SIDC Space Weather Briefing

30 June 2025-06 July 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 2025-06-30 00:00 to 2025-07-06 23:59

Active regions	17 Active Regions on disk over the week: SIDC sunspot group 543 (NOAA AR 4126) and SIDC sunspot group 513 (NOAA Active Region 4130) were the most active ones
Flares	# C-class flare: 26 # M-class flare: 0 # X-class flare: 0
Coronal Holes	One negative polarity coronal holes transited central meridian
CMEs	No Earth directed CMEs

Proton flux	Below 10 pfu threshold
Electron flux	Above 1000 pfu threshold from June 29 until July 03

Solar wind and geomagnetic conditions

ICMEs	ICME arrival at 01:51 on July 03 associated with SIDC CME 523 (observed in LASCO/C2 at 21:00 UTC on June 28)
Solar wind conditions	|B|: 0.79 - 14.45 nT //Bz: -12.65 nT to 13.5 nT //Speed: 304.8 – 560 km/s
Geomagnetic conditions	max KBel: 5.0, max Kp(NOAA): 5.33, Minor Storm conditions

All Quiet Alert: Not all quiet

Solar Activity

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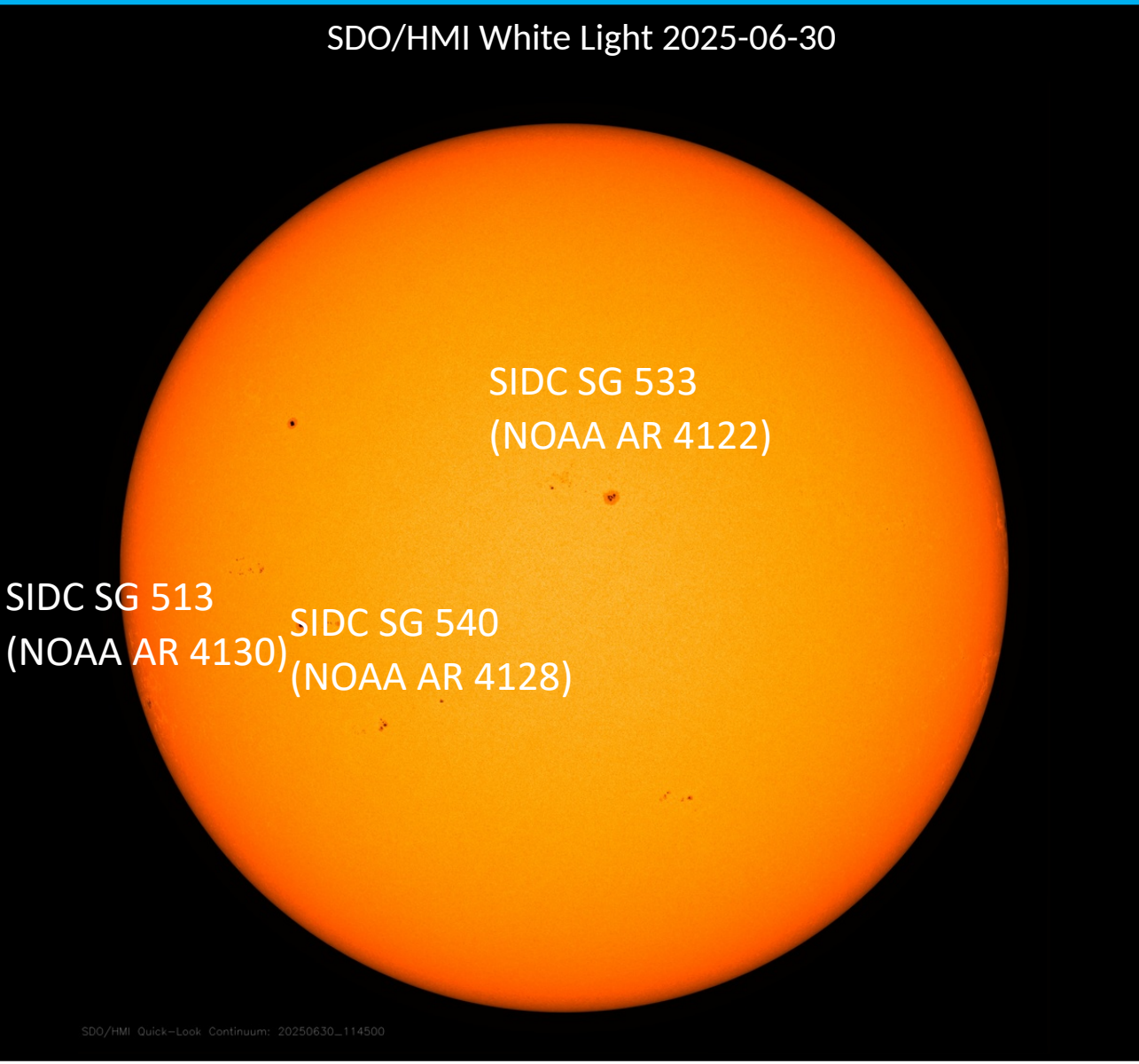
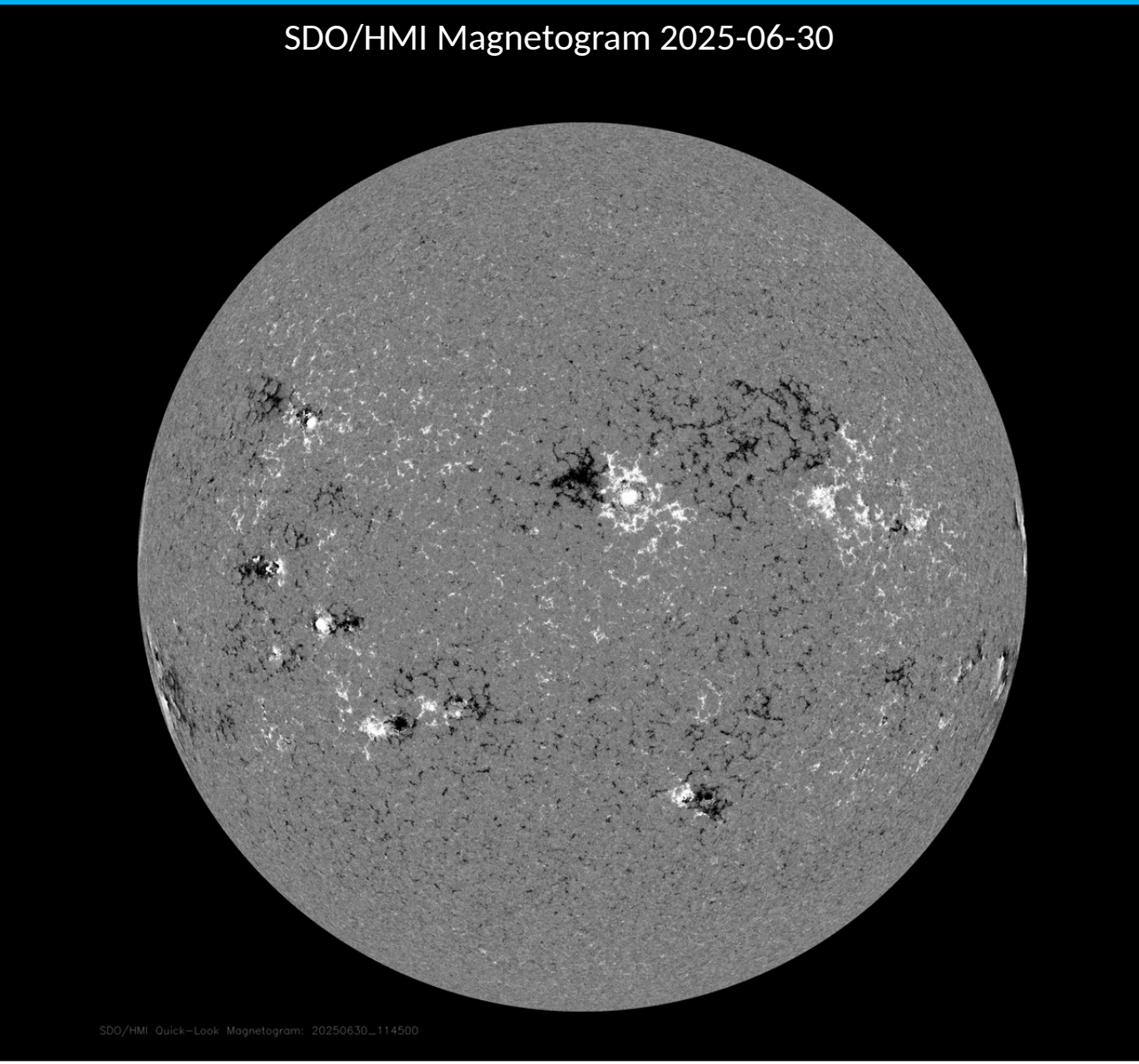
Solar active regions

