

SIDC Space Weather Briefing

23 June 2025-29 June 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 2025-06-23 00:00 to 2025-06-29 23:59

Active regions	16 Active Regions: NOAA AR 4114 – 4128
Flares	# C-class flare: >25 # M-class flare: 0 # X-class flare: 0
Coronal Holes	2 CH-
CMEs	1 partial halo & narrow CMEs

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

Solar wind and geomagnetic conditions

ICMEs	No ICME arrivals
Solar wind conditions	B : 0.65 - 16.61 nT //Bz: -11.74 nT to 14.38 nT //Speed: 357.0 - 849.2km/s
Geomagnetic conditions	max K _{BeI} : 4.0, max K _p (NOAA): 5.33, Minor Storm conditions

All Quiet Alert: All quiet off

Solar Activity

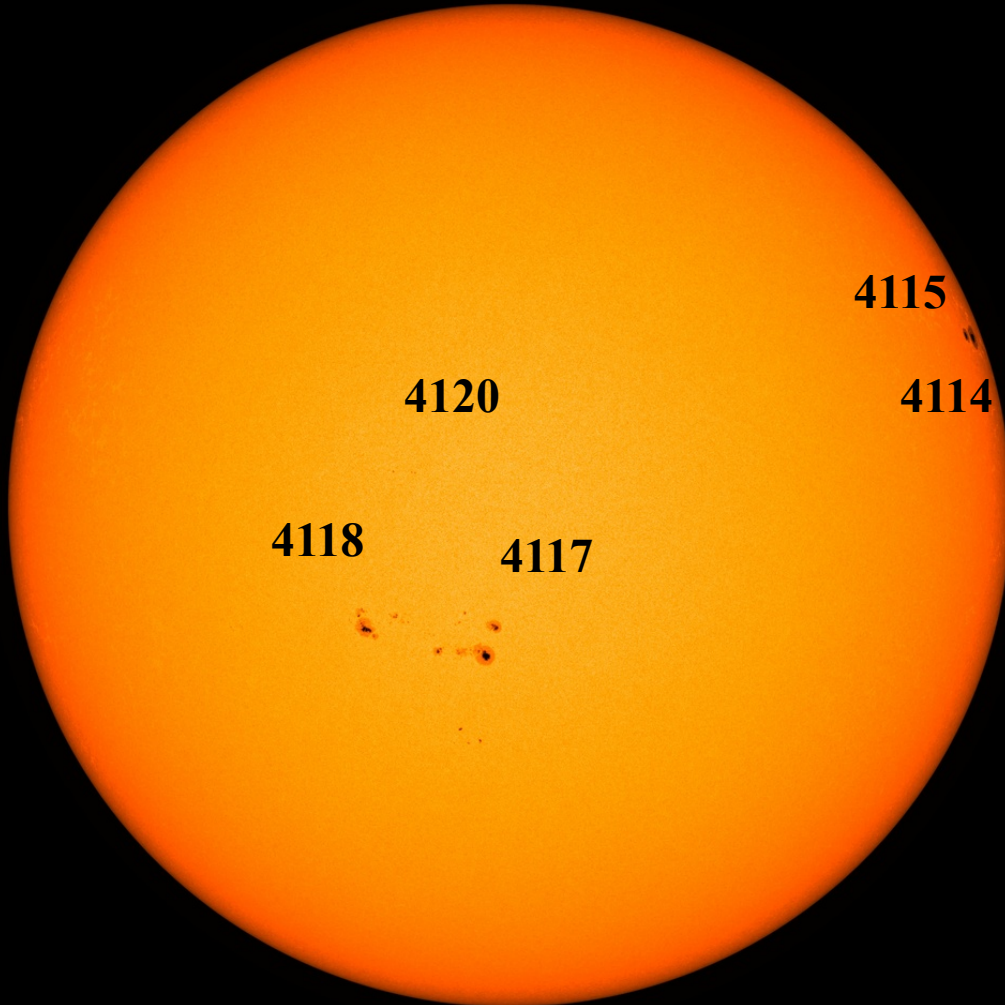


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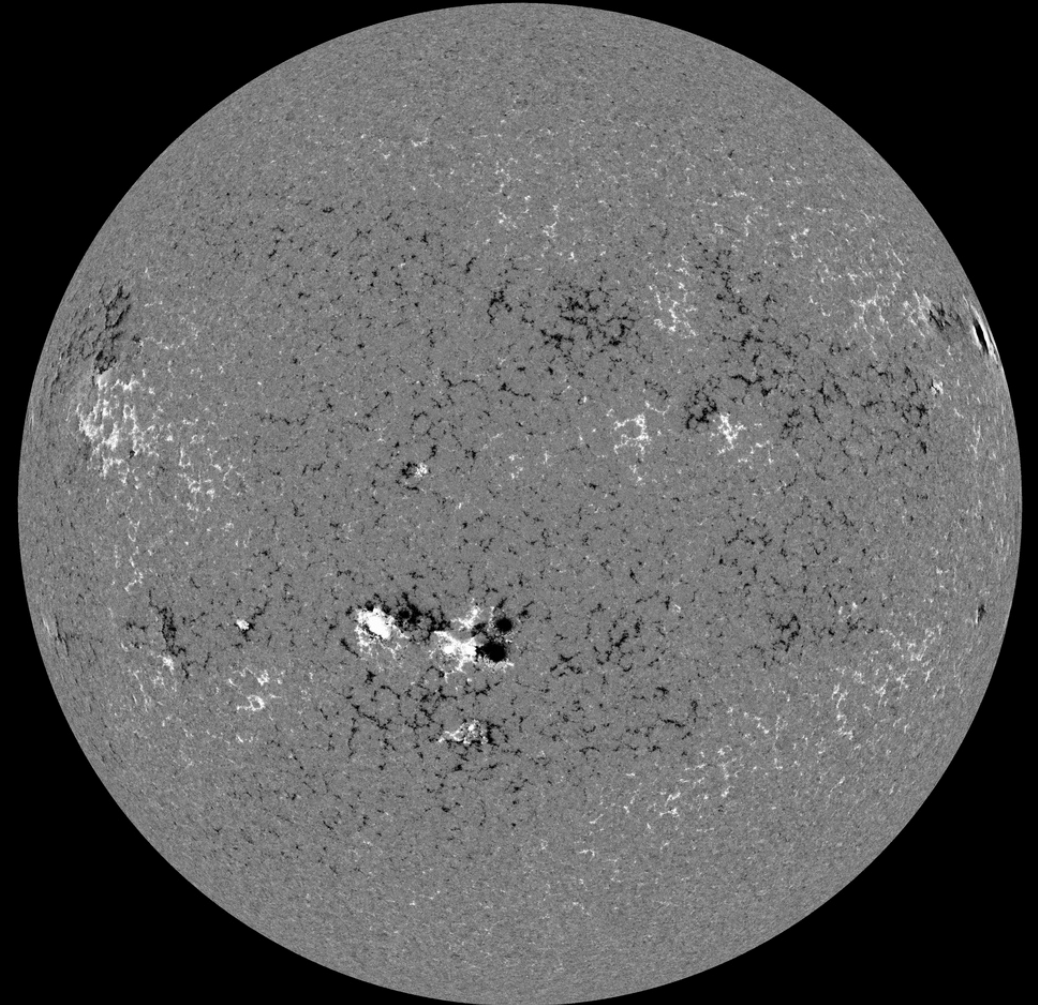
Solar active regions

