

SIDC Space Weather Briefing

22 January 2023-29 January 2023

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Royal Observatory
of Belgium

www.sidc.be

Summary Report

Solar activity from 2023-01-22 12:00 to 2023-01-29 23:59

Active regions	10 regions on disc at the start of the week with several beta-gamma-delta
Flares	# C-class flare: 30 # M-class flare: 6 # X-class flare: 0
Coronal Holes	2 CH+ early in the week, 1 CH- late in the week
CMEs	Only limb and backside events

Proton flux	background
Electron flux	Normal levels

Solar wind and geomagnetic conditions

ICMEs	Possible arrival of Jan 20 CME early in the week
Solar wind conditions	B : 0.75 - 11.51 nT //Bz: -8.15 nT to 11.47 nT //Speed: 367.7 - 589.6km/s
K-indices	max K-index (KBel): 3 max Kp-index (NOAA): 3

All Quiet Alert: Not quiet

Solar Activity

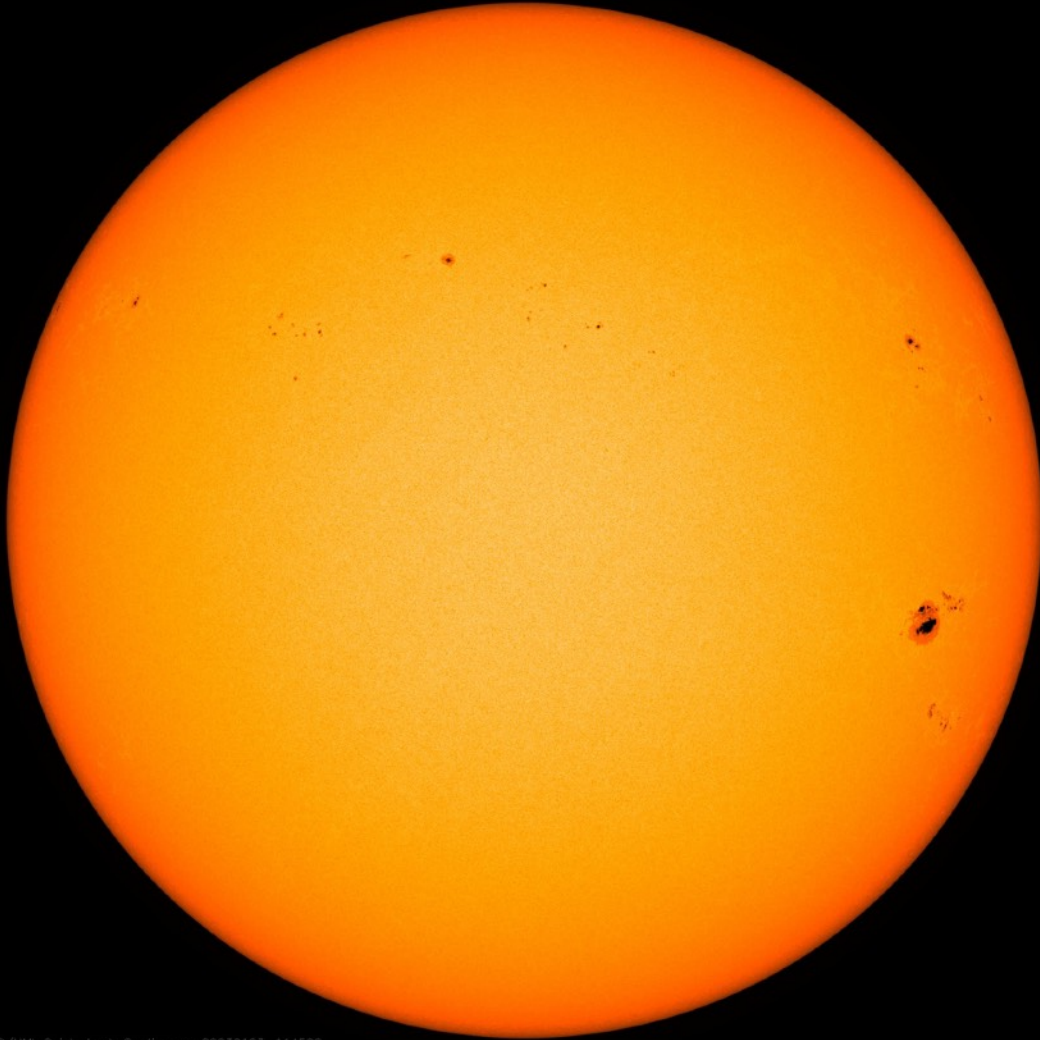


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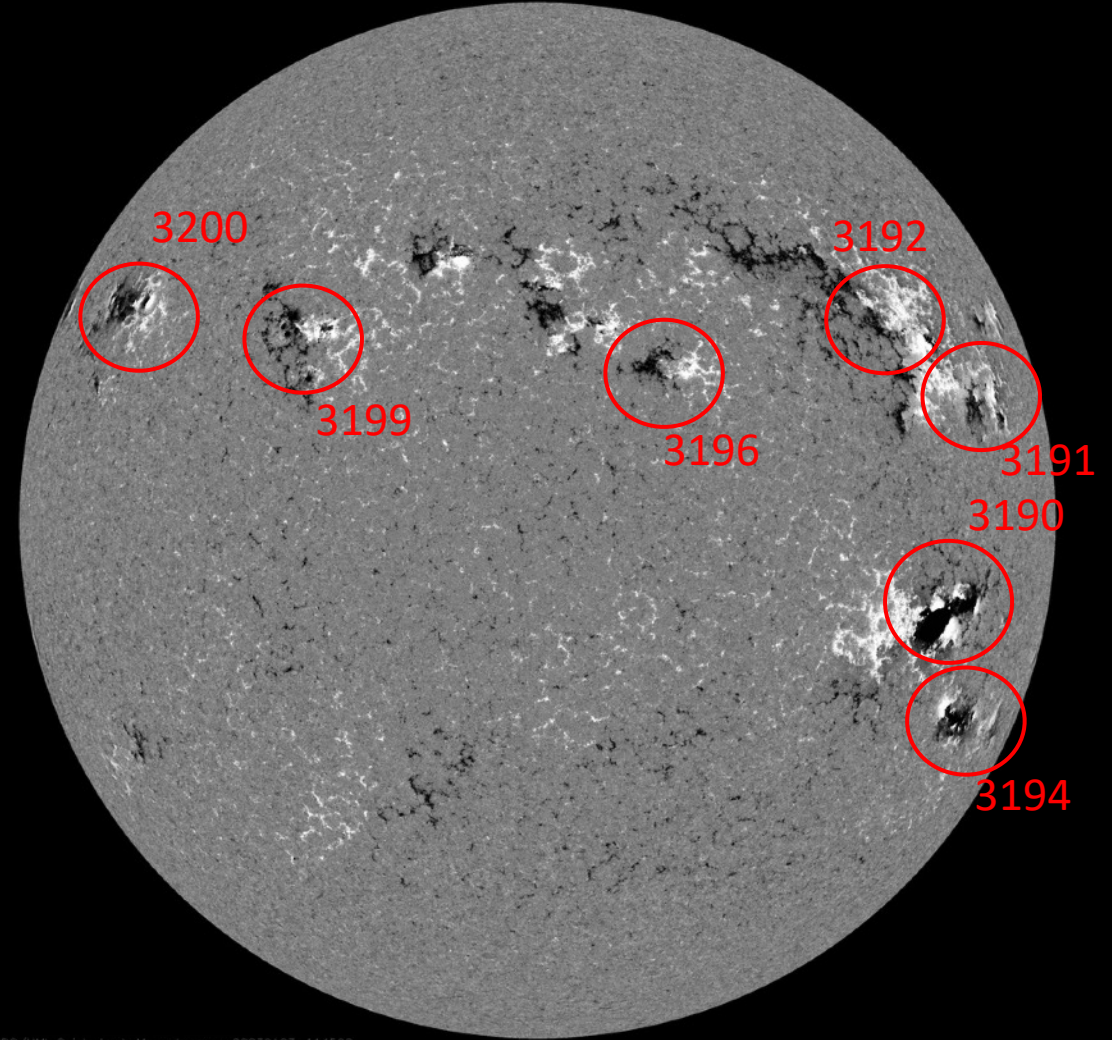
Solar active regions

