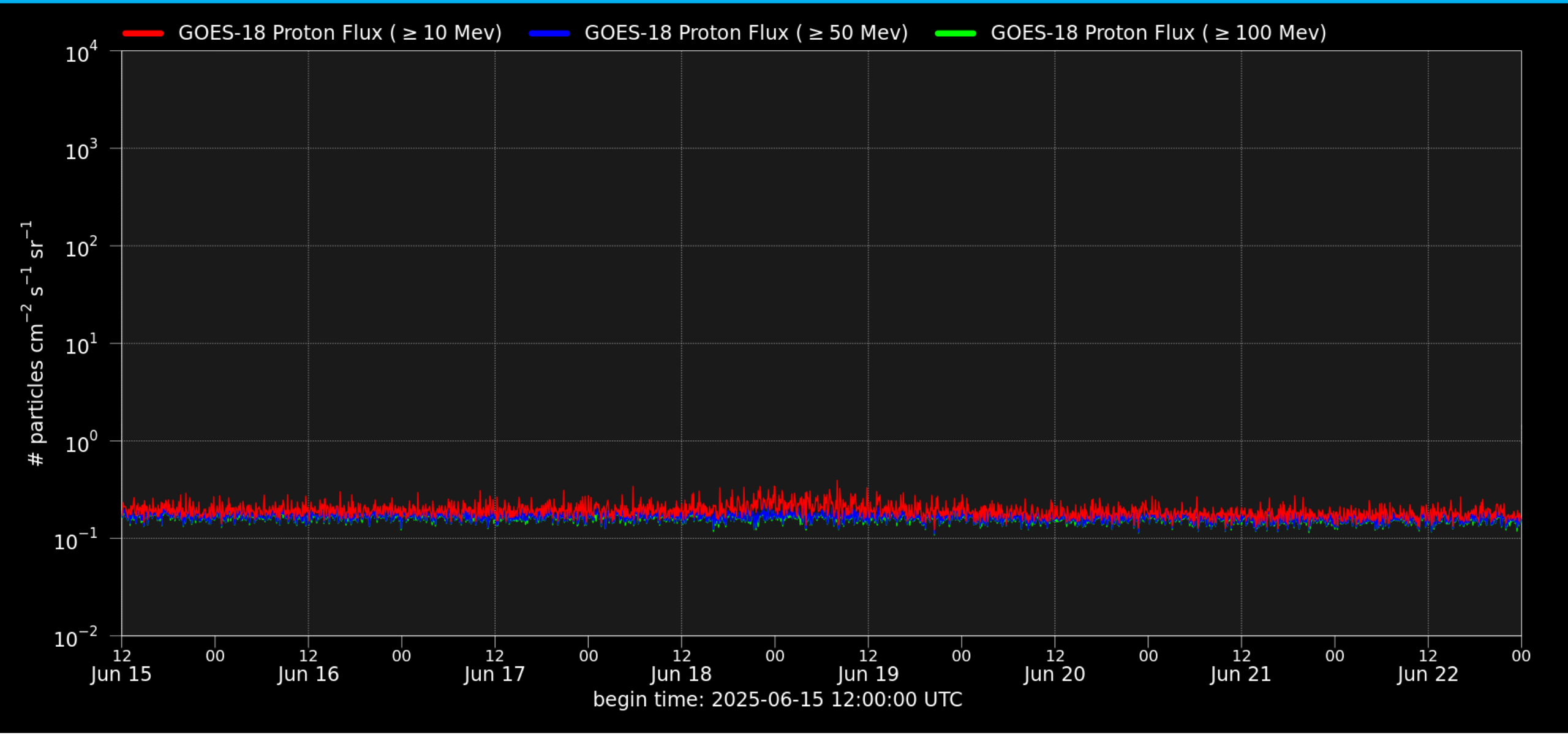
Energetic Particles



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