

SIDC Space Weather Briefing

05-12 March 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 2023-03-05 12:00 to 2023-03-12 23:59

Active regions	NOAA AR 3242, 3243, 3245
Flares	# C-class flare: 33 # M-class flare: 7 # X-class flare: 0
Coronal Holes	Small positive equatorial CH crossing 11 Mar
CMEs	Two partial halos

Proton flux	Below threshold
Electron flux	Above nominal levels until 9 Mar

Solar wind and geomagnetic conditions

ICMEs	A glancing blow at 9 Mar
Solar wind conditions	B : 0.89 - 9.4 nT //Bz: -8.01 nT to 8.59 nT //Speed: 351.4 - 671.9km/s
K-indices	max K-index (KBel): 4 max Kp-index (NOAA): 4

All Quiet Alert: Not quiet

Solar Activity

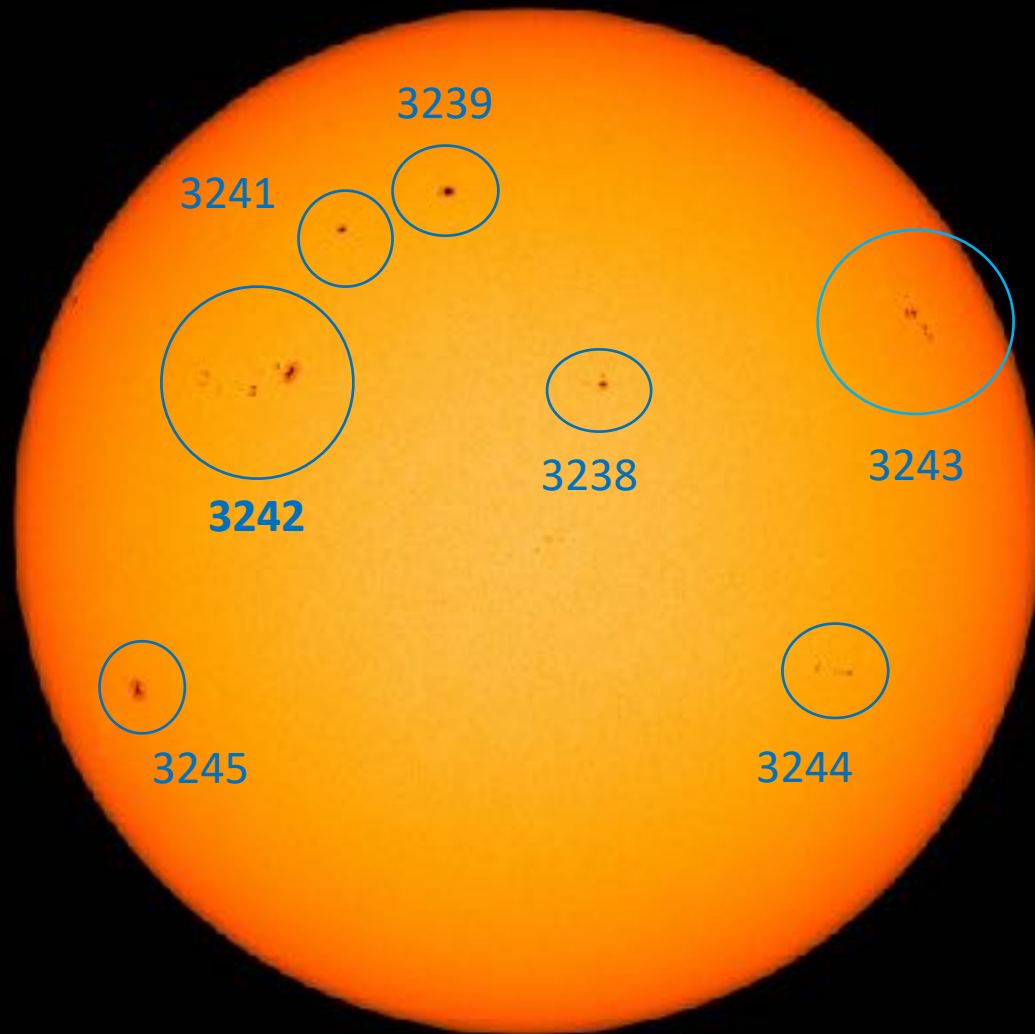


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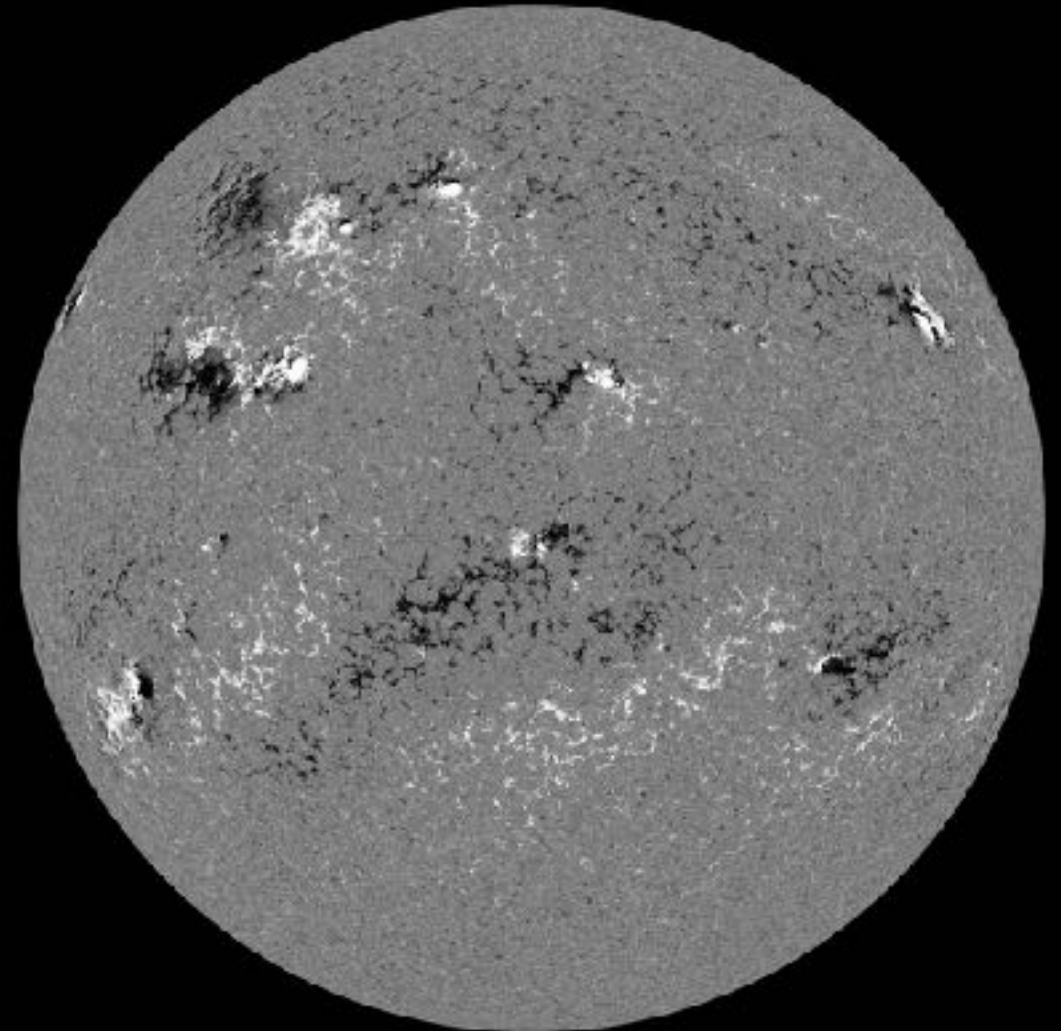
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Solar active regions

