

# SIDC Space Weather Briefing

31 March-07 April 2024

de Patoul Judith

& the SIDC forecaster team



Royal Observatory  
of Belgium

[www.sidc.be](http://www.sidc.be)

# Summary Report

Solar activity from 2024-03-31 12:00 to 2024-04-07 23:59

Active regions	Few Sunspot Region - Catania region 22 ( <b>NOAA AR 3615</b> ) was the most active
Flares	# C-class flare: 7 # <b>M-class flare: 1</b> # X-class flare: 0
Coronal Holes	Equatorial Coronal Holes
CMEs	No Earth directed CME

Proton flux	Background level
Electron flux	Below 1000 pfu

## Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	<b> B </b> : 1.61 - <b>12.16 nT</b> // <b>Bz</b> : - <b>9.32 nT</b> to 8.72 nT // <b>Speed</b> : 323.1 – <b>587.8 km/s</b>
Geomagnetic conditions	max K <sub>BeI</sub> : 4, max K <sub>p</sub> (NOAA): 4, <b>Active conditions</b>

All Quiet Alert: Not quiet

# Solar Activity

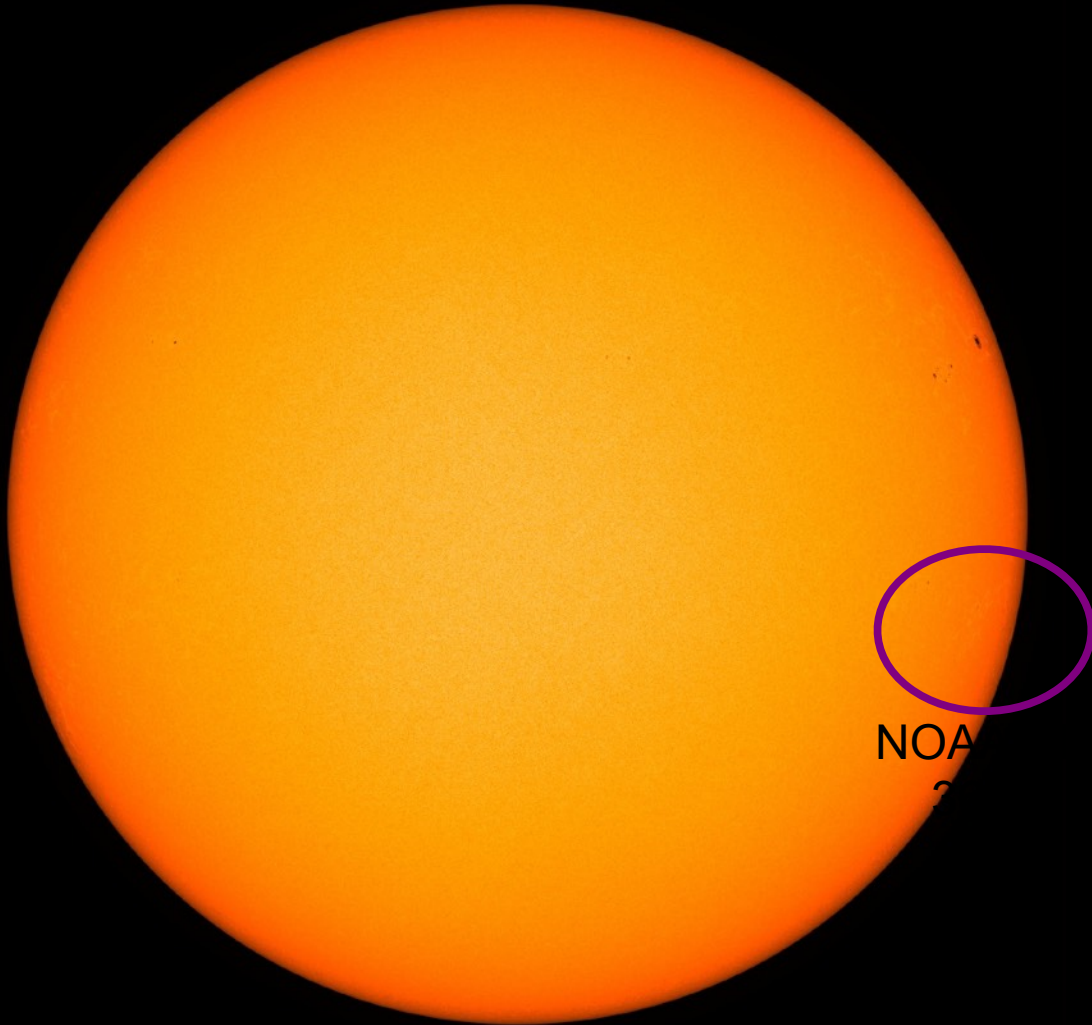


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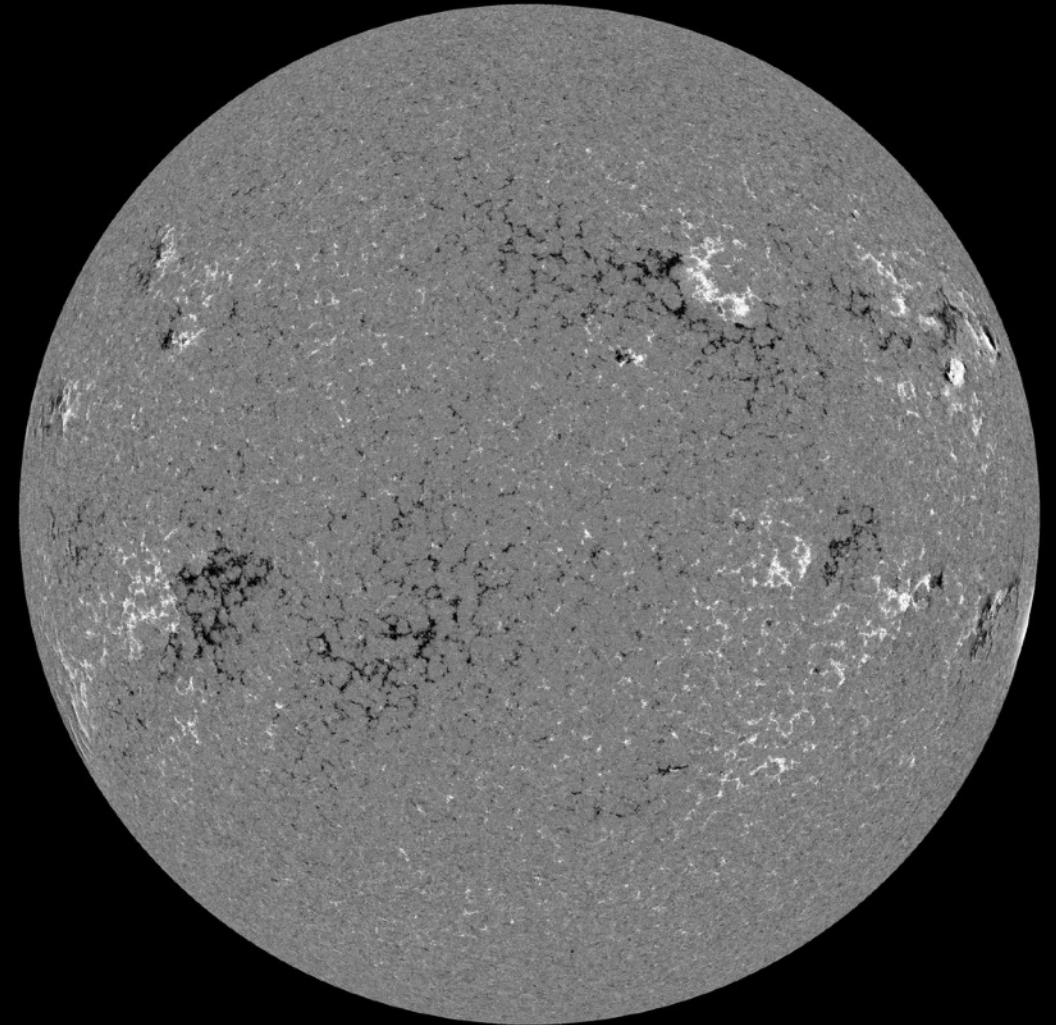
# Solar active regions

