

SIDC Space Weather Briefing

09 March 2025-16 March 2025

Elisabeth Dom

& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2025-03-09 12:00 to 2025-03-16 23:59

Active regions	22 AR on disk during the week
Flares	# C-class flare: 48 # M-class flare: 2 # X-class flare: 0
Coronal Holes	2 – CH crossed Central Meridian
CMEs	No Earth Directed CMEs

Proton flux	Nominal levels below 10 pfu threshold
Electron flux	Mainly above 1000 pfu threshold during entire week

Solar wind and geomagnetic conditions

ICMEs	No ICME arrivals
Solar wind conditions	B : 0.89 - 12.08 nT //Bz: -10.96 nT to 11.13 nT //Speed: 348.2 – 600 km/s
Geomagnetic conditions	max K _{Be} : 5.0, max K _p (NOAA): 5.67, Moderate Storm conditions

All Quiet Alert: Not all quiet

Solar Activity

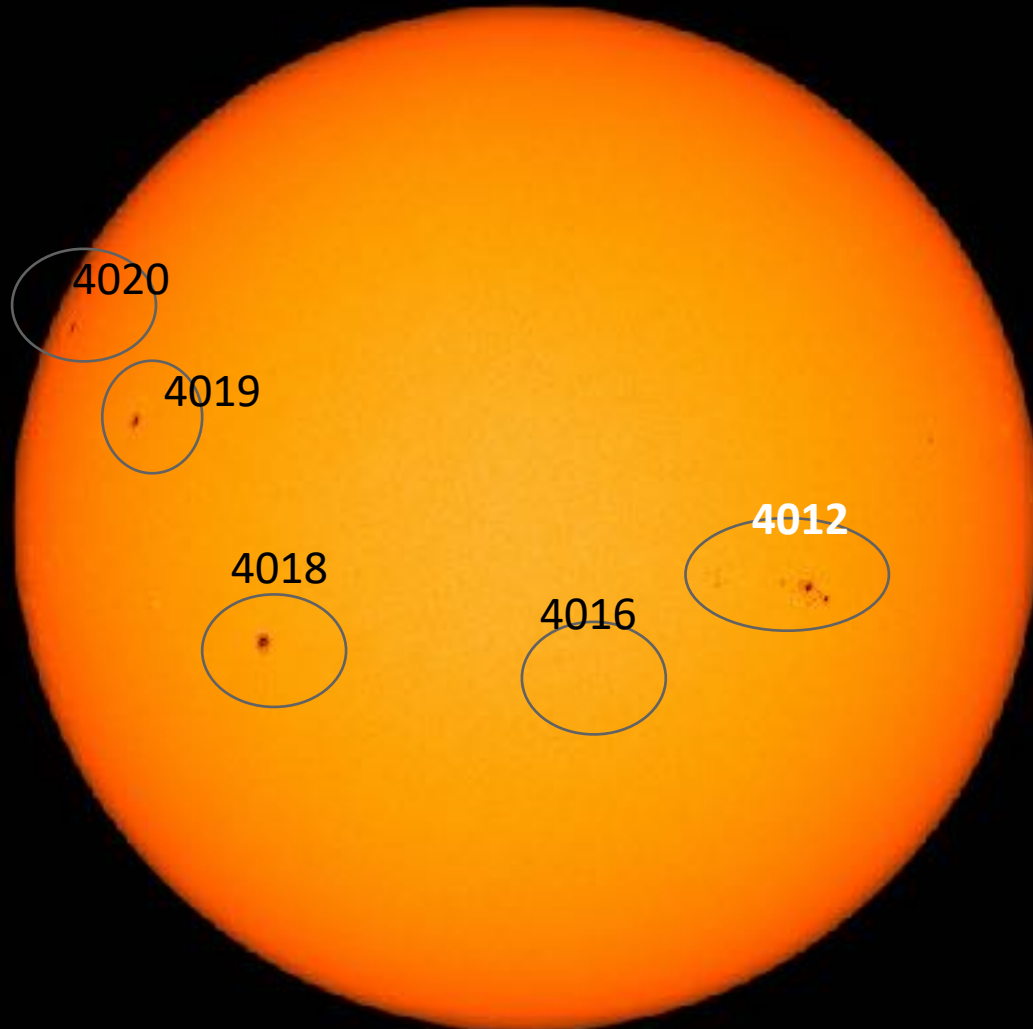


Royal Observatory
of Belgium

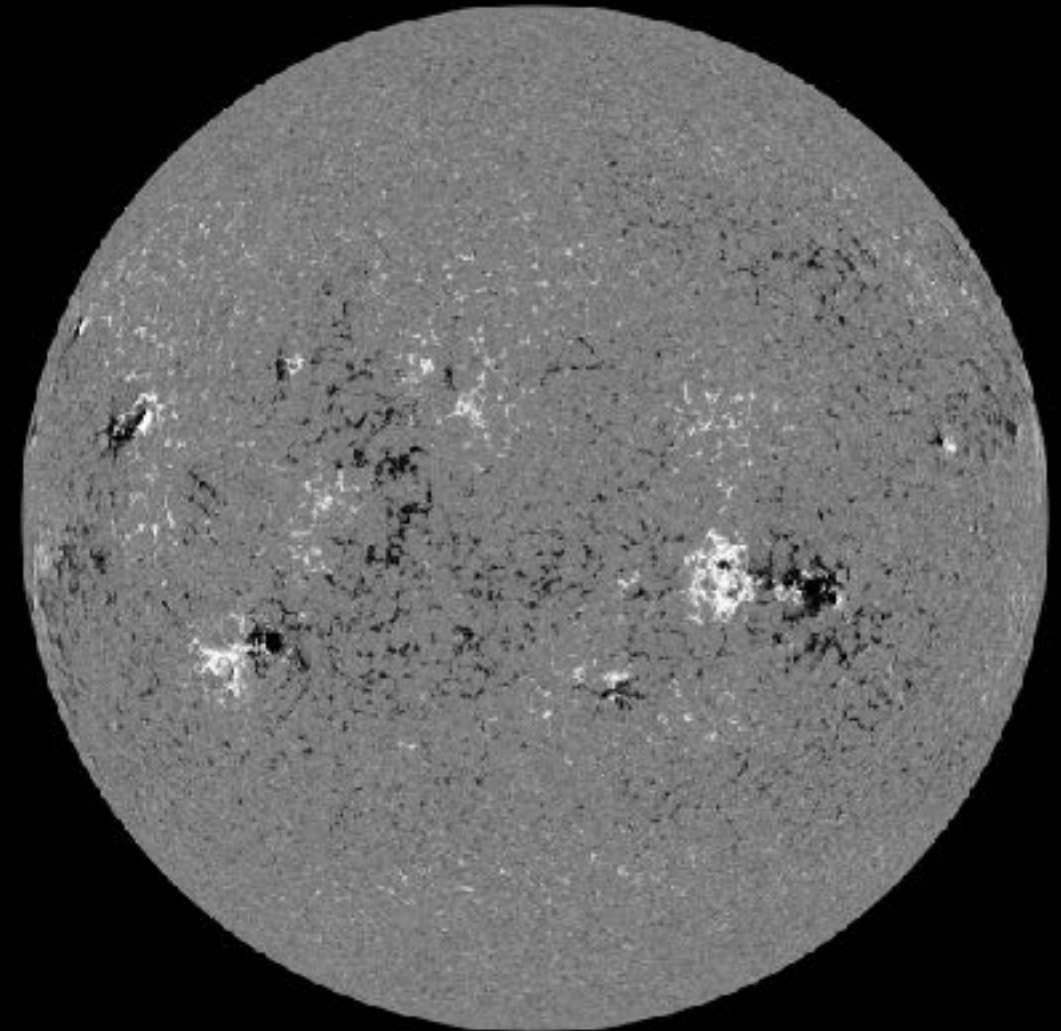
Solar Influences
Data analysis Centre
www.sidc.be

