

SIDC Space Weather Briefing

21 July 2025-27 July 2025

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& the SIDC forecaster team



Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2025-07-21 00:00 to 2025-07-27 23:59

Active regions	24 ARs/ SIDC 564, 572 (NOAA 4149, 4155 magnetic type beta-gamma)
Flares	# C-class flare: 27 # M-class flare: 0 # X-class flare: 0
Coronal Holes	SIDC CH 116, 121
CMEs	SIDC CME 530 Faint Partial Halo

Proton flux	Nominal levels
Electron flux	Mostly above the 1000 pfu threshold

Solar wind and geomagnetic conditions

ICMEs	Low confidence from the Partial Halo on July 26
Solar wind conditions	B : 0.79 - 24.64 nT //Bz: -13.71 nT to 16.77 nT //Speed: 314.8 – 780 km/s
Geomagnetic conditions	max K _{Be} : 4.0, max K _p (NOAA): 5.0, Minor Storm conditions

All Quiet Alert: Off

Solar Activity

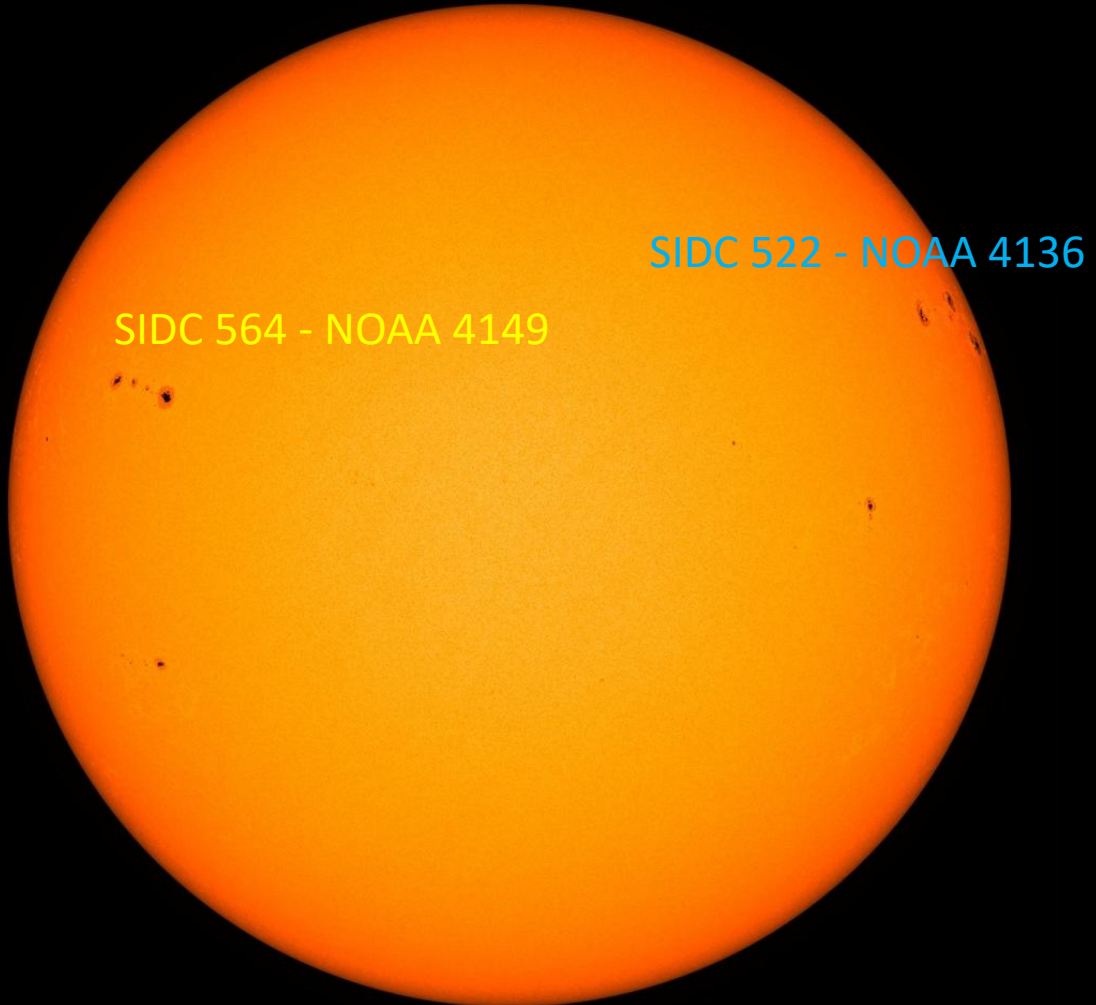


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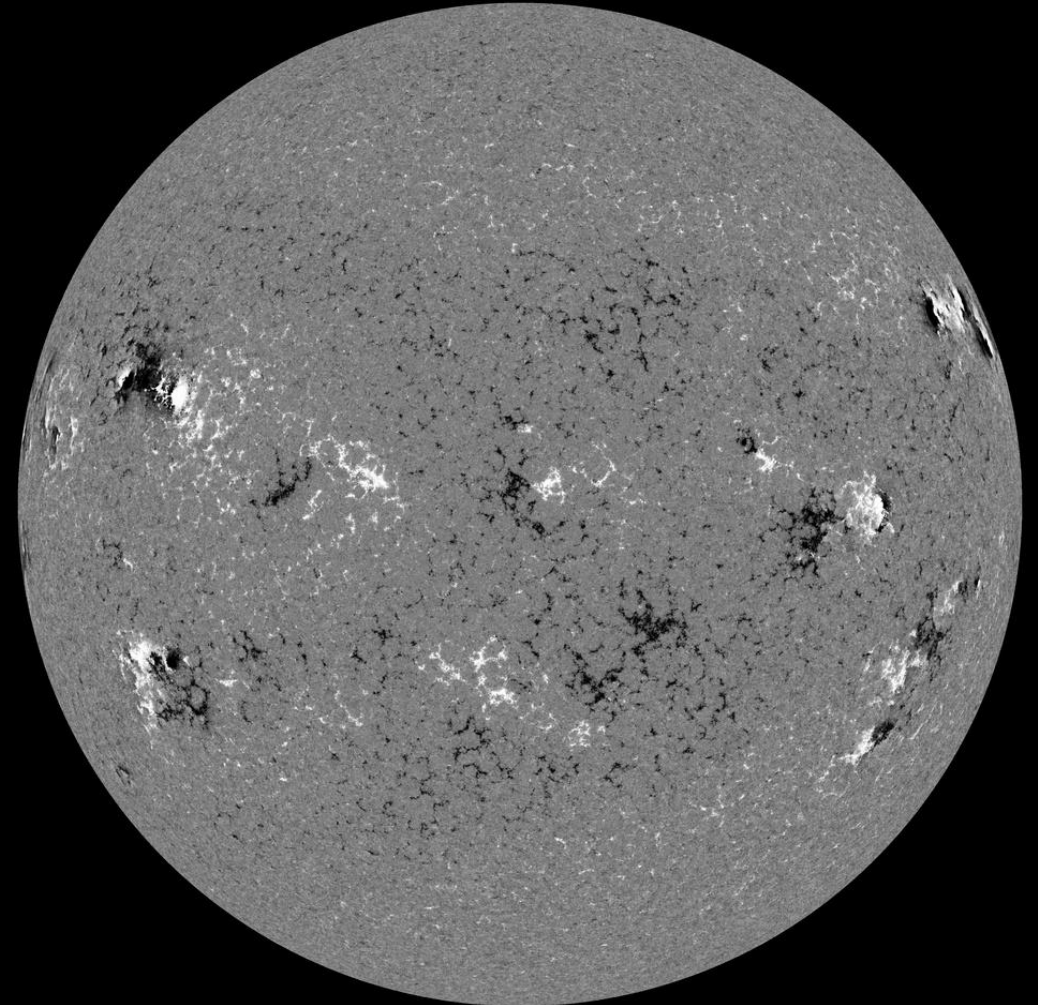
Solar active regions

