

SIDC Space Weather Briefing

30 June 2024-07 July 2024

Vansintjan Robbe

& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2024-06-30 12:00 to 2024-07-07 23:59

Active regions	There were 24 AR regions on disk NOAA AR 3729; 3733 & 3738
Flares	# C-class flare: 38 # M-class flare: 10 # X-class flare: 0
Coronal Holes	3 positive CH & 1 negative CH
CMEs	No Earth directed CMEs

Proton flux	At background levels
Electron flux	Crossed the 1000 pfu threshold on July 03

Solar wind and geomagnetic conditions

ICMEs	No ICMEs detected
Solar wind conditions	B : 0.38 - 11.88 nT //Bz: -9.04 nT to 8.85 nT //Speed: 307.6 - 595.7km/s
Geomagnetic conditions	max KBel: 4.0, max Kp(NOAA): 3.33, Globally unsettled conditions

All Quiet Alert: OFF

Solar Activity

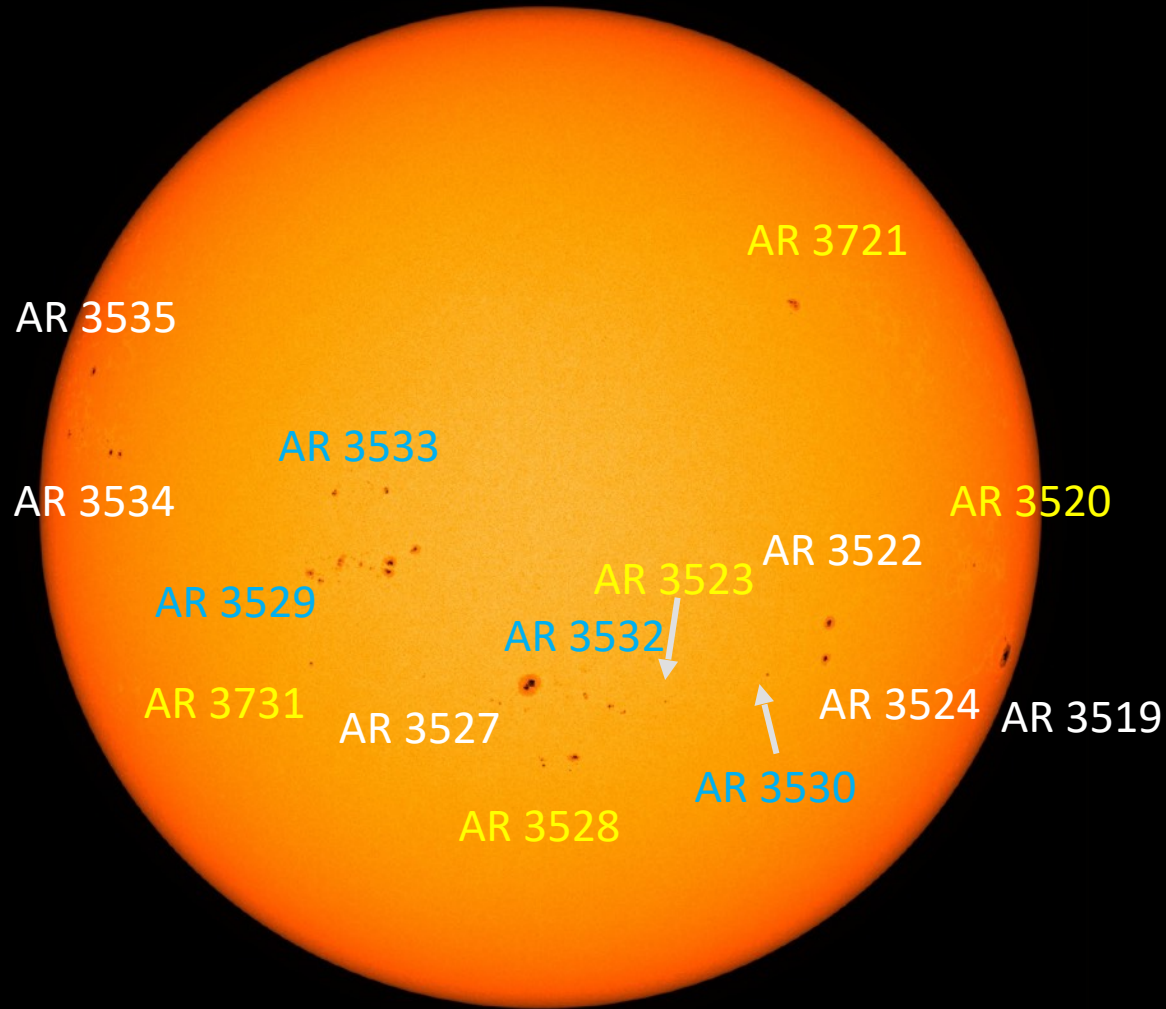


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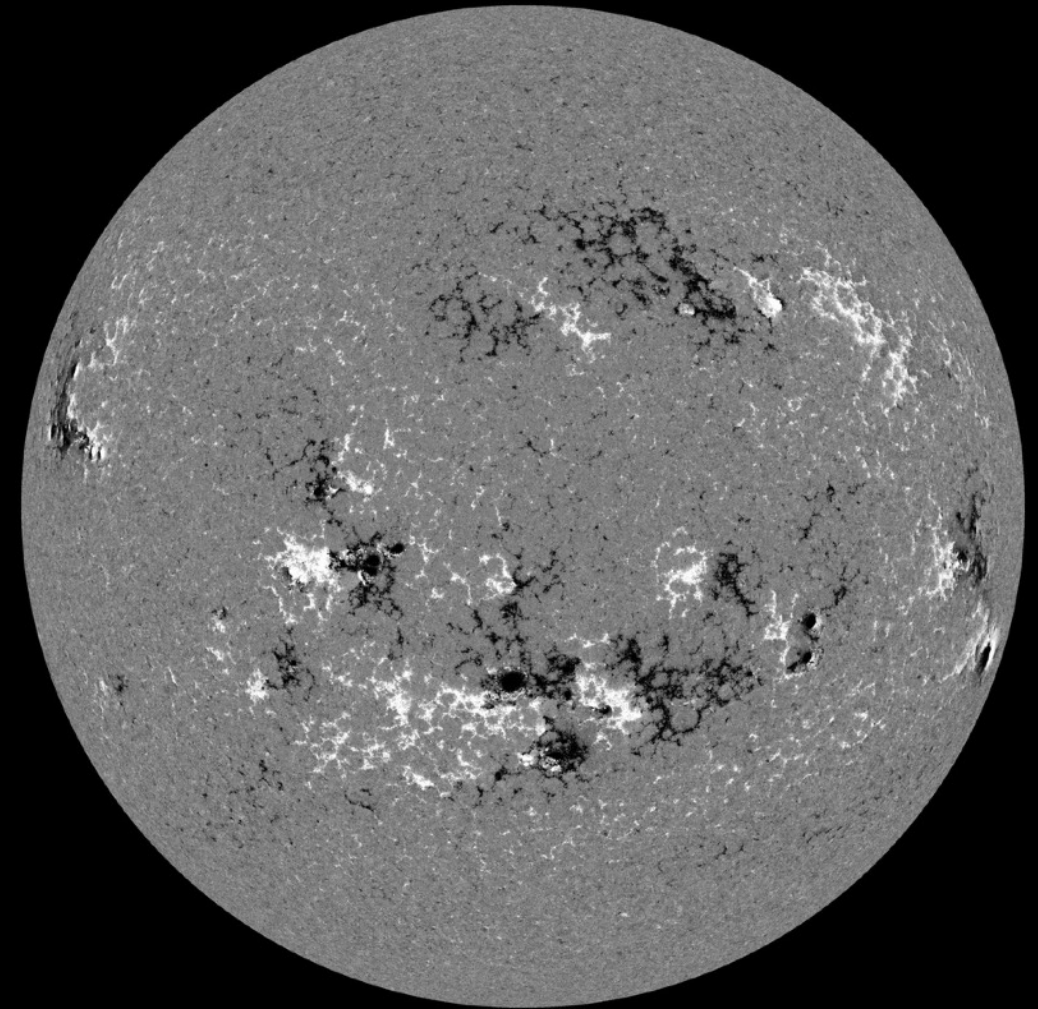
Solar active regions

