SIDC Space Weather Briefing

20 April 2026-26 April 2026

Vansintjan Robbe

& the SIDC forecaster team

Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2026-04-20 00:00 to 2026-04-26 23:59

Active regions	7 Sunspot groups – SIDC SG **825** (NOAAActive Region 4419) 847 (NOAA Active Region 4420), & 850 (NOAA Active Region 4423)
Flares	# C-class flare: 56 # M-class flare: 14 # X-class flare: 2
Coronal Holes	2 CH+ & 3 CH-
CMEs	2 potential glancing blow CMEs

Proton flux	Elevated but below the threshold
Electron flux	The electron flux (measured by GOES-18) reached moderate levels

Solar wind and geomagnetic conditions

ICMEs	No ICME arrivals
Solar wind conditions	|B|: 0.91 - 14.49 nT //Bz: -13.86 nT to 12.2 nT //Speed: 351.7 - 614.2km/s
Geomagnetic conditions	max KBel: 5.0, max Kp(NOAA): 5.0, Minor Storm conditions

All Quiet Alert: Off

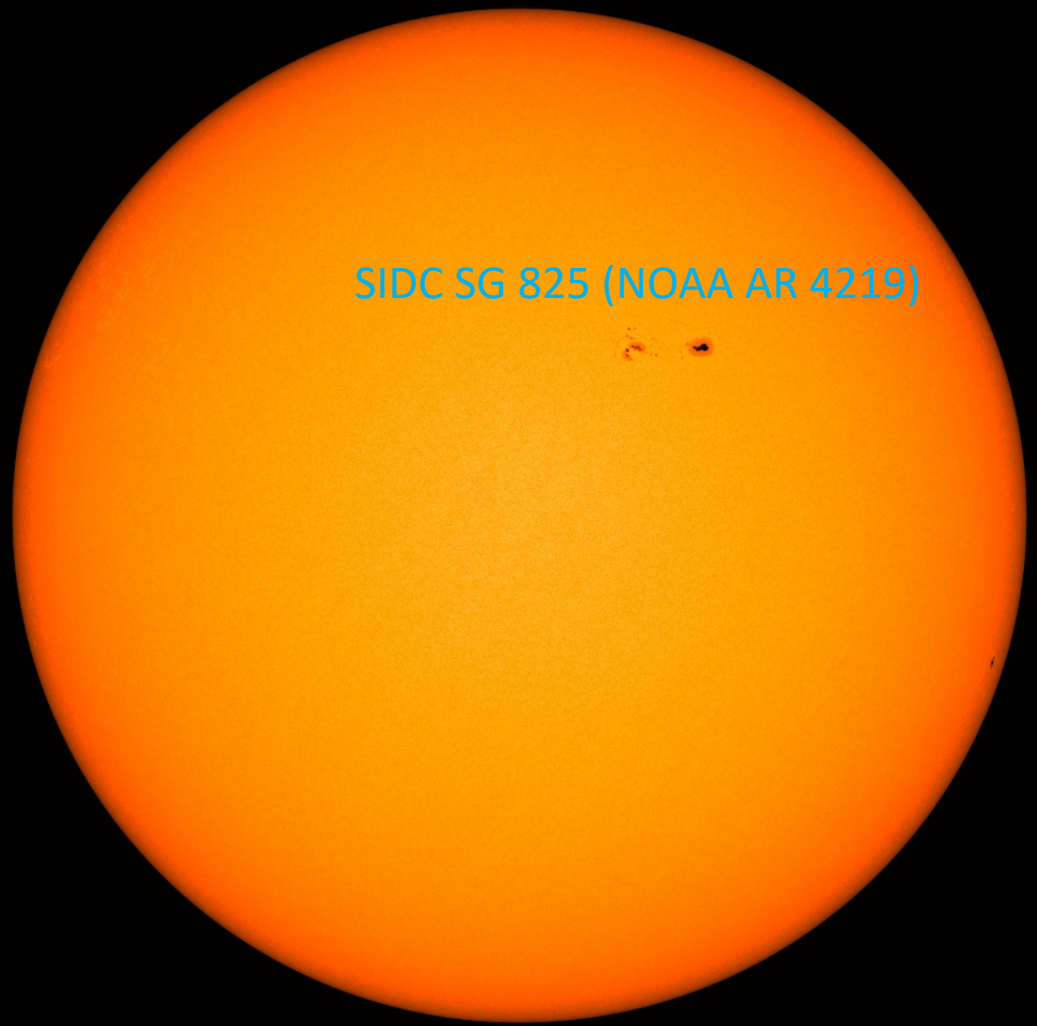
Solar Activity

Royal Observatory
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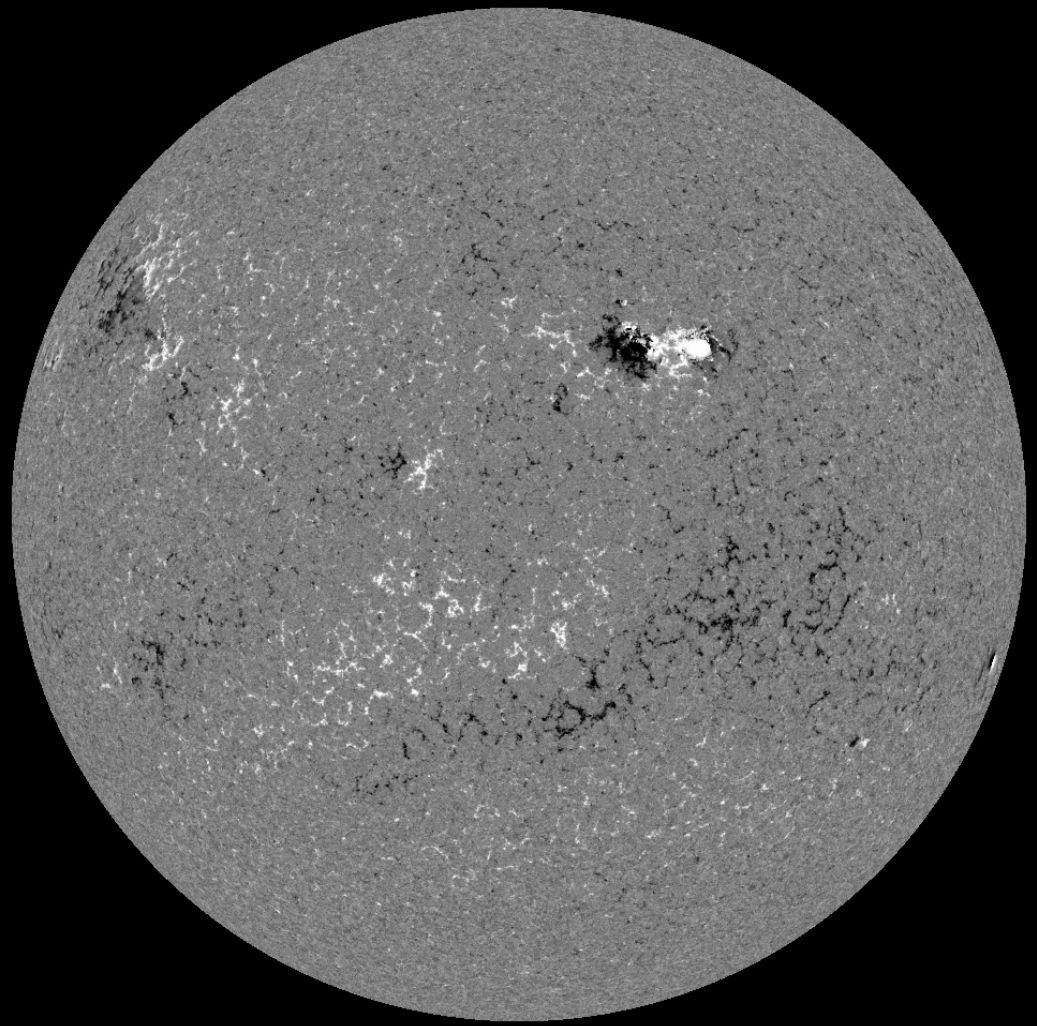
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Solar active regions