SDO/HMI White Light 2024-03-31



SDO/HMI Quick-Look Continuum: 20240331\_114500

SDO/HMI Magnetogram 2024-03-31

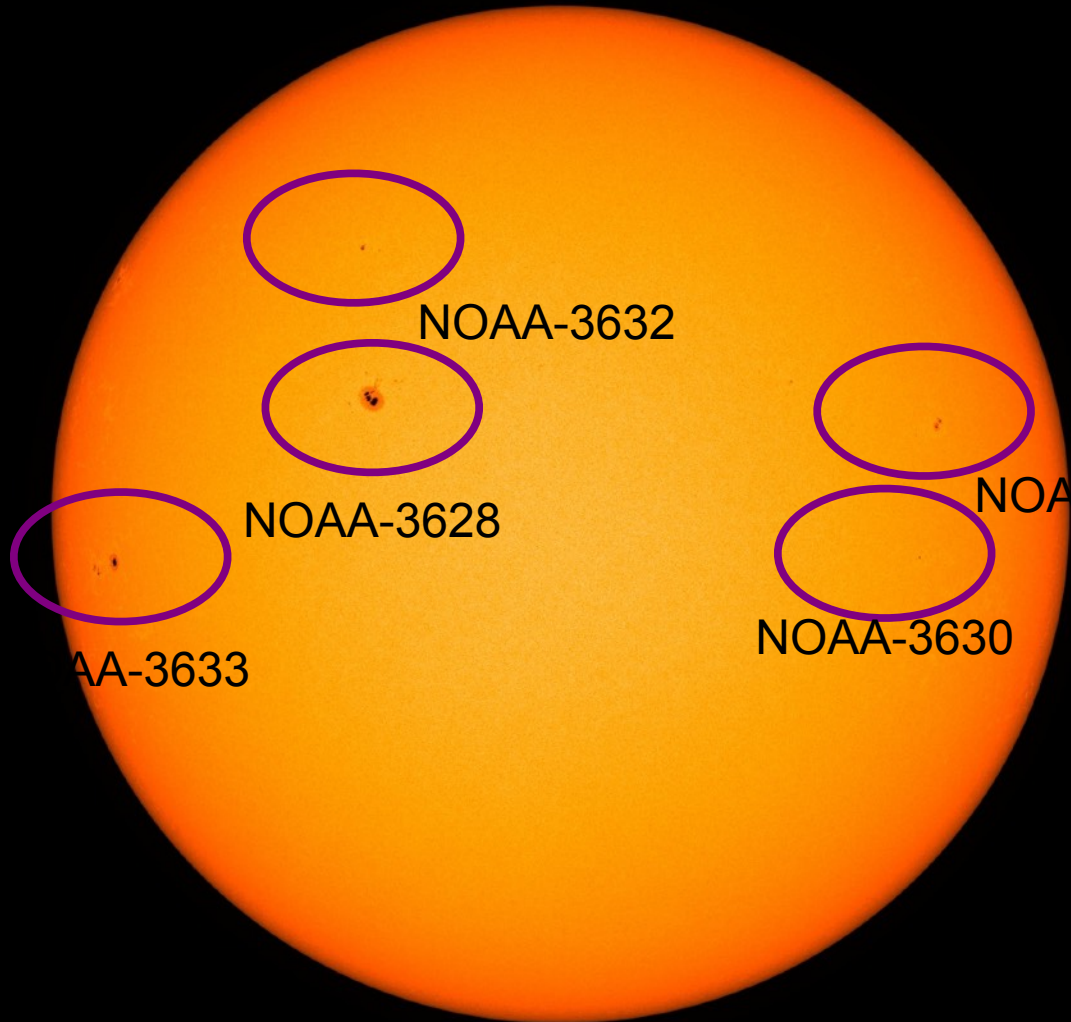


SDO/HMI Quick-Look Magnetogram: 20240331\_114500

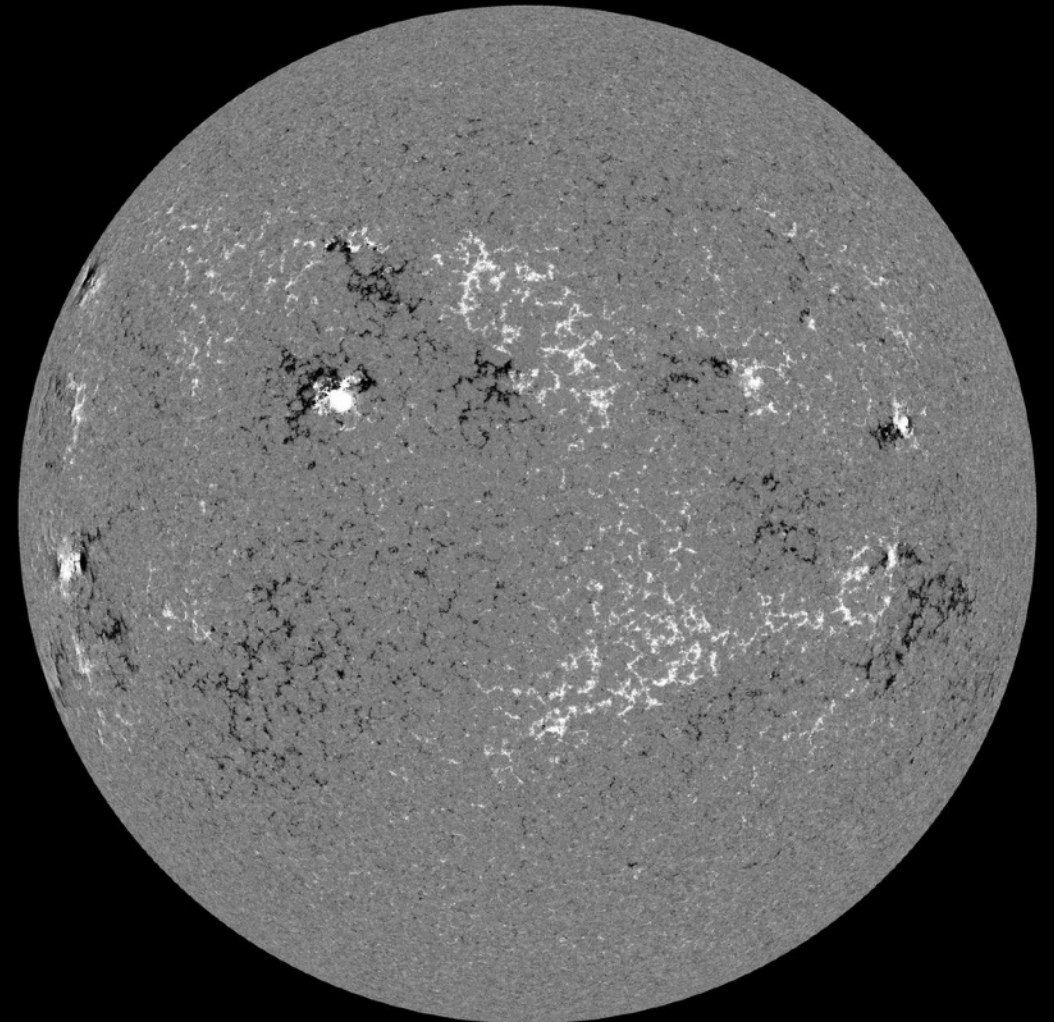


# Solar active regions

SDO/HMI White Light 2024-04-07



SDO/HMI Magnetogram 2024-04-07

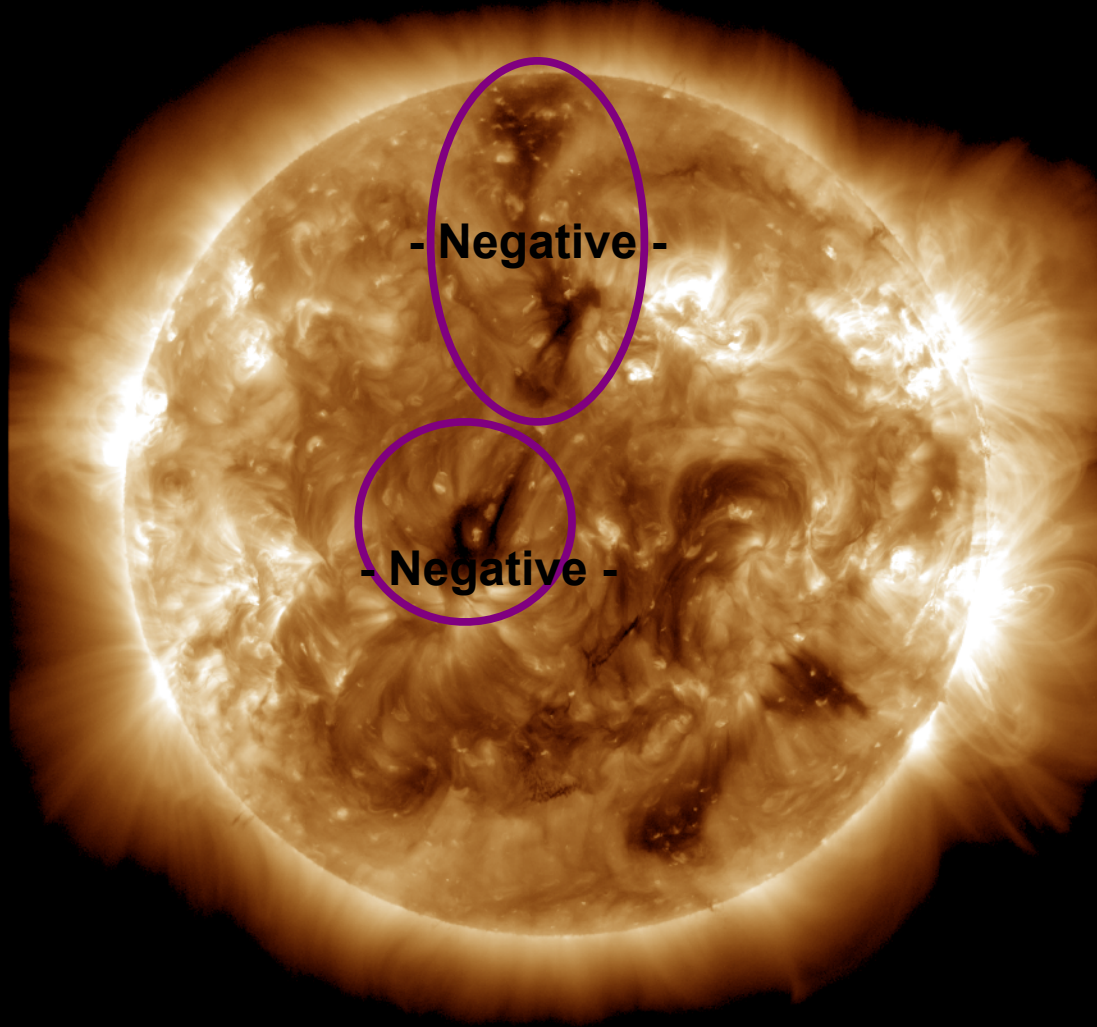




# Coronal holes

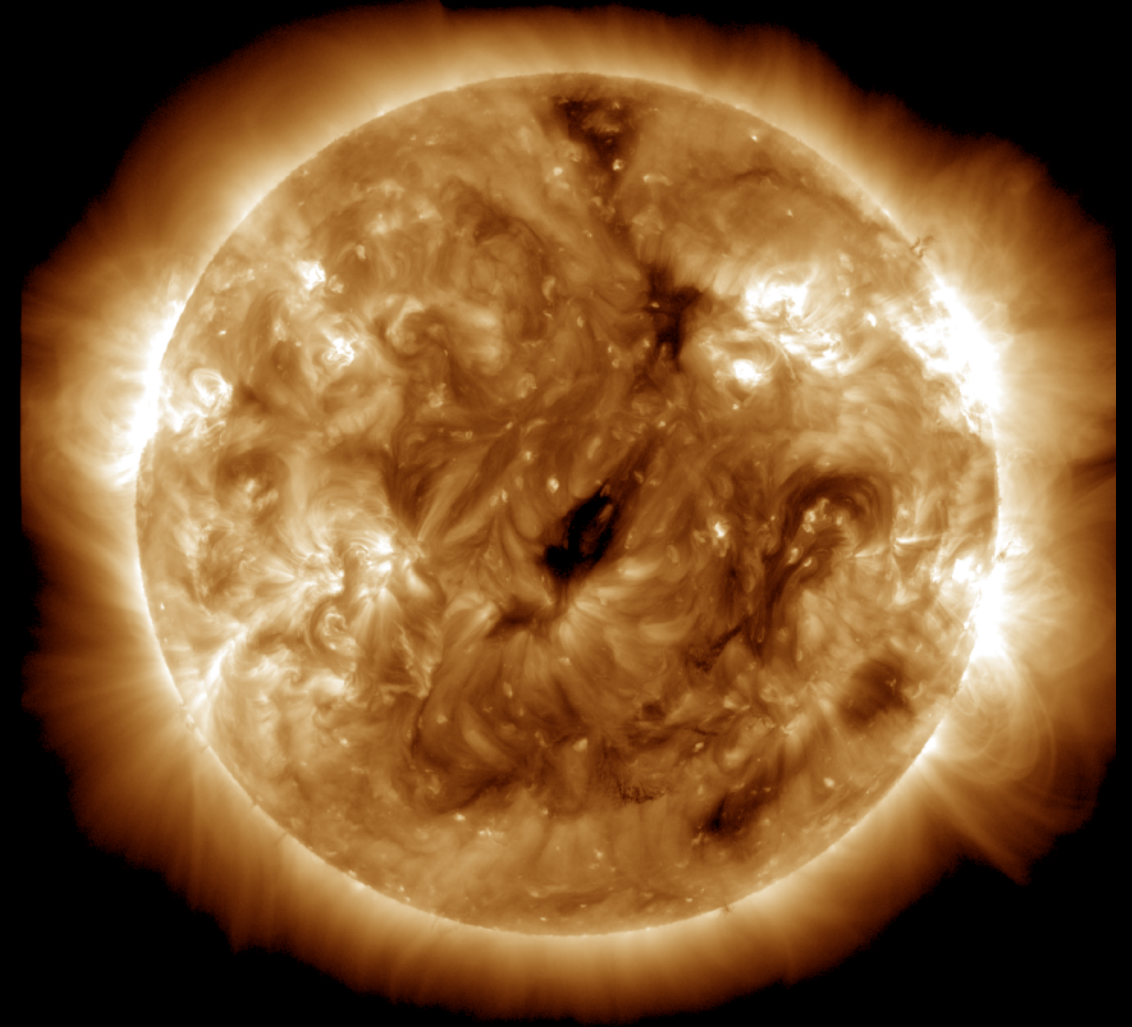
SDO/AIA 19.3 nm 2024-03-31

SDO/AIA AIA 193Å 2024-03-31T12:00:05.843