SDO/HMI White Light 2024-06-30



SDO/HMI Quick-Look Continuum: 20240630_114500

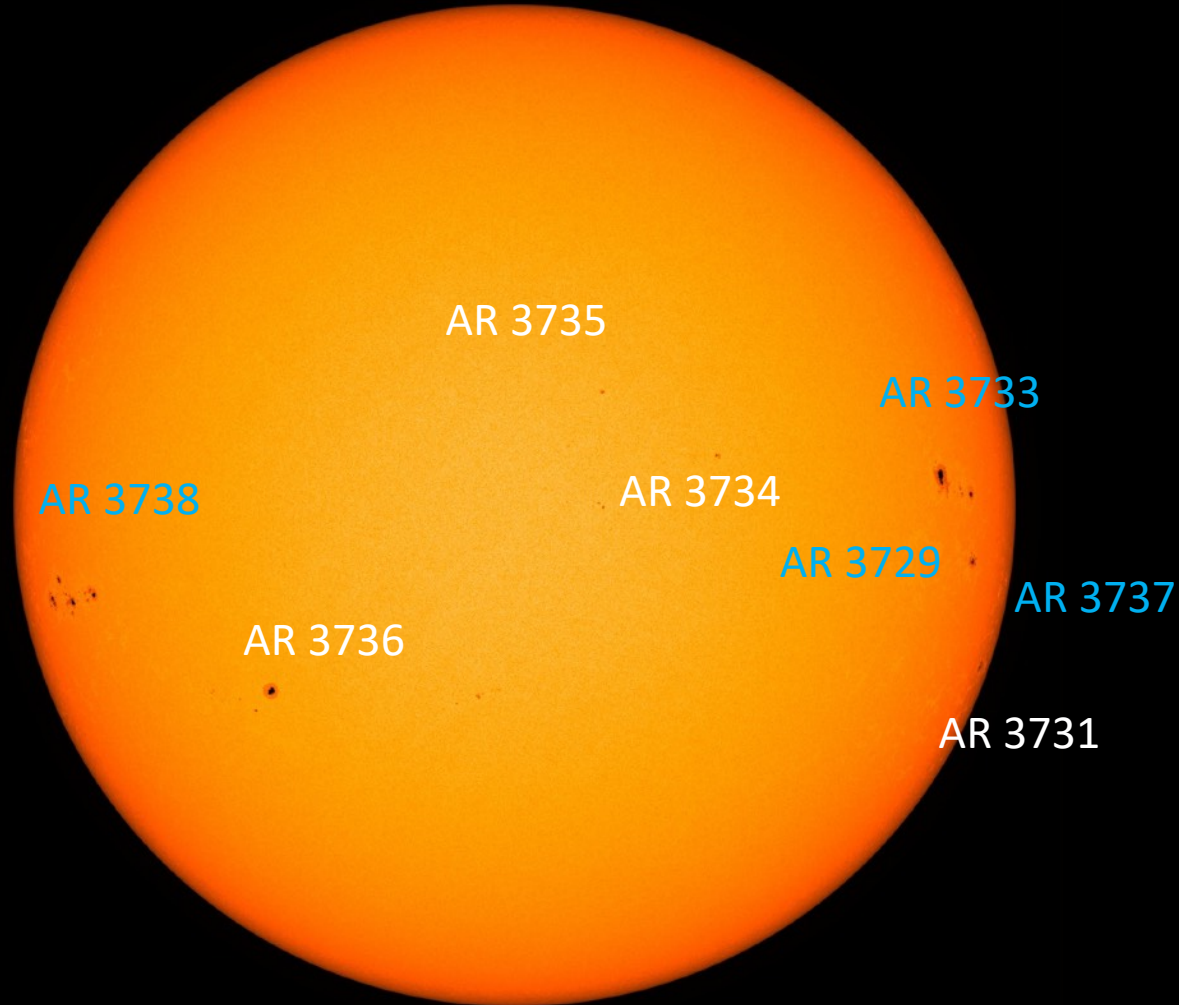
SDO/HMI Magnetogram 2024-06-30



SDO/HMI Quick-Look Magnetogram: 20240630_114500

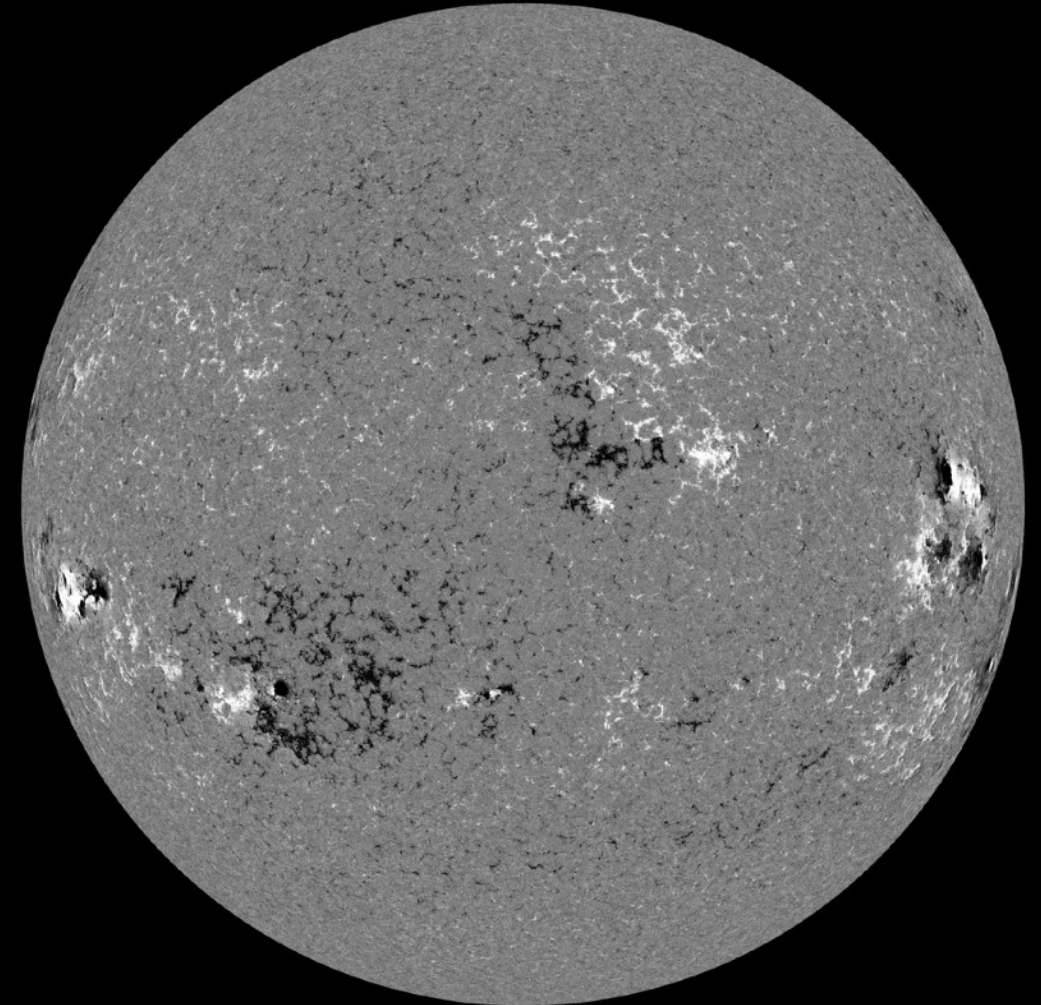
Solar active regions

SDO/HMI White Light 2024-07-06



SDO/HMI Quick-Look Continuum: 20240706_114500

SDO/HMI Magnetogram 2024-07-06

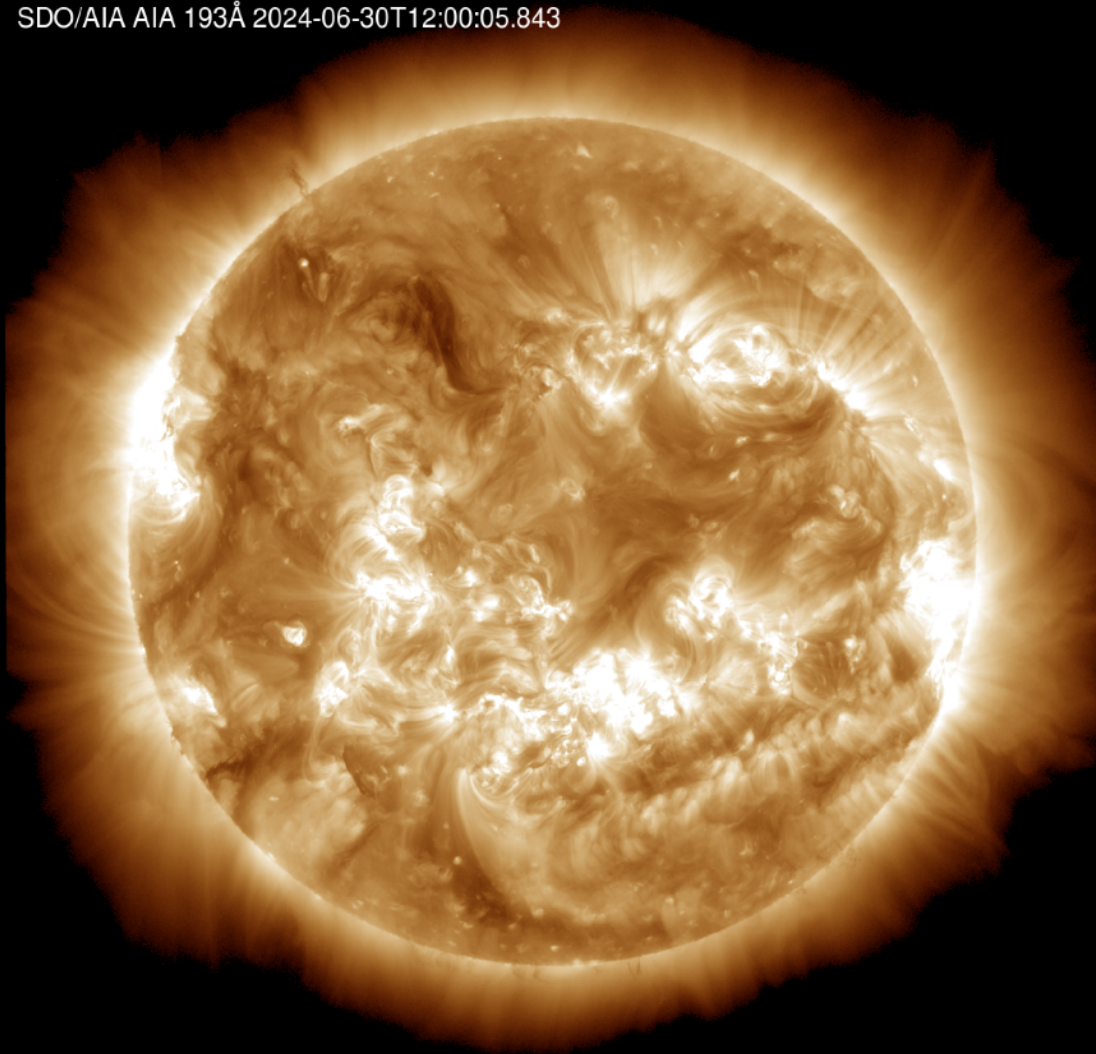


SDO/HMI Quick-Look Magnetogram: 20240706_114500

