

# SIDC Space Weather Briefing

07 April 2024-14 April 2024

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& the SIDC forecaster team



Royal Observatory  
of Belgium

Solar Influences  
Data analysis Centre  
[www.sidc.be](http://www.sidc.be)

# Summary Report

Solar activity from 2024-04-07 12:00 to 2024-04-14 23:59

Active regions	Few / NOAA AR 3634 changed from $\beta$ → $\beta\gamma$ → $\beta$
Flares	# C-class flare: 35 # M-class flare: 3 # X-class flare: 0
Coronal Holes	2 small (north: positive, south: negative, equatorial/mid-latitude)
CMEs	3 of interest (11 <sup>th</sup> , 12 <sup>th</sup> , 13 <sup>th</sup> )

Proton flux	Background level
Electron flux	Below 1000 pfu

## Solar wind and geomagnetic conditions

ICMEs	Potential glancing blow on 15/04
Solar wind conditions	B : 5 - 8 nT //Bz: -7.0 nT to 7.57 nT //Speed: 300 - 510km/s
Geomagnetic conditions	max K <sub>Be</sub> : 3, max K <sub>p</sub> (NOAA): 3, Quiet conditions

All Quiet Alert: Not quiet

# Solar Activity

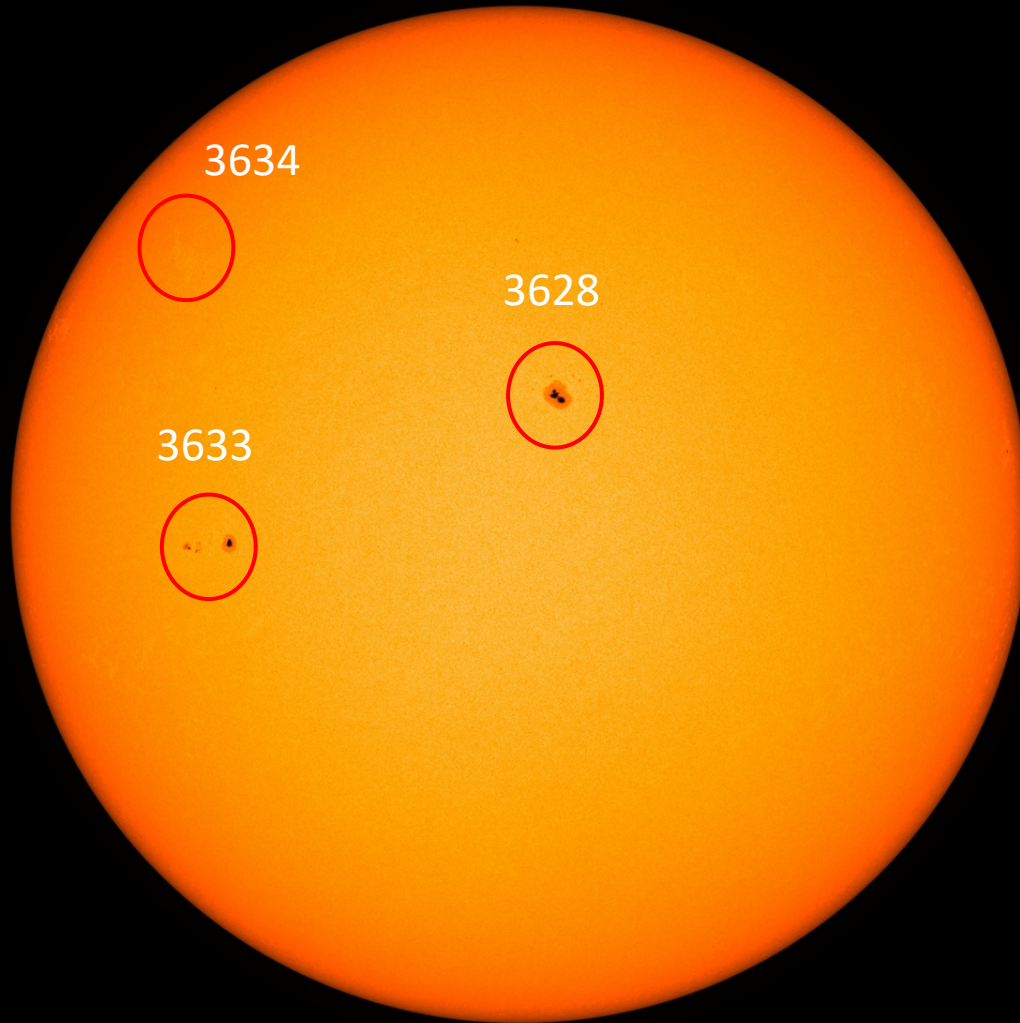


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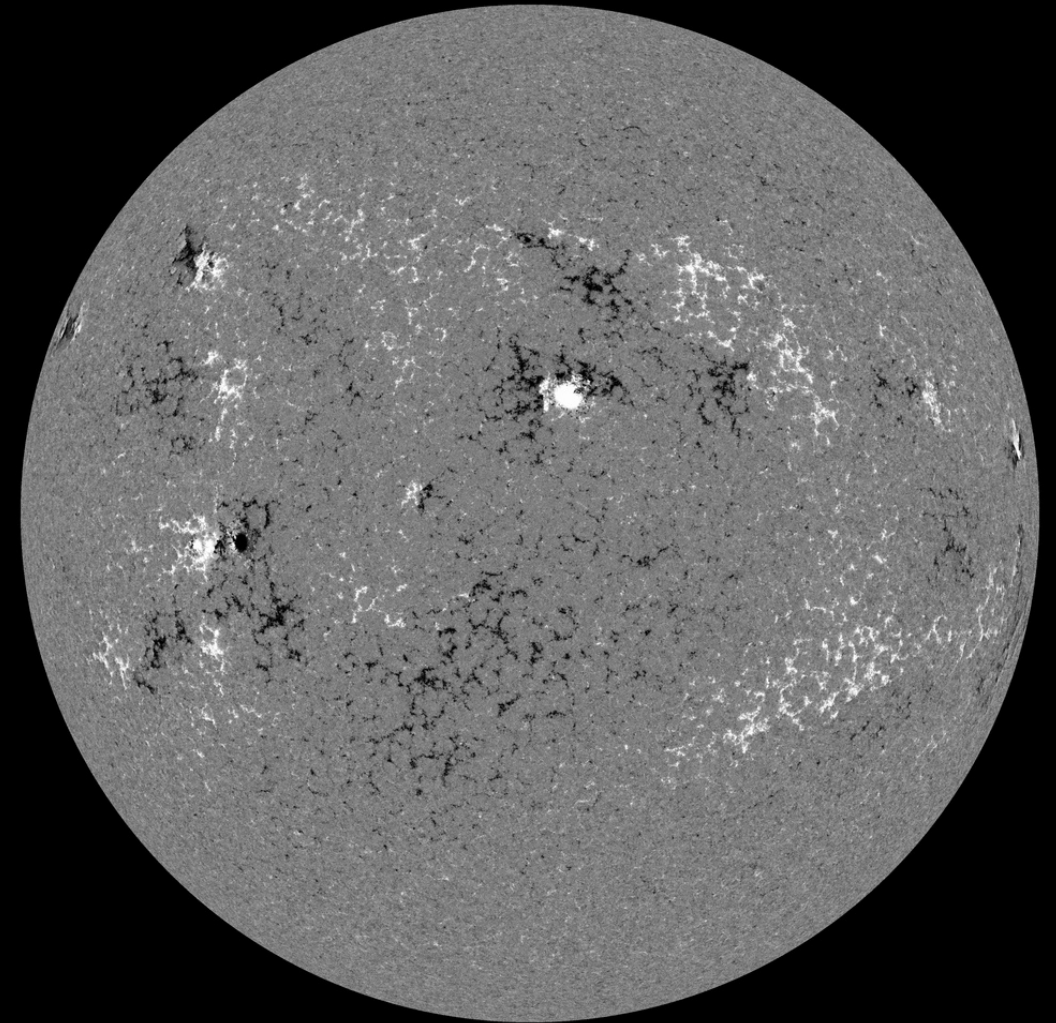
# Solar active regions