SDO/HMI White Light 2023-01-23



SDO/HMI Quick-look Continuum: 20230123_114500

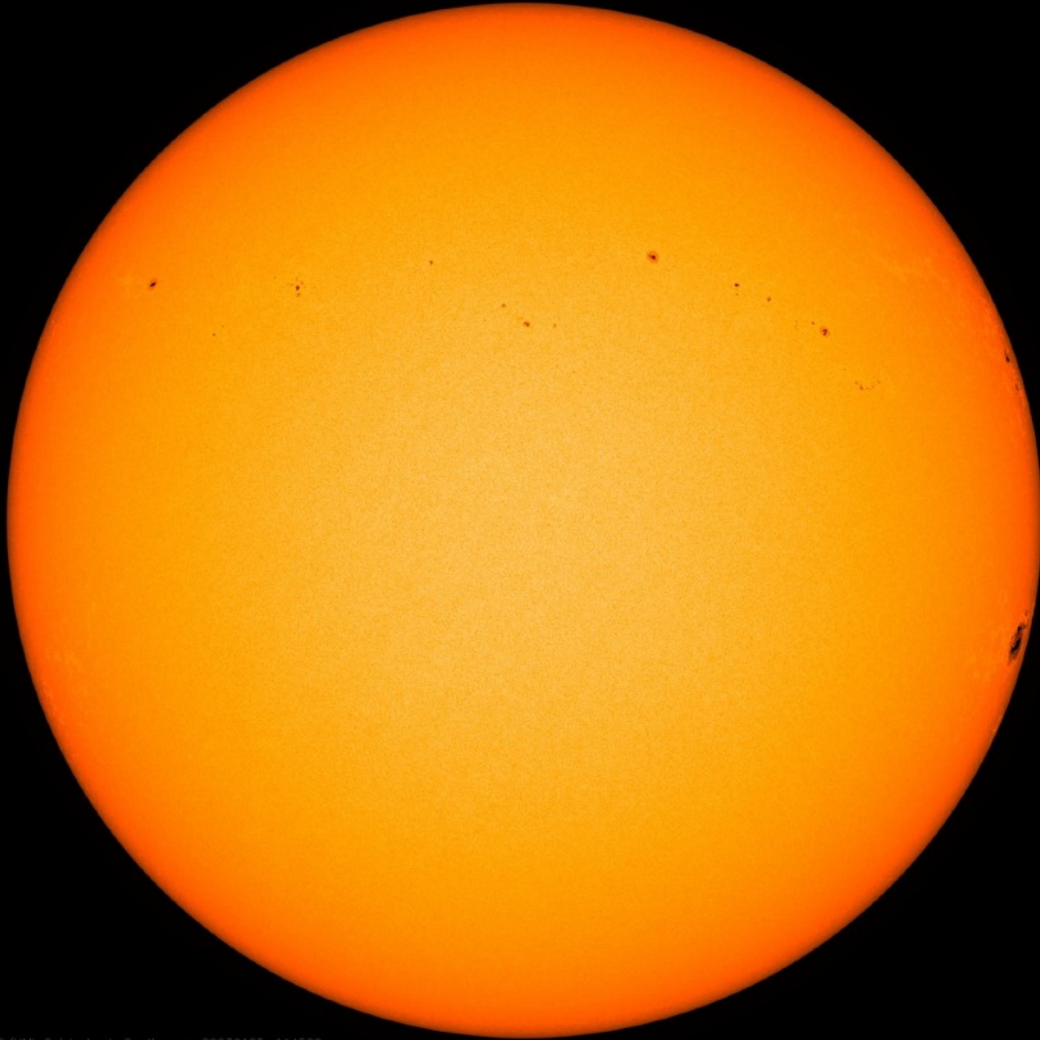
SDO/HMI Magnetogram 2023-01-23



SDO/HMI Quick-look Magnetogram: 20230123_114500

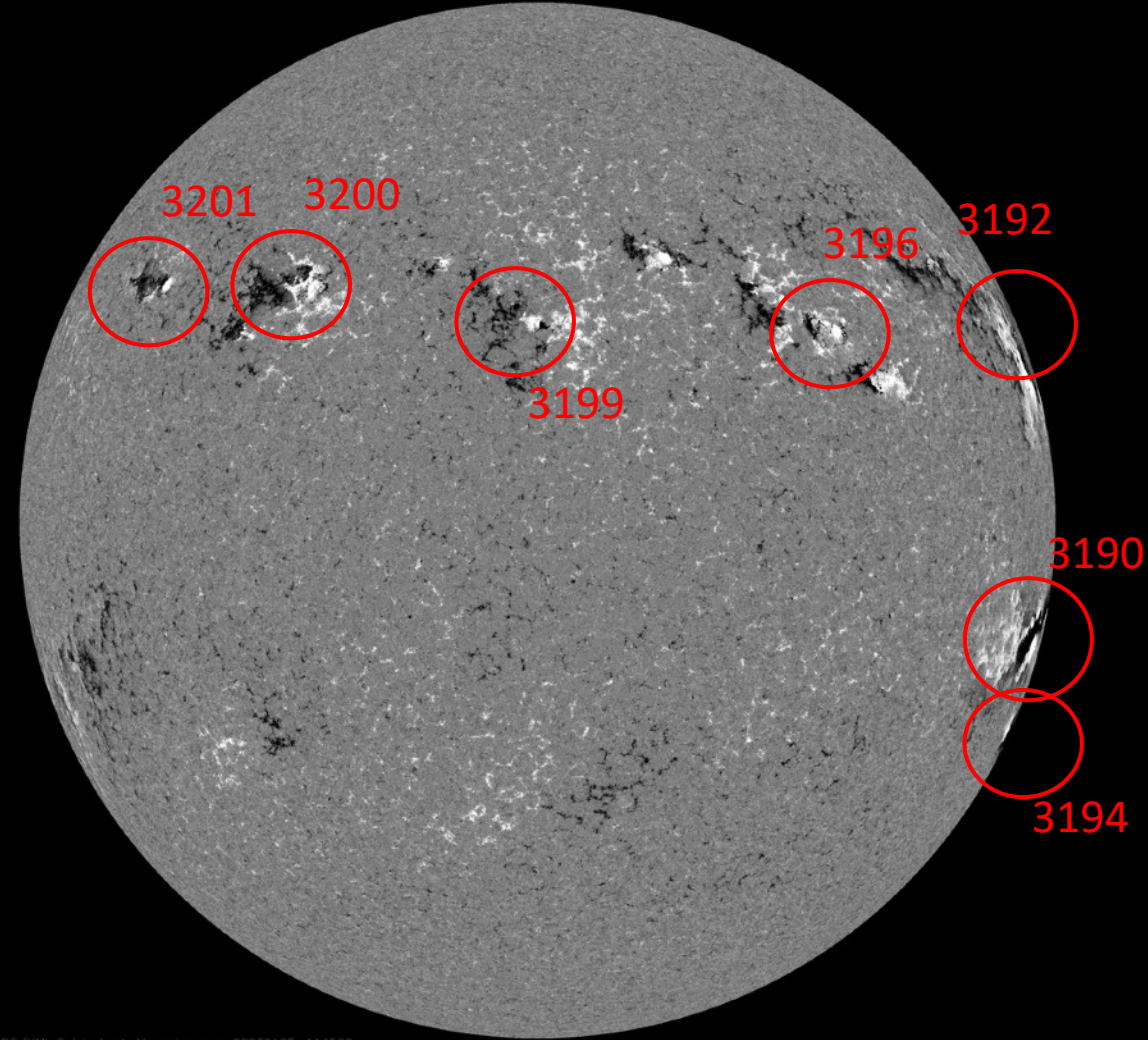
Solar active regions

SDO/HMI White Light 2023-01-25



SDO/HMI Quick-look Continuum: 20230125_114500

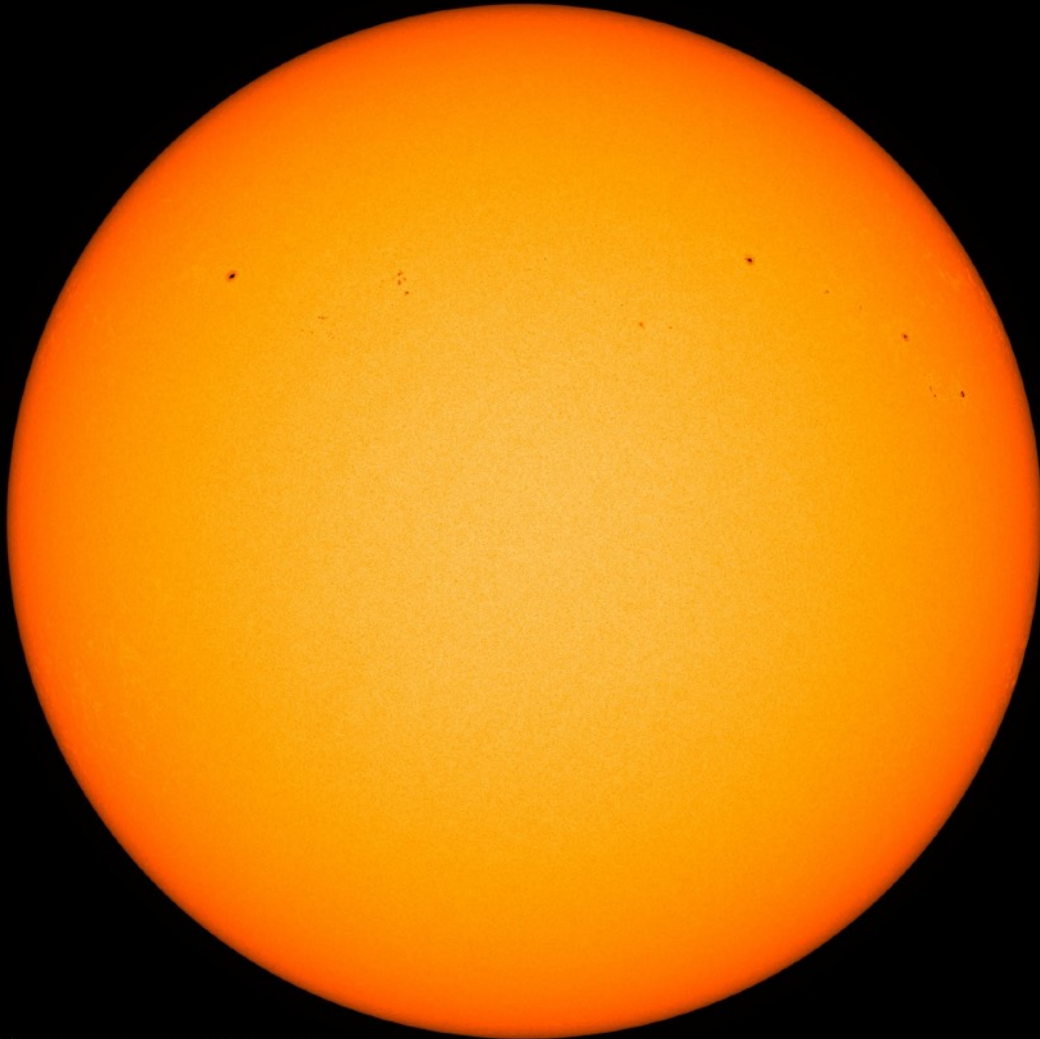
SDO/HMI Magnetogram 2023-01-25



SDO/HMI Quick-look Magnetogram: 20230125_114500

