

# SIDC Space Weather Briefing

14 April 2019 - 21 April 2019

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& the SIDC forecaster team



Royal Observatory  
of Belgium

Solar Influences  
Data analysis Centre  
[www.sidc.be](http://www.sidc.be)

# Summary Report

Solar activity from 2019-04-14 12:00 UT to 2019-04-21 12:00 UT

Active regions	NOAA 2738 (Hhx) and NOAA 2739 (Dro)
Flaring	# B-class flare: 7 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	No significant filaments
CMEs	Some CMEs associated with B-class flaring; No earth-directed CMEs
Proton Events	Nominal values

Solar wind and geomagnetic conditions from 2019-04-14 12:00 UT to 2019-04-21 12:00 UT

Coronal Holes	One positive polarity (polar extension) and one negative polarity (equatorial)
ICME	None recorded in solar wind data
SW Conditions	Mostly at nominal values
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 3

All Quiet Alert: ON since 9 April

# Solar Activity

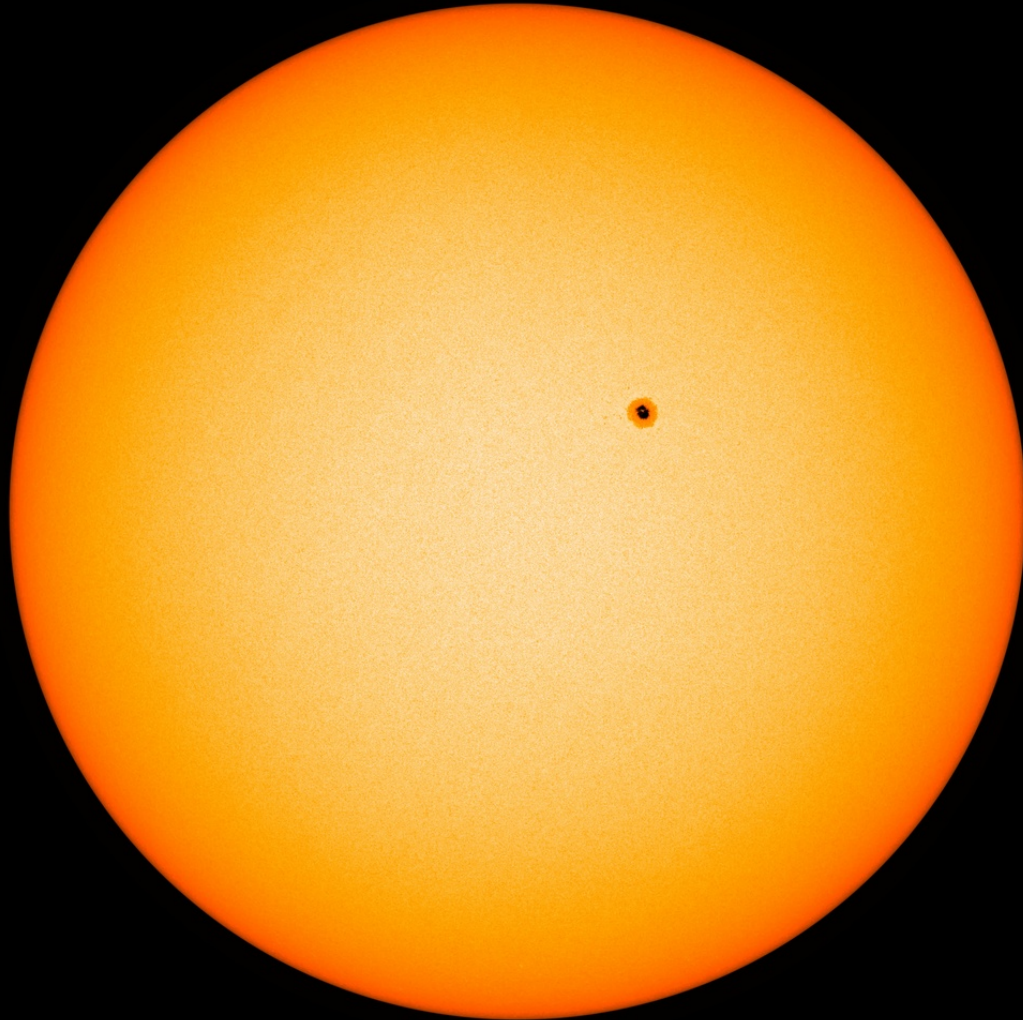


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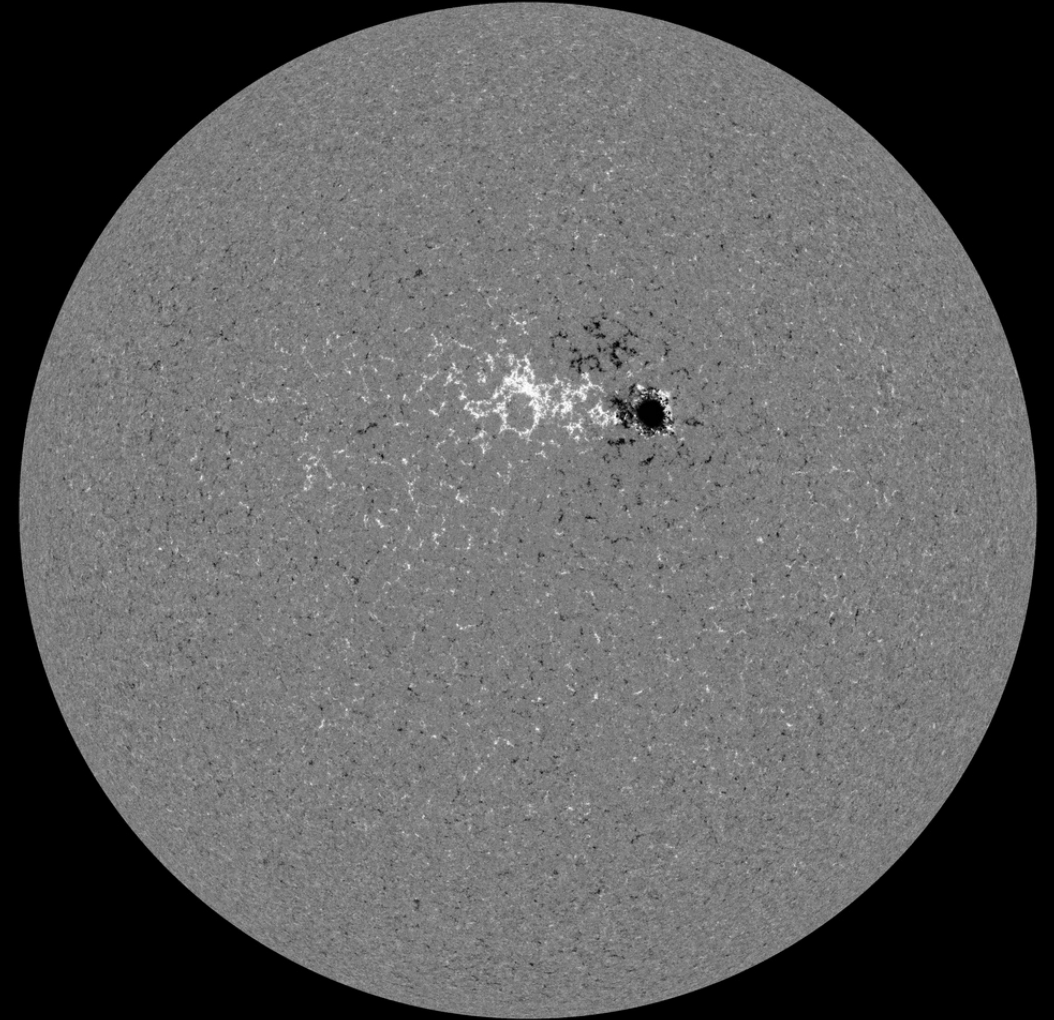
# Solar active regions - start of the week

