

SIDC Space Weather Briefing

30 July 2023-06 August 2023

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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 2023-07-30 12:00 to 2023-08-06 23:59

Active regions	14 Active Regions NOAA AR 3379 - 3395
Flares	# C-class flare: 75 # M-class flare: 18 # X-class flare: 1
Coronal Holes	CH- crossed central meridian on Aug 01
CMEs	Two CME with Earth-directed components on Aug 02 & 05

Proton flux	Exceeded 10 pfu threshold
Electron flux	Exceeded 1000 pfu threshold

Solar wind and geomagnetic conditions

ICMEs	ICME arrivals
Solar wind conditions	B : 1.44 - 25.21 nT //Bz: -23.55 nT to 14.6 nT //Speed: 295.1 - 575.6km/s
K-indices	max K-index (KBel): 5 max Kp-index (NOAA): 7-

All Quiet Alert: NOT QUIET

Solar Activity



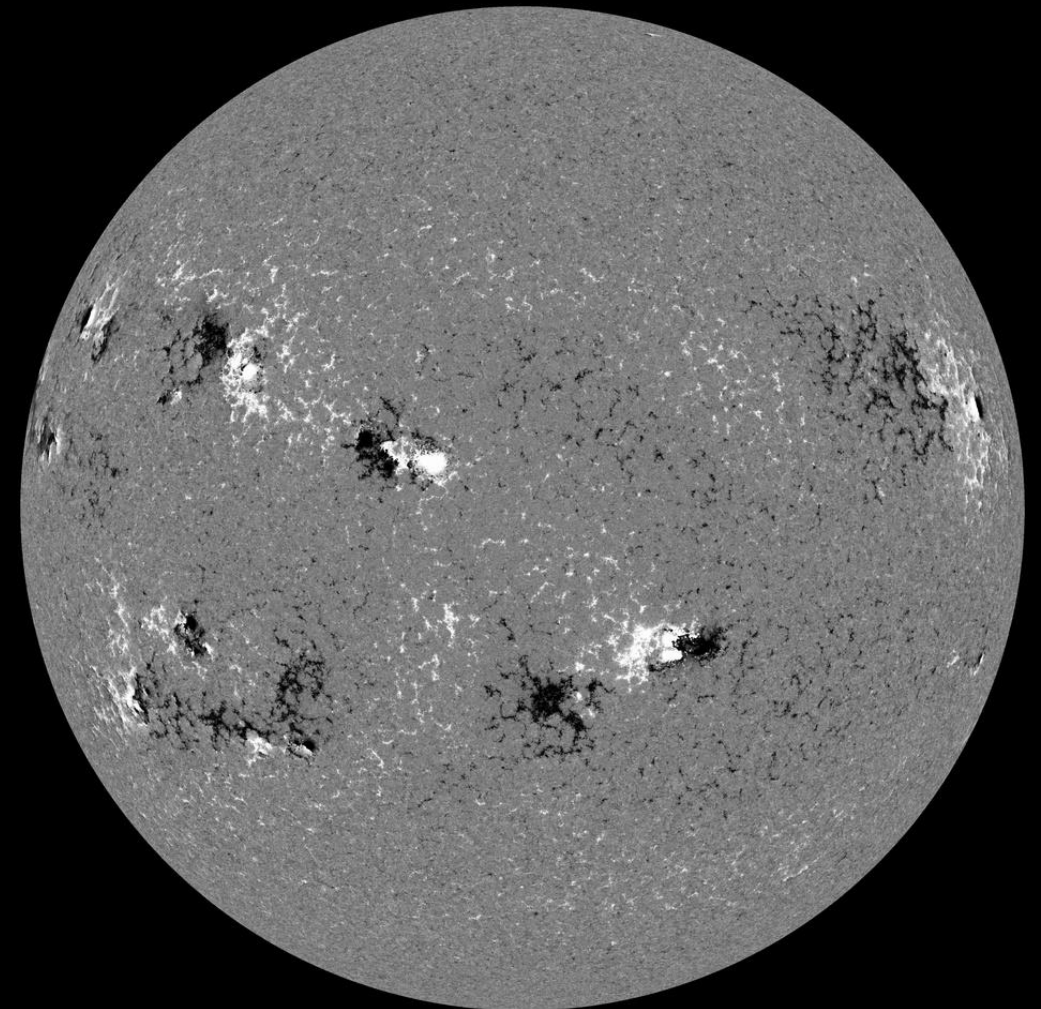
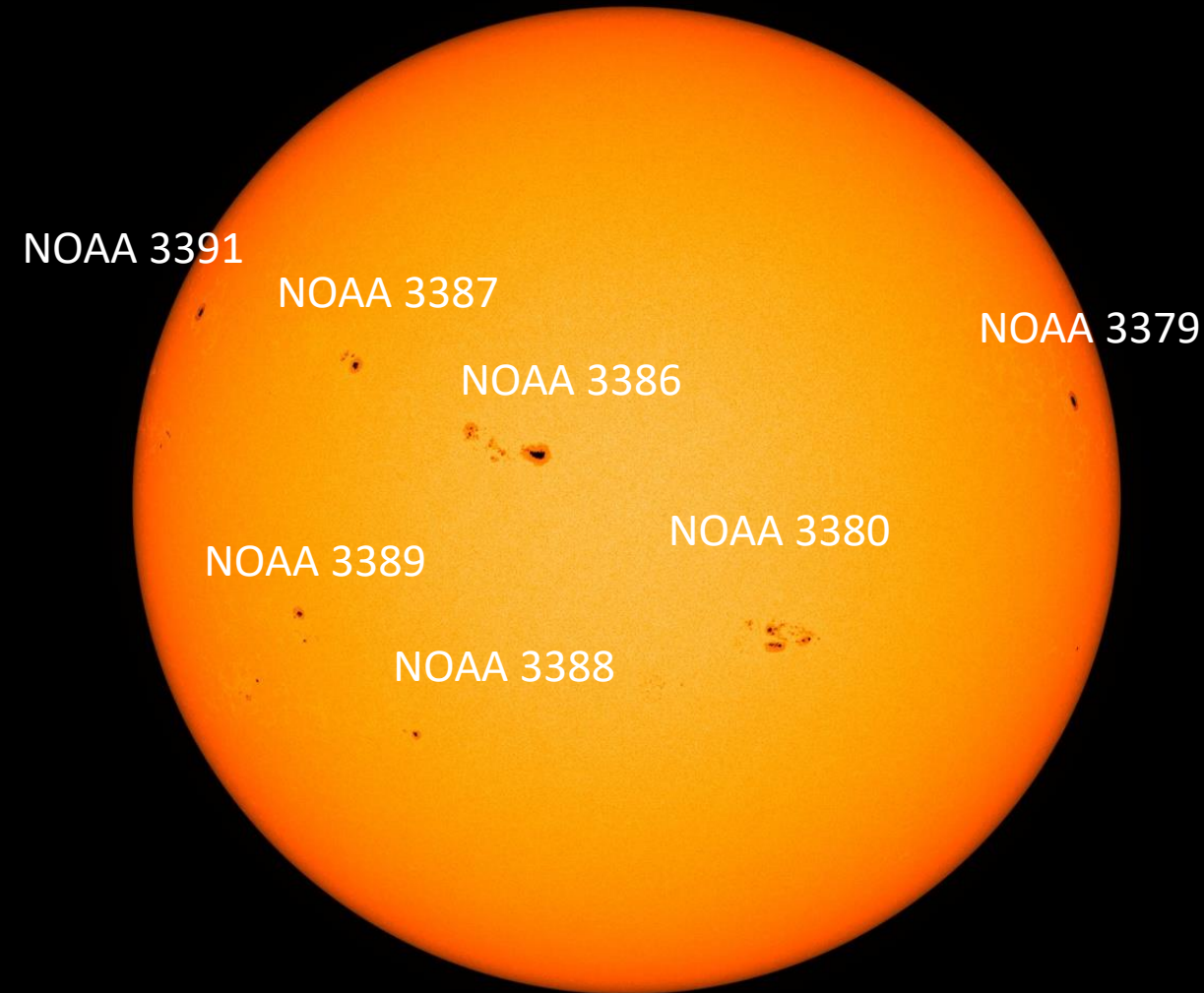
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Solar active regions