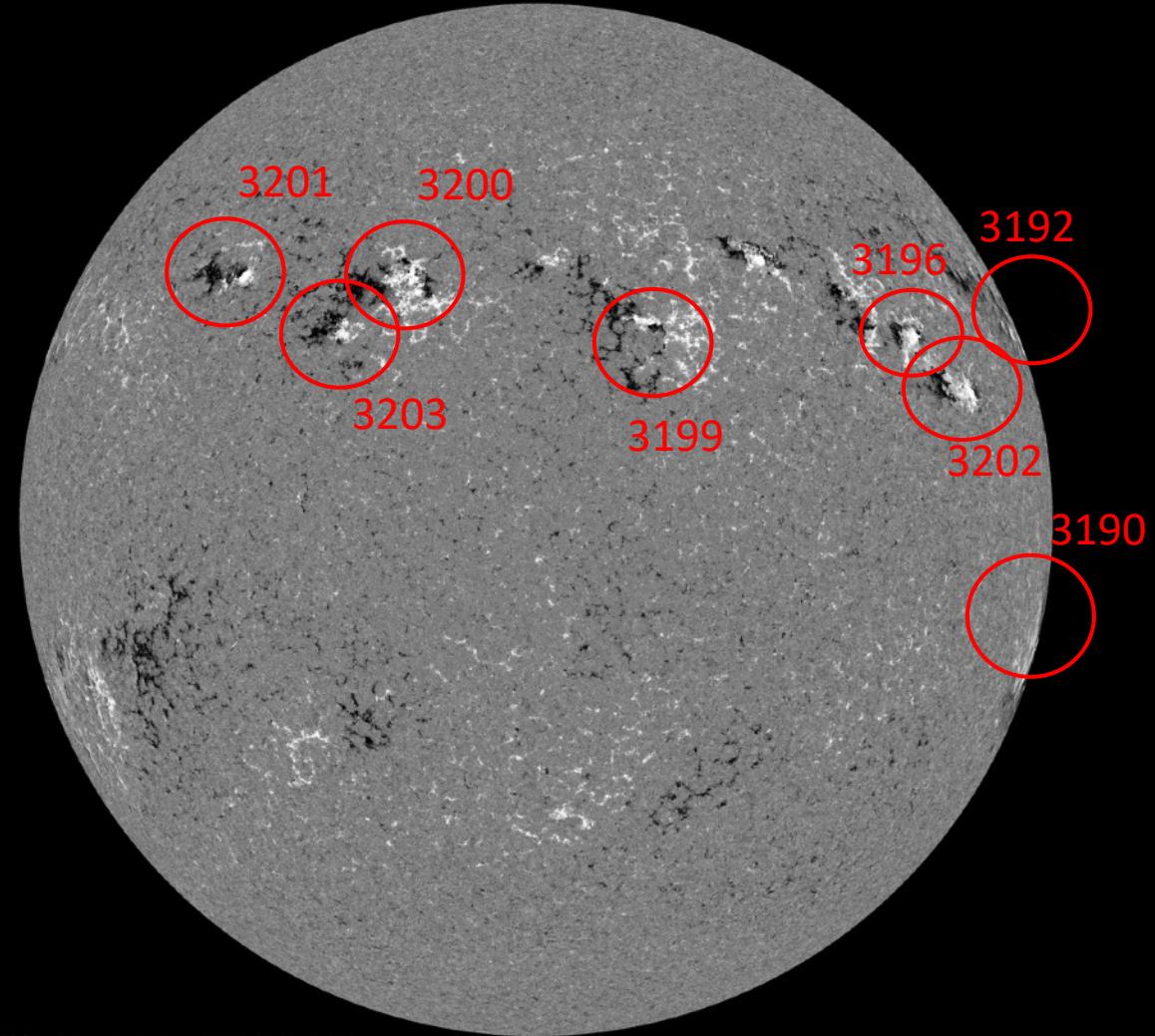
Solar active regions

SDO/HMI White Light 2023-01-26



SDO/HMI Quick-Look Continuum: 20230126_114500

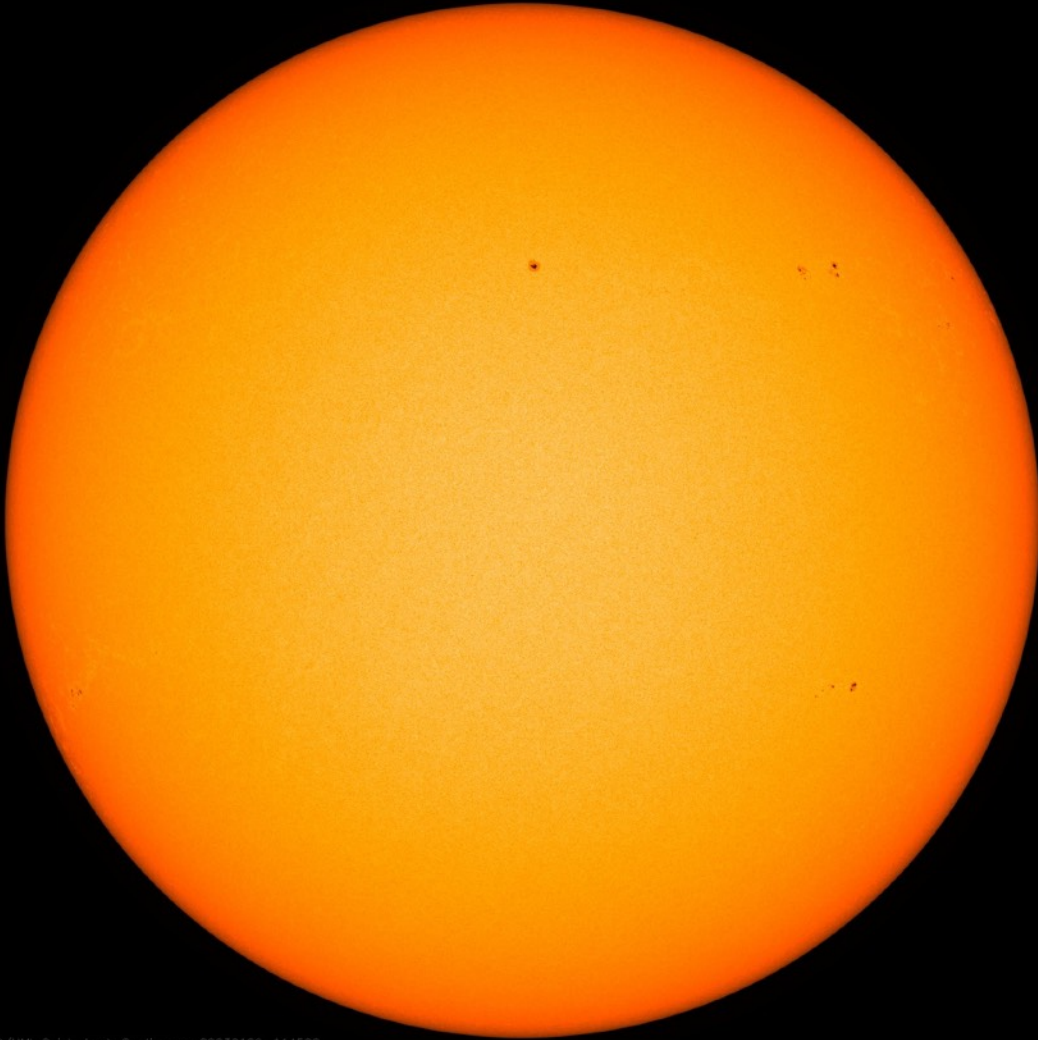
SDO/HMI Magnetogram 2023-01-26



SDO/HMI Quick-Look Magnetogram: 20230126_114500

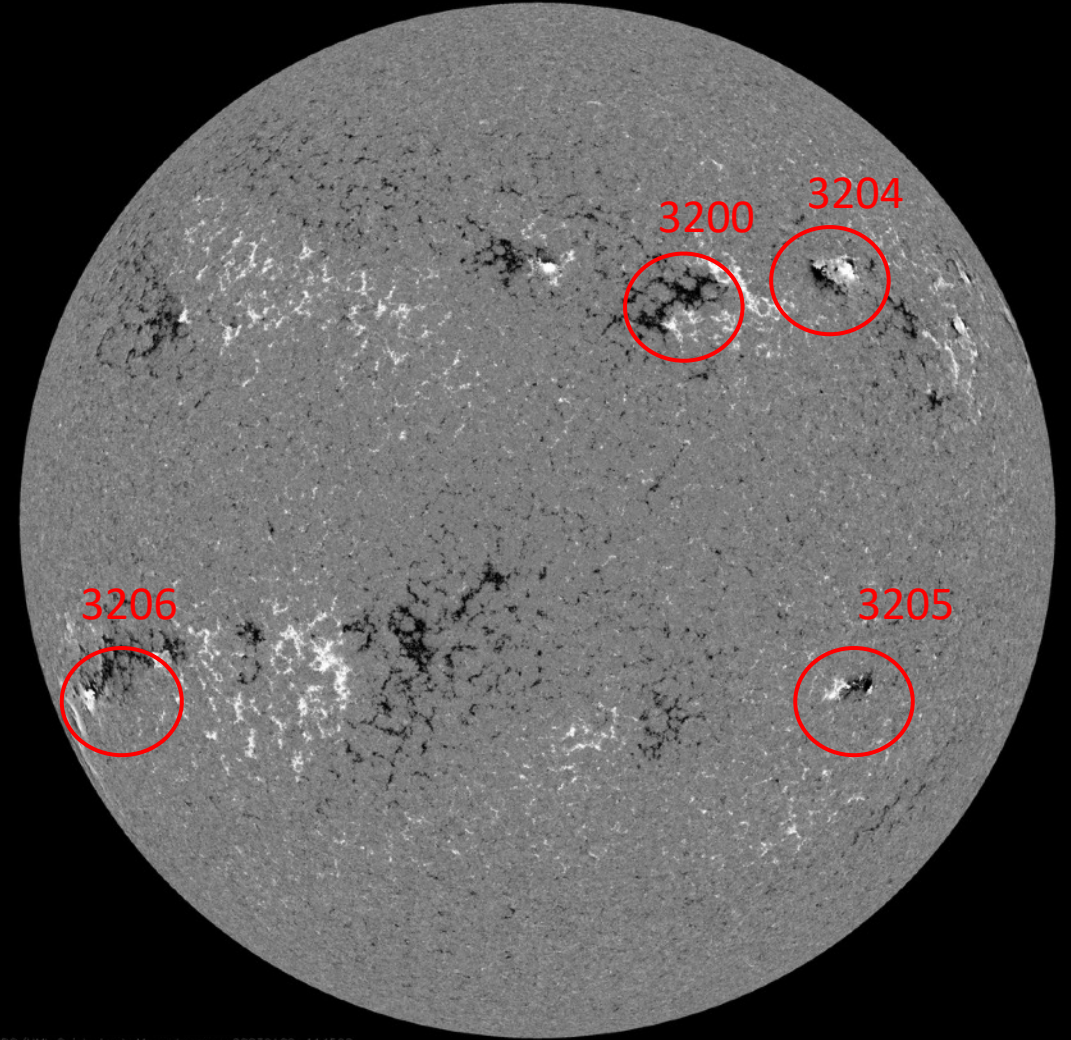
Solar active regions

SDO/HMI White Light 2023-01-29



SDO/HMI Quick-Look Continuum: 20230129_114500

SDO/HMI Magnetogram 2023-01-29