SDO/HMI White Light 2025-06-30

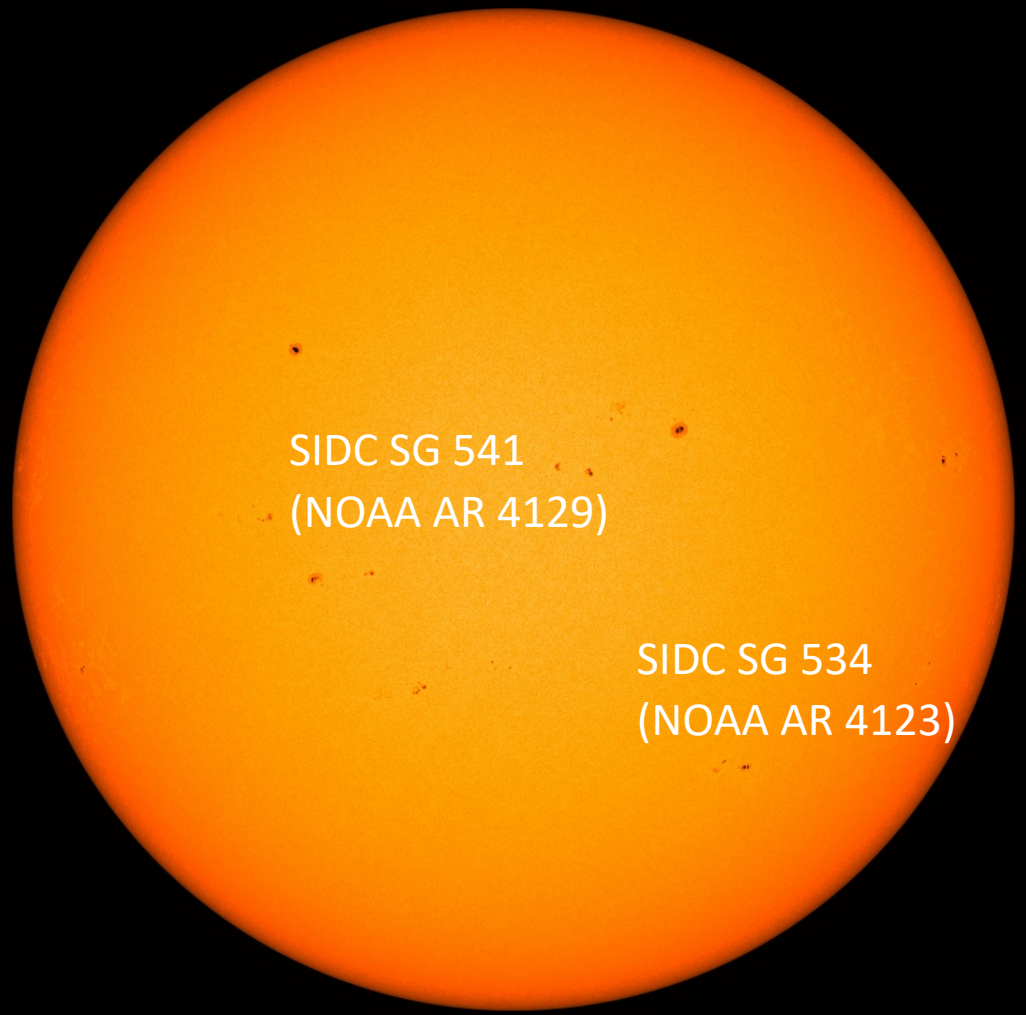


SDO/HMI Magnetogram 2025-06-30

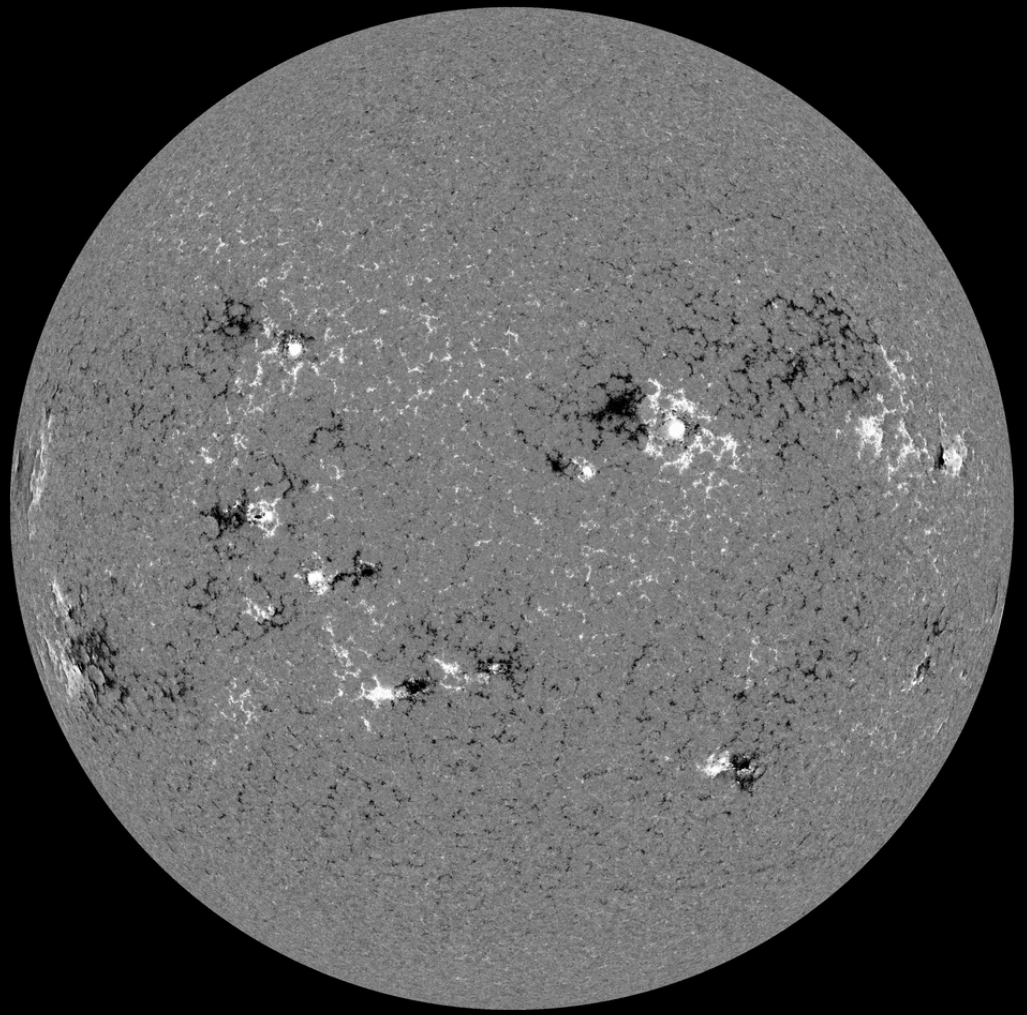


Solar active regions

SDO/HMI White Light 2025-07-01

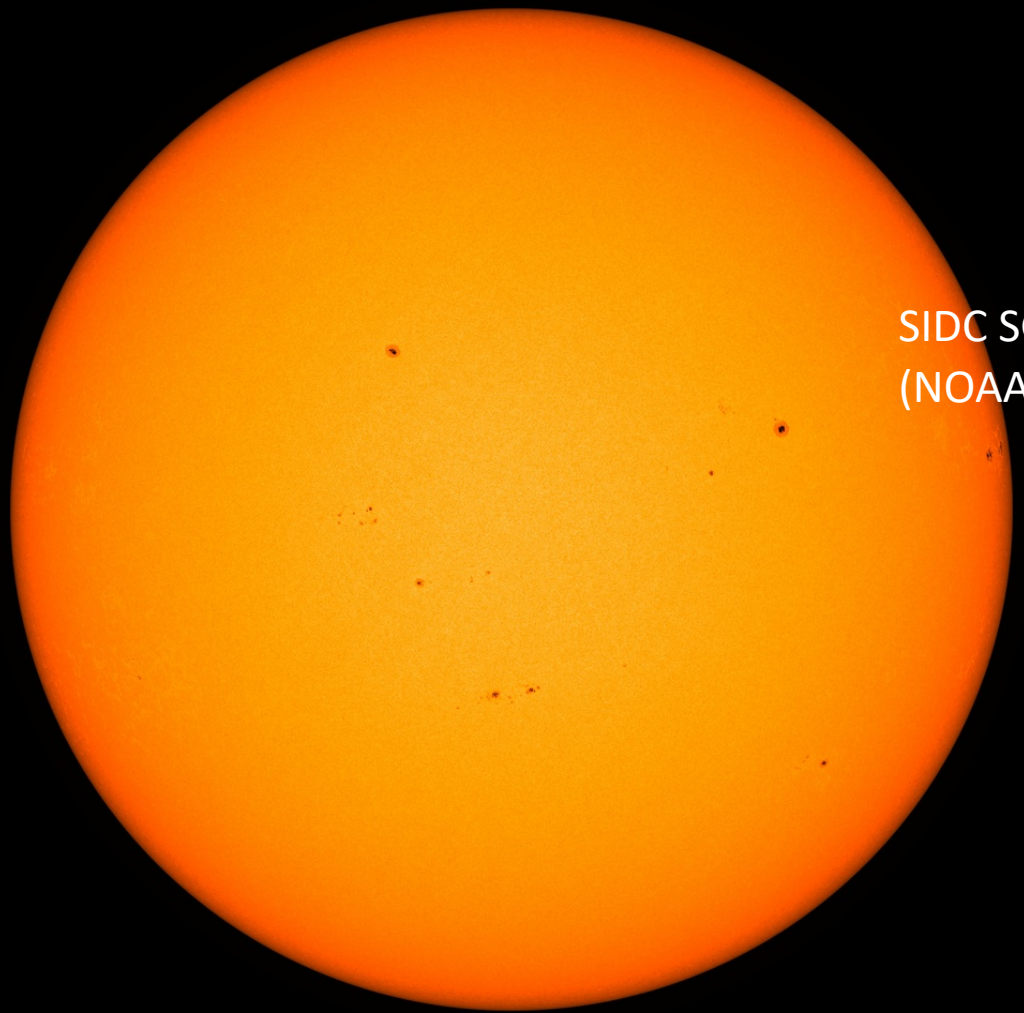


SDO/HMI Magnetogram 2025-07-01



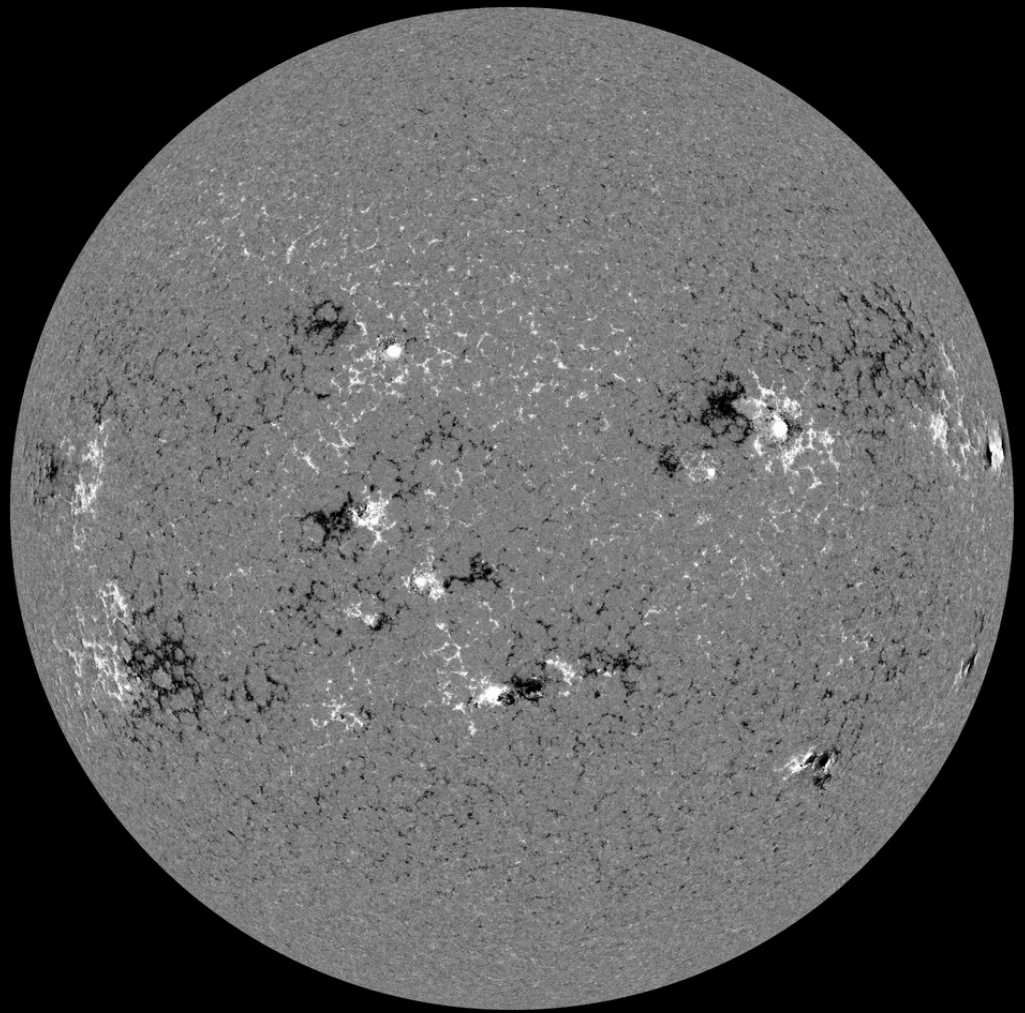
Solar active regions

SDO/HMI White Light 2025-07-02



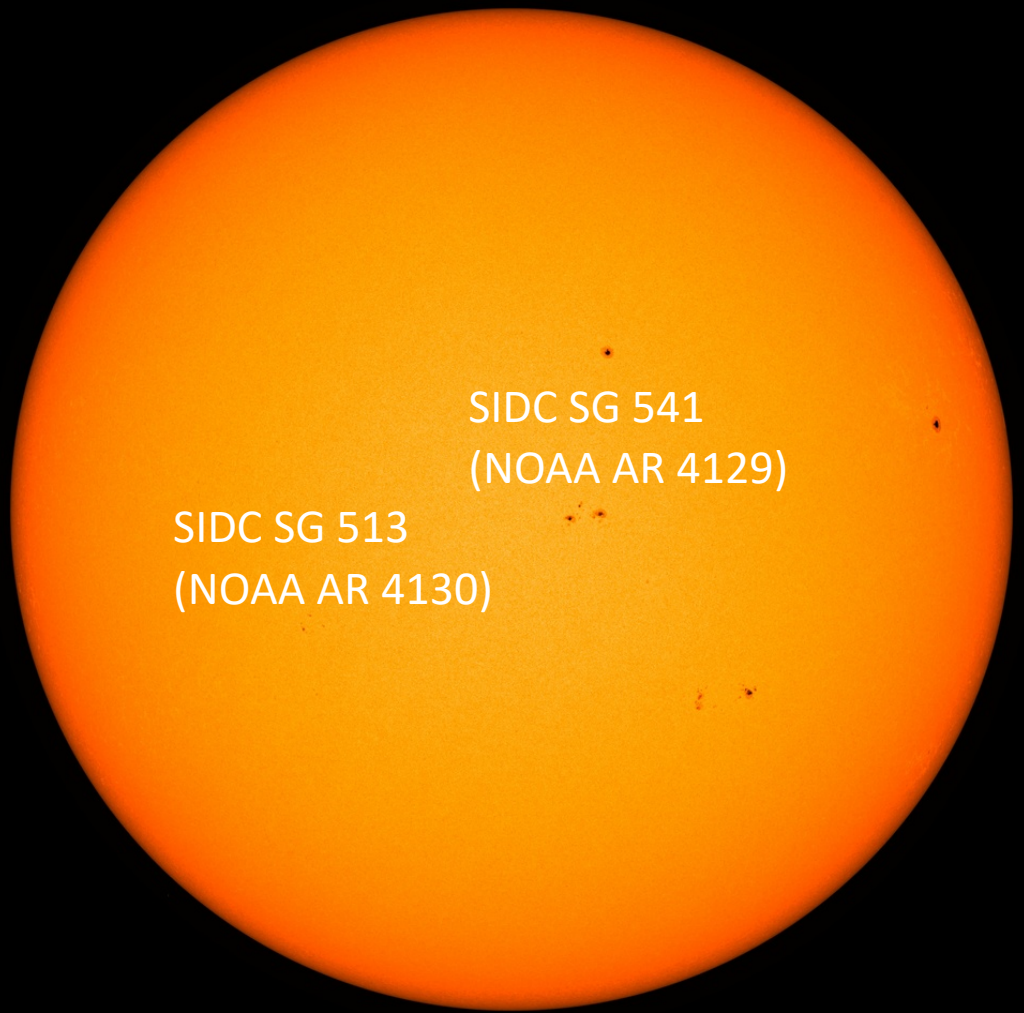
SIDC SG 543
(NOAA AR 4126)

SDO/HMI Magnetogram 2025-07-02

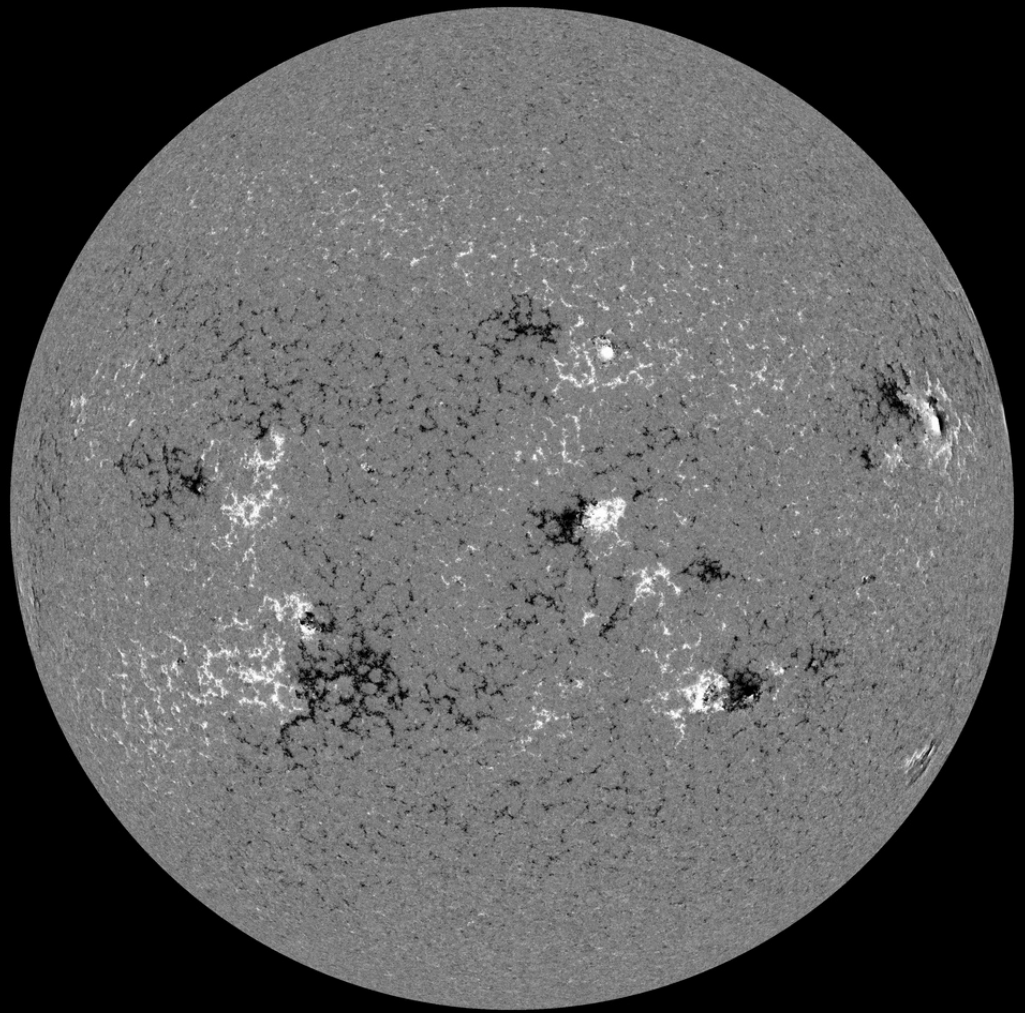


Solar active regions

SDO/HMI White Light 2025-07-04

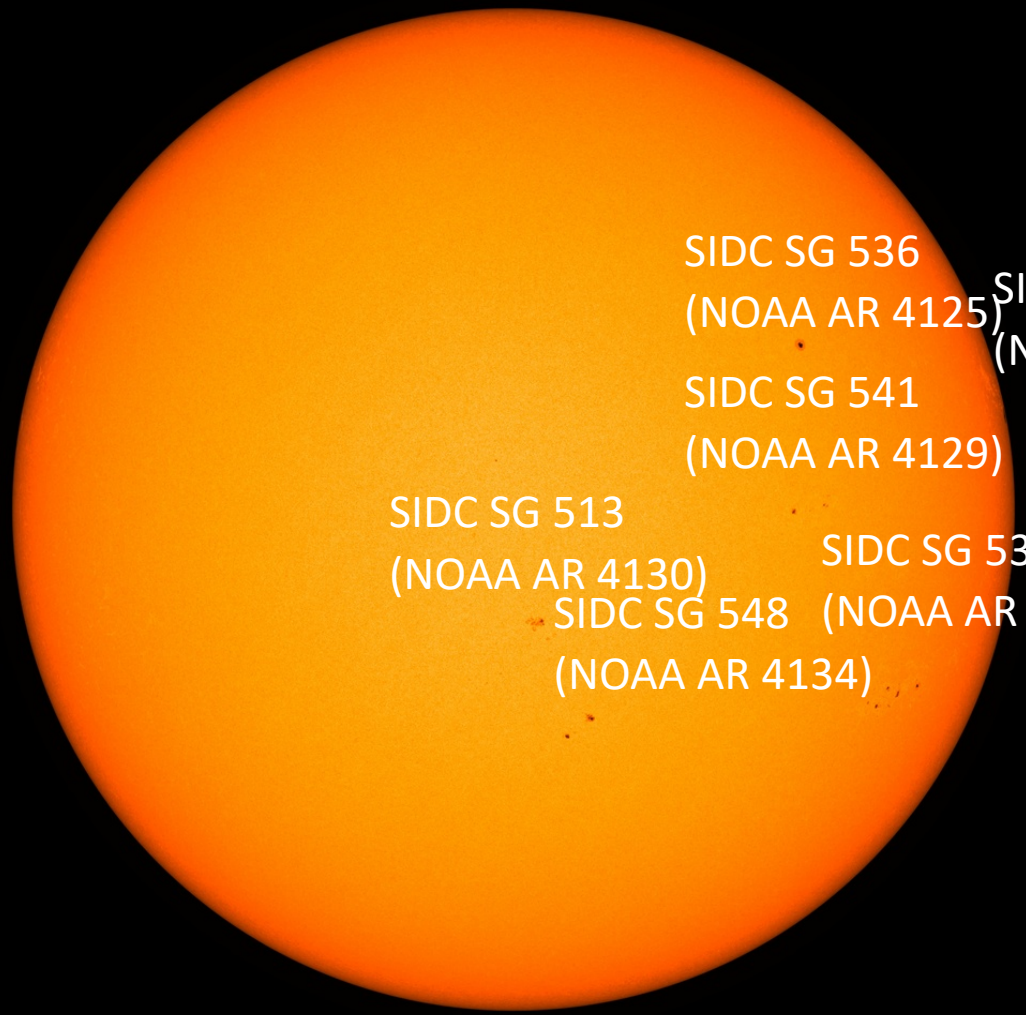


SDO/HMI Magnetogram 2025-07-04



Solar active regions

SDO/HMI White Light 2025-07-06



SIDC SG 536
(NOAA AR 4125)

SIDC SG 533
(NOAA AR 4122)