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

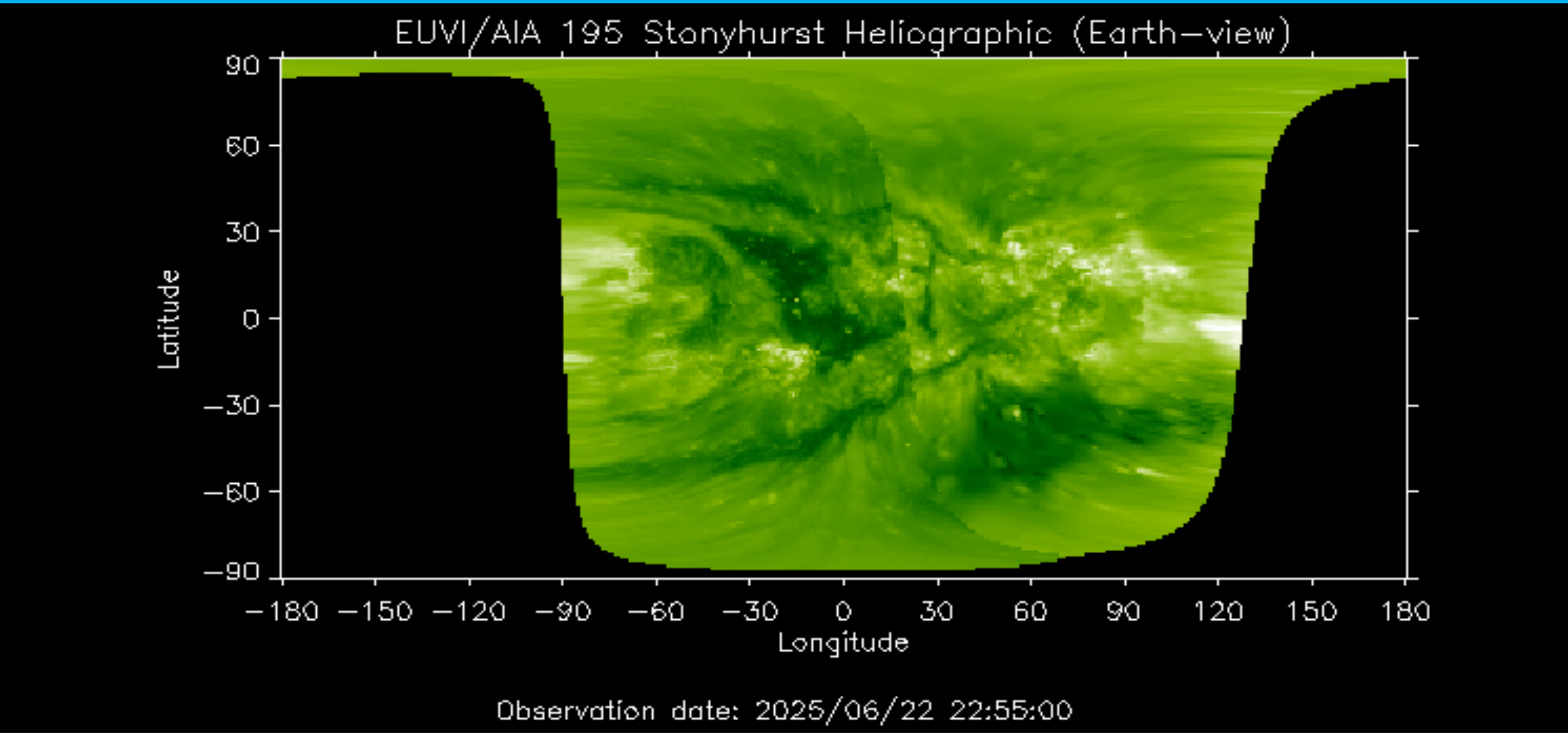


Outlook

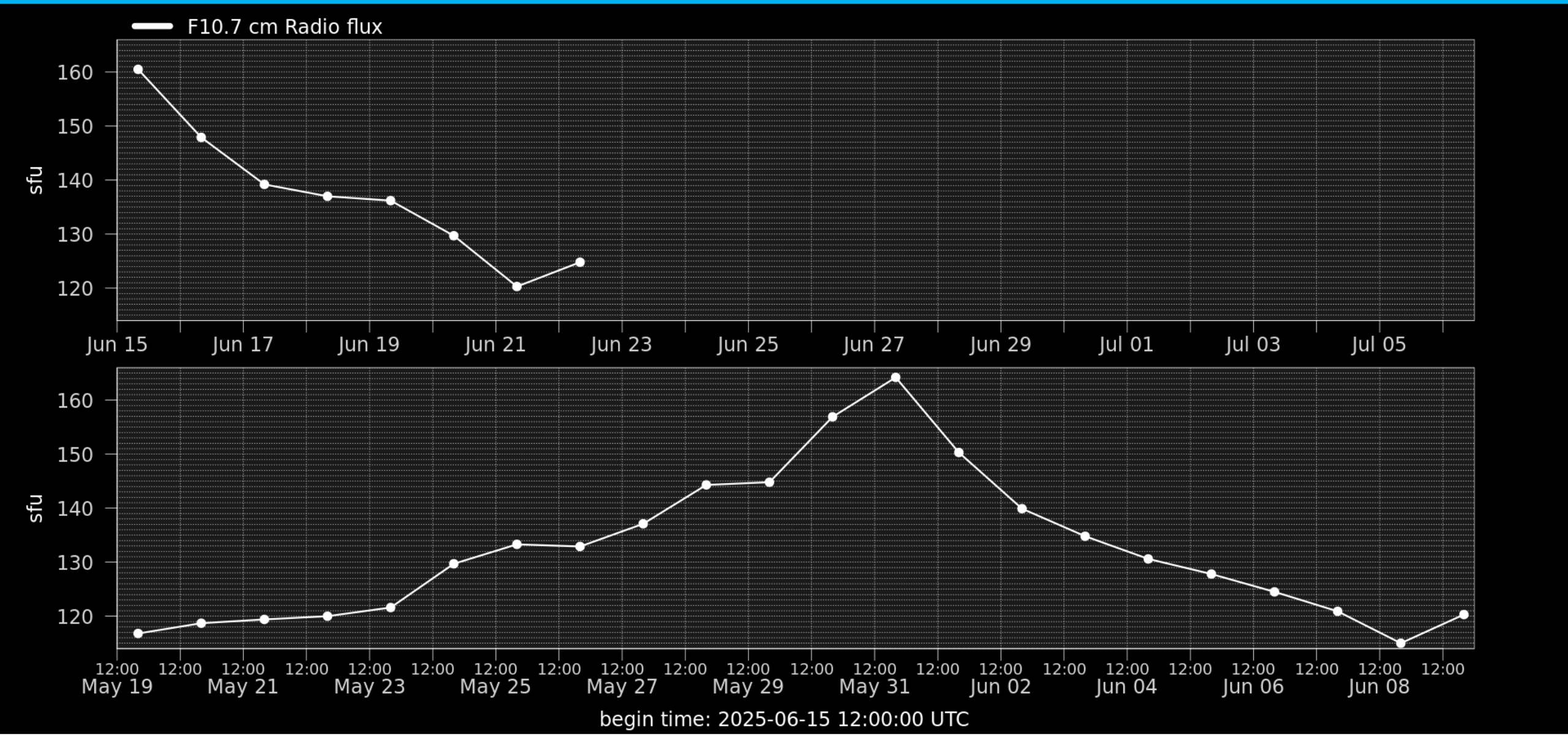