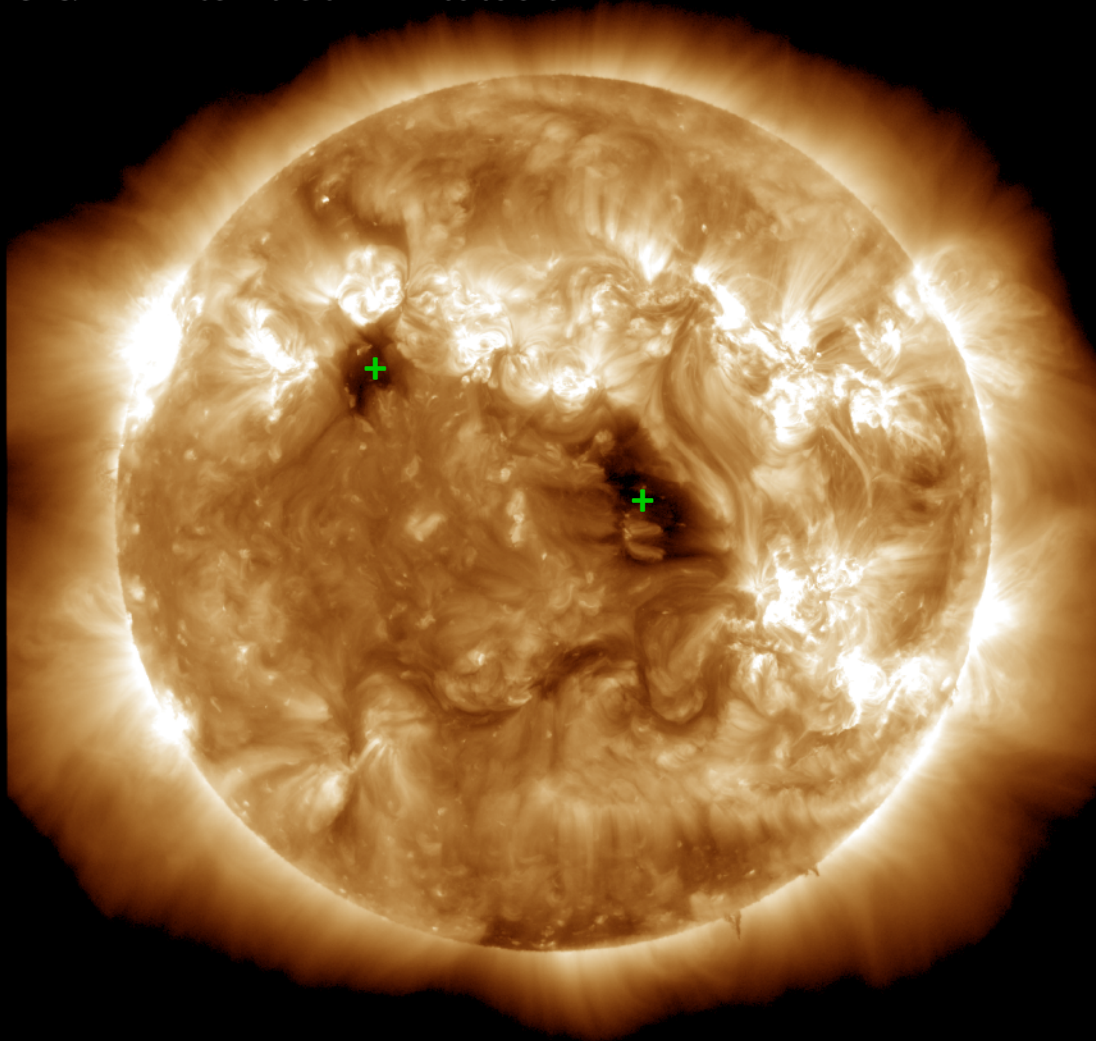


SDO/HMI Quick-Look Magnetogram: 20230129_114500

Coronal holes

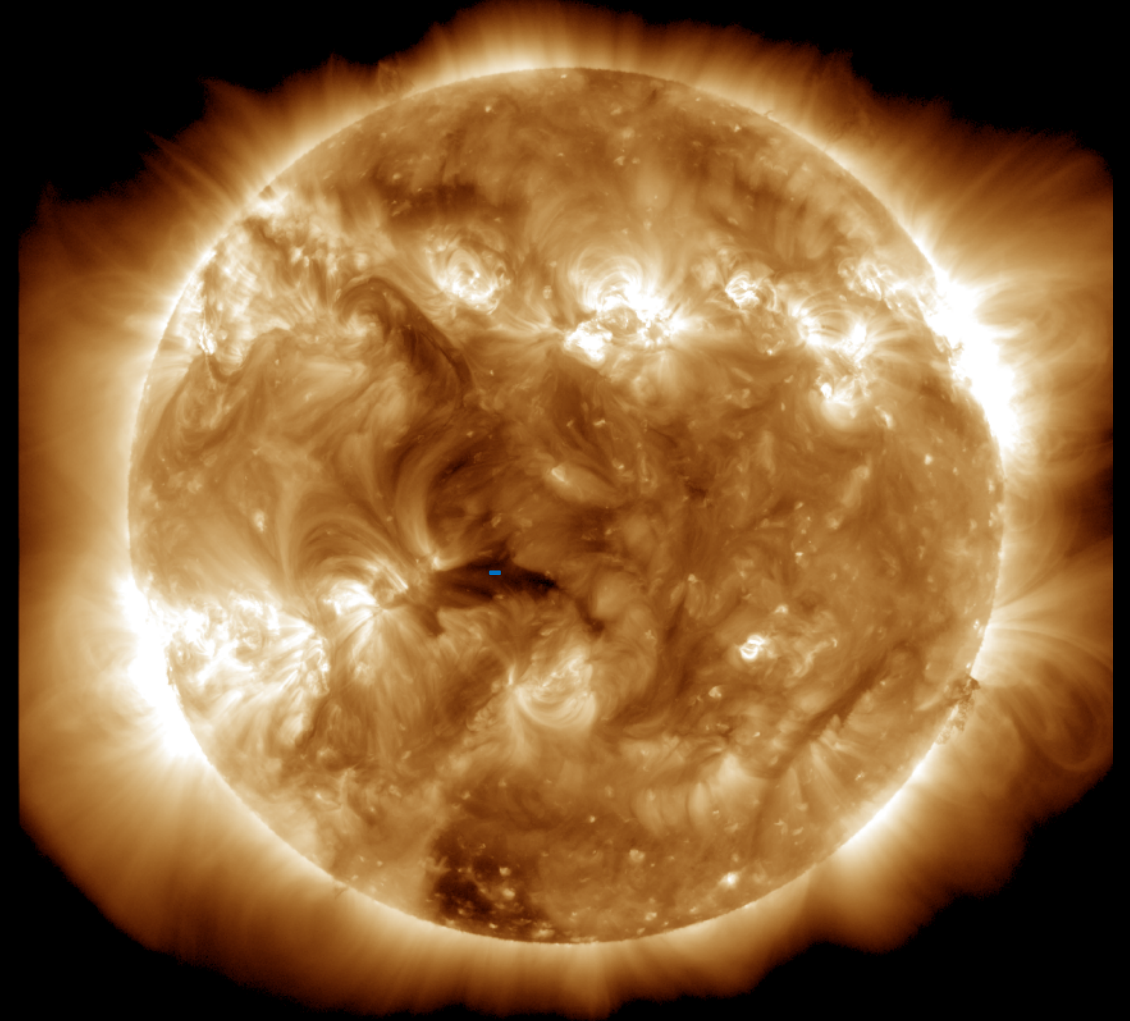
SDO/AIA 19.3 nm 2023-01-22

SDO/AIA AIA 193Å 2023-01-22T12:00:05.843



SDO/AIA 19.3 nm 2023-01-28

SDO/AIA AIA 193Å 2023-01-28T12:00:05.846



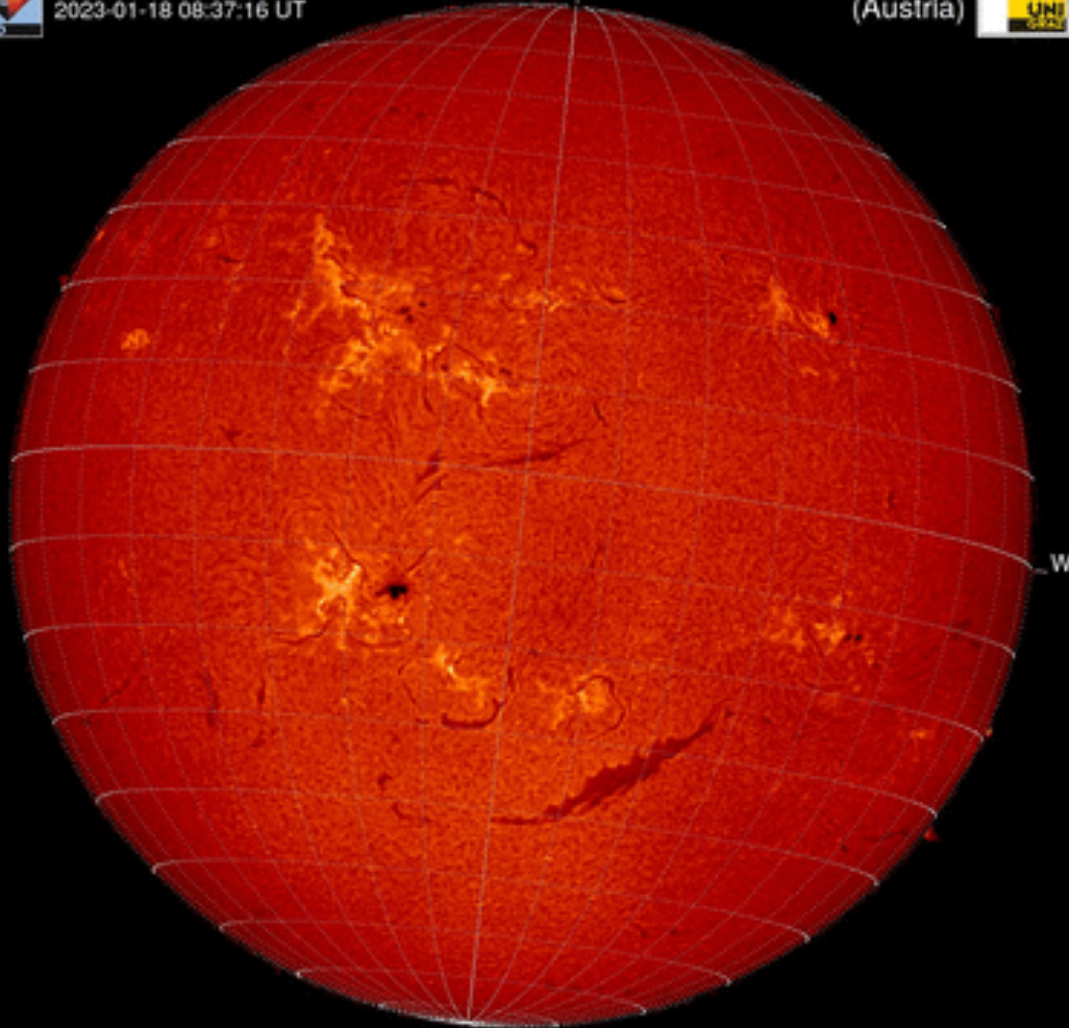
Filaments & Filament eruptions

H-alpha 2023-01-22



Kanzelhöhe Observatory
2023-01-18 08:37:16 UT

University of Graz
(Austria)

