

# SIDC Space Weather Briefing

19 April 2020 - 26 April 2020

Jesse Andries  
& 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 2020-04-19 12:00 UT to 2020-04-26 12:00 UT

Active regions	Simple bipolar region 2760 developed by the end of the week
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	None
CMEs	None
Proton Events	None

Solar wind and geomagnetic conditions from 2020-04-19 12:00 UT to 2020-04-26 12:00 UT

Coronal Holes	Last weeks extension of Southern polar CH- + small isolated equatorial CH+
ICME	Magnetic cloud passage on April 20, (max v=400km/s, max Bt=16nT, min Bz=-15nT)
SW Conditions	ICME passage and slight influence of CH- (max v=500km/s)
K-indices	max K-index (Dourbes): 5 max Kp-index (NOAA): 5

All Quiet Alert: switched off on April 20 and back on on April 24

# Solar Activity

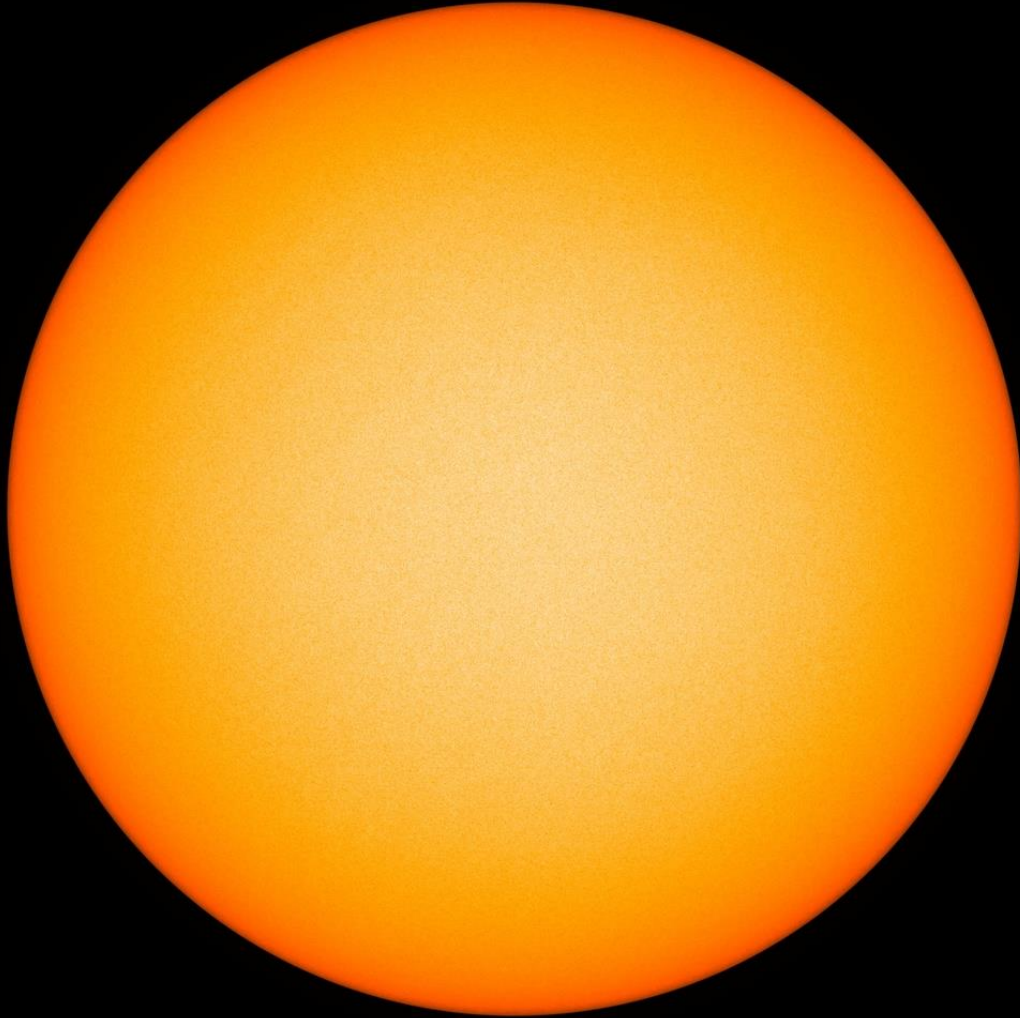


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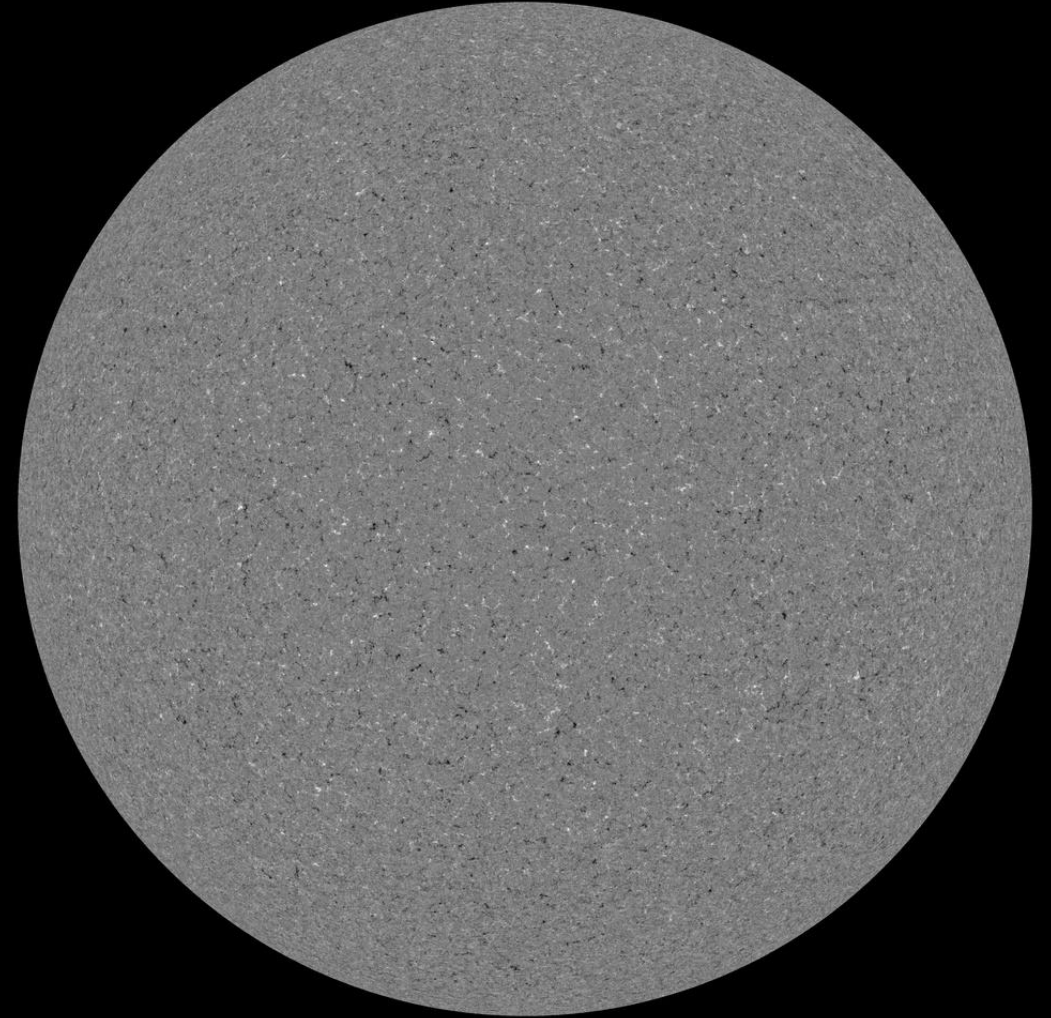
# Solar active region - start of the week