Solar active regions

SDO/HMI White Light 2025-03-09

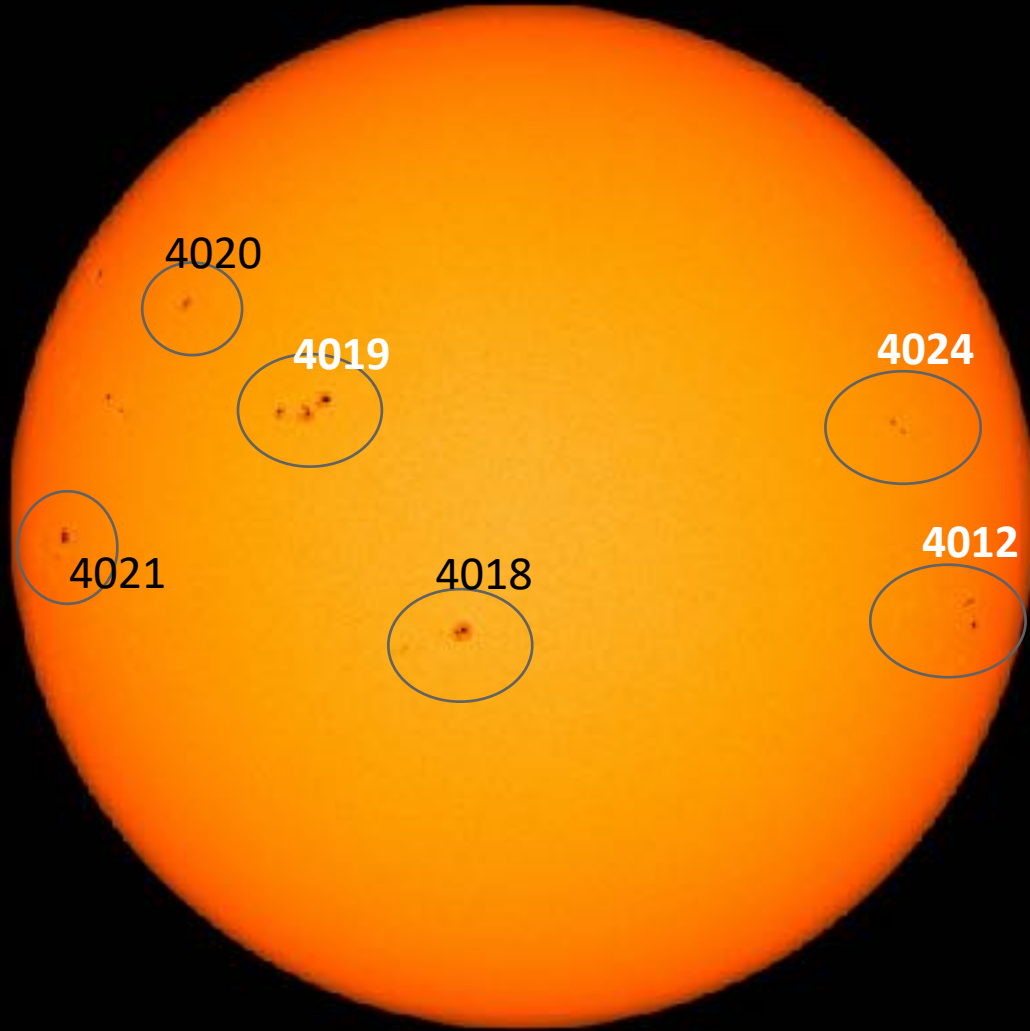


SDO/HMI Magnetogram 2025-03-09

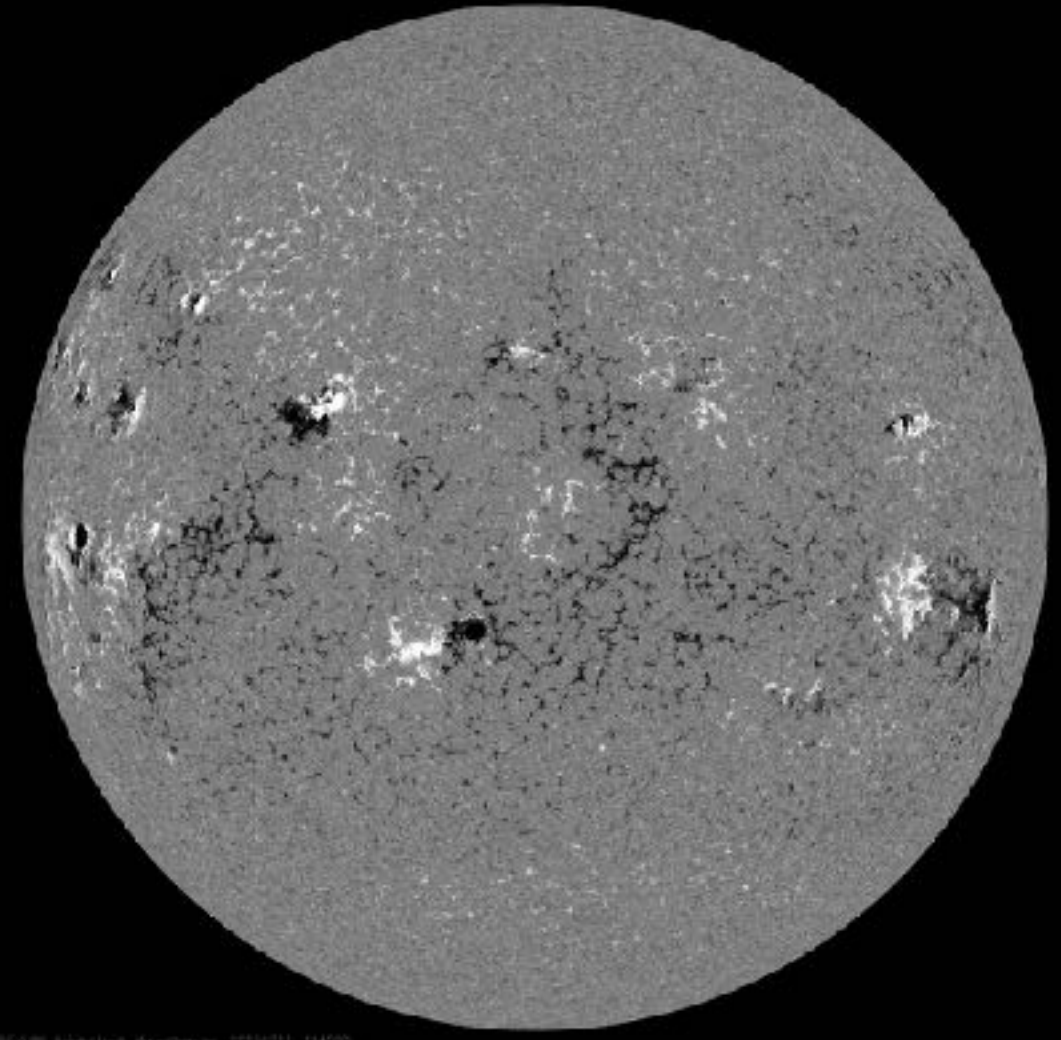


Solar active regions

SDO/HMI White Light 2025-03-11