Coronal holes

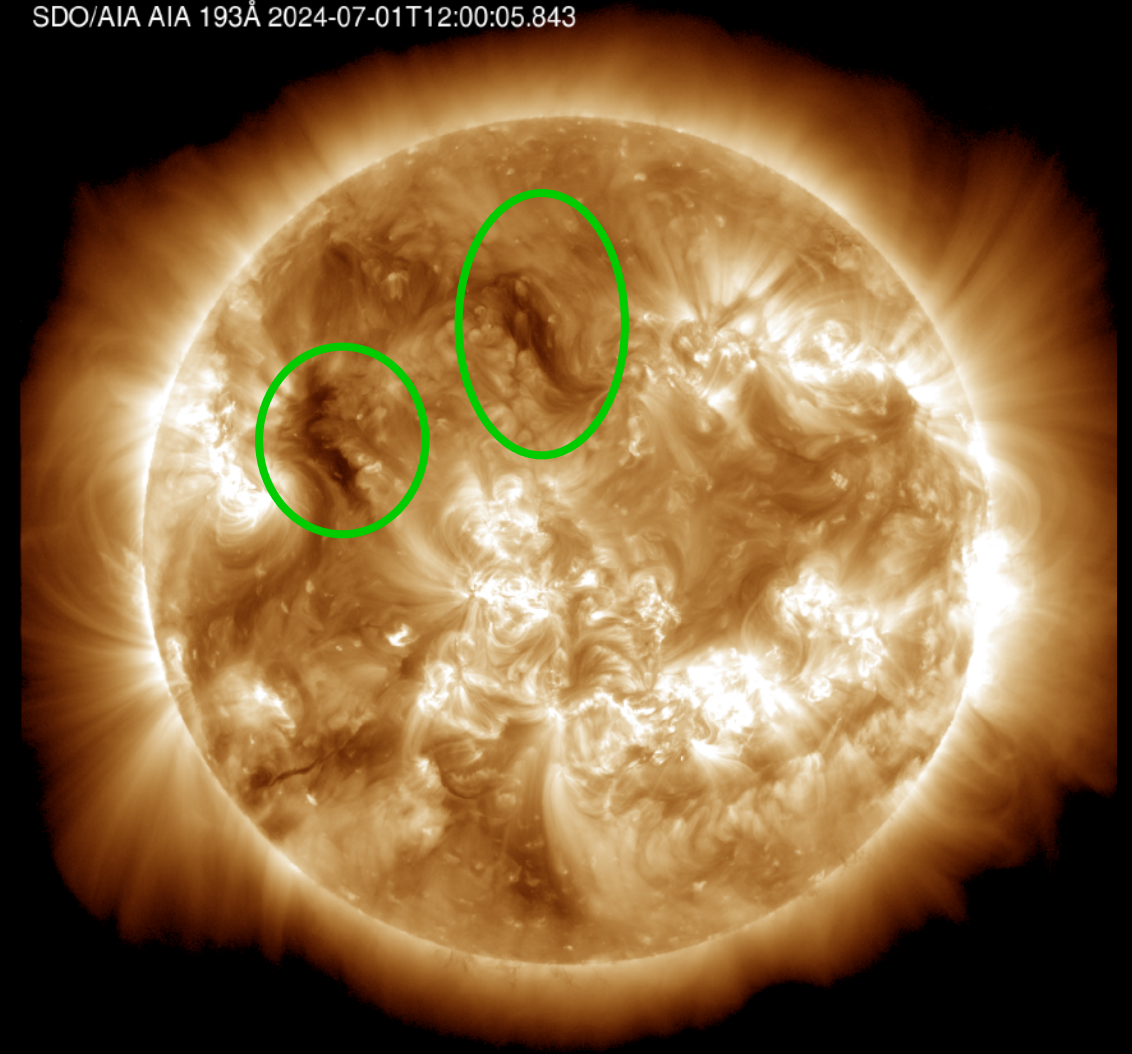
SDO/AIA 19.3 nm 2024-06-30

SDO/AIA AIA 193Å 2024-06-30T12:00:05.843



SDO/AIA 19.3 nm 2024-07-01

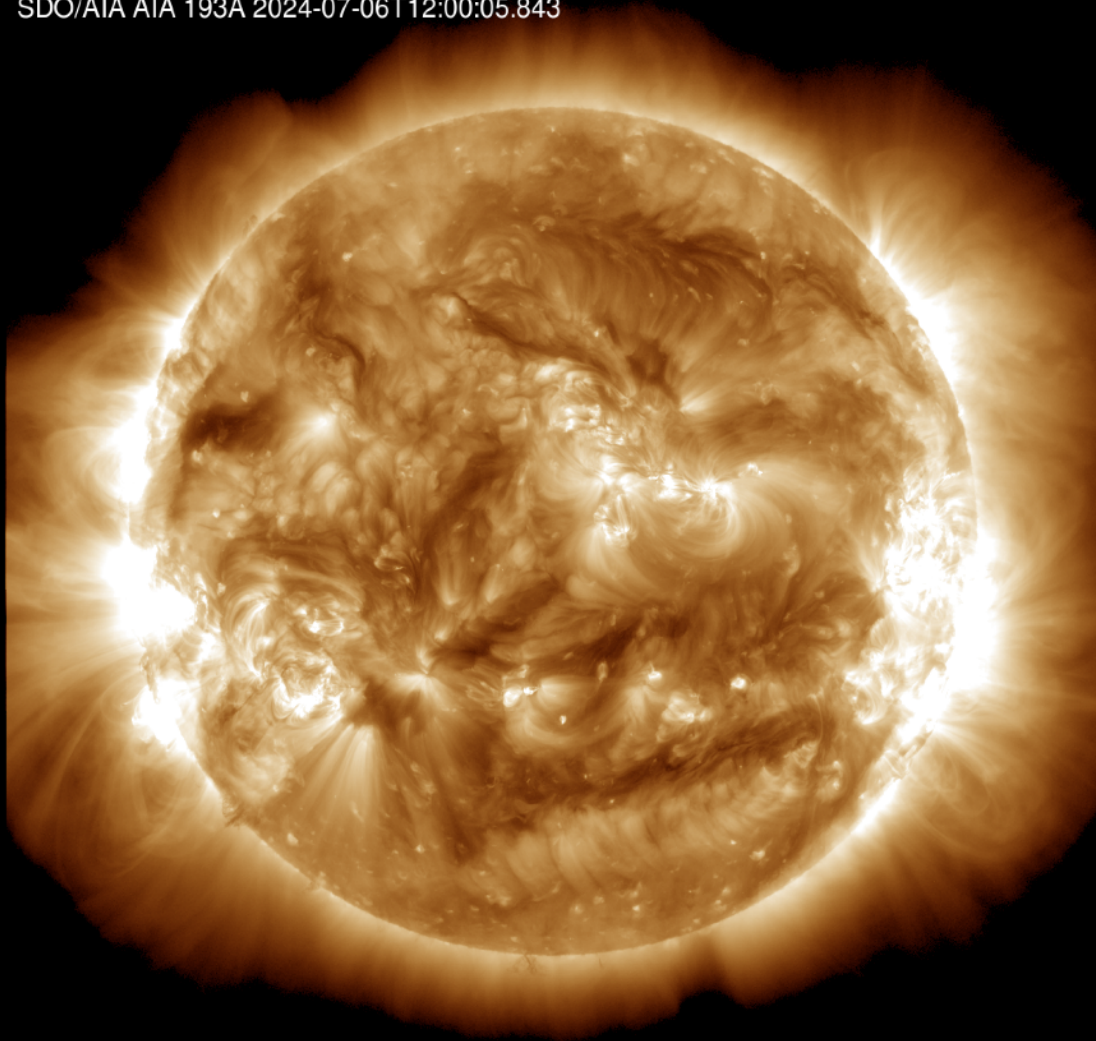
SDO/AIA AIA 193Å 2024-07-01T12:00:05.843



Coronal holes

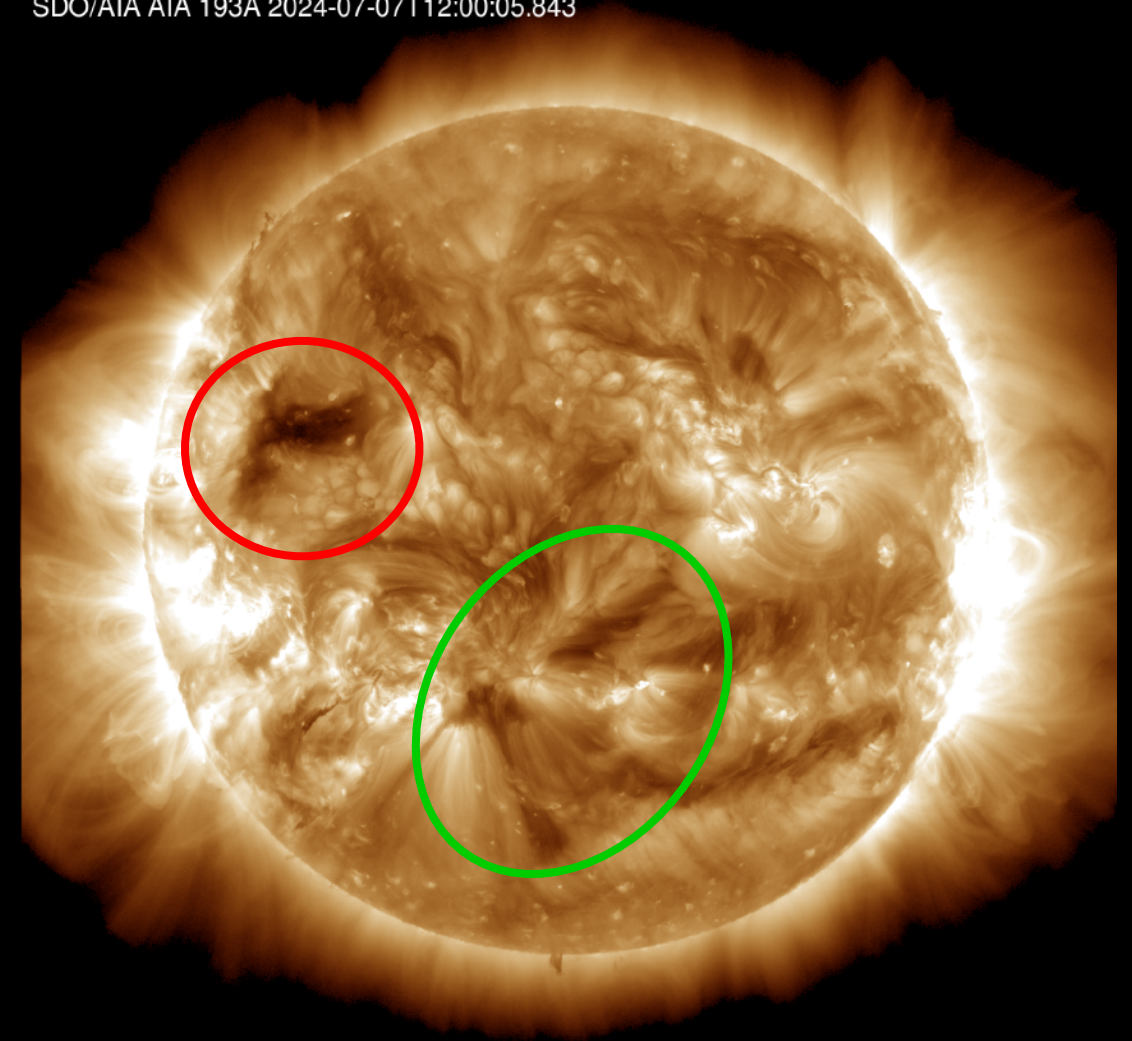
SDO/AIA 19.3 nm 2024-07-06

SDO/AIA AIA 193Å 2024-07-06T12:00:05.843



SDO/AIA 19.3 nm 2024-07-07

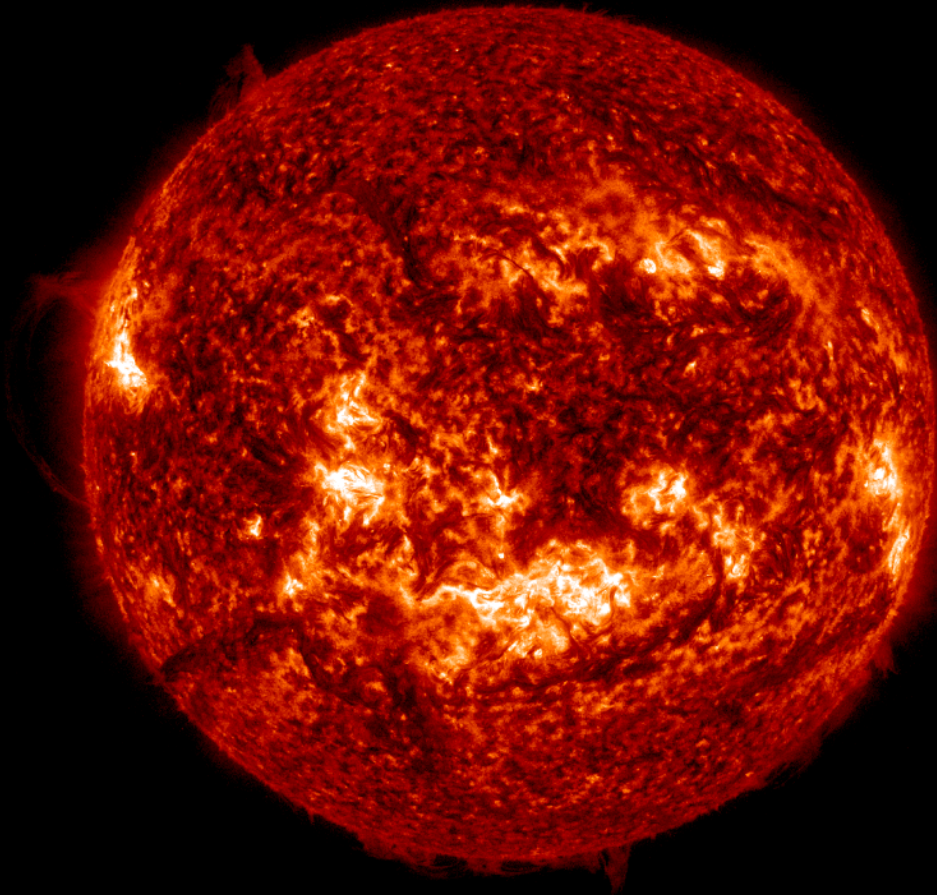
SDO/AIA AIA 193Å 2024-07-07T12:00:05.843