SDO/HMI White Light 2024-04-09



SDO/HMI Quick-Look Continuum: 20240409\_114500

SDO/HMI Magnetogram 2024-04-09

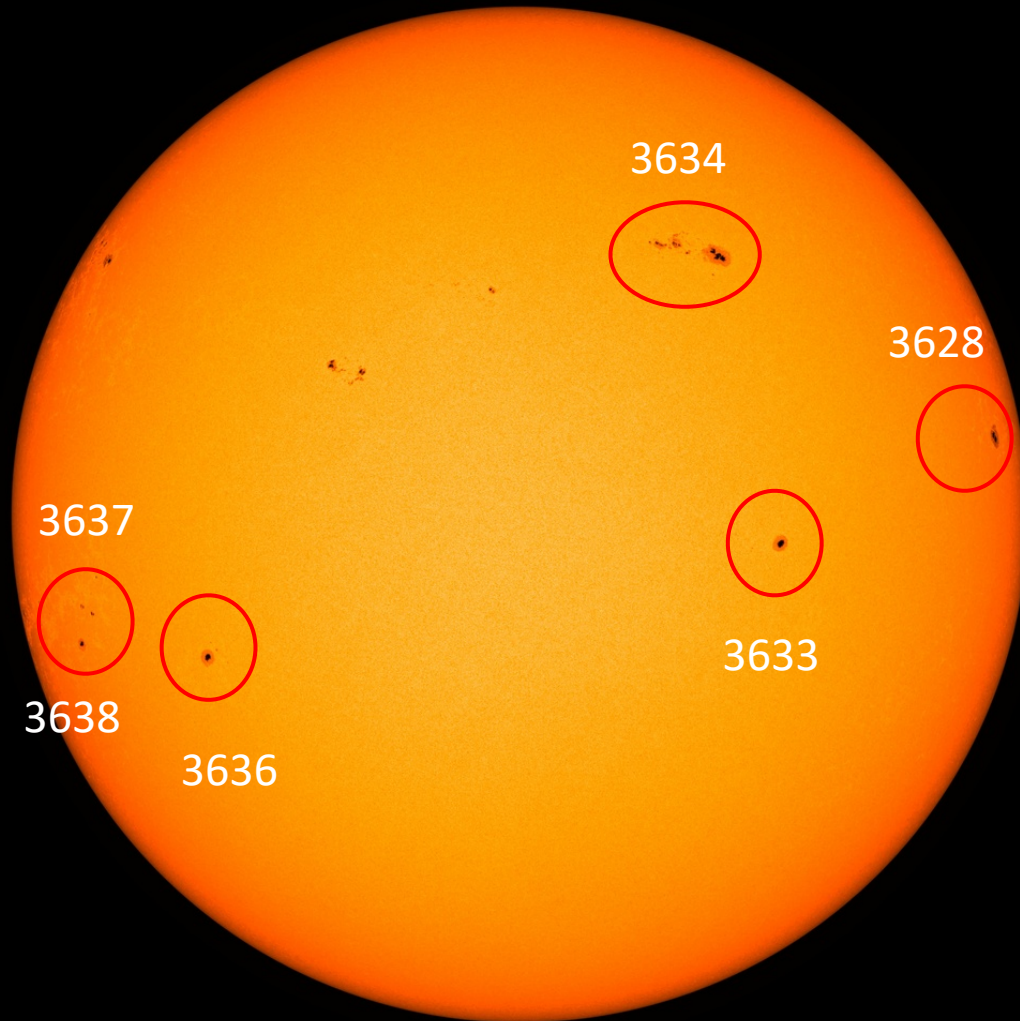


SDO/HMI Quick-Look Magnetogram: 20240409\_114500



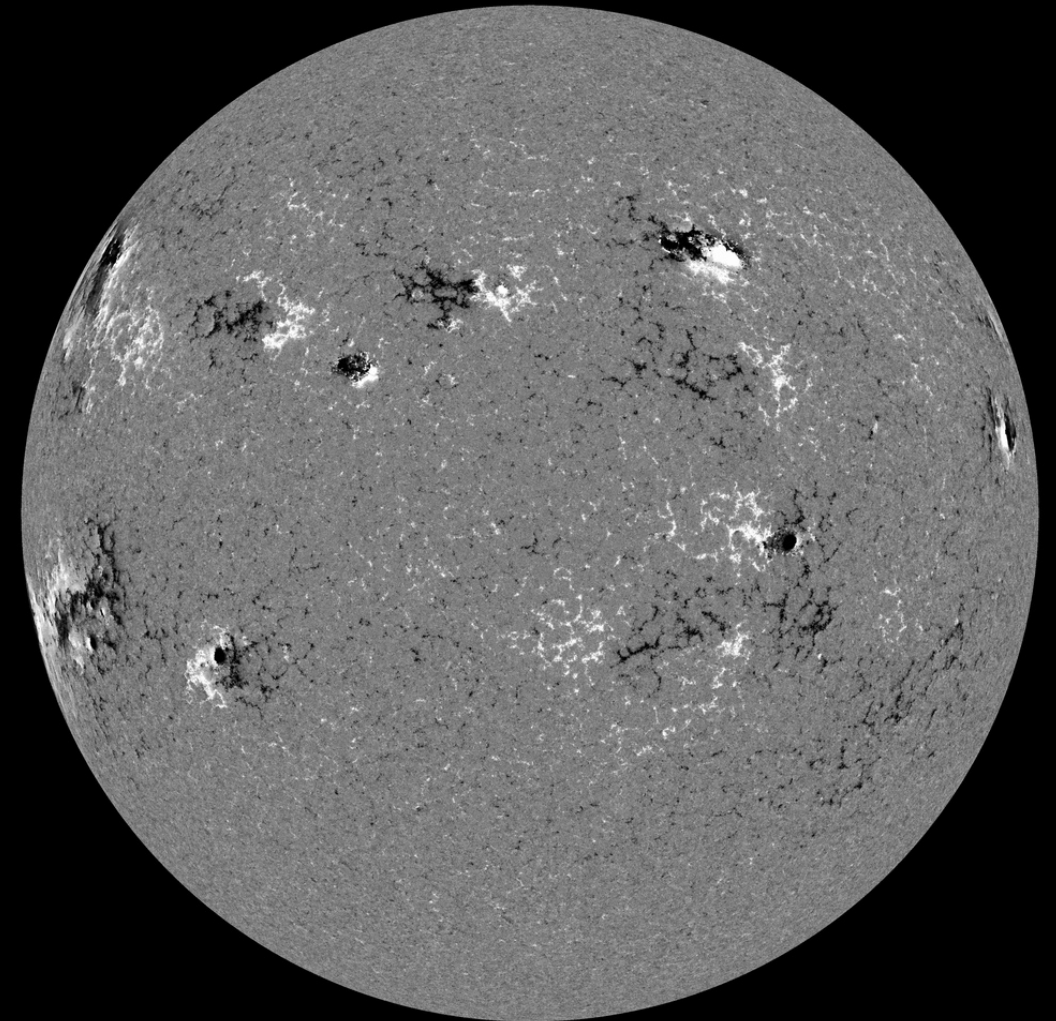
# Solar active regions

SDO/HMI White Light 2024-04-14



SDO/HMI Quick-Look Continuum: 20240414\_114500

SDO/HMI Magnetogram 2024-04-14



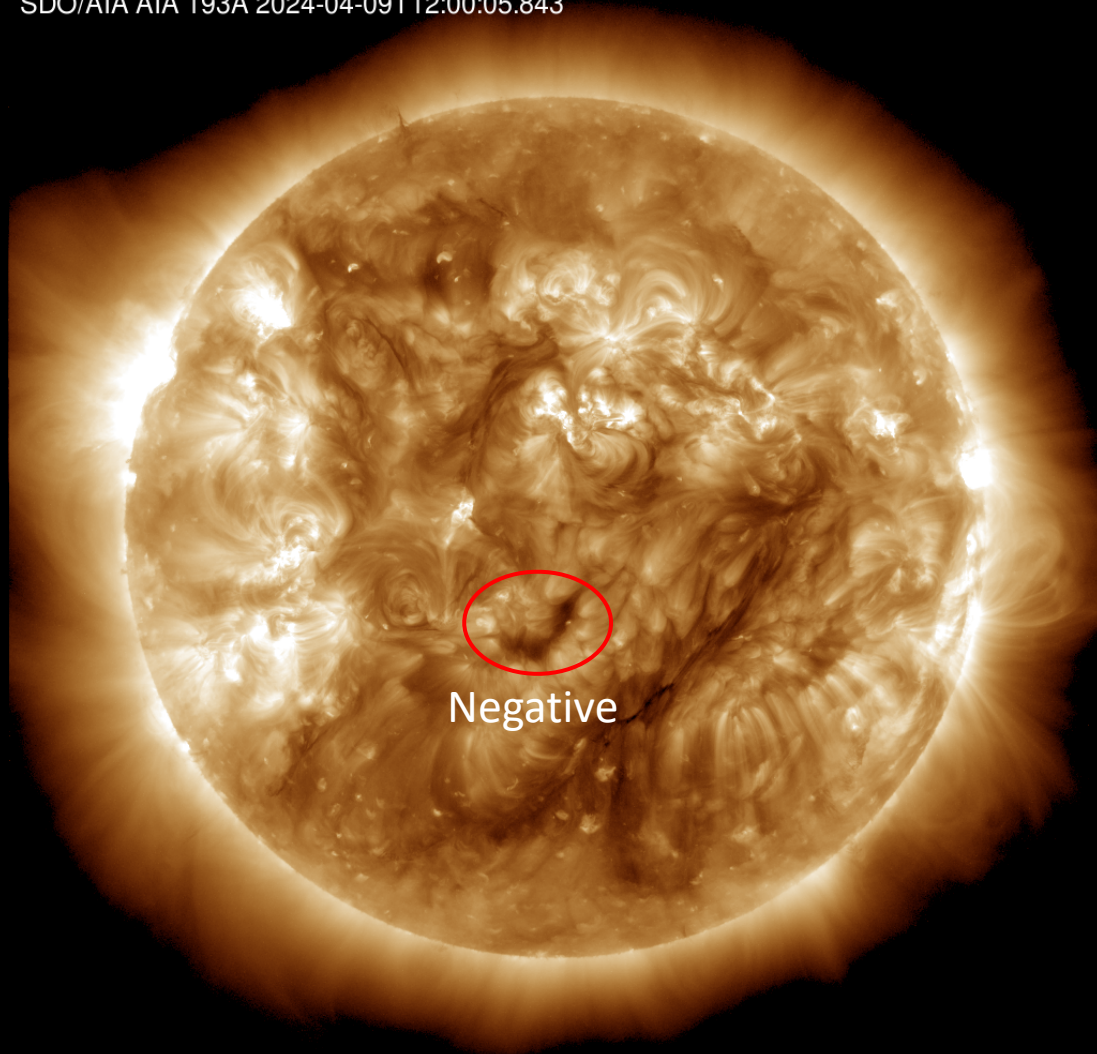
SDO/HMI Quick-Look Magnetogram: 20240414\_114500