SDO/HMI White Light 2025-07-21



SDO/HMI Quick-Look Continuum: 20250721_114500

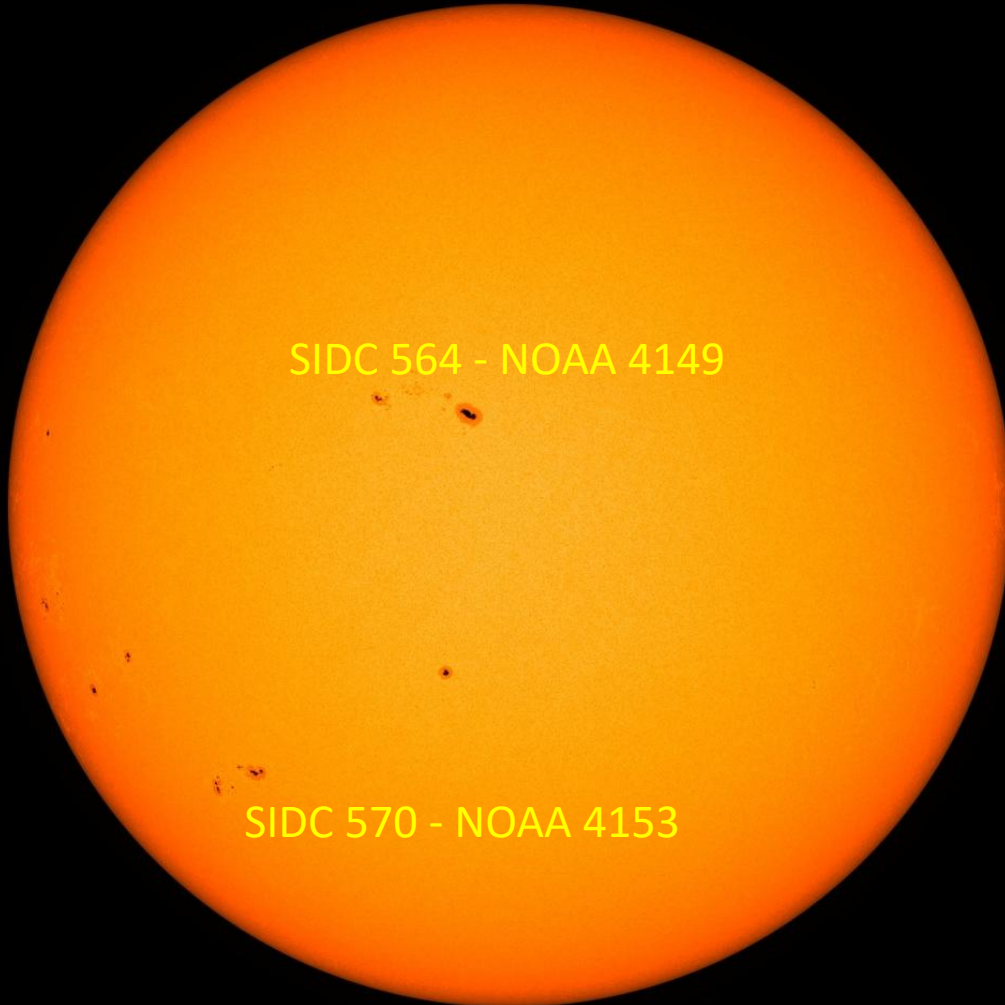
SDO/HMI Magnetogram 2025-07-21



SDO/HMI Quick-Look Magnetogram: 20250721_114500

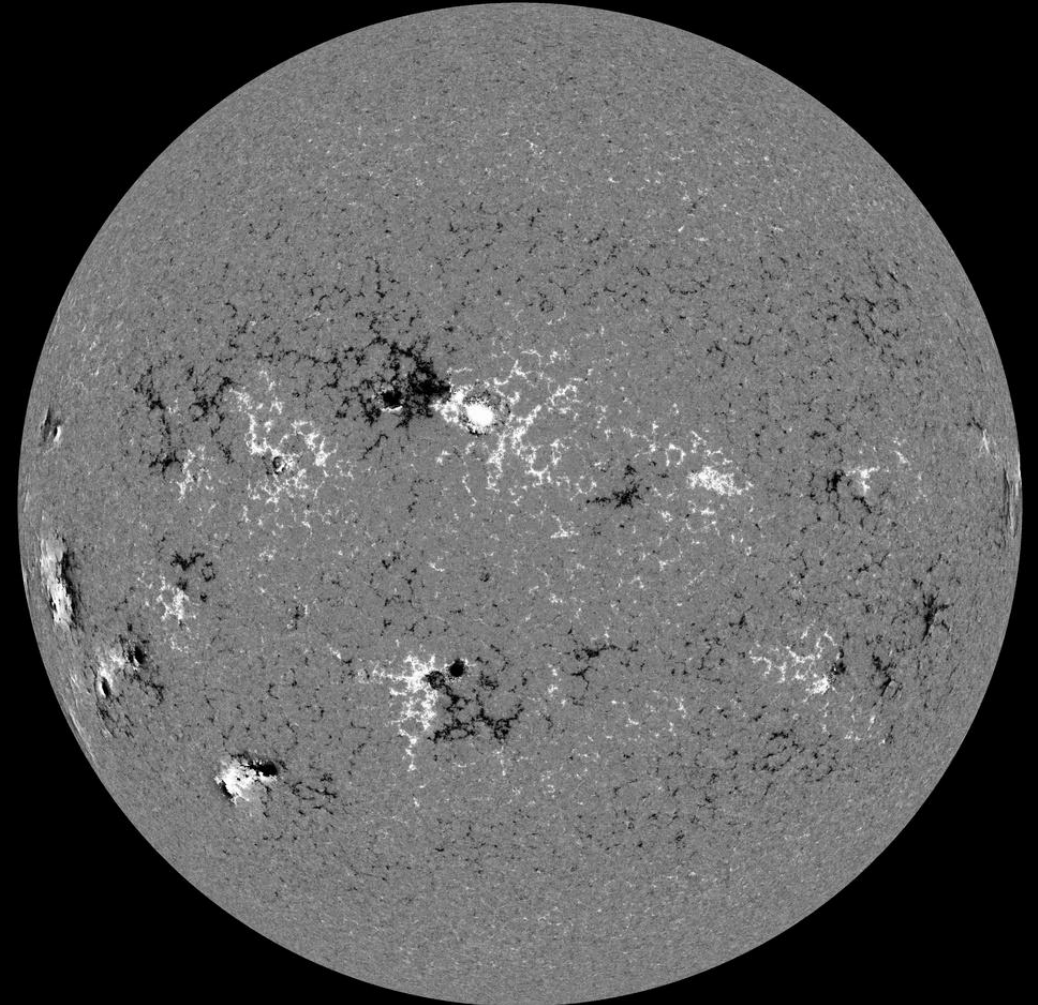
Solar active regions

SDO/HMI White Light 2025-07-24



SDO/HMI Quick-Look Continuum: 20250724_114500

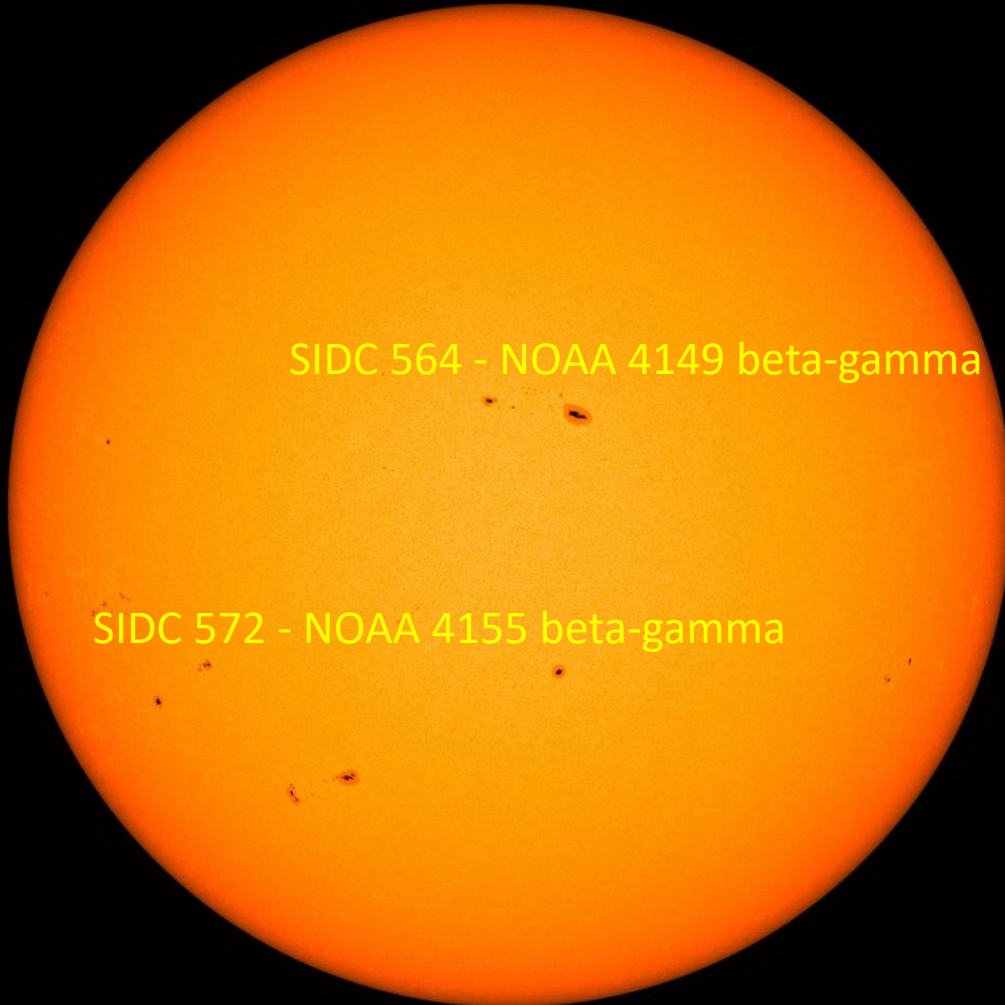
SDO/HMI Magnetogram 2025-07-24



SDO/HMI Quick-Look Magnetogram: 20250724_114500

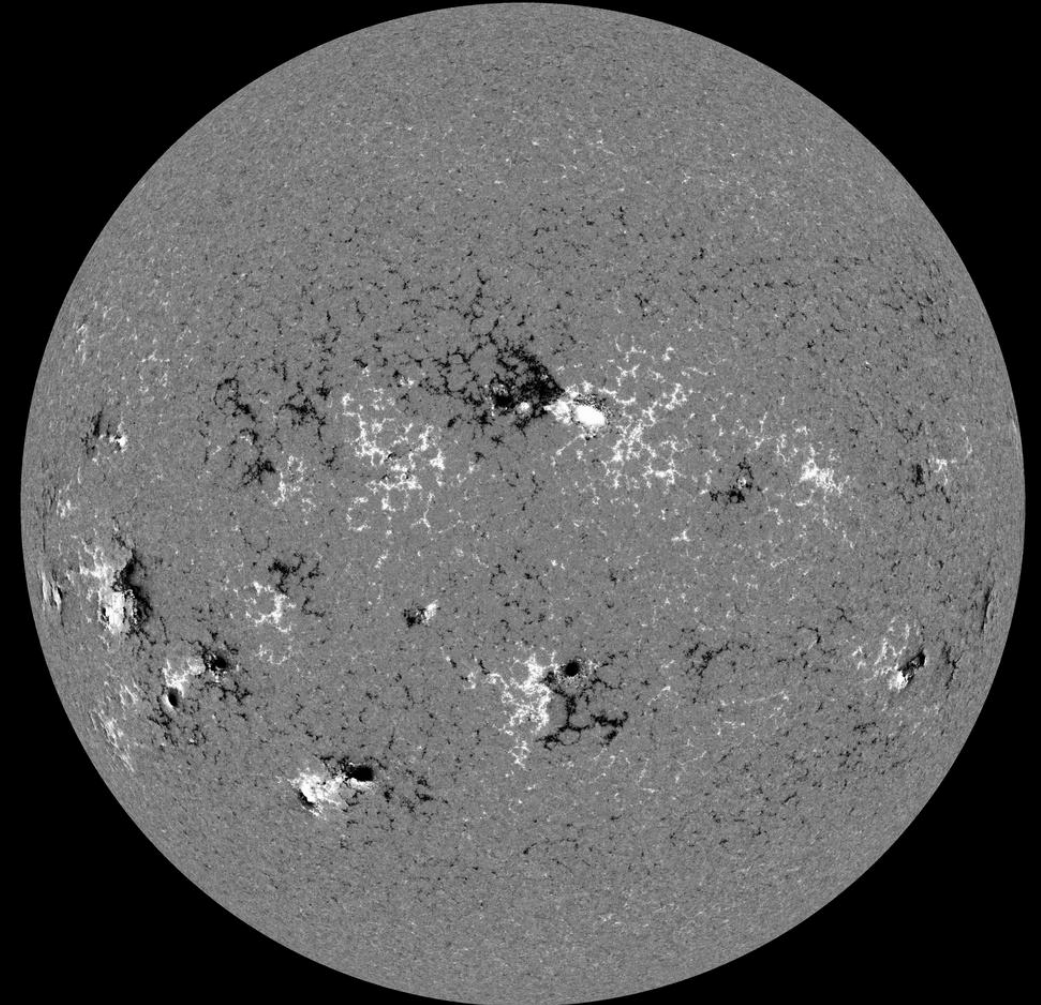
Solar active regions

SDO/HMI White Light 2025-07-25



SDO/HMI Quick-Look Continuum: 20250725_114500