SDO/AIA 19.3 nm 2024-04-01

SDO/AIA AIA 193Å 2024-04-01T12:00:05.844

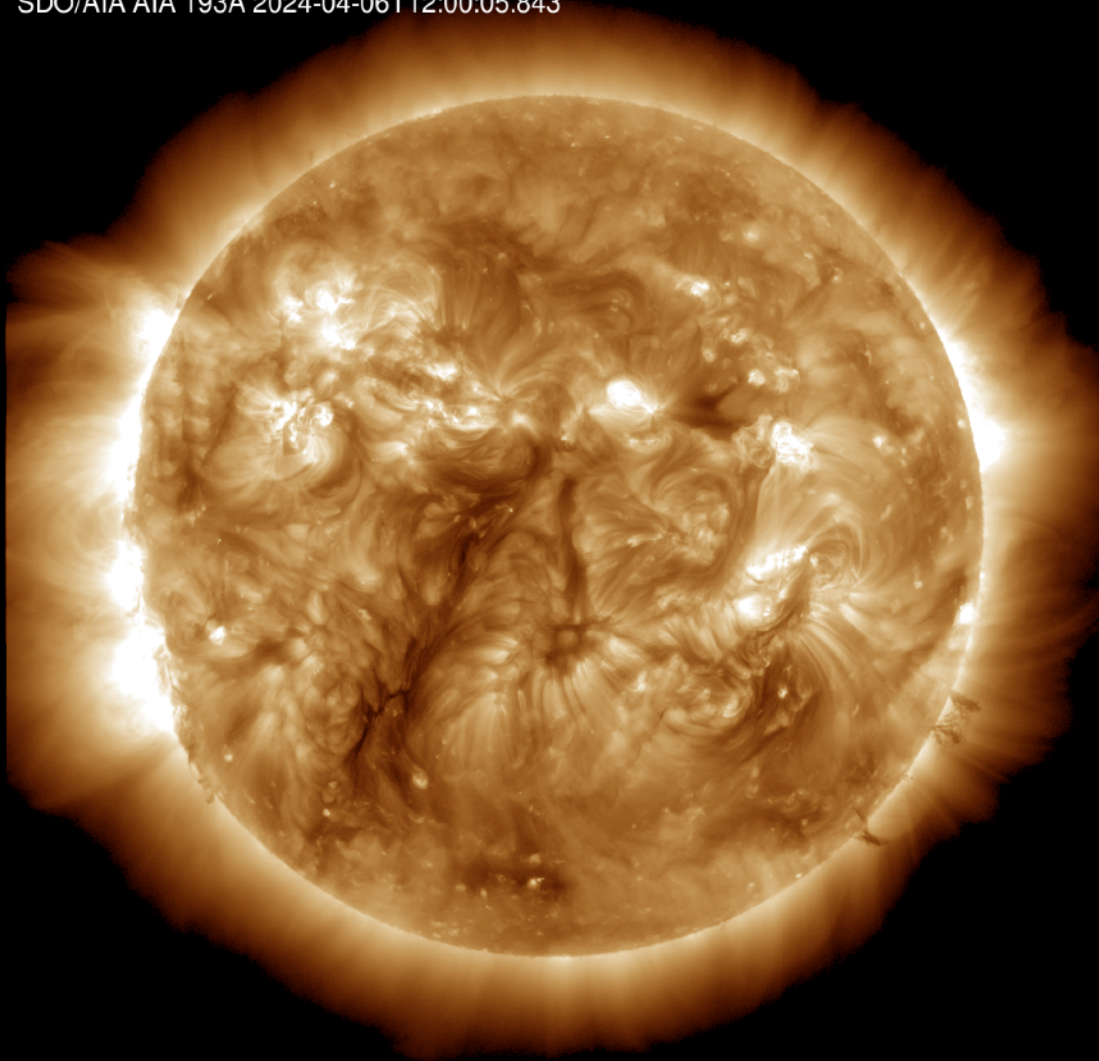




# Coronal holes

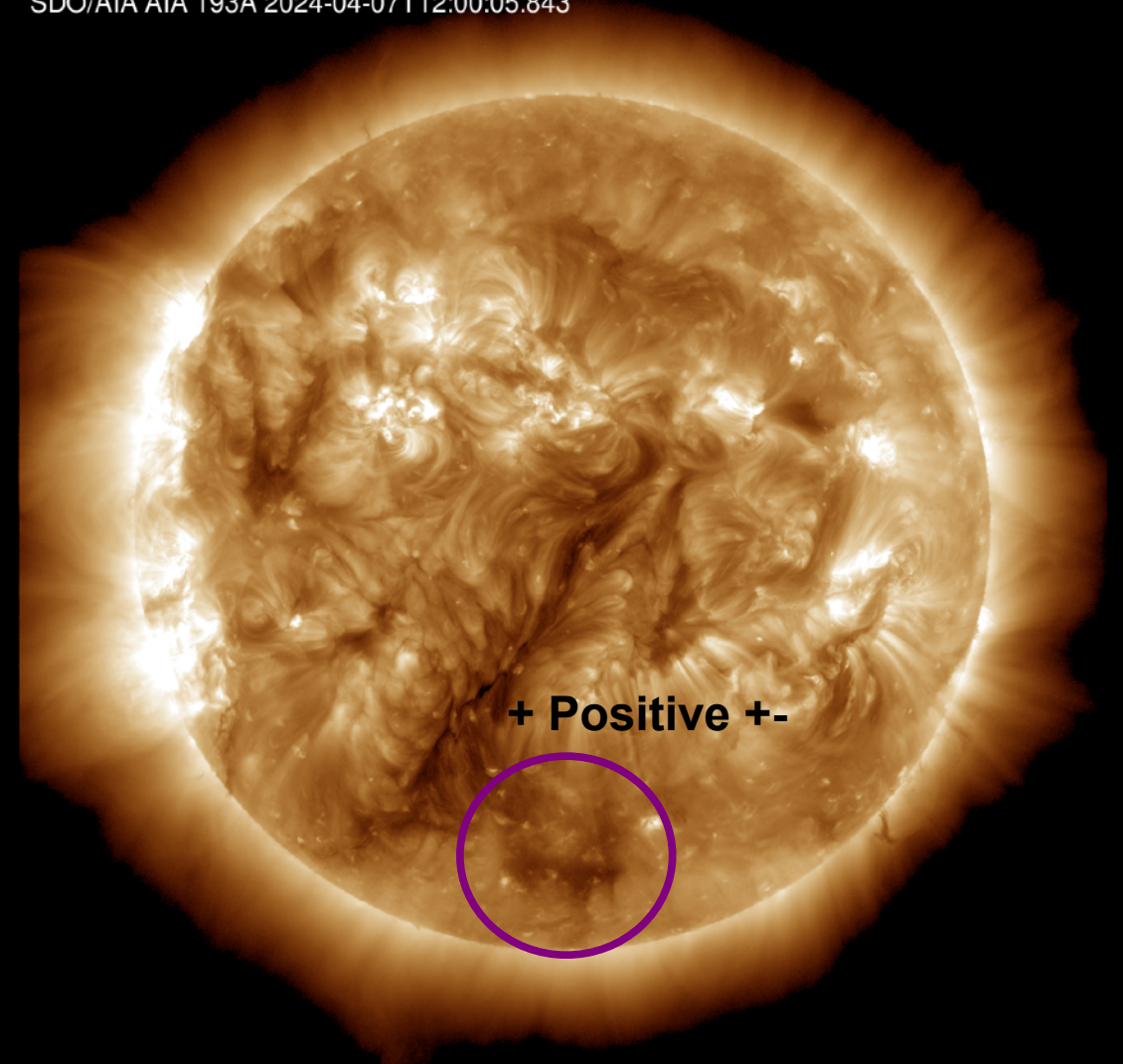
SDO/AIA 19.3 nm 2024-04-06

SDO/AIA AIA 193Å 2024-04-06T12:00:05.843



SDO/AIA 19.3 nm 2024-04-07

SDO/AIA AIA 193Å 2024-04-07T12:00:05.843



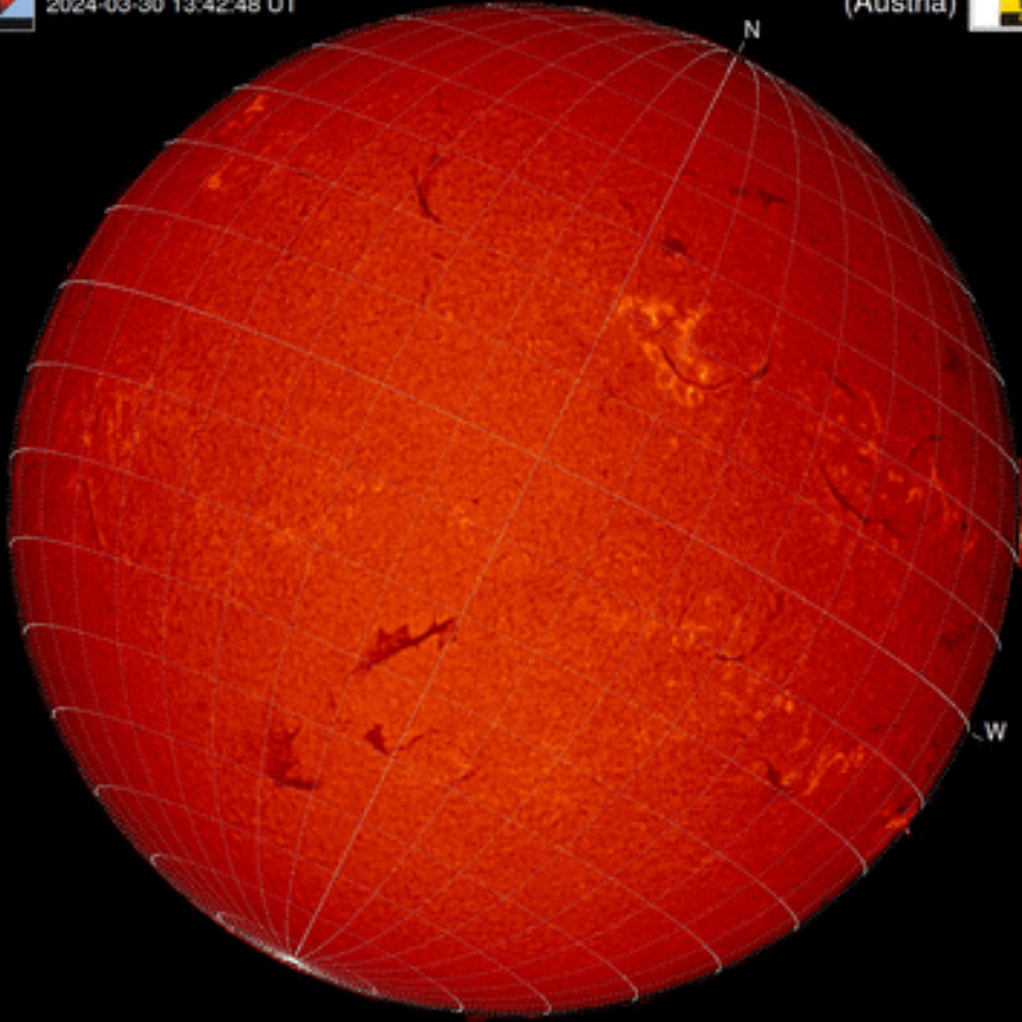
# Filaments & Filament eruptions

H-alpha 2024-03-31



Kanzelhöhe Observatory  
2024-03-30 13:42:48 UT

University of Graz  
(Austria)

