

# SIDC Space Weather Briefing

30 January-05 February 2023

Rodriguez Luciano  
& 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 2023-01-29 12:00 to 2023-02-05 23:59

Active regions	3198, 3199, 3201, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211
Flares	# C-class flare: 32 # M-class flare: 0 # X-class flare: 0
Coronal Holes	2 negative polarity
CMEs	Many, one with a possible Earth component

Proton flux	Below threshold
Electron flux	Below threshold

## Solar wind and geomagnetic conditions

ICMEs	1 (weak)
Solar wind conditions	B : 0.55 - 11.29 nT //Bz: -10.34 nT to 10.59 nT //Speed: 290.3 - 530.1km/s
K-indices	max K-index (K_Bel): 4 max Kp-index (NOAA): 4

All Quiet Alert: Off

# Solar Activity

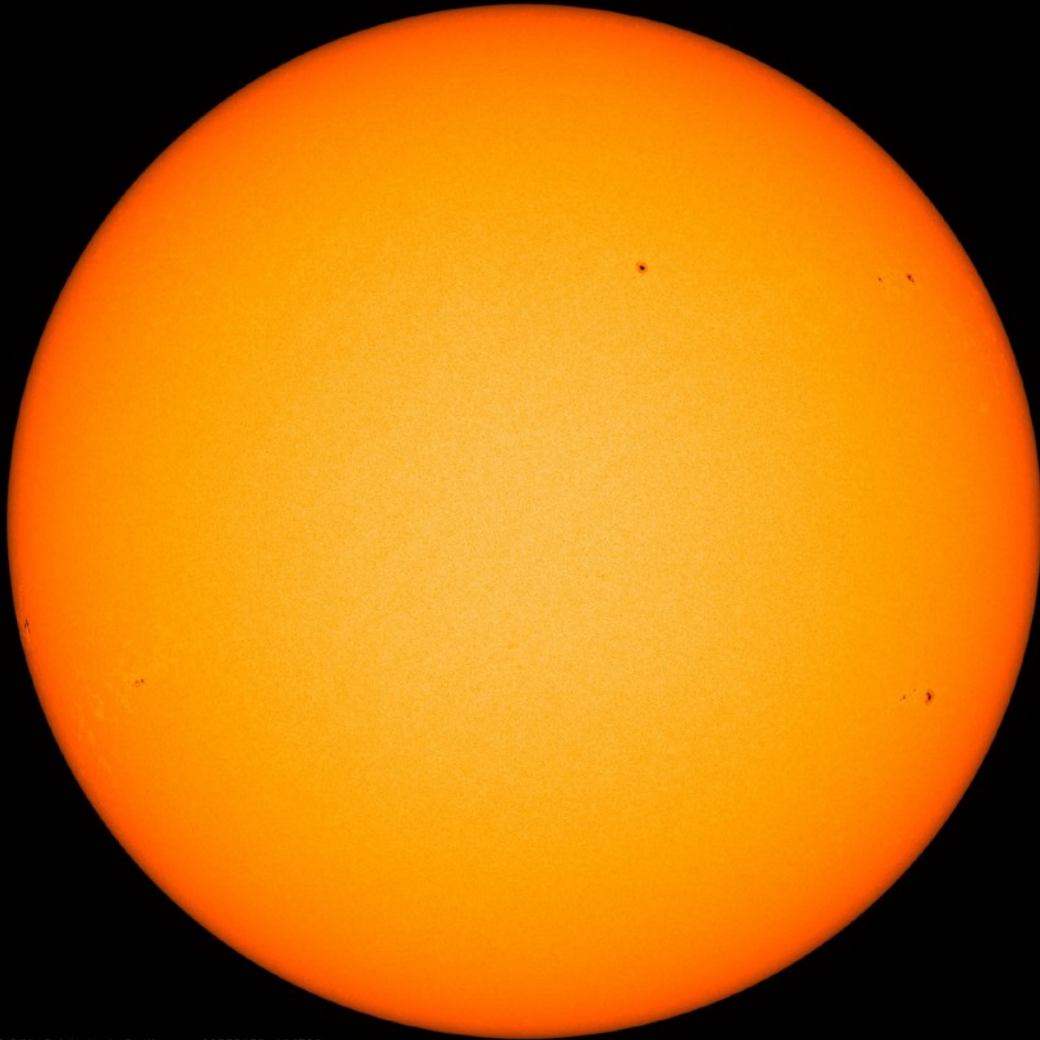


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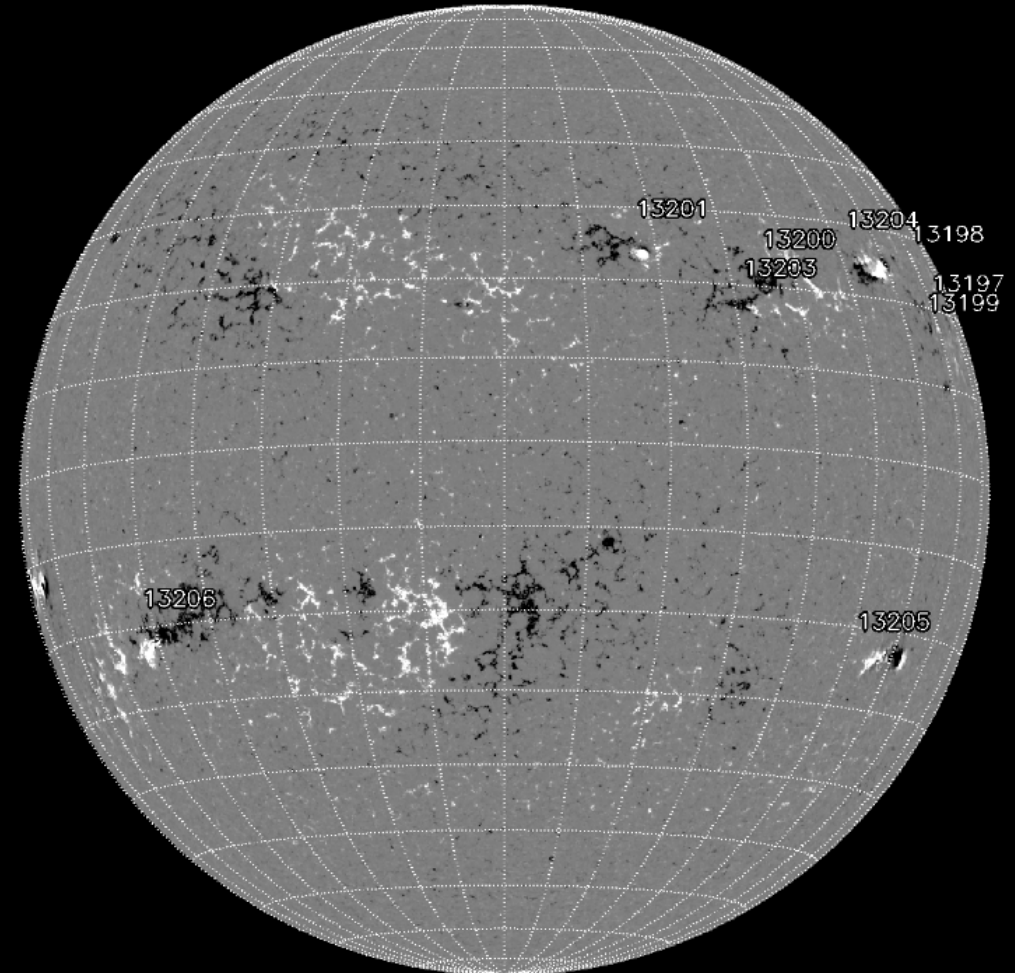
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# Solar active regions