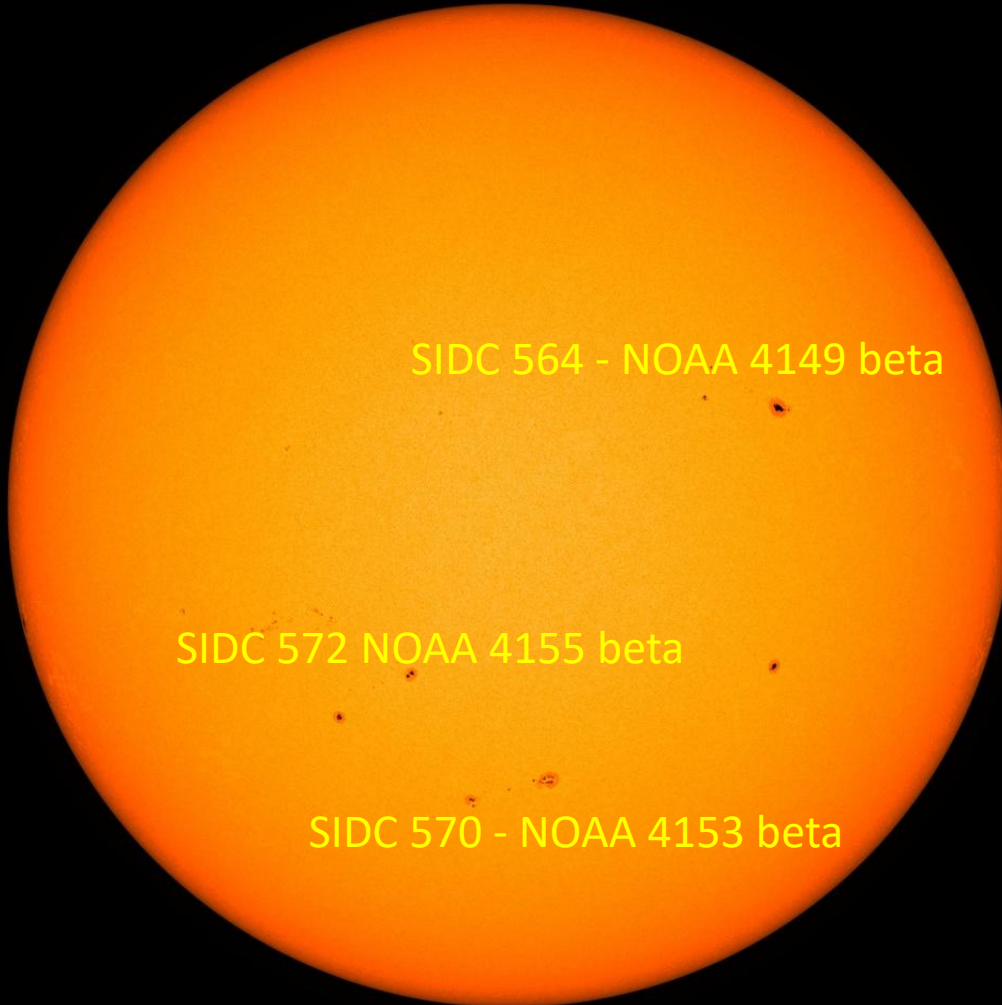
SDO/HMI Magnetogram 2025-07-25



SDO/HMI Quick-Look Magnetogram: 20250725_114500

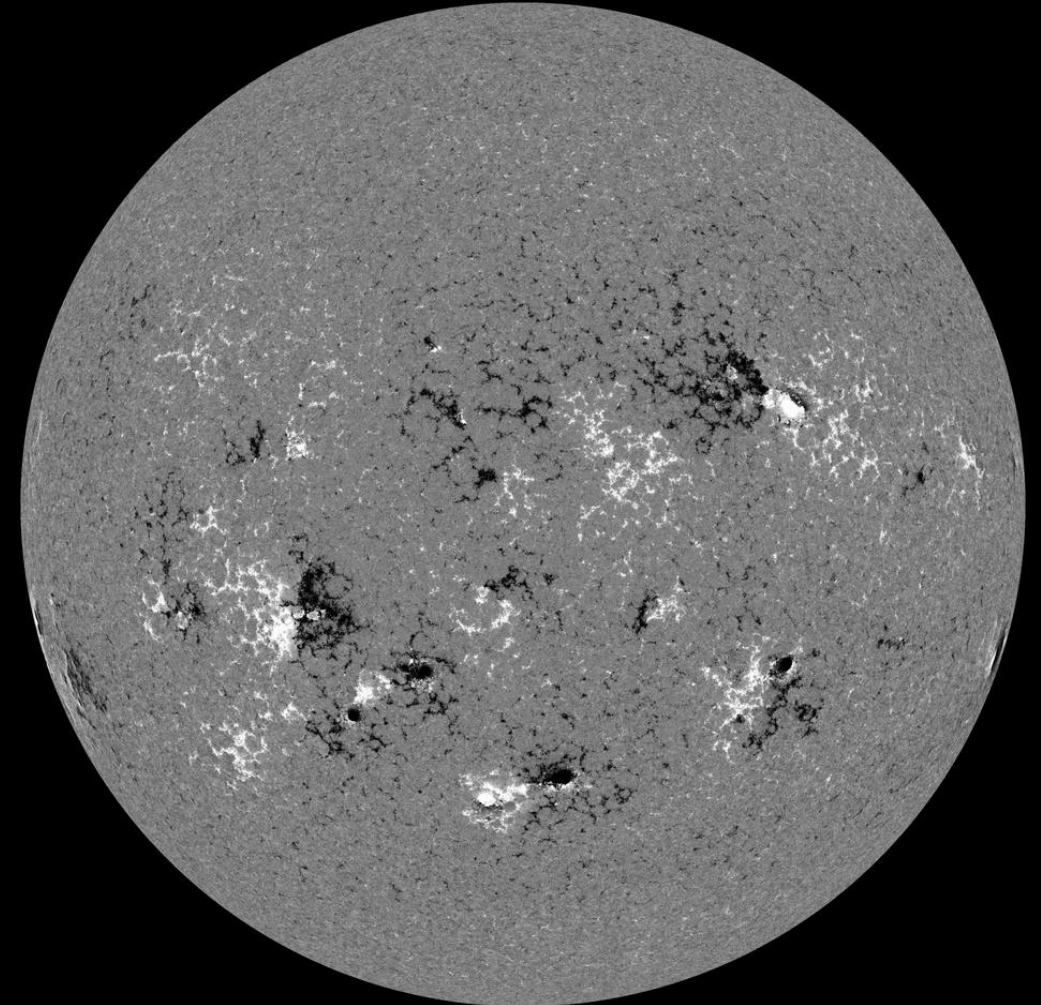
Solar active regions

SDO/HMI White Light 2025-07-27



SDO/HMI Quick-Look Continuum: 20250727_114500

SDO/HMI Magnetogram 2025-07-27

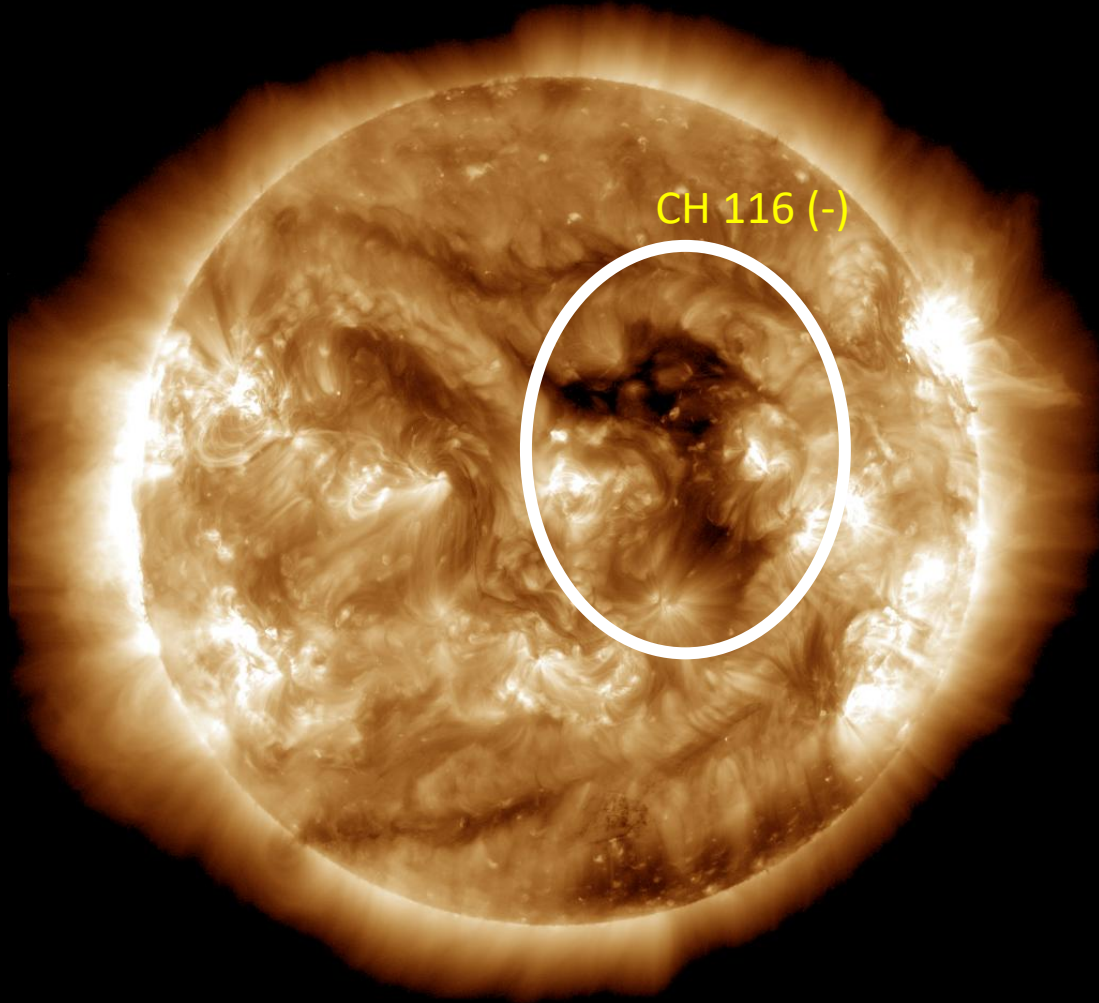


SDO/HMI Quick-Look Magnetogram: 20250727_114500

Coronal holes

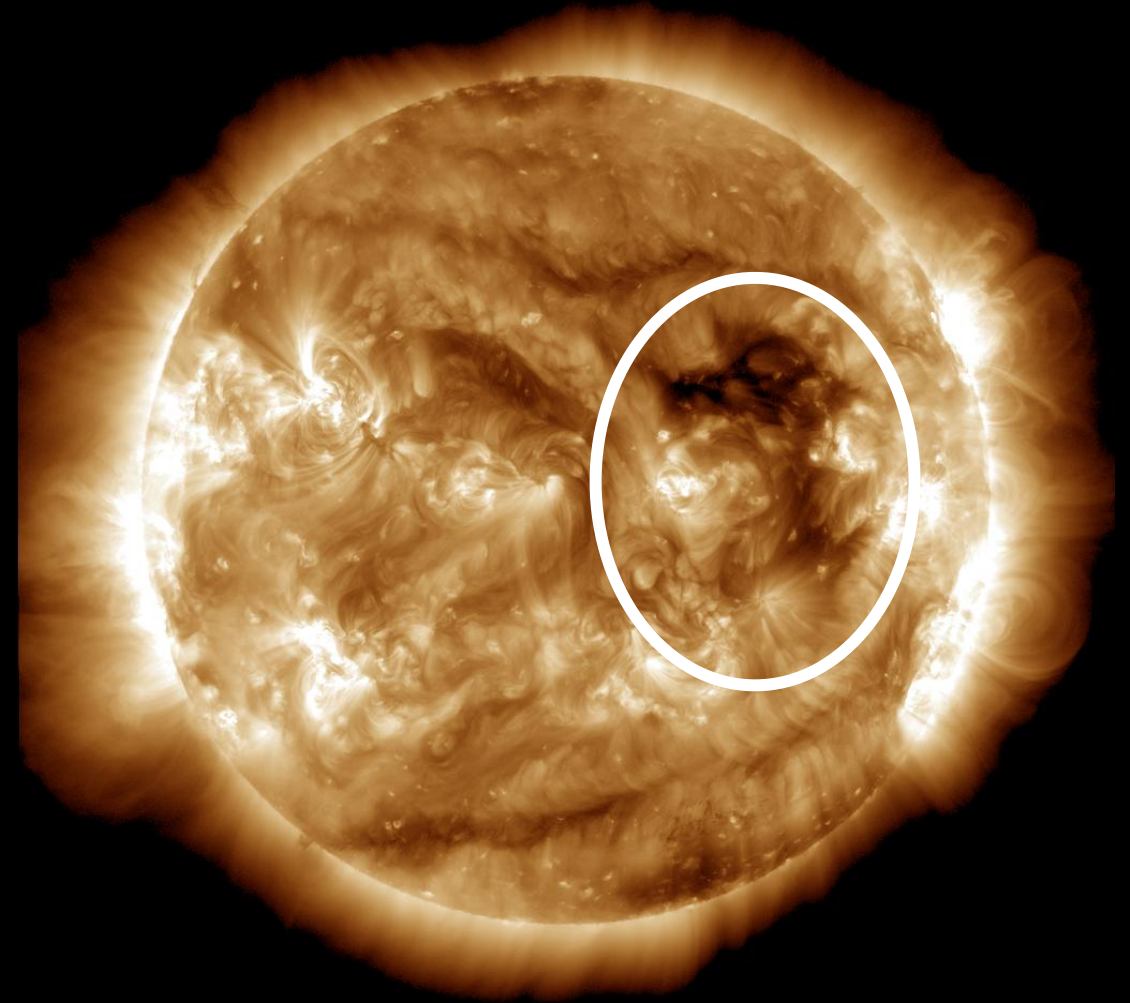
SDO/AIA 19.3 nm 2025-07-21

SDO/AIA AIA 193Å 2025-07-21T12:00:05.846



SDO/AIA 19.3 nm 2025-07-22

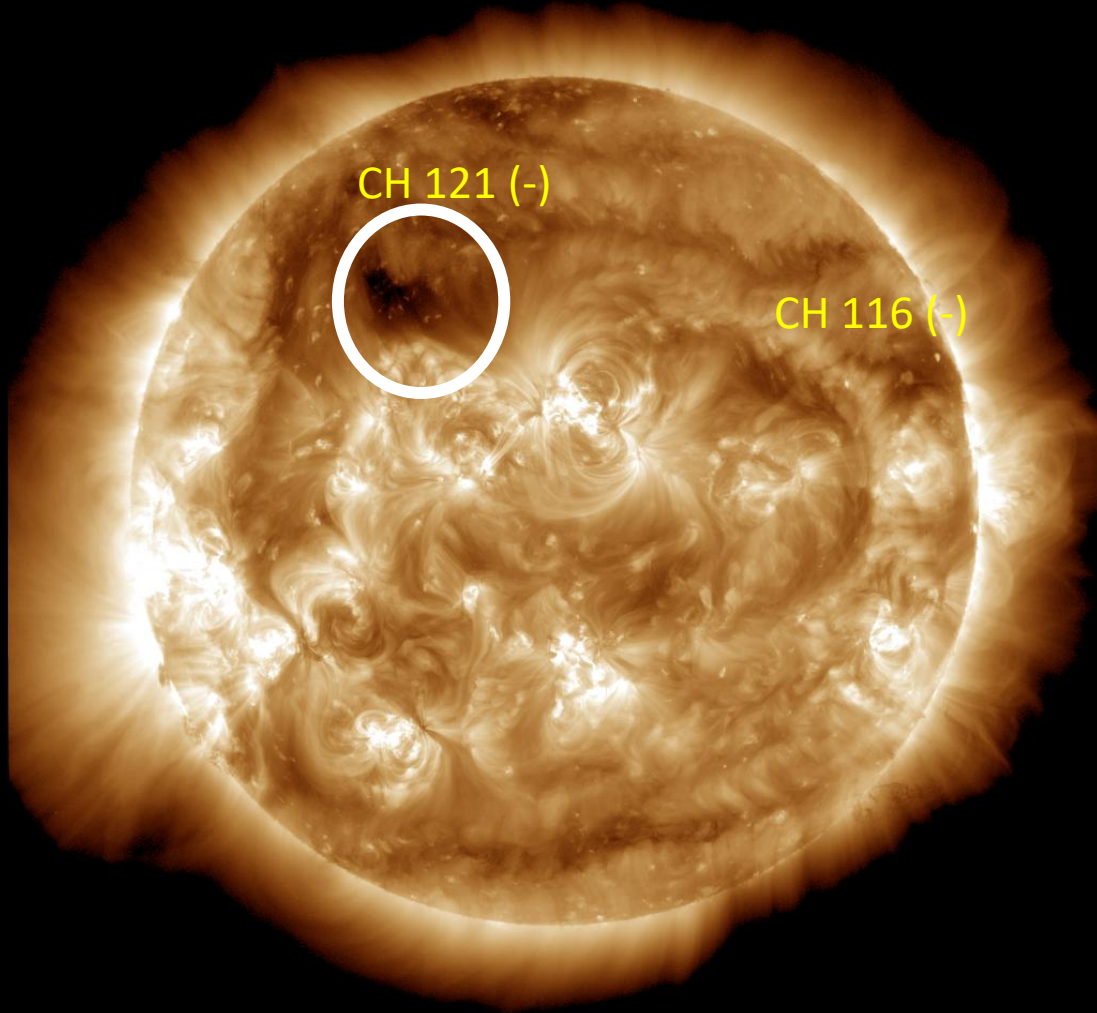
SDO/AIA AIA 193Å 2025-07-22T12:00:05.835



