

SIDC Space Weather Briefing

23 April 2023-30 April 2023

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& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2023-04-23 12:00 to 2023-04-30 23:59

Active regions	NOAA AR 3283, 3285, 3288, 3289
Flares	# C-class flare: 38 # M-class flare: 2 # X-class flare: 0
Coronal Holes	Crossing Apr 24
CMEs	Apr 24 14:12 UT, Apr 27 01:25 UT, Apr 29 03:53 UT

Proton flux	Below threshold
Electron flux	Above threshold of 1000 dpfu for all of the week, wth exception of short intervals

Solar wind and geomagnetic conditions

ICMEs	None
Solar wind conditions	B : 0.46 - 34.44 nT //Bz: -33.14 nT to 24.45 nT //Speed: 275.1 - 1261.7km/s
K-indices	max K-index (KBel): 7 max Kp-index (NOAA): 8

All Quiet Alert: Not quiet

Solar Activity

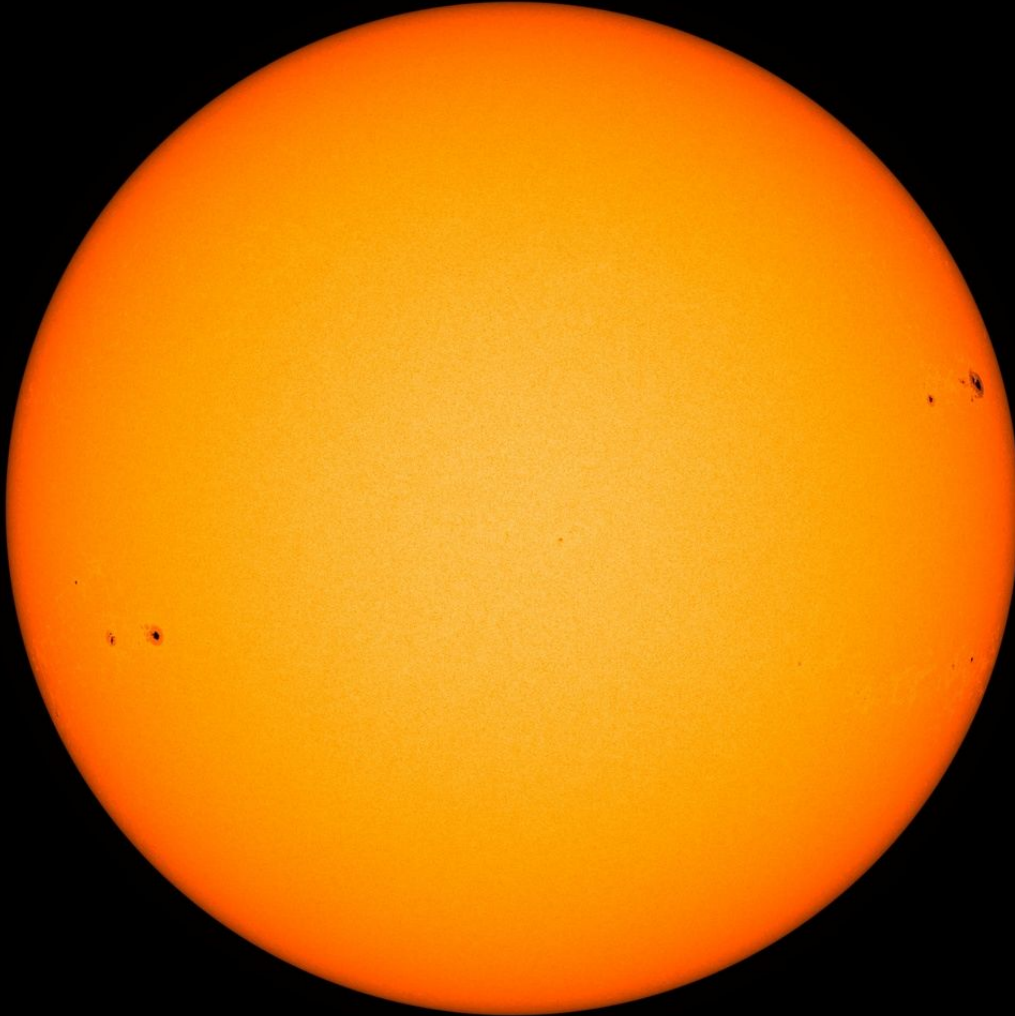


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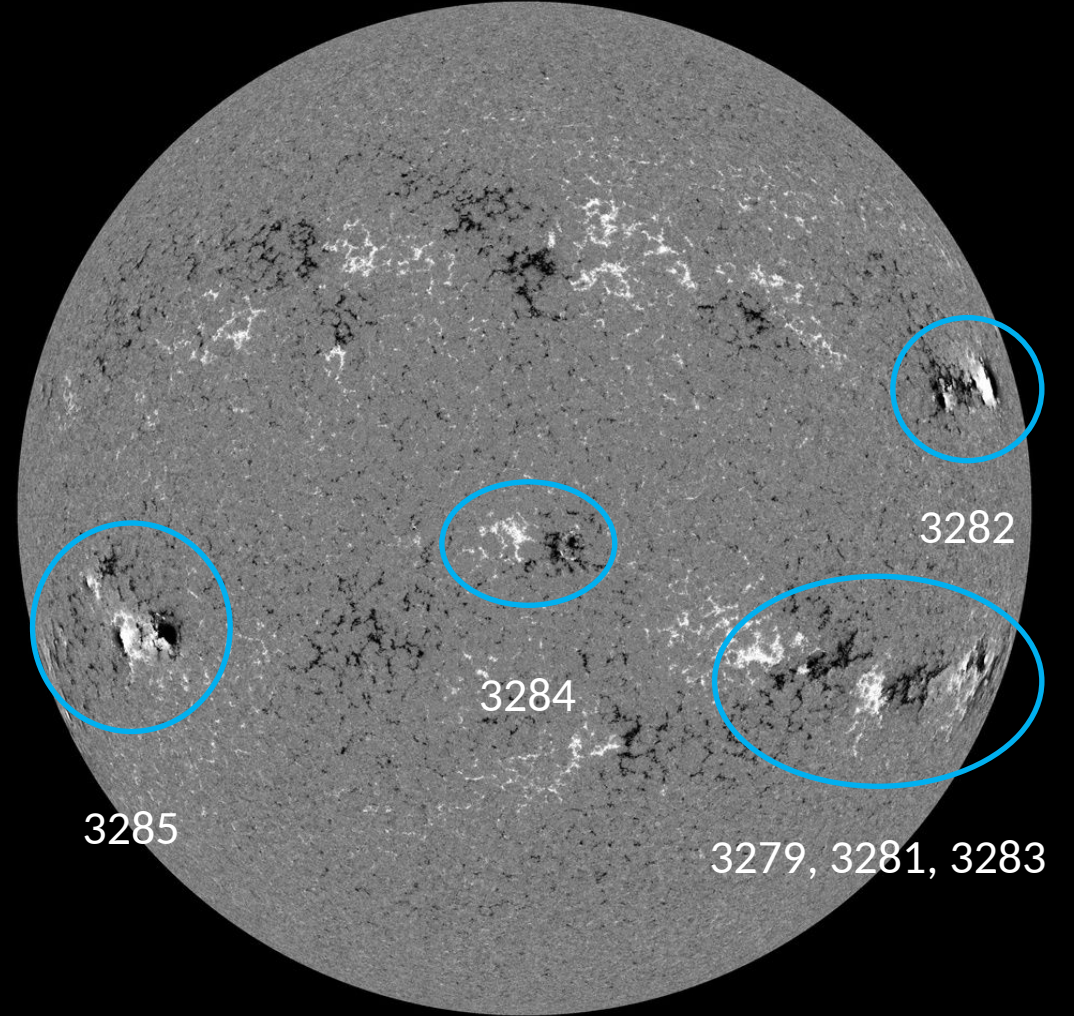
Solar active regions

