

SIDC Space Weather Briefing

16 March 2026-22 March 2026

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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 2026-03-16 00:00 to 2026-03-22 23:59

Active regions	14 numbered regions on disk over the week, SIDC Sunspot Group 820 (NOAA 4392)
Flares	# C-class flare: 10 # M-class flare: 3 # X-class flare: 0
Coronal Holes	Large negative polarity CH
CMEs	3 Earth directed CMEs observed

Proton flux	At nominal levels
Electron flux	Above the 1000 pfu threshold at the start of the week

Solar wind and geomagnetic conditions

ICMEs	2 ICME signatures observed
Solar wind conditions	B : 0.94 - 38.97 nT //Bz: -27.95 nT to 31.43 nT //Speed: 324.9 - 715.8km/s
Geomagnetic conditions	max KBel: 6.0, max Kp(NOAA): 7.0, Major Storm conditions

All Quiet Alert: Not all quiet

Solar Activity

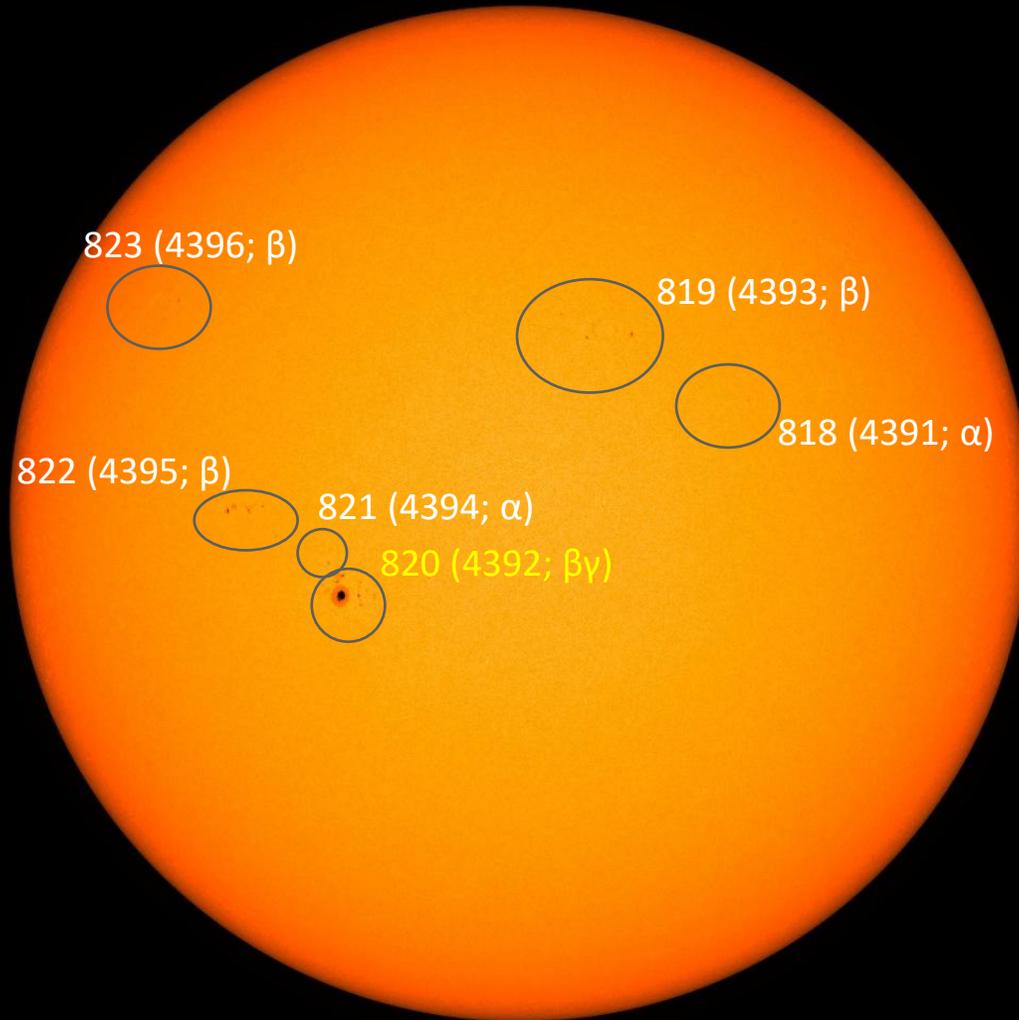


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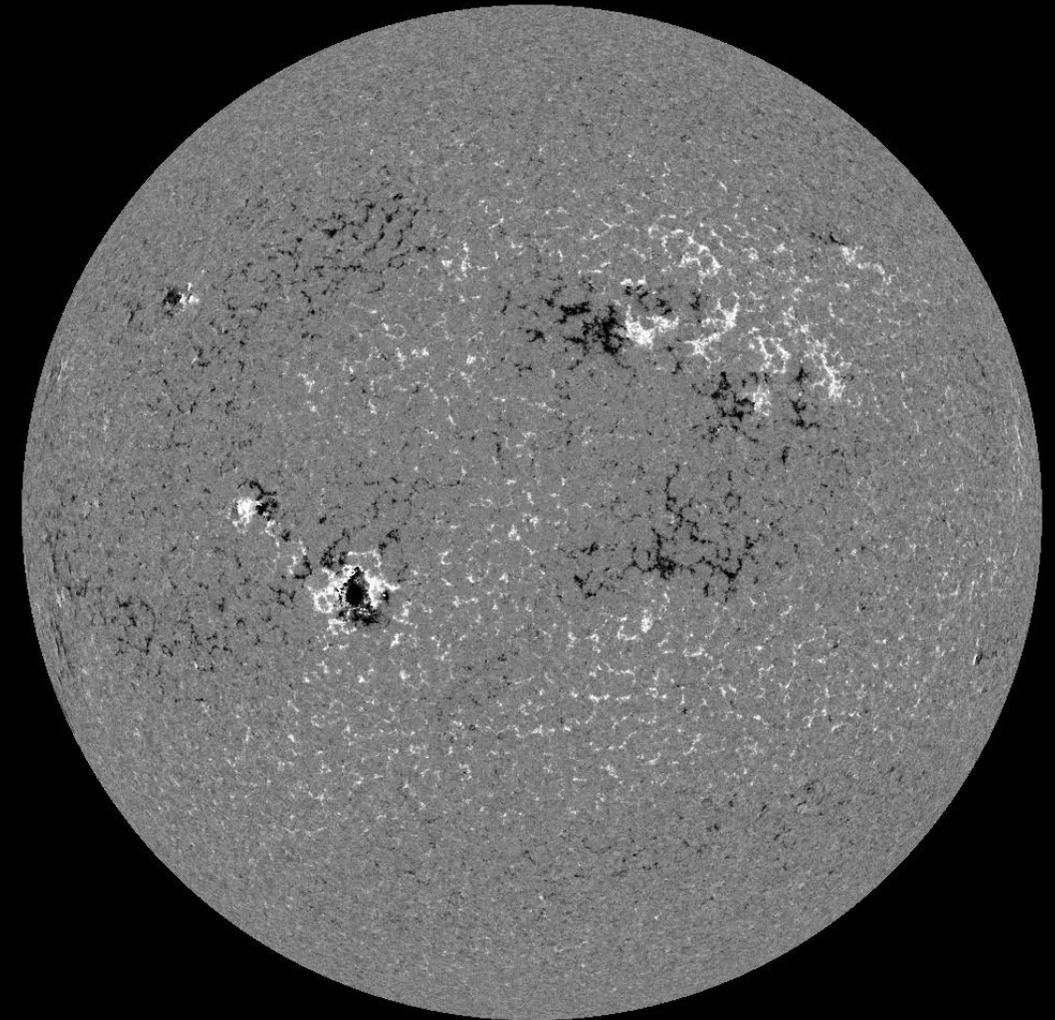
Solar active regions