SDO/HMI White Light 2025-06-23



SDO/HMI Quick-Look Continuum: 20250623_114500

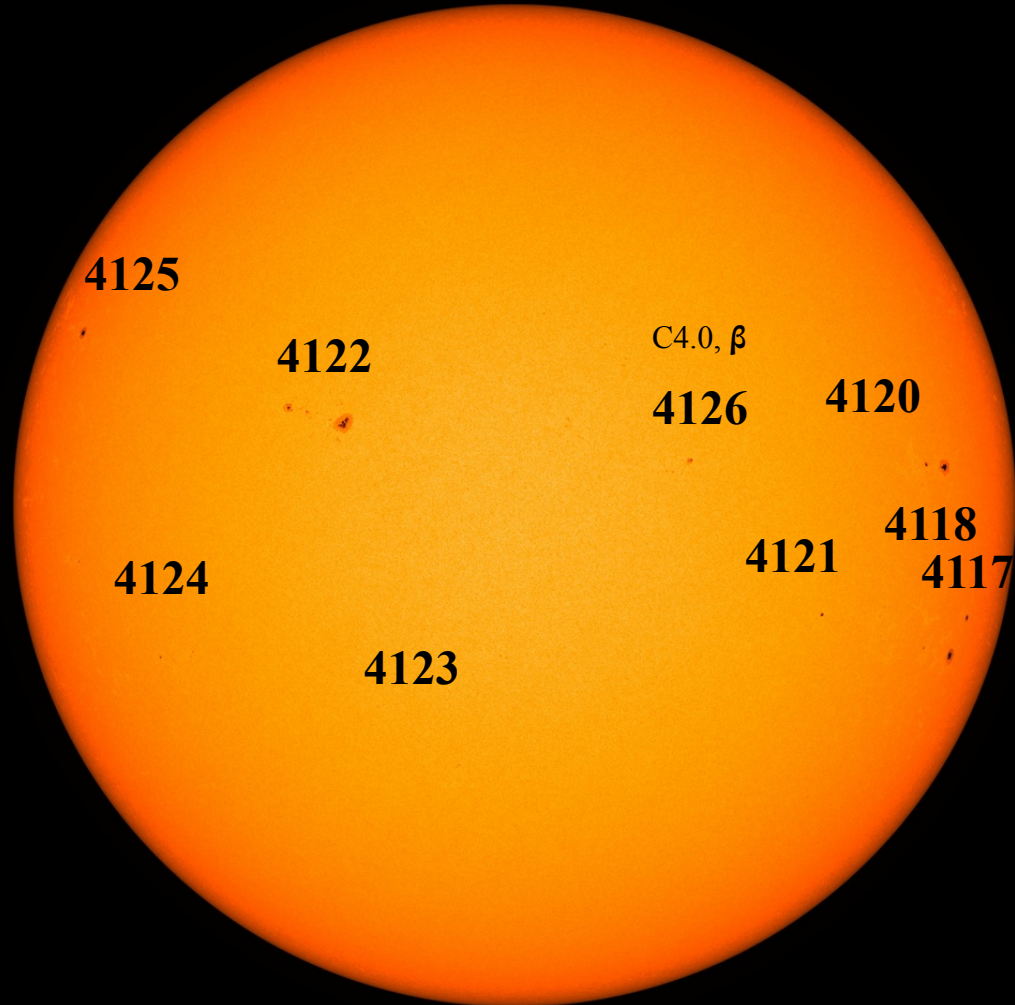
SDO/HMI Magnetogram 2025-06-23



SDO/HMI Quick-Look Magnetogram: 20250623_114500

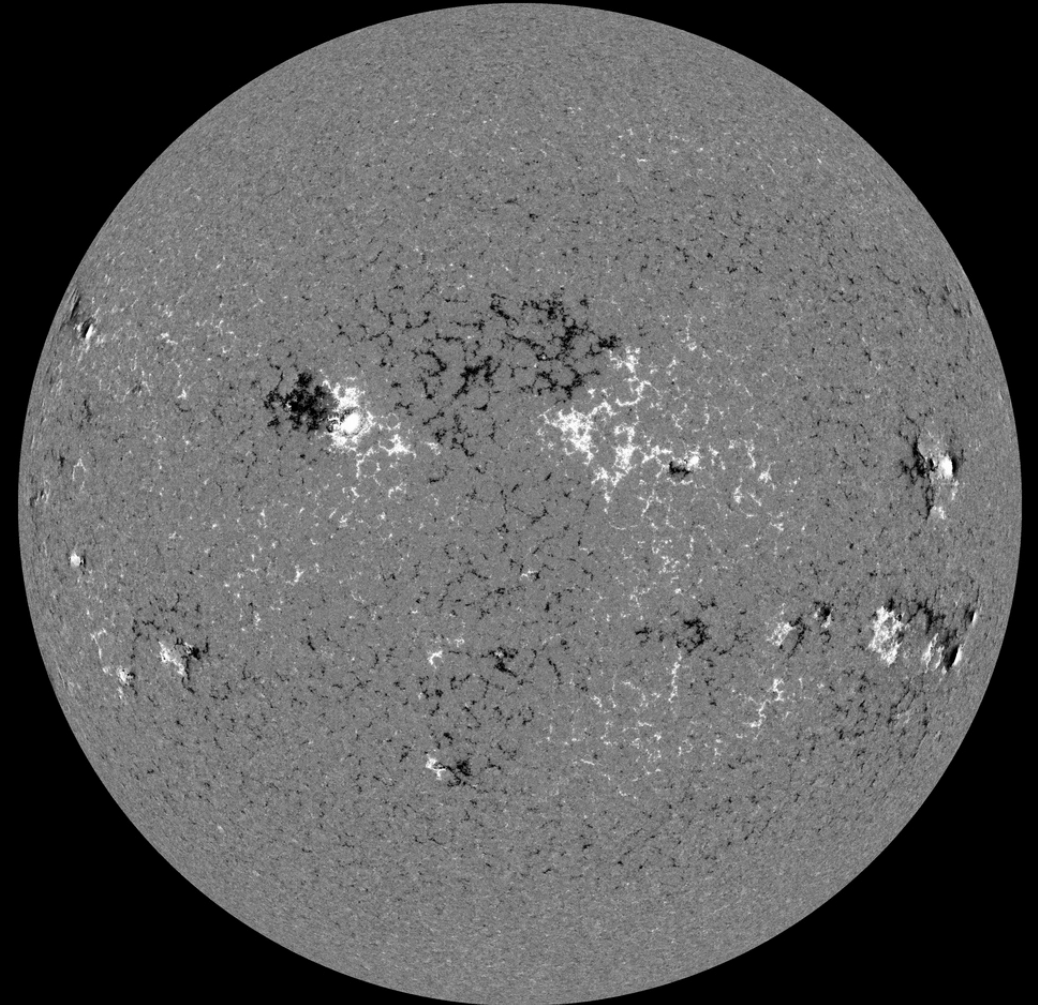
Solar active regions

SDO/HMI White Light 2025-06-28



SDO/HMI Quick-Look Continuum: 20250628_114500

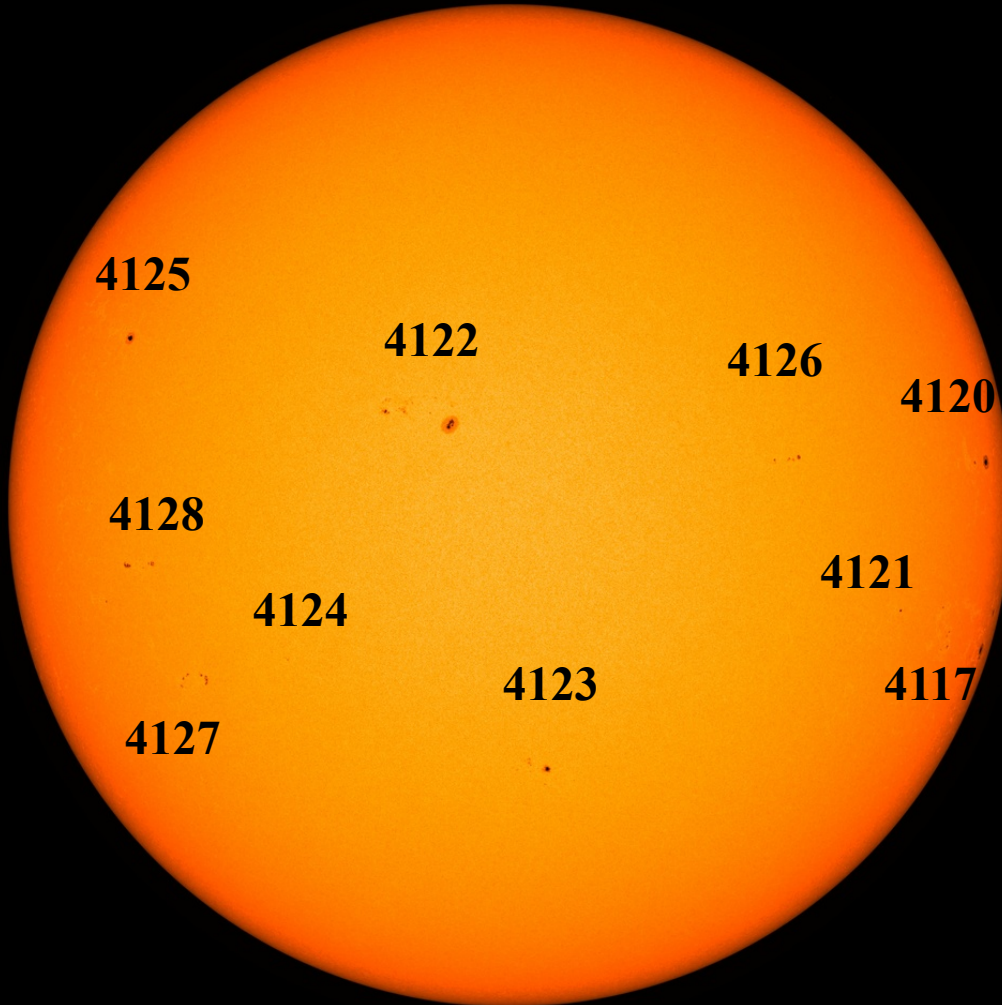
SDO/HMI Magnetogram 2025-06-28



SDO/HMI Quick-Look Magnetogram: 20250628_114500

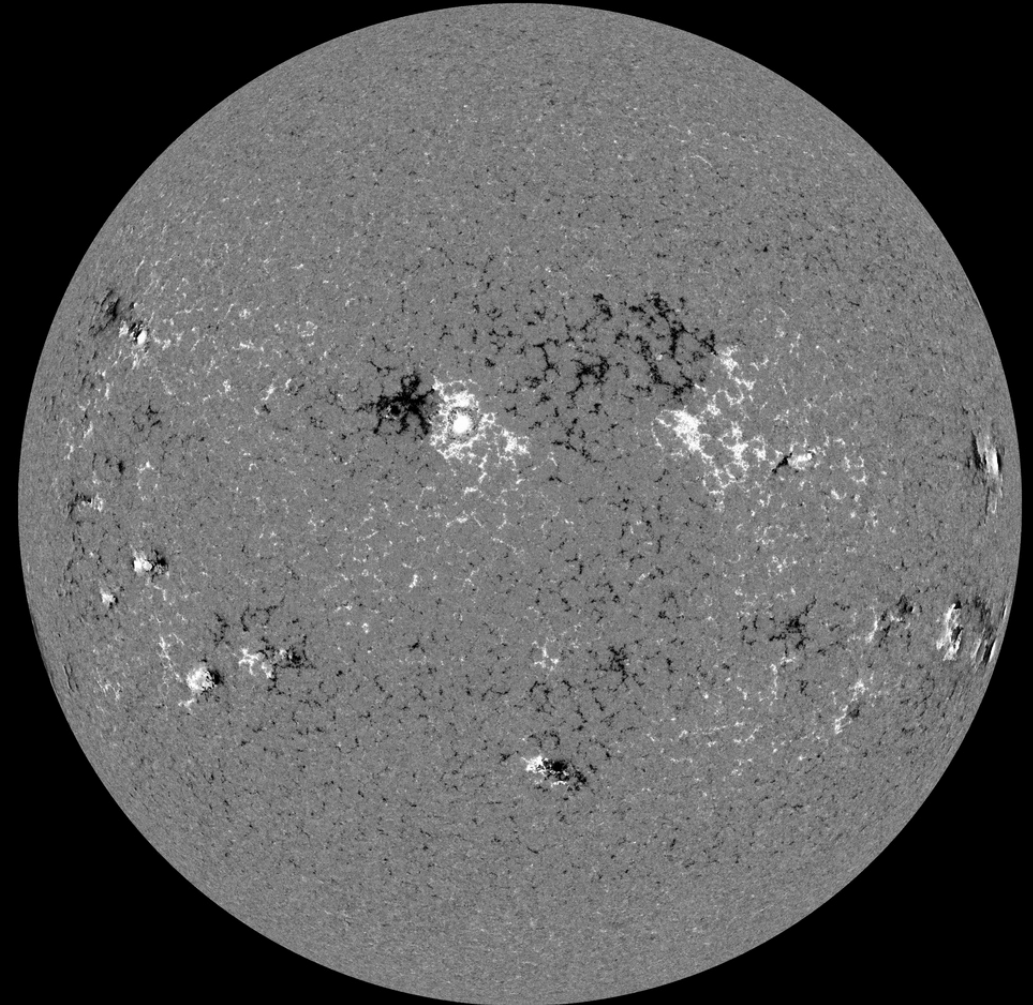
Solar active regions

SDO/HMI White Light 2025-06-29