SDO/HMI White Light 2023-07-30

SDO/HMI Magnetogram 2023-07-30

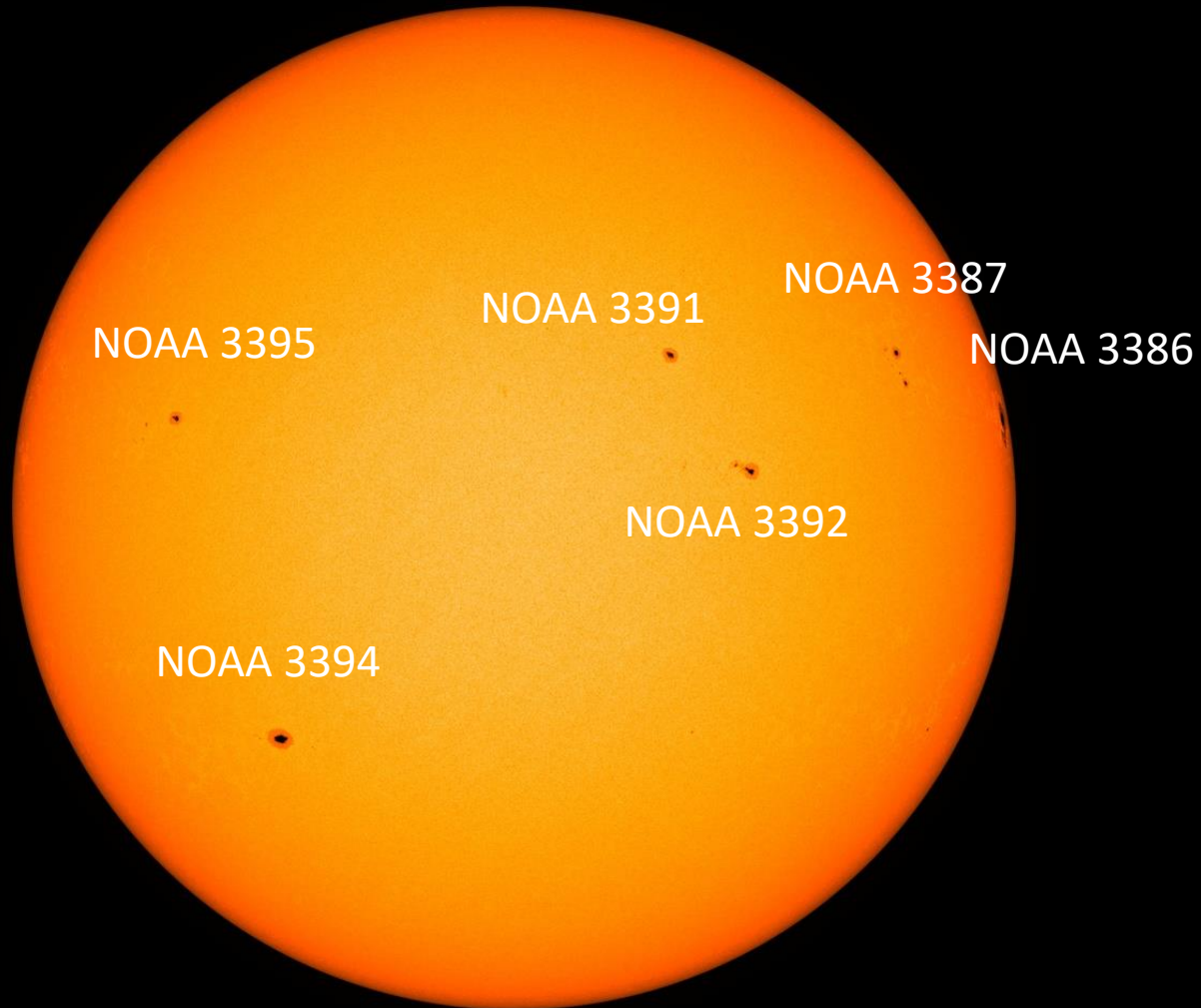


SDO/HMI Quick-Look Continuum: 20230730_114500

SDO/HMI Quick-Look Magnetogram: 20230730_114500

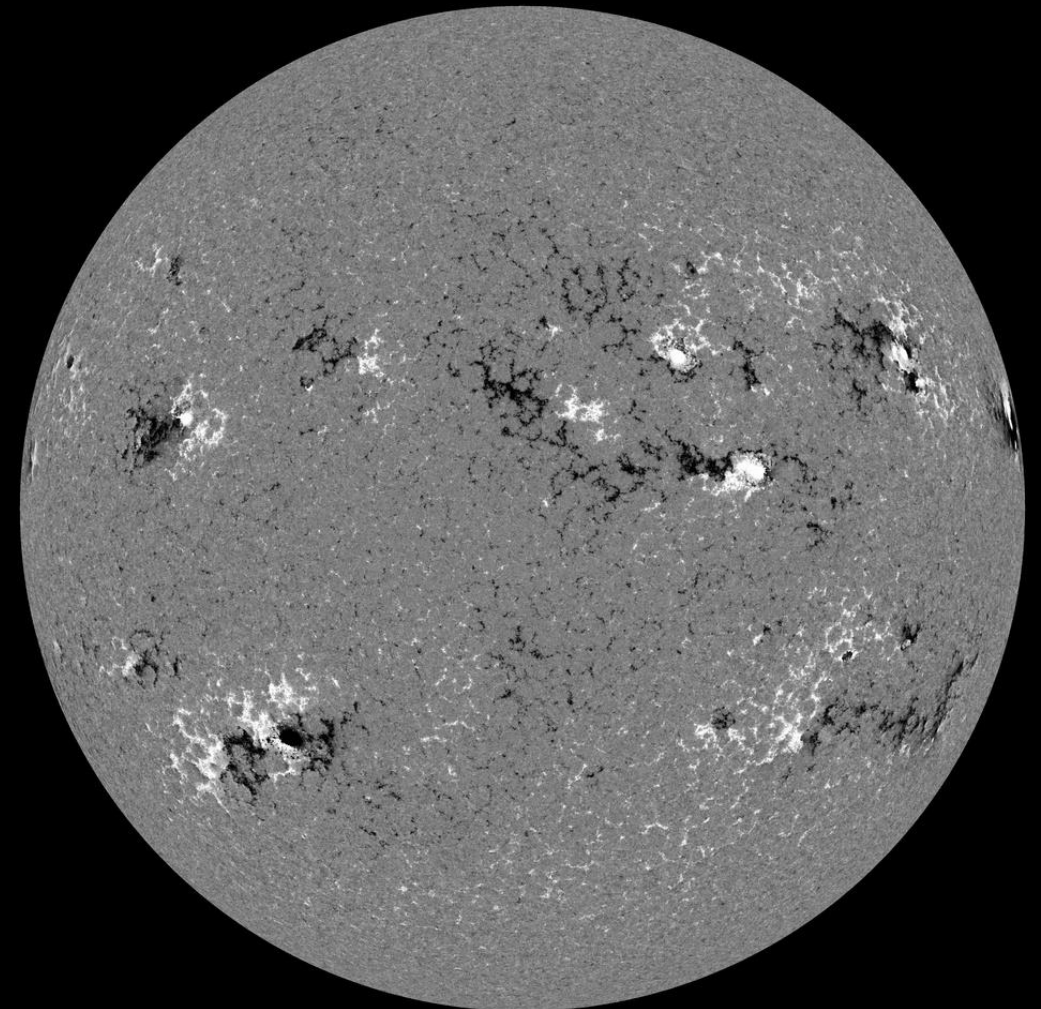
Solar active regions

SDO/HMI White Light 2023-08-06



SDO/HMI Quick-Look Continuum: 20230806_114500

SDO/HMI Magnetogram 2023-08-06

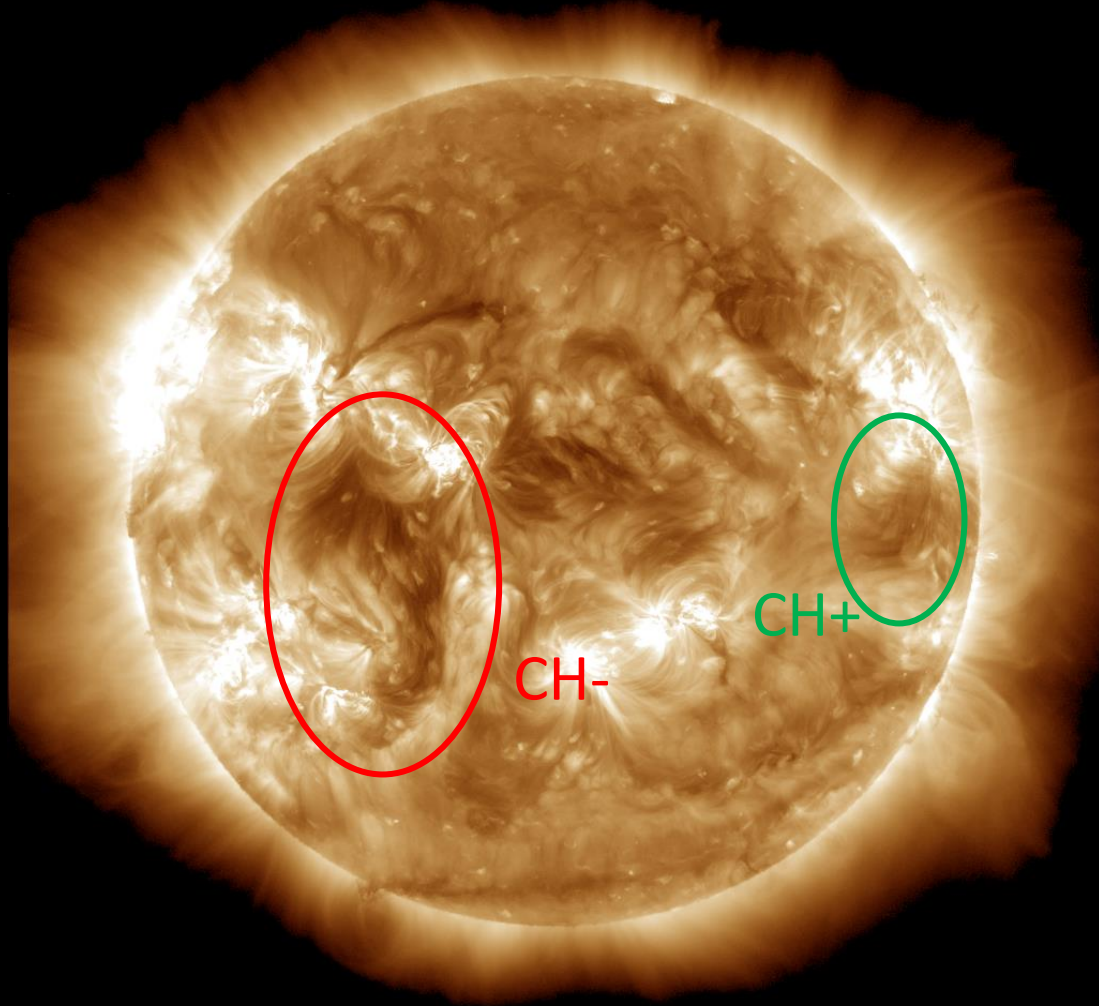


SDO/HMI Quick-Look Magnetogram: 20230806_114500

Coronal holes

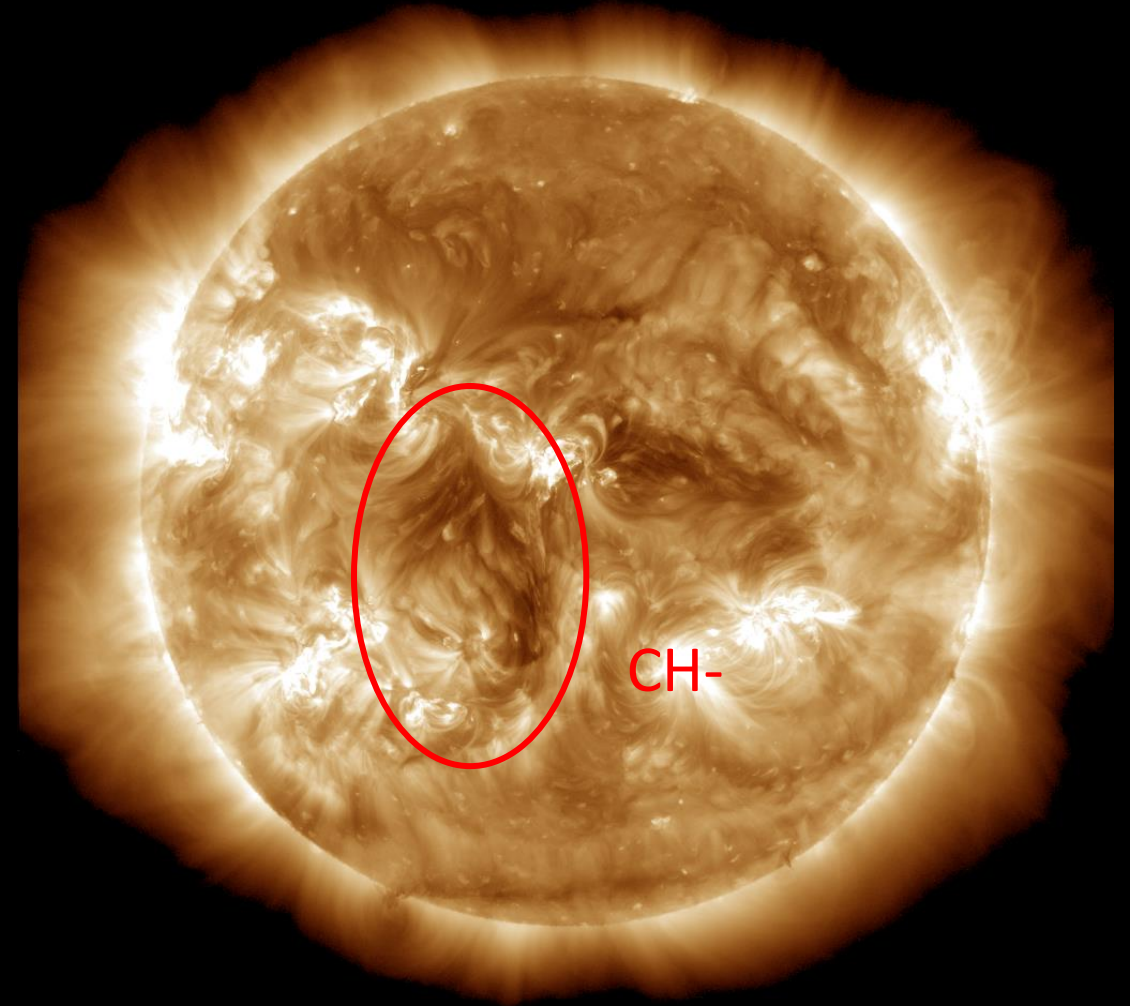
SDO/AIA 19.3 nm 2023-07-30

SDO/AIA AIA 193Å 2023-07-30T12:00:05.843



SDO/AIA 19.3 nm 2023-07-31

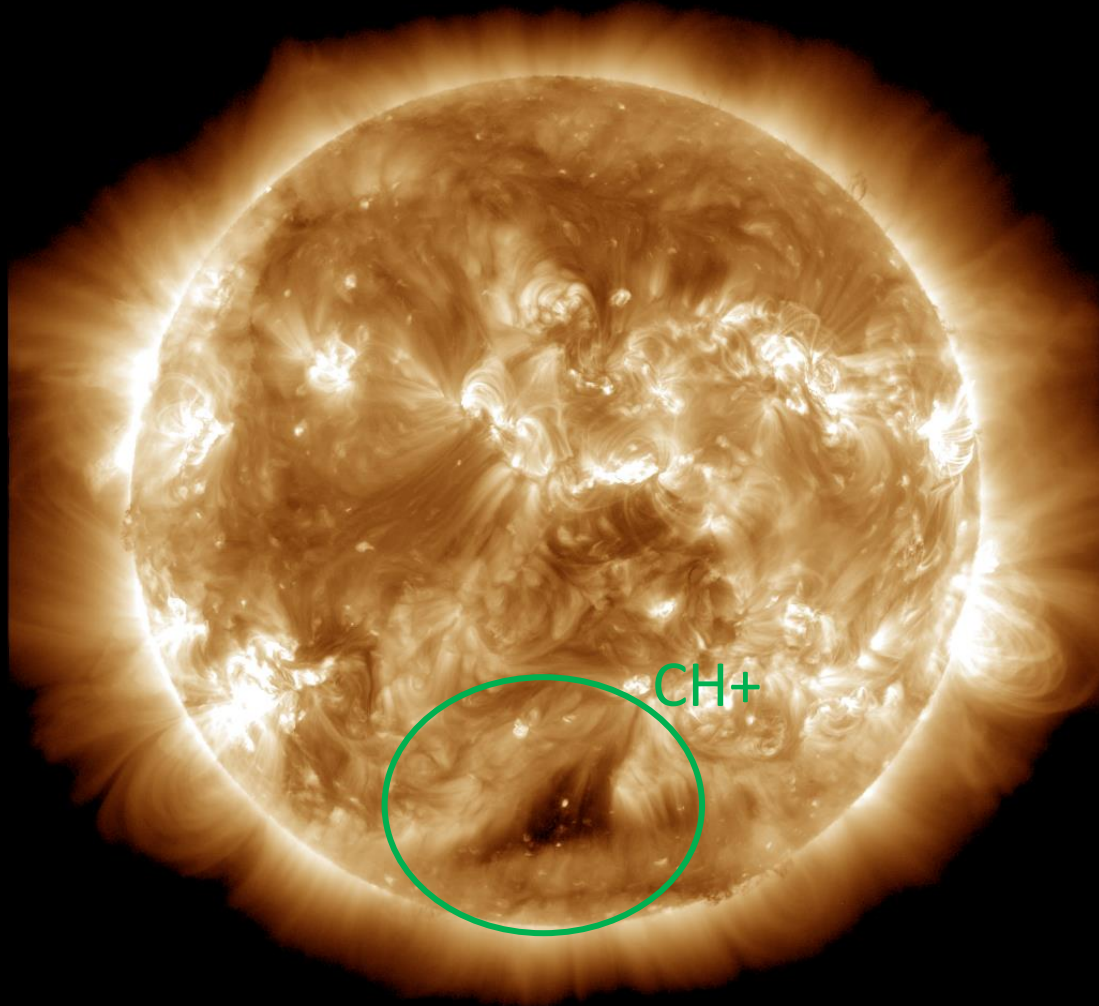
SDO/AIA AIA 193Å 2023-07-31T12:00:05.847