SDO/HMI Magnetogram 2025-03-11

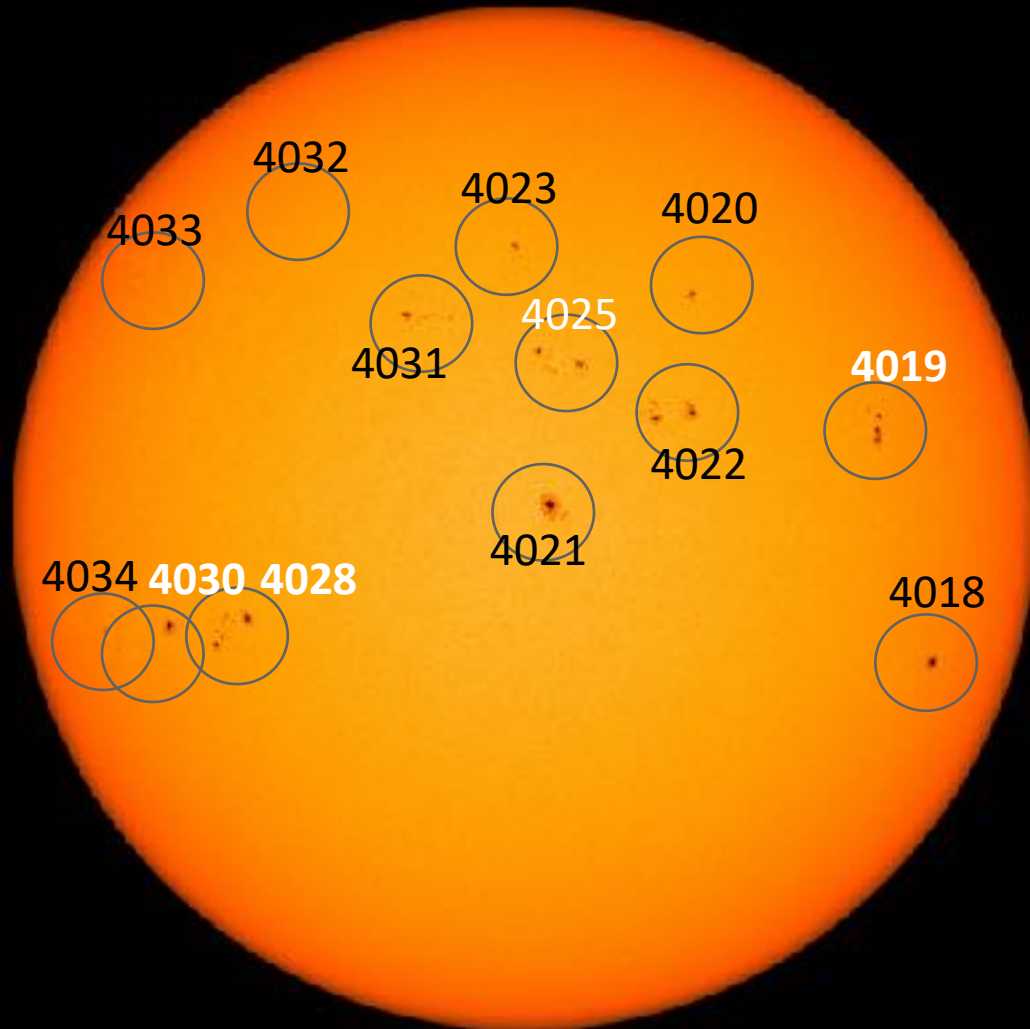


SDO/HMI Solar Disk - White Light - 20250311_114500

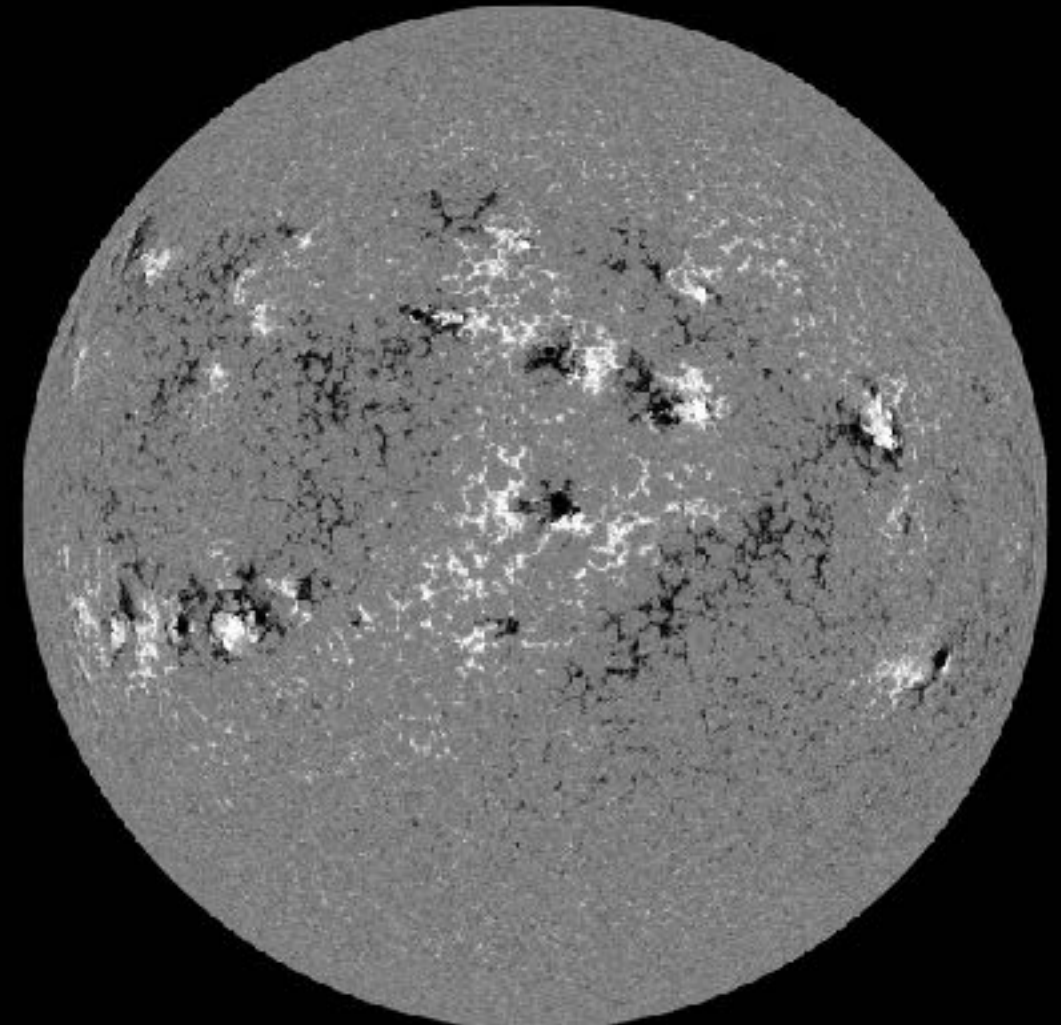
SDO/HMI Solar Disk - Magnetogram - 20250311_114500

