

SIDC Space Weather Briefing

24 March 2019 - 31 March 2019

Jasmina Magdalenić
& the SIDC forecaster team



Royal Observatory

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Summary Report

- Solar activity from 2019-03-24 12:00 UT to 2019-03-31 12:00 UT

Active regions	NOAA AR 2736, NOAA AR 2735
Flaring	B-class flare: 9 C-class flare: 0 M-class flare: 0 X-class flare: 0
Filaments	no
CMEs	Only narrow
Proton Events	no

- Solar wind and geomagnetic conditions from 2019-03-24 12:00 UT to 2019-03-31 12:00 UT

Coronal Holes	Equatorial, negative polarity CH (22/03) & equatorial, negative polarity CH (25/03)
ICME	no
SW Conditions	Mostly quiet to unsettled
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 4

- No All Quiet Alert.

Solar Activity

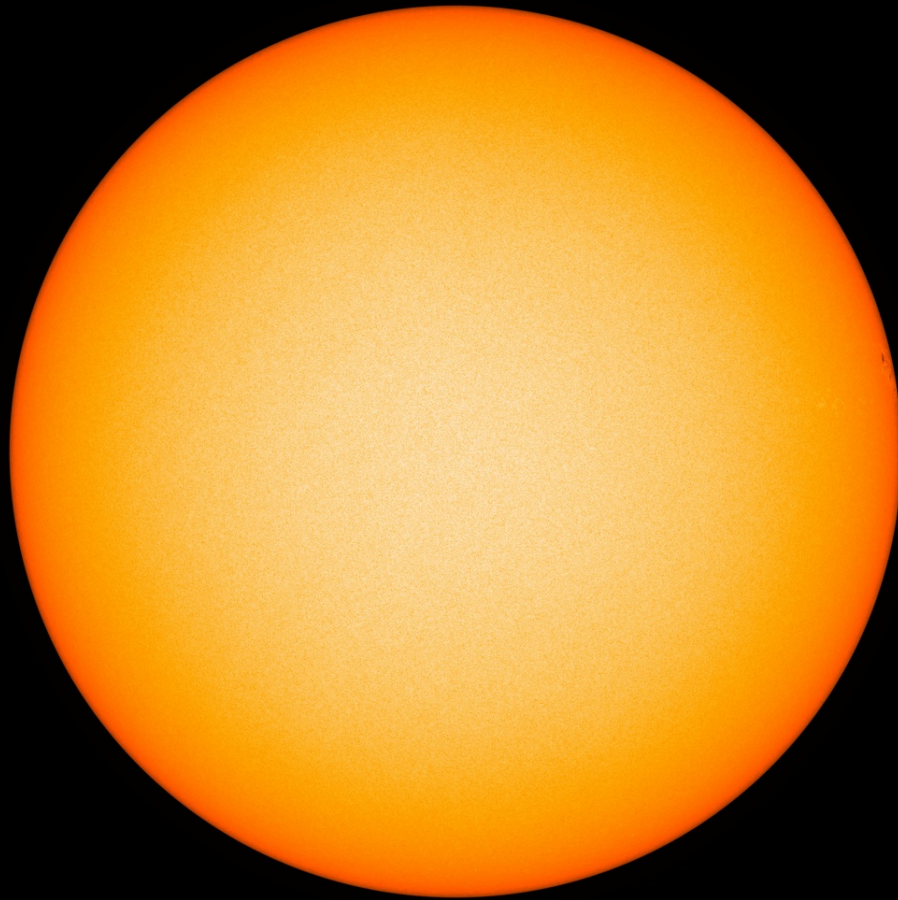


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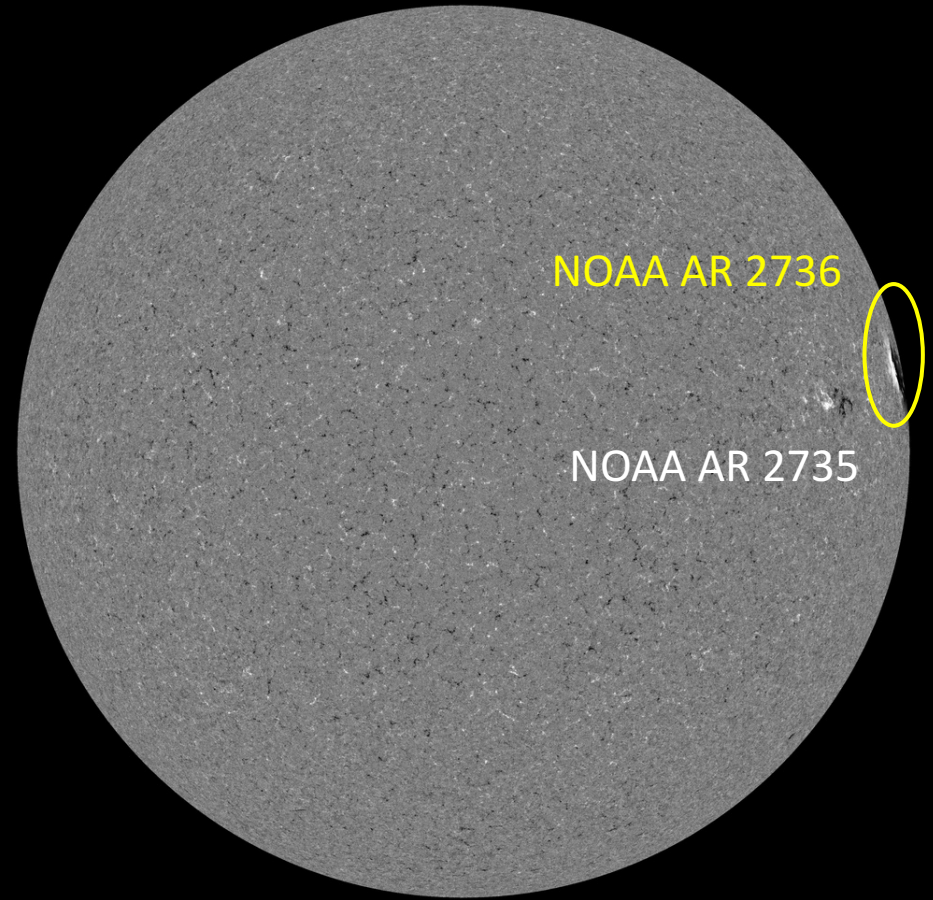
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Solar active regions - start of the week

SDO/HMI White Light 2019-03-24



SDO/HMI Magnetogram 2019-03-24



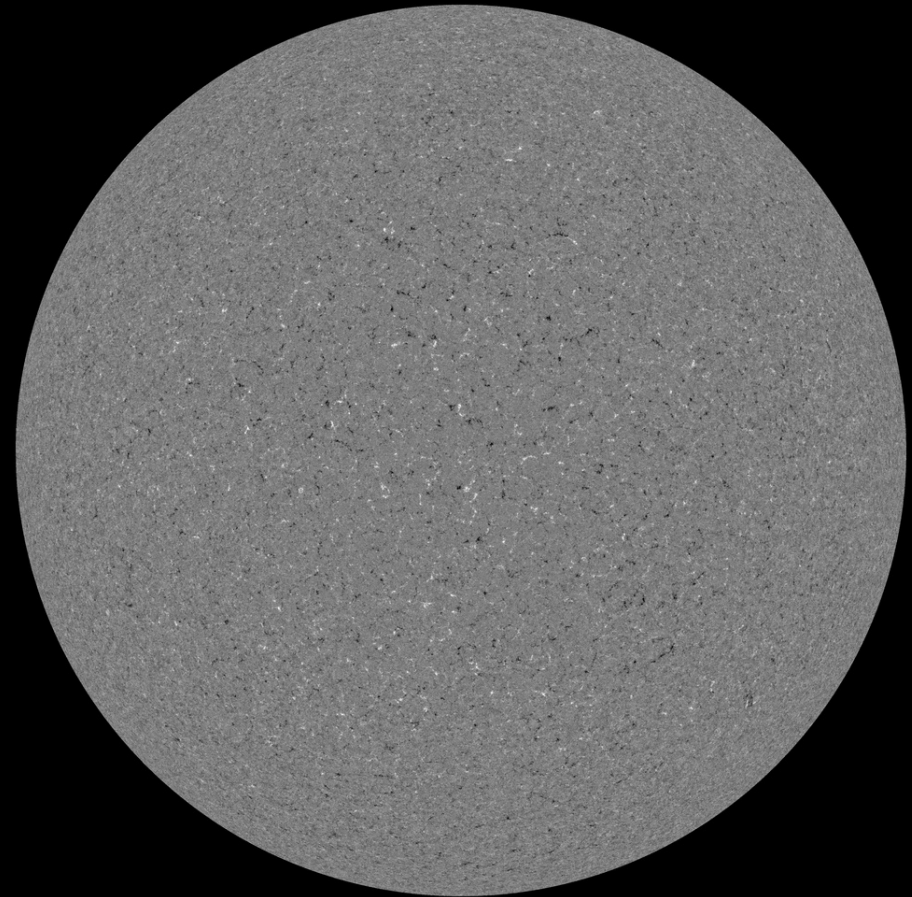
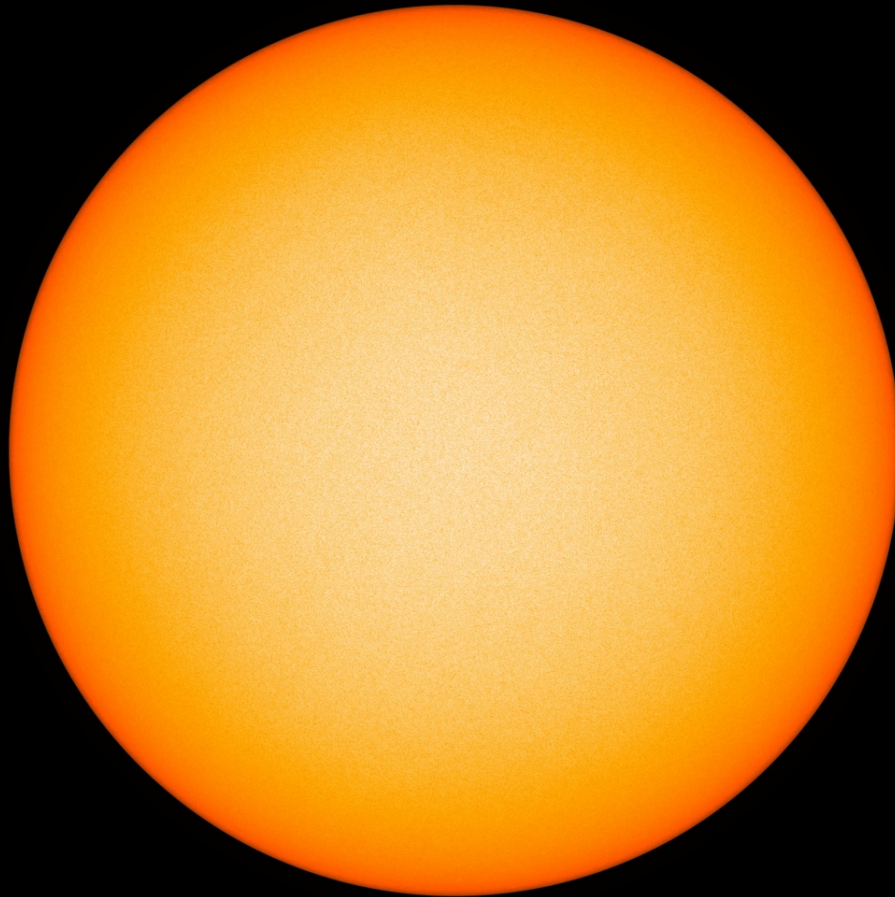
SDO/HMI Quick-Look Continuum: 20190324_114500

