SIDC Space Weather Briefing

27 July 2026-02 August 2026

Vansintjan Robbe

& the SIDC forecaster team

Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2026-07-27 00:00 to 2026-08-02 23:59

Active regions	16 Sunspot groups – SIDC SG **886** (NOAA AR 4494); 927 (NOAA AR 4498); **860** (NOAA AR 4492) 929 (NOAA AR 4499)
Flares	# C-class flare: 17 # M-class flare: 2 # X-class flare: 0
Coronal Holes	1 CH+ & 1 CH-
CMEs	1 Halo CME

Proton flux	1 SEP event
Electron flux	The electron flux reached moderate levels

Solar wind and geomagnetic conditions

ICMEs	2 ICME arrivals
Solar wind conditions	|B|: 0.97 - 21.5 nT// Bz: -17.41 nT to 13.25 nT// Speed: 240- 441.41 km/s
Geomagnetic conditions	max KBel: 5.0, max Kp(NOAA): 5.67, Moderate Storm conditions

All Quiet Alert: OFF

Solar Activity

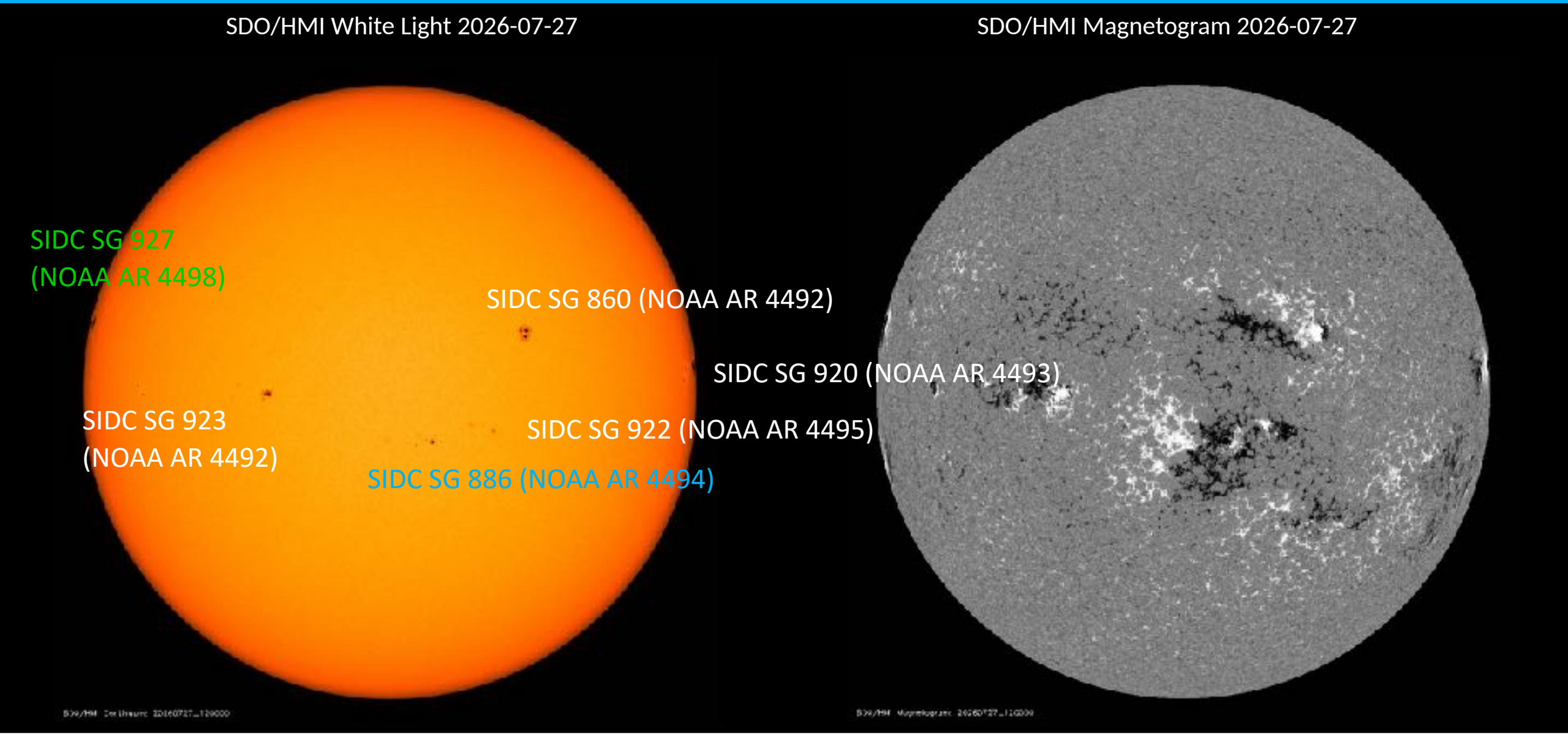
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Solar active regions