Solar active regions

SDO/HMI White Light 2025-03-16



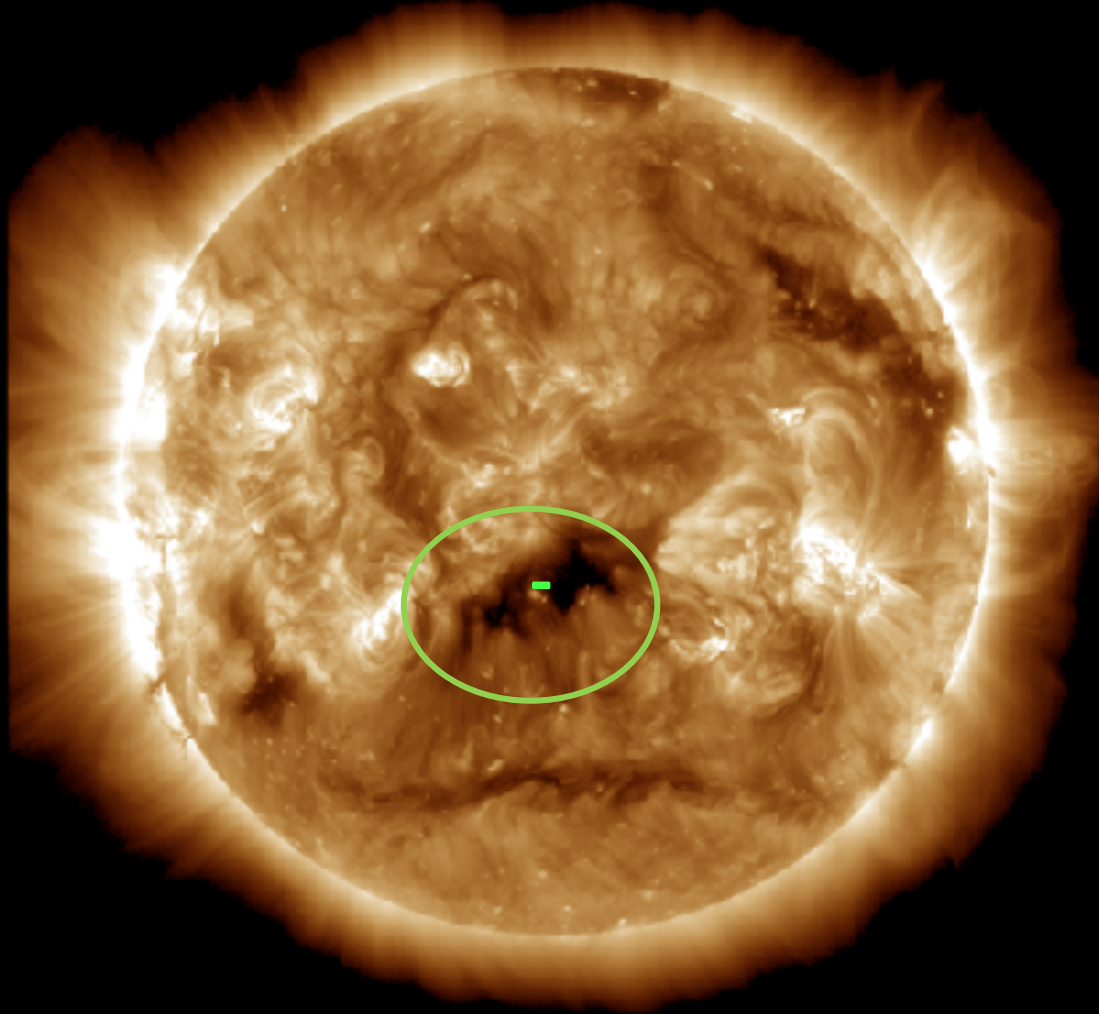
SDO/HMI Magnetogram 2025-03-16



Coronal holes

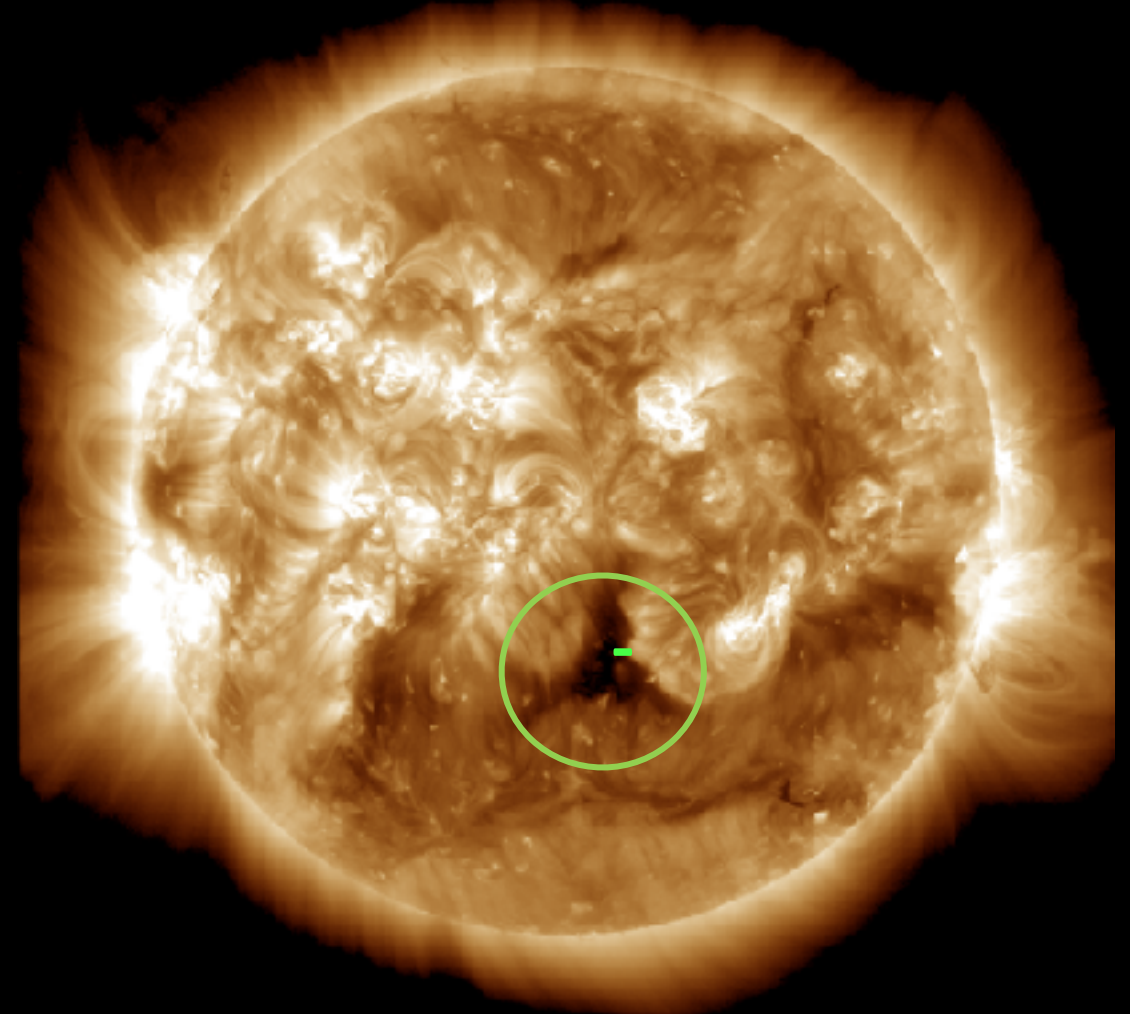
SDO/AIA 19.3 nm 2025-03-10

SDO/AIA AIA 193Å 2025-03-10T12:00:05.843



SDO/AIA 19.3 nm 2025-03-14

SDO/AIA AIA 193Å 2025-03-14T12:00:05.843



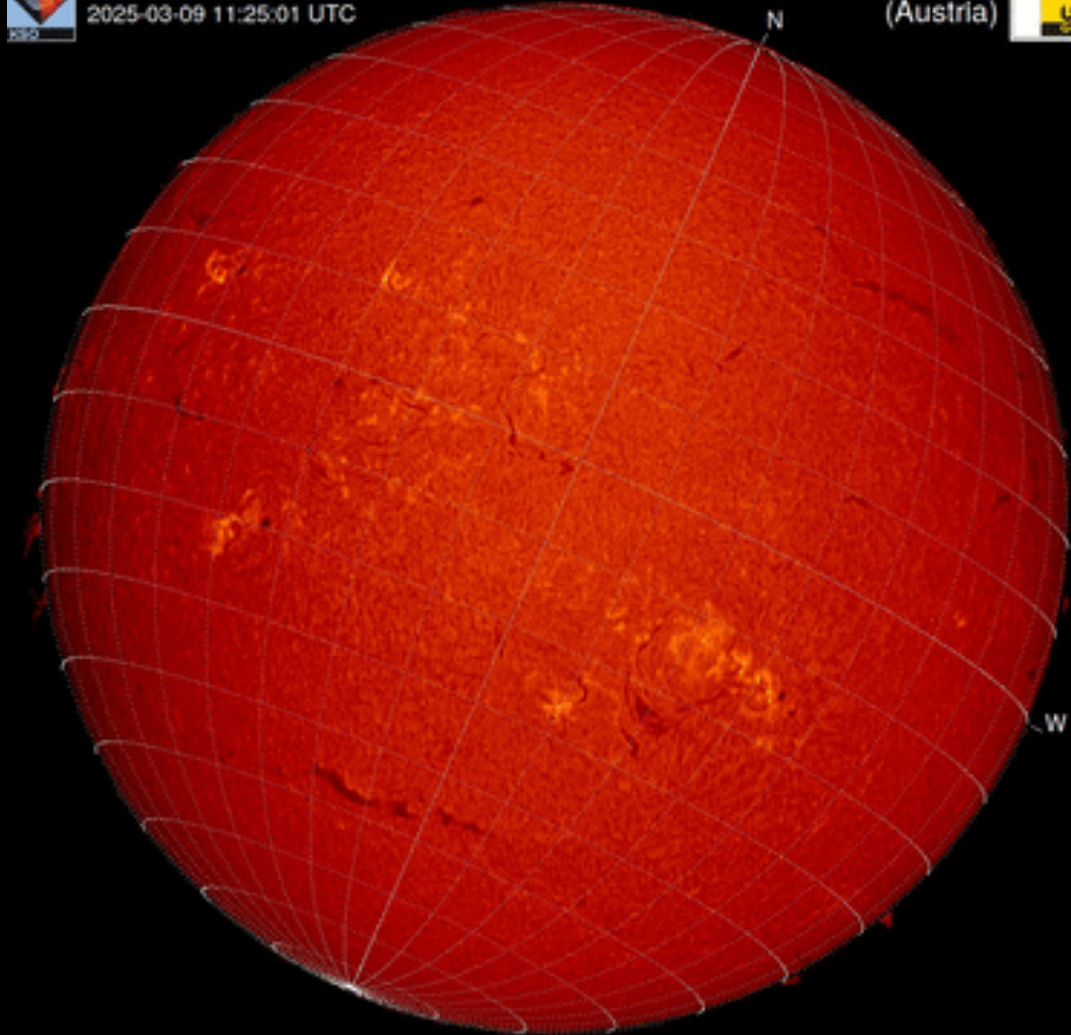
Filaments & Filament eruptions

H-alpha 2025-03-09



Kanzelhöhe Observatory
2025-03-09 11:25:01 UTC

University of Graz
(Austria)