SDO/HMI Quick-Look Continuum: 20250629_114500

SDO/HMI Magnetogram 2025-06-29

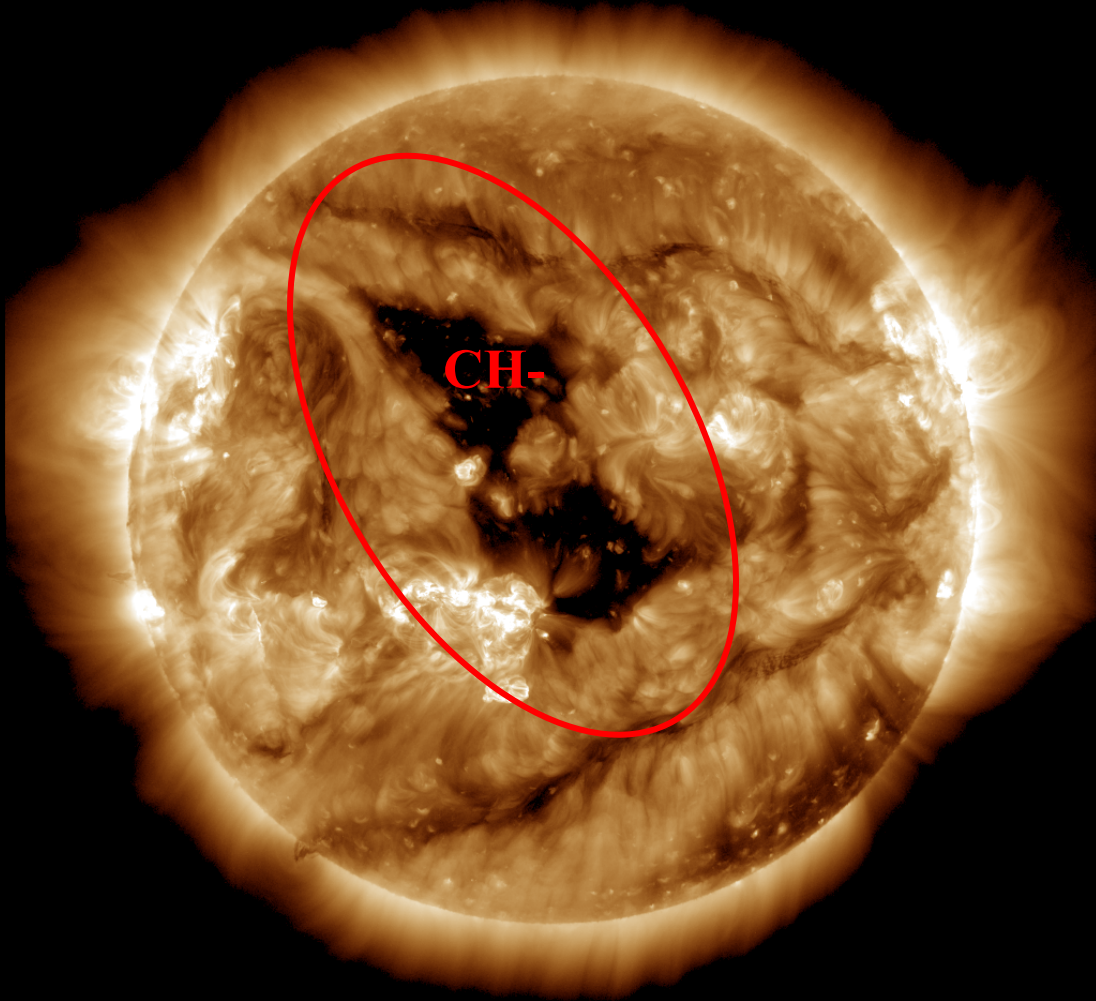


SDO/HMI Quick-Look Magnetogram: 20250629_114500

Coronal holes

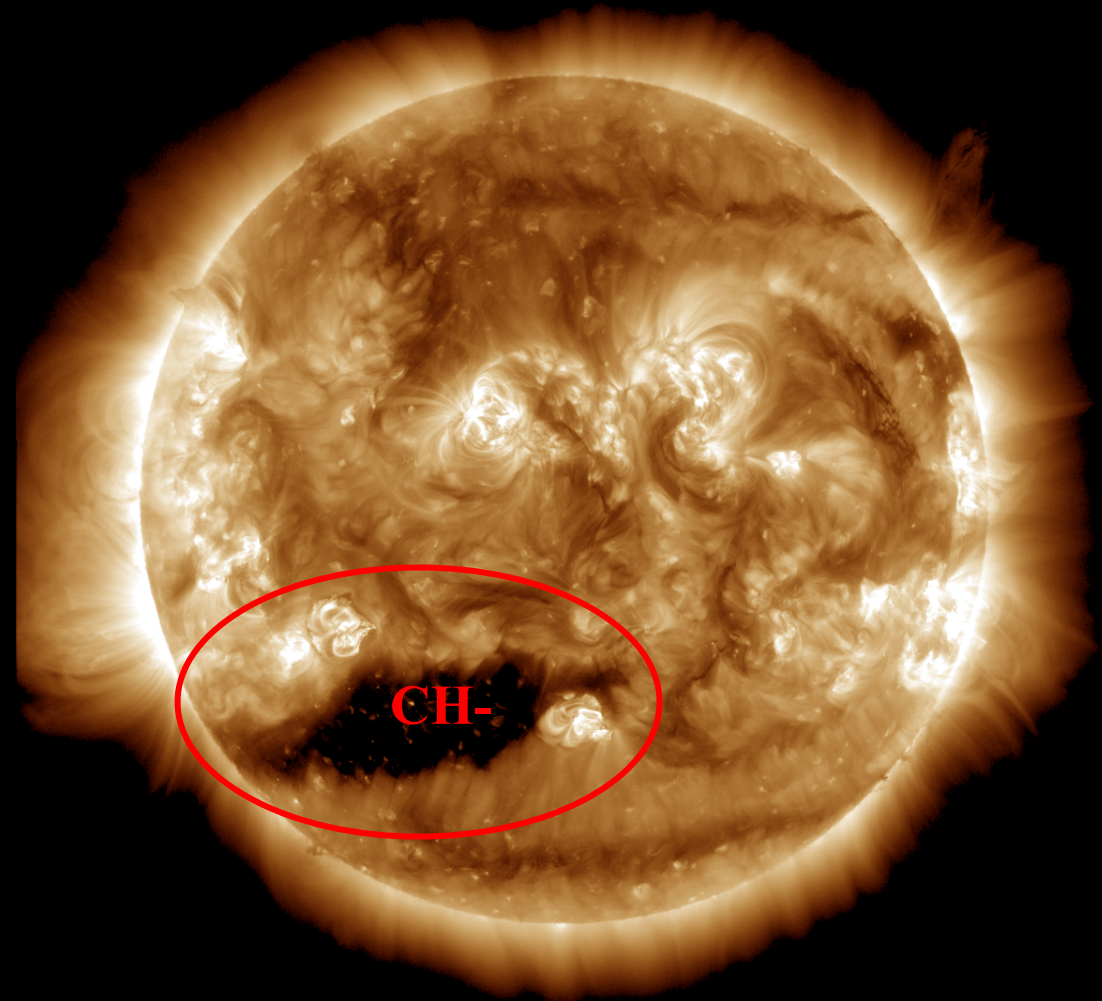
SDO/AIA 19.3 nm 2025-06-23

SDO/AIA AIA 193Å 2025-06-23T12:00:05.846



SDO/AIA 19.3 nm 2025-06-29

SDO/AIA AIA 193Å 2025-06-29T12:00:05.843



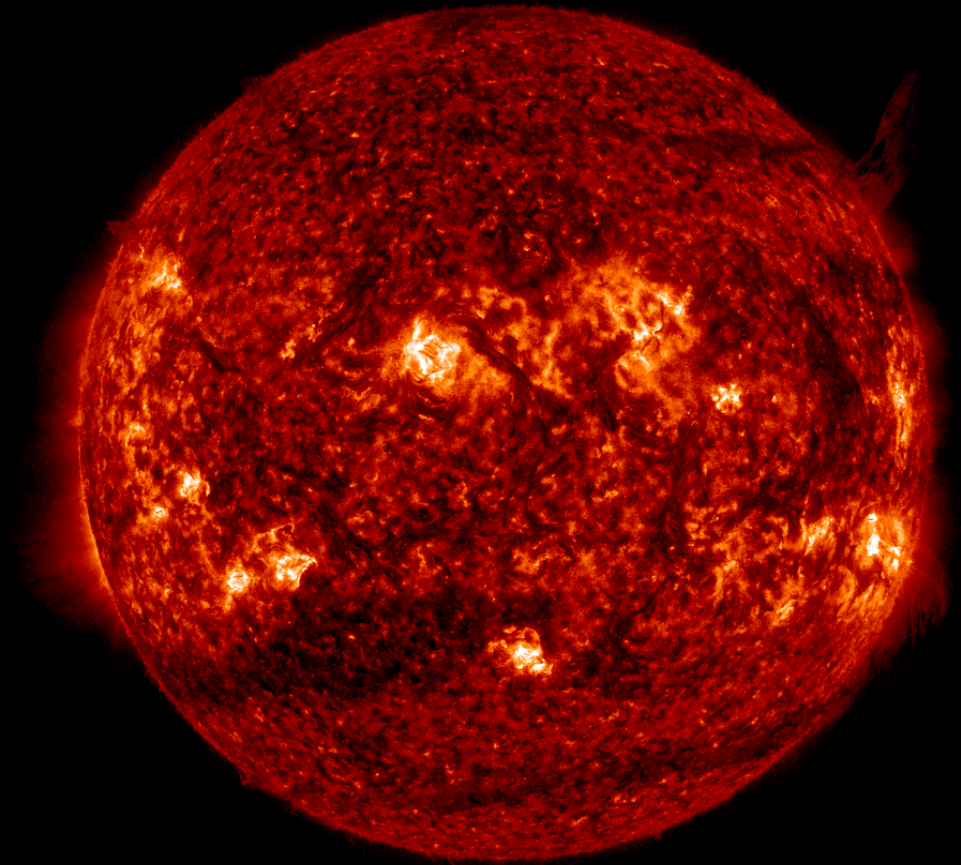
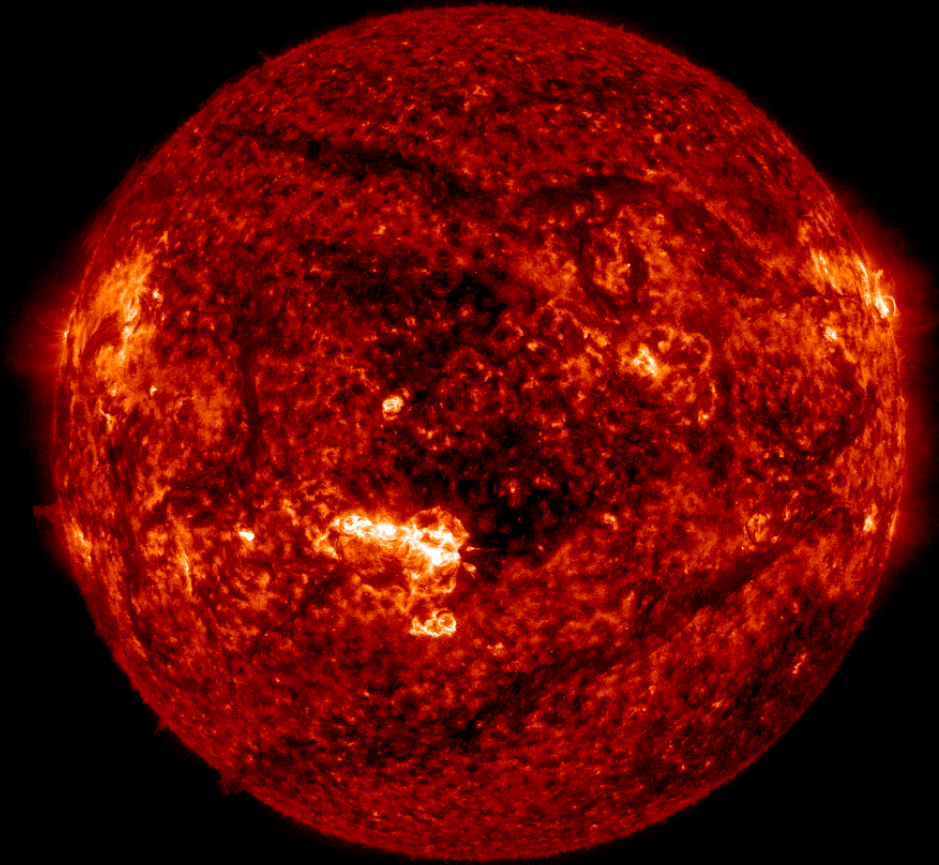
Filaments

SDO/AIA 30.4 nm 2025-06-23

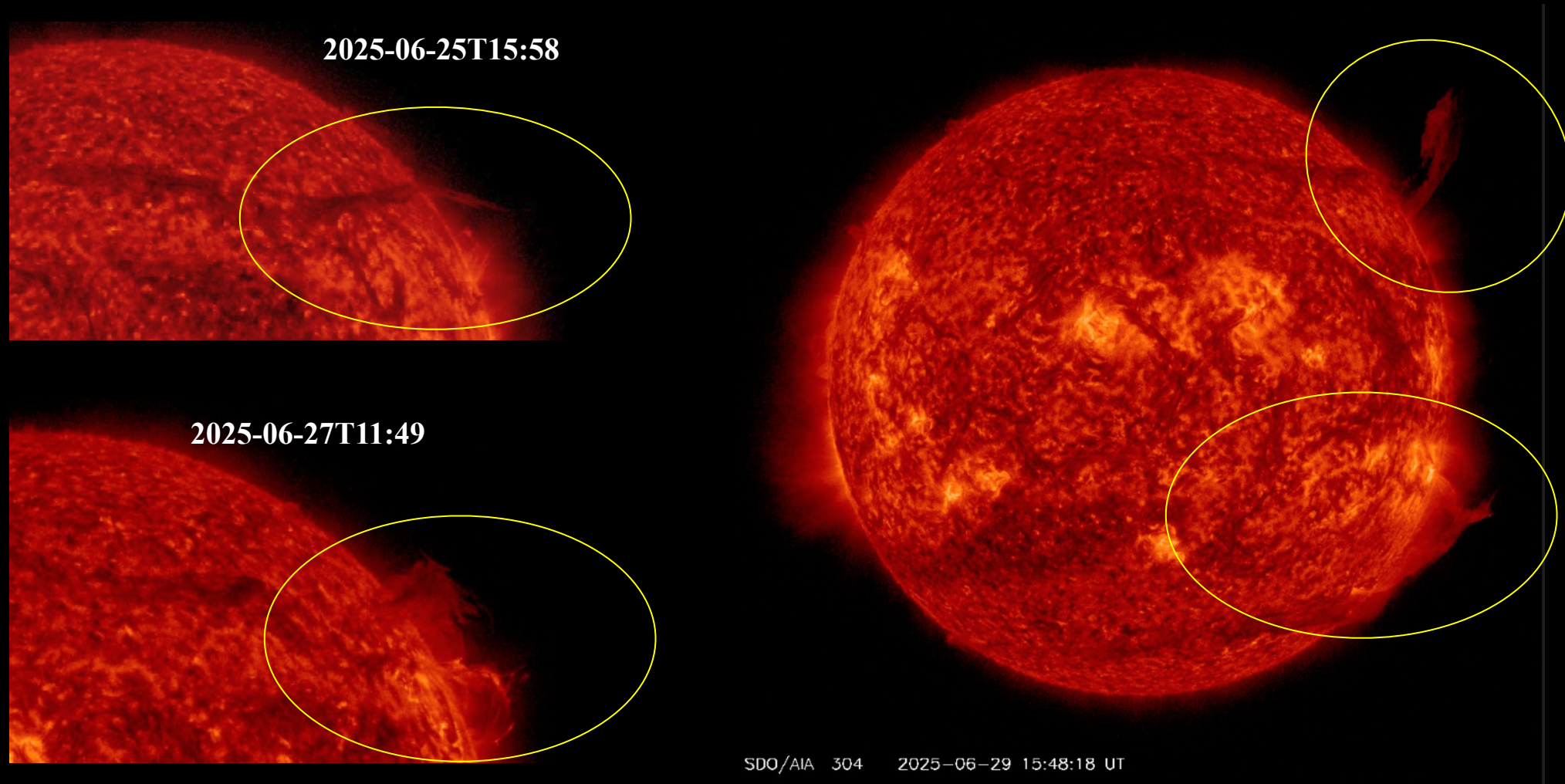
SDO/AIA AIA 304Å 2025-06-23T12:00:06.572