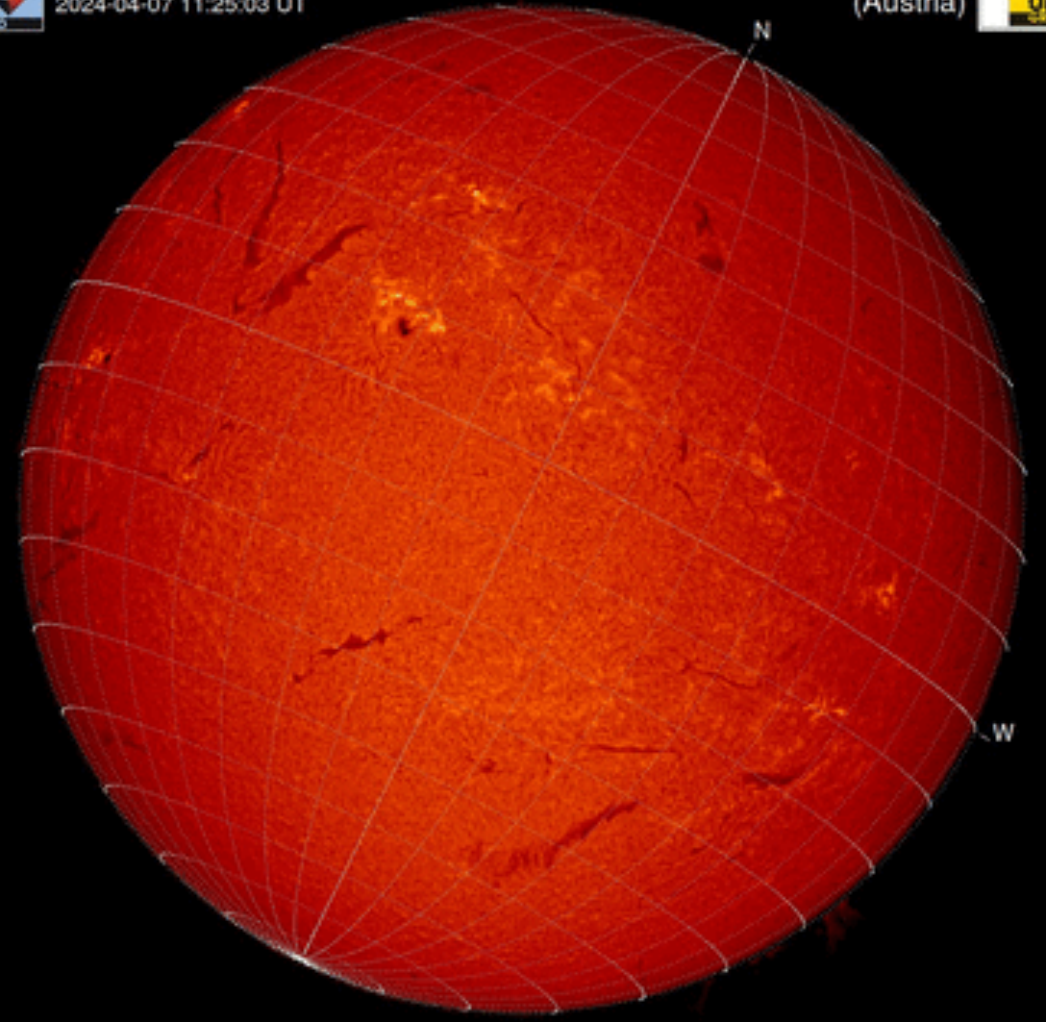


H-alpha 2024-04-07



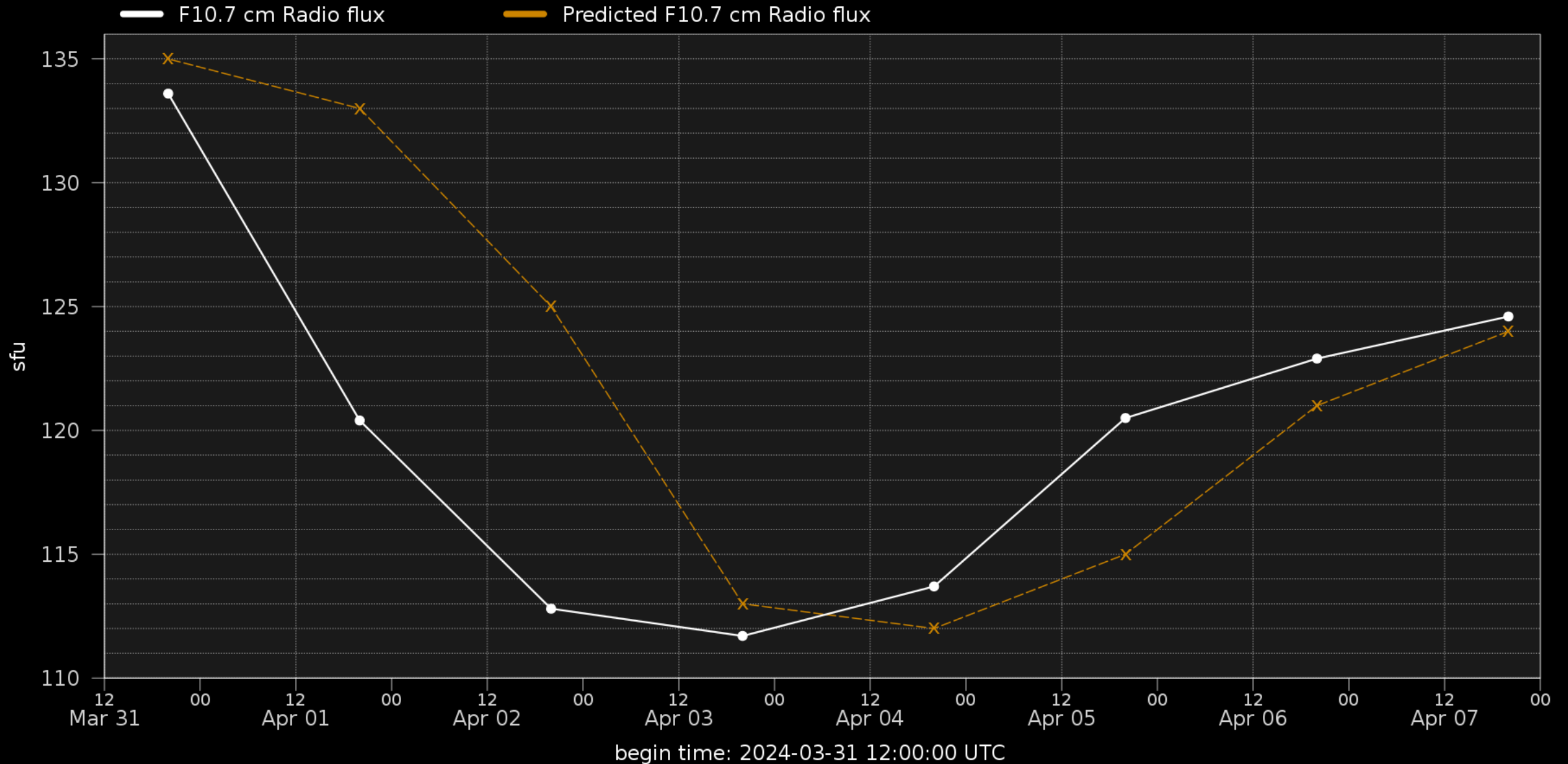
Kanzelhöhe Observatory  
2024-04-07 11:25:03 UT

University of Graz  
(Austria)