SDO/HMI White Light 2026-07-27

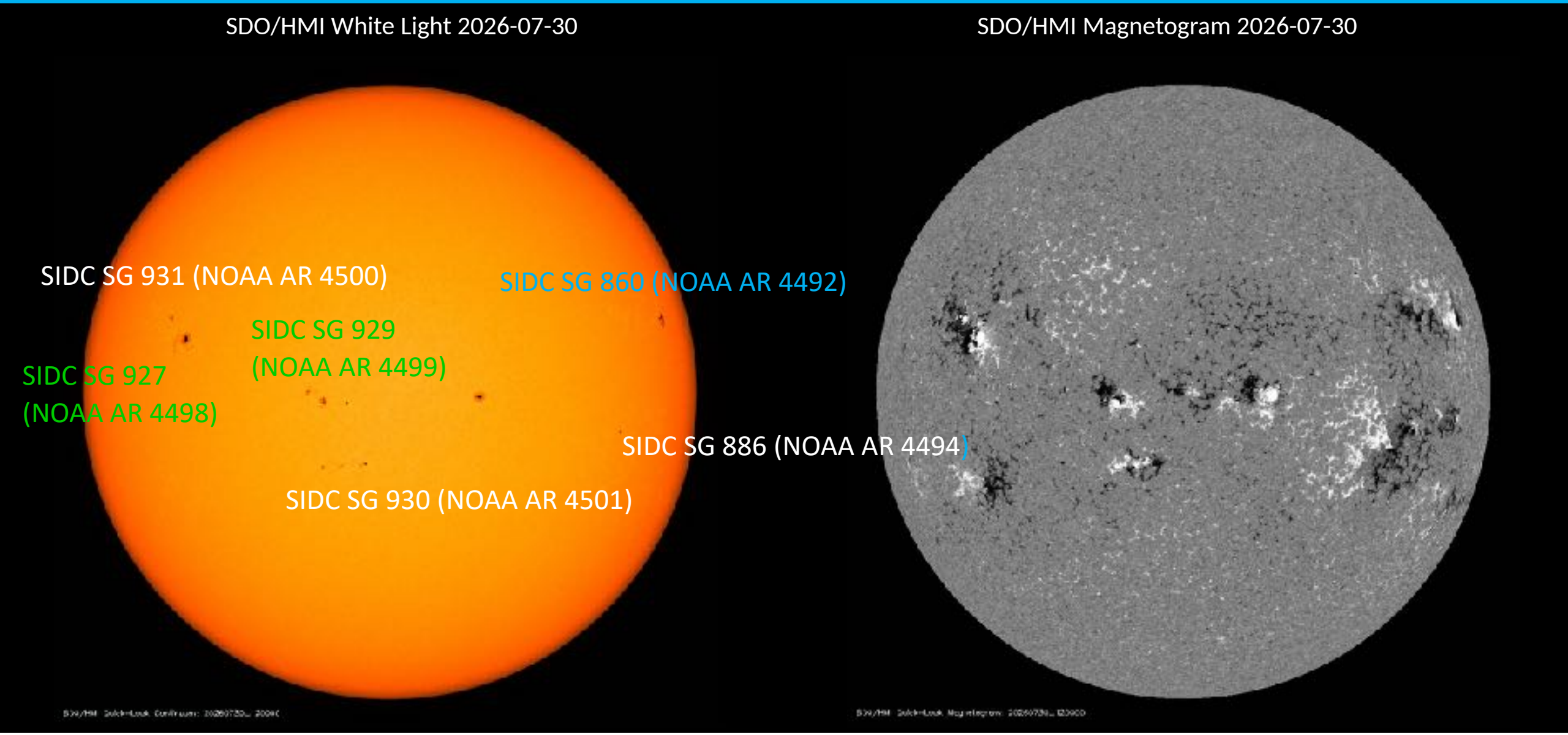
SDO/HMI Magnetogram 2026-07-27



Solar active regions

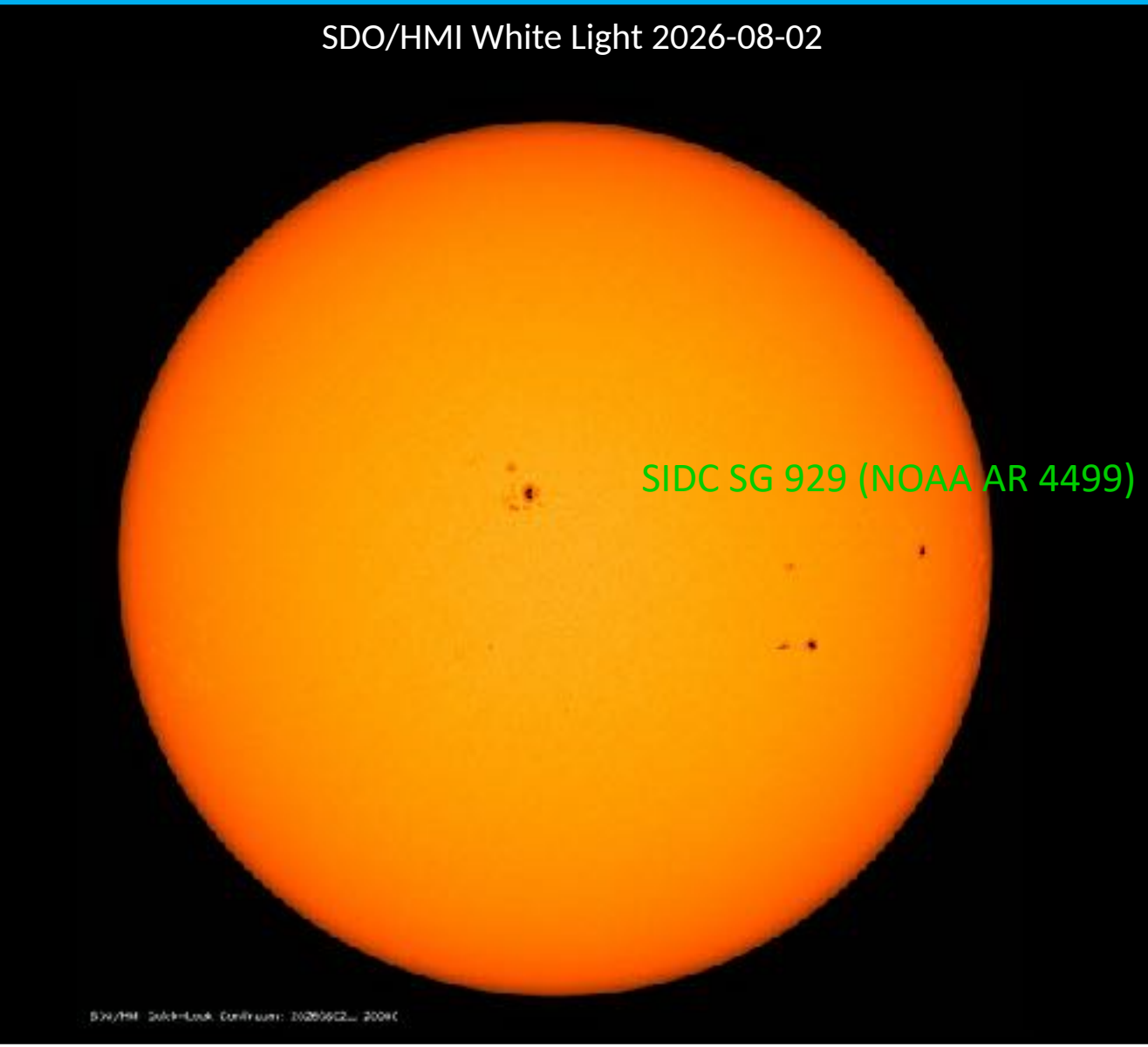
SDO/HMI White Light 2026-07-30

SDO/HMI Magnetogram 2026-07-30



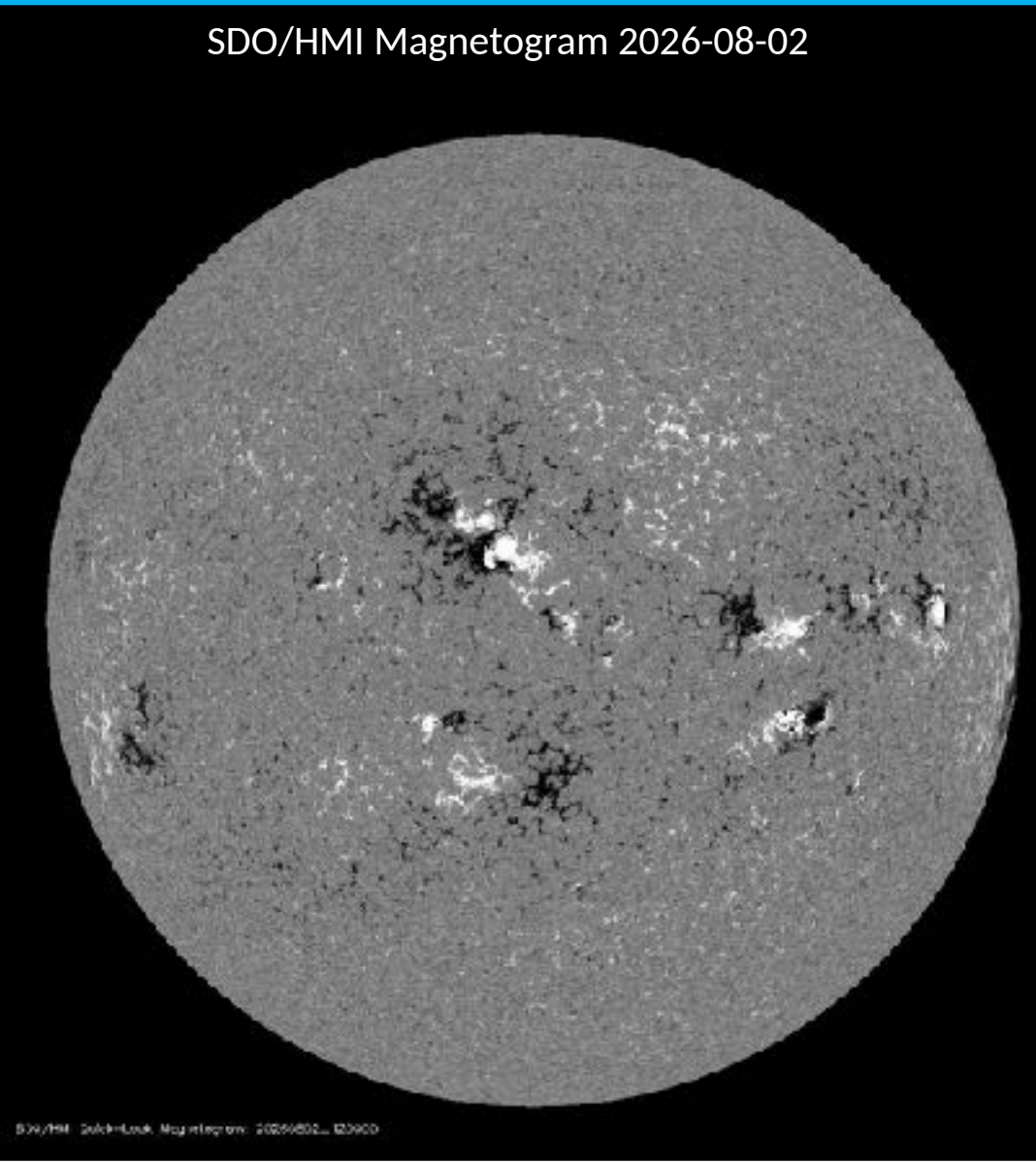
Solar active regions

SDO/HMI White Light 2026-08-02



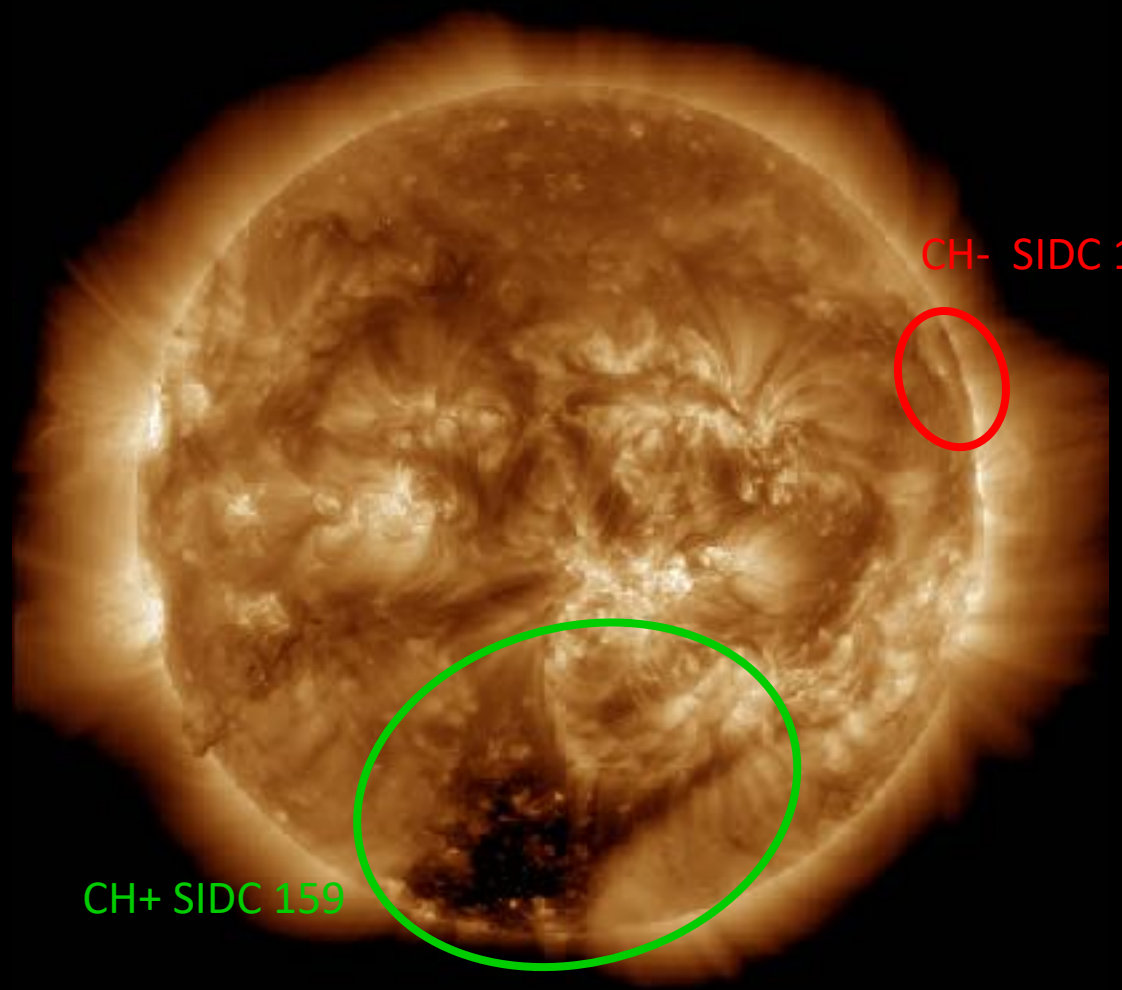
SIDC SG 929 (NOAA AR 4499)