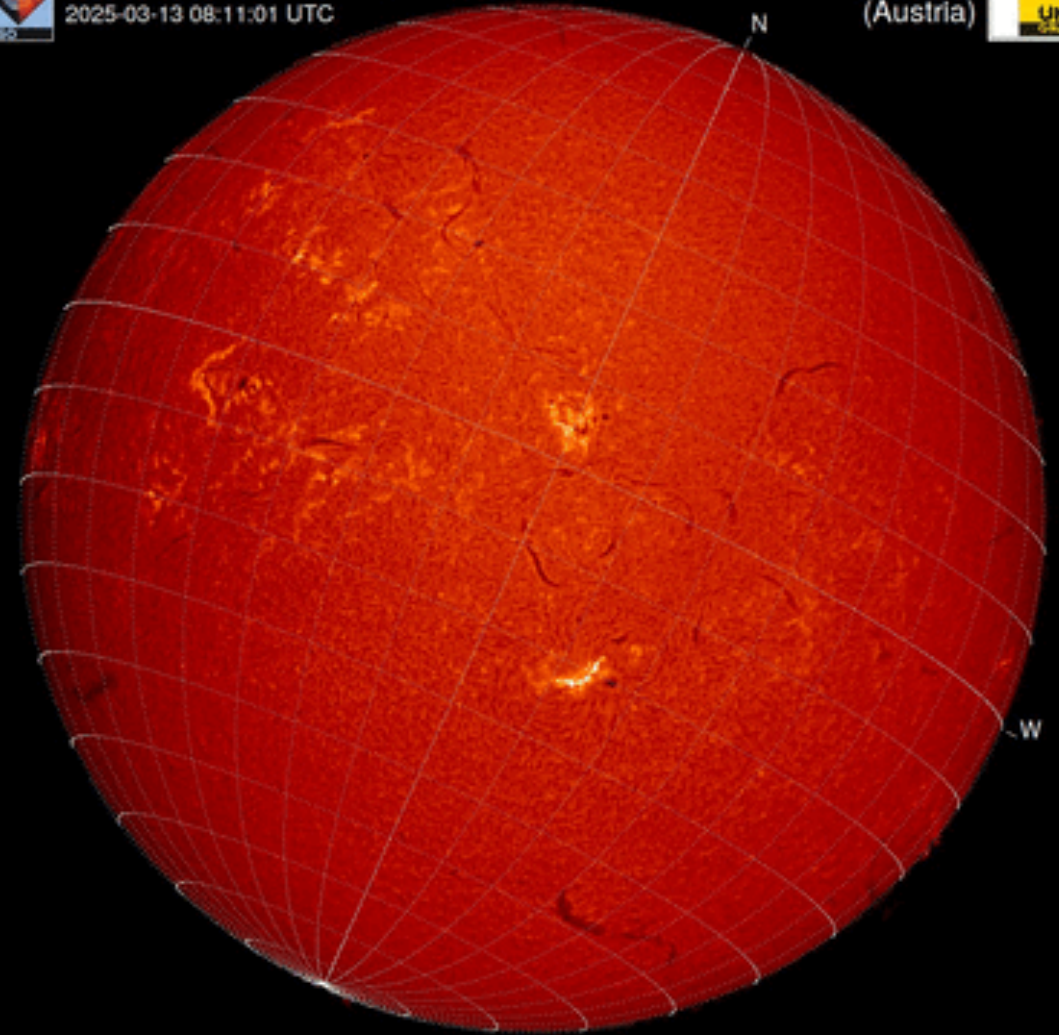


H-alpha 2025-03-16

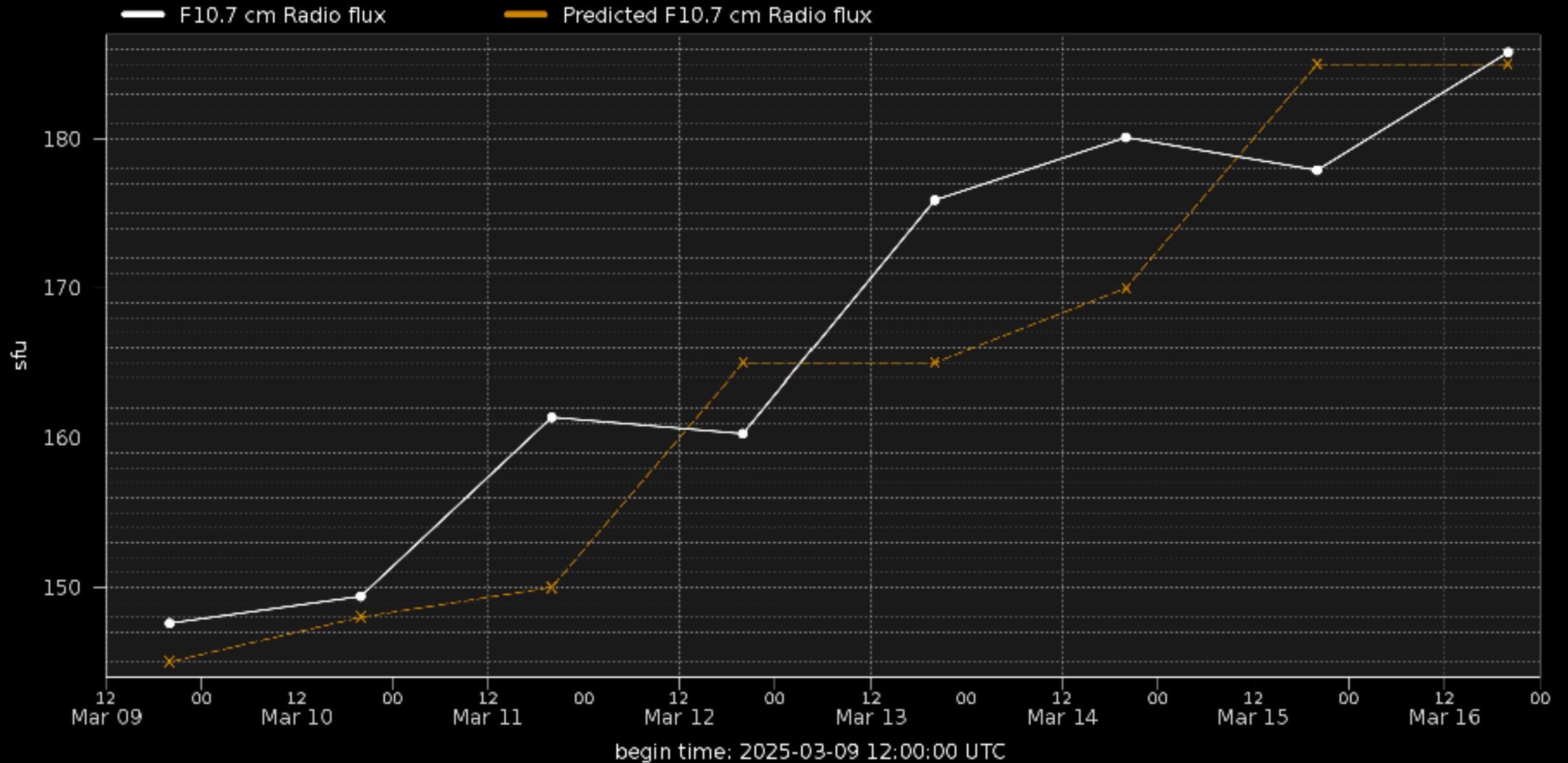


Kanzelhöhe Observatory
2025-03-13 08:11:01 UTC

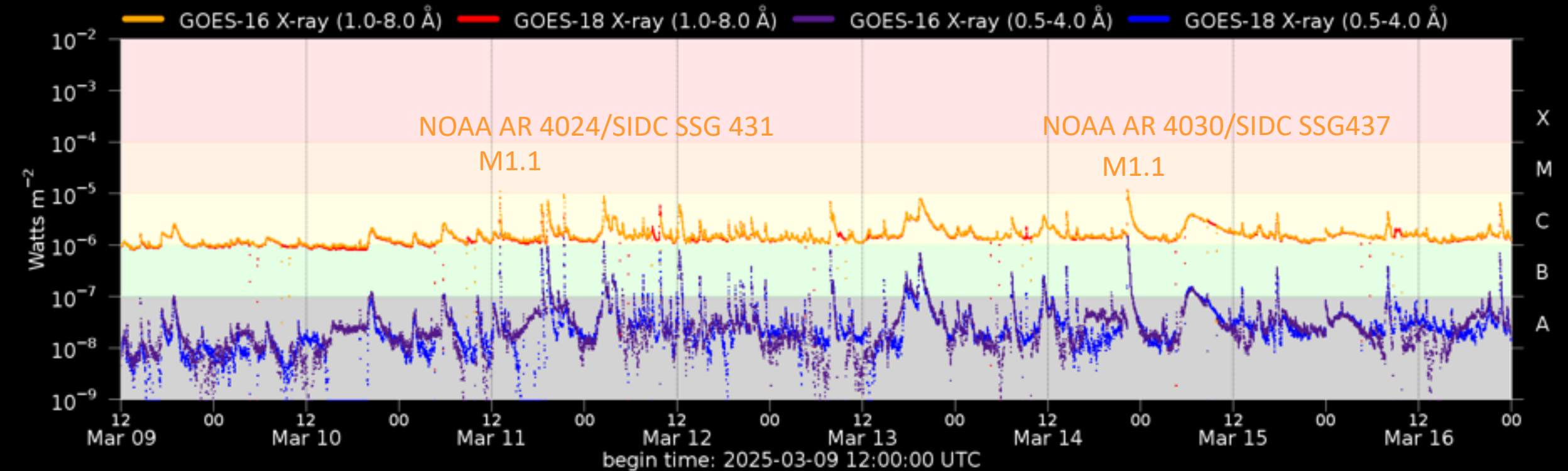
University of Graz
(Austria)