SDO/HMI Quick-Look Magnetogram: 20190324_114500

Solar active region - middle of the week

SDO/HMI White Light 2019-03-27

SDO/HMI Magnetogram 2019-03-27



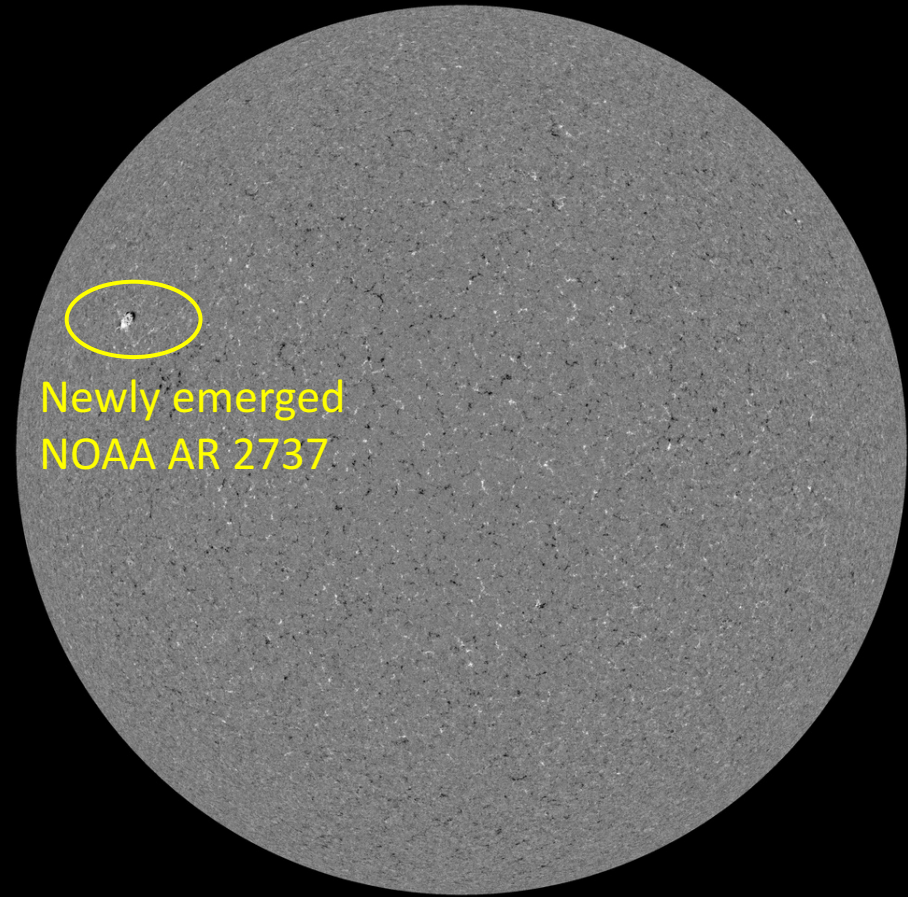
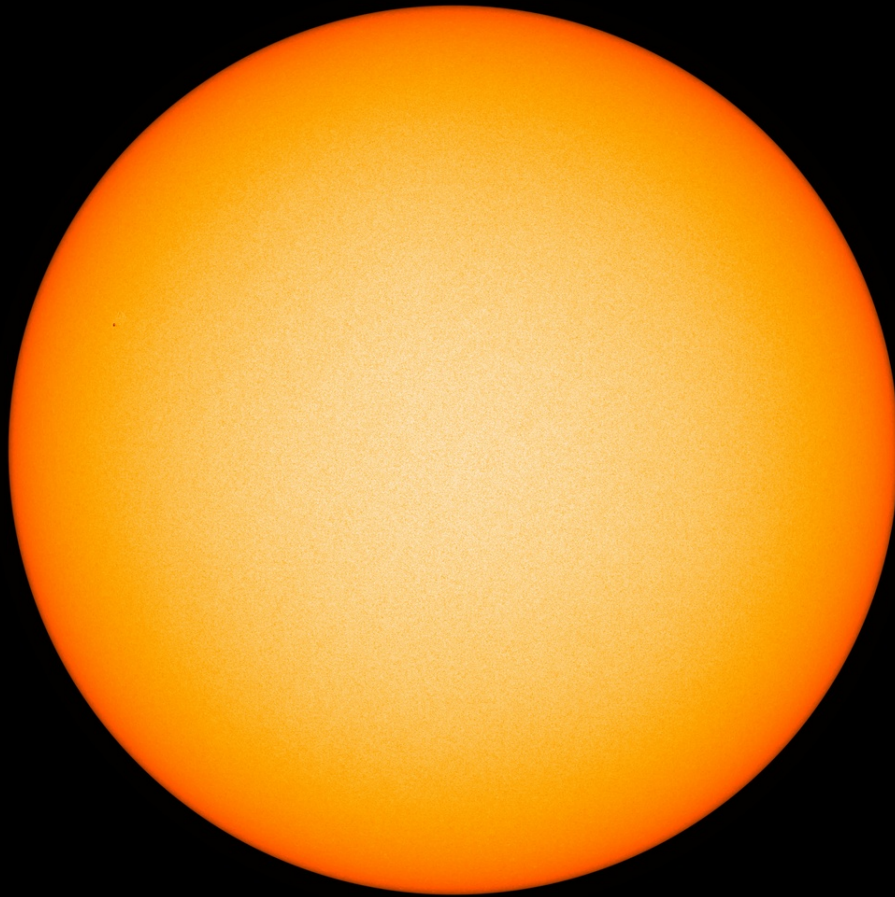
SDO/HMI Quick-Look Continuum: 20190327_114500