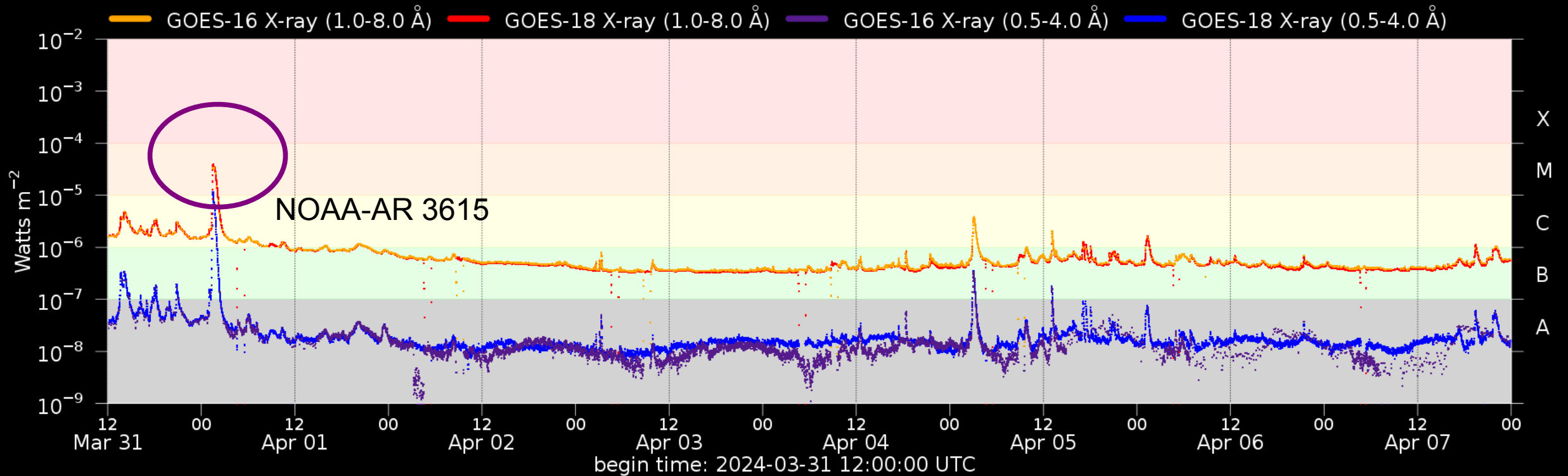




# Solar F10.7cm radio flux



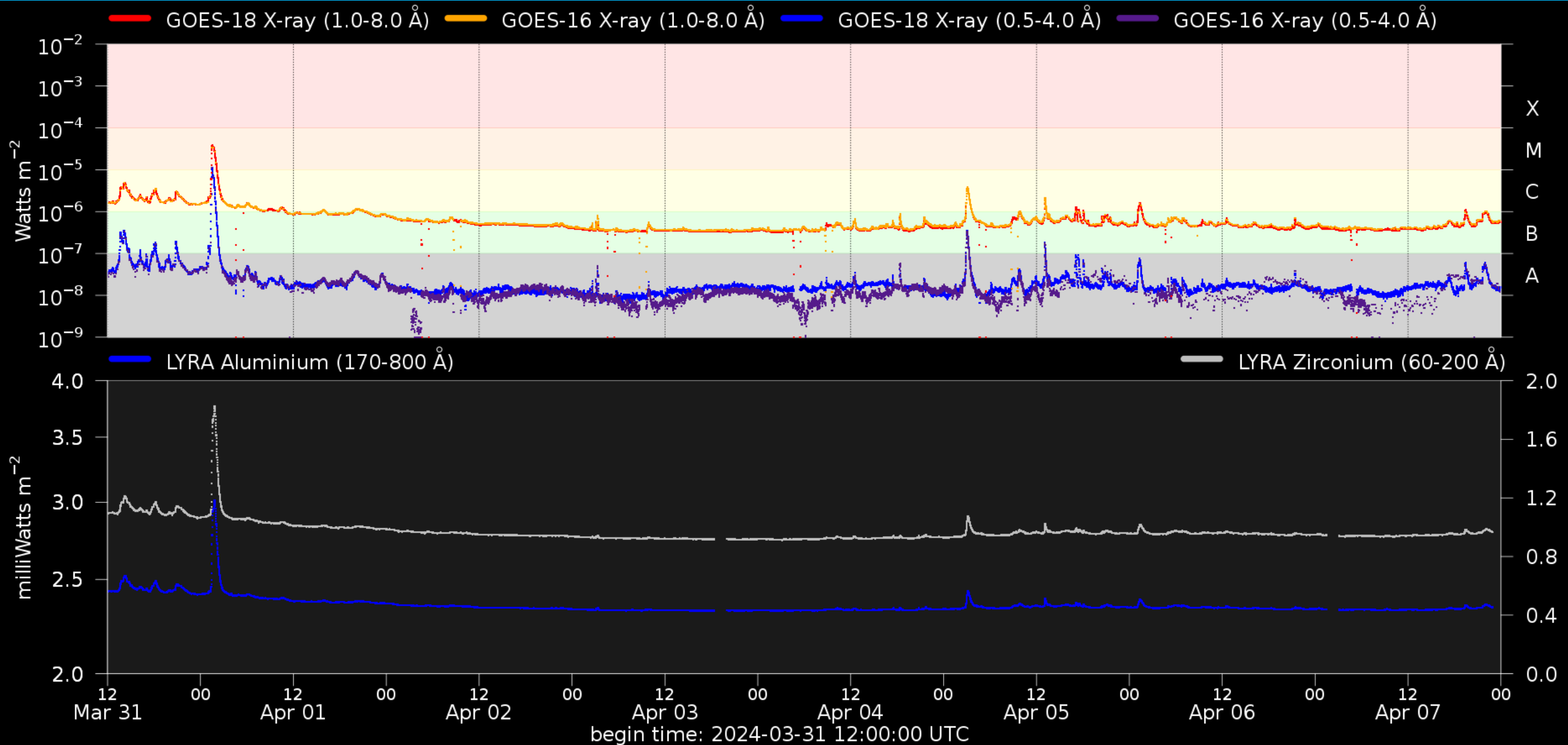
# Flaring activity



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

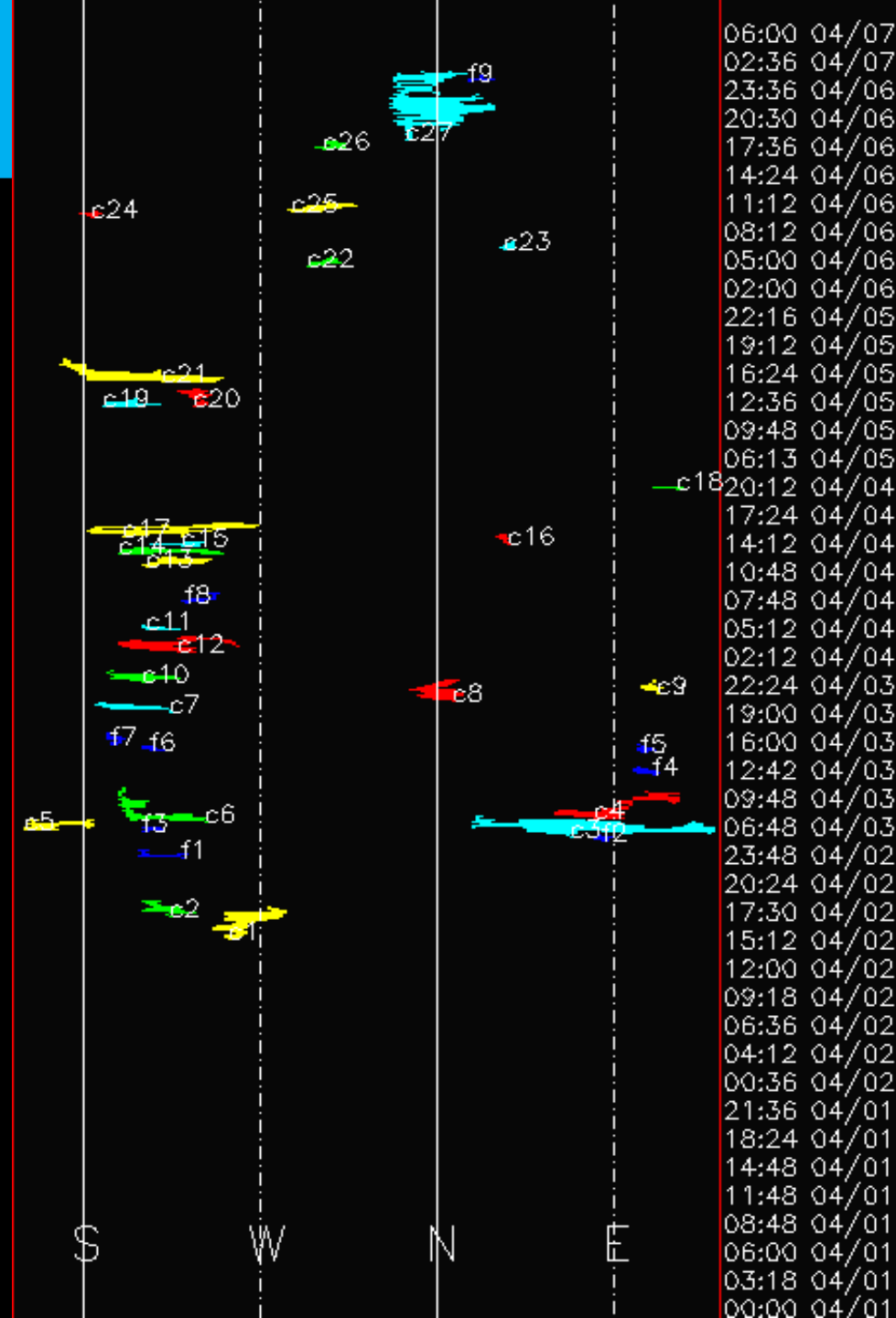
Issue date	2024-03-31	2024-04-01	2024-04-02	2024-04-03	2024-04-04	2024-04-05	2024-04-06	2024-04-07
Probability (%)	99 60 10	90 50 10	70 03 01	45 01 01	40 01 01	55 03 01	55 03 01	50 01 01
Observed (#)	00 01 00	00 00 00	00 00 00	00 00 00	01 00 00	05 00 00	00 00 00	01 00 00