SDO/HMI White Light 2020-04-19



SDO/HMI Quick-Look Continuum: 20200419\_114500

SDO/HMI Magnetogram 2020-04-19

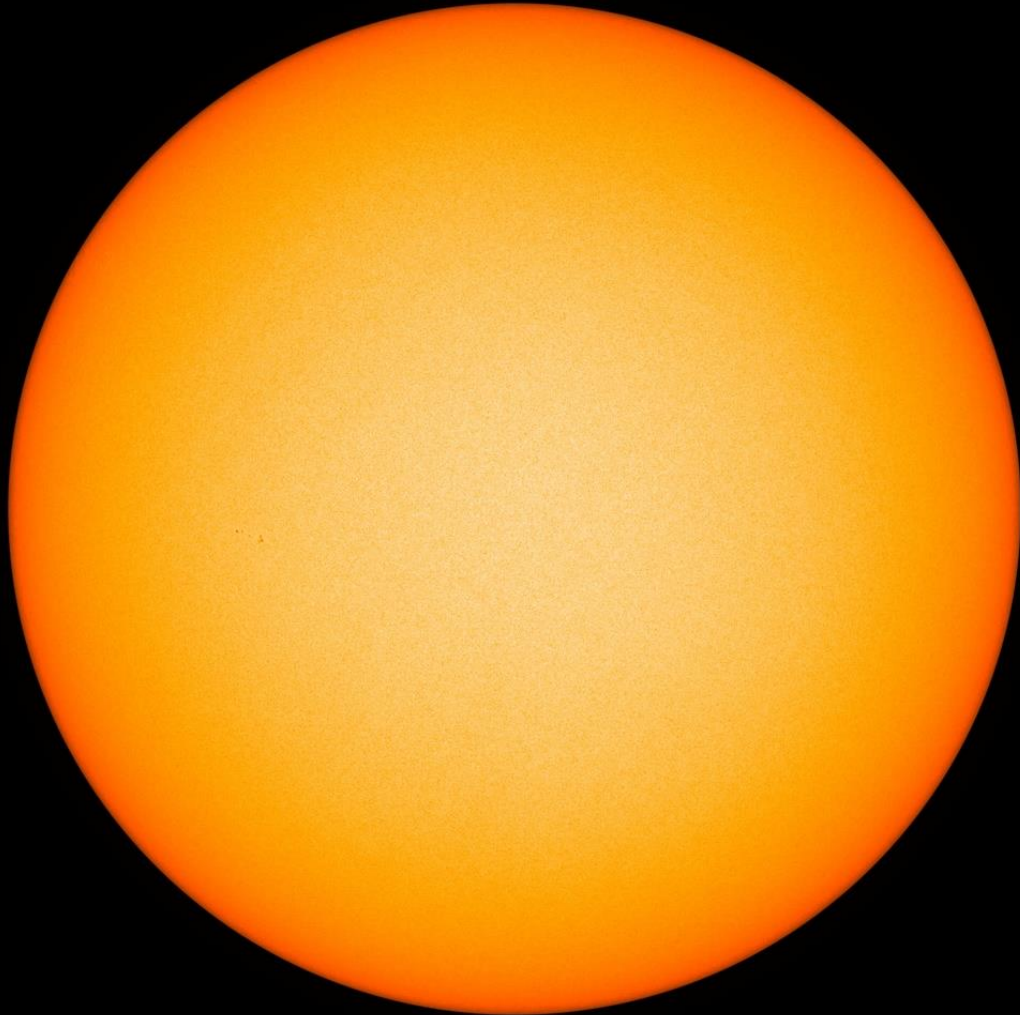


SDO/HMI Quick-Look Magnetogram: 20200419\_114500



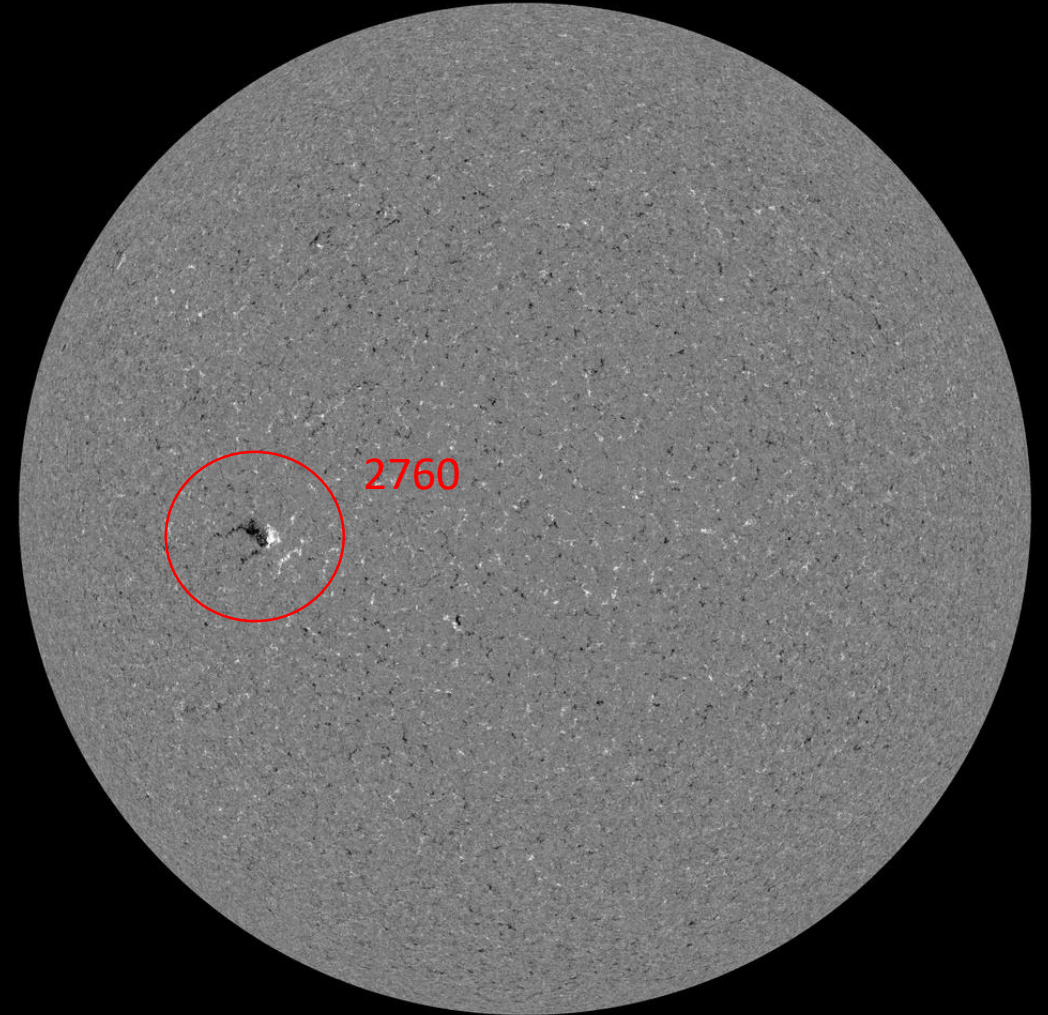