Coronal holes

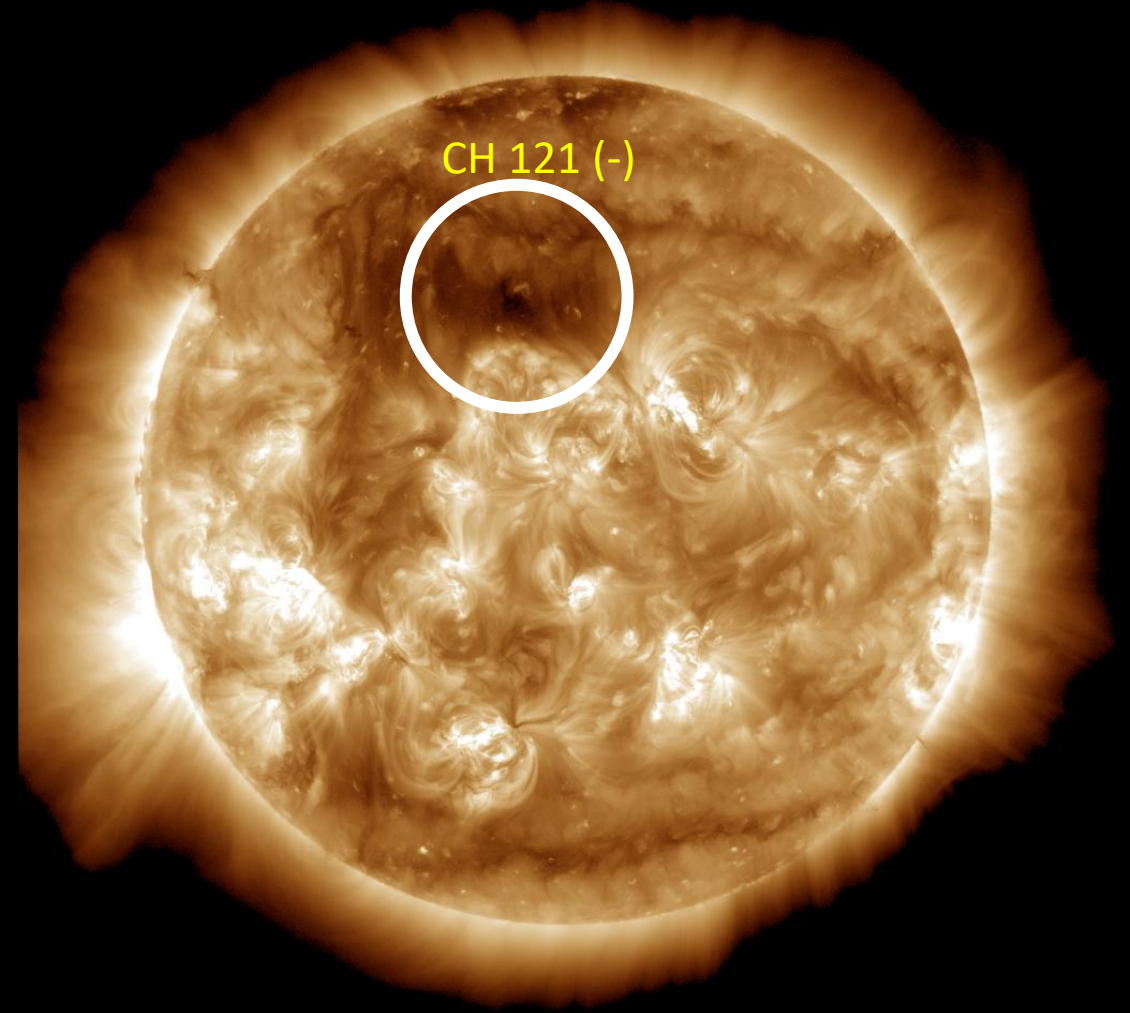
SDO/AIA 19.3 nm 2025-07-25

SDO/AIA AIA 193Å 2025-07-25T12:00:05.843



SDO/AIA 19.3 nm 2025-07-26

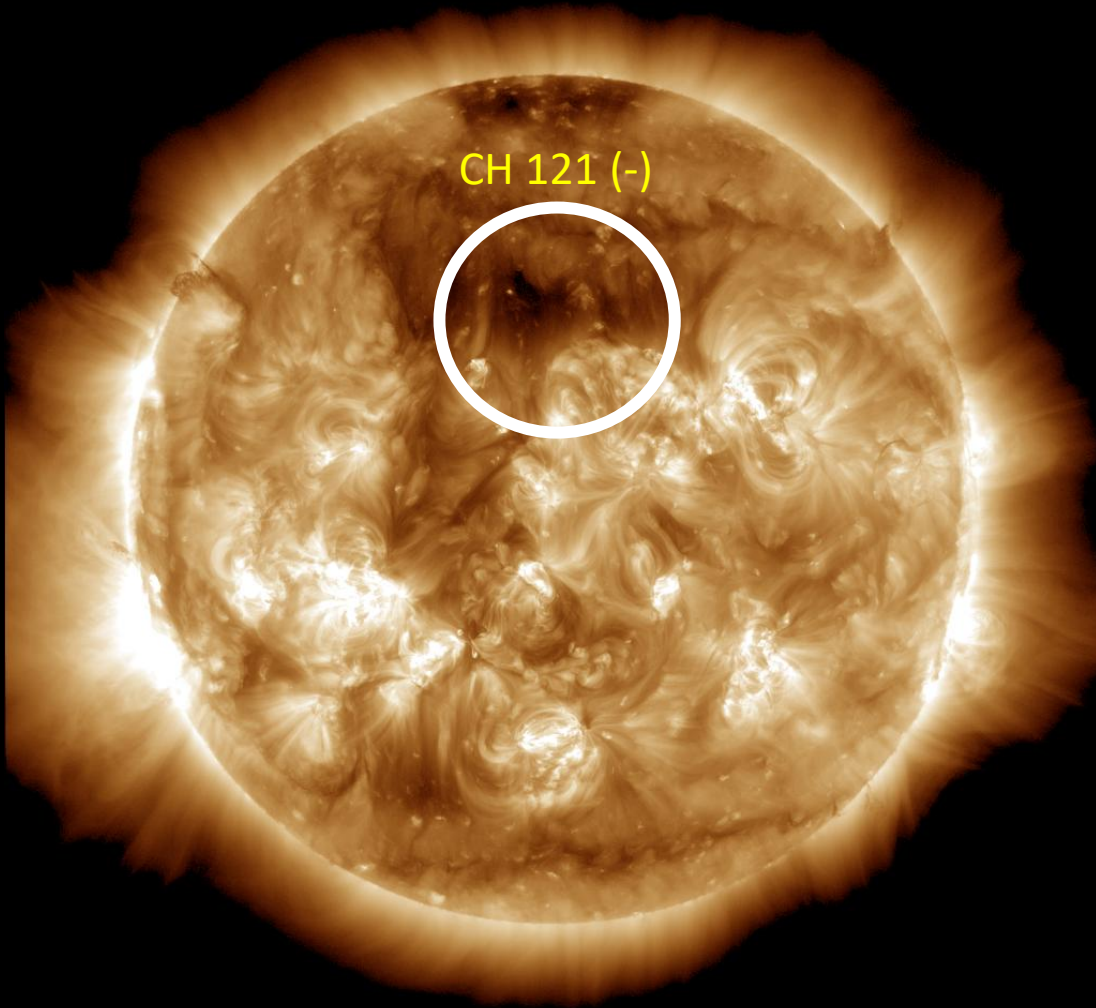
SDO/AIA AIA 193Å 2025-07-26T12:00:05.844



Coronal holes

SDO/AIA 19.3 nm 2025-07-27

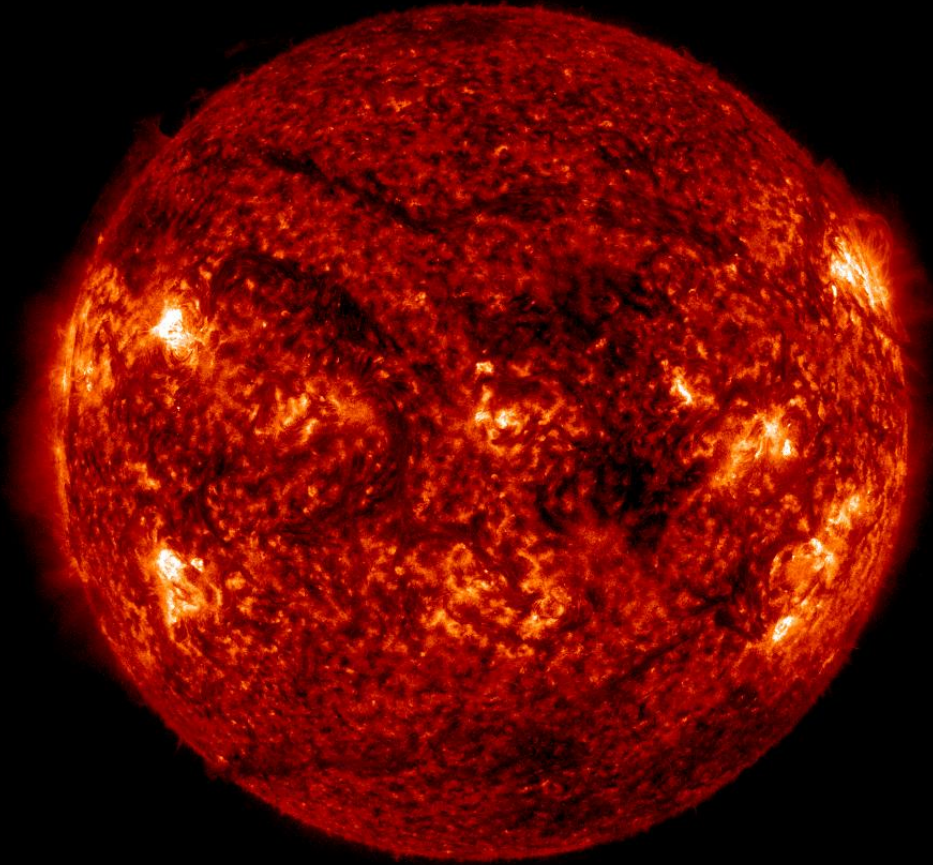
SDO/AIA AIA 193Å 2025-07-27T12:00:05.843



Filaments

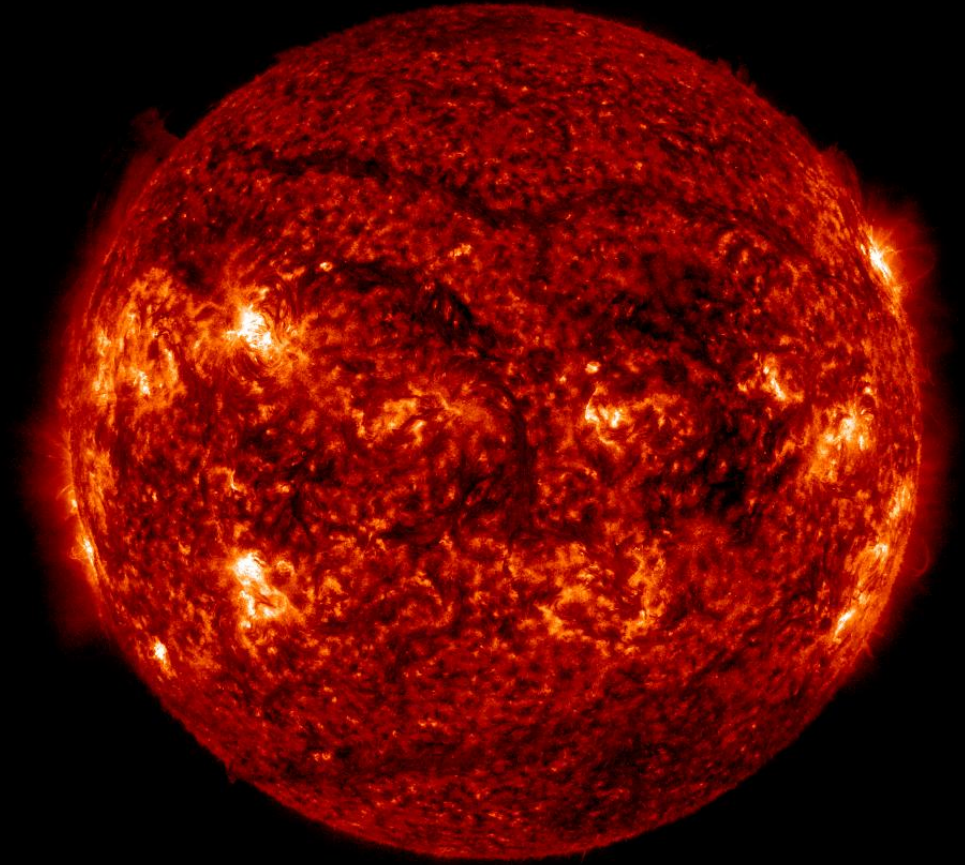
SDO/AIA 30.4 nm 2025-07-21

SDO/AIA AIA 304Å 2025-07-21T12:00:06.580



SDO/AIA 30.4 nm 2025-07-22

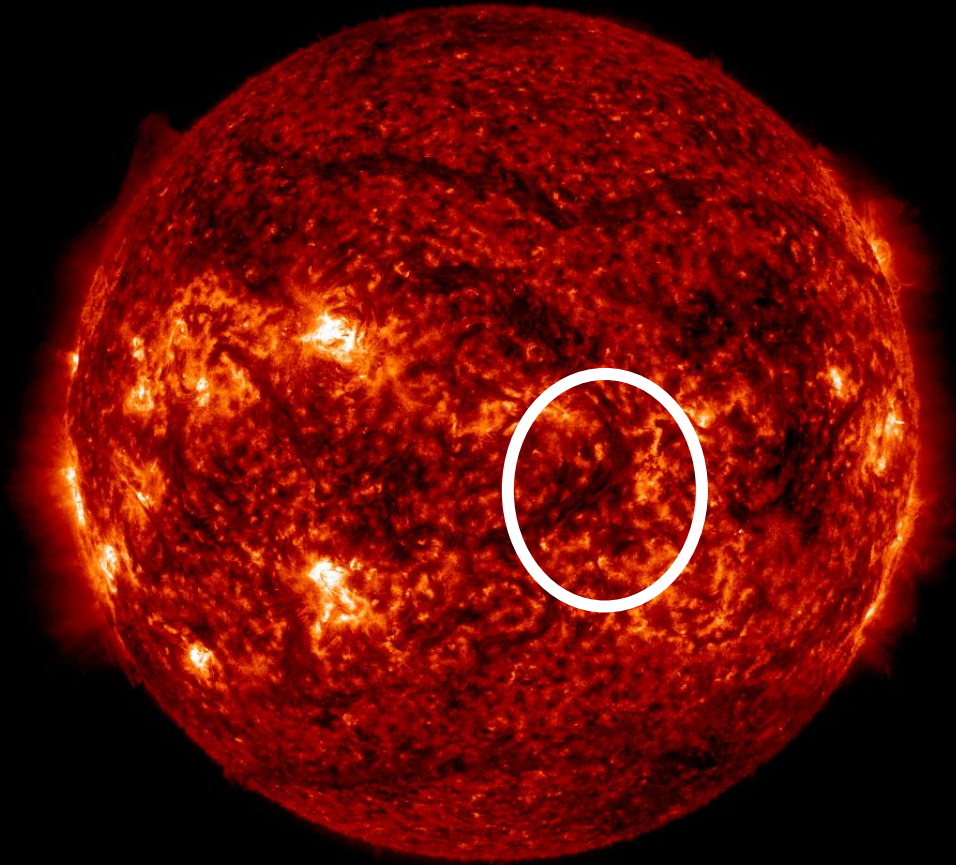
SDO/AIA AIA 304Å 2025-07-22T12:00:06.580