# Solar X-Ray and UV flux





# Coronal Mass Ejections



Solar Wind and

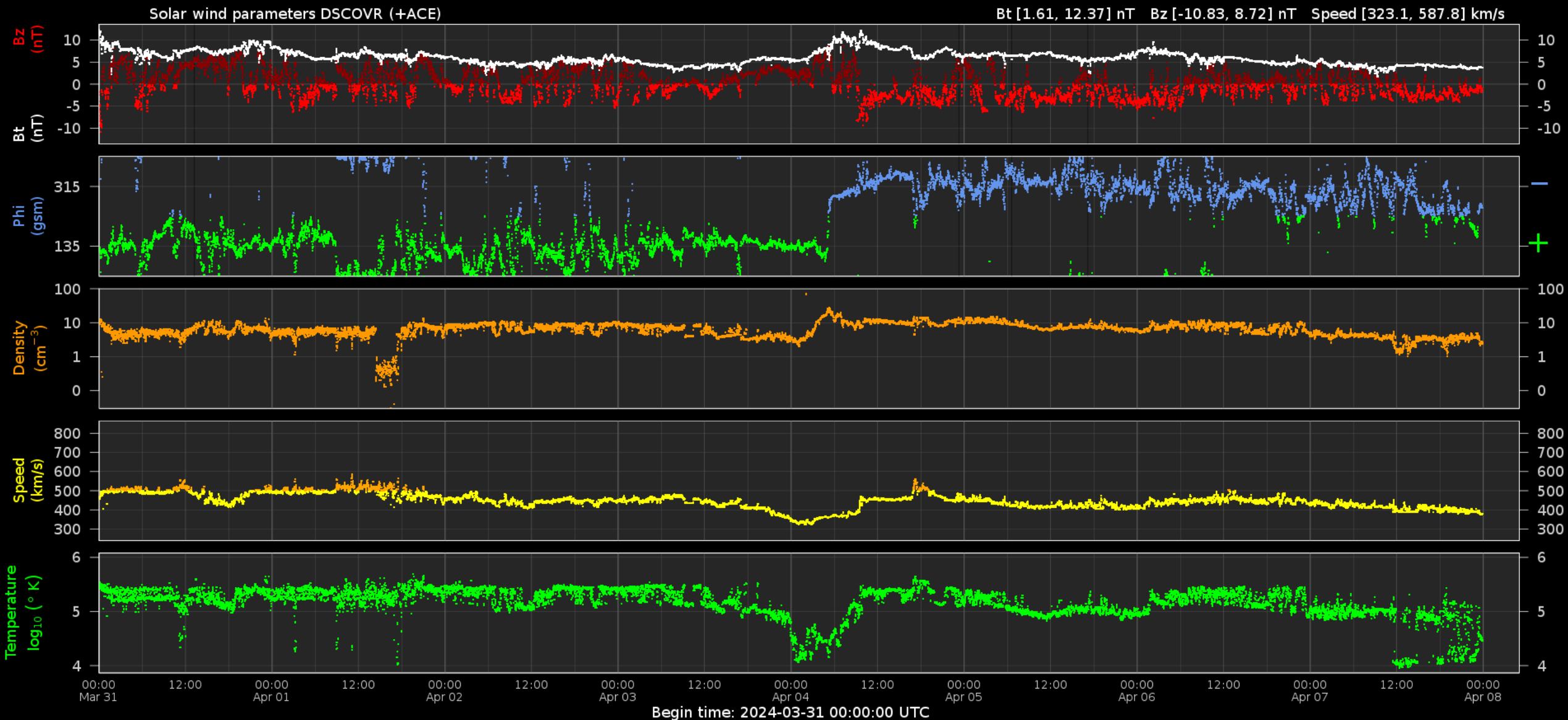
# Geomagnetic Activity



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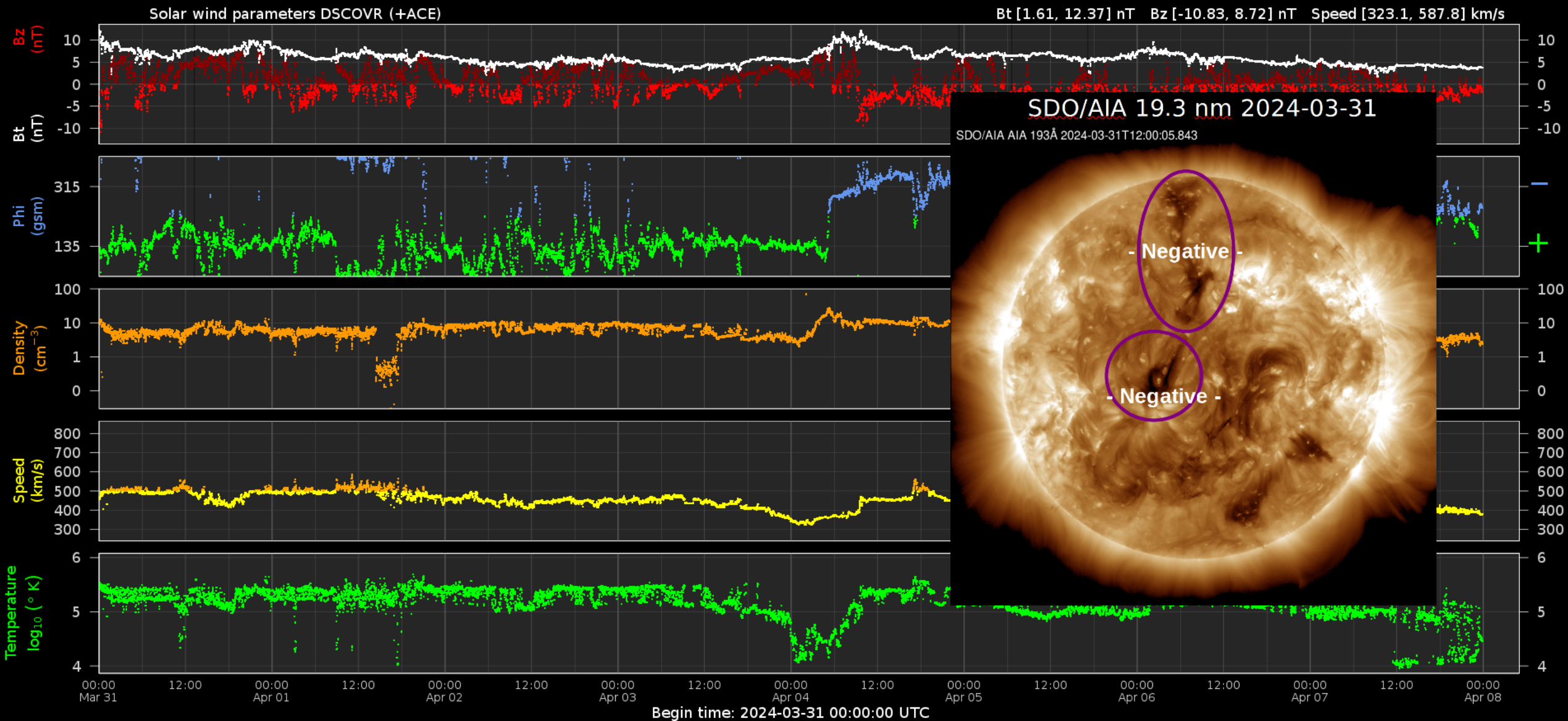
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# Solar wind parameters

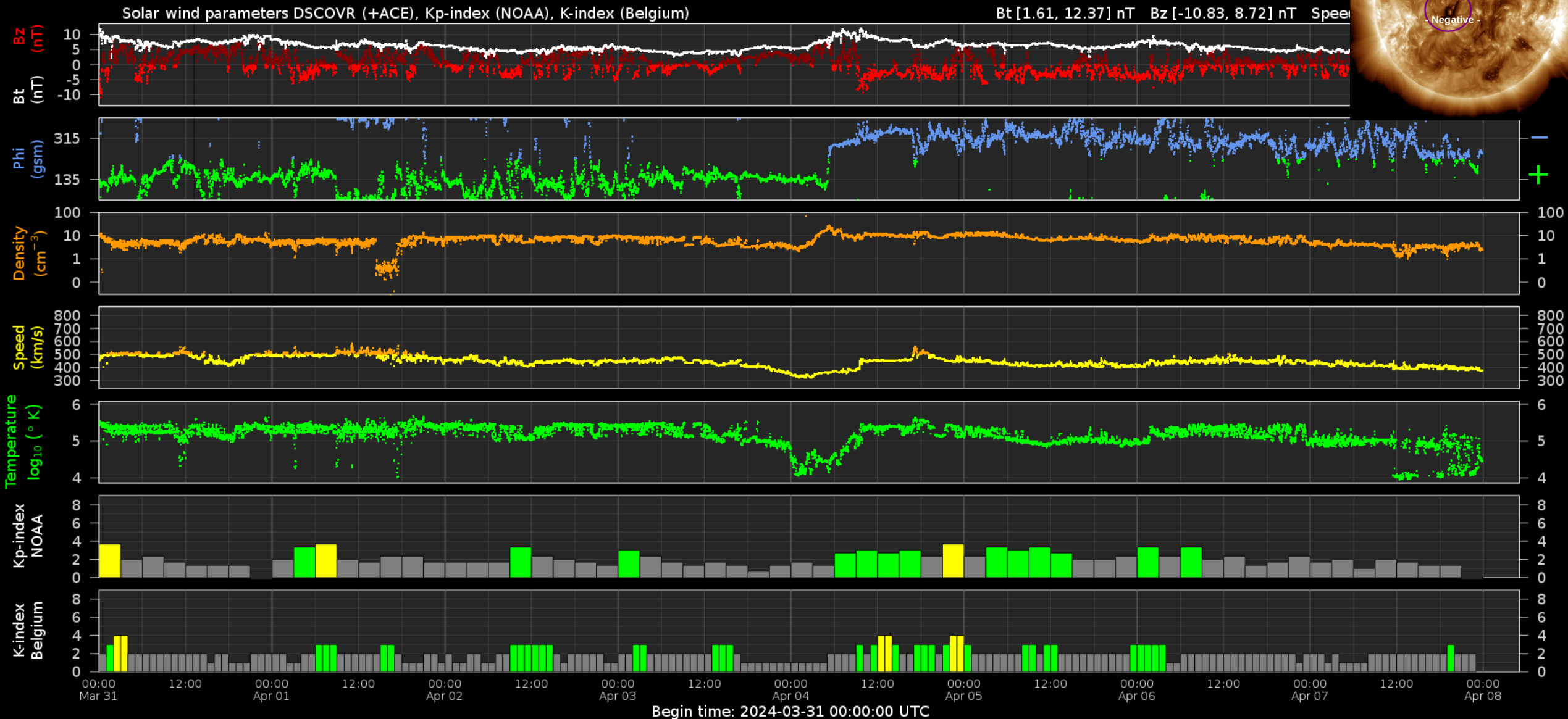
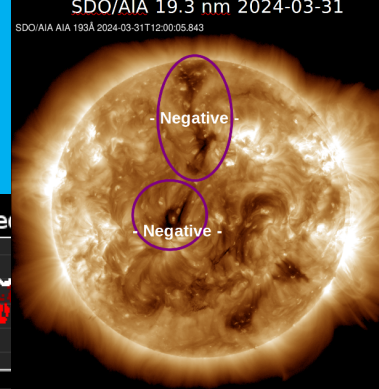




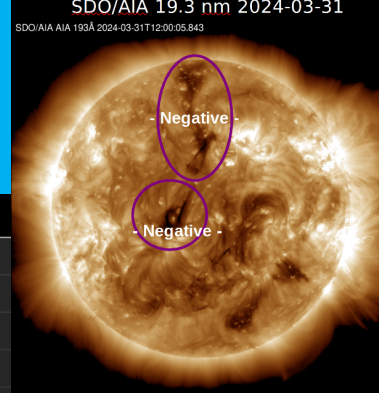
# Solar wind parameters



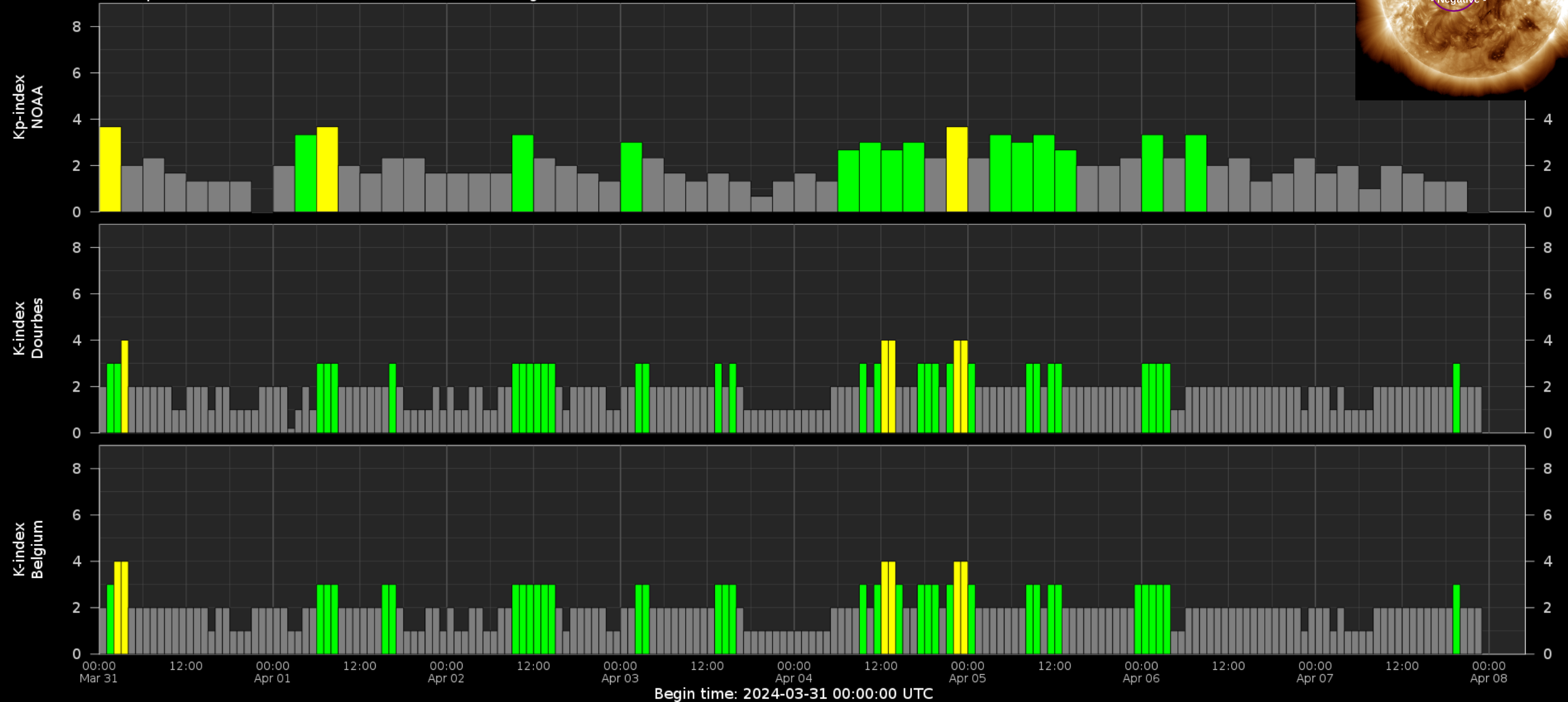
# Solar wind parameters & K-indices



# Geomagnetic activity (K-indexes)



Kp-index (NOAA), K-index (Dourbes) and K-index (Belgium)