# Solar active region - end of the week

SDO/HMI White Light 2020-04-26



SDO/HMI Quick-Look Continuum: 20200426\_114500

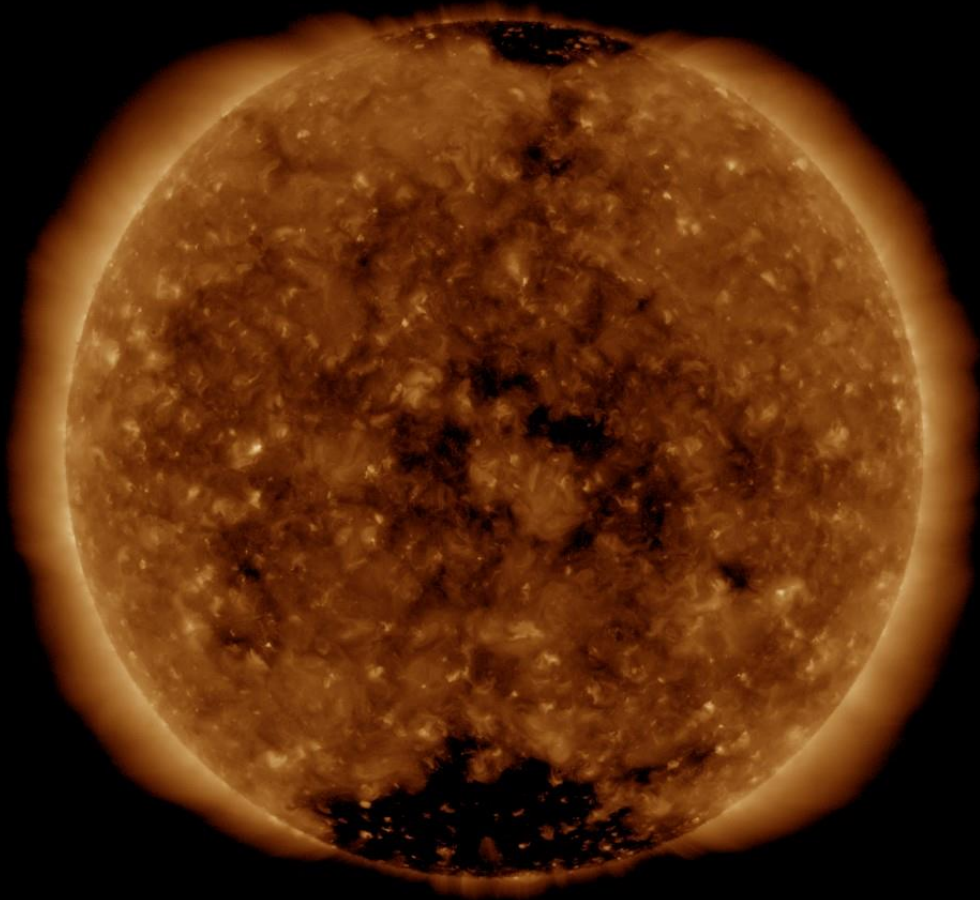
SDO/HMI Magnetogram 2020-04-26



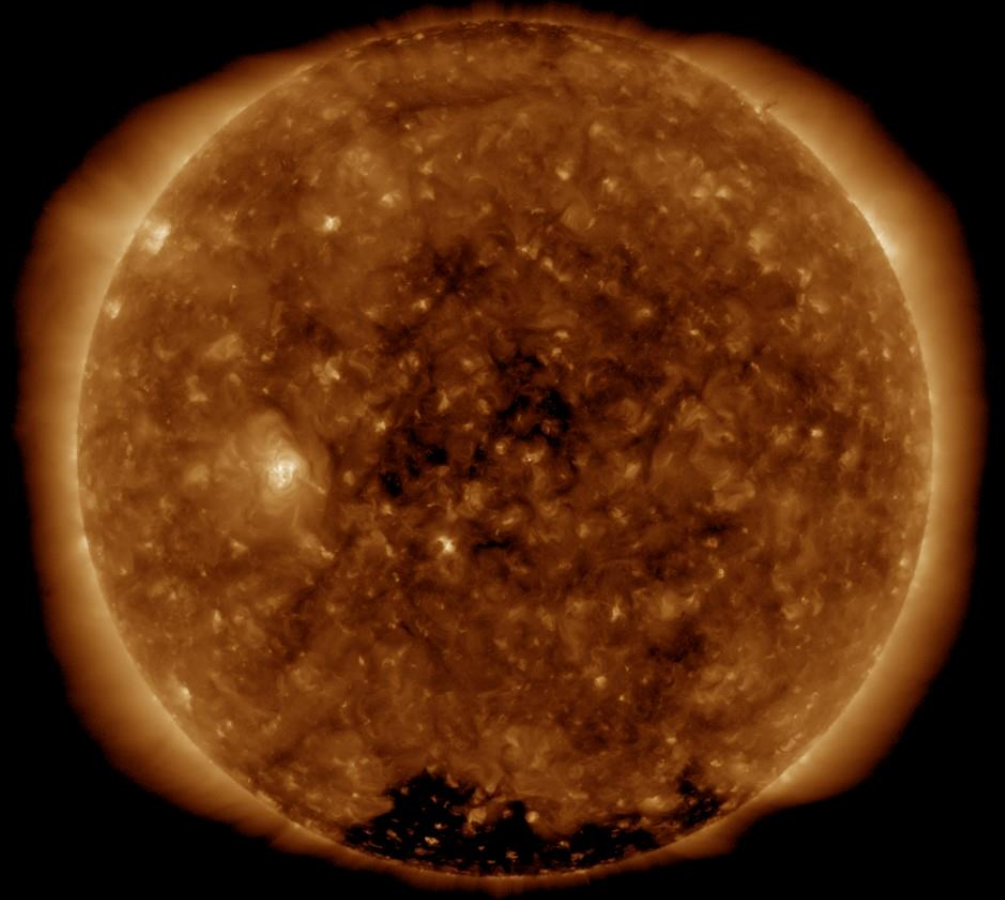
SDO/HMI Quick-Look Magnetogram: 20200426\_114500