SDO/HMI White Light 2023-04-23



SDO/HMI Quick-Look Continuum: 20230423_114500

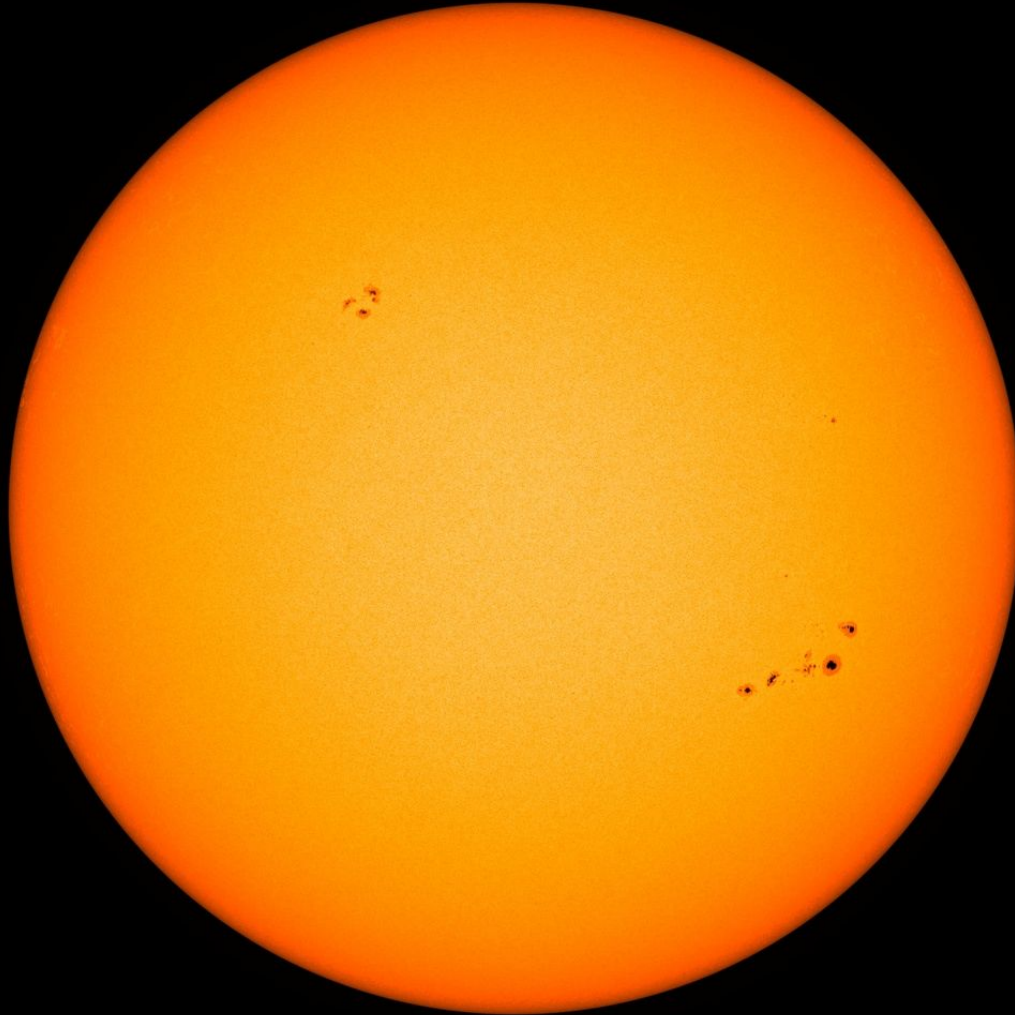
SDO/HMI Magnetogram 2023-04-23



SDO/HMI Quick-Look Magnetogram: 20230423_114500

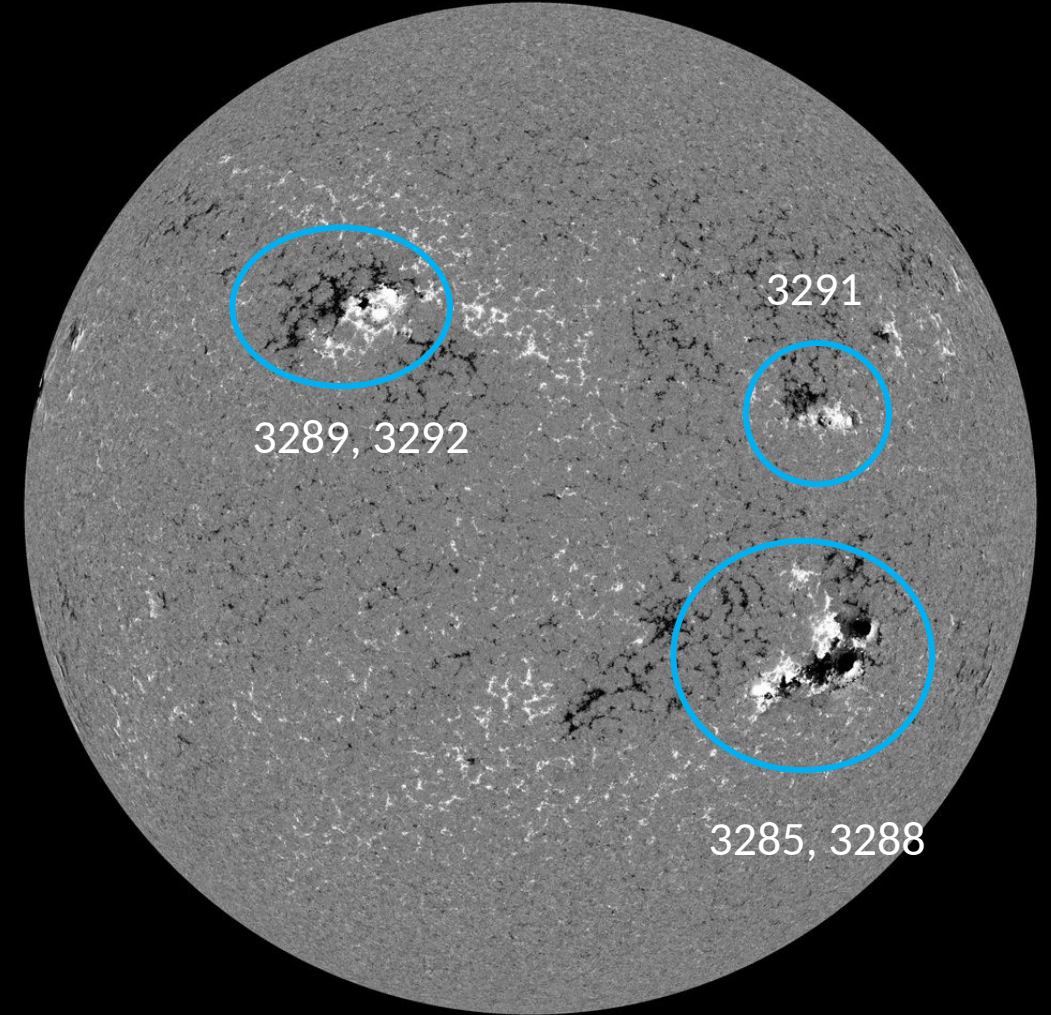
Solar active regions

SDO/HMI White Light 2023-04-30



SDO/HMI Quick-Look Continuum: 20230430_114500

SDO/HMI Magnetogram 2023-04-30

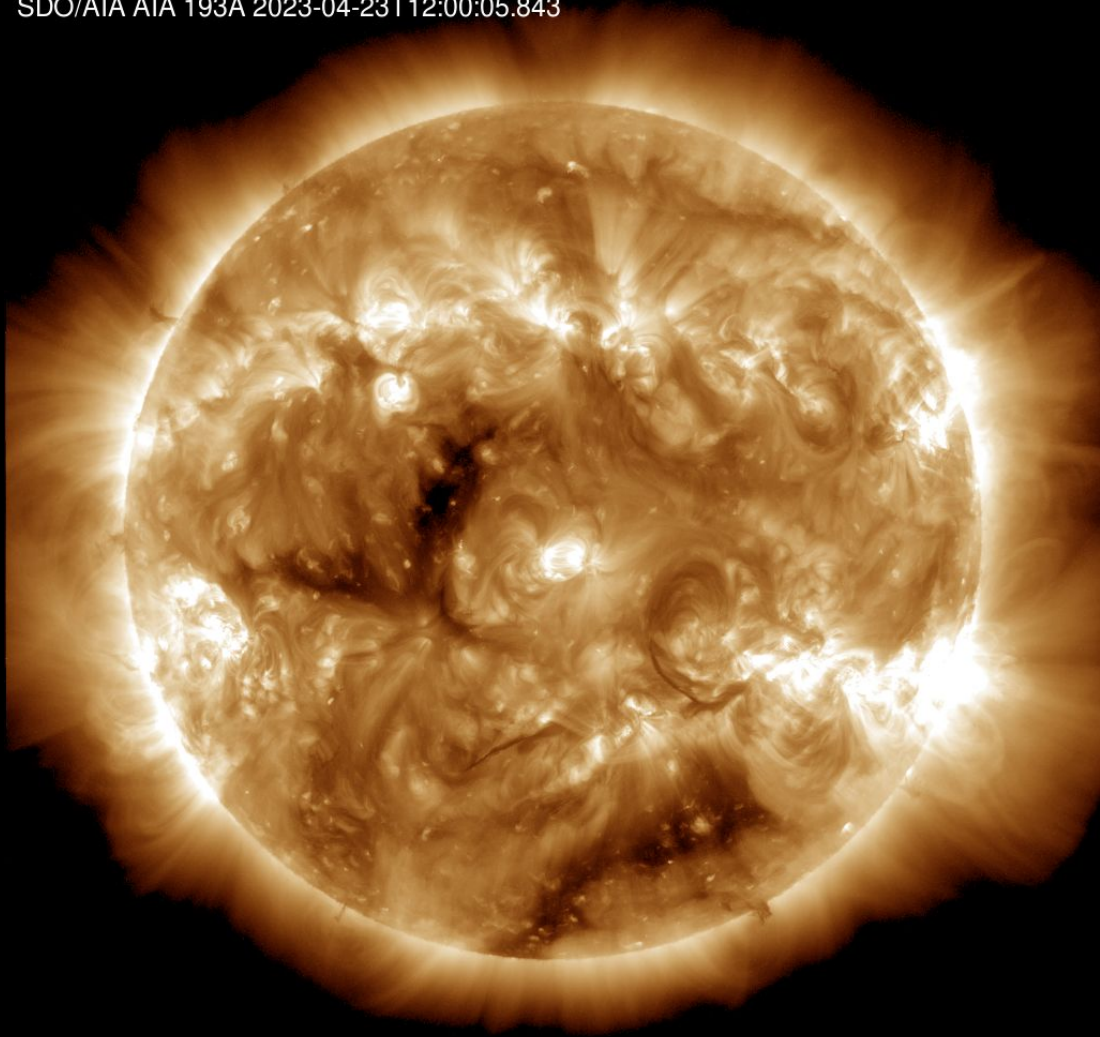


SDO/HMI Quick-Look Magnetogram: 20230430_114500