SDO/HMI White Light 2026-04-20



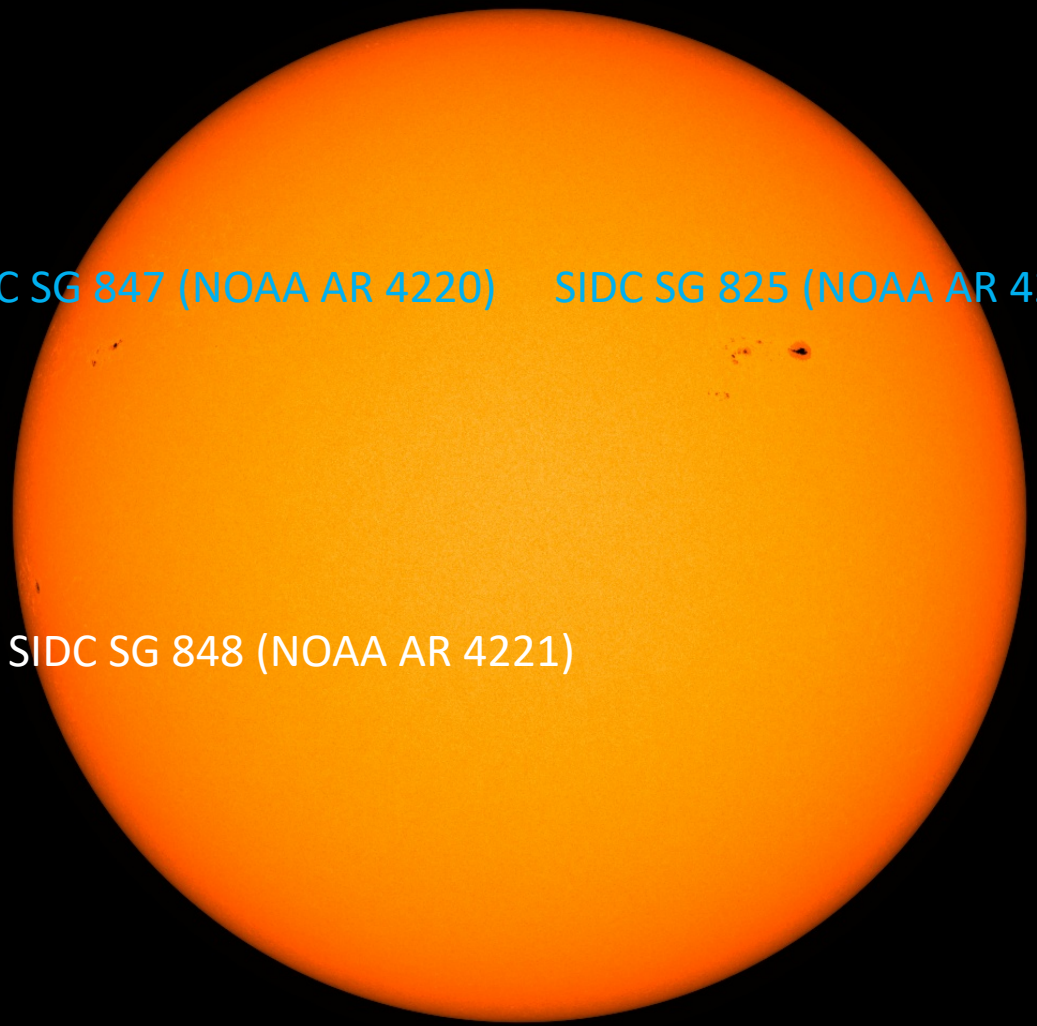
SDO/HMI Magnetogram 2026-04-20

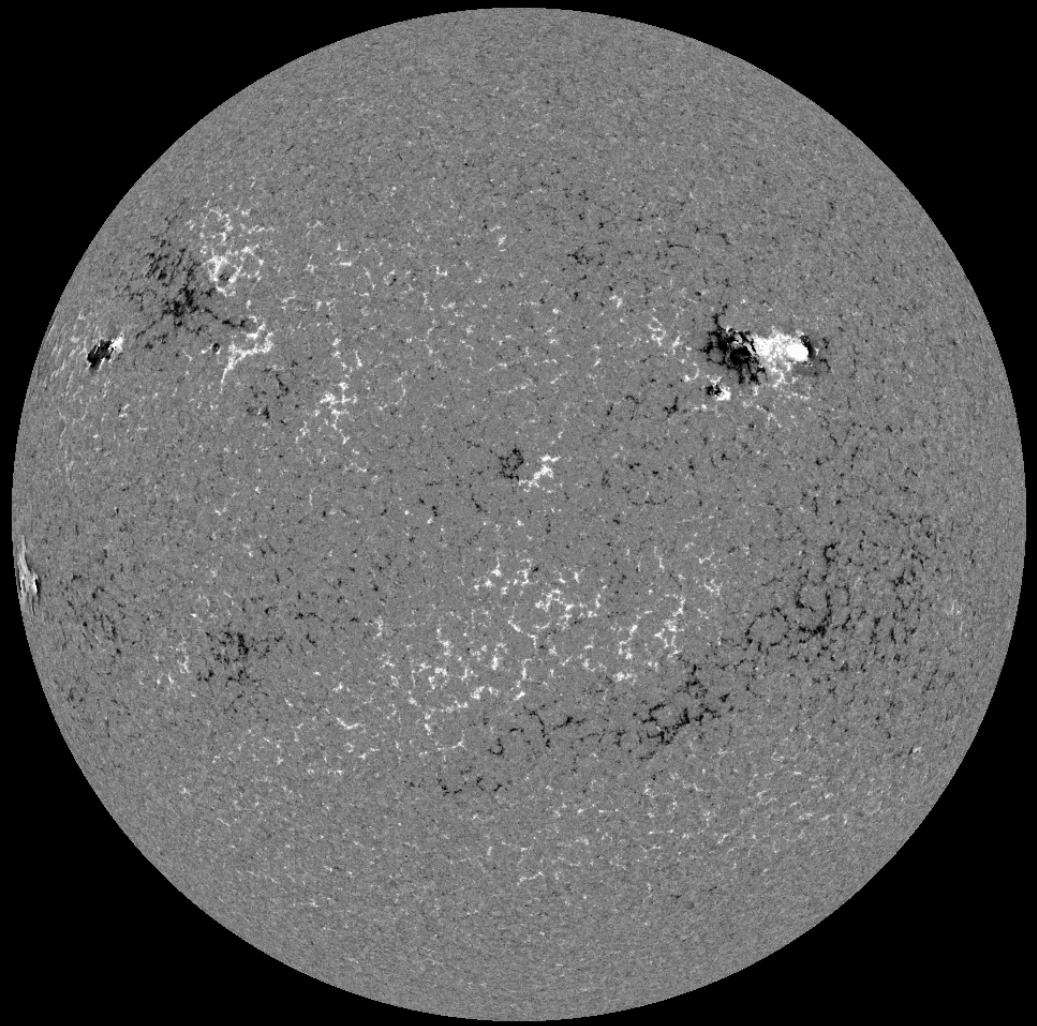


Solar active regions

SDO/HMI White Light 2026-04-21

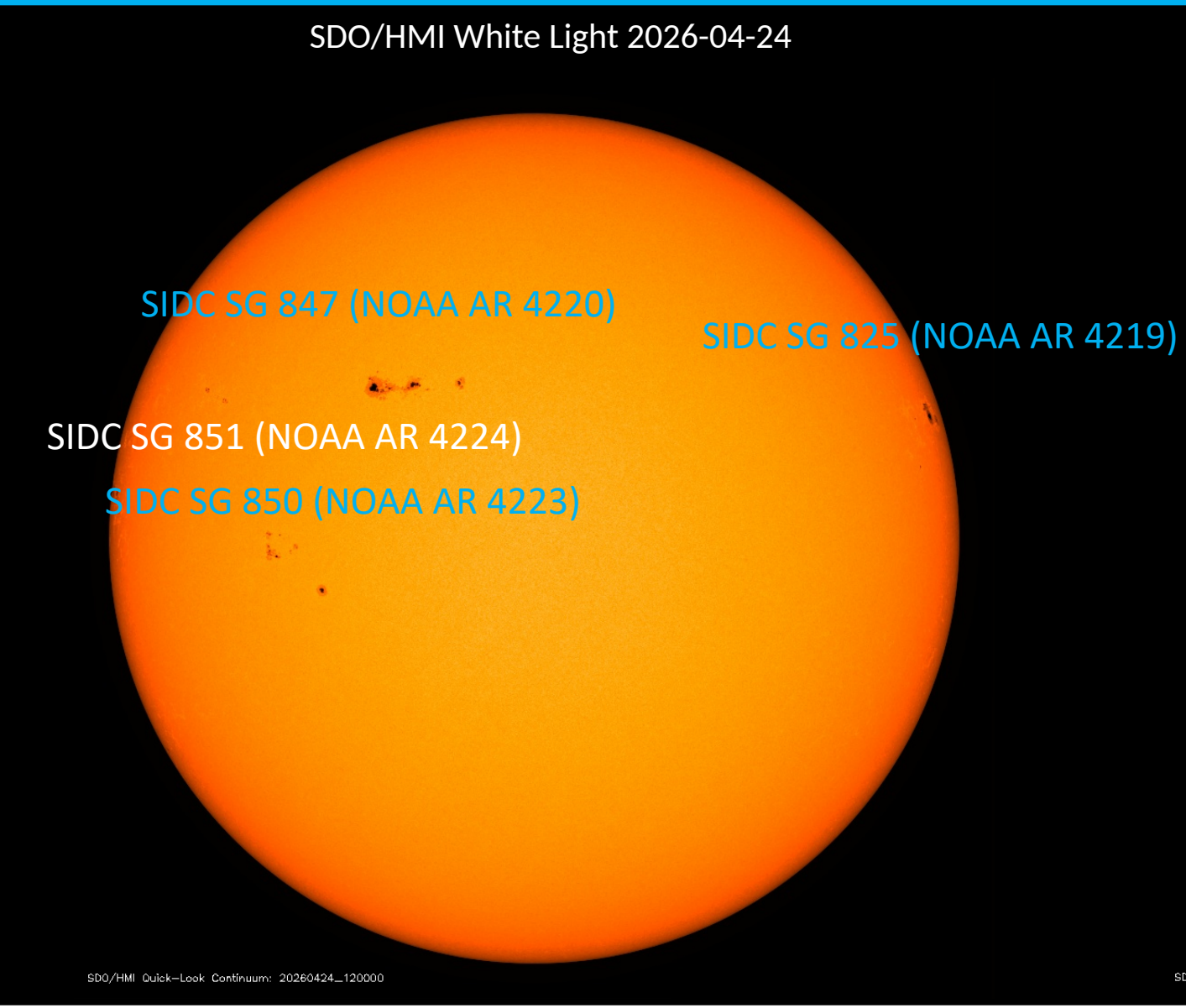
SDO/HMI Magnetogram 2026-04-21



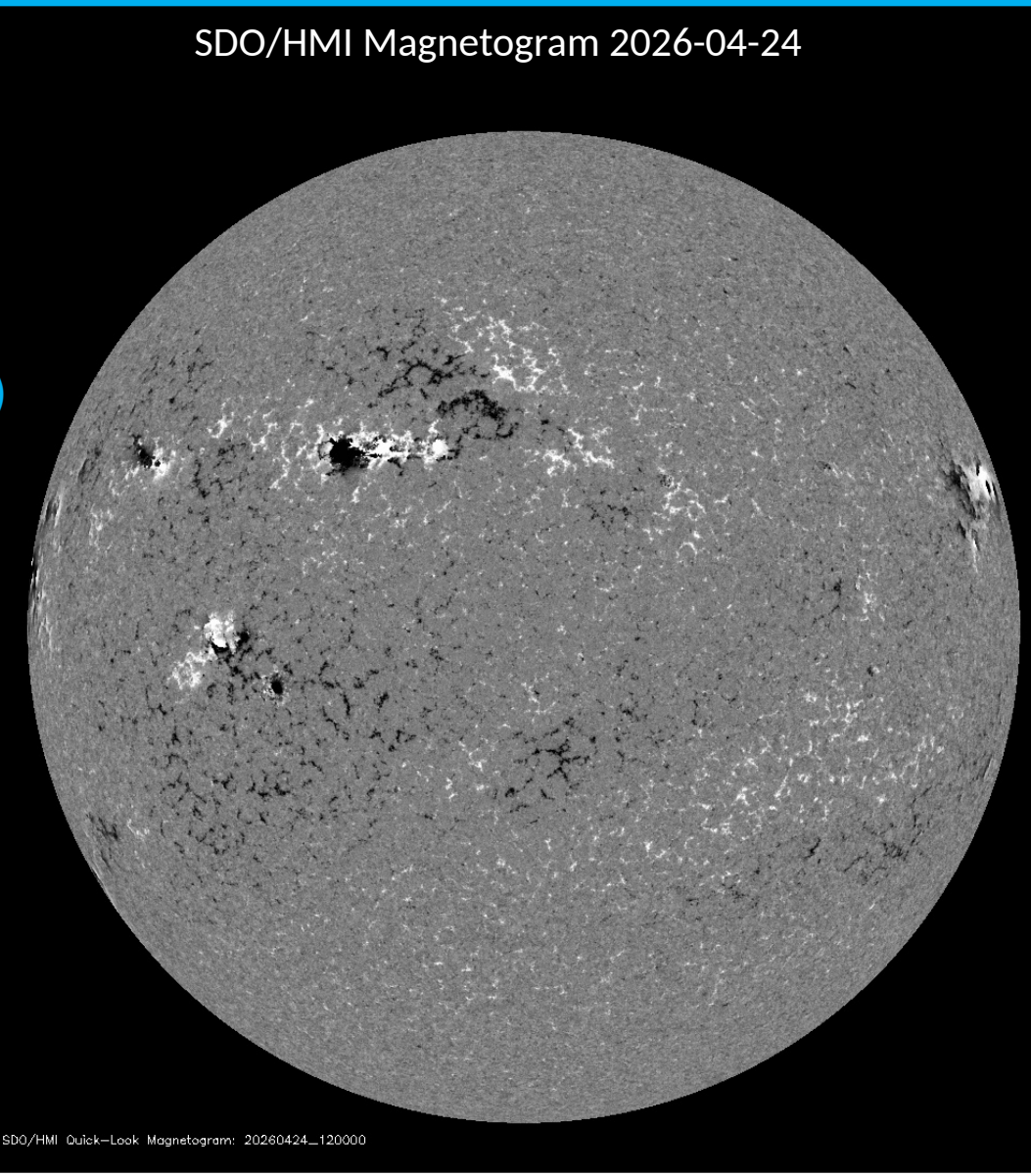


Solar active regions

SDO/HMI White Light 2026-04-24

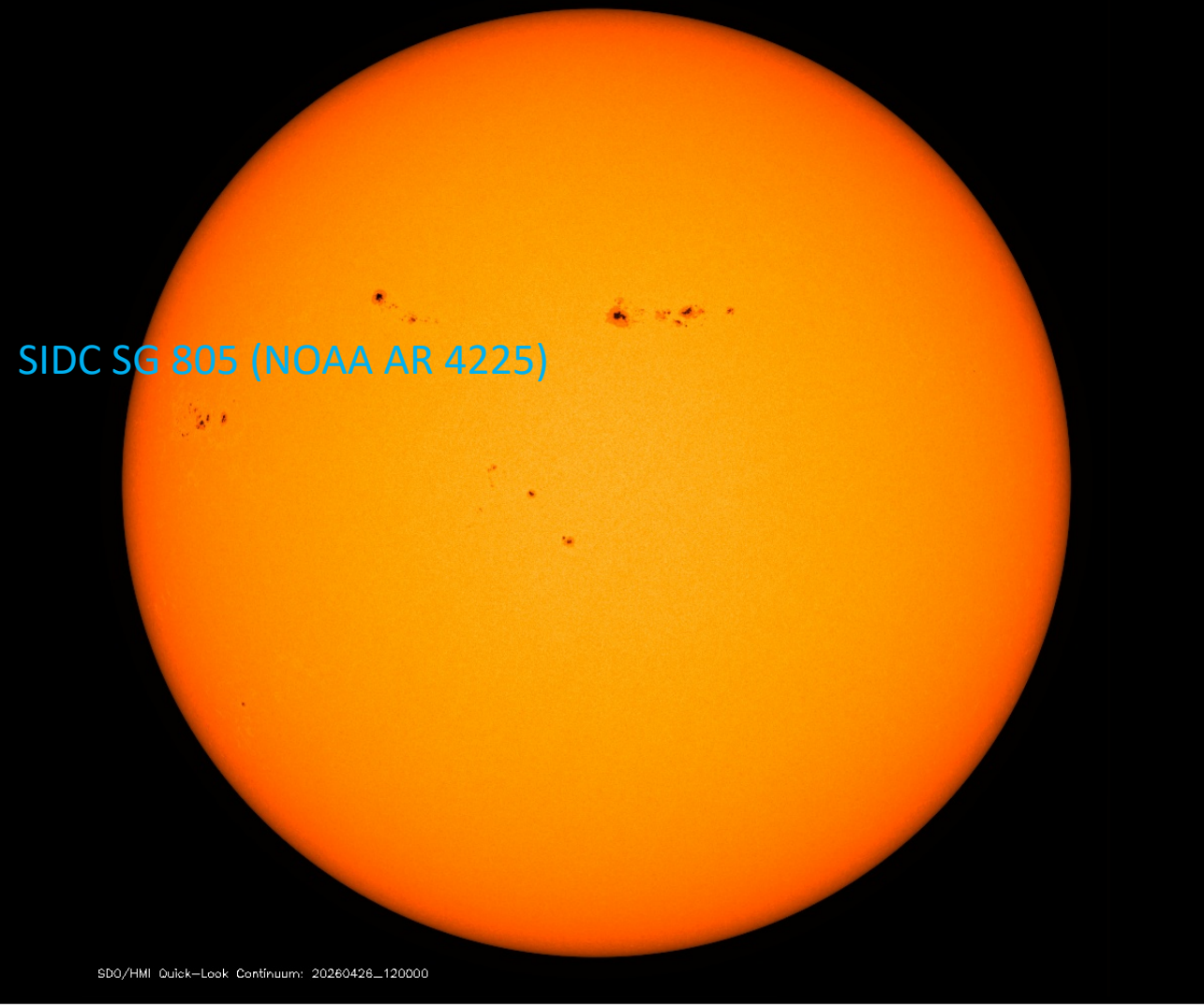


SDO/HMI Magnetogram 2026-04-24