SDO/HMI Magnetogram 2026-08-02

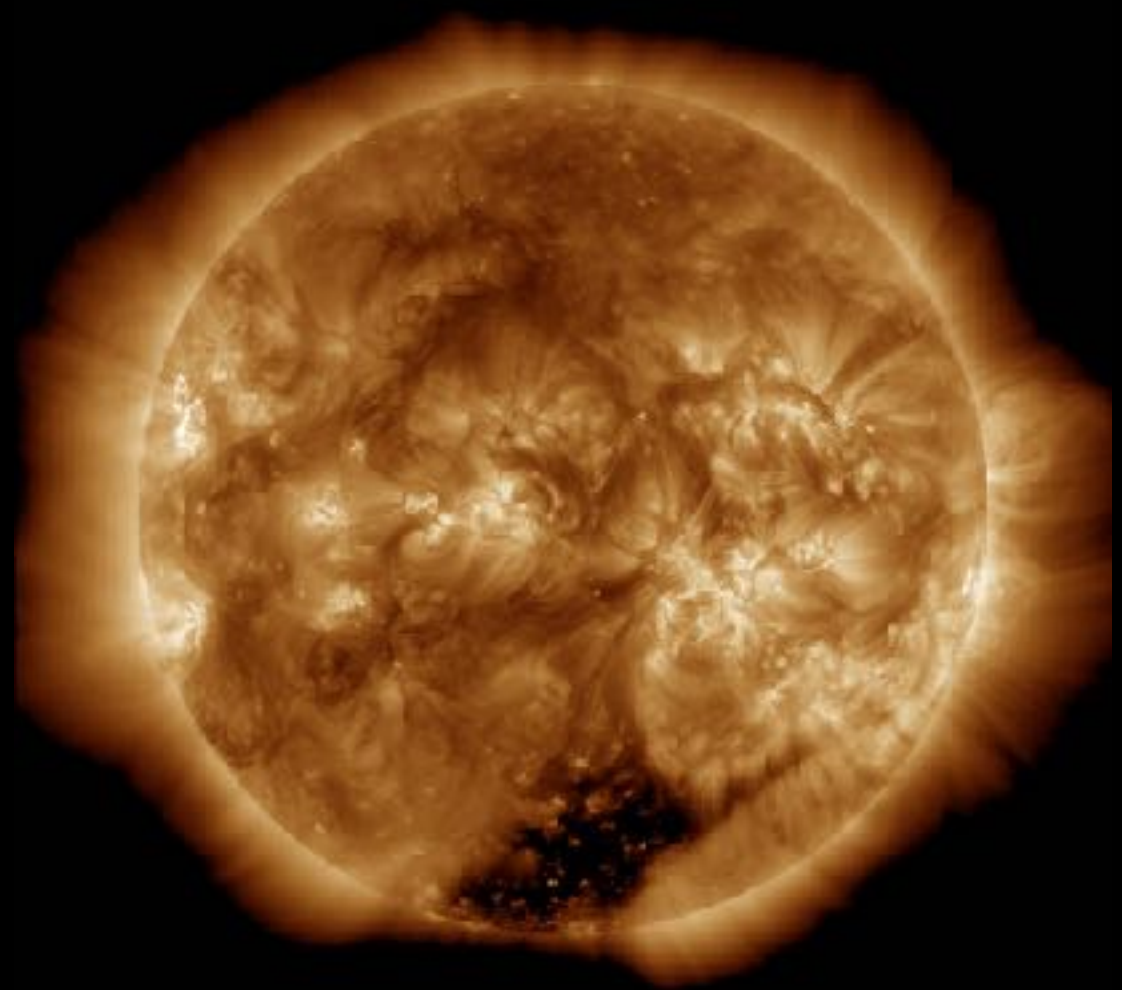


Coronal holes

SDO/AIA 19.3 nm 2026-07-27

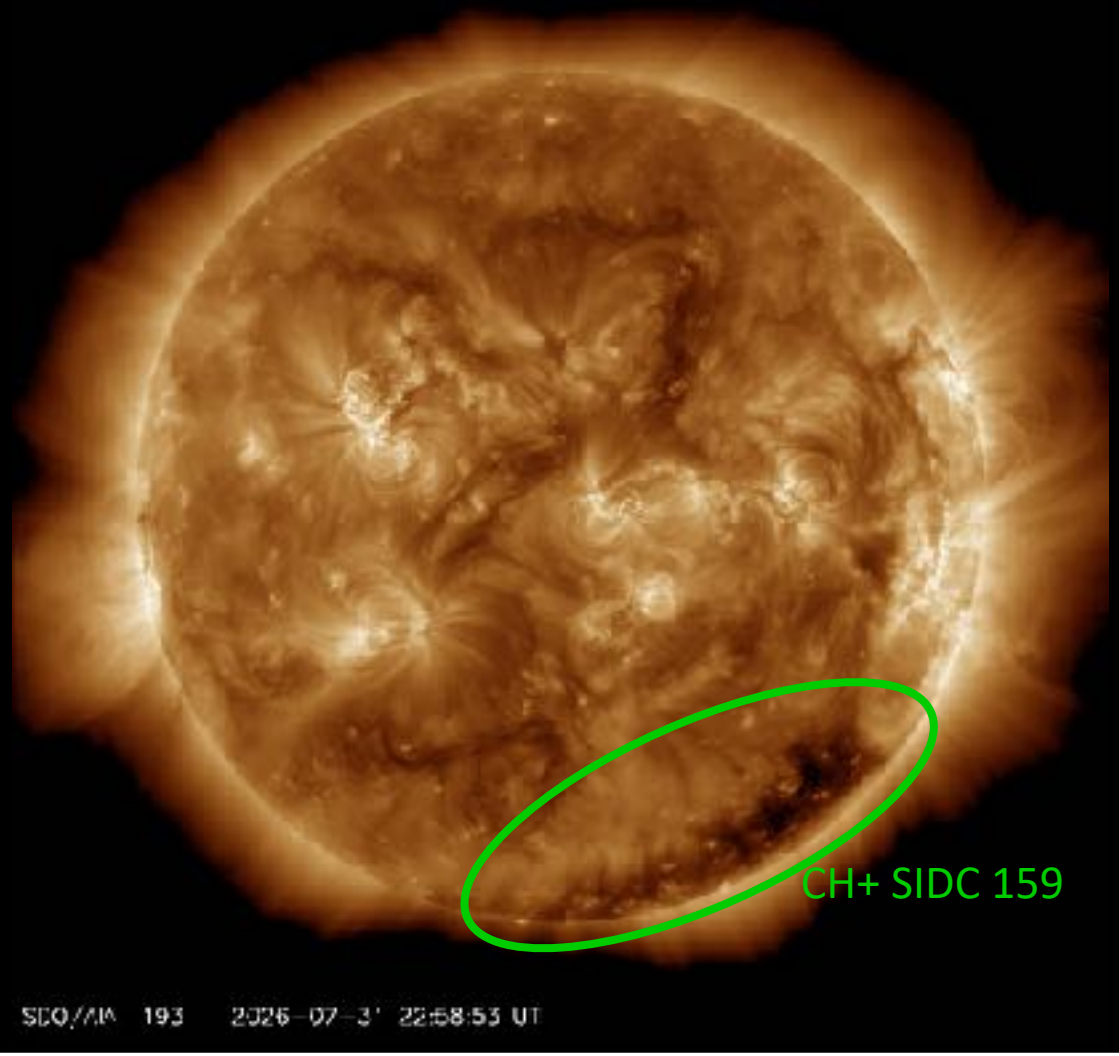


SDO/AIA 19.3 nm 2026-07-28

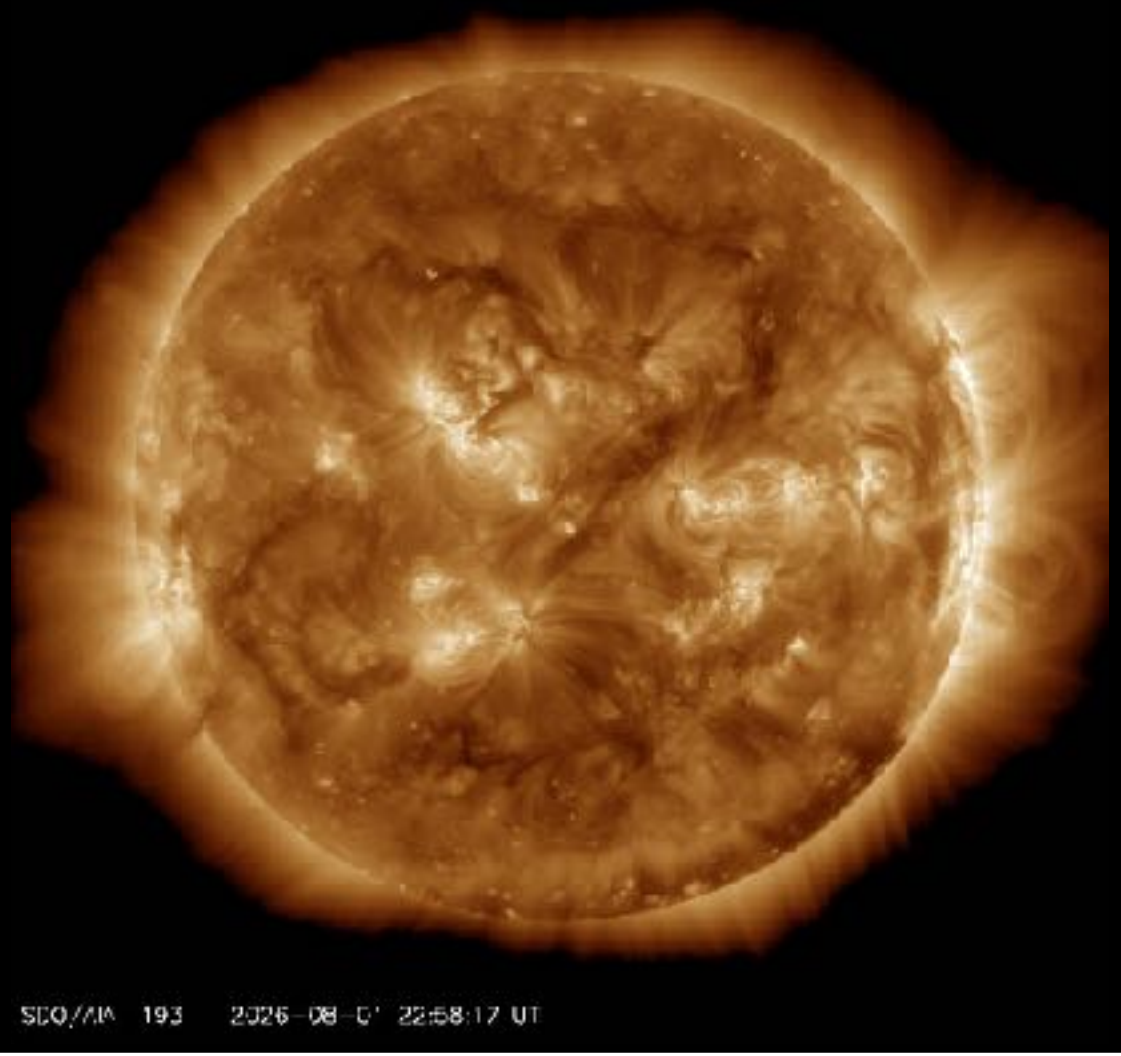


Coronal holes

SDO/AIA 19.3 nm 2026-07-31



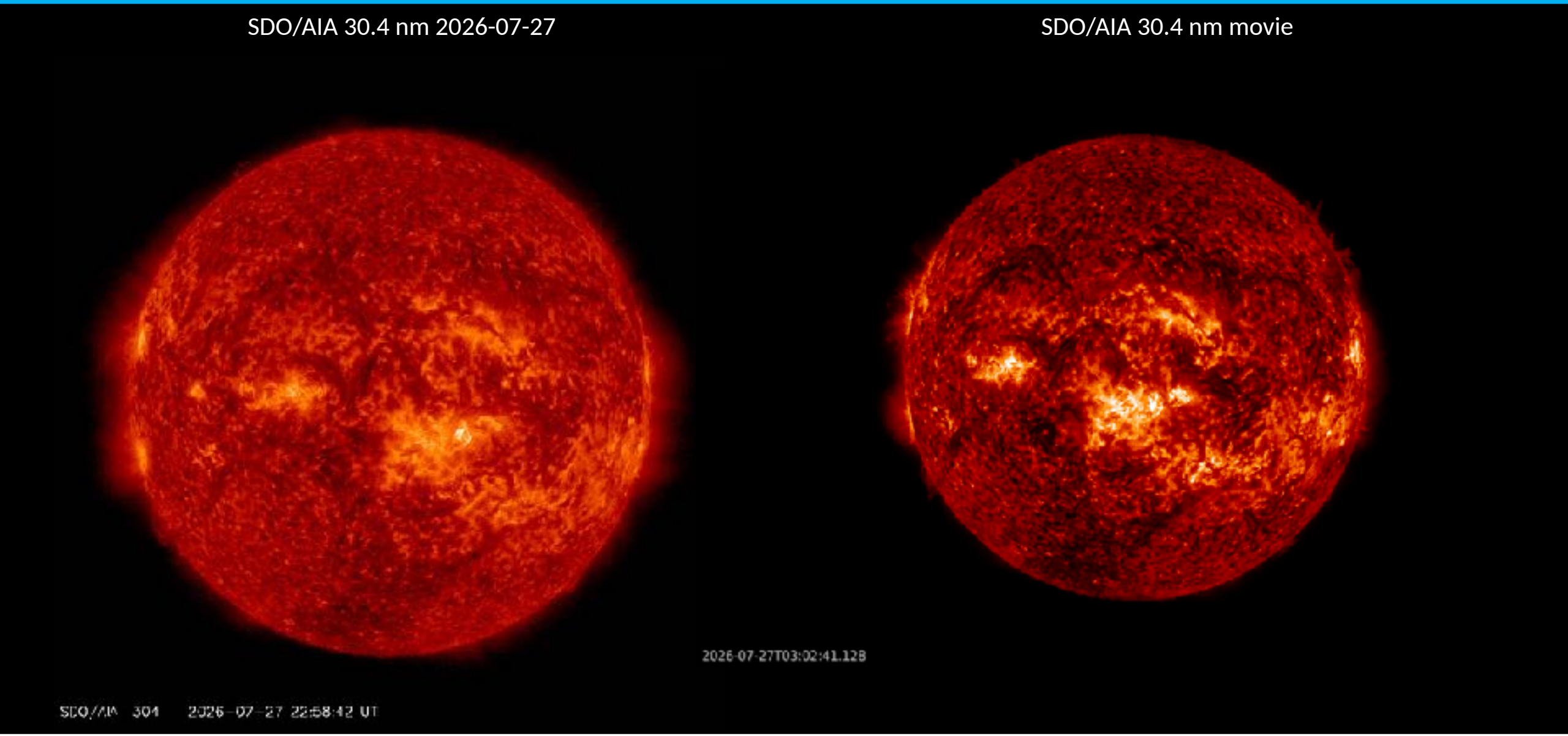
SDO/AIA 19.3 nm 2026-08-01



Filaments

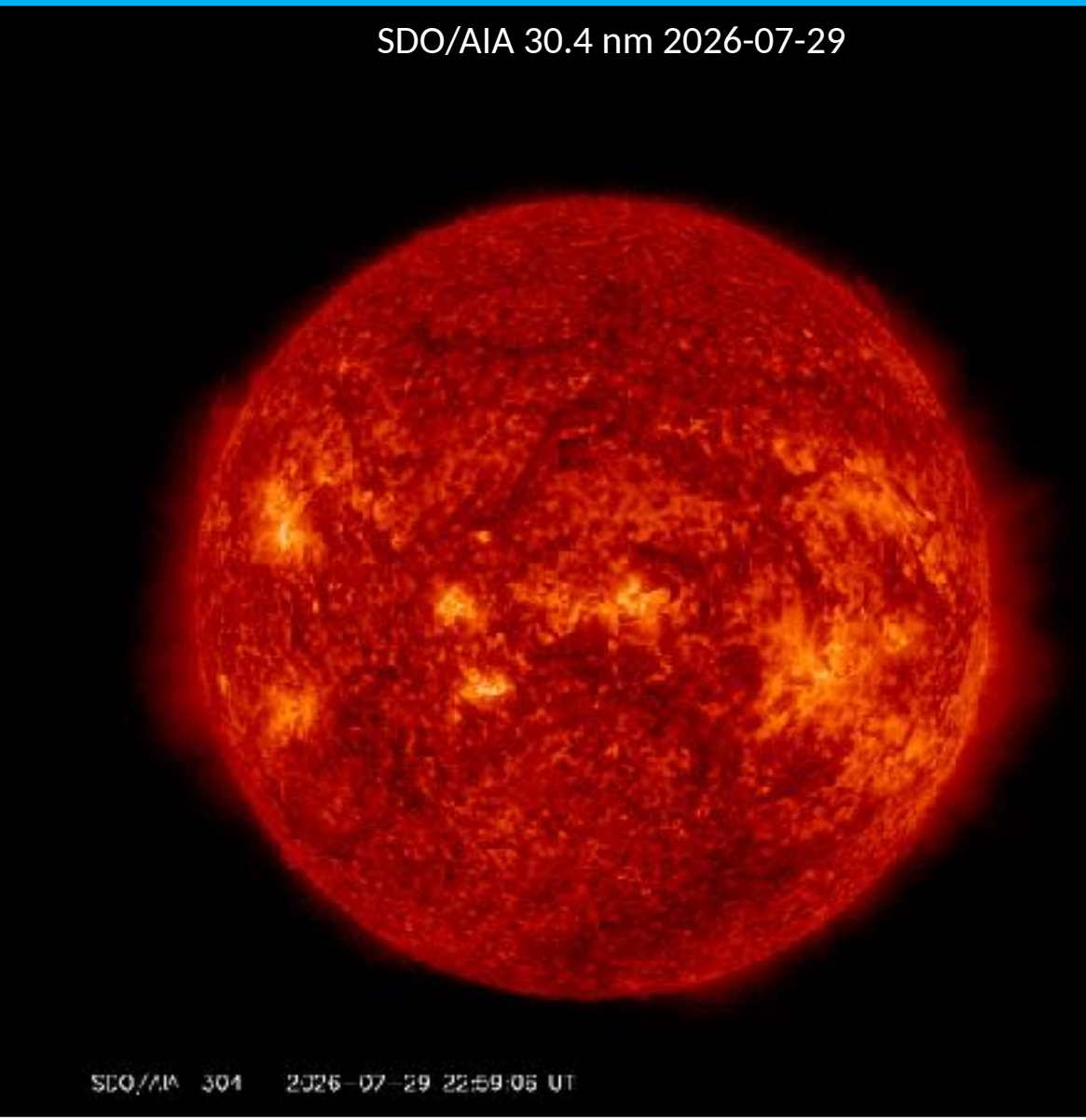
SDO/AIA 30.4 nm 2026-07-27

SDO/AIA 30.4 nm movie