# Coronal holes

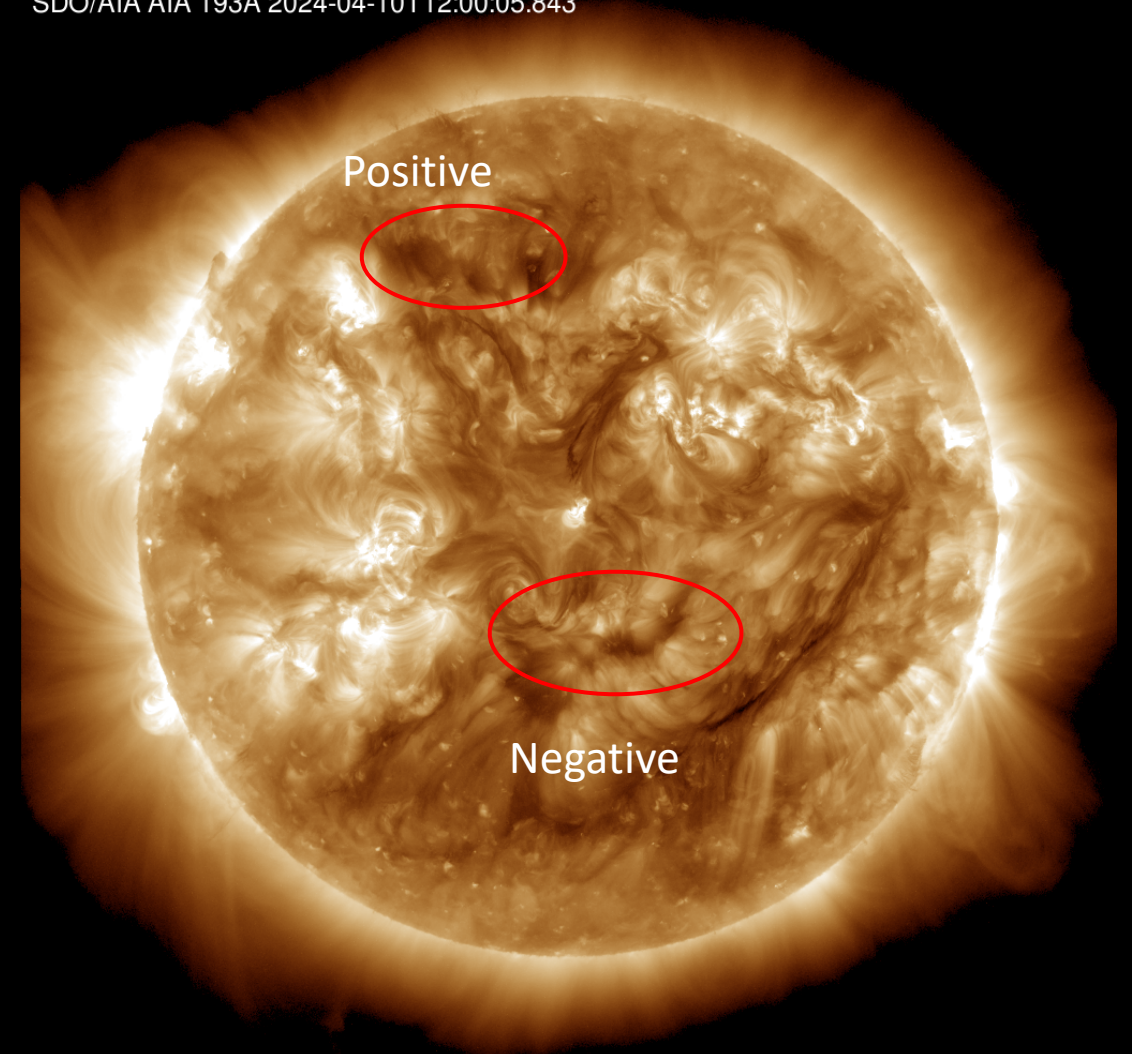
SDO/AIA 19.3 nm 2024-04-09

SDO/AIA AIA 193Å 2024-04-09T12:00:05.843



SDO/AIA 19.3 nm 2024-04-10

SDO/AIA AIA 193Å 2024-04-10T12:00:05.843

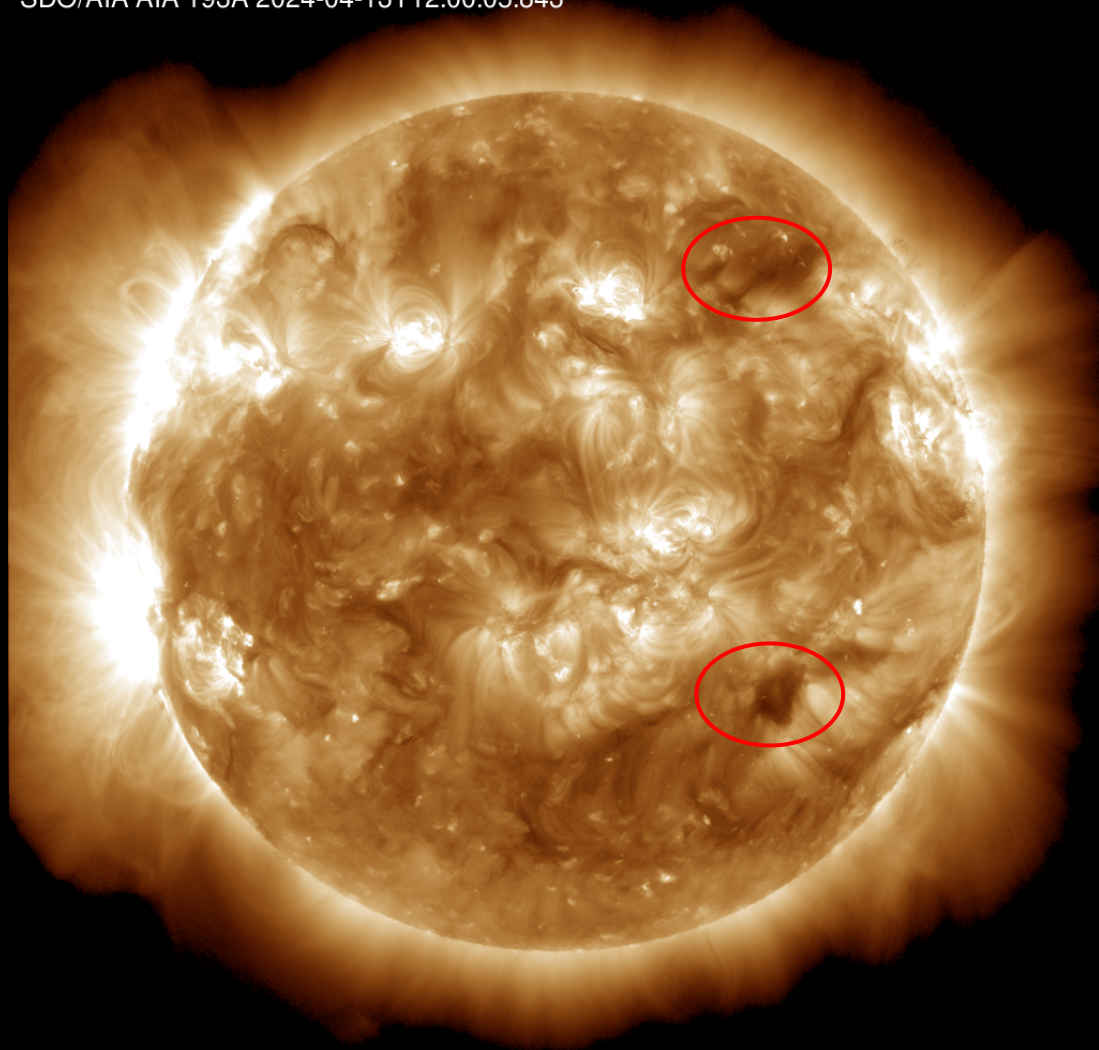




# Coronal holes

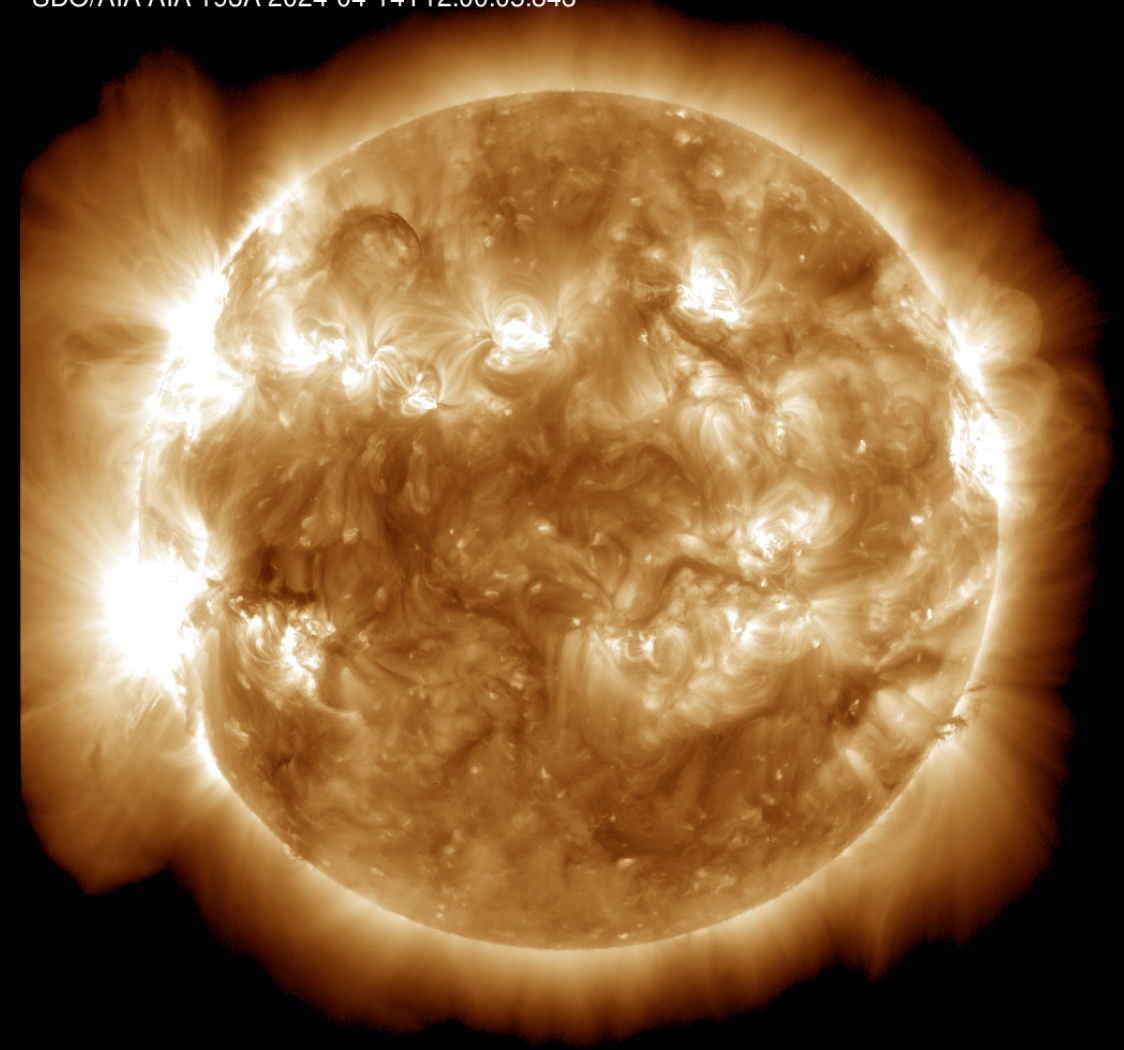
SDO/AIA 19.3 nm 2024-04-13

SDO/AIA AIA 193Å 2024-04-13T12:00:05.843



SDO/AIA 19.3 nm 2024-04-14

SDO/AIA AIA 193Å 2024-04-14T12:00:05.843





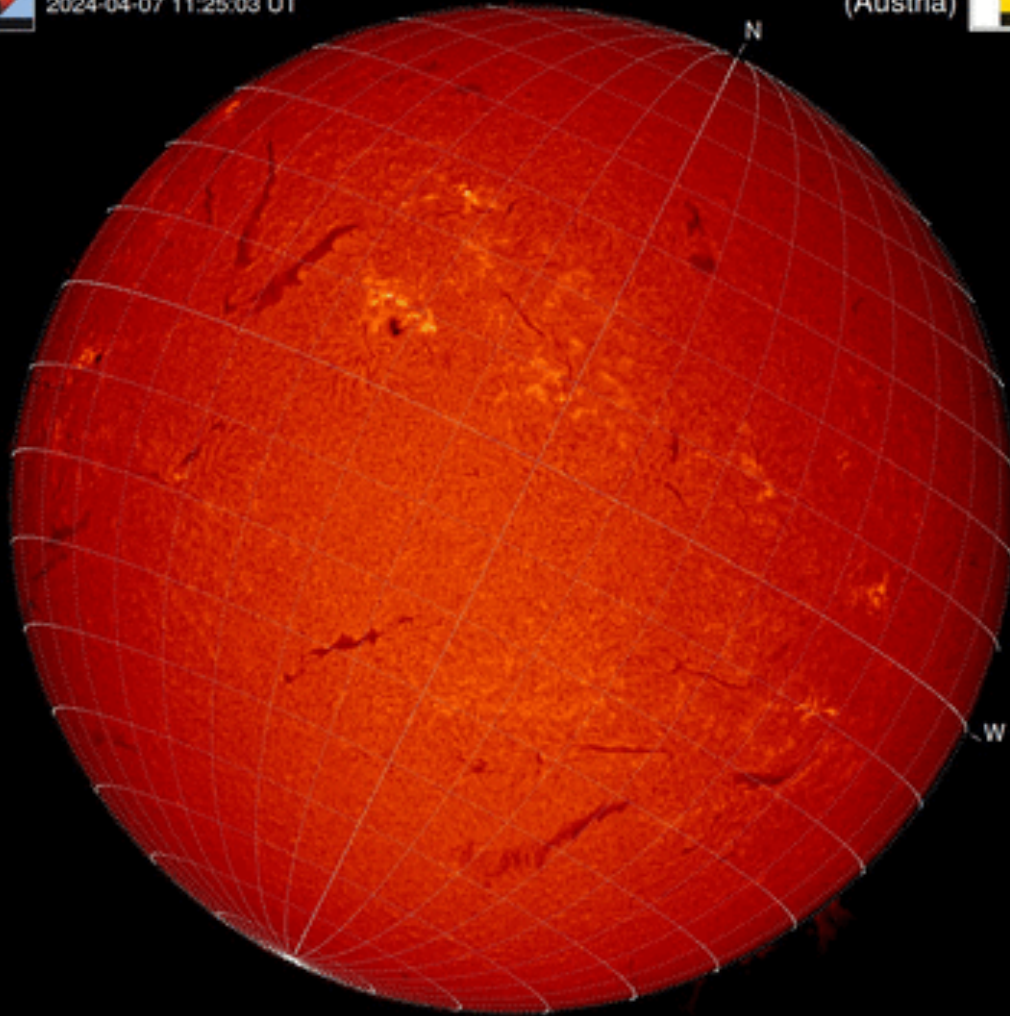
# Filaments & Filament eruptions

H-alpha 2024-04-07



Kanzelhöhe Observatory  
2024-04-07 11:25:03 UT

University of Graz  
(Austria)