SDO/HMI White Light 2026-03-16



SDO/HMI Continuum: 20260316_120000

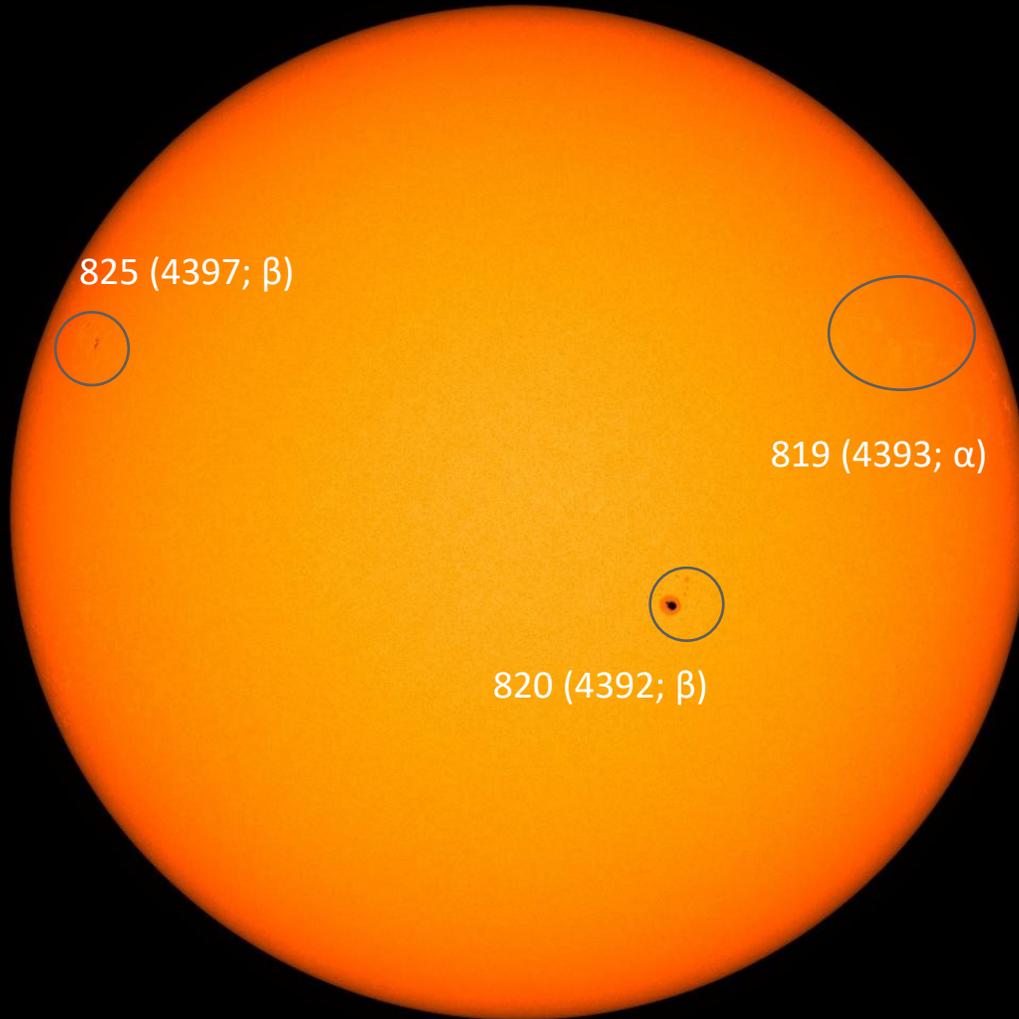
SDO/HMI Magnetogram 2026-03-16



SDO/HMI Magnetogram: 20260316_120000

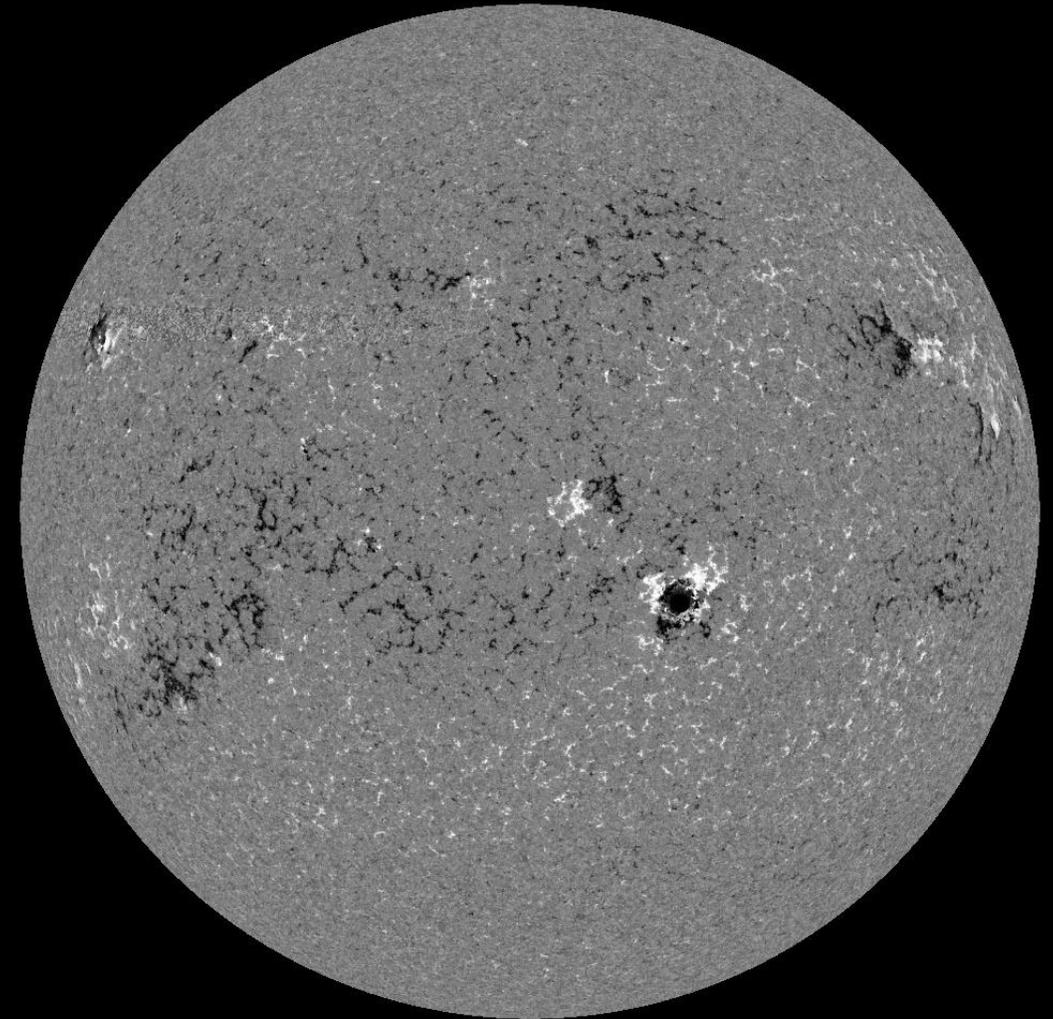
Solar active regions

SDO/HMI White Light 2026-03-19



SDO/HMI Quick-Look Continuum: 20260319_120000

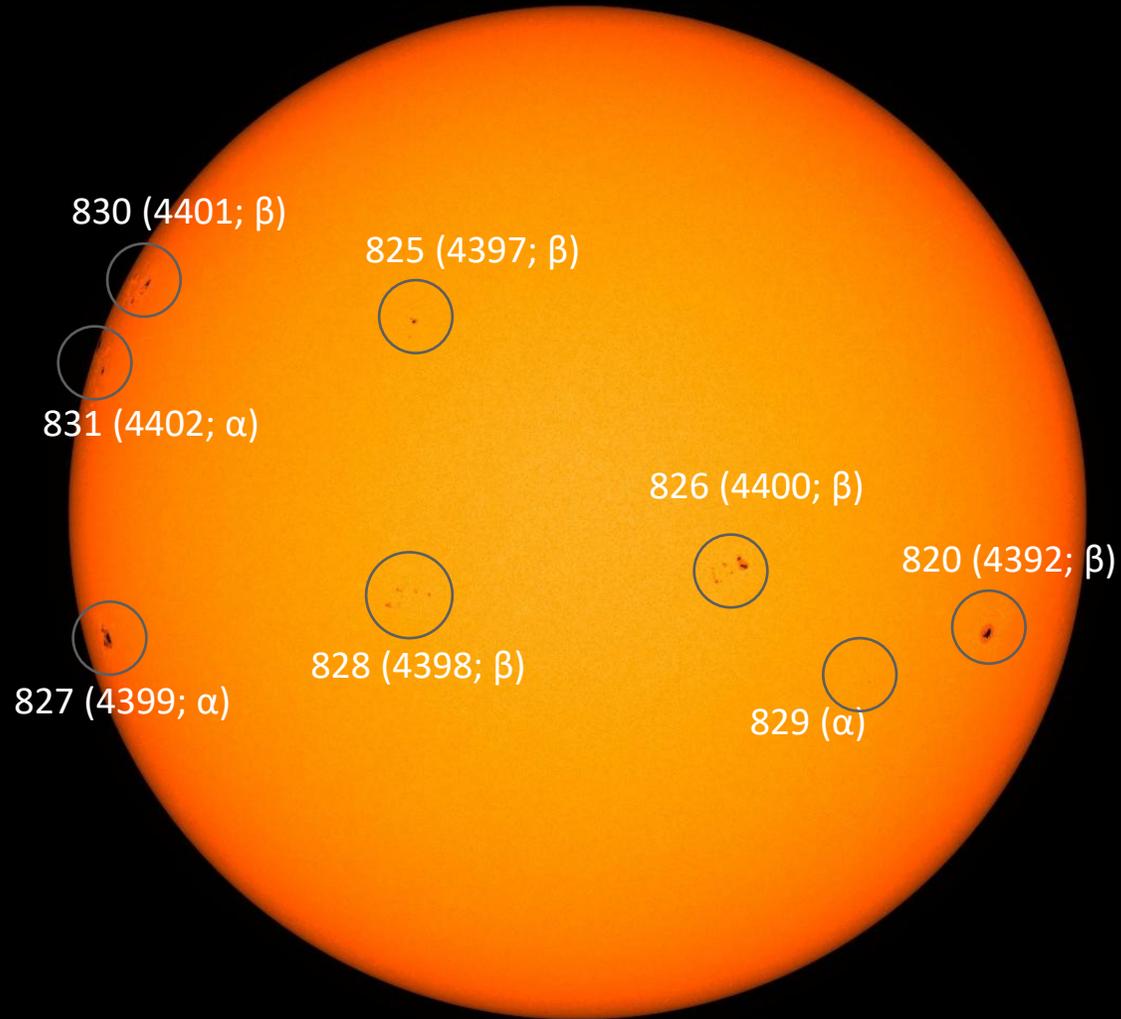
SDO/HMI Magnetogram 2026-03-19



SDO/HMI Quick-Look Magnetogram: 20260319_120000

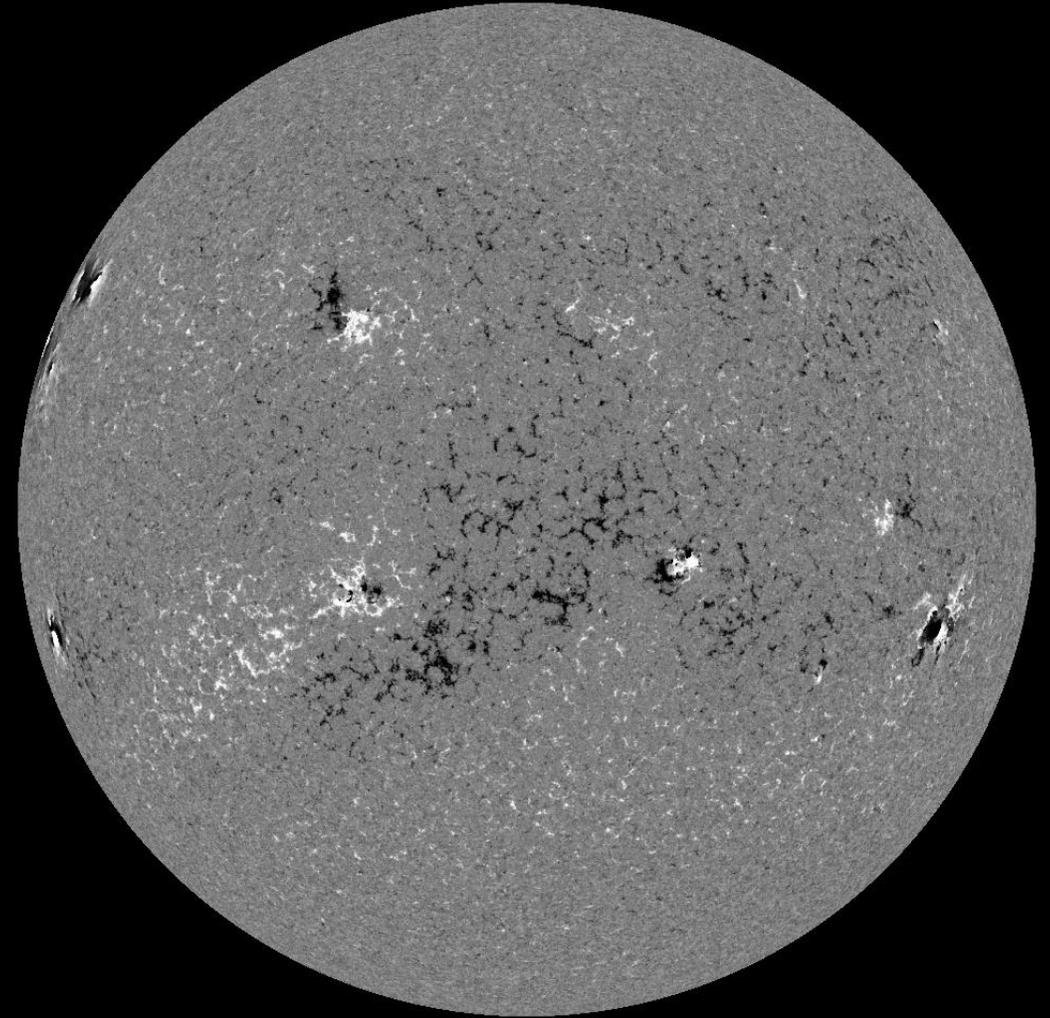
Solar active regions

SDO/HMI White Light 2026-03-22



SDO/HMI Quick-Look Continuum: 20260322_120000

SDO/HMI Magnetogram 2026-03-22

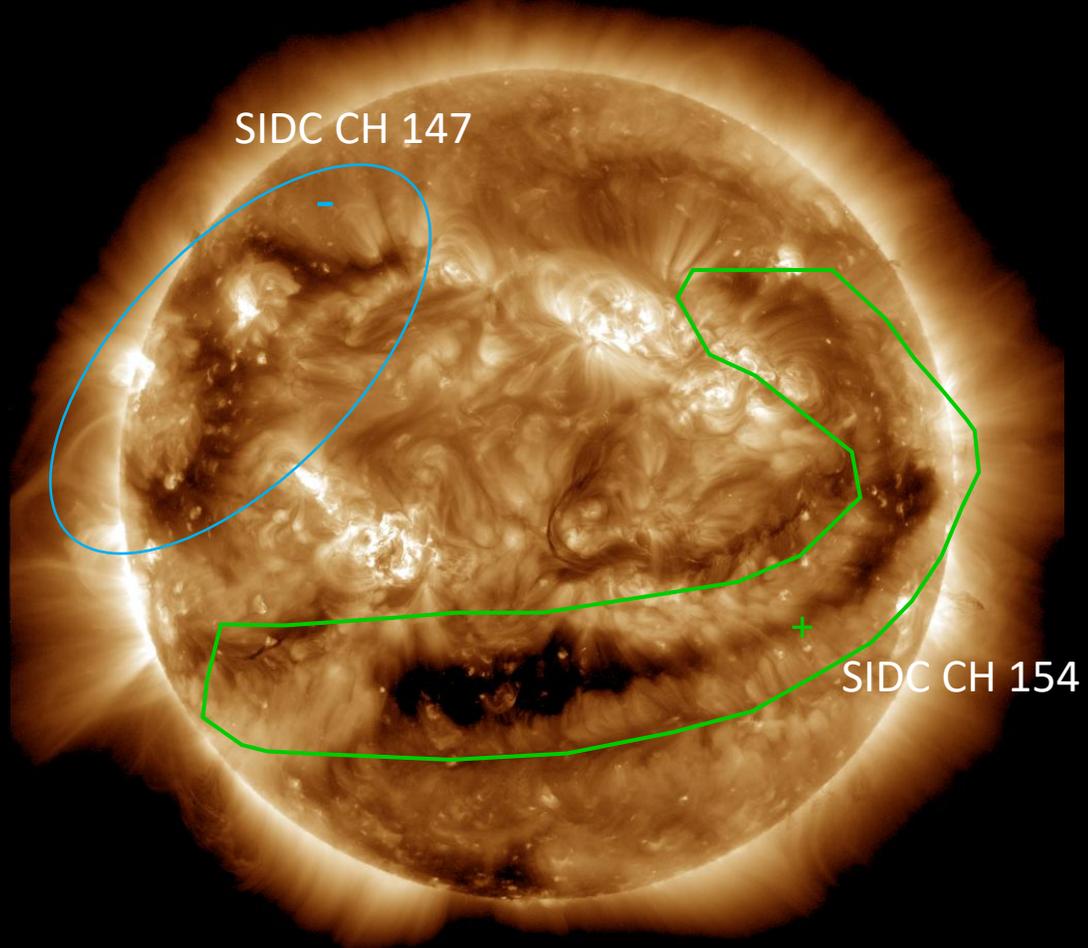


SDO/HMI Quick-Look Magnetogram: 20260322_120000

Coronal holes

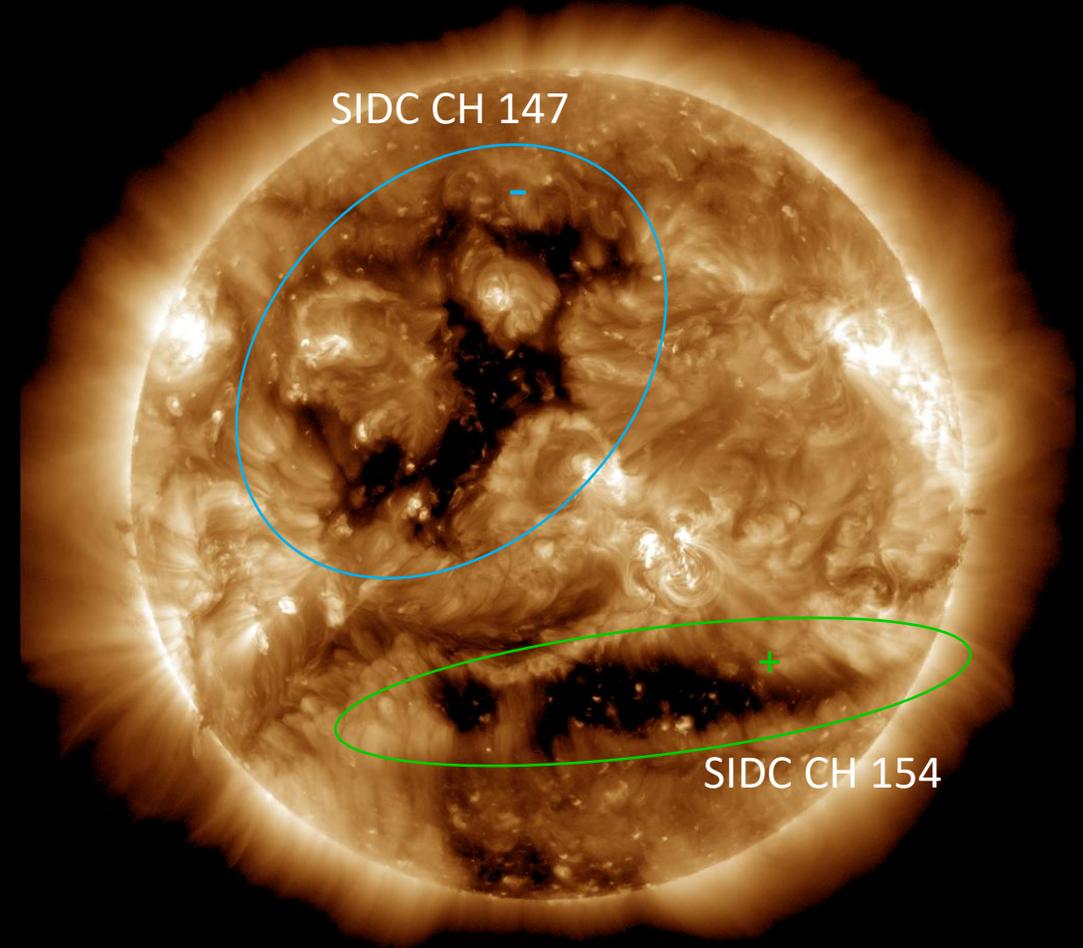
SDO/AIA 19.3 nm 2026-03-16

SDO/AIA AIA 193Å 2026-03-16T12:00:05.842



SDO/AIA 19.3 nm 2026-03-19

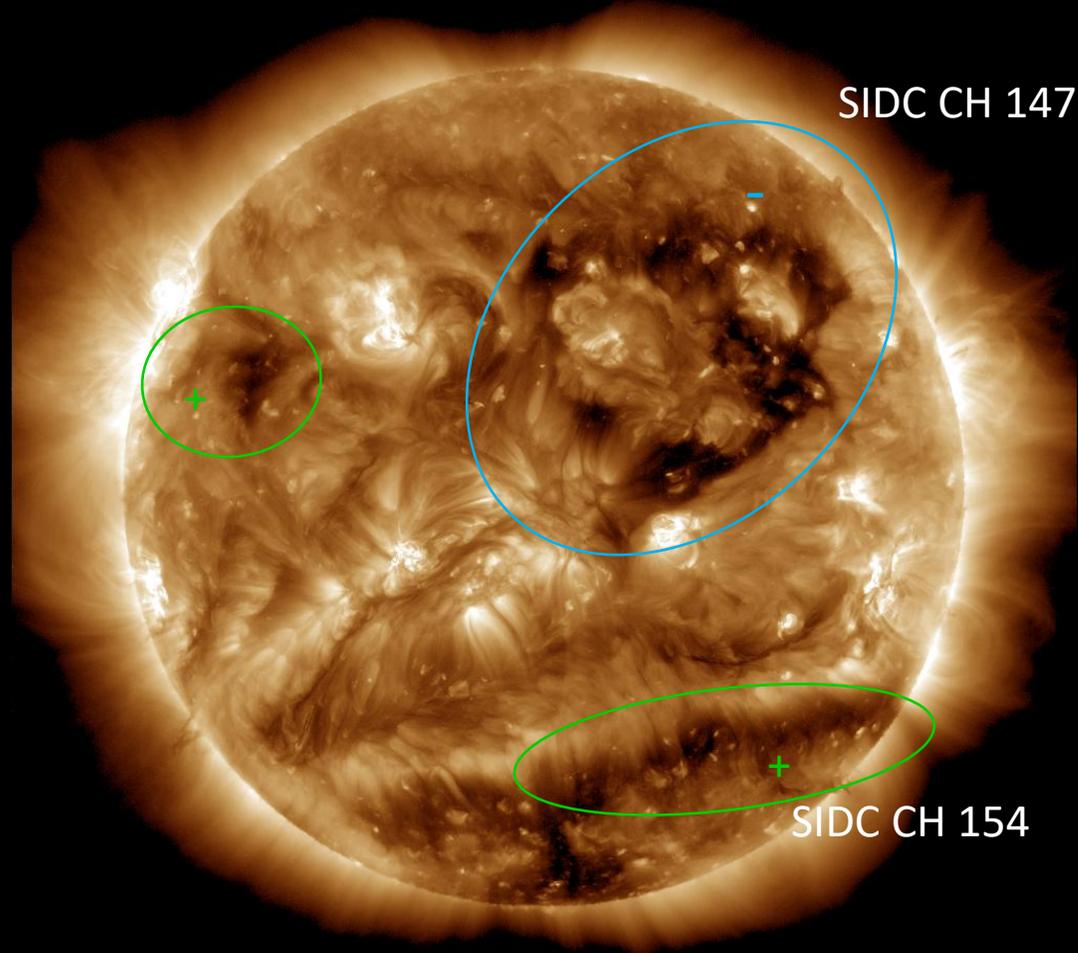
SDO/AIA AIA 193Å 2026-03-19T12:00:05.842