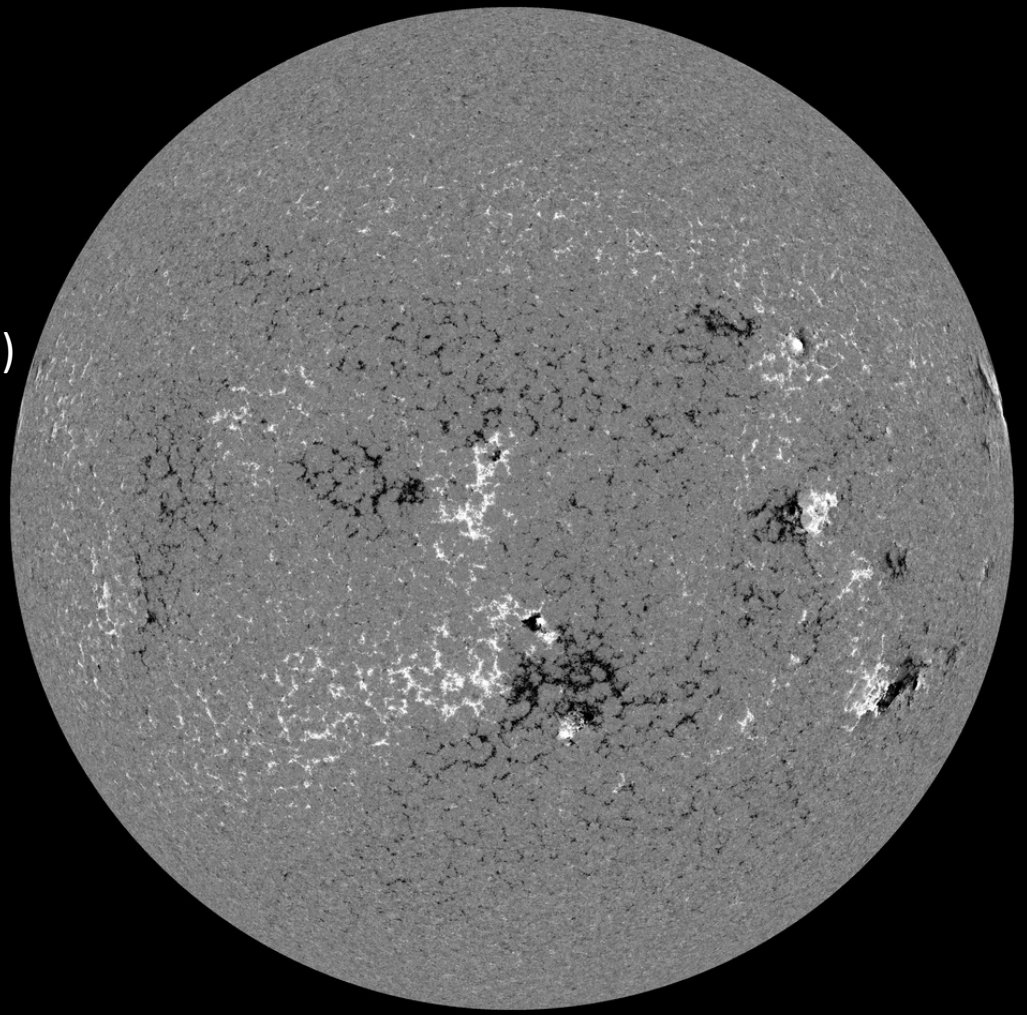
SIDC SG 541
(NOAA AR 4129)

SIDC SG 513
(NOAA AR 4130)

SIDC SG 539
(NOAA AR 4127)

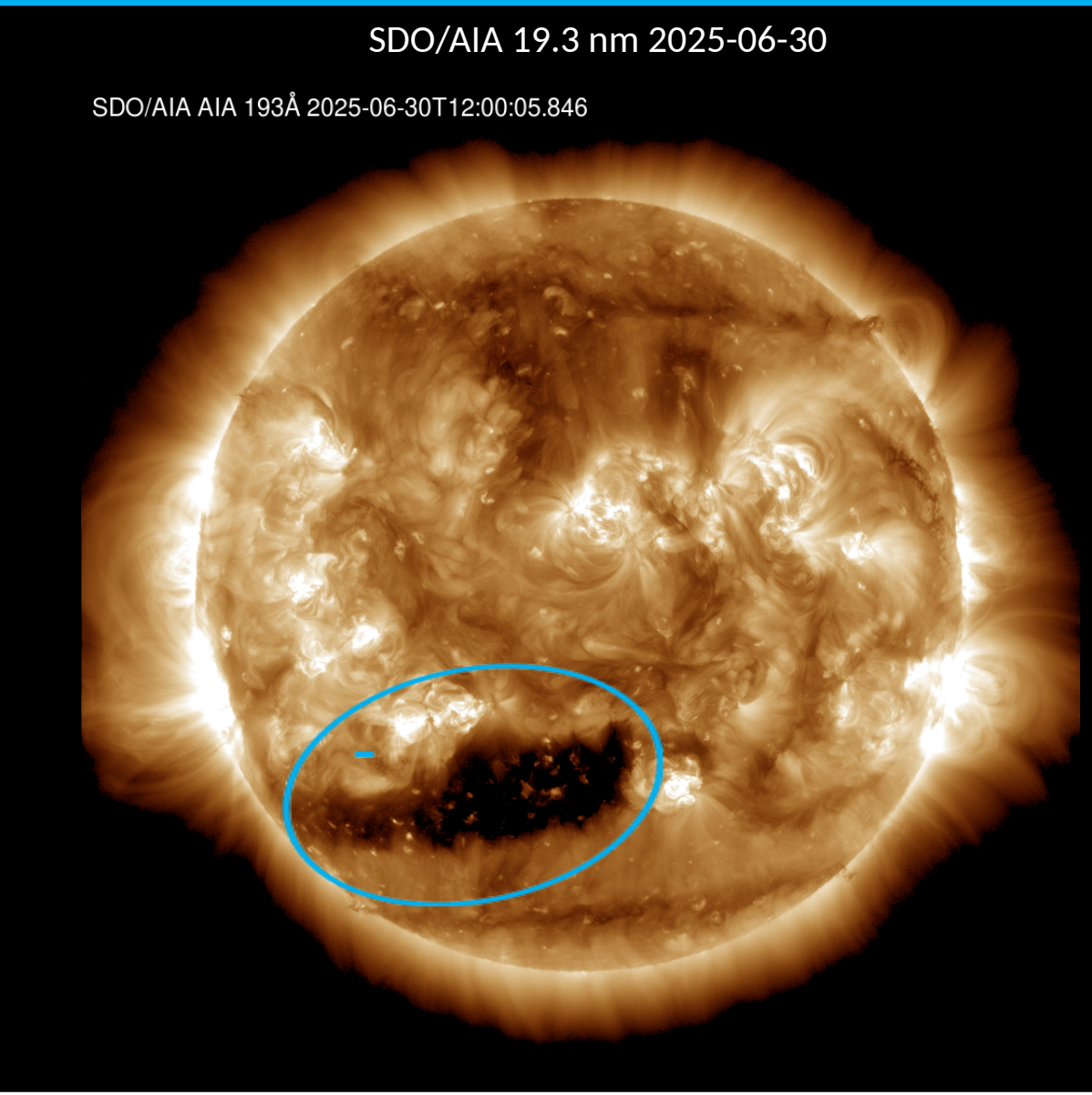
SIDC SG 548
(NOAA AR 4134)