Filaments

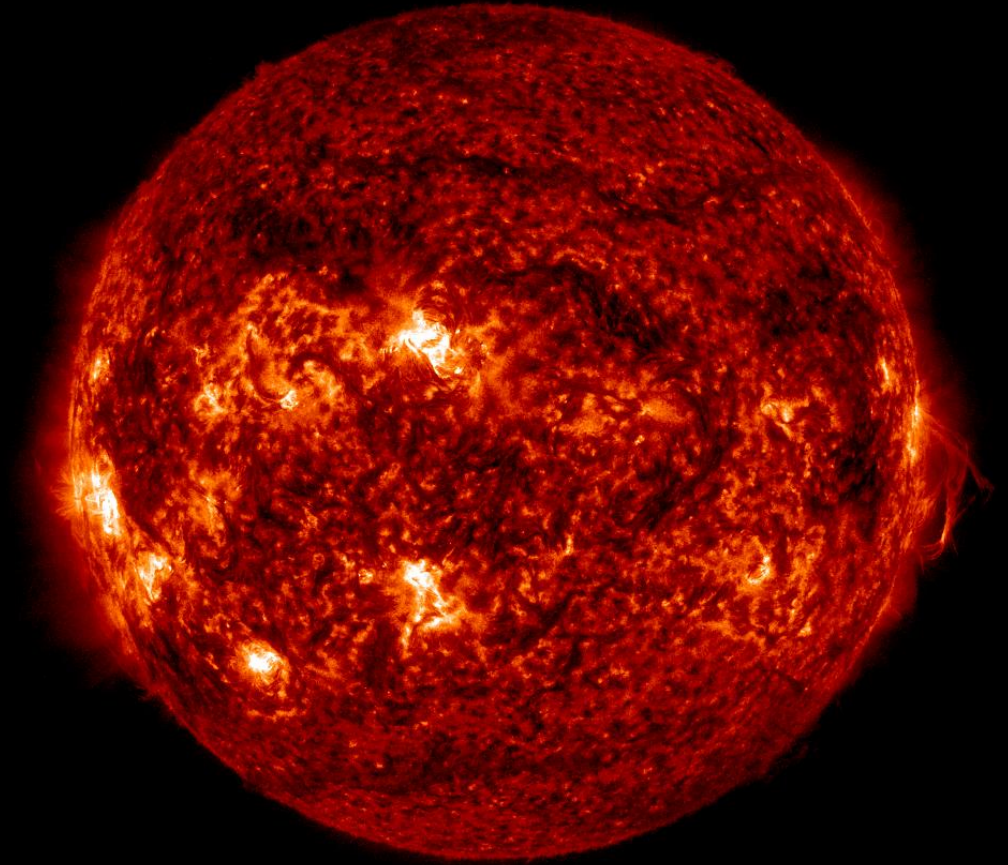
SDO/AIA 30.4 nm 2025-07-23

SDO/AIA AIA 304Å 2025-07-23T12:00:06.580



SDO/AIA 30.4 nm 2025-07-24

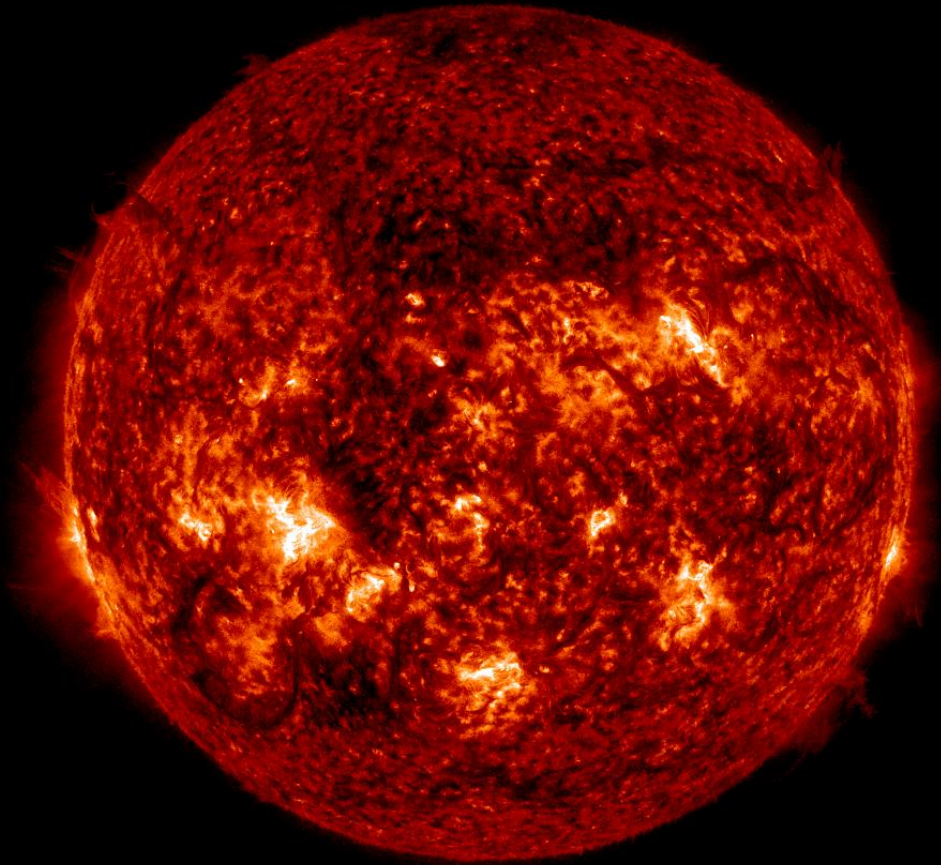
SDO/AIA AIA 304Å 2025-07-24T12:00:06.580



