

SIDC Space Weather Briefing

23-30 October 2022

Katsiyannis Thanassis

& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2022-10-23 12:00 to 2022-10-30 23:59

Active regions	NOAA Active Regions 3126, 3130, 3133, 3135, NOAA plage 3134
Flares	# C-class flare: 21 # M-class flare: 0 # X-class flare: 0
Coronal Holes	Crossings of three small corona holes with positive polarity
CMEs	No geo-effective CME

Proton flux	Below threshold
Electron flux	Exceeded 1000 pfu at 30/10 12:00 UT (fluence: moderate since 30/10 14:00 UT)

Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	B : 0.77 - 13.35 nT //Bz: -10.59 nT to 10.94 nT //Speed: 245.8 - 613.7km/s
K-indices	max K-index (KDou): 4 max Kp-index (NOAA): 5

All Quiet Alert: Not Quiet

Solar Activity

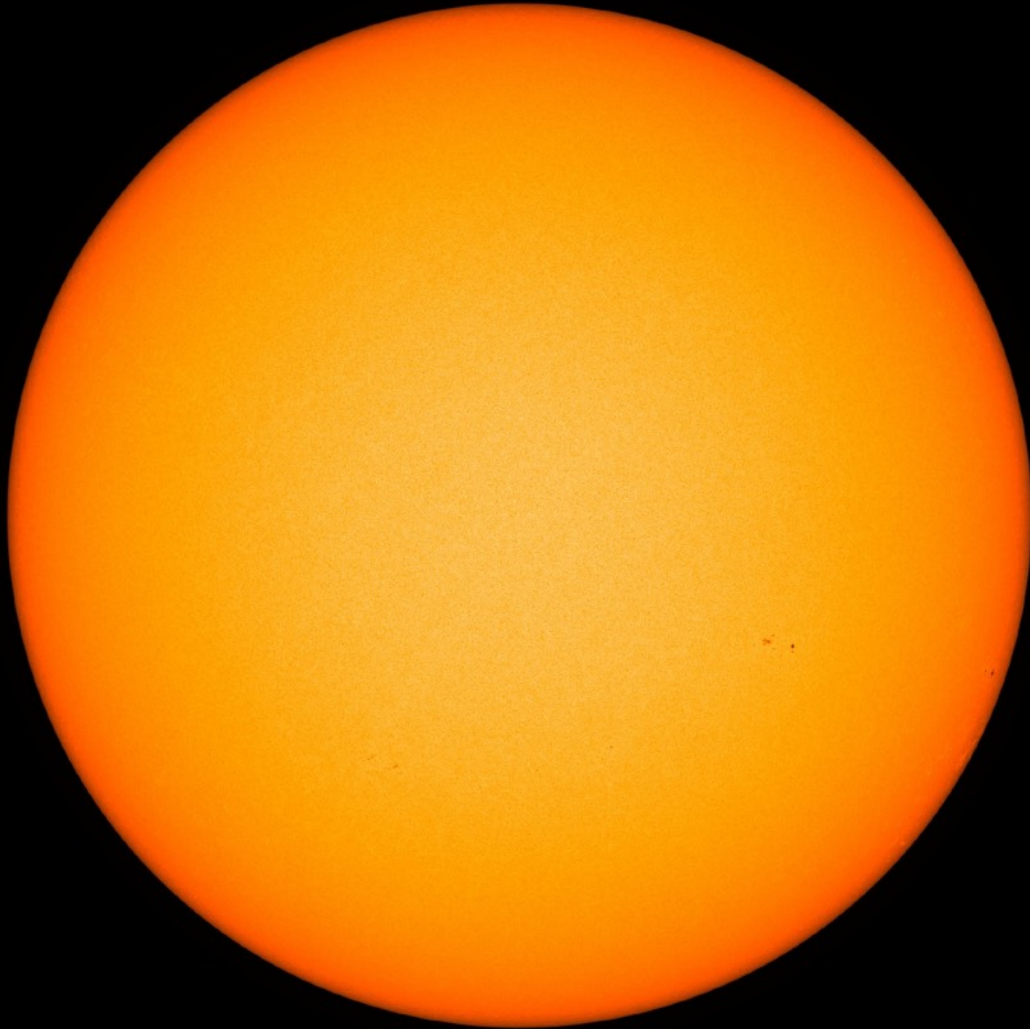


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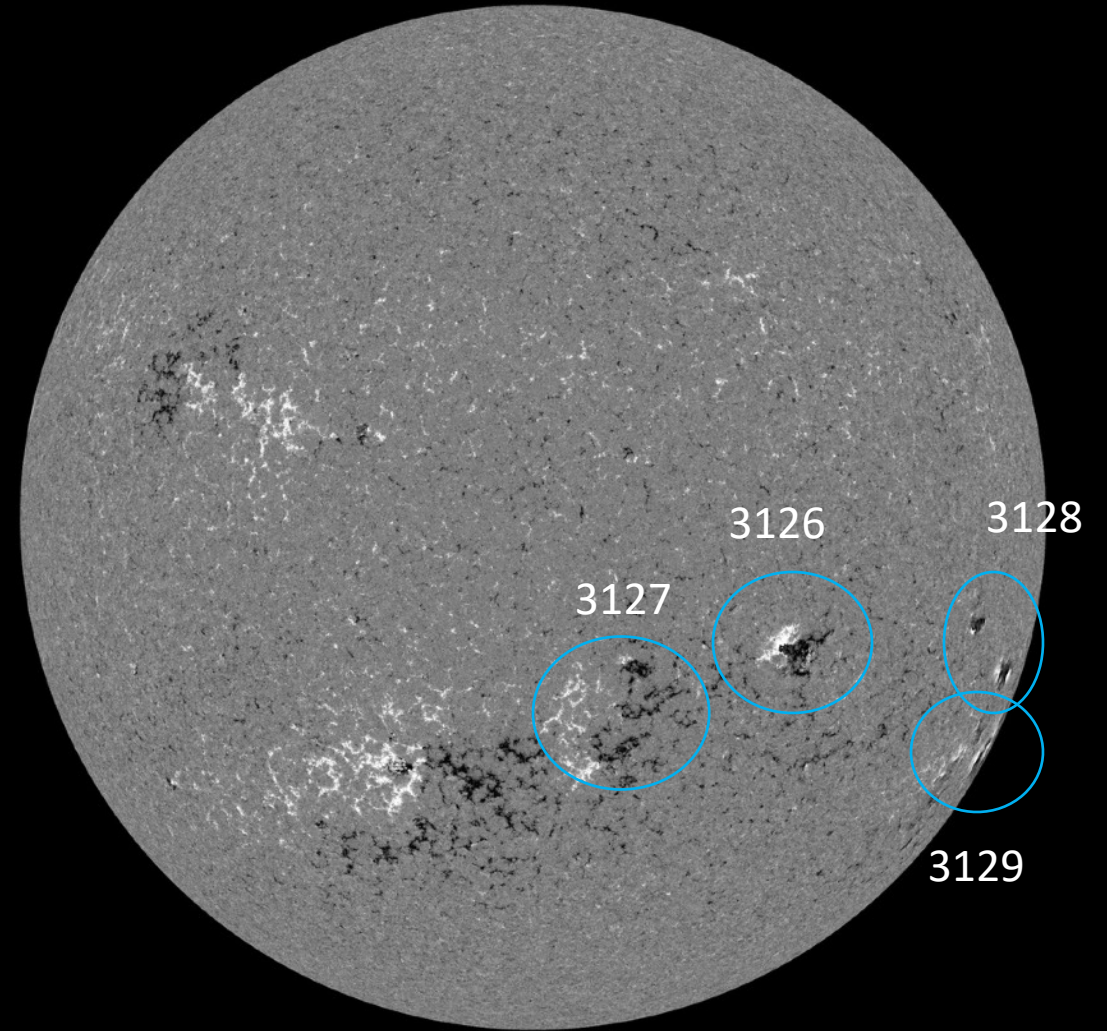
Solar active regions