Filaments

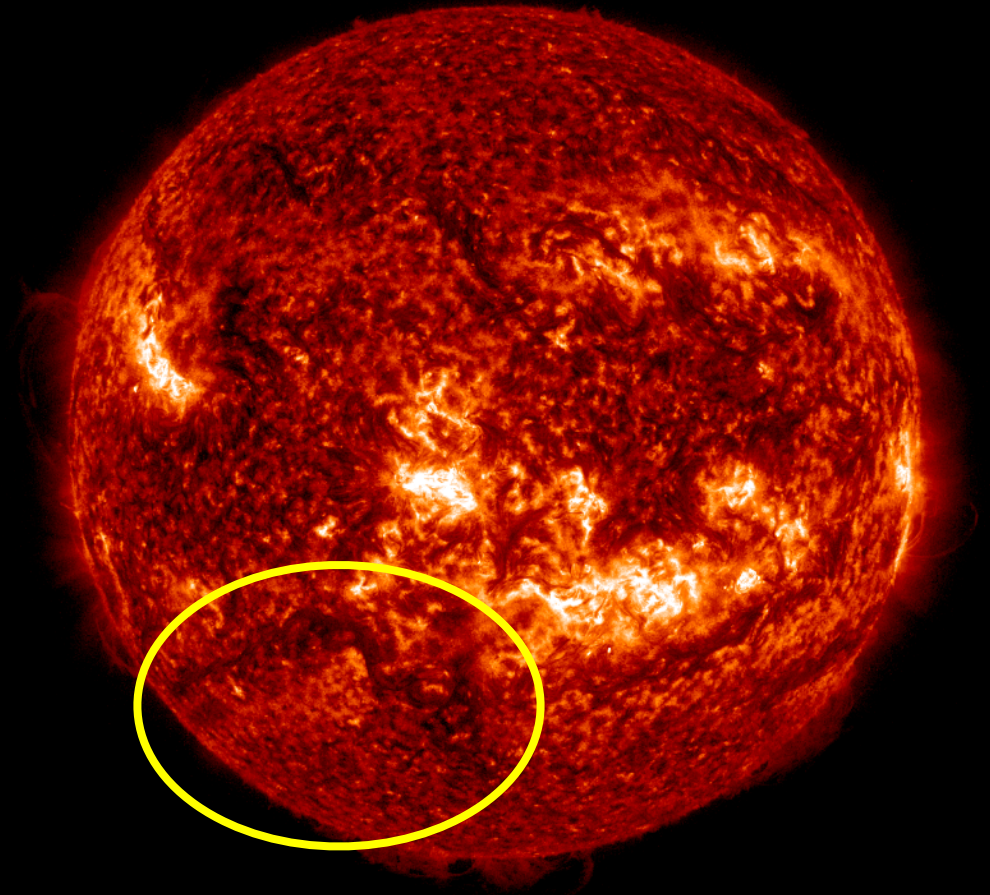
SDO/AIA 30.4 nm 2024-06-30

SDO/AIA AIA 304Å 2024-06-30T12:00:06.580



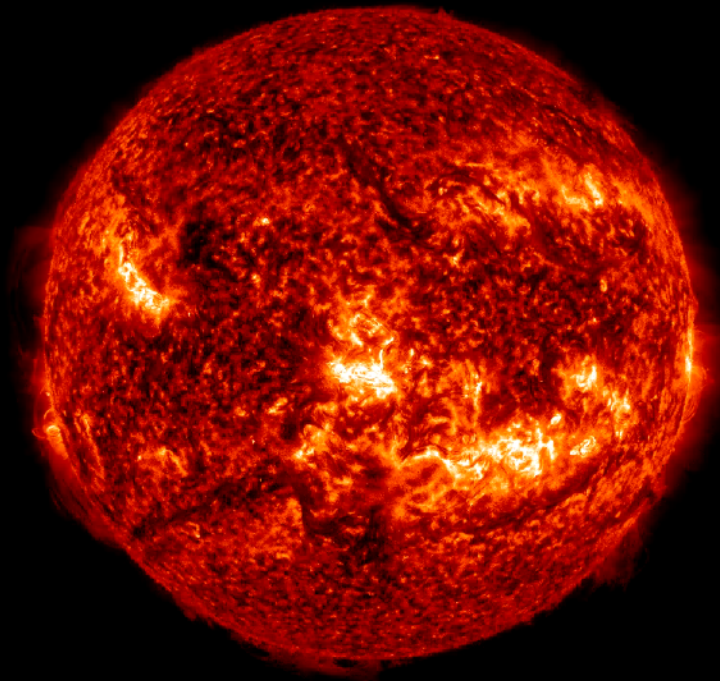
SDO/AIA 30.4 nm 2024-07-01

SDO/AIA AIA 304Å 2024-07-01T12:00:06.580



Filaments

SDO/AIA 30.4 nm 2024-07-02

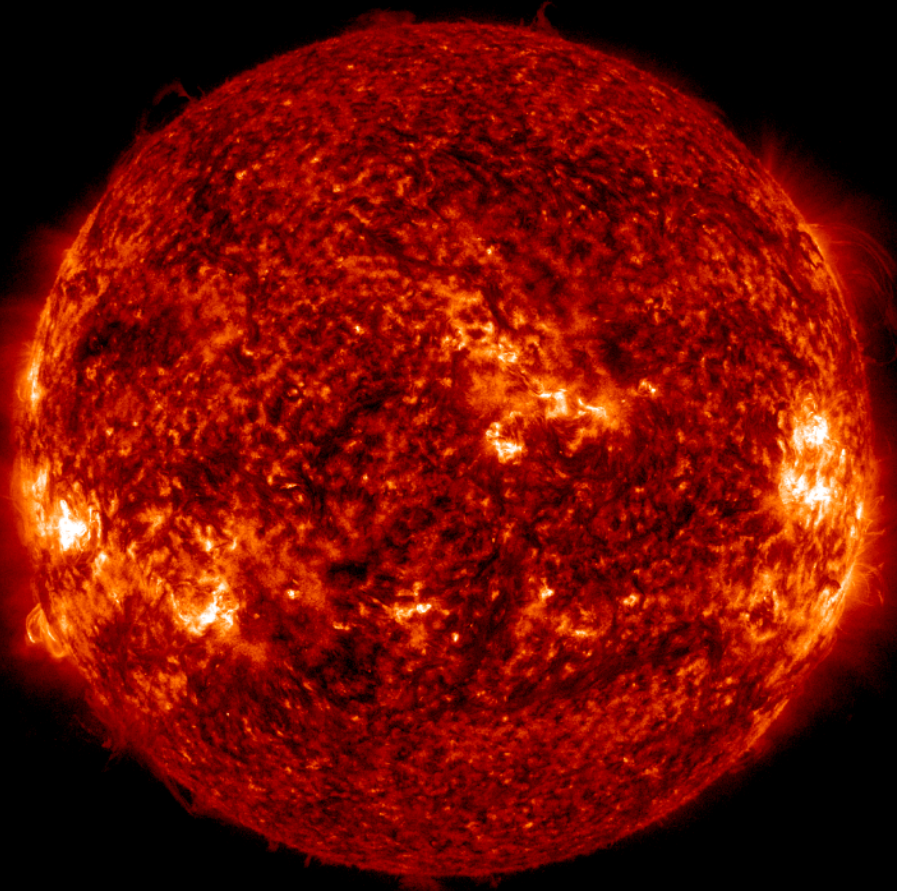


2024-07-02T00:19:05.130

Filaments

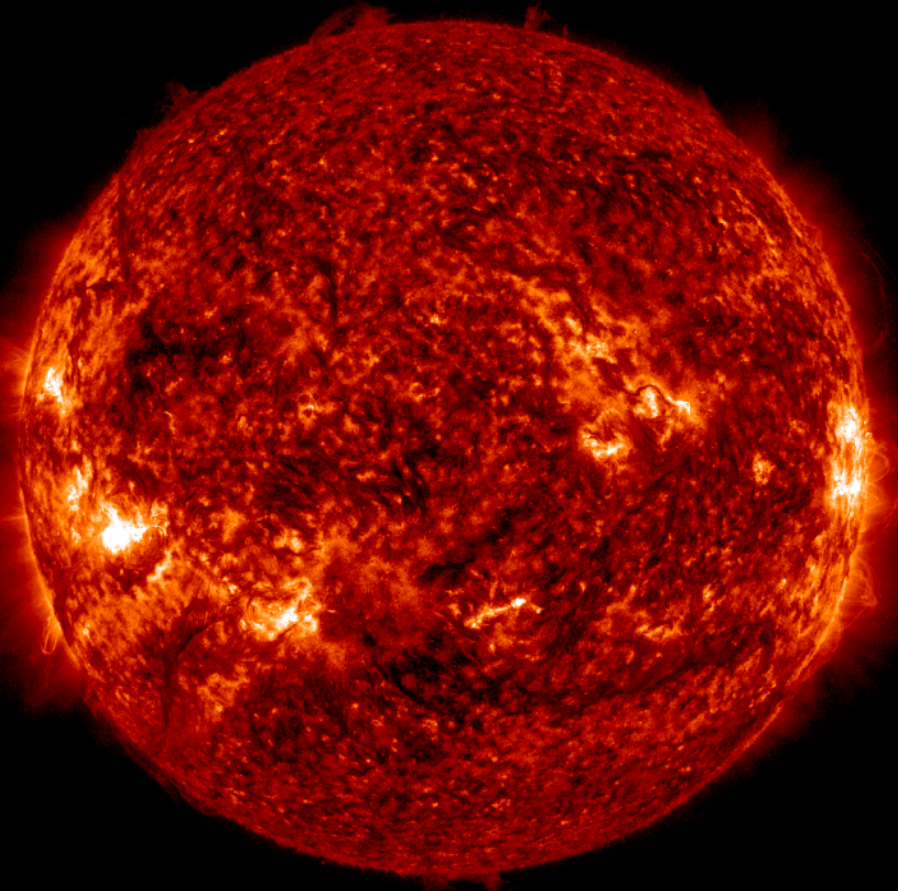
SDO/AIA 30.4 nm 2024-07-06

SDO/AIA AIA 304Å 2024-07-06T12:00:06.580



SDO/AIA 30.4 nm 2024-07-07

SDO/AIA AIA 304Å 2024-07-07T12:00:06.580



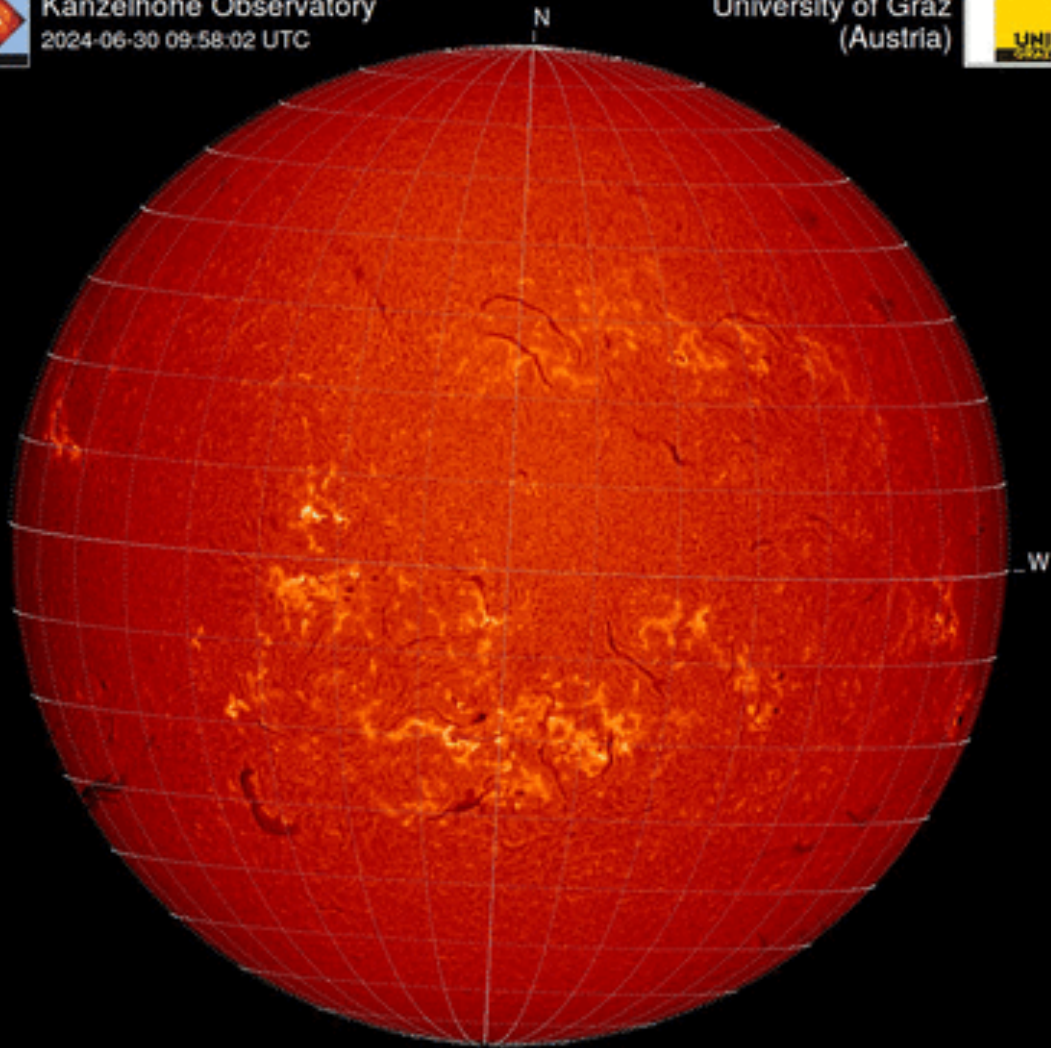
Filaments & Filament eruptions

H-alpha 2024-06-30



Kanzelhöhe Observatory
2024-06-30 09:58:02 UTC

University of Graz
(Austria)