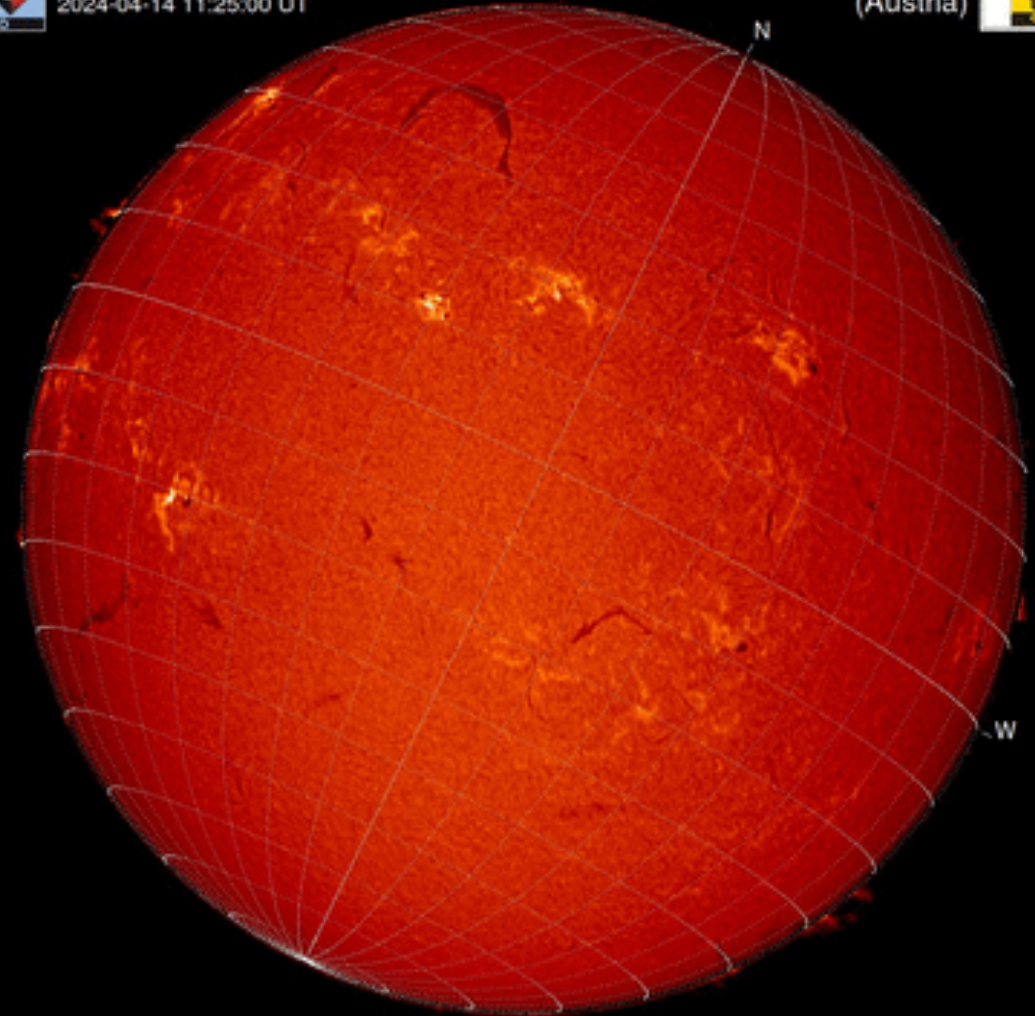


H-alpha 2024-04-14



Kanzelhöhe Observatory  
2024-04-14 11:25:00 UT

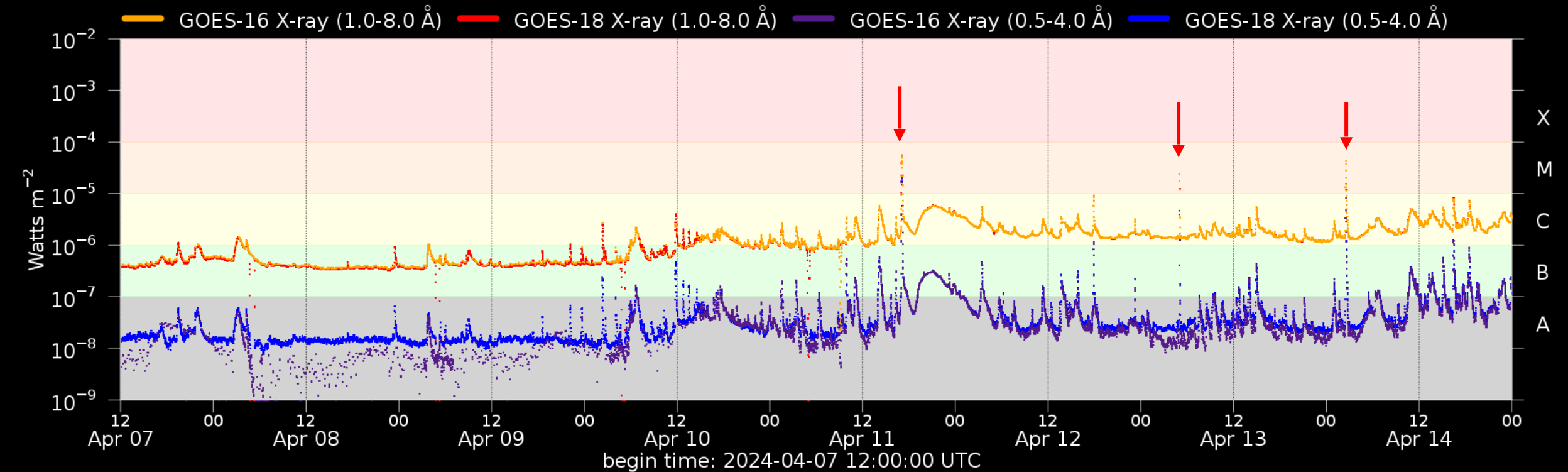
University of Graz  
(Austria)







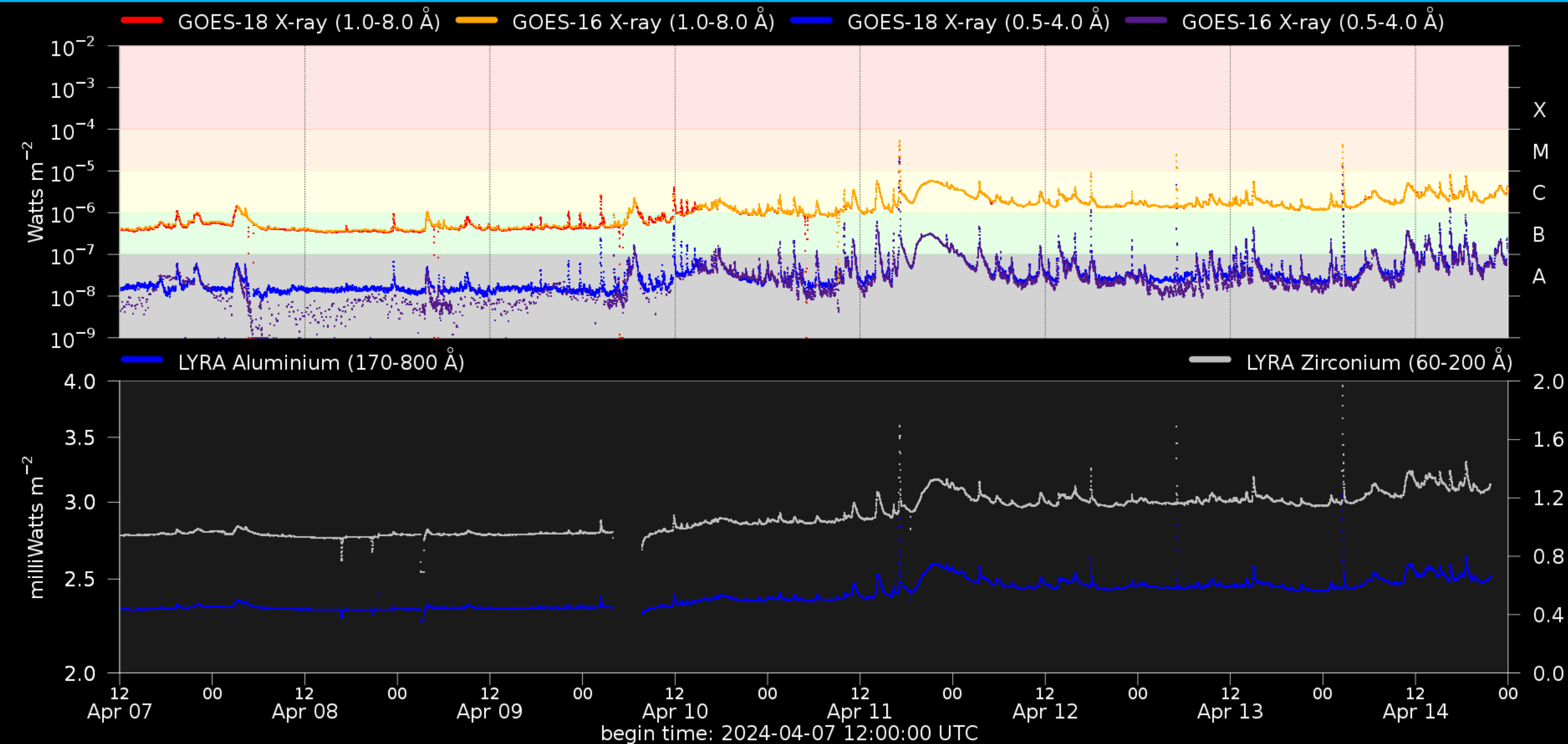
# Flaring activity



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

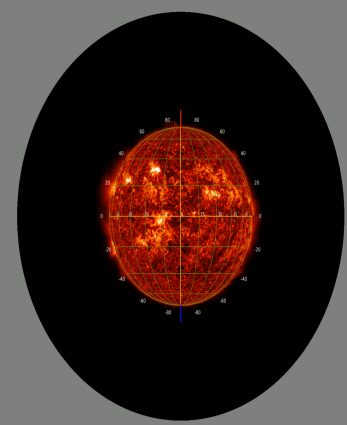
Issue date	2024-04-07	2024-04-08	2024-04-09	2024-04-10	2024-04-11	2024-04-12	2024-04-13	2024-04-14
Probability (%)	50 01 01	55 15 05	60 10 05	60 10 05	55 10 01	70 20 05	70 20 05	75 25 05
Observed (#)	02 00 00	01 00 00	05 00 00	11 00 00	04 01 00	05 01 00	04 01 00	03 00 00