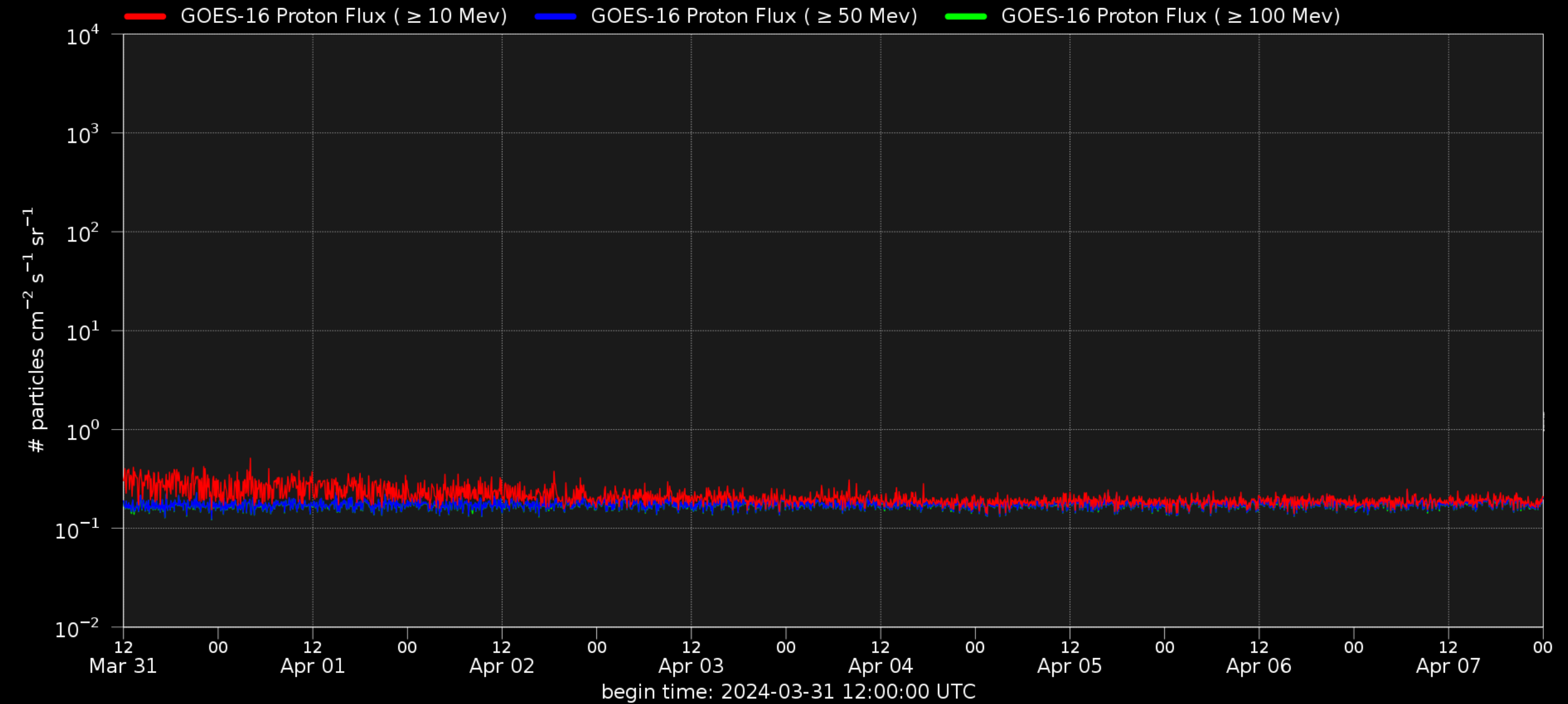
# Energetic Particles



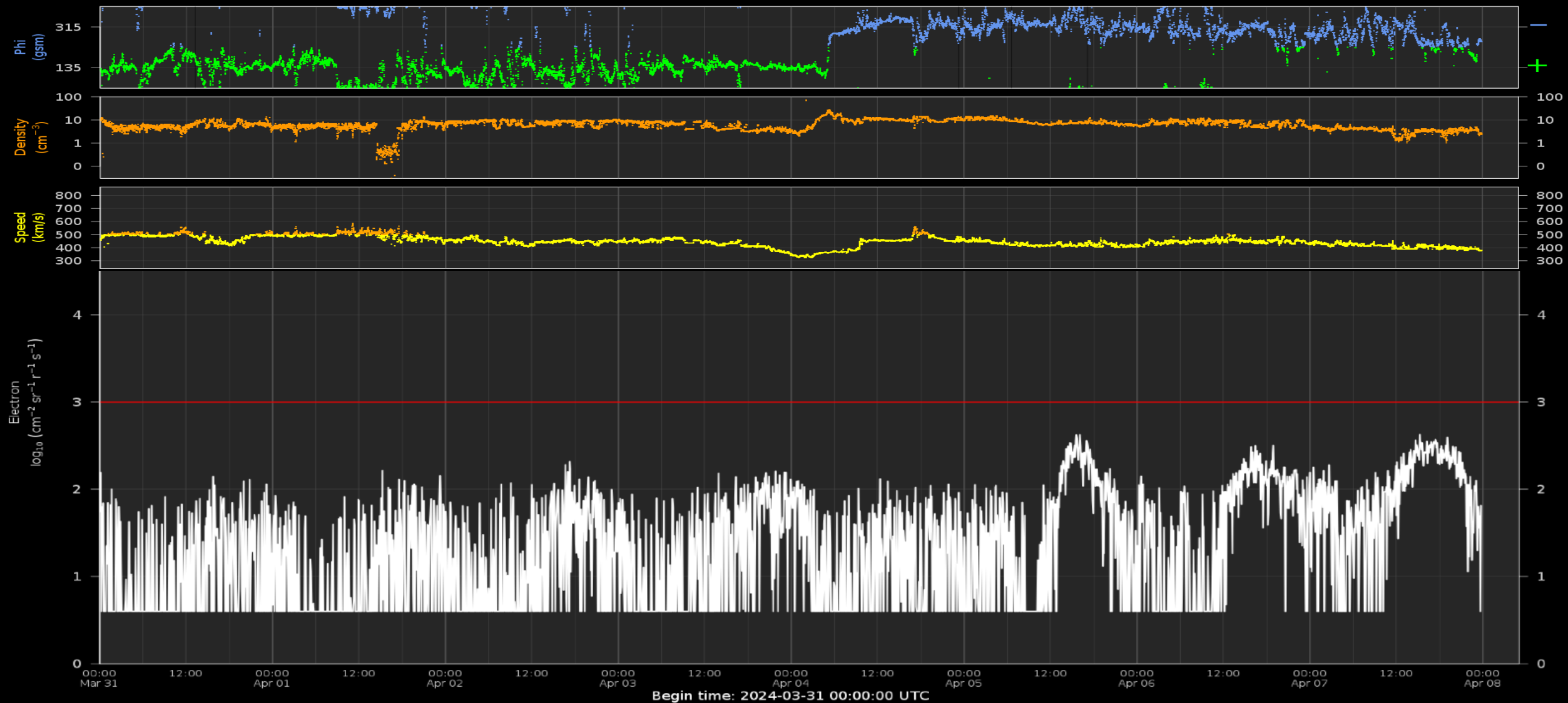
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# Solar proton flux