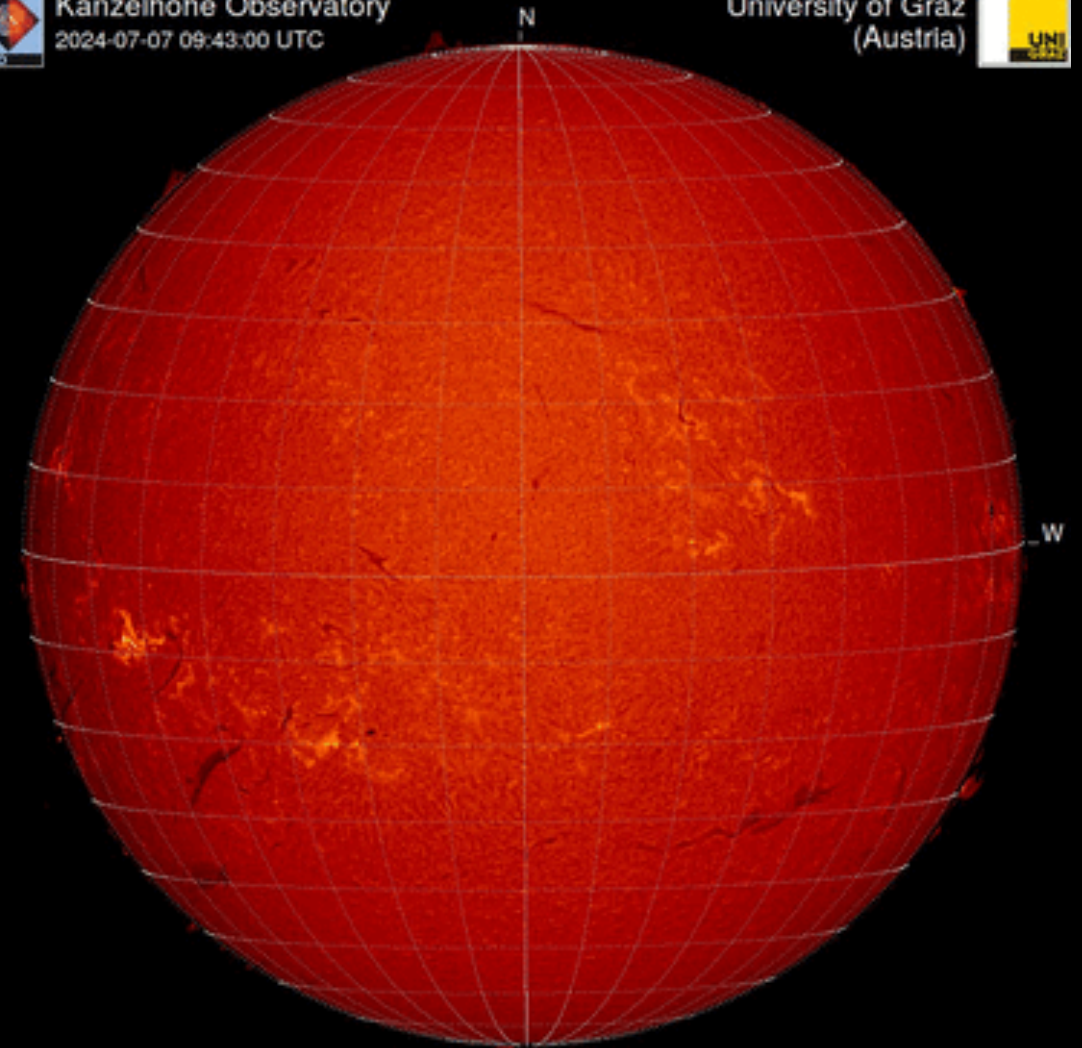


H-alpha 2024-07-07

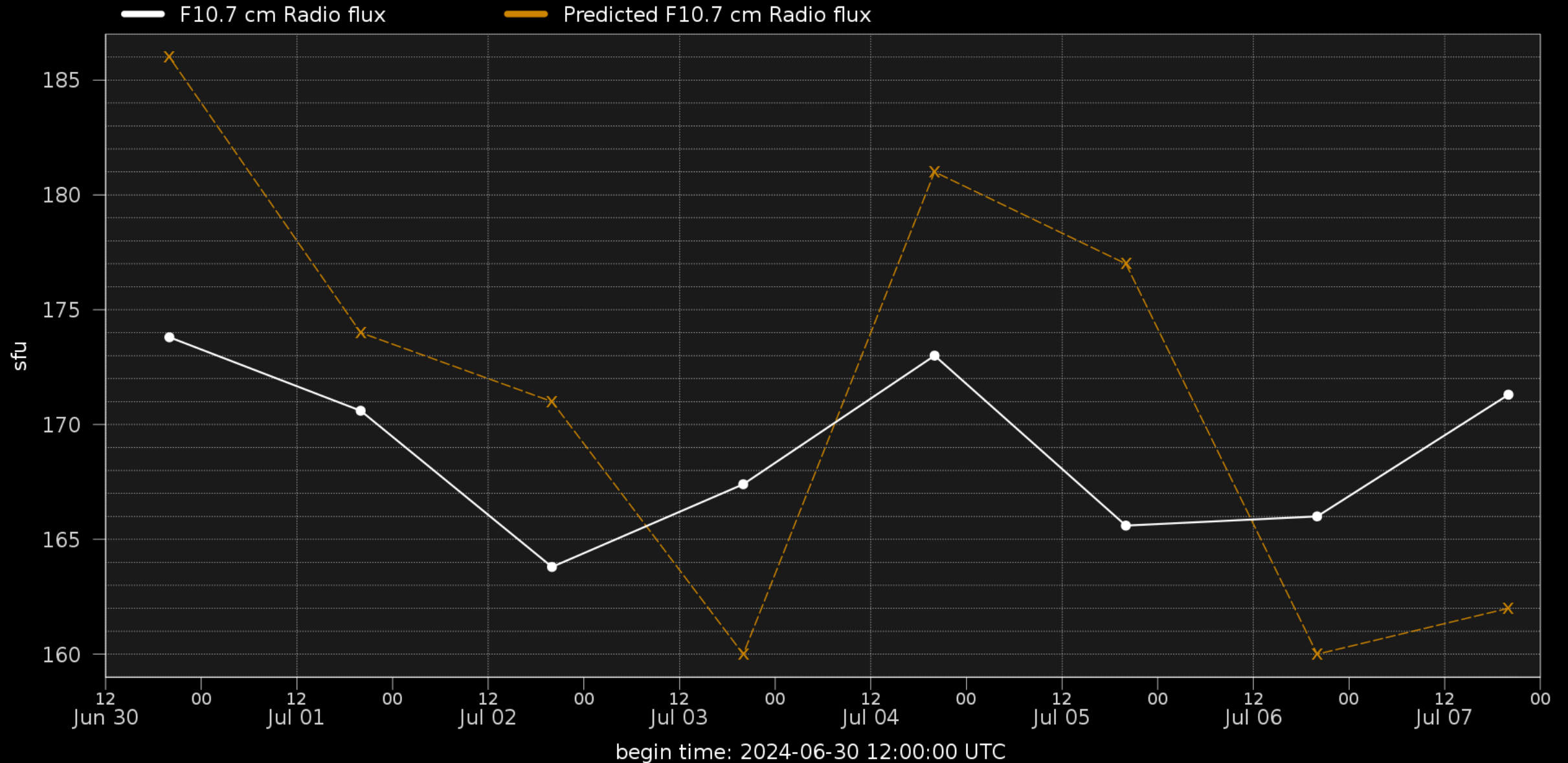


Kanzelhöhe Observatory
2024-07-07 09:43:00 UTC

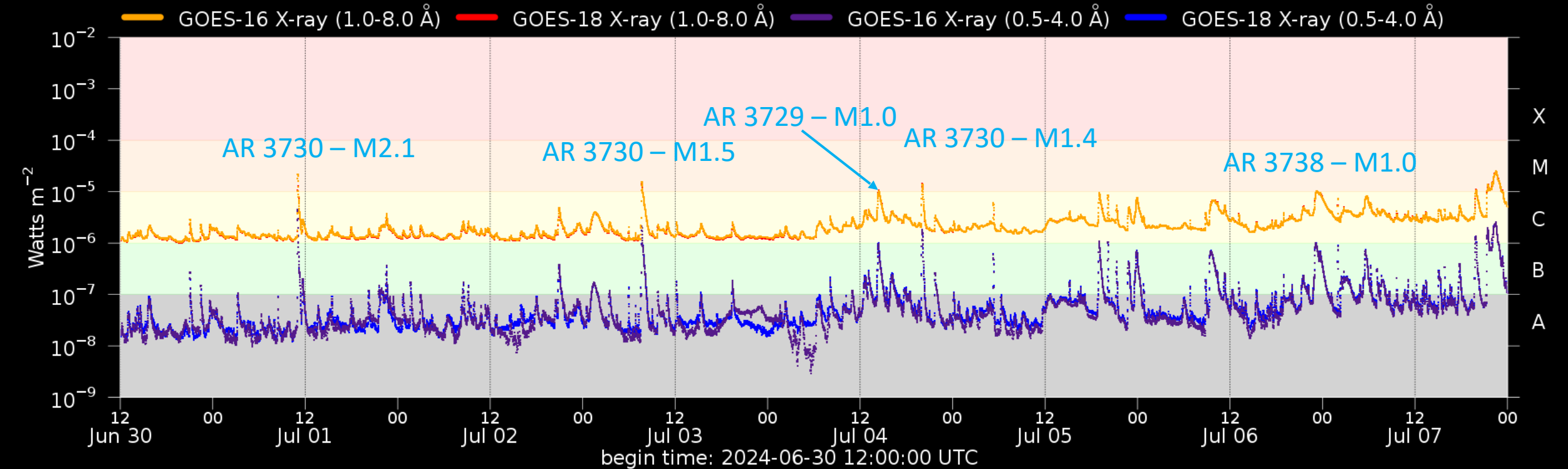
University of Graz
(Austria)



Solar F10.7cm radio flux



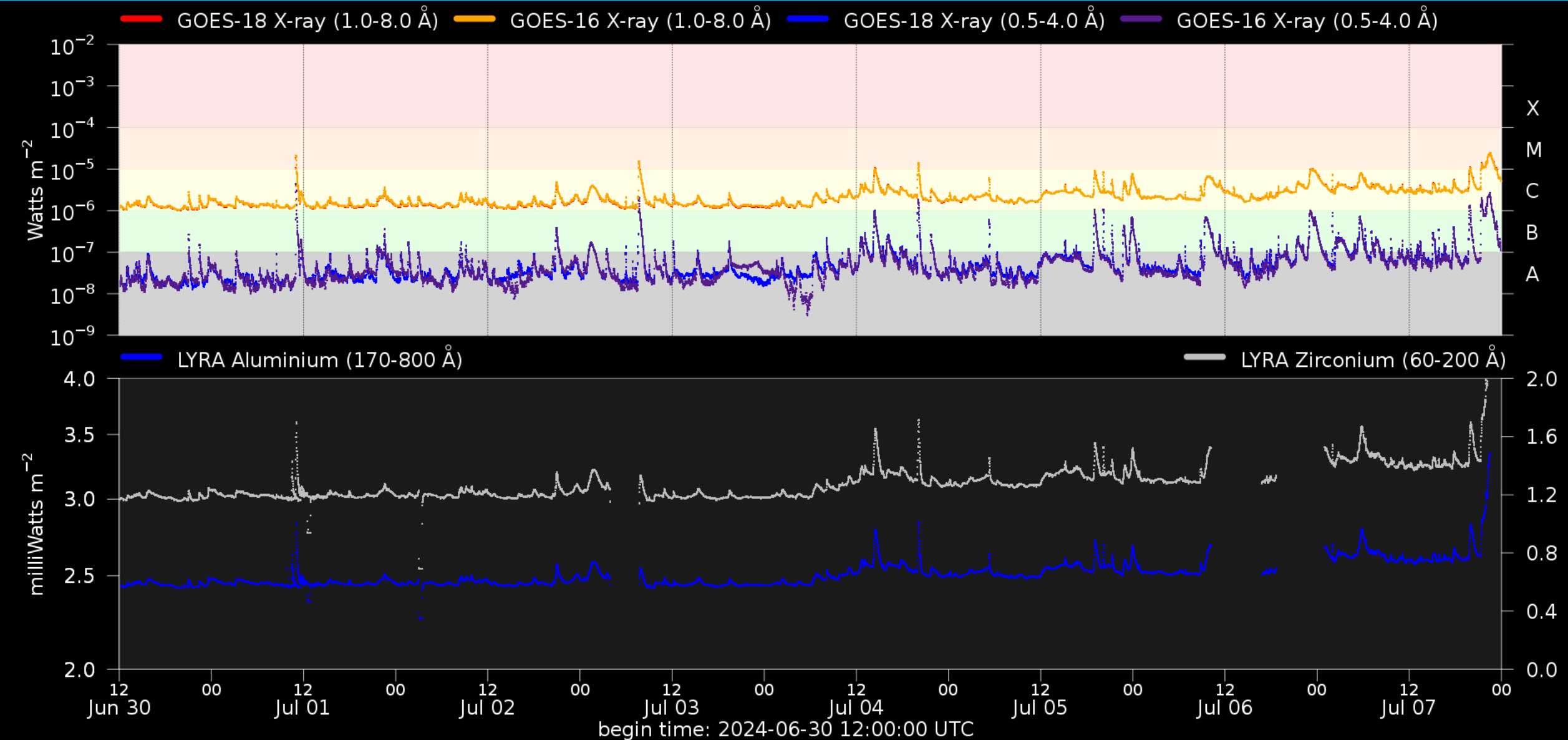
Flaring activity



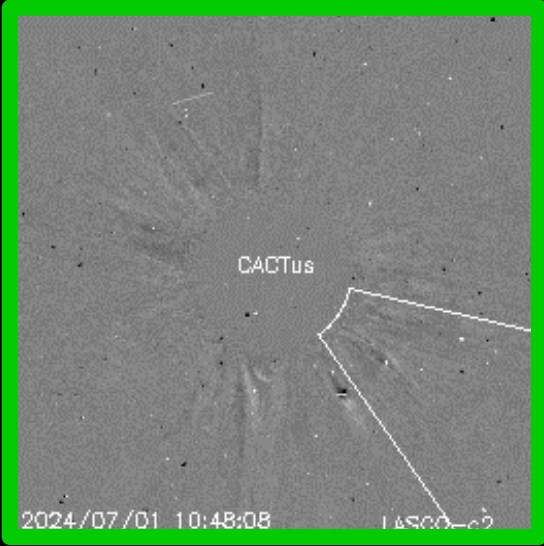
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2024-06-30	2024-07-01	2024-07-02	2024-07-03	2024-07-04	2024-07-05	2024-07-06	2024-07-07
Probability (%)	99 35 10	99 70 10	99 75 10	99 60 05	98 55 05	99 70 01	99 70 25	99 74 20
Observed (#)	06 01 00	08 00 00	04 01 00	03 00 00	04 02 00	07 00 00	04 00 00	02 02 00