SDO/HMI Quick-Look Magnetogram: 20190327_114500

Solar active regions - end of the week

SDO/HMI White Light 2019-03-31

SDO/HMI Magnetogram 2019-03-31



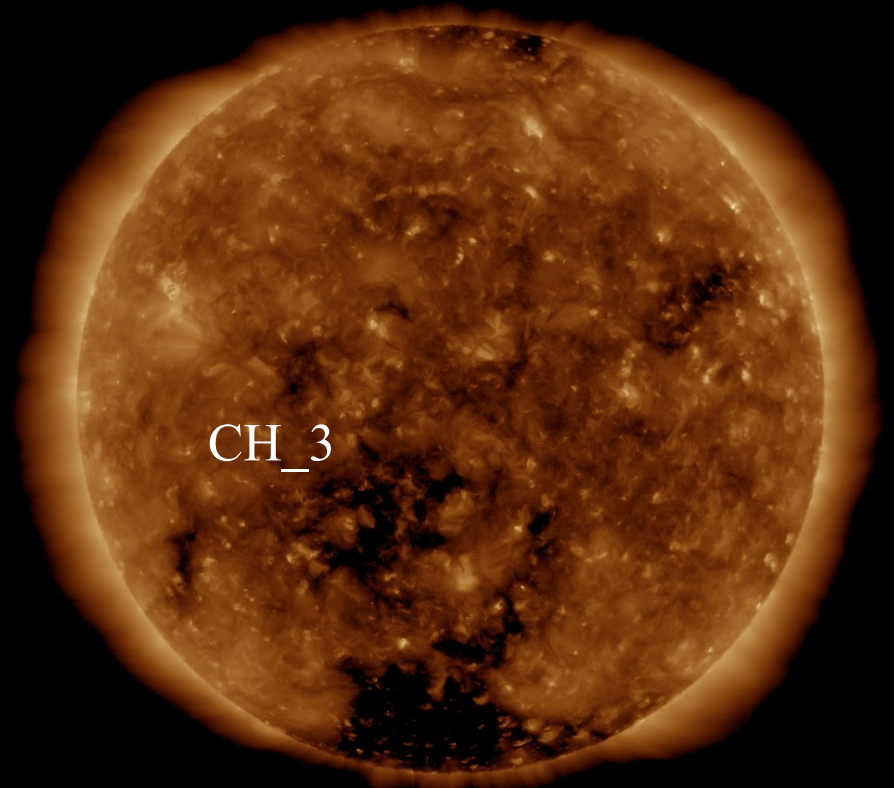
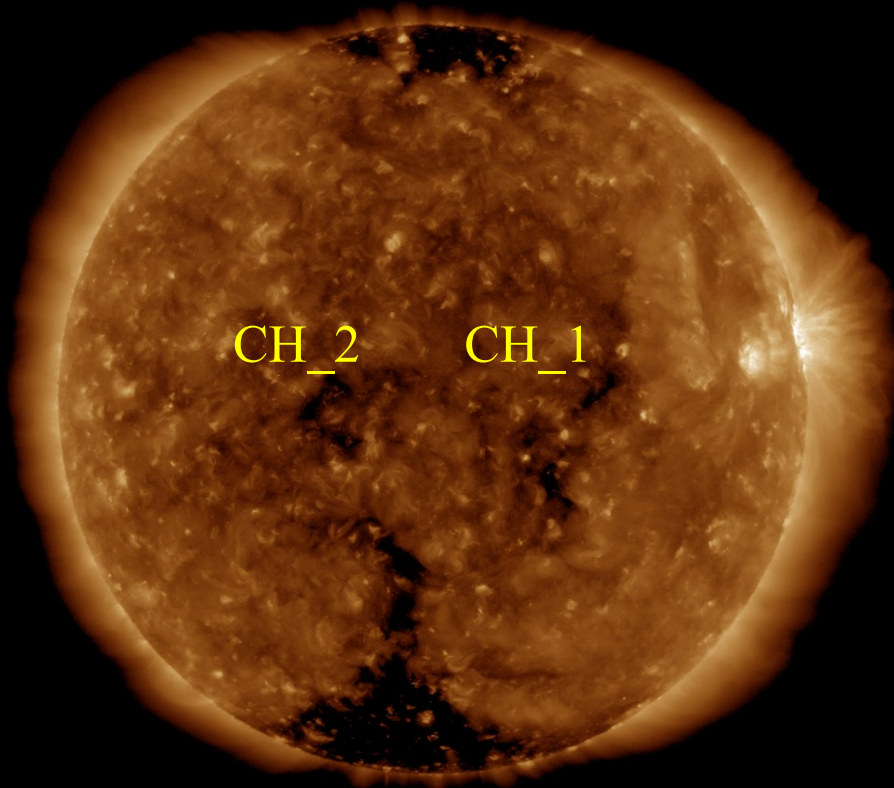
SDO/HMI Quick-Look Continuum: 20190331_114500