SDO/HMI White Light 2023-03-05

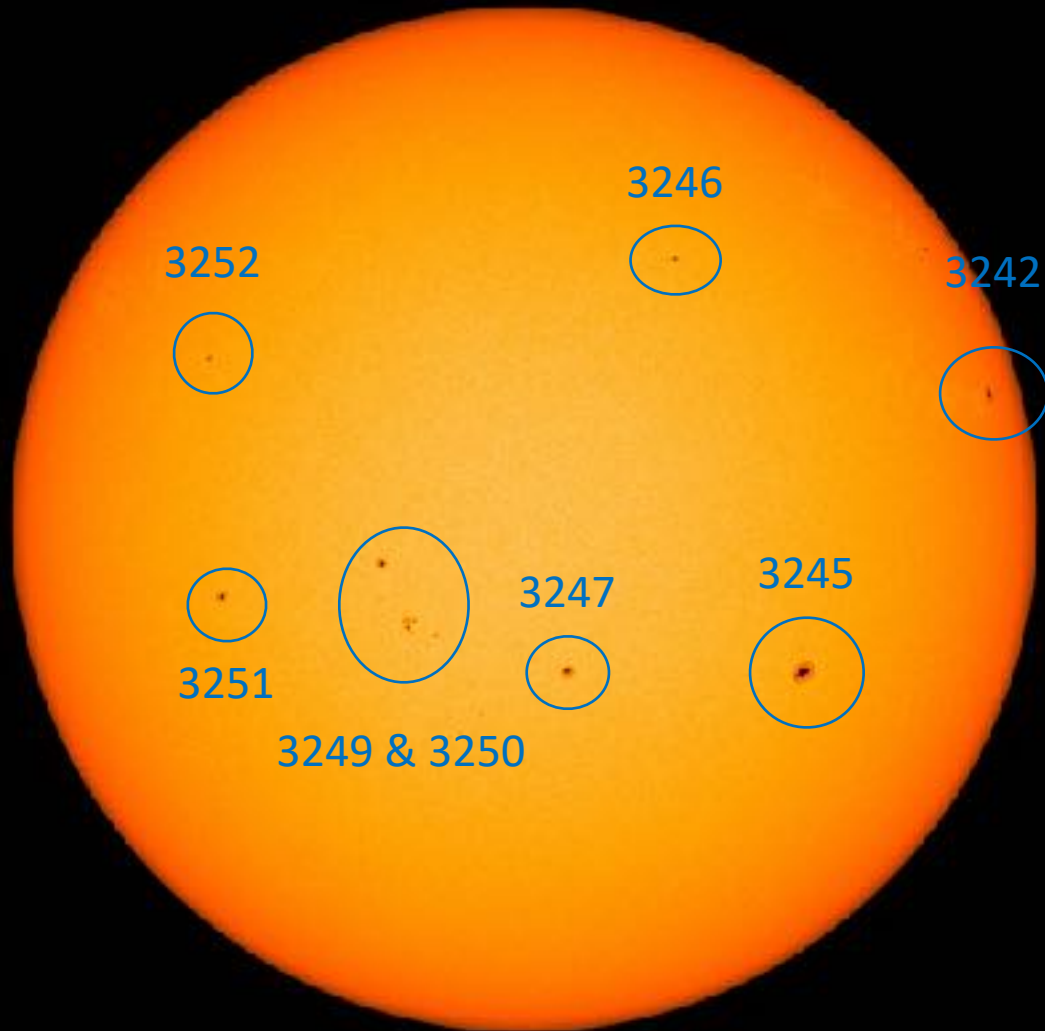


SDO/HMI Magnetogram 2023-03-05

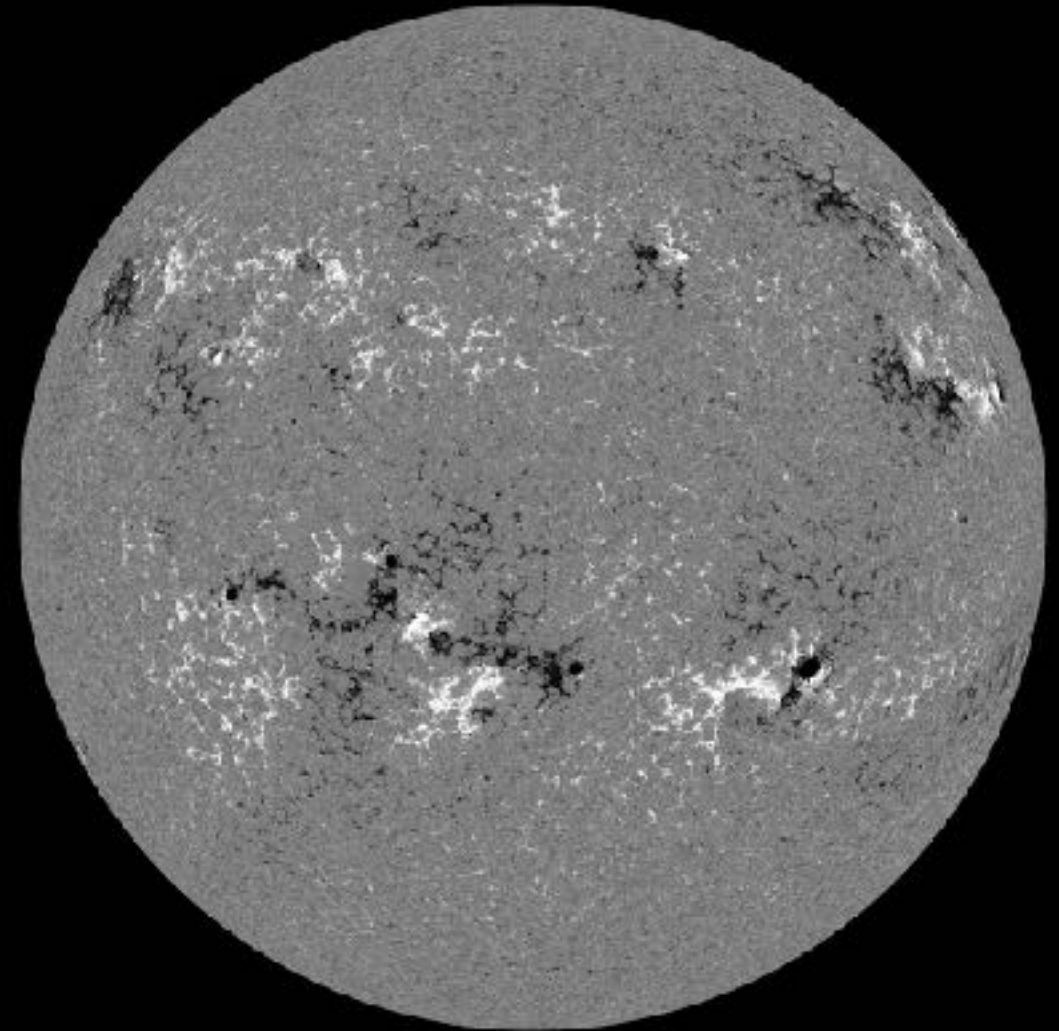


Solar active regions

SDO/HMI White Light 2023-03-12



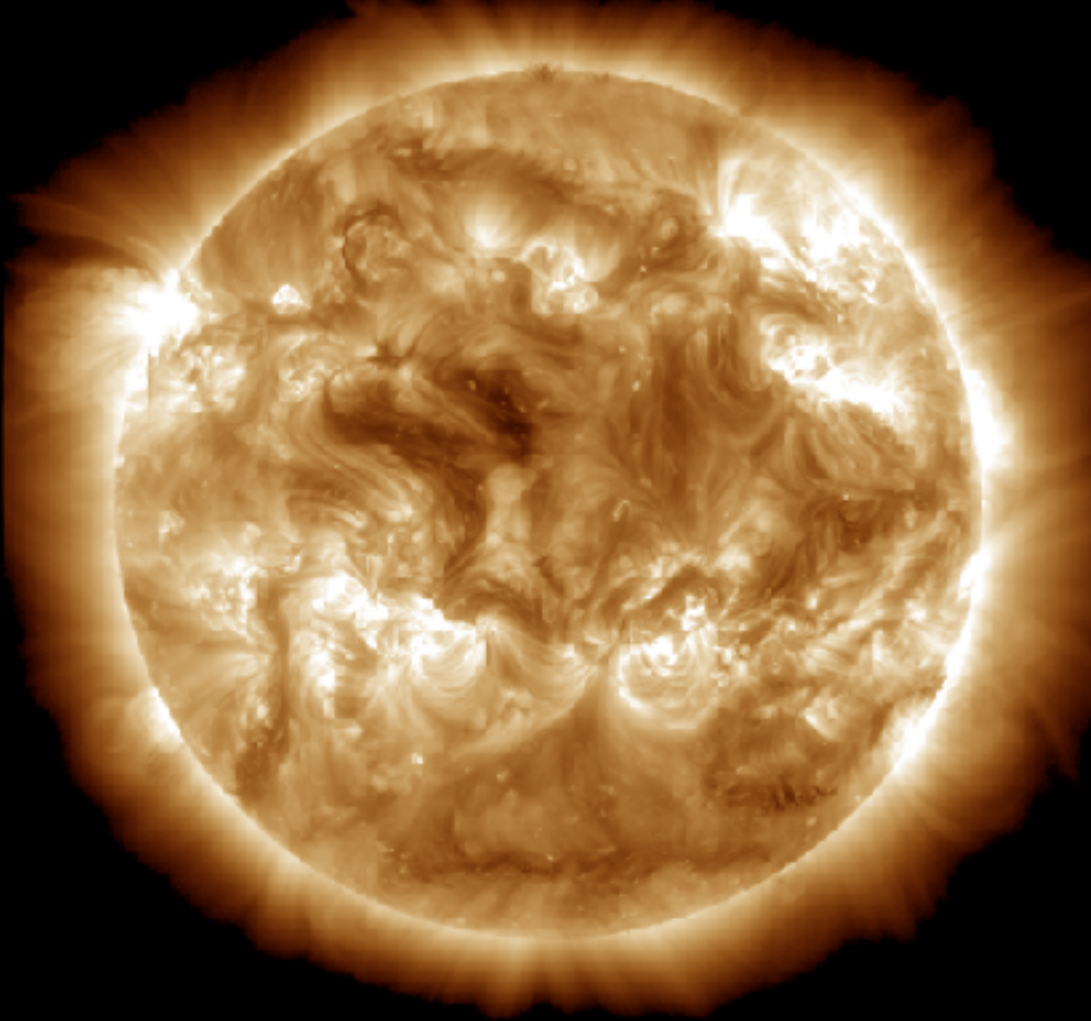
SDO/HMI Magnetogram 2023-03-12