Filaments

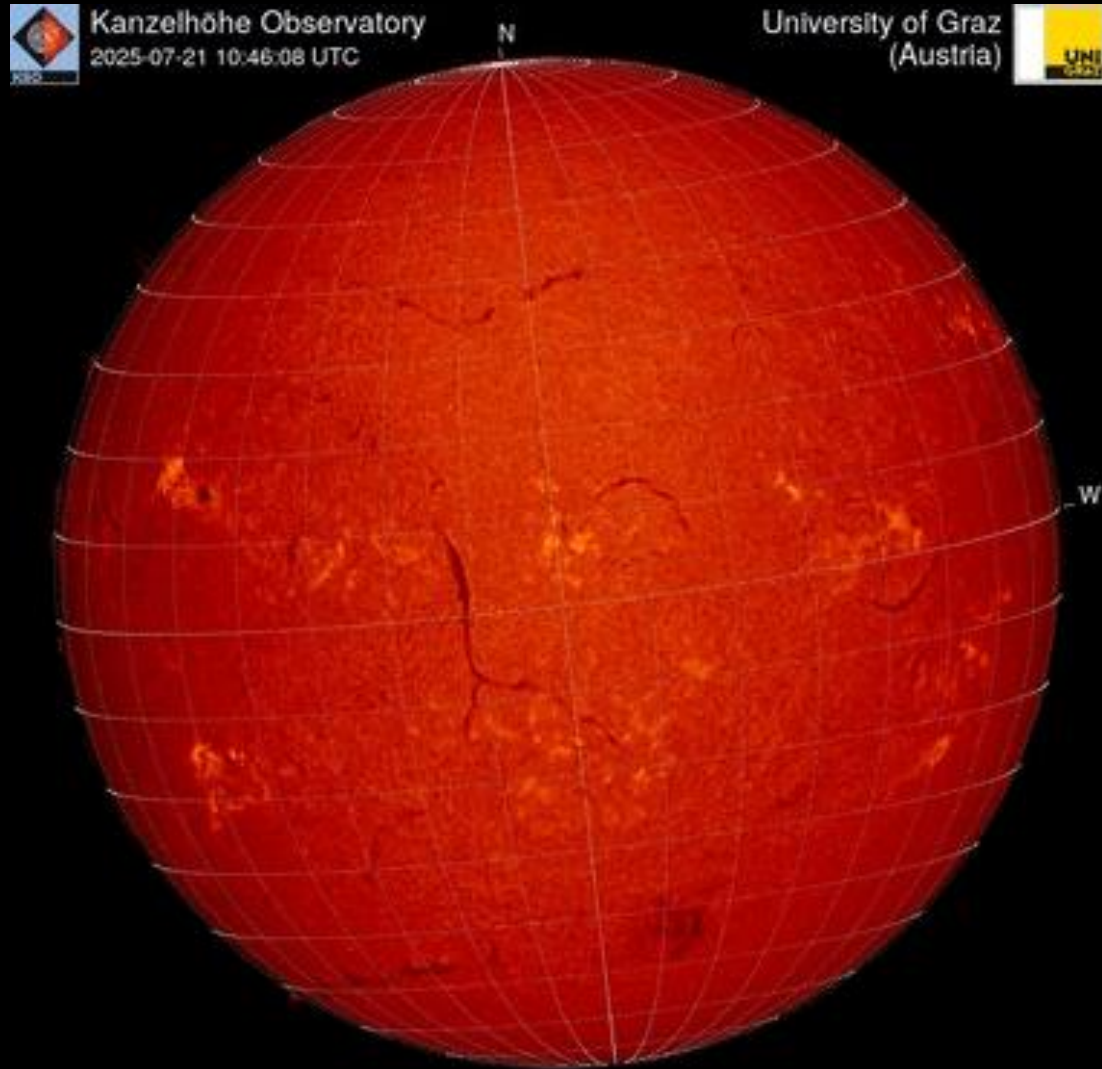
SDO/AIA 30.4 nm 2025-07-27

SDO/AIA AIA 304Å 2025-07-27T12:00:06.580

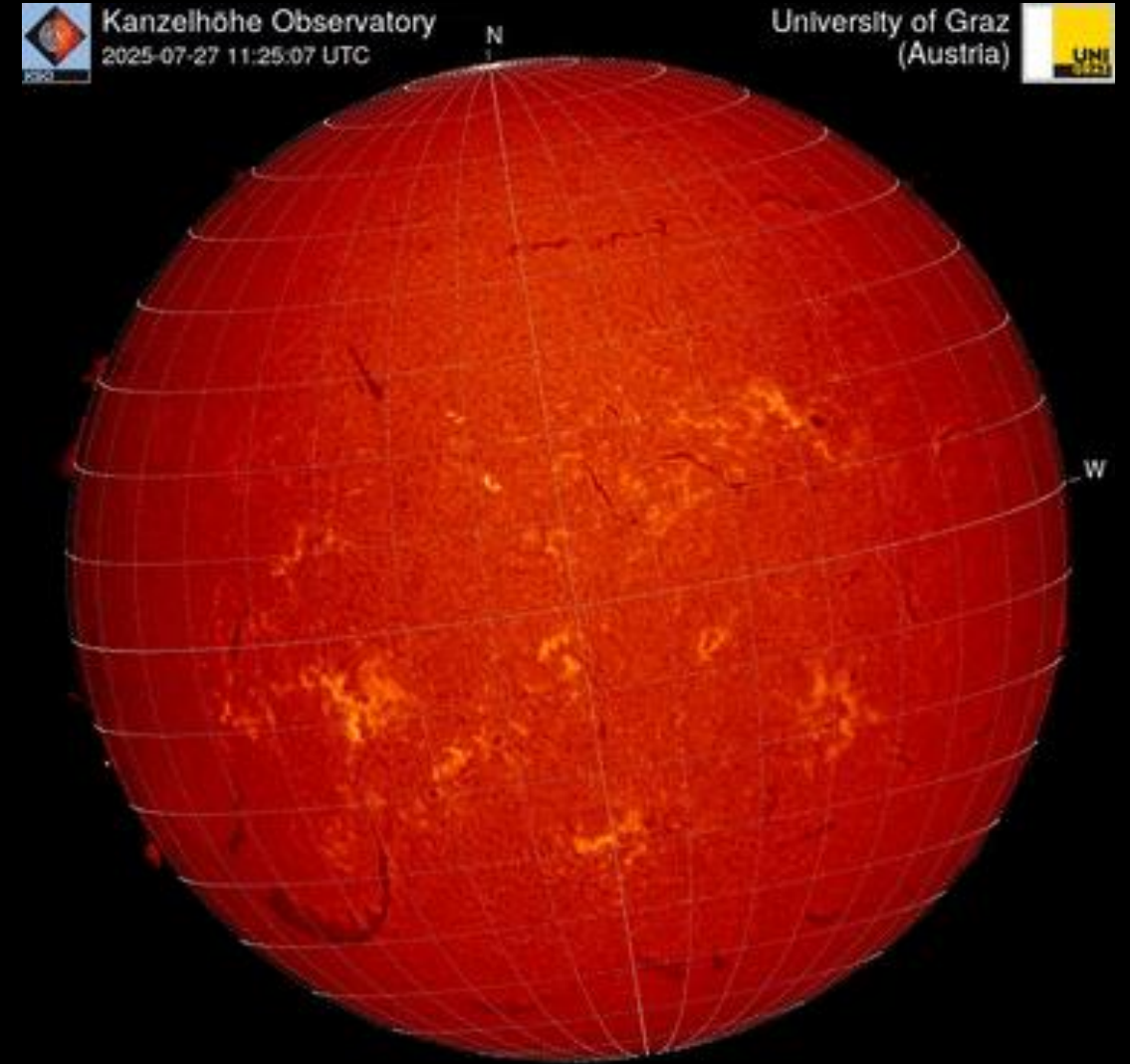


Filaments & Filament eruptions

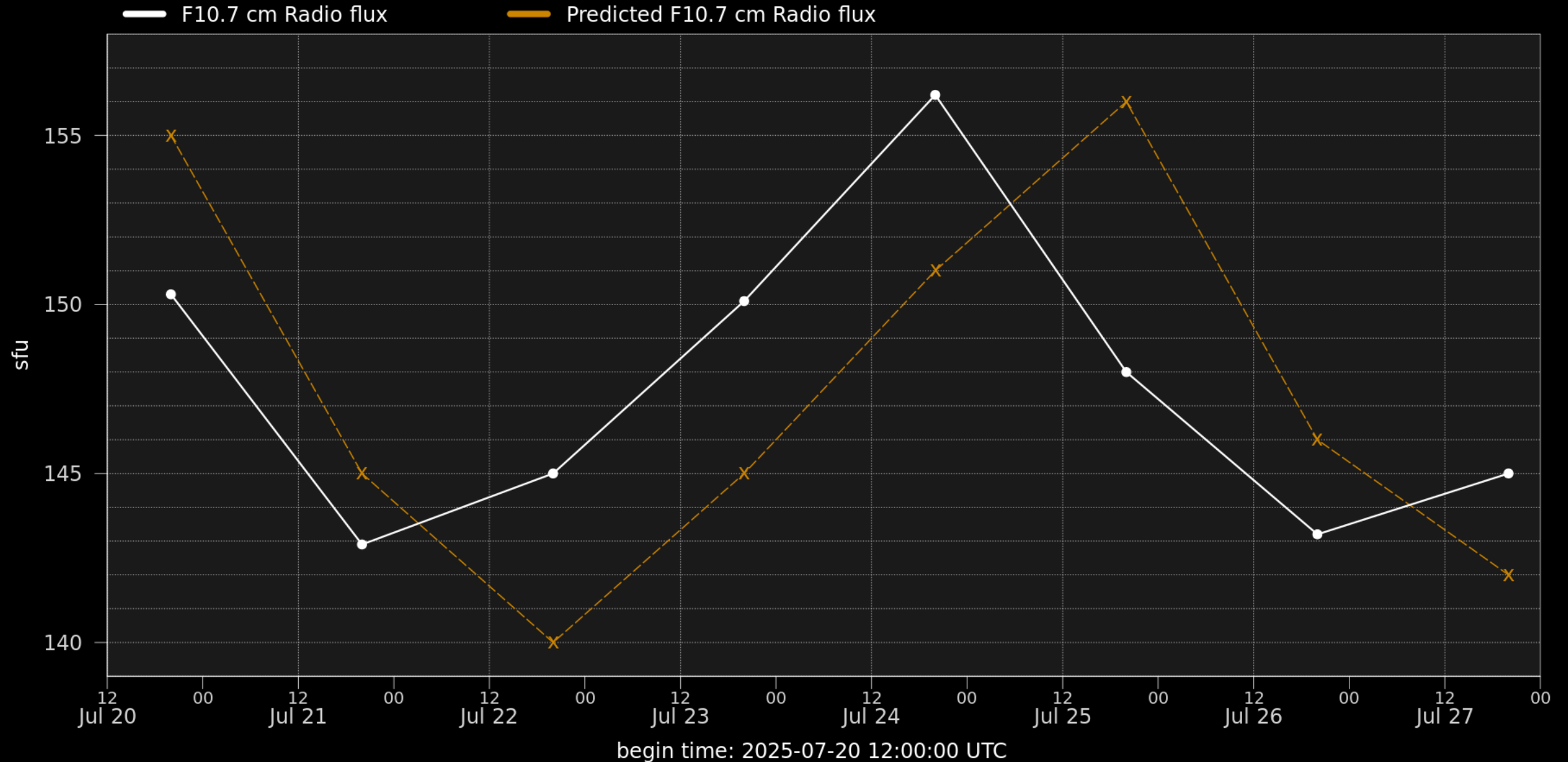
H-alpha 2025-07-21



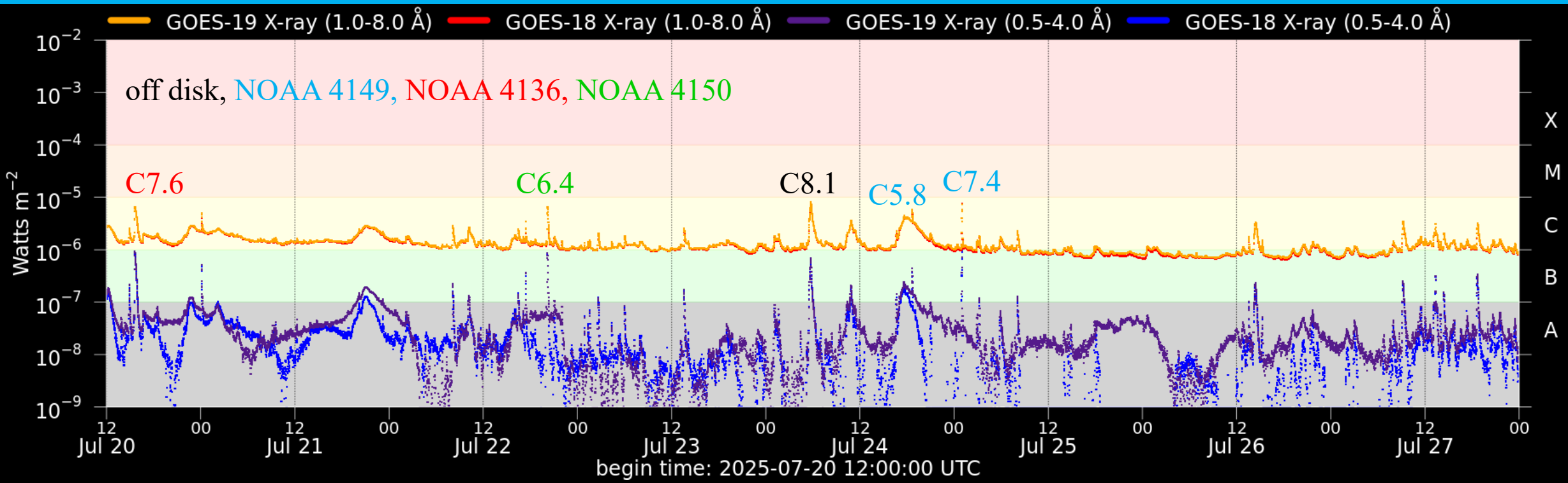
H-alpha 2025-07-27



Solar F10.7cm radio flux



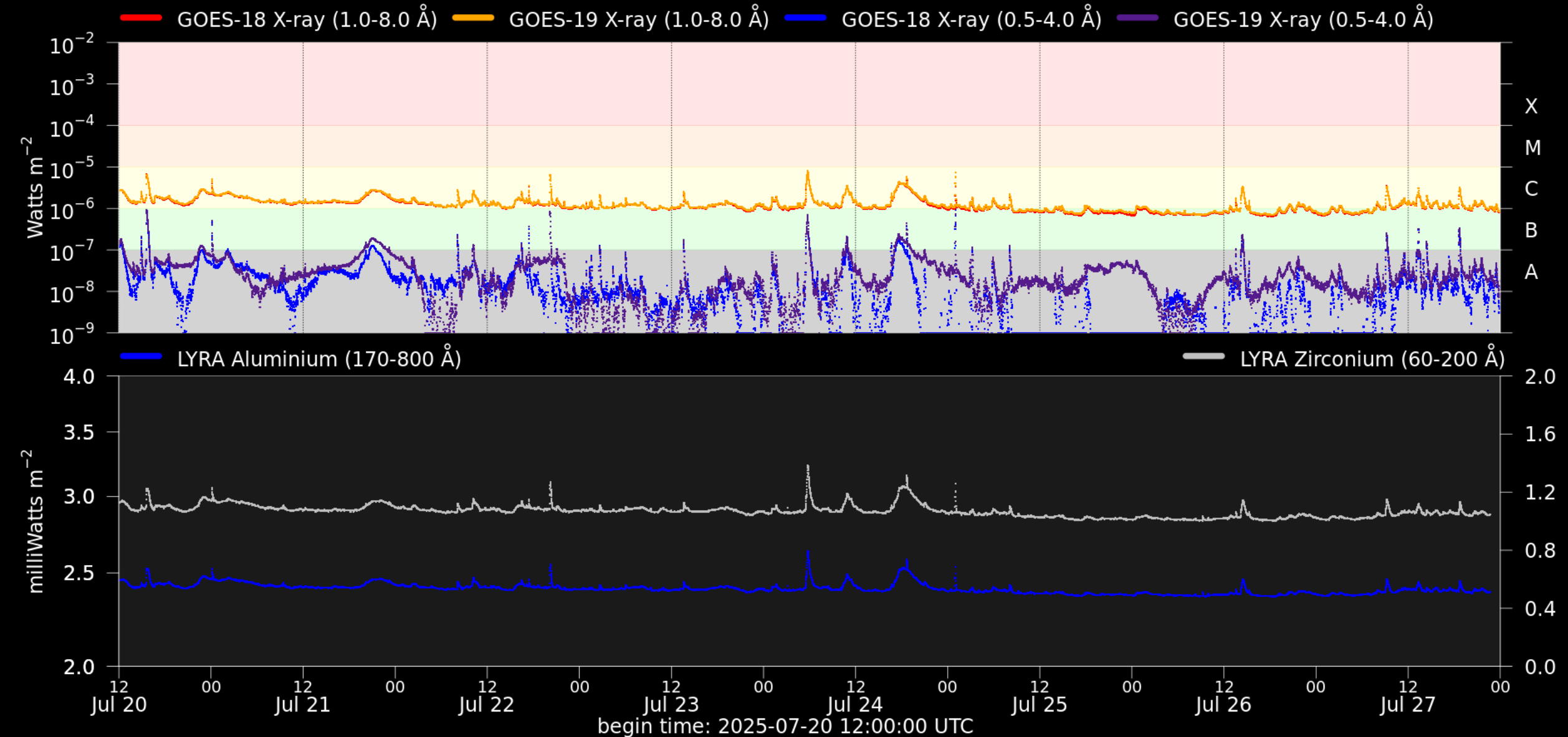
Flaring activity



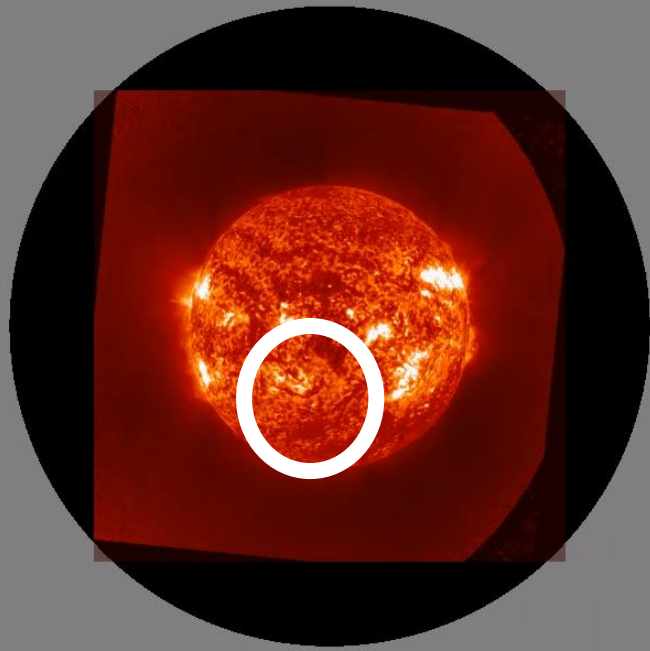
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-07-20	2025-07-21	2025-07-22	2025-07-23	2025-07-24	2025-07-25	2025-07-26	2025-07-27
Probability (%)	99 27 01	99 87 14	99 60 02	97 46 02	99 56 02	99 57 08	96 49 08	93 42 04
Observed (#)	03 00 00	01 00 00	05 00 00	04 00 00	05 00 00	00 00 00	05 00 00	04 00 00