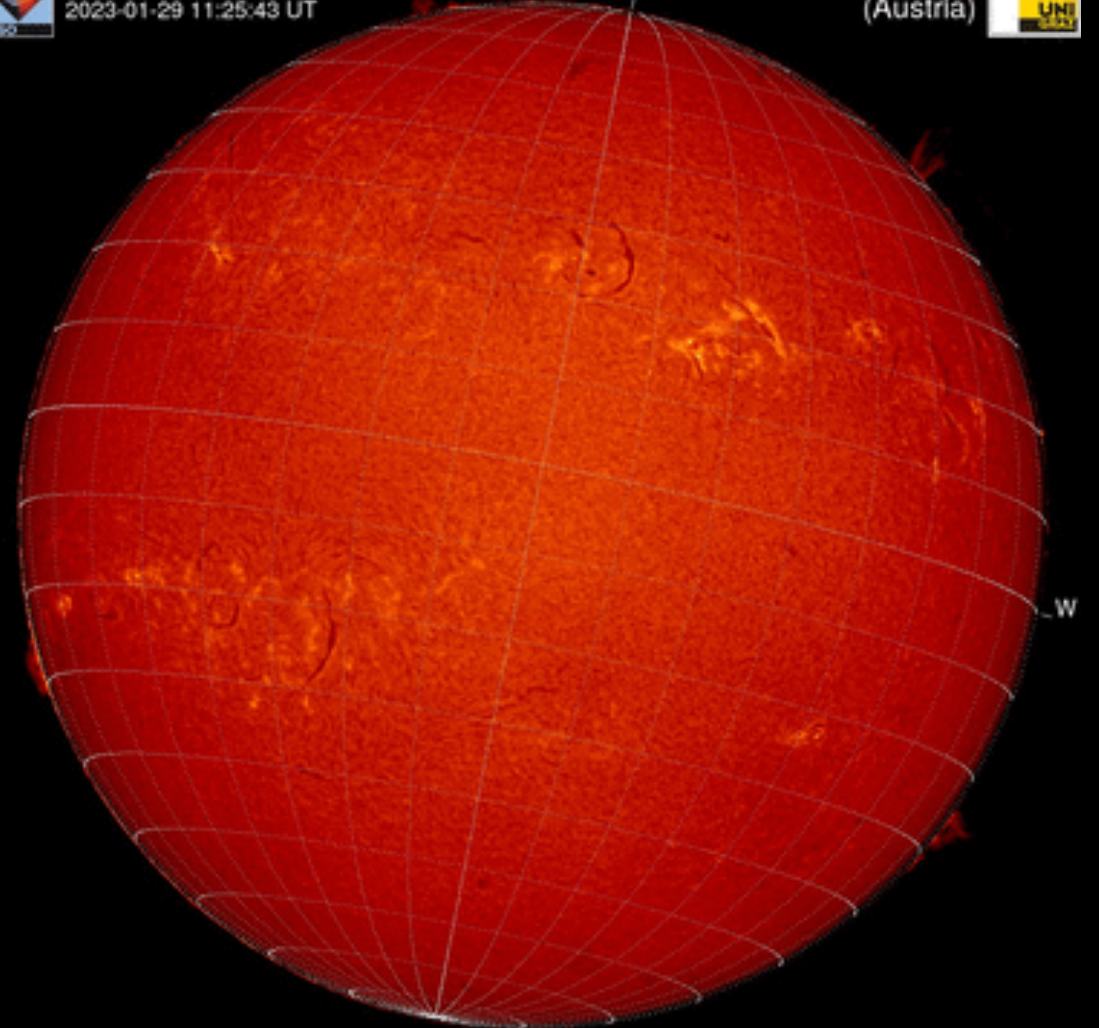


H-alpha 2023-01-29

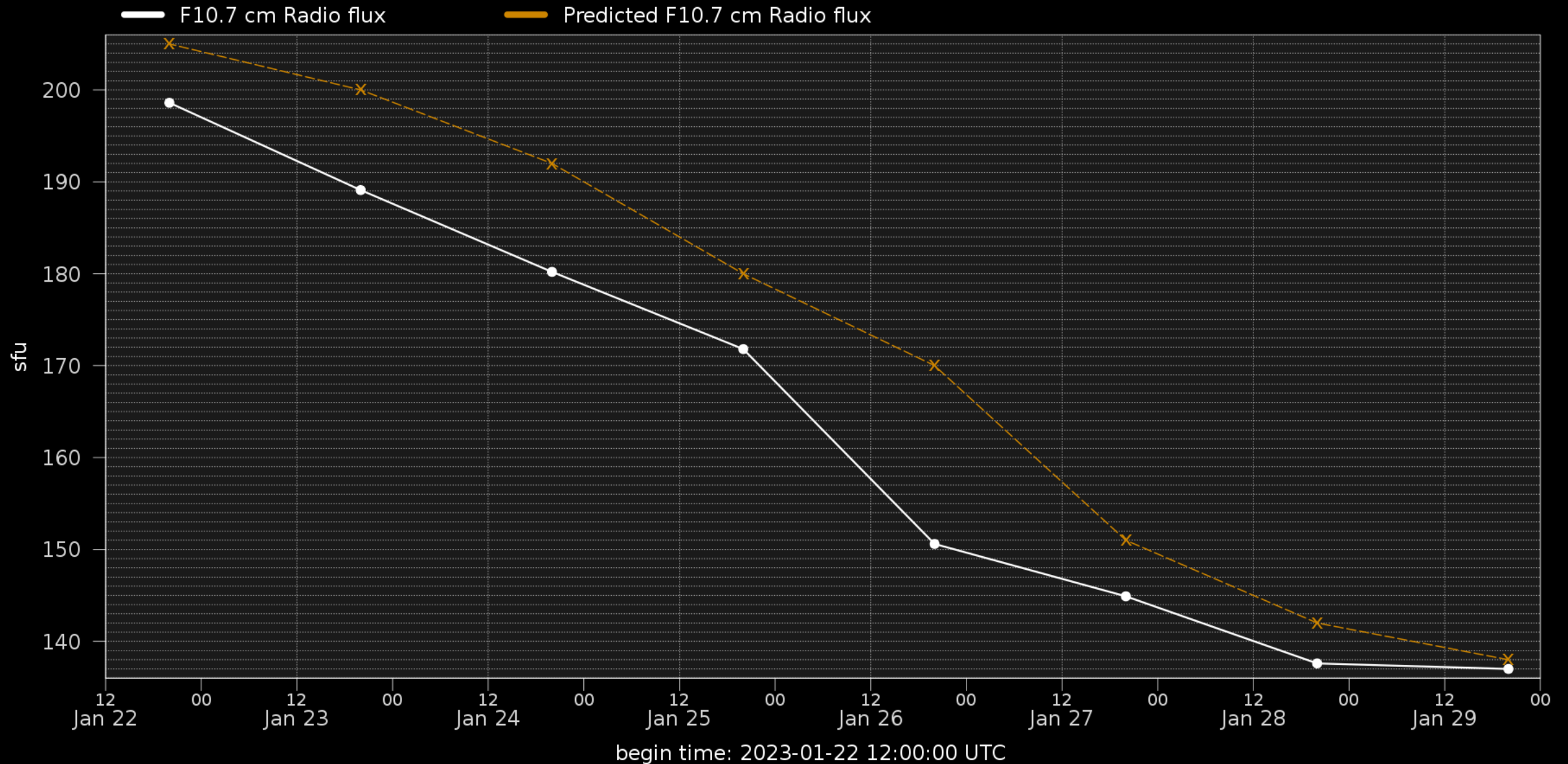


Kanzelhöhe Observatory
2023-01-29 11:25:43 UT

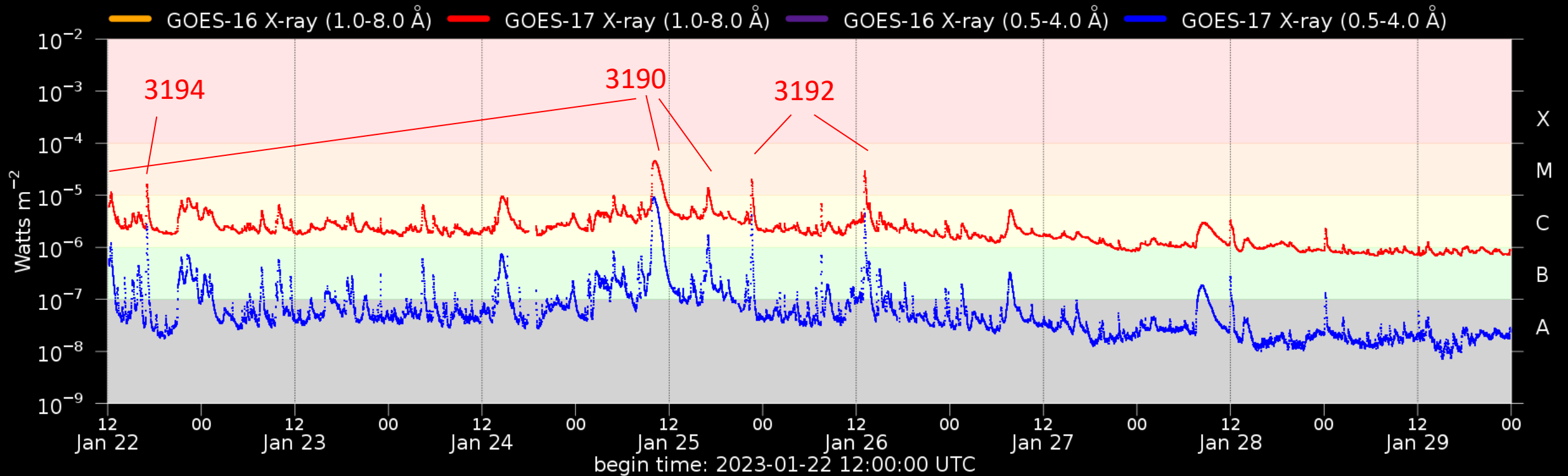
University of Graz
(Austria)



Solar F10.7cm radio flux



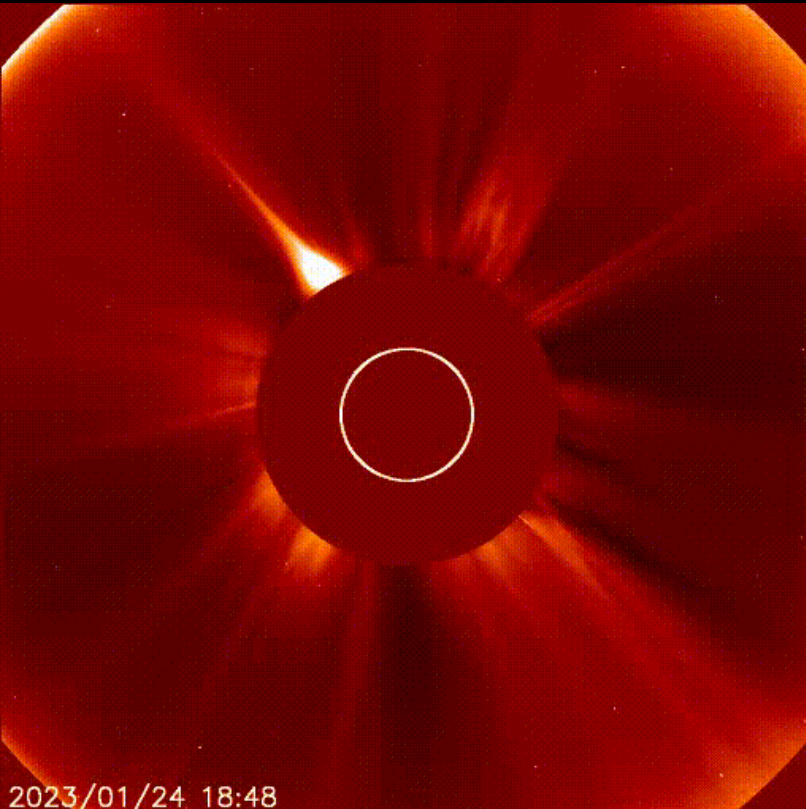
Flaring activity



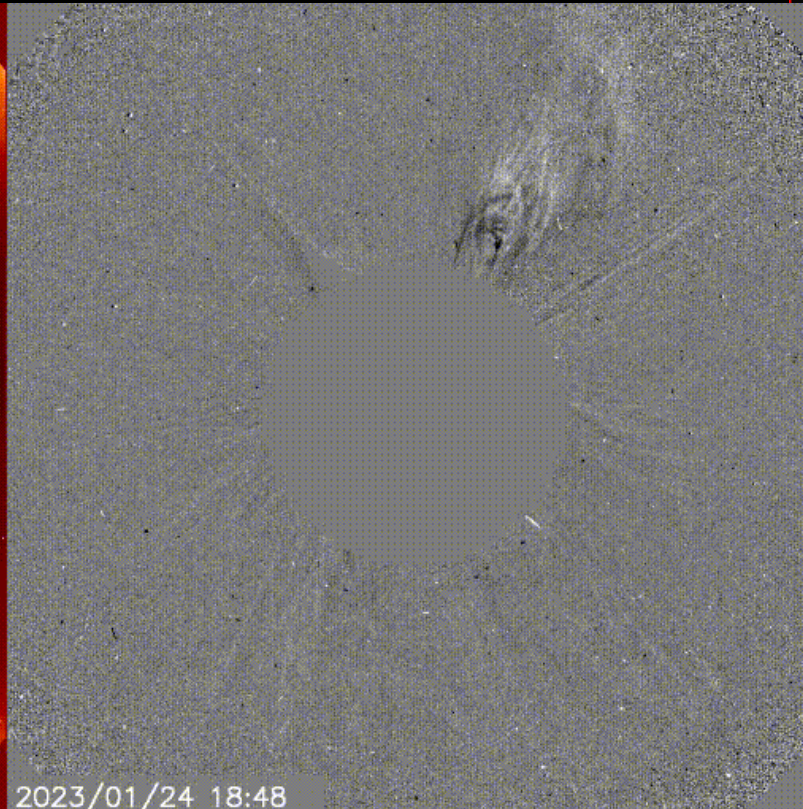
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-01-22	2023-01-23	2023-01-24	2023-01-25	2023-01-26	2023-01-27	2023-01-28	2023-01-29
Probability (%)	92 53 10	99 85 15	99 45 10	99 40 10	99 25 05	99 45 05	95 20 05	40 01 01
Observed (#)	05 02 00	05 00 00	08 00 00	05 02 00	04 01 00	01 00 00	02 00 00	00 00 00