Coronal holes

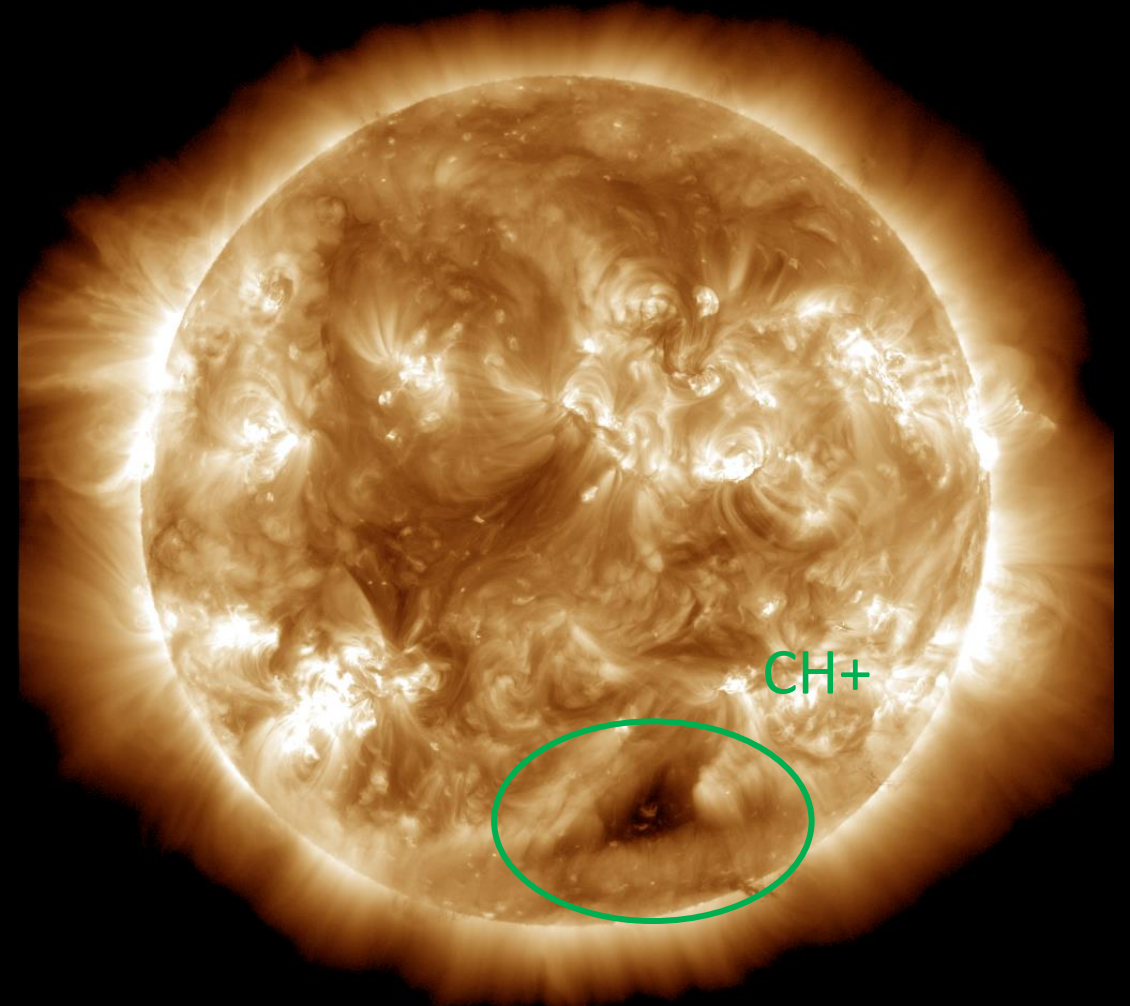
SDO/AIA 19.3 nm 2023-08-05

SDO/AIA AIA 193Å 2023-08-05T12:00:05.843



SDO/AIA 19.3 nm 2023-08-06

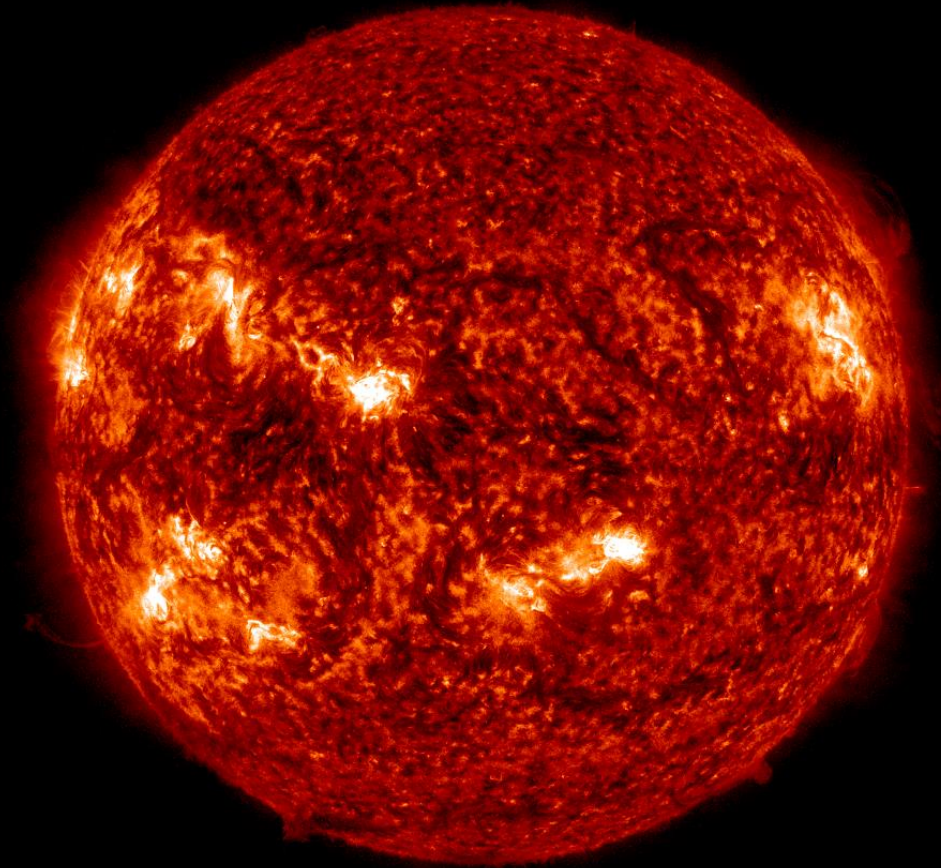
SDO/AIA AIA 193Å 2023-08-06T12:00:05.843