SDO/AIA 30.4 nm 2025-06-29

SDO/AIA AIA 304Å 2025-06-29T12:00:06.580



Filaments



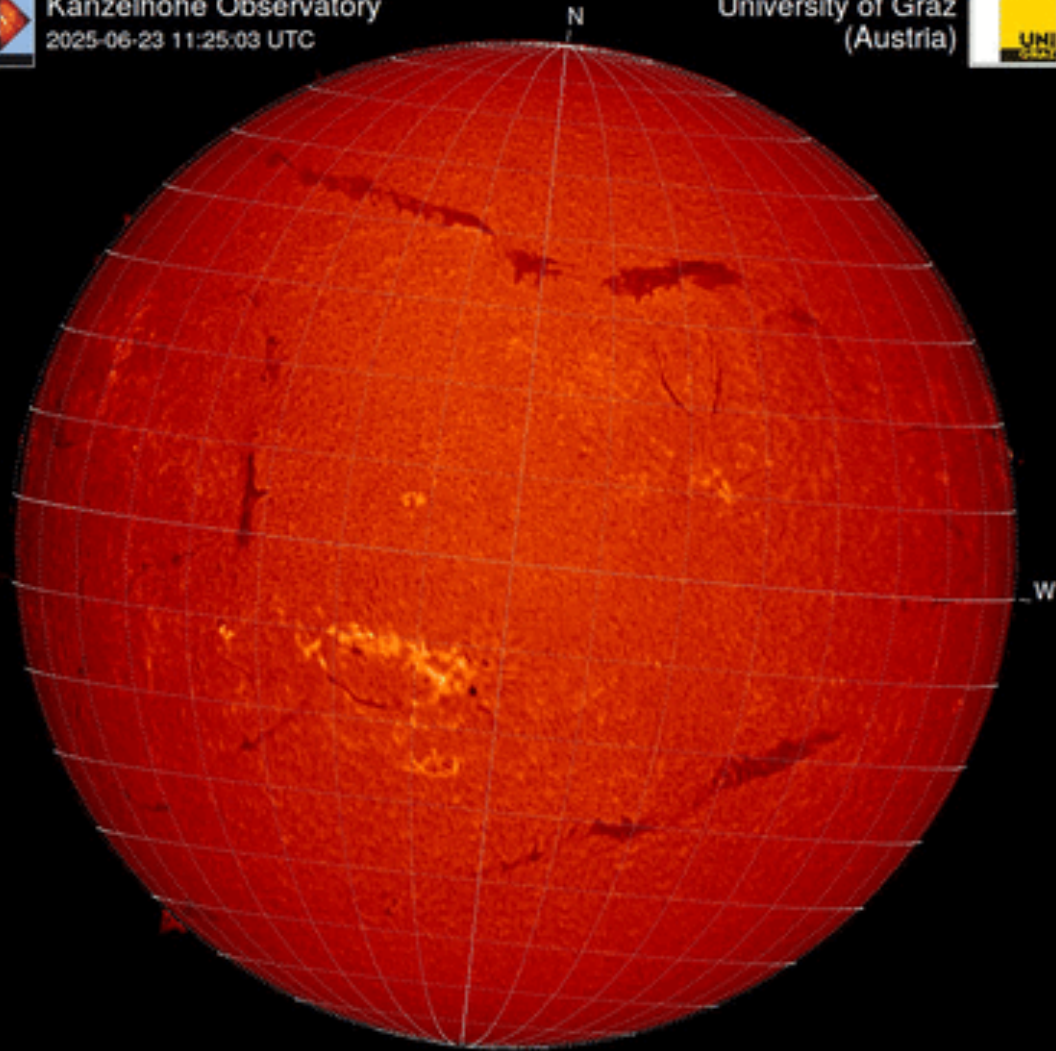
Filaments & Filament eruptions

H-alpha 2025-06-23



Kanzelhöhe Observatory
2025-06-23 11:25:03 UTC

University of Graz
(Austria)

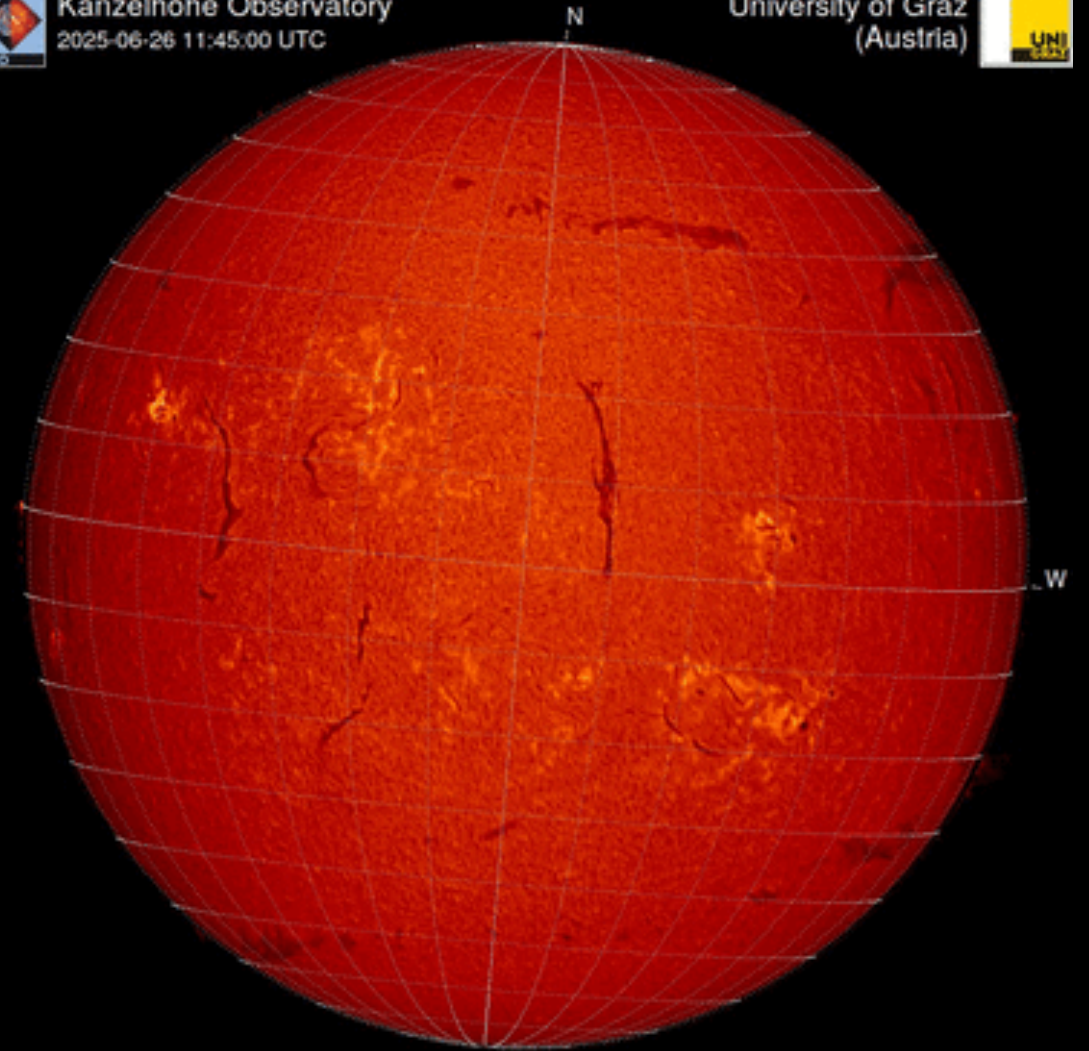


H-alpha 2025-06-29

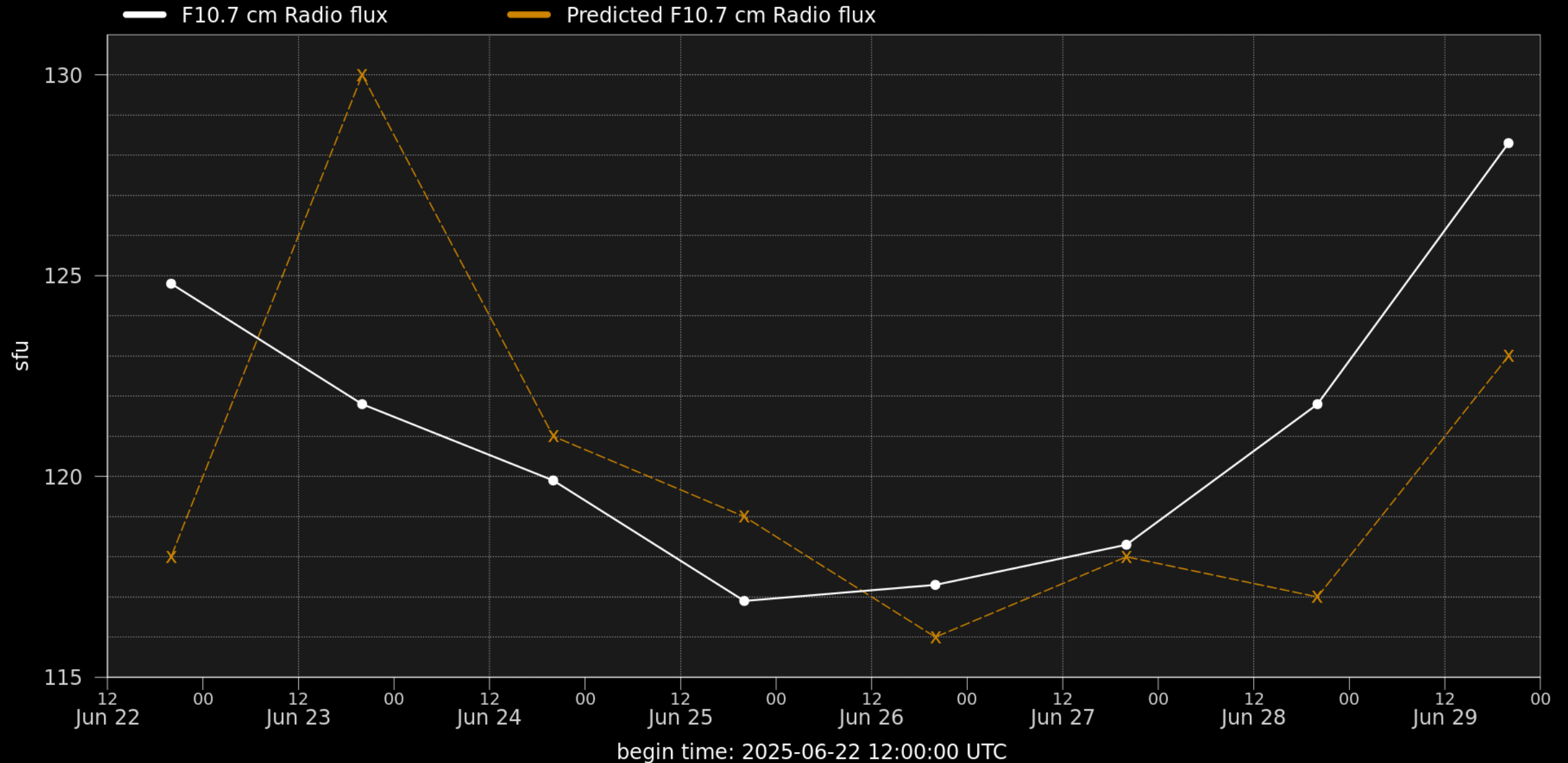


Kanzelhöhe Observatory
2025-06-26 11:45:00 UTC

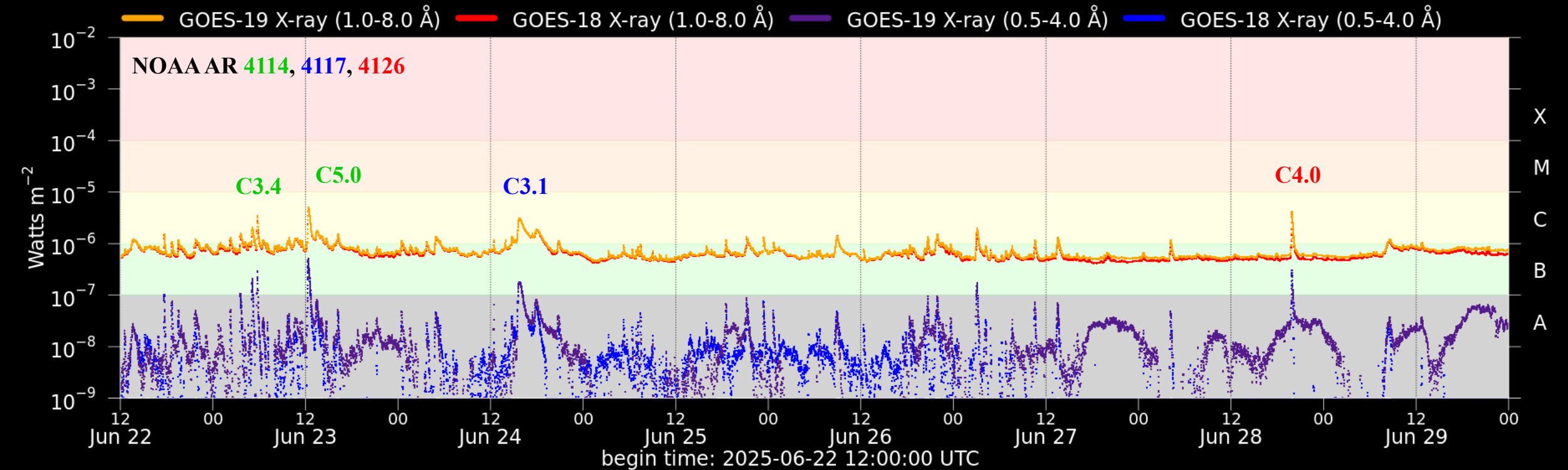
University of Graz
(Austria)