# Solar active region & Coronal hole

SDO/AIA 19.3 nm 2020-04-19



SDO/AIA 19.3 nm 2020-04-26



SDO/AIA 193 2020-04-19 12:10:29 UT

SDO/AIA 193 2020-04-26 12:10:29 UT

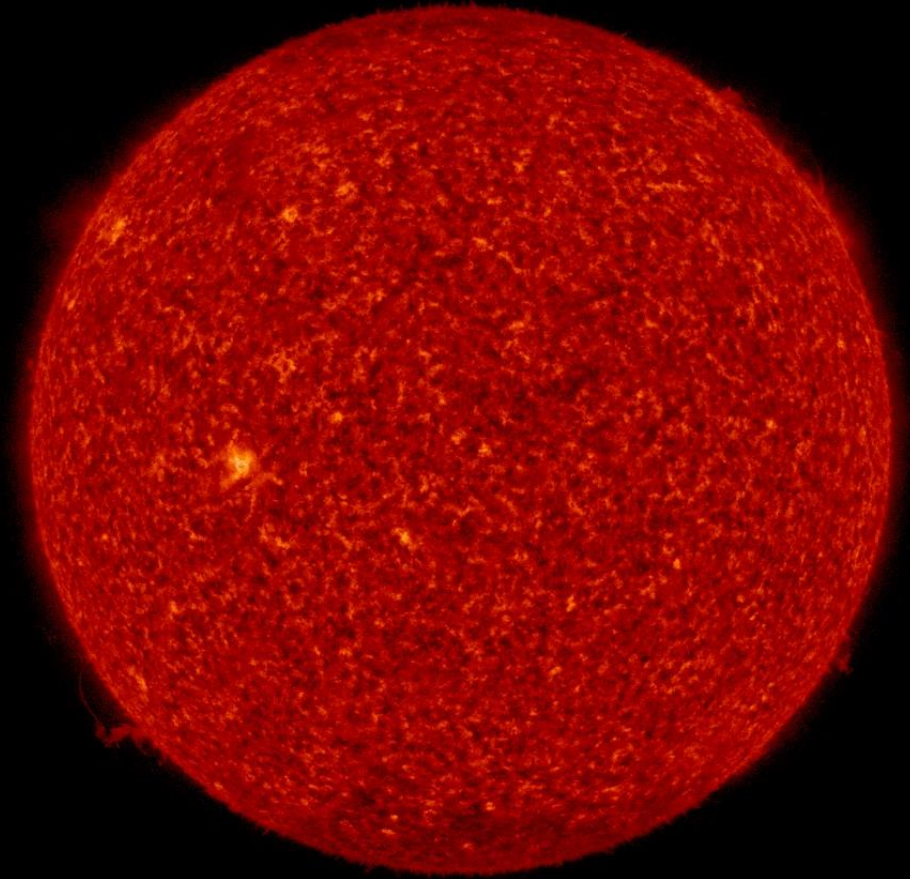


# Solar active region & Filament

SDO/AIA 30.4 nm 2020-04-19



SDO/AIA 30.4 nm 2020-04-26



SDO/AIA 304 2020-04-19 12:13:06 UT

SDO/AIA 304 2020-04-26 12:13:30 UT

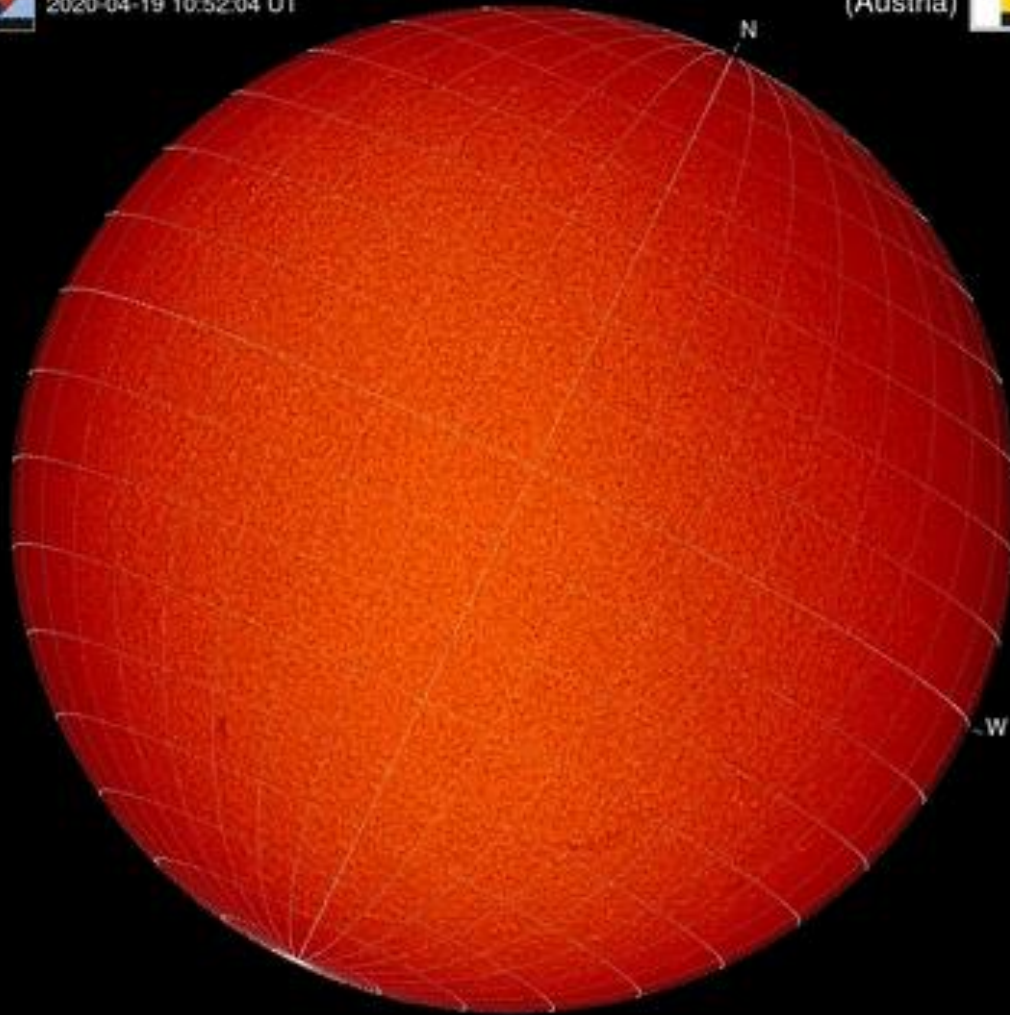
# Filament & Filament eruption

H-alpha 2020-04-19



Kanzelhöhe Observatory  
2020-04-19 10:52:04 UT

University of Graz  
(Austria)