# Solar X-Ray and UV flux

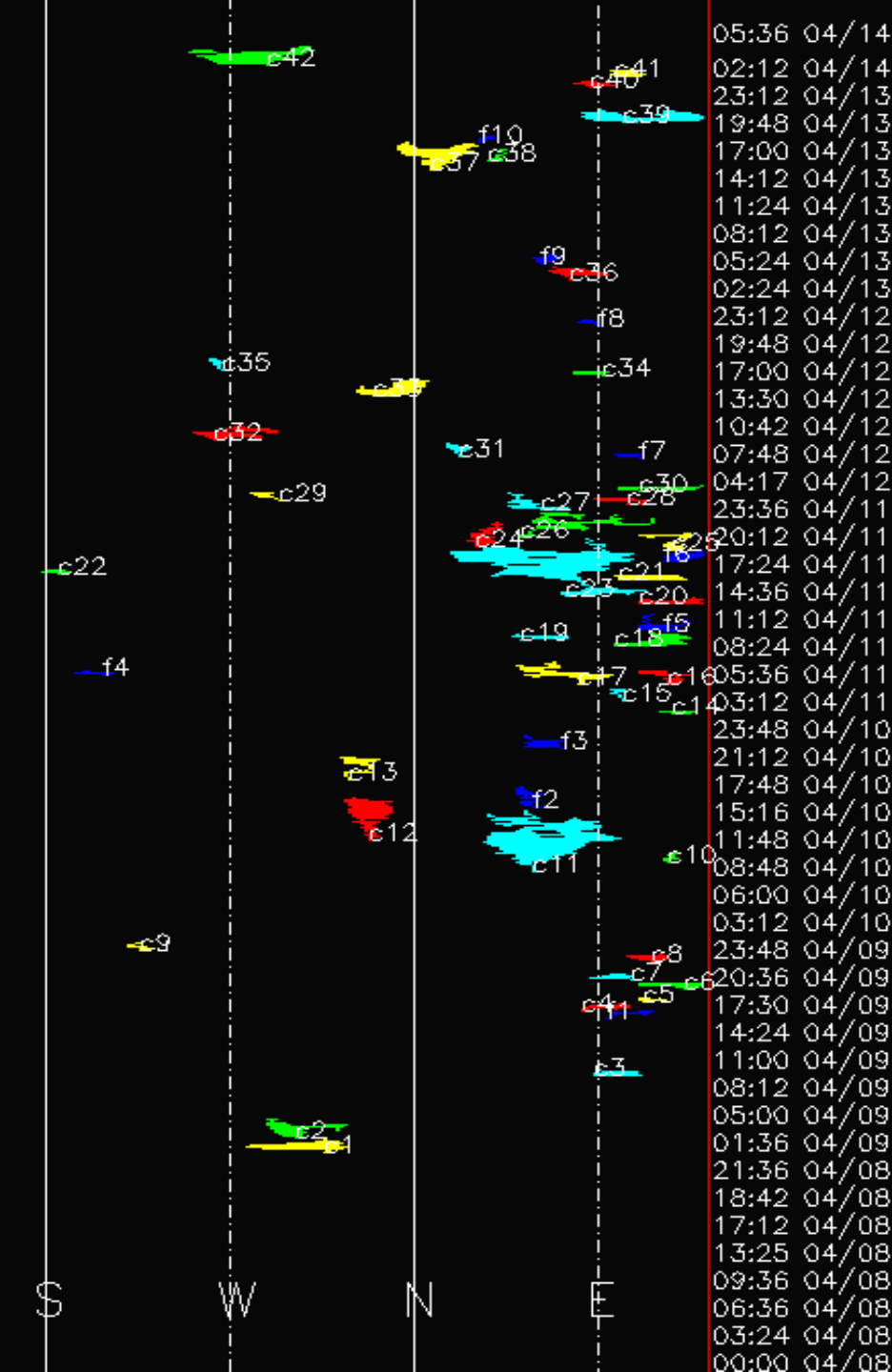
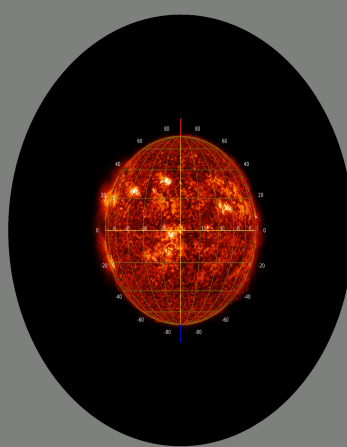