Solar F10.7cm radio flux



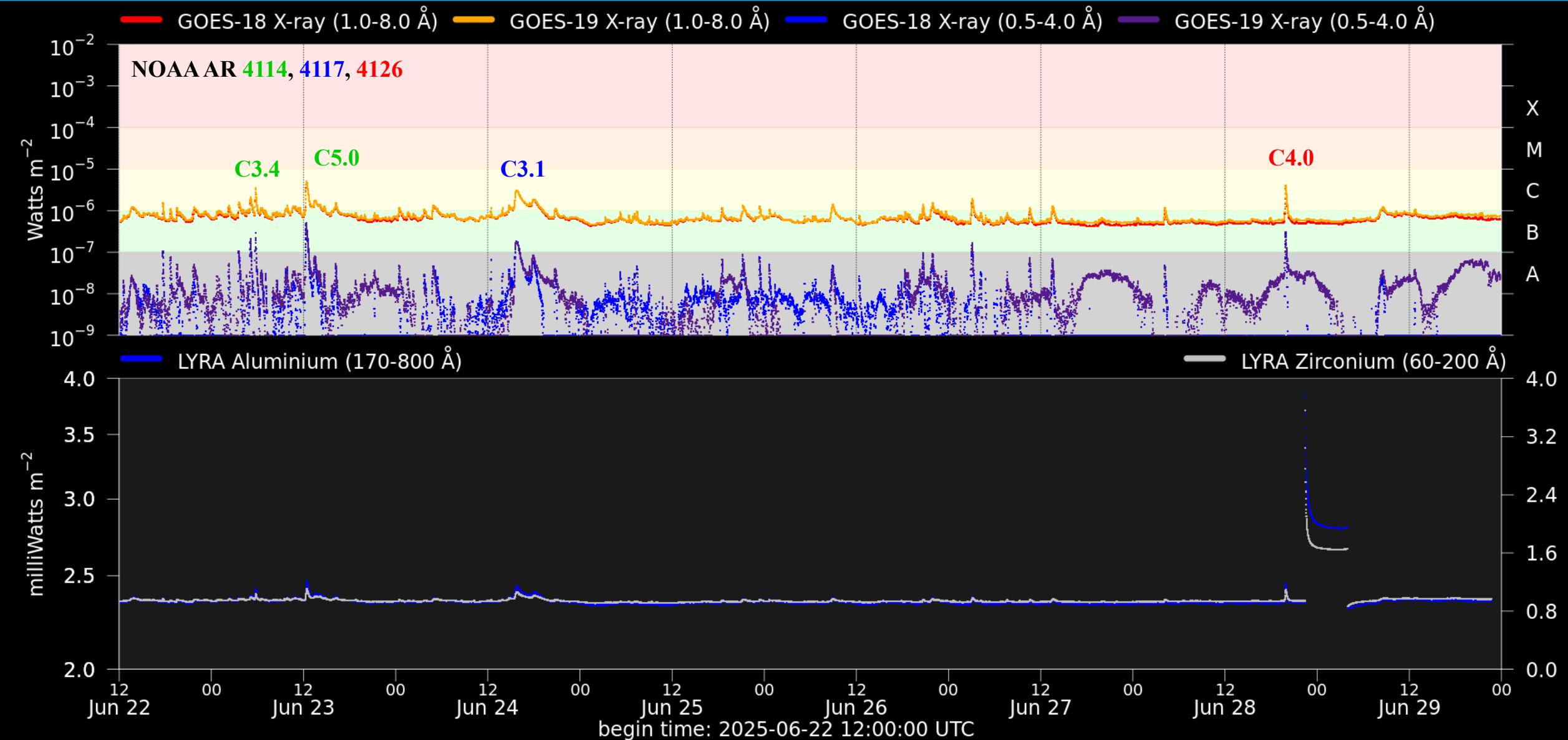
Flaring activity



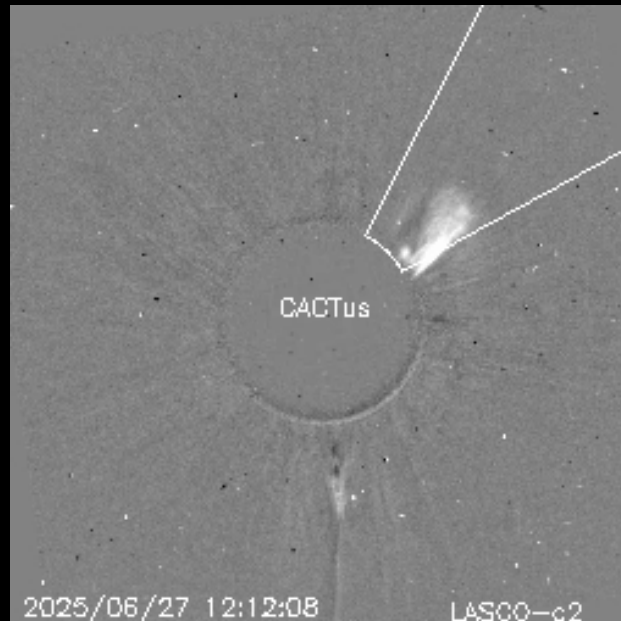
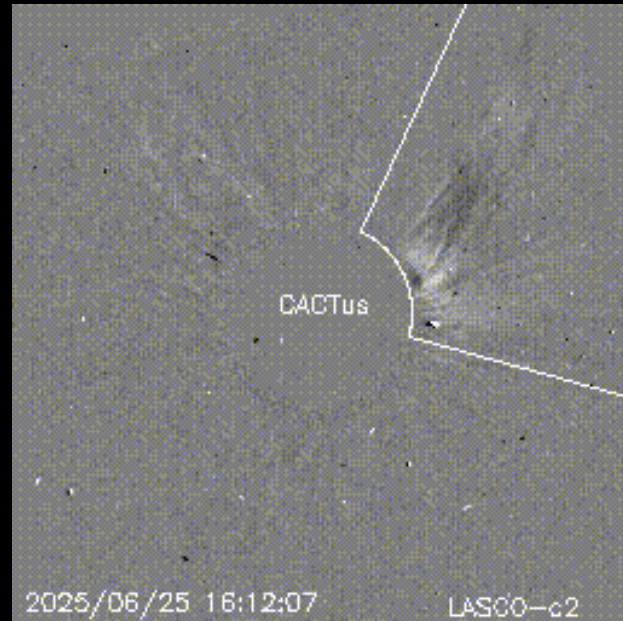
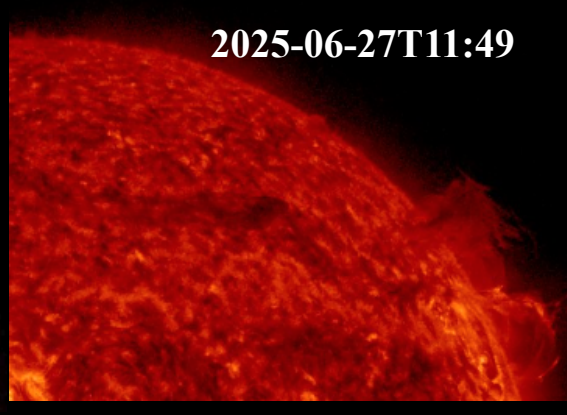
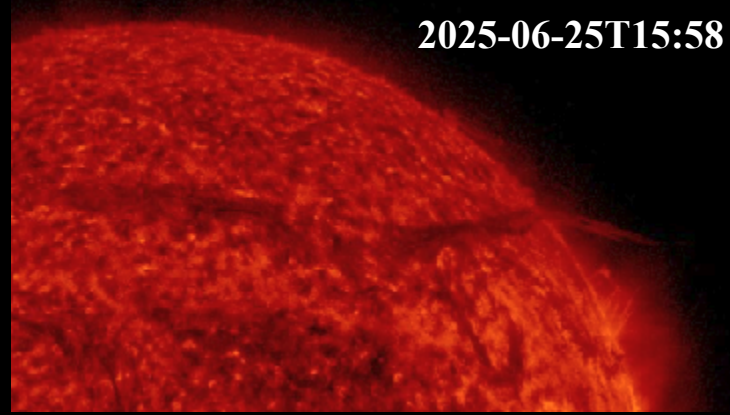
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-06-22	2025-06-23	2025-06-24	2025-06-25	2025-06-26	2025-06-27	2025-06-28	2025-06-29
Probability (%)	98 38 01	90 30 15	90 35 15	90 45 20	98 45 20	90 35 10	90 30 10	90 25 10
Observed (#)	08 00 00	01 00 00	03 00 00	04 00 00	03 00 00	02 00 00	01 00 00	00 00 00