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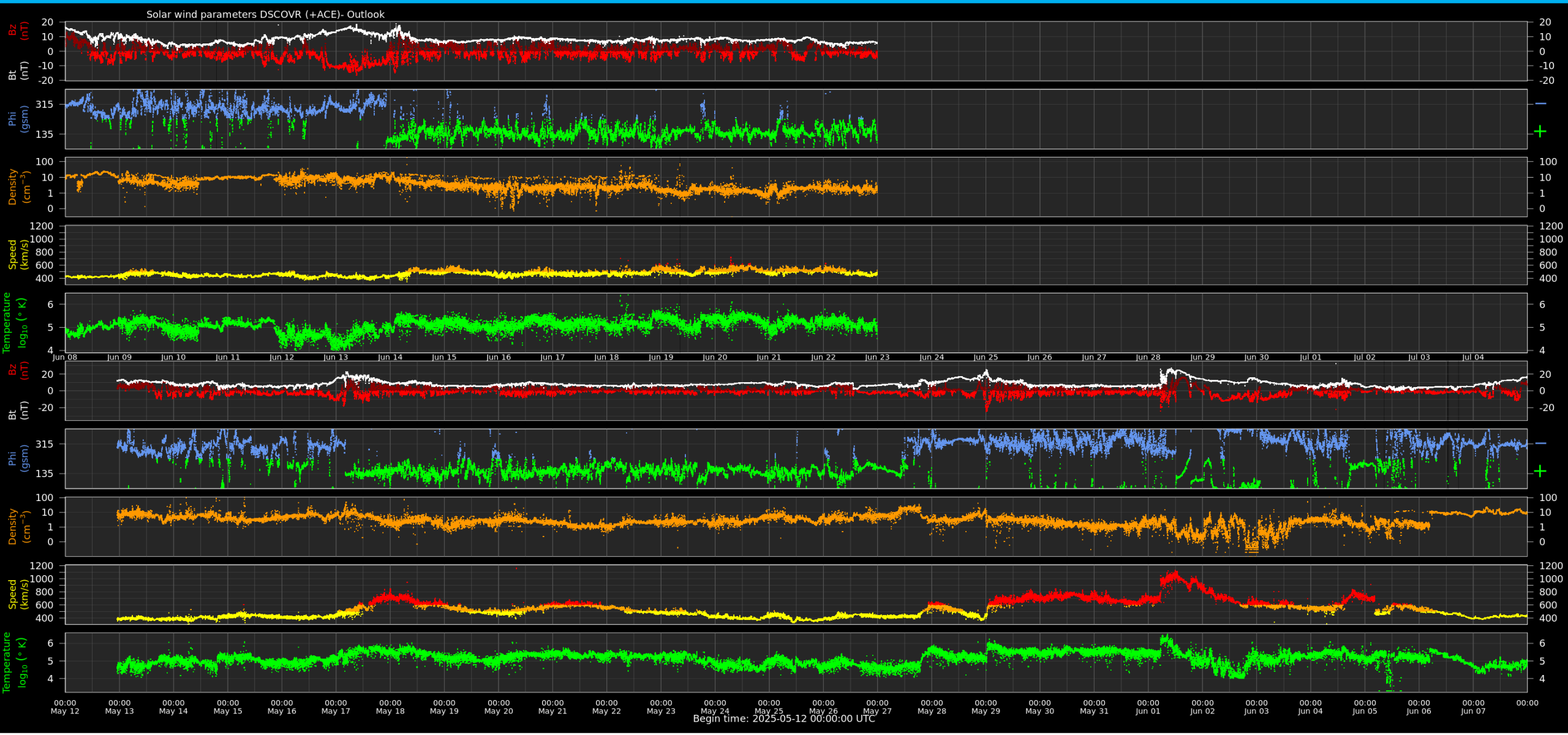
Outlook: Solar activity