# Coronal Mass Ejections

Faint, SE, 11/04  
Filament eruption

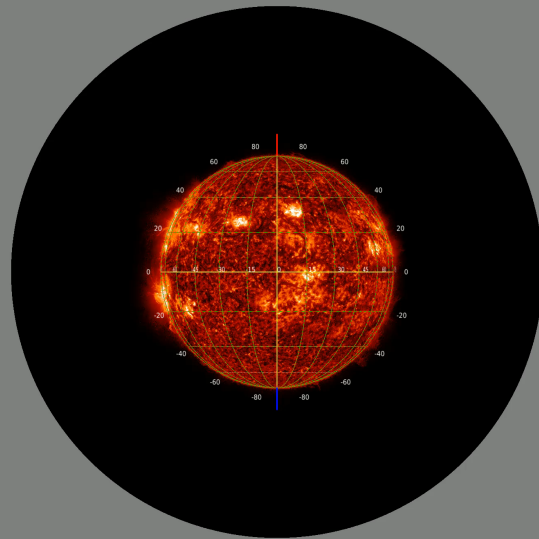


Faint partial halo, 12/04  
Filament eruption

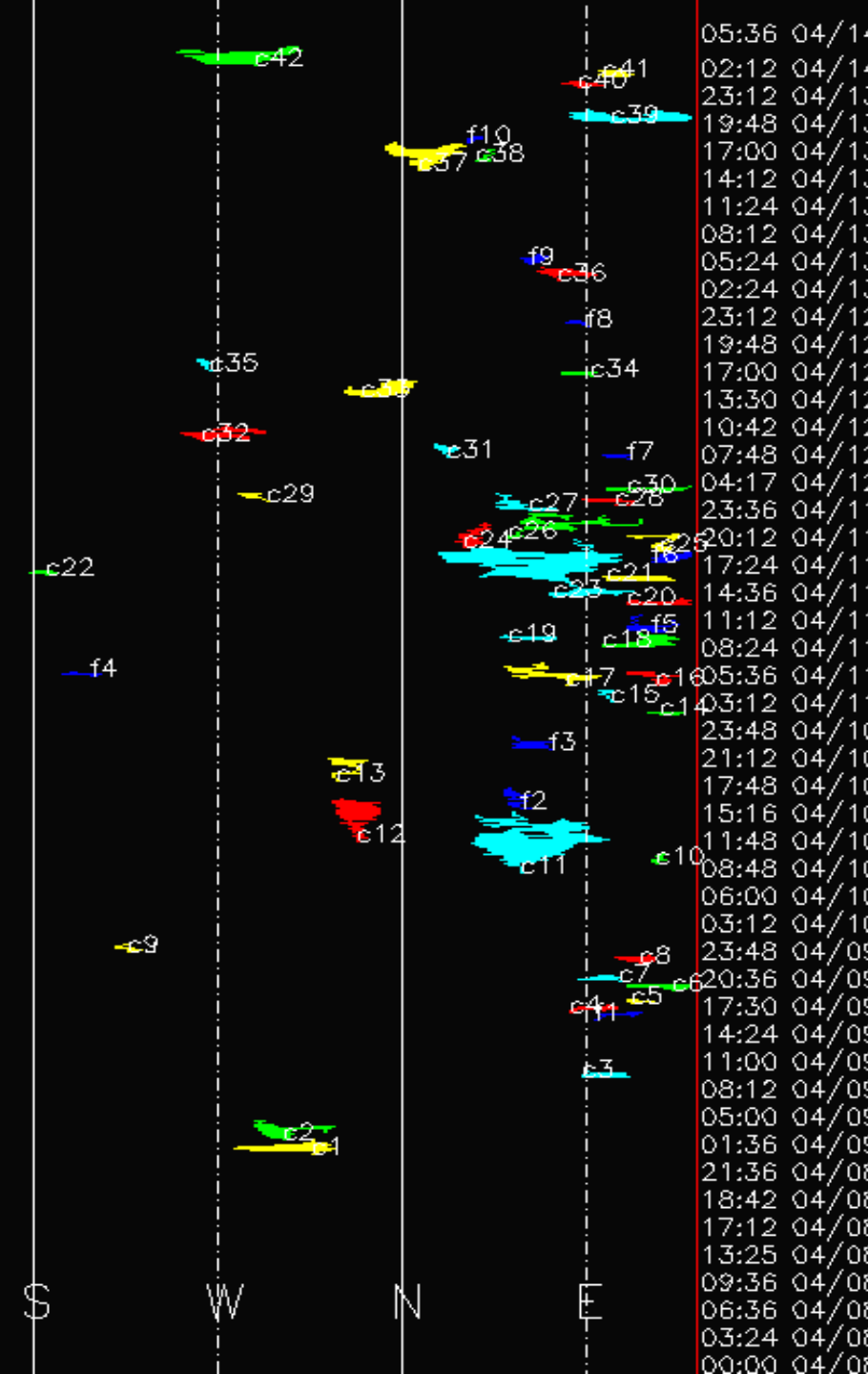


# Coronal Mass Ejections

C5.5 flare



2024-04-13T13:00:05.152



Solar Wind and

# Geomagnetic Activity

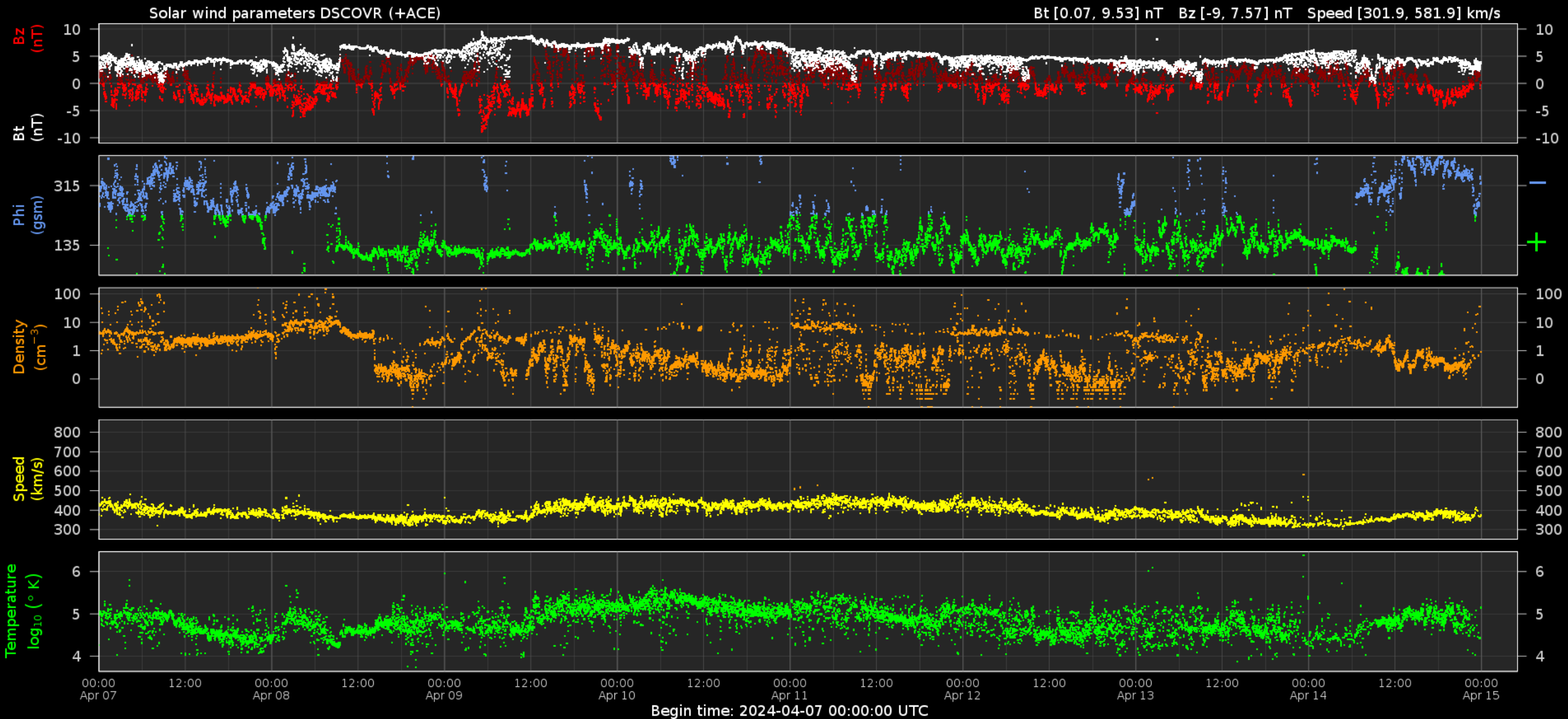


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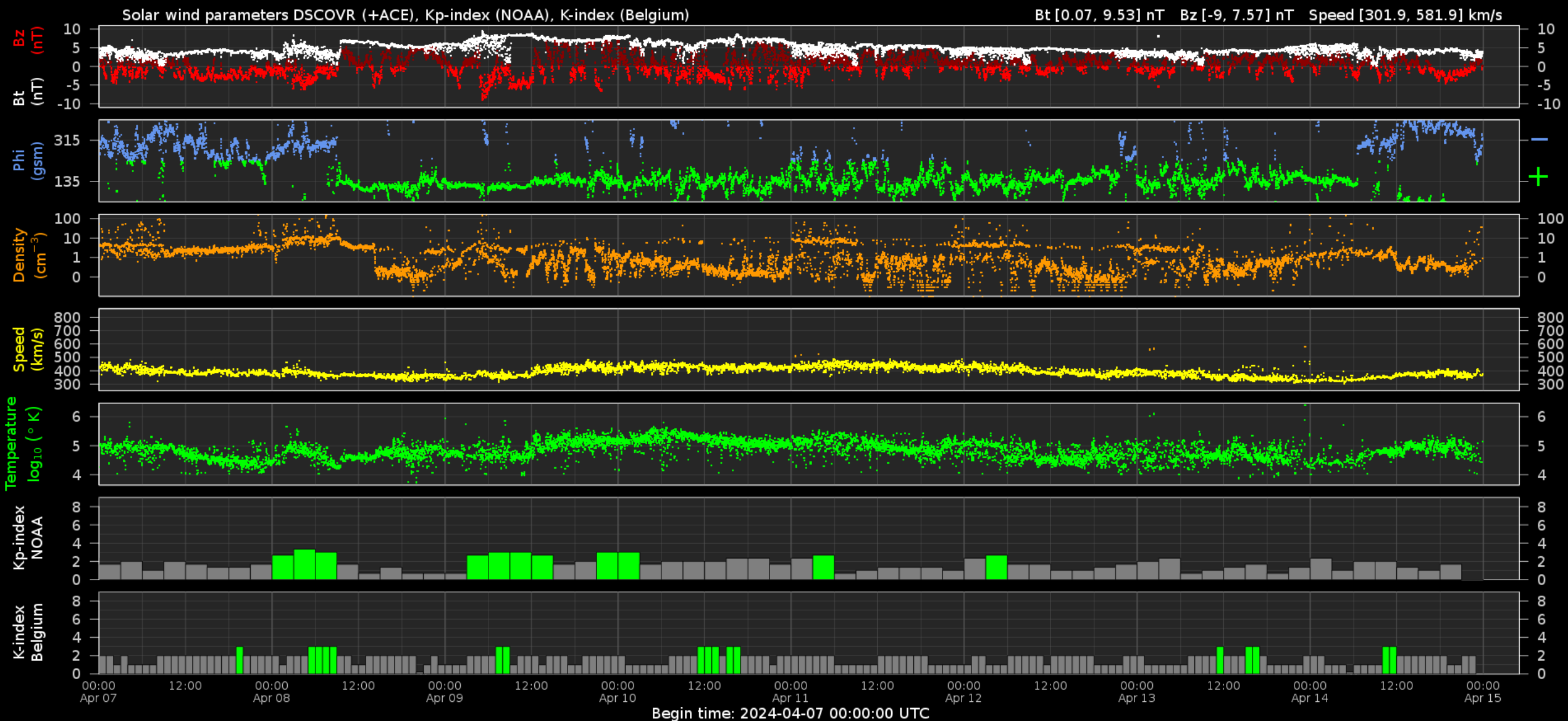
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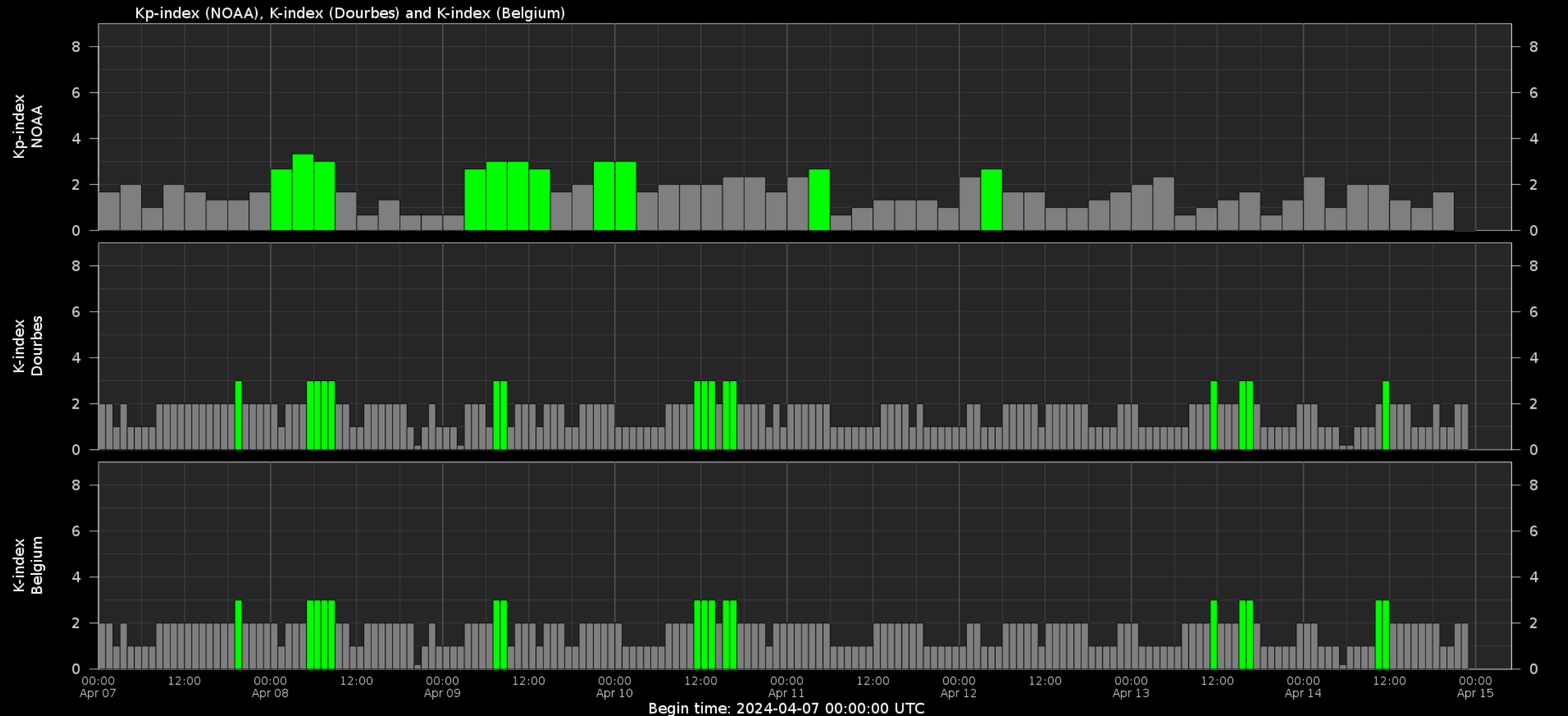
# Solar wind parameters