Solar F10.7cm radio flux



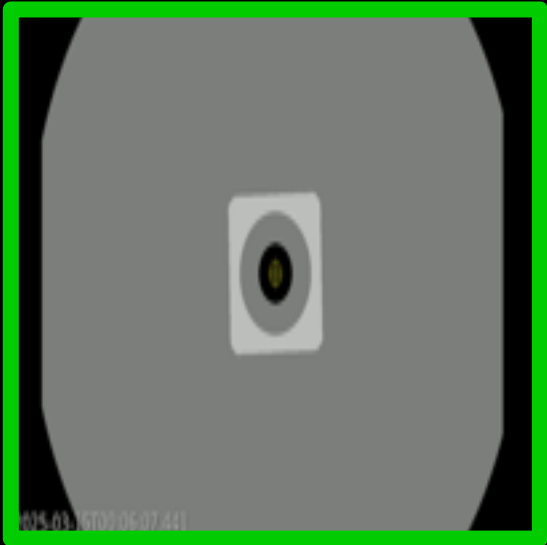
Flaring activity



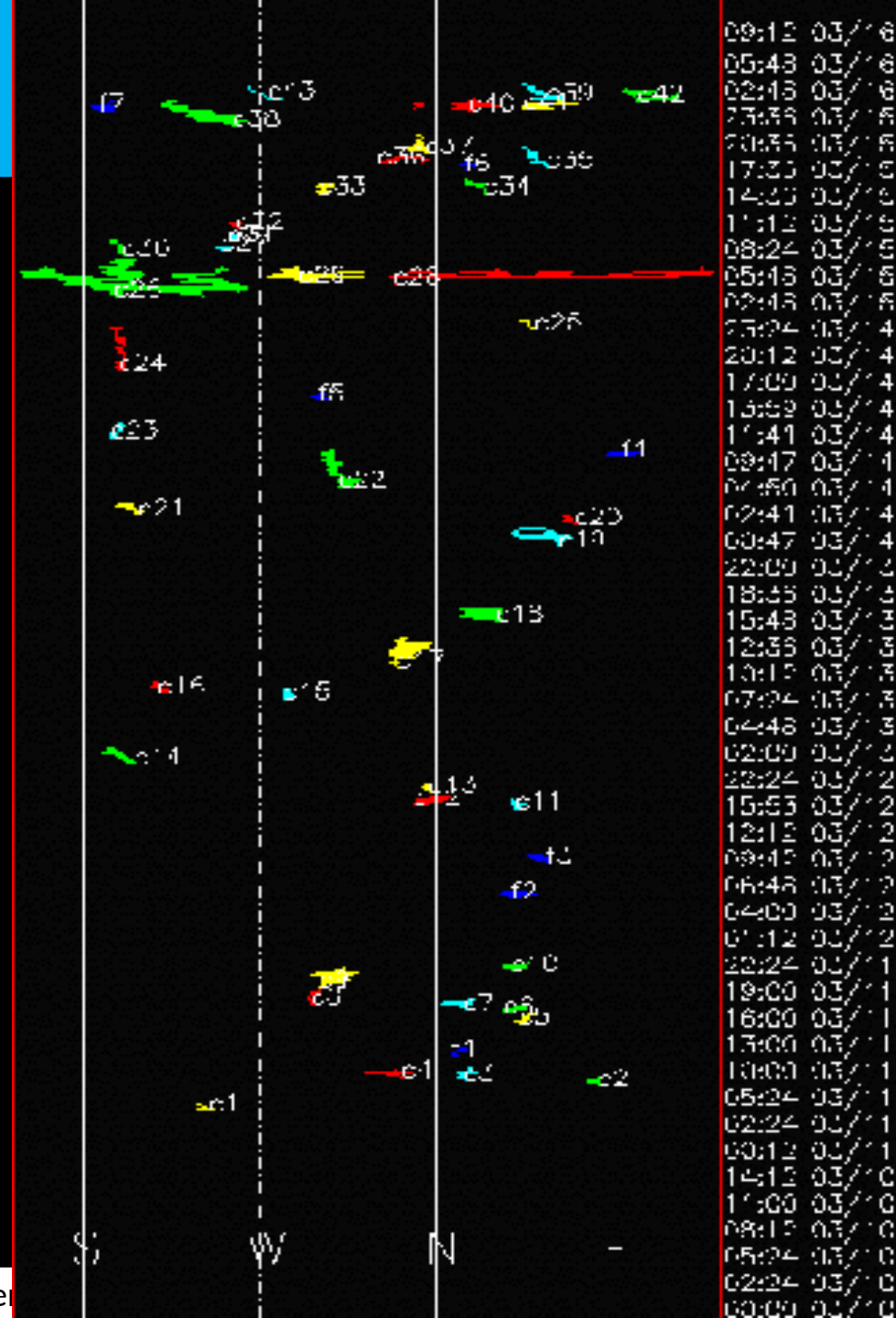
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2025-03-09	2025-03-10	2025-03-11	2025-03-12	2025-03-13	2025-03-14	2025-03-15	2025-03-16
Probability (%)	99 32 05	87 43 05	93 40 01	99 72 10	99 73 10	99 40 05	99 40 05	99 57 01
Observed (#)	02 00 00	02 00 00	13 01 00	13 00 00	07 00 00	04 01 00	06 00 00	01 00 00

Coronal Mass Ejections



CME detected in SOHO/LASCO-C2 Mar 15 around 05:30 UTC
Not Earth Directed
Originated from on west limb