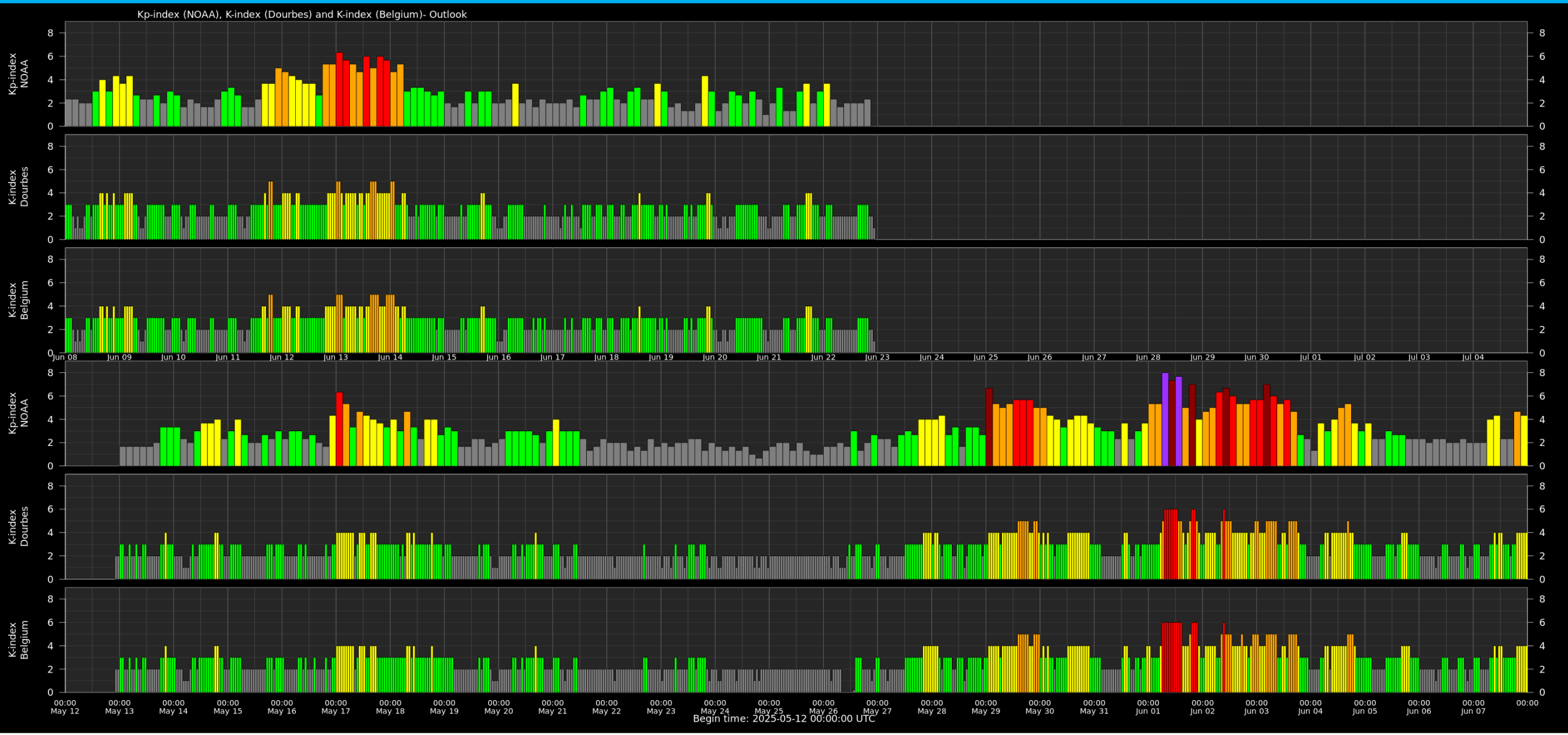
Outlook: Solar F10.7cm radio flux



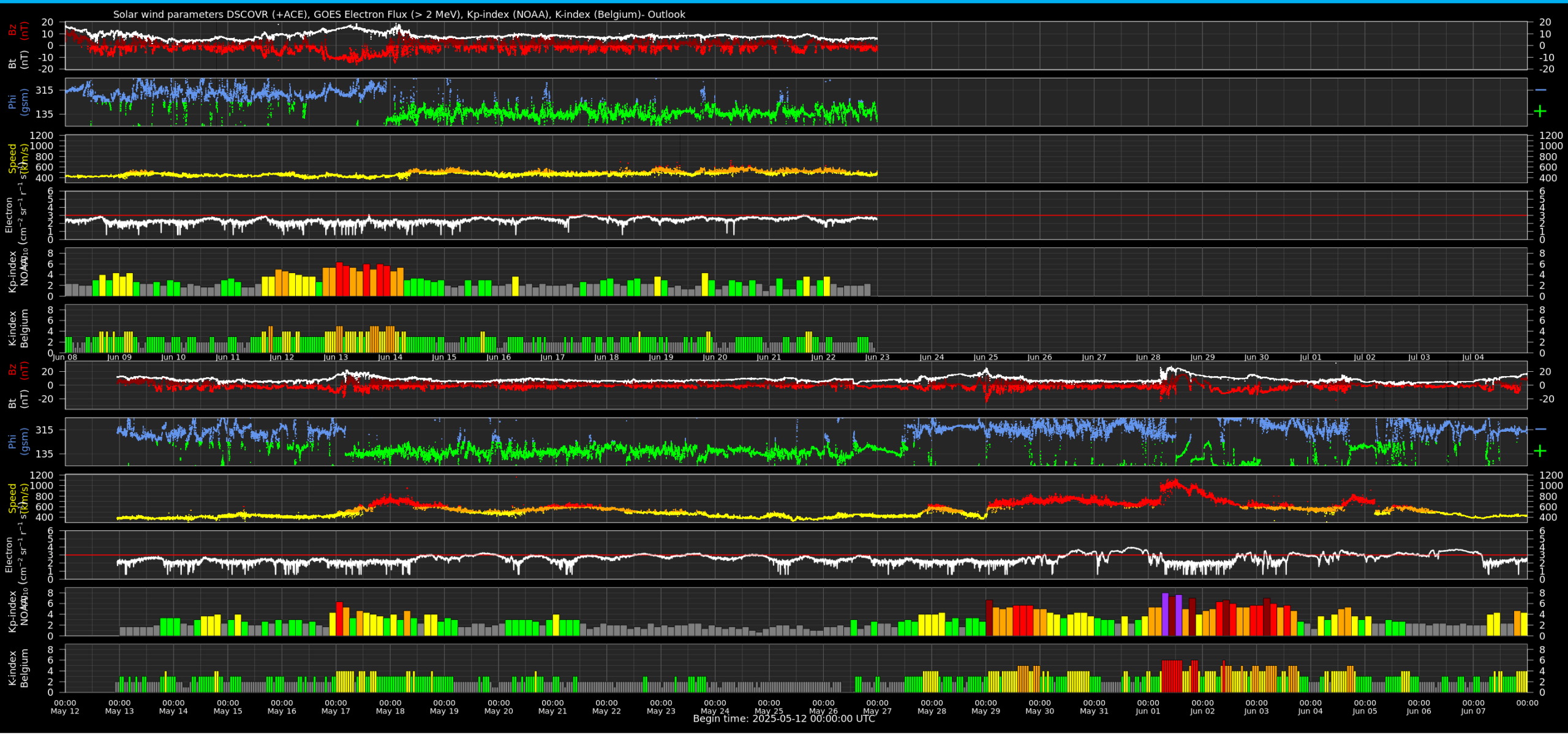
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecasus related events

PSD, SWF, Scintillation

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