# Solar wind parameters & K-indices



# Geomagnetic activity (K-indexes)



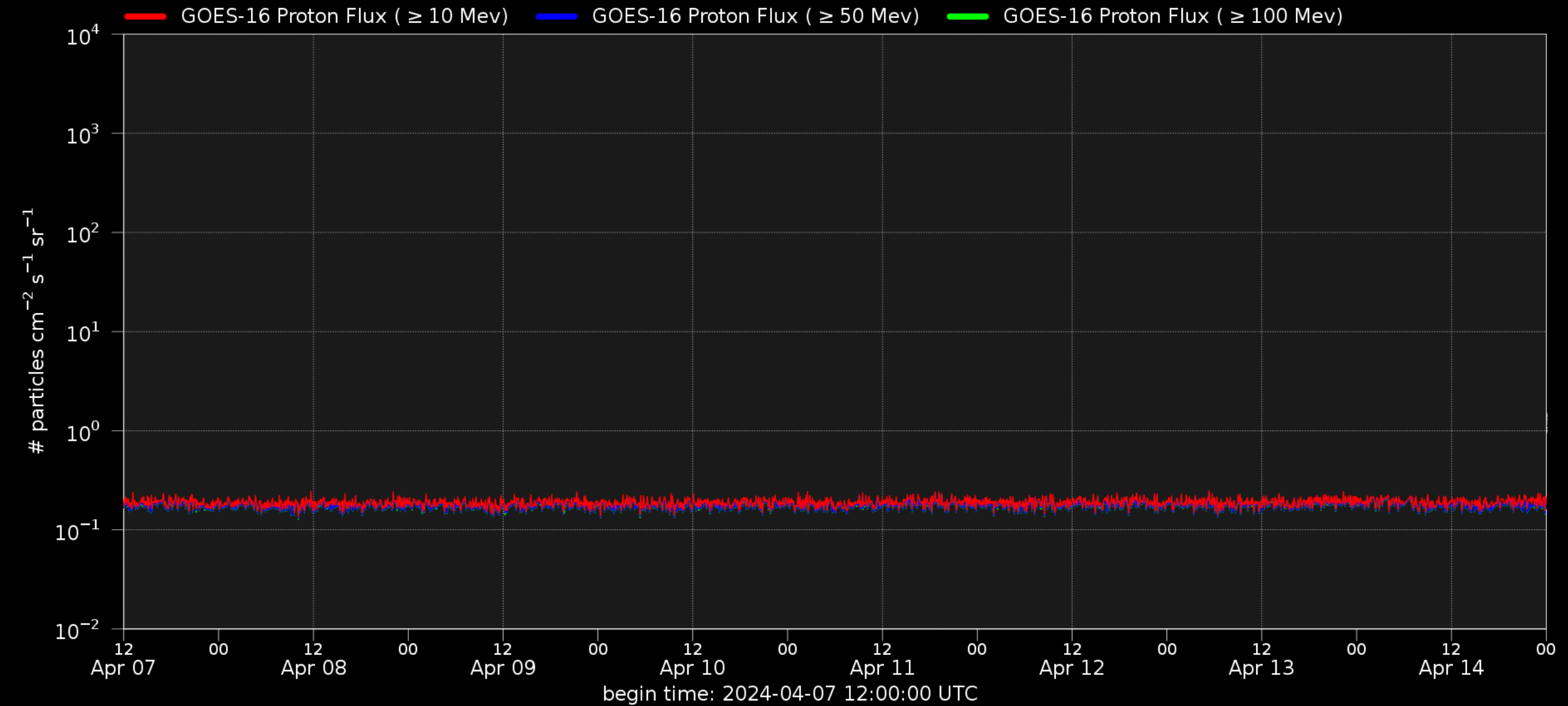
# Energetic Particles



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# Solar proton flux

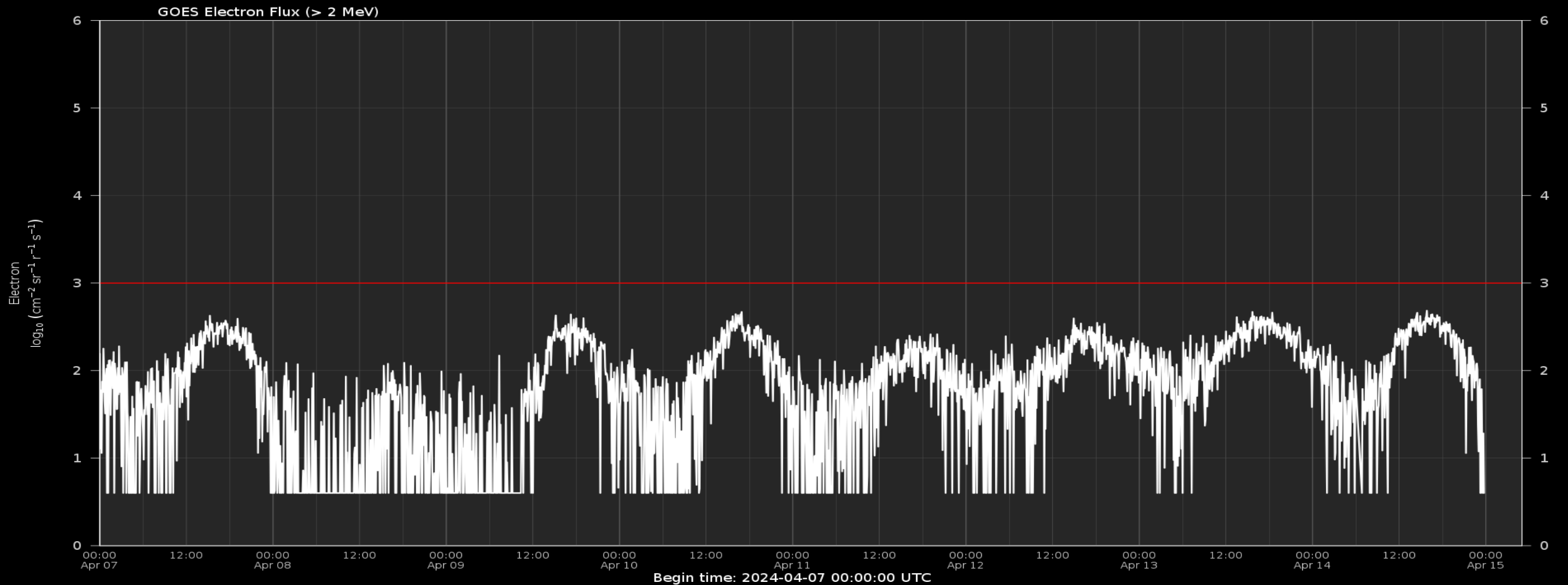




# Electron flux at GEO

[www.stce.be/educational/classification#electrons](http://www.stce.be/educational/classification#electrons)

[www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php](http://www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php)