SDO/HMI Magnetogram 2025-07-06

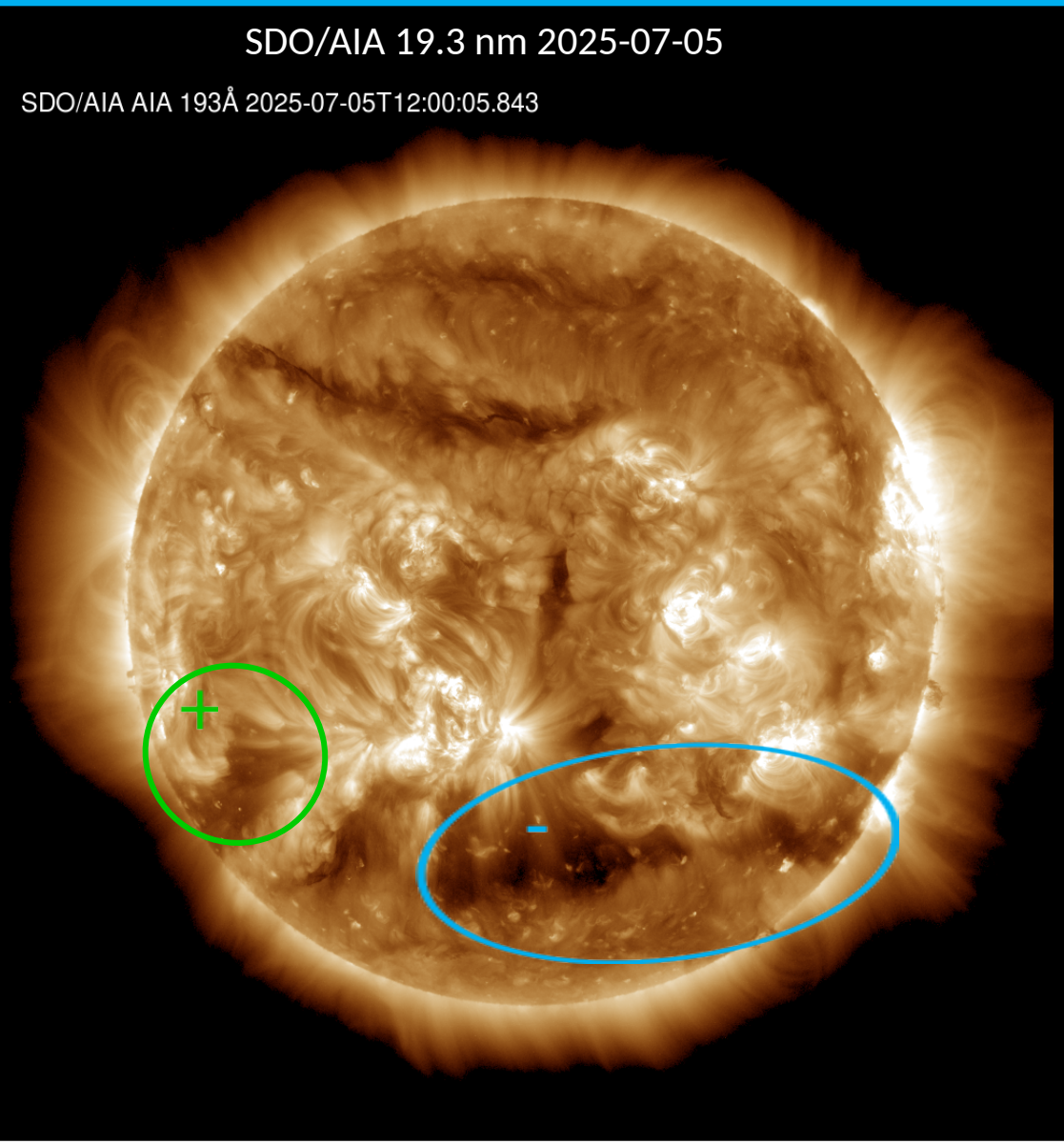


Coronal holes

SDO/AIA 19.3 nm 2025-06-30

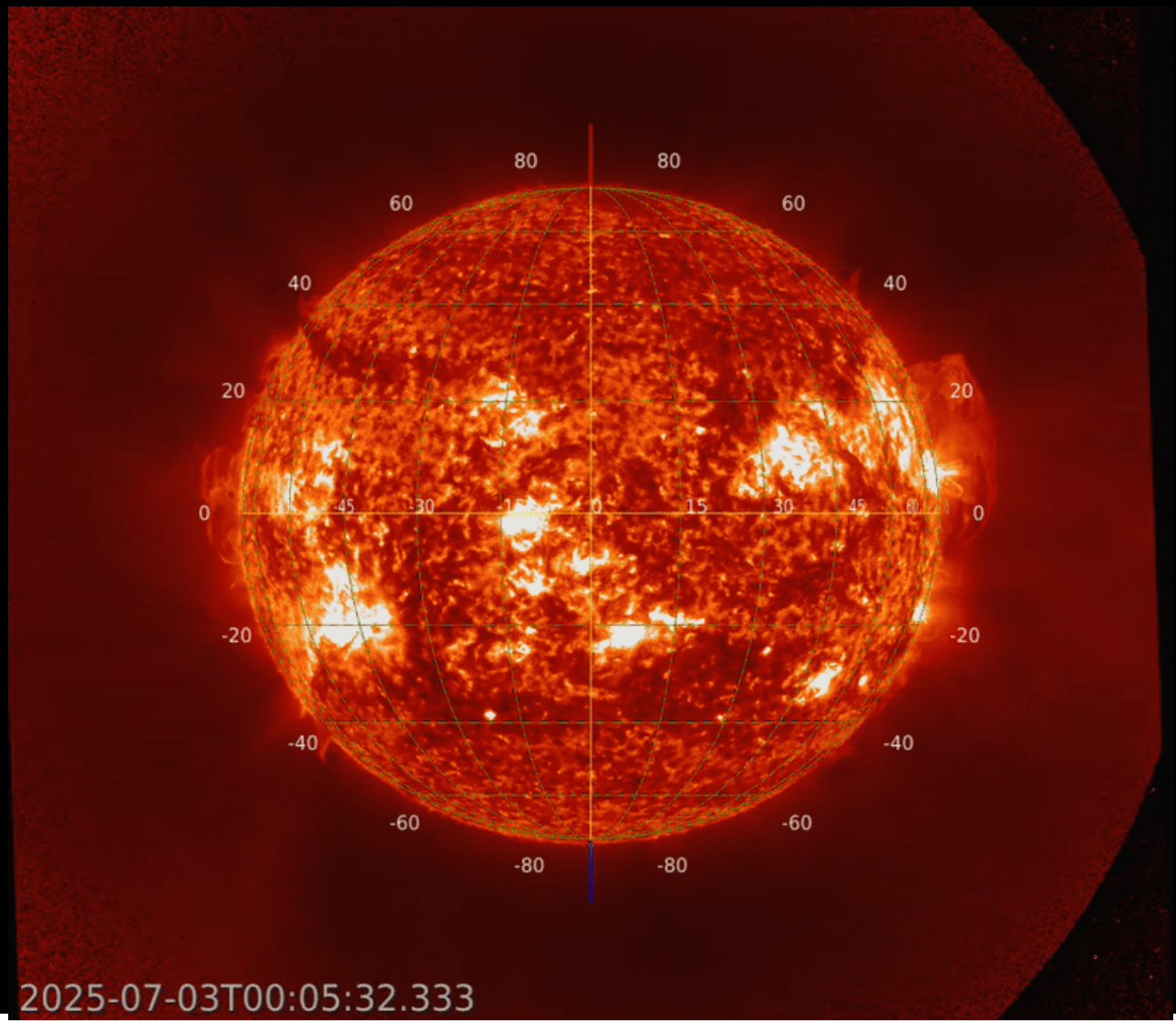


SDO/AIA 19.3 nm 2025-07-05

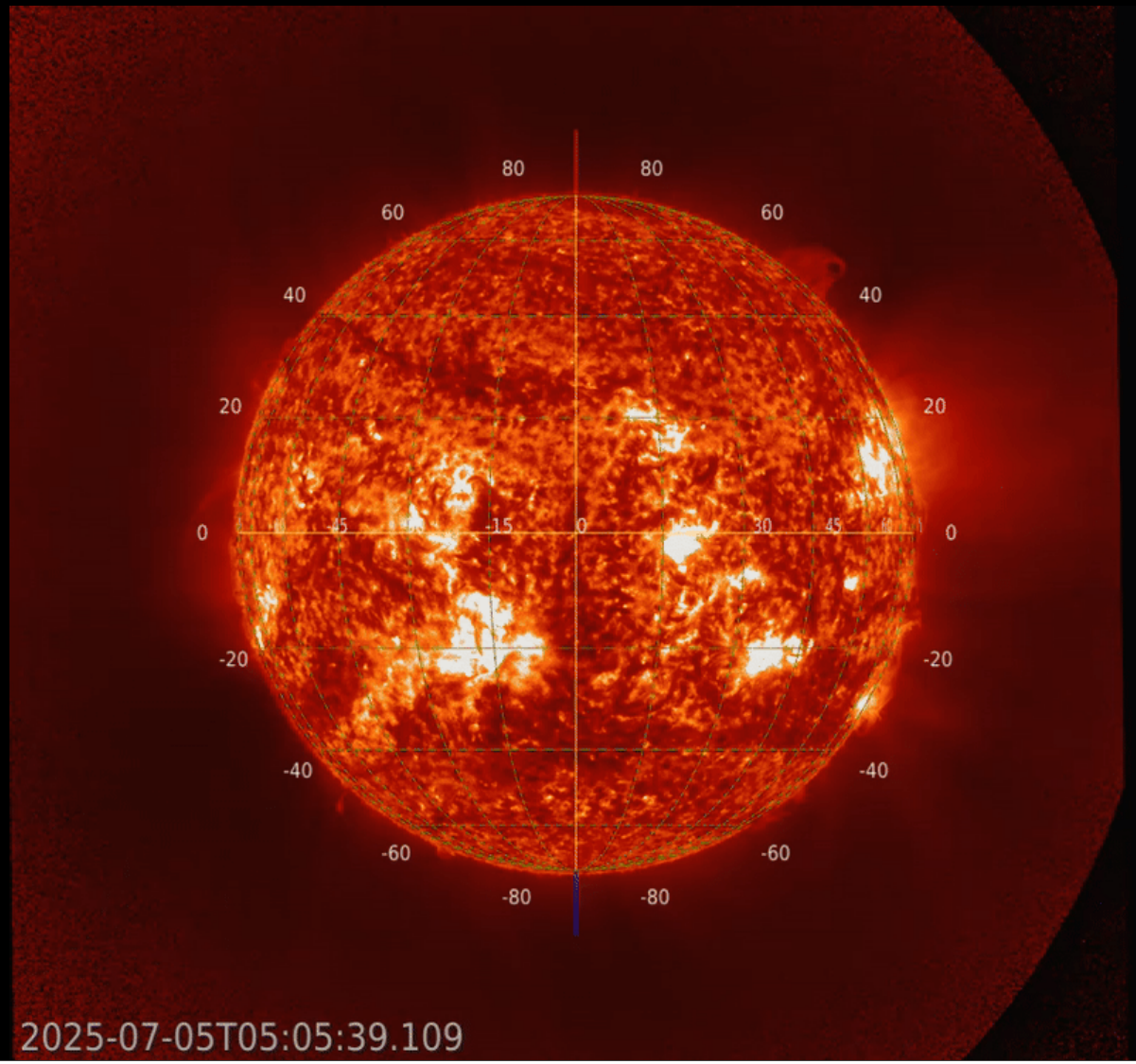


Filaments

GOES/SUVI 30.4 nm 2025-07-03

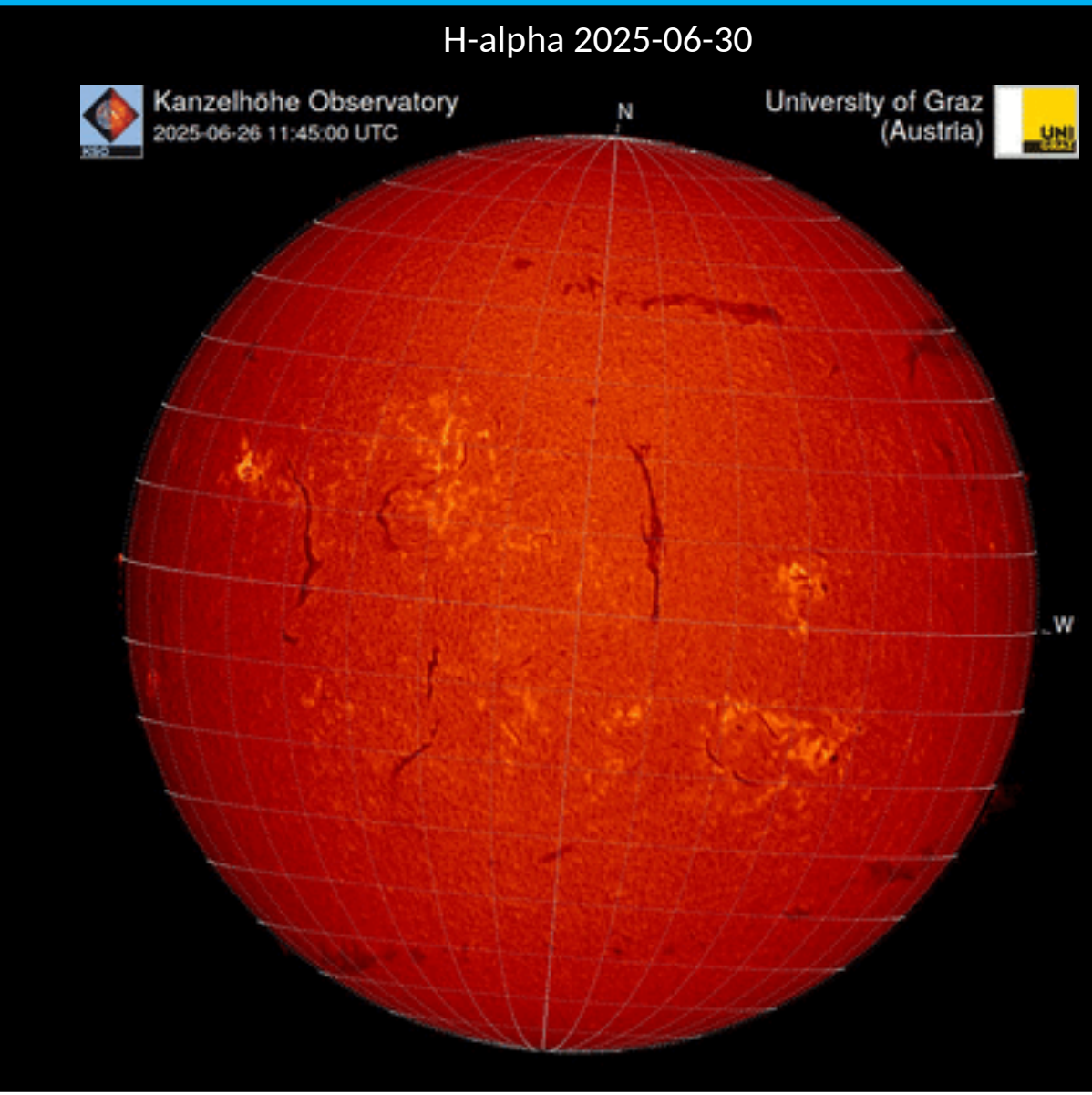


GOES/SUVI 30.4 nm 2025-07-05

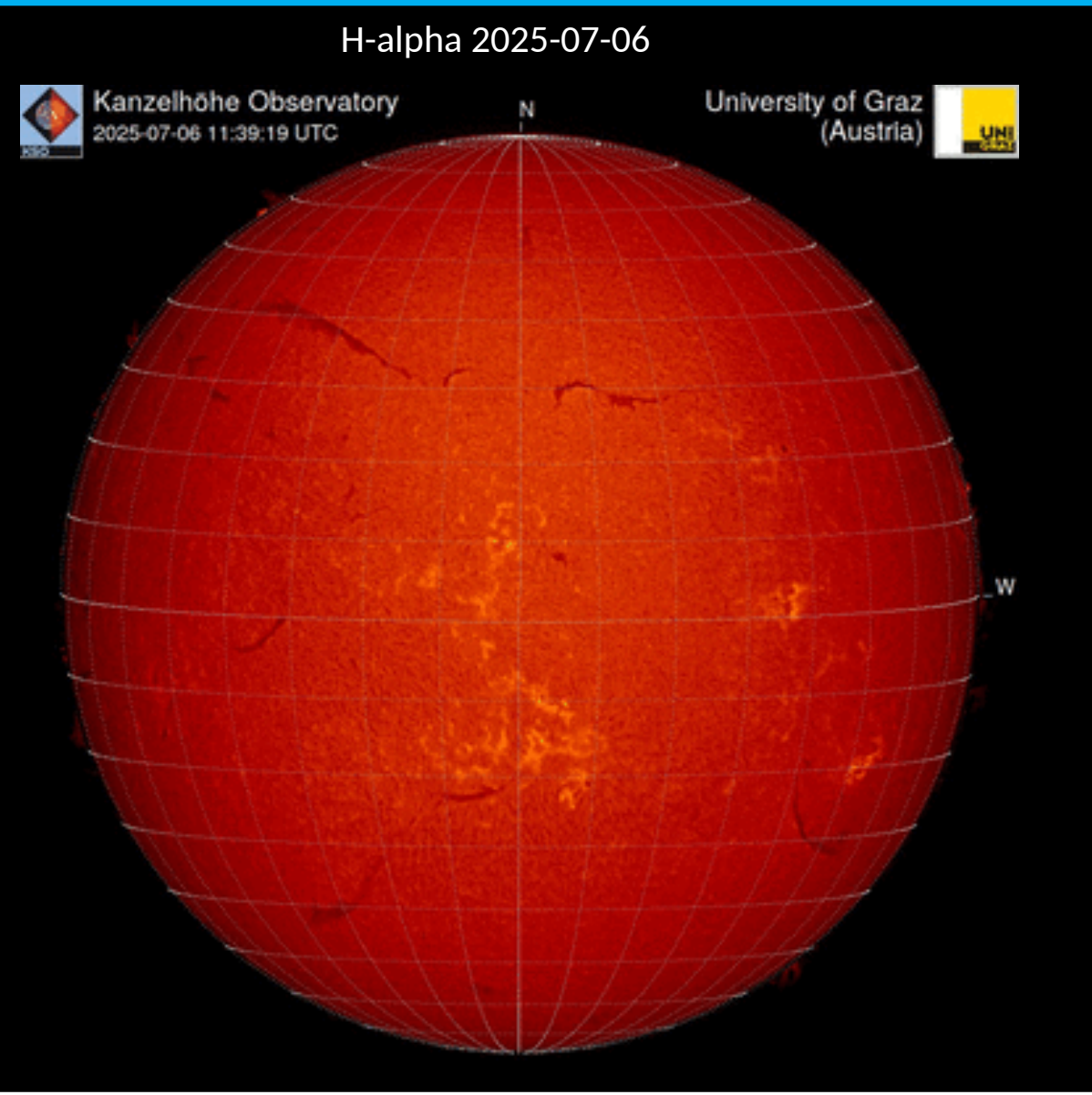


Filaments & Filament eruptions

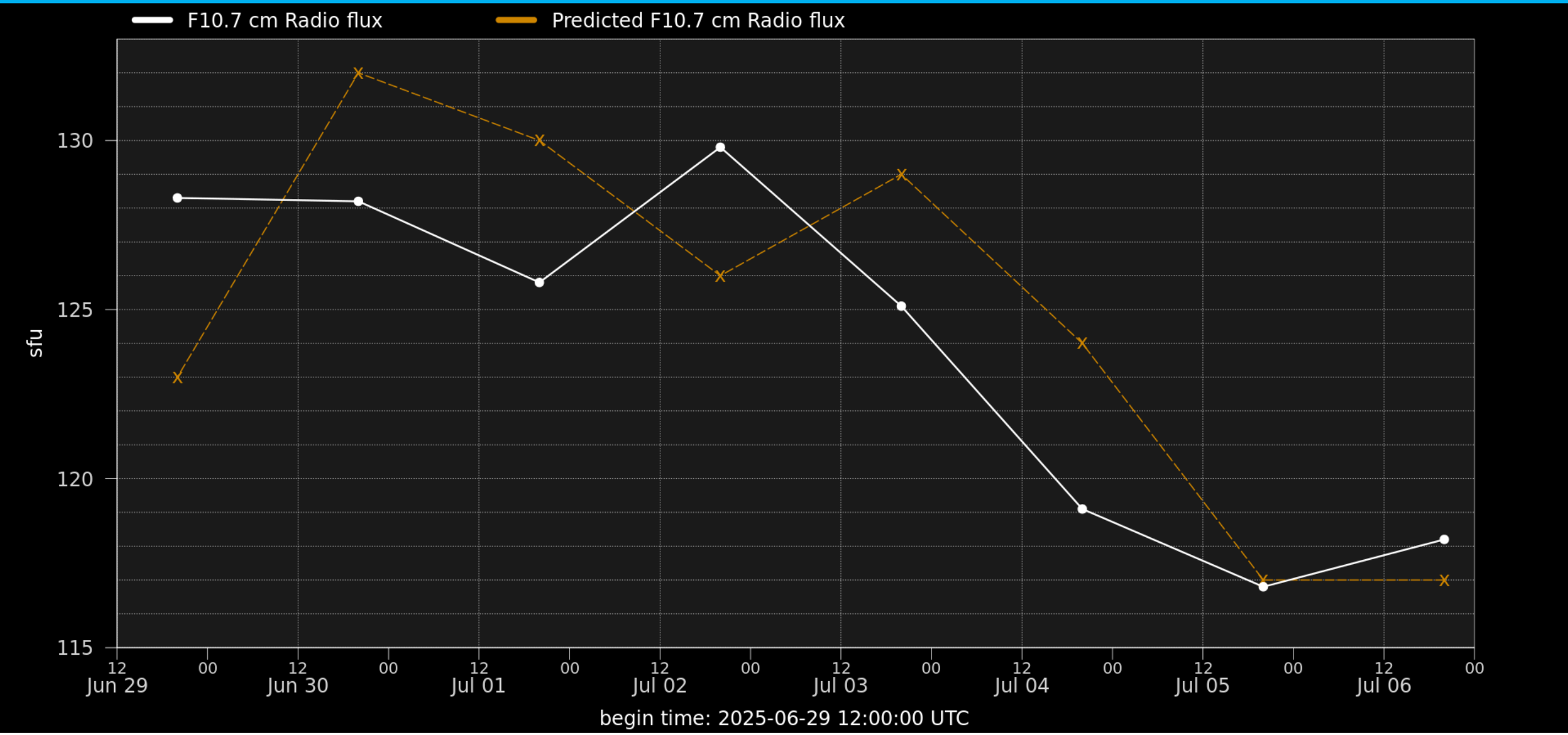
H-alpha 2025-06-30



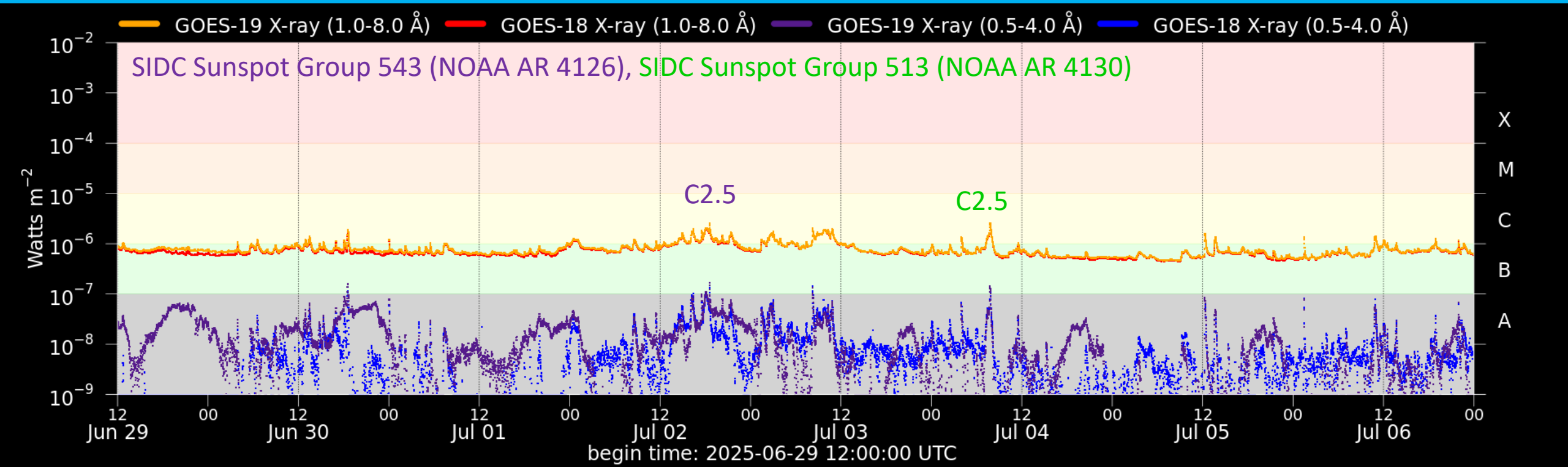
H-alpha 2025-07-06



Solar F10.7cm radio flux



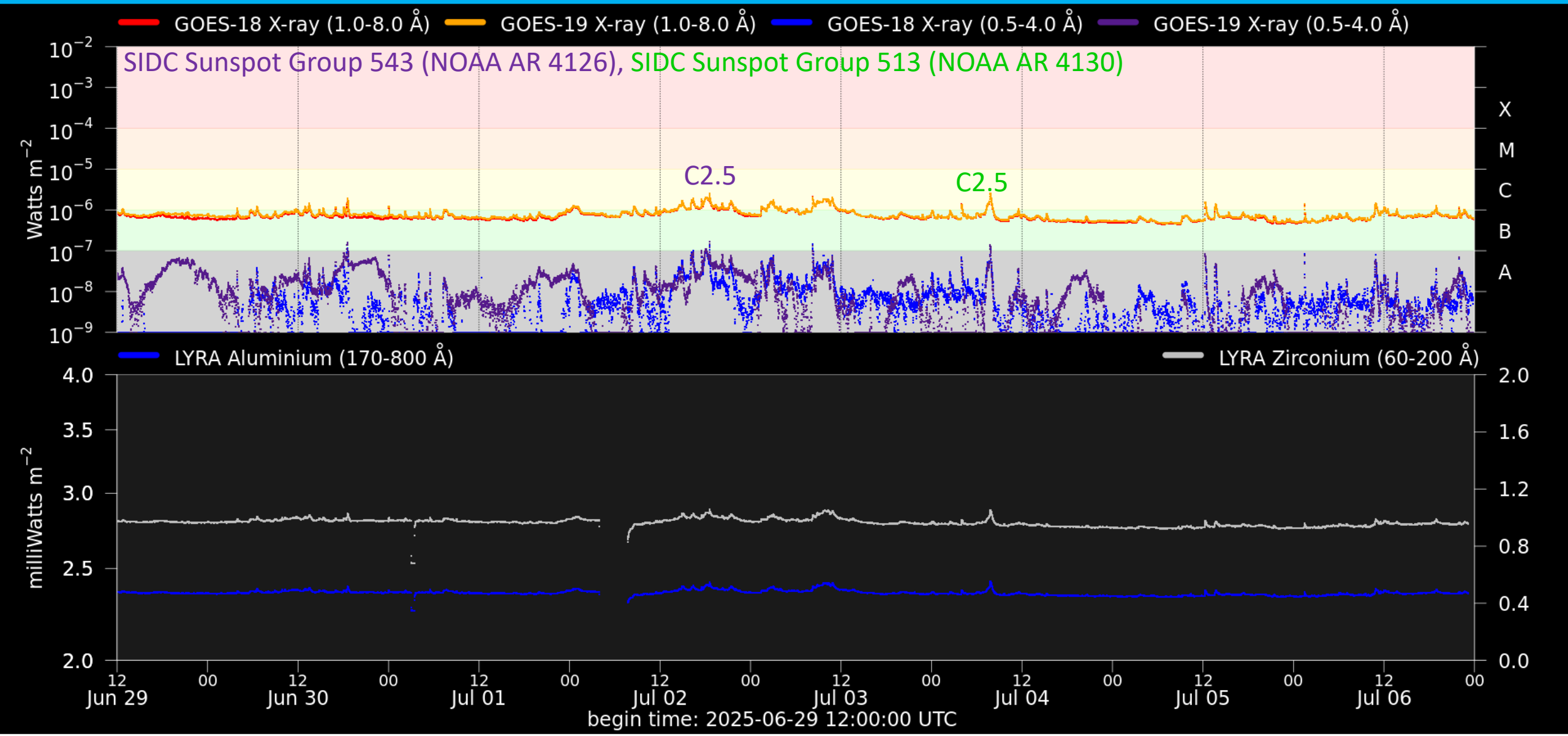
Flaring activity



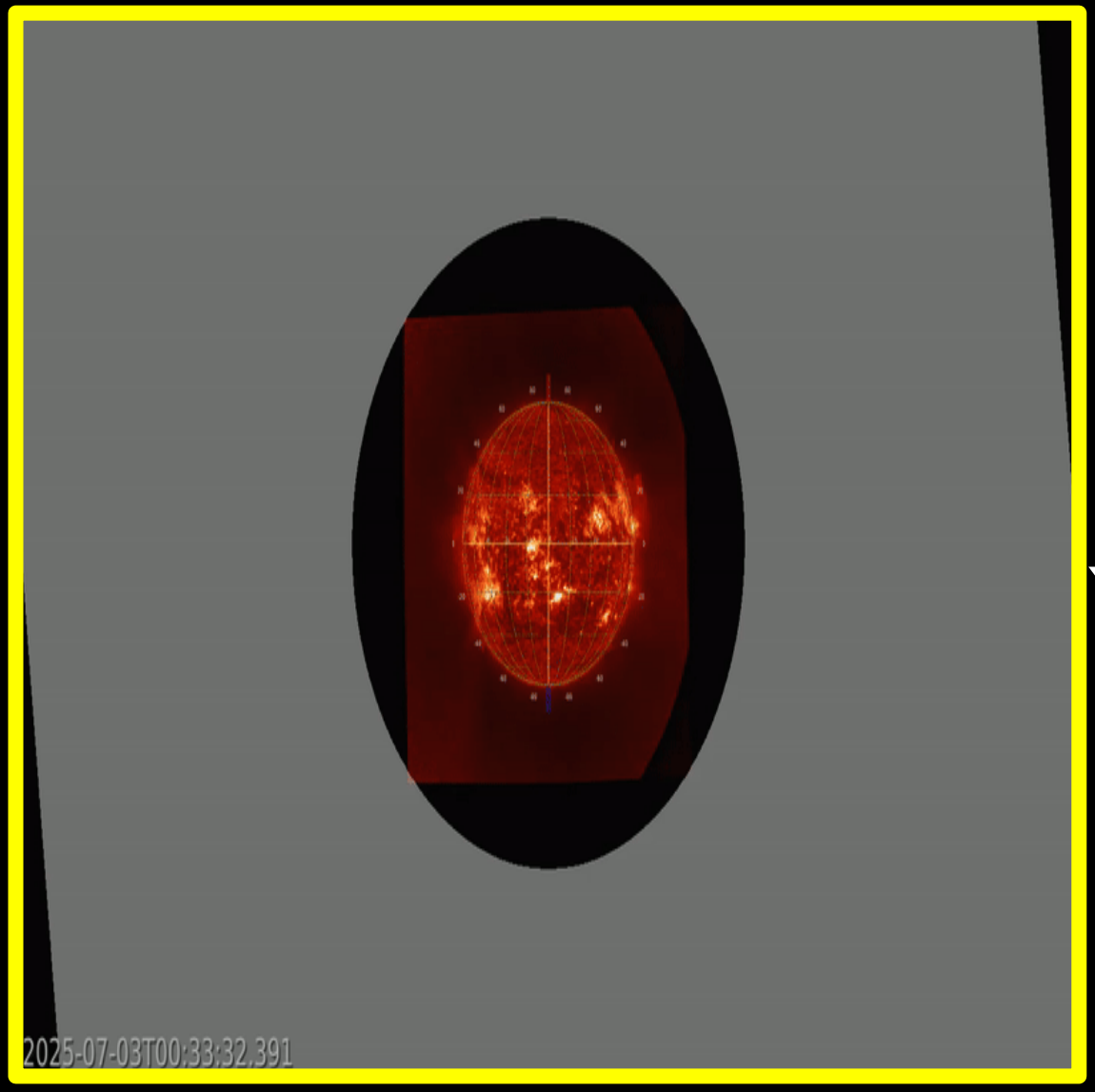