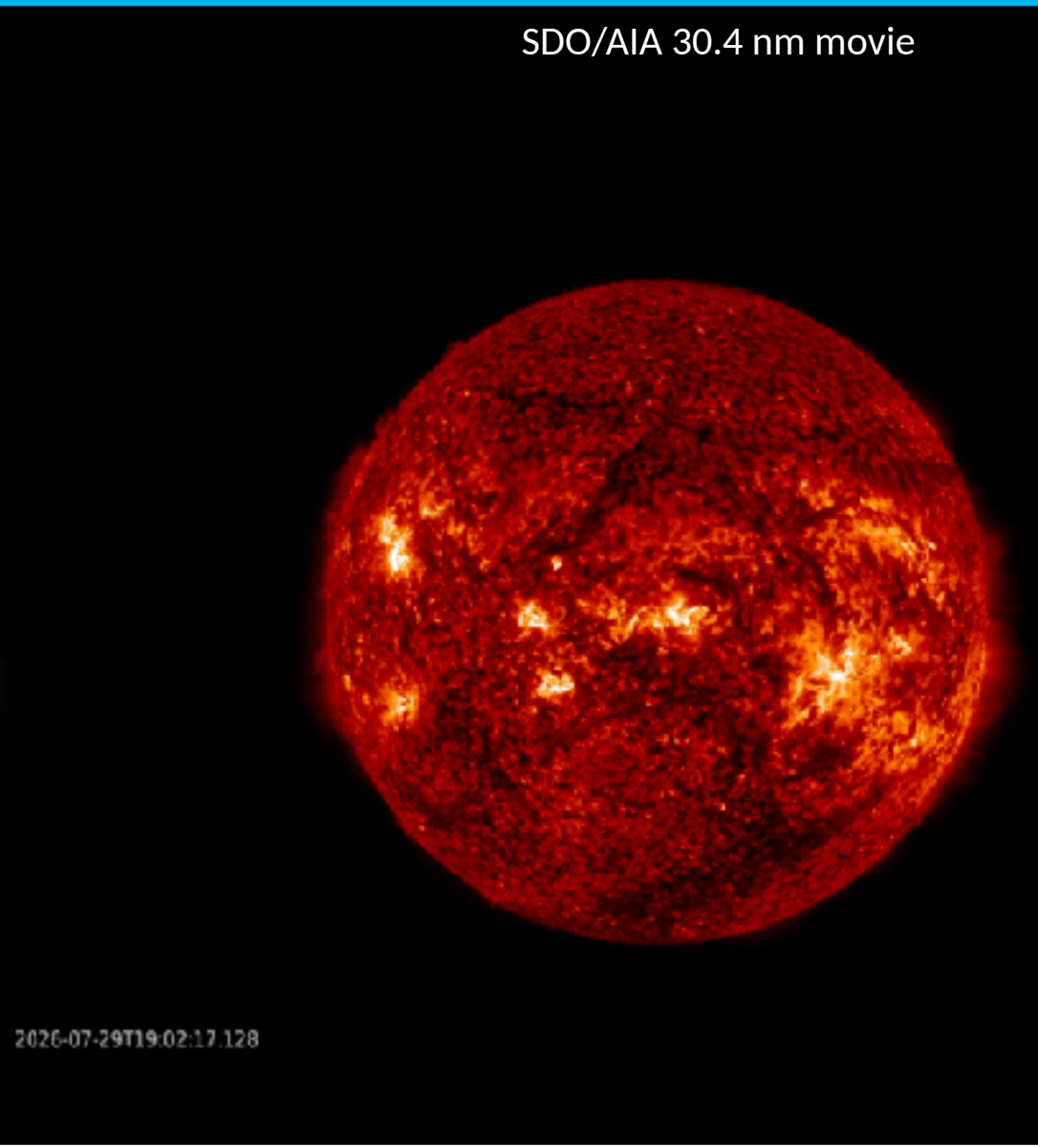


Filaments

SDO/AIA 30.4 nm 2026-07-29

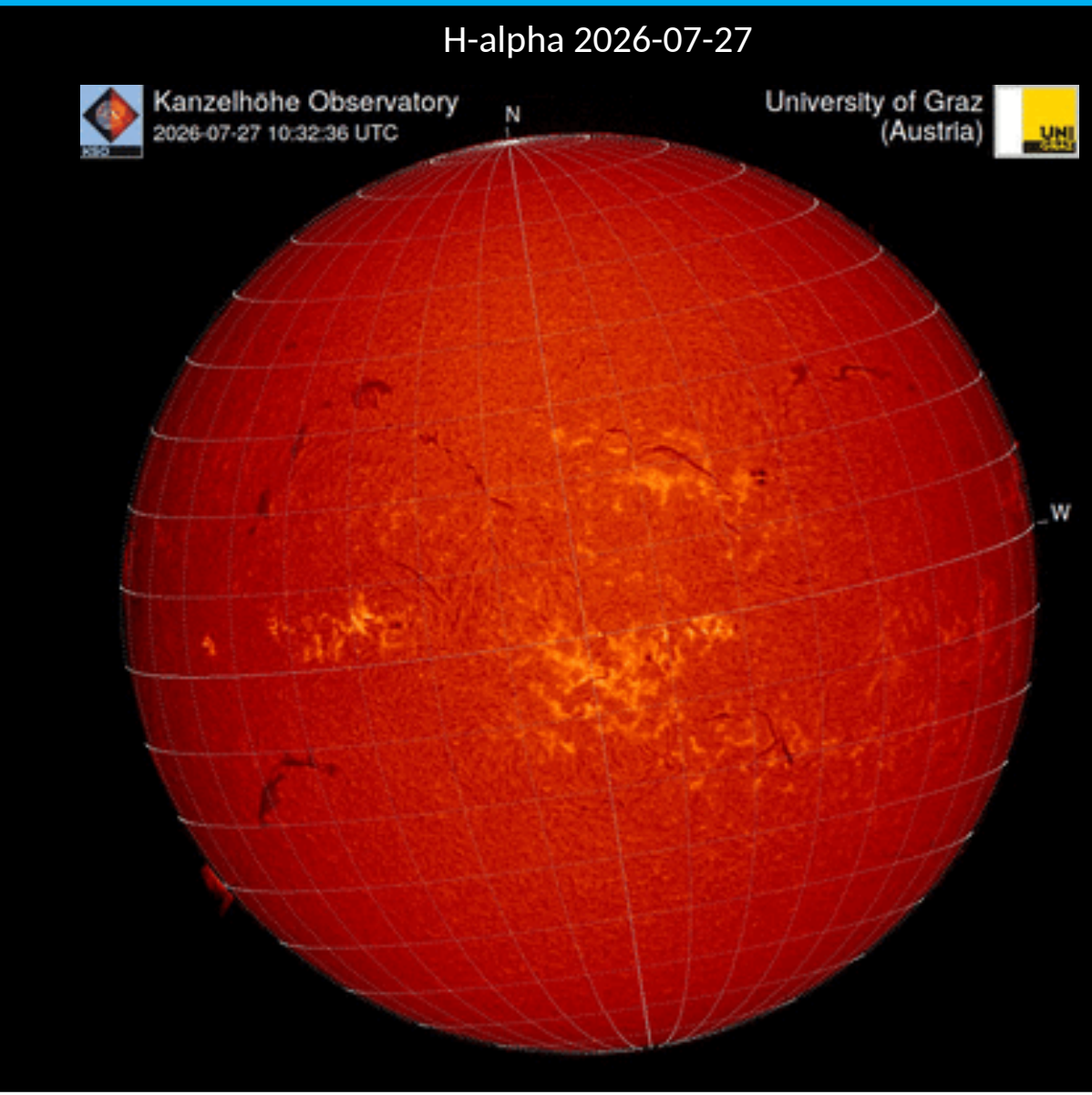


SDO/AIA 30.4 nm movie

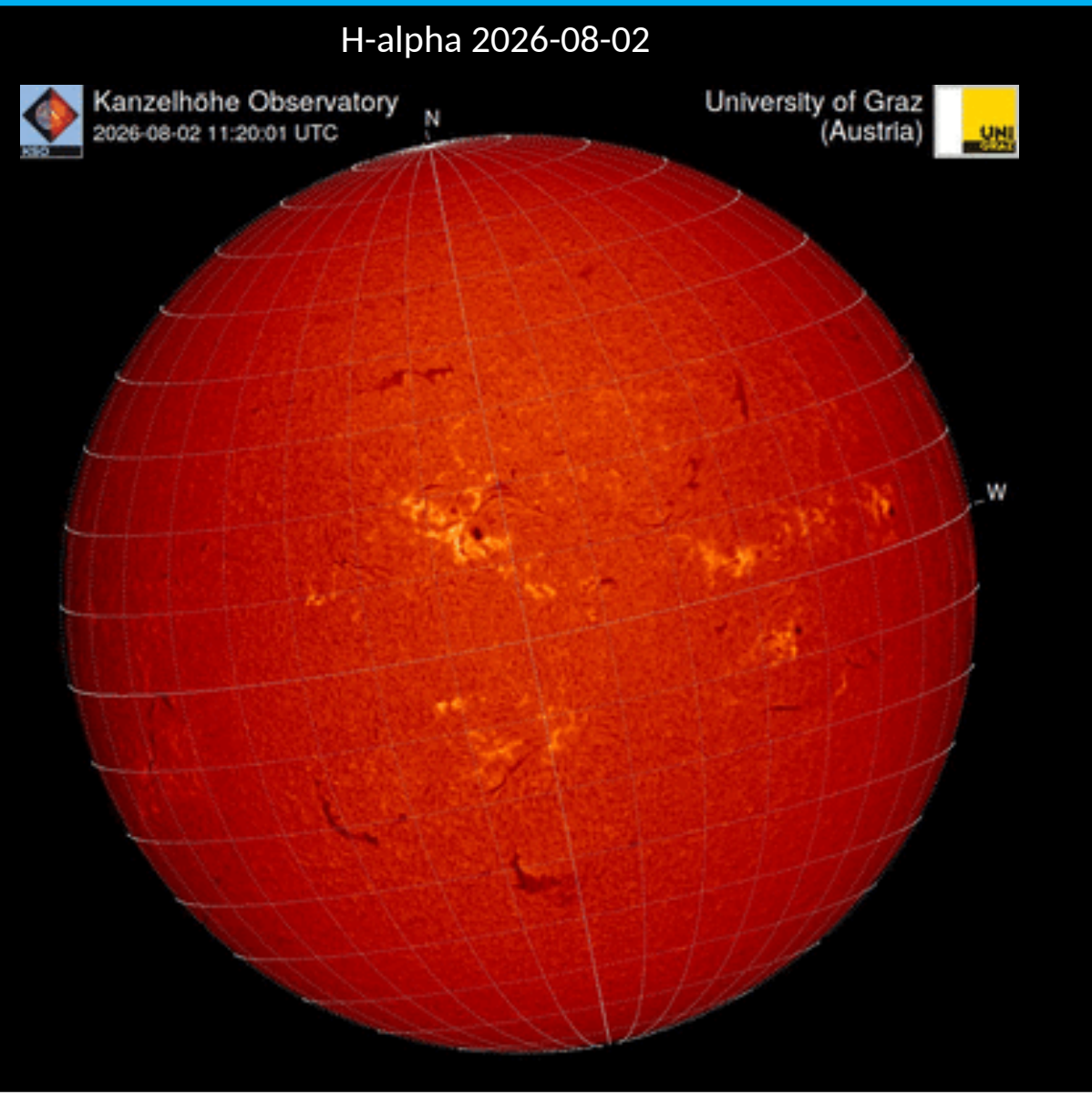


Filaments & Filament eruptions

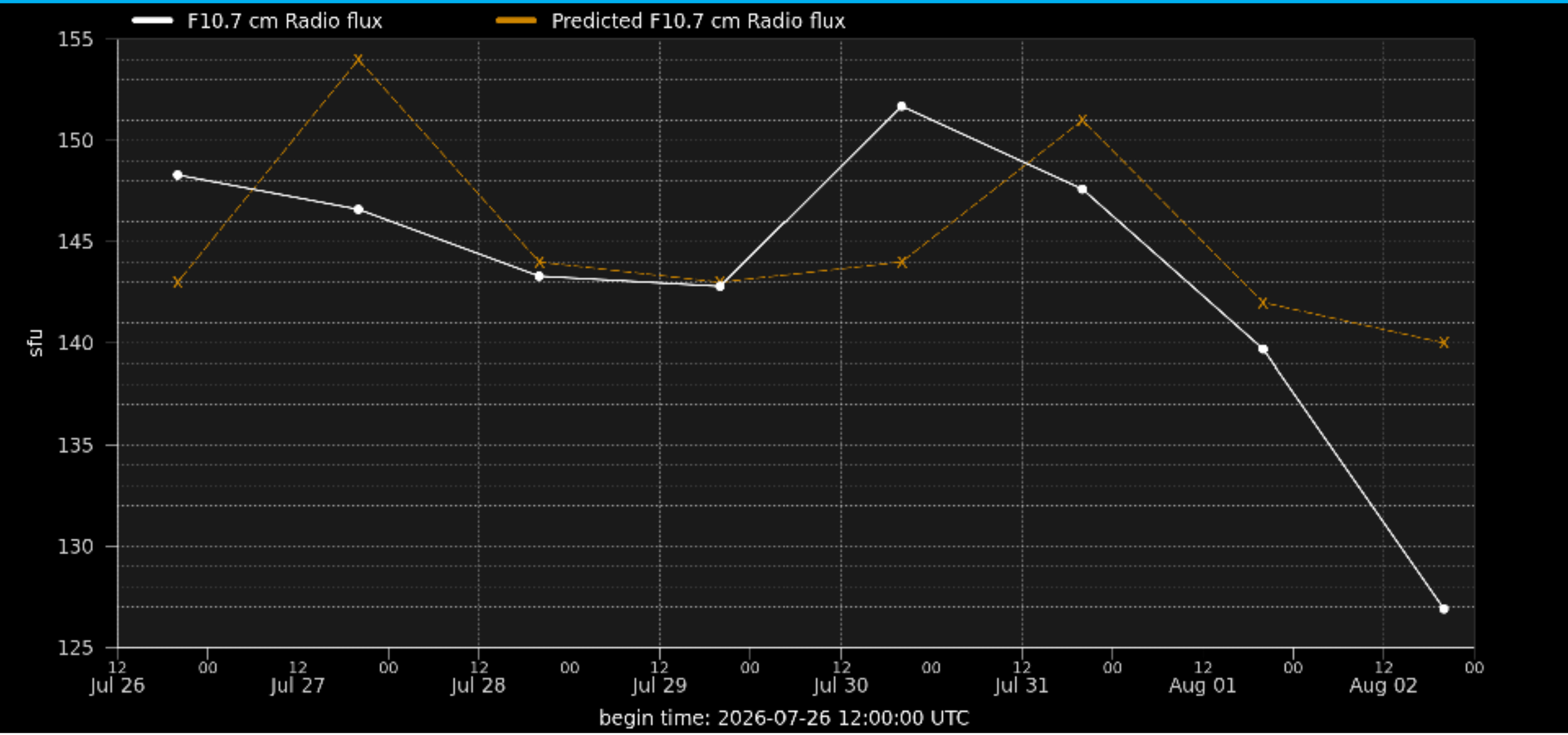
H-alpha 2026-07-27



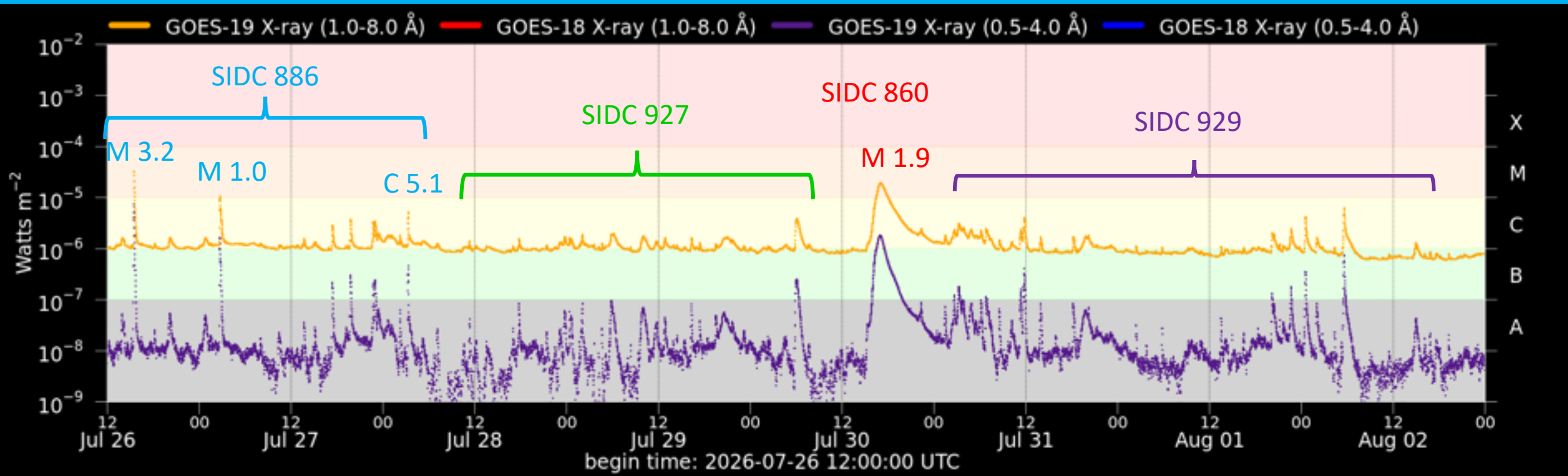
H-alpha 2026-08-02



Solar F10.7cm radio flux



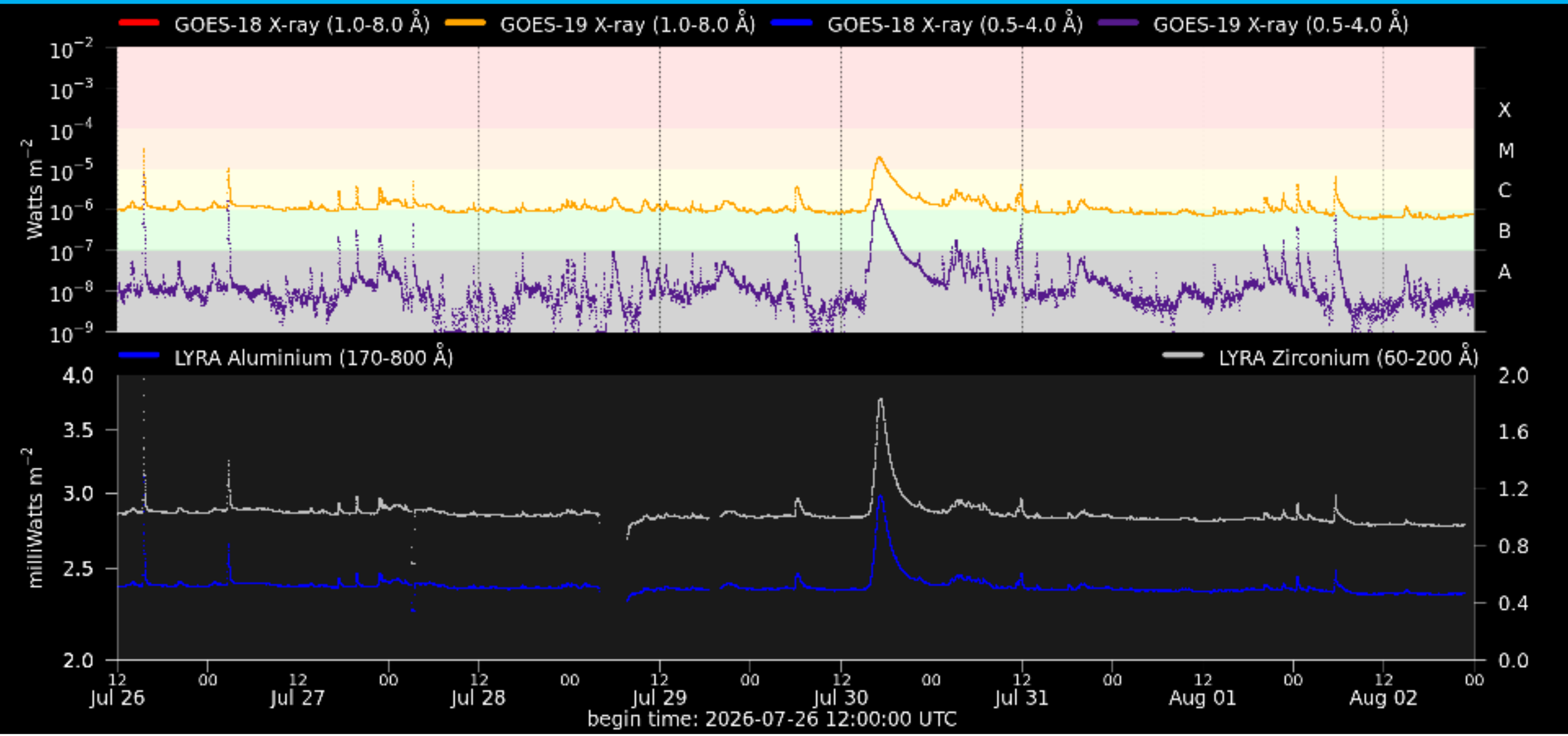
Flaring activity