Coronal holes

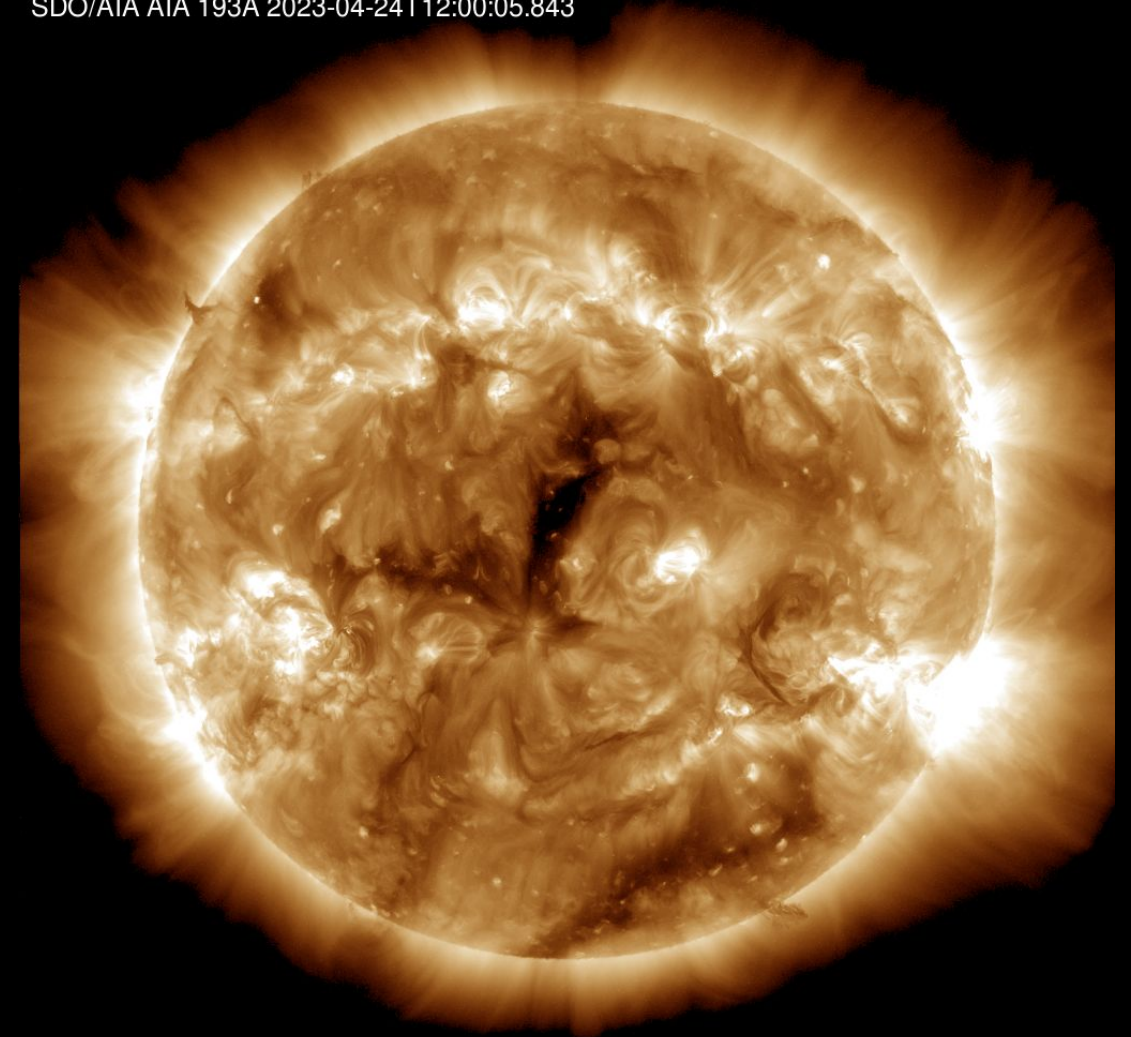
SDO/AIA 19.3 nm 2023-04-23

SDO/AIA AIA 193Å 2023-04-23T12:00:05.843



SDO/AIA 19.3 nm 2023-04-24

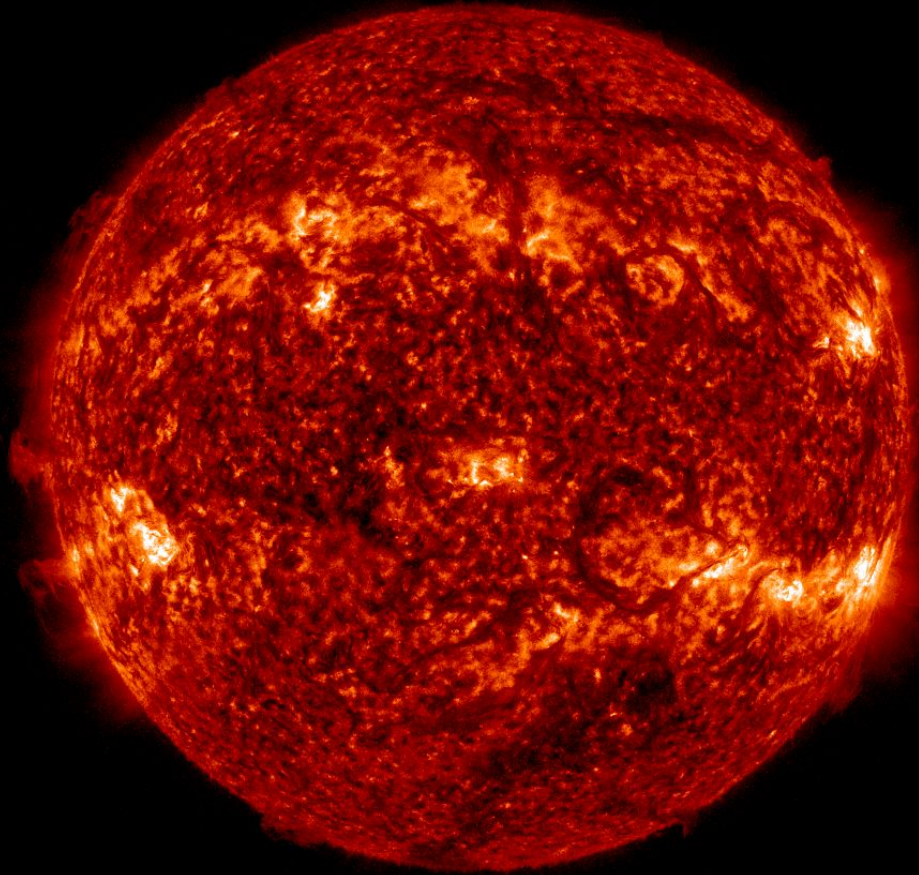
SDO/AIA AIA 193Å 2023-04-24T12:00:05.843



Filaments

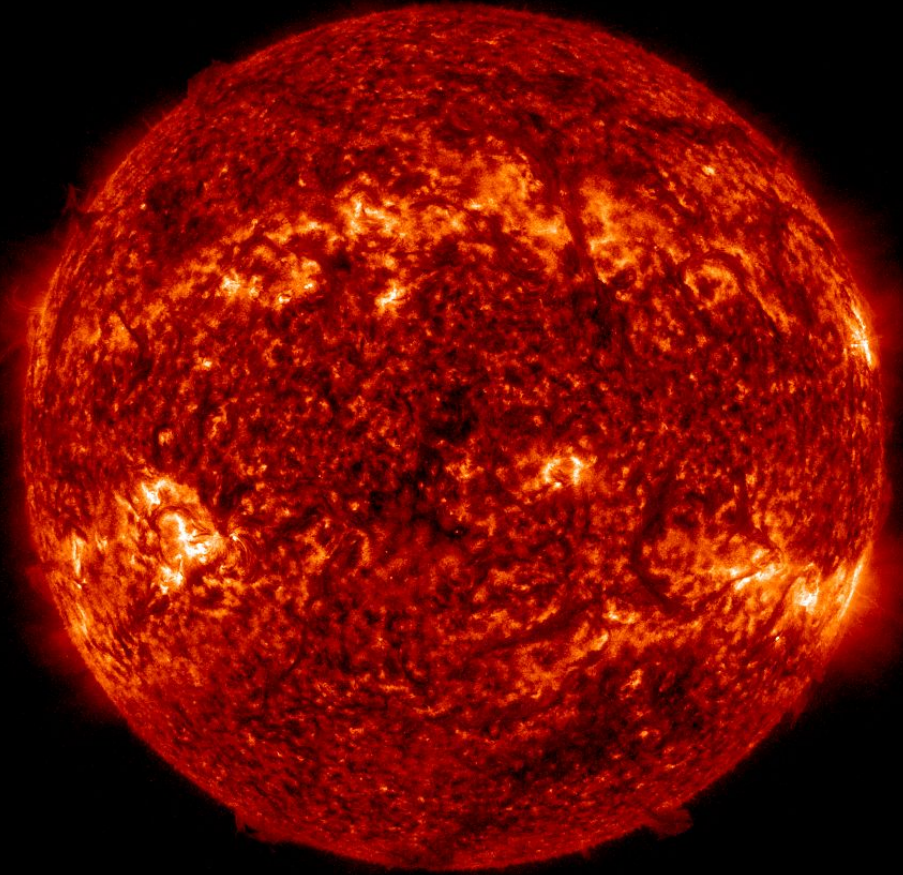
SDO/AIA 30.4 nm 2023-04-23

SDO/AIA AIA 304Å 2023-04-23T12:00:06.580



SDO/AIA 30.4 nm 2023-04-24

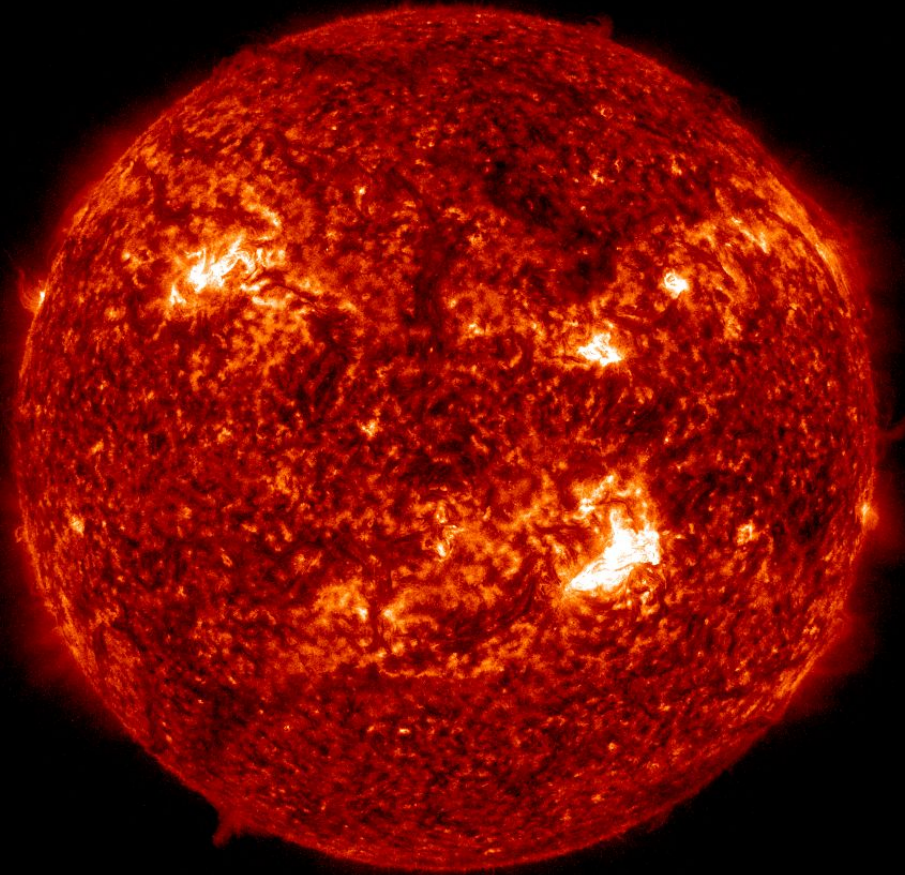
SDO/AIA AIA 304Å 2023-04-24T12:00:06.580