SDO/HMI White Light 2019-04-14



SDO/HMI Quick-Look Continuum: 20190414\_114500

SDO/HMI Magnetogram 2019-04-14

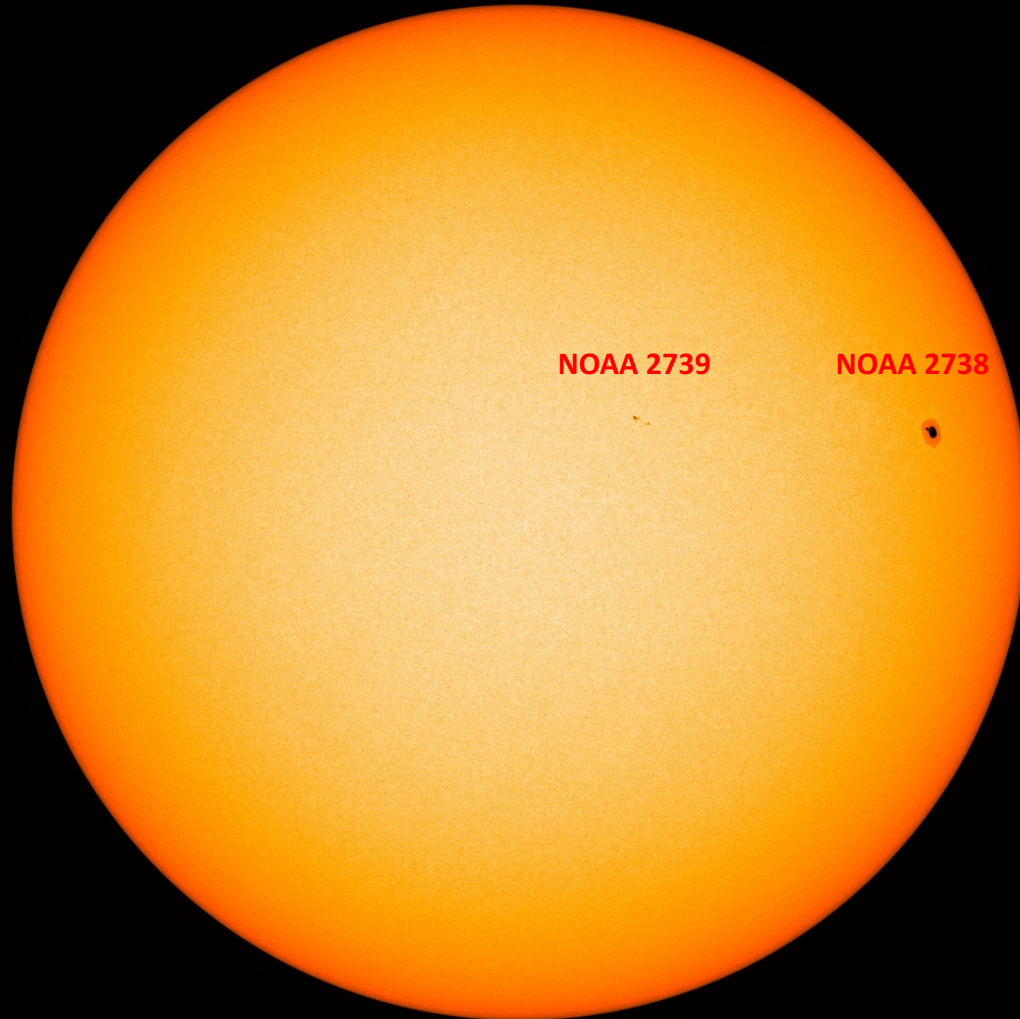


SDO/HMI Quick-Look Magnetogram: 20190414\_114500

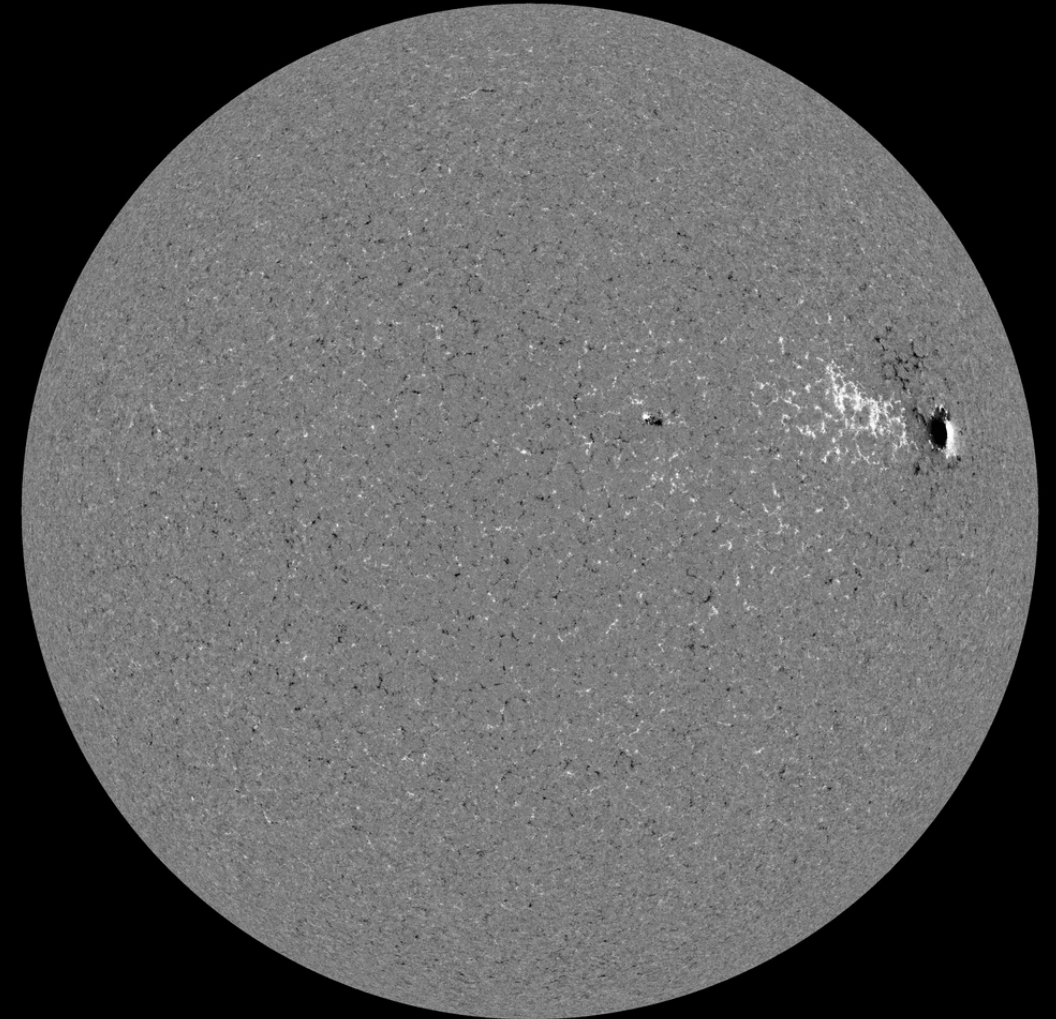


# Solar active regions - middle of the week

SDO/HMI White Light 2019-04-17



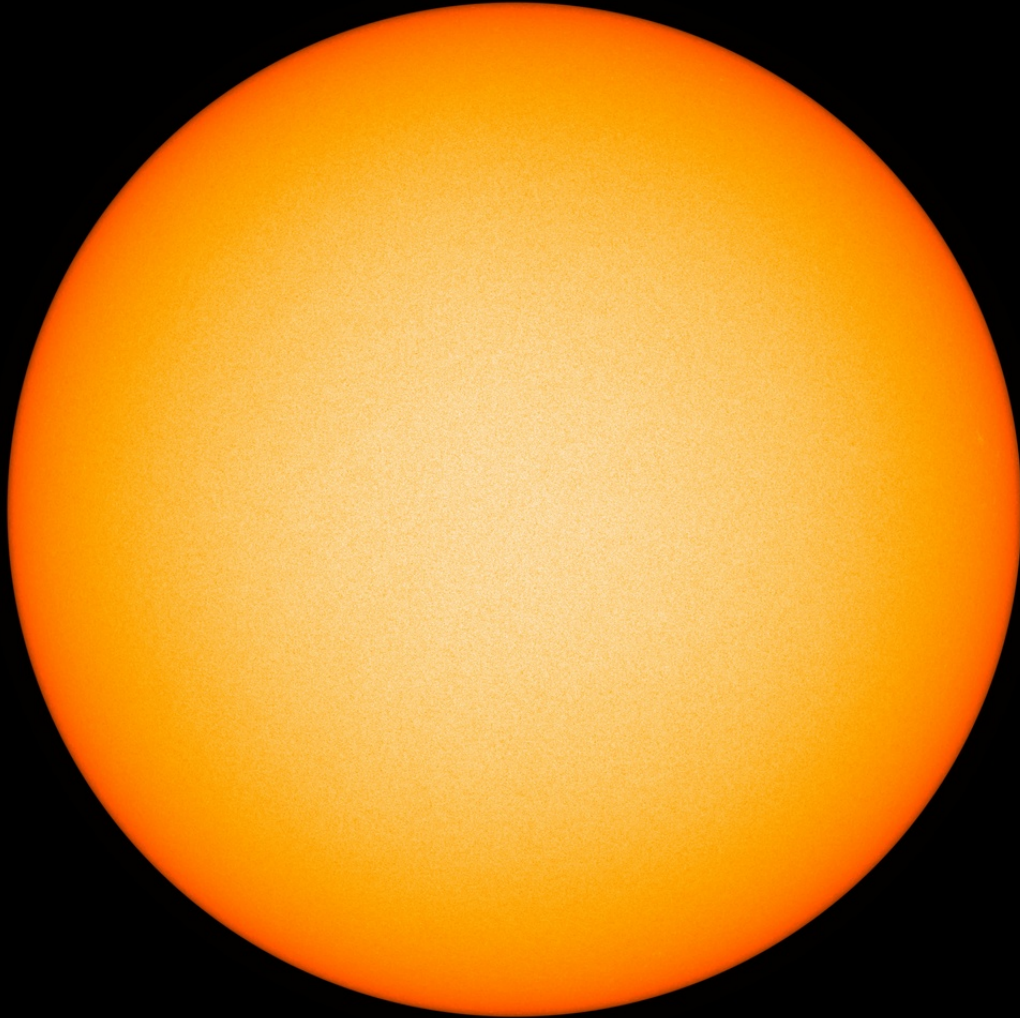
SDO/HMI Magnetogram 2019-04-17