SDO/HMI White Light 2022-10-23



SDO/HMI Quick-Look Continuum: 20221023_114500

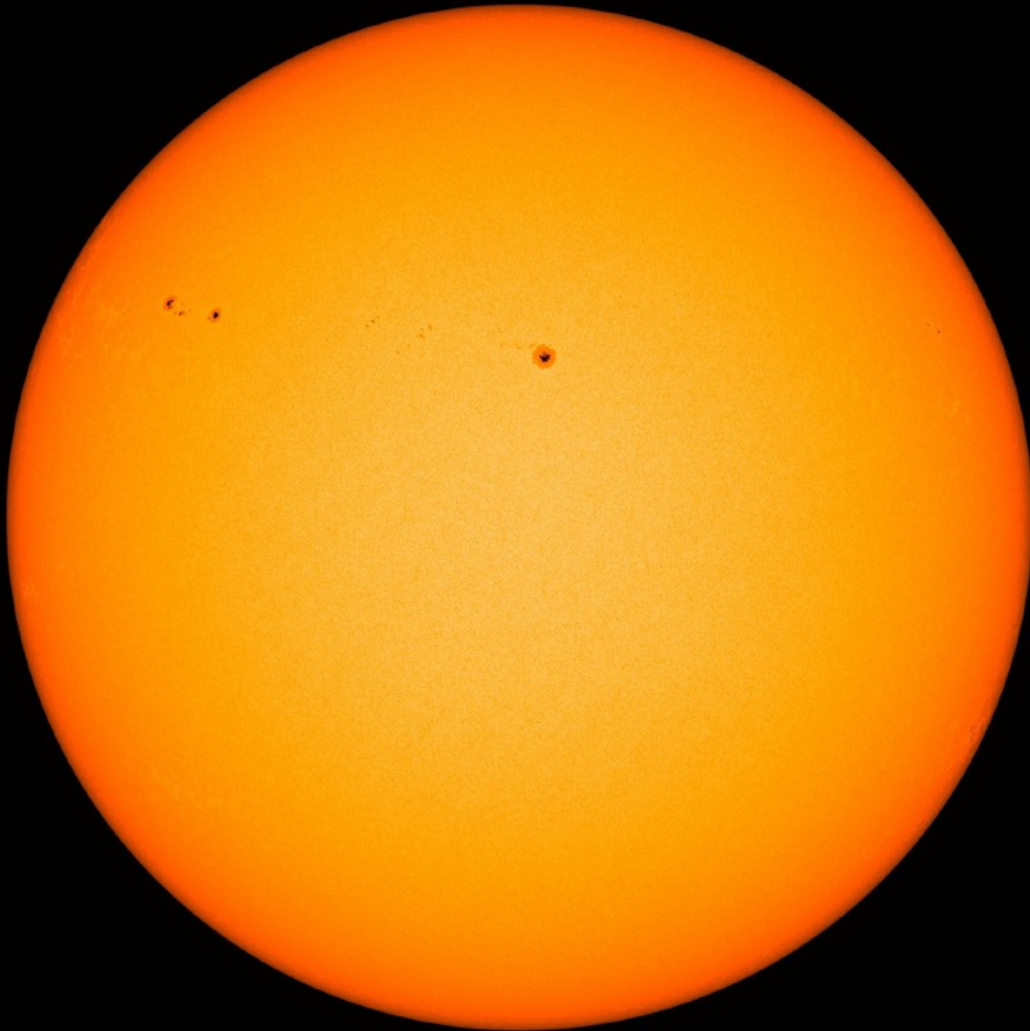
SDO/HMI Magnetogram 2022-10-23



SDO/HMI Quick-Look Magnetogram: 20221023_114500

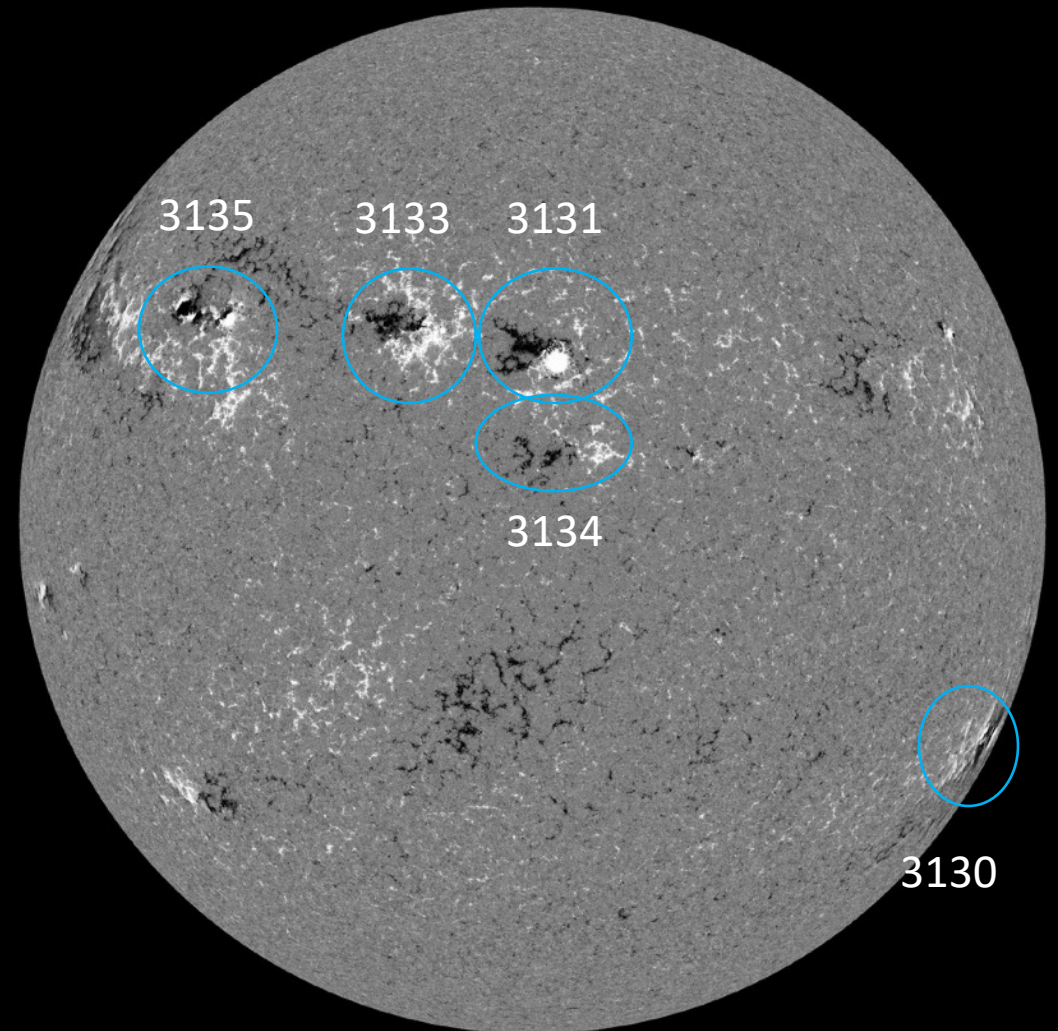
Solar active regions

SDO/HMI White Light 2022-10-30



SDO/HMI Quick-Look Continuum: 20221030_114500

SDO/HMI Magnetogram 2022-10-30

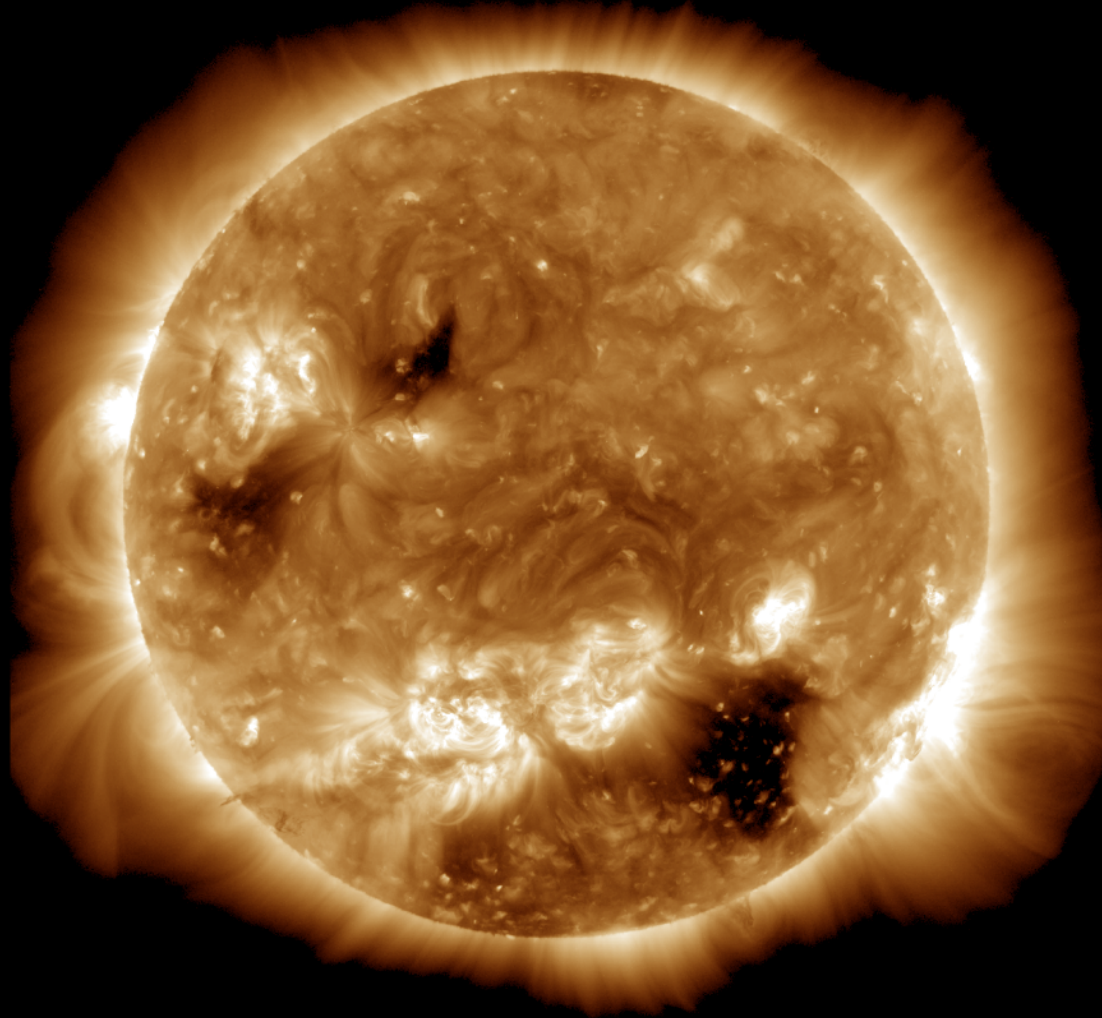


SDO/HMI Quick-Look Magnetogram: 20221030_114500