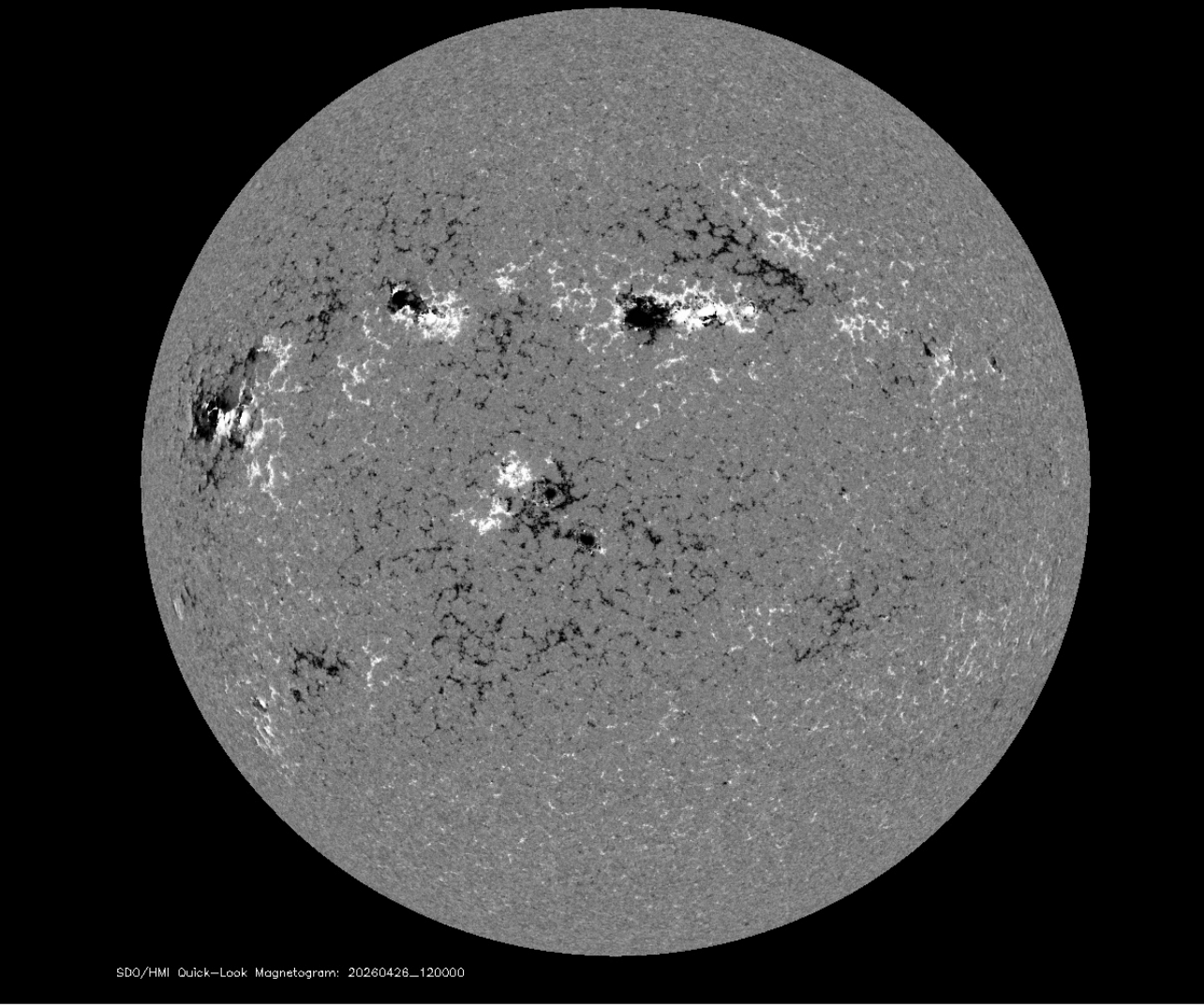


Solar active regions

SDO/HMI White Light 2026-04-26

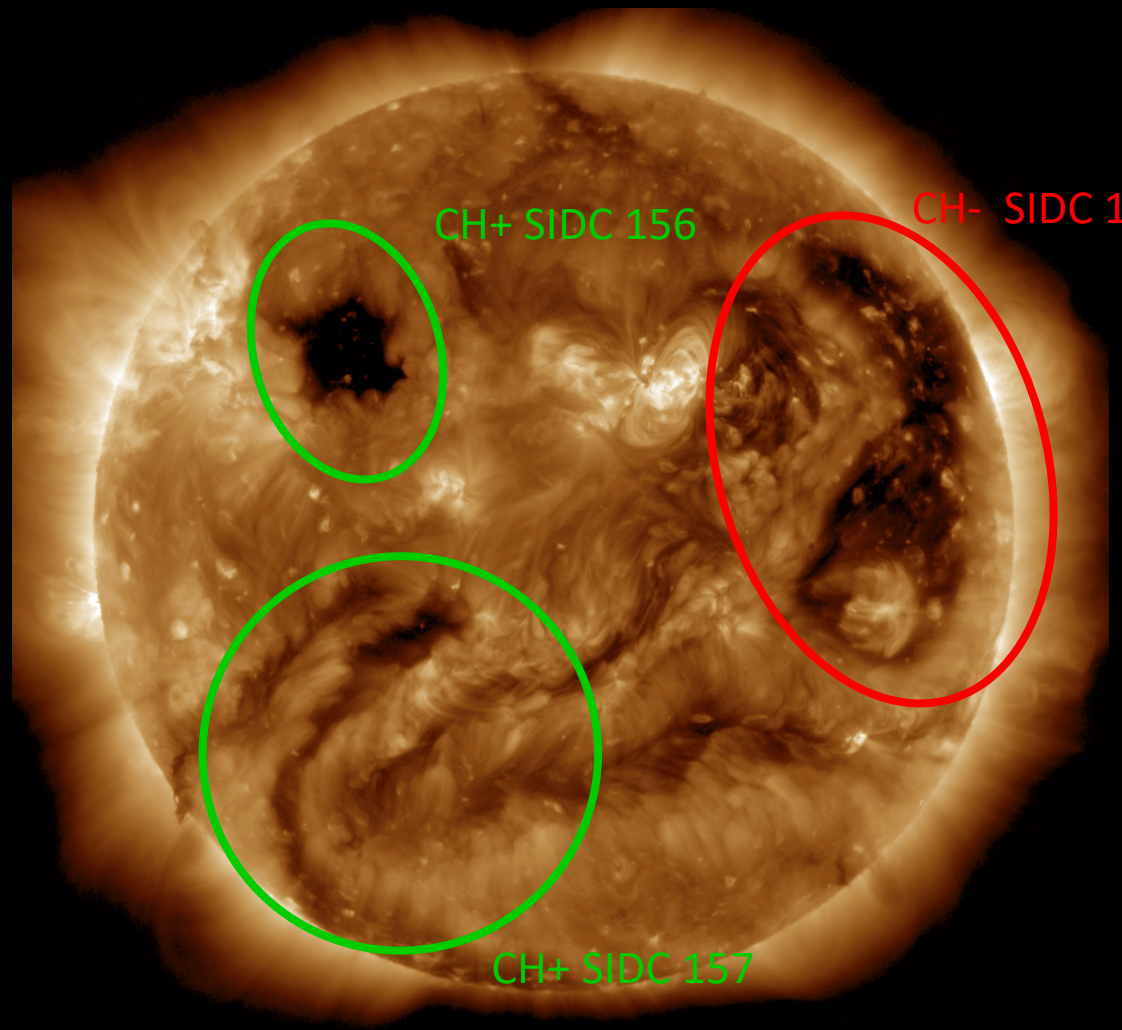


SDO/HMI Magnetogram 2026-04-26

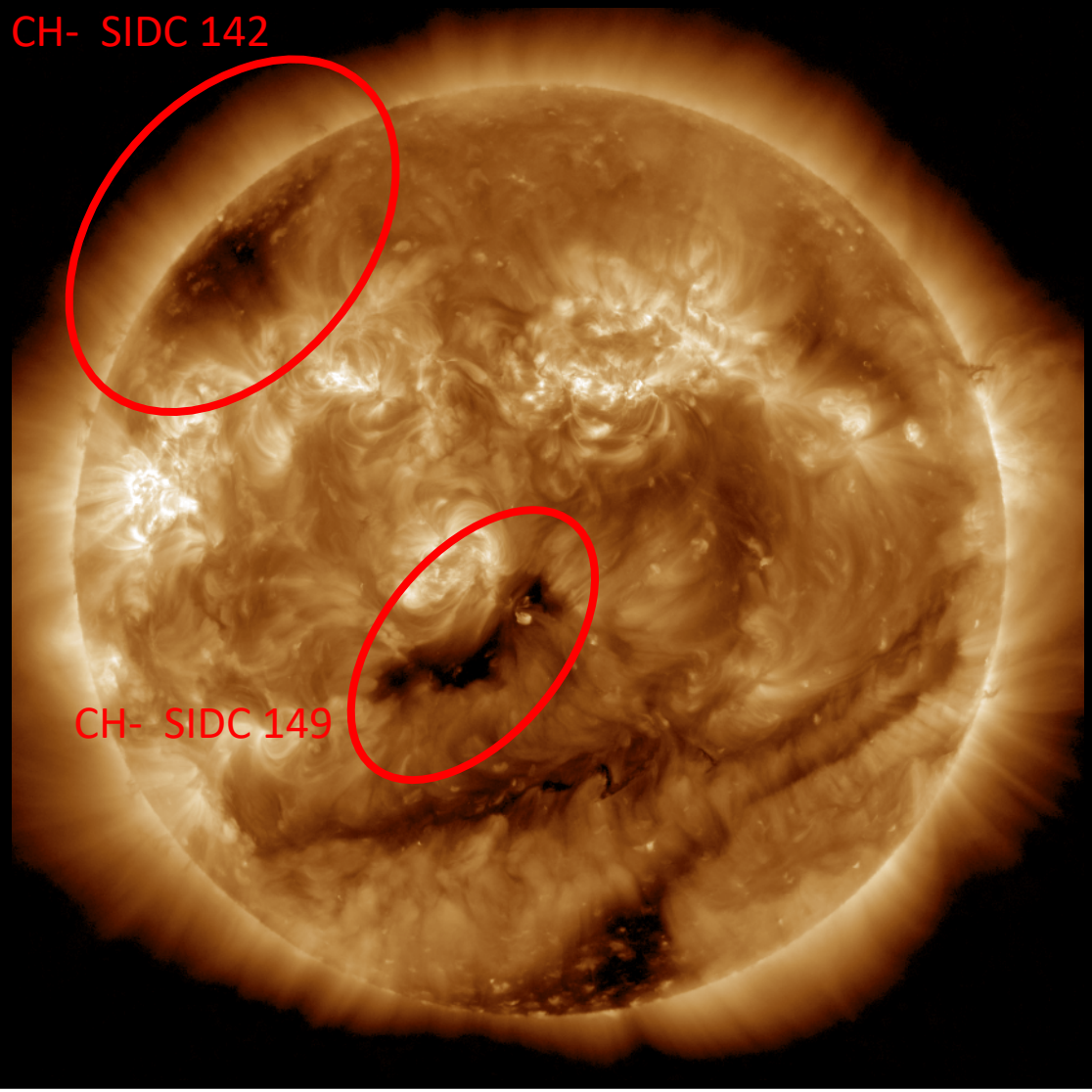


Coronal holes

SDO/AIA 19.3 nm 2026-04-20

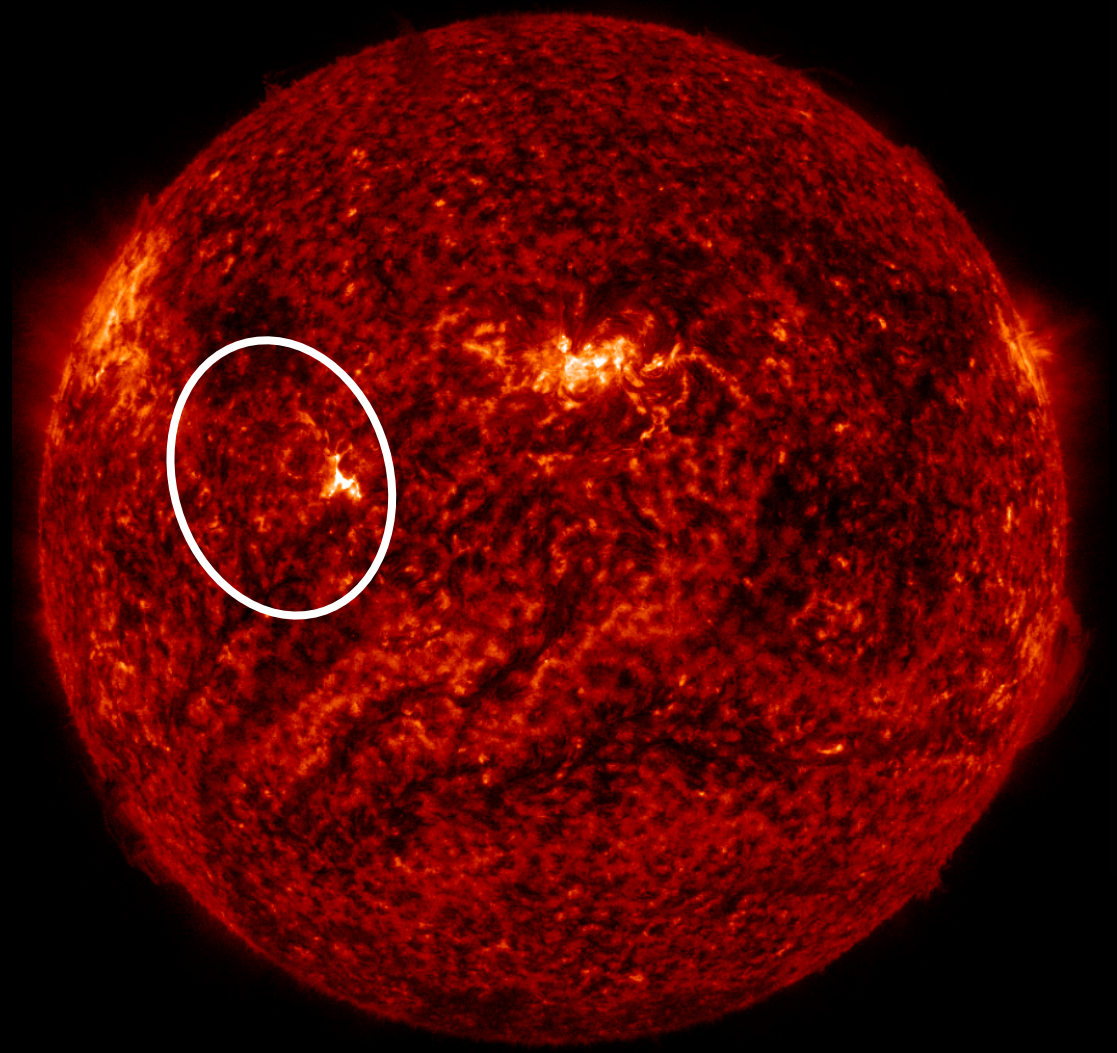


SDO/AIA 19.3 nm 2026-04-26

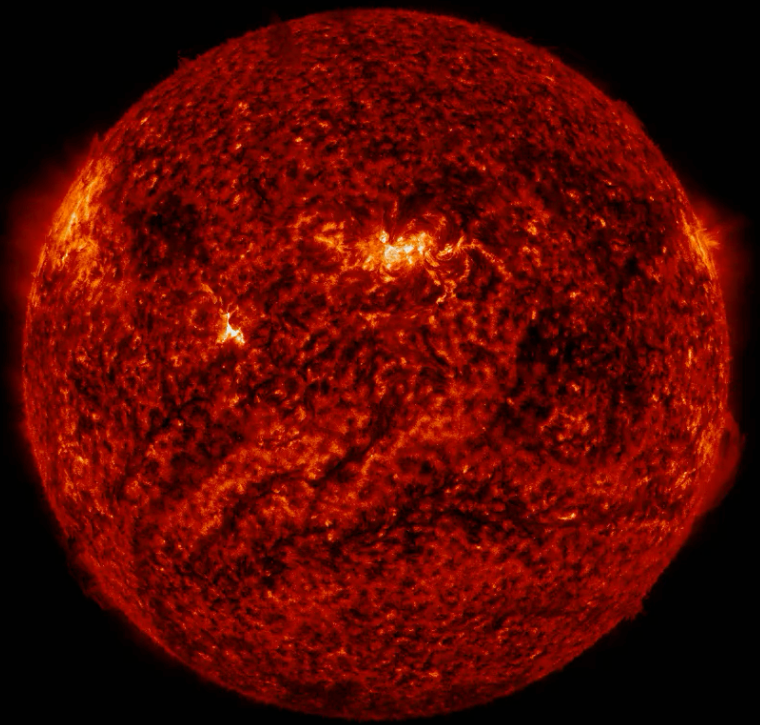


Filaments

SDO/AIA 30.4 nm 2026-04-19