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-06-29	2025-06-30	2025-07-01	2025-07-02	2025-07-03	2025-07-04	2025-07-05	2025-07-06
Probability (%)	90|25|10	95|25|05	95|25|05	90|25|05	95|30|05	90|20|05	75|15|01	80|05|01
Observed (#)	03|00|00	06|00|00	01|00|00	09|00|00	03|00|00	00|00|00	04|00|00	01|00|00

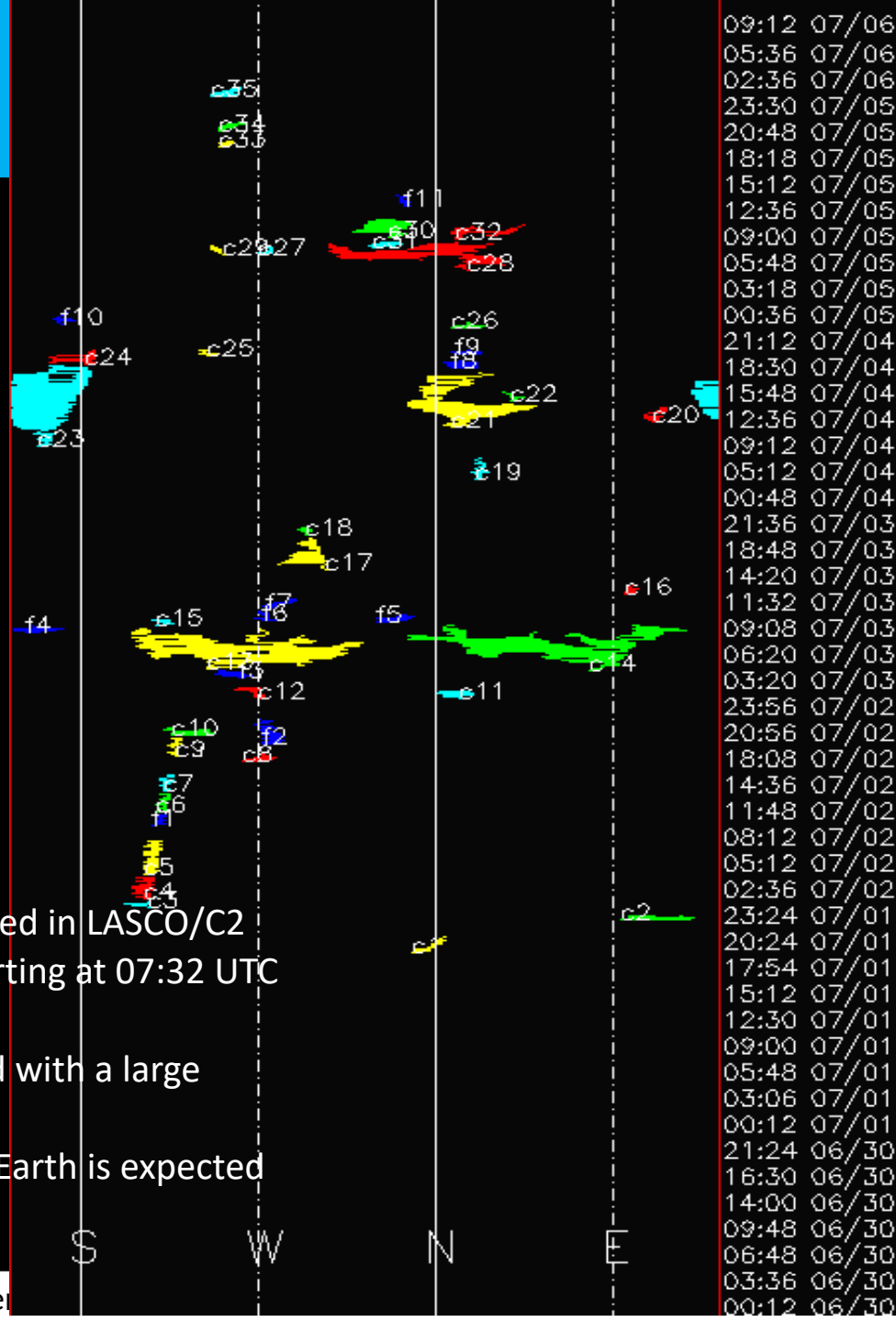
Solar X-Ray and UV flux



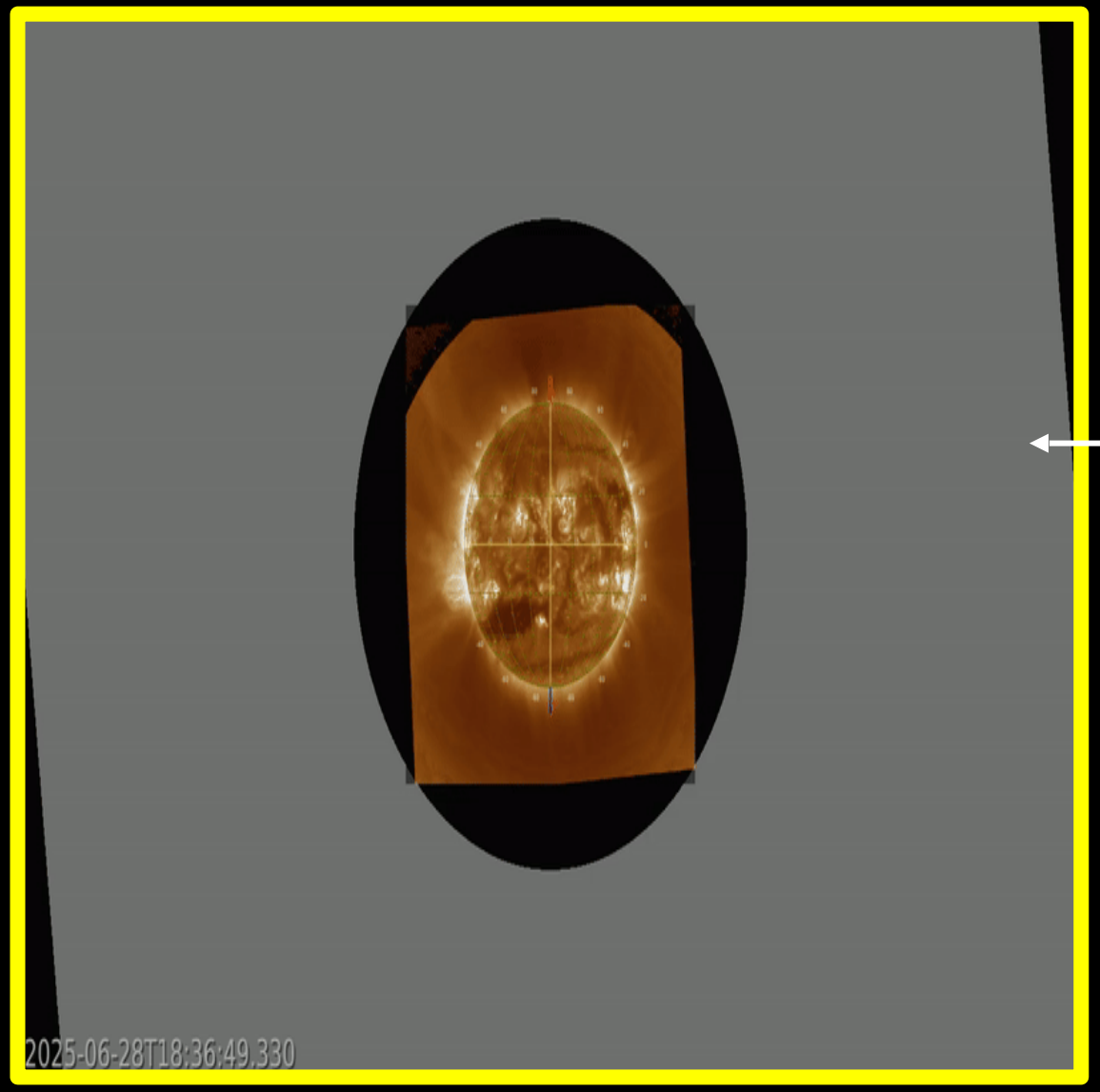
Coronal Mass Ejections



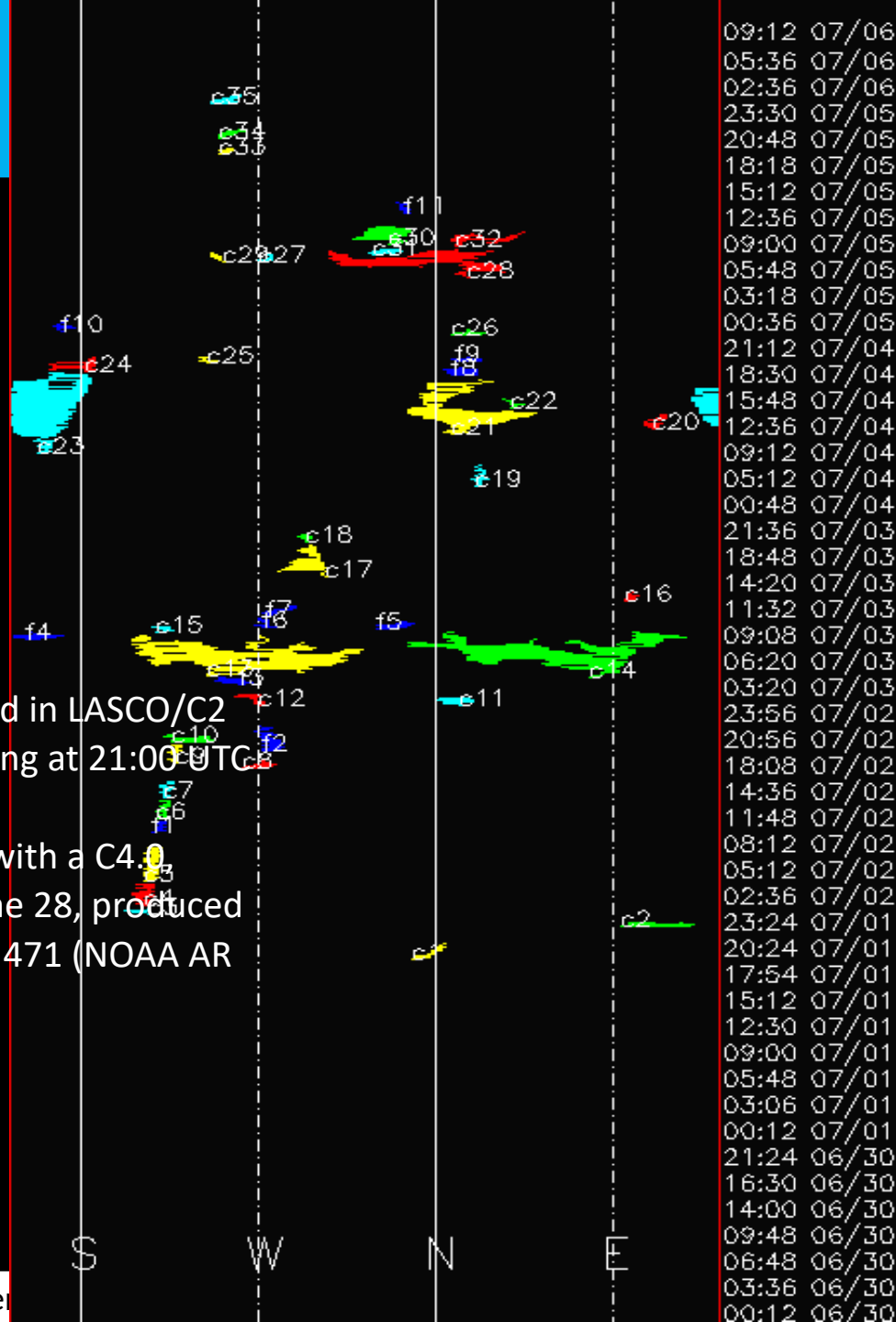
SIDC CME 525(observed in LASCO/C2 coronagraph data starting at 07:32 UTC on July 03).
The CME is associated with a large filament eruption.
No or little impact at Earth is expected