Coronal holes

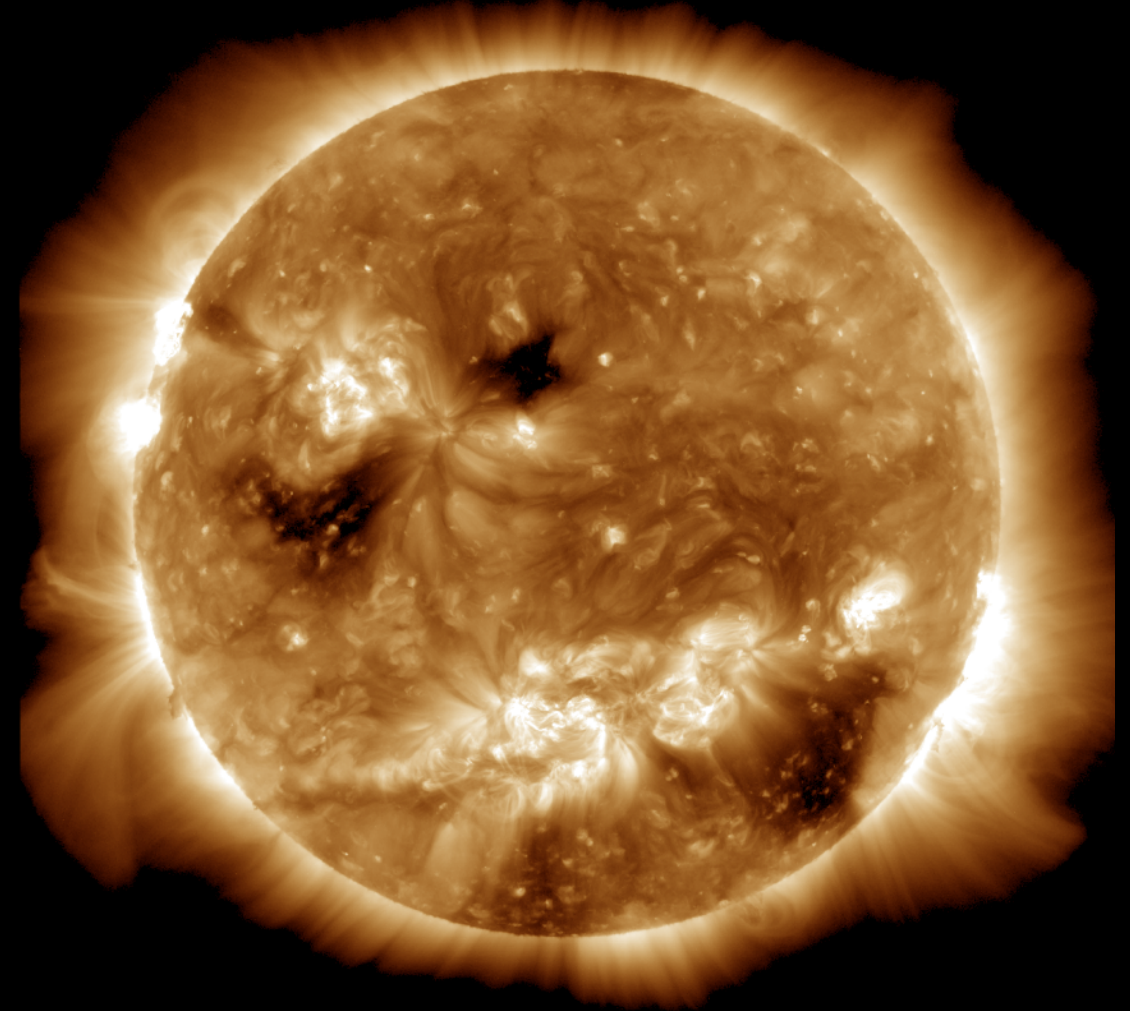
SDO/AIA 19.3 nm 2022-10-23

SDO/AIA AIA 193Å 2022-10-23T12:00:05.843



SDO/AIA 19.3 nm 2022-10-24

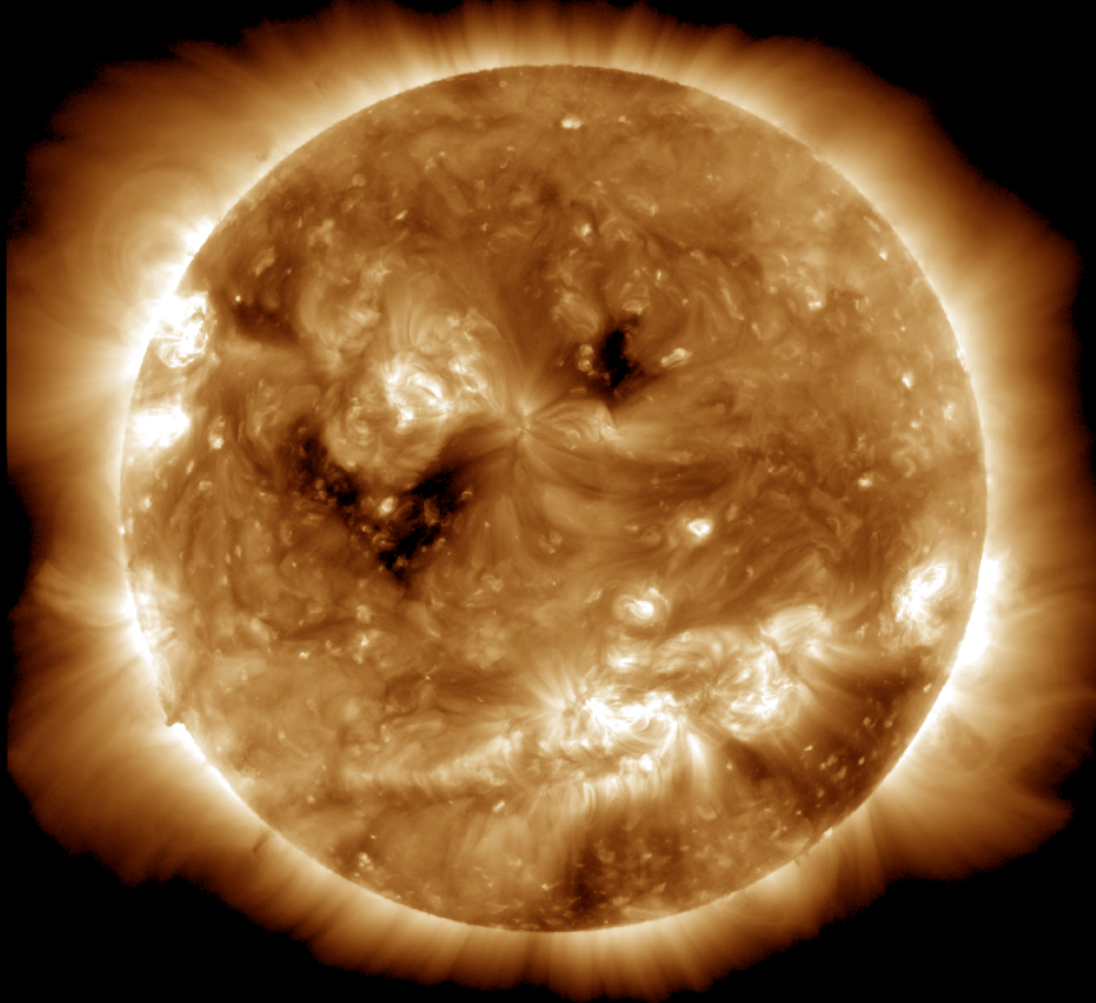
SDO/AIA AIA 193Å 2022-10-24T12:00:05.847



Coronal holes

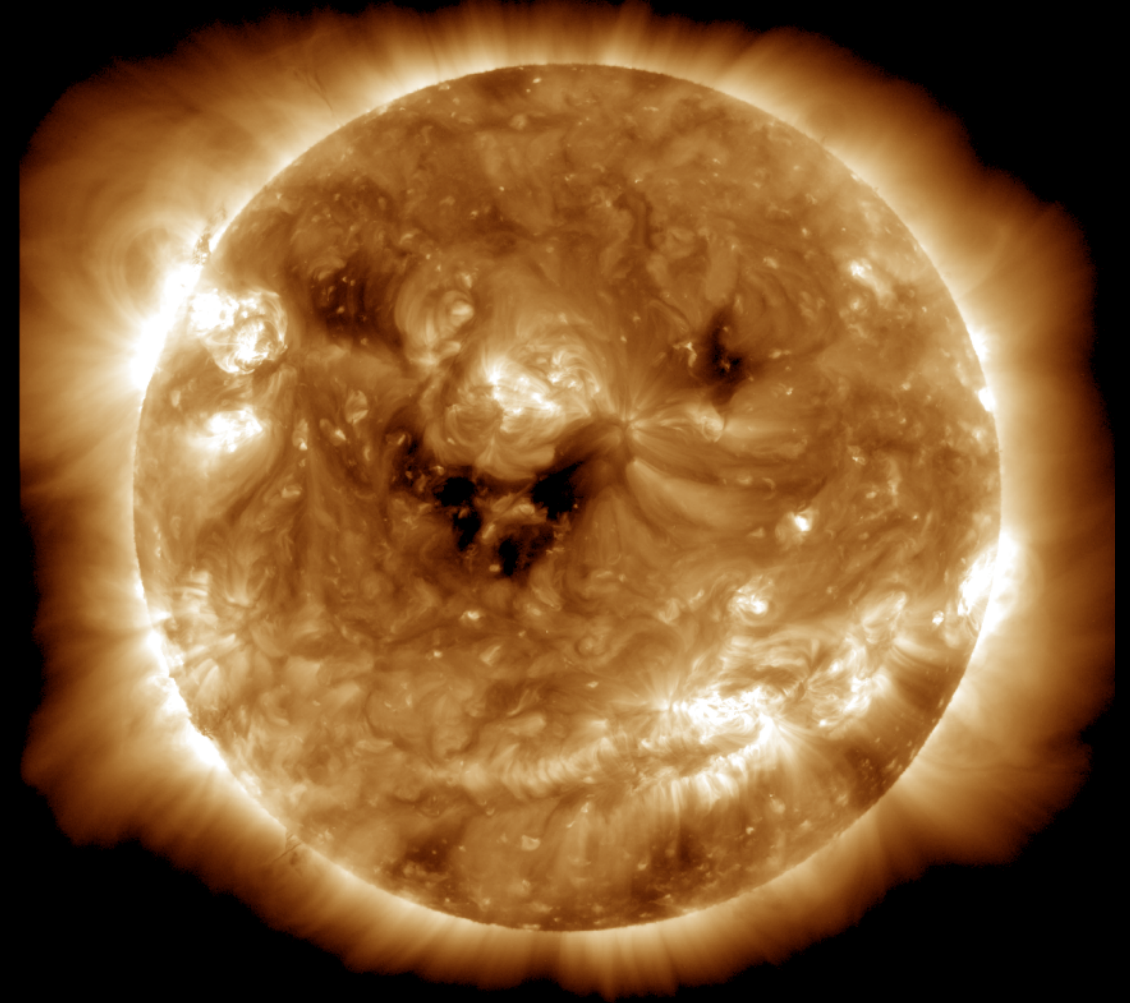
SDO/AIA 19.3 nm 2022-10-25

SDO/AIA AIA 193Å 2022-10-25T12:00:05.843



SDO/AIA 19.3 nm 2022-10-26

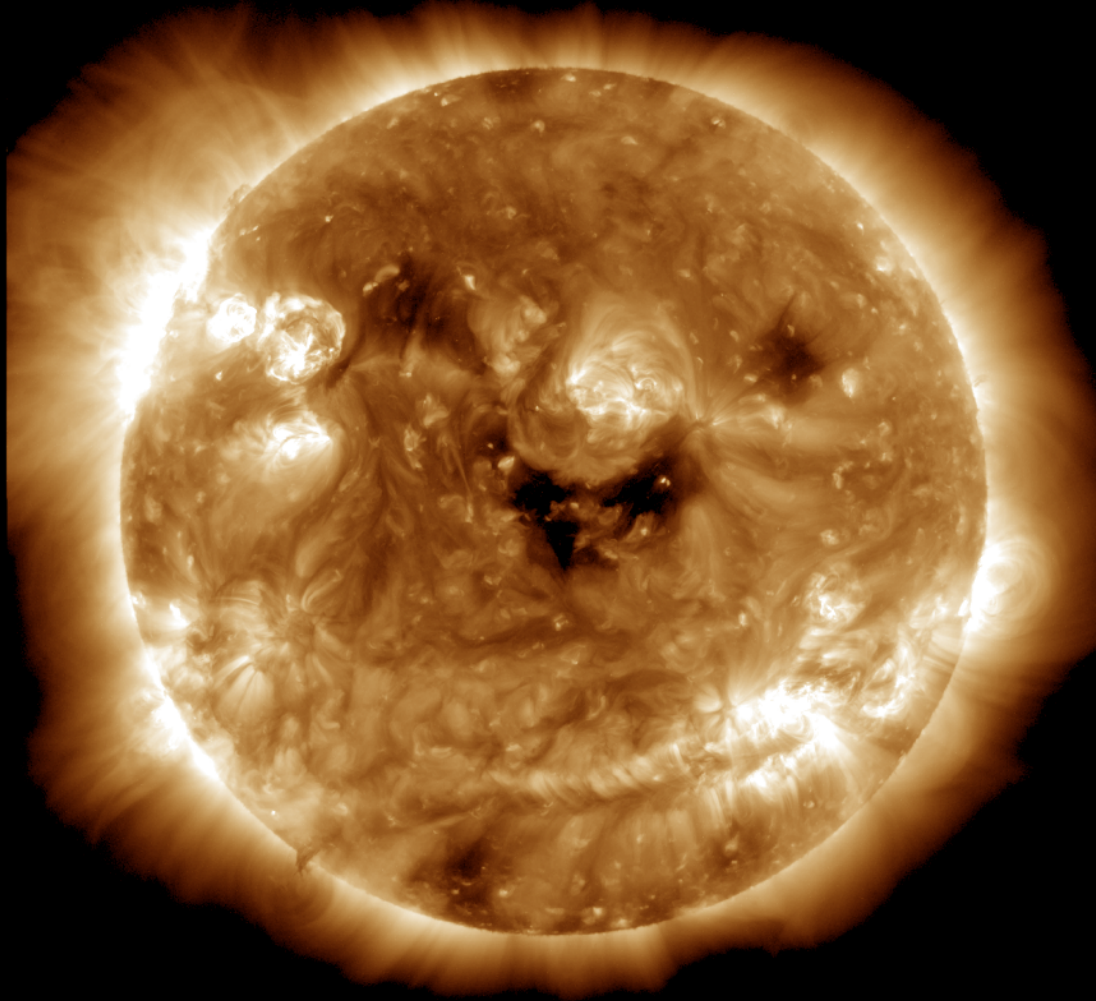
SDO/AIA AIA 193Å 2022-10-26T12:00:05.843