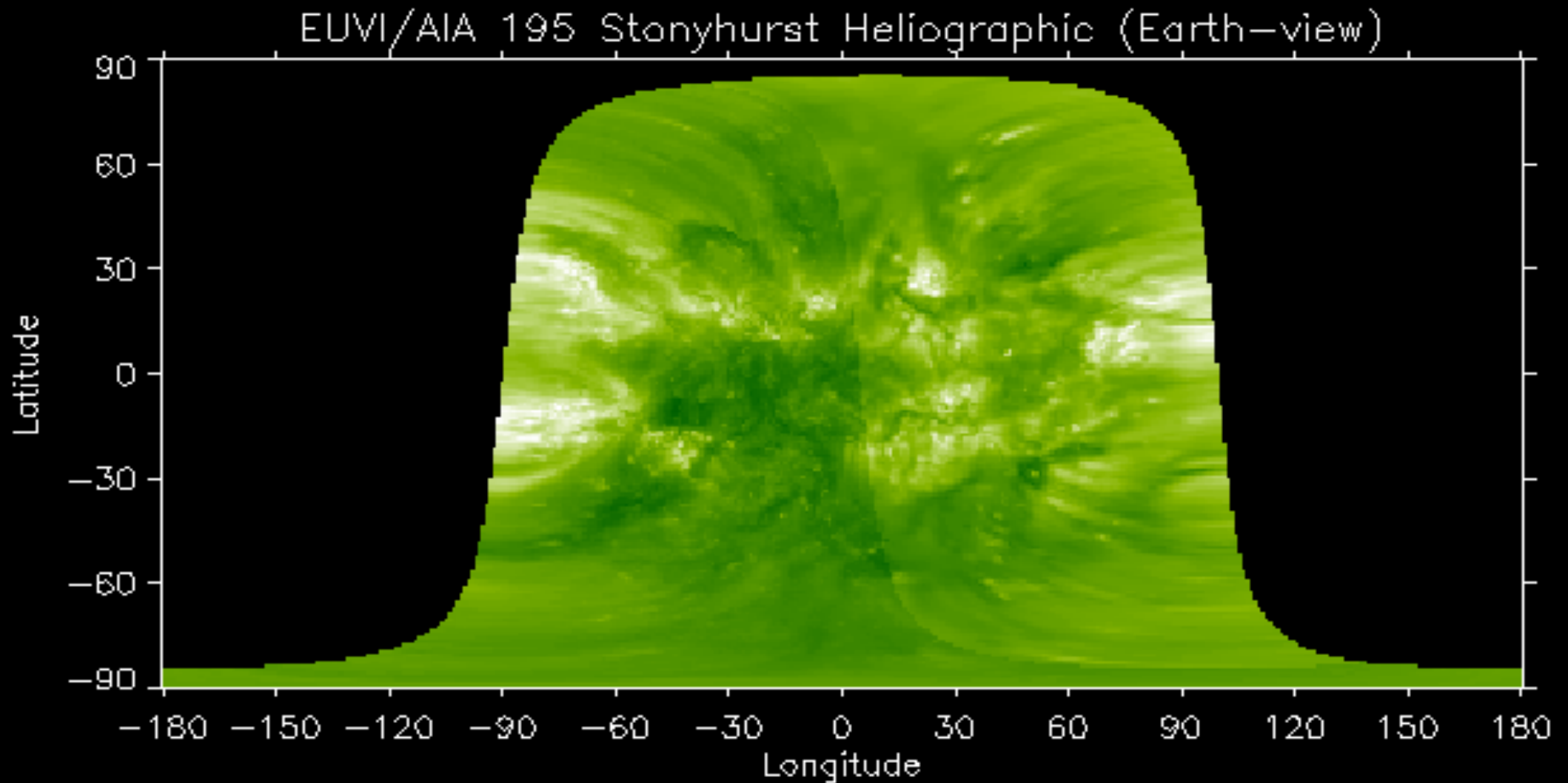
# Outlook



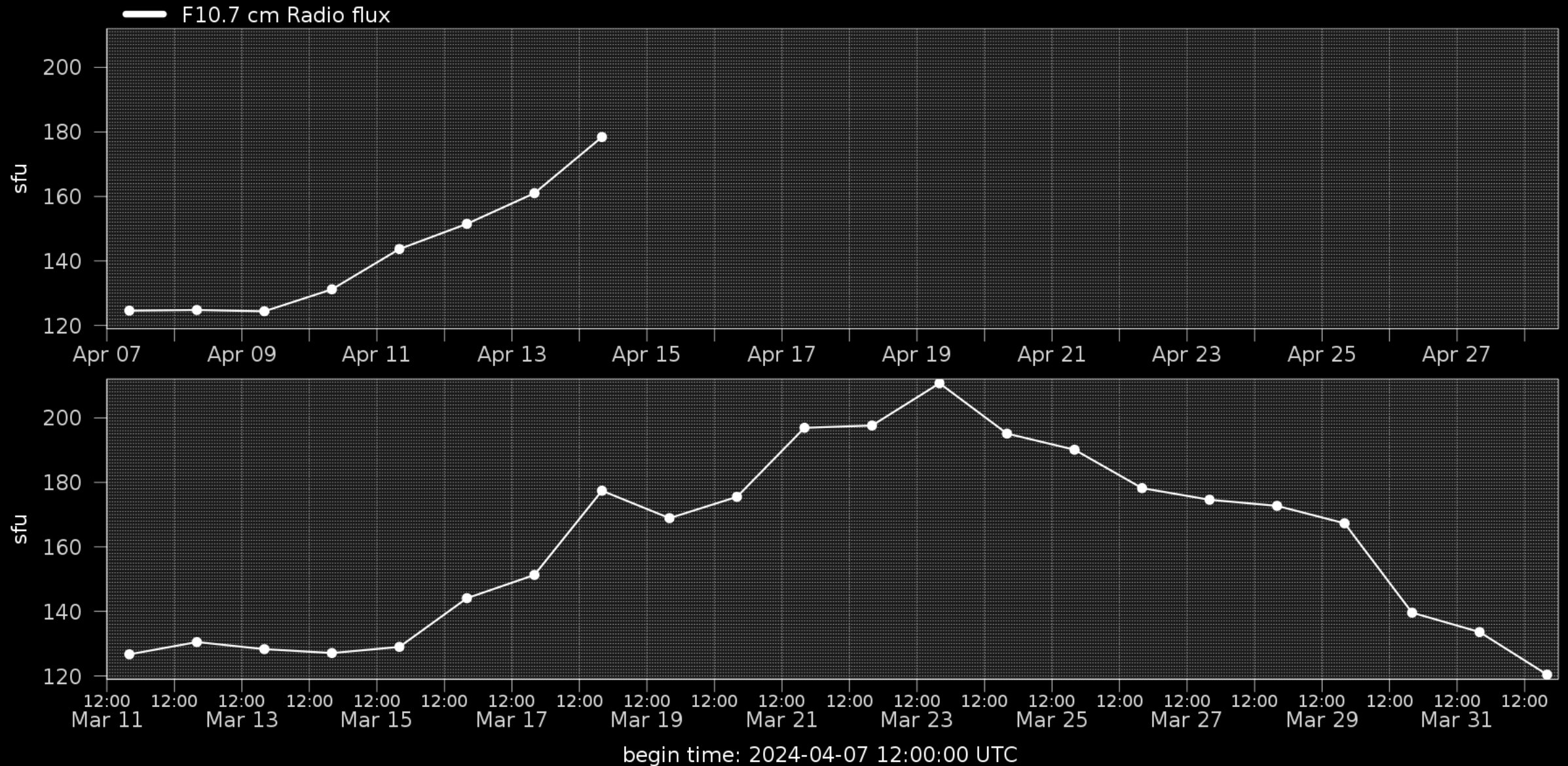
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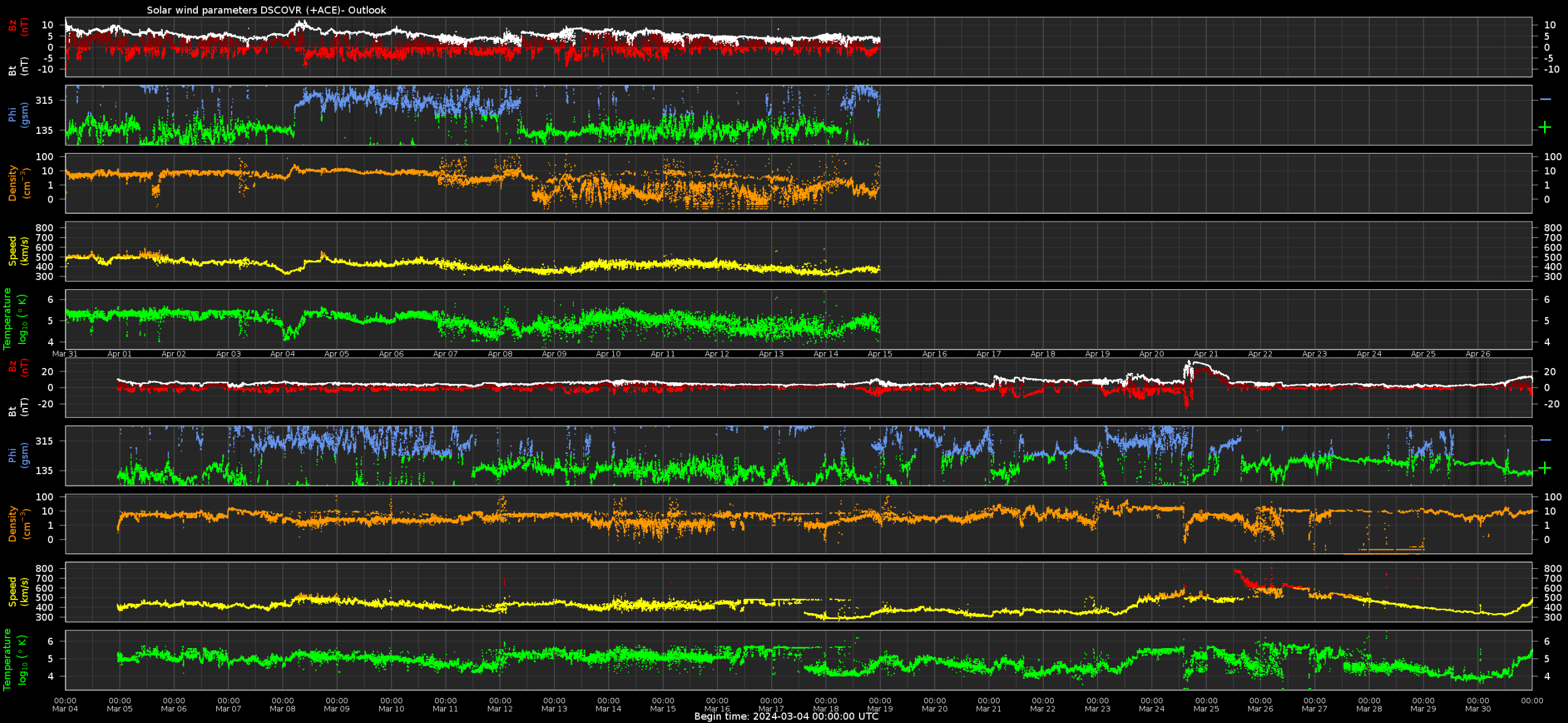
# Outlook: Solar activity



# Outlook: Solar F10.7cm radio flux



# Outlook: Solar wind parameters

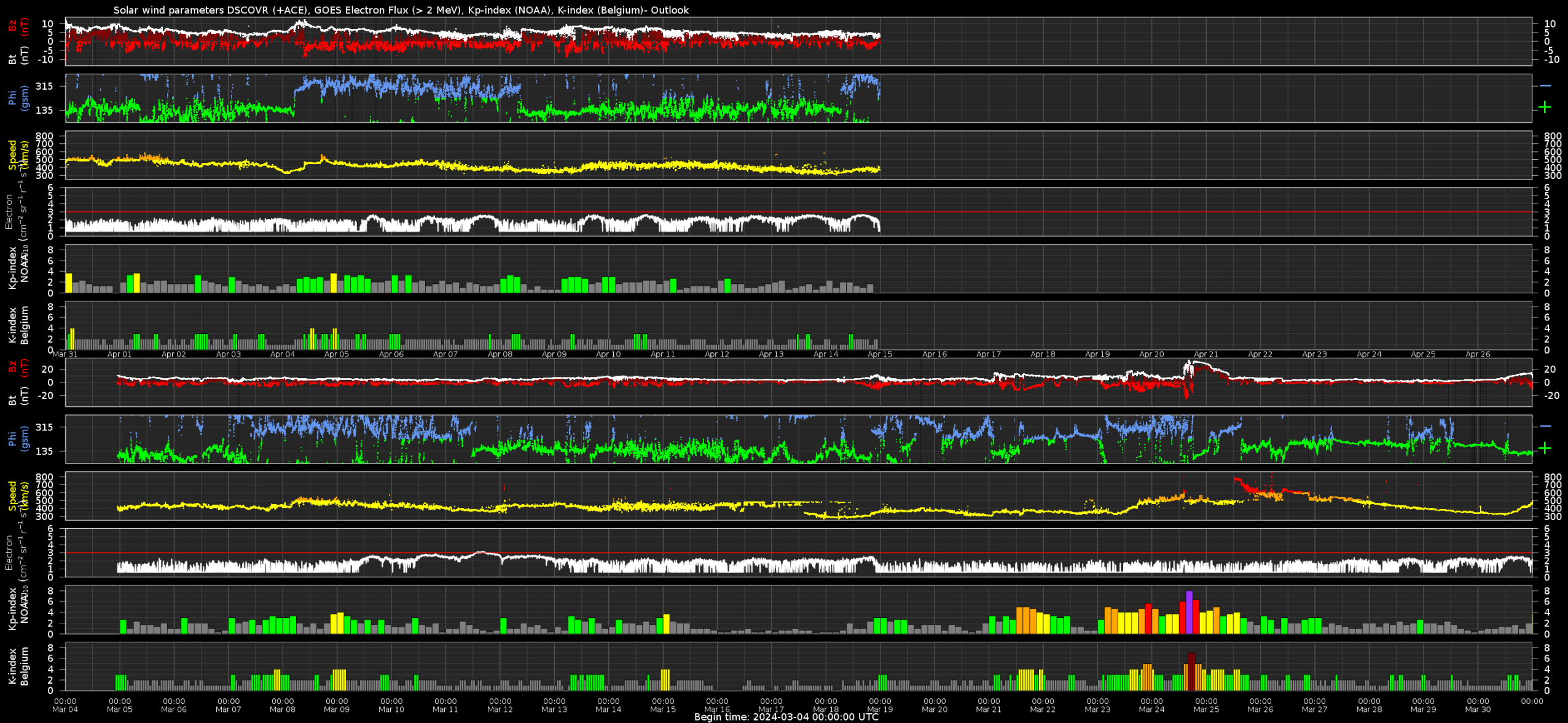




# Outlook: Geomagnetic activity



# Outlook: Electron Flux at GEO Outlook



PECASUS



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# Pegasus related events

Last week: Maintenance and Observation Centre  
Few GNSS (scintillation) advisories only

SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at [www.sidc.be](http://www.sidc.be)



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