Coronal holes

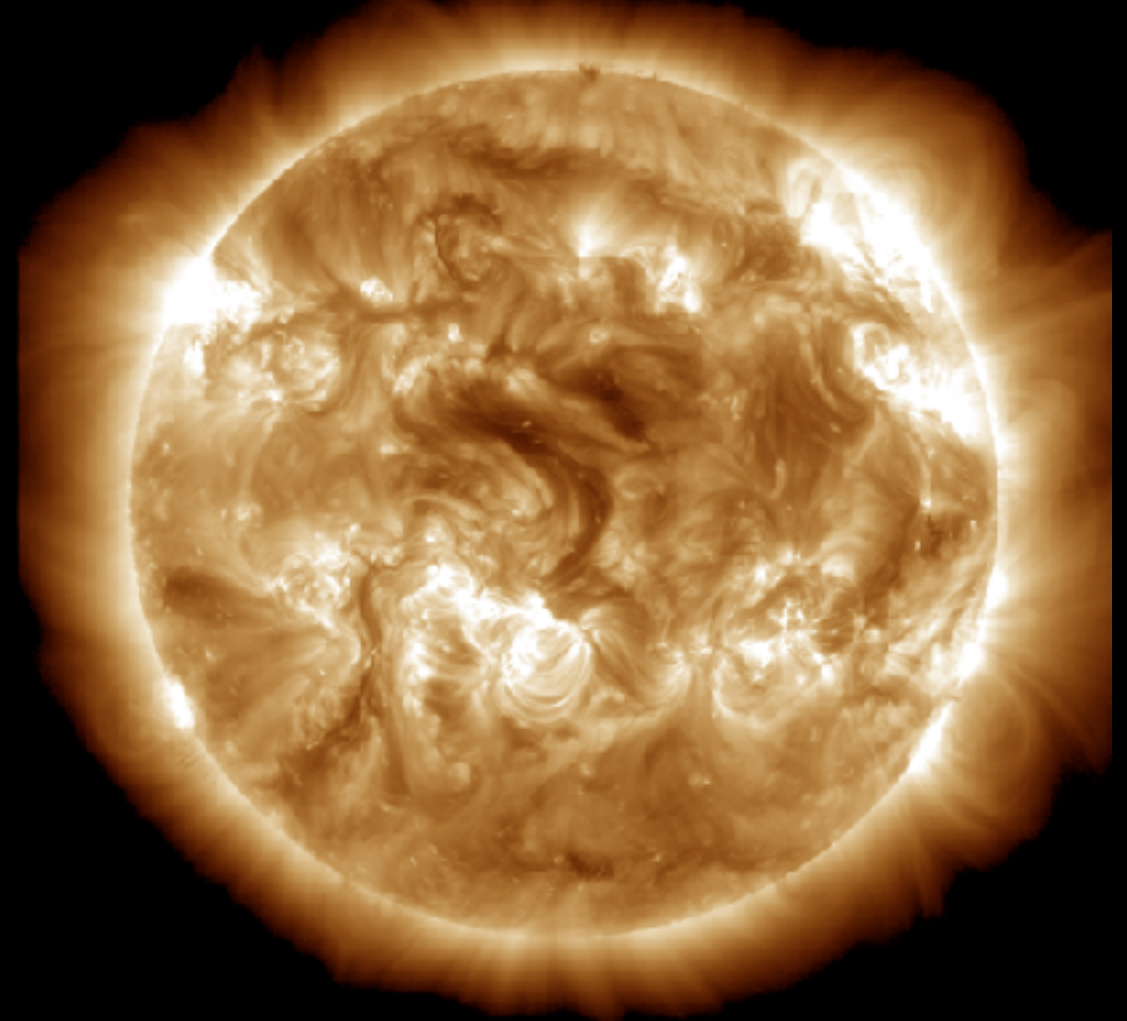
SDO/AIA 19.3 nm 2023-03-11

SDO/AIA AIA 193Å 2023-03-11T12:00:05.843



SDO/AIA 19.3 nm 2023-03-12

SDO/AIA AIA 193Å 2023-03-12T12:00:05.843



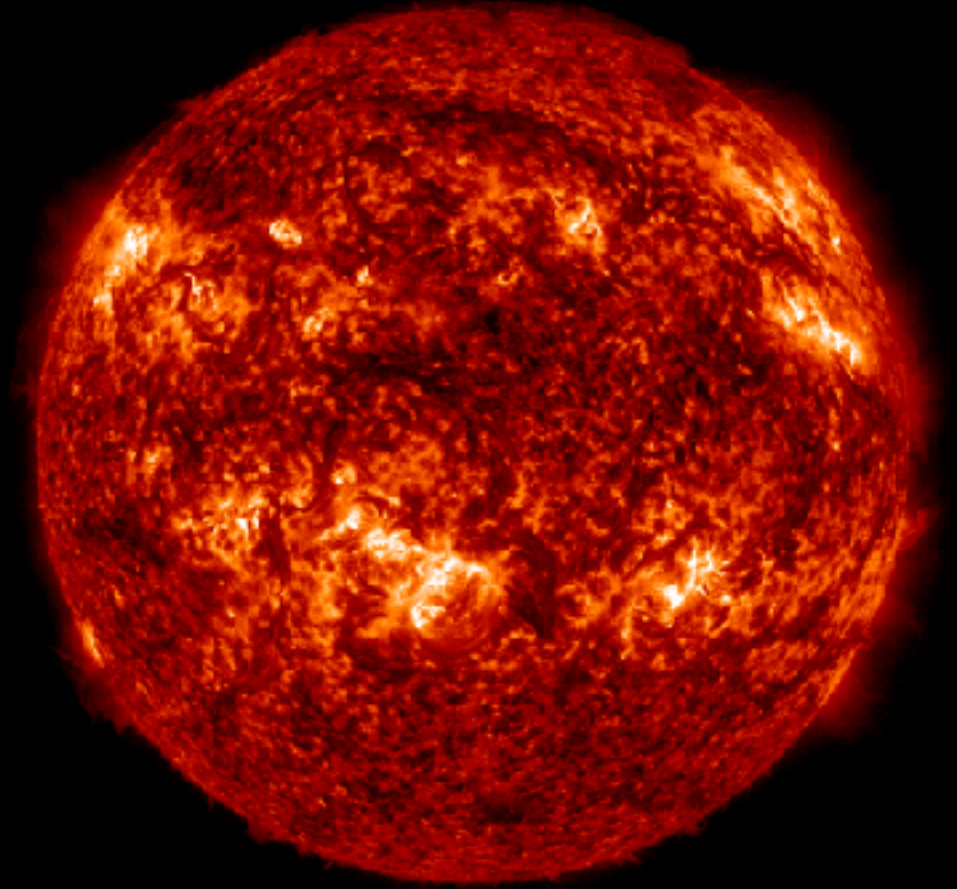
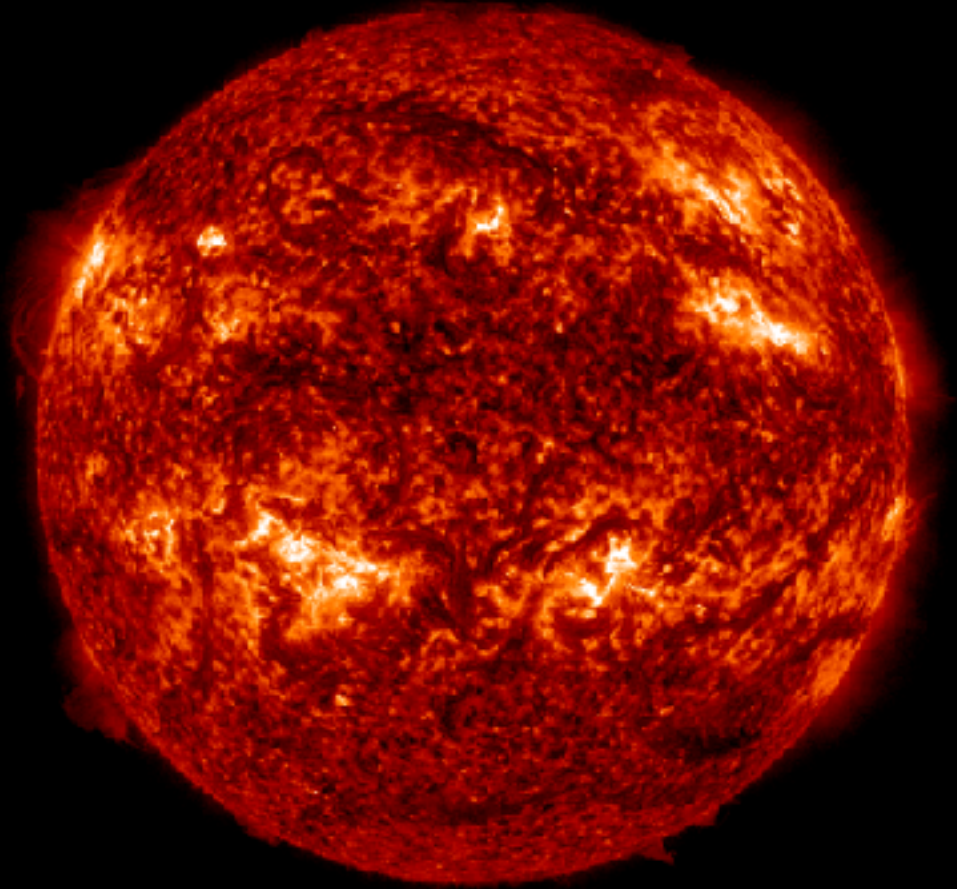
Filaments