SDO/HMI White Light 2023-01-30



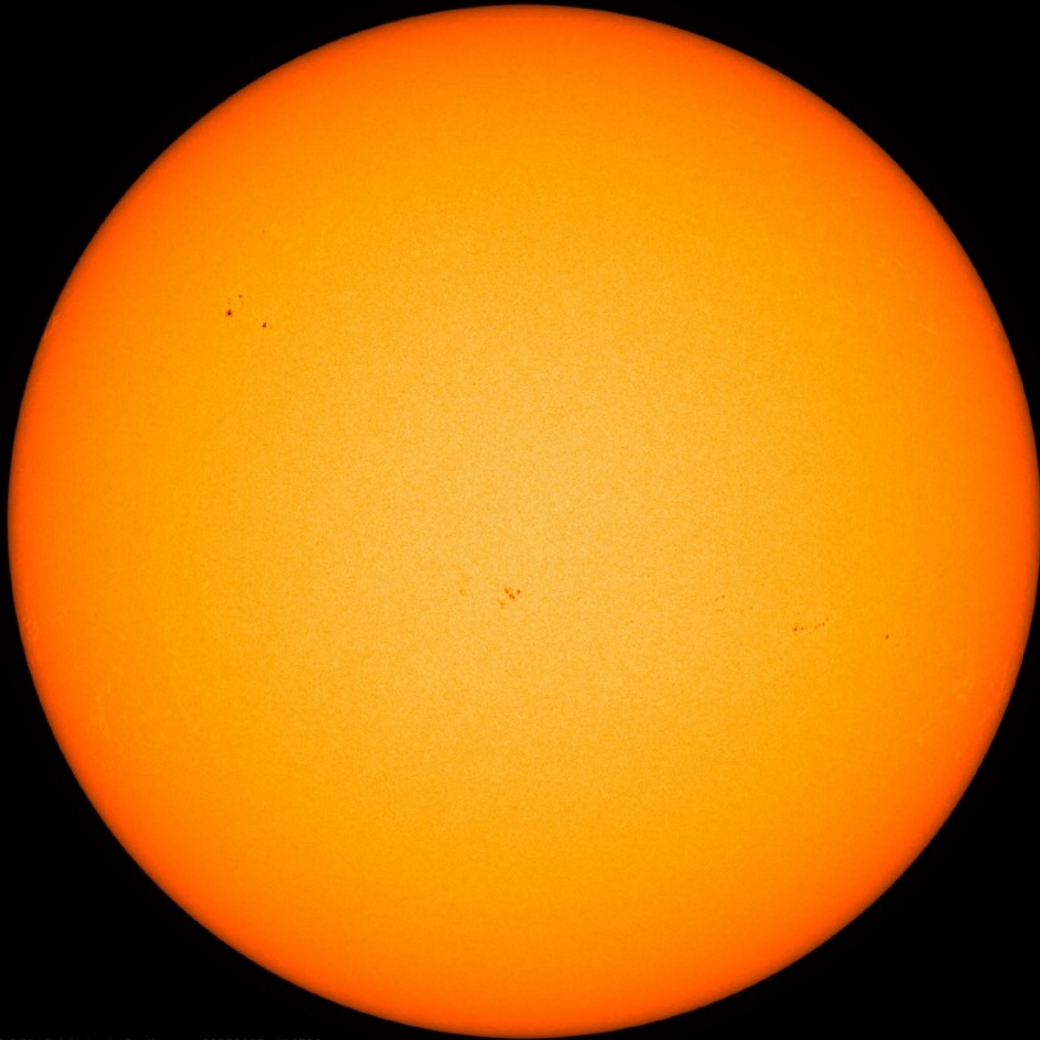
SDO/HMI Magnetogram 2023-01-30



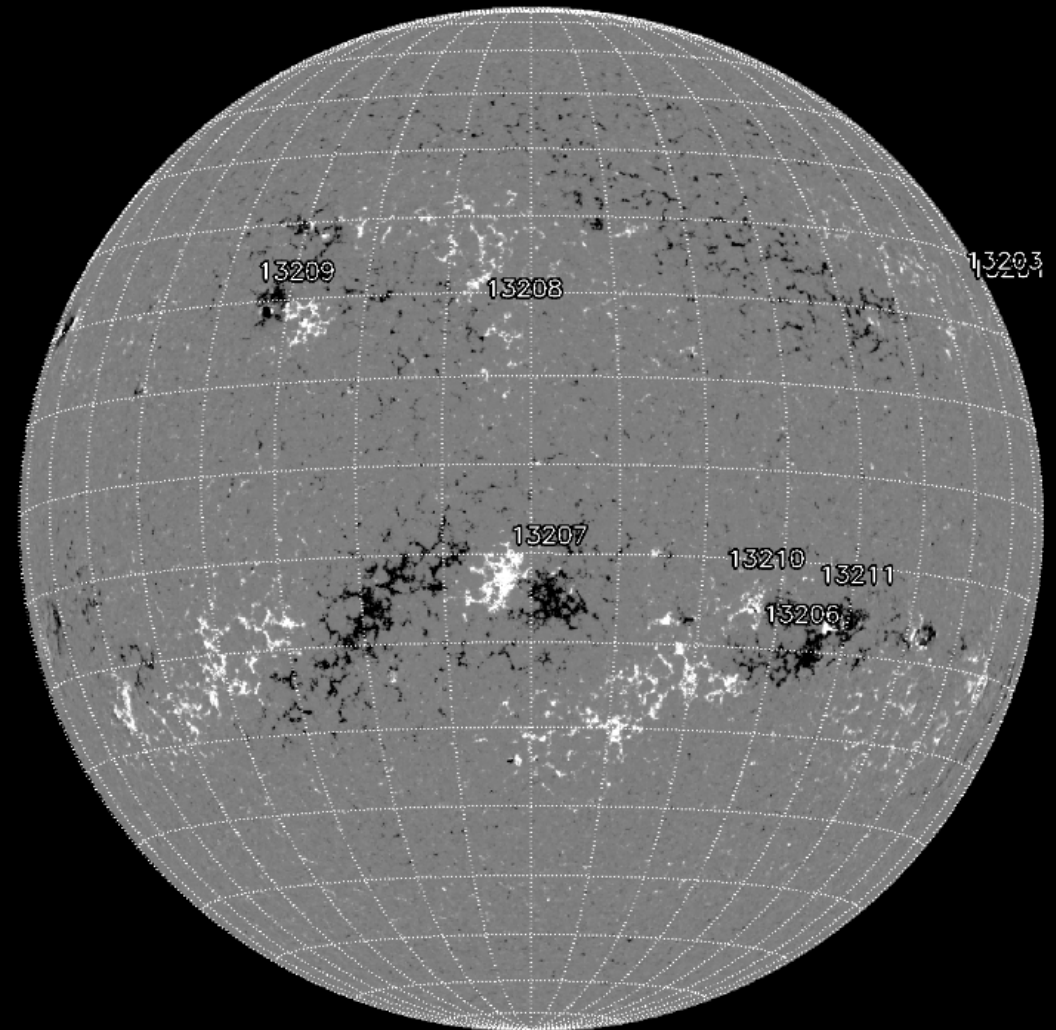
SDO/HMI Quick-look Continuum: 20230130\_114500