Coronal holes

SDO/AIA 19.3 nm 2026-03-22

SDO/AIA AIA 193Å 2026-03-22T12:00:05.841



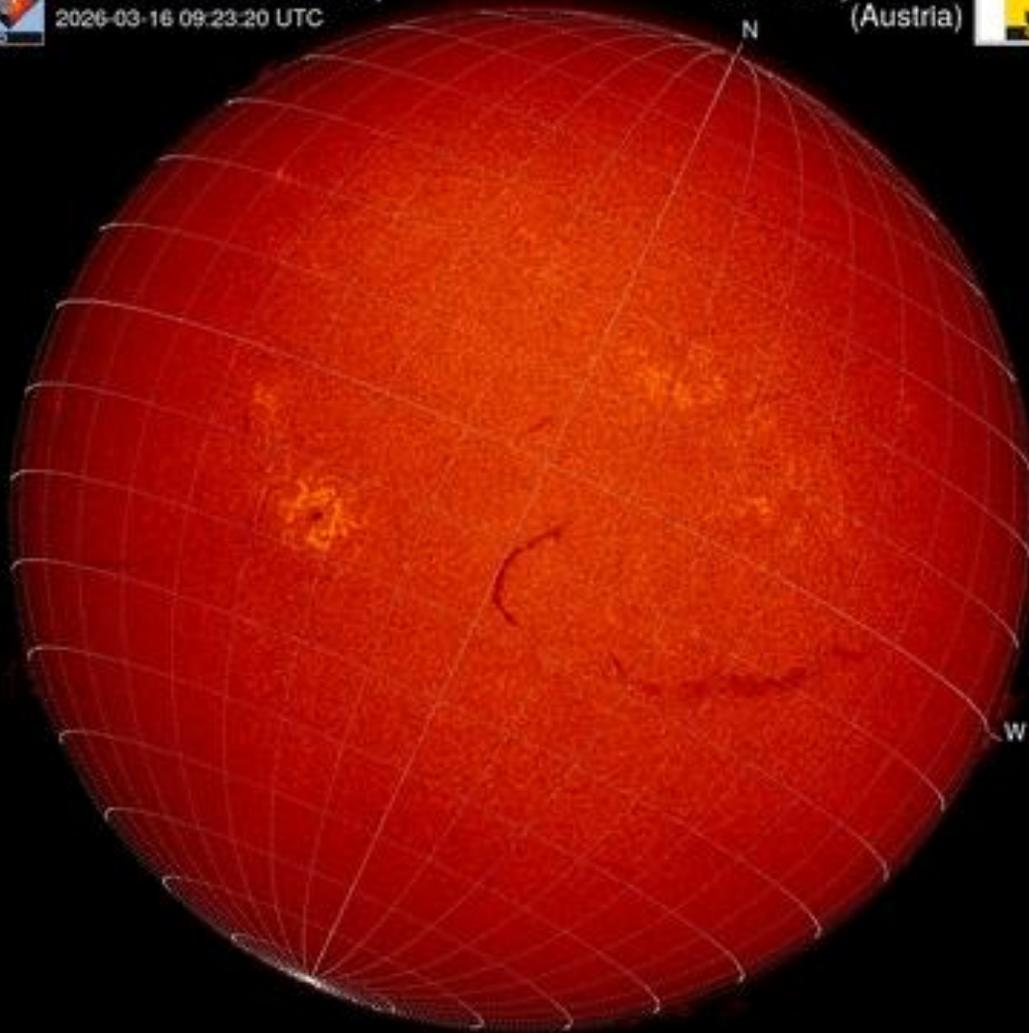
Filaments & Filament eruptions

H-alpha 2026-03-16



Kanzelhöhe Observatory
2026-03-16 09:23:20 UTC

University of Graz
(Austria)

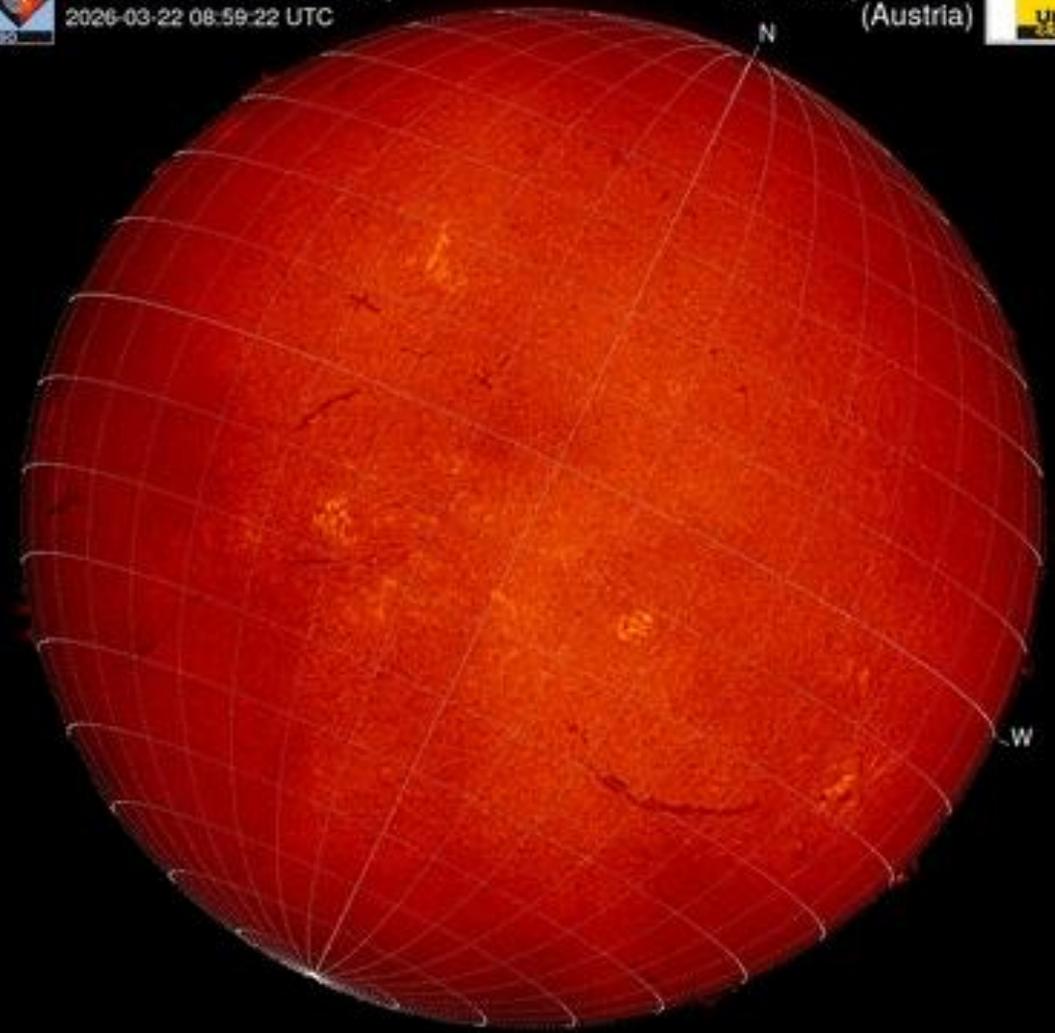


H-alpha 2026-03-22



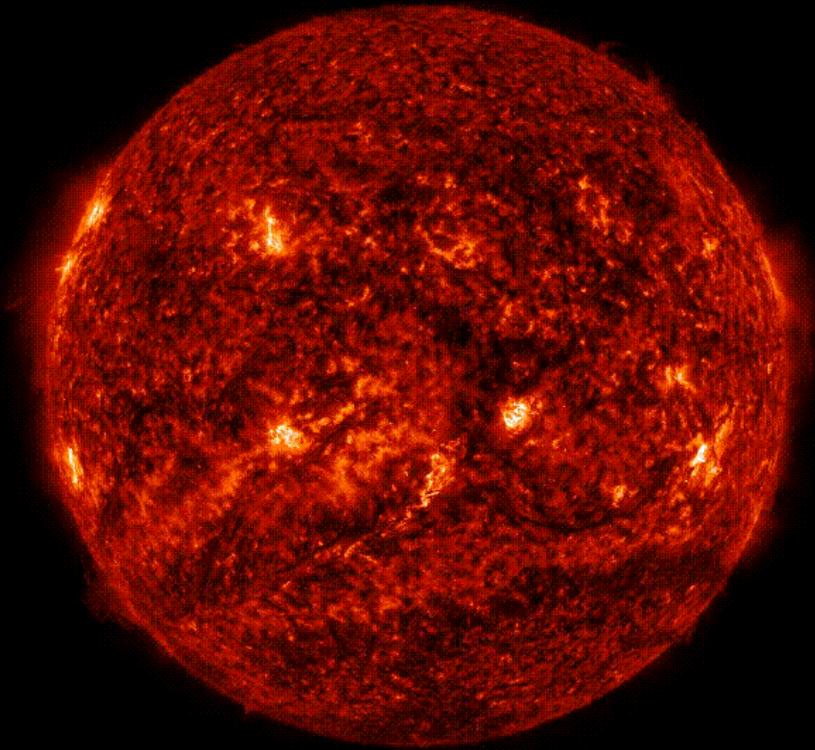
Kanzelhöhe Observatory
2026-03-22 08:59:22 UTC

University of Graz
(Austria)