SDO/AIA 30.4 nm 2023-03-11

SDO/AIA AIA 304Å 2023-03-11T12:00:06.580

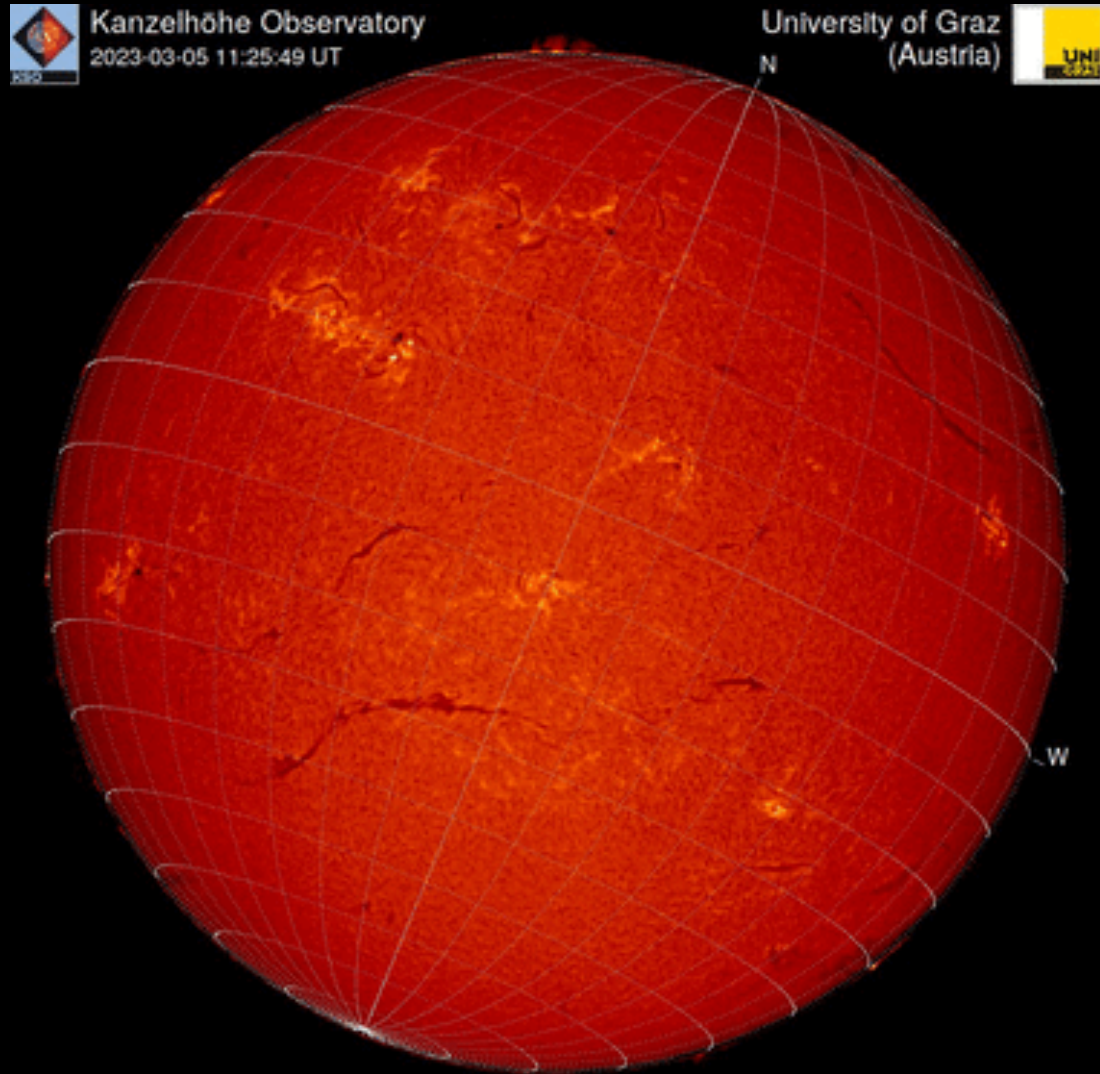
SDO/AIA 30.4 nm 2023-03-12

SDO/AIA AIA 304Å 2023-03-12T12:00:06.581

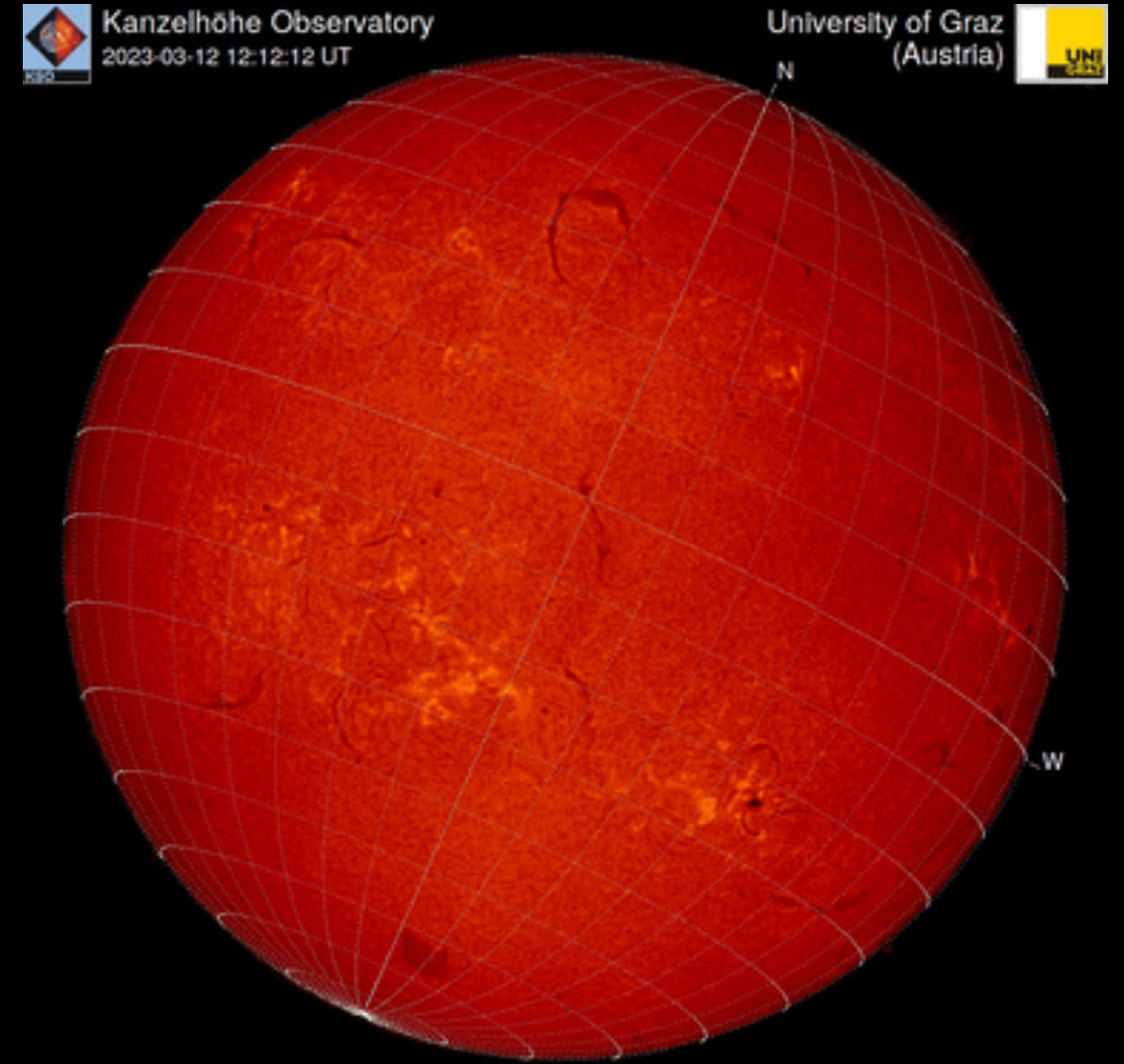


Filaments & Filament eruptions

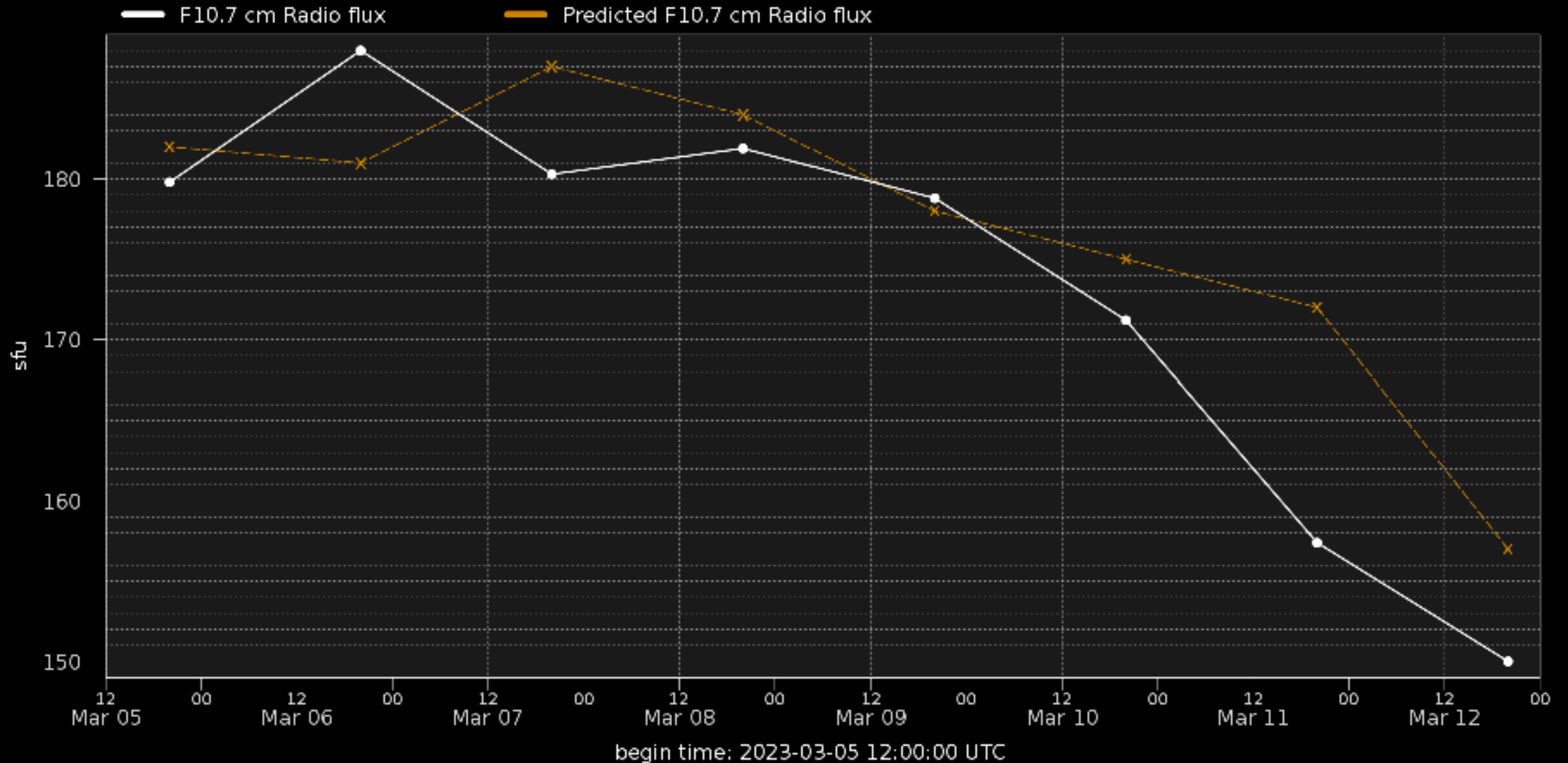
H-alpha 2023-03-05