# Solar active regions

SDO/HMI White Light 2023-02-05



SDO/HMI Magnetogram 2023-02-05

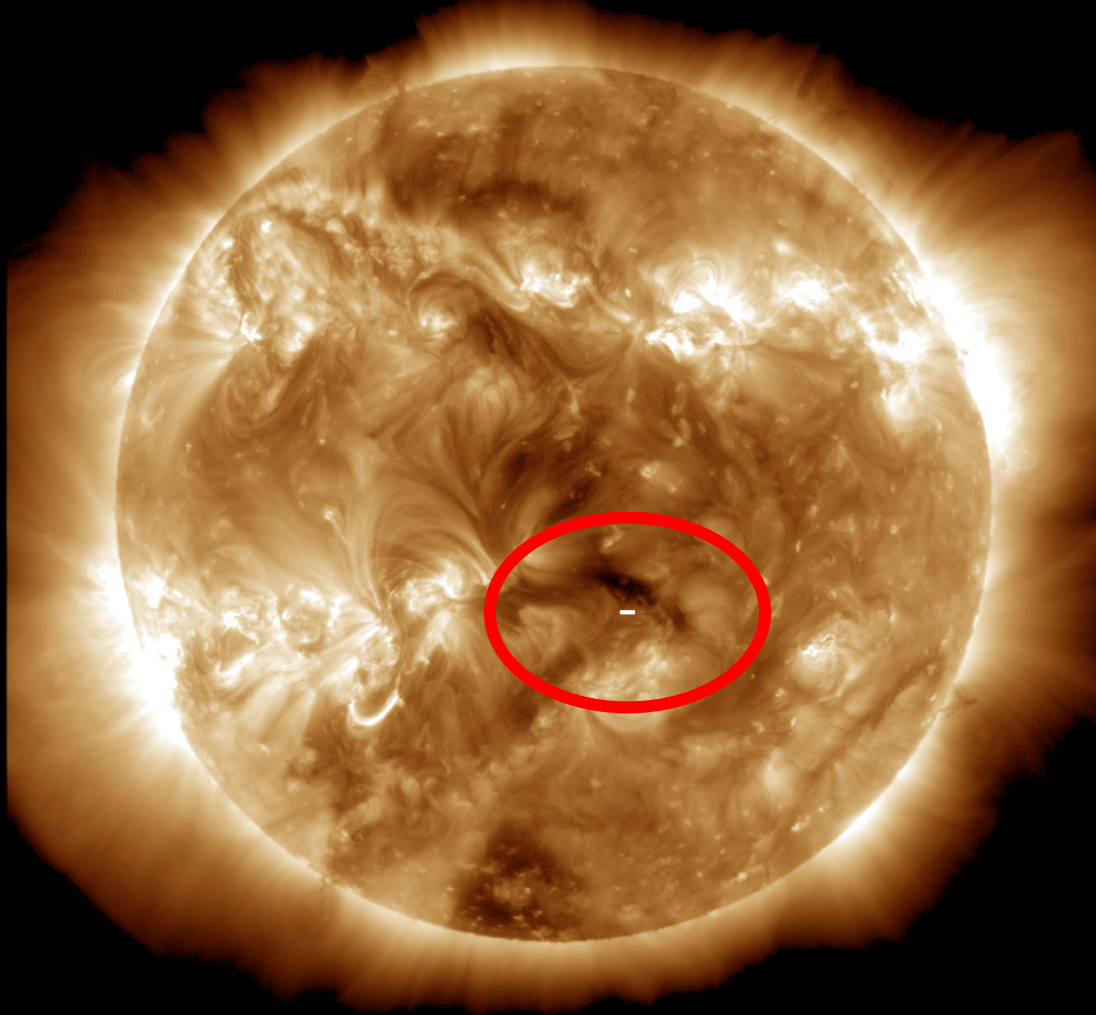


SDO/HMI Quick-look Continuum: 20230205\_114500

# Coronal holes

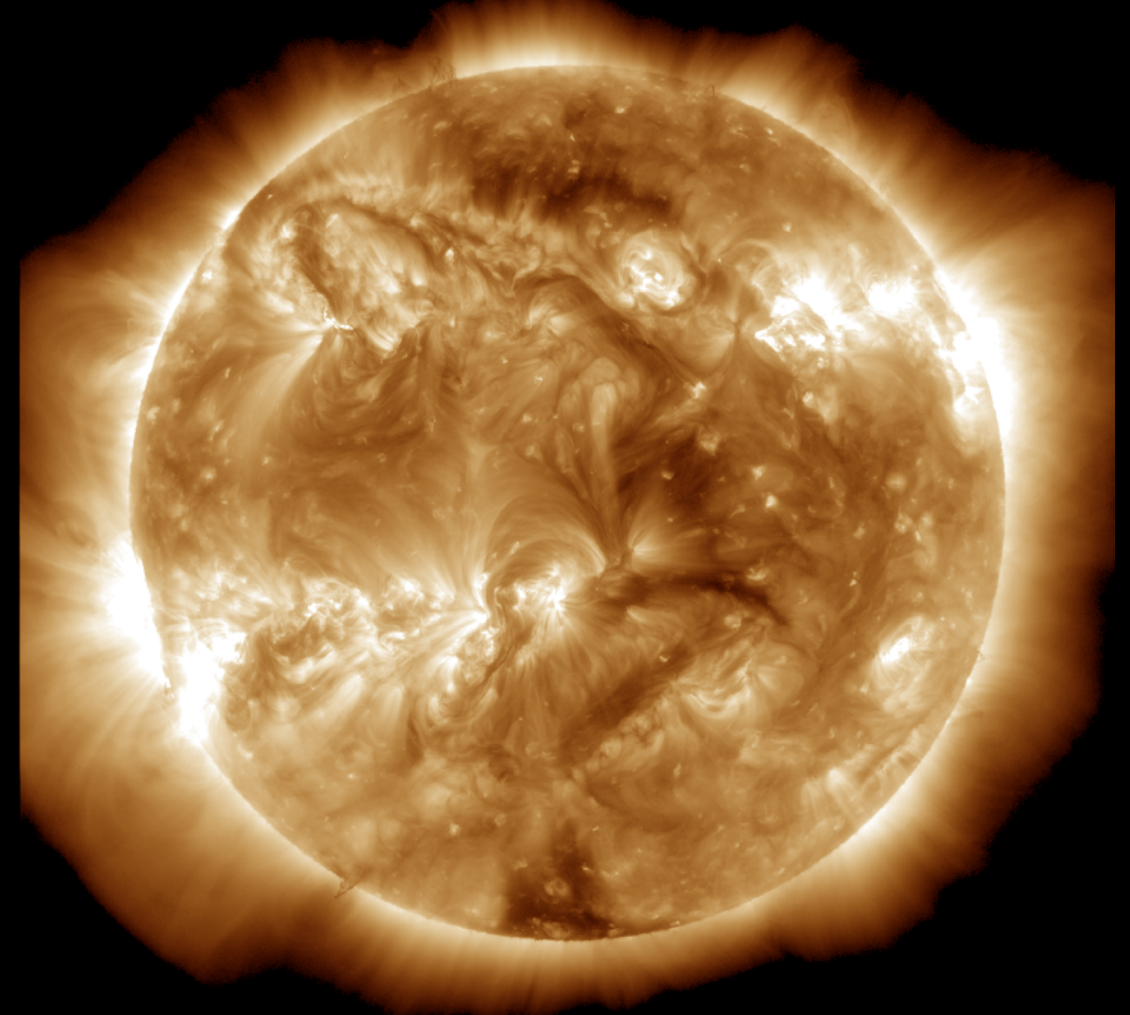
SDO/AIA 19.3 nm 2023-01-29

SDO/AIA AIA 193Å 2023-01-29T12:00:05.844



SDO/AIA 19.3 nm 2023-01-30

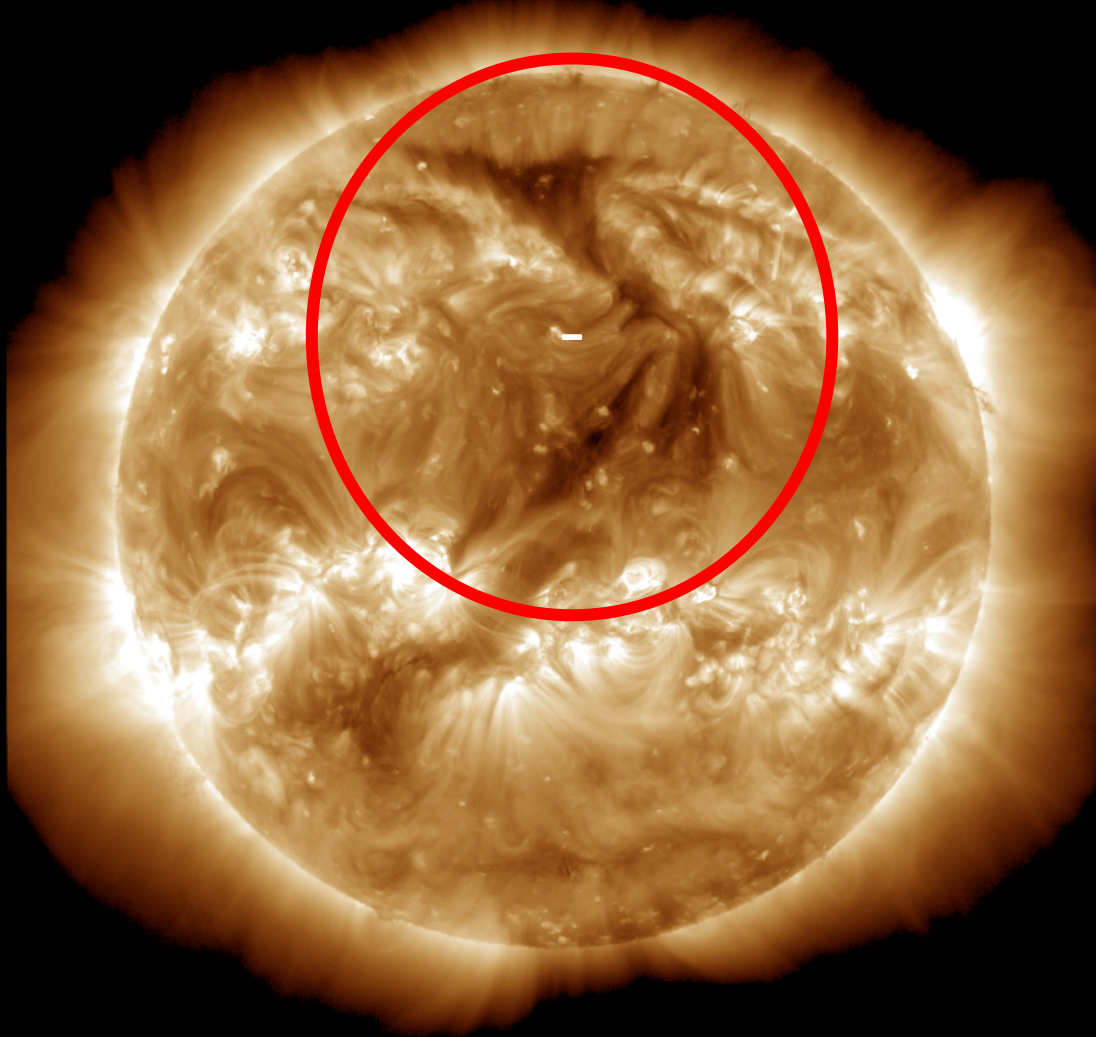
SDO/AIA AIA 193Å 2023-01-30T12:00:05.843