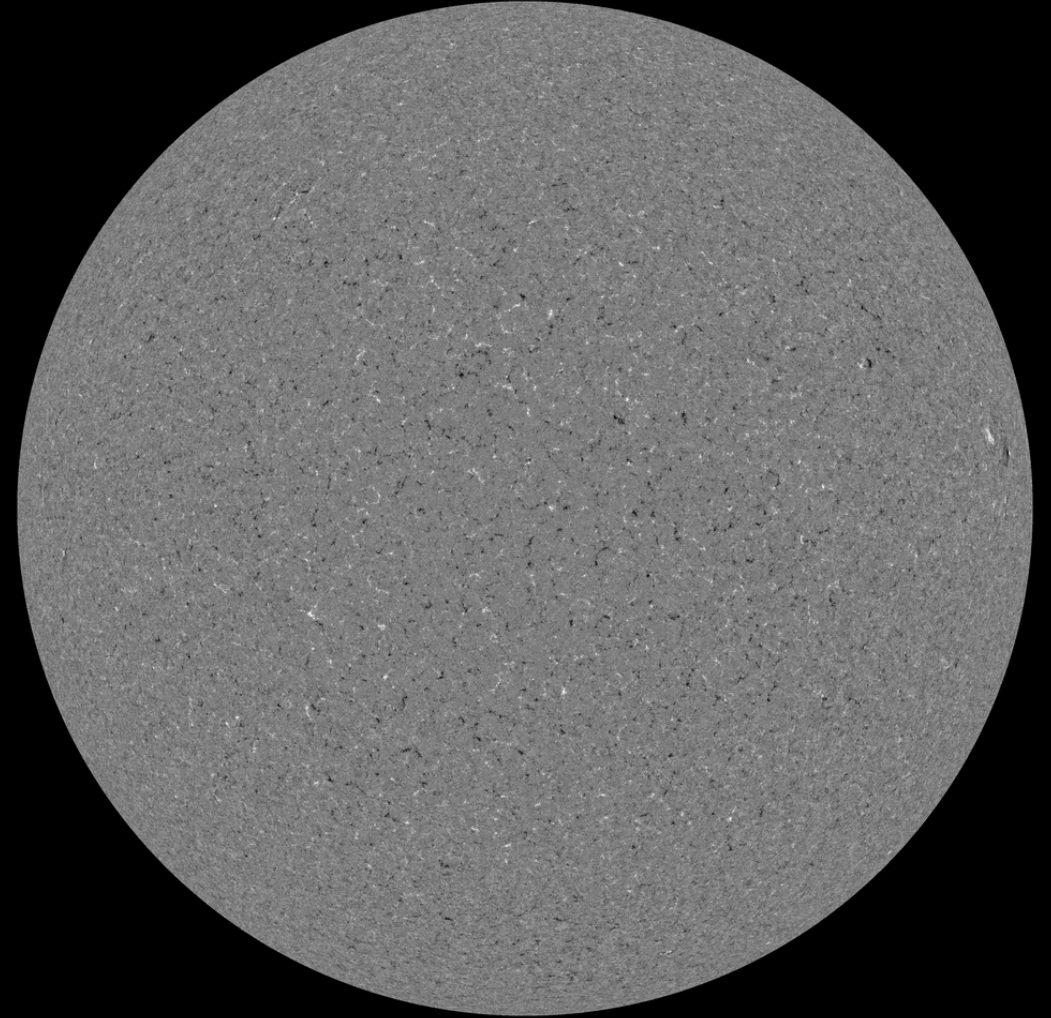
# Solar active regions - end of the week

SDO/HMI White Light 2019-04-21



SDO/HMI Quick-Look Continuum: 20190421\_114500

SDO/HMI Magnetogram 2019-04-21



SDO/HMI Quick-Look Magnetogram: 20190421\_114500



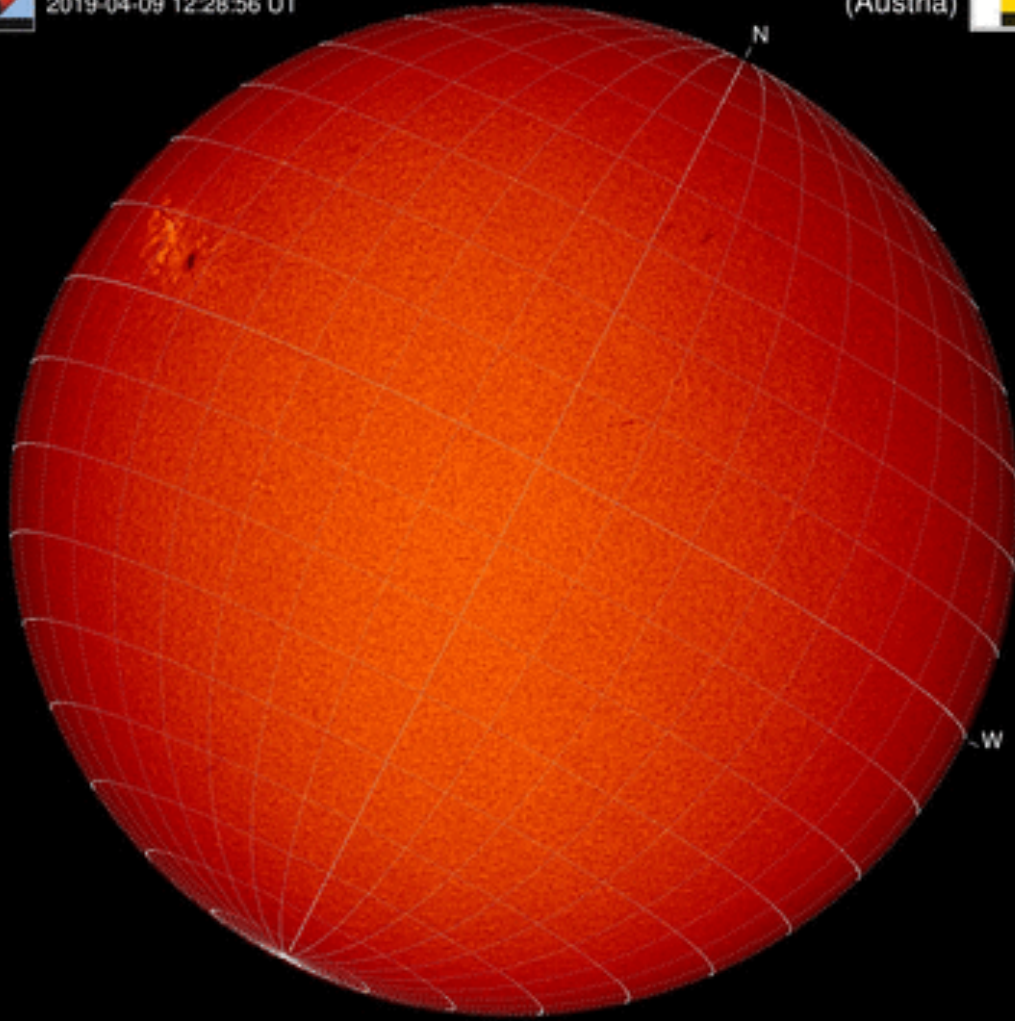
# Filaments & Filament eruptions

H-alpha 2019-04-09



Kanzelhöhe Observatory  
2019-04-09 12:28:56 UT

University of Graz  
(Austria)