Coronal holes

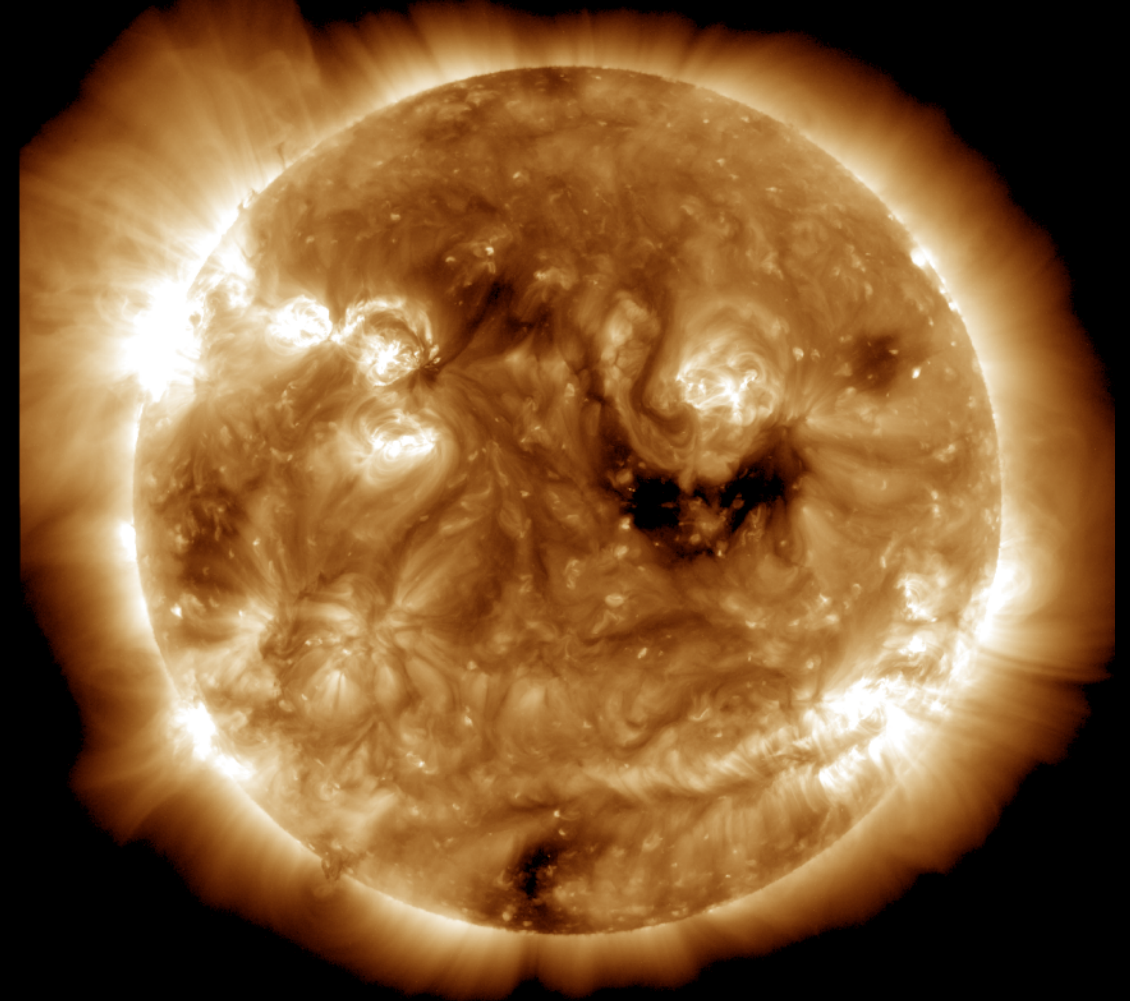
SDO/AIA 19.3 nm 2022-10-27

SDO/AIA AIA 193Å 2022-10-27T12:00:05.843



SDO/AIA 19.3 nm 2022-10-28

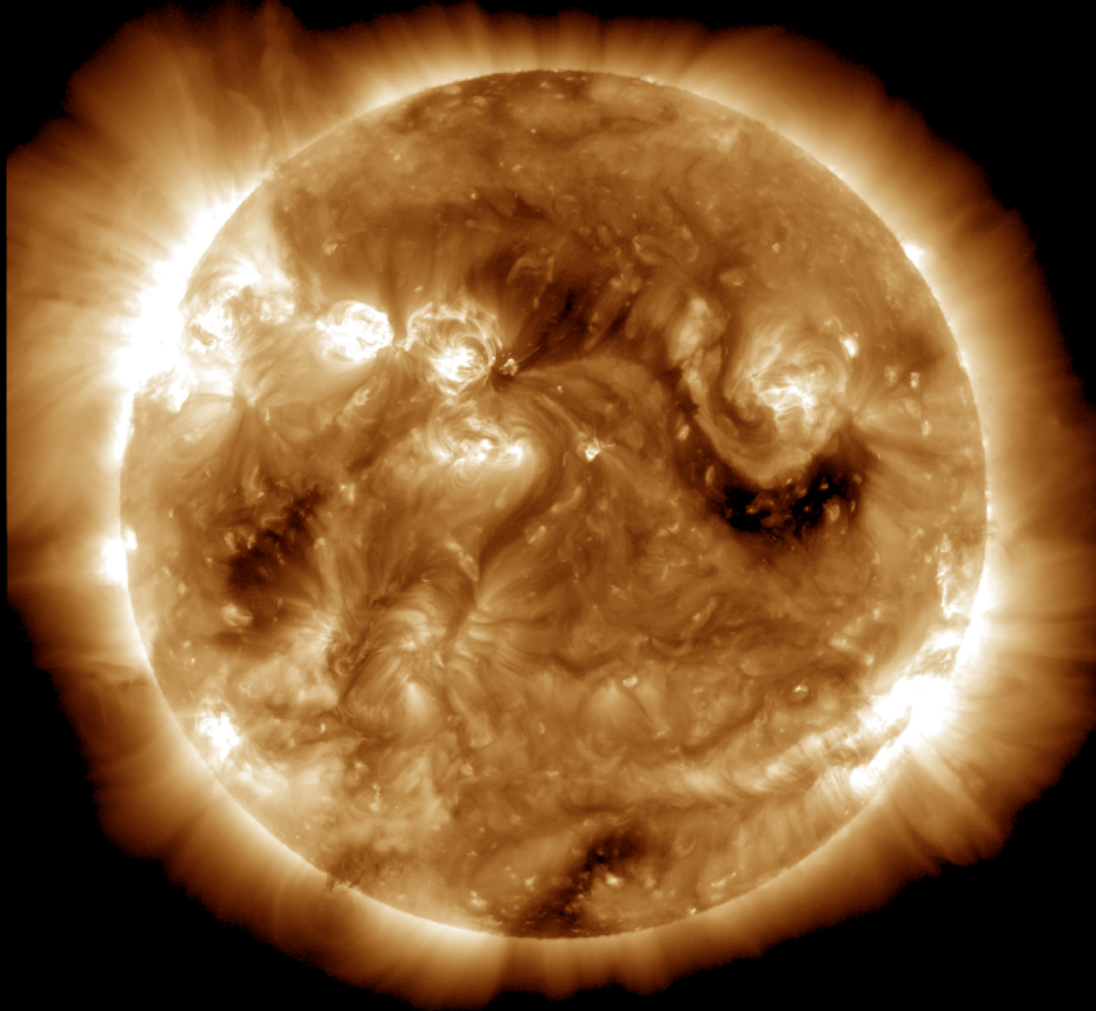
SDO/AIA AIA 193Å 2022-10-28T12:00:05.843