# Coronal holes

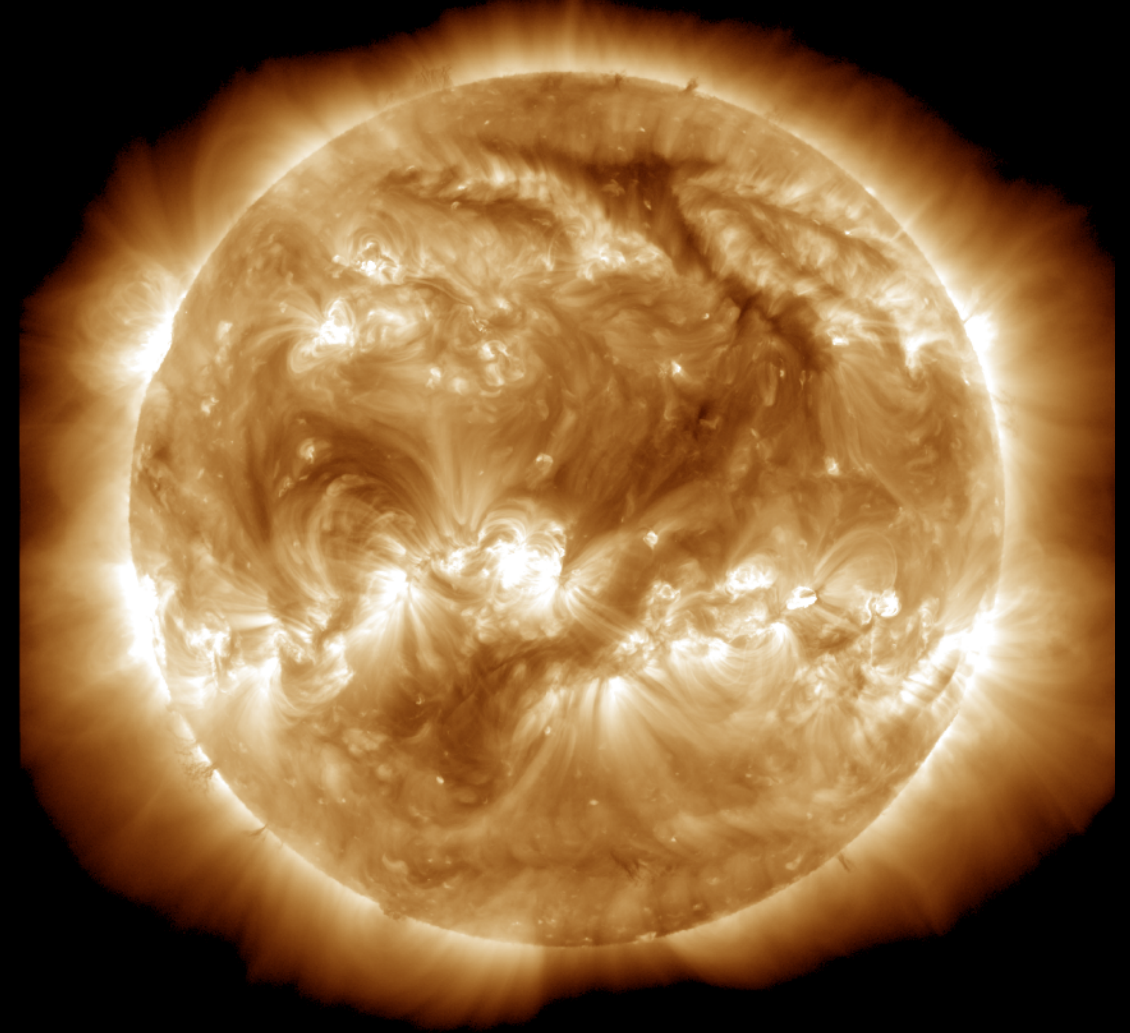
SDO/AIA 19.3 nm 2023-02-04

SDO/AIA AIA 193Å 2023-02-04T12:00:05.844

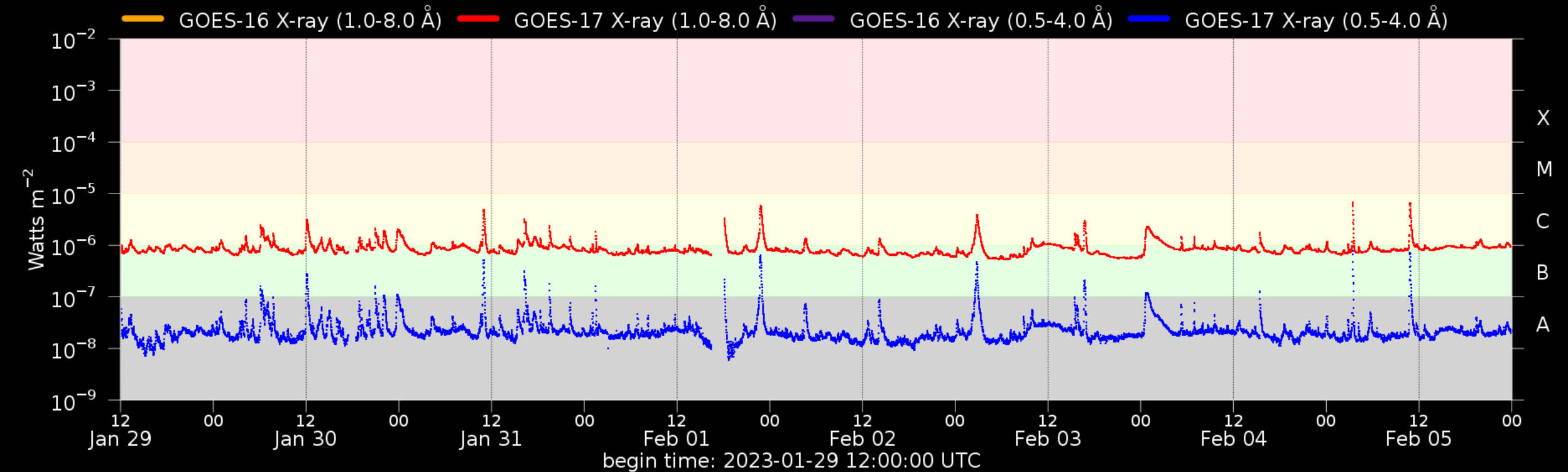


SDO/AIA 19.3 nm 2023-02-05

SDO/AIA AIA 193Å 2023-02-05T12:00:05.843



# Flaring activity

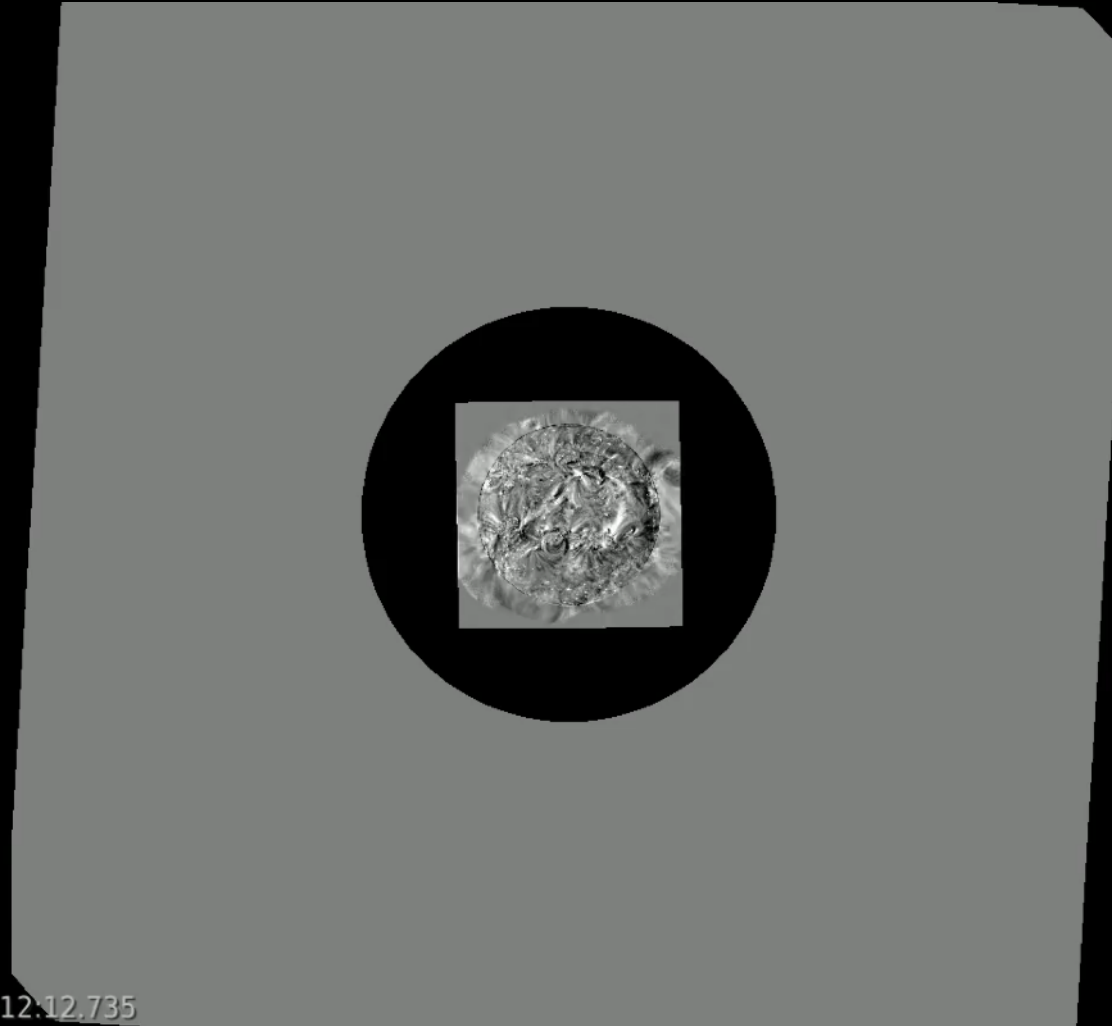


Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-01-29	2023-01-30	2023-01-31	2023-02-01	2023-02-02	2023-02-03	2023-02-04	2023-02-05
Probability (%)	40 01 01	70 05 01	85 20 01	90 10 01	80 05 01	85 03 01	90 10 01	90 20 03
Observed (#)	03 00 00	08 00 00	04 00 00	03 00 00	04 00 00	06 00 00	04 00 00	00 00 00