Filaments

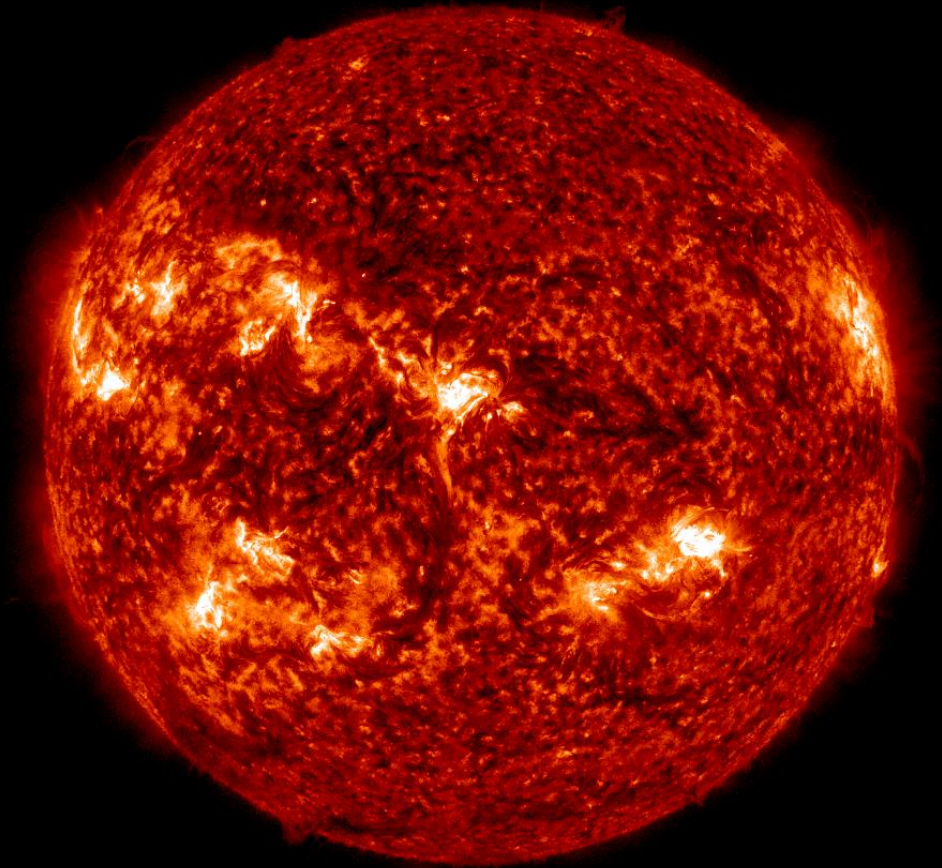
SDO/AIA 30.4 nm 2023-07-30

SDO/AIA AIA 304Å 2023-07-30T12:00:06.572



SDO/AIA 30.4 nm 2023-07-31

SDO/AIA AIA 304Å 2023-07-31T12:00:06.597



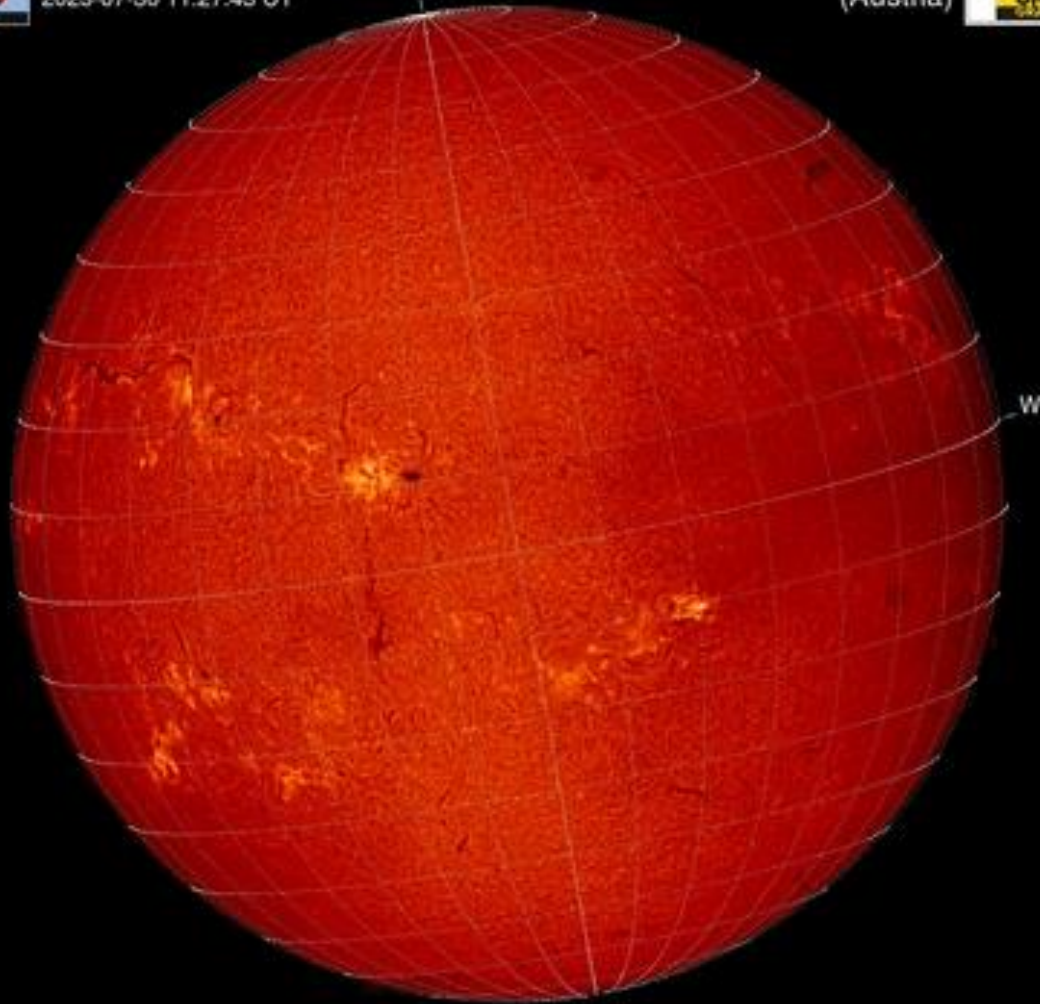
Filaments & Filament eruptions

H-alpha 2023-07-30



Kanzelhöhe Observatory
2023-07-30 11:27:43 UT

University of Graz
(Austria)

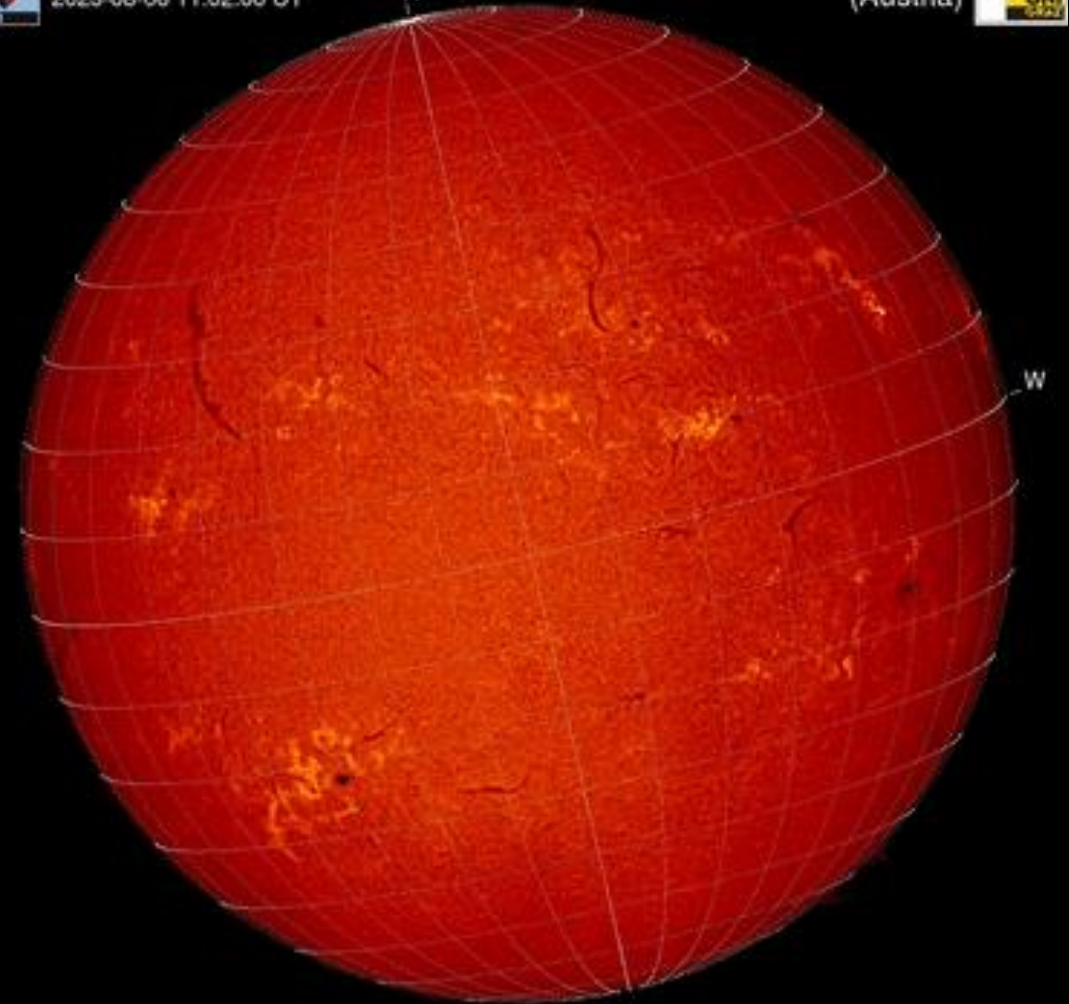


H-alpha 2023-08-06

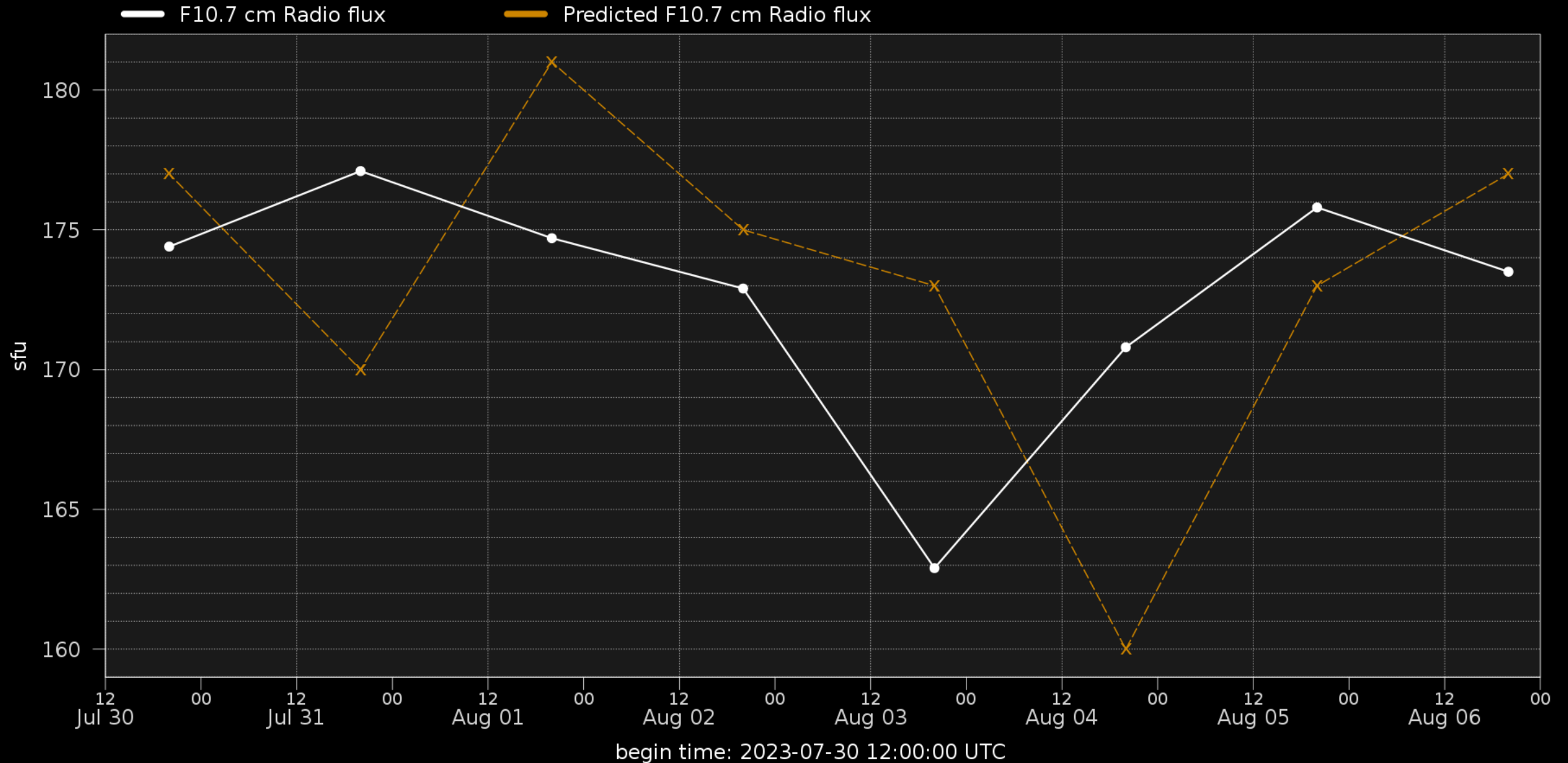


Kanzelhöhe Observatory
2023-08-06 11:02:00 UT

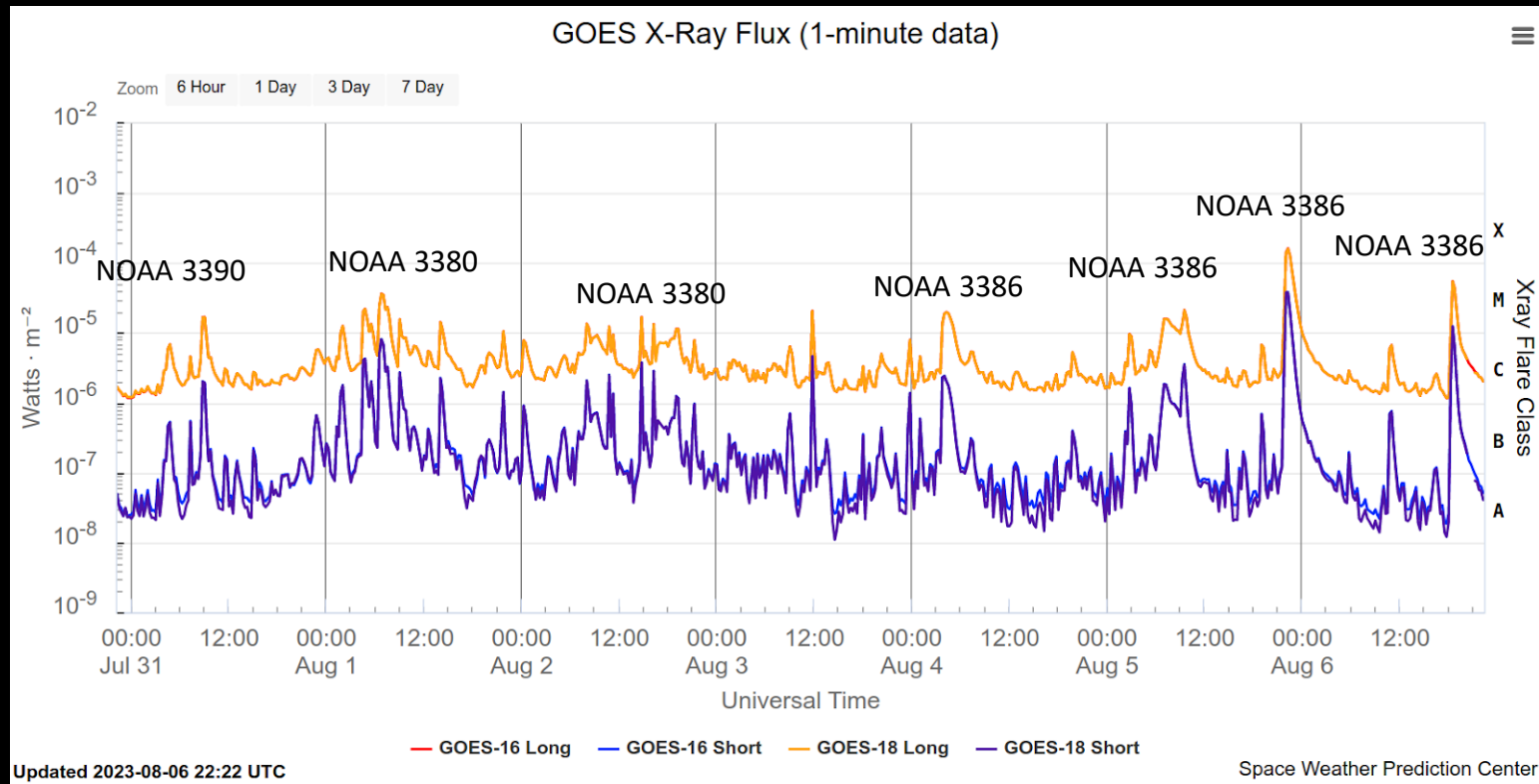
University of Graz
(Austria)