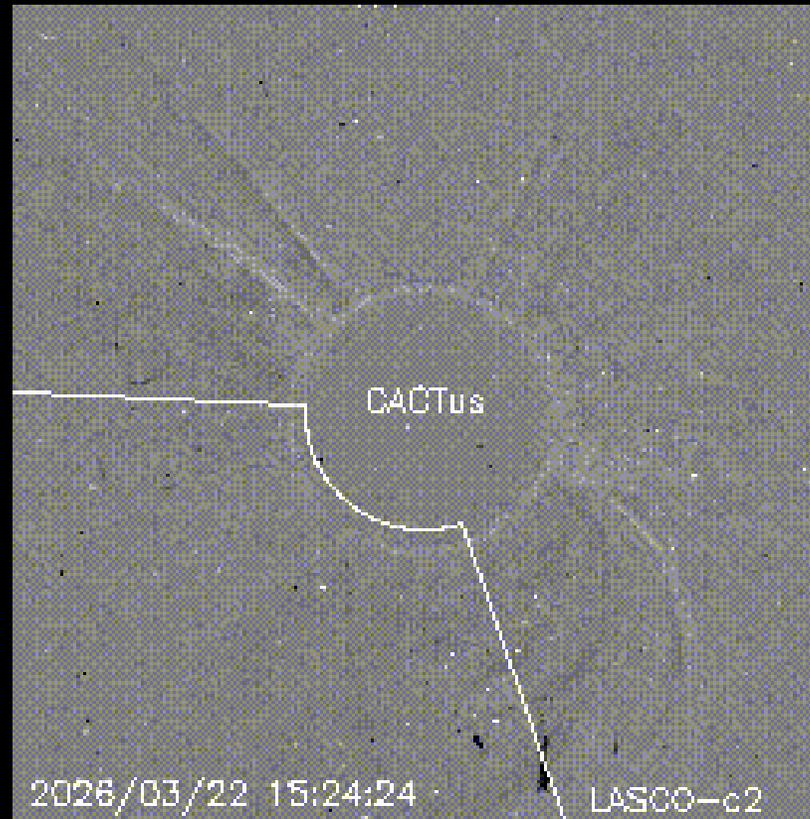


Filament eruptions March 22

H-alpha 2026-03-22



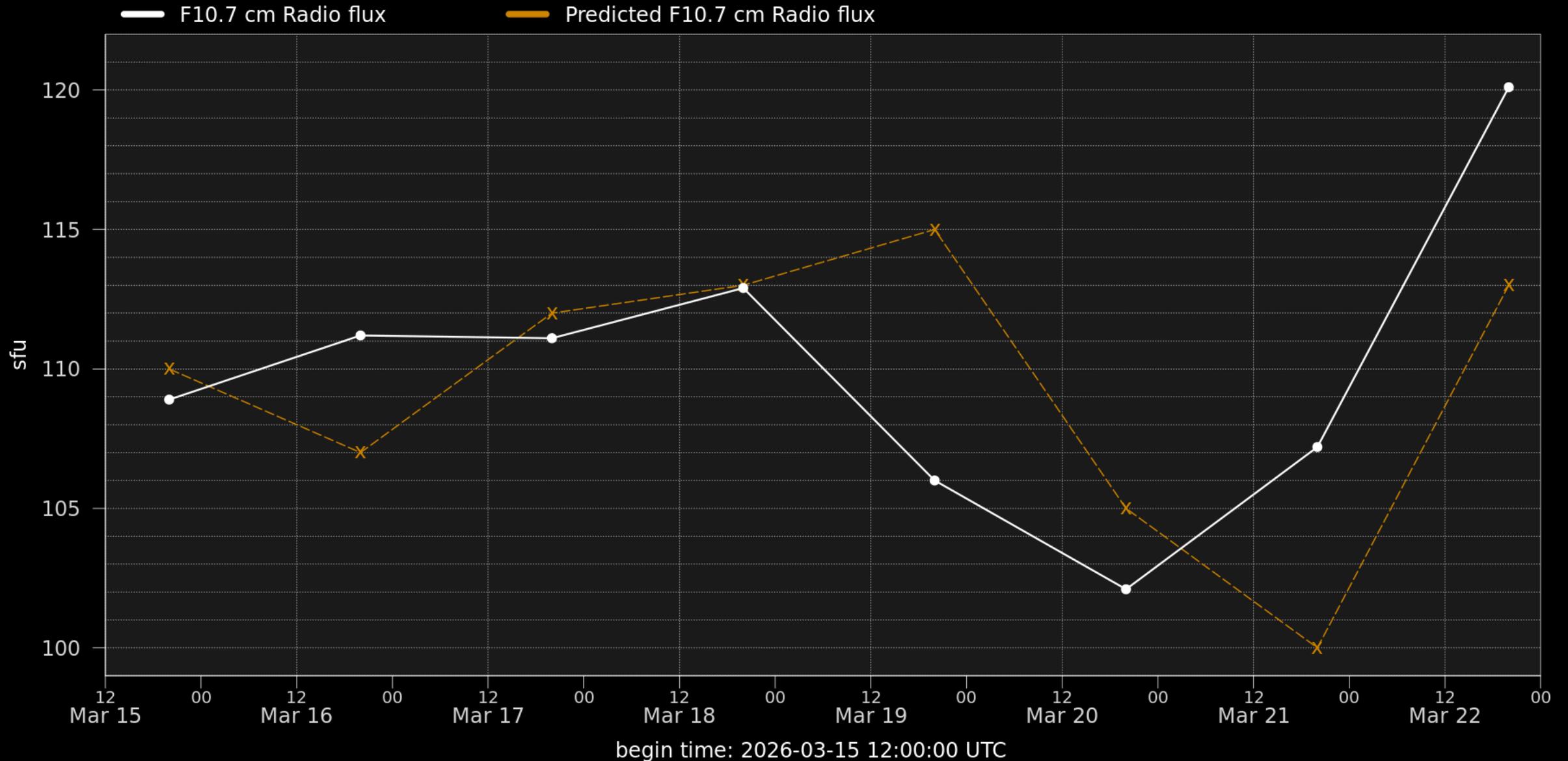
LASCO-C2 / CACTUS Detection



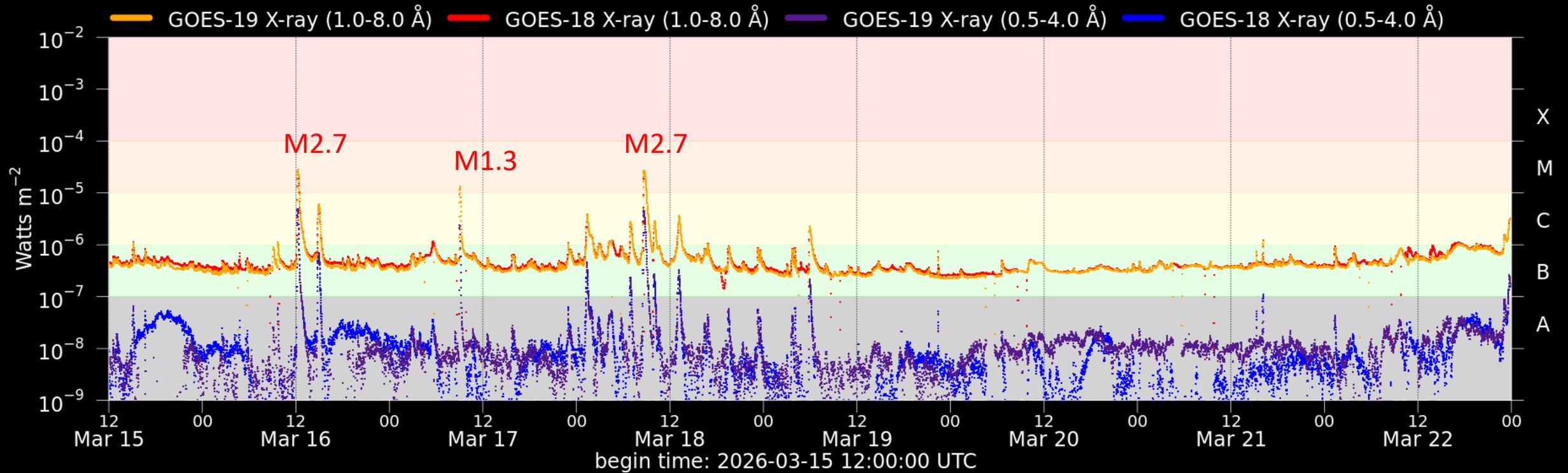
Filament eruption on afternoon March 22 being analysed

2026-03-22T08:46:40.842

Solar F10.7cm radio flux



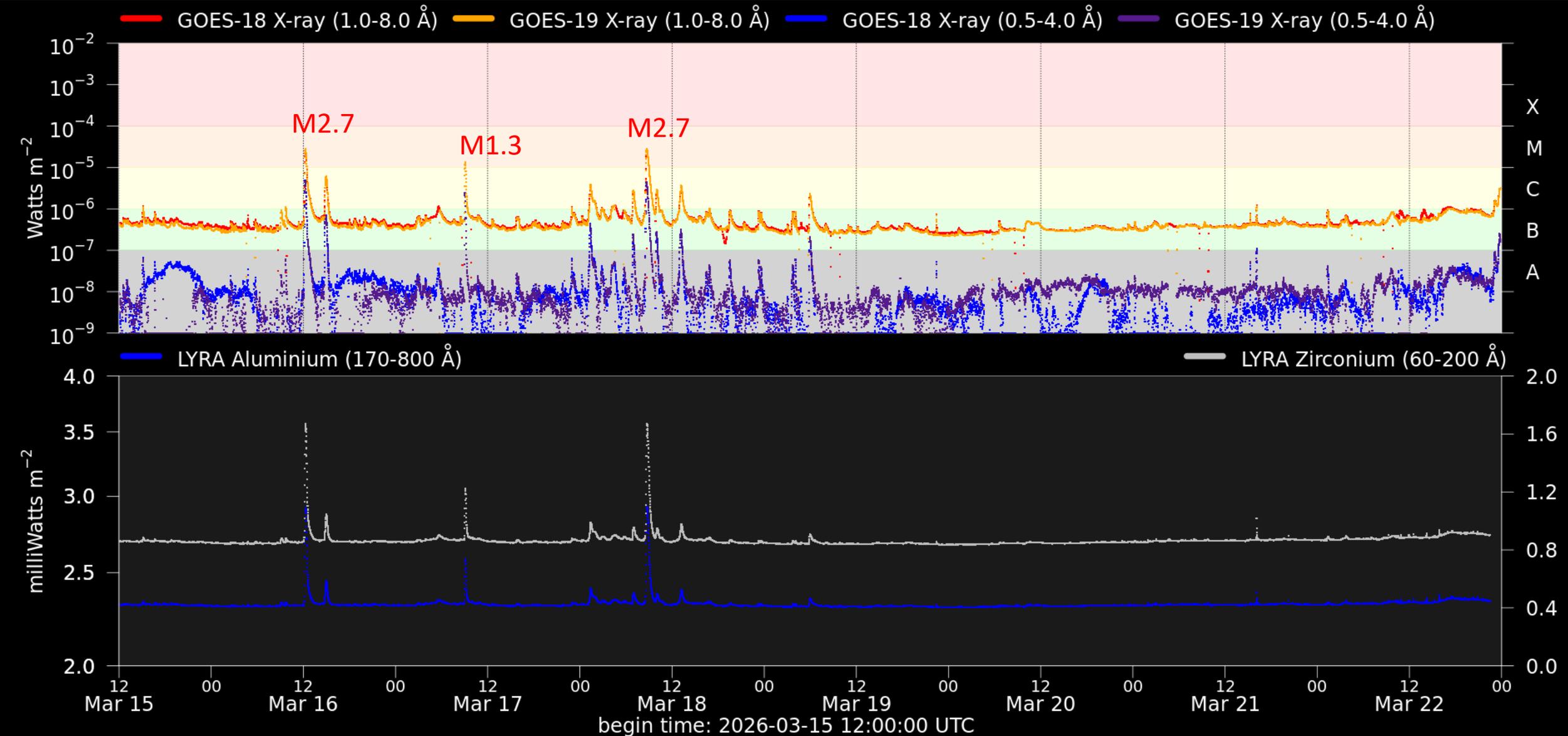
Flaring activity



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

Issue date	2026-03-15	2026-03-16	2026-03-17	2026-03-18	2026-03-19	2026-03-20	2026-03-21	2026-03-22
Probability (%)	95 40 01	55 10 01	65 15 01	70 20 01	90 35 05	80 25 01	68 10 01	65 12 01
Observed (#)	01 00 00	01 02 00	04 01 00	02 00 00	00 00 00	00 00 00	01 00 00	01 00 00

Solar X-Ray and UV flux



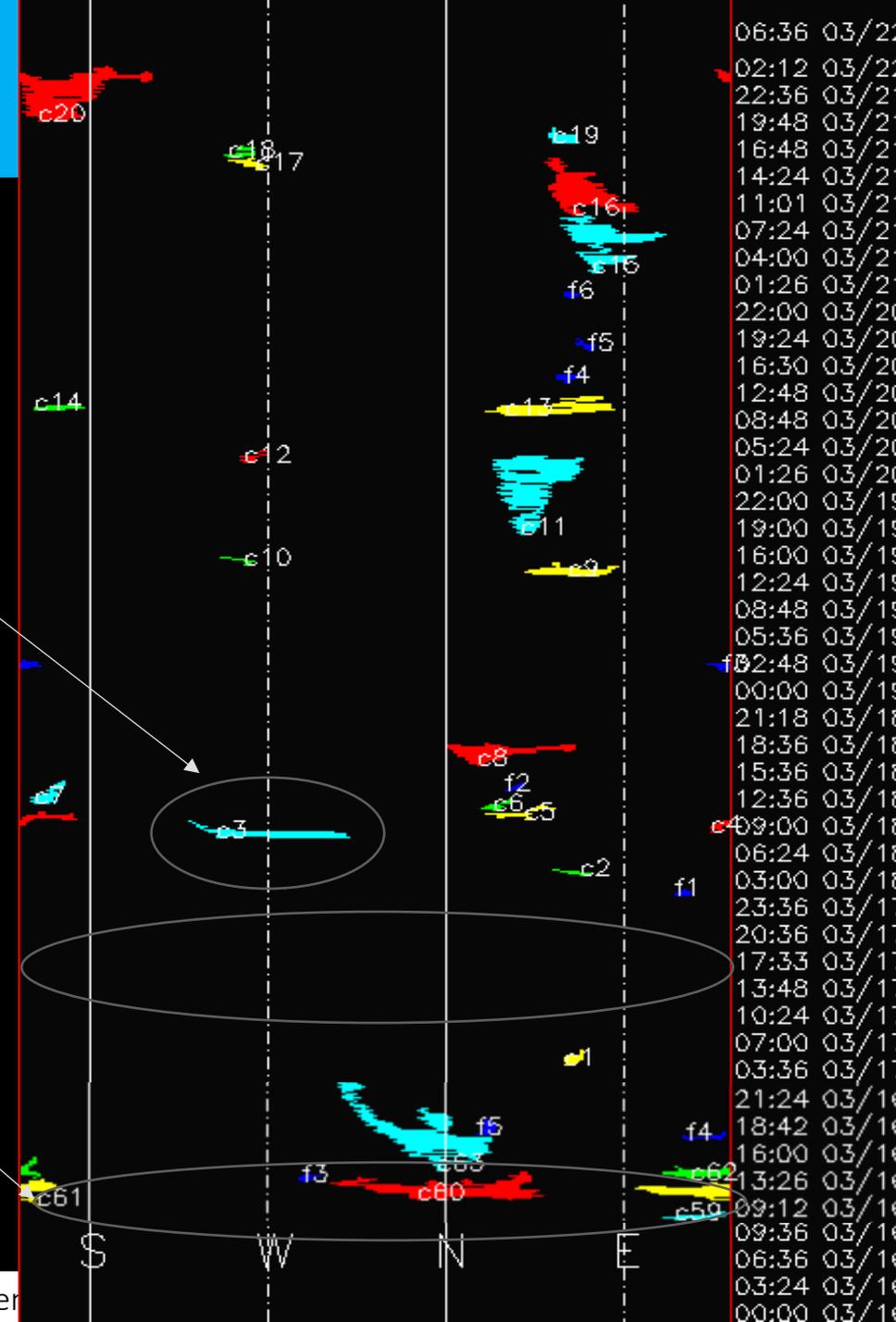
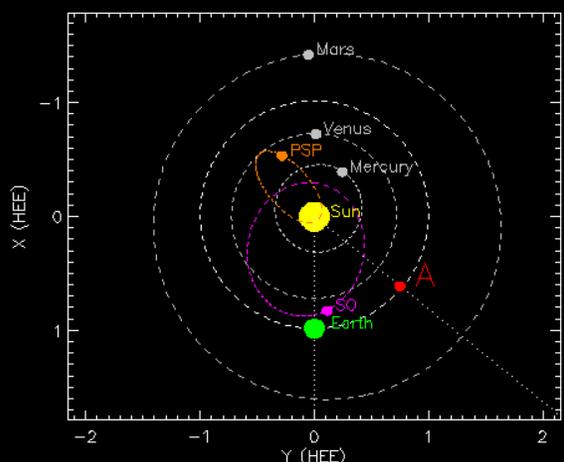
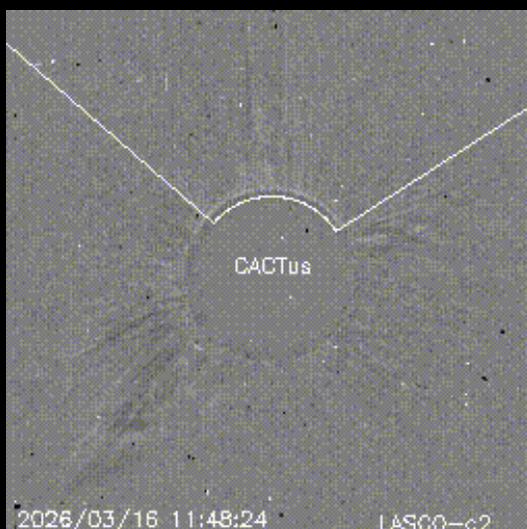
Coronal Mass Ejections

3 CMEs with Earth Directed components:
observed from SOHO/LASCO-C2 and STEREO-A/COR2

CME 3
March
18:



CME 1
March
16:

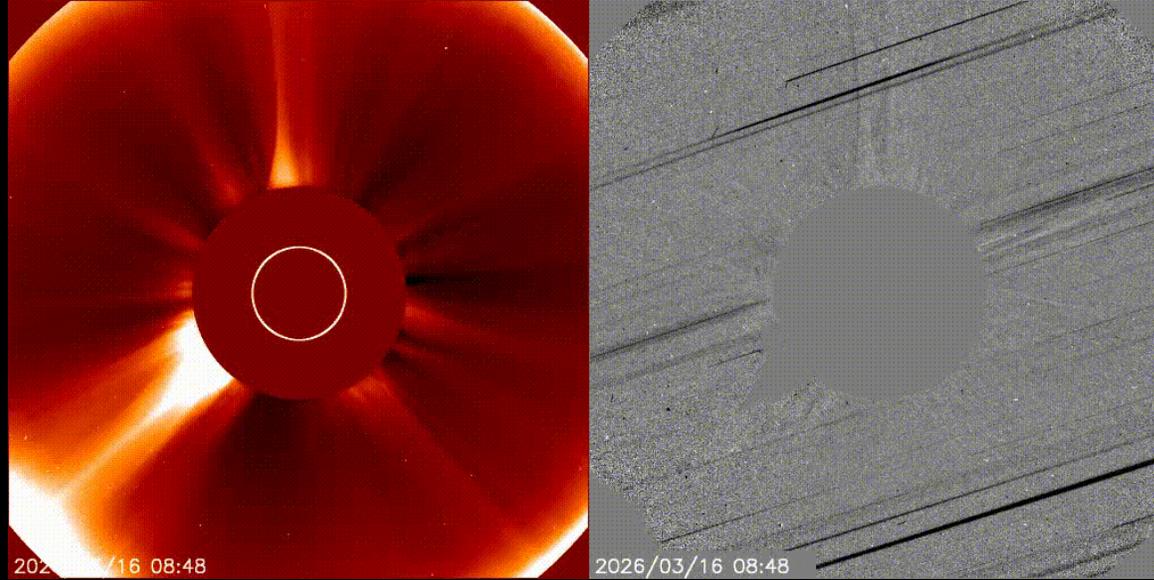


Coronal Mass Ejections CME 1 March 16:

Solar Demon Dimming SDO/AIA

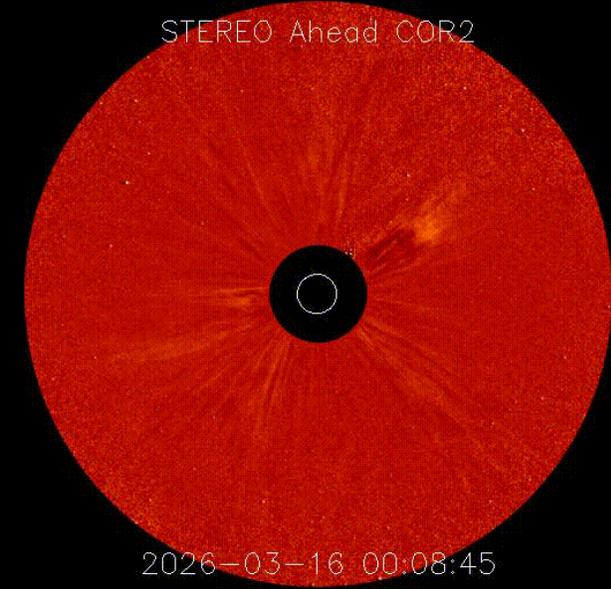


SOHO/LASCO-C2



STEREO-A/COR2

STEREO Ahead COR2

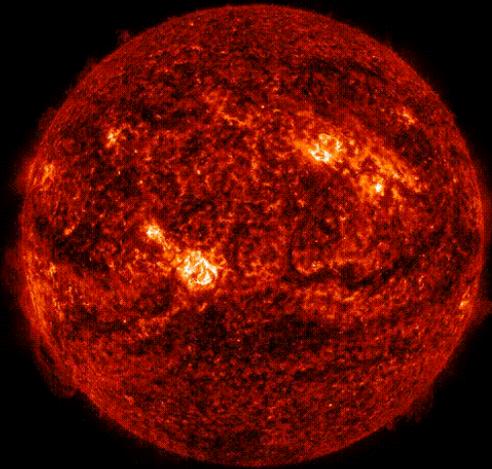


- Asymmetric halo detected in LASCO-C2 data from 12:36 UTC on March 16. Estimated speed 575 km/s
- Associated with M2.7 flare (SIDC Flare 7220) peak time 12:15 UTC March 16 from SIDC sunspot group 820 (NOAA Active Region 4392)
- Large on disk dimming and Type II and Type IV radio emission
- CME to the East in STEREO A.

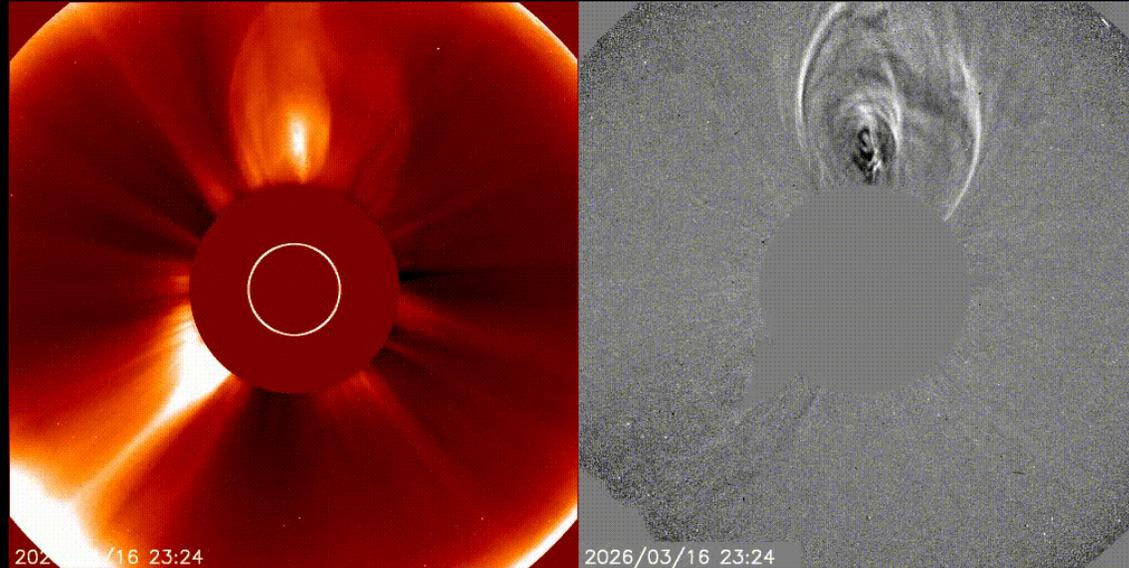
Predicted arrival time late on March 19 (2026-03-19 18:00 UTC)

Coronal Mass Ejections CME 2 March 17:

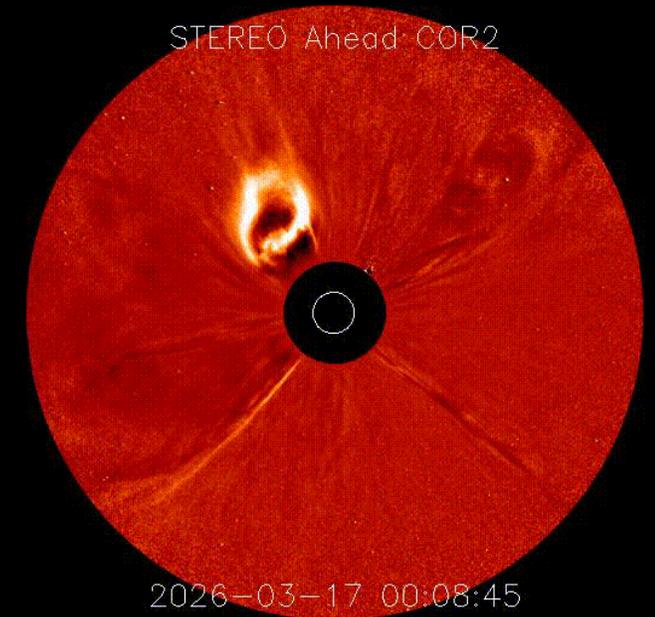
SDO/AIA



SOHO/LASCO-C2



STEREO-A/COR2



2026-03-17T00:46:41.129 AIA 304

- A filament around S05W10 also began to lift off around 03:00 UTC March 17
- An associated narrow CME became visible in STEREO COR2 at 17 08:38 UTC to the East.
- CME not clear in LASCO C2.
- Estimated speed 380 km/s

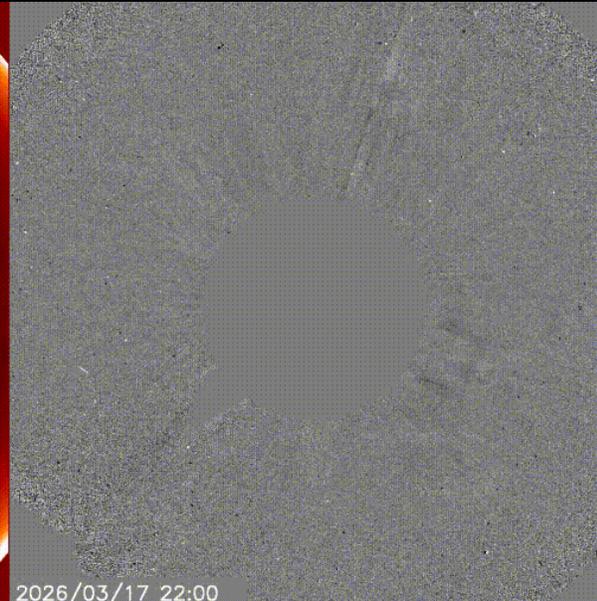
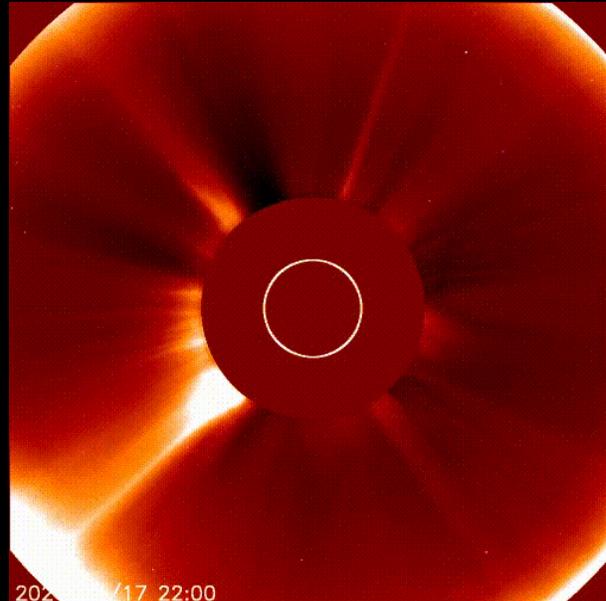
Predicted arrival time late on March 20 (2026-03-20 19:00)

Coronal Mass Ejections CME 3 on March 18:

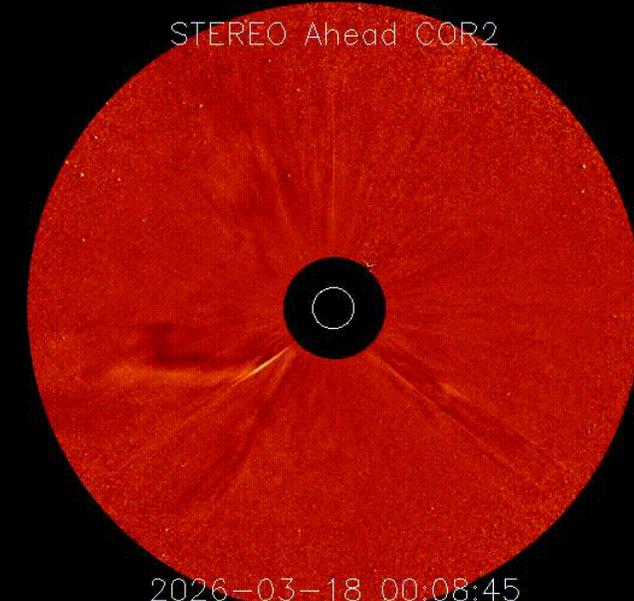
Solar Demon Dimming SDO/AIA



SOHO/LASCO-C2



STEREO-A/COR2



- Observed in SOHO/LASCO-C2 data from 09:24 UTC on March 18 to the west.
- In STEREO A COR2 seen at 09:23 UTC March 18 to the East.
- Estimated Speed 750 km/s
- Associated with M2.7 flare (SIDC Flare 7228) from SIDC sunspot group 820 (NOAA Active Region 4392) .
- Associated with a large dimming, EUV wave and Type II radio burst.

Predicted arrival time Late on March 20 / Early on March 21 (2026-03-20 23:30 UTC)

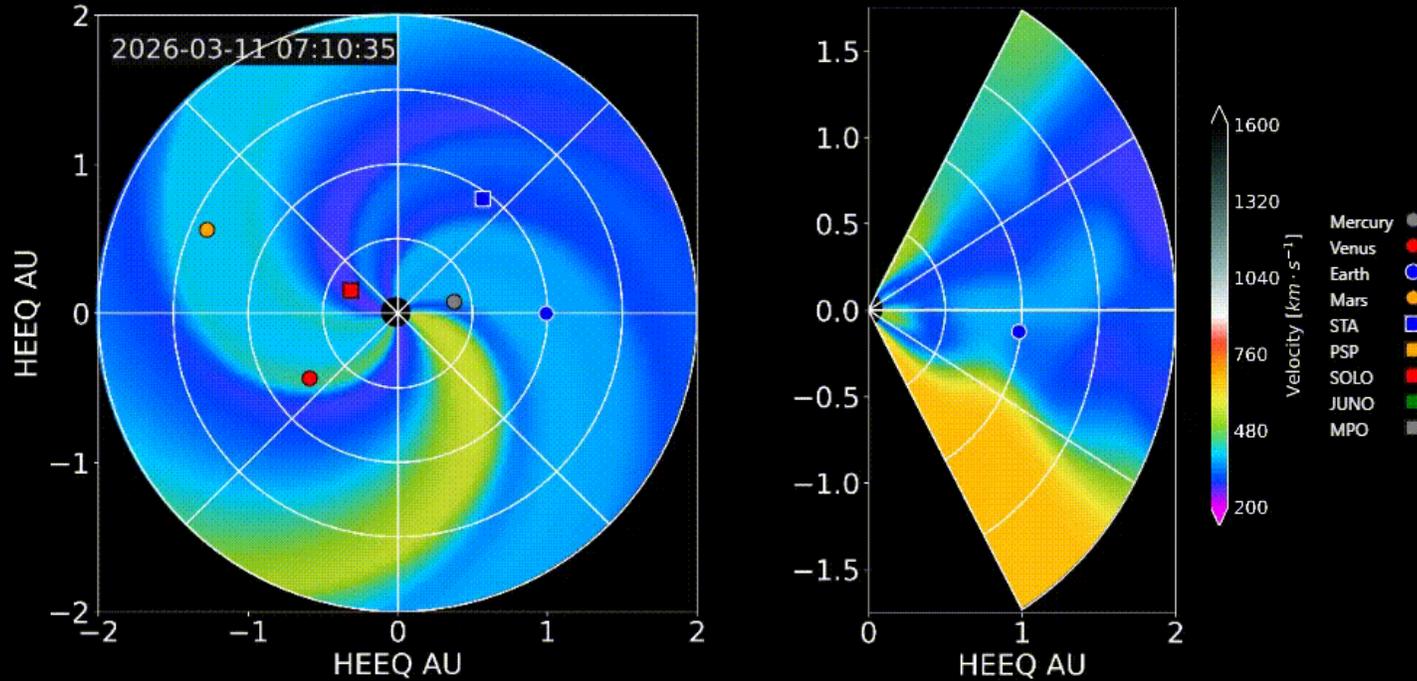
Coronal Mass Ejections Modelling: EUHFORIA

Collection : CME - 2026-03-16 06:47:00

© SIDC EUHFORIA Preview

Start date : 2026-03-11T07:10:35

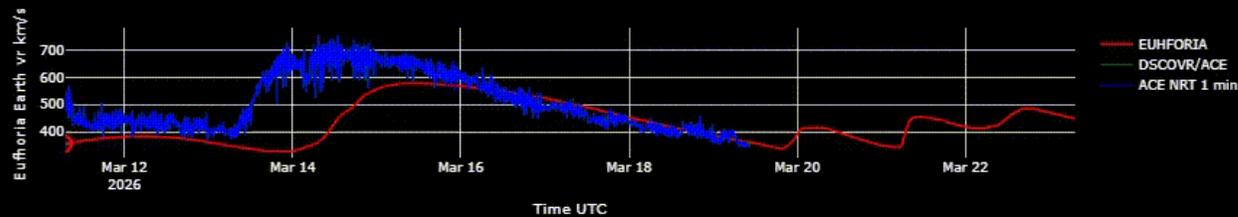
End date : 2026-03-23T07:13:25



CME 1: Predicted arrival time late on March 19

CME 2 and 3: seen merged arrival on March 20/ 21.