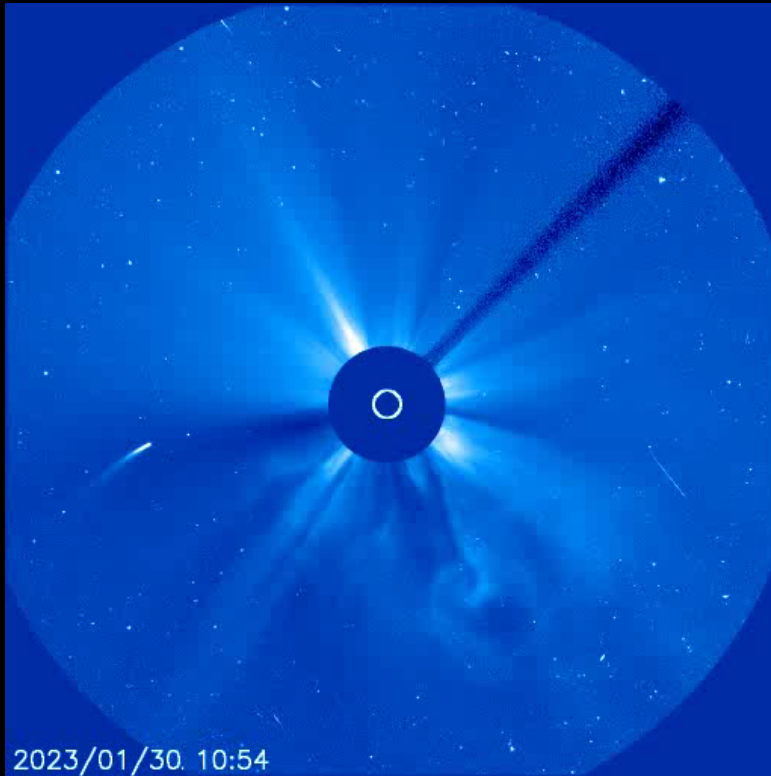


# Coronal Mass Ejections

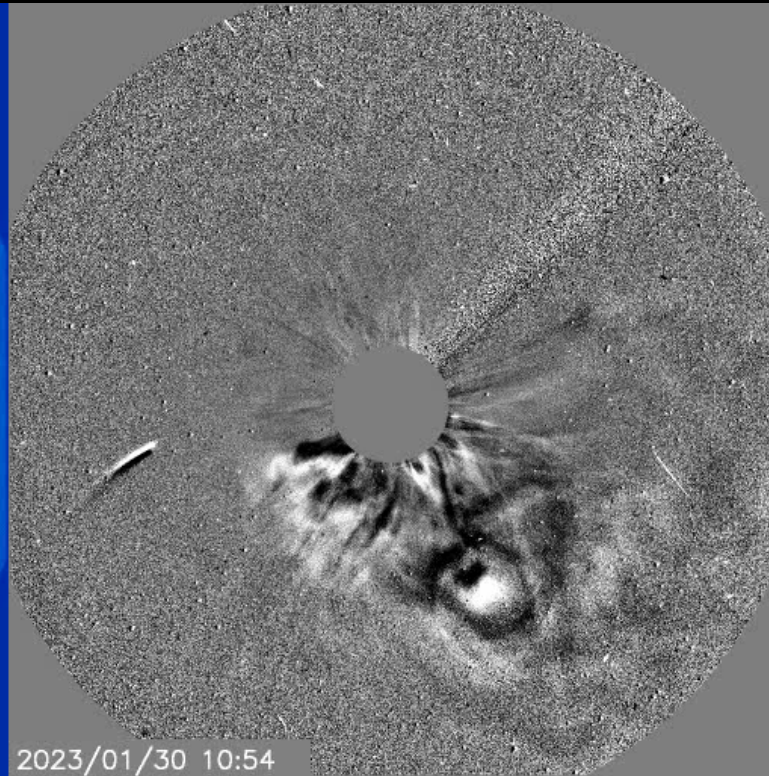


2023-02-02T23:12:12.735

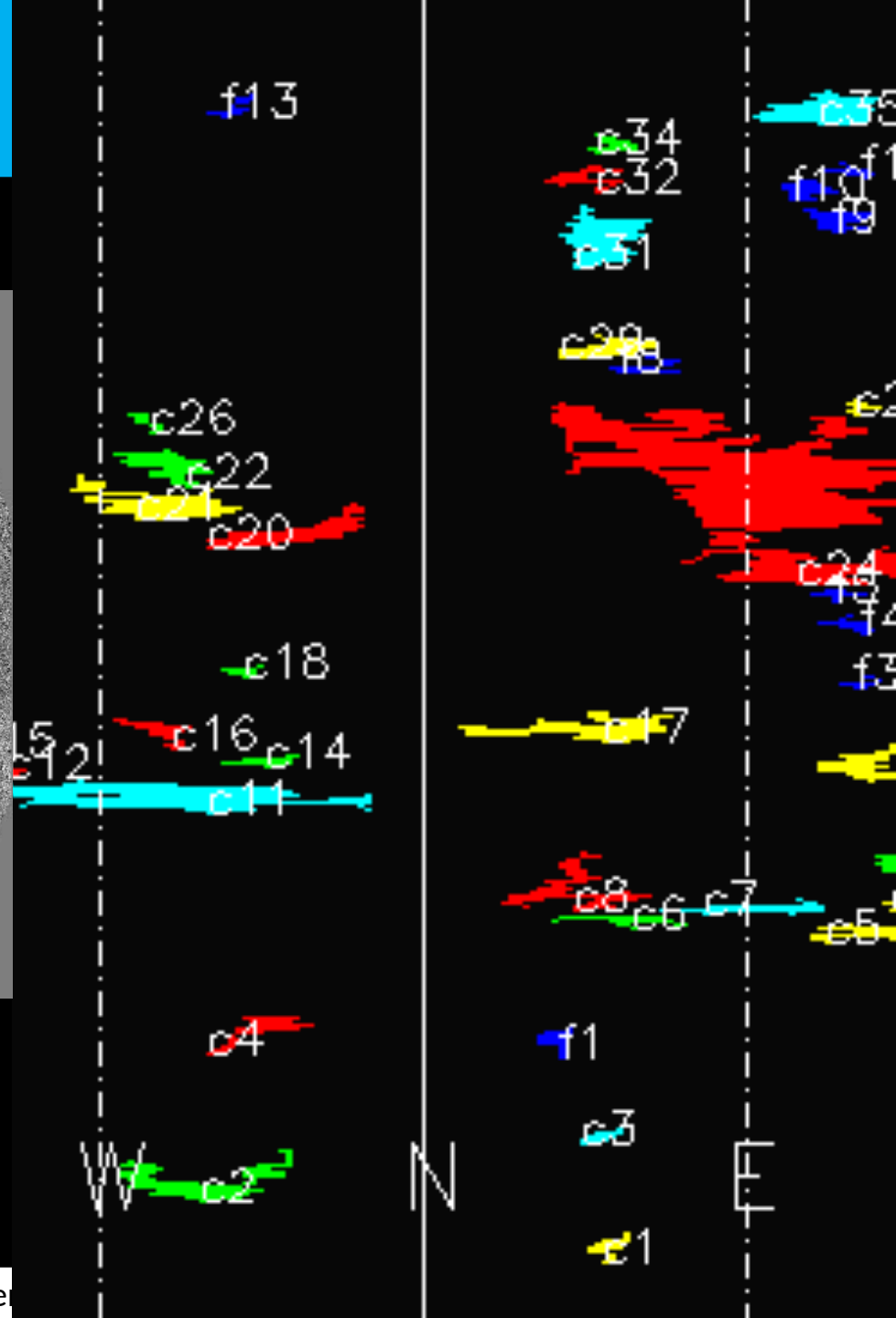
# Coronal Mass Ejections



2023/01/30. 10:54



2023/01/30 10:54