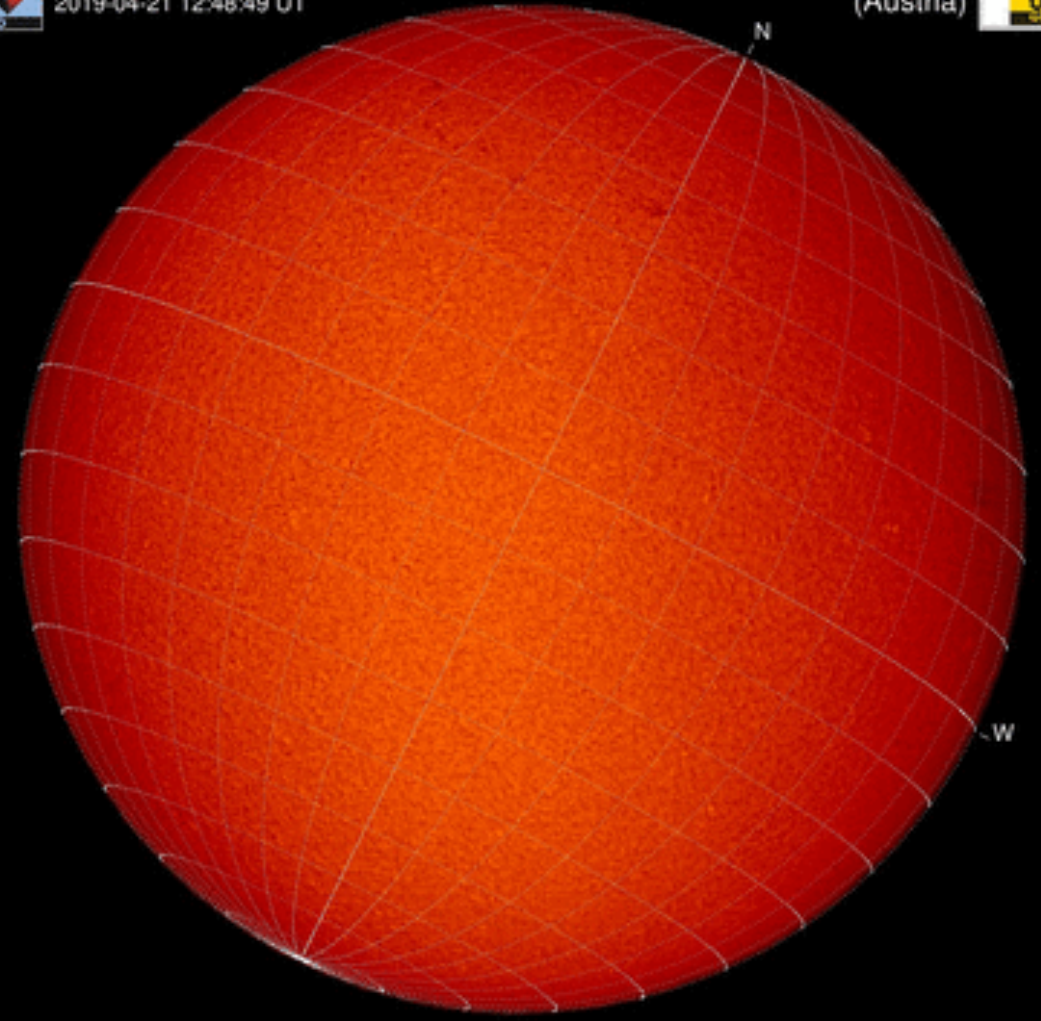


H-alpha 2019-04-21

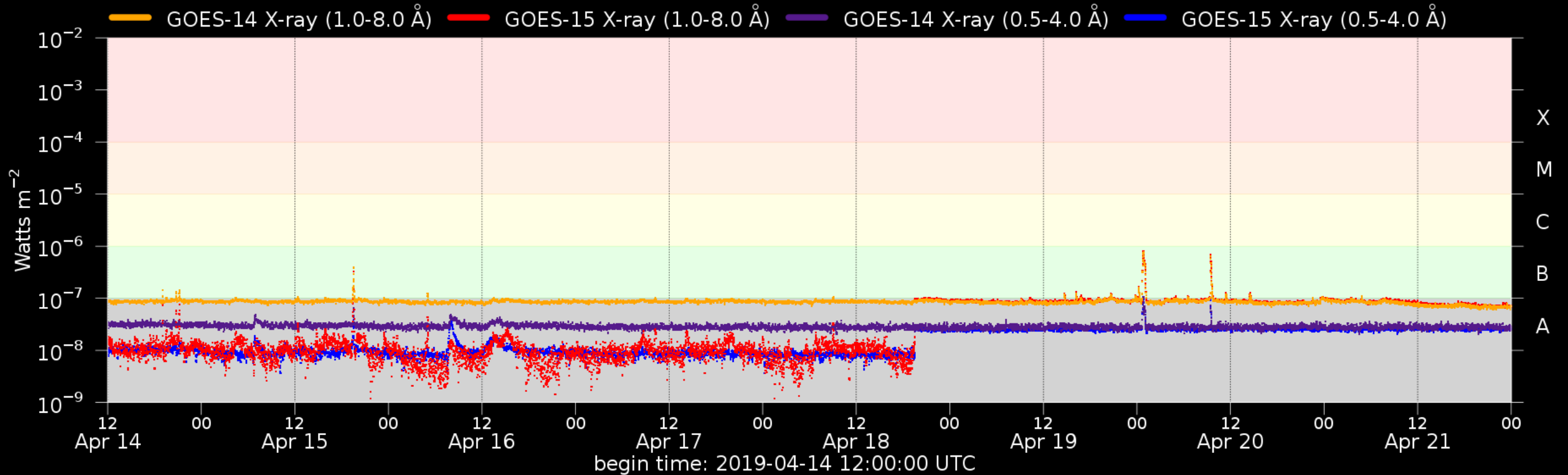


Kanzelhöhe Observatory  
2019-04-21 12:48:49 UT

University of Graz  
(Austria)