Solar X-Ray and UV flux



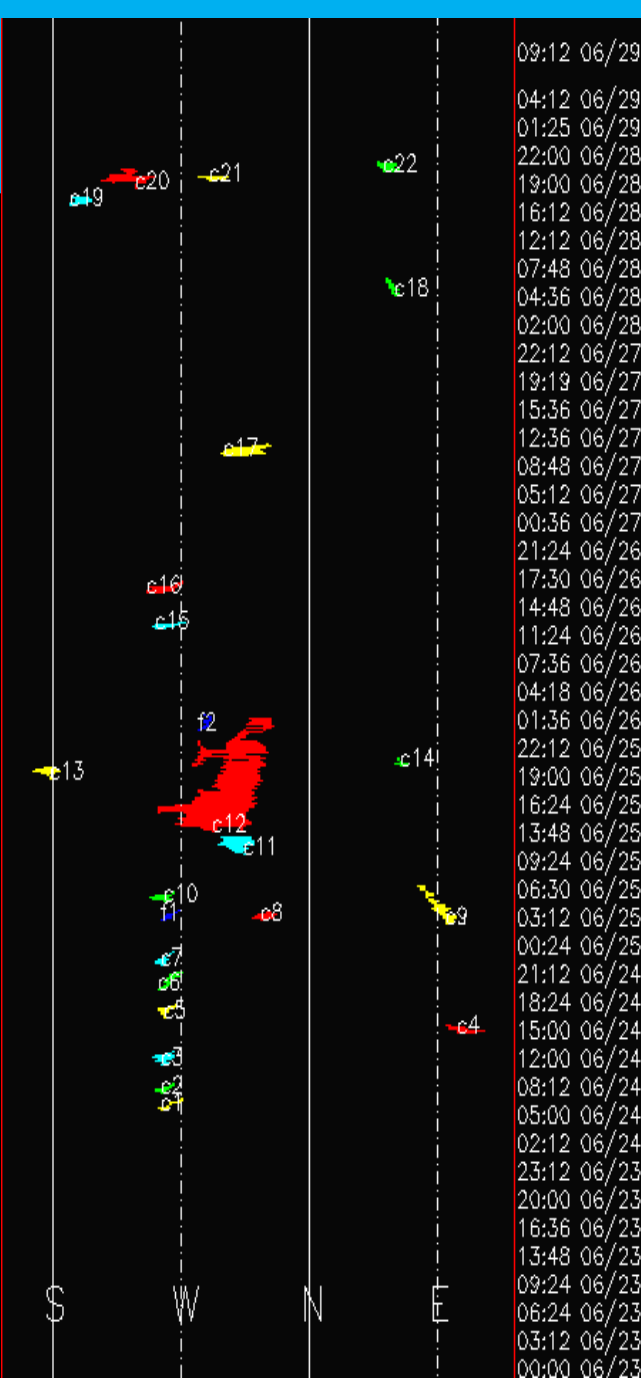
Coronal Mass Ejections



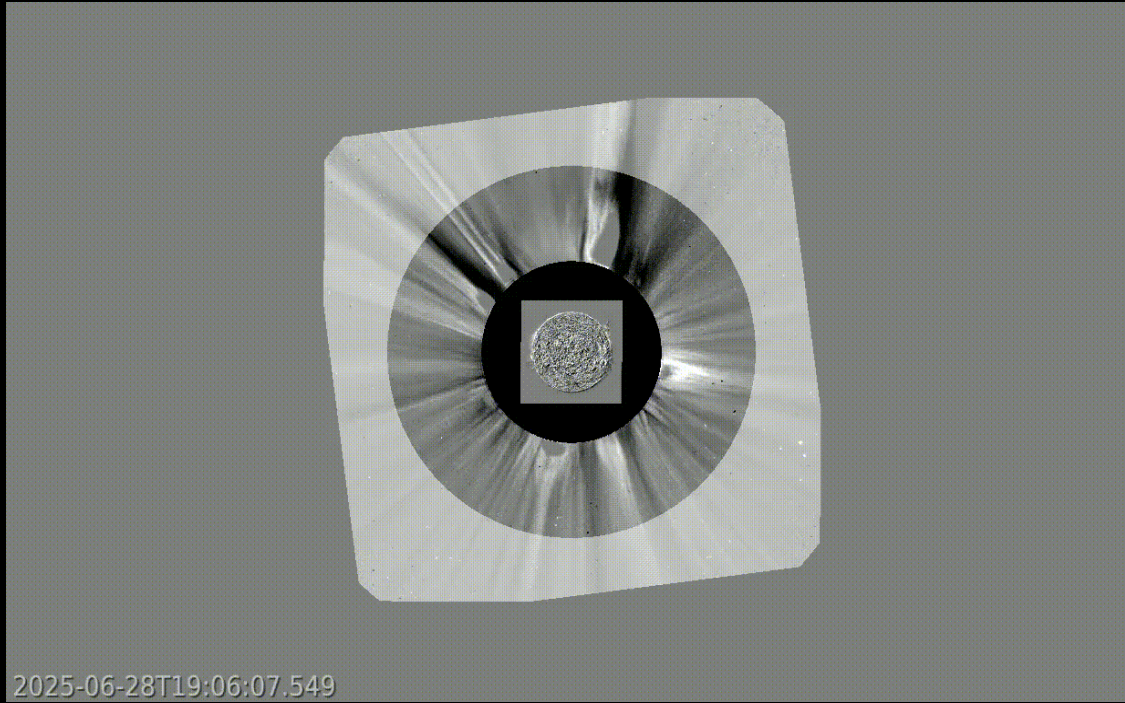
Narrow CMEs on Jun 25, 27

Associated with filament eruption on NW, which was part of an extended filament in the northern hemisphere.

Prediction: Not expected at Earth.



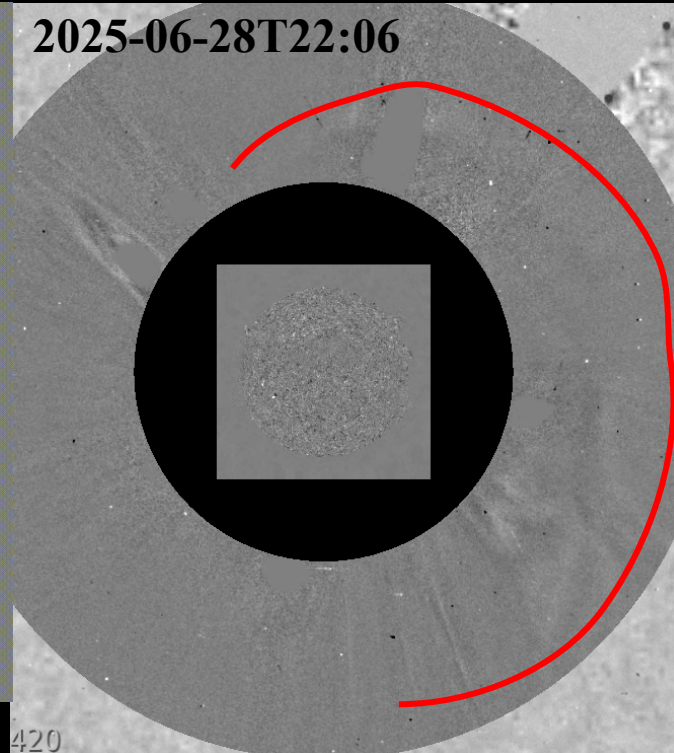
Coronal Mass Ejections



Partial Halo CME

Observation: 21:00 UTC on Jun 28
Associated with C4.0 flare (peak: 19:54 UTC, SIDC 537, AR 4126)
Speed = 500 km/s

Prediction: Impact at Earth on Jul 02T09:00



Solar Wind and

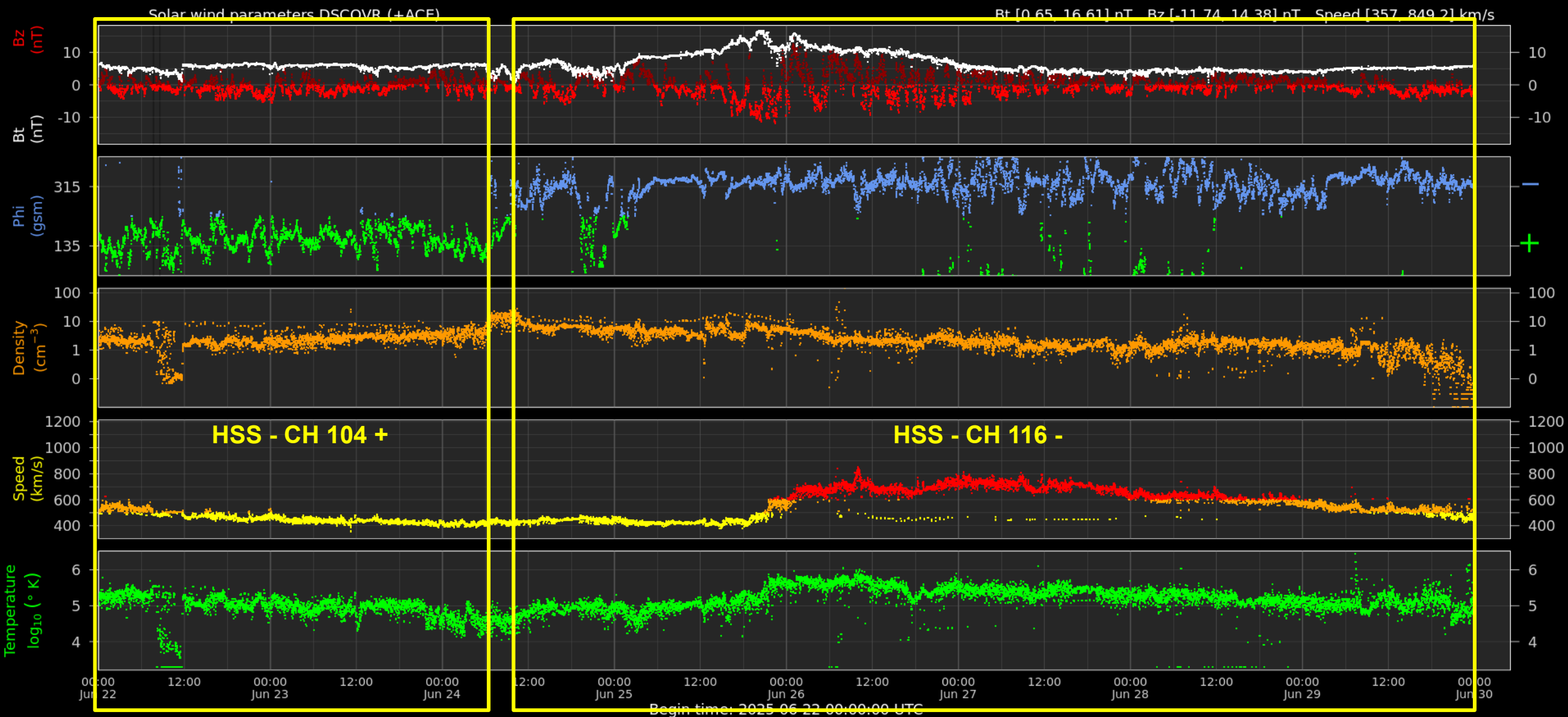
Geomagnetic Activity



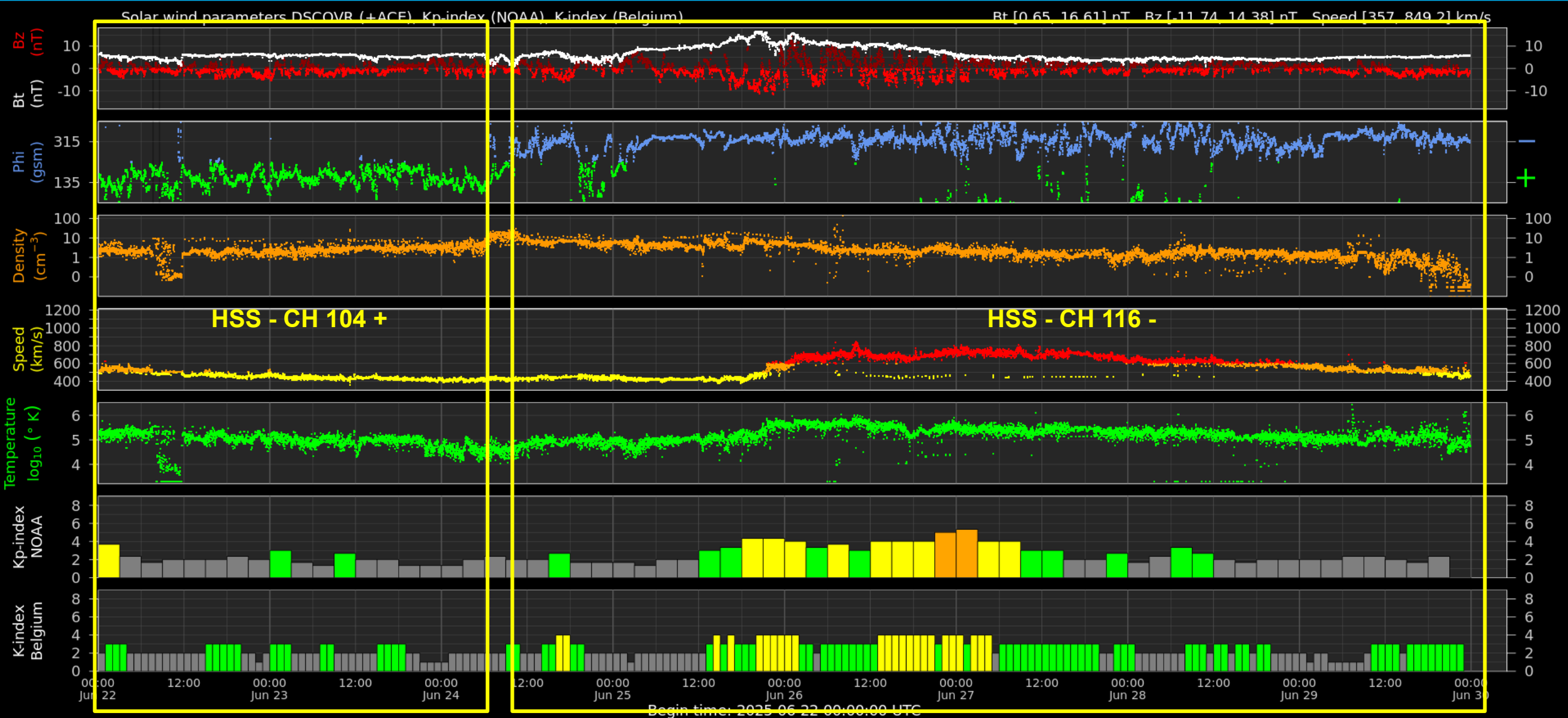
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Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