Coronal Mass Ejections

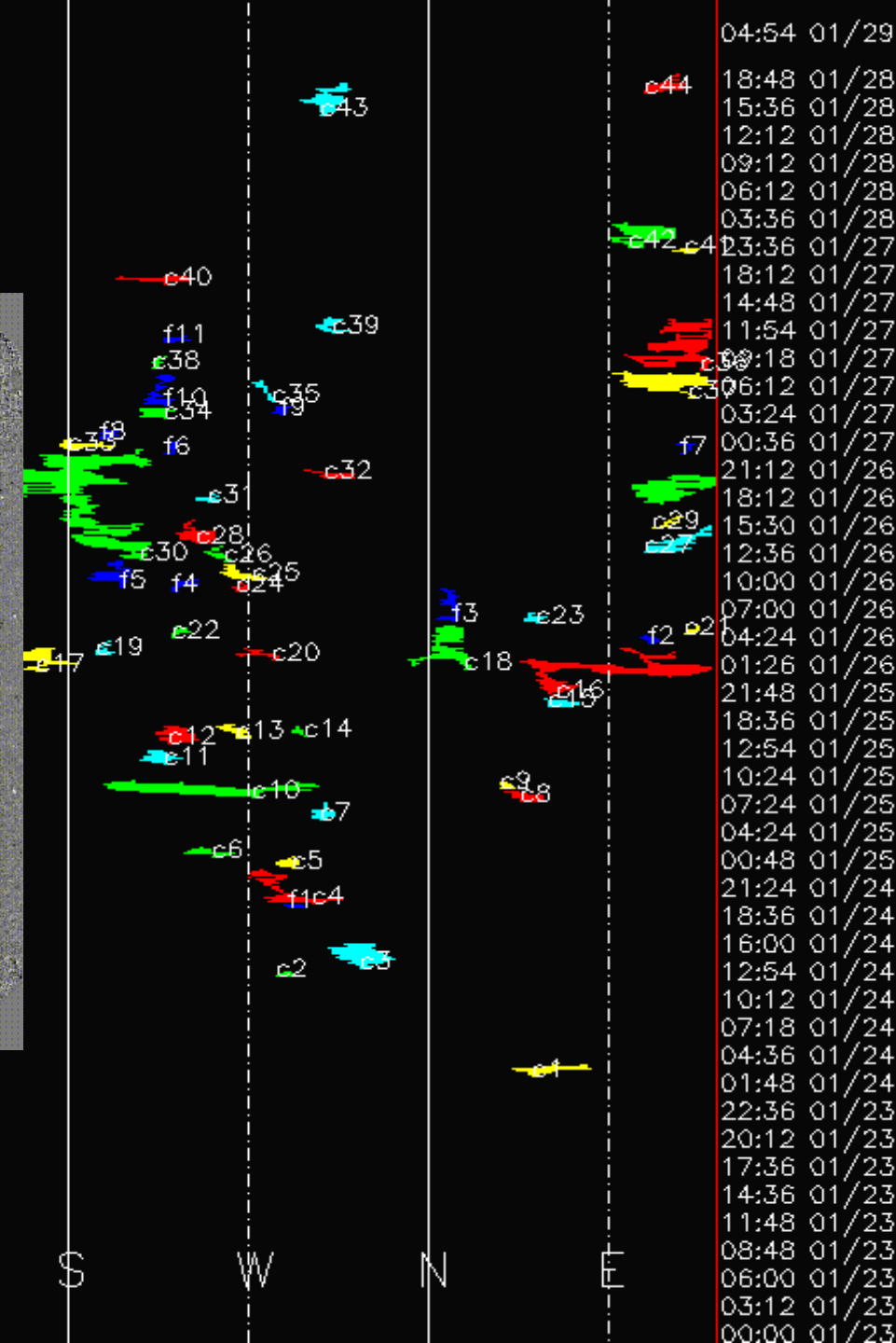


2023/01/24 18:48



2023/01/24 18:48

All backside or limb events



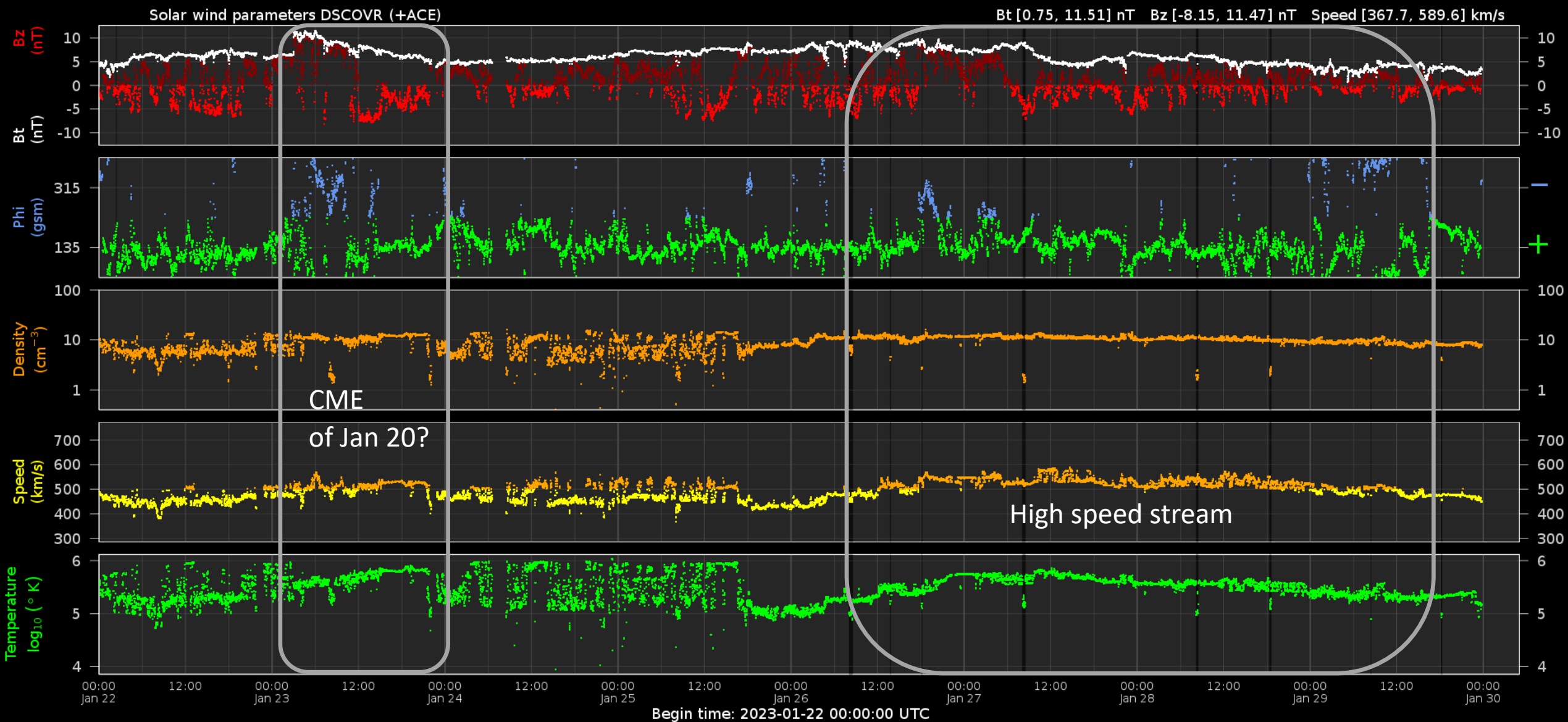
Solar Wind and Geomagnetic Activity



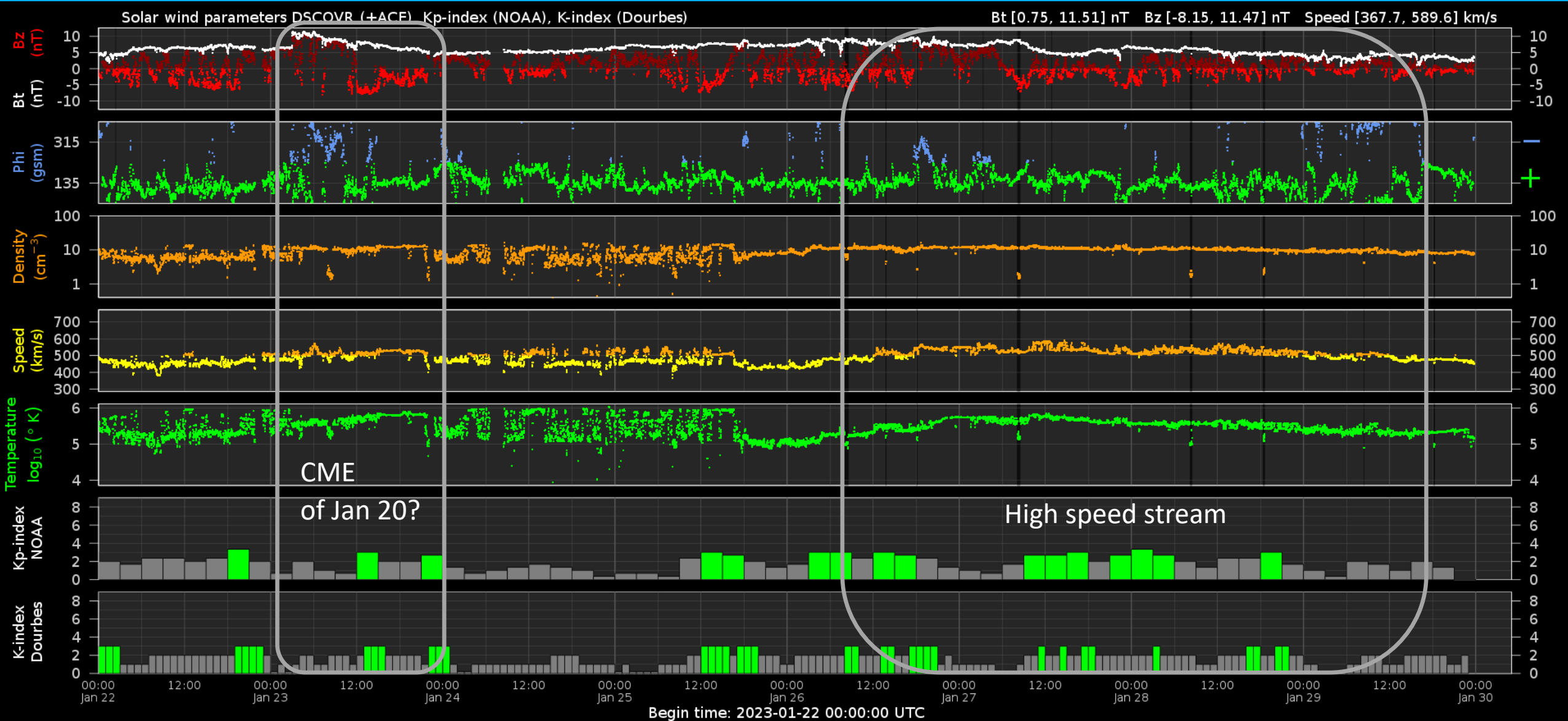
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Solar wind parameters