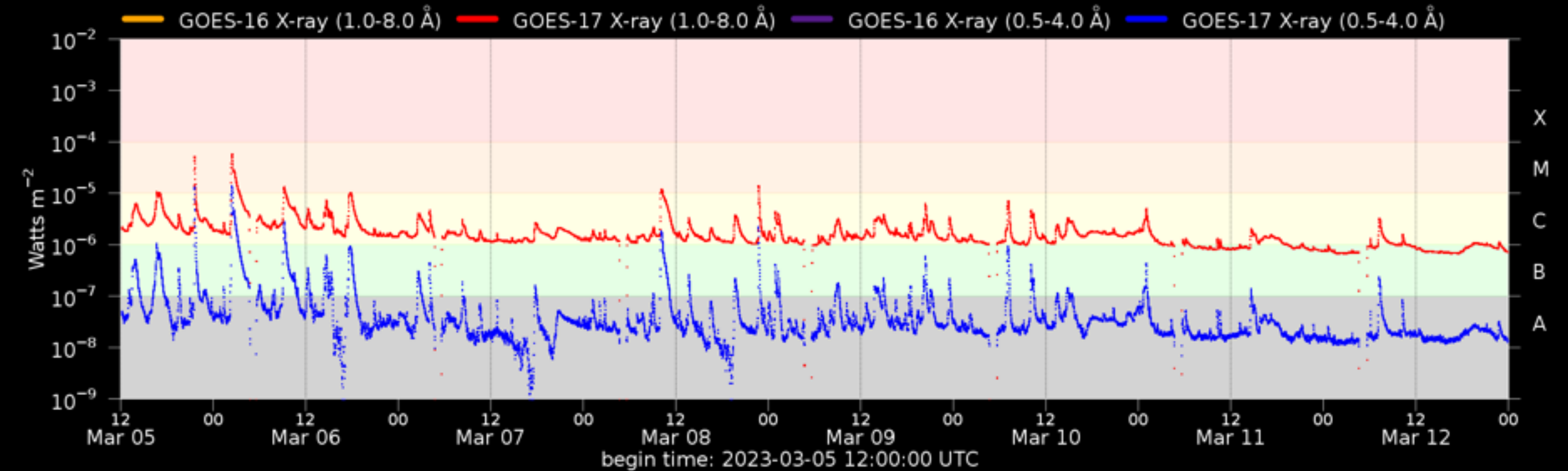
H-alpha 2023-03-12



Solar F10.7cm radio flux



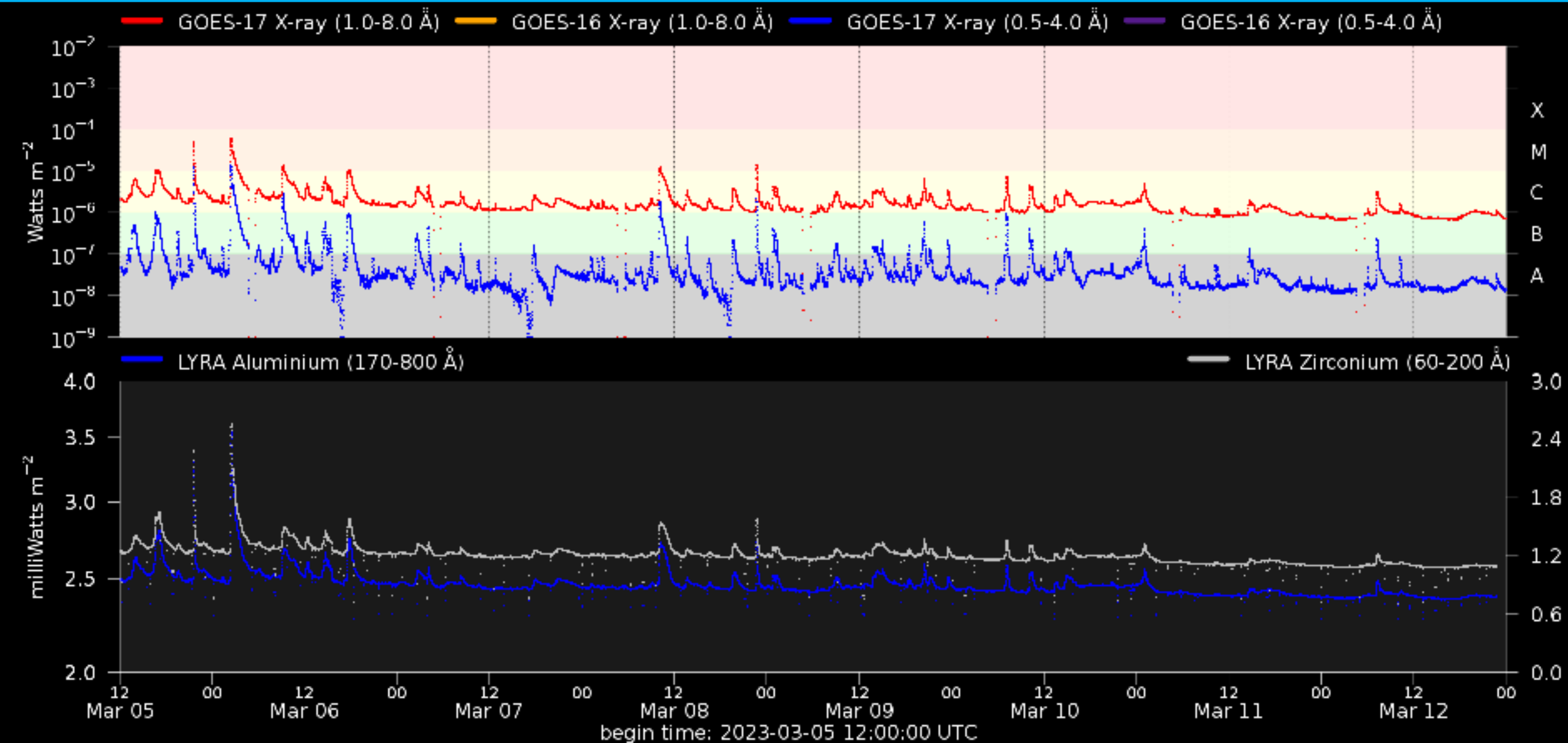
Flaring activity



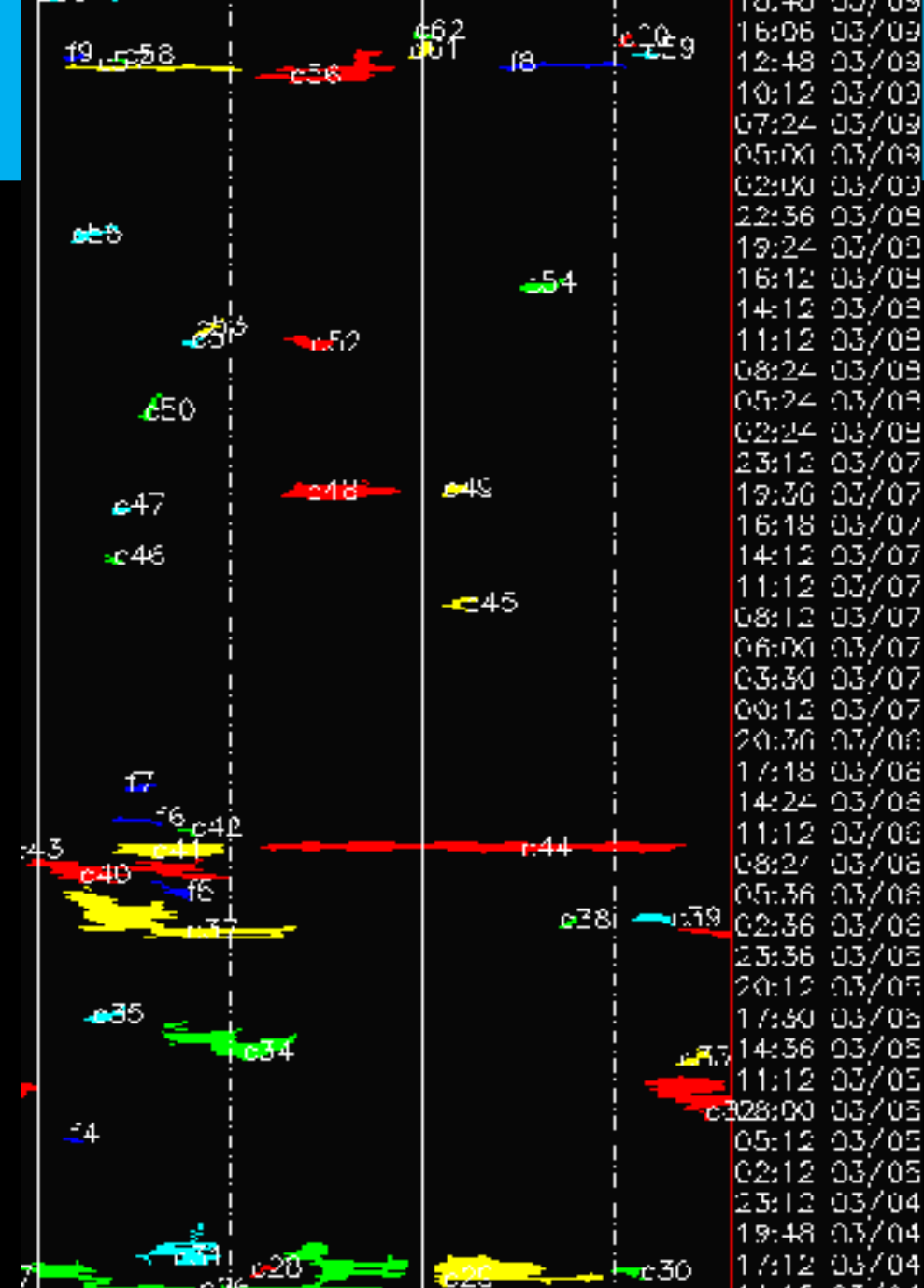
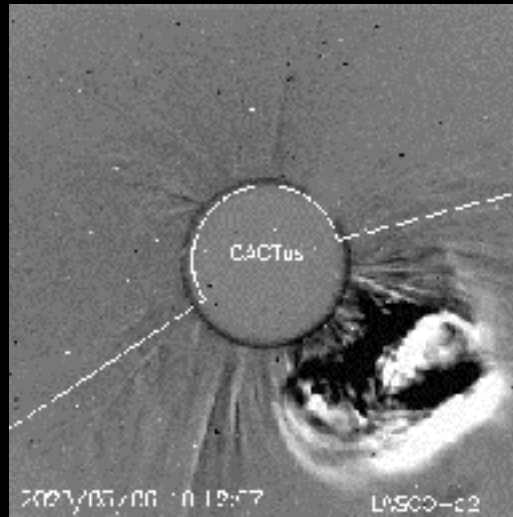
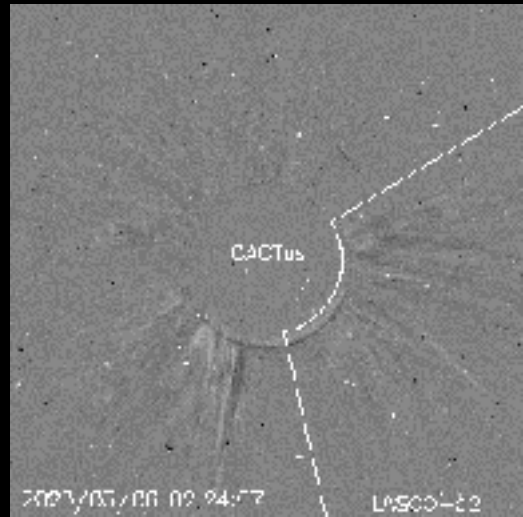
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-03-05	2023-03-06	2023-03-07	