Coronal holes

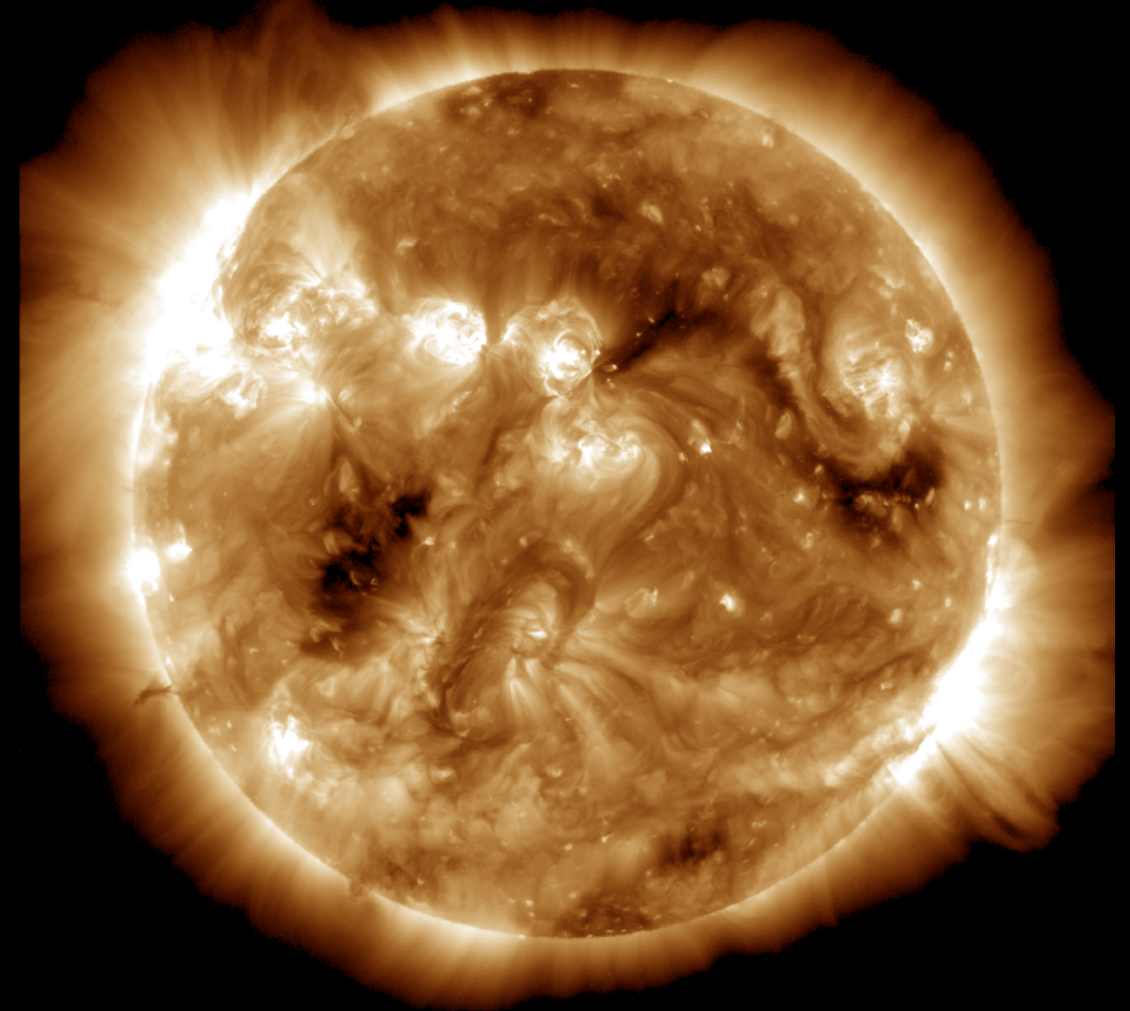
SDO/AIA 19.3 nm 2022-10-29

SDO/AIA AIA 193Å 2022-10-29T12:00:05.843



SDO/AIA 19.3 nm 2022-10-30

SDO/AIA AIA 193Å 2022-10-30T12:00:05.846

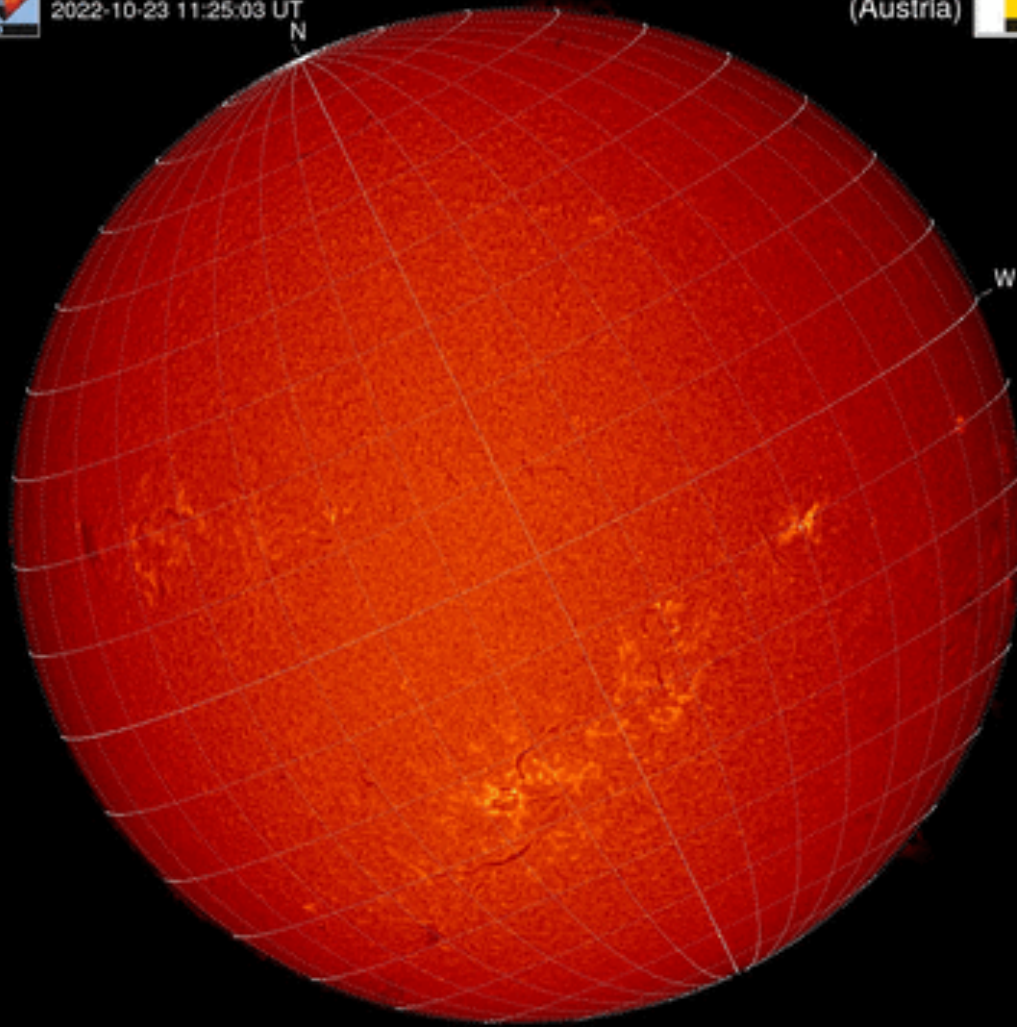


Filaments & Filament eruptions

H-alpha 2022-10-23

 Kanzelhöhe Observatory
2022-10-23 11:25:03 UT

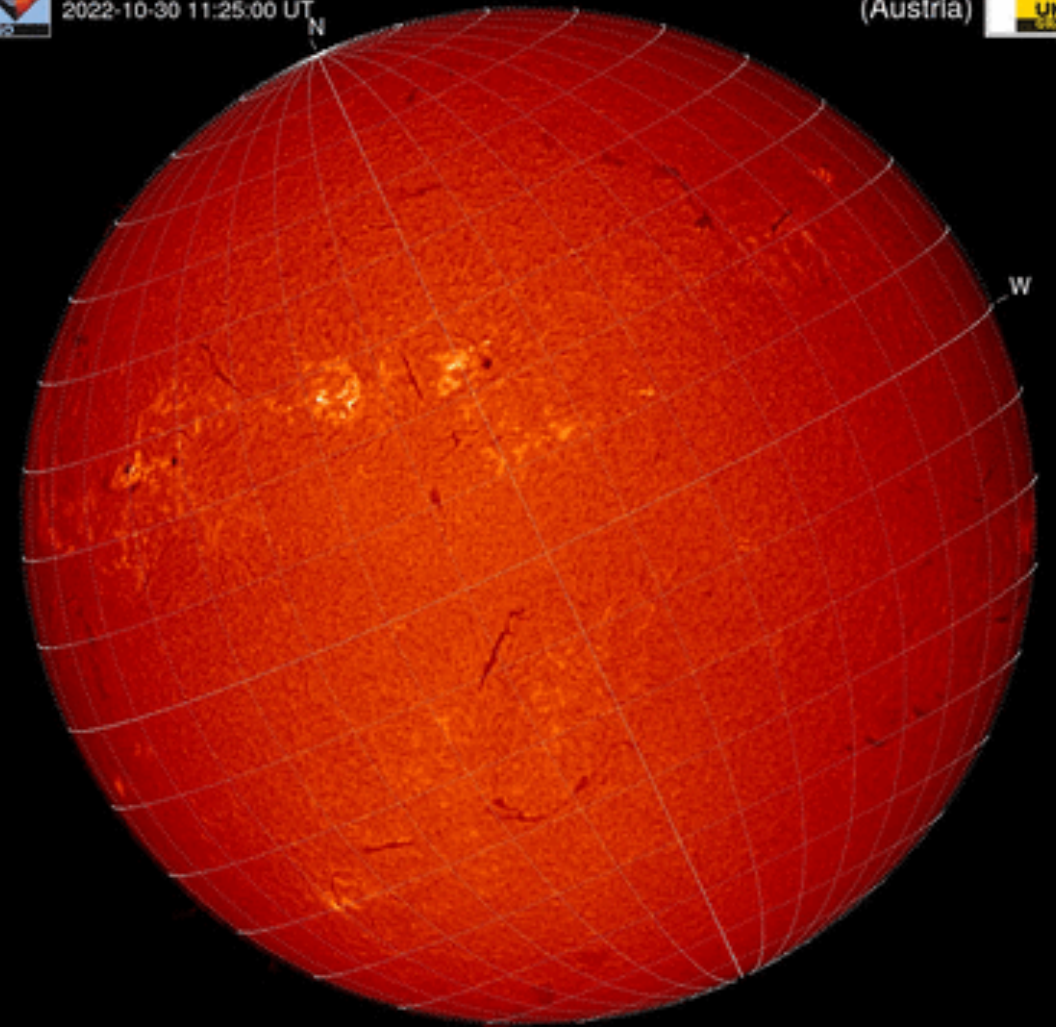
University of Graz
(Austria) 