SDO/HMI Quick-Look Magnetogram: 20190331_114500

Solar active regions & Coronal holes

SDO/AIA 19.3 nm 2019-03-24

SDO/AIA 19.3 nm 2019-03-31

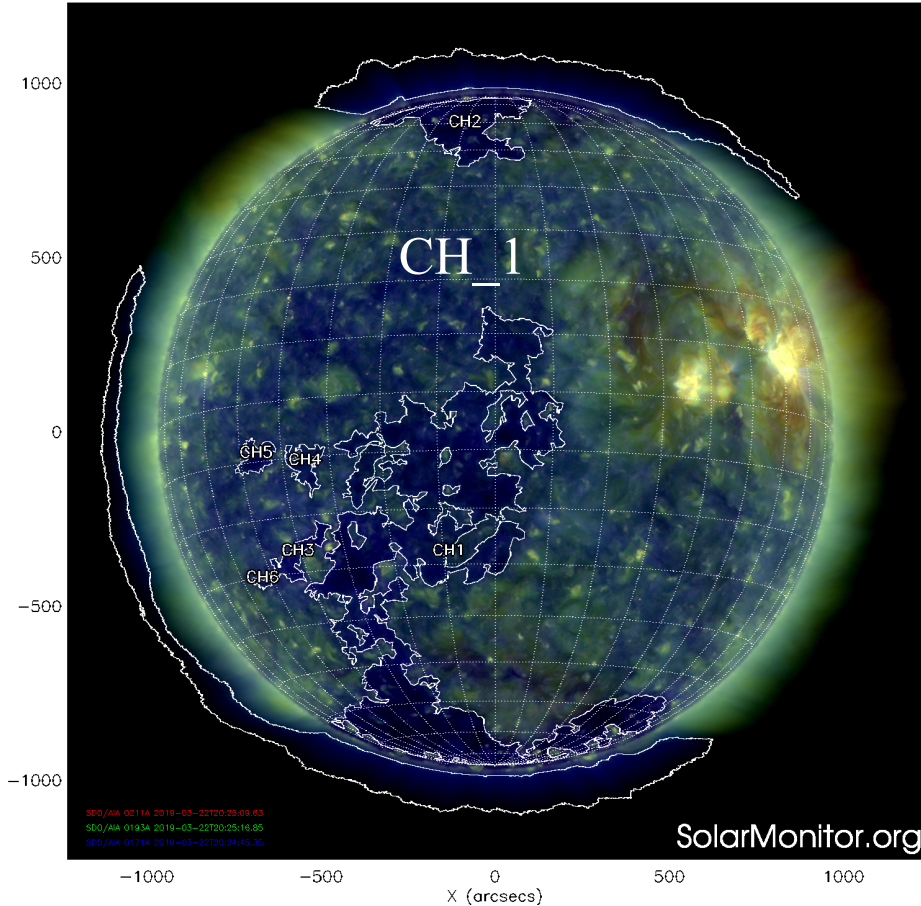


SDO/AIA 193 2019-03-24 12:09:53 UT

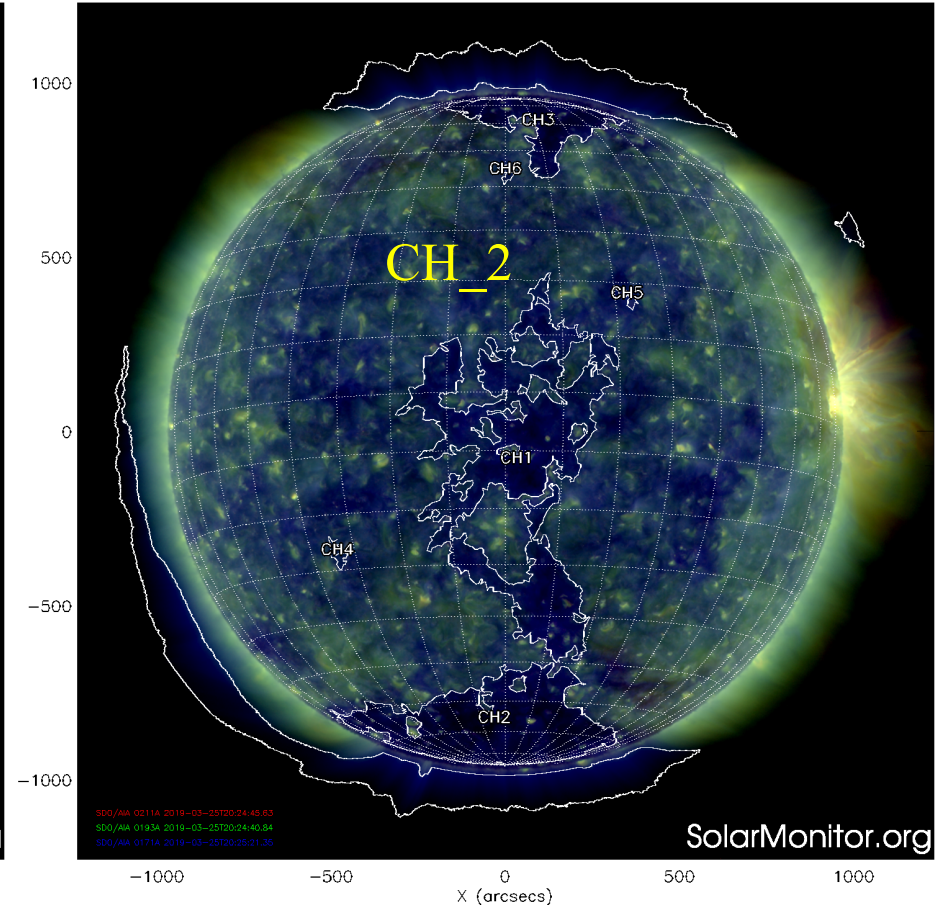
SDO/AIA 193 2019-03-31 12:11:05 UT

Solar active regions & Coronal holes

CHIMERA Coronal Holes at 22-Mar-2019 20:25:16.850 UT

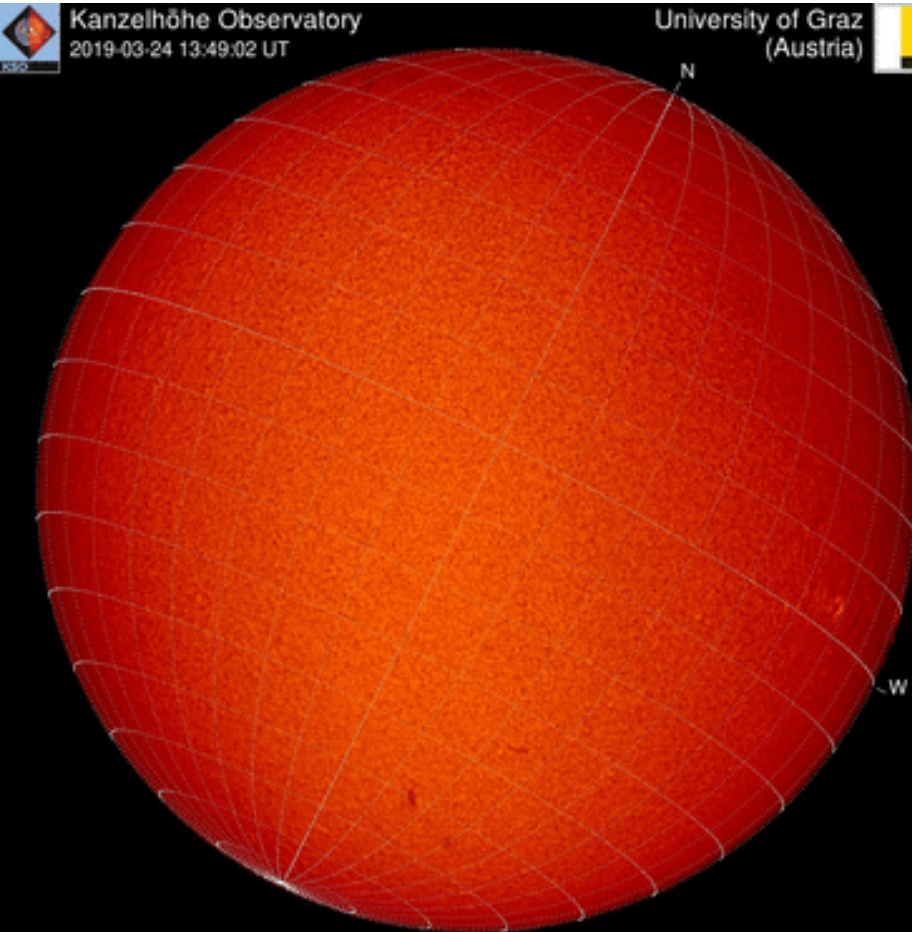