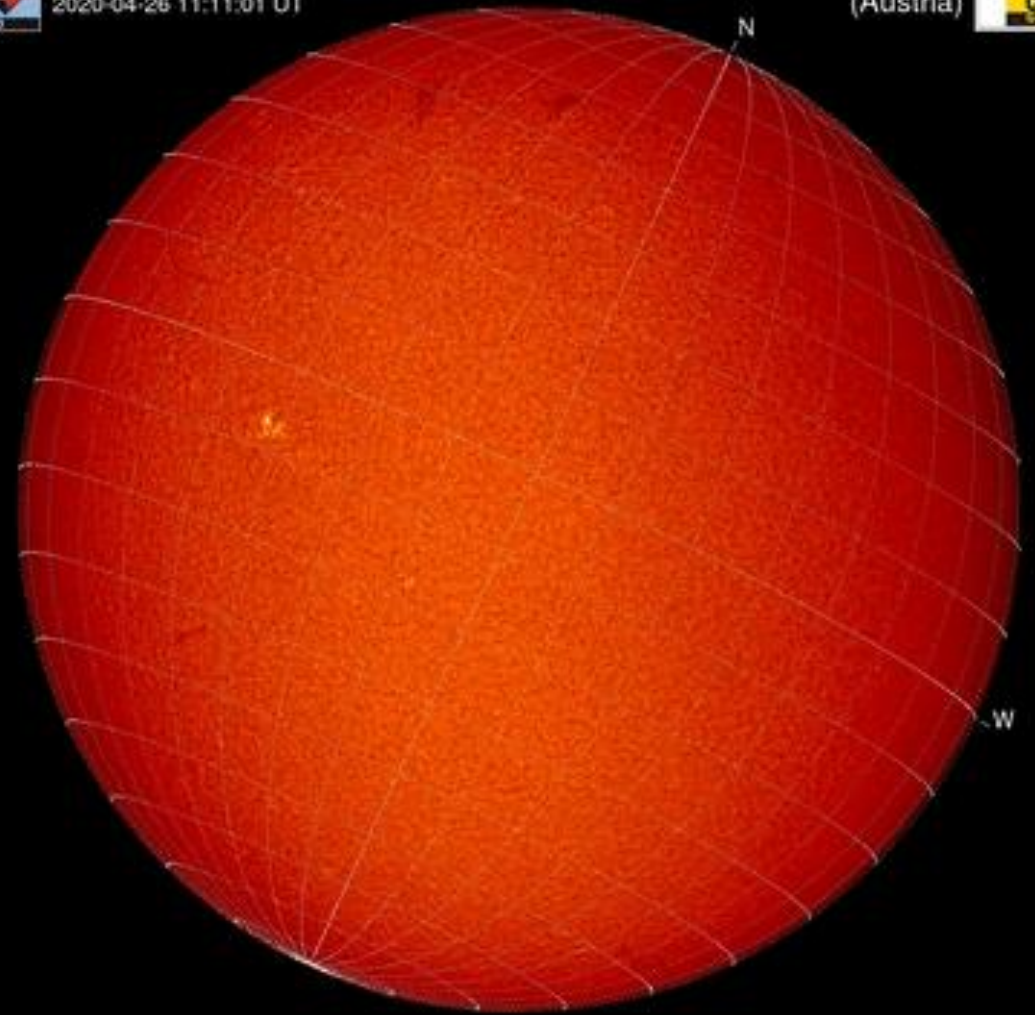


H-alpha 2020-04-26



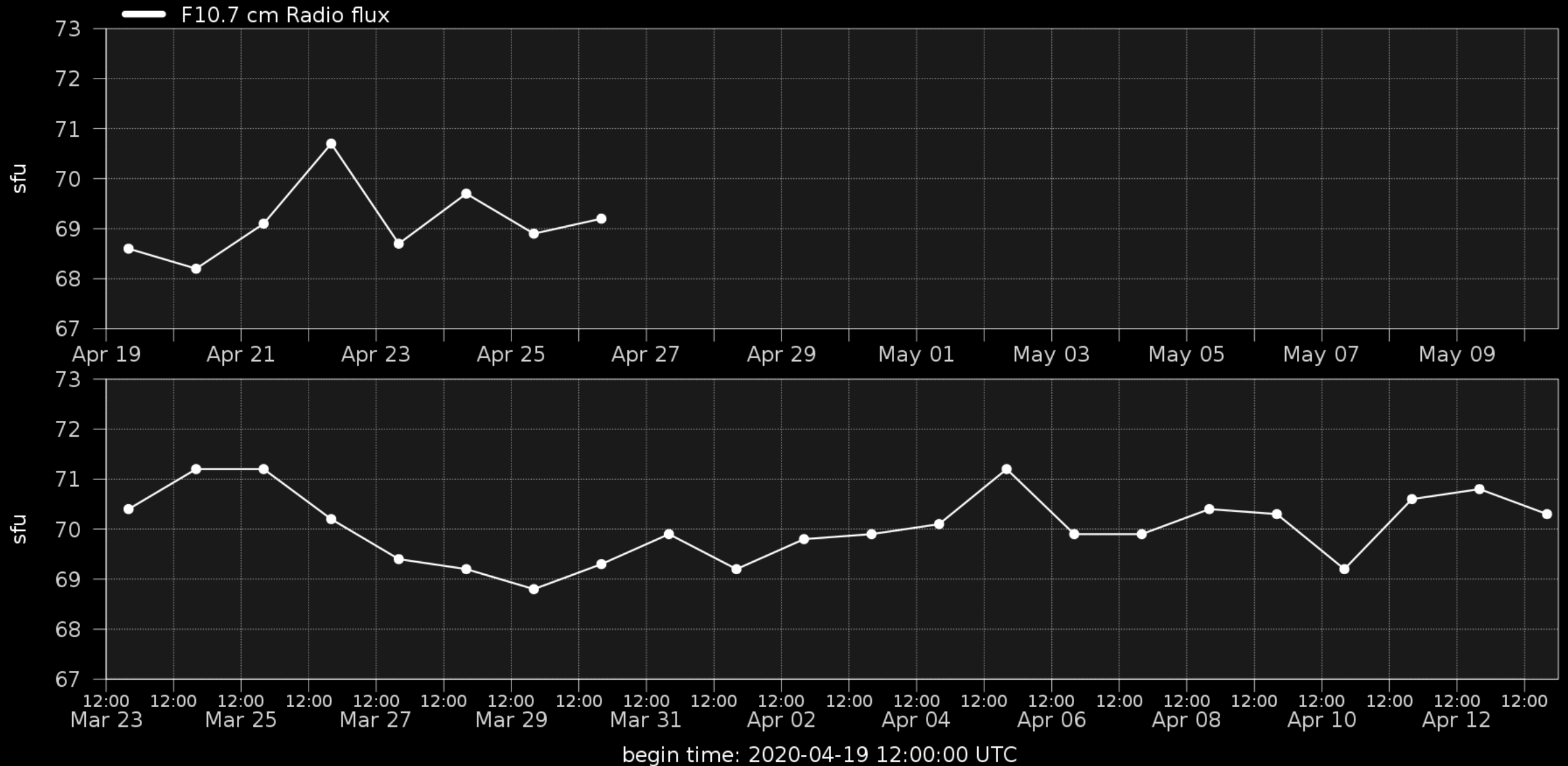
Kanzelhöhe Observatory  
2020-04-26 11:11:01 UT

University of Graz  
(Austria)