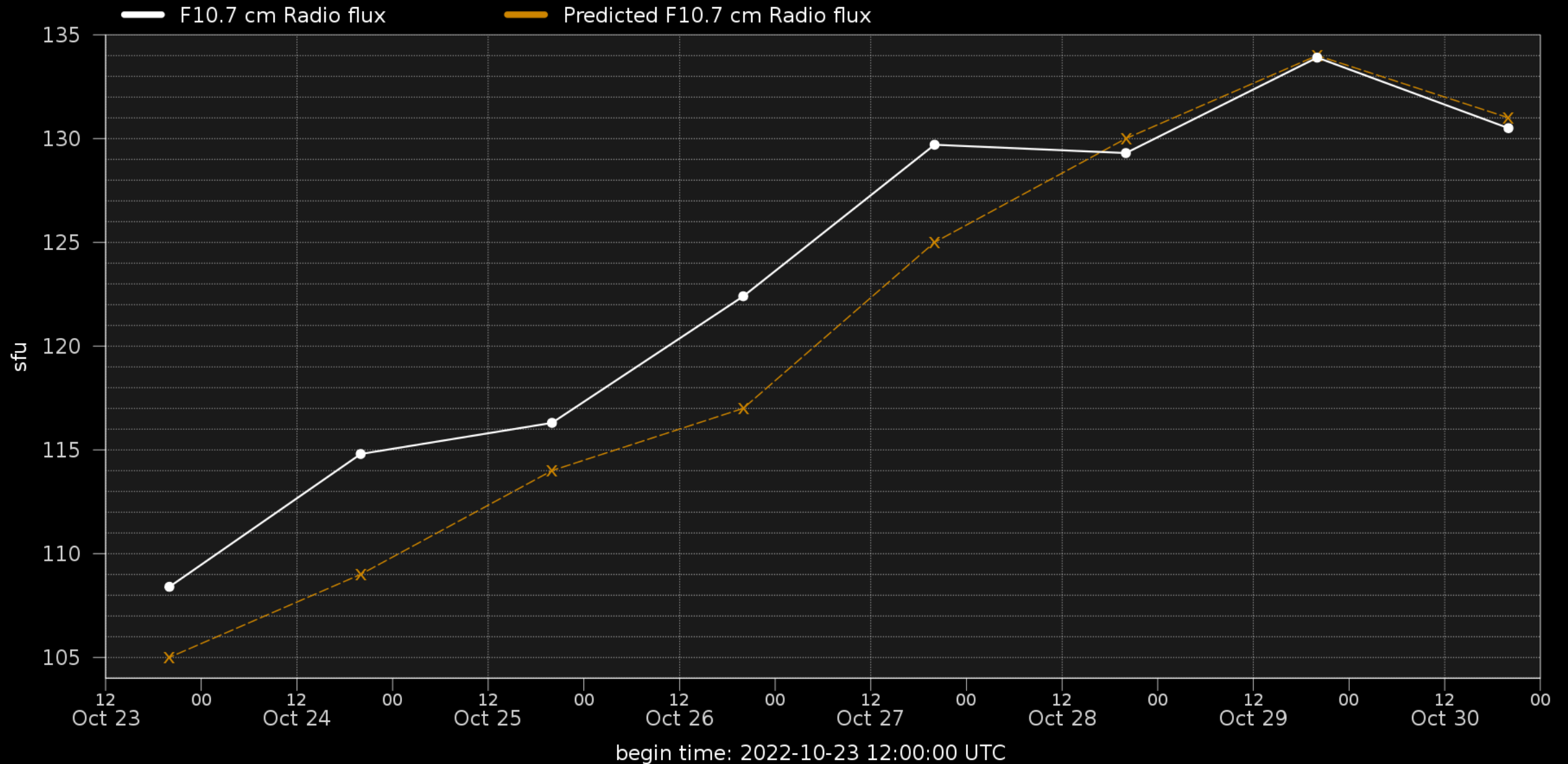
H-alpha 2022-10-30

 Kanzelhöhe Observatory
2022-10-30 11:25:00 UT

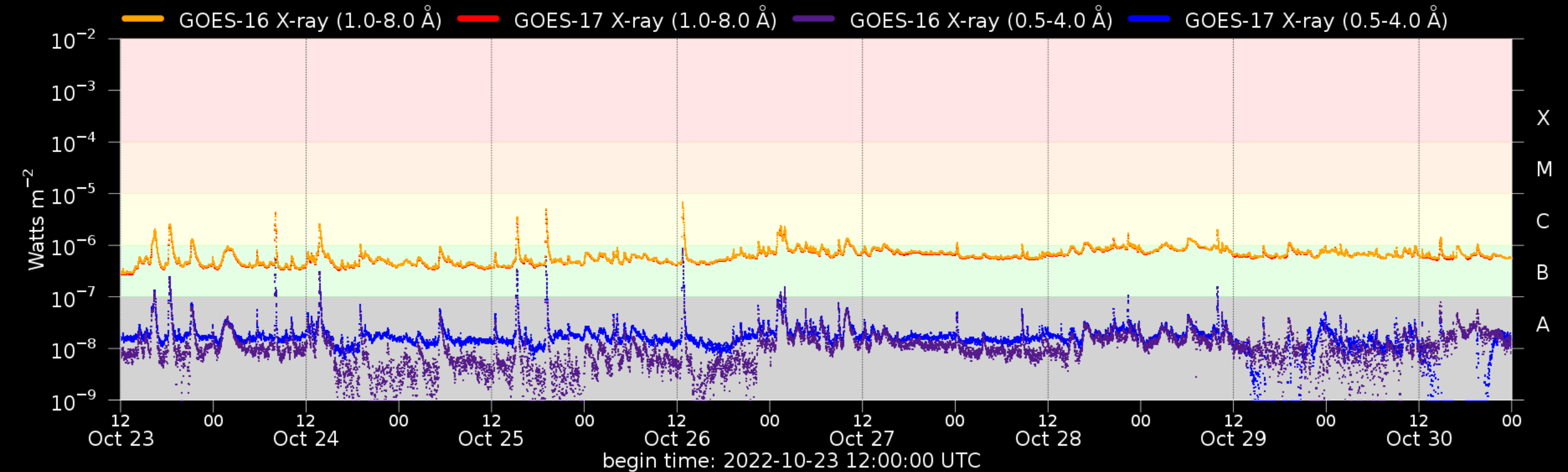
University of Graz
(Austria) 