High Speed stream from March 22



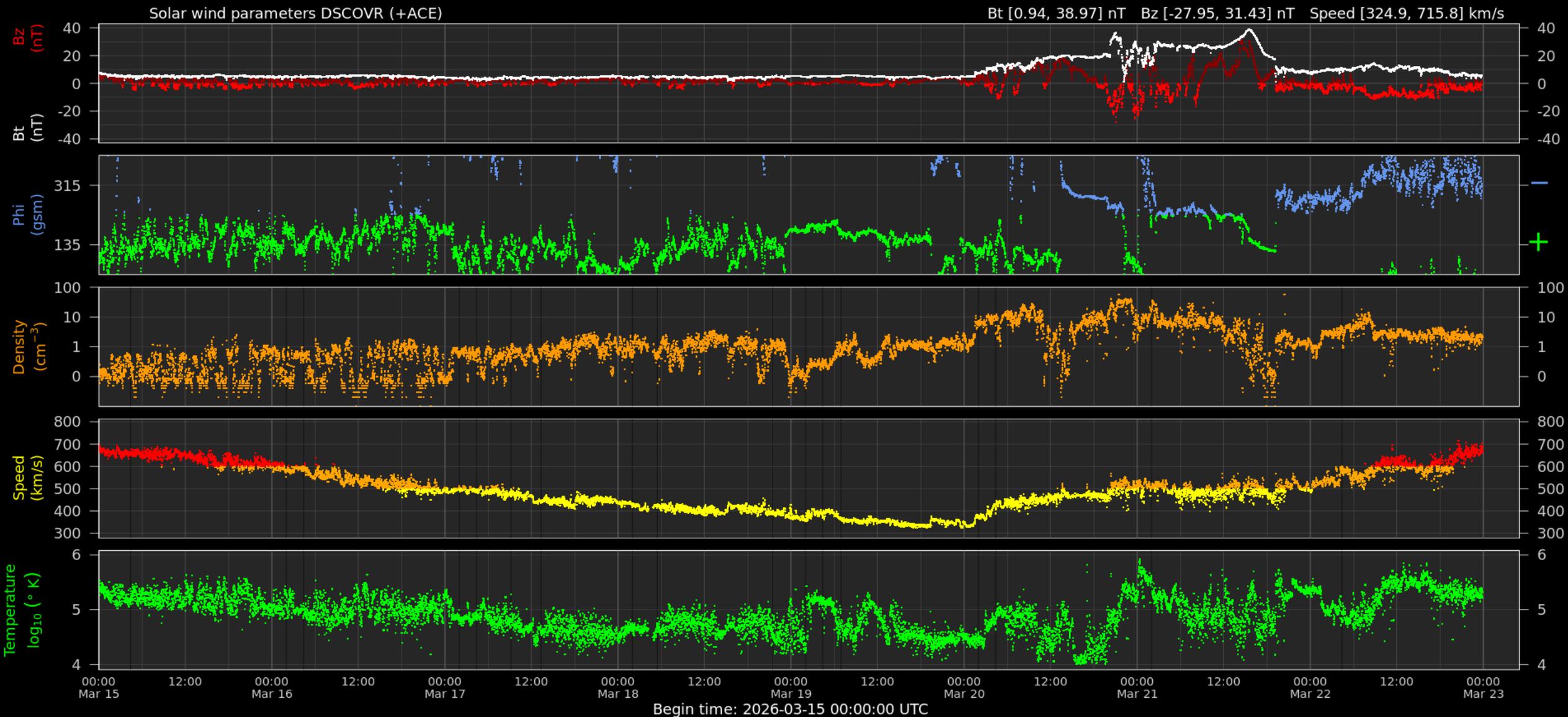
Solar Wind and Geomagnetic Activity



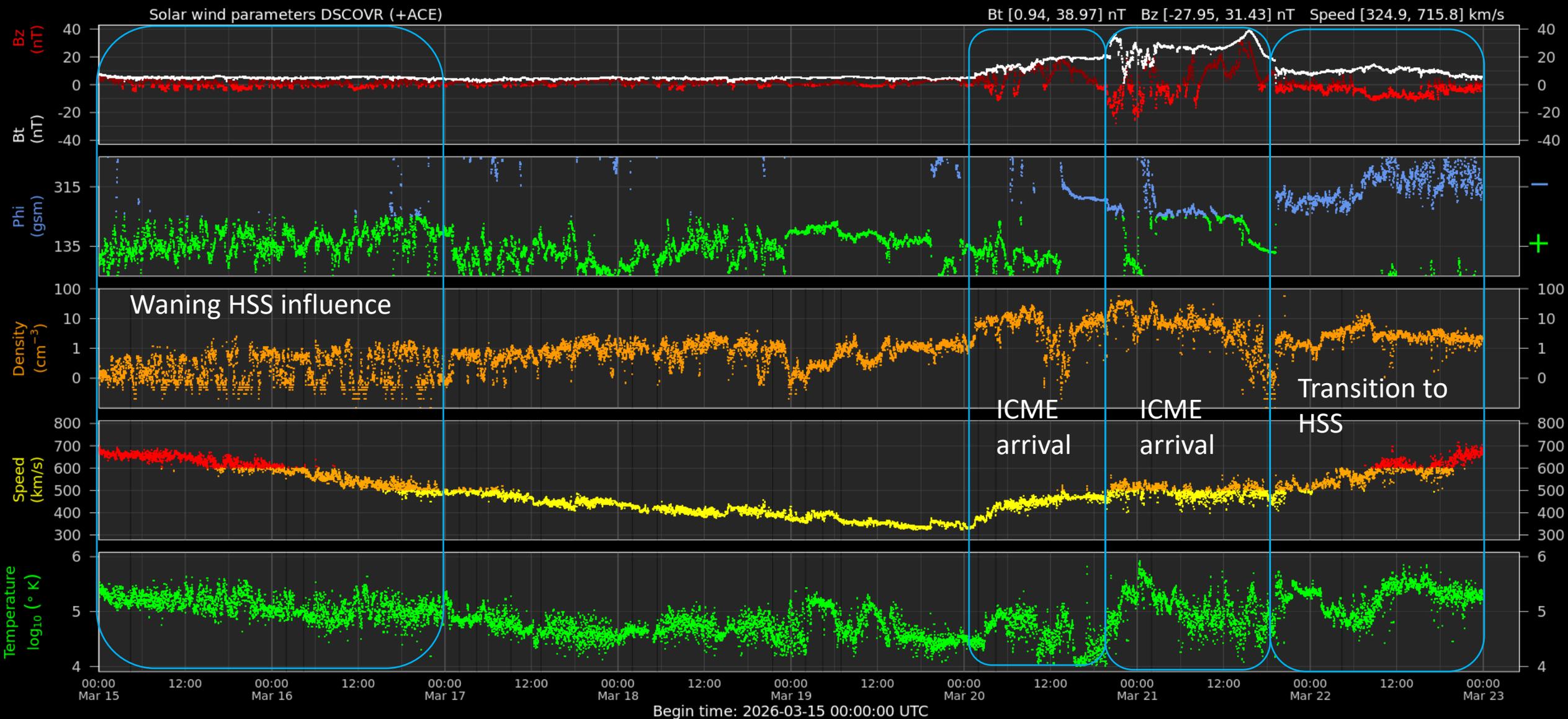
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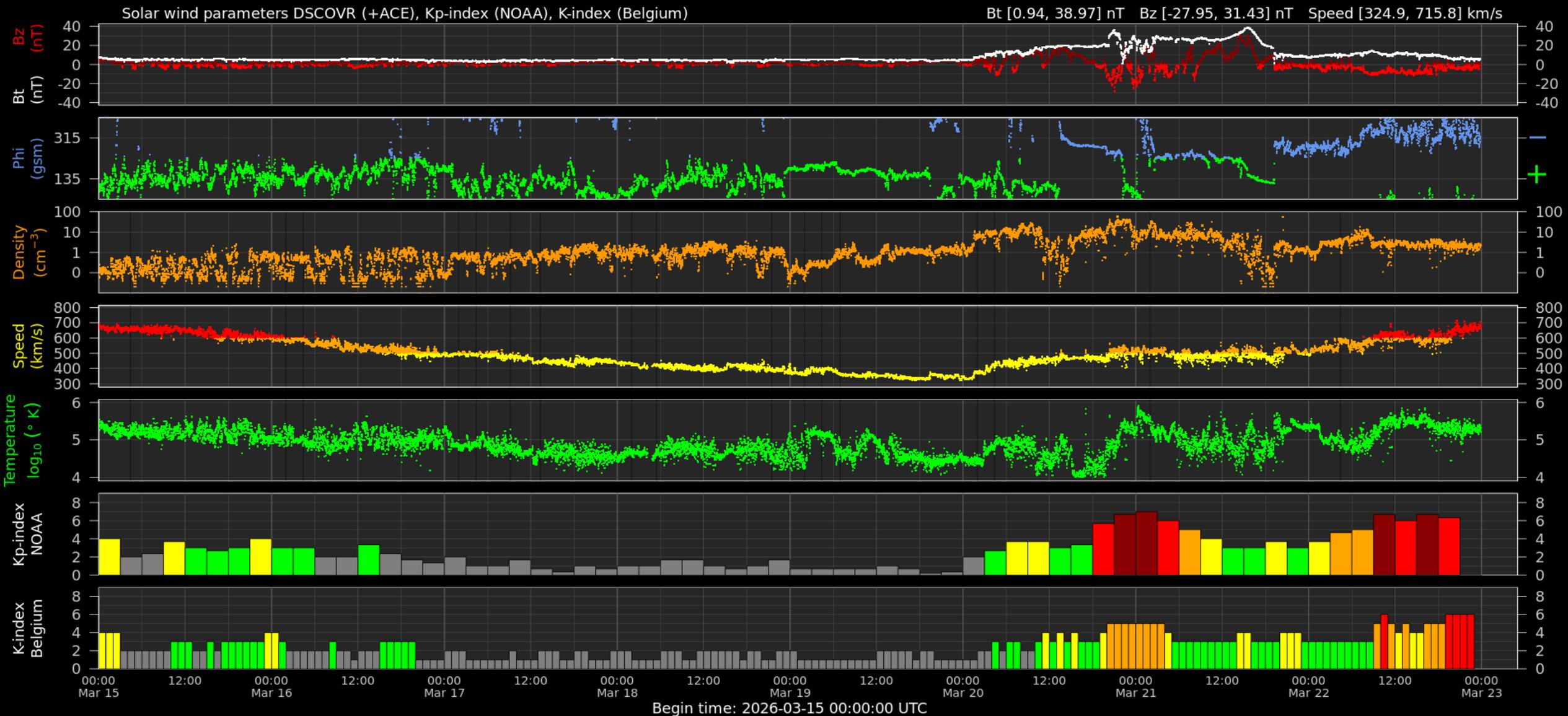
Solar wind parameters