Filaments

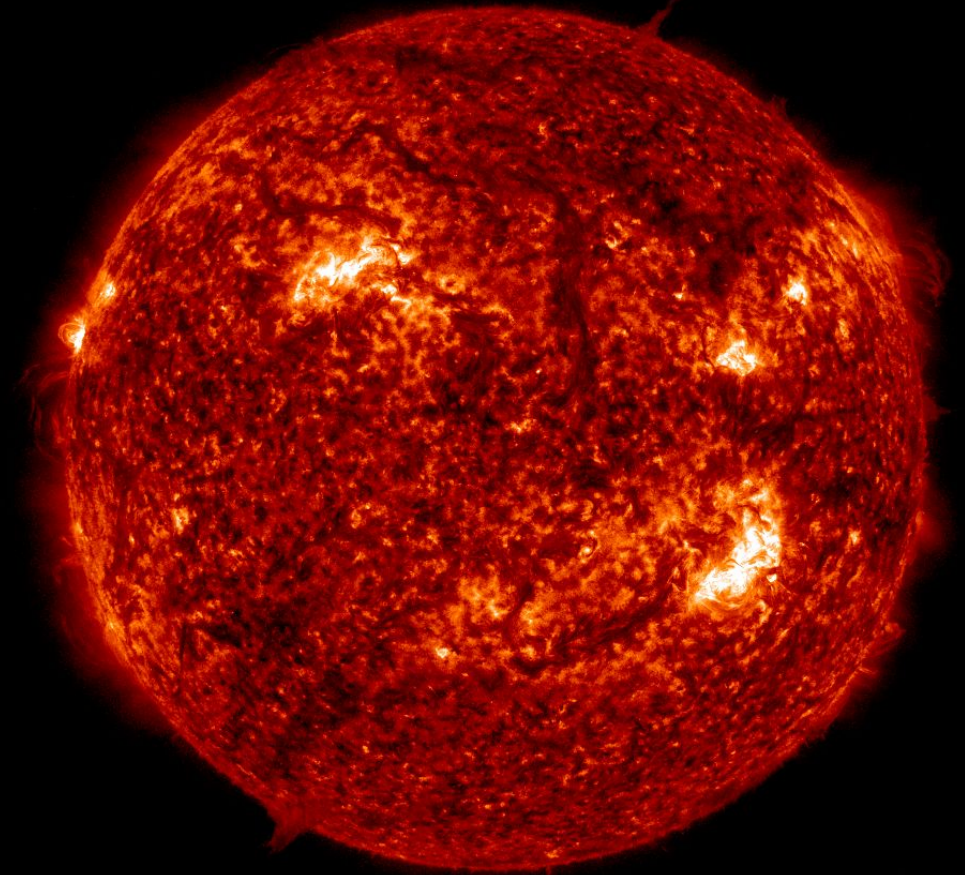
SDO/AIA 30.4 nm 2023-04-29

SDO/AIA AIA 304Å 2023-04-29T12:00:06.580



SDO/AIA 30.4 nm 2023-04-30

SDO/AIA AIA 304Å 2023-04-30T12:00:06.580



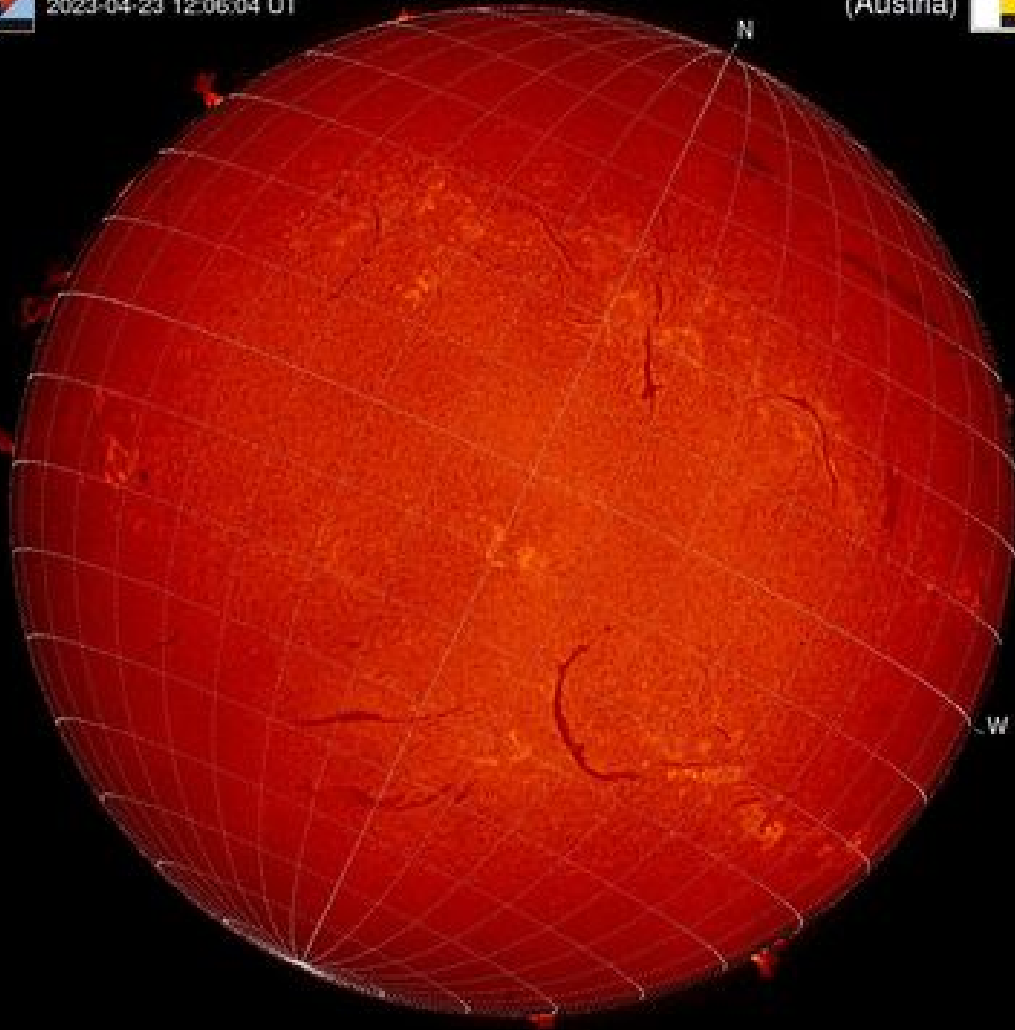
Filaments & Filament eruptions

H-alpha 2023-04-23



Kanzelhöhe Observatory
2023-04-23 12:06:04 UT

University of Graz
(Austria)