2023-03-08	2023-03-09	2023-03-10	2023-03-11	2023-03-12
Probability (%)	99 50 20	95 60 10	99 60 05	95 60 05	98 45 05	95 20 01	90 10 01	90 05 01
Observed (#)	04 04 00	06 01 00	02 01 00	05 01 00	07 00 00	05 00 00	04 00 00	05 00 00

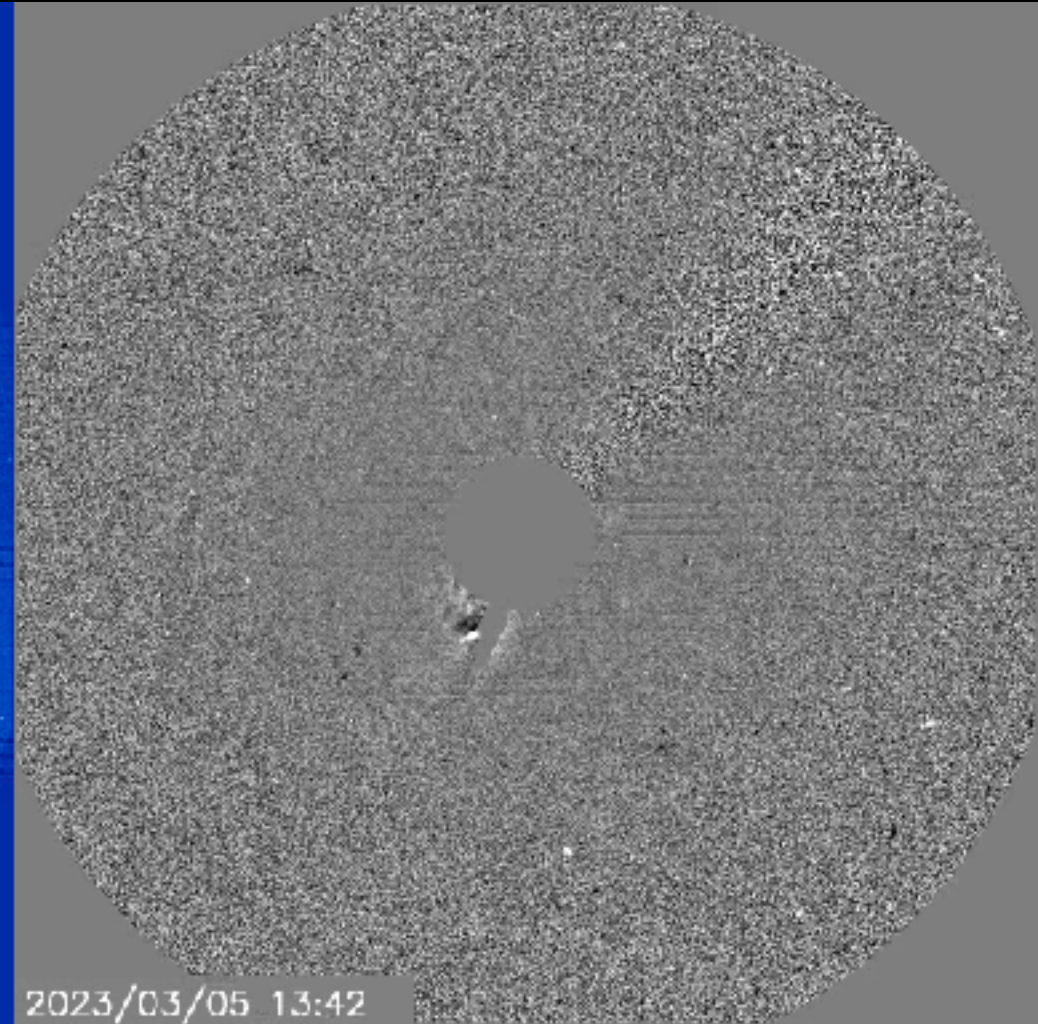
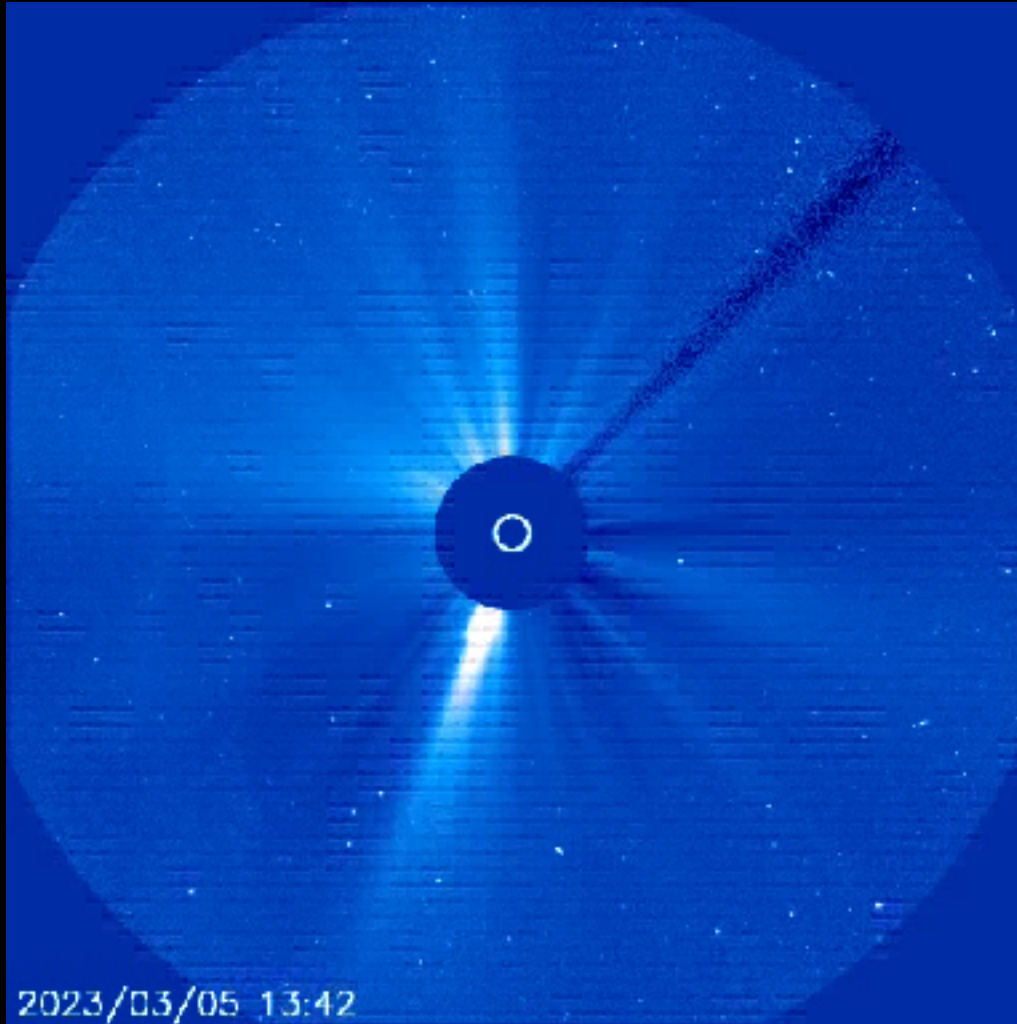
Solar X-Ray and UV flux