Solar F10.7cm radio flux



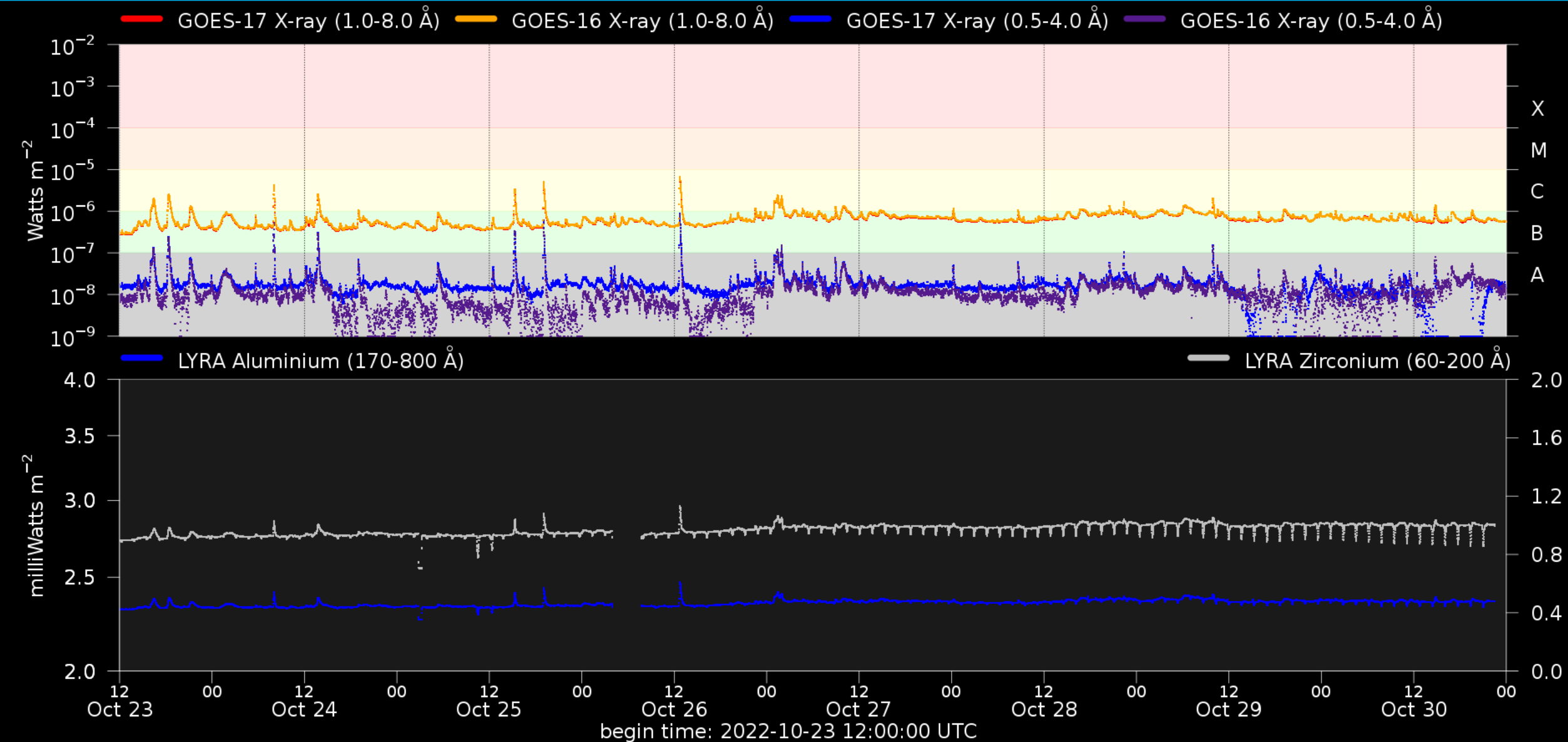
Flaring activity



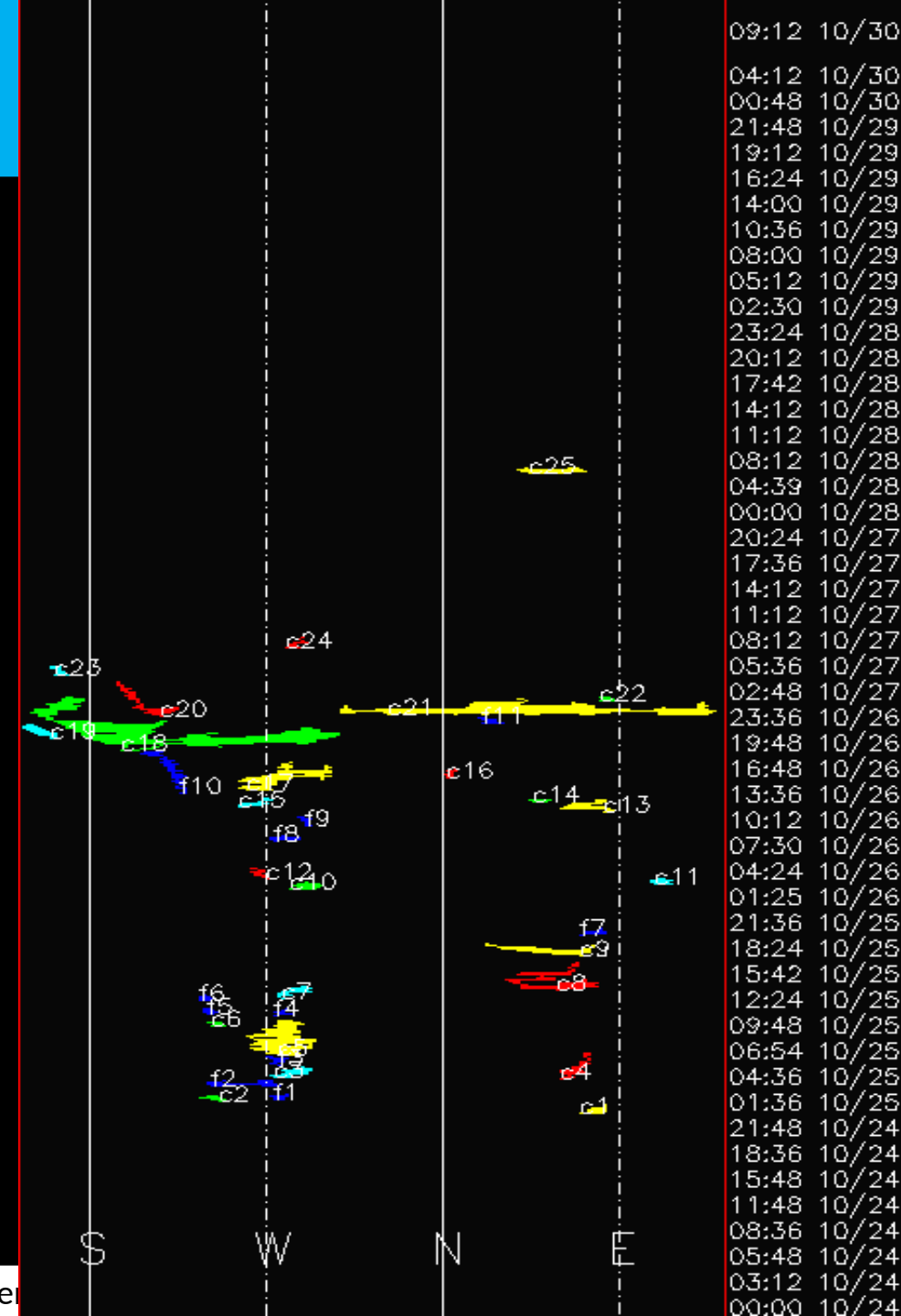
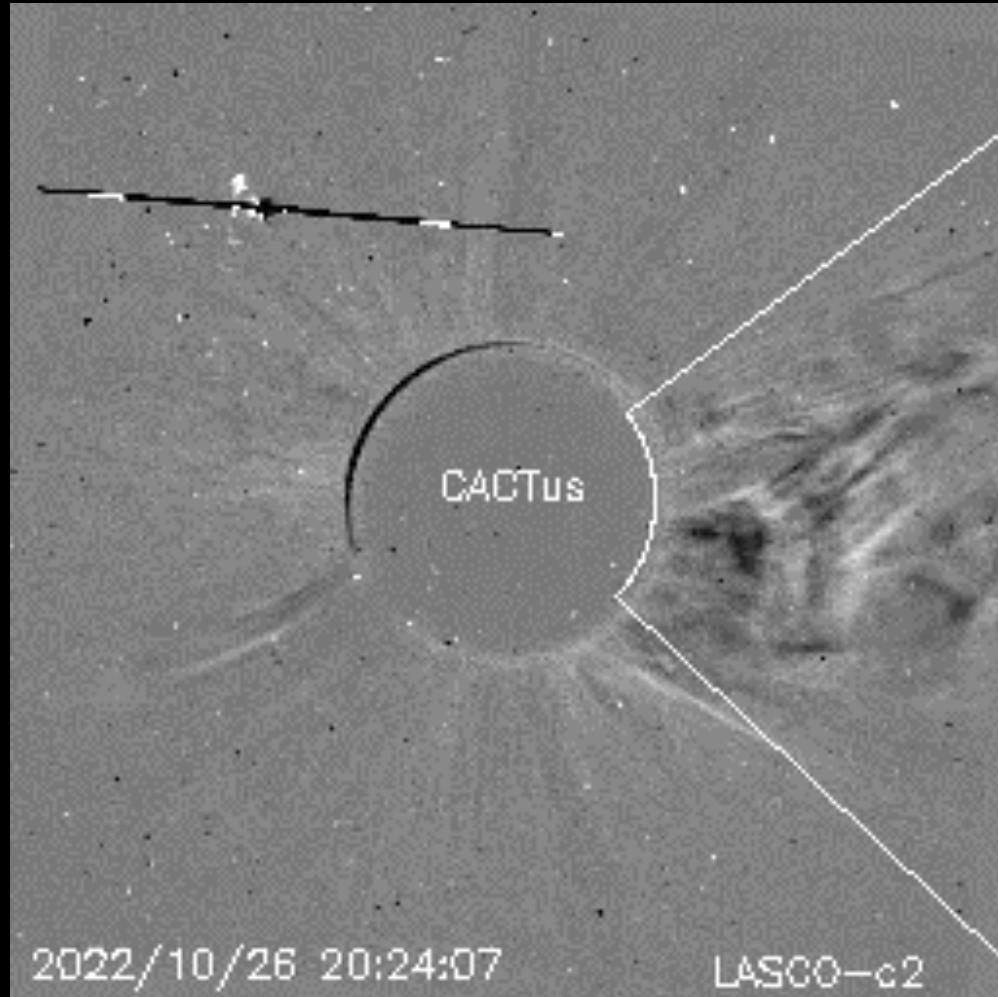
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2022-10-23	2022-10-24	2022-10-25	2022-10-26	2022-10-27	2022-10-28	2022-10-29	2022-10-30
Probability (%)	30 01 01	85 01 01	65 01 01	90 10 01	96 50 05	70 10 01	85 05 01	65 05 01
Observed (#)	04 00 00	02 00 00	02 00 00	06 00 00	02 00 00	03 00 00	01 00 00	01 00 00

Solar X-Ray and UV flux



Coronal Mass Ejections



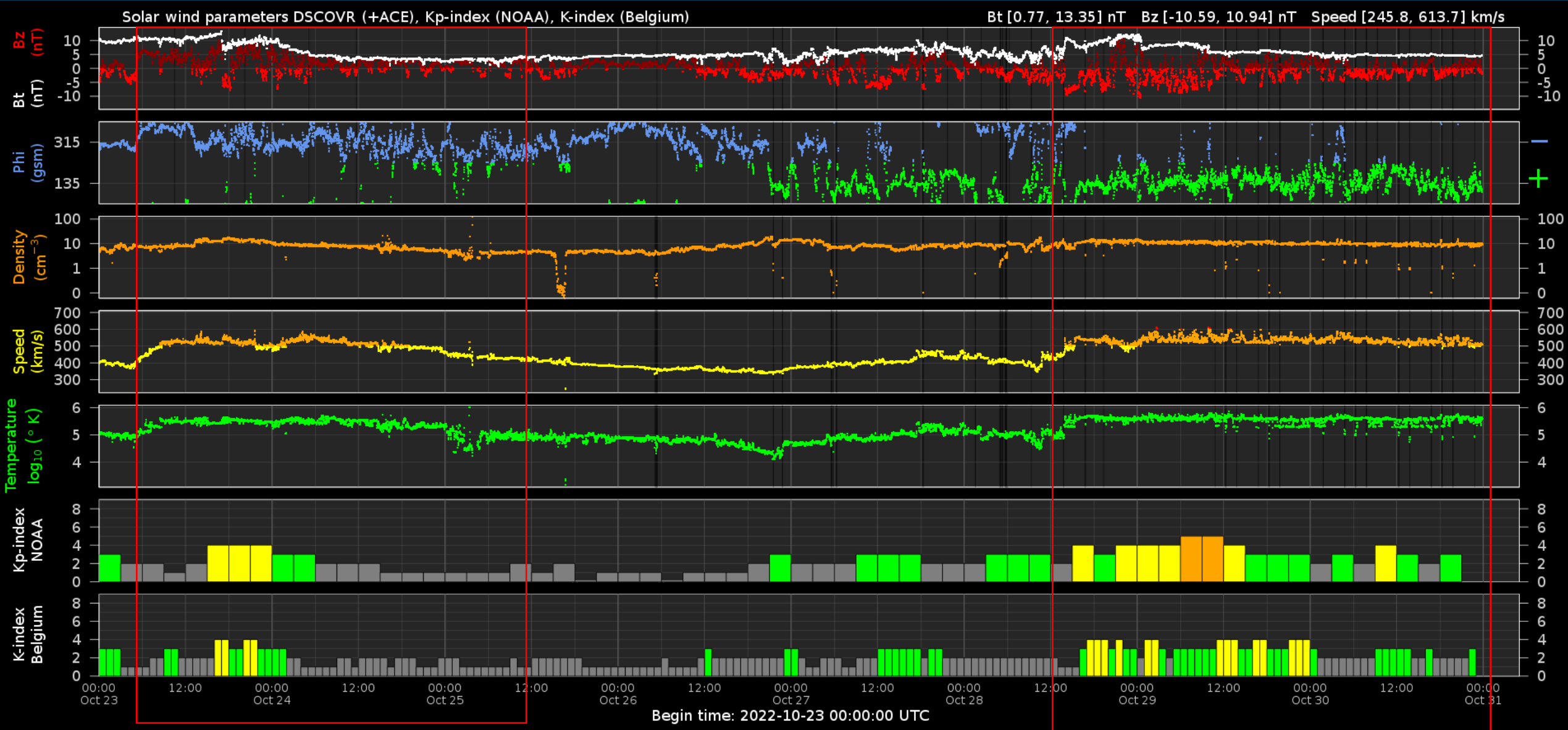
Solar Wind and Geomagnetic Activity



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Solar wind parameters & K-indices