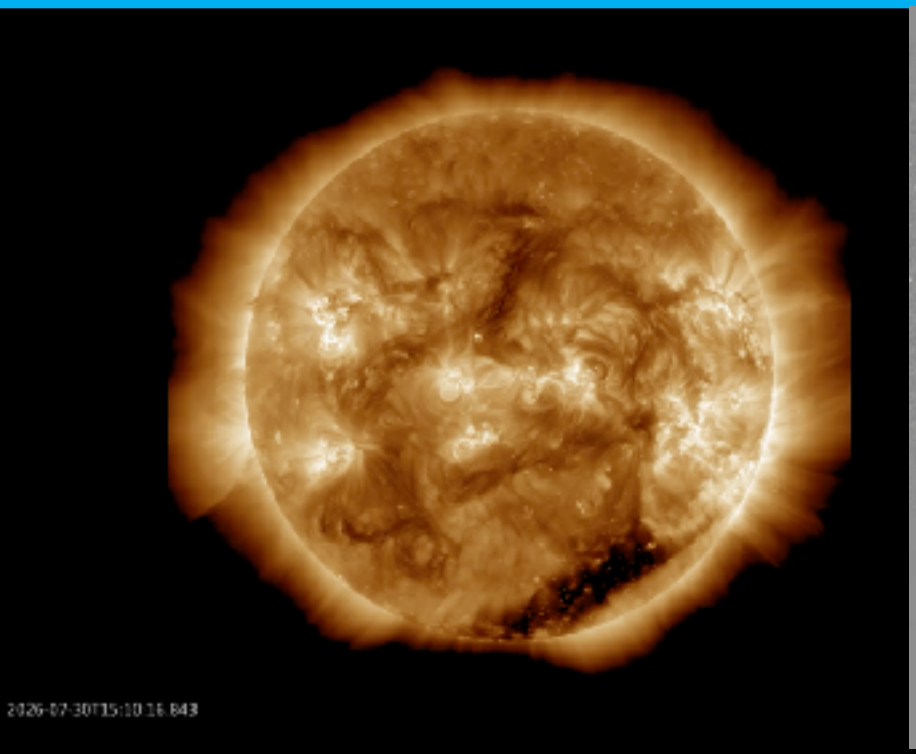
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

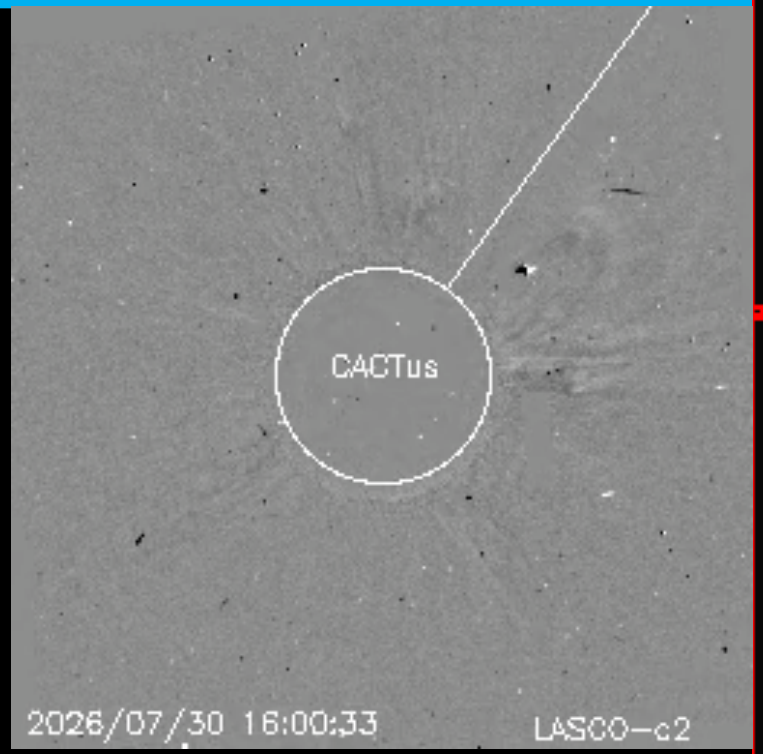
Issue date	2026-07-26	2026-07-27	2026-07-28	2026-07-29	2026-07-30	2026-07-31	2026-08-01	2026-08-02
Probability (%)	98|48|01	88|30|01	89|32|01	97|62|04	99|72|04	99|64|02	99|62|02	98|45|02
Observed (#)	00|02|00	04|00|00	01|00|00	01|00|00	03|00|00	02|00|00	06|00|00	00|00|00

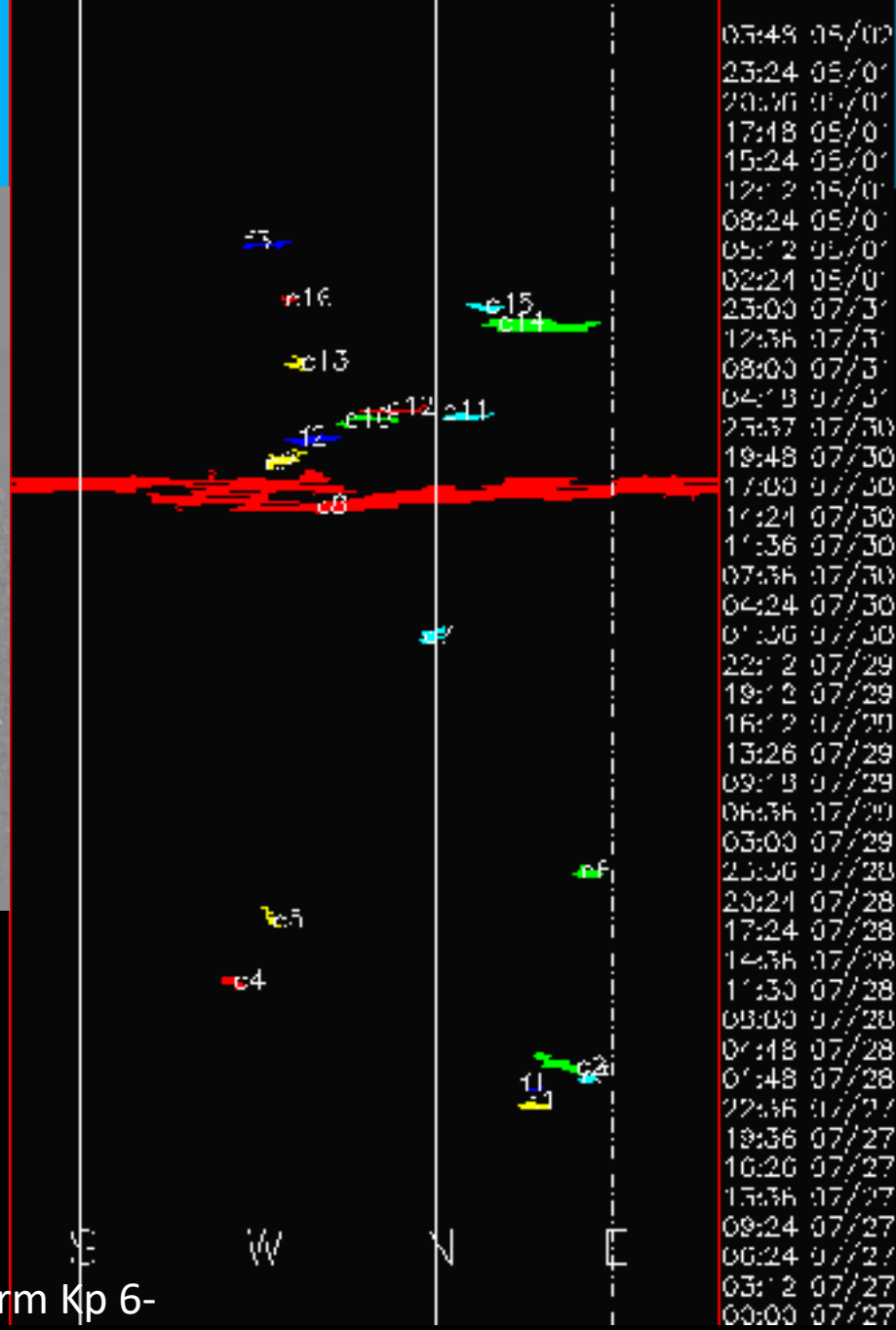
Solar X-Ray and UV flux



Coronal Mass Ejections







A Halo Coronal Mass Ejection (CME) (SIDC CME 701)
Seen in coronagraph data around 16:36 UTC on July 30,
It's associated with a M1.9 flare (SIDC 8298) peaking at 17:00 UTC on July 30.
Estimated speed of around 1522 km/s
Associated with a type II and type IV radio burst and a SEP event
It arrived at Earth 11:29 UTC on August 02 and caused a moderate geomagnetic storm Kp 6-