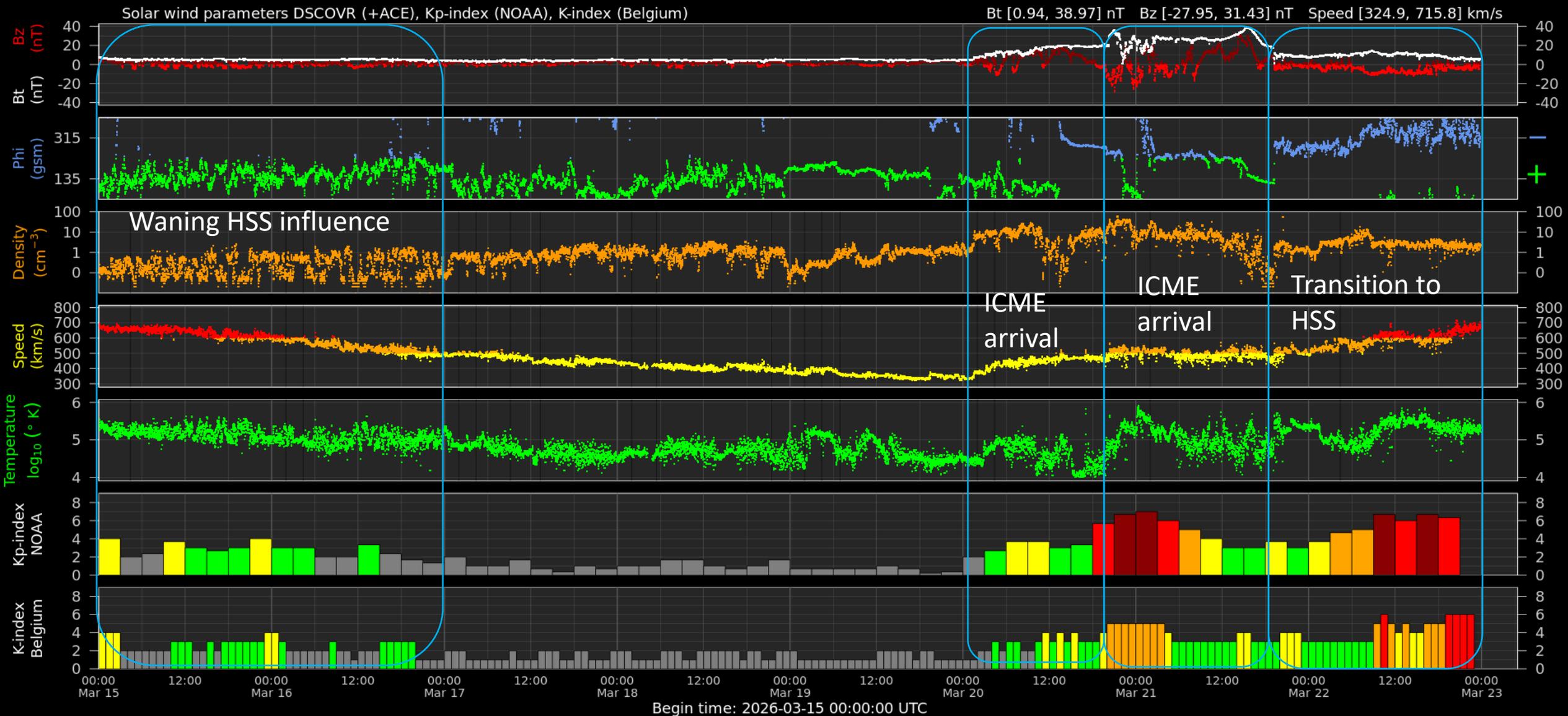
Solar wind parameters



Solar wind parameters & K-indices



Solar wind parameters & K-indices



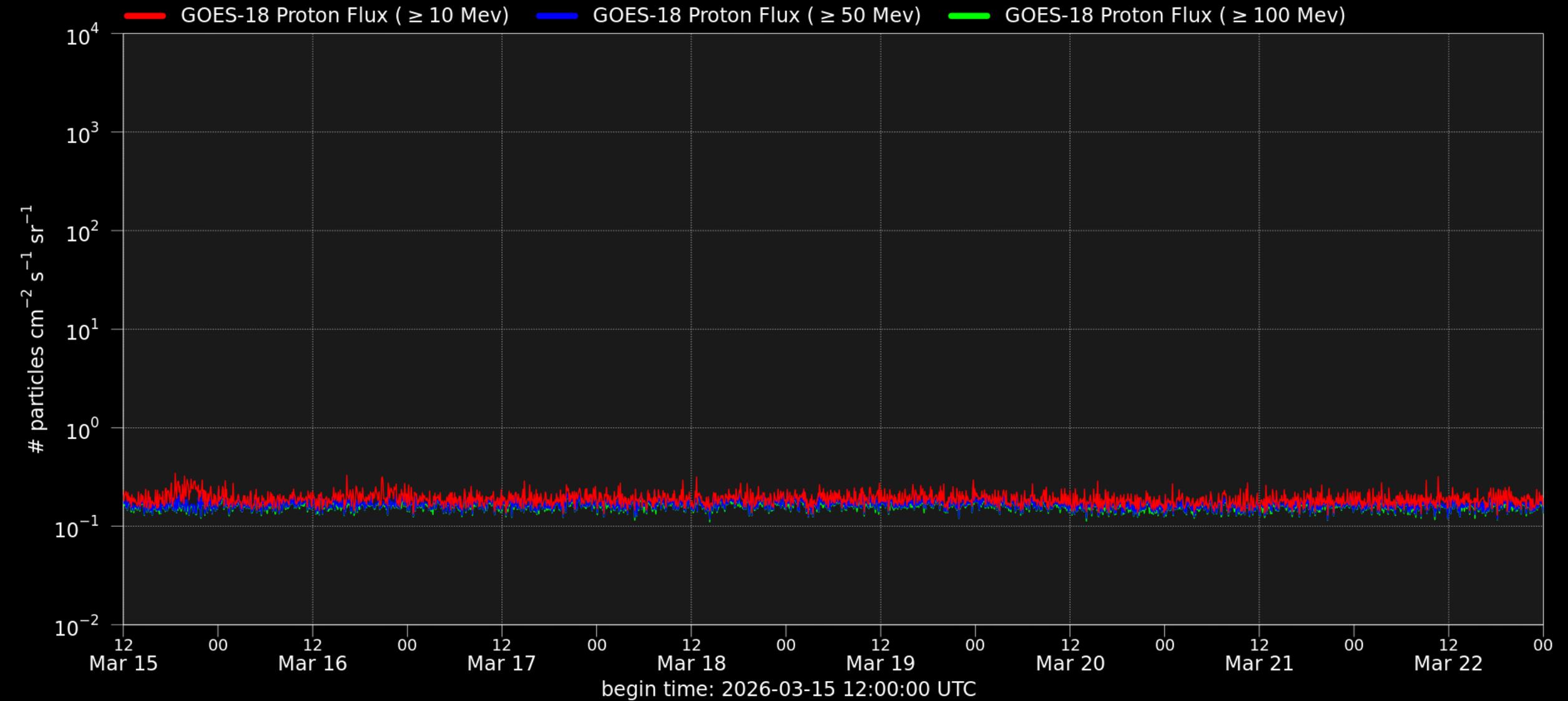
Energetic Particles



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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



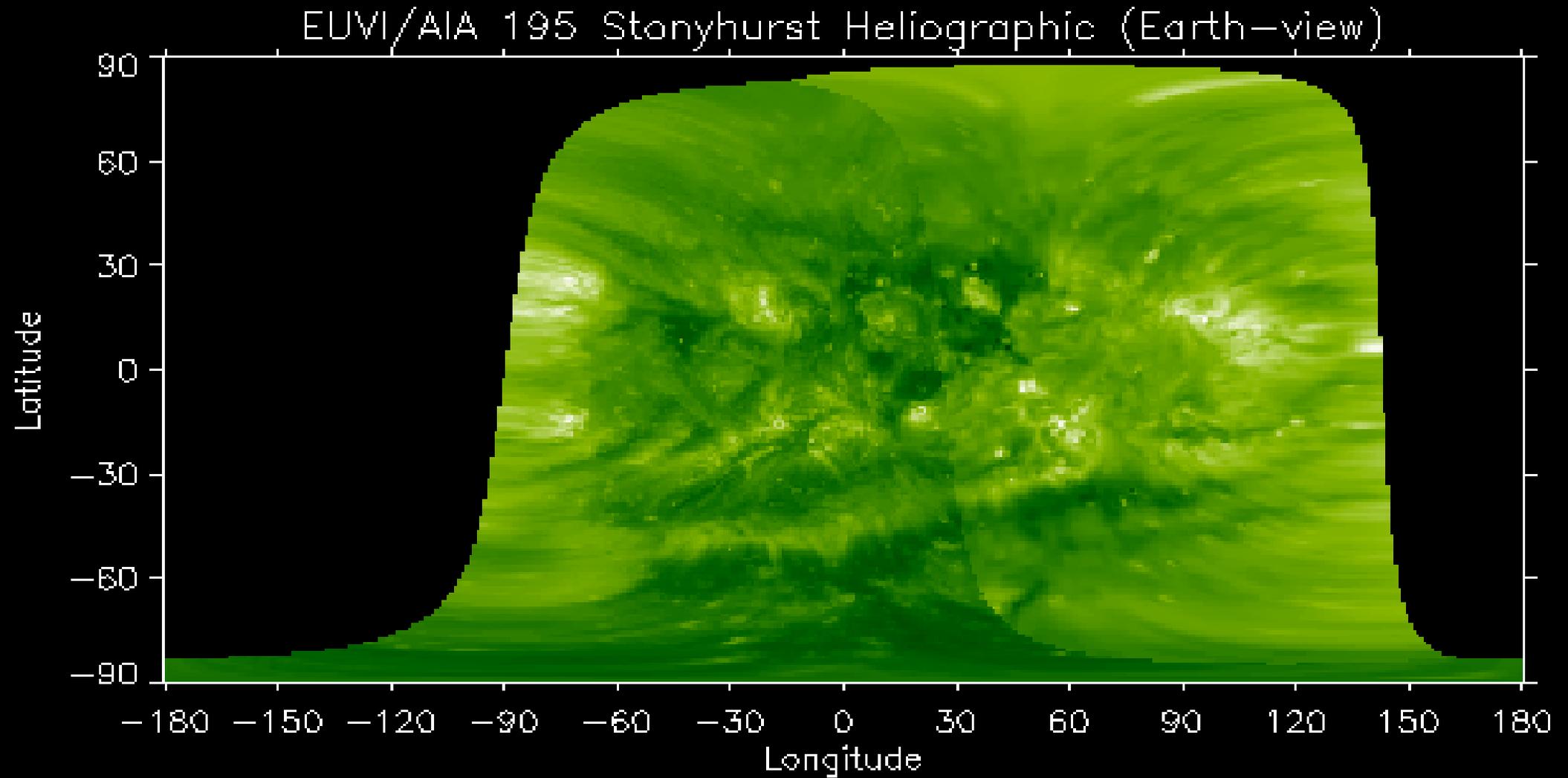
Outlook



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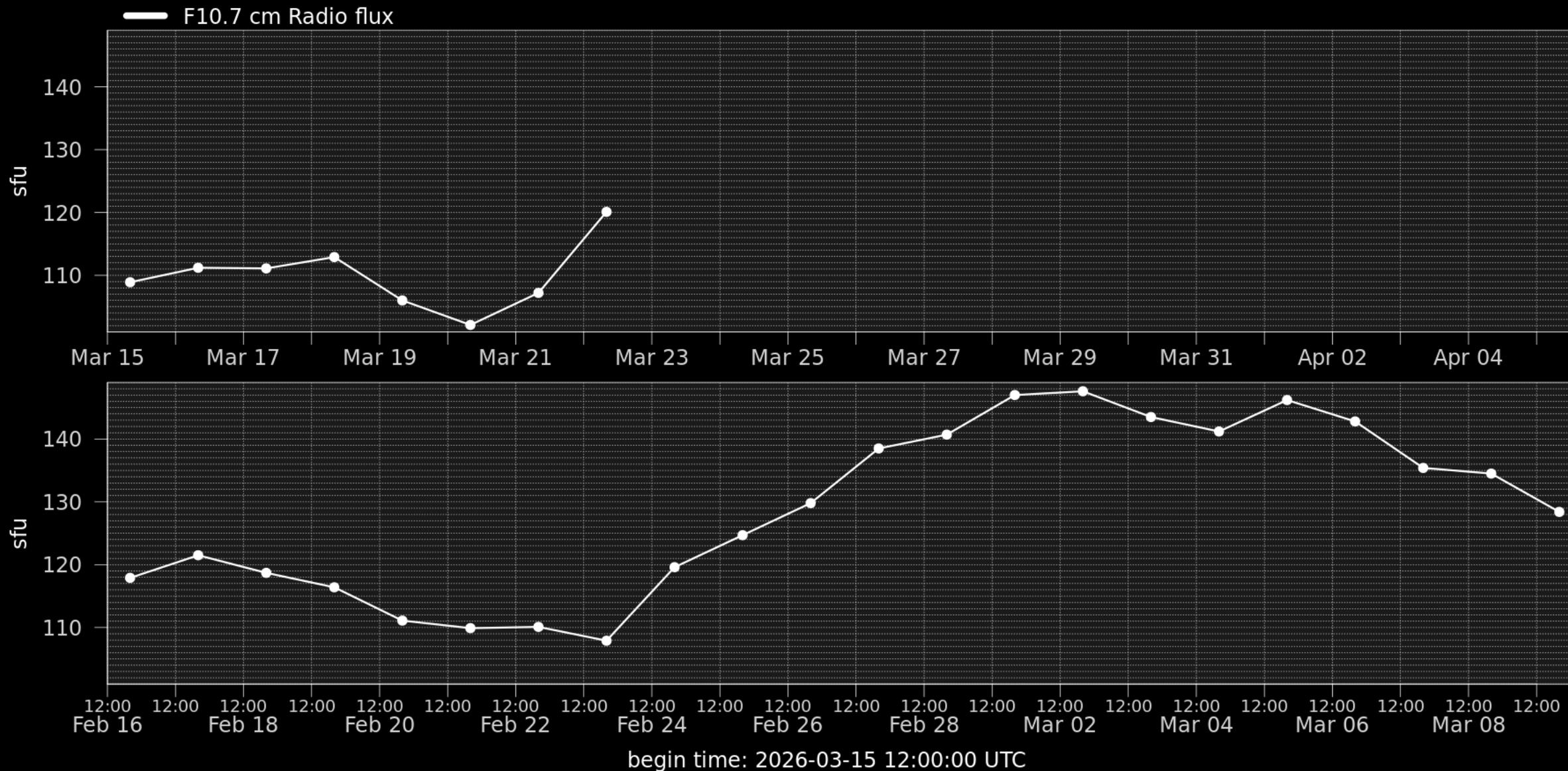
Solar Influences
Data analysis Centre
www.sidc.be