Solar F10.7cm radio flux



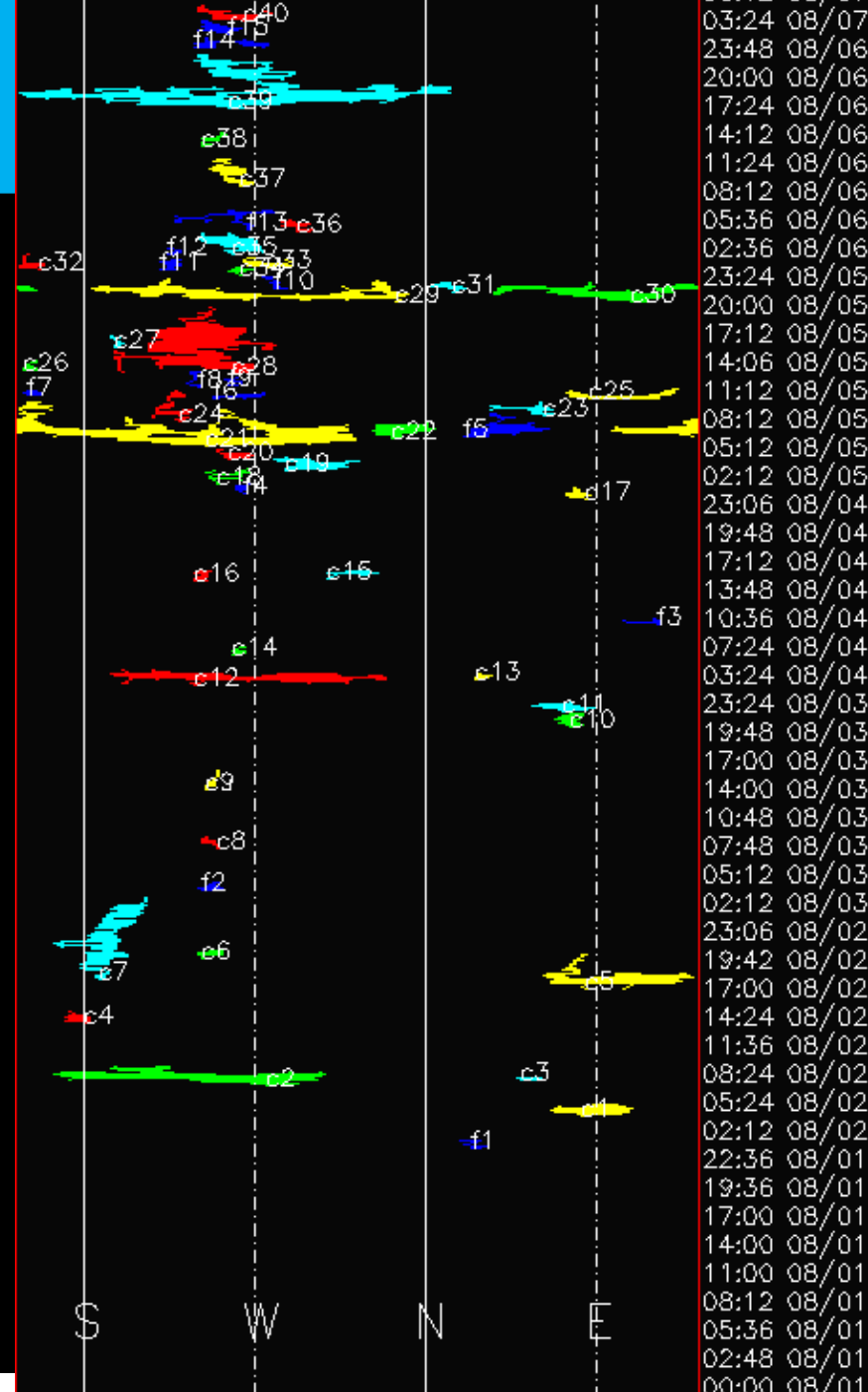
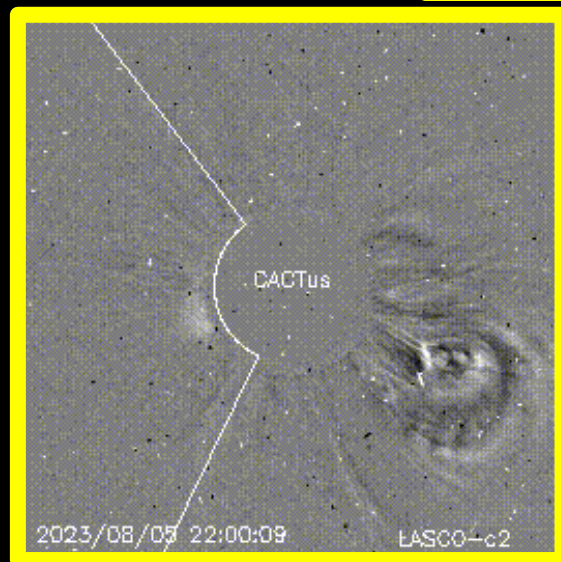
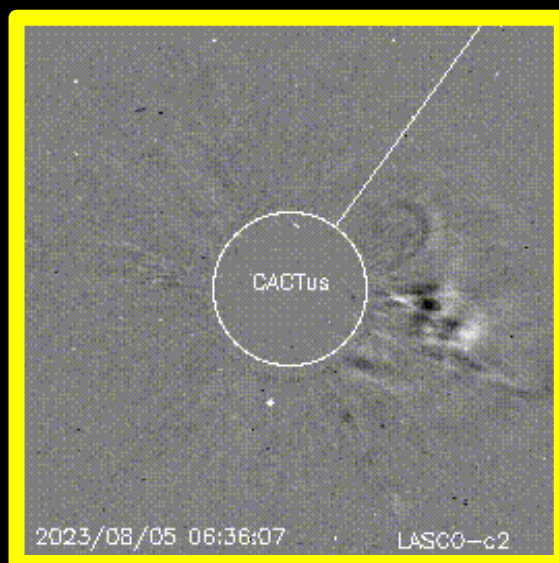
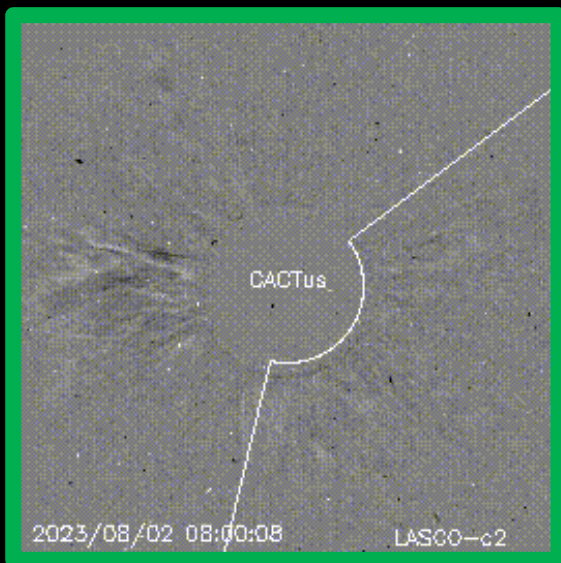
Flaring activity



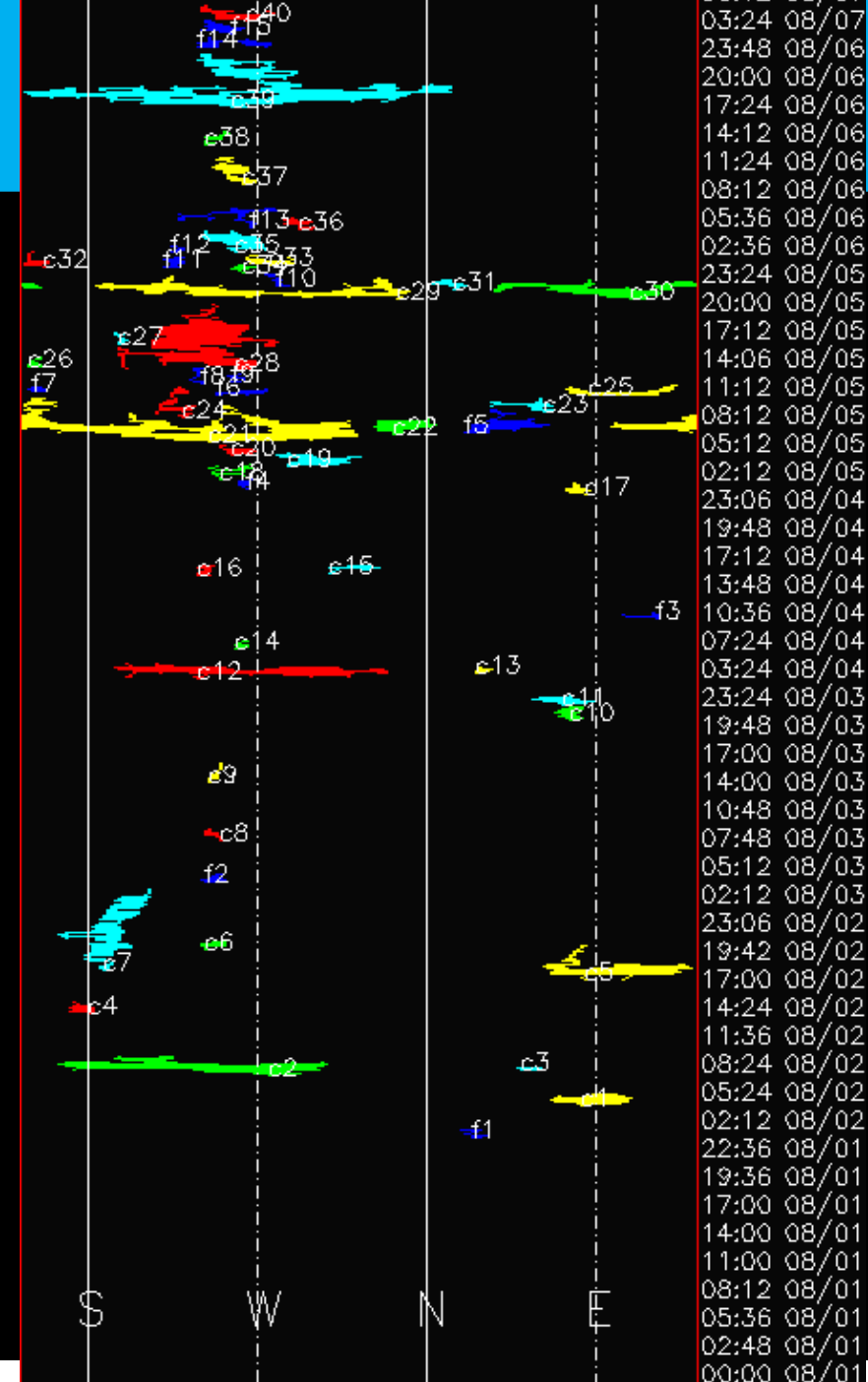
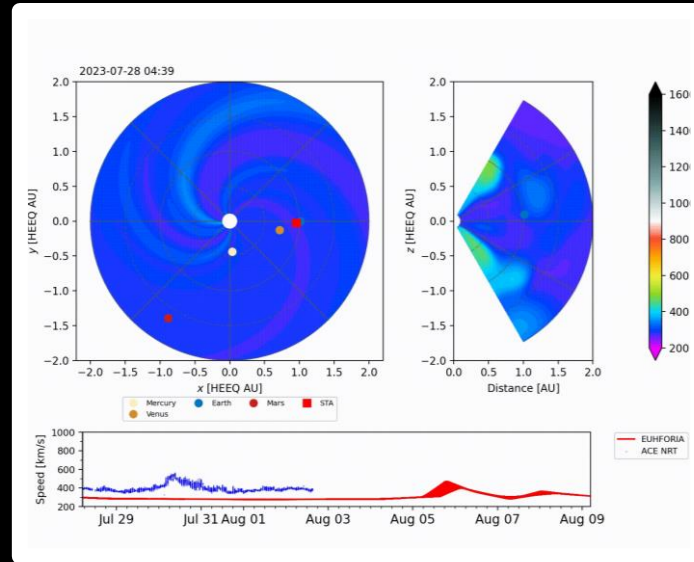
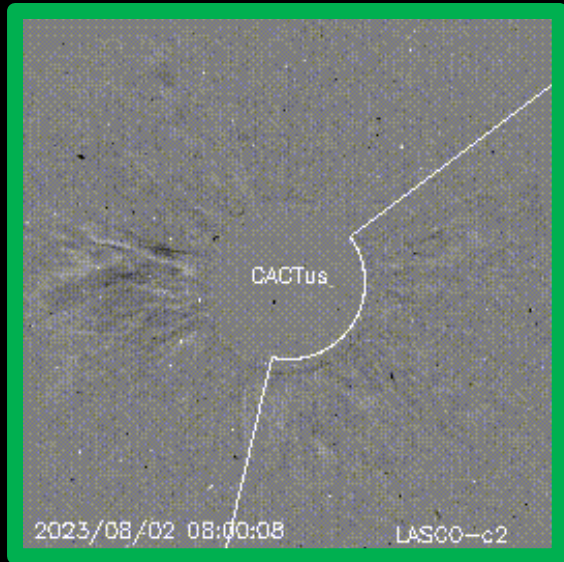
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-07-30	2023-07-31	2023-08-01	2023-08-02	2023-08-03	2023-08-04	2023-08-05	2023-08-06
Probability (%)	99 85 20	99 75 20	99 50 10	99 85 05	99 37 10	99 55 10	99 75 10	99 50 20
Observed (#)	04 01 00	03 06 00	04 04 00	10 04 00	06 00 00	05 01 00	06 00 01	01 01 00