# Flaring activity

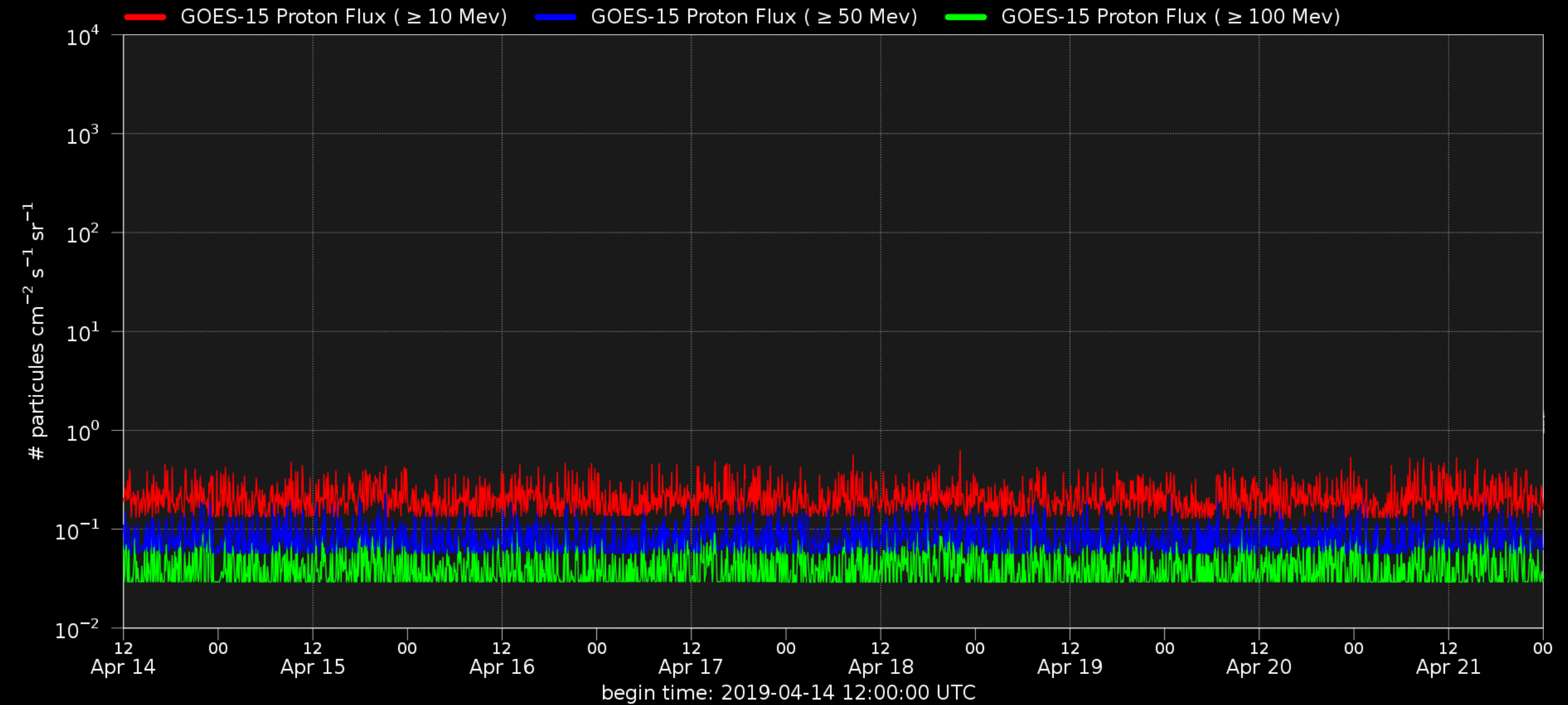


Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

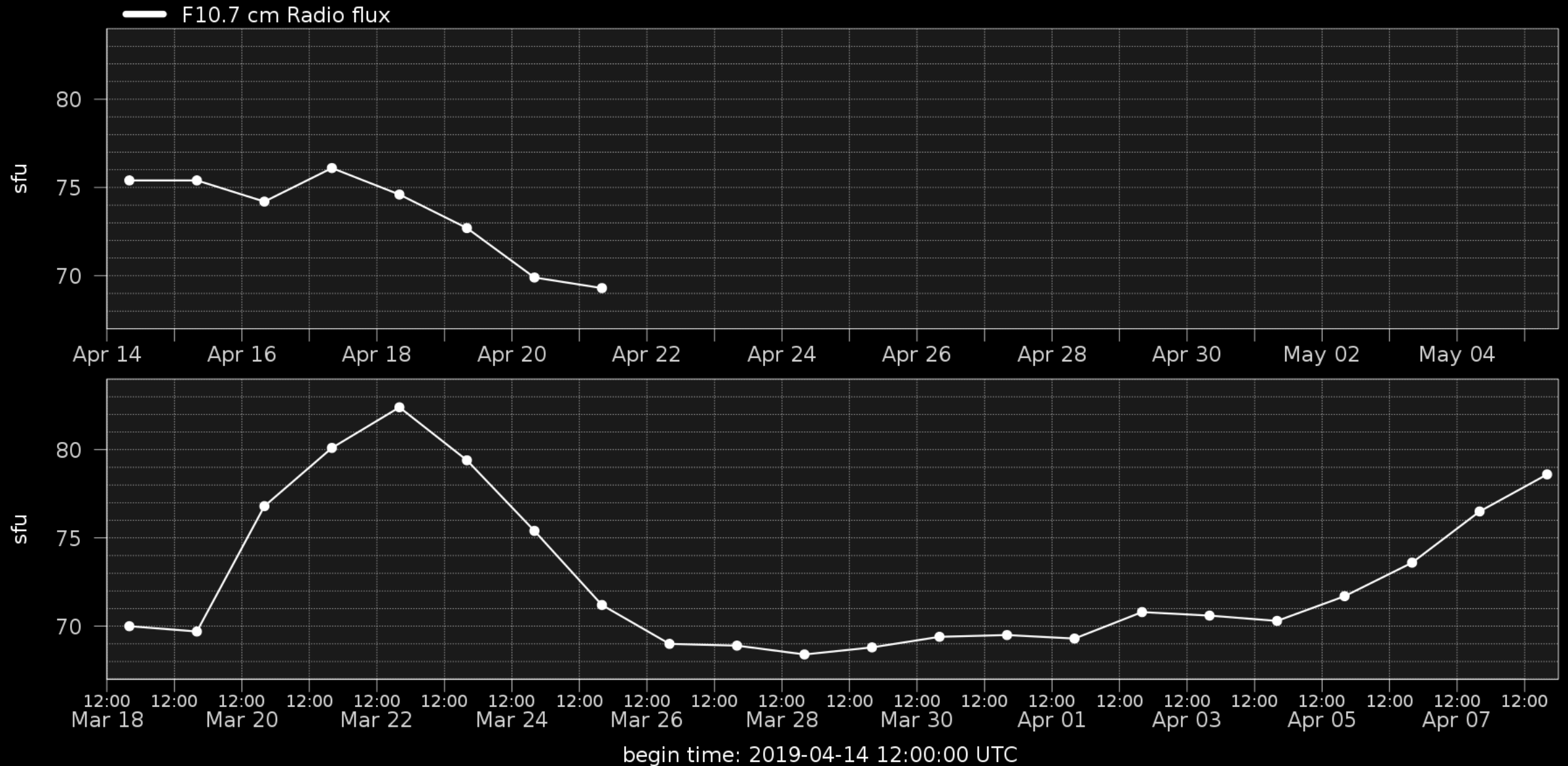
Issue date	2019-04-14	2019-04-15	2019-04-16	2019-04-17	2019-04-18	2019-04-19	2019-04-20	2019-04-21
Probability	--- 25 01 01	--- 15 01 01	--- 15 01 01	--- 10 01 01	--- 10 01 01	--- 10 01 01	--- 05 01 01	--- 01 01 01
Observed	00 00 00 00	01 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	06 00 00 00	00 00 00 00	00 00 00 00



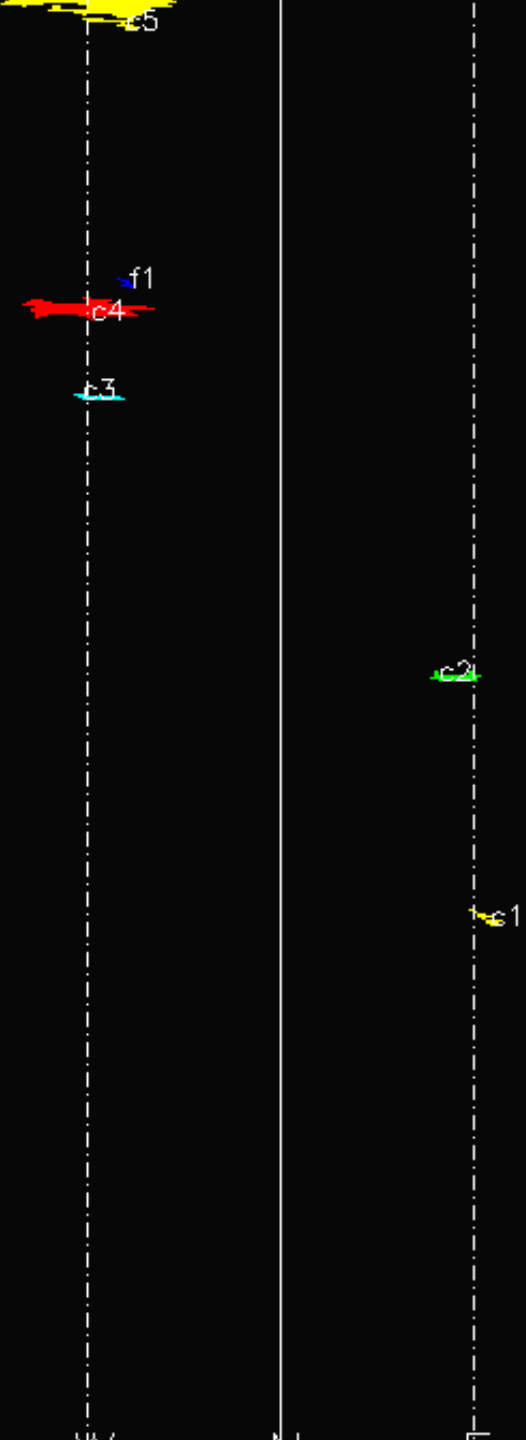
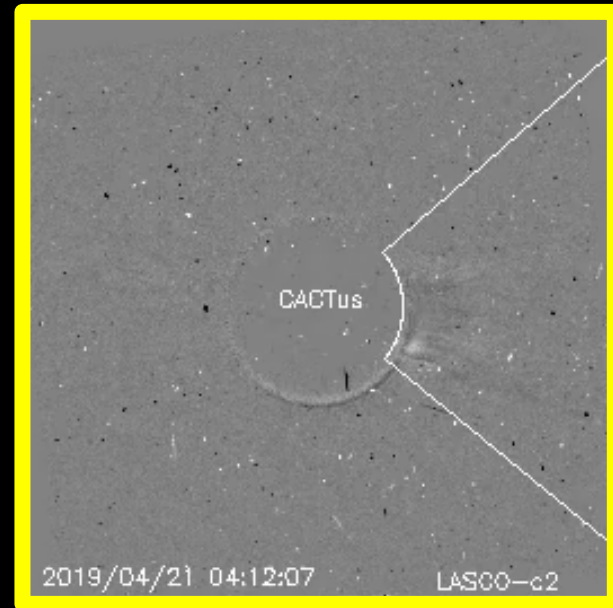
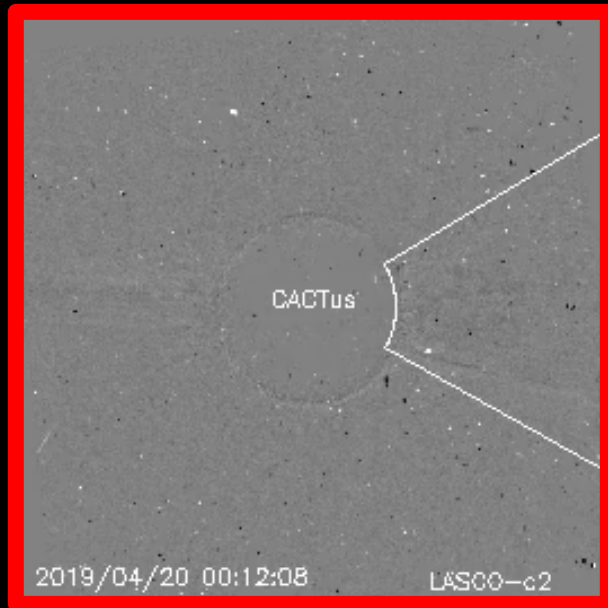
# Solar proton flux