Solar Wind and

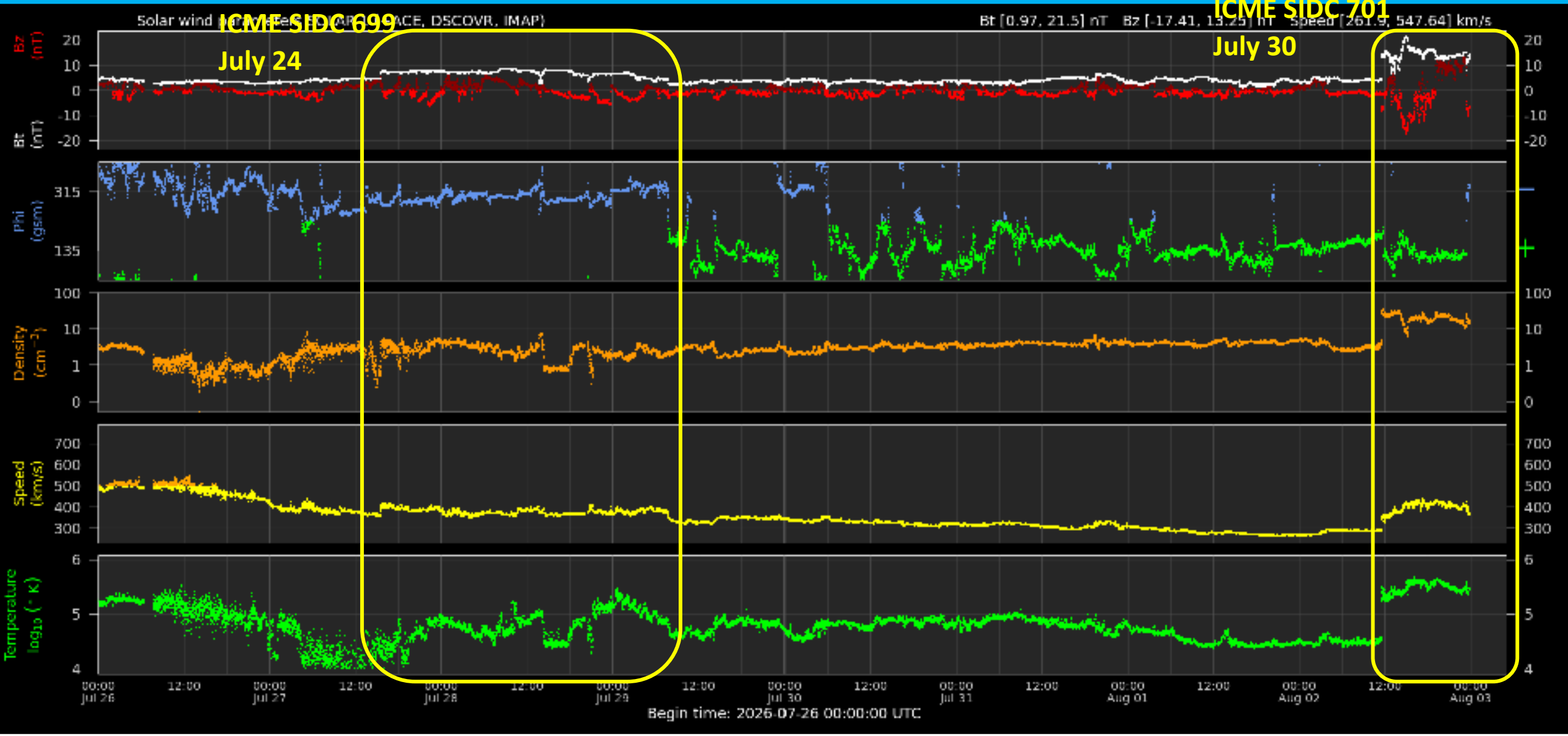
Geomagnetic Activity



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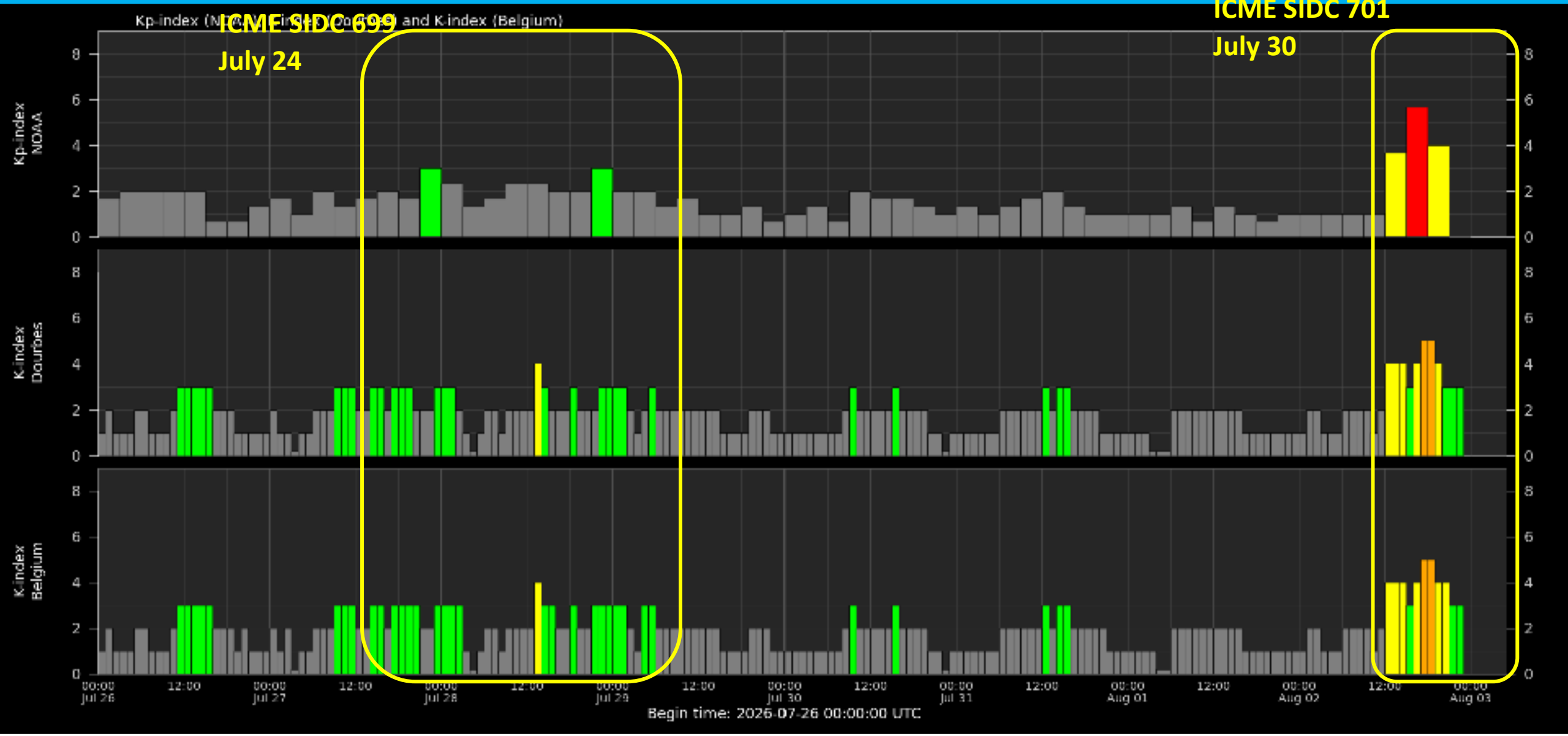
Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



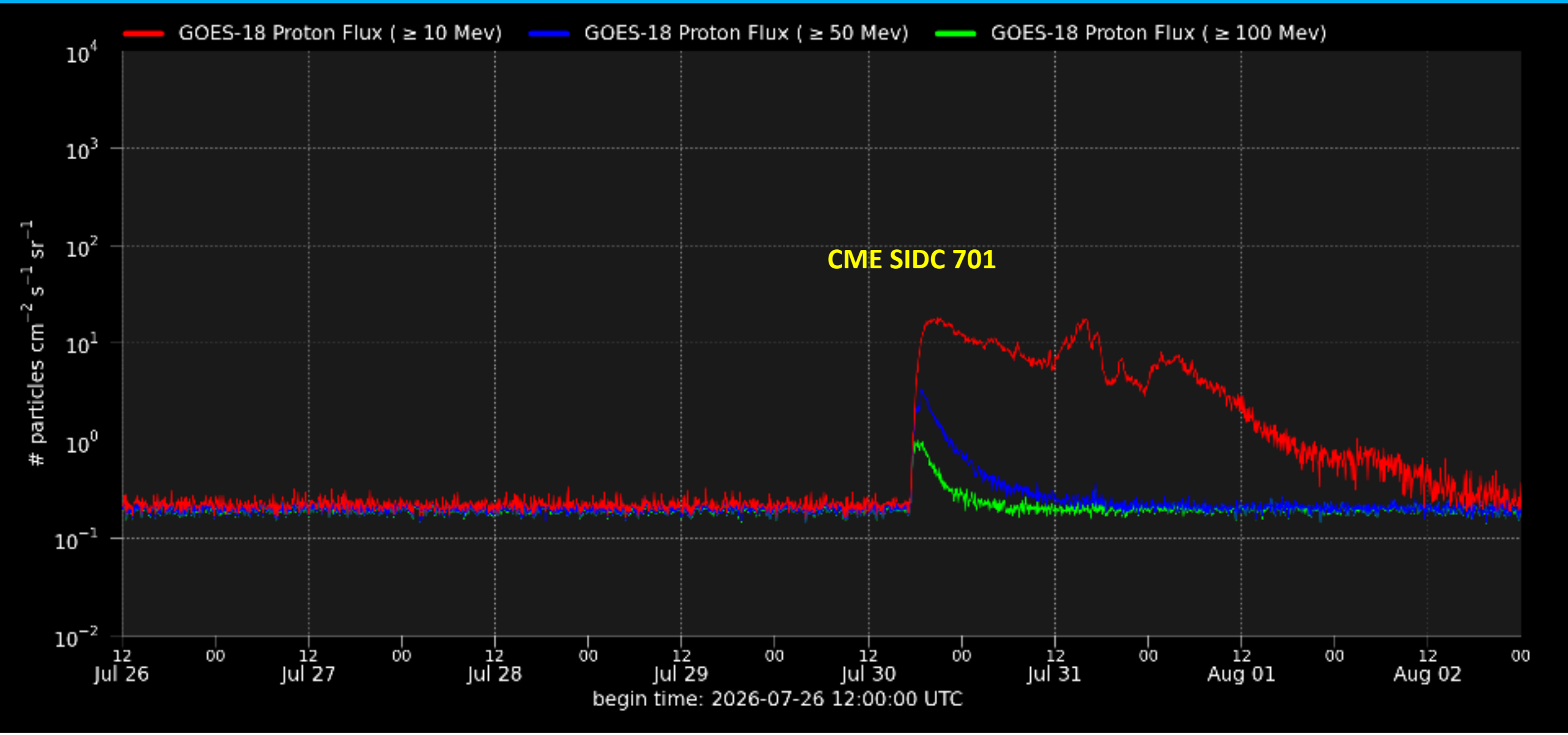
Energetic Particles



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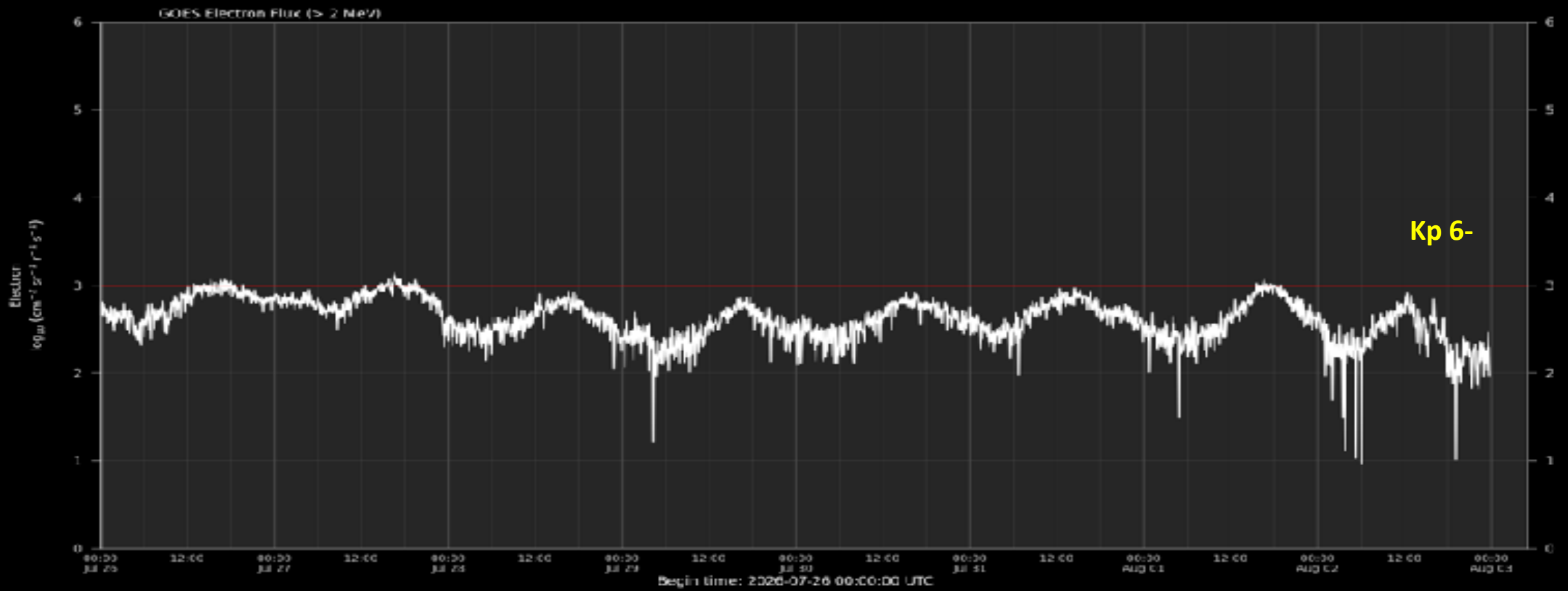
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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