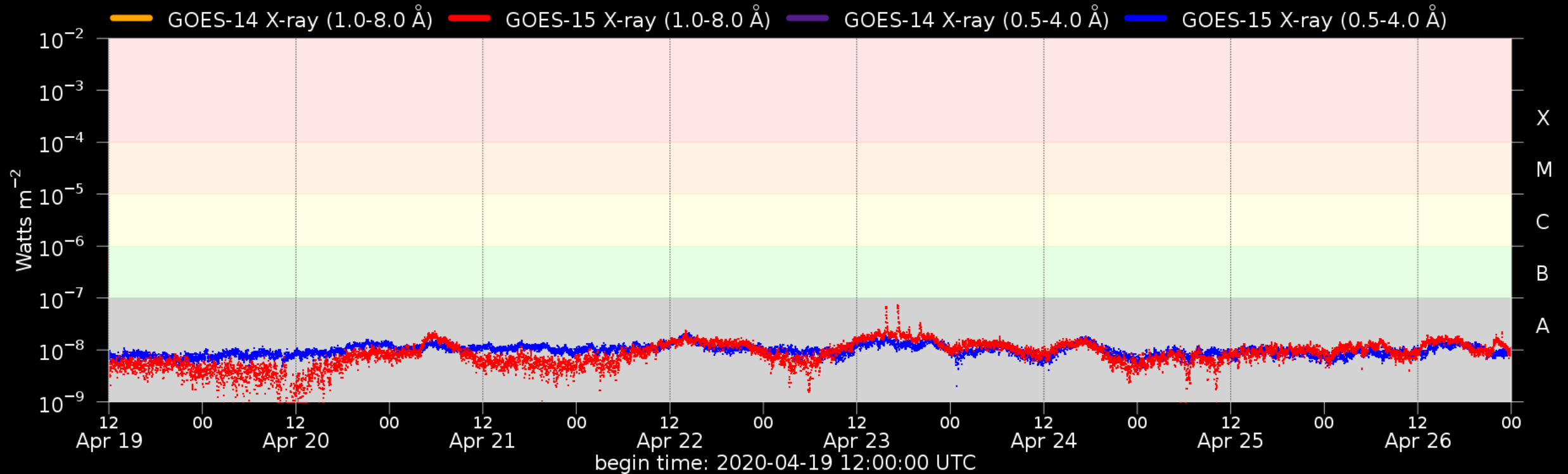




# Solar F10.7cm radio flux



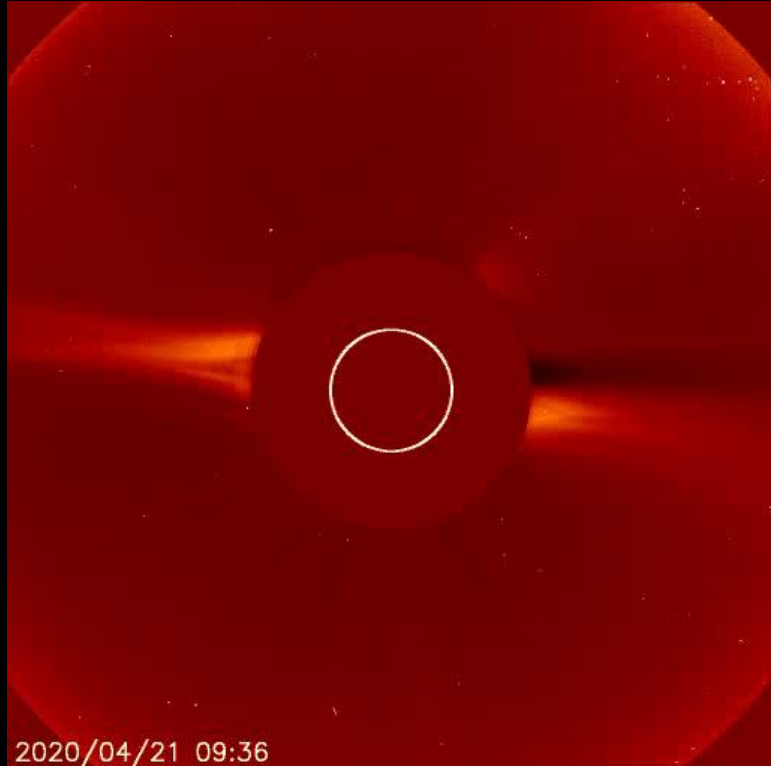
# Flaring activity



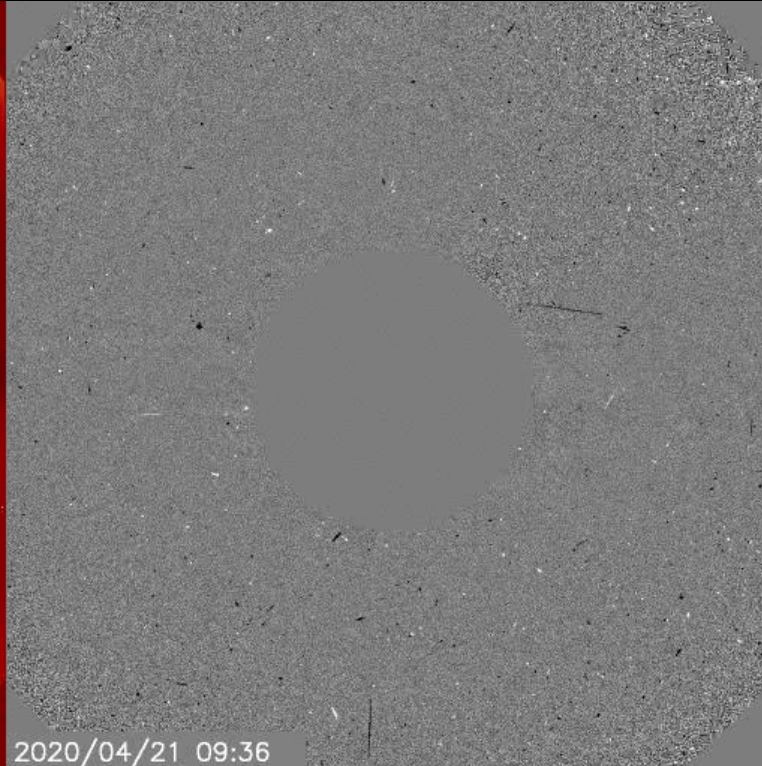
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2020-04-19	2020-04-20	2020-04-21	2020-04-22	2020-04-23	2020-04-24	2020-04-25	2020-04-26
Probability	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 10 01 01
Observed	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 00	00 00 00 00

# Coronal Mass Ejection



2020/04/21 09:36

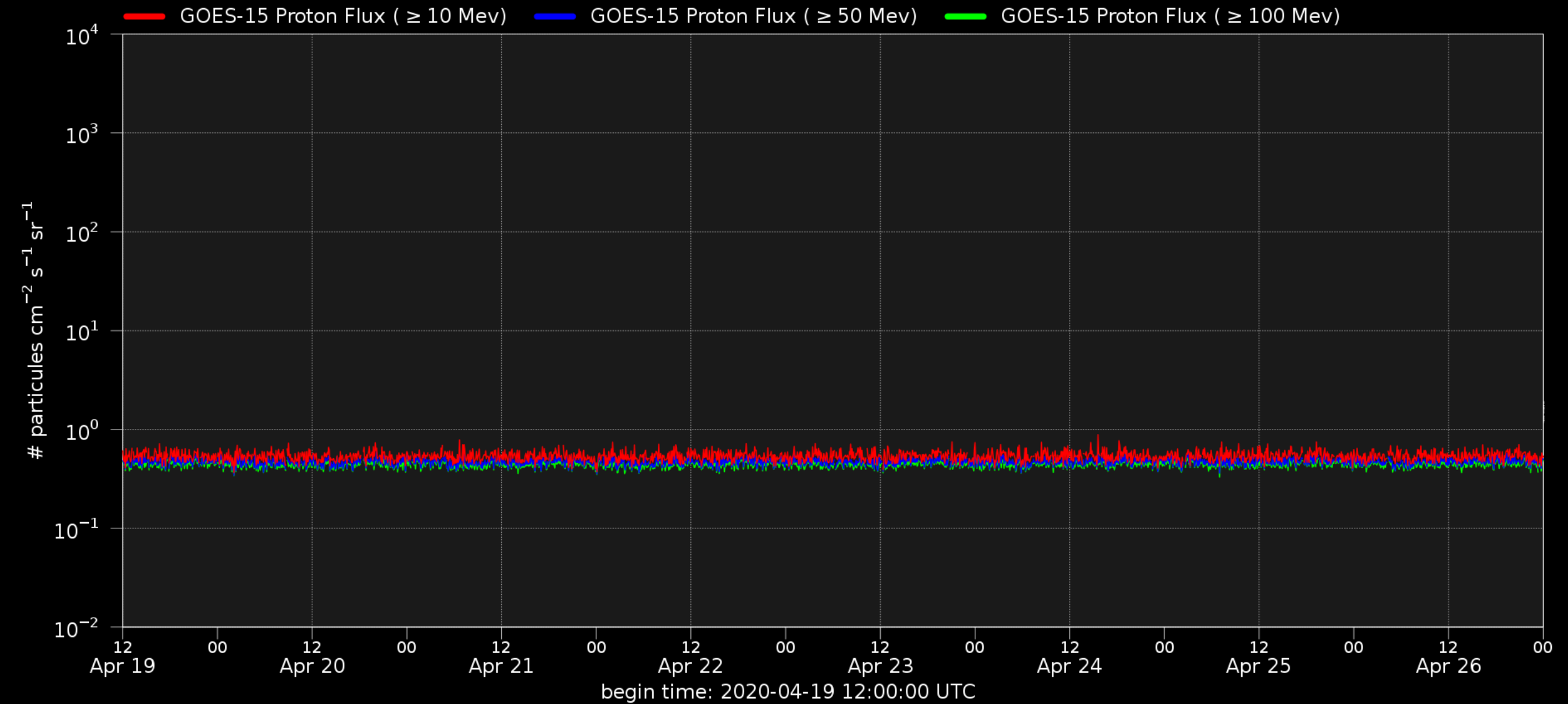


2020/04/21 09:36

21:36 04/25  
18:12 04/25  
15:24 04/25  
12:54 04/25  
09:36 04/25  
06:24 04/25  
03:48 04/25  
00:54 04/25  
21:36 04/24  
18:36 04/24  
15:48 04/24  
12:12 04/24  
09:36 04/24  
06:12 04/24  
02:24 04/24  
23:12 04/23  
20:00 04/23  
17:12 04/23  
14:00 04/23  
11:30 04/23  
08:36 04/23  
05:36 04/23  
02:12 04/23  
22:30 04/22  
19:36 04/22  
16:36 04/22  
13:24 04/22  
10:42 04/22  
07:36 04/22  
04:48 04/22  
01:36 04/22  
22:24 04/21  
18:06 04/21  
14:48 04/21  
11:36 04/21  
08:36 04/21  
05:24 04/21  
02:42 04/21  
23:48 04/20  
20:24 04/20  
17:12 04/20  
14:18 04/20  
11:36 04/20  
08:48 04/20  
06:00 04/20