# Solar F10.7cm radio flux



# Coronal Mass Ejections

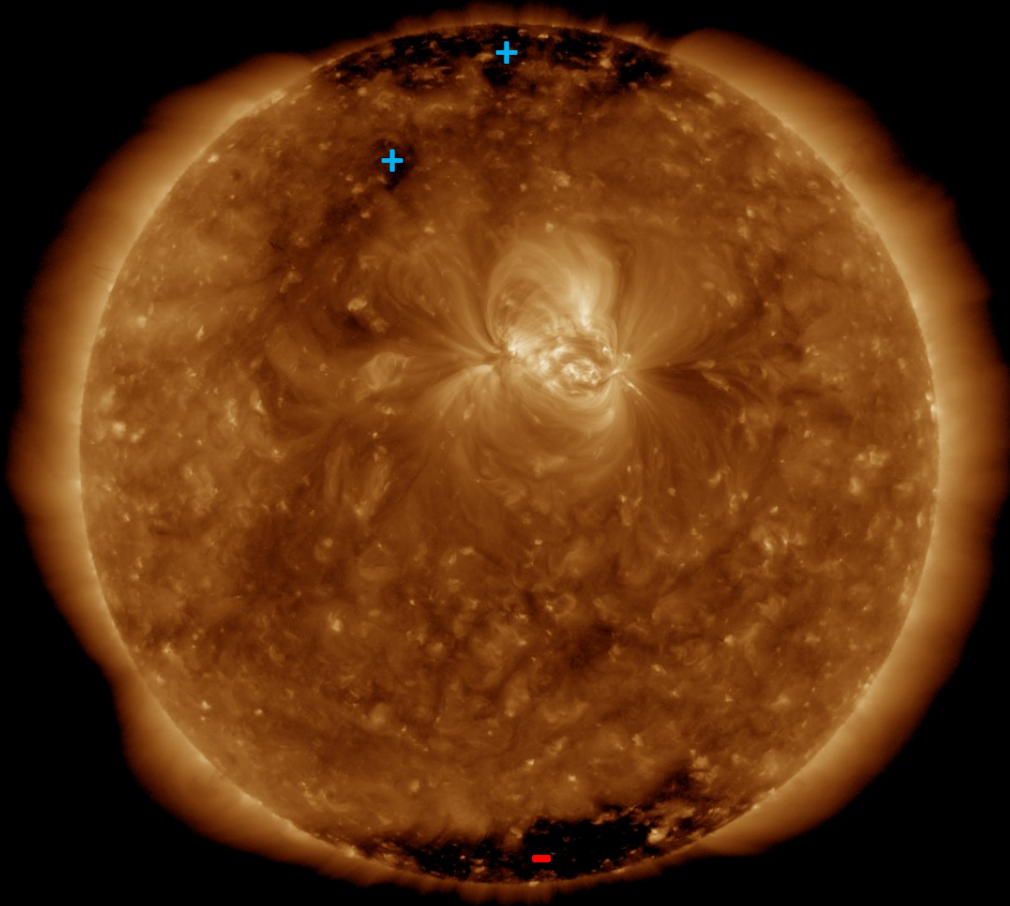


02:48 04/21  
23:48 04/20  
20:24 04/20  
17:24 04/20  
15:12 04/20  
12:00 04/20  
09:24 04/20  
06:12 04/20  
03:36 04/20  
00:36 04/20  
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10:00 04/15