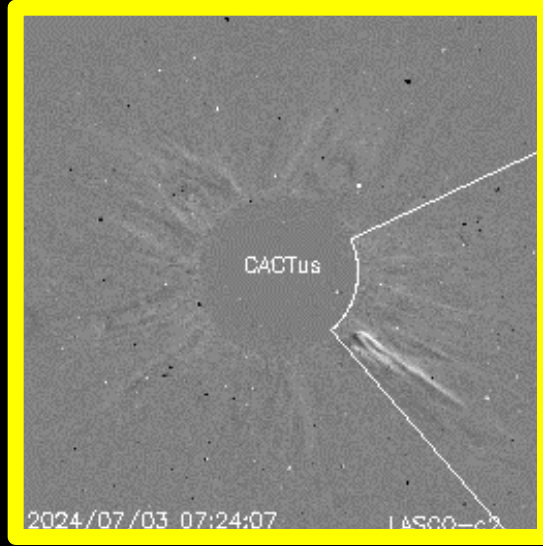
Solar X-Ray and UV flux



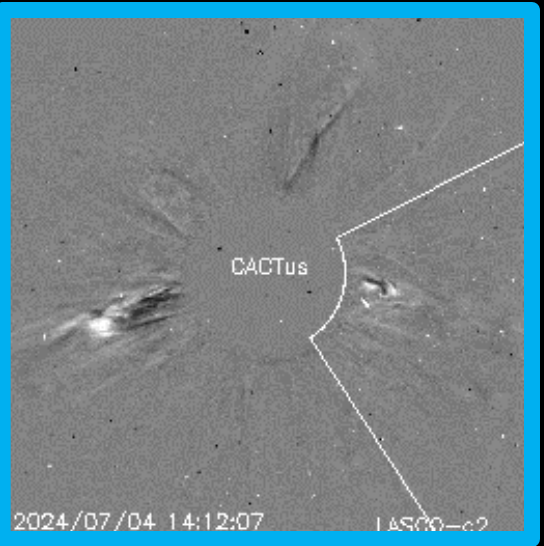
Coronal Mass Ejections



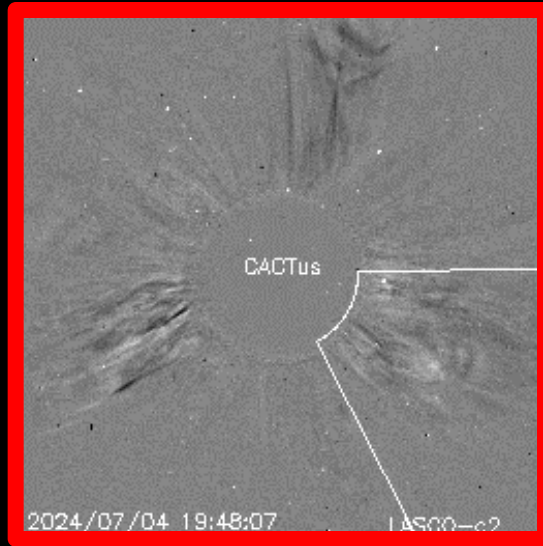
M2.17 flare
on July 01



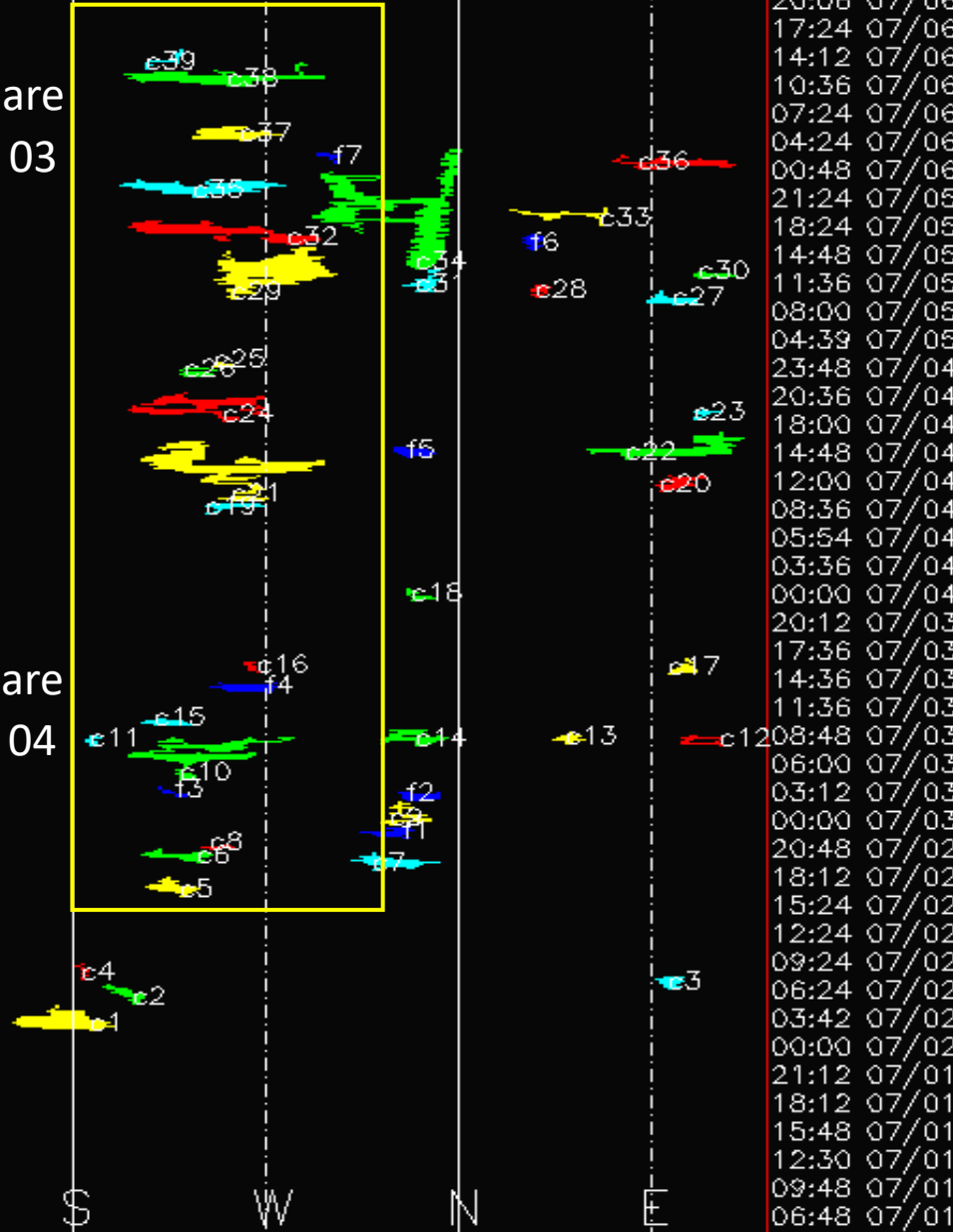
M1.5 flare
on July 03



M1.0 flare
on July 04



M1.4 flare
on July 04



Solar Wind and

Geomagnetic Activity

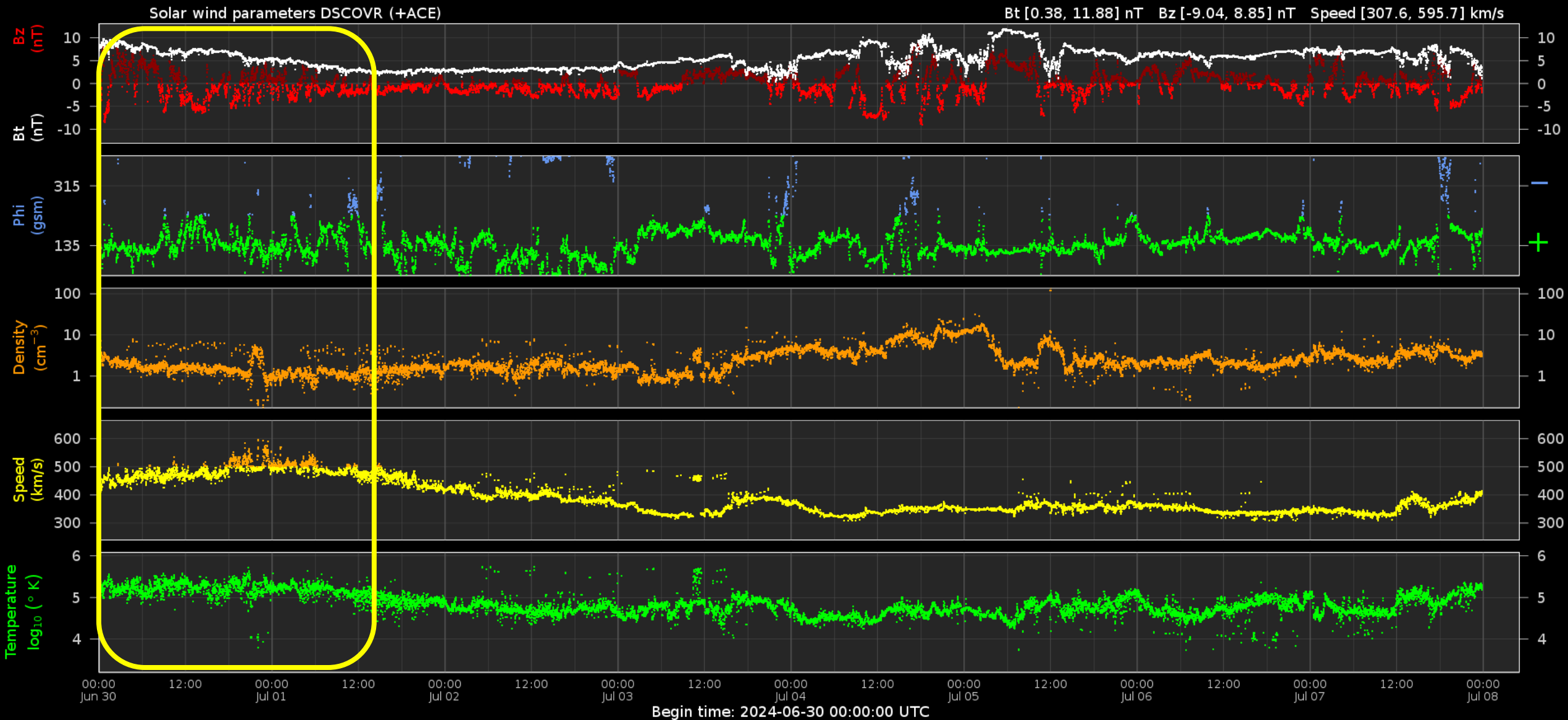