CHIMERA Coronal Holes at 25-Mar-2019 20:24:40.840 UT

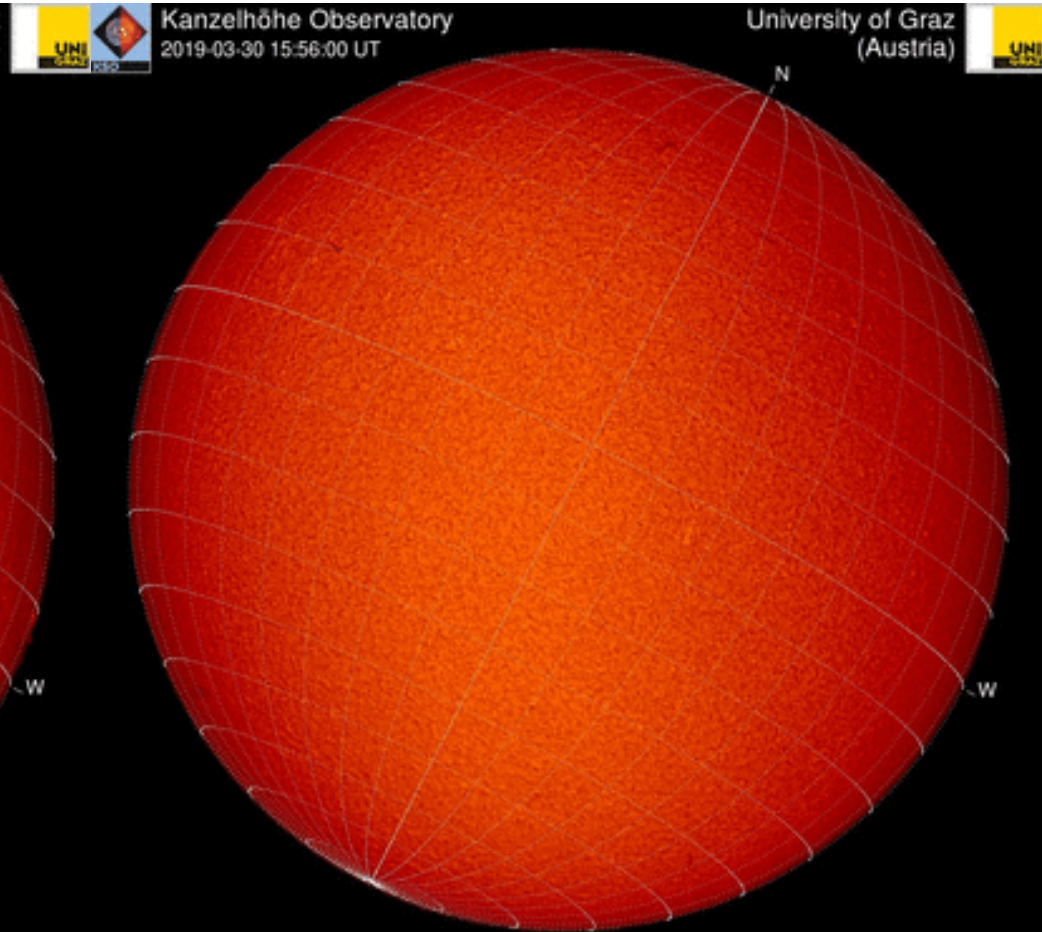


Filament & Filament eruption

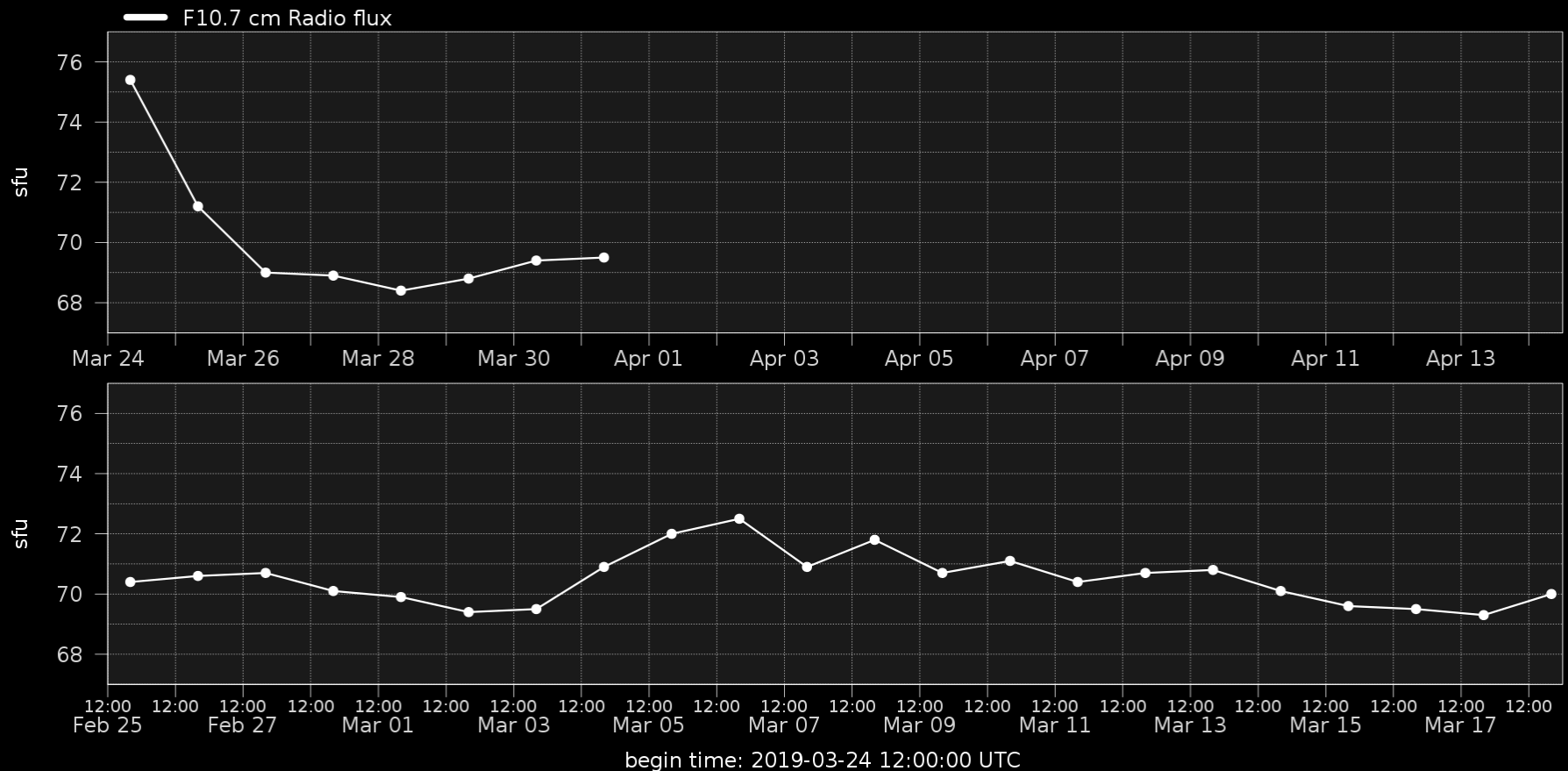
H-alpha 2019-03-24



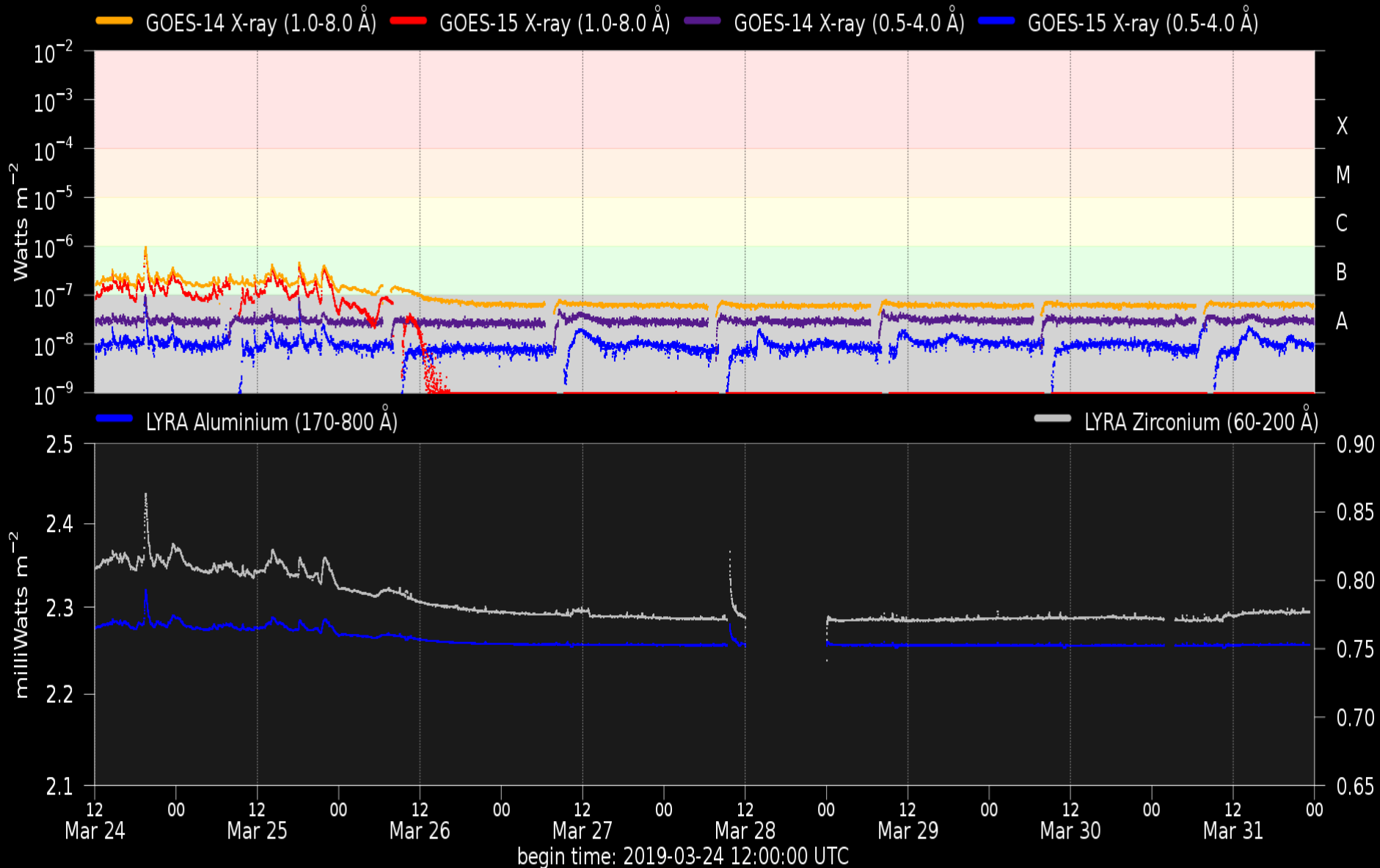
H-alpha 2019-03-31



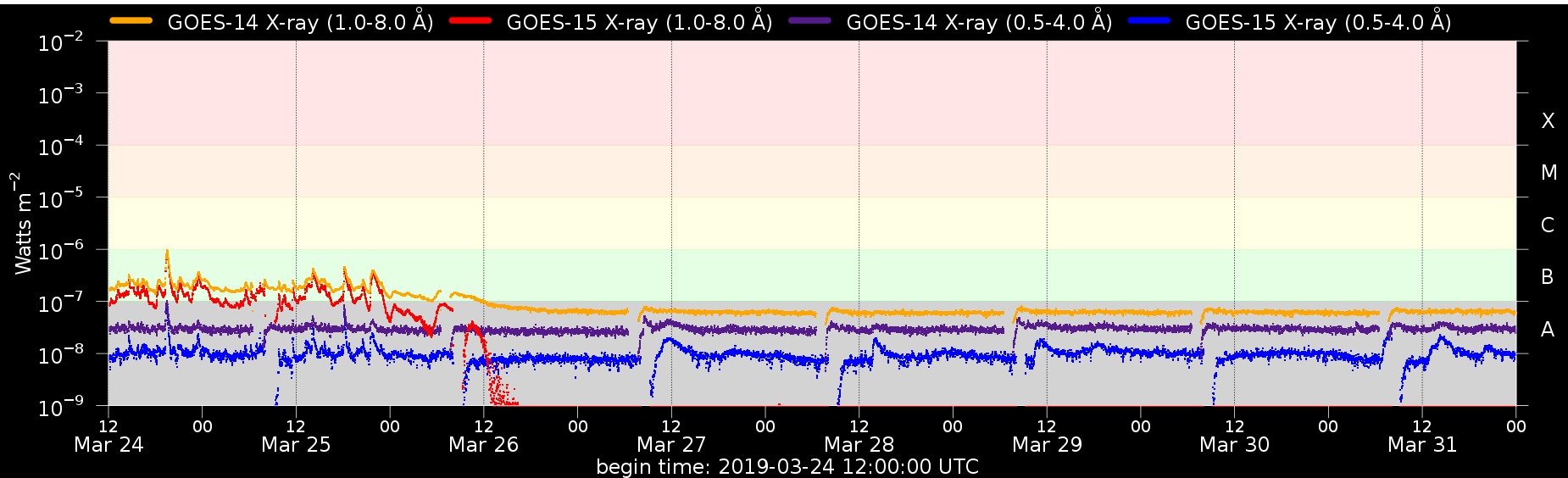
Solar F10.7cm radio flux



Solar X-Ray and UV flux



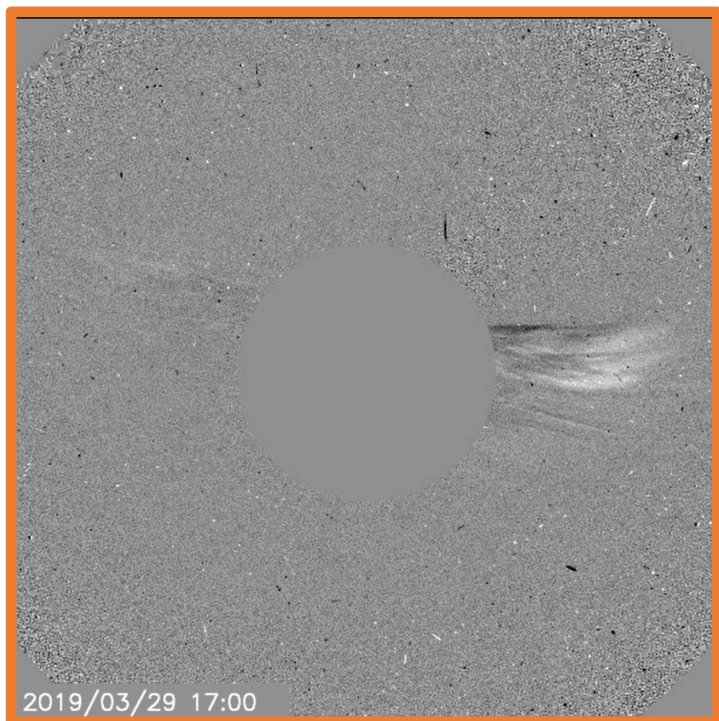
Flaring activity



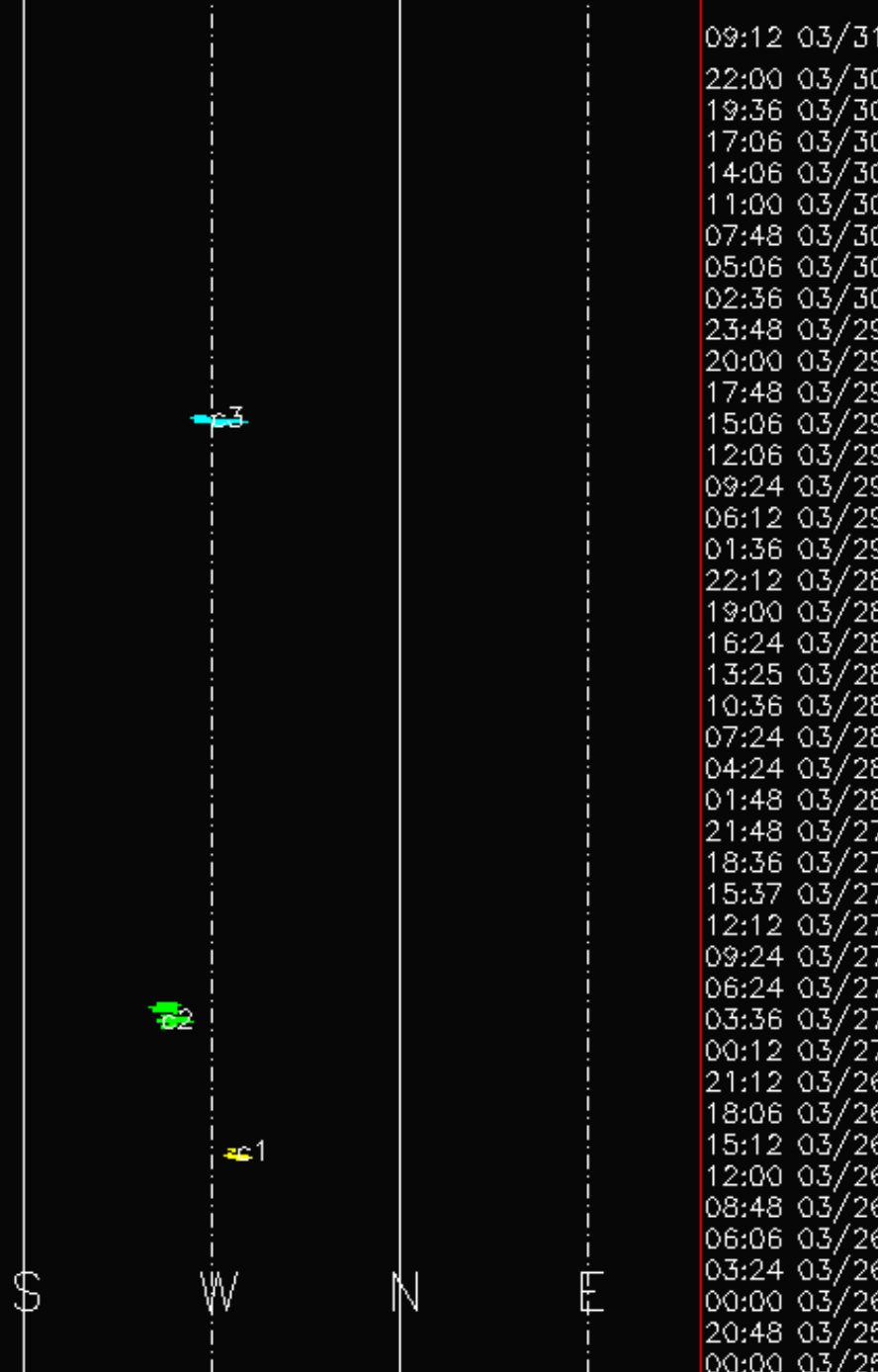
- Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2019-03-24	2019-03-25	2019-03-26	2019-03-27	2019-03-28	2019-03-29	2019-03-30	2019-03-31
Probability	--- 45 05 01	--- 05 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01
Observed	13 00 00 00	08 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00

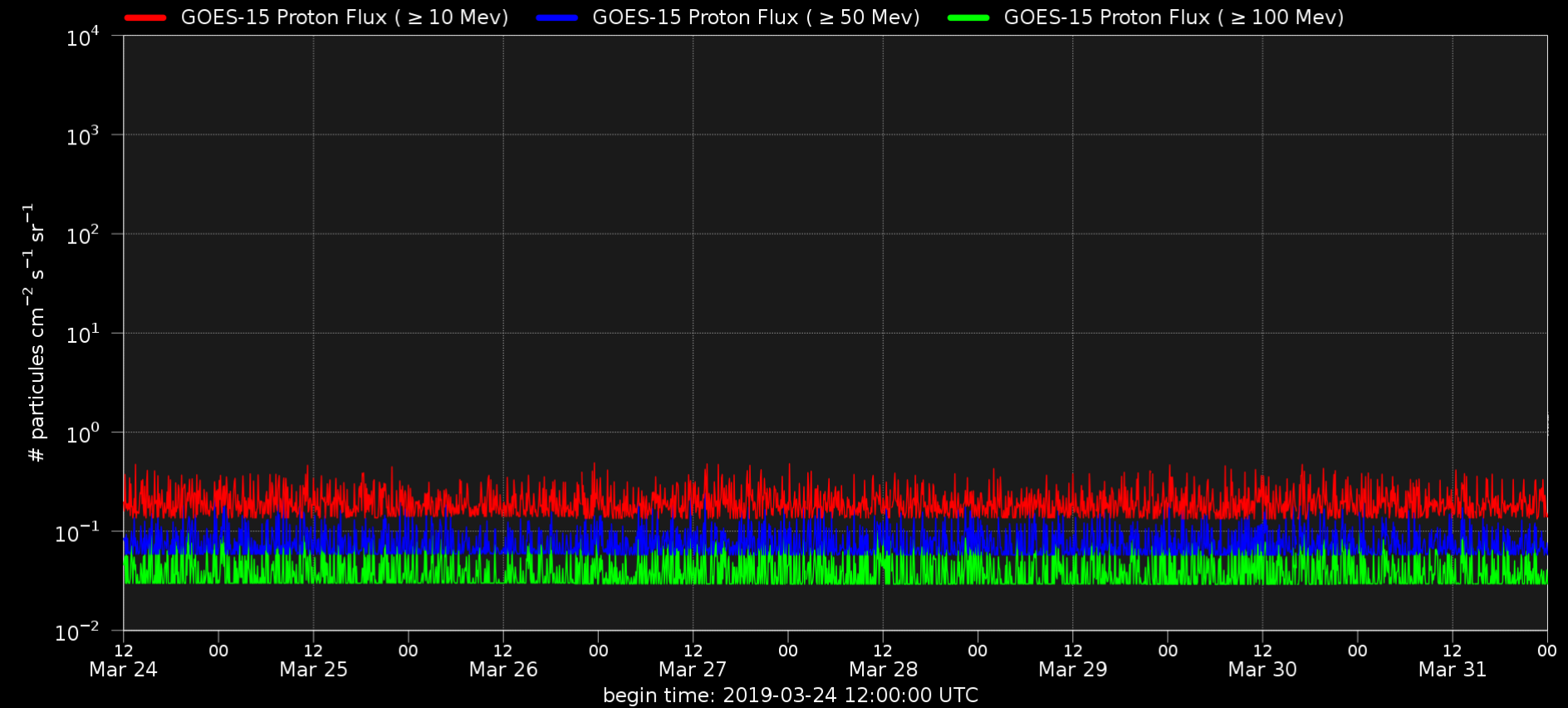
Coronal Mass Ejections



No wide CMEs observed this week.