Coronal Mass Ejections



Coronal Mass Ejections



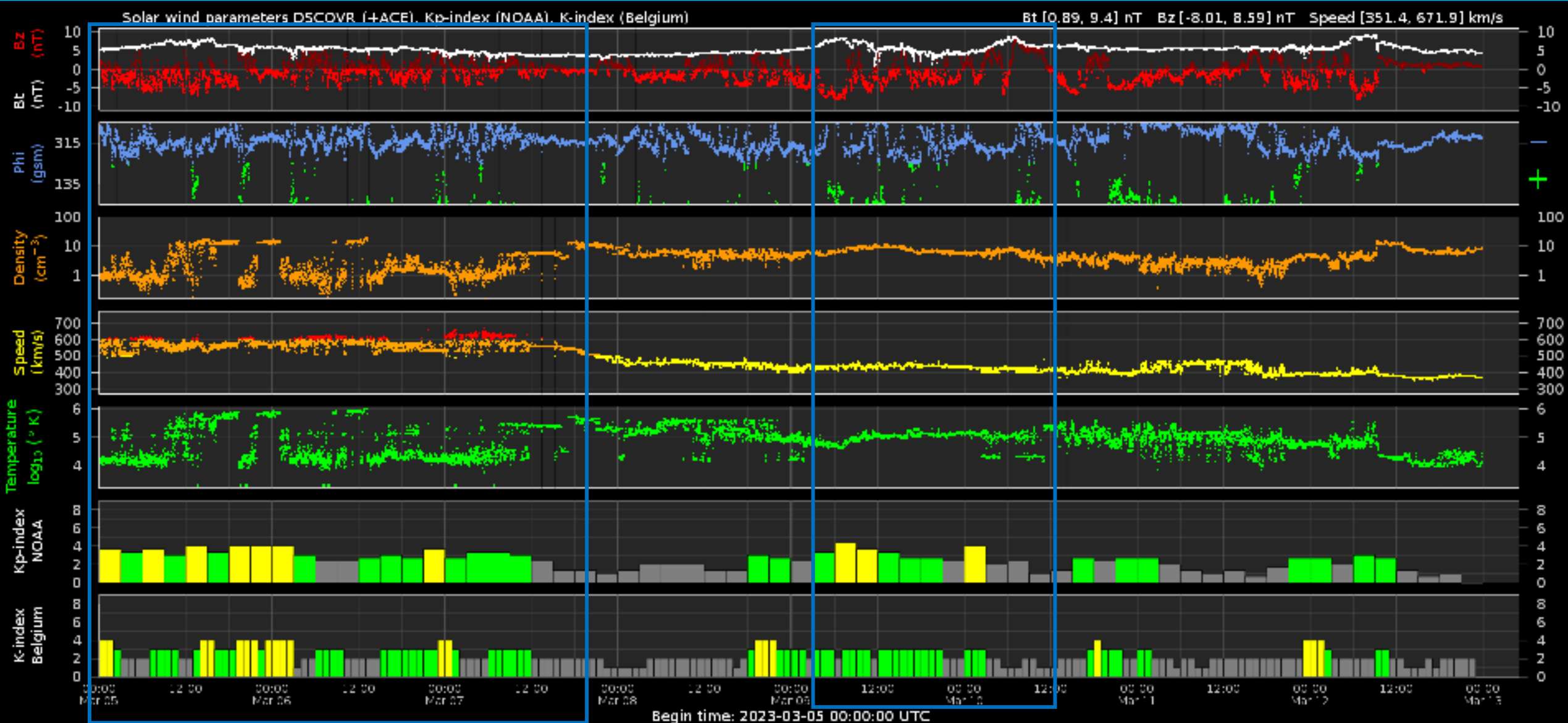
Solar Wind and Geomagnetic Activity



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Solar wind parameters & K-indices