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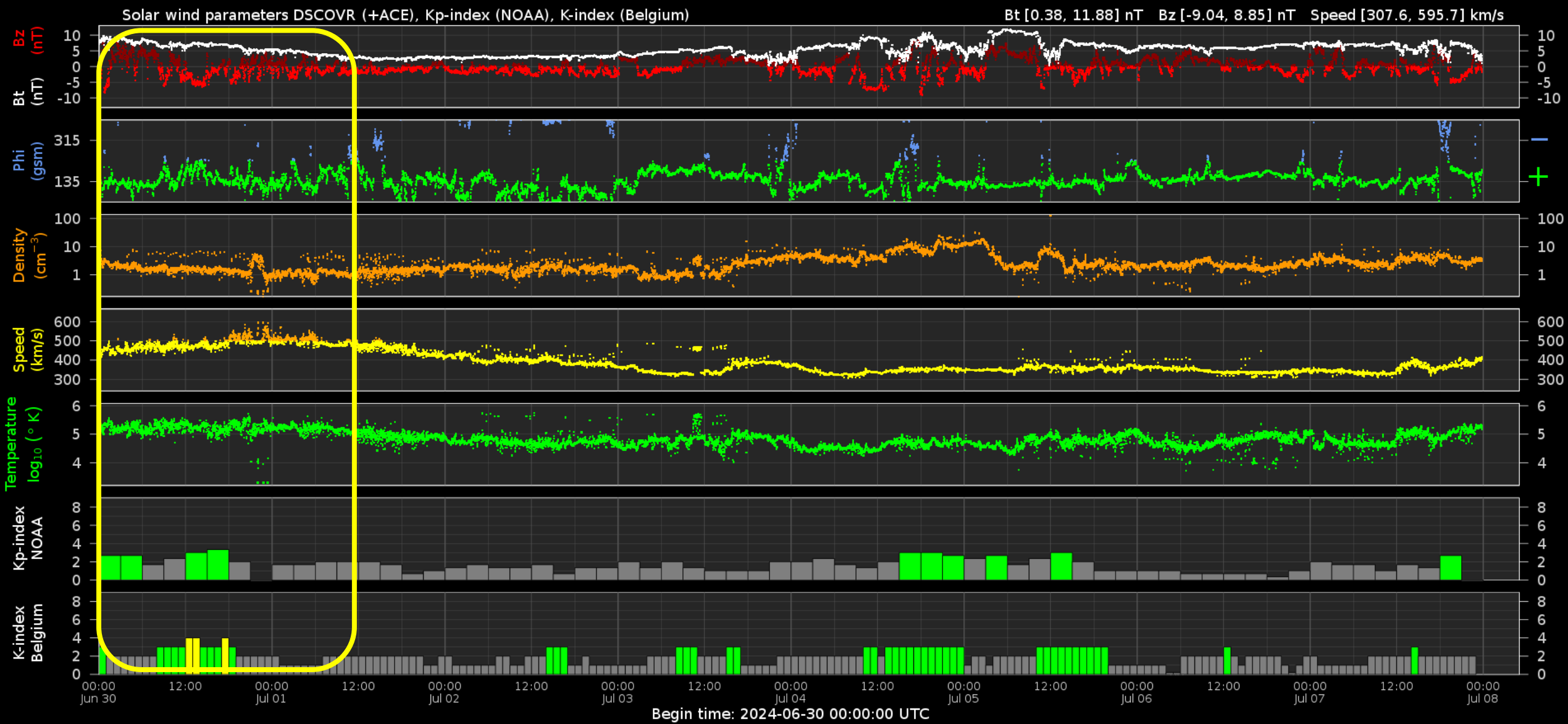
Solar wind parameters

CME 25 June

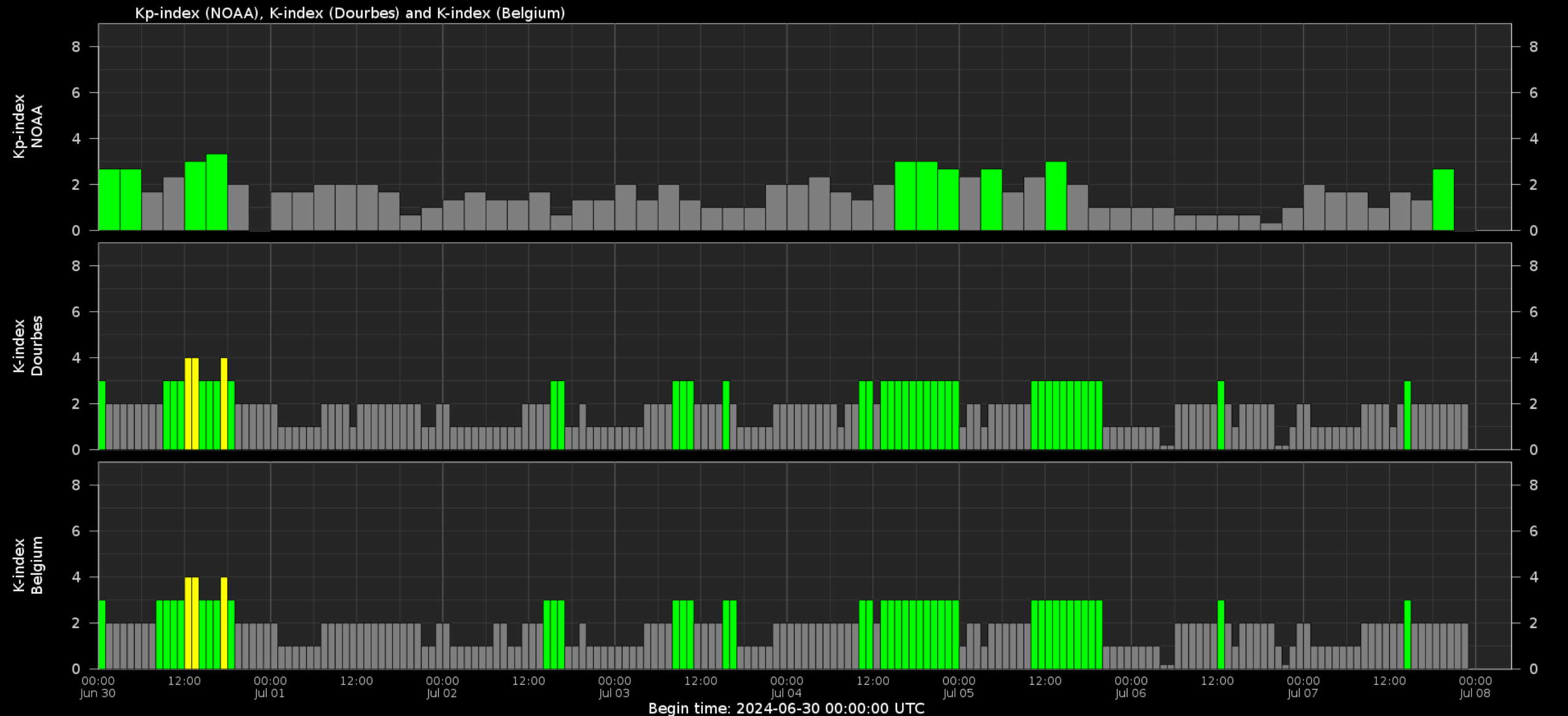


Solar wind parameters & K-indices

CME 25 June



Geomagnetic activity (K-indexes)



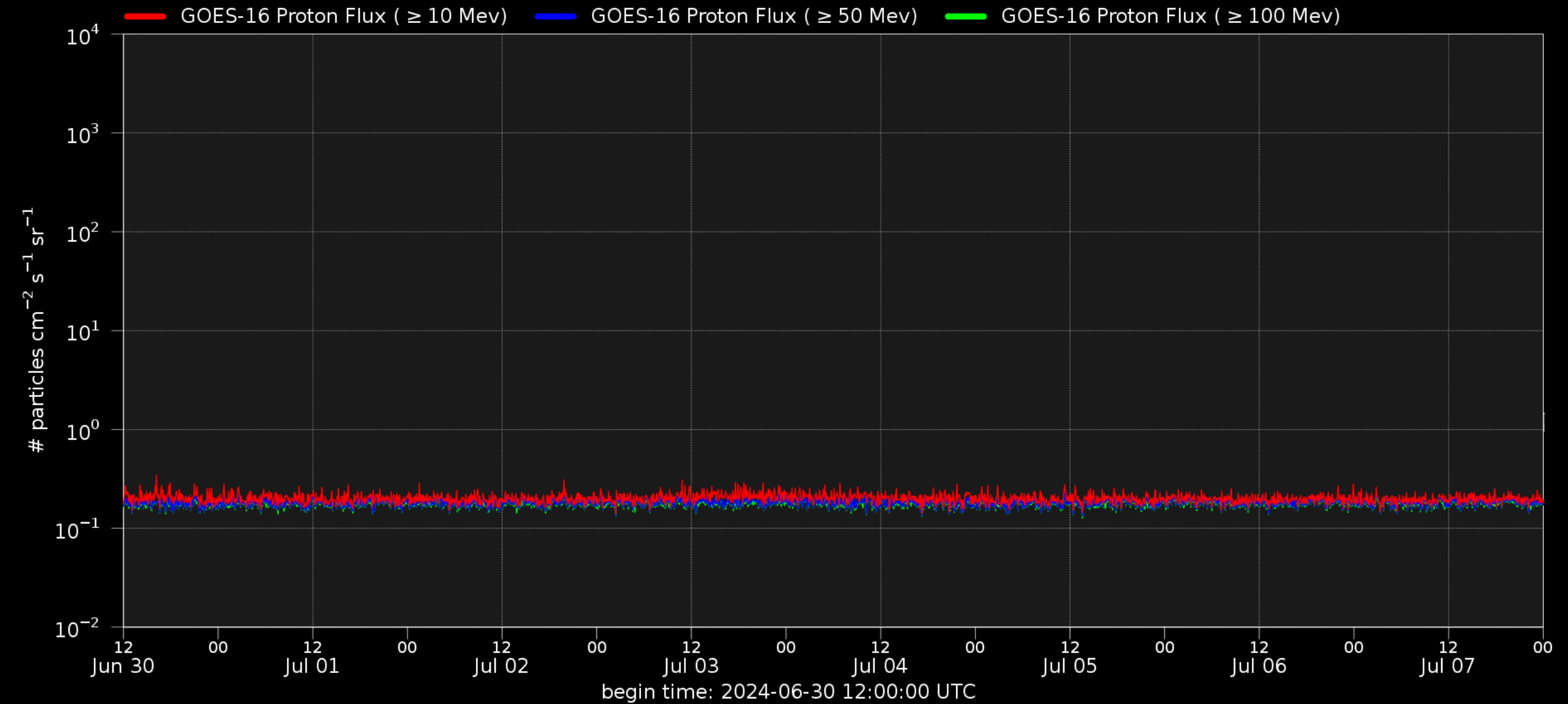
Energetic Particles



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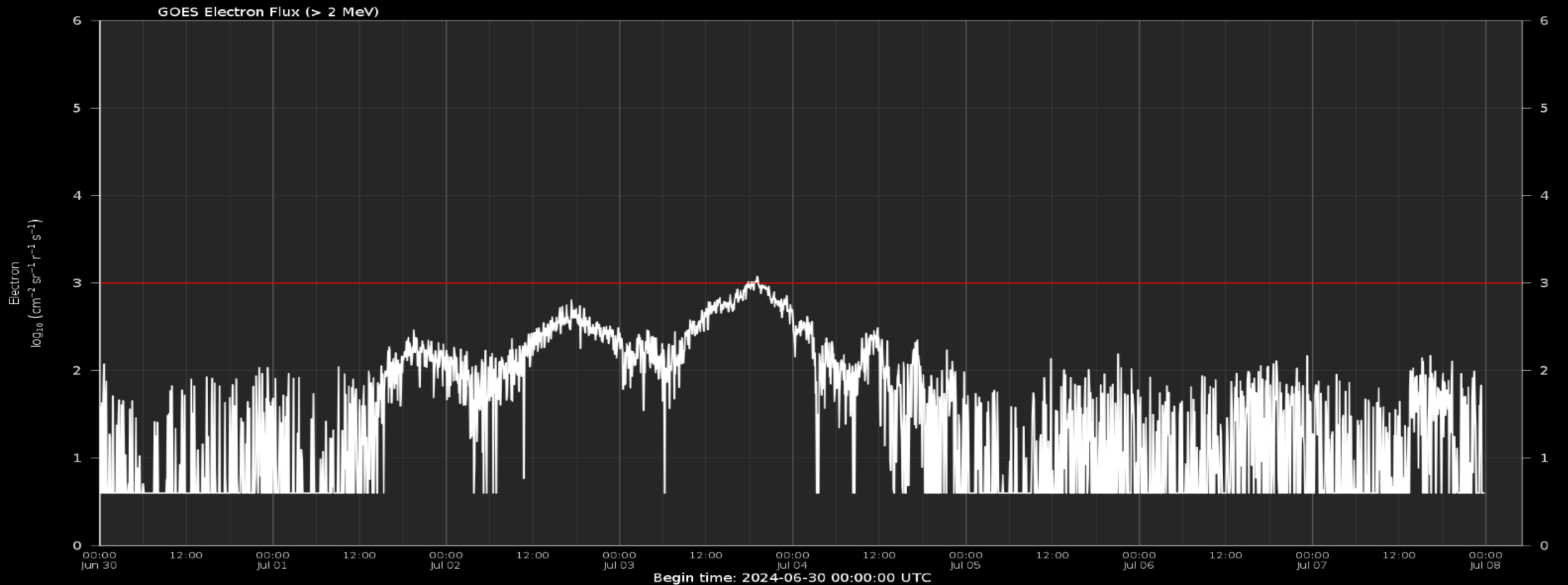
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