Coronal Mass Ejections



SIDC CME 523 (observed in LASCO/C2 coronagraph data starting at 21:00 UTC on June 28).
The CME is associated with a C4.0 peaking at 19:54 on June 28, produced by SIDC Sunspot Group 471 (NOAA AR 14126)
Predicted arrival time: 2025-07-02T09:00 UTC
Observed arrival time: 2025-07-03T01:51



Solar Wind and

Geomagnetic Activity

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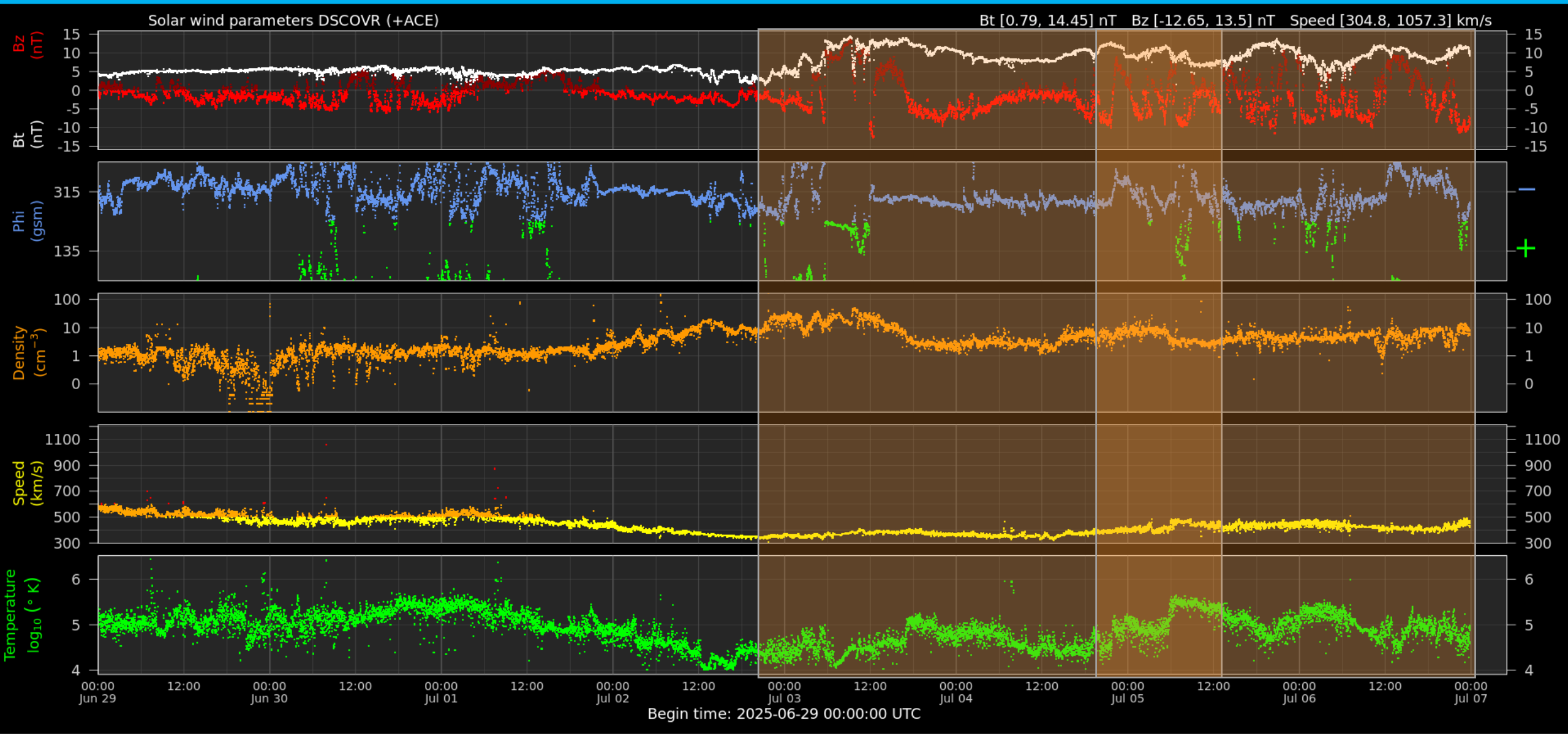
Solar wind parameters

ICME

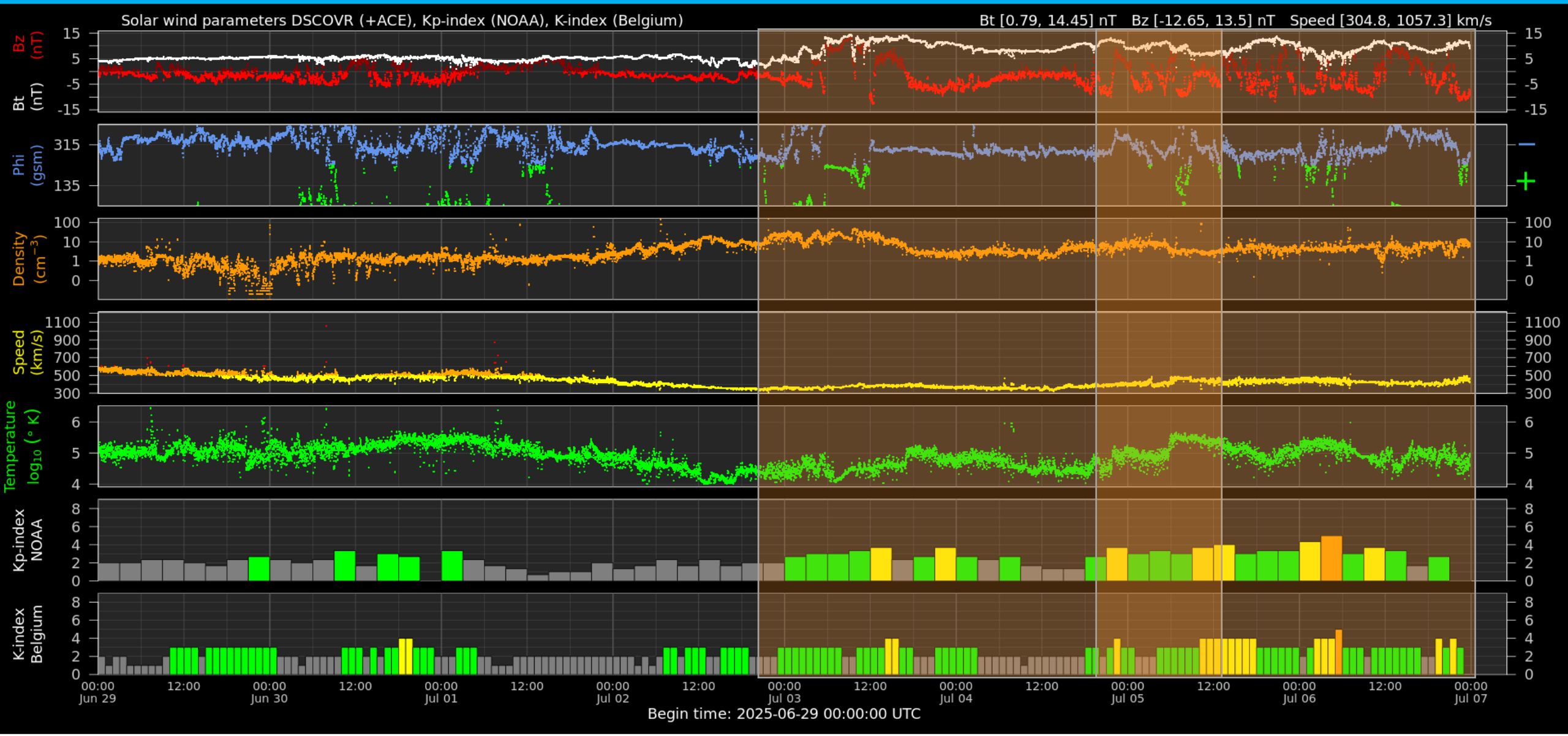
ICME + HSS?



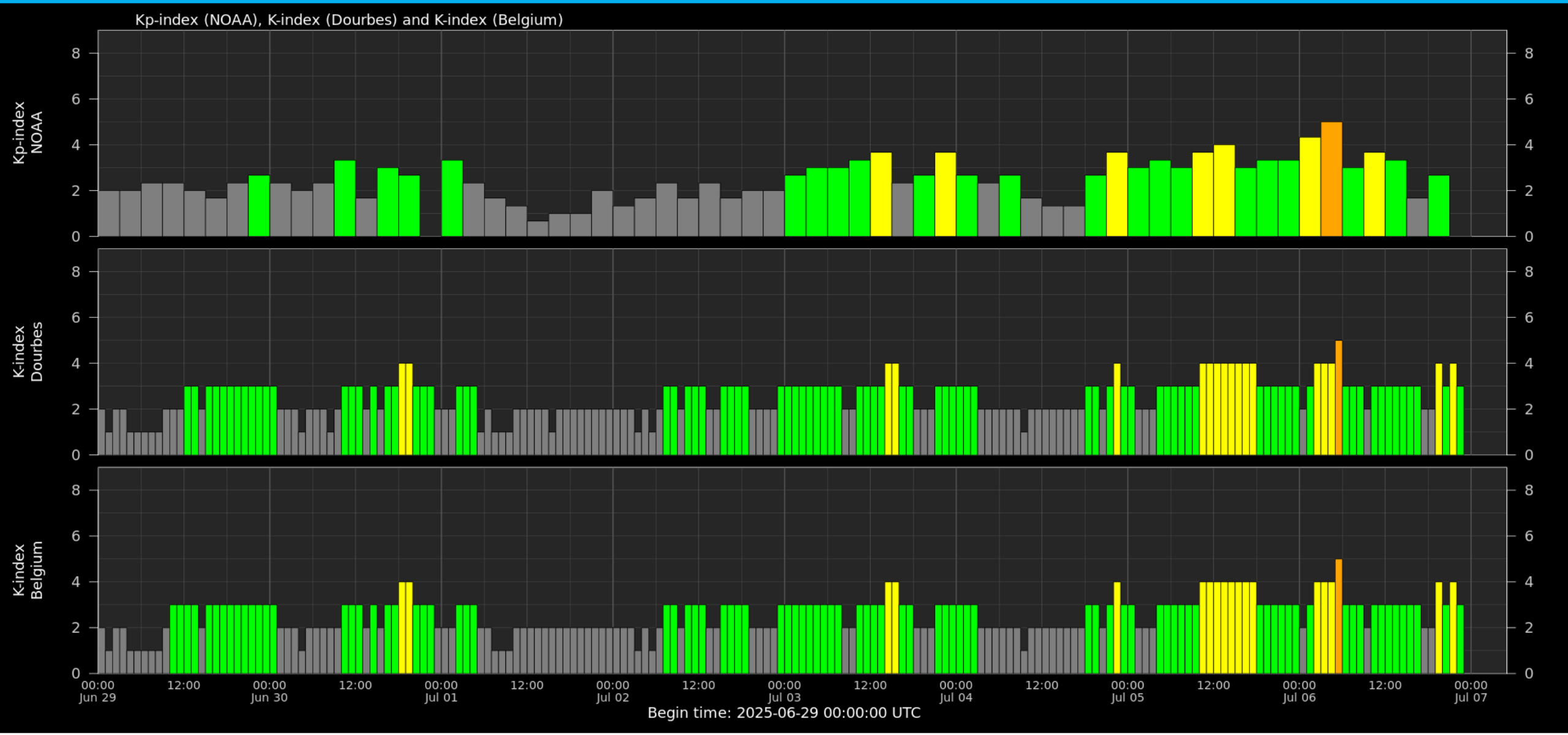
Solar wind parameters & K-indices

ICME

ICME + HSS?



Geomagnetic activity (K-indexes)