Solar wind parameters & K-indices



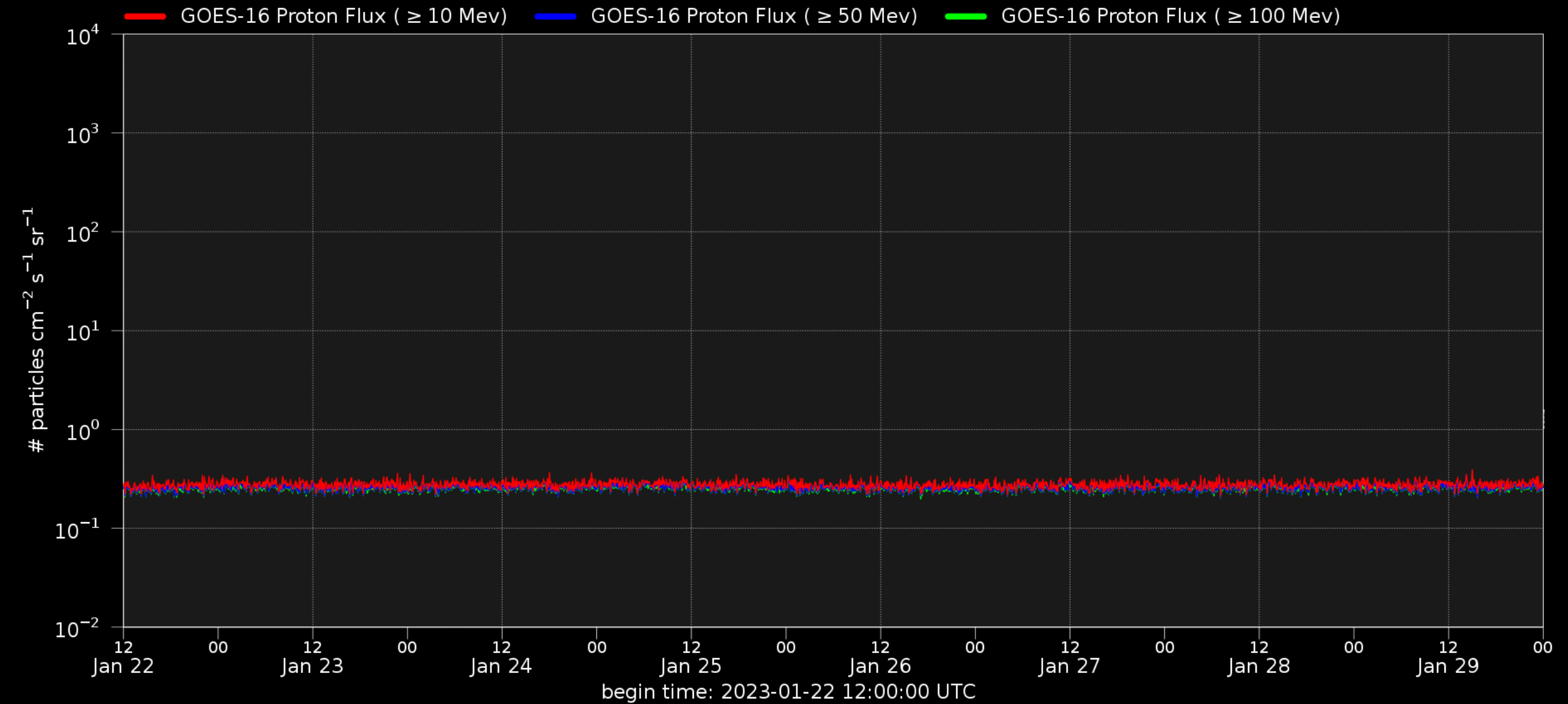
Energetic Particles



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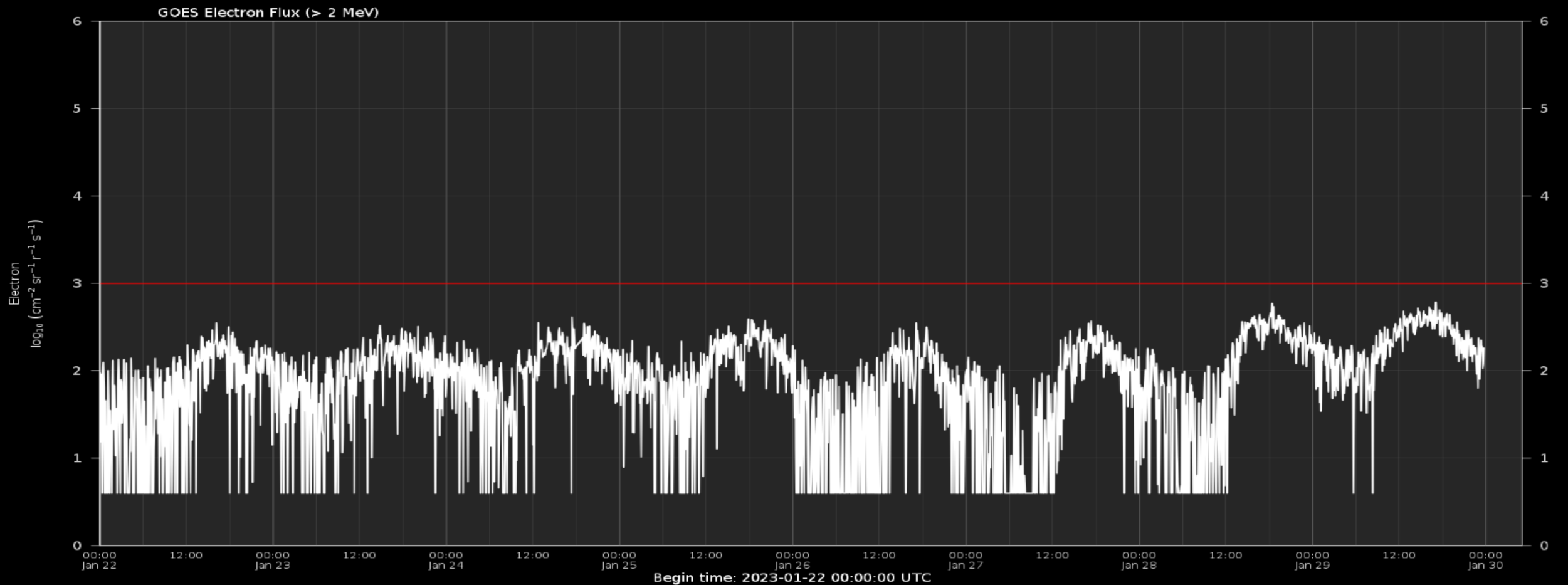
Solar proton flux