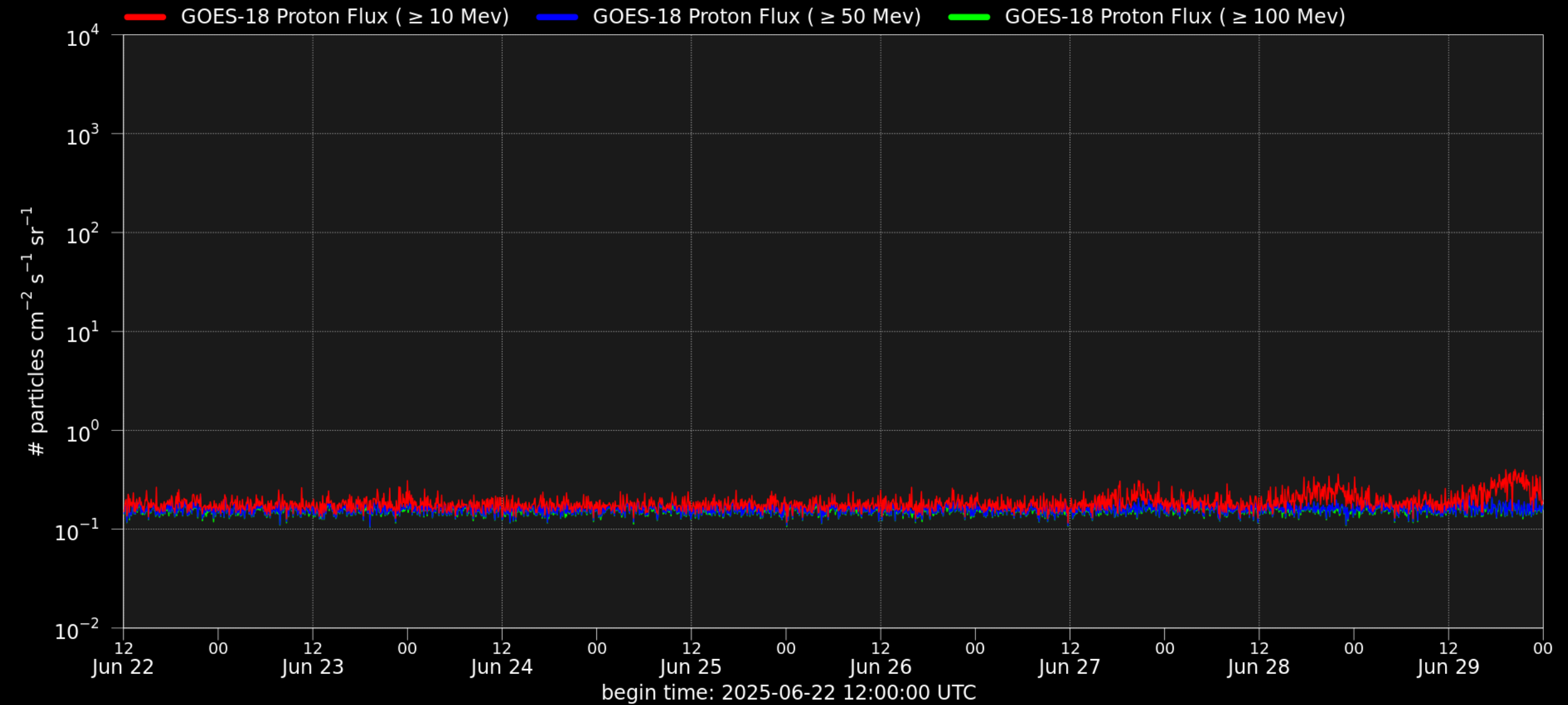
Energetic Particles



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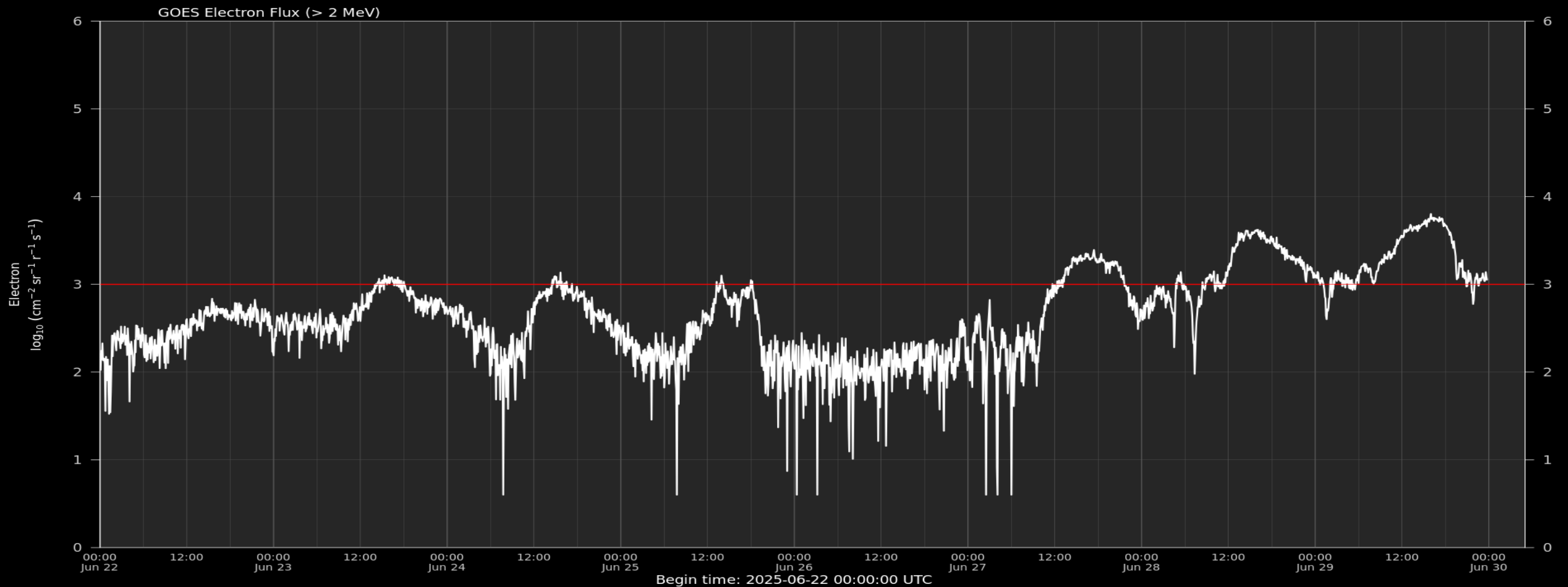
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



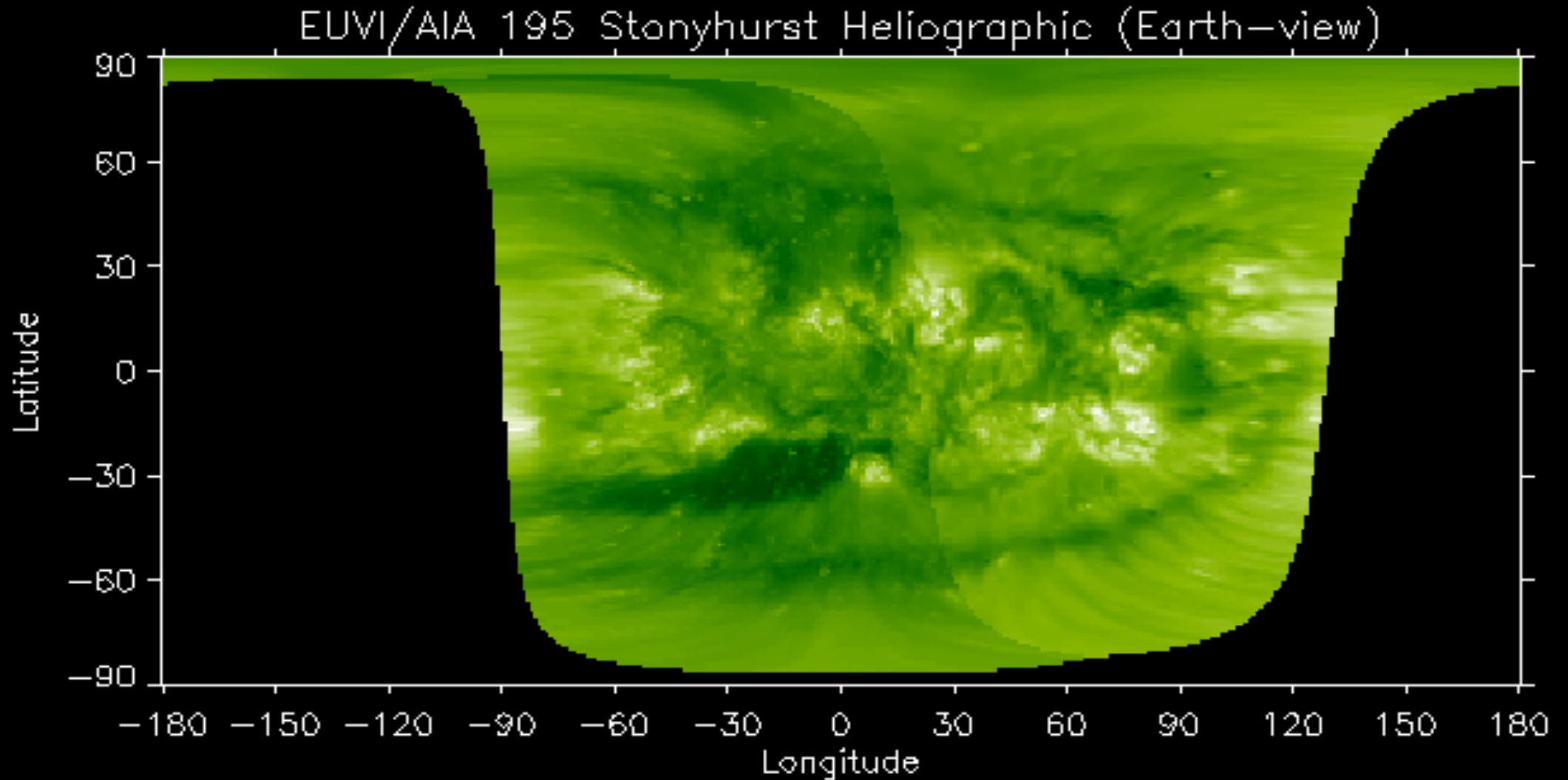
Outlook



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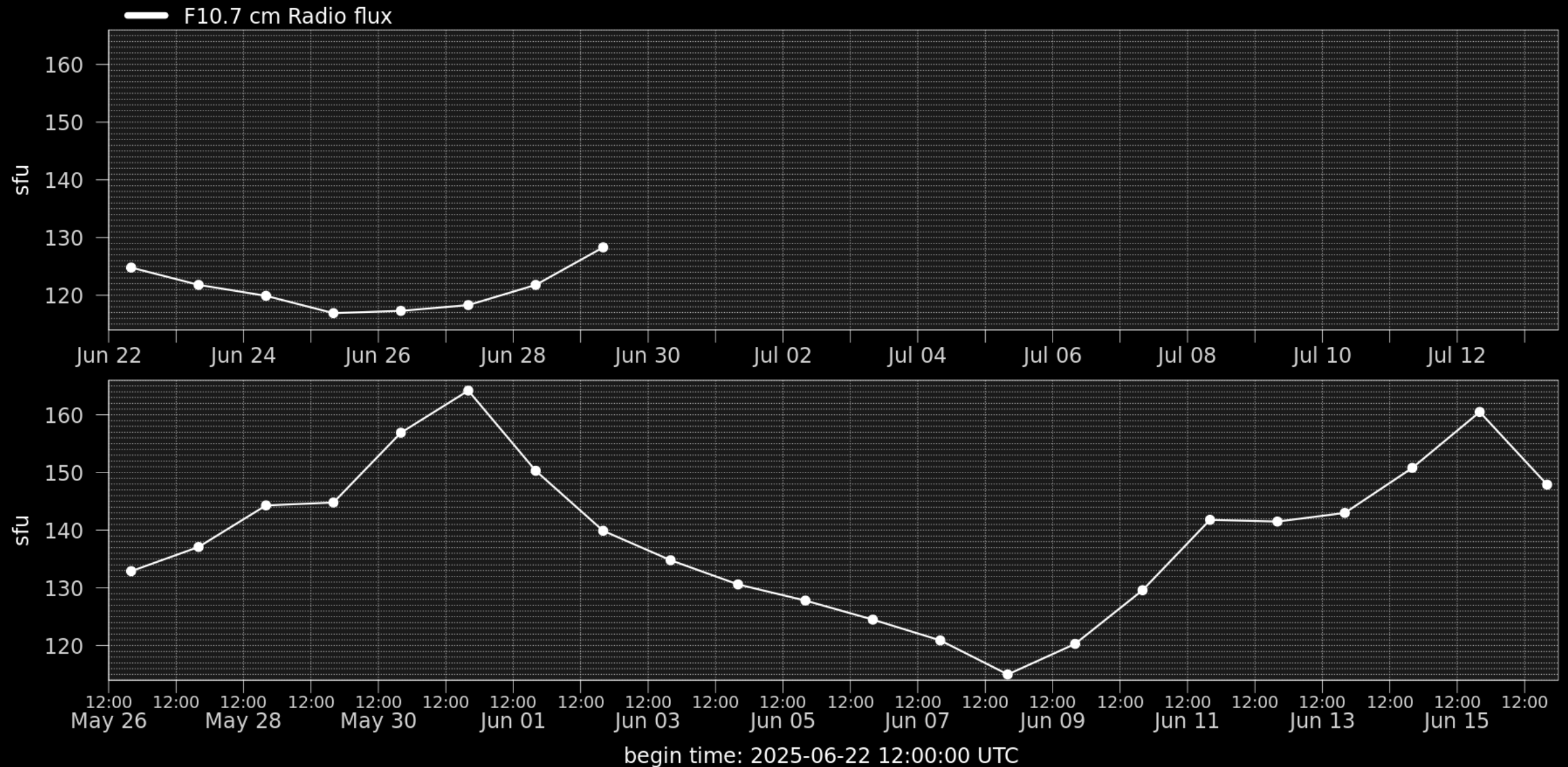
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Outlook: Solar activity