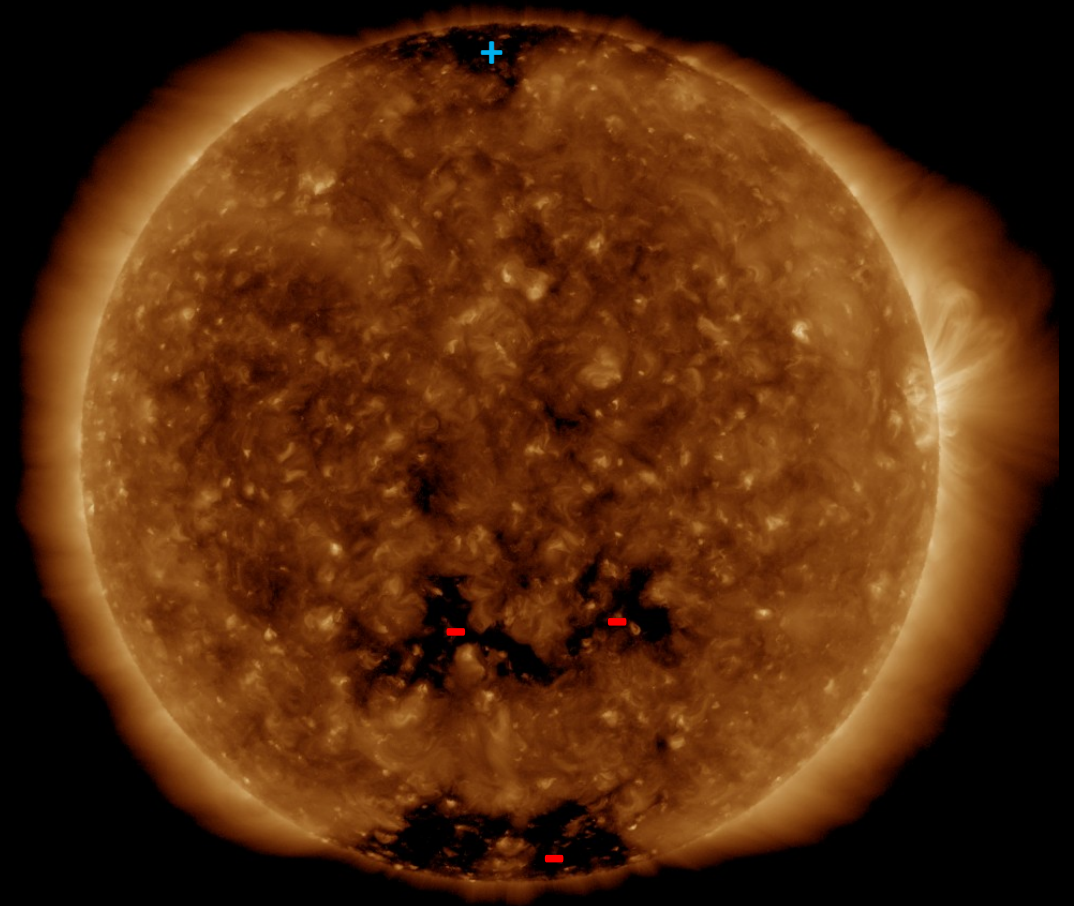
# Coronal holes

SDO/AIA 19.3 nm 2019-04-14



SDO/AIA 193 2019-04-14 12:12:05 UT

SDO/AIA 19.3 nm 2019-04-21



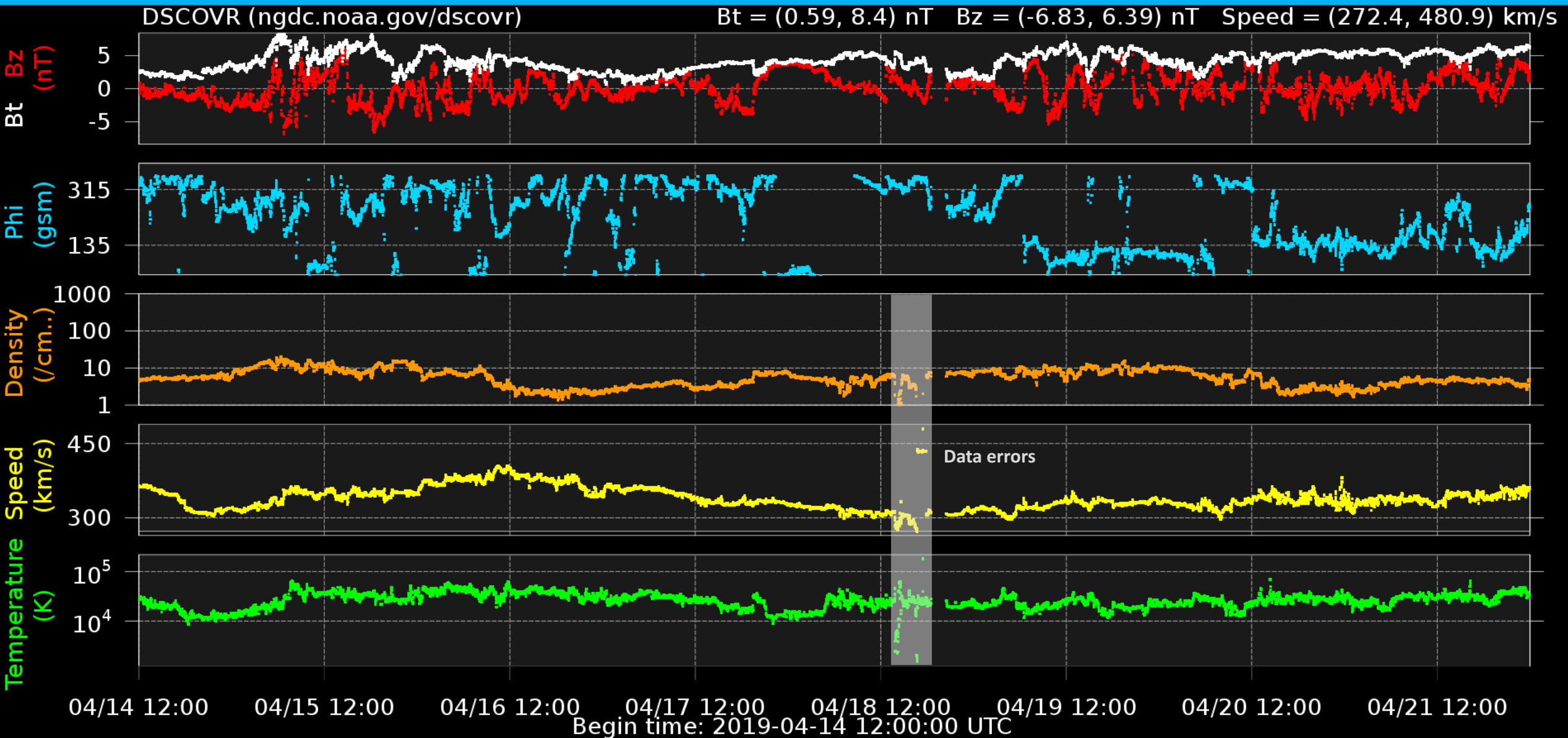
SDO/AIA 193 2019-04-21 12:10:17 UT

# Solar Wind and Geomagnetic Activity



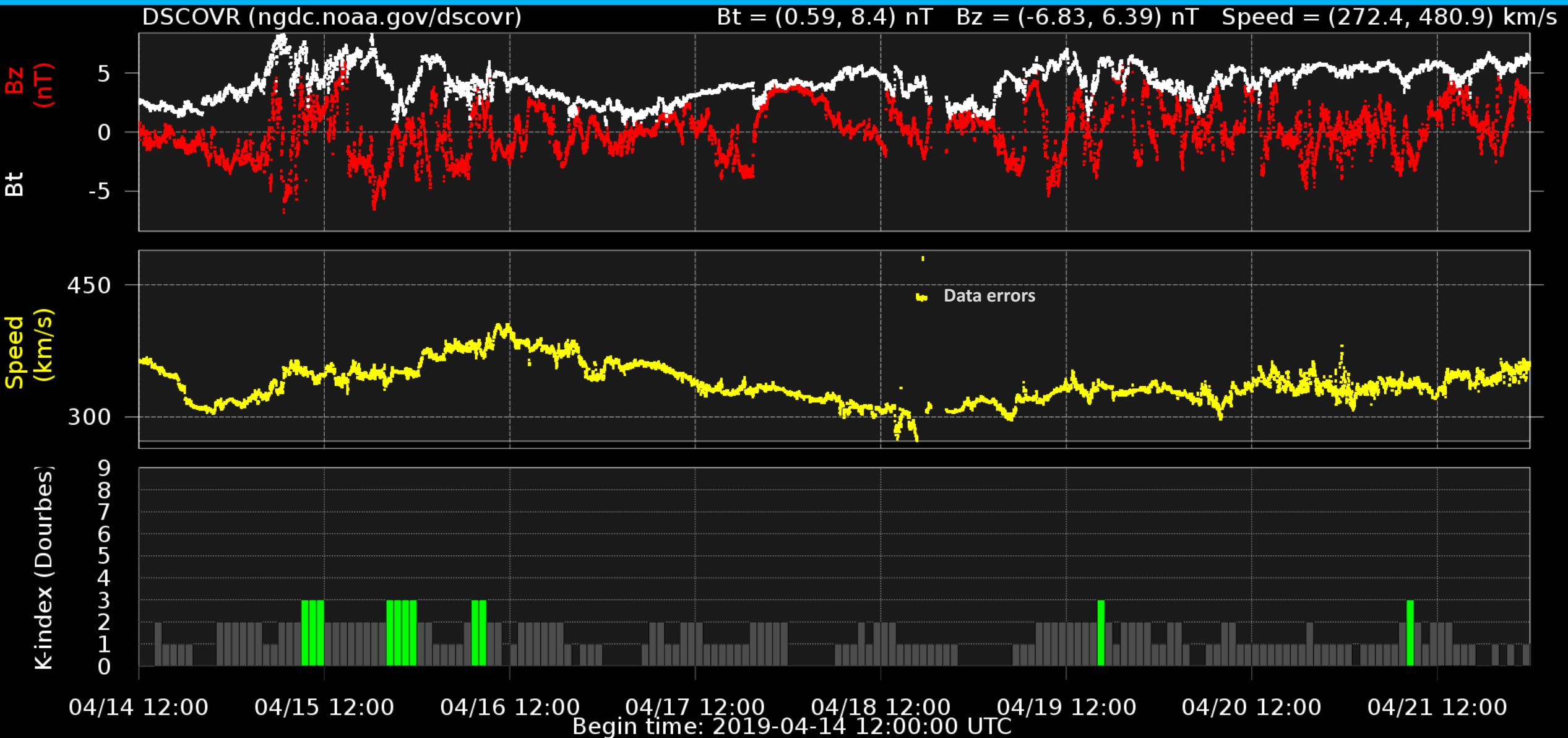
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# Solar wind parameters (DSCOVR data)