Solar proton flux



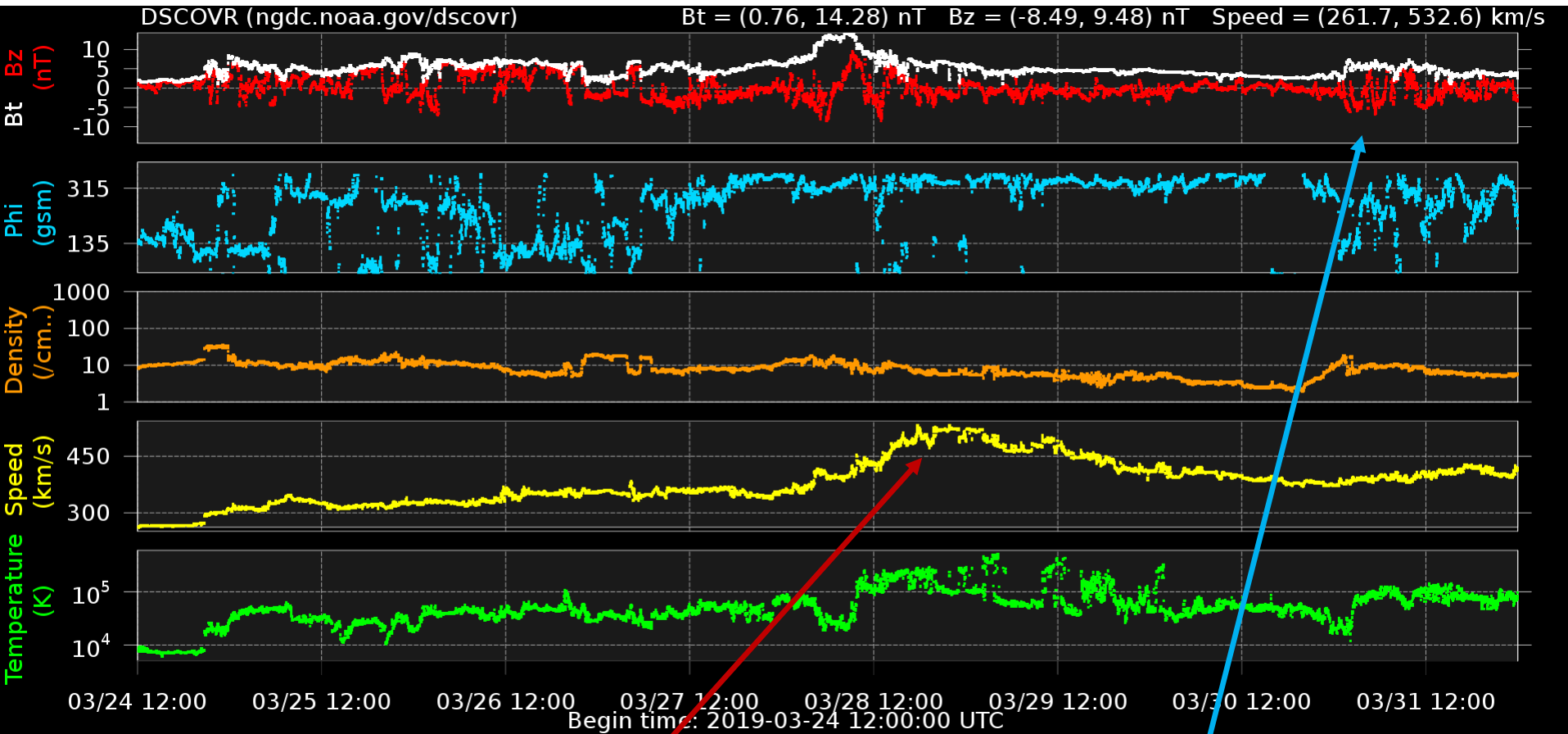
Solar Wind and Geomagnetic Activity



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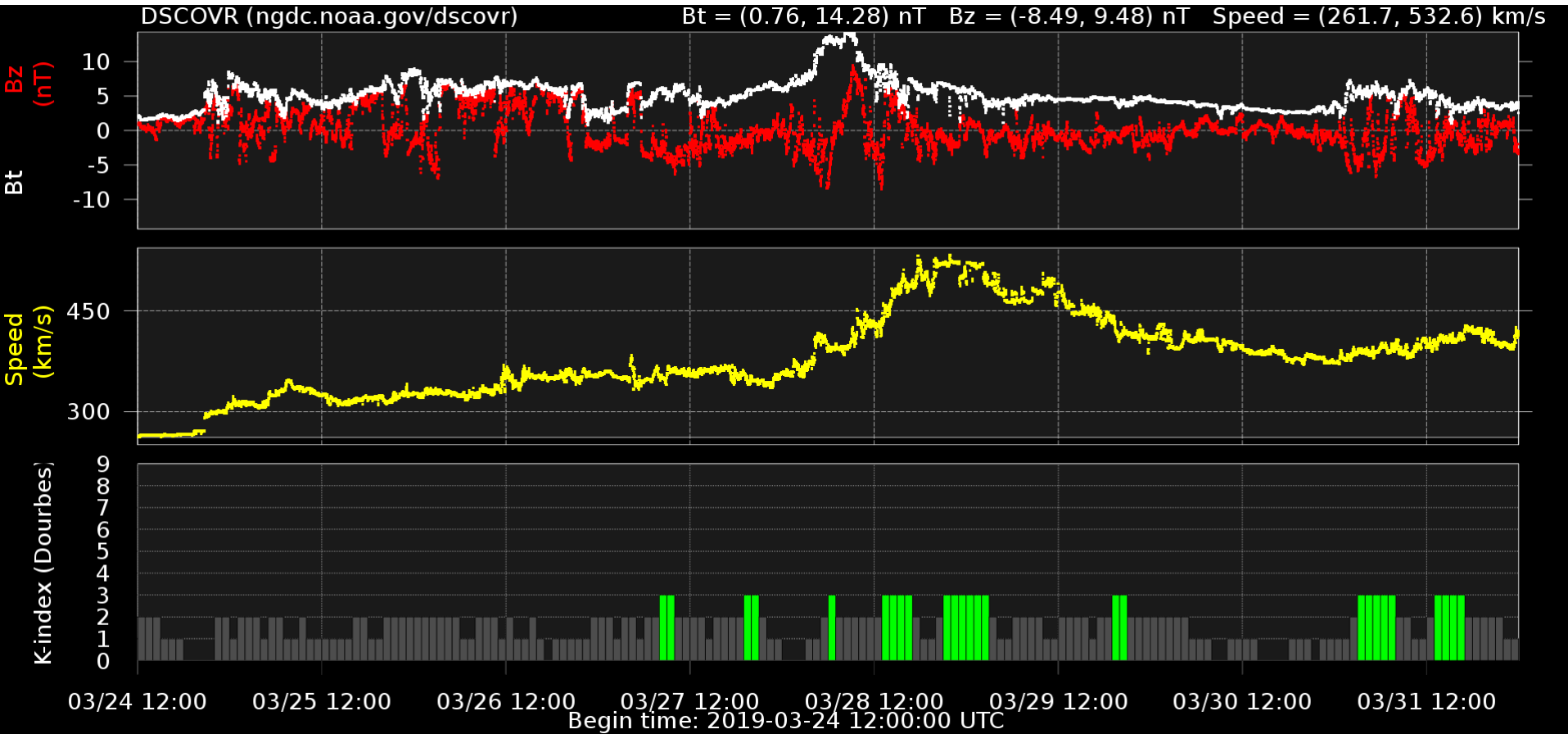
Solar wind parameters (DSCOVR data)



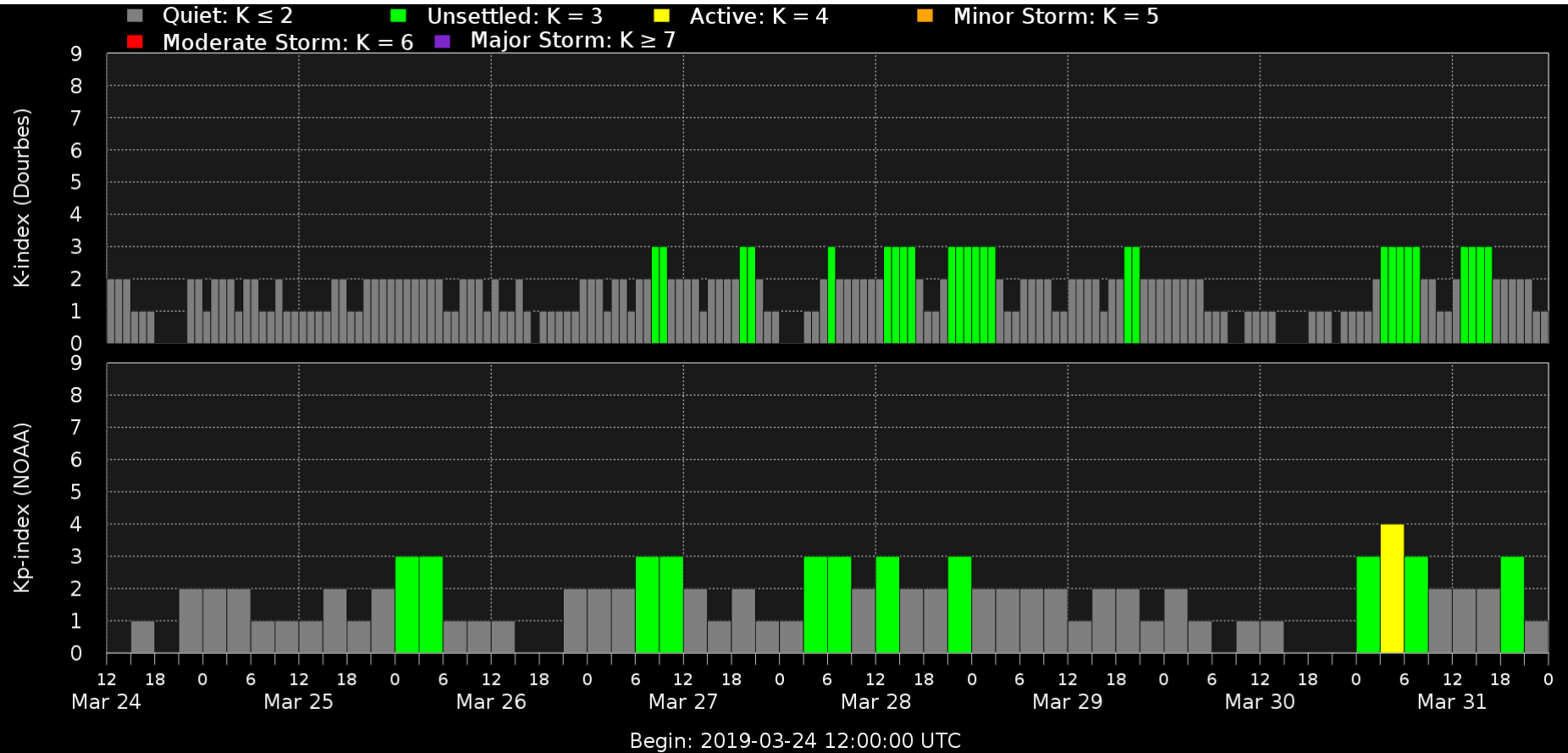
- Fast solar wind associated with negative polarity equatorial coronal hole (CH_1)
- CH reached central meridian on March 22

- Solar wind associated with negative polarity equatorial coronal hole (CH_2)?
- CH reached central meridian on March 25

Solar wind parameters & K-index (DSCOVR/Dourbes)



Geomagnetic activity (K-indexes)