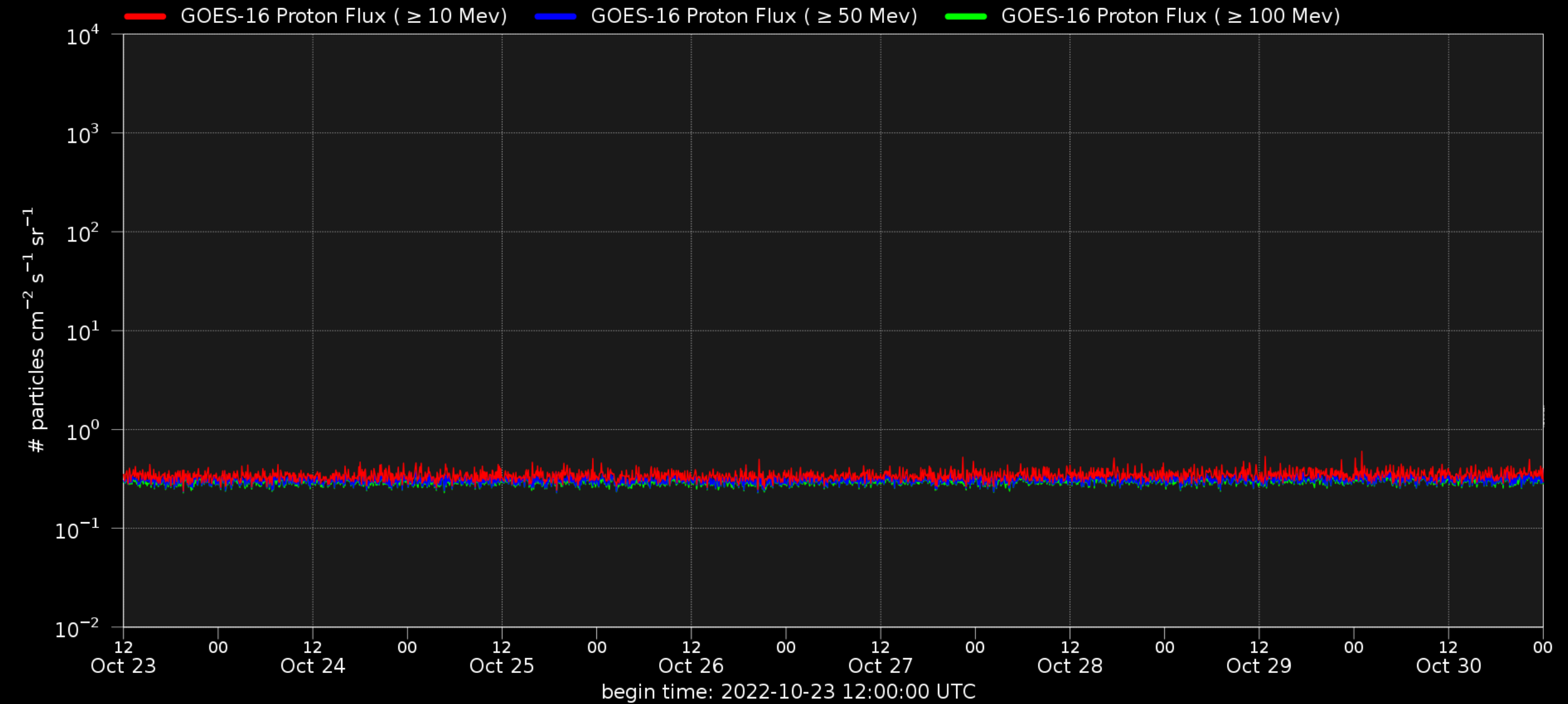
Energetic Particles



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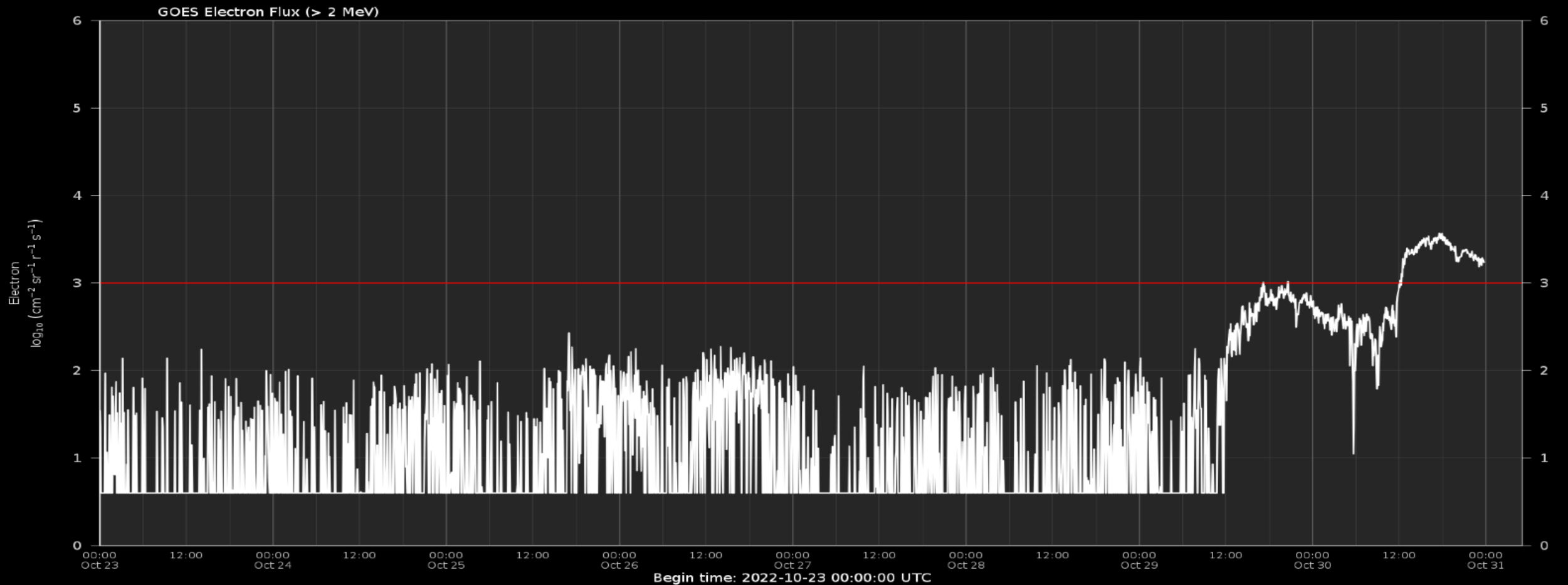
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



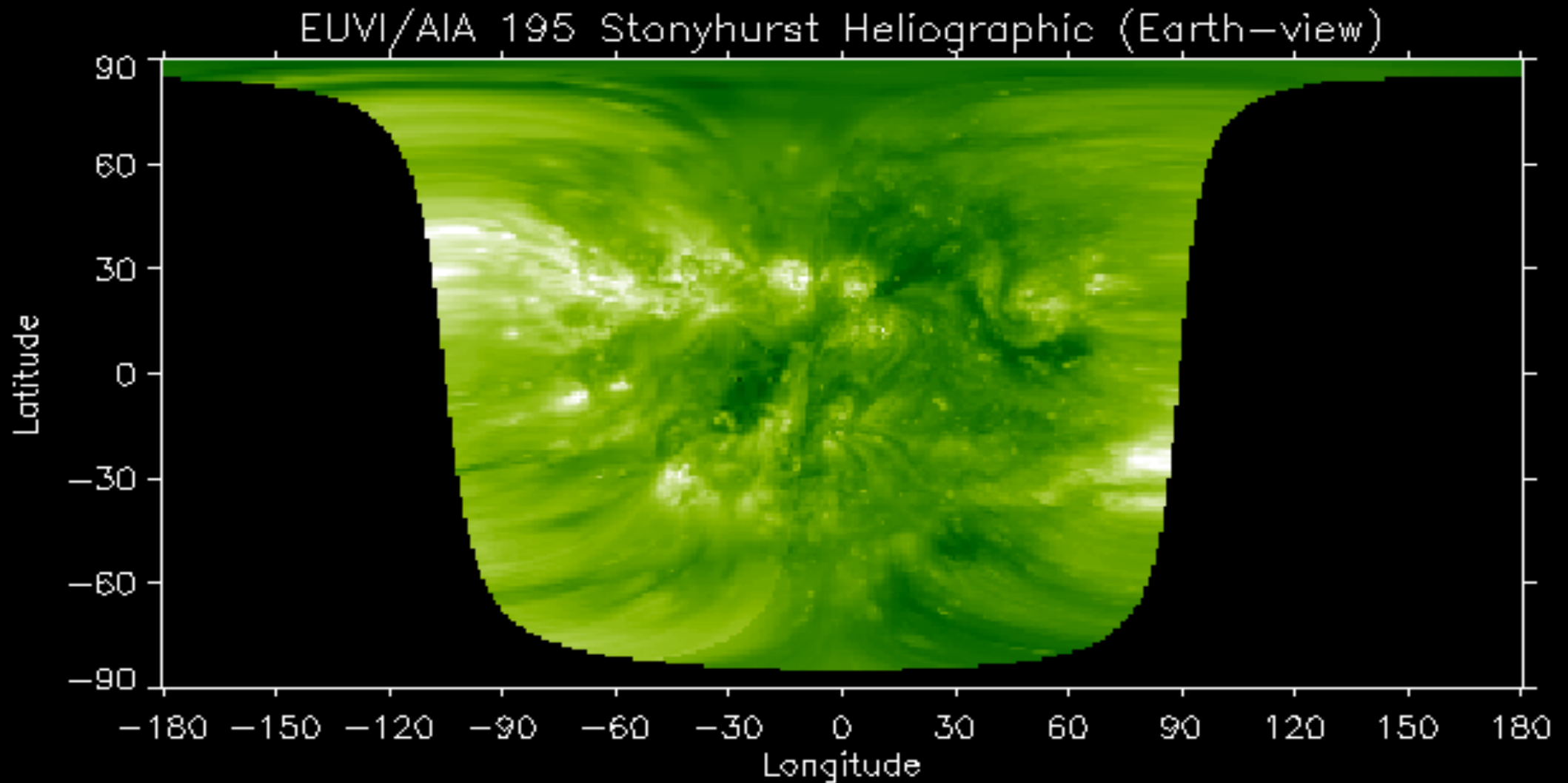
Outlook



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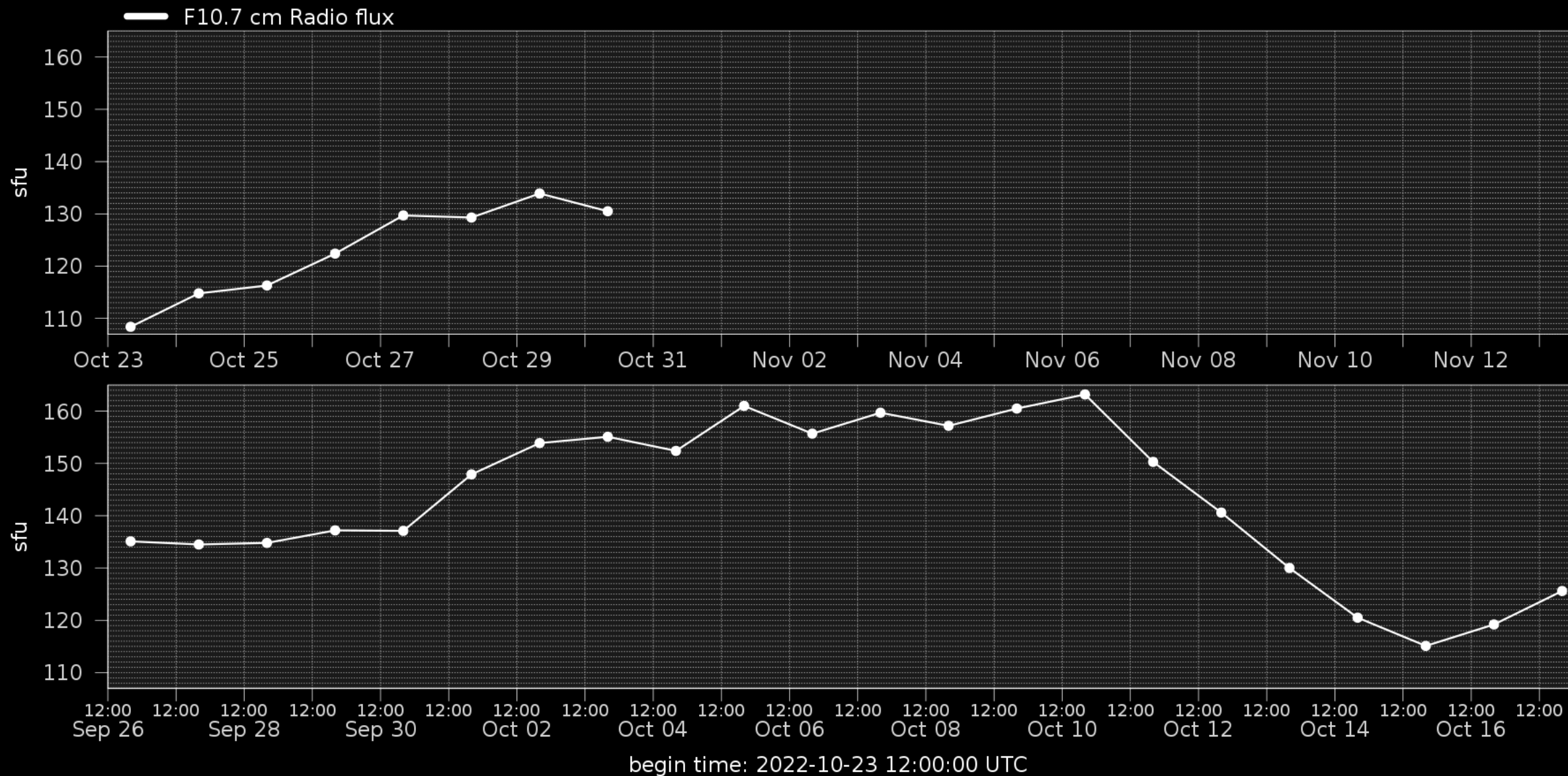
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Outlook: Solar activity



Observation date: 2022/10/30 19:55:00

Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



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