Outlook: Solar activity



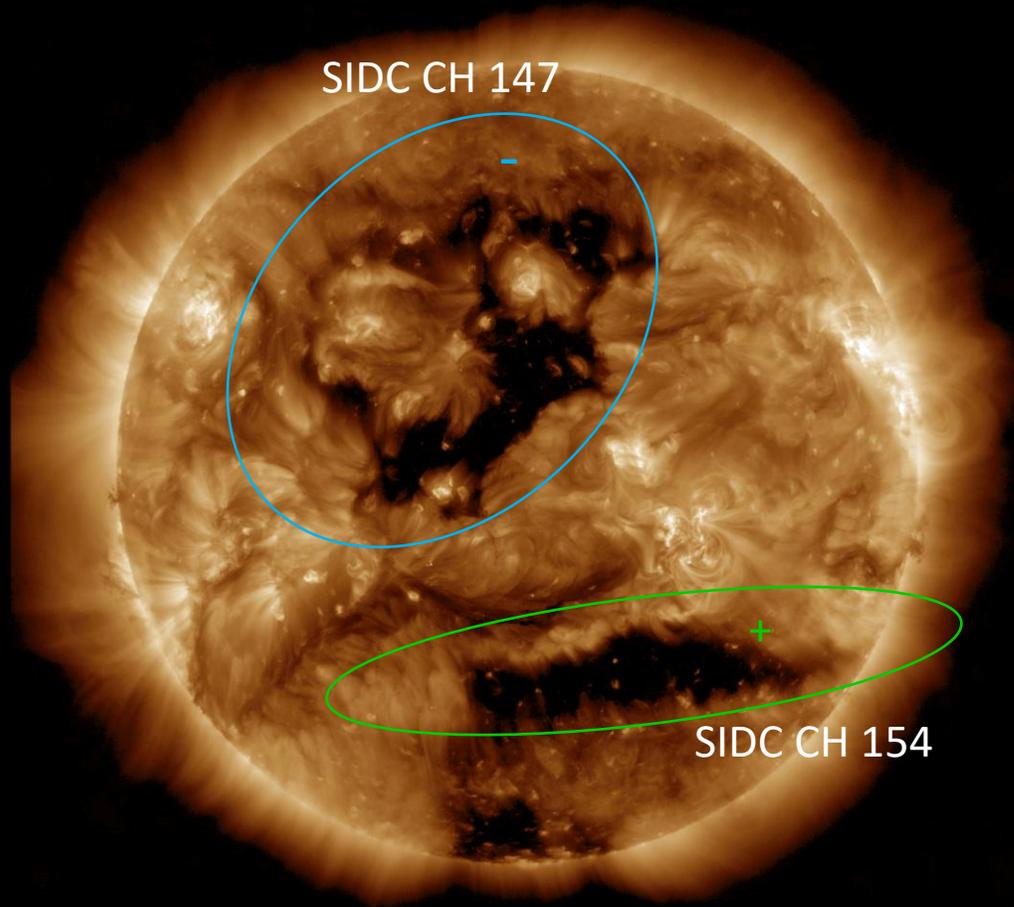
Observation date: 2026/03/22 16:55:00

Outlook: Solar F10.7cm radio flux



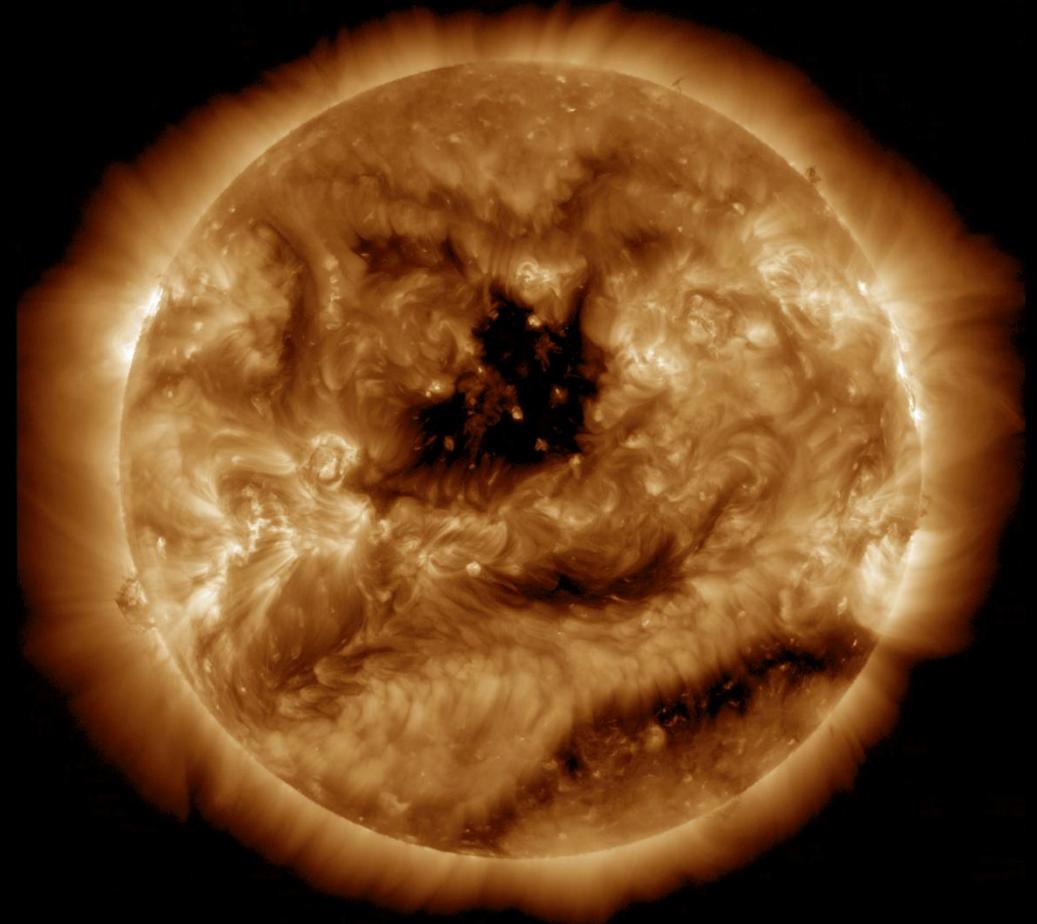
Coronal holes

SDO/AIA 19.3 nm 2026-03-20



2026-03-20T03:47:04.842

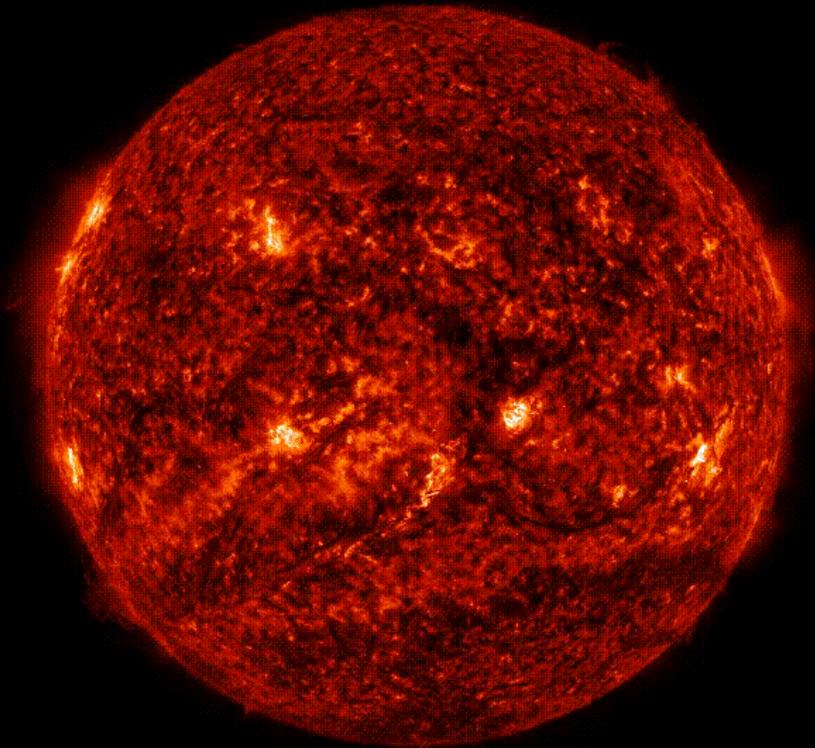
SDO/AIA 19.3 nm 2026-02-21 – Previous Rotation



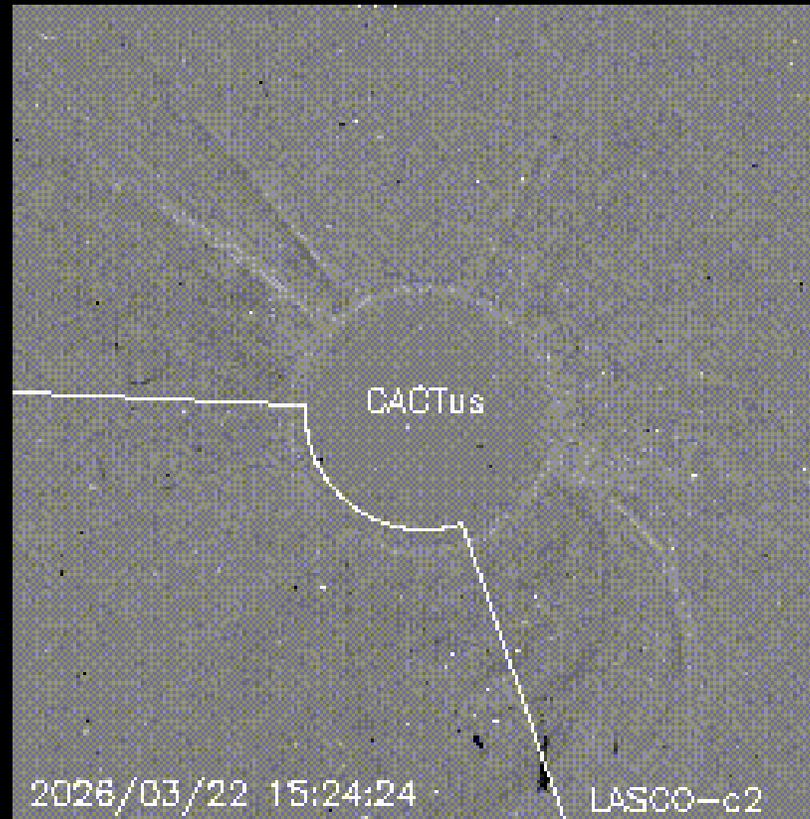
2026-02-21T06:47:04.843

Filament eruptions March 22

H-alpha 2026-03-22



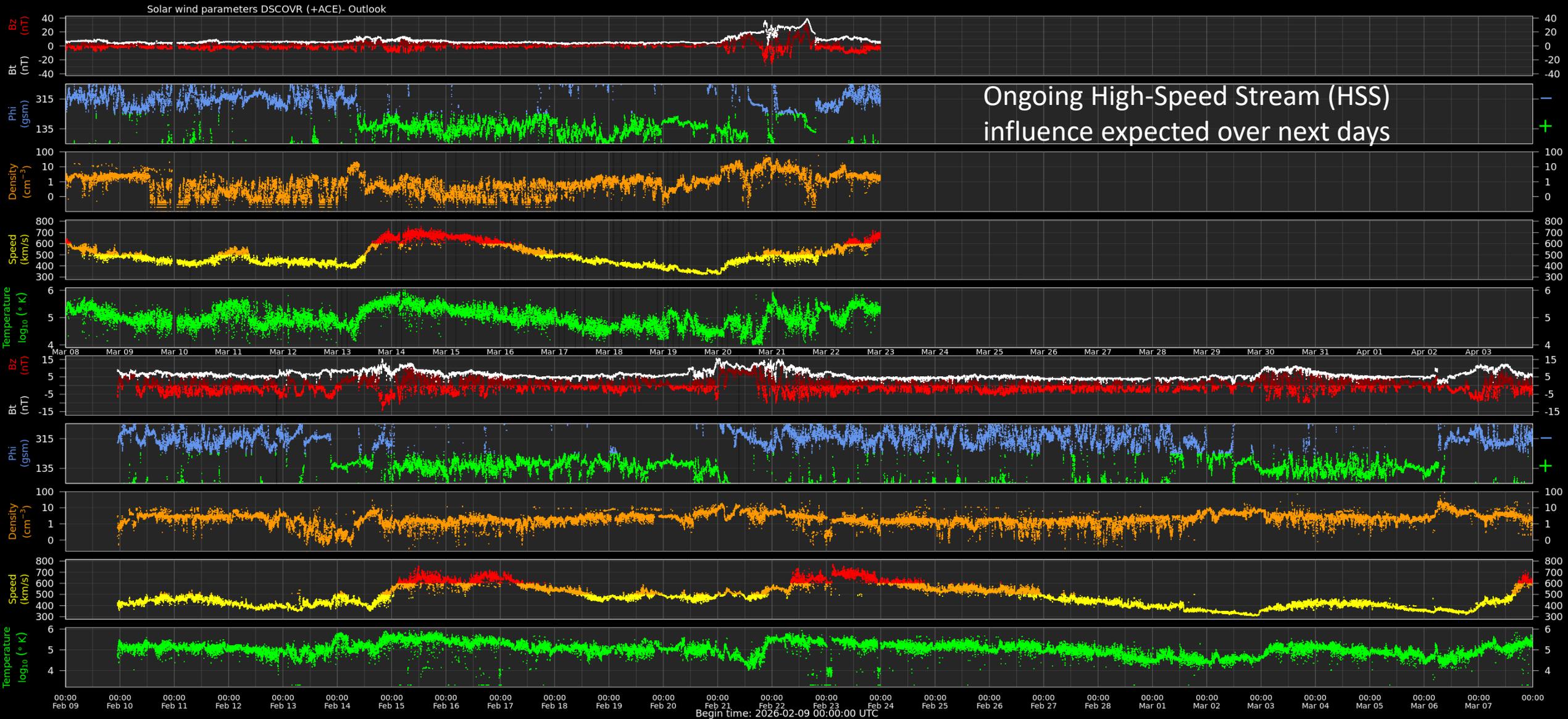
LASCO-C2 / CACTUS Detection



Filament eruption on afternoon March 22 being analysed: may have a possible Earth directed component

2026-03-22T08:46:40.842

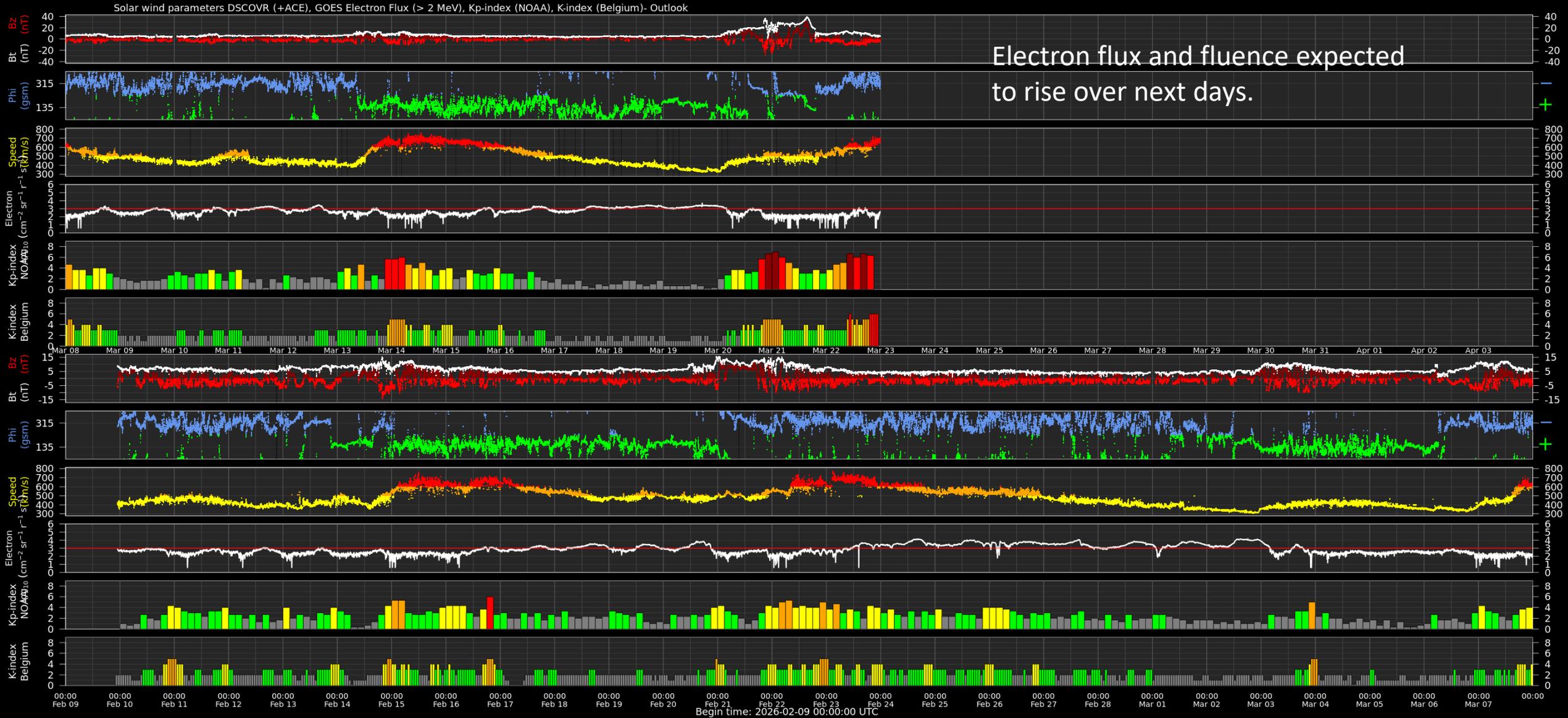
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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Pecusus related events

PECASUS became On Duty Centre (ODC) on March 17:

- Post Storm Depression HF advisories issued due to $KP > 6$
- A Few Scintillation Advisories Issued

SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



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