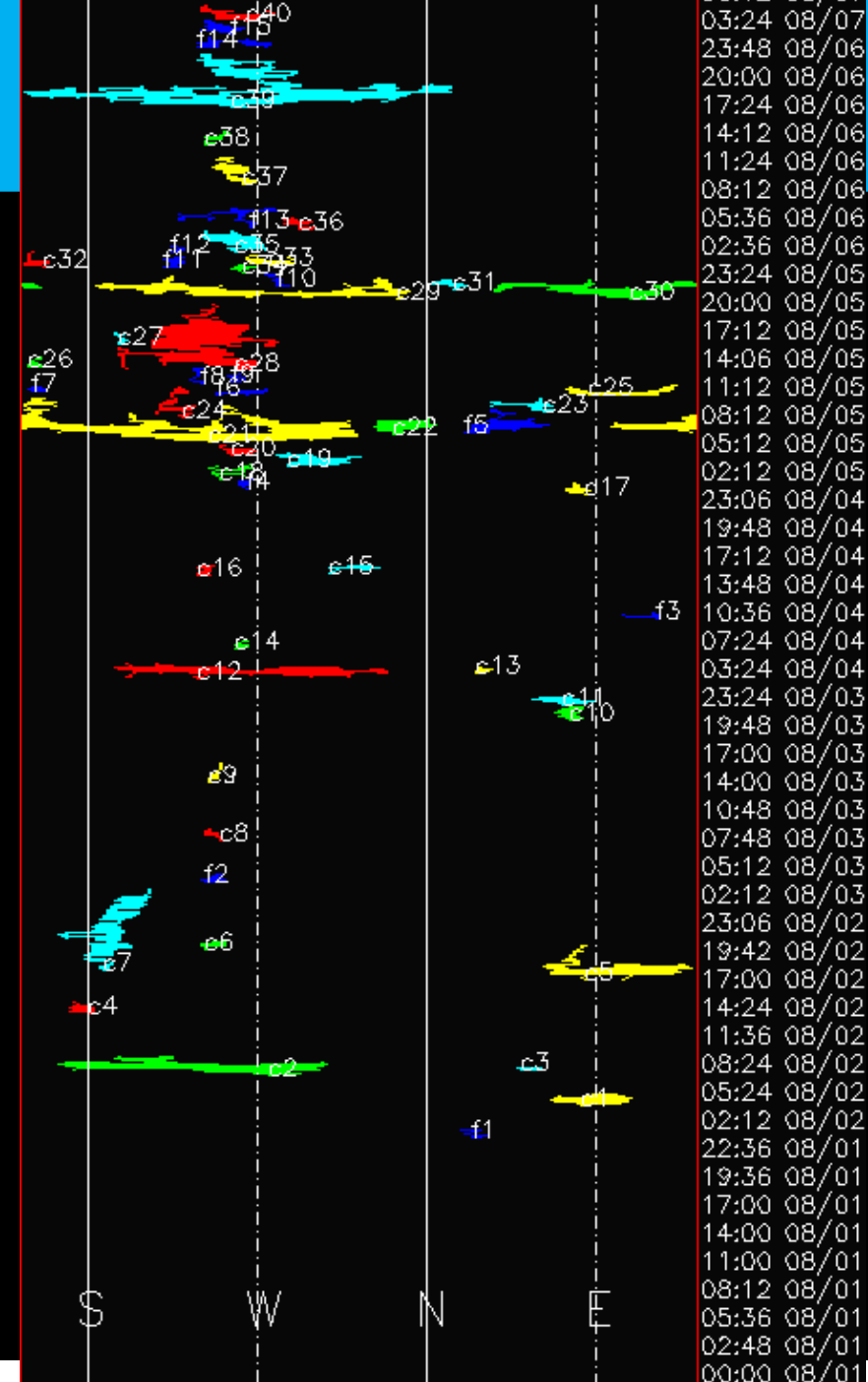
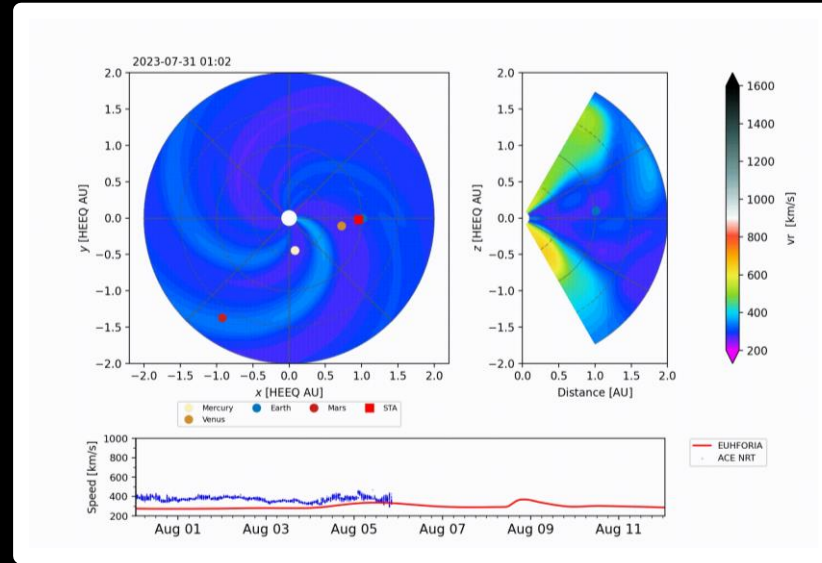
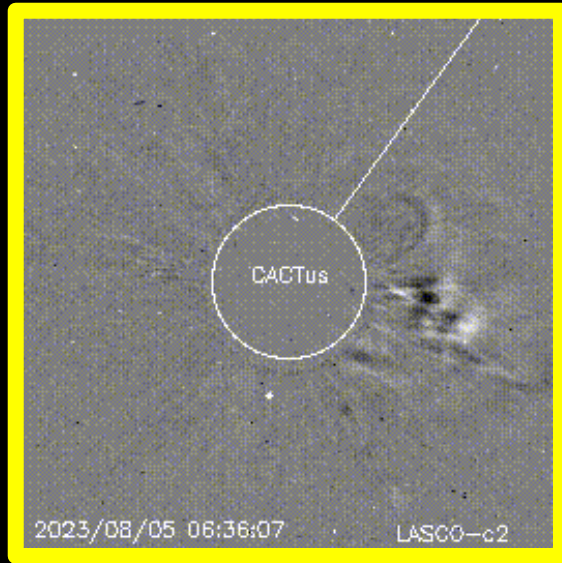
Coronal Mass Ejections