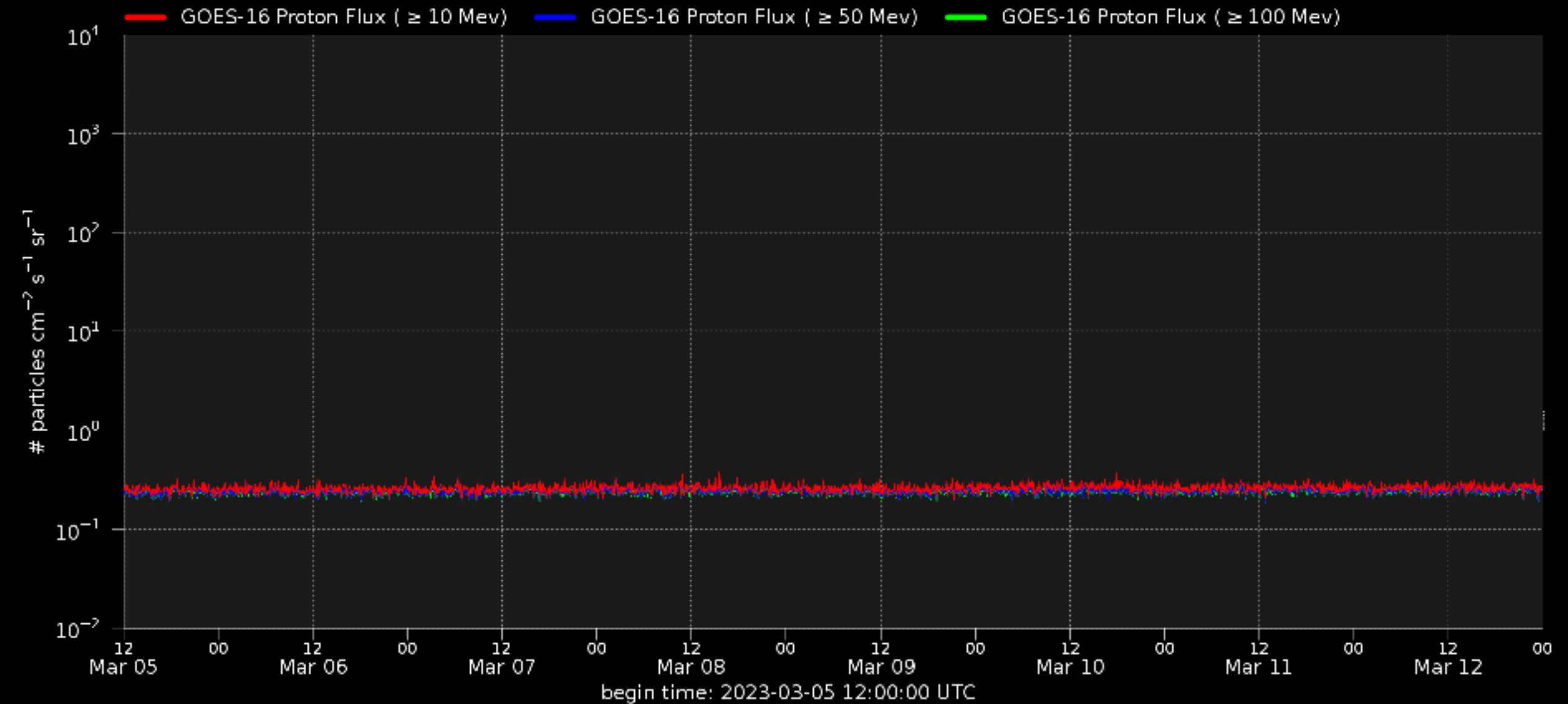
Energetic Particles



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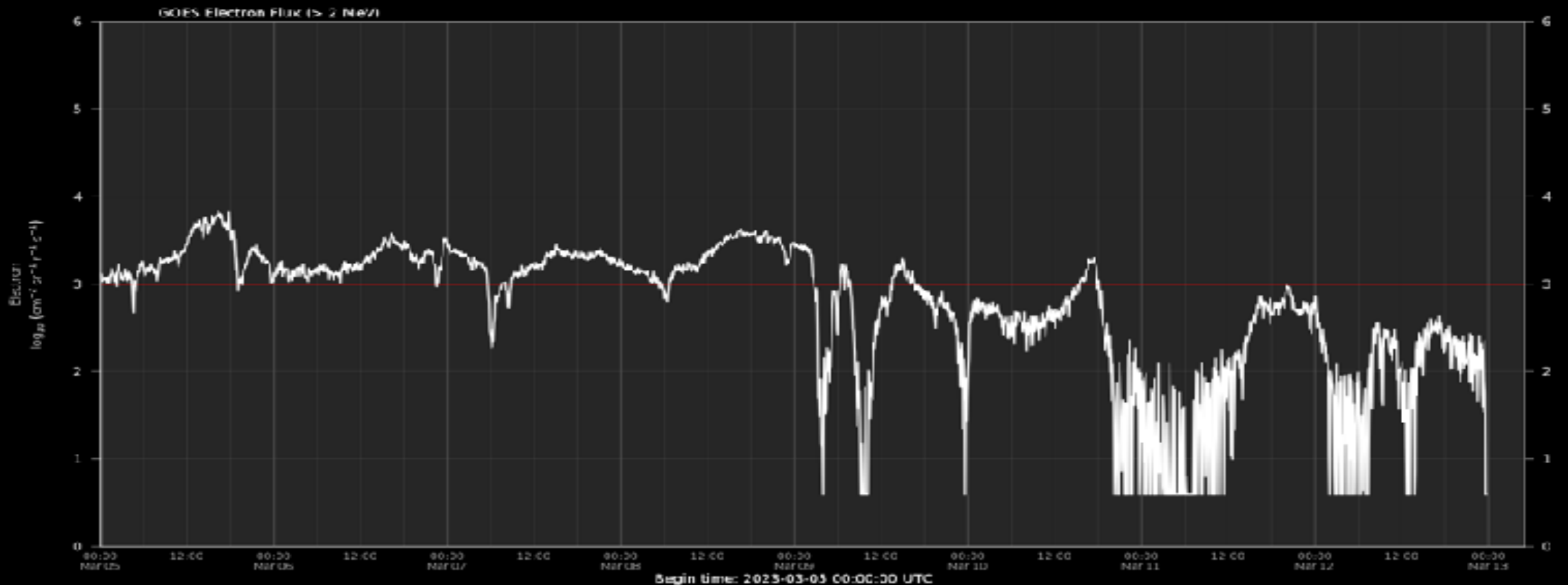
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



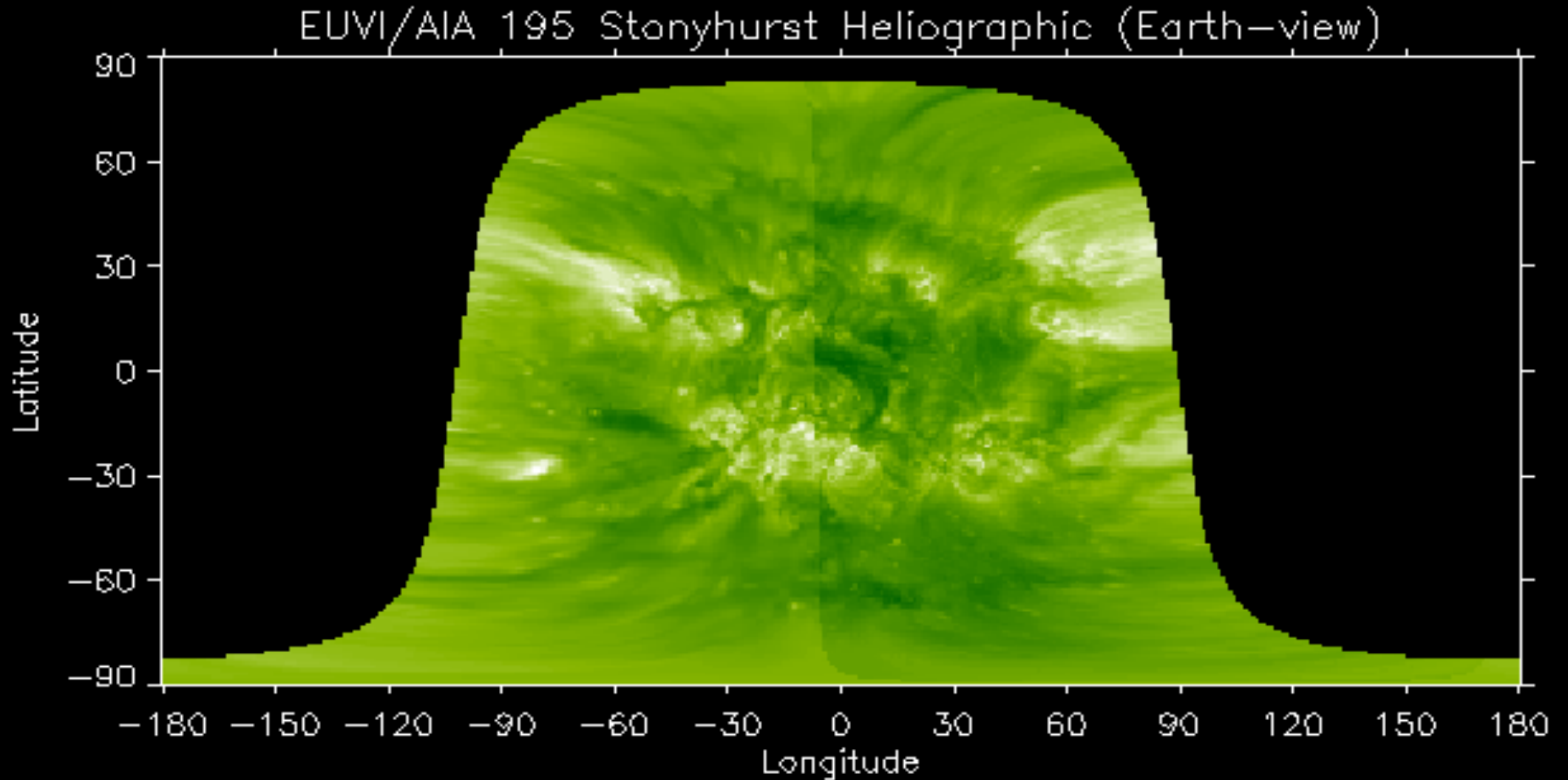
Outlook



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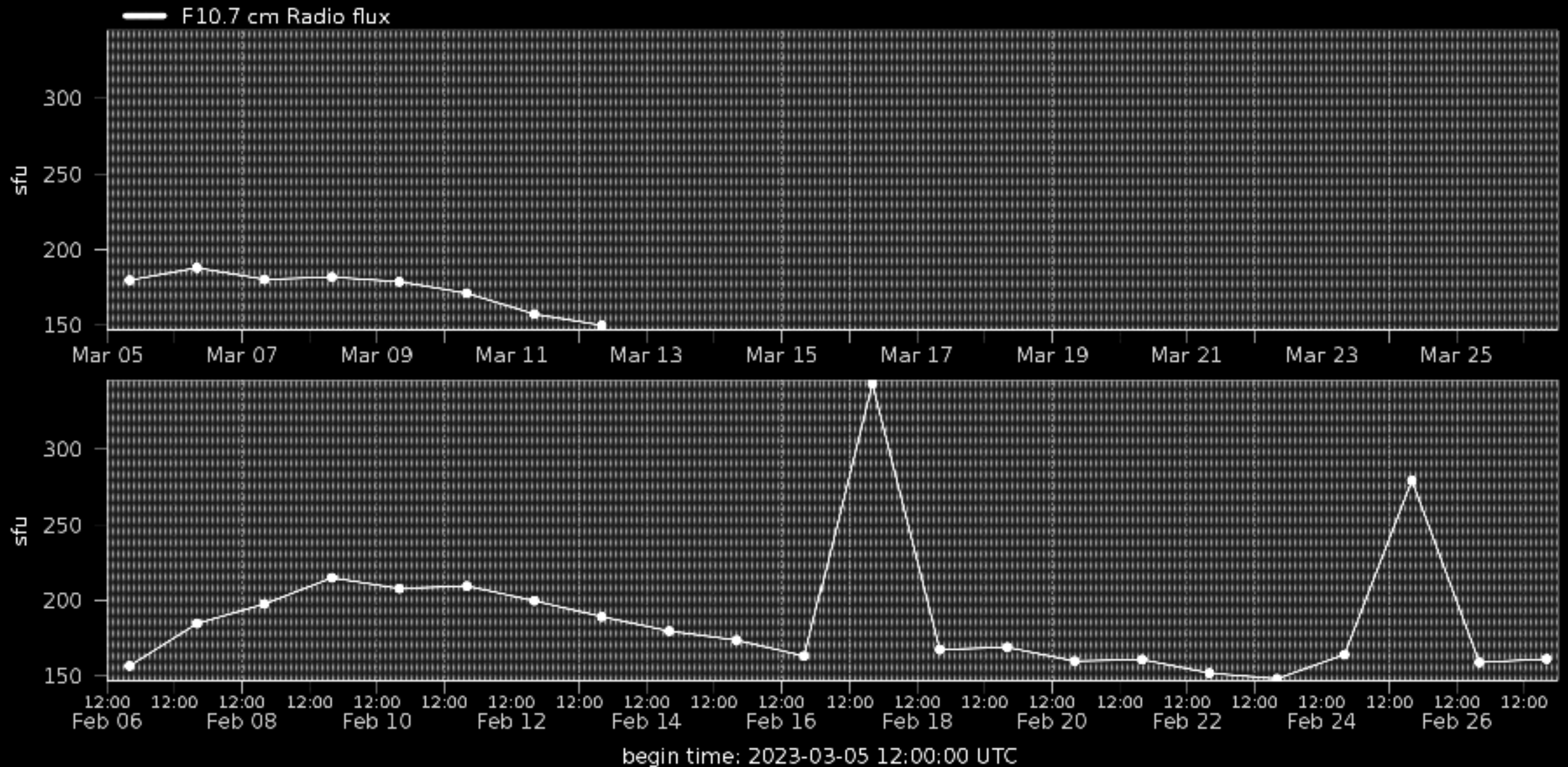
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Outlook: Solar activity



Observation date: 2023/03/12 23:05:00

Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

See you at our next briefing!

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