# Solar proton flux



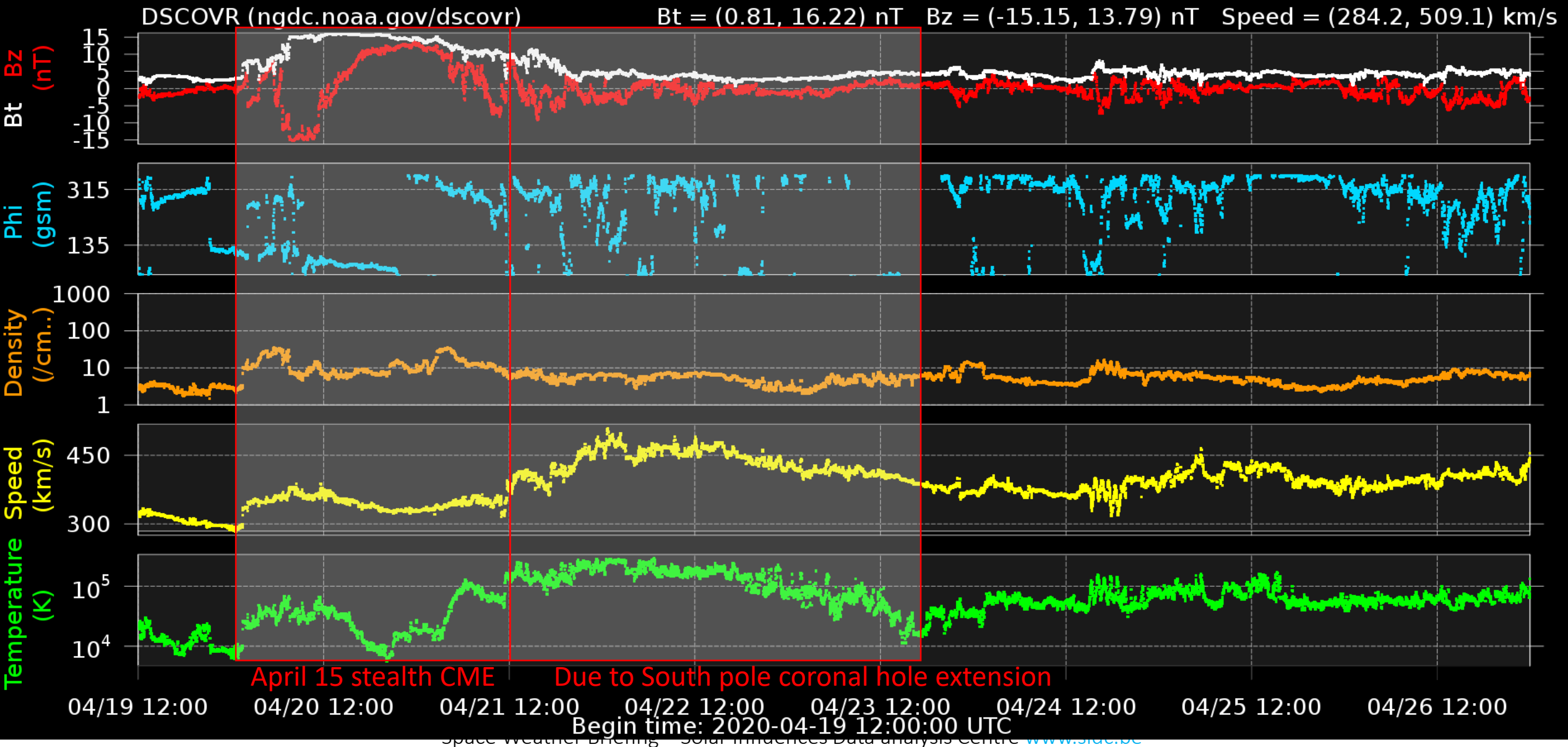
# Solar Wind and Geomagnetic Activity



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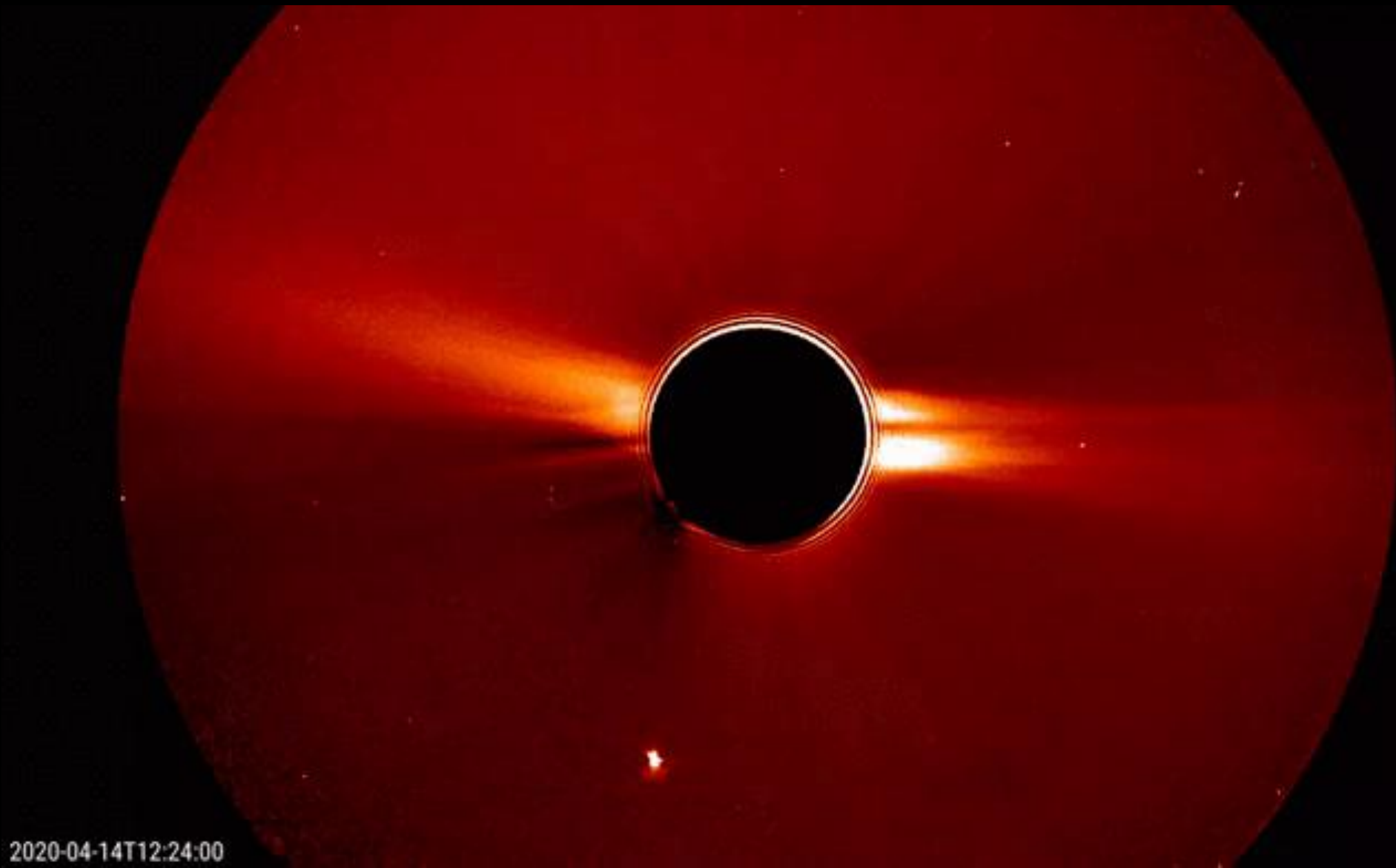
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# Solar wind parameters (DSCOVR data)