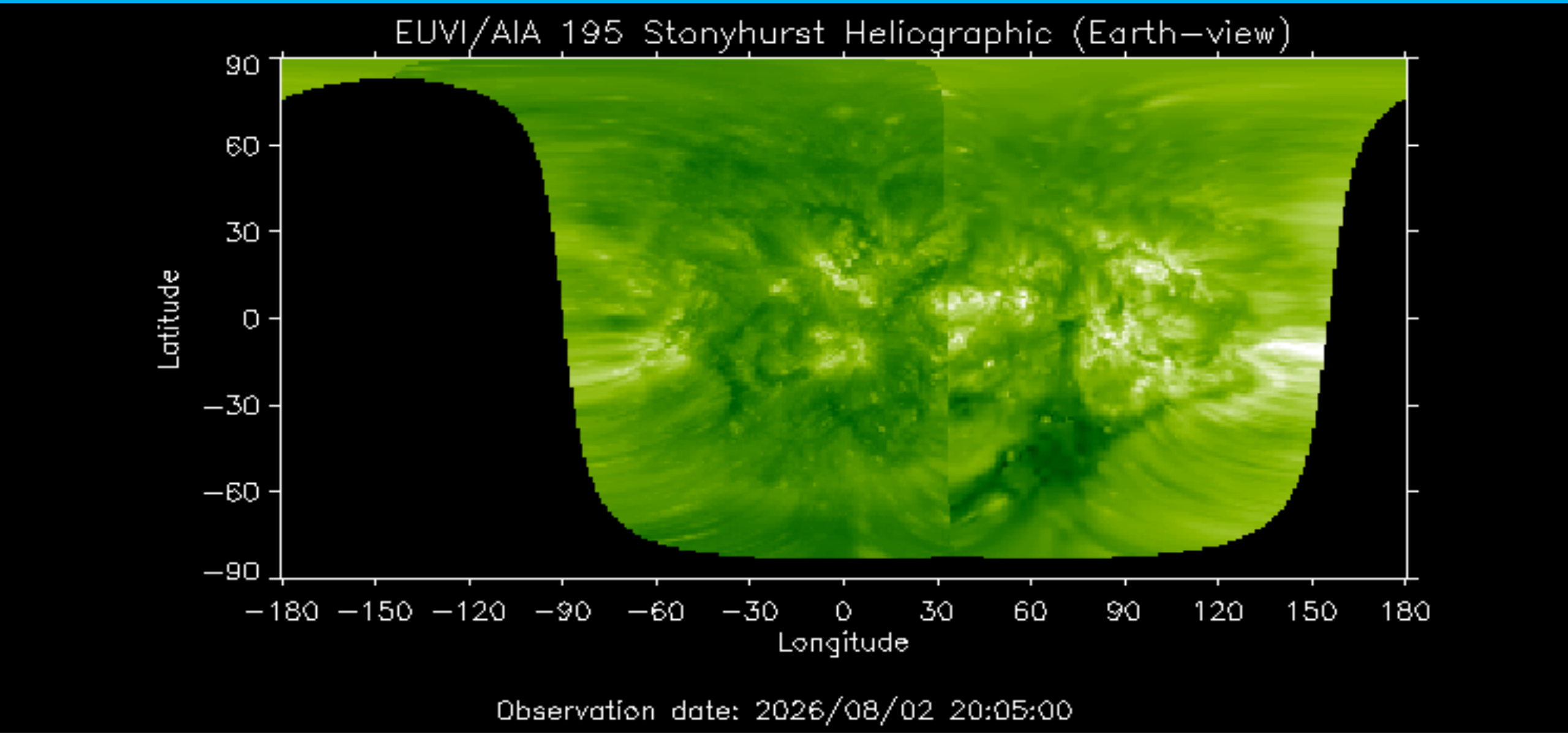


Outlook

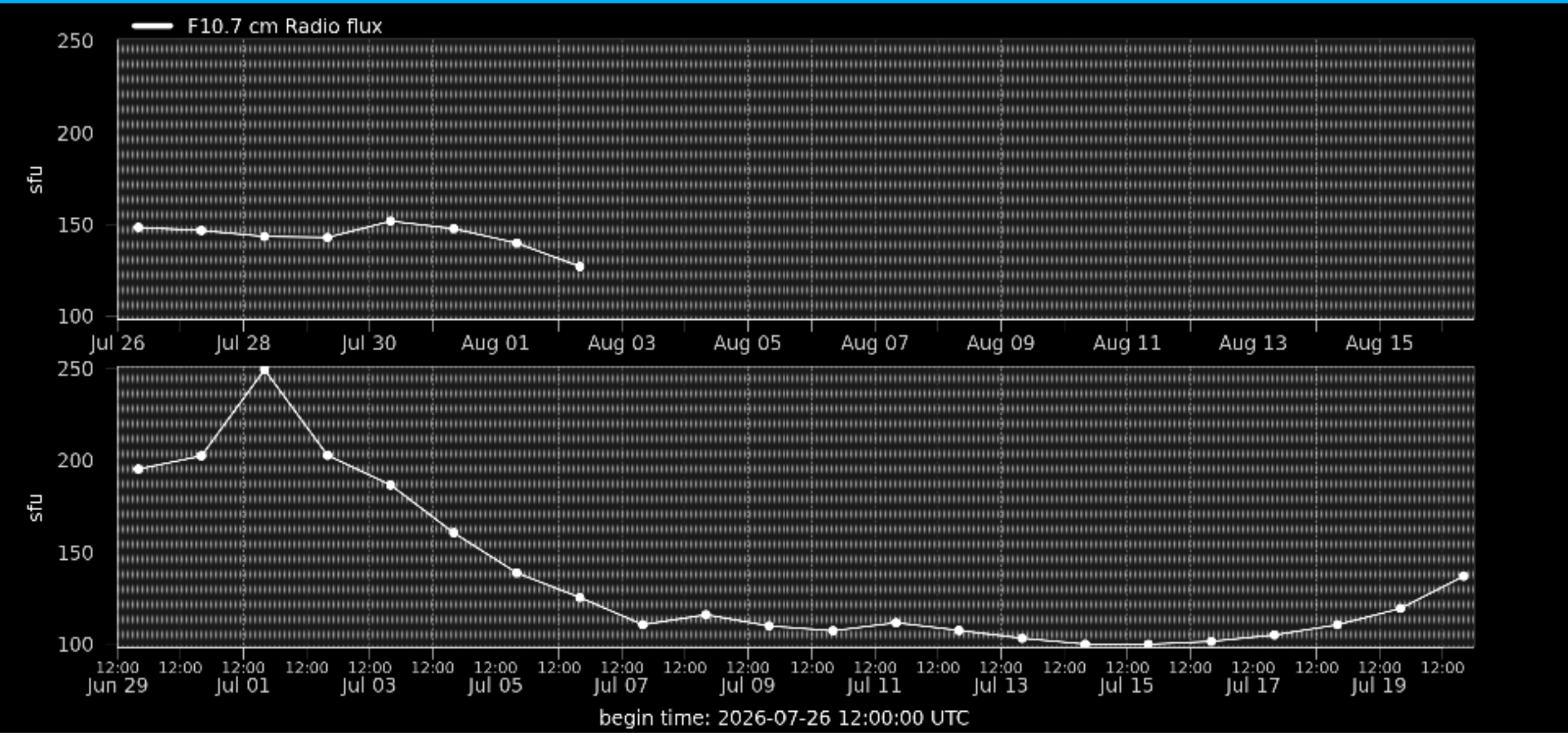
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Outlook: Solar activity



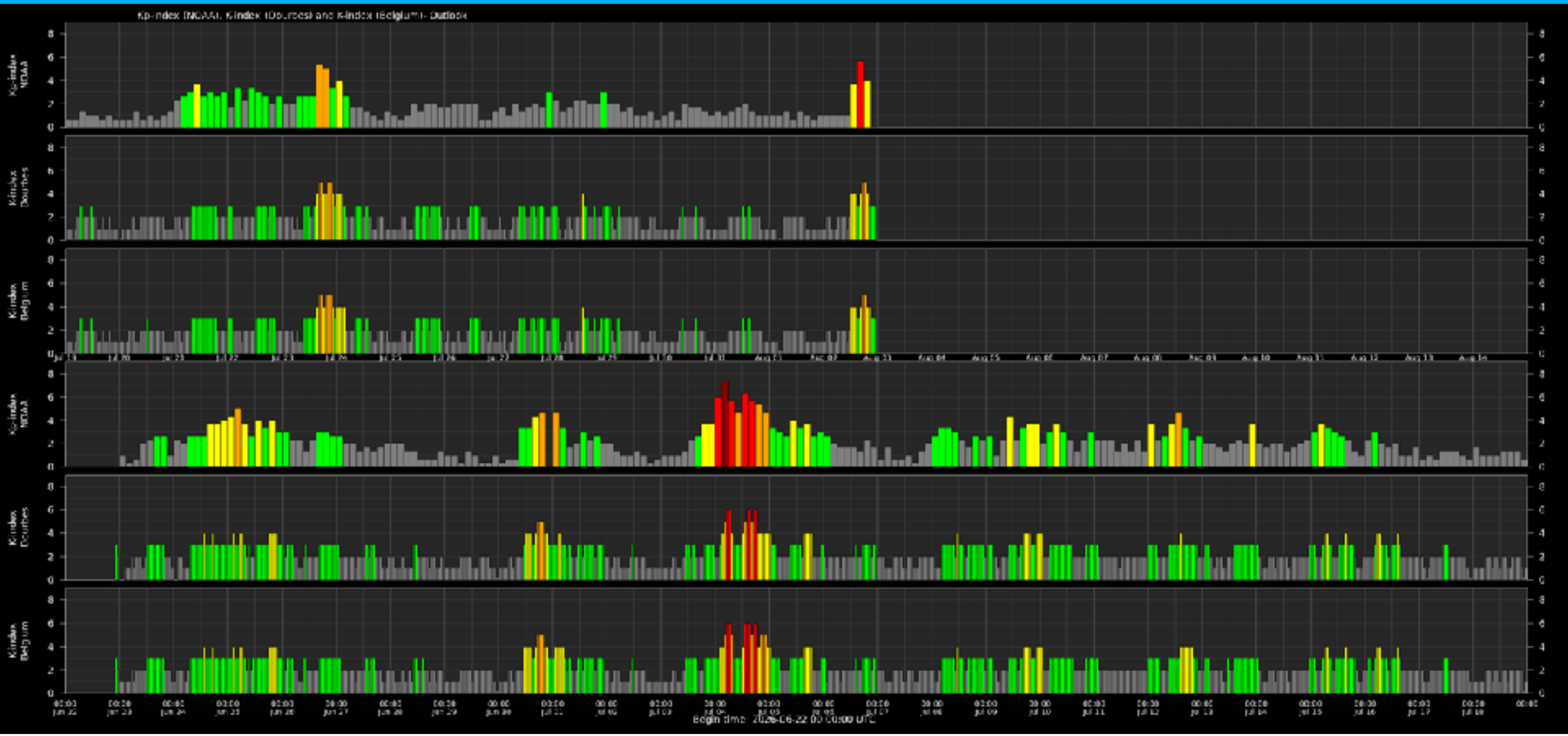
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecasus related events

HF advisories:

- Polar Cap Absorption (PCA) - MOD

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