Energetic Particles

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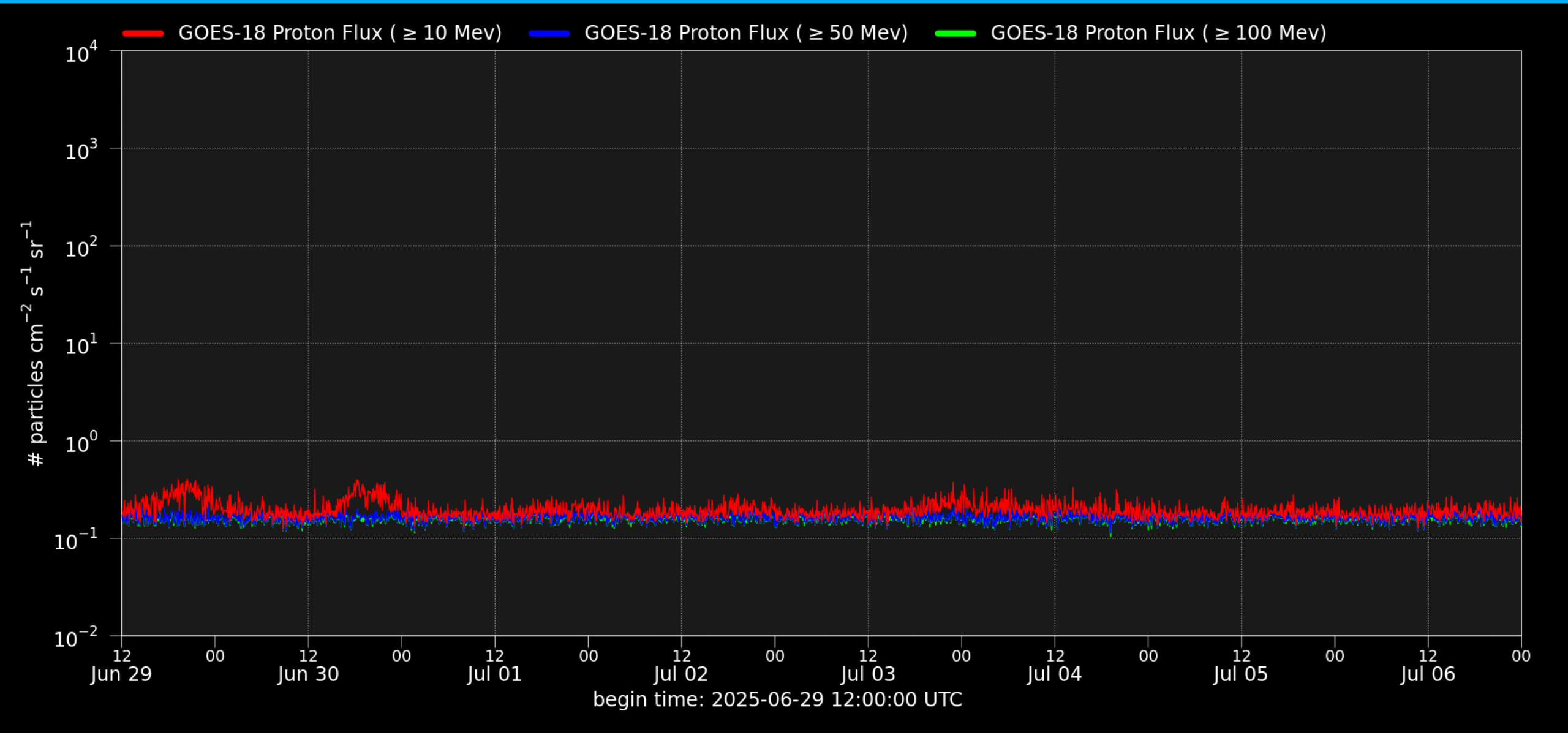
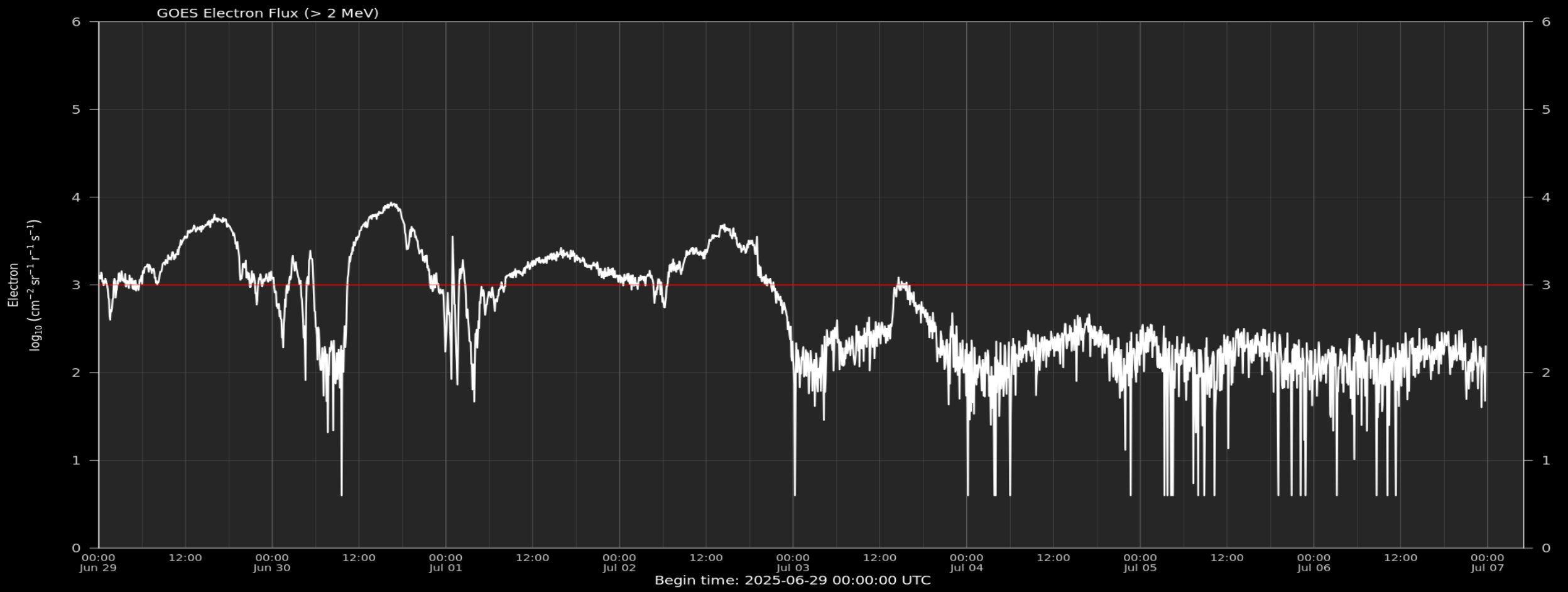
Solar proton flux



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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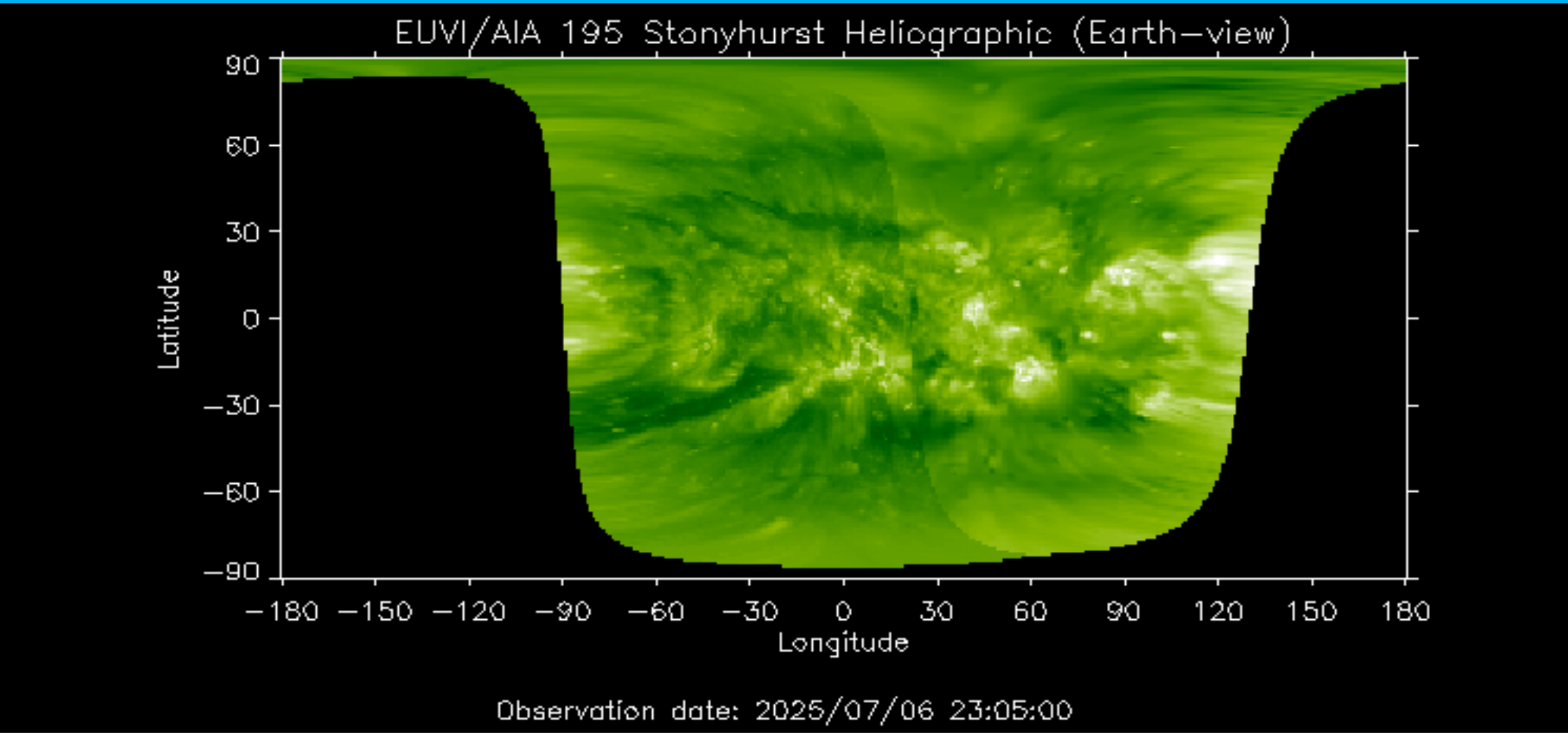
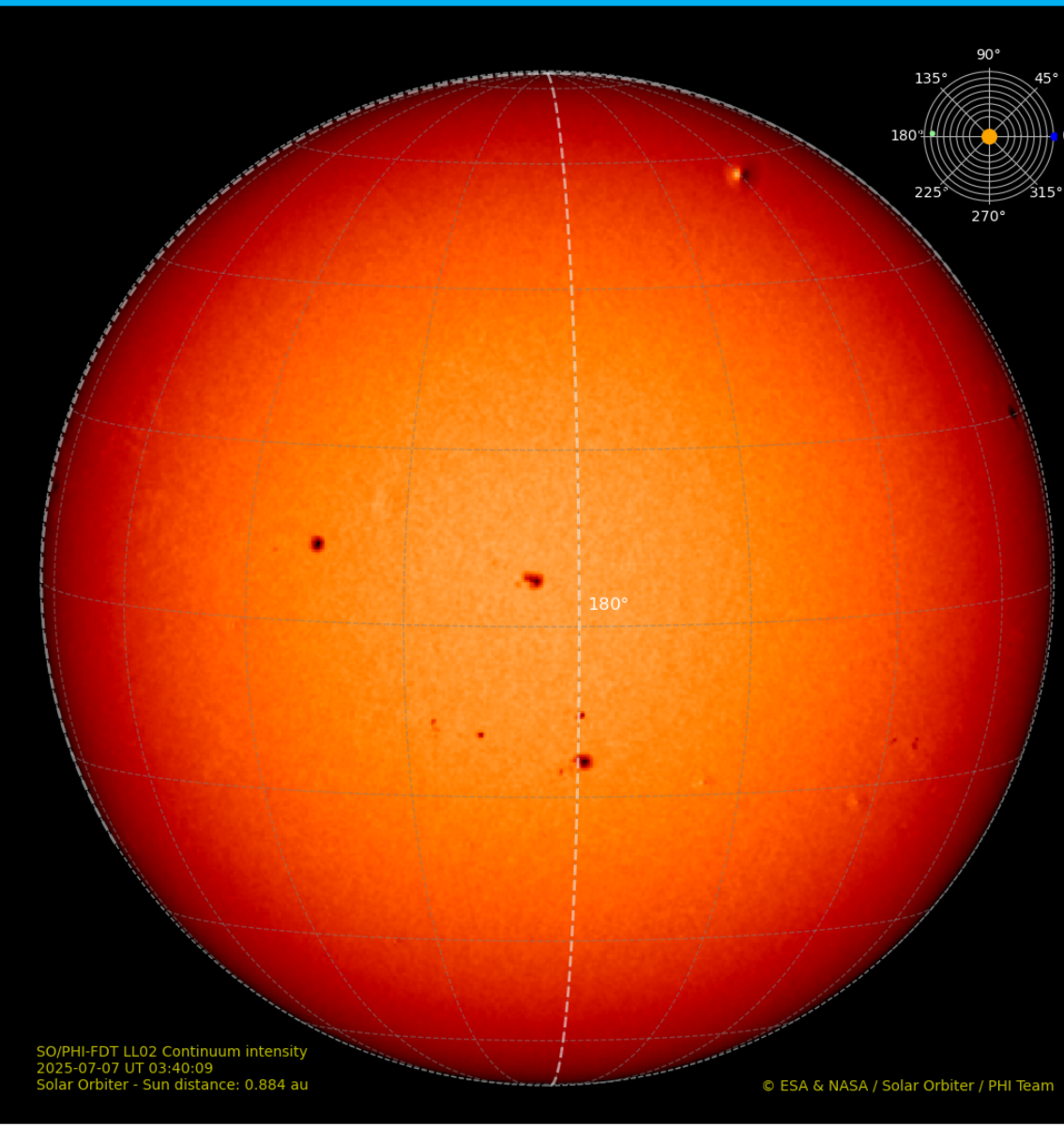
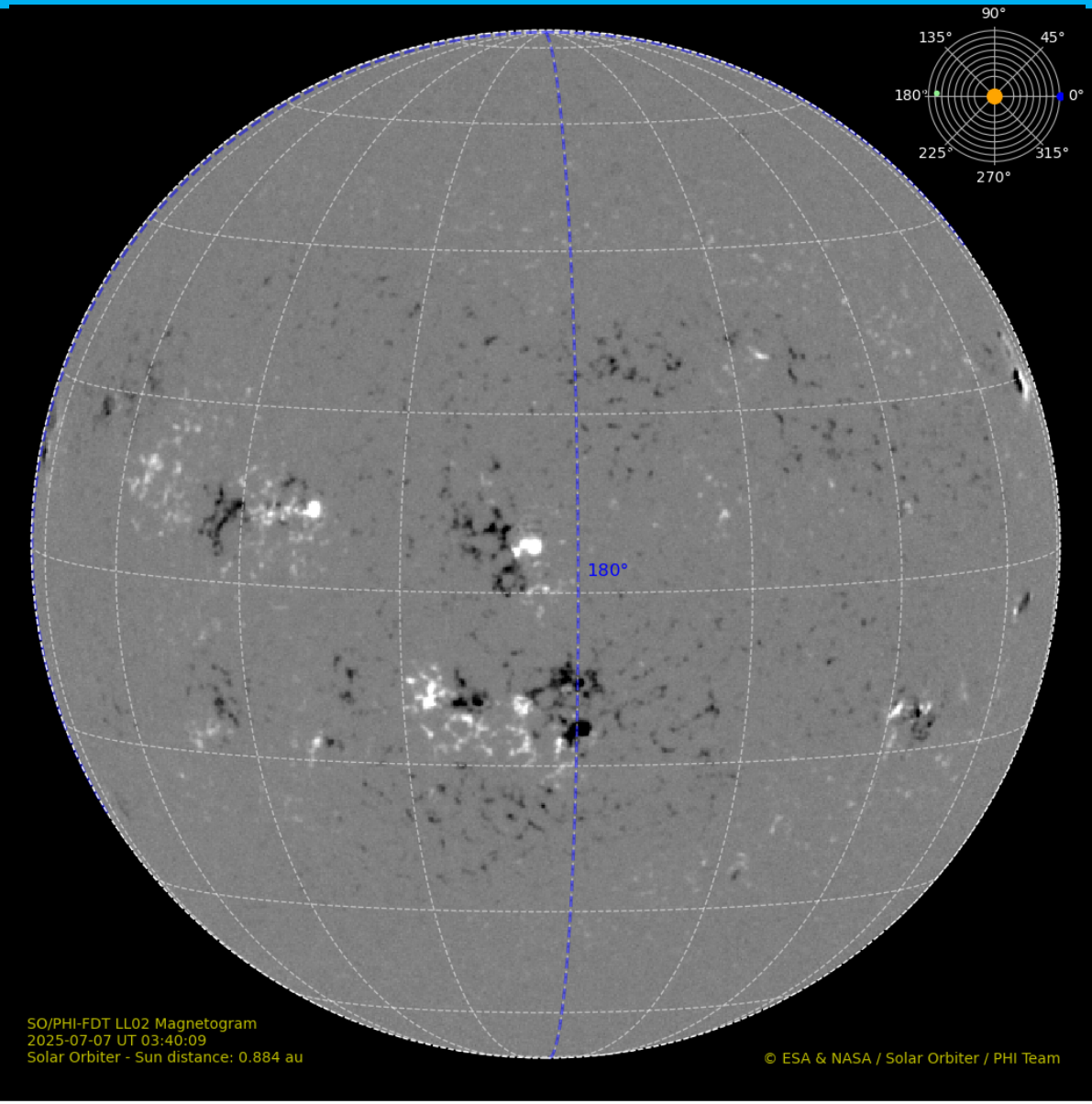
Outlook: Solar activity