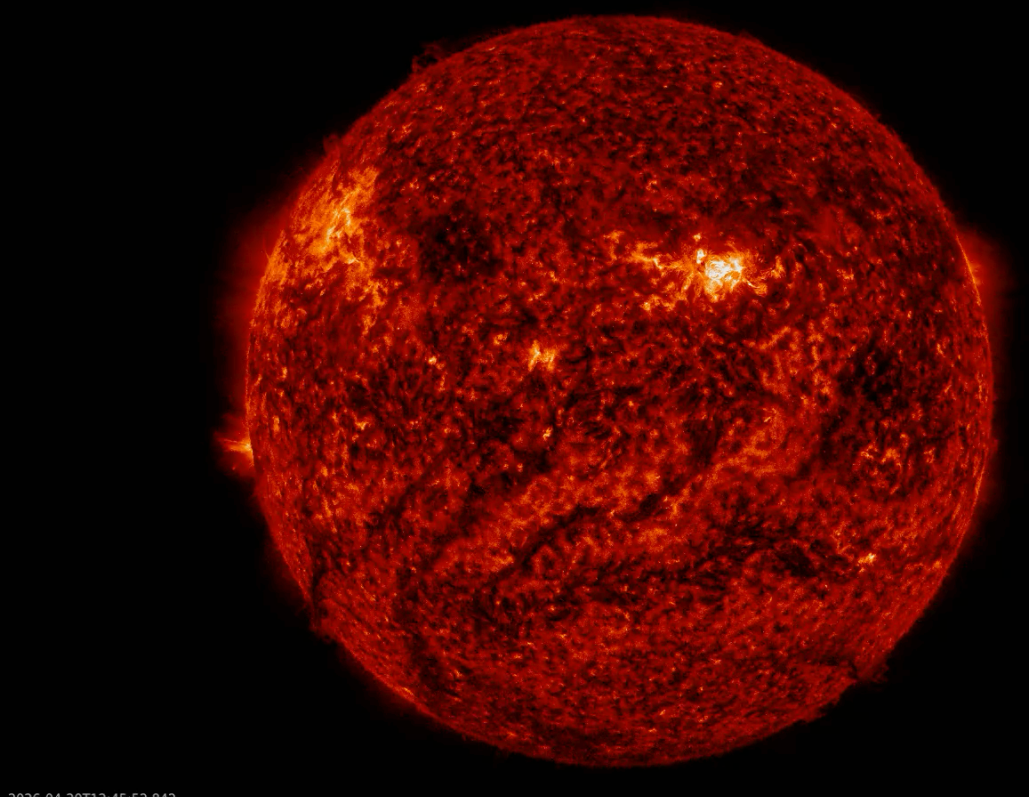


SDO/AIA 30.4 nm 2026-04-19 15:15 UTC

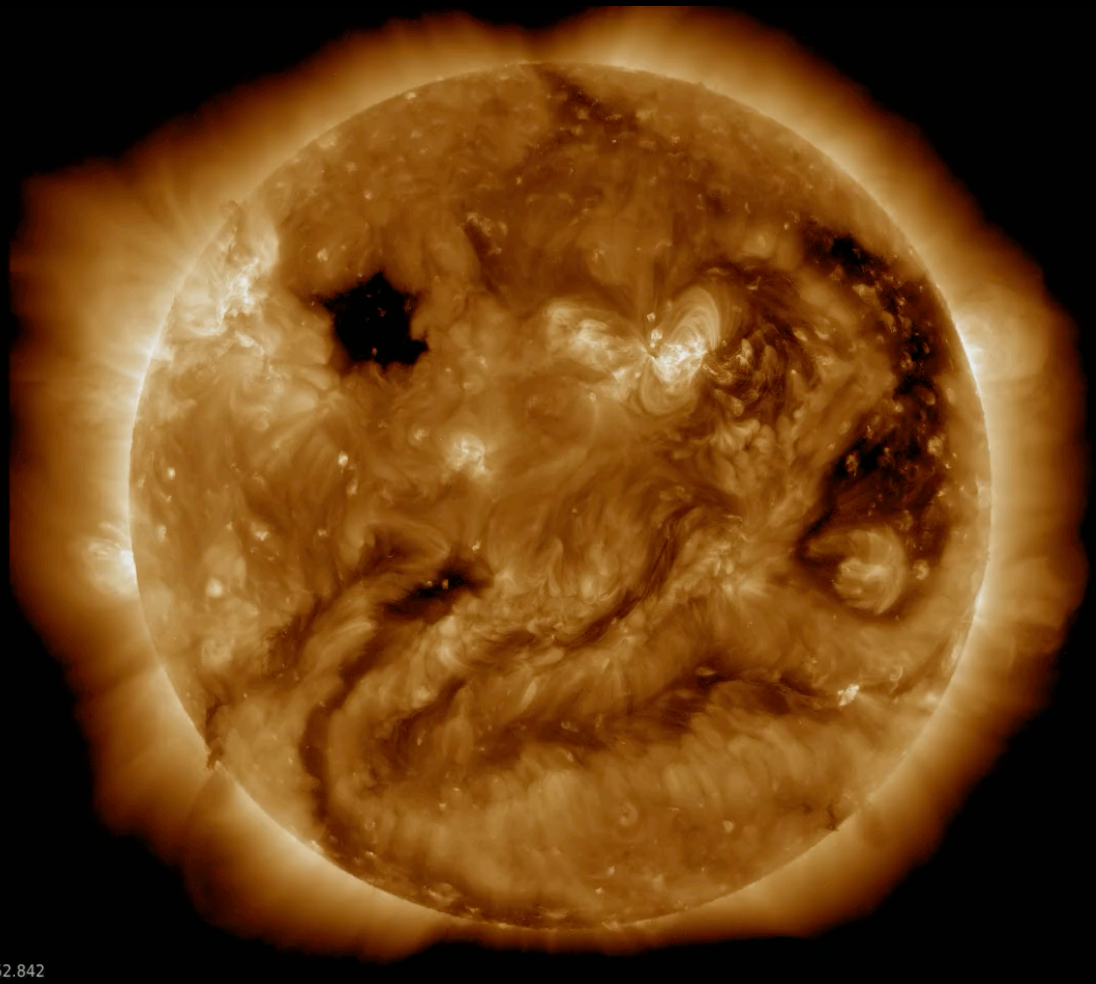


Filaments

SDO/AIA 30.4 nm 2026-04-20

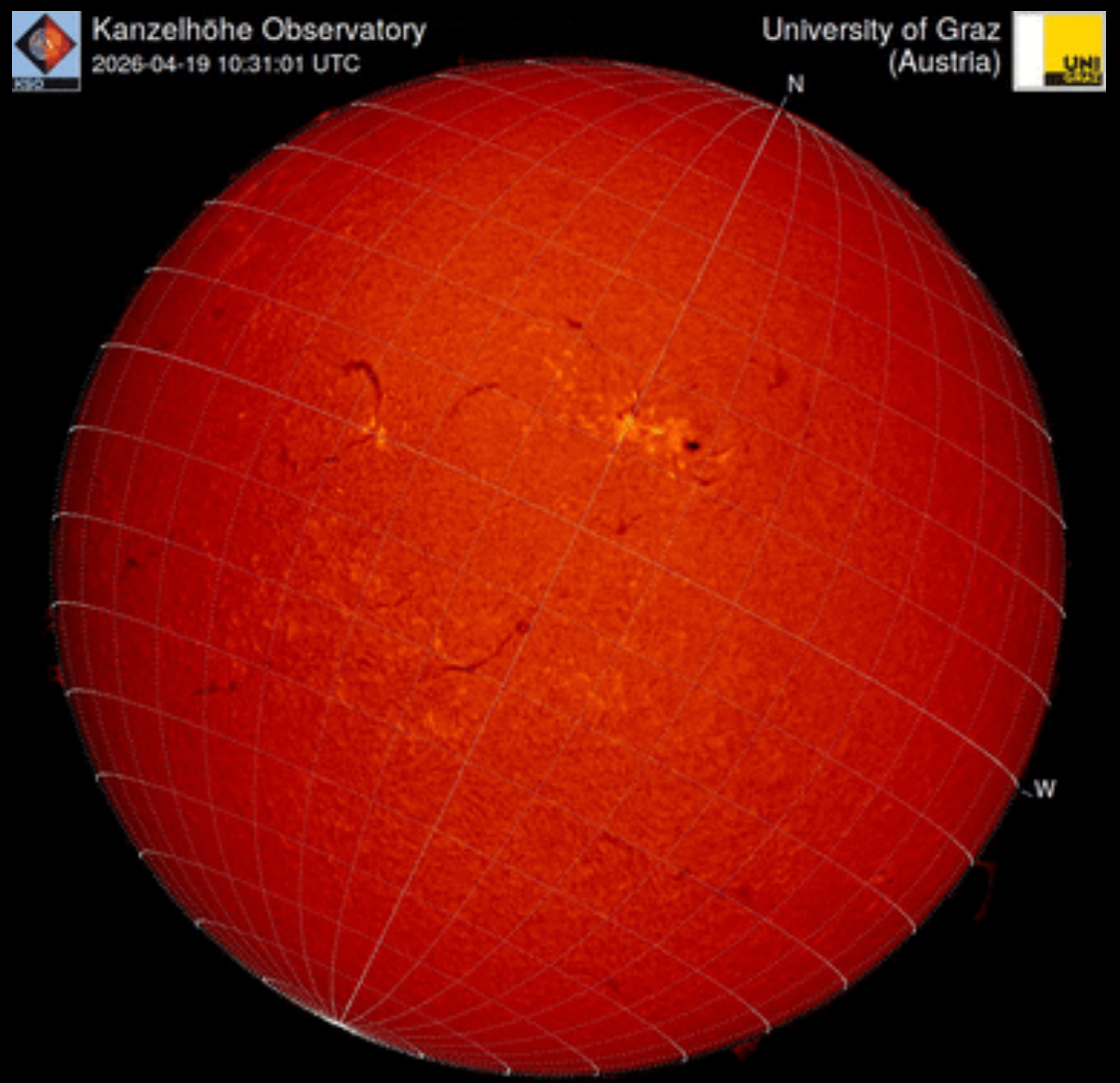


SDO/AIA 19.3 nm 2026-04-20

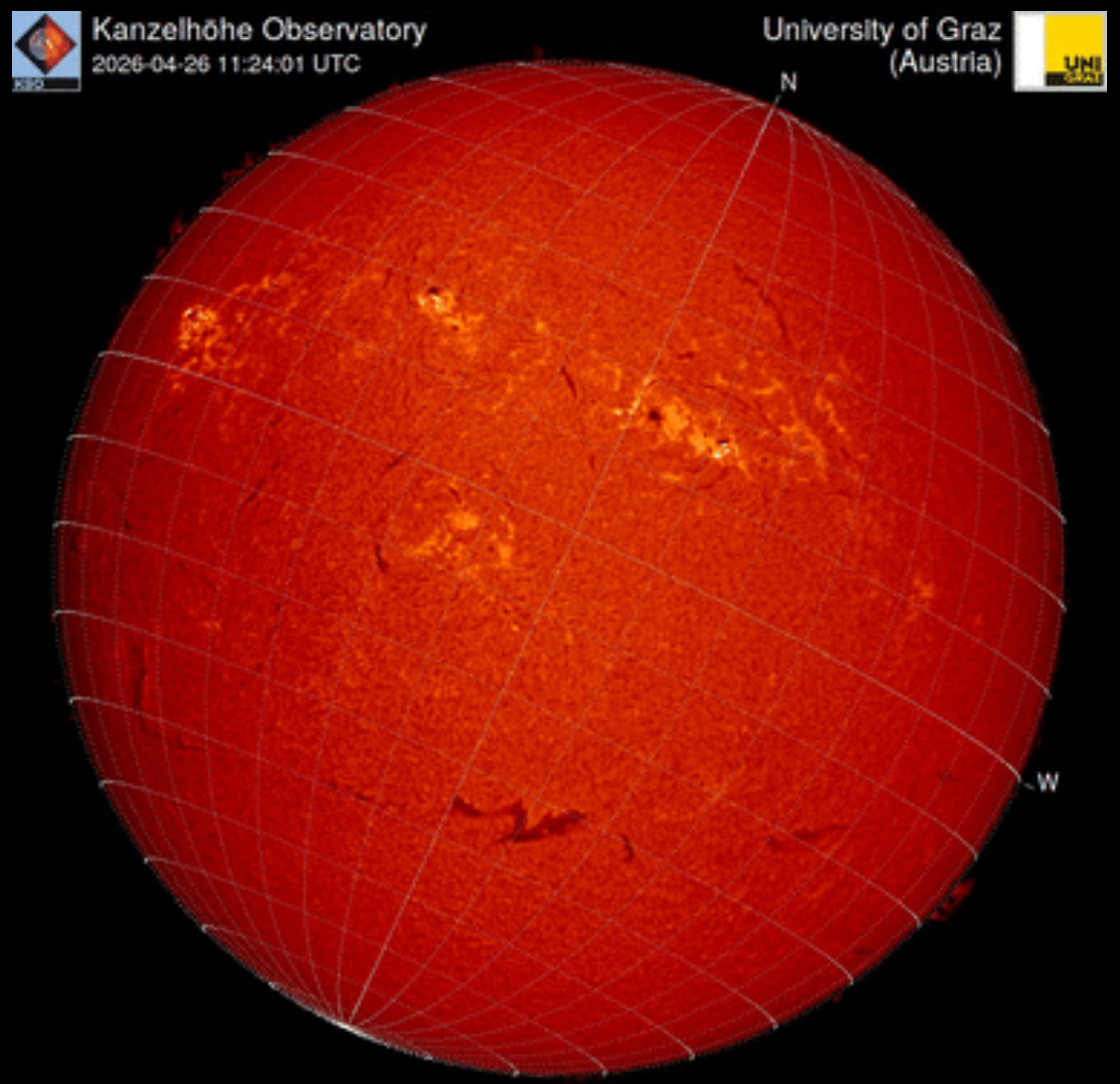


Filaments & Filament eruptions

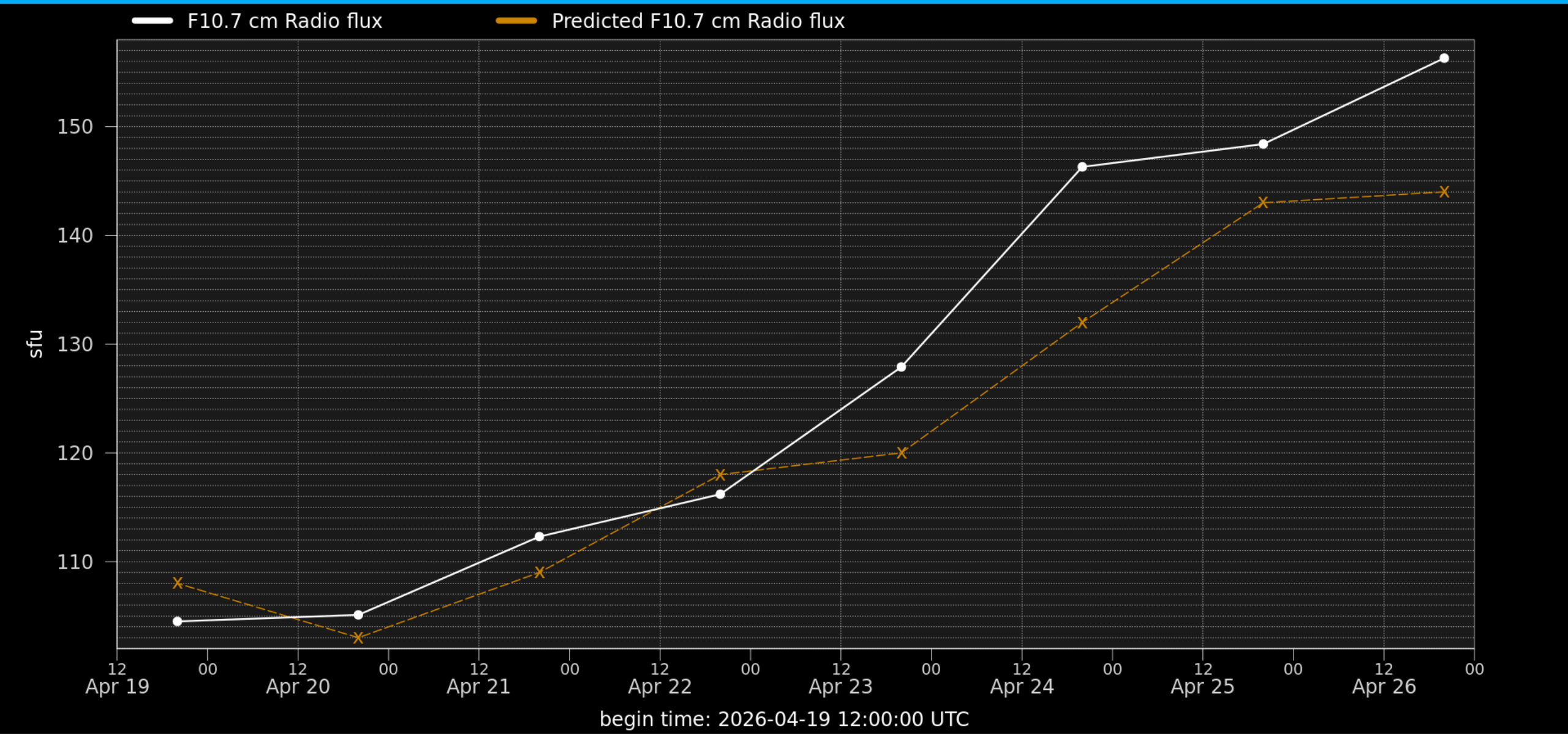
H-alpha 2026-04-20



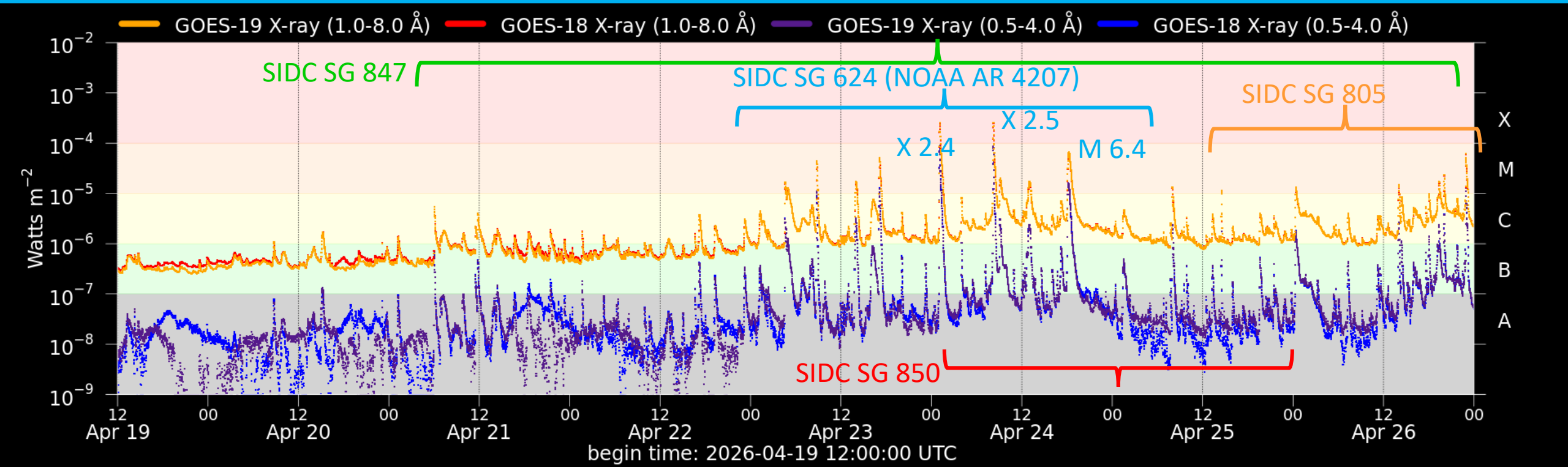
H-alpha 2026-04-26