Solar X-Ray and UV flux



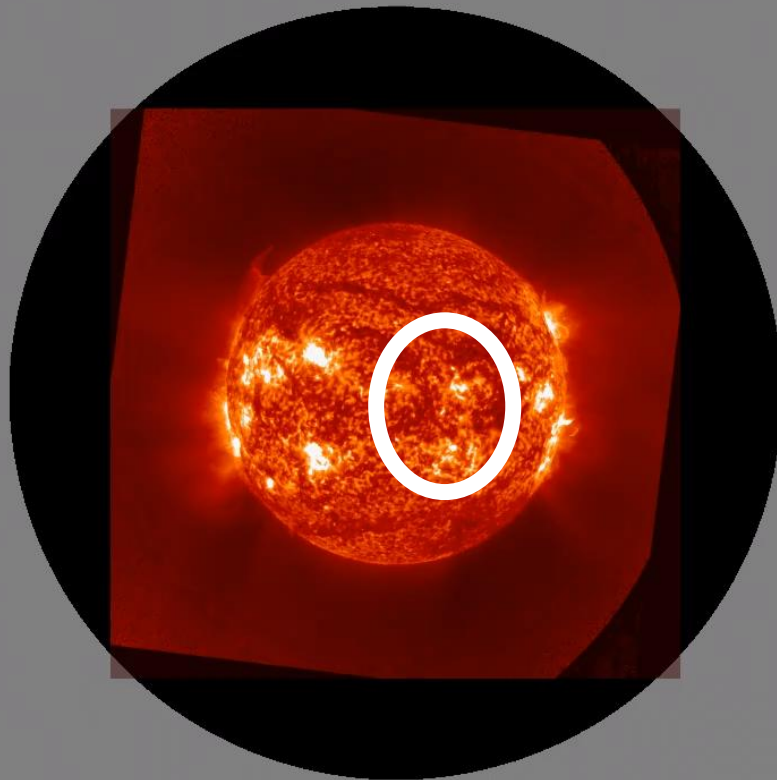
Coronal Mass Ejections



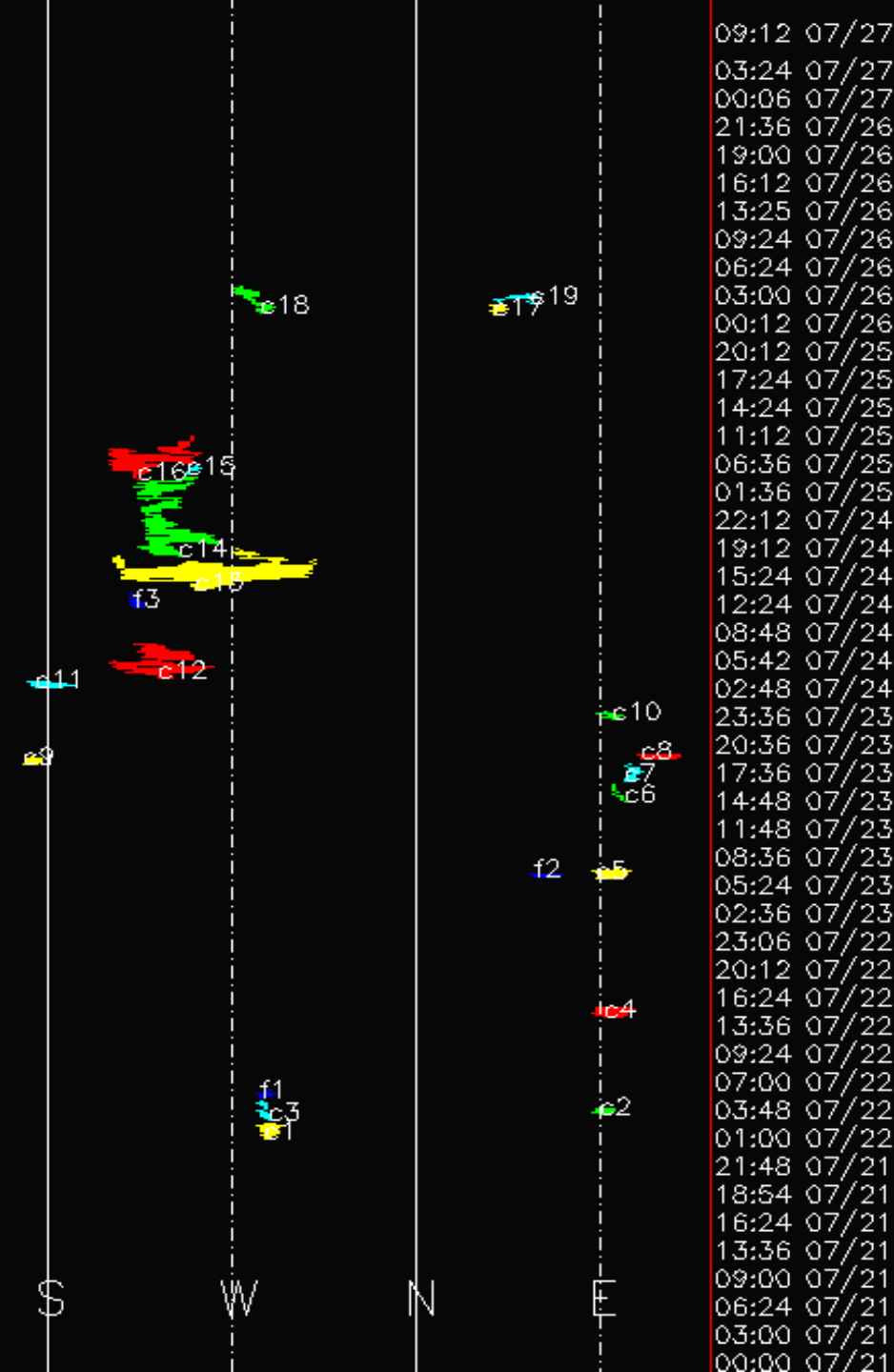
2025-07-20T00:20:51.029



Coronal Mass Ejections



2025-07-23T00:21:00.241



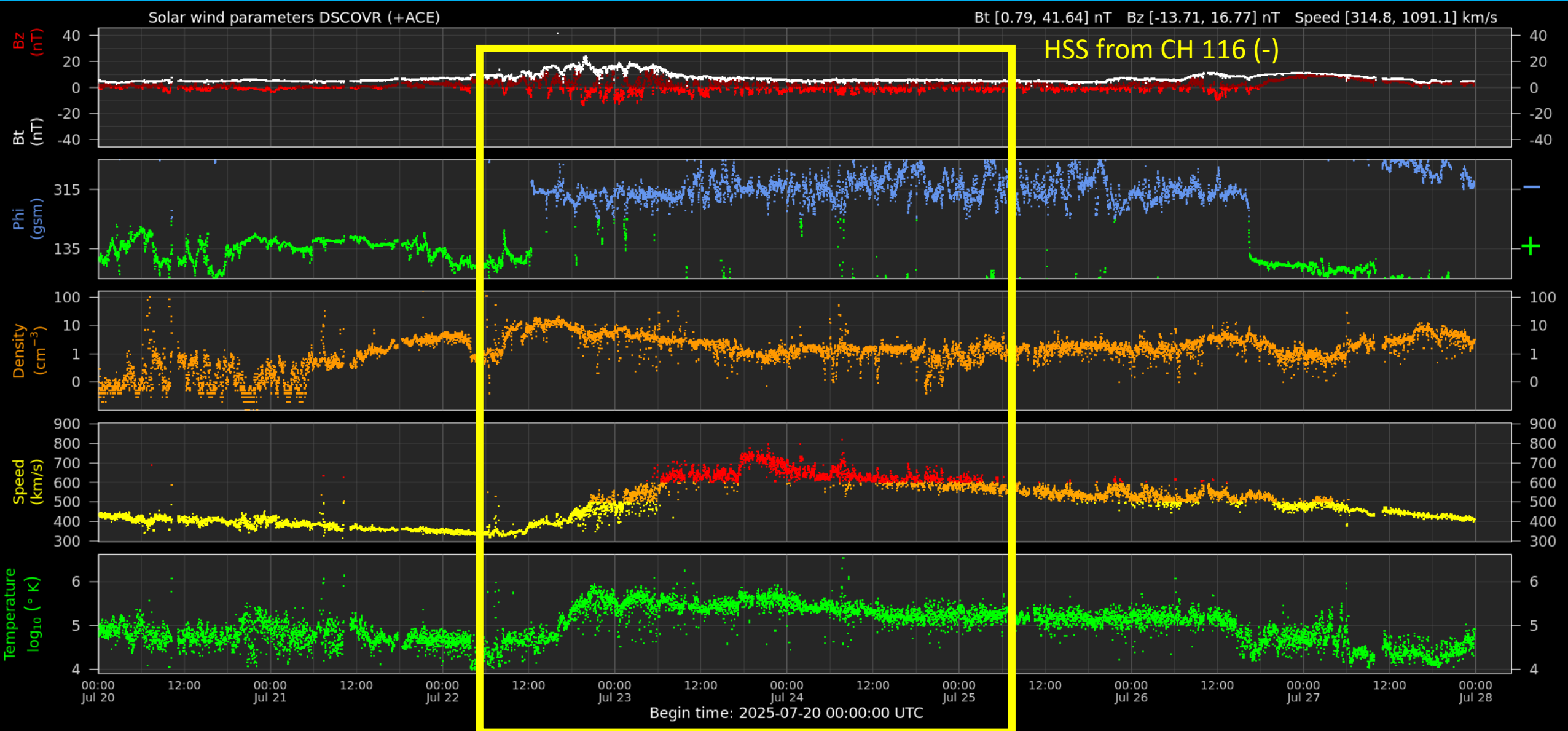
Solar Wind and

Geomagnetic Activity

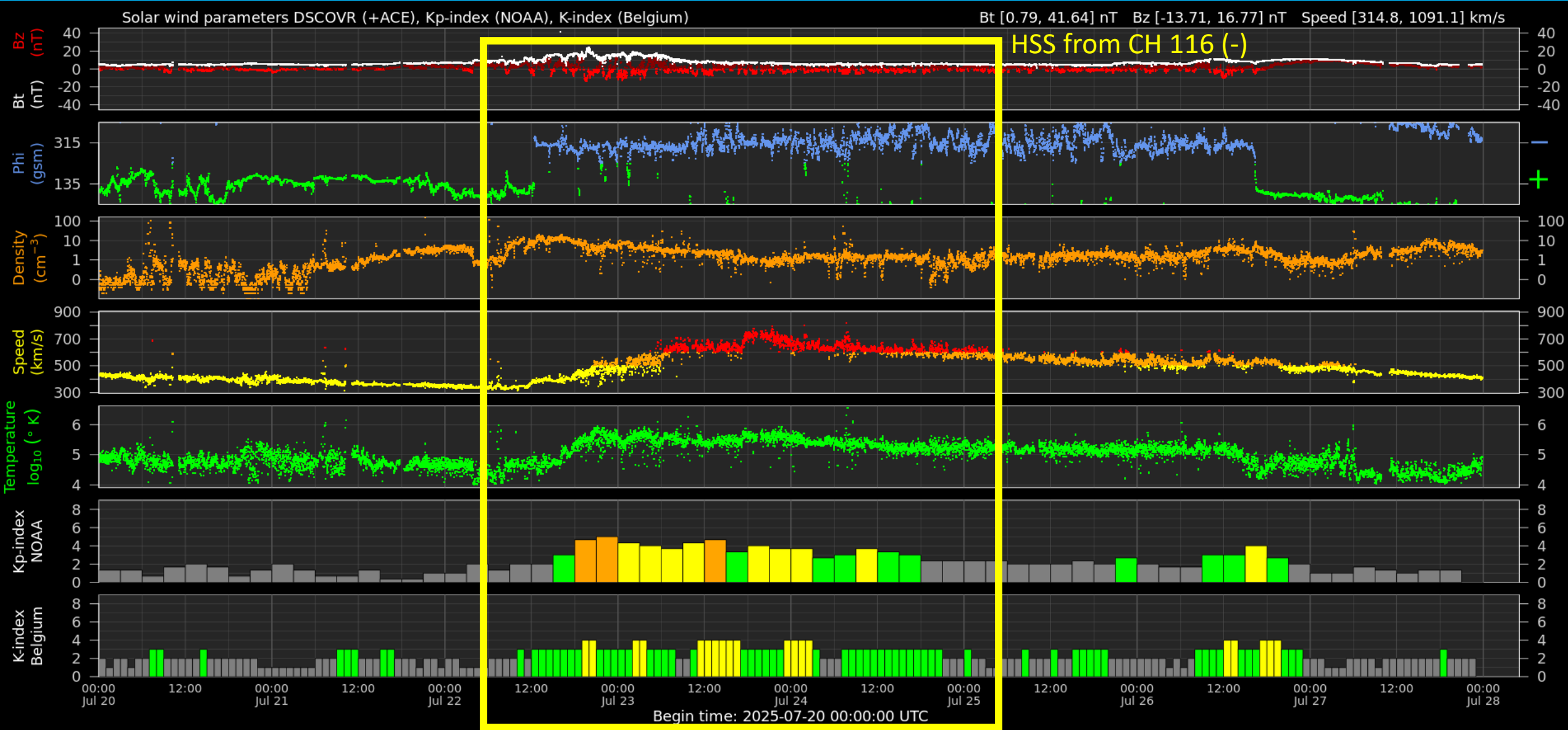


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Solar wind parameters



Solar wind parameters & K-indices

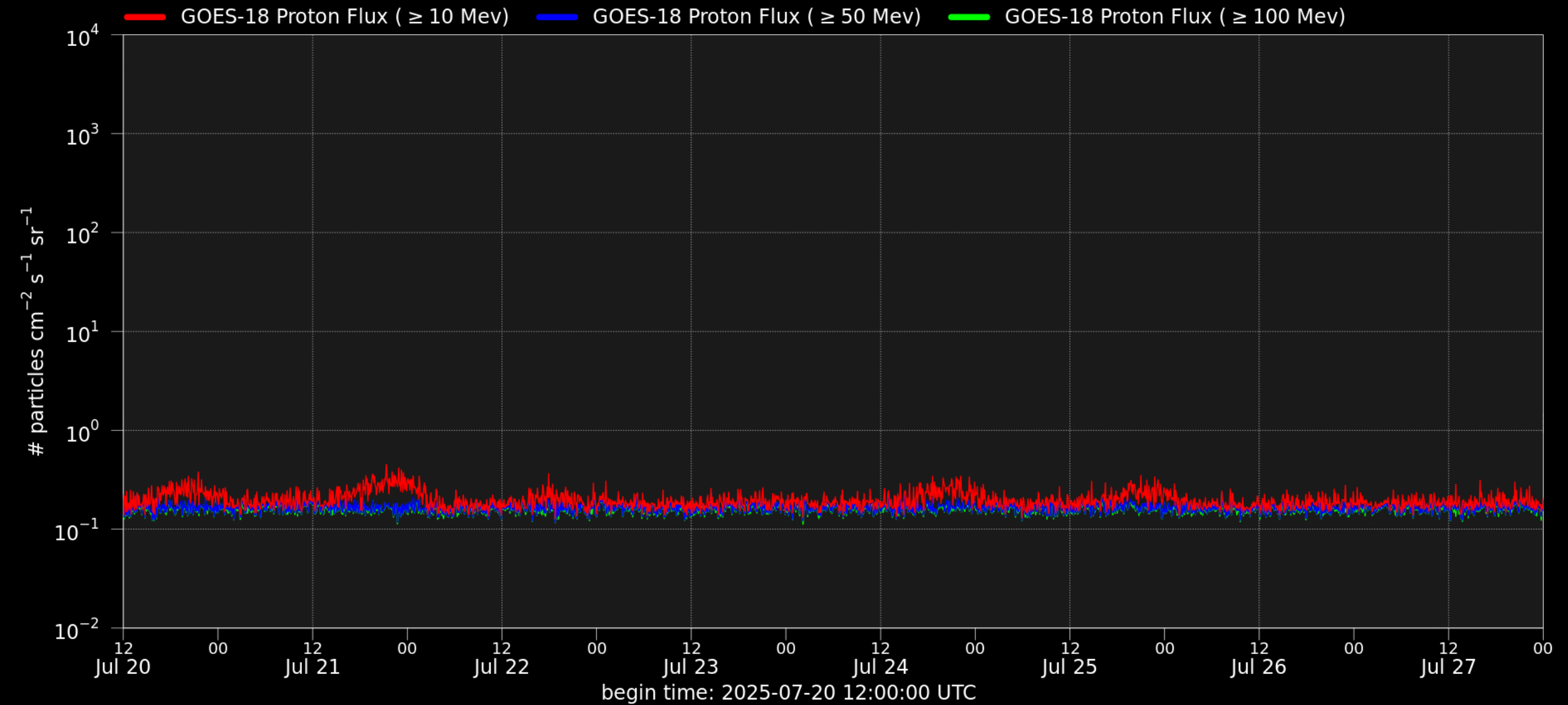


Geomagnetic activity (K-indexes)



Energetic Particles

Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