Coronal Mass Ejections



Coronal Mass Ejections



Solar Wind and

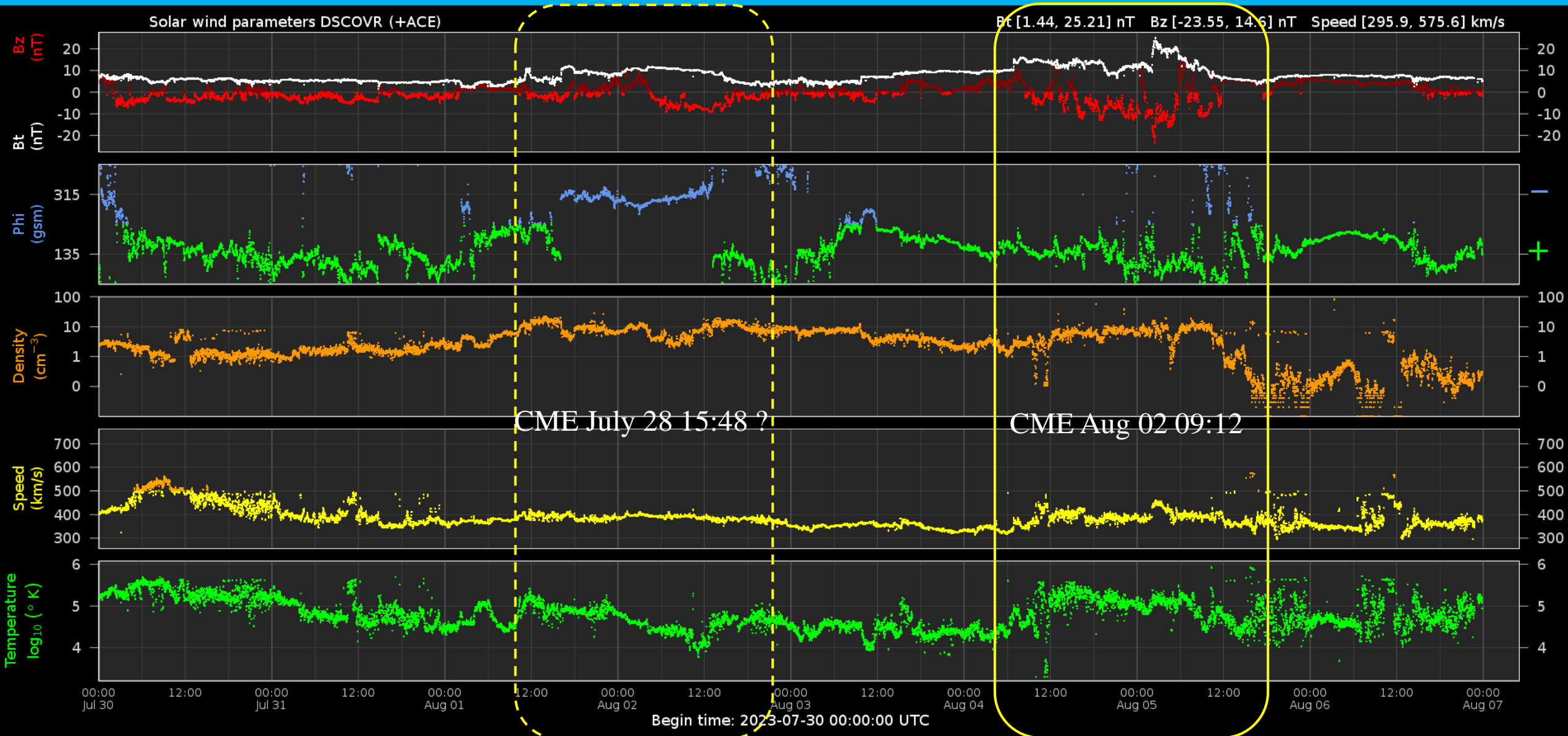
Geomagnetic Activity



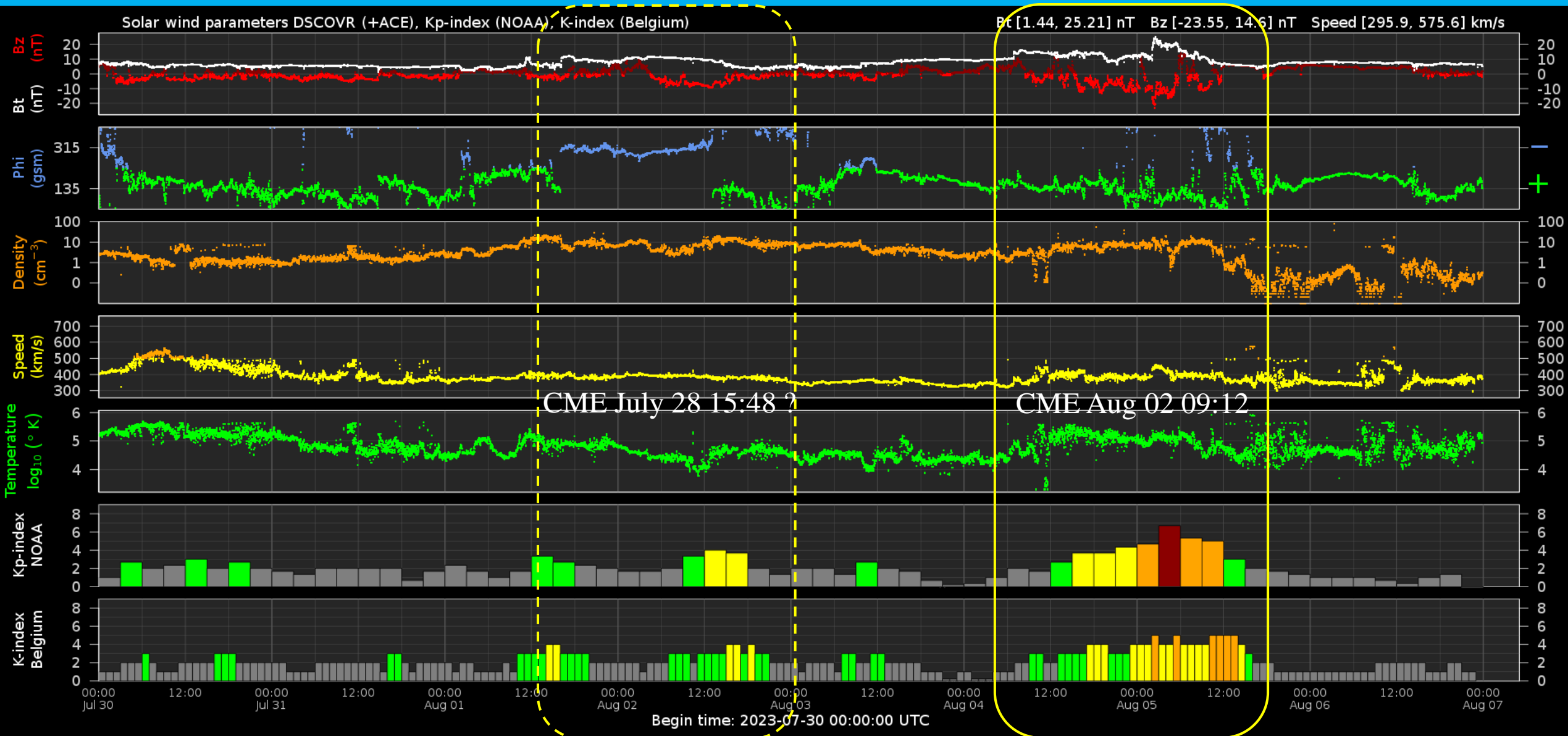
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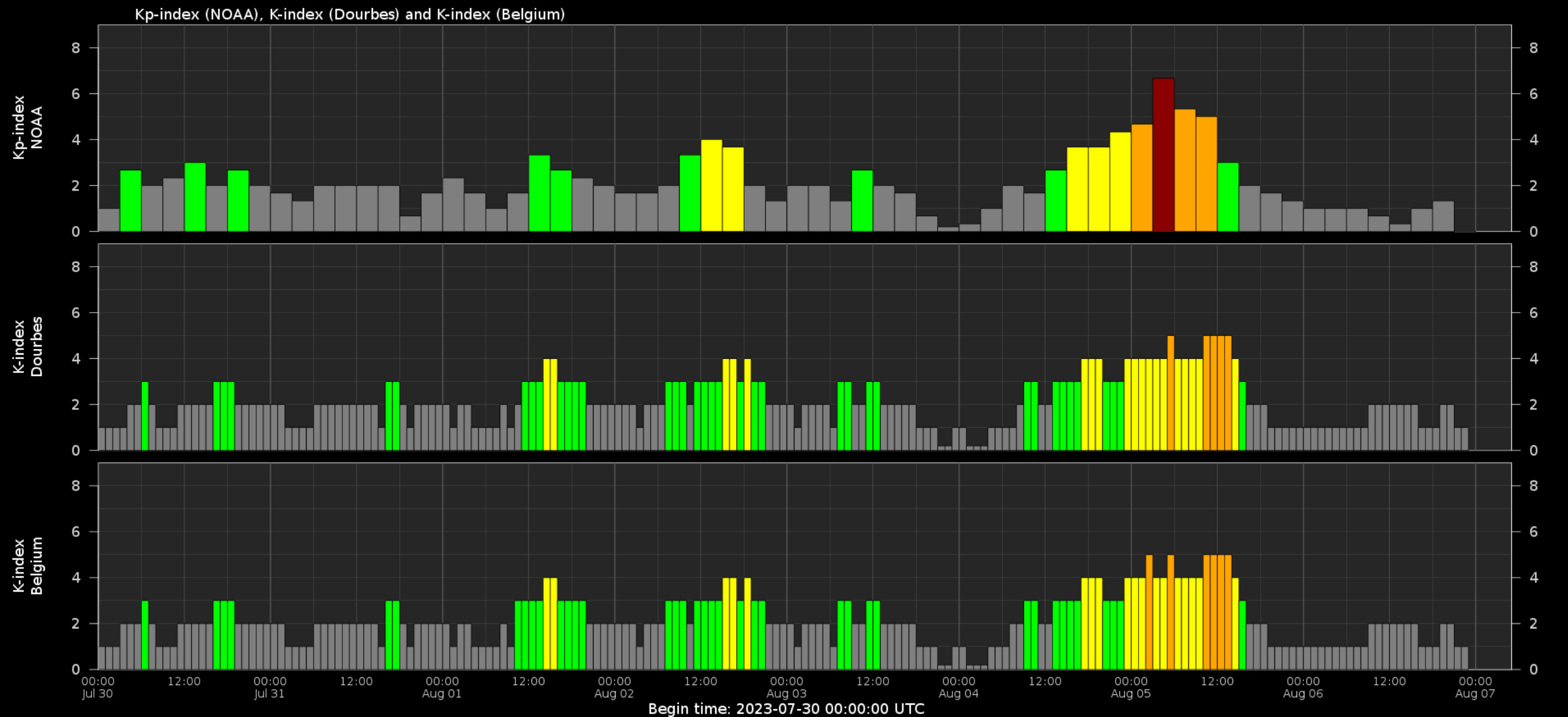
Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



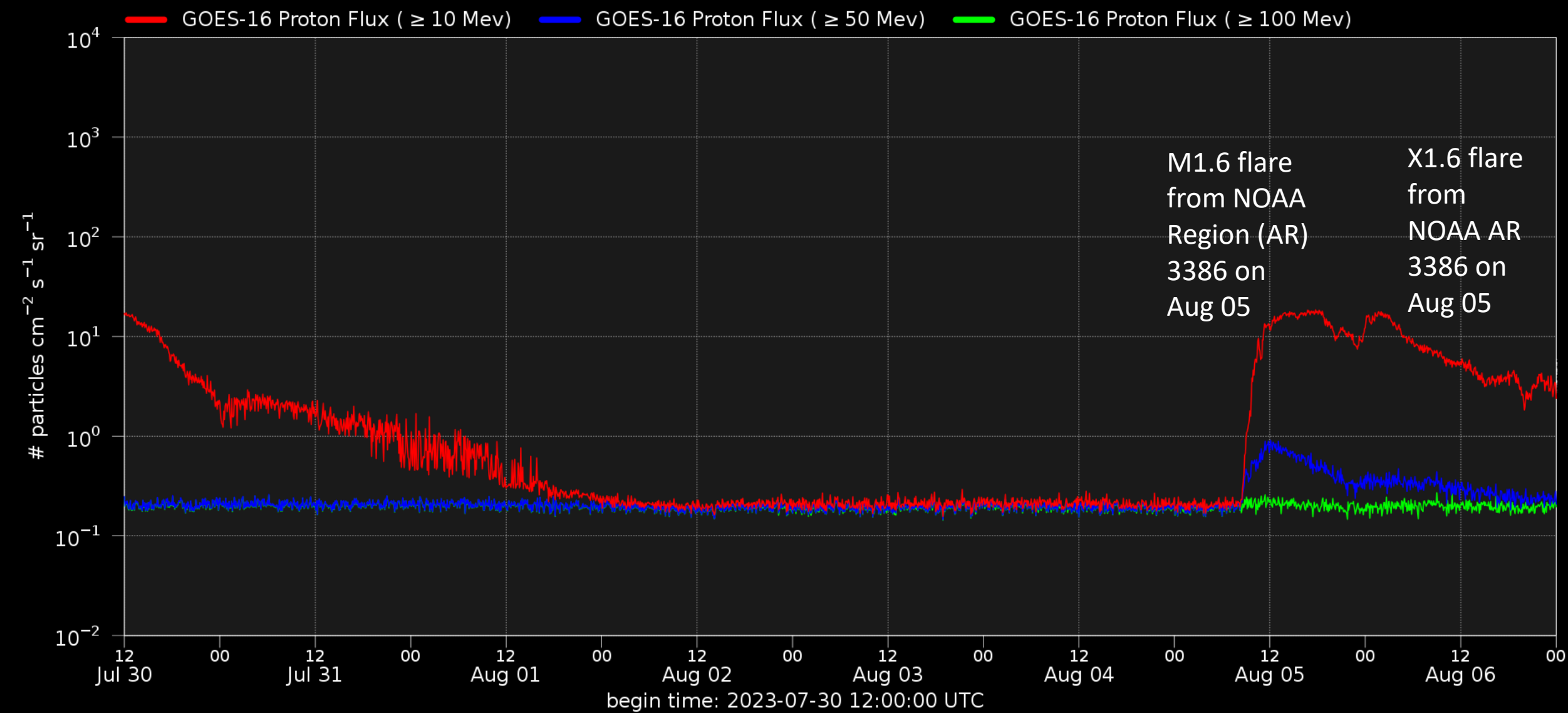
Energetic Particles



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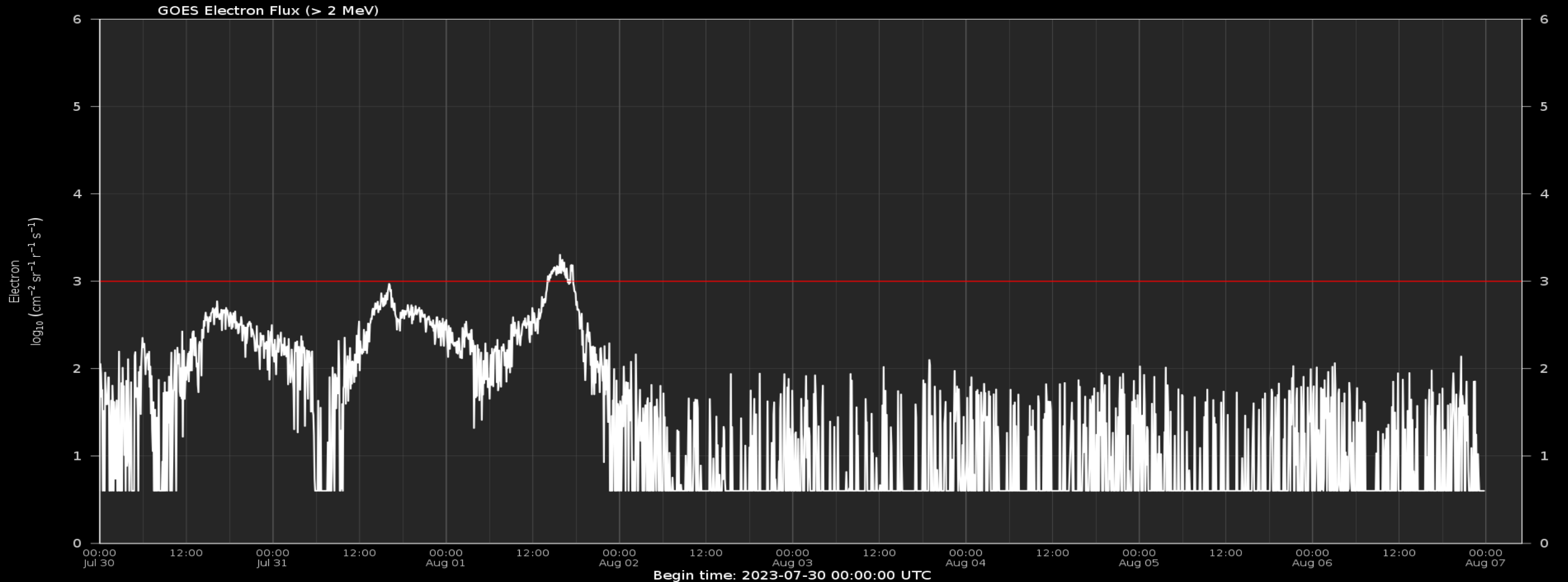
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