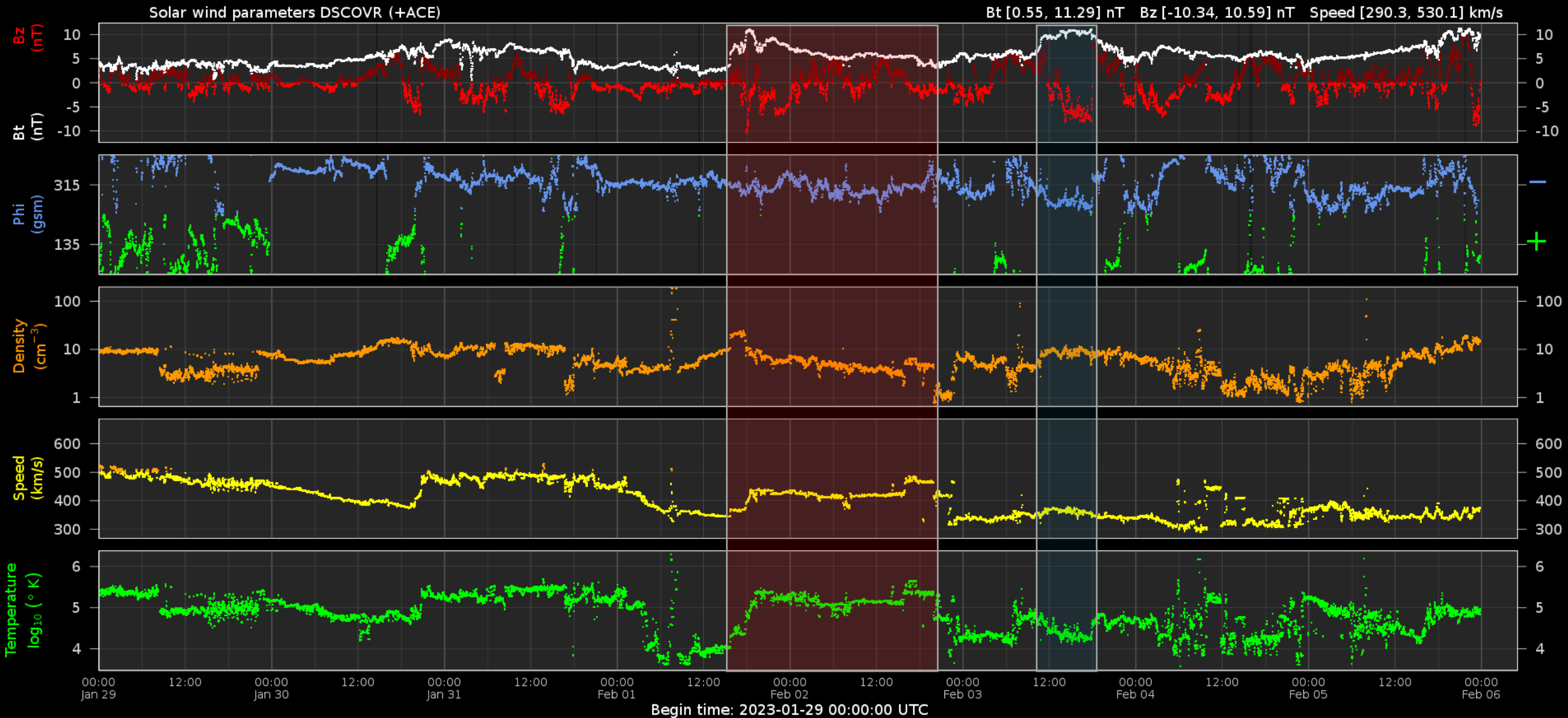
# Solar Wind and Geomagnetic Activity



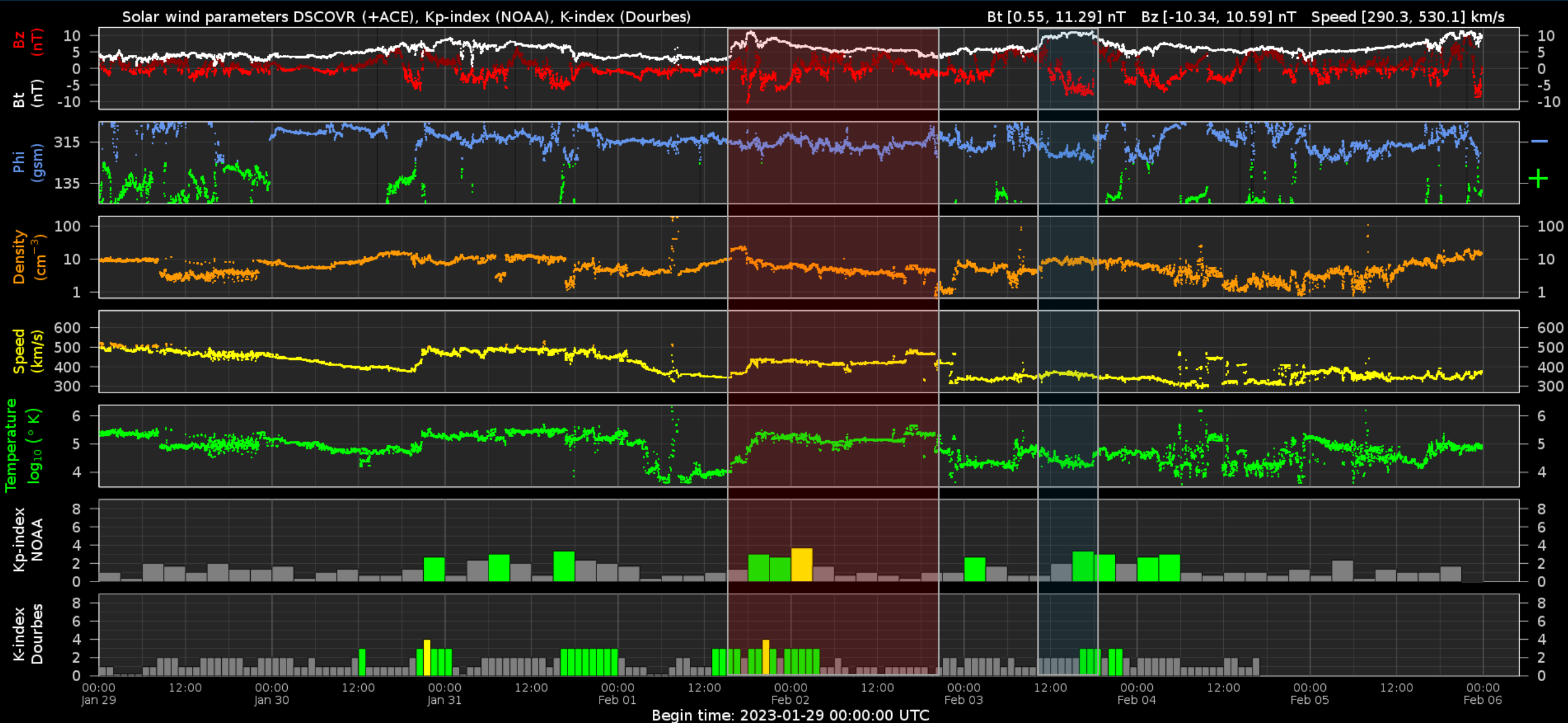
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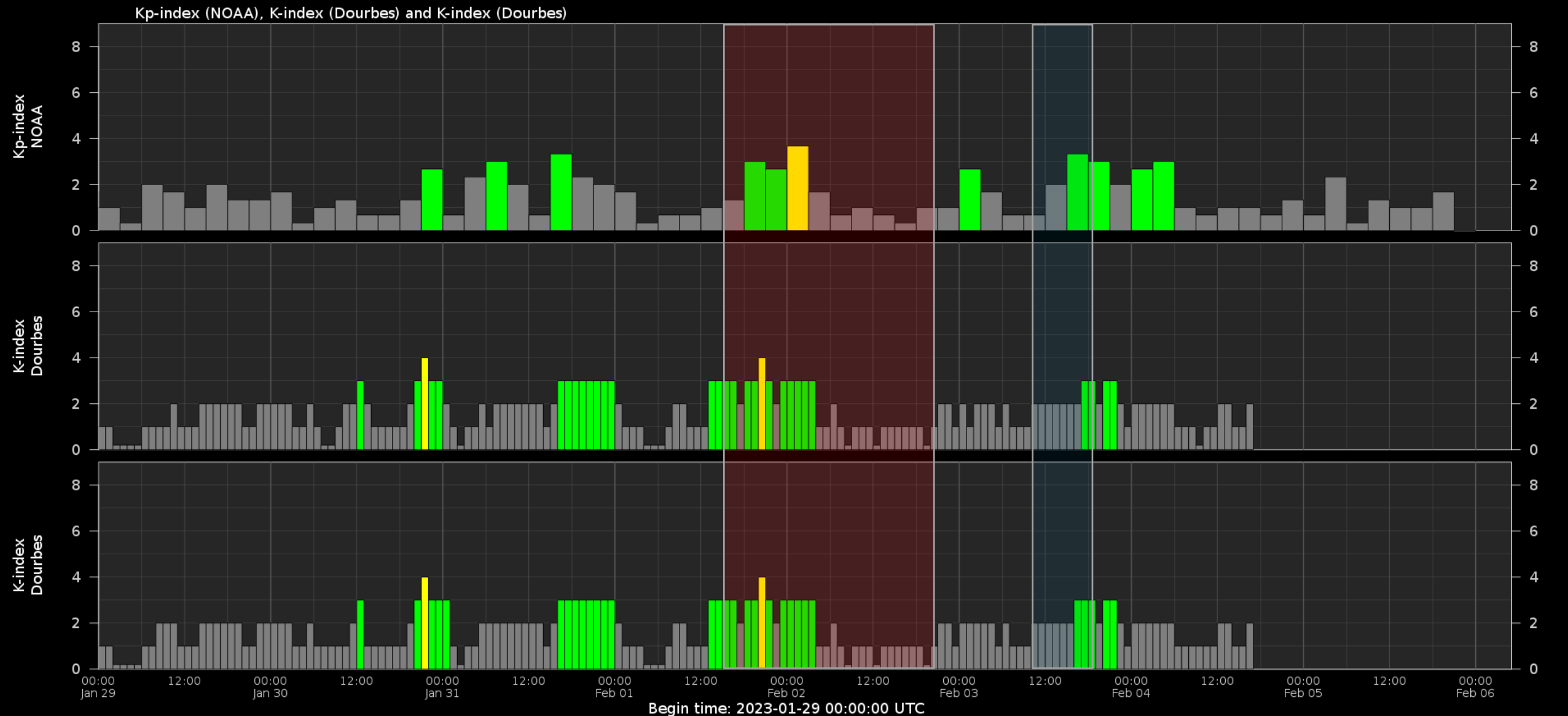
# Solar wind parameters