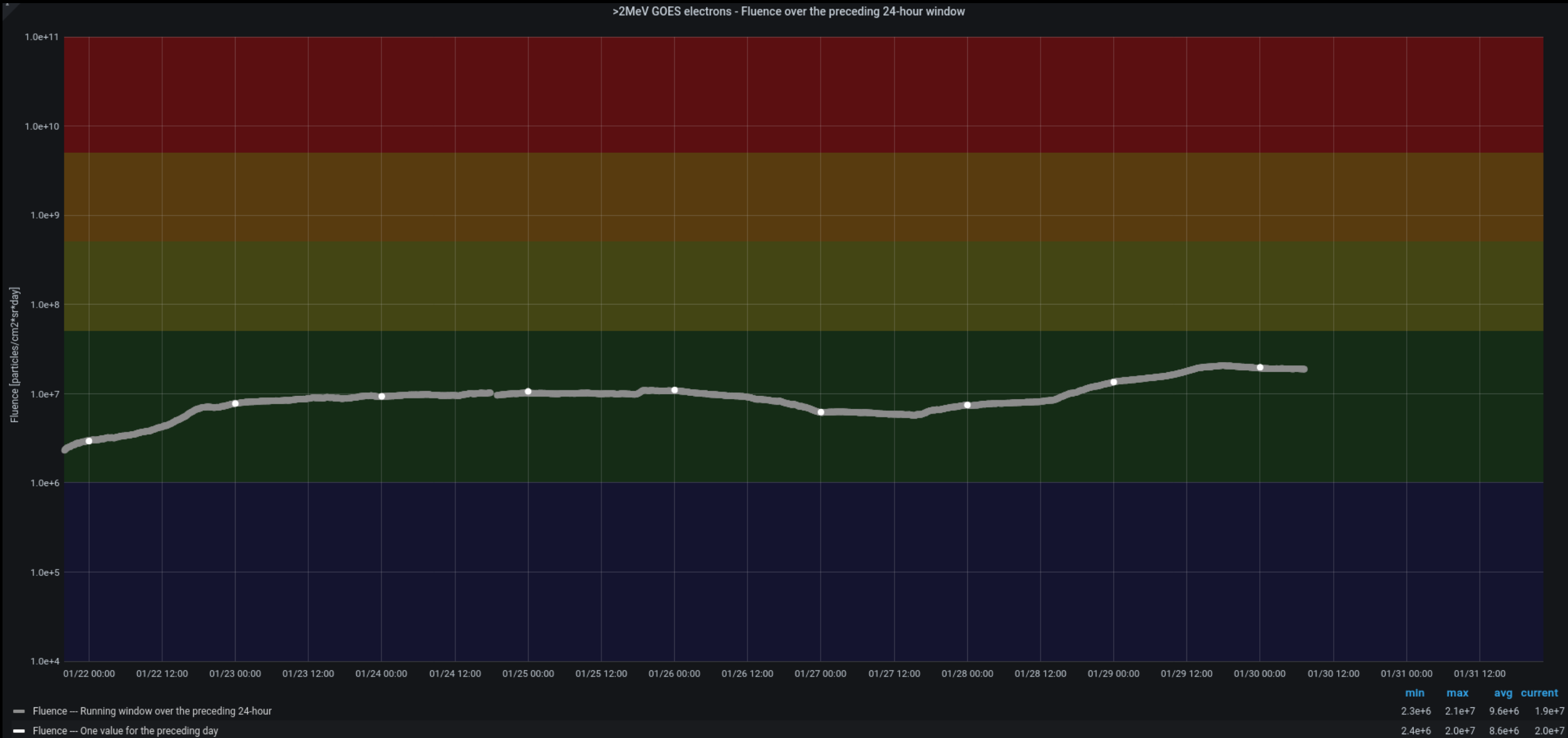
Electron flux at GEO

www.stce.be/educational/classification#electrons

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



Electron fluence at GEO



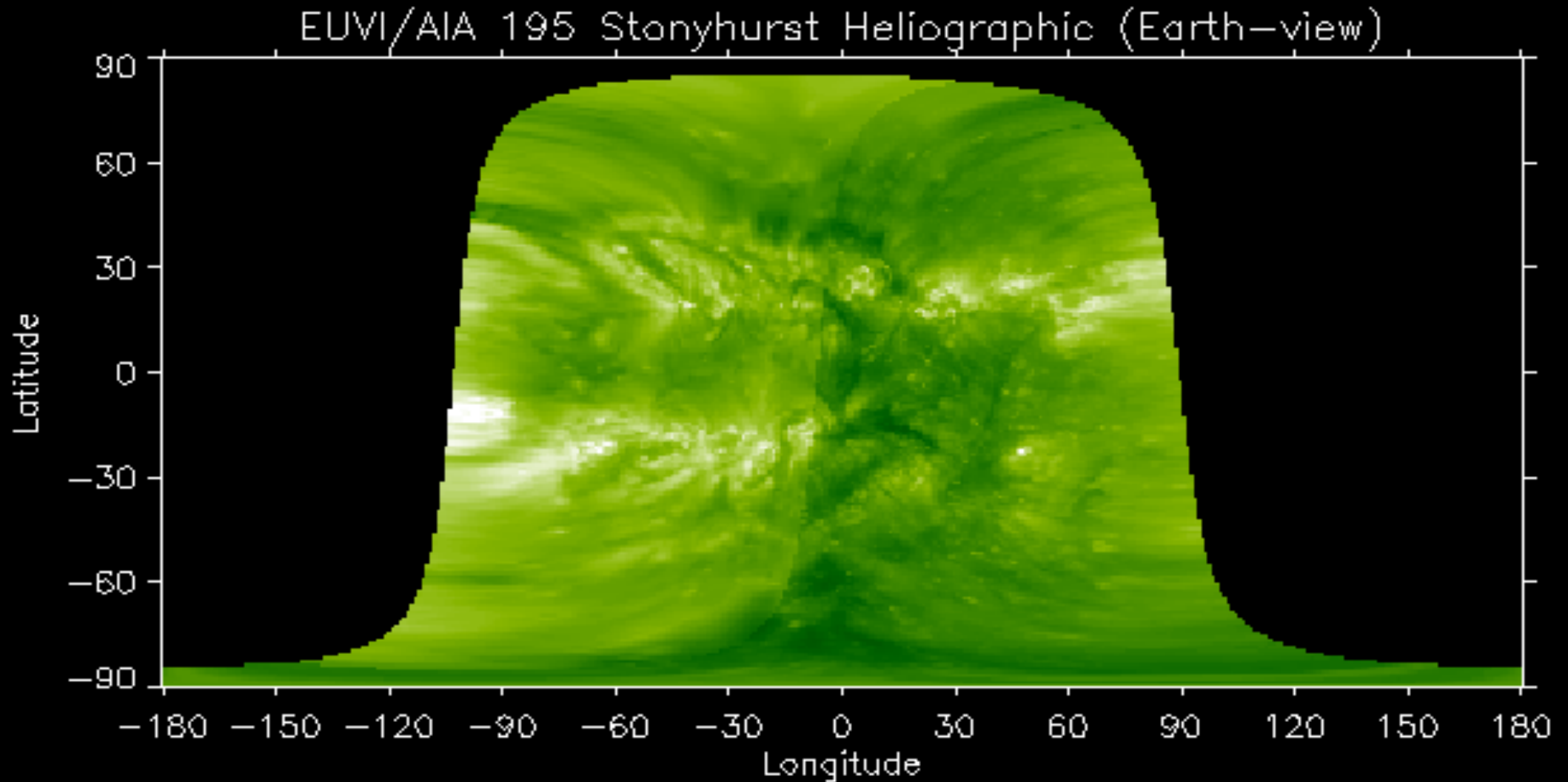
Outlook



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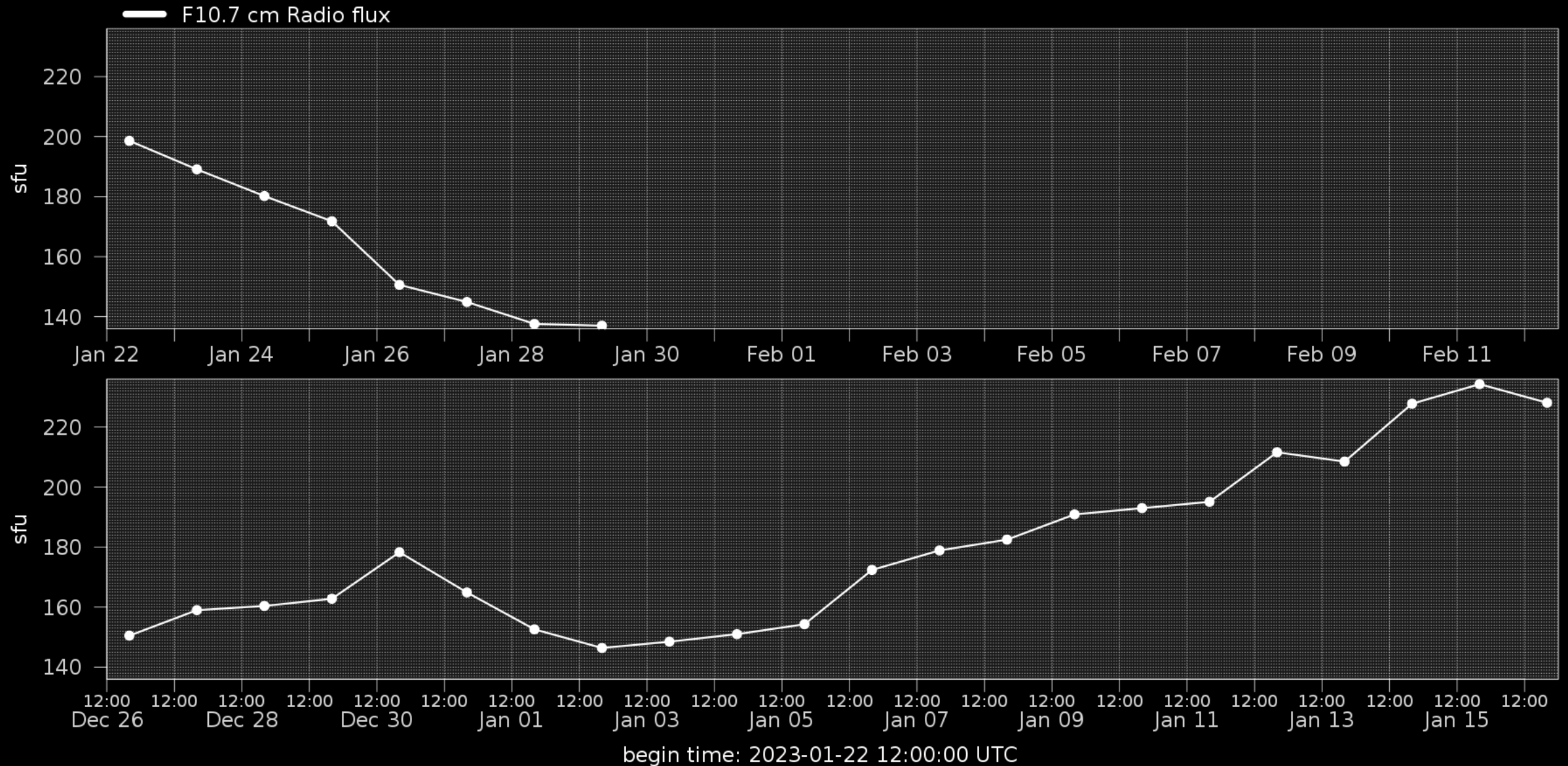
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Outlook: Solar activity

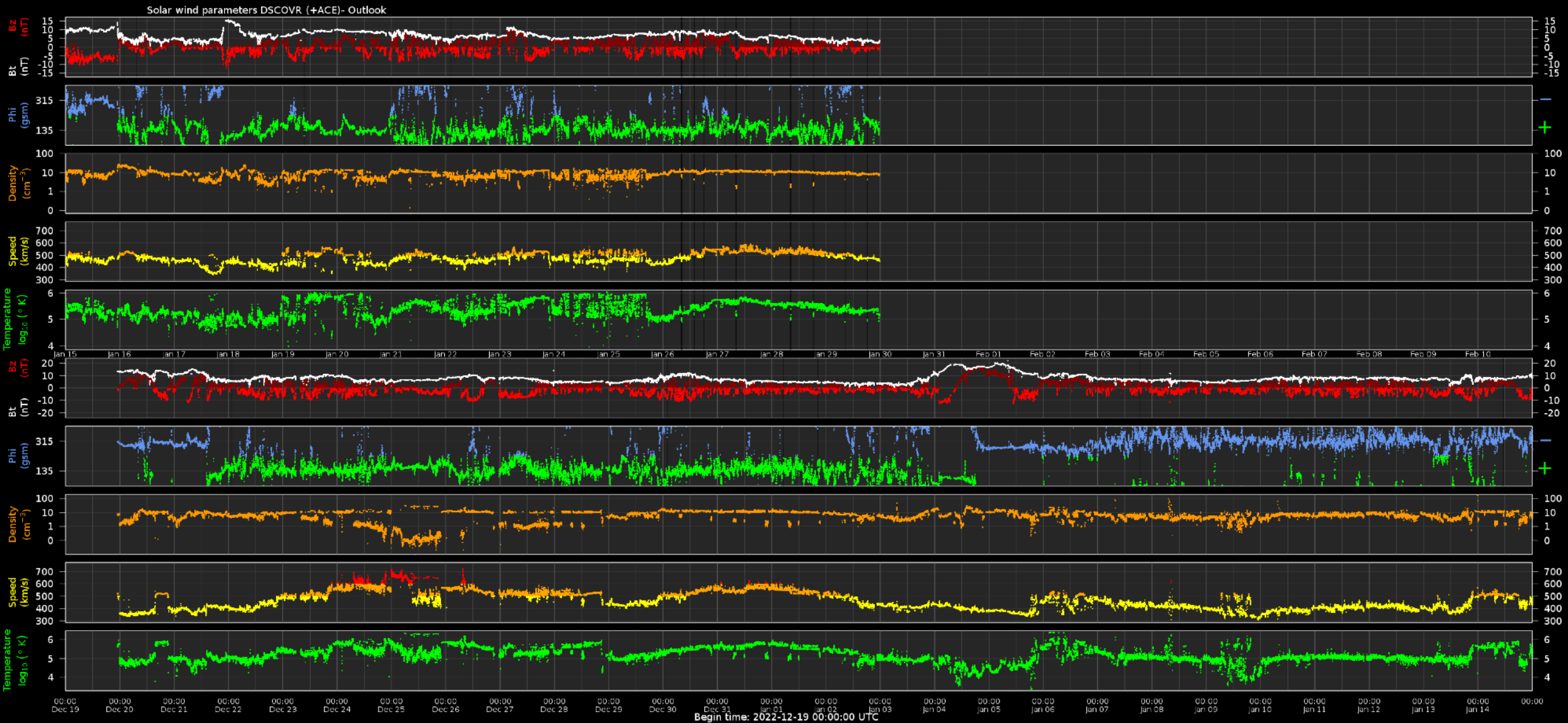


Observation date: 2023/01/29 23:05:00

Outlook: Solar F10.7cm radio flux



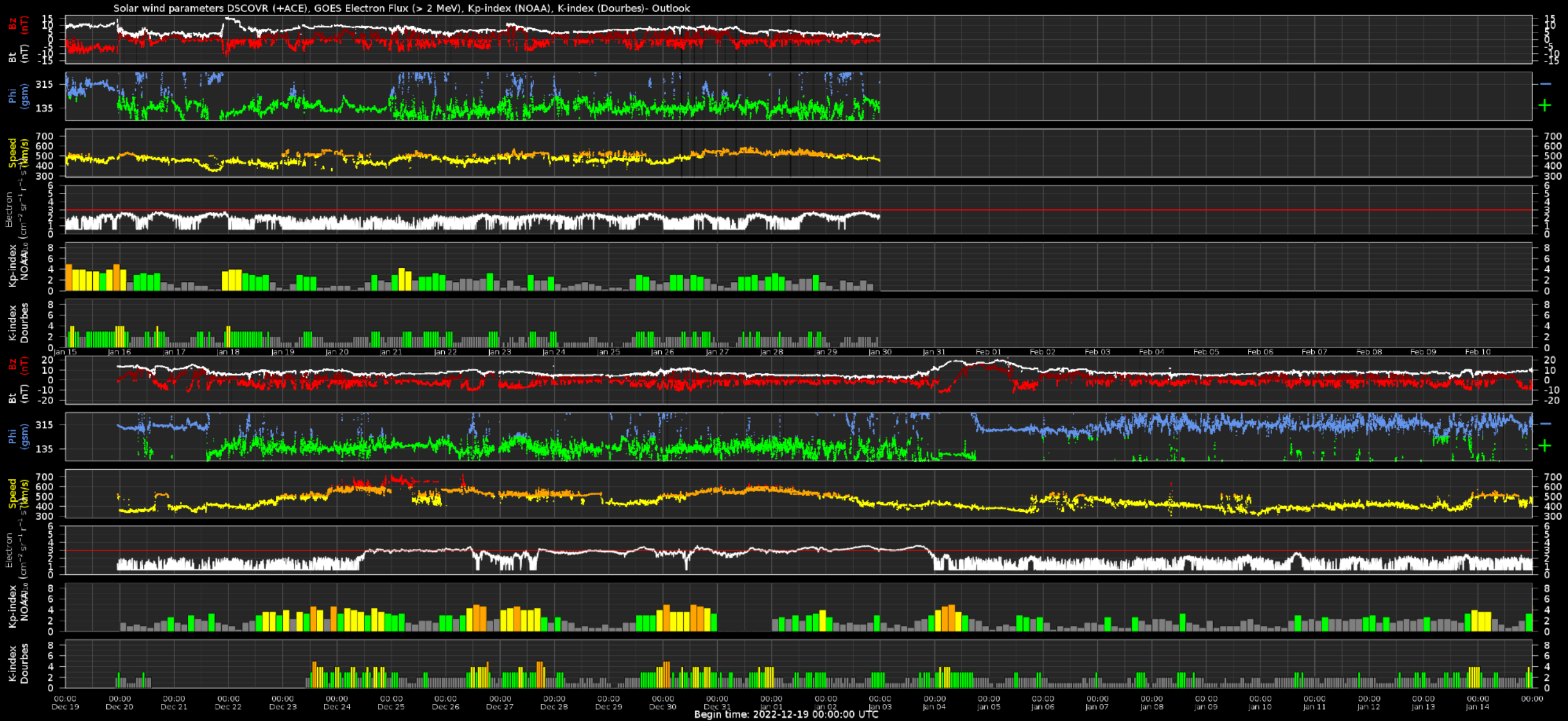
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

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