Solar F10.7cm radio flux



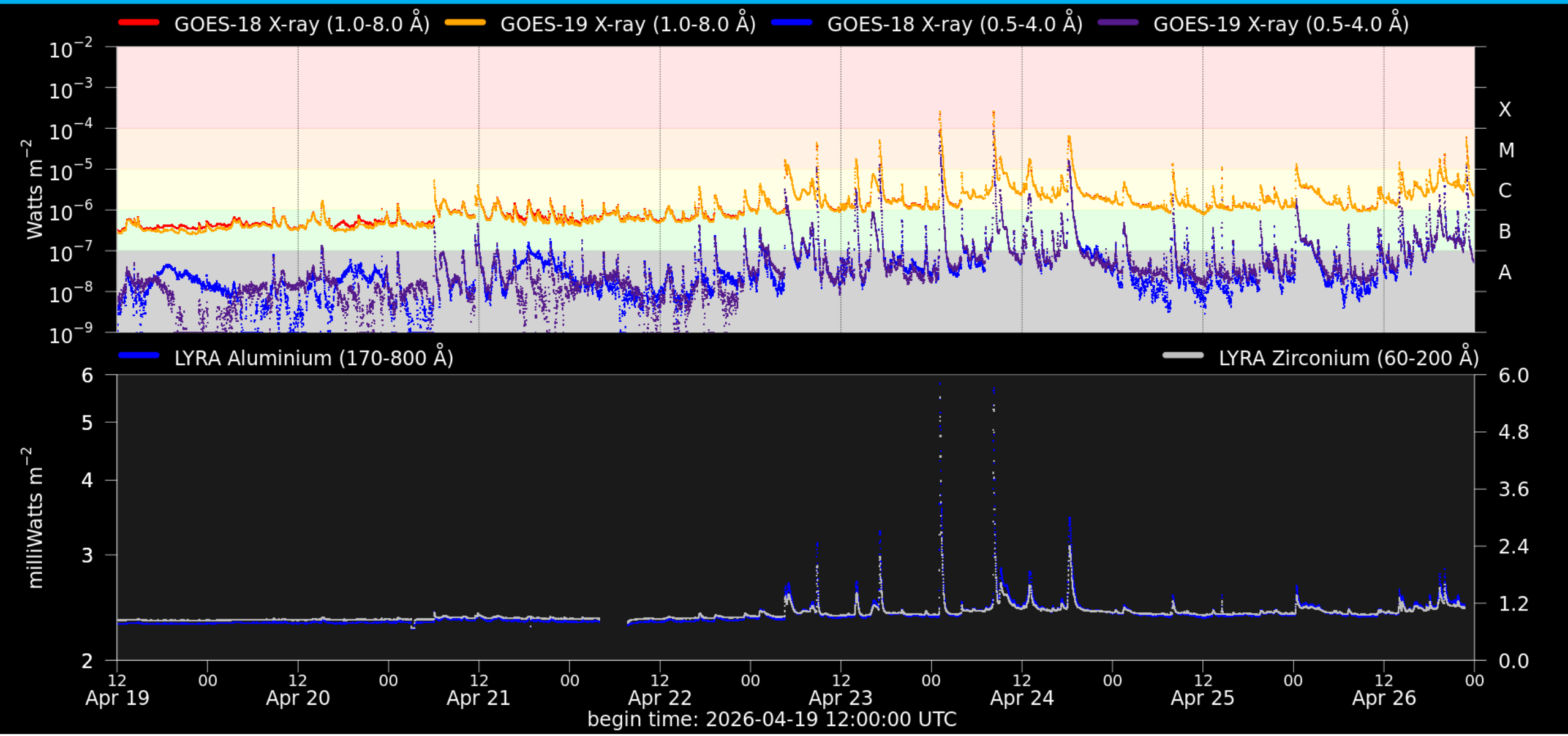
Flaring activity



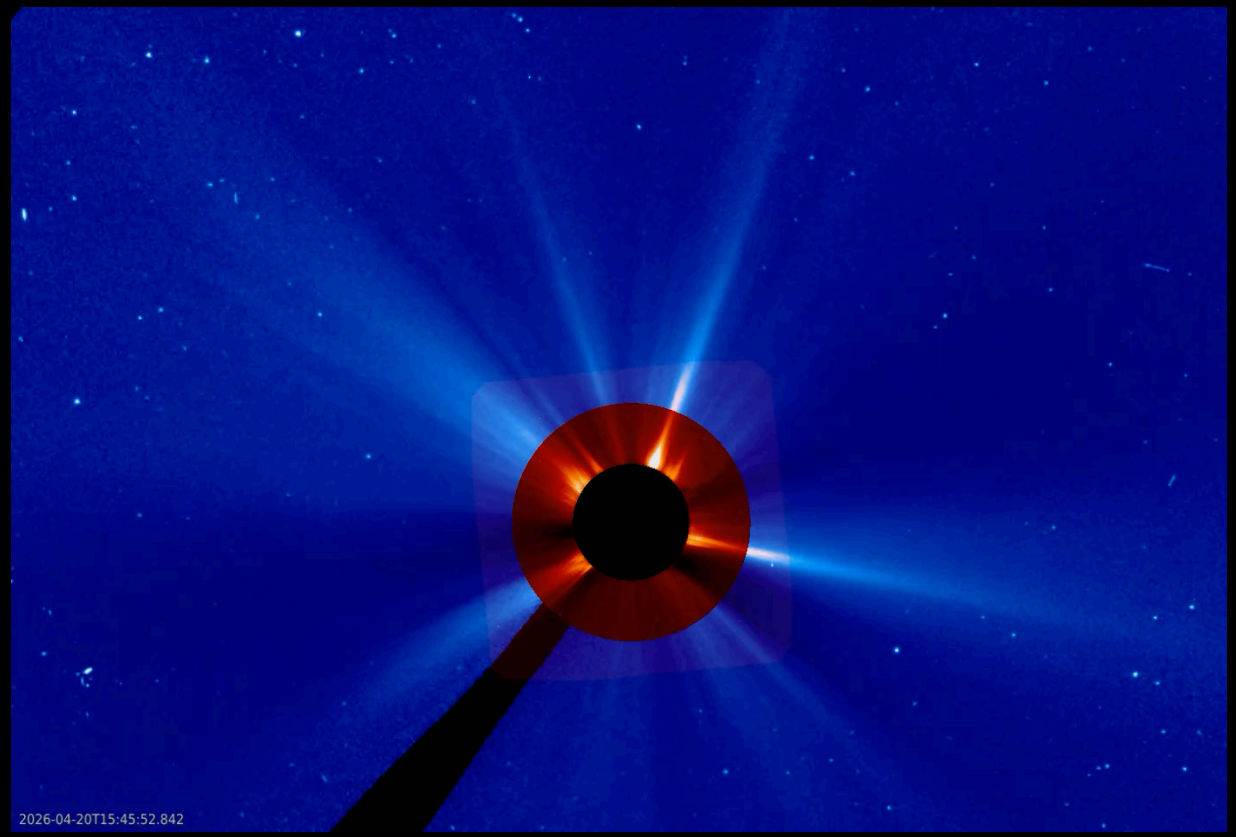
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2026-04-19	2026-04-20	2026-04-21	2026-04-22	2026-04-23	2026-04-24	2026-04-25	2026-04-26
Probability (%)	70|10|01	68|23|04	92|38|02	93|41|01	98|71|10	99|75|10	99|91|18	99|96|24
Observed (#)	01|00|00	05|00|00	10|00|00	08|02|00	05|03|02	10|03|00	10|02|00	07|04|00