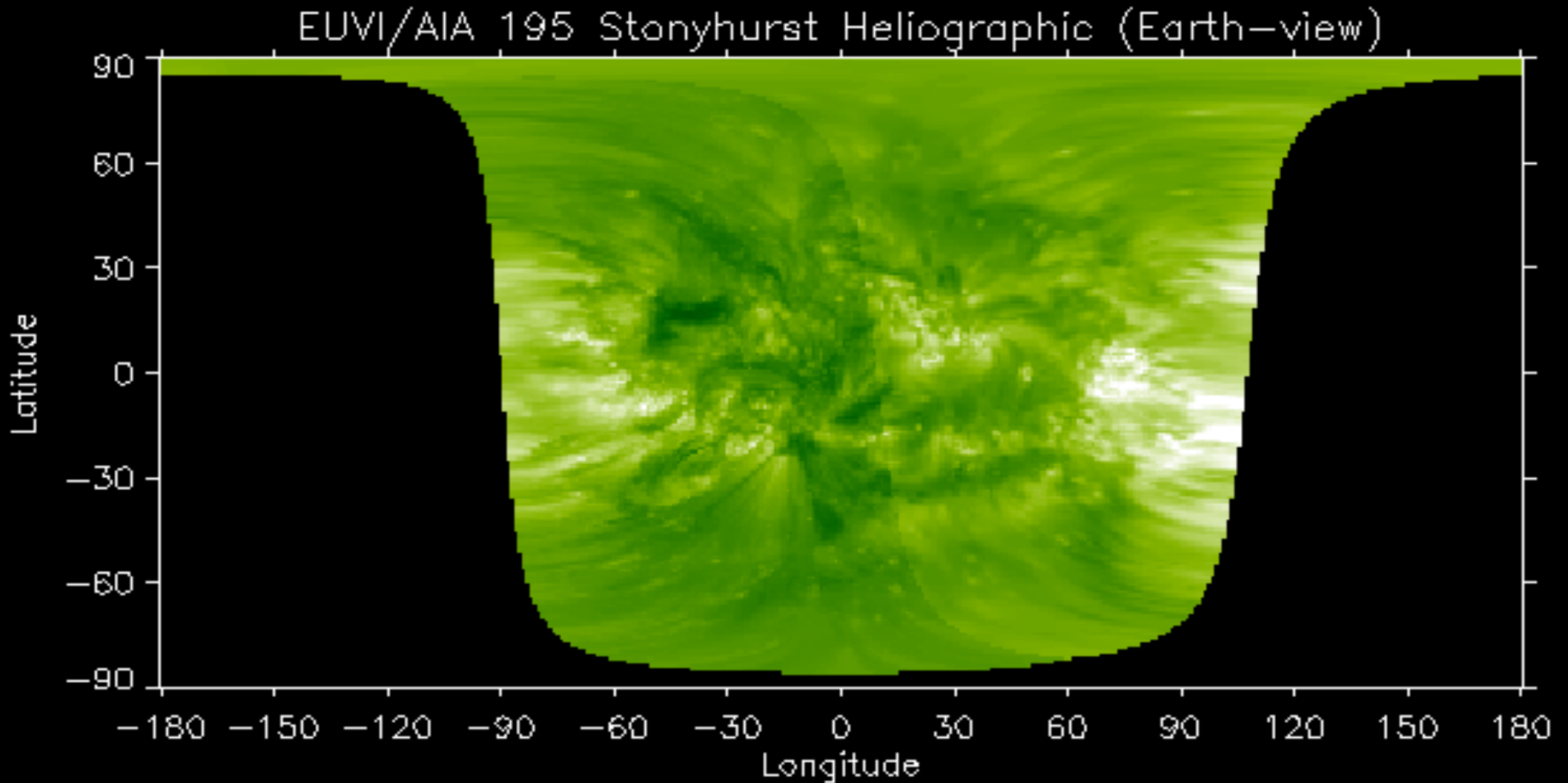
Outlook



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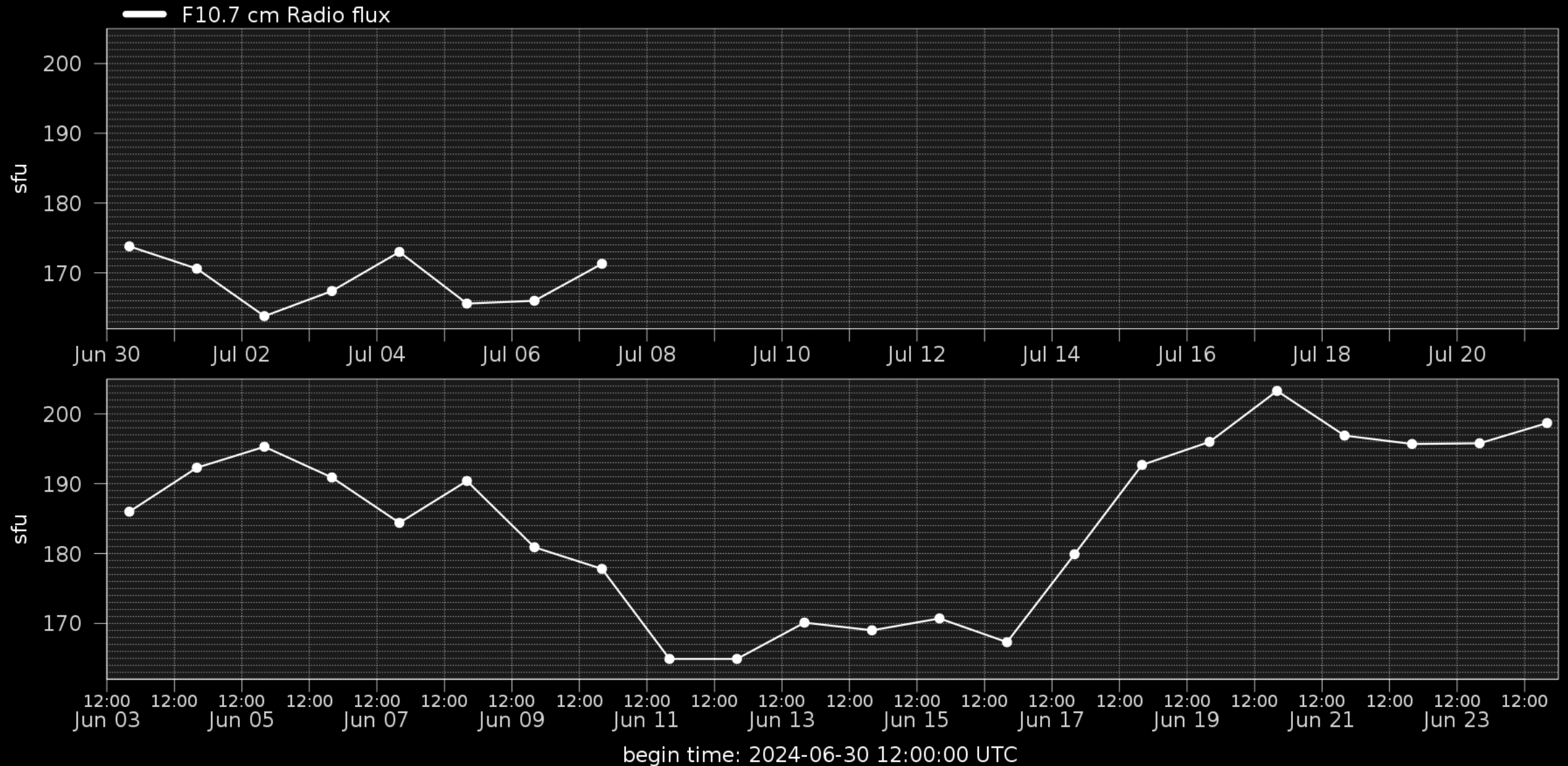
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Outlook: Solar activity

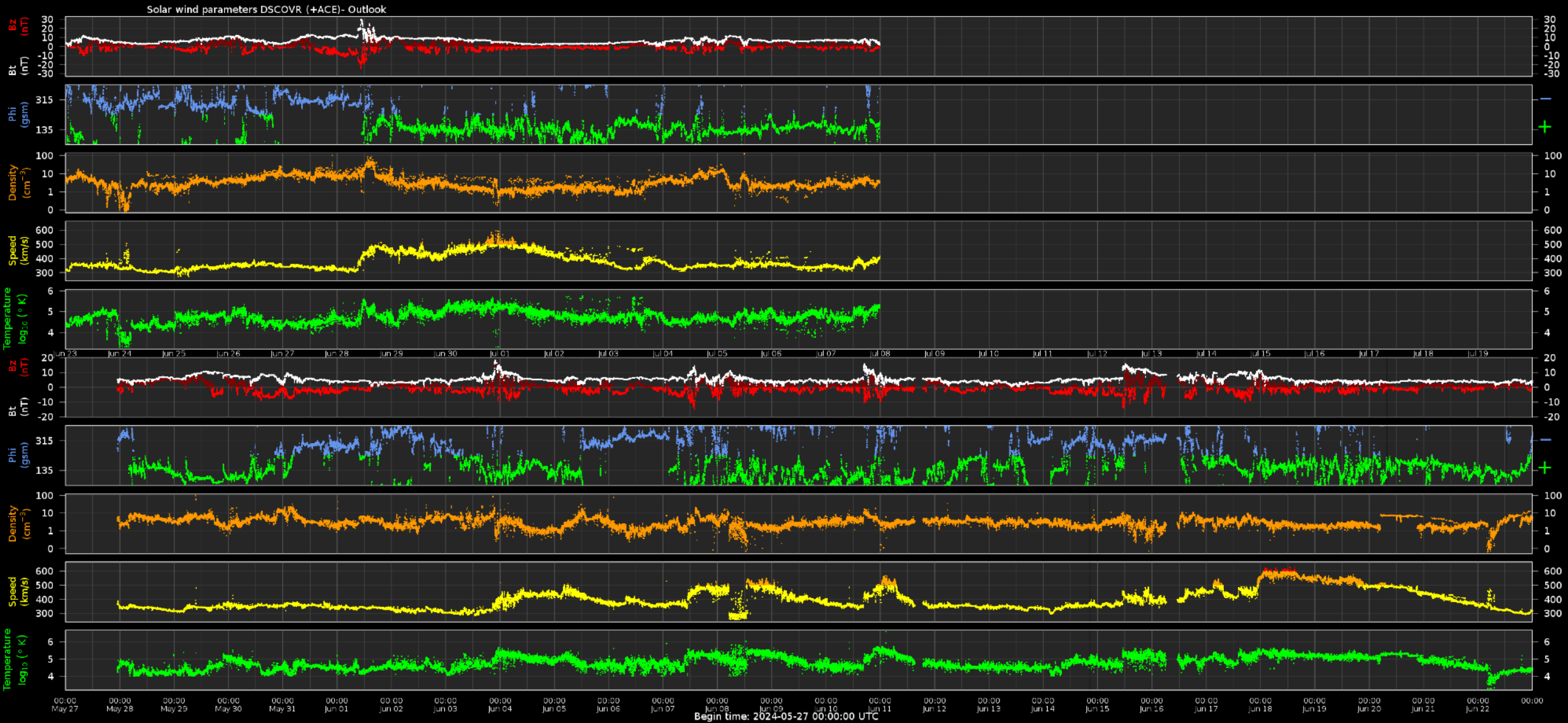


Observation date: 2024/07/07 13:35:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



PECASUS



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Pegasus related events

No advisories sent for the whole week.

SIDC Space Weather Briefing

See you at our next briefing!

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