Solar Wind and

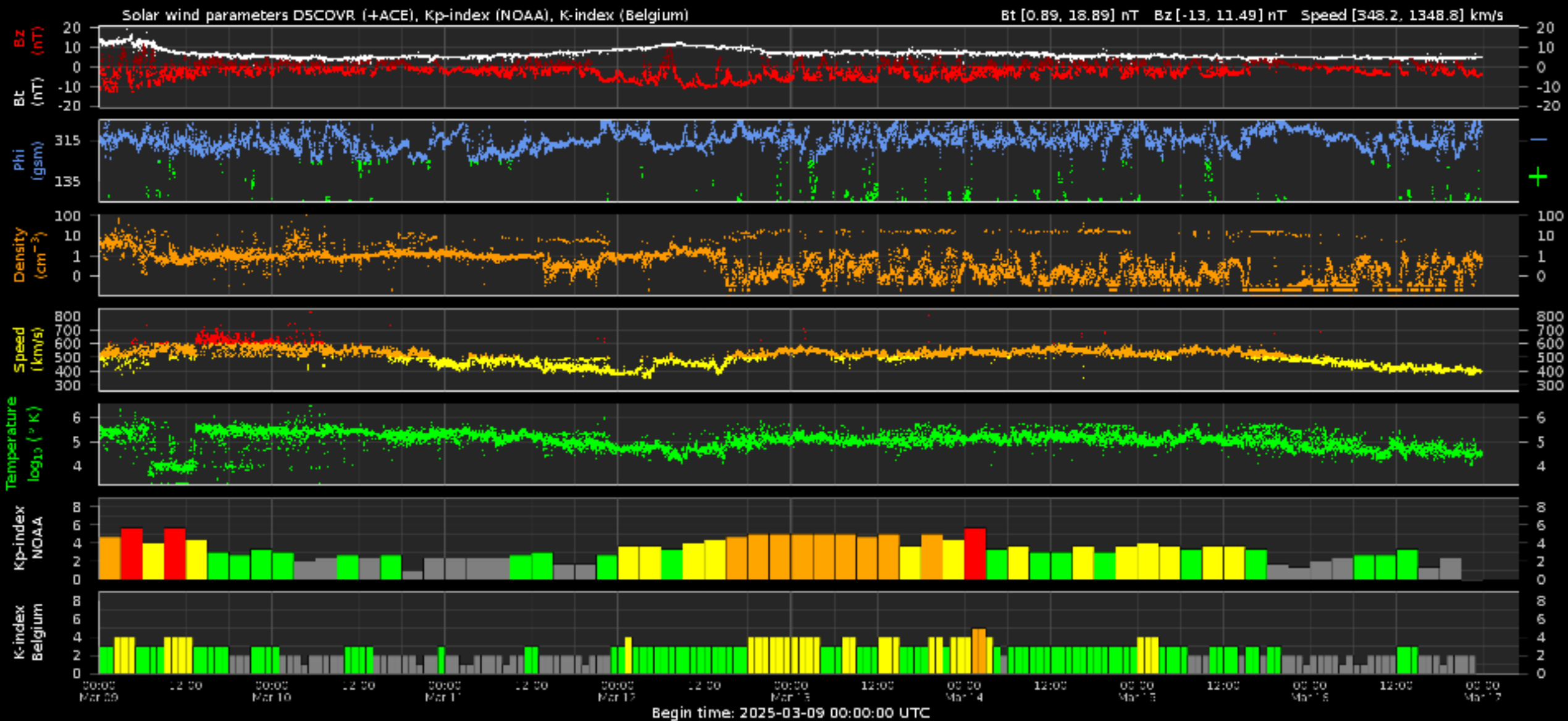
Geomagnetic Activity



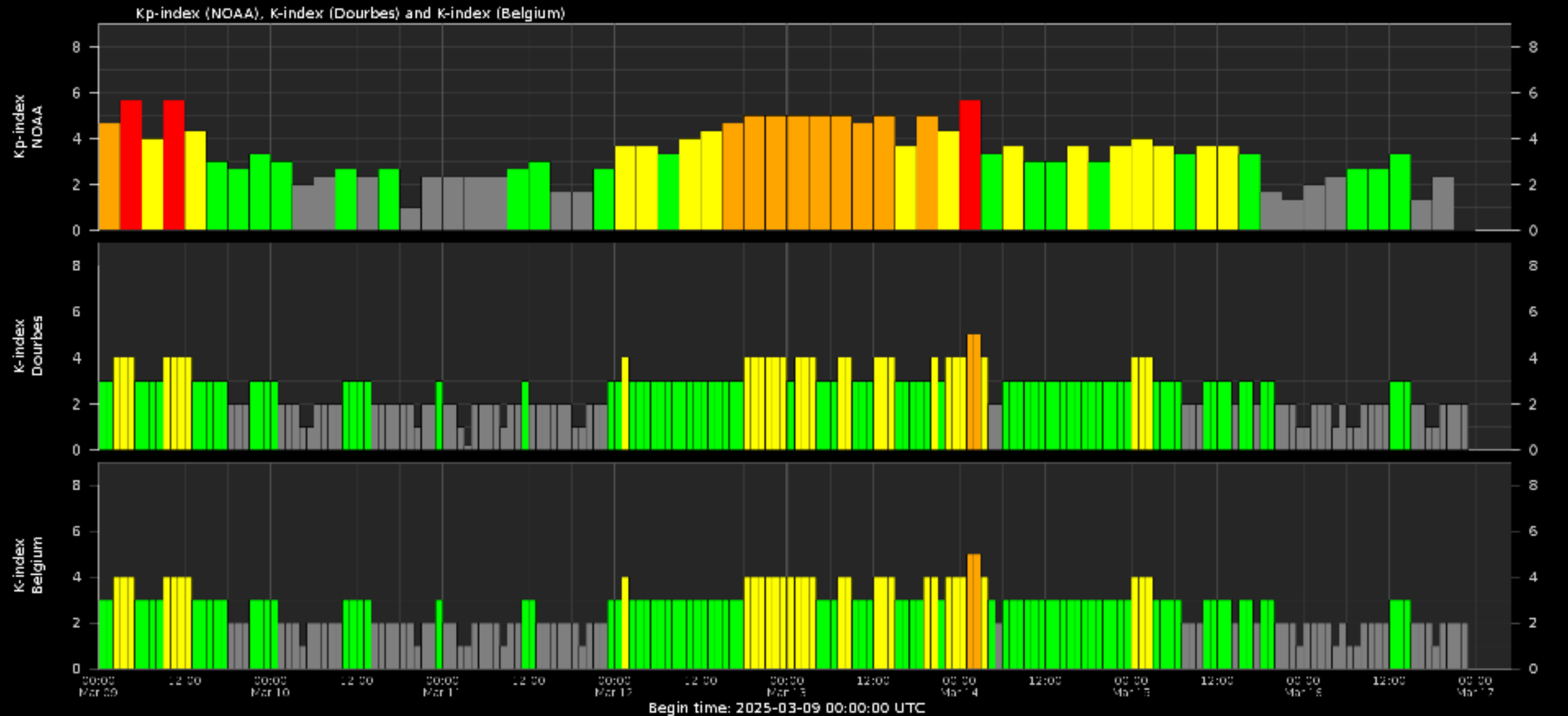
Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



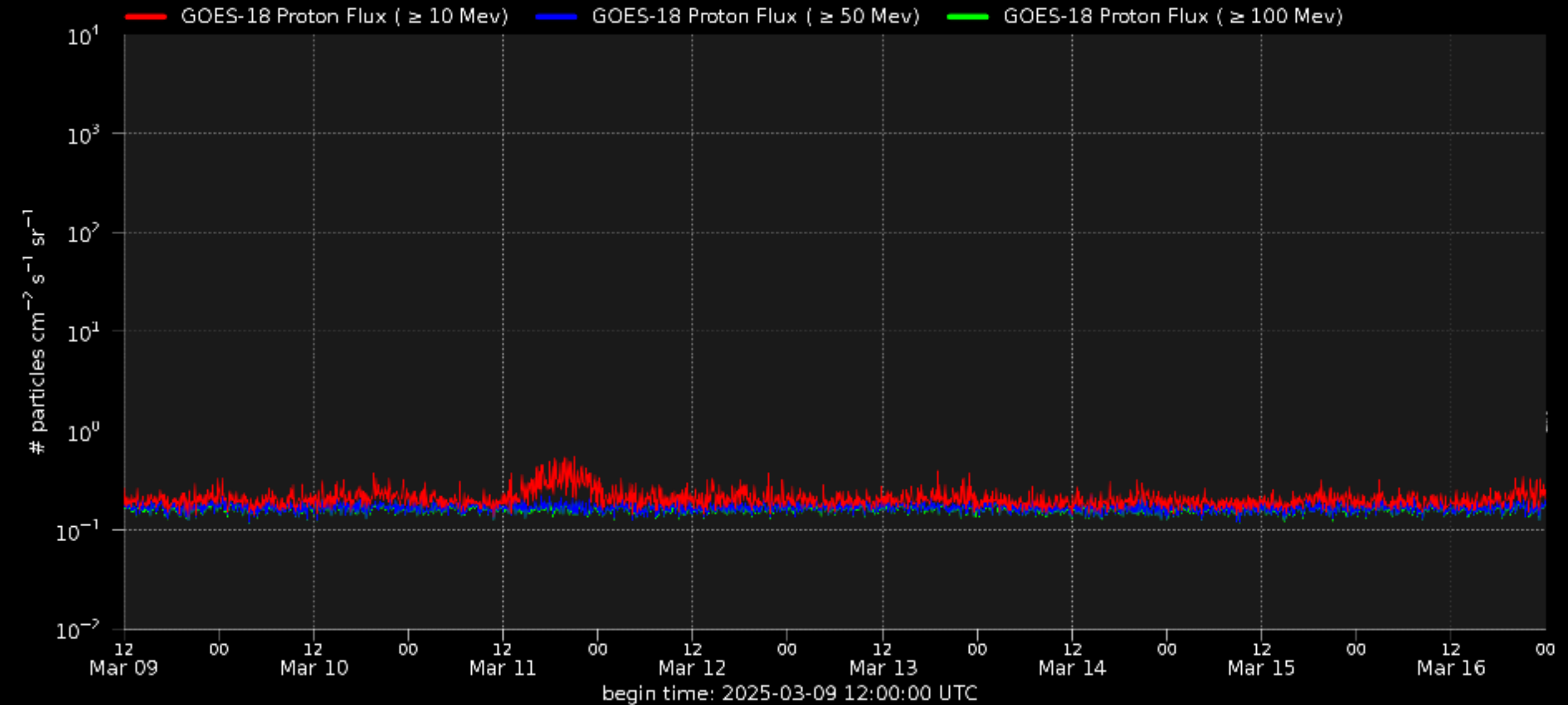
Energetic Particles



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

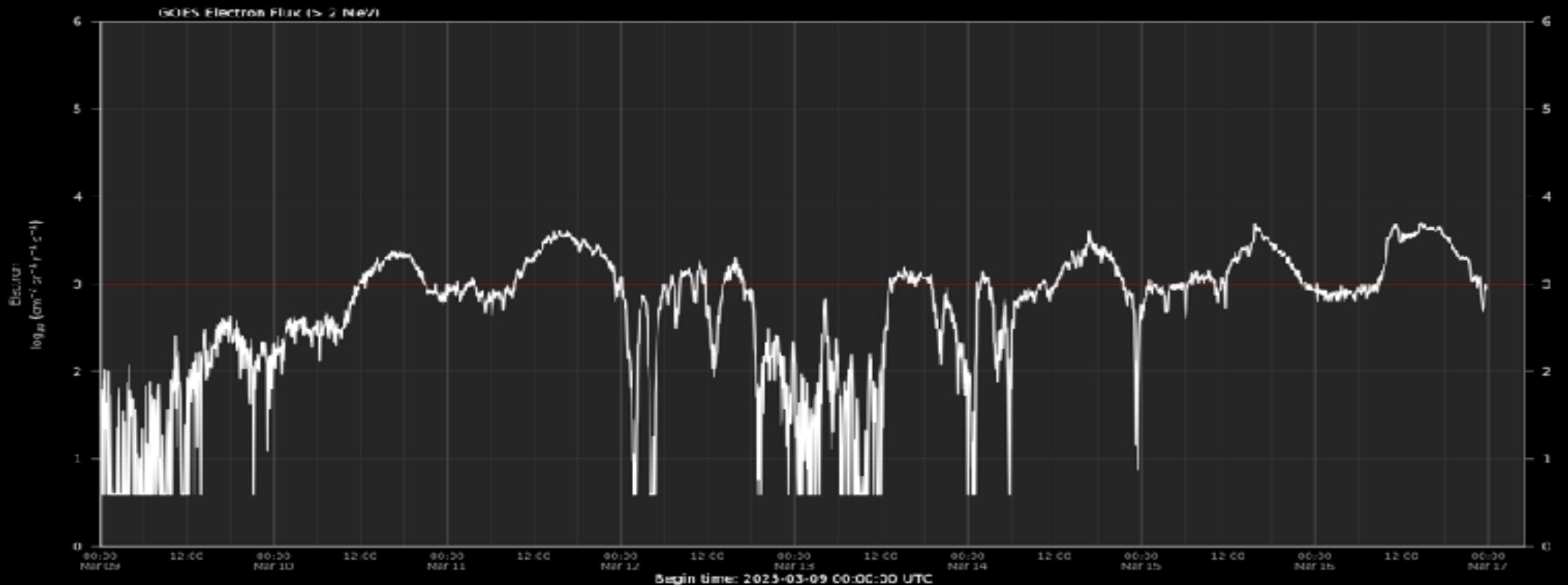
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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