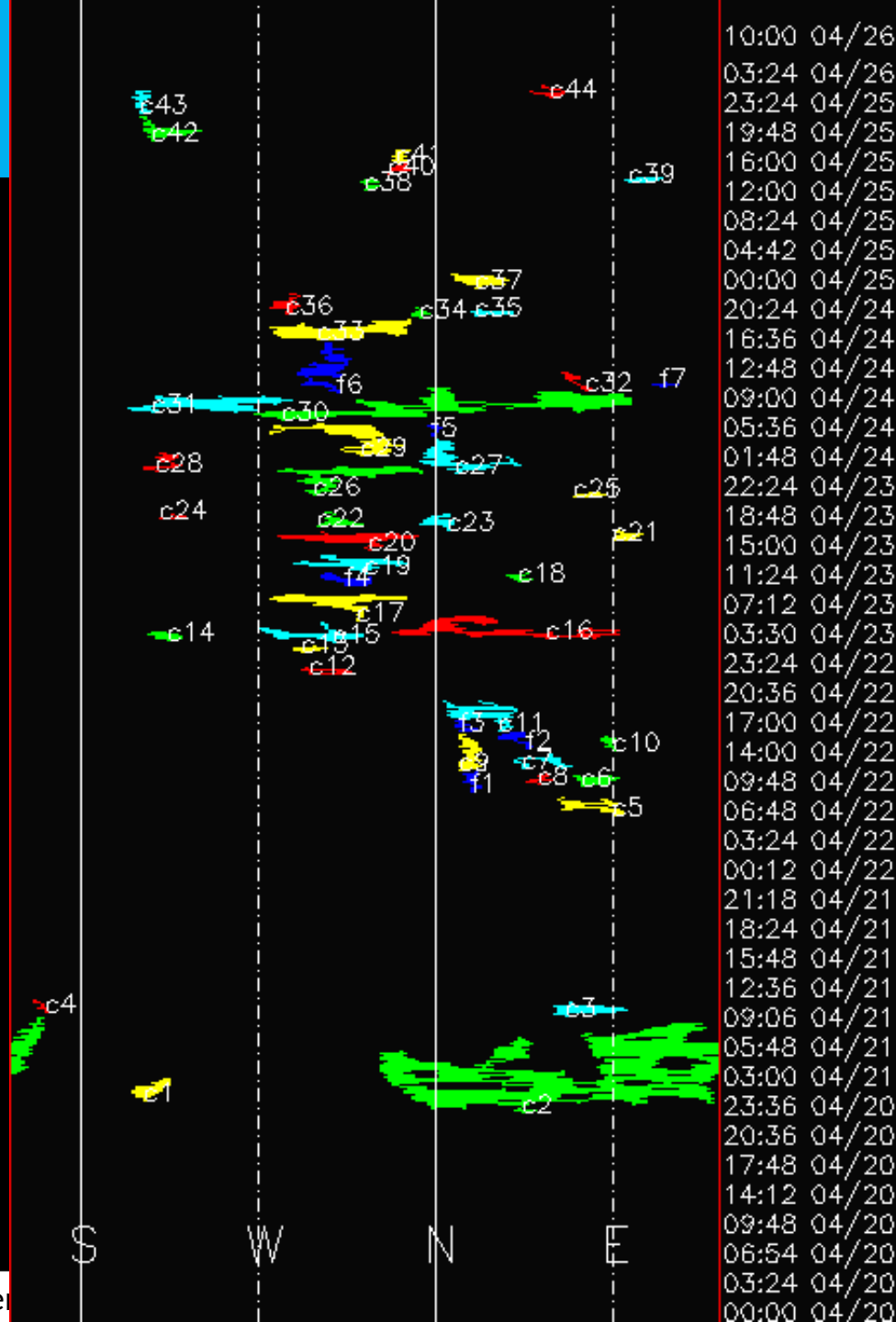
Solar X-Ray and UV flux



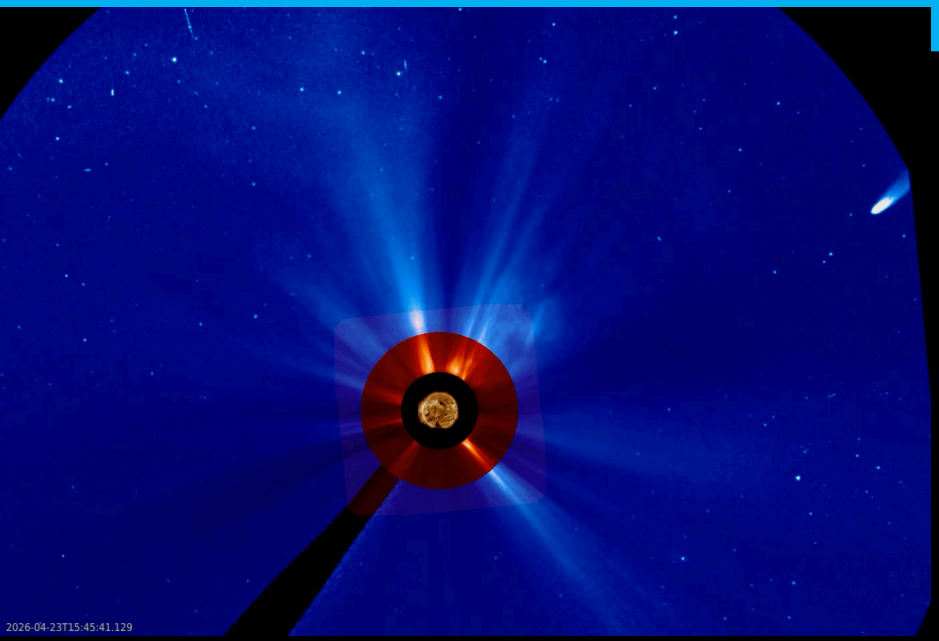
Coronal Mass Ejections

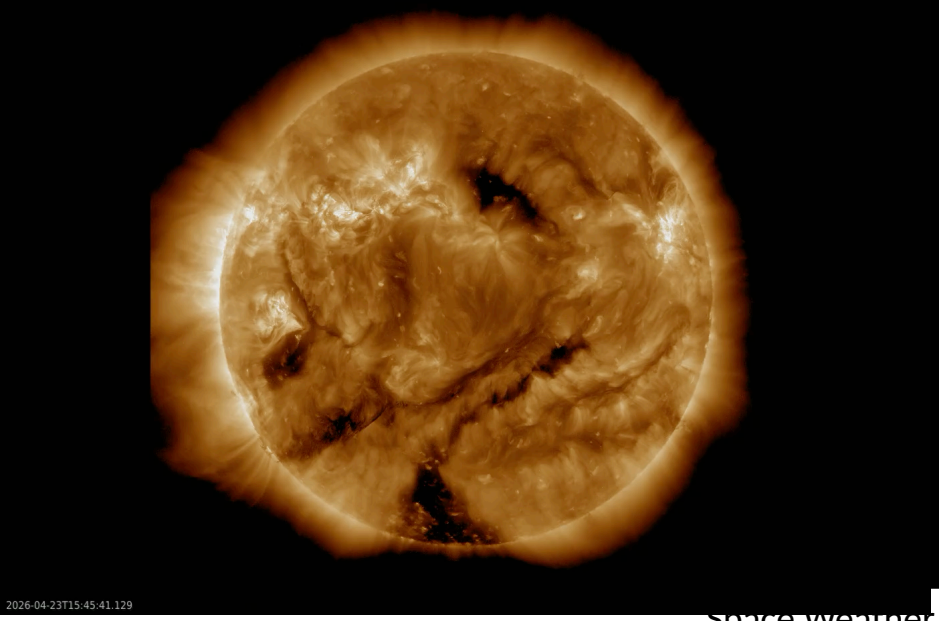


CME Associated with filament eruption from April
Northward directed Expected to arrive on April 25th but was expected to probably miss.



Coronal Mass Ejections





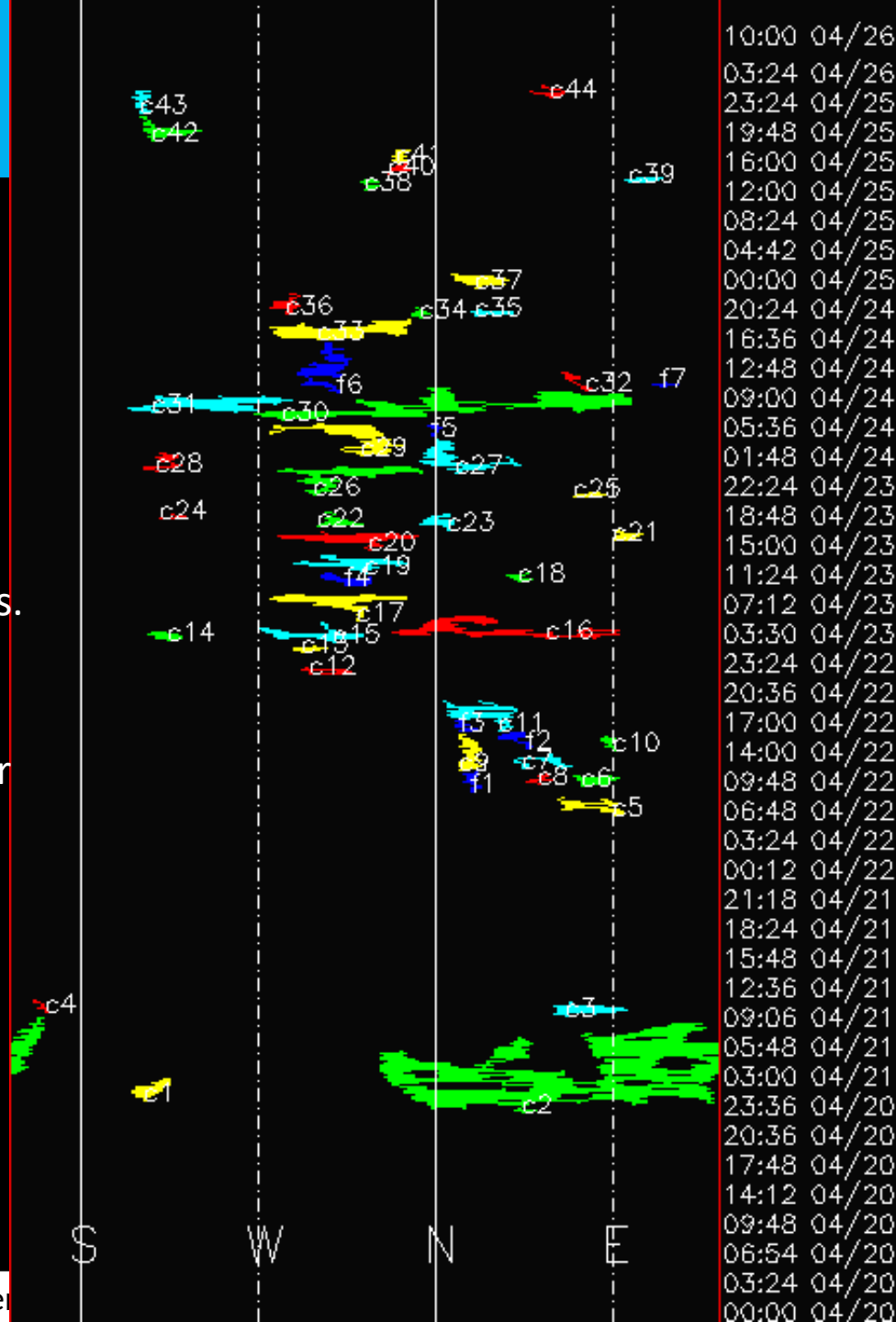
CME 1:

- At 00:33 UTC on April 24
- estimated speed of 929 km/s.
- associated with X2.4 flare

CME 2:

- At 08:34 UTC on April 24
- estimated speed of 1269 km/s.
- associated with a X2.5 flare

A glancing blow was expected for 2026-04-26 22:00 UTC but was not seen



Solar Wind and

Geomagnetic Activity



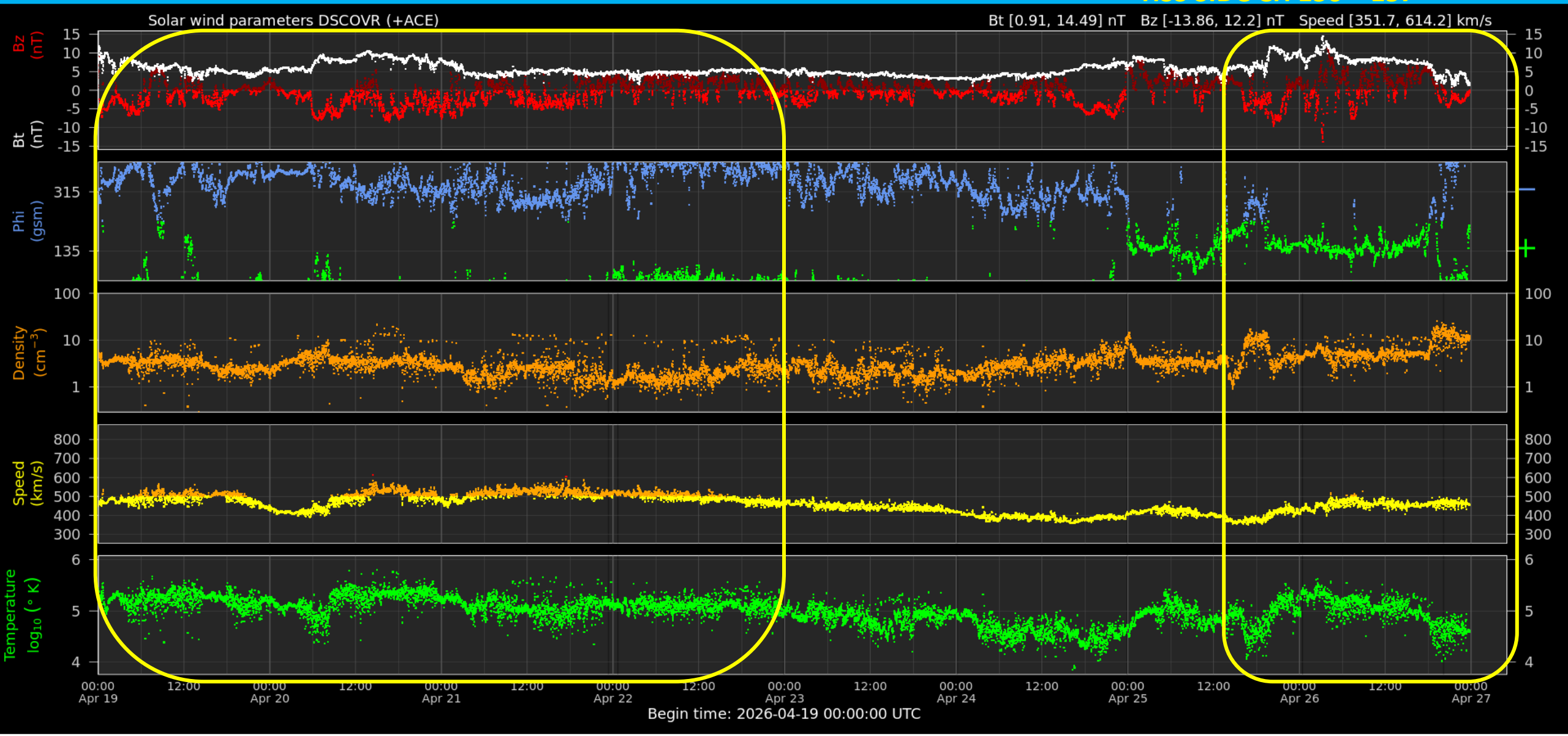
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Solar wind parameters