# Solar wind parameters & K-indices



# Geomagnetic activity (K-indexes)



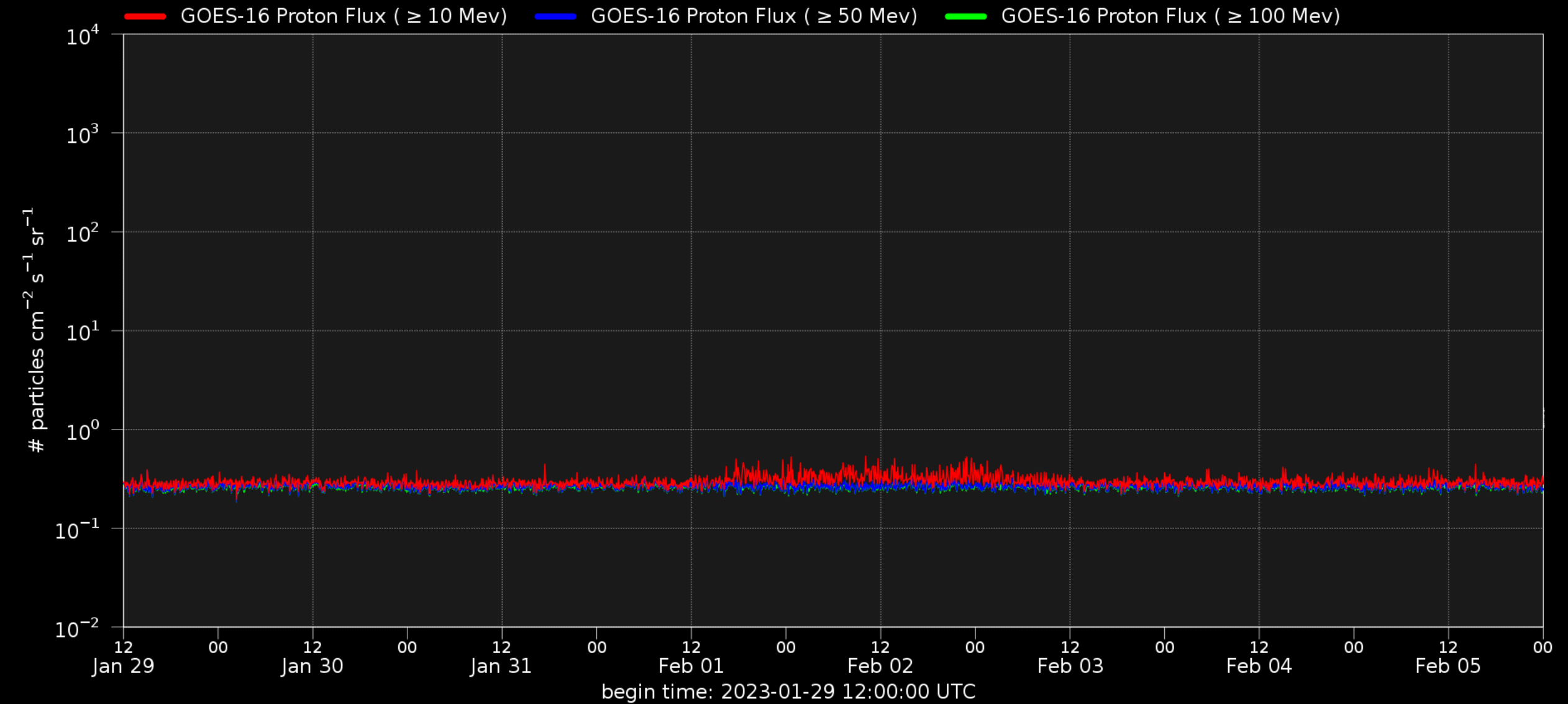
# Energetic Particles



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# Solar proton flux

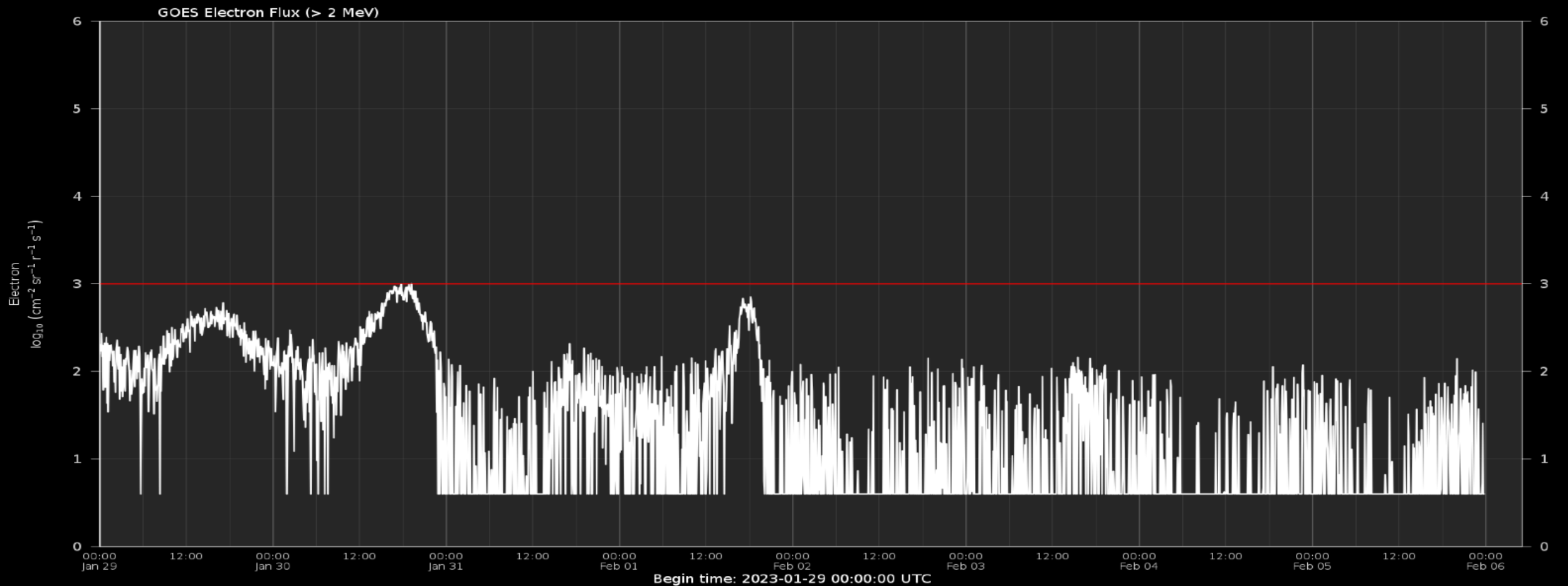




# Electron flux at GEO

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



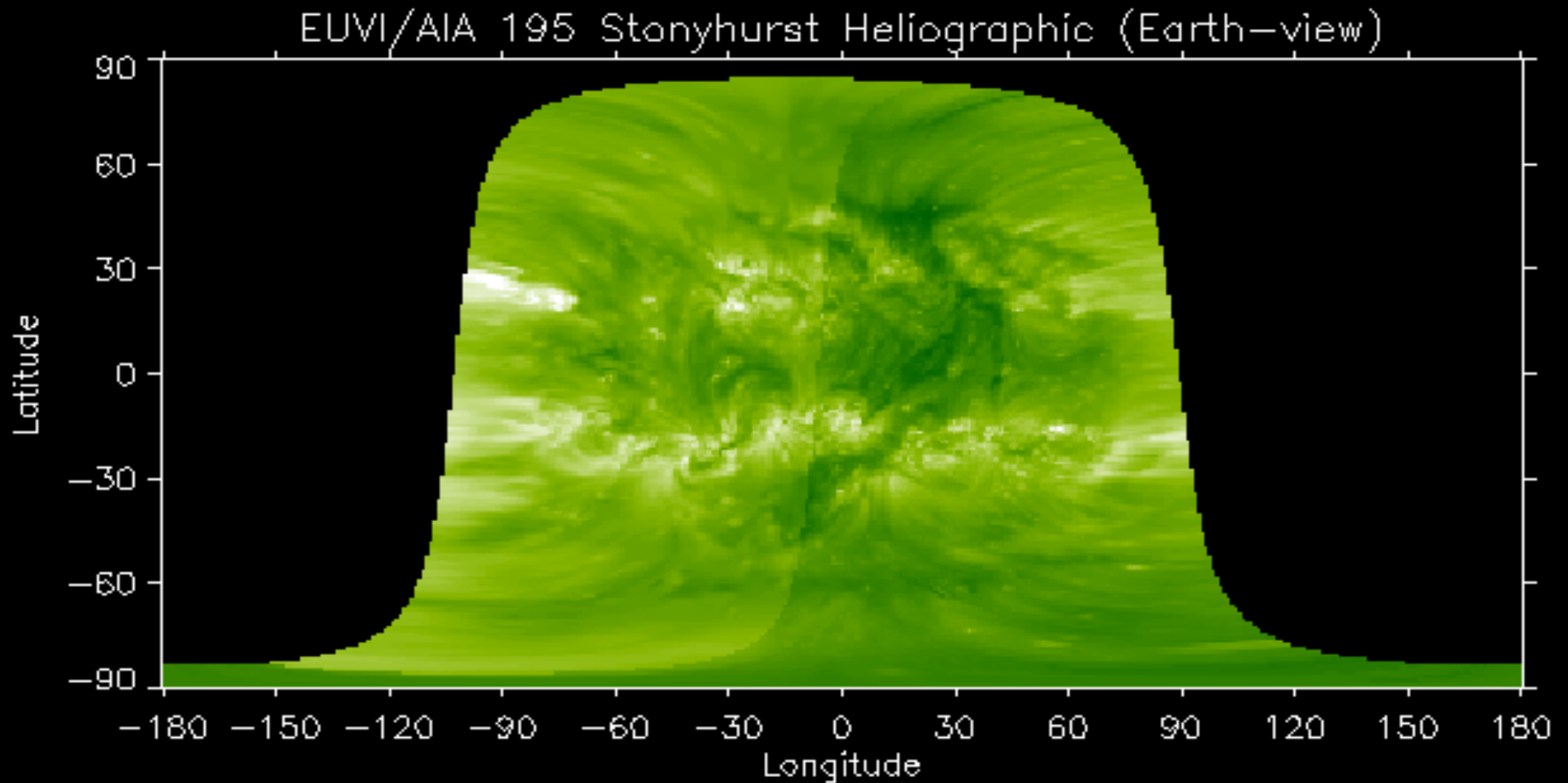
# Outlook



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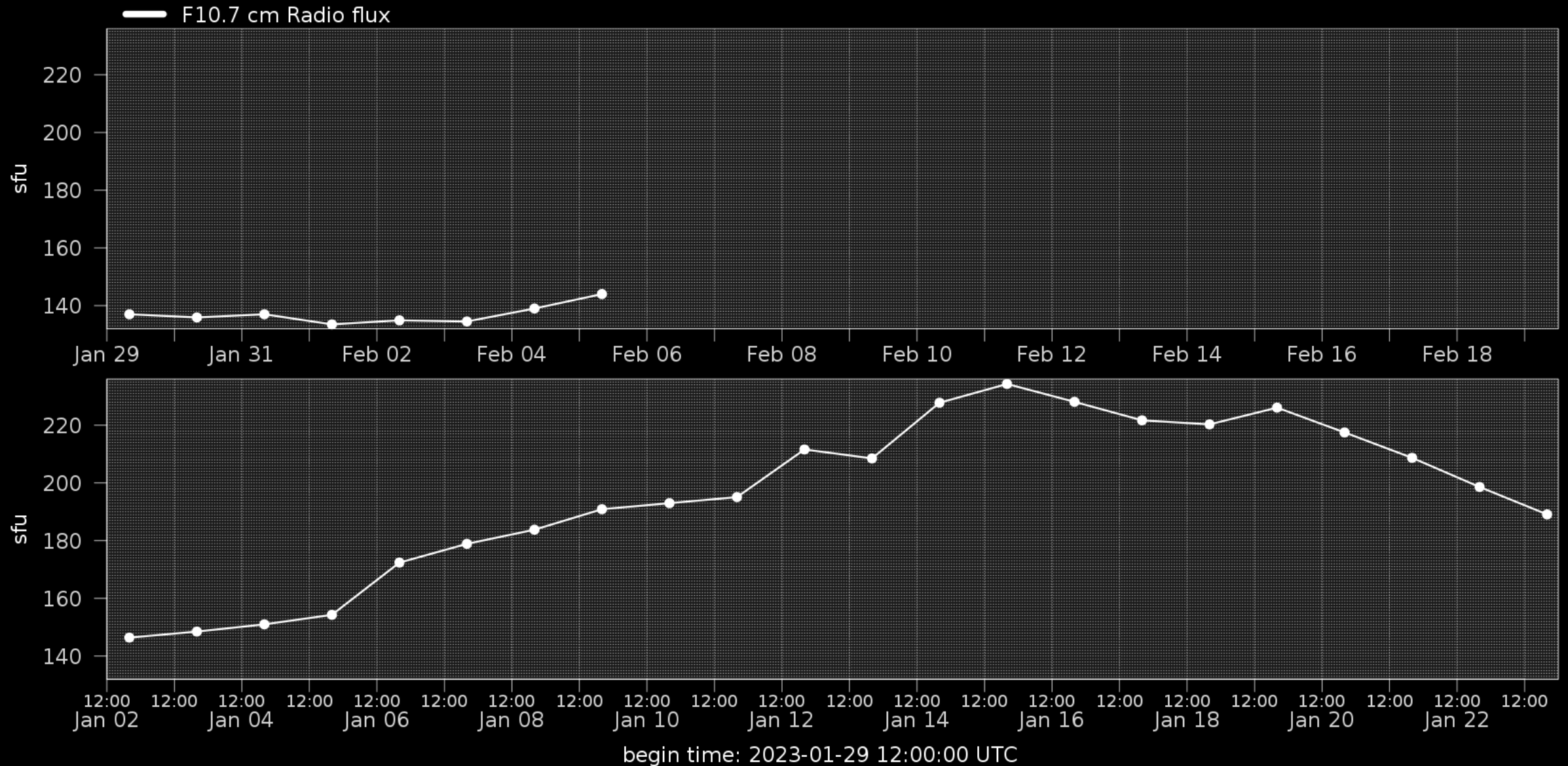
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# Outlook: Solar activity