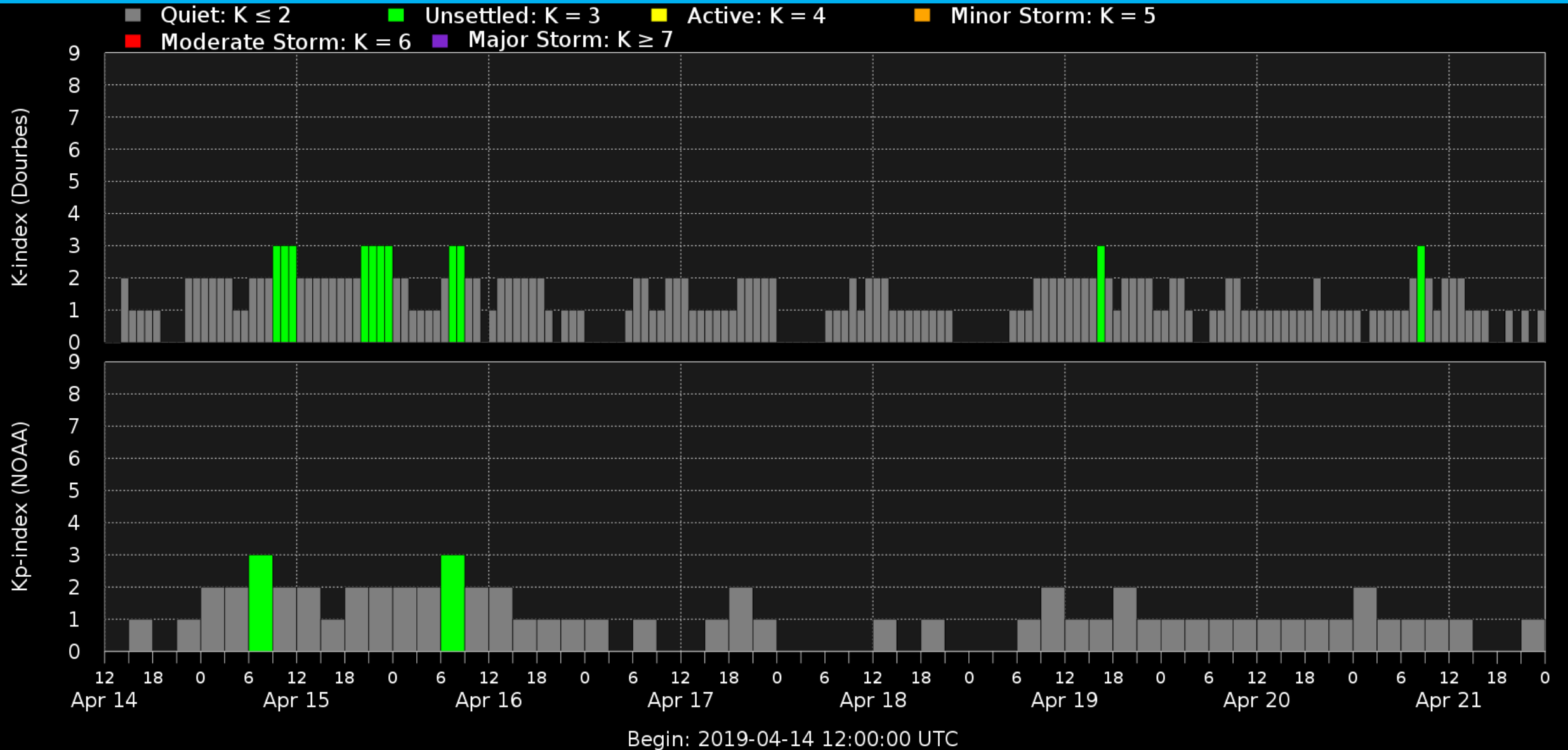




# Solar wind parameters & K-index (DSCOVR/Dourbes)



# Geomagnetic activity (K-indexes)



# Outlook

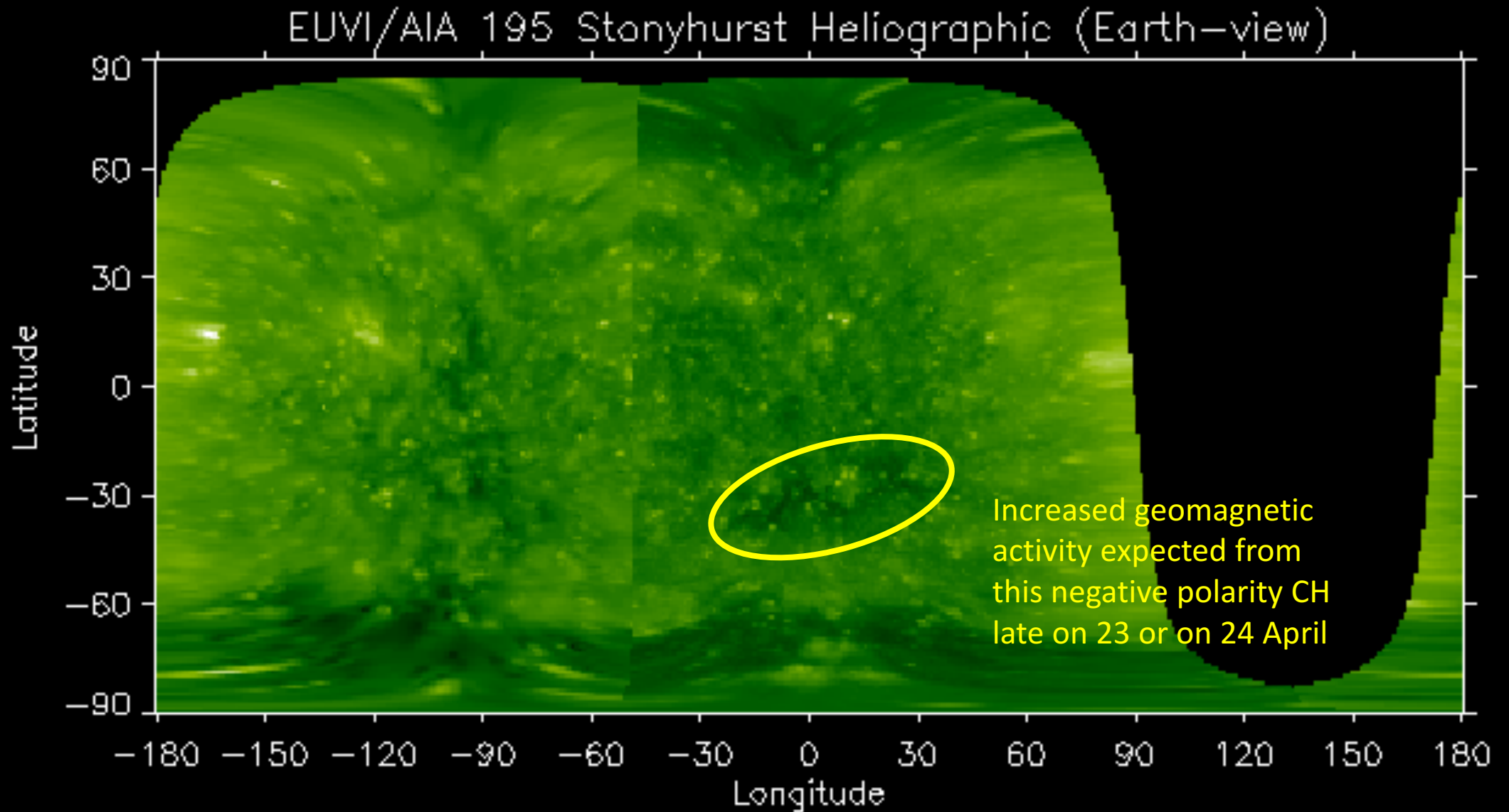


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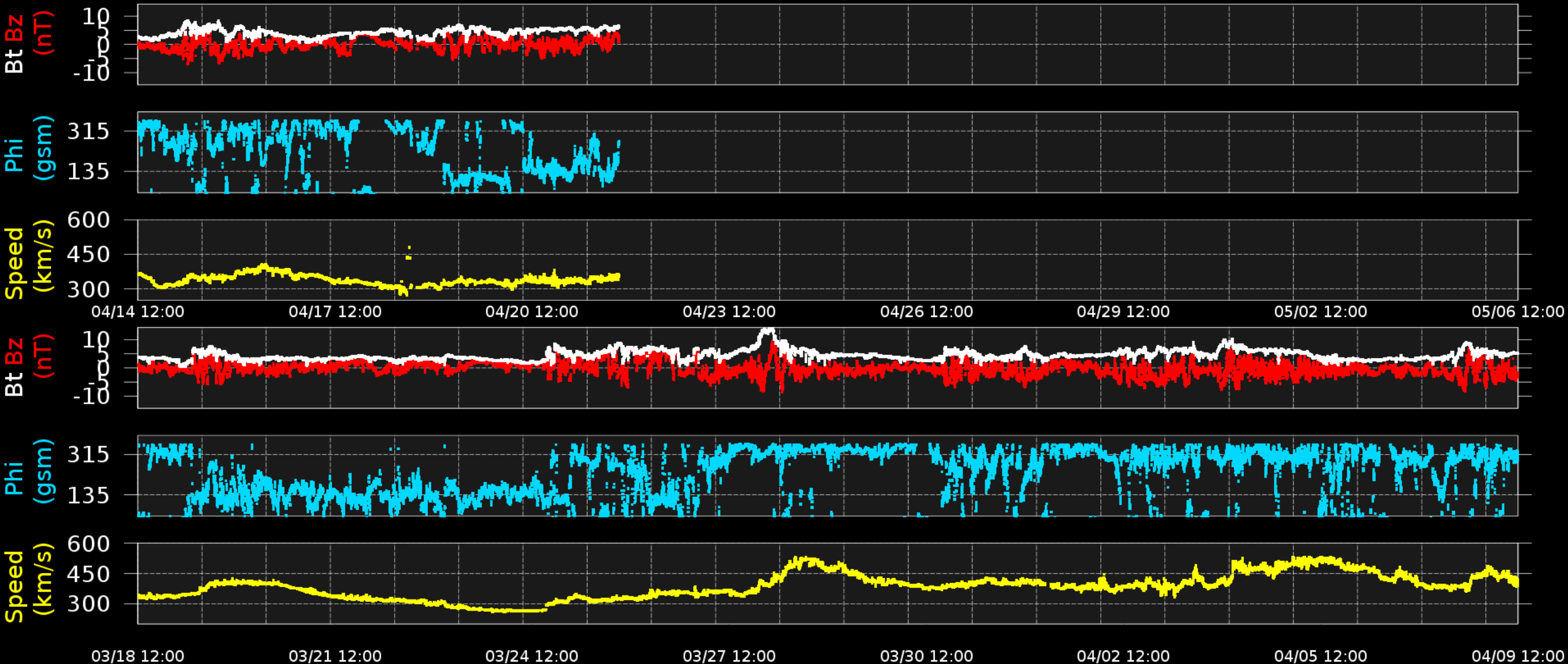


# Outlook: Solar activity



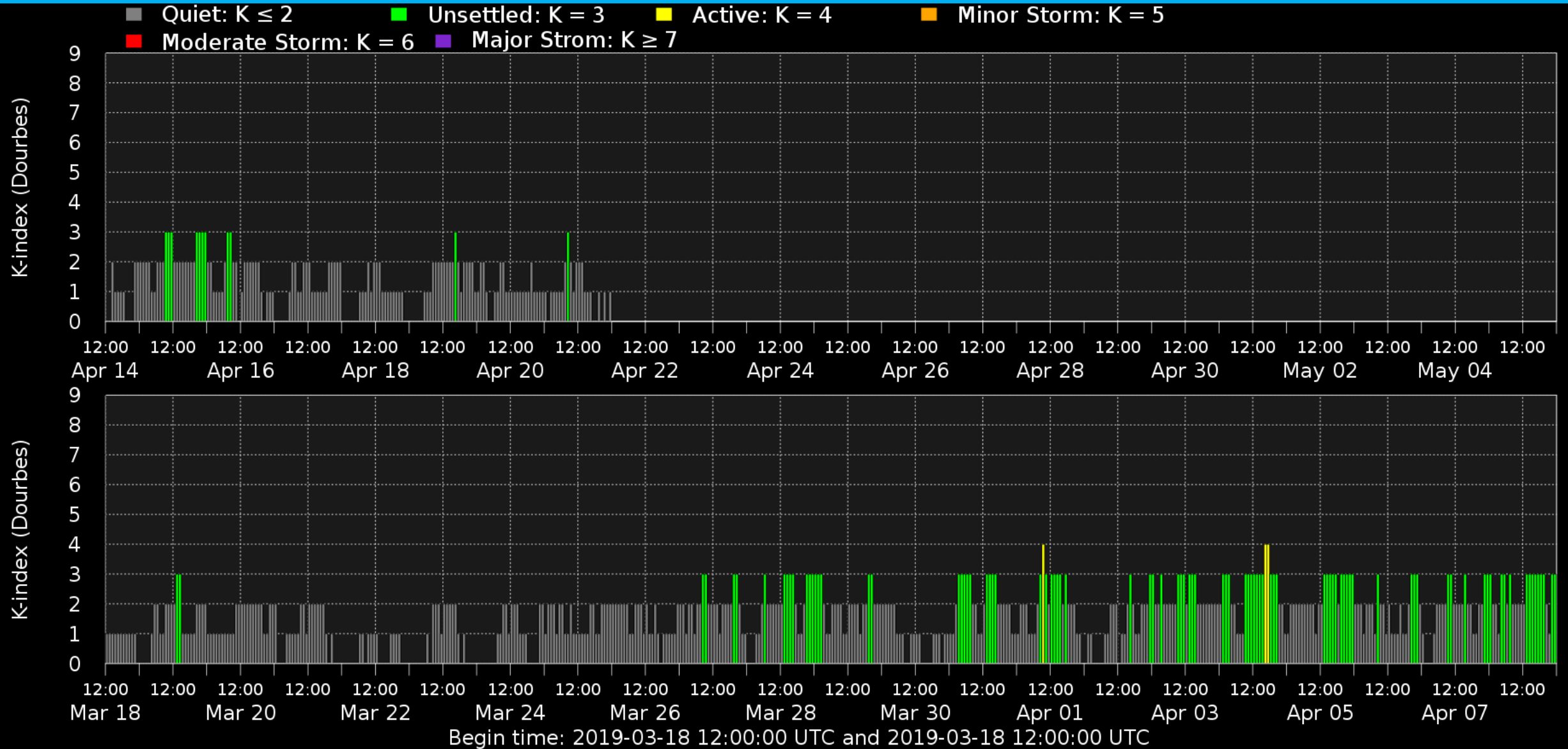
# Outlook: Solar wind

DSCOVR (ngdc.noaa.gov/dscovr)



Begin time: 2019-03-18 12:00:00 UTC

# Outlook: Geomagnetic activity



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