HSS SIDC CH 147

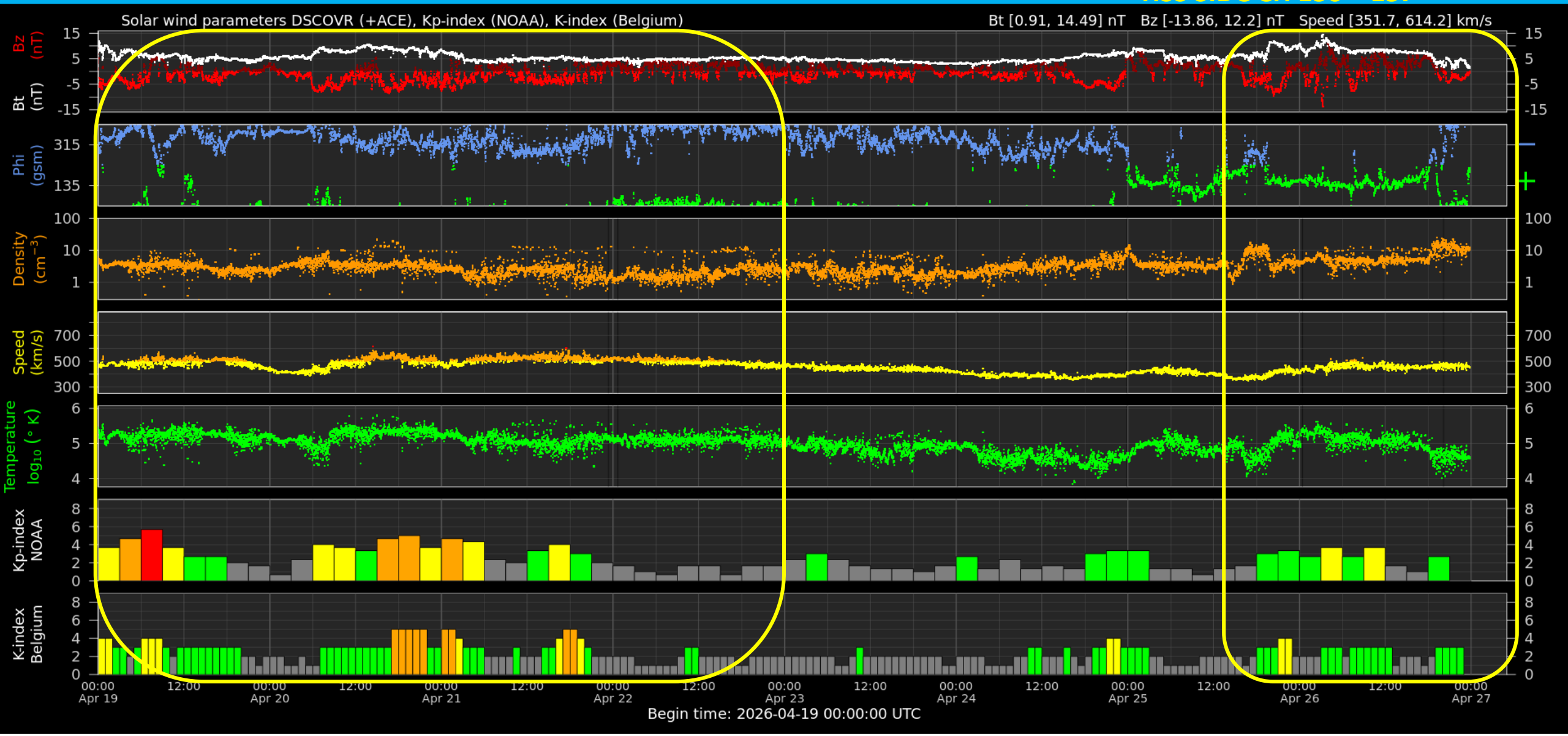
HSS SIDC CH 156 + 157



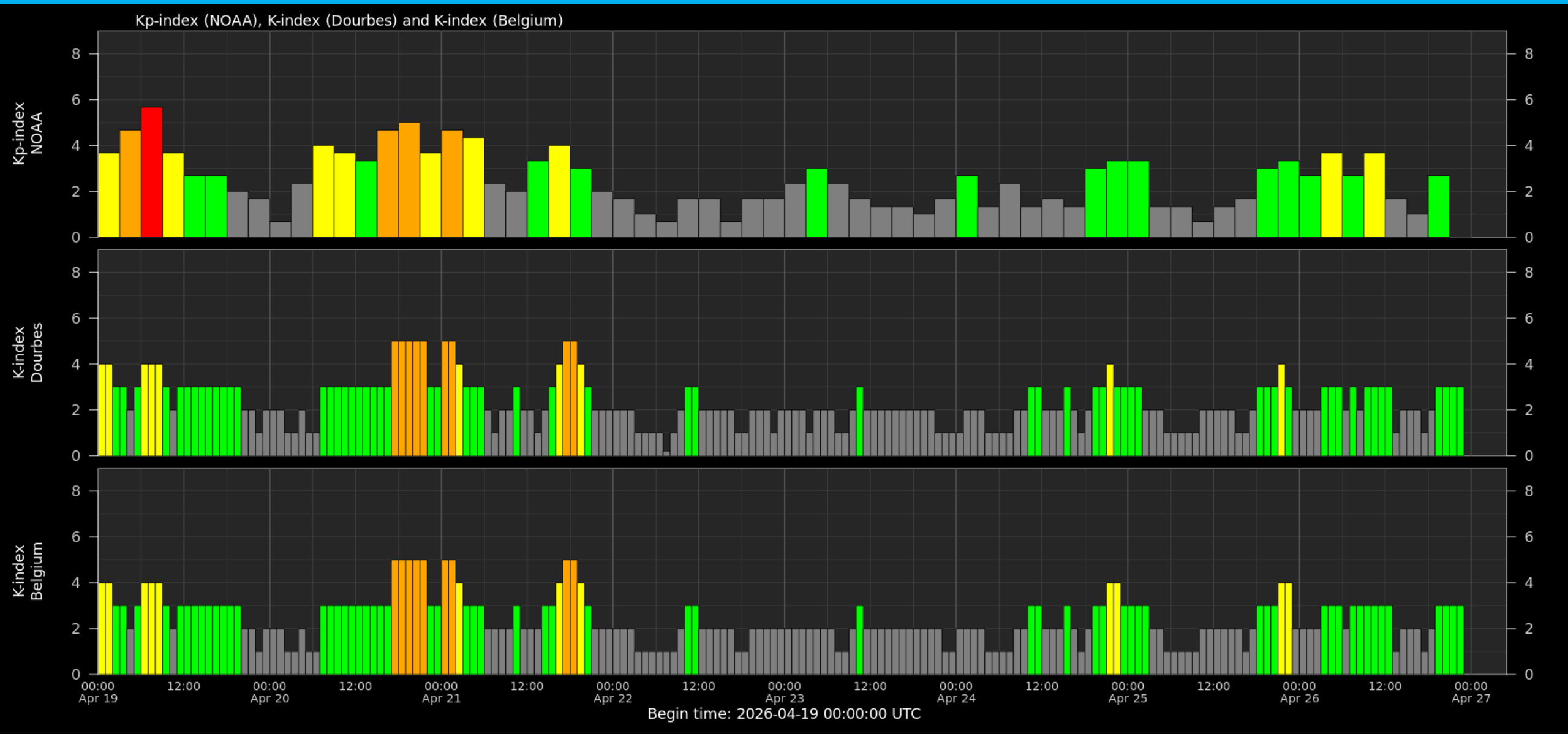
Solar wind parameters & K-indices

HSS SIDC CH 147

HSS SIDC CH 156 + 157



Geomagnetic activity (K-indexes)



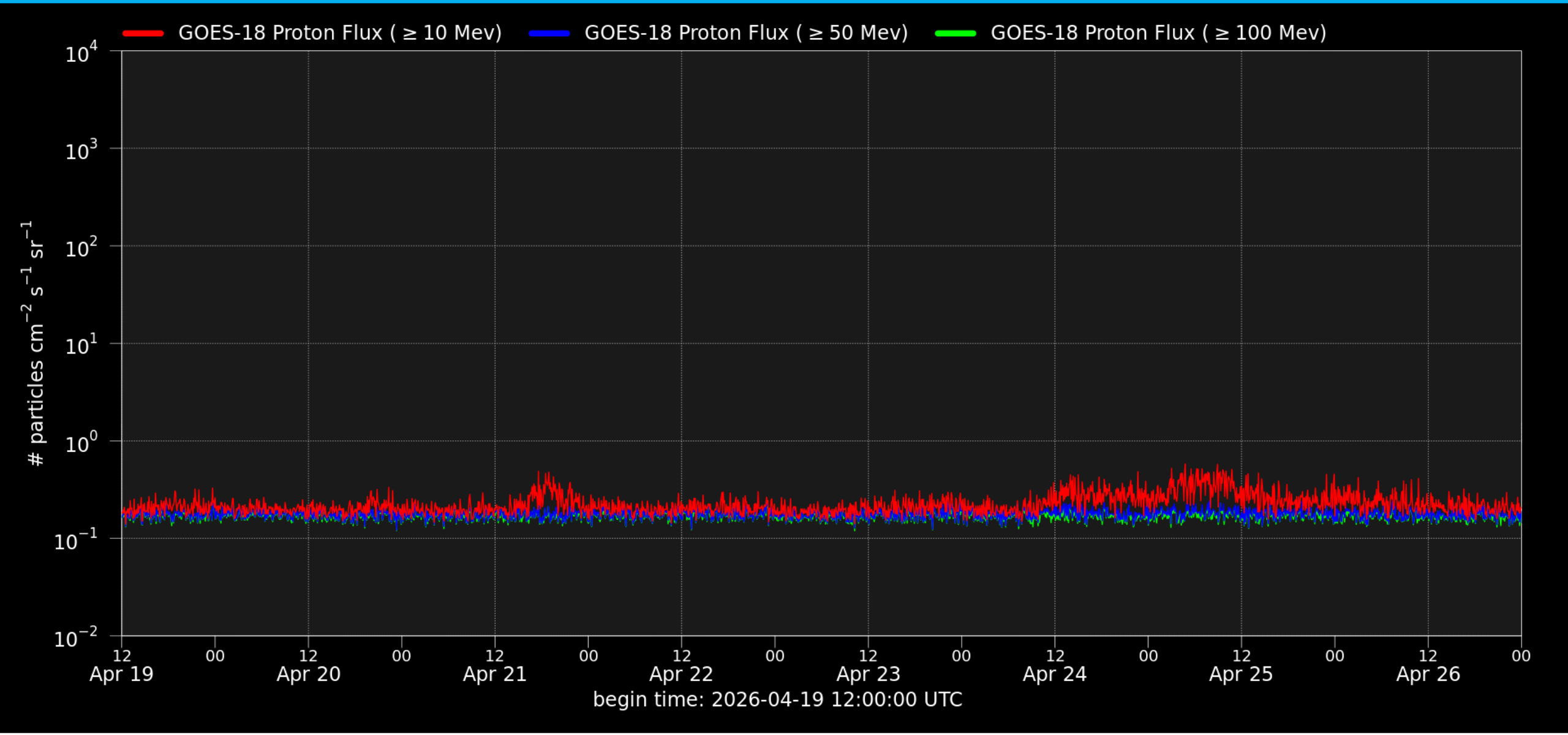
Energetic Particles



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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