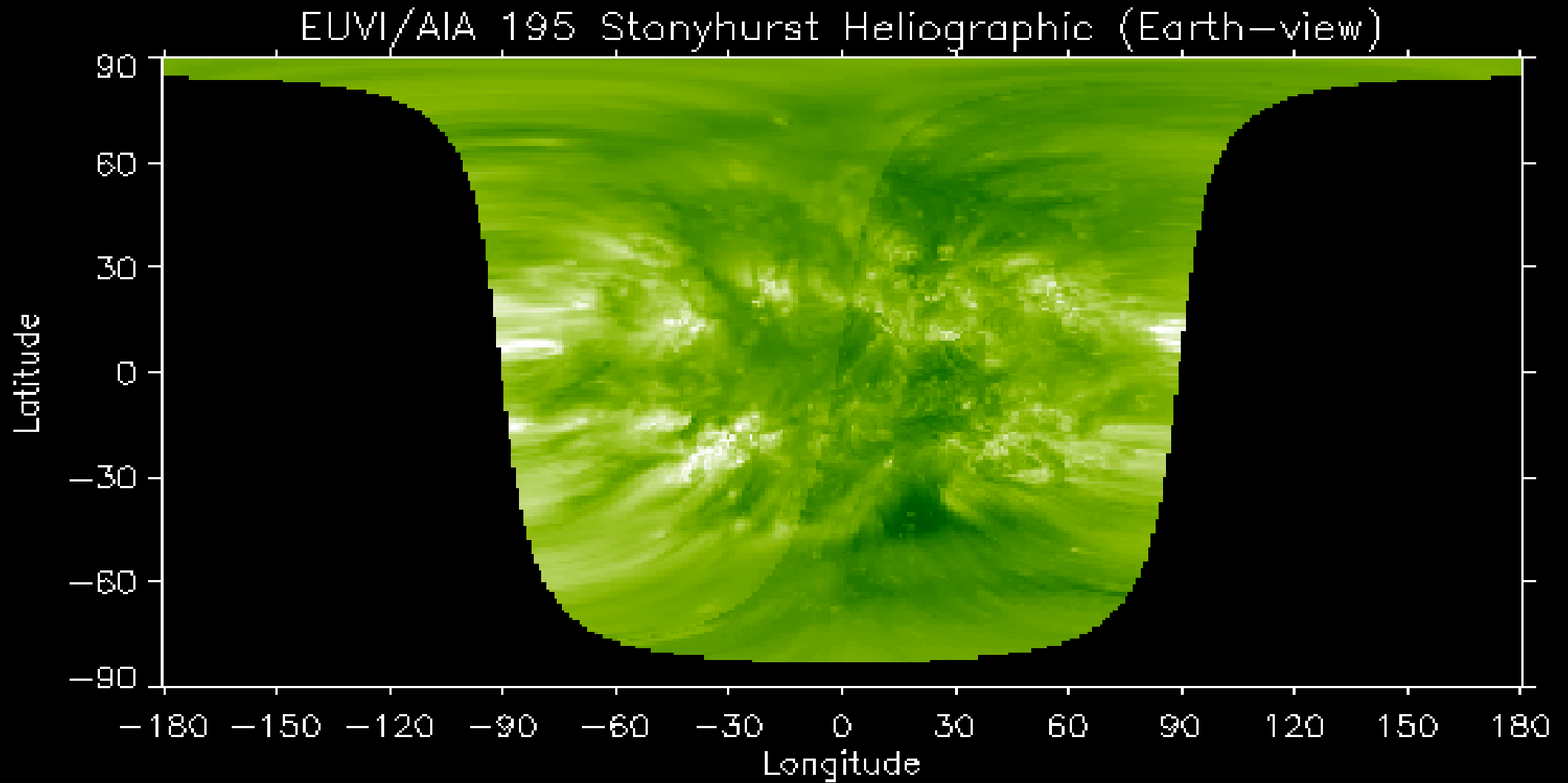
Outlook



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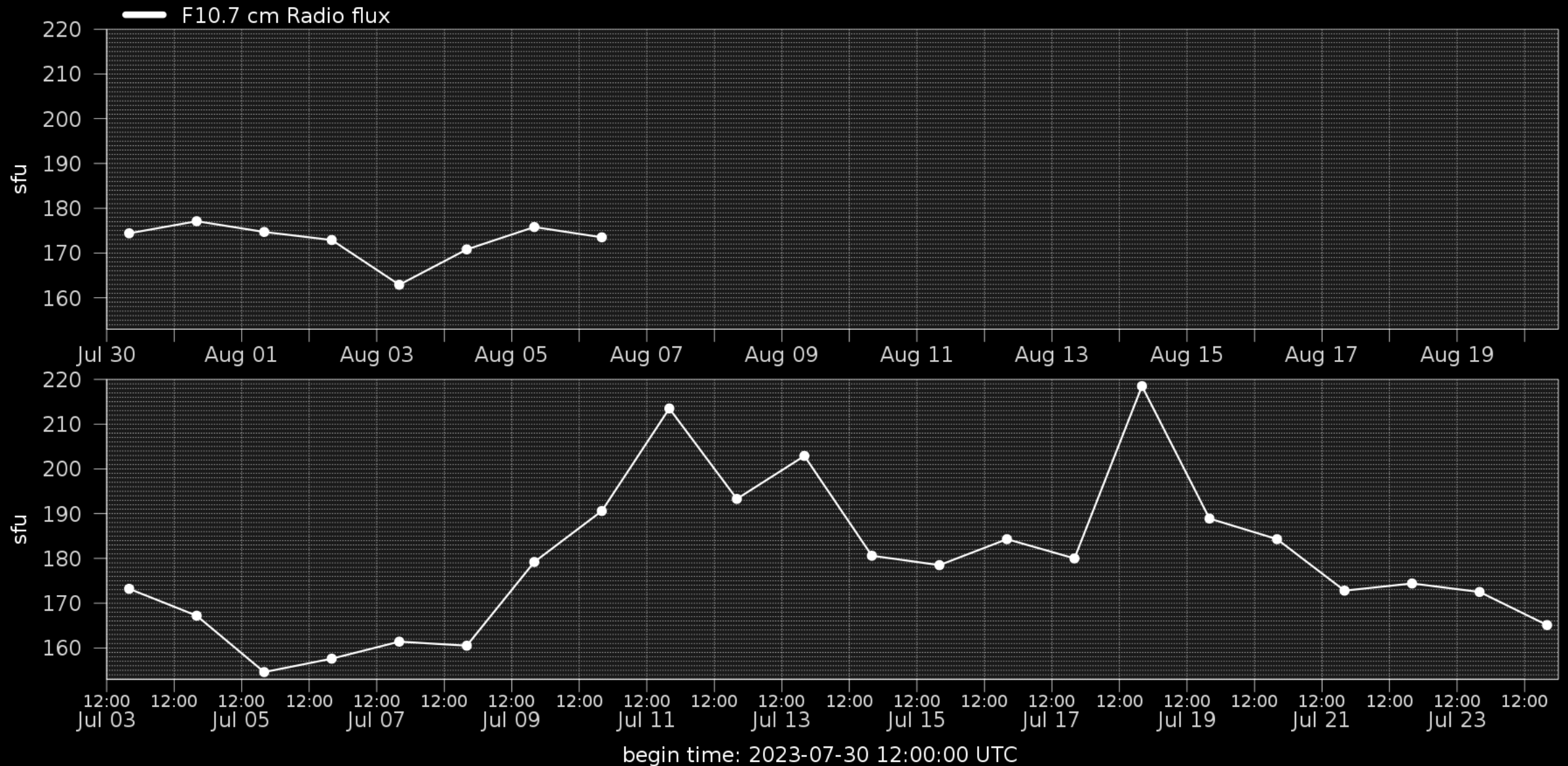
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Outlook: Solar activity

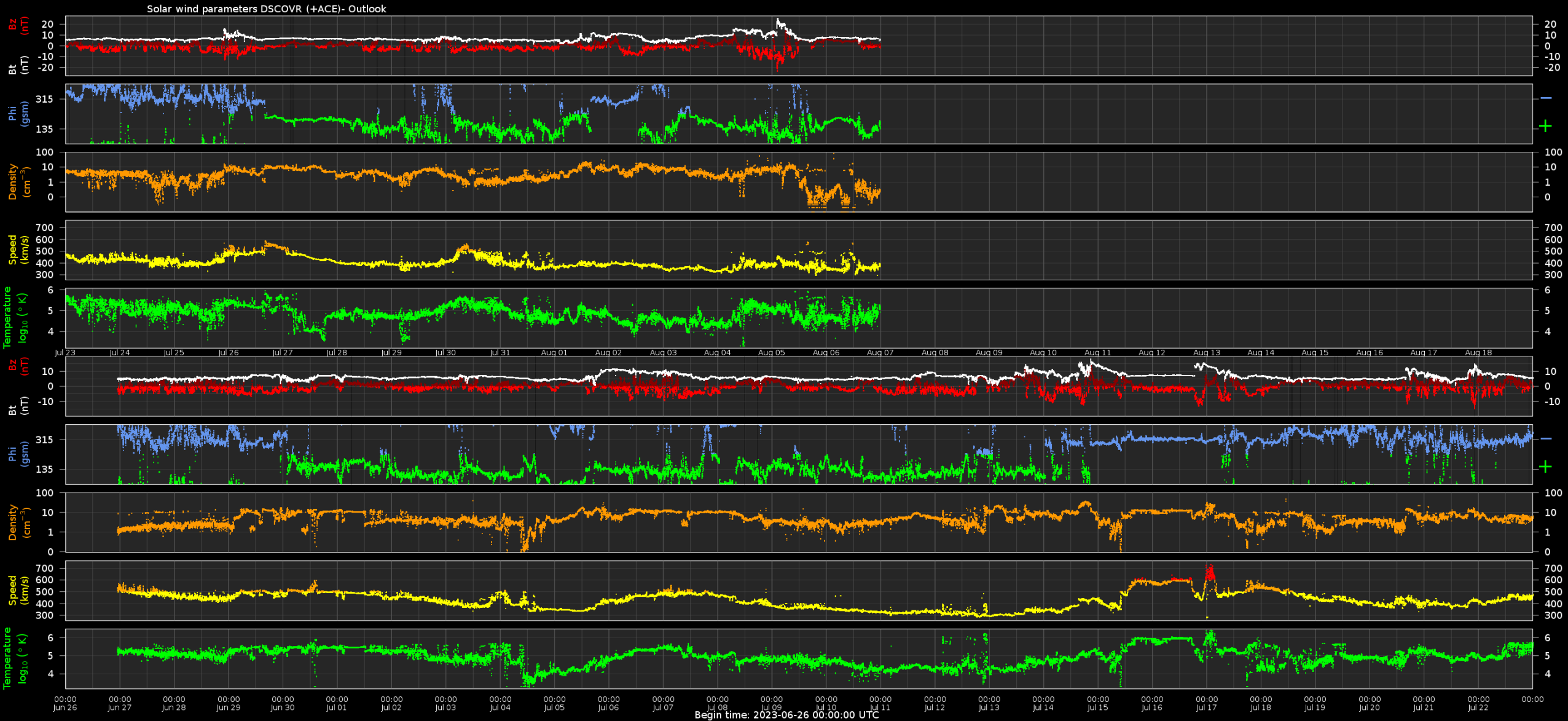


Observation date: 2023/08/06 19:35:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

See you at our next briefing!

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