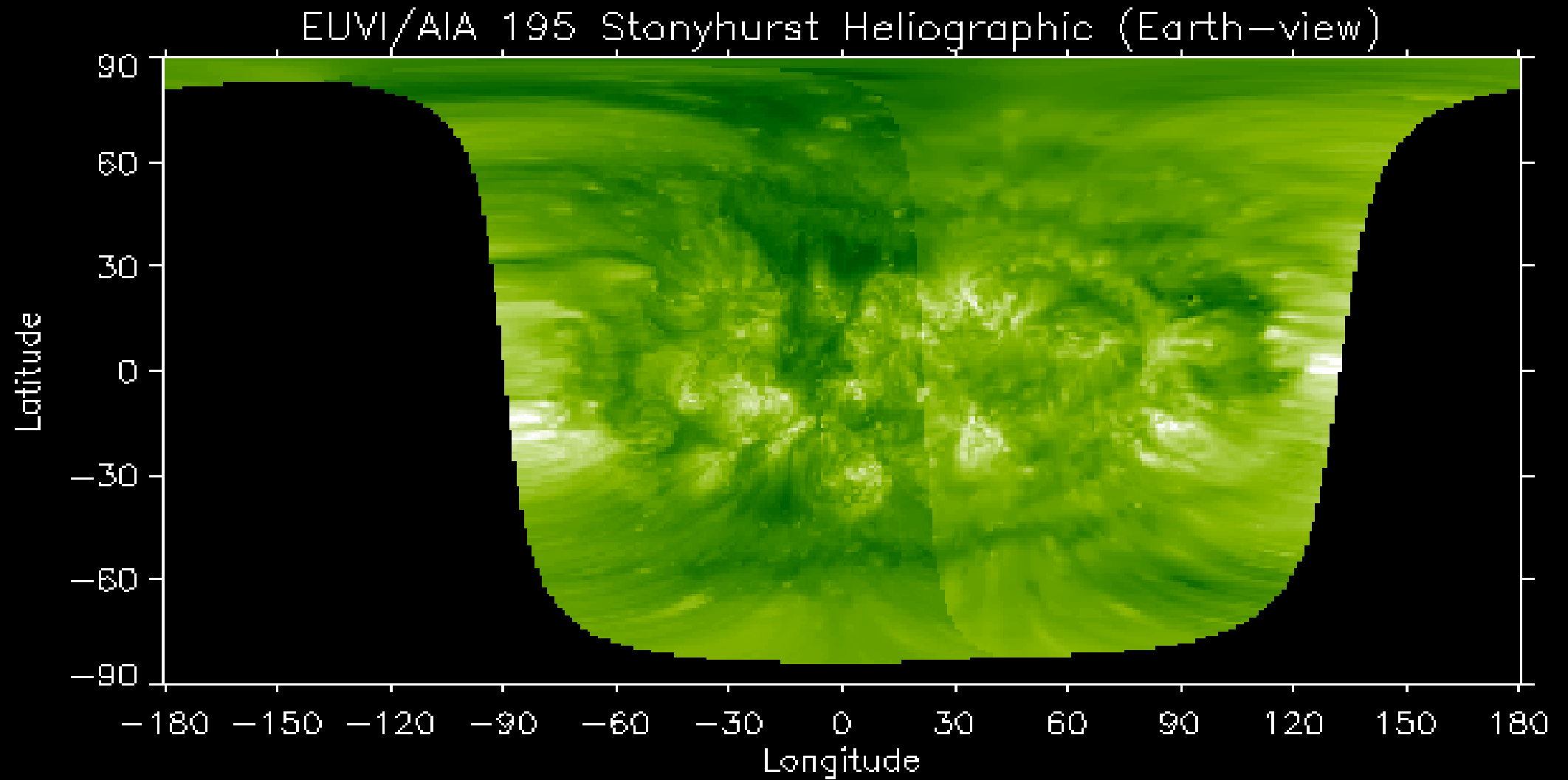
Outlook



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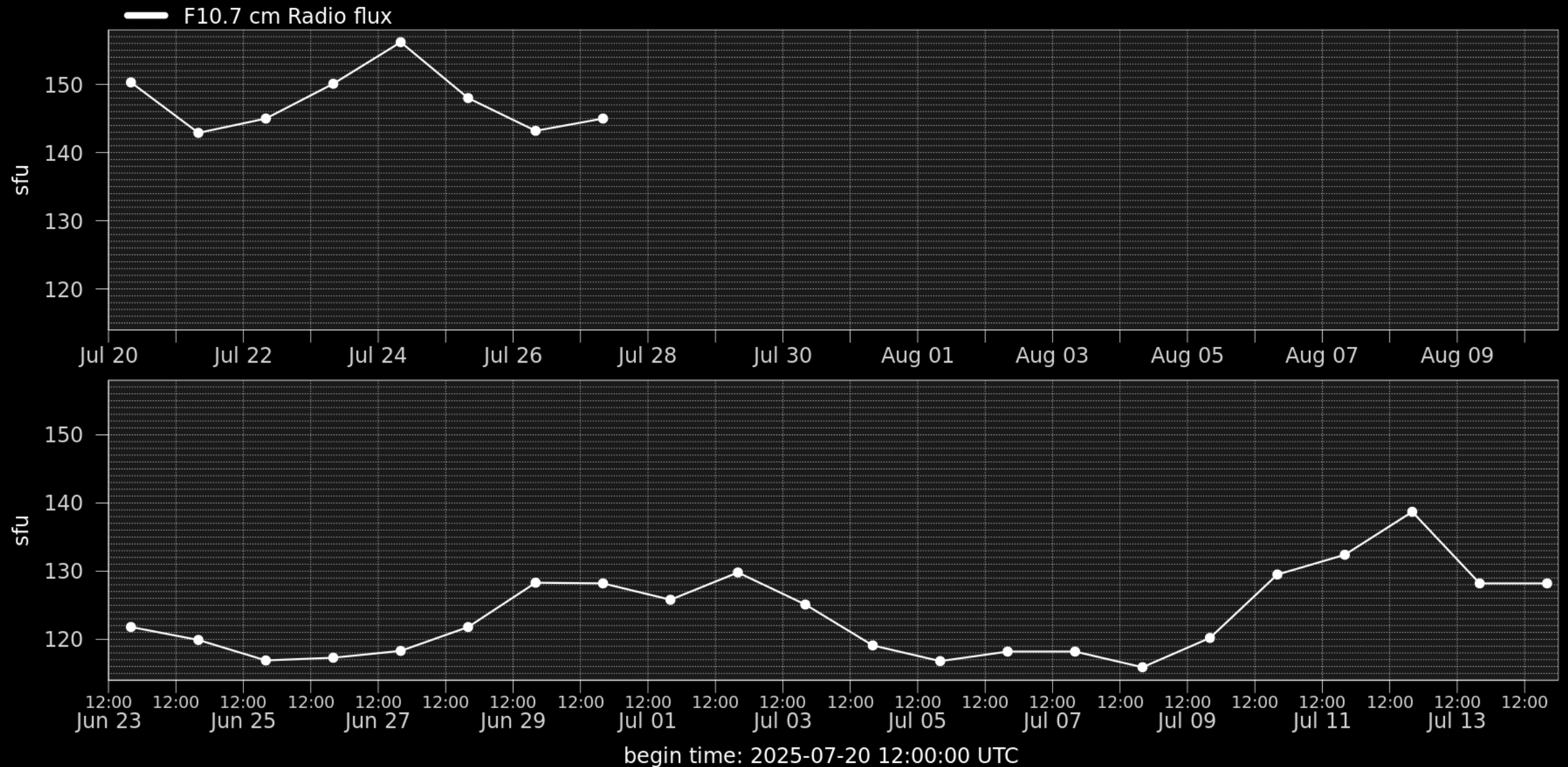
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Outlook: Solar activity

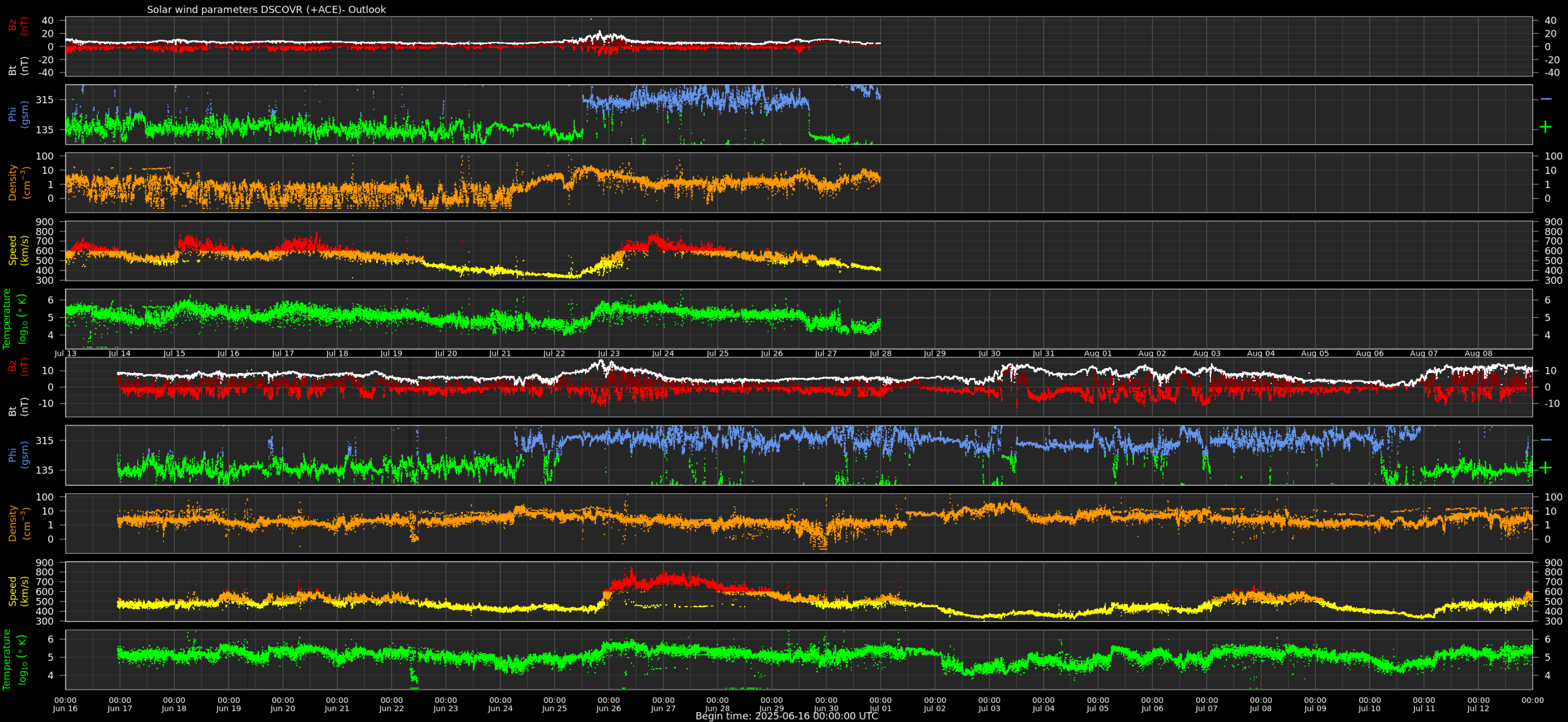


Observation date: 2025/07/27 23:05:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



PECASUS



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Pecasus related events

No advisories issued over the past week

SIDC Space Weather Briefing

See you at our next briefing!

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