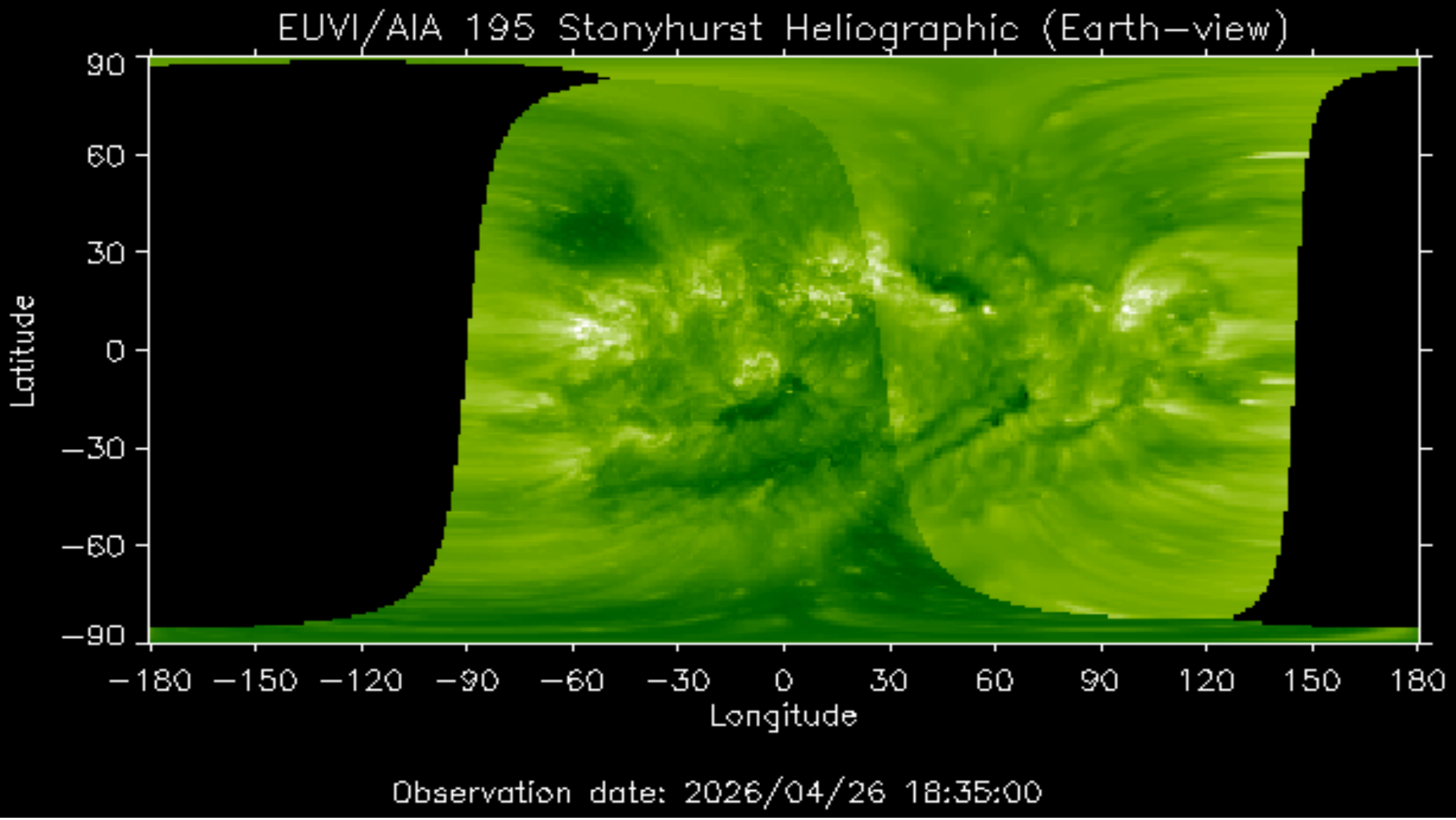


Outlook

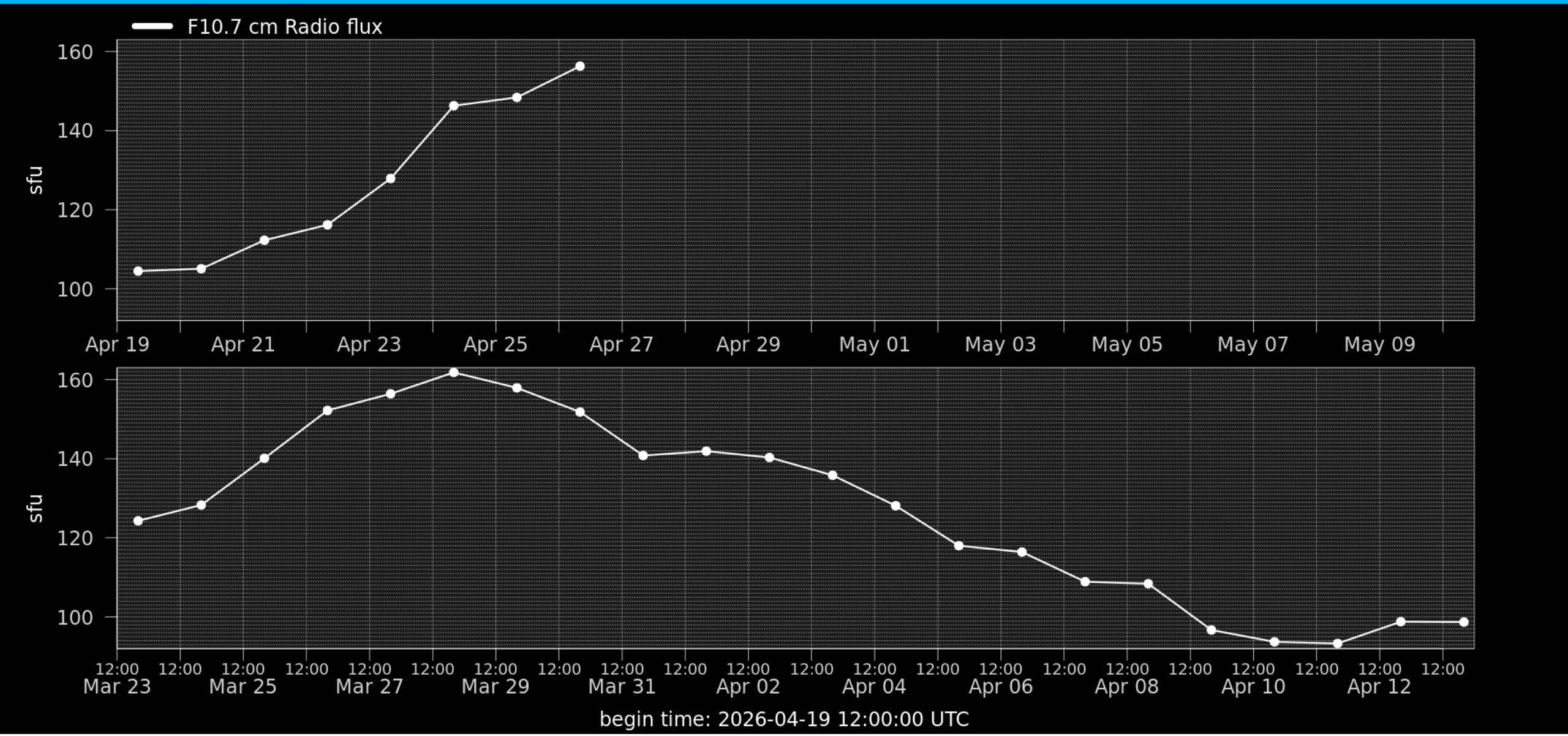
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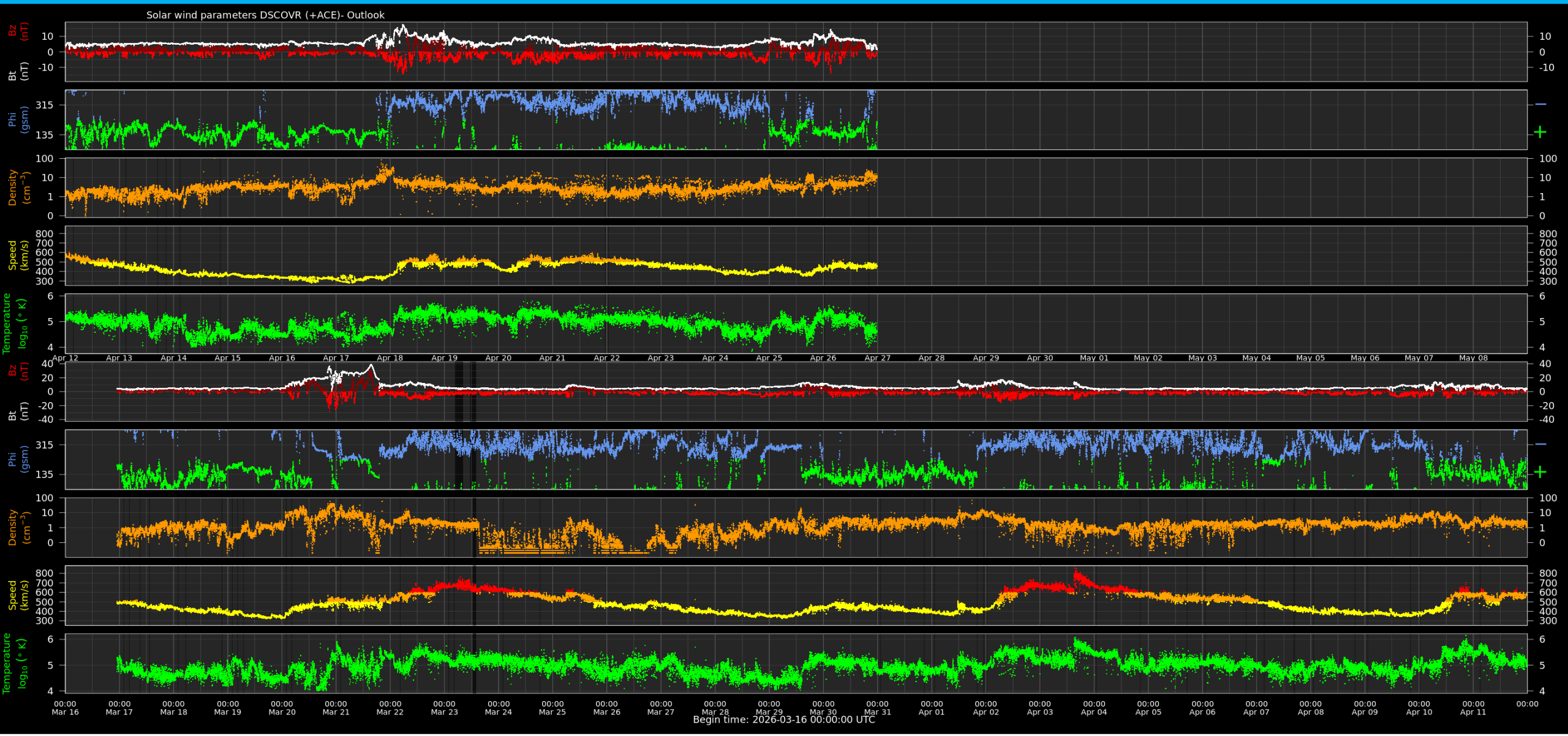
Outlook: Solar activity



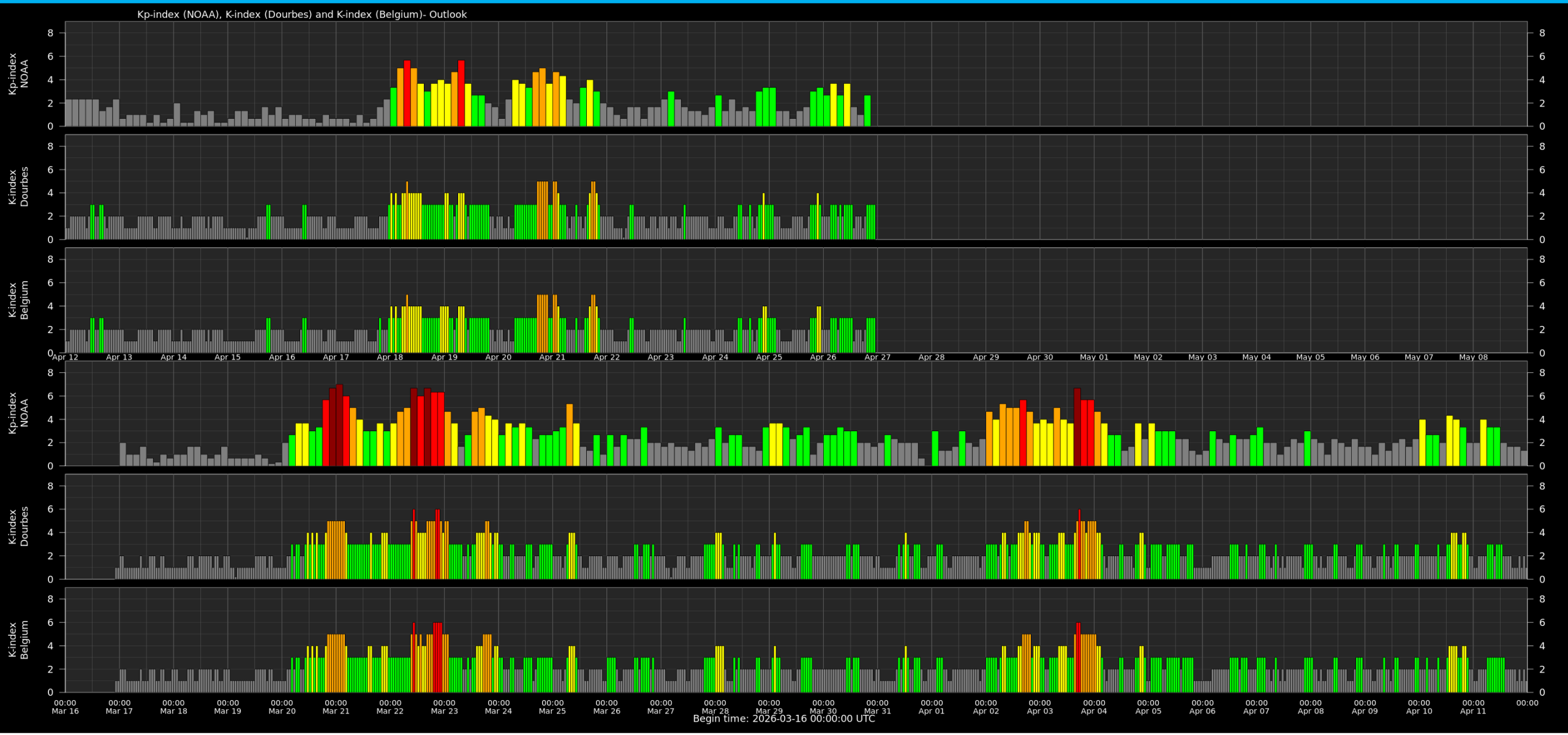
Outlook: Solar F10.7cm radio flux



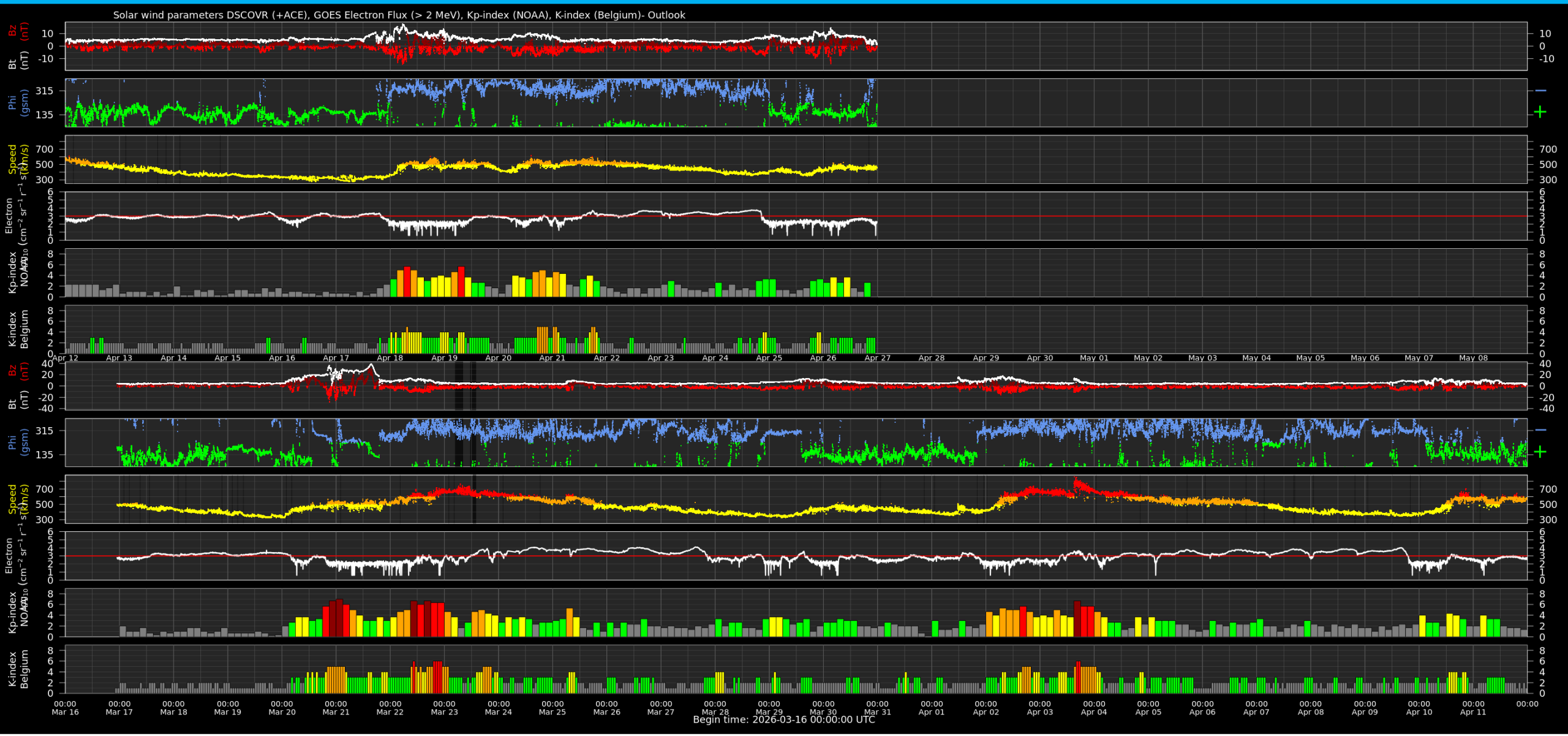
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecasus related events

HF advisories:

- Post storm depression MOD to SEV
- Short wave fadeout due to X-class flares MOD

GNSS advisories:

- Ionospheric scintillation MOD

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