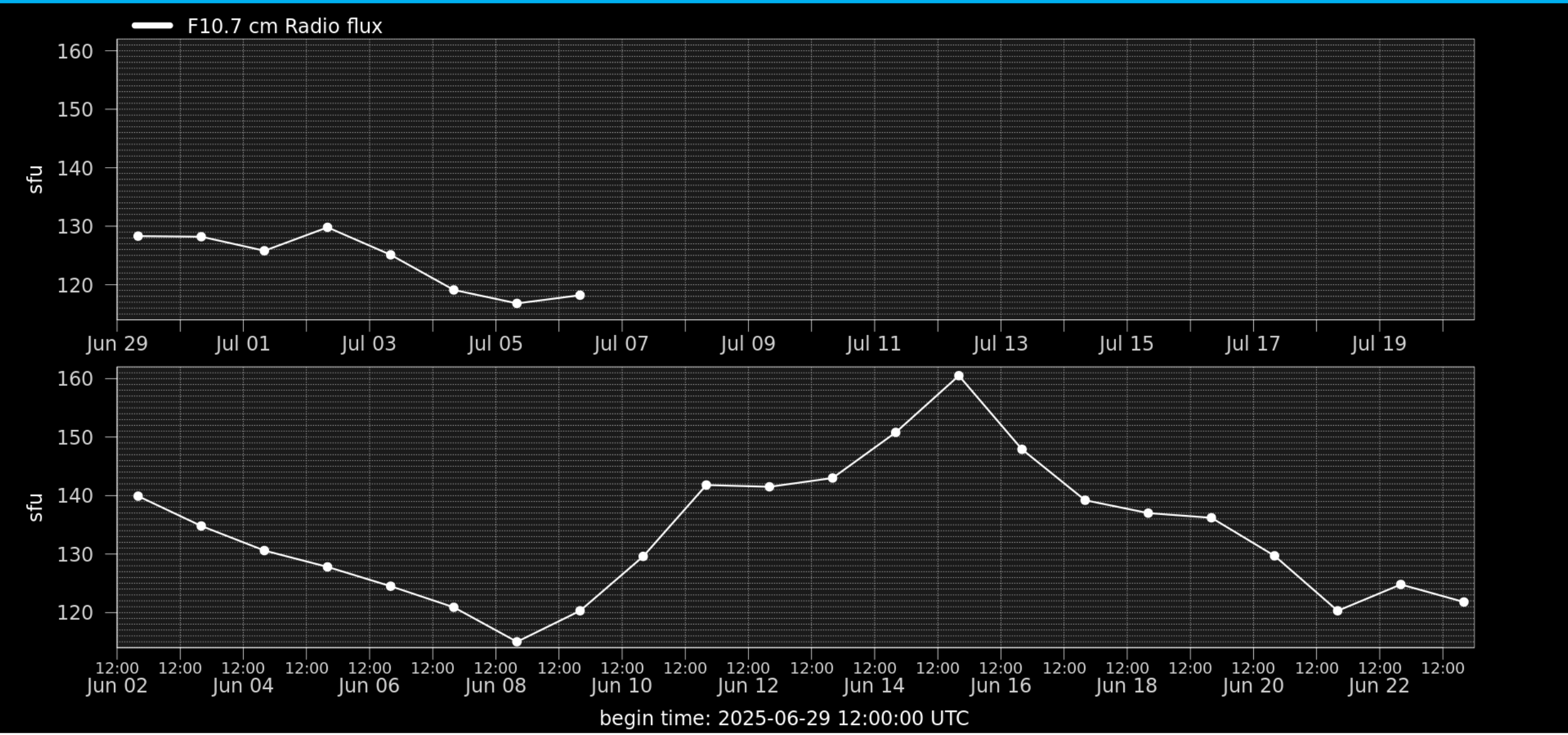


Outlook: Solar activity

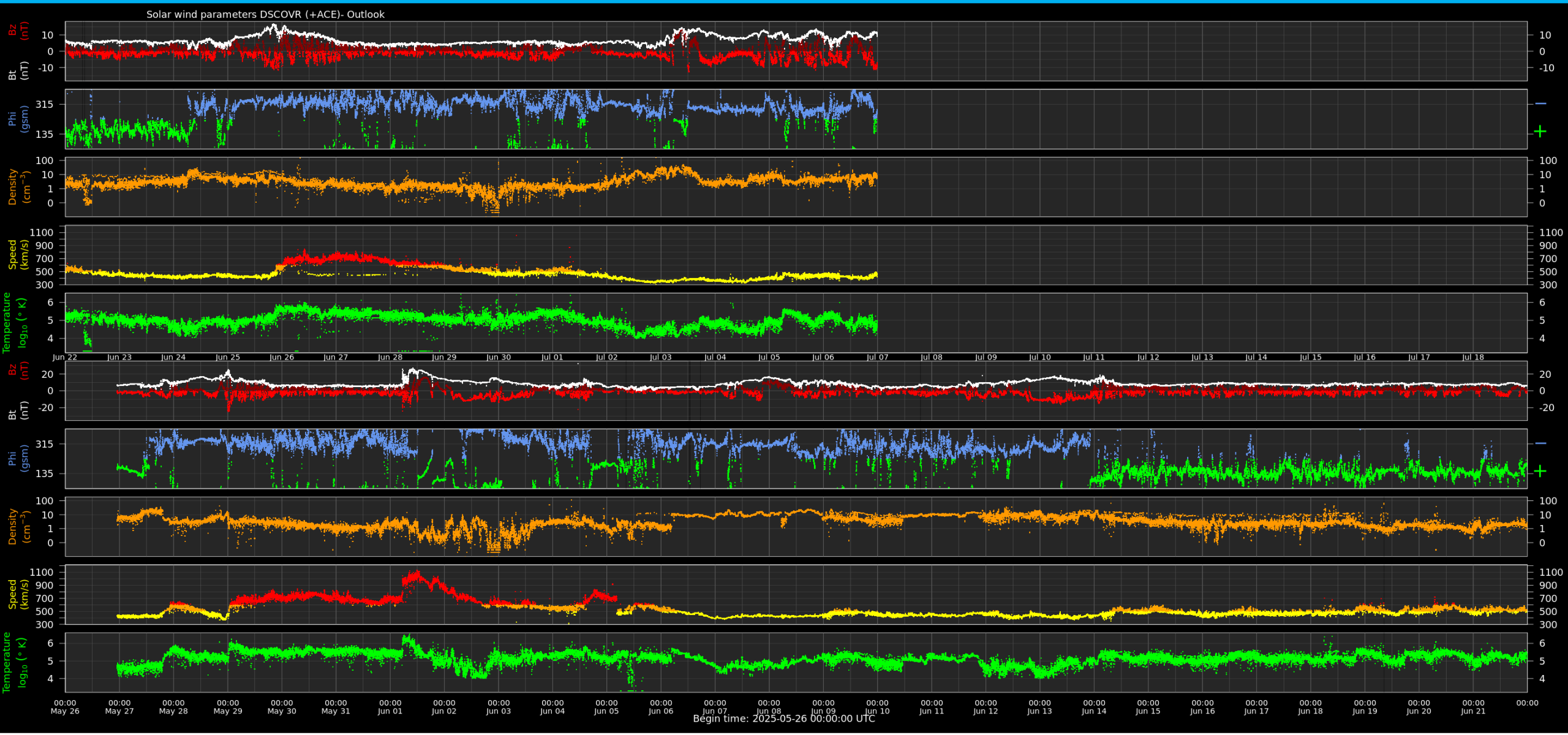




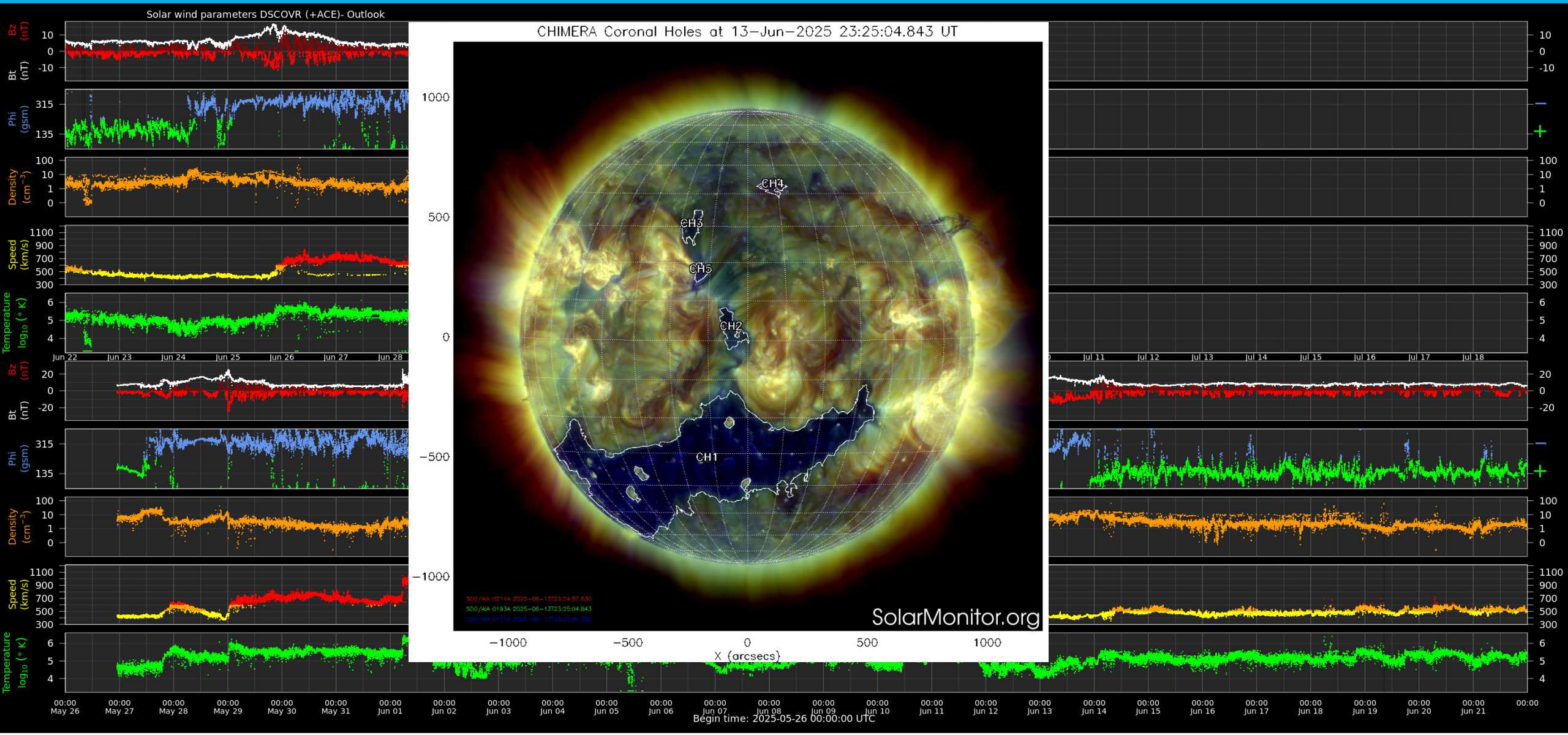
Outlook: Solar F10.7cm radio flux



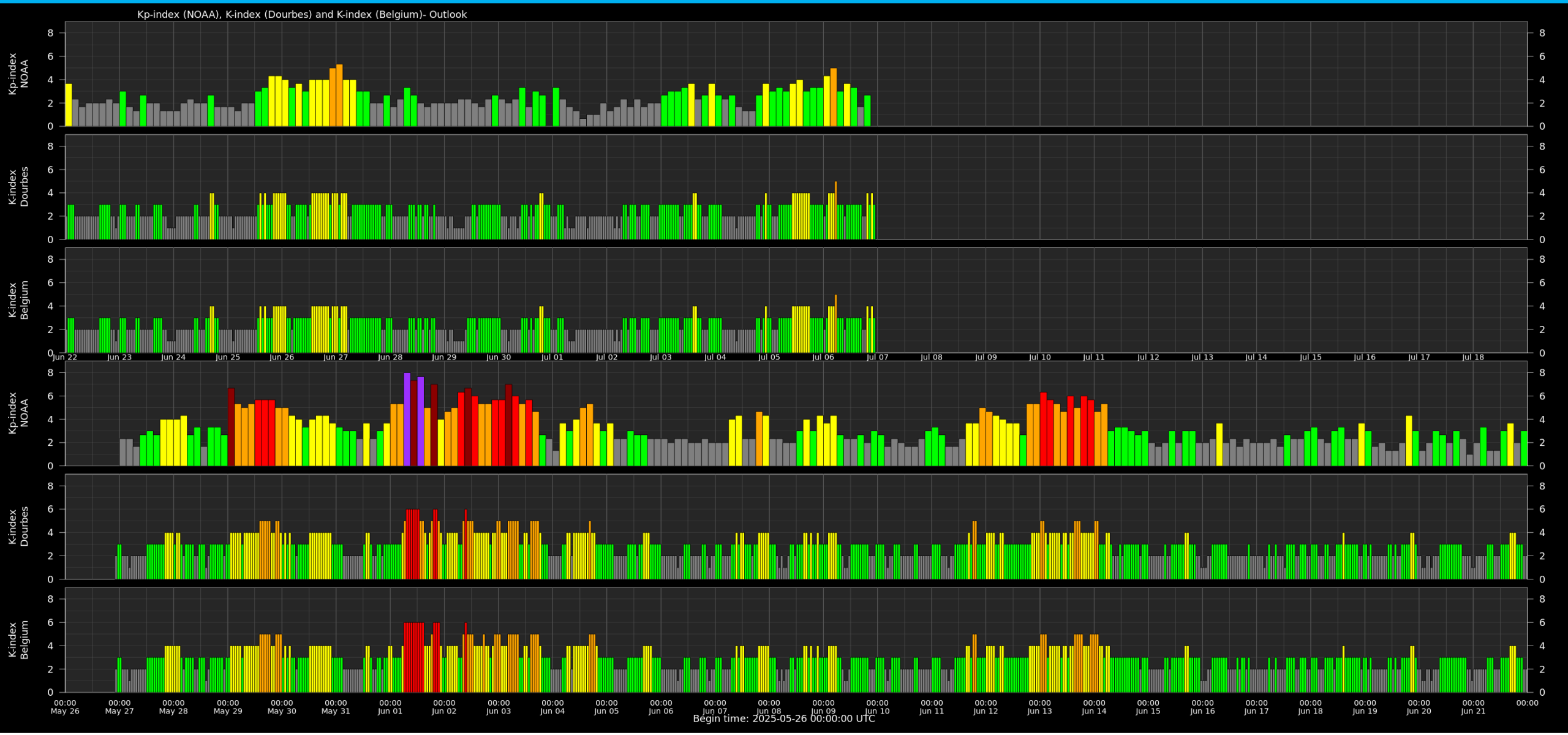
Outlook: Solar wind parameters



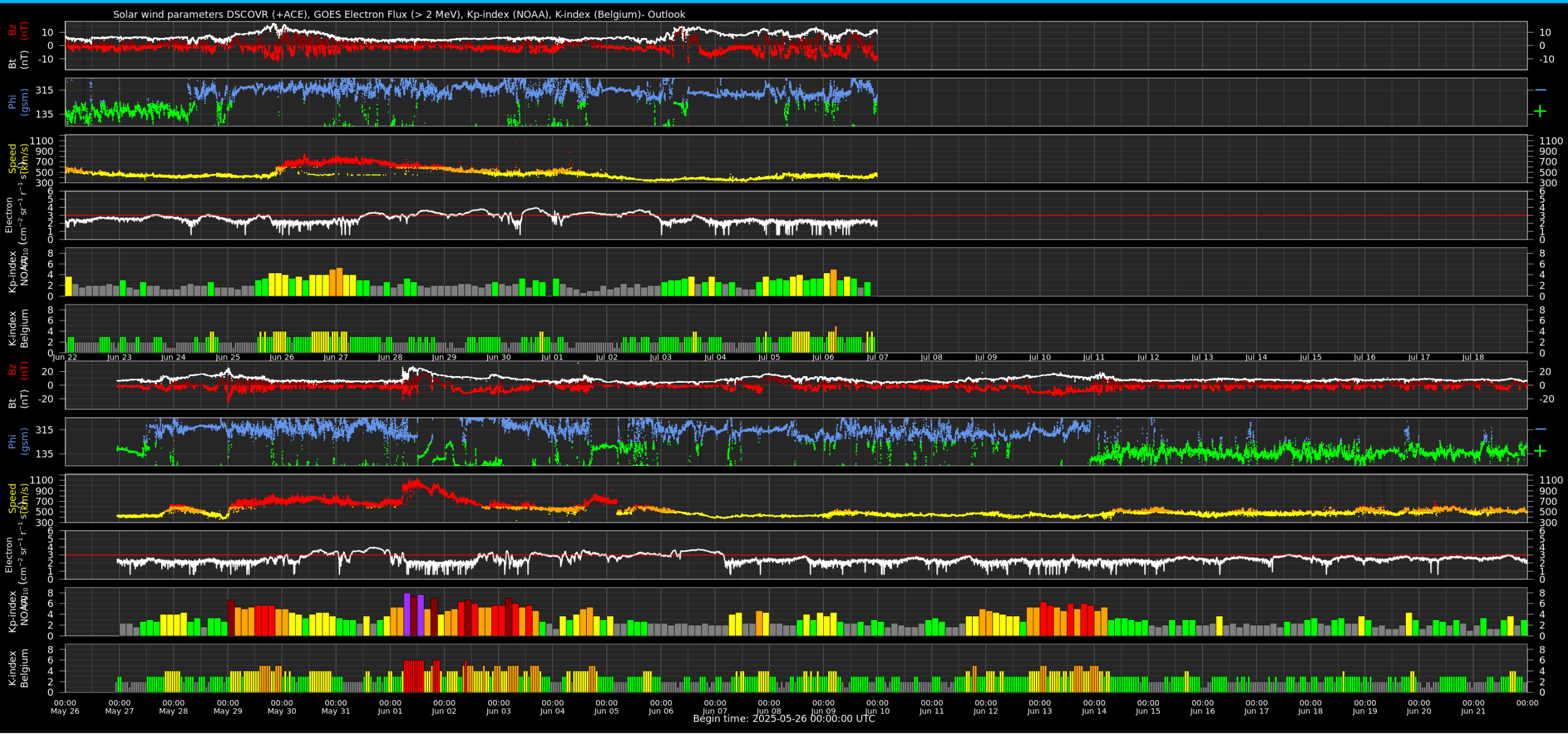
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



PECASUS

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SIDC Space Weather Briefing

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