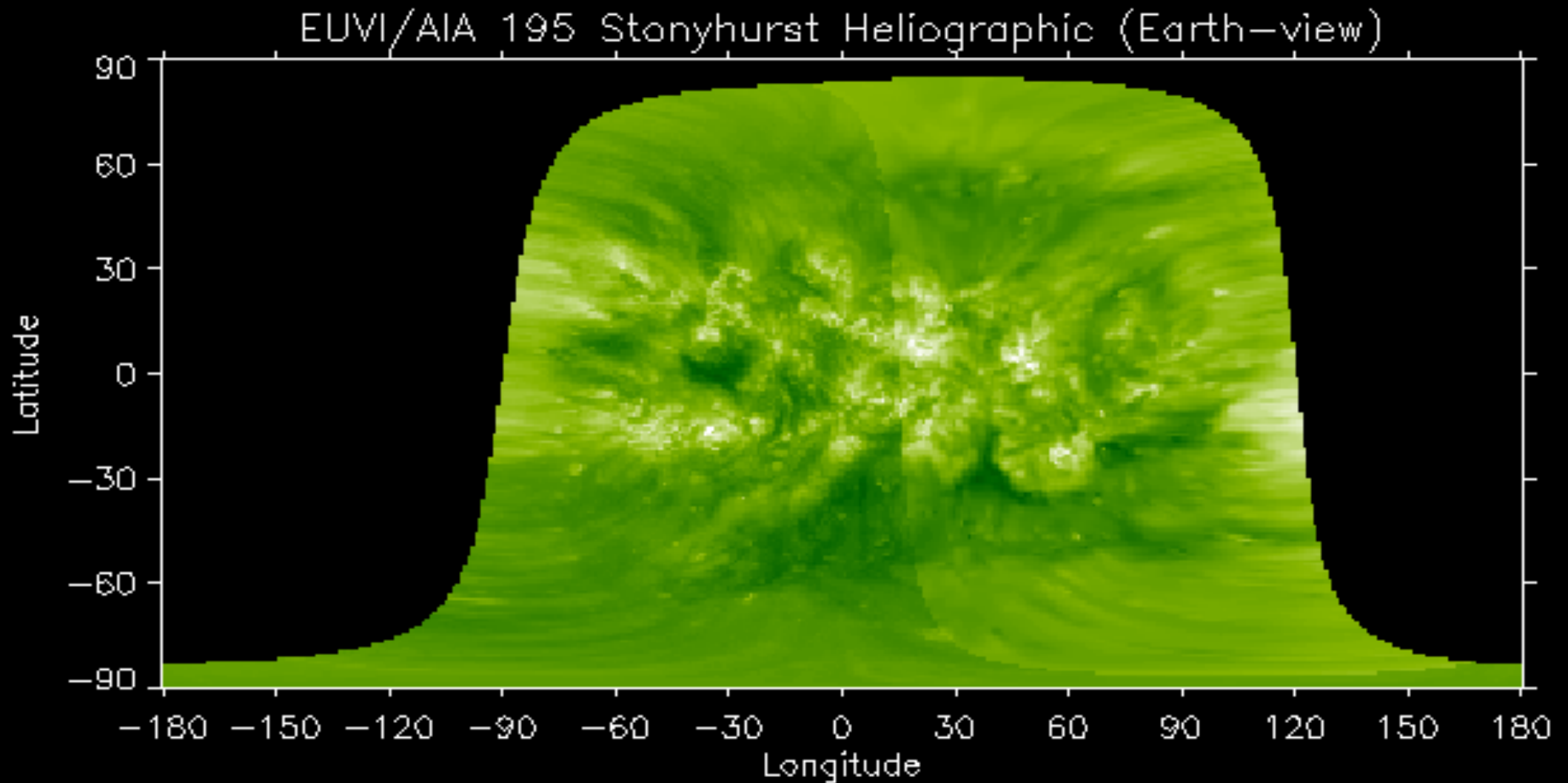
Outlook



Royal Observatory
of Belgium

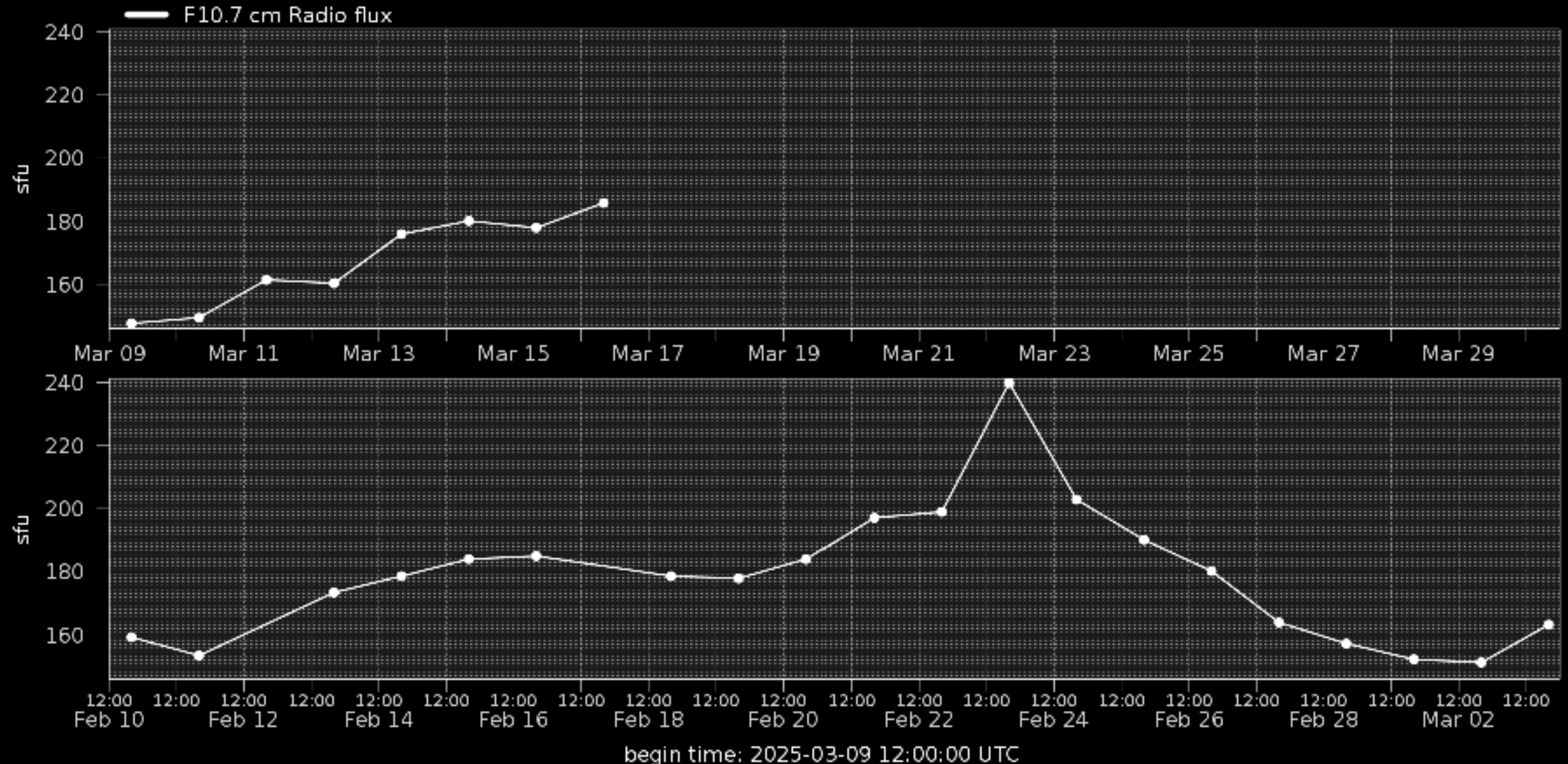
Solar Influences
Data analysis Centre
www.sidc.be

Outlook: Solar activity



Observation date: 2025/03/16 23:05:00

Outlook: Solar F10.7cm radio flux



Outlook: Electron Flux at GEO Outlook



PECASUS



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Pecarus related events

HF Post-Storm Depression Advisories following Kp6-

AS/PS Scintillation advisories

VTEC Advisories

SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be