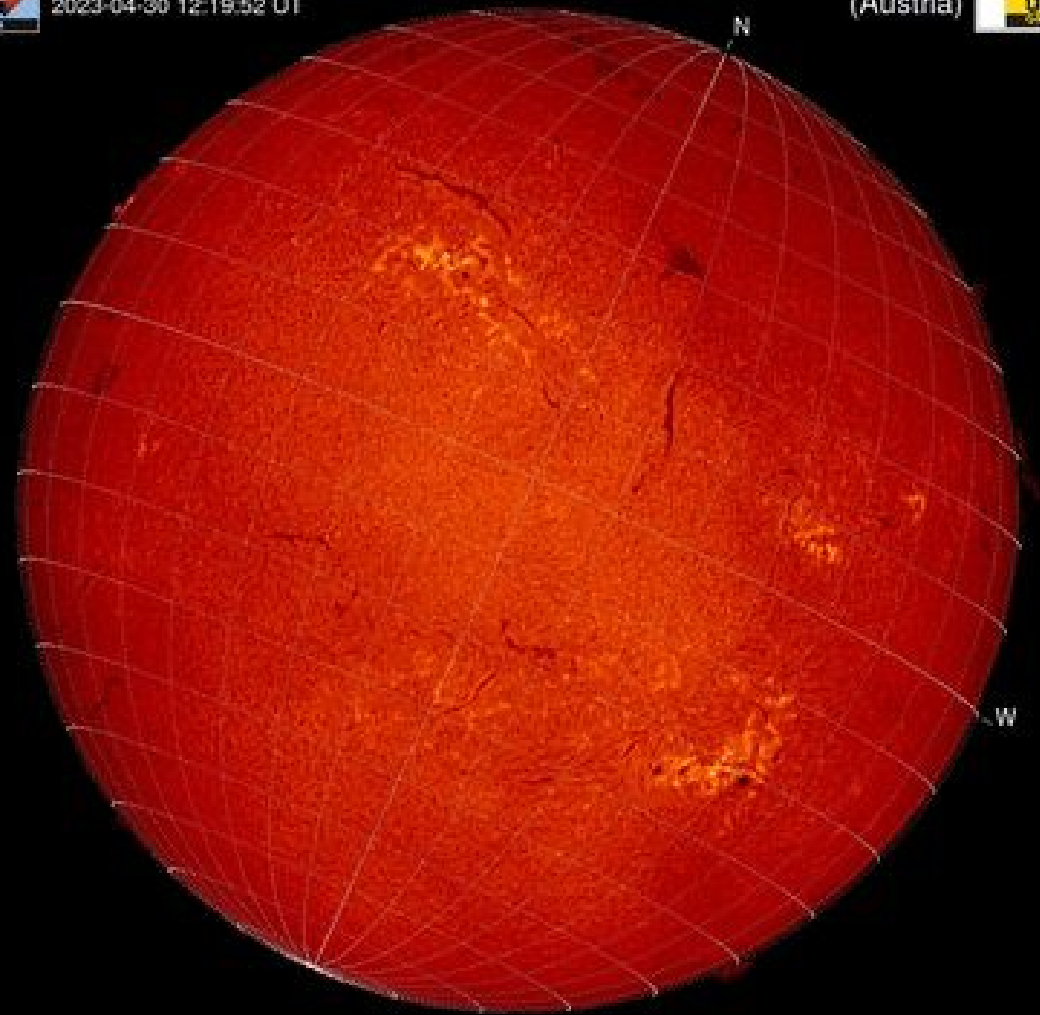


H-alpha 2023-04-30

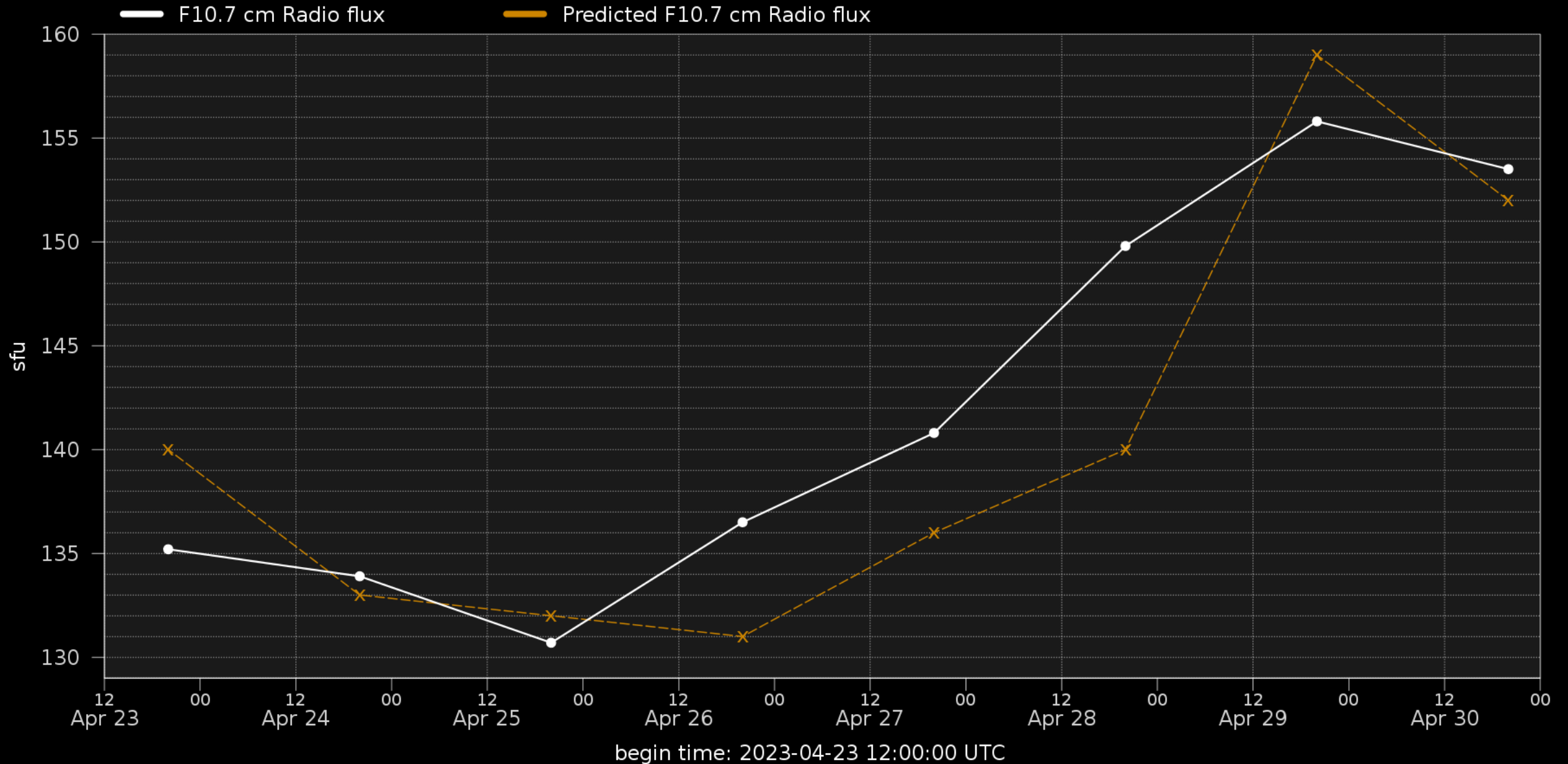


Kanzelhöhe Observatory
2023-04-30 12:19:52 UT

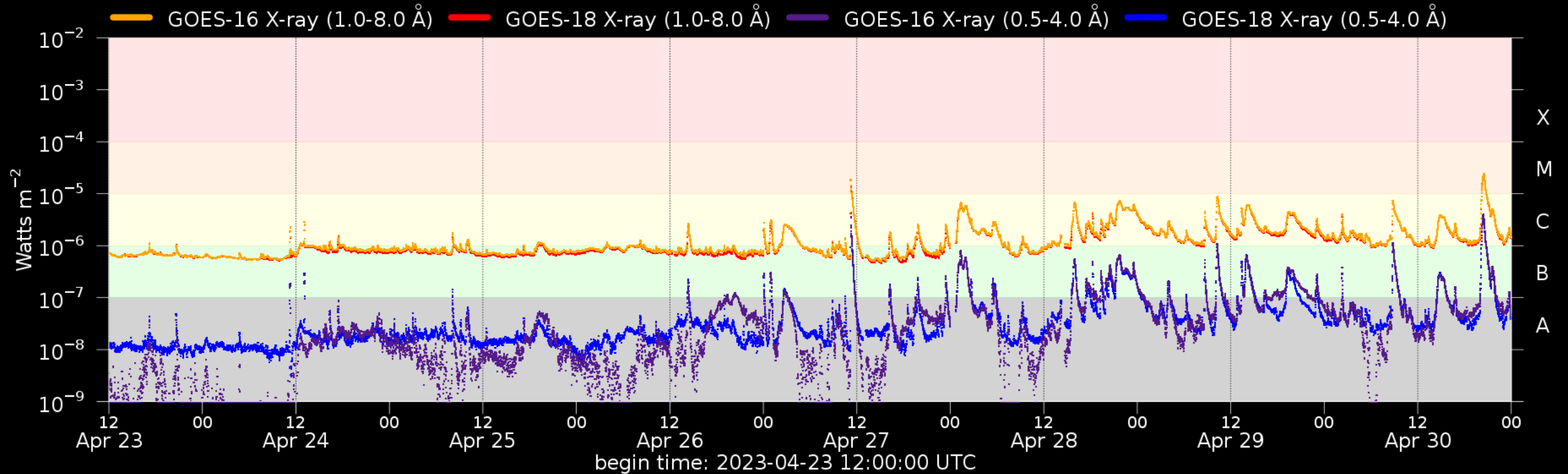
University of Graz
(Austria)