Outlook

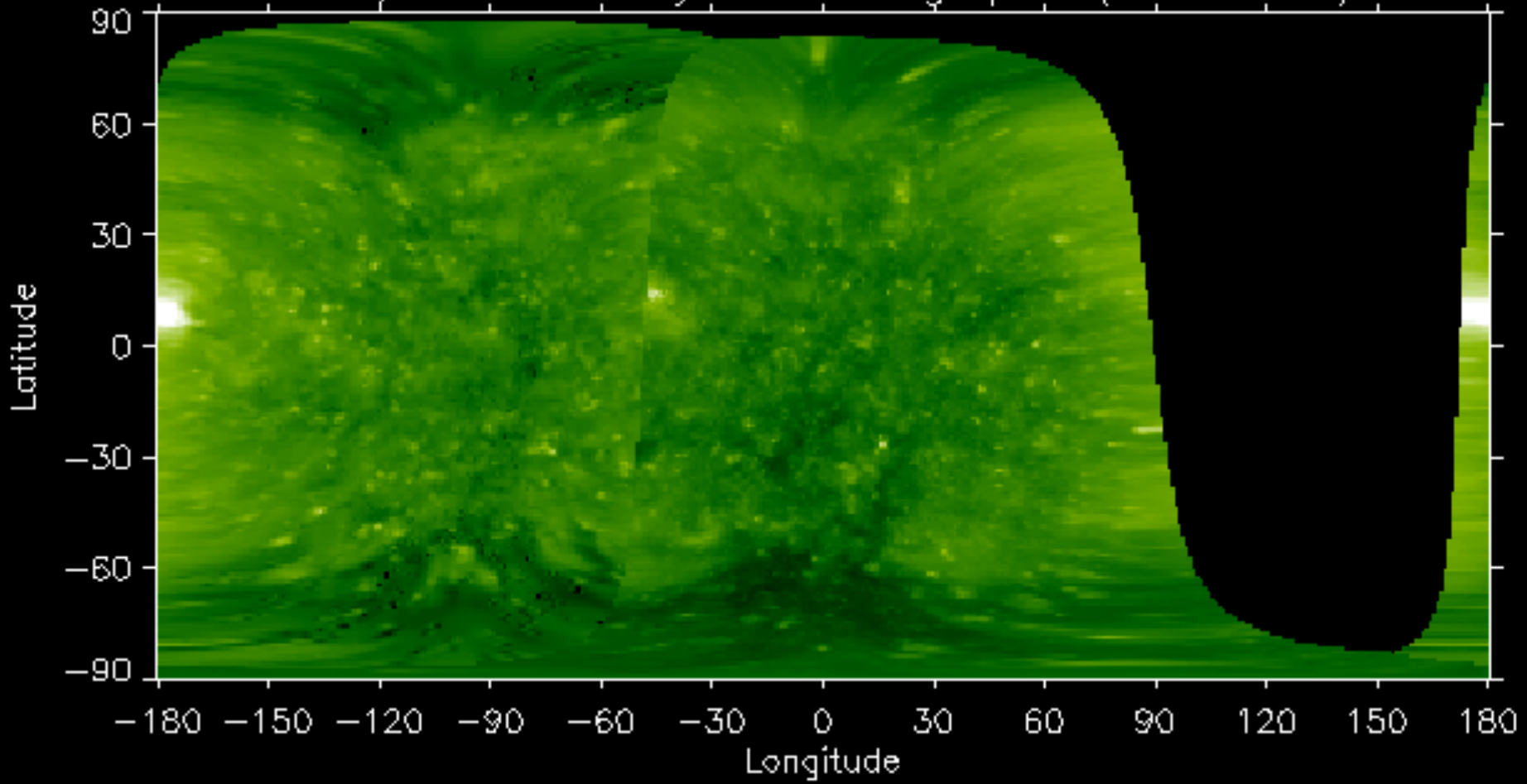


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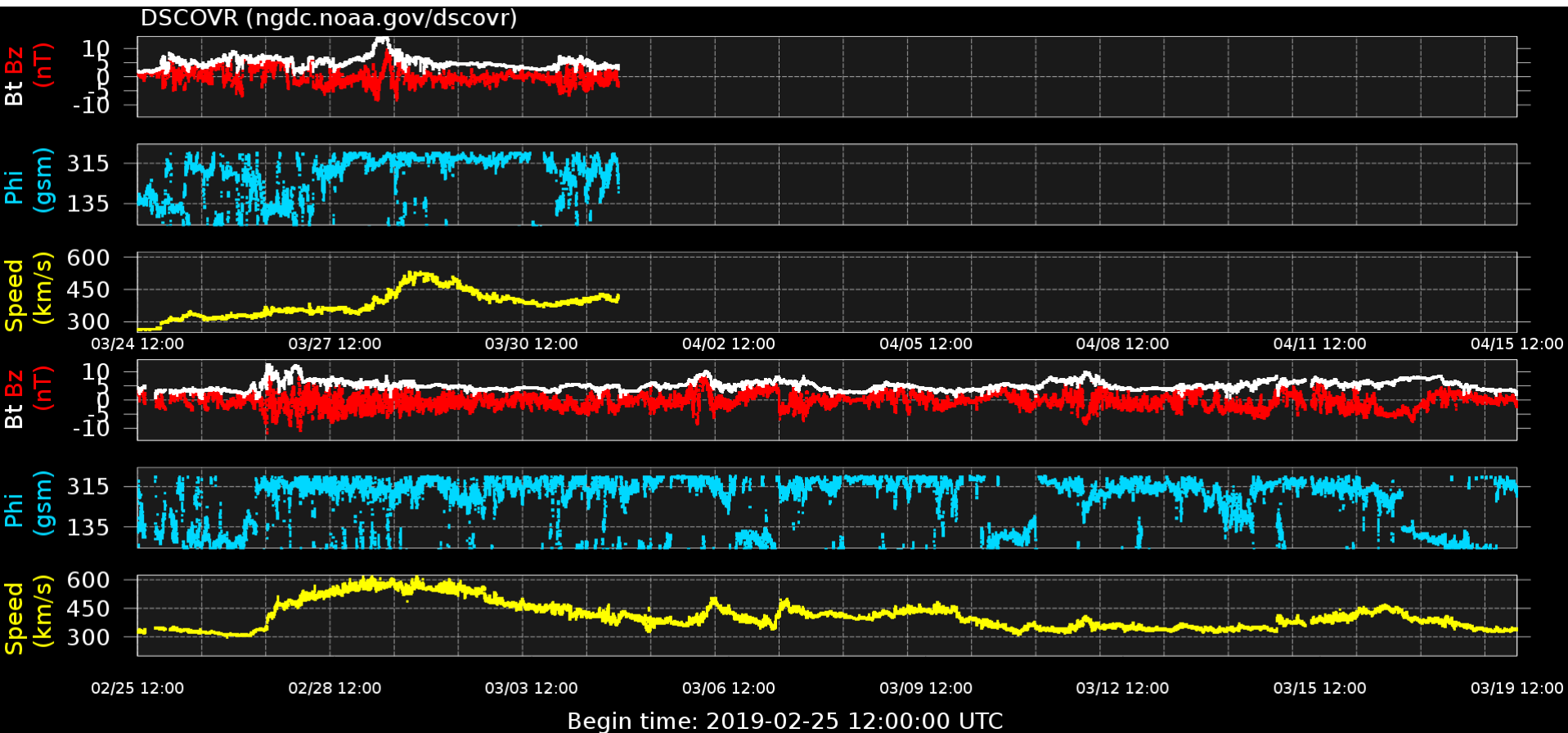
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Outlook: Solar activity

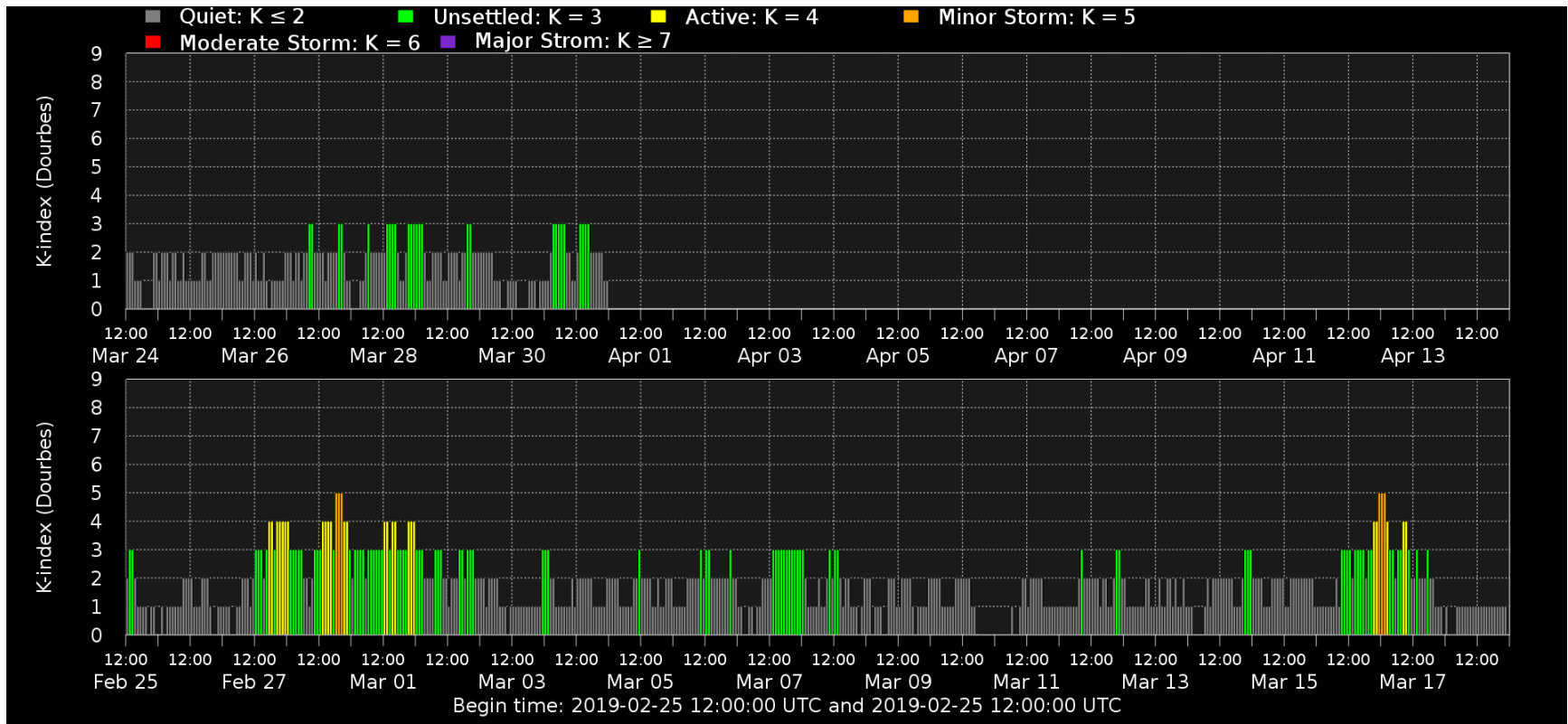
EUVI/AIA 195 Stonyhurst Heliographic (Earth-view)



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

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