# GOES Electron flux (>2 Mev) at GEO





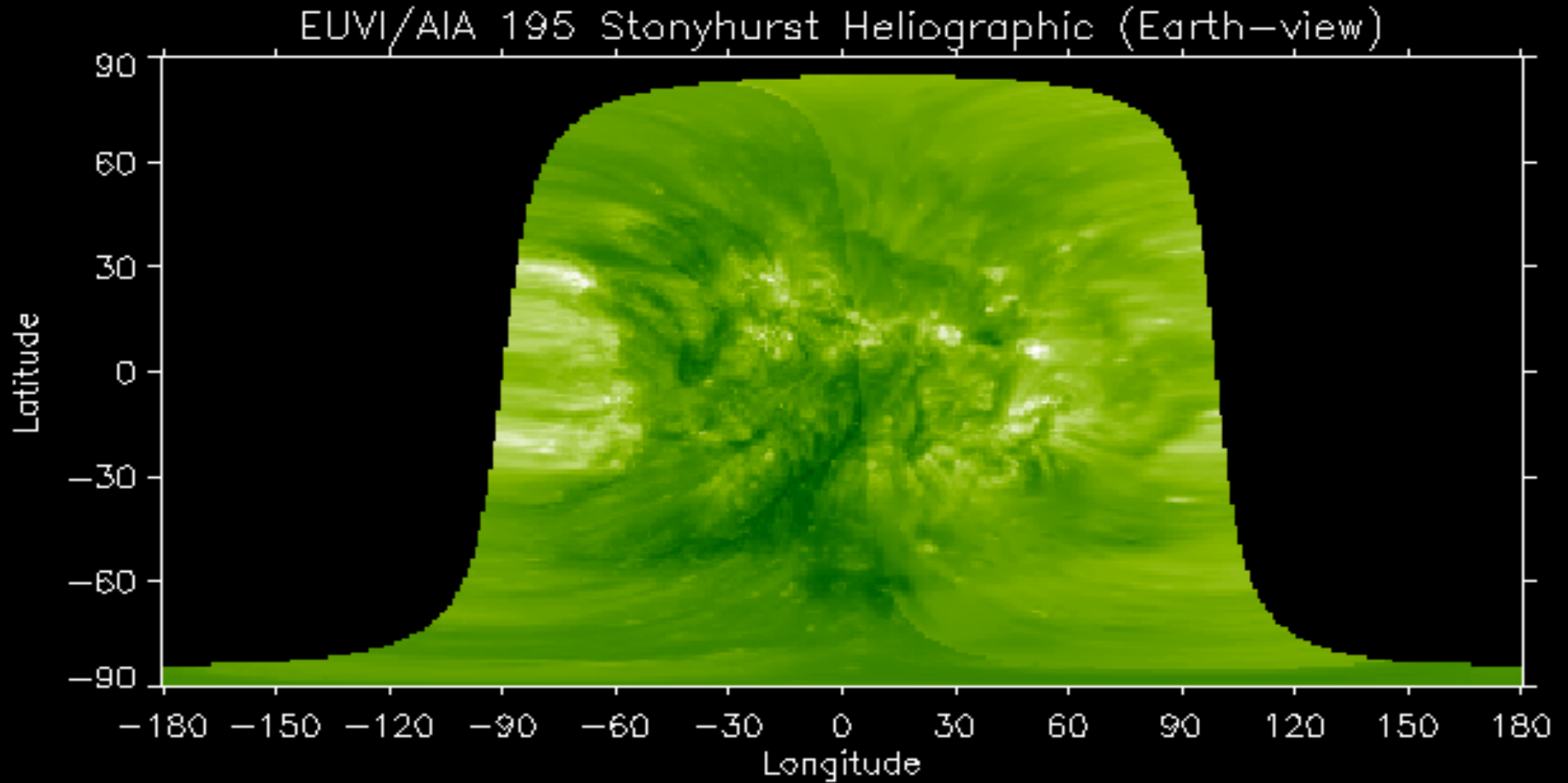
# Outlook



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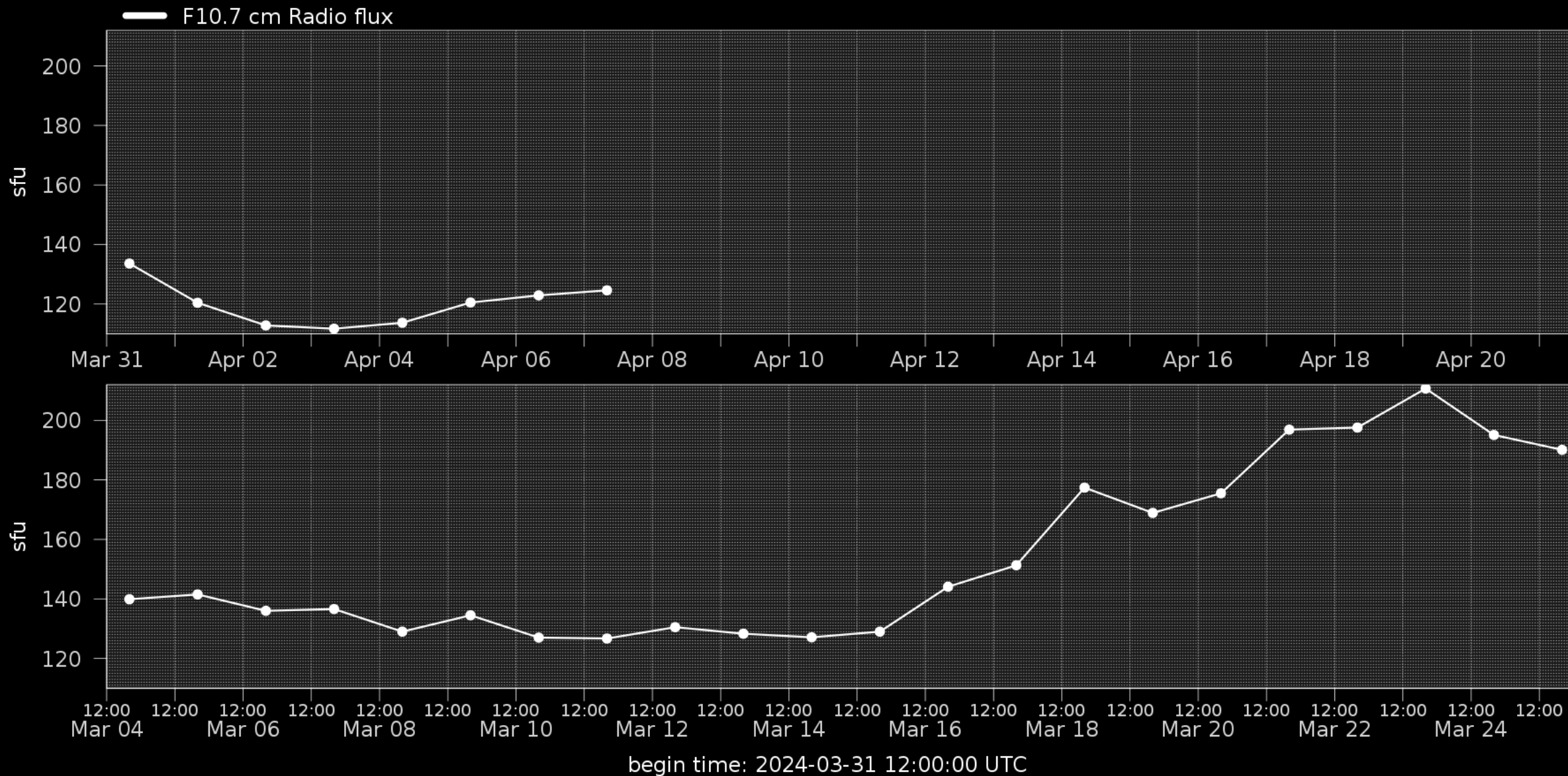
[www.sidc.be](http://www.sidc.be)

# Outlook: Solar activity

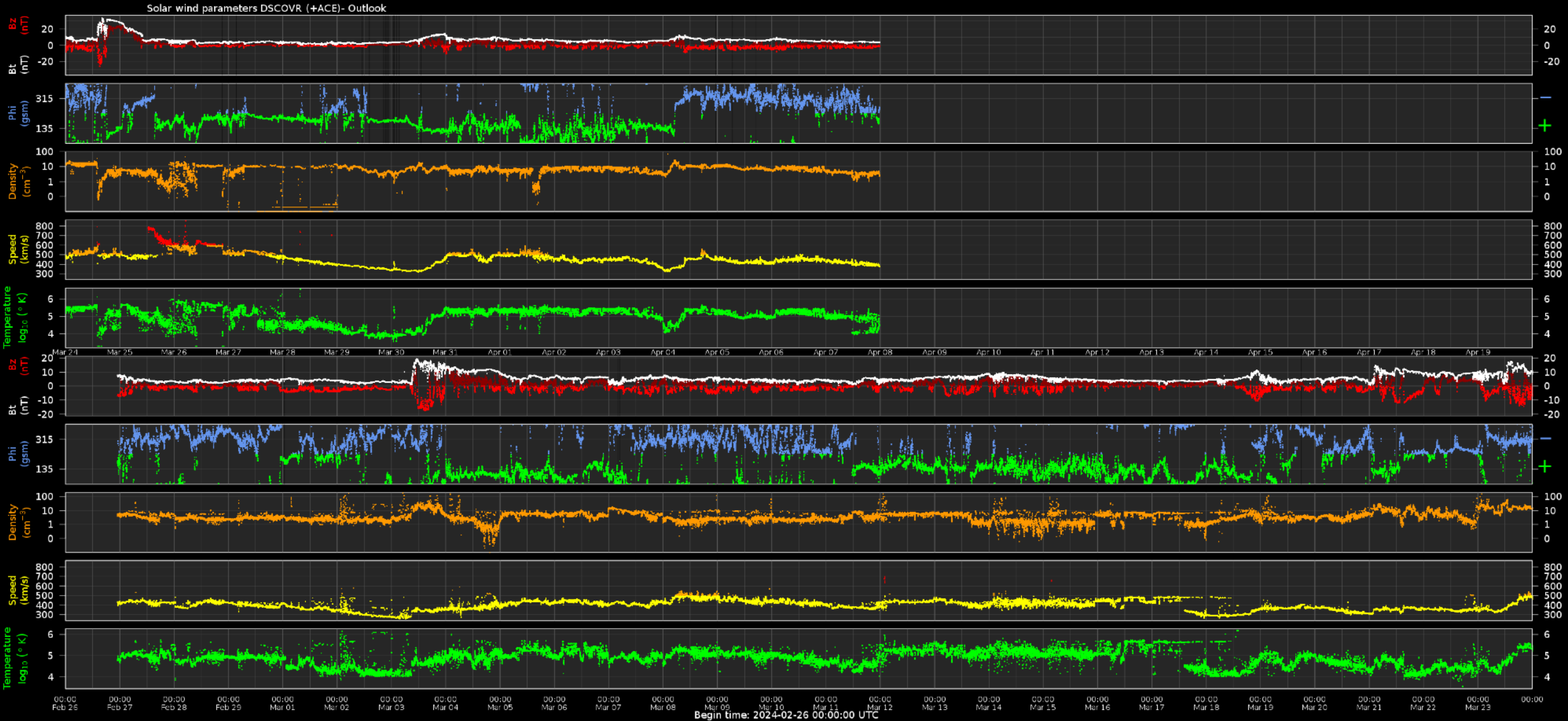


Observation date: 2024/04/07 19:35:00

# Outlook: Solar F10.7cm radio flux



# Outlook: Solar wind parameters







# Outlook: Electron Flux at GEO Outlook



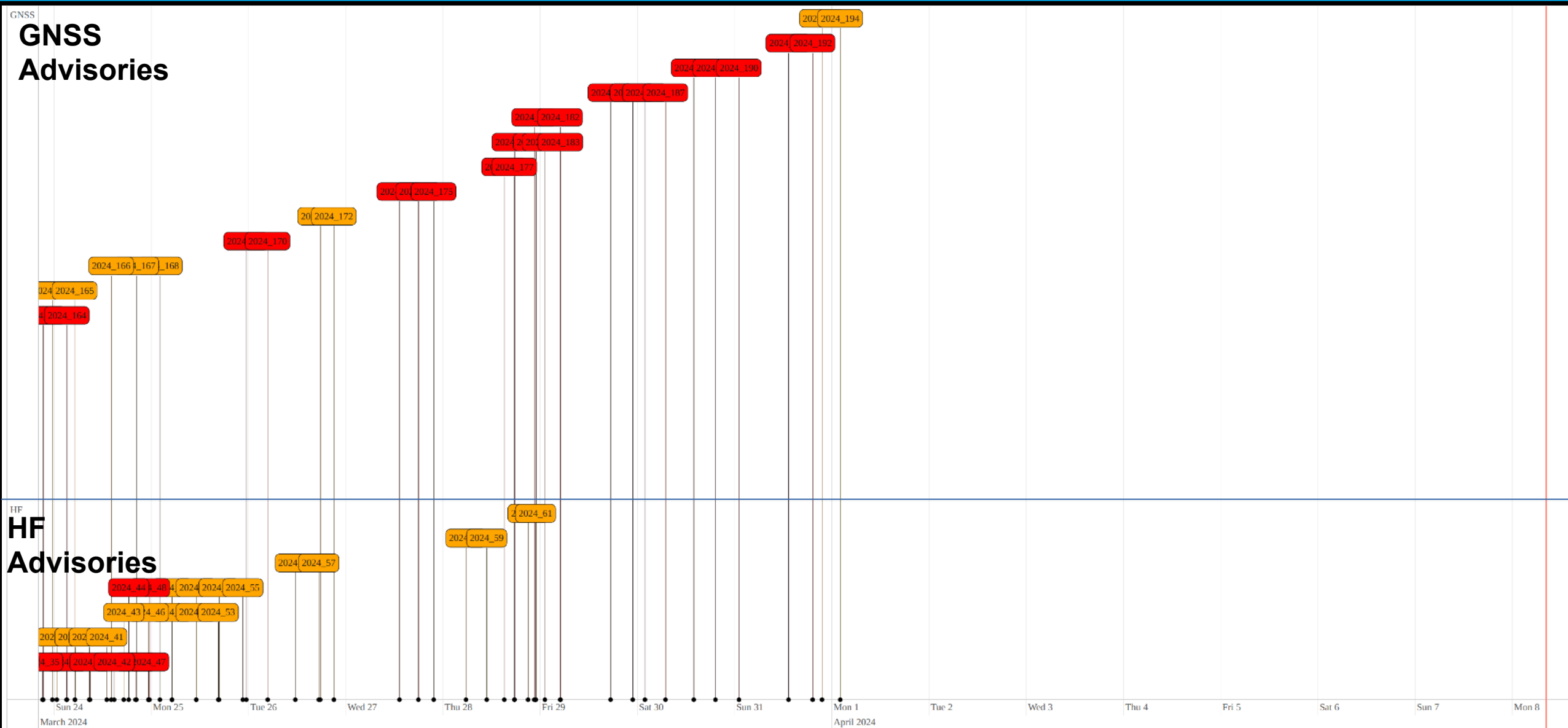
PECASUS



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# Pegasus related events





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