Solar F10.7cm radio flux



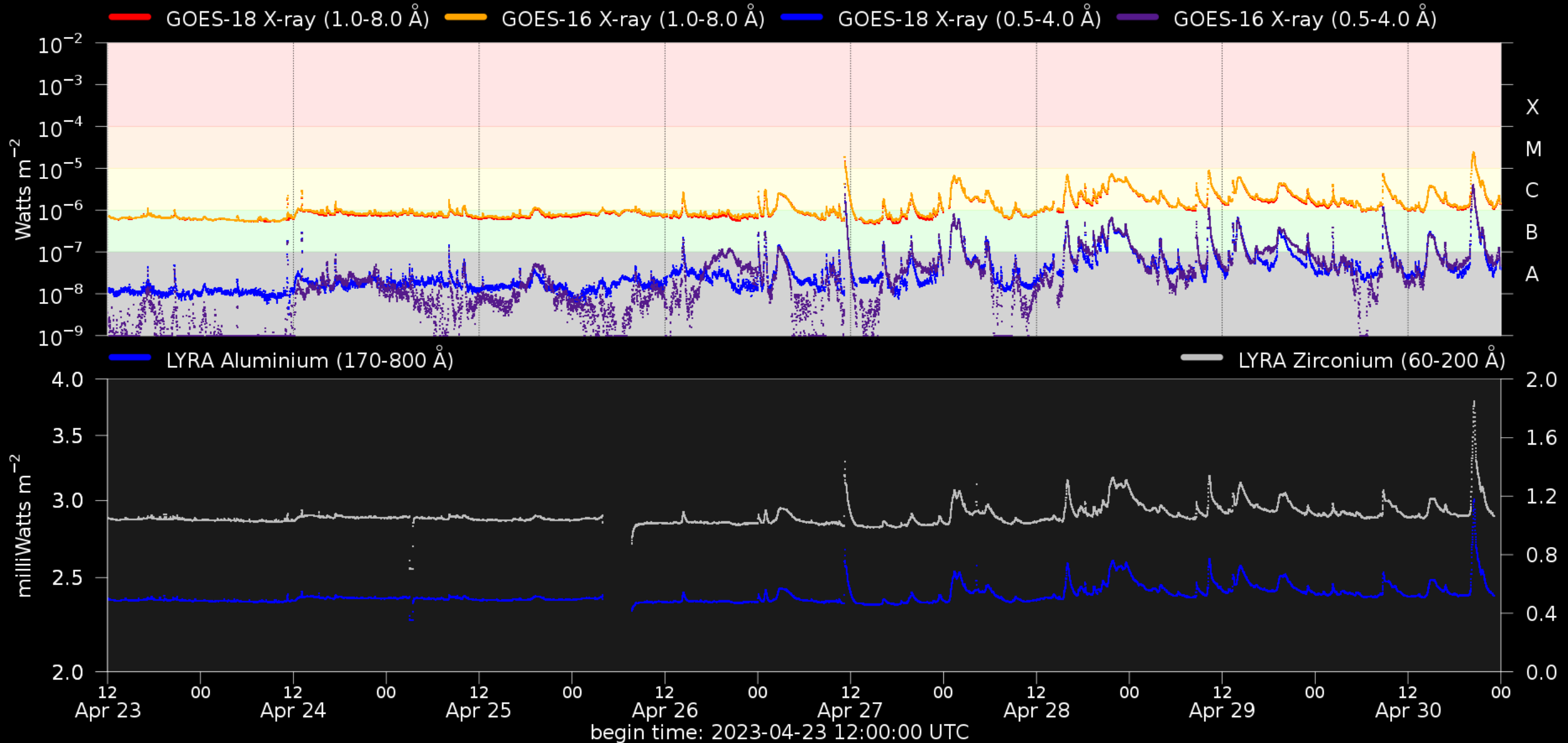
Flaring activity



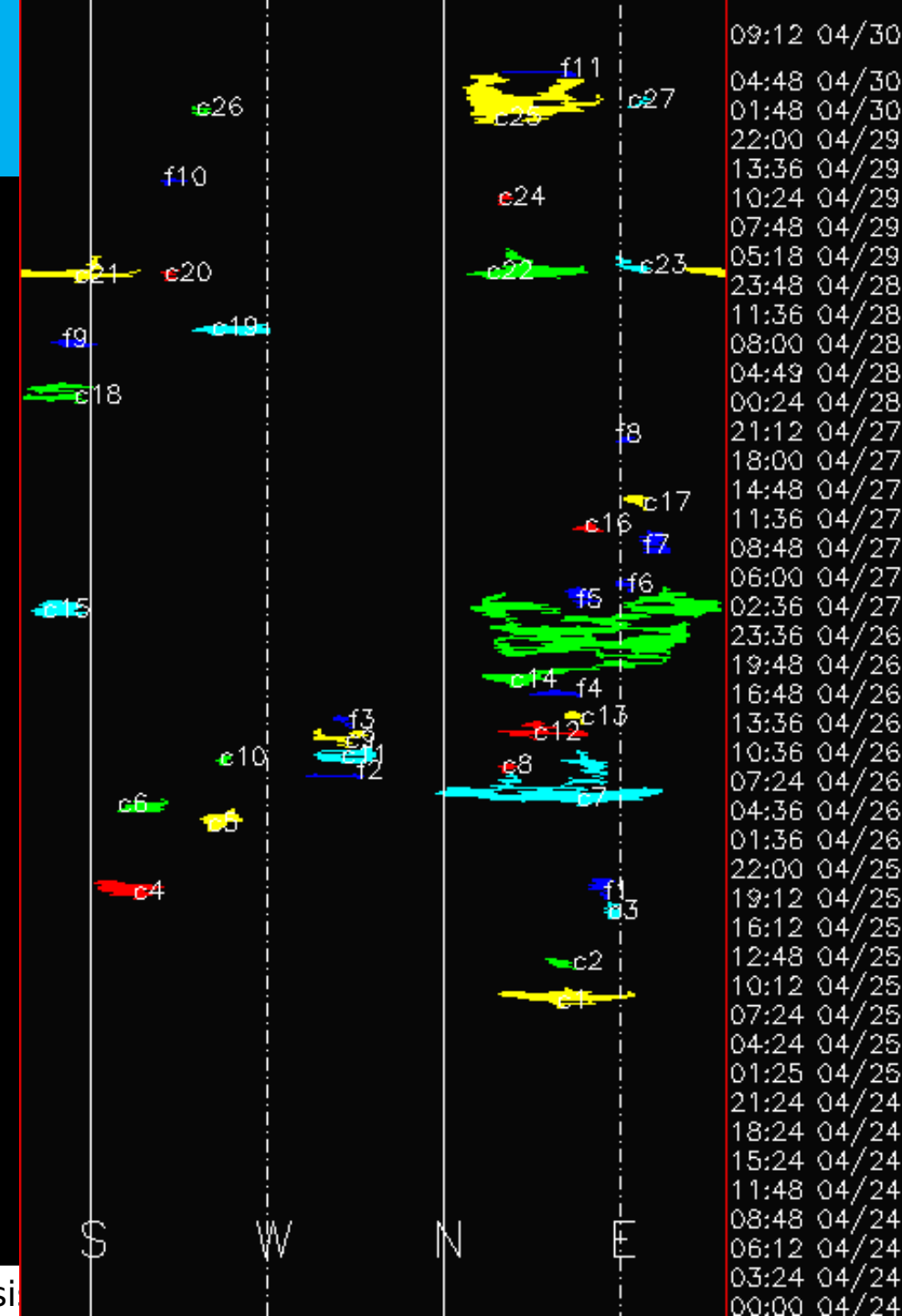
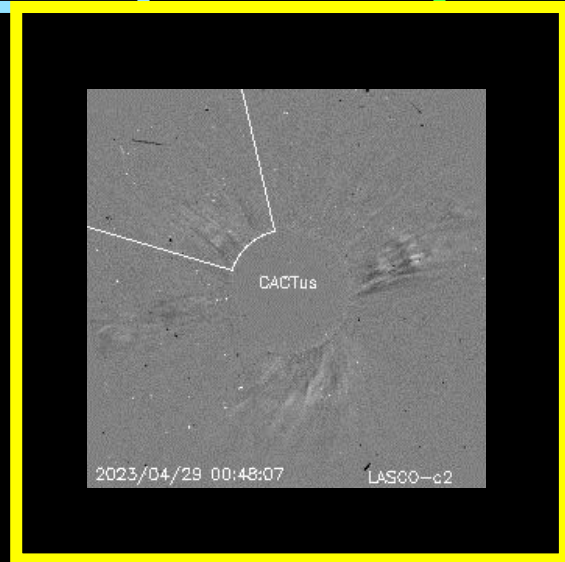
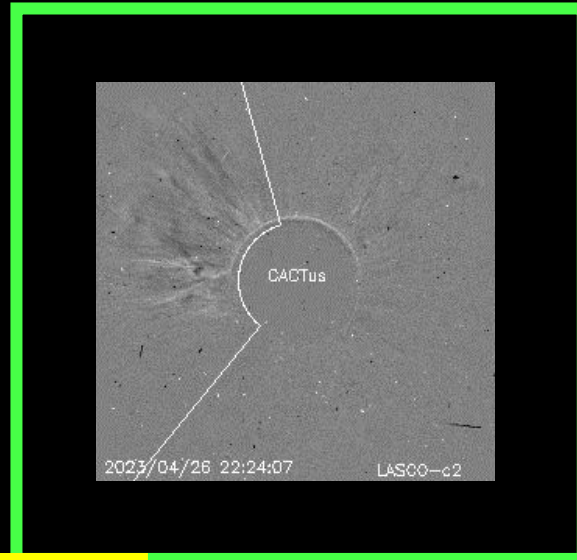
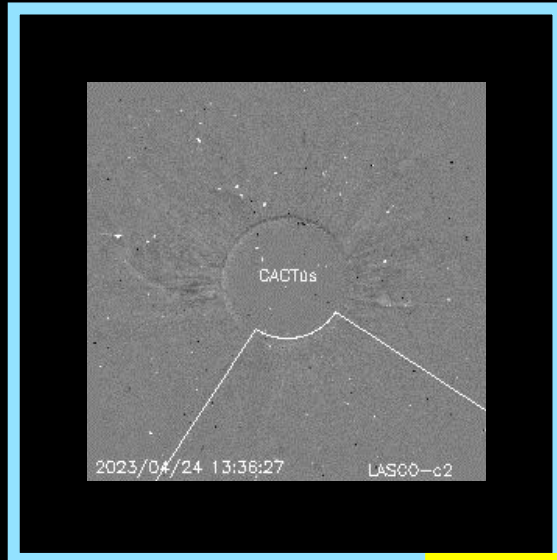
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-04-23	2023-04-24	2023-04-25	2023-04-26	2023-04-27	2023-04-28	2023-04-29	2023-04-30
Probability (%)	85 30 10	70 01 00	70 05 01	80 05 01	99 52 10	99 50 05	99 40 15	99 25 01
Observed (#)	03 00 00	05 00 00	00 00 00	05 01 00	09 00 00	09 00 00	05 00 00	02 01 00

Solar X-Ray and UV flux



Coronal Mass Ejections

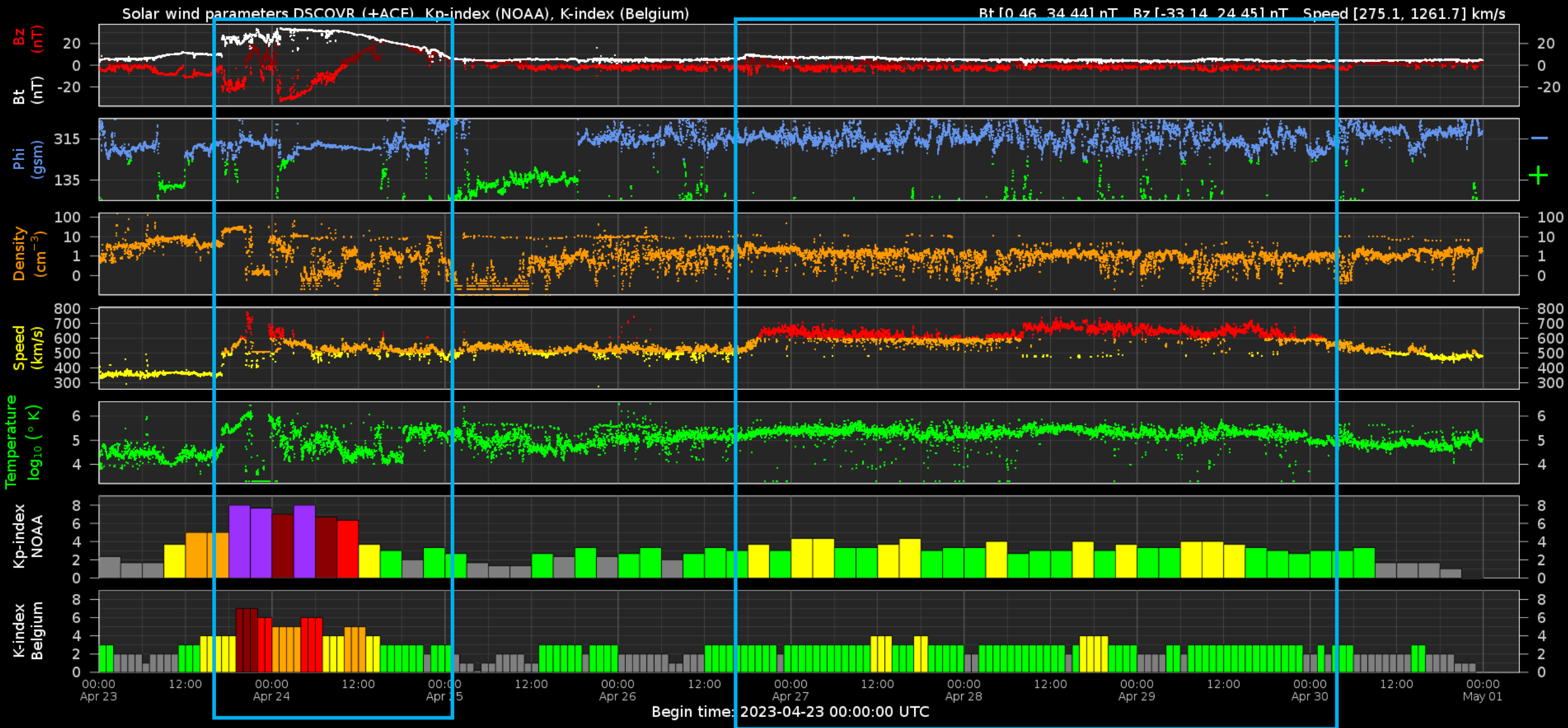


Solar Wind and Geomagnetic Activity



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Solar wind parameters & K-indices