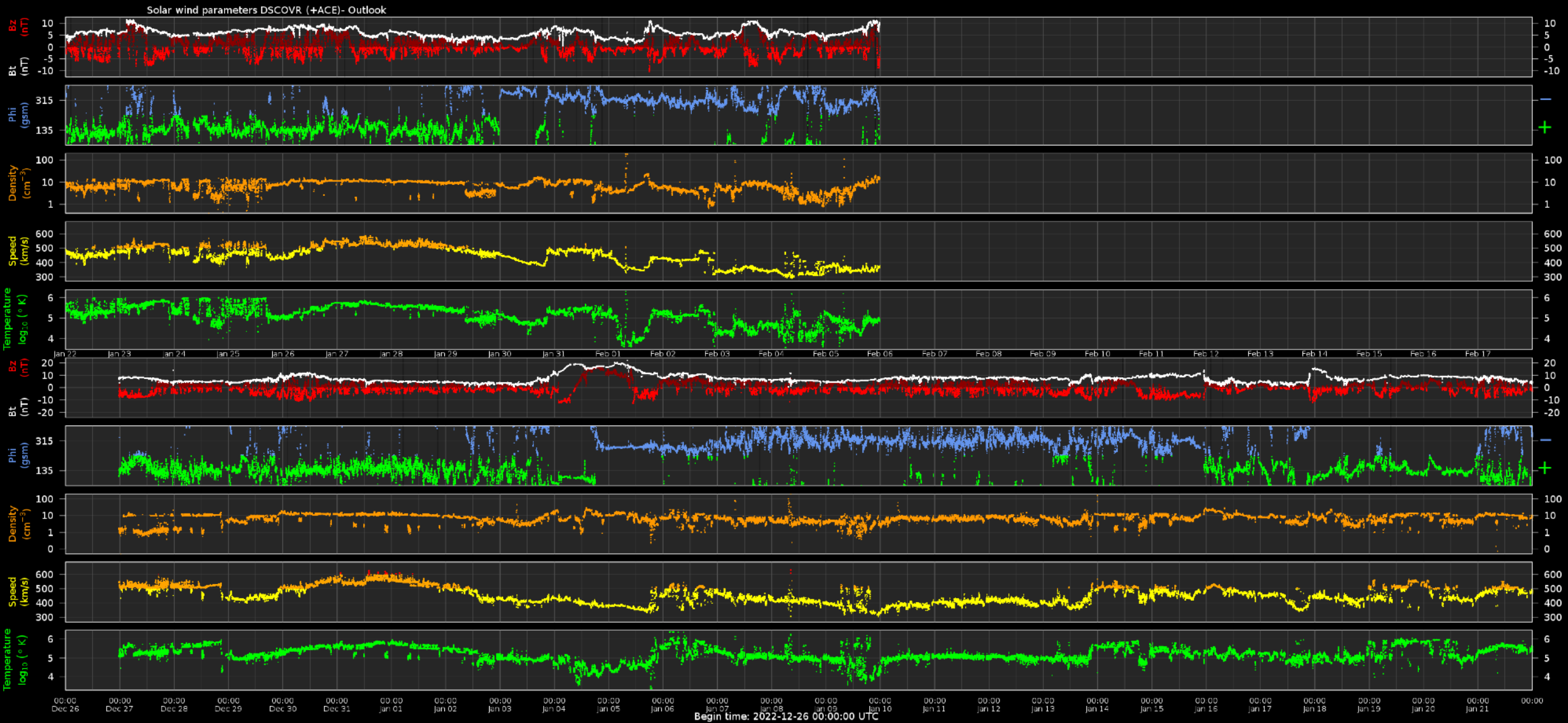


Observation date: 2023/02/05 23:05:00

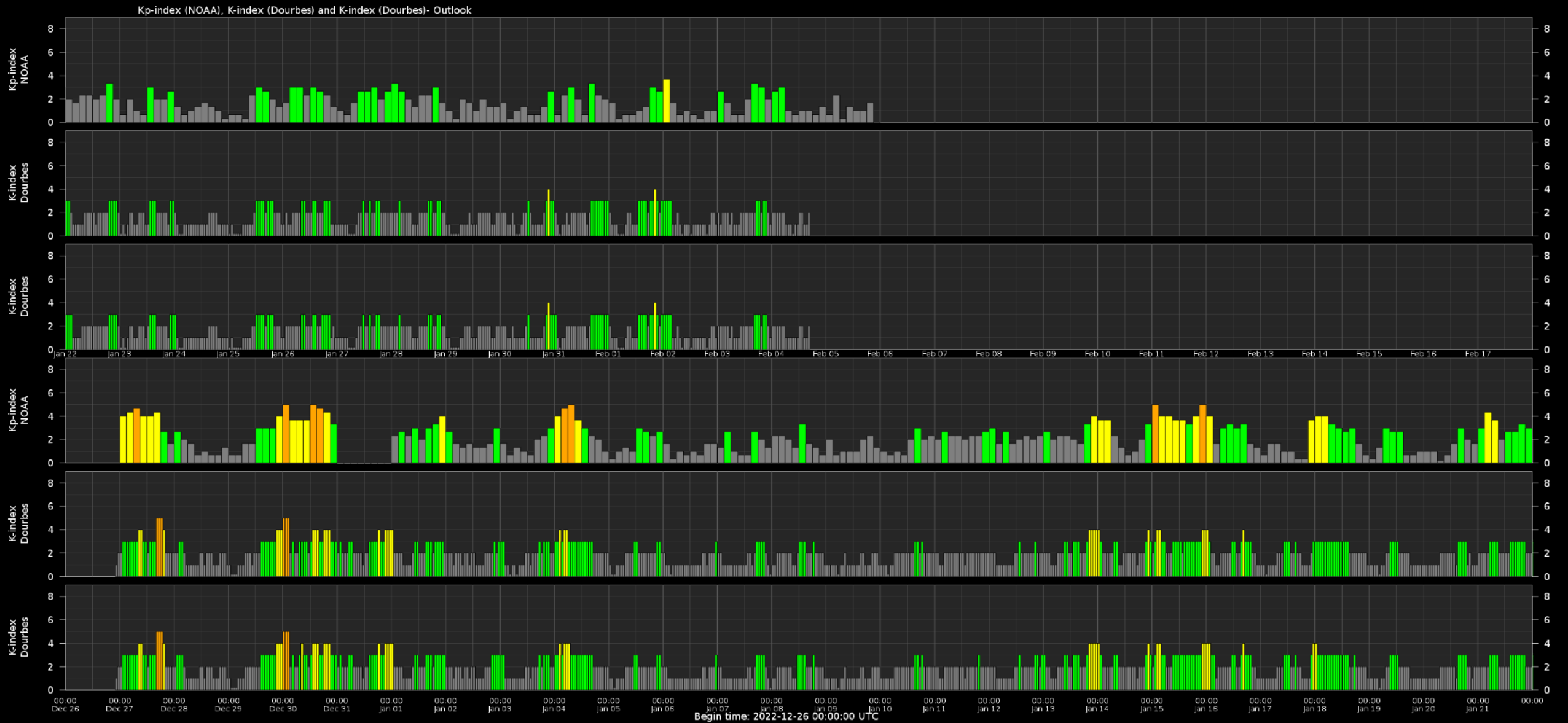
# Outlook: Solar F10.7cm radio flux



# Outlook: Solar wind parameters



# Outlook: Geomagnetic activity



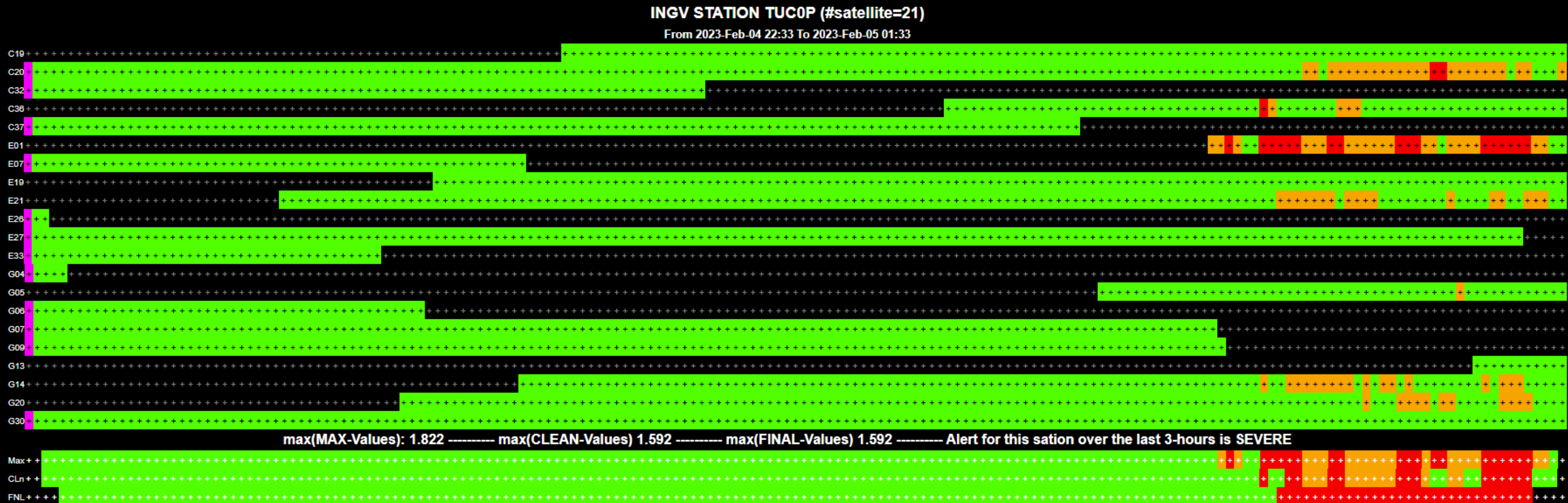
# Pegasus



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# Pegasus related events: regular nightly scintillations





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