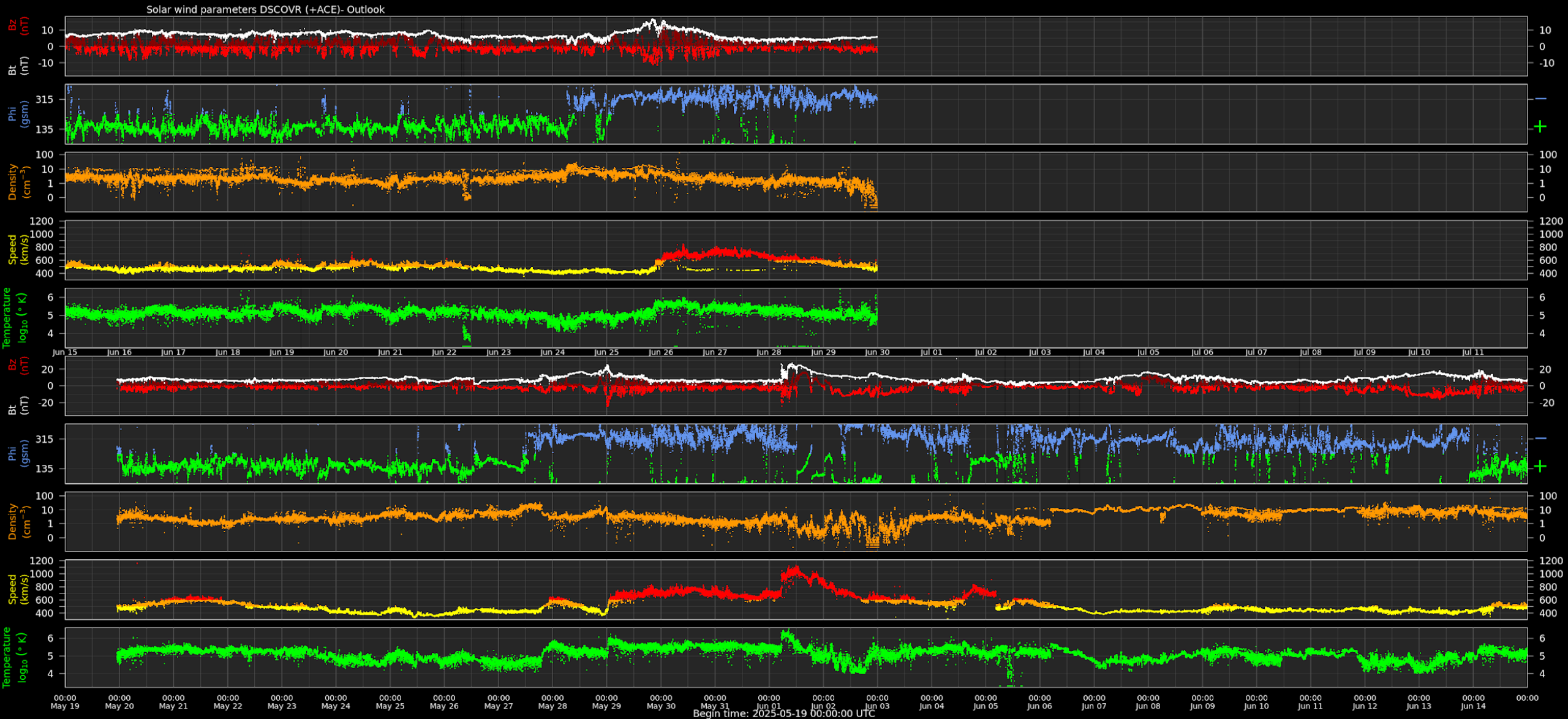


Observation date: 2025/06/29 22:35:00

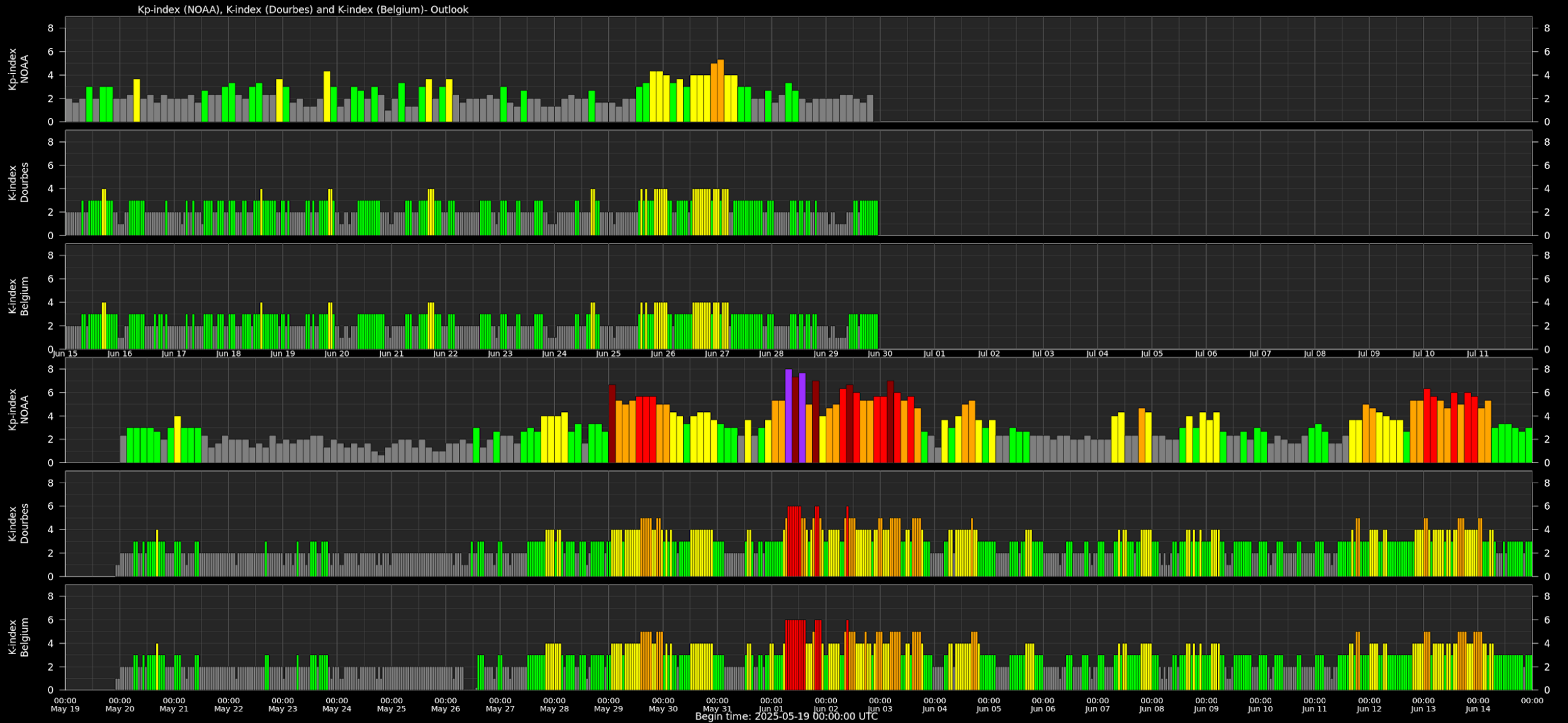
Outlook: Solar F10.7cm radio flux



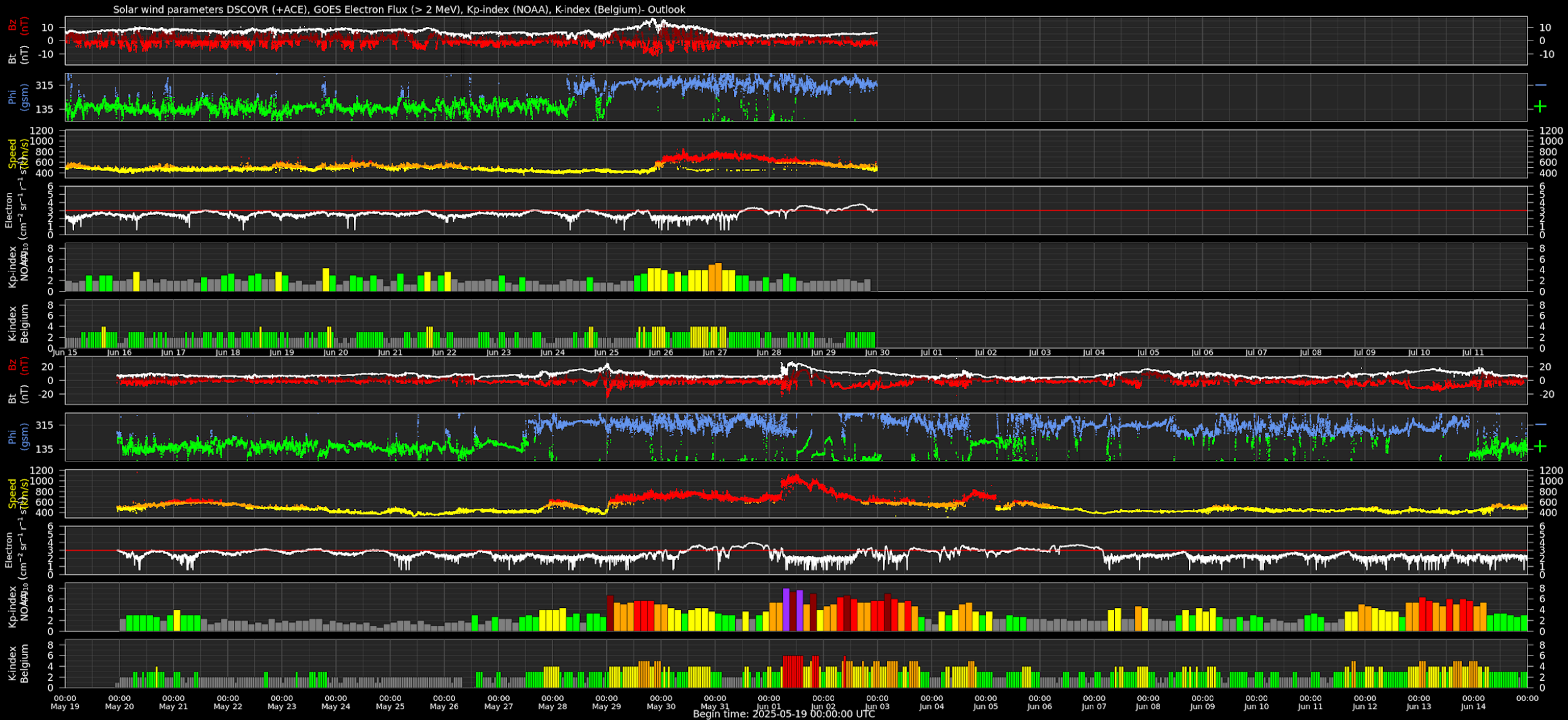
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pegasus related events

No advisory issued.

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