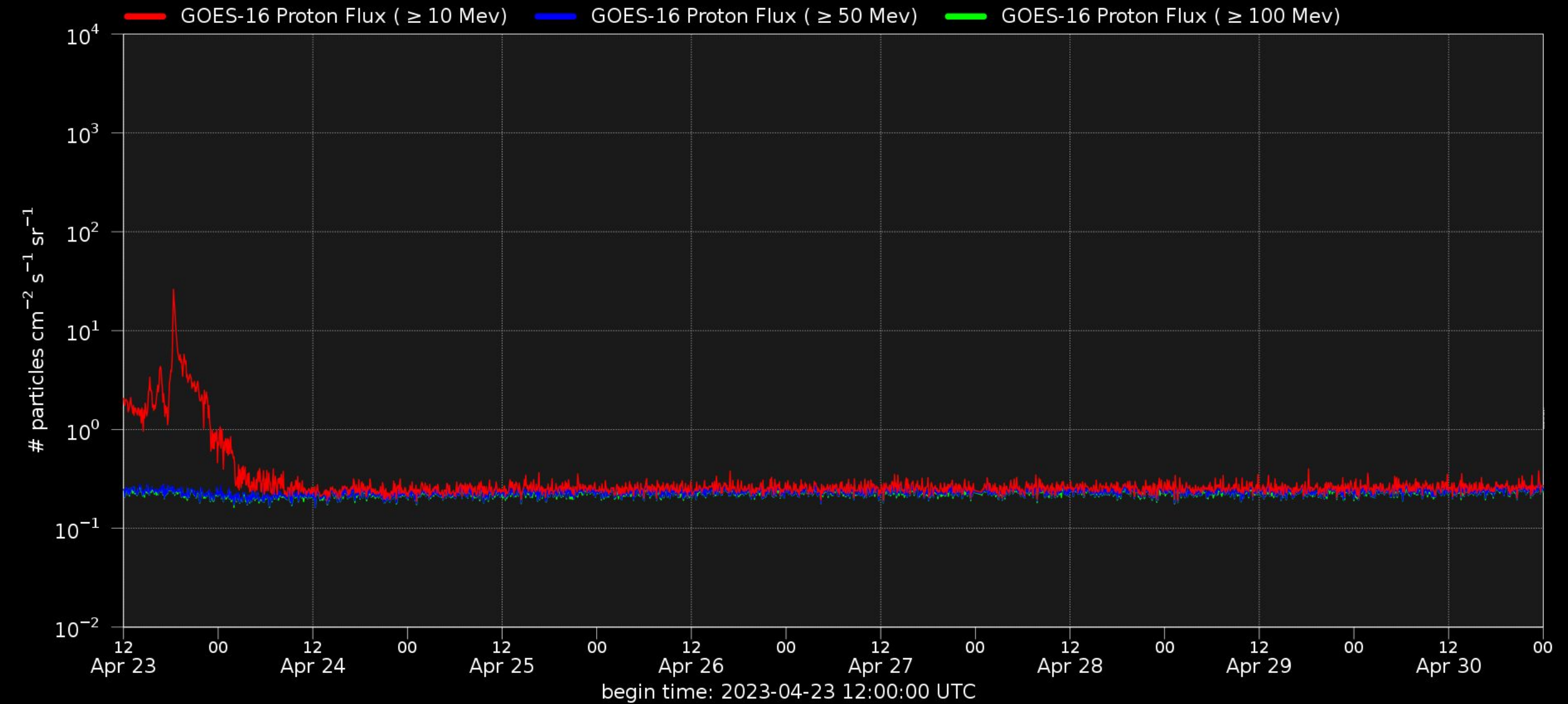


Energetic Particles



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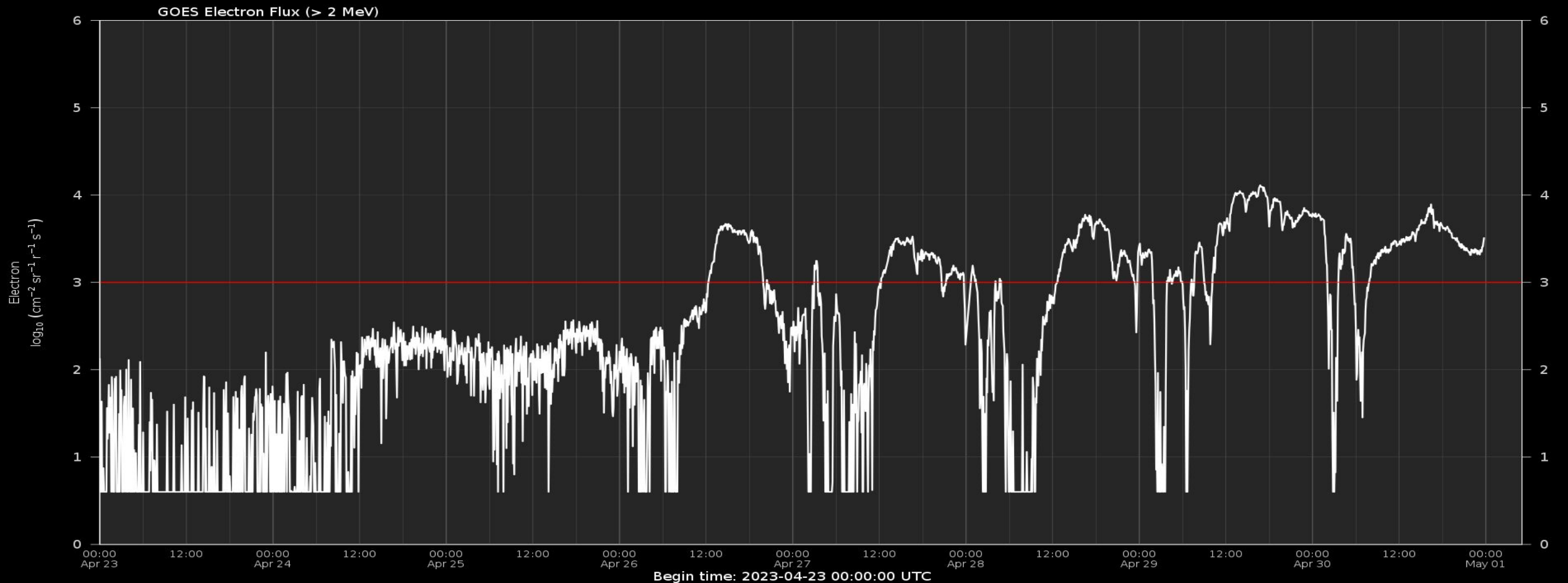
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



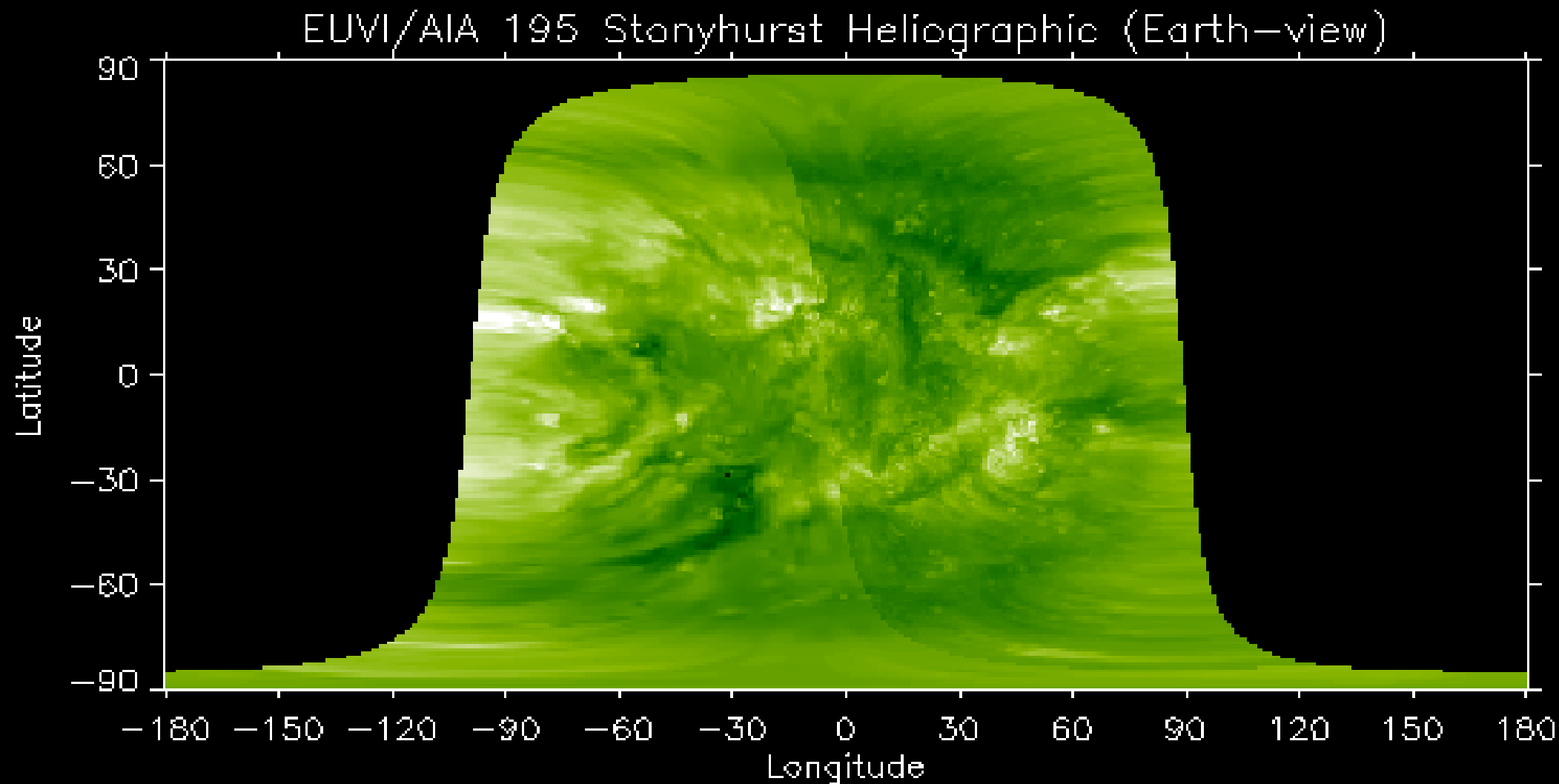
Outlook



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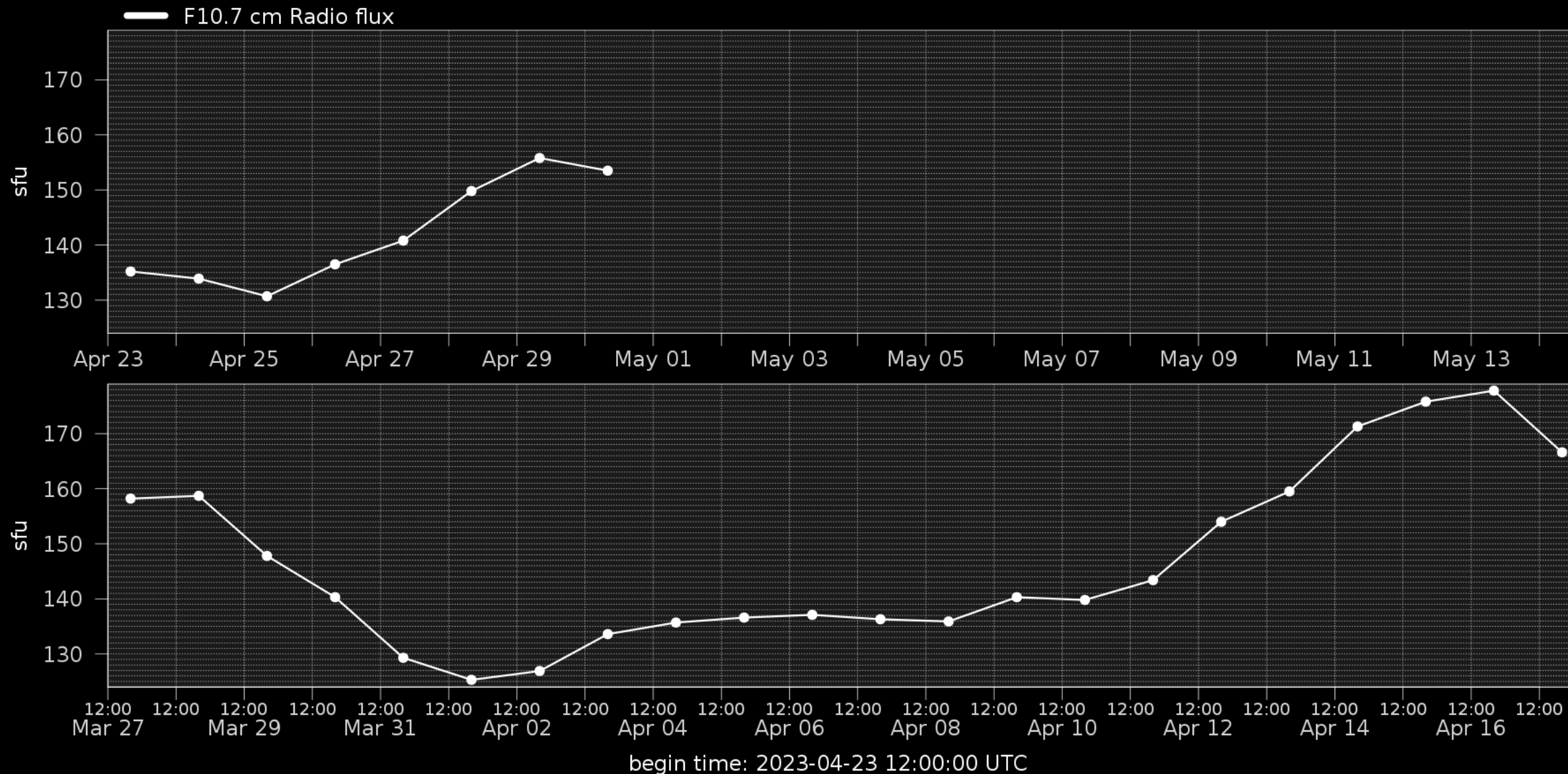
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Outlook: Solar activity



Observation date: 2023/04/30 23:05:00

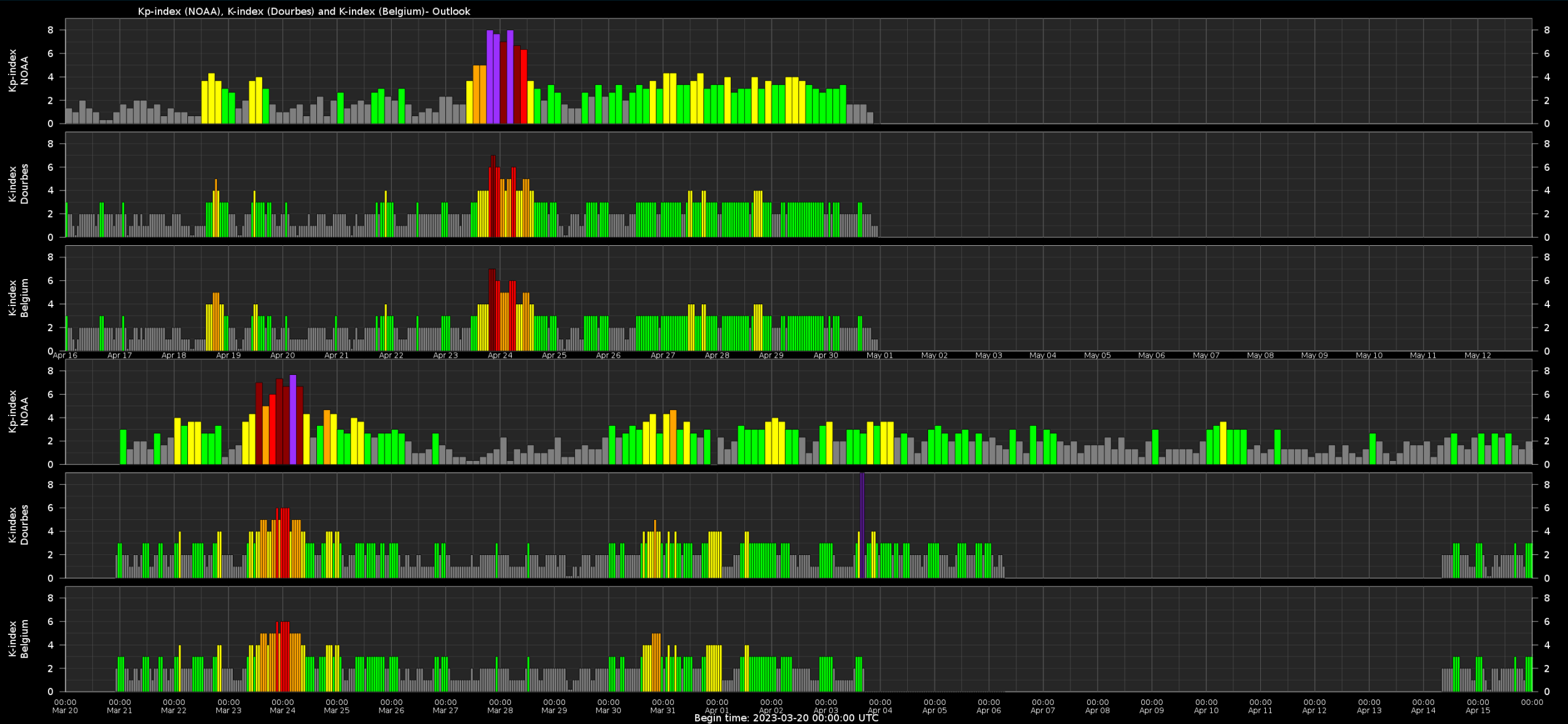
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



Pegasus



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Pecasus related events



02/05/2023
15:32 UTC
STATUS
MOC

- MAIN
- GNSS
- RADIATION
- HF COM
- ARCHIVE
- Advisory
- Daily Brief
- Data
- Procedures
- Portfolio
- ICAO Docs
- RWC
- Contact
- User Guide
- Mute status alerts on Mattermost

-24h -12h -6h -3h -1h 5m Submit 2023-04-24 11:30 now +5m +1h +3h +6h +12h +24h

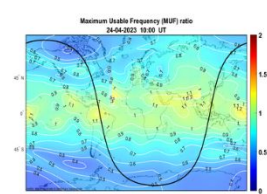
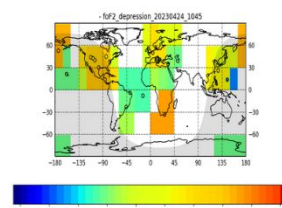
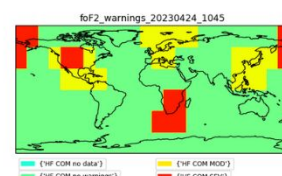
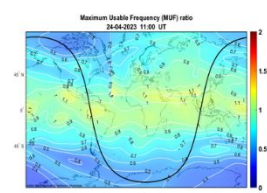
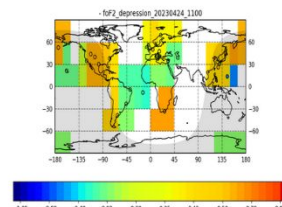
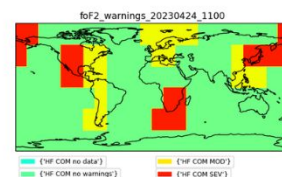
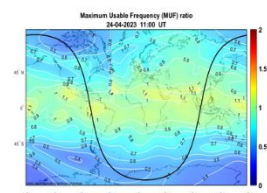
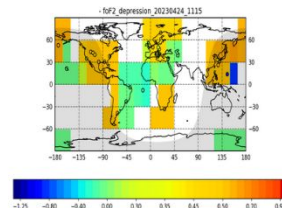
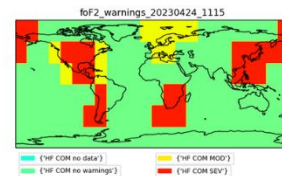
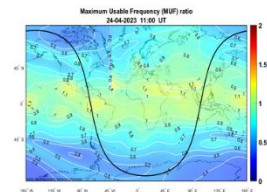
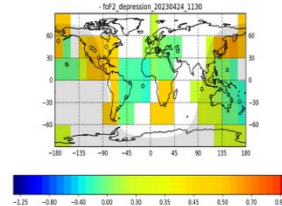
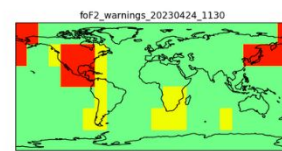
FoF2/MUF DASHBOARD on 2023-04-24 11:30 UTC

See worldmap with latest ionosondes data ([here](#)) Find EU maps ([here](#))

Post-Storm Depression: foF2 Warnings (SRCPAS)

Post-Storm Depression: foF2 Ratio NowCast (SRCPAS)

Post-Storm Depression: MUF Ratio NowCast (INGV)



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See you at our next briefing!

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