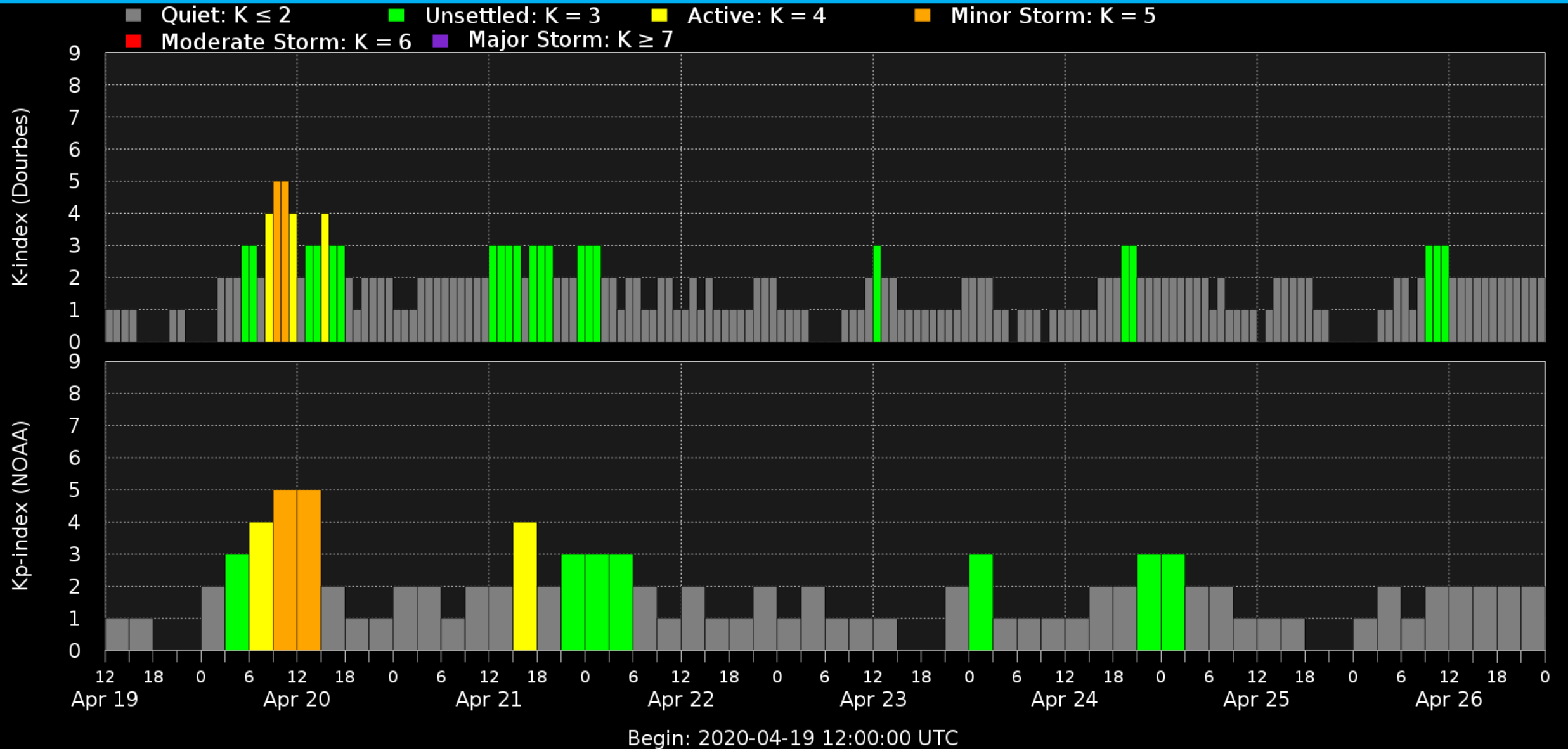
# April 15 CME initiation seen from STEREO A



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

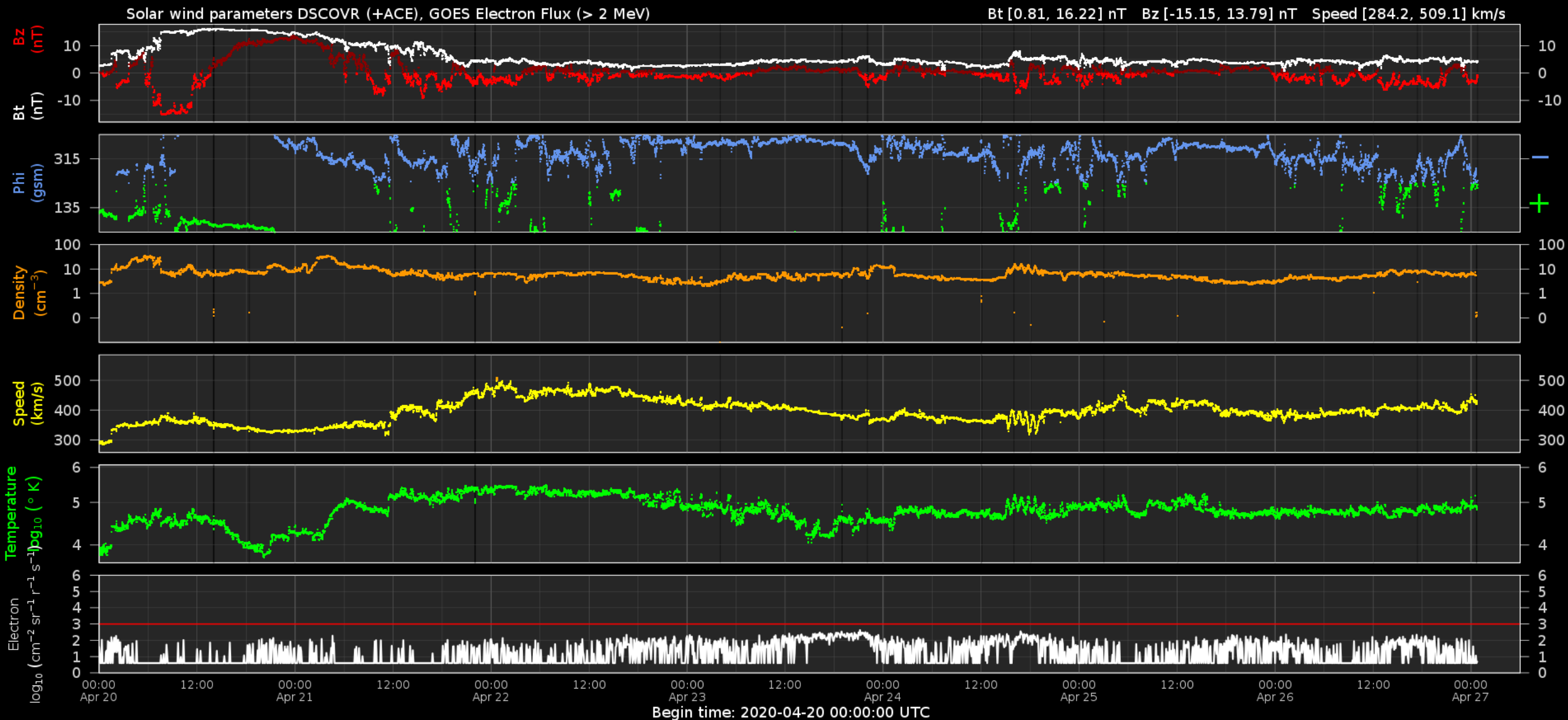


# Geomagnetic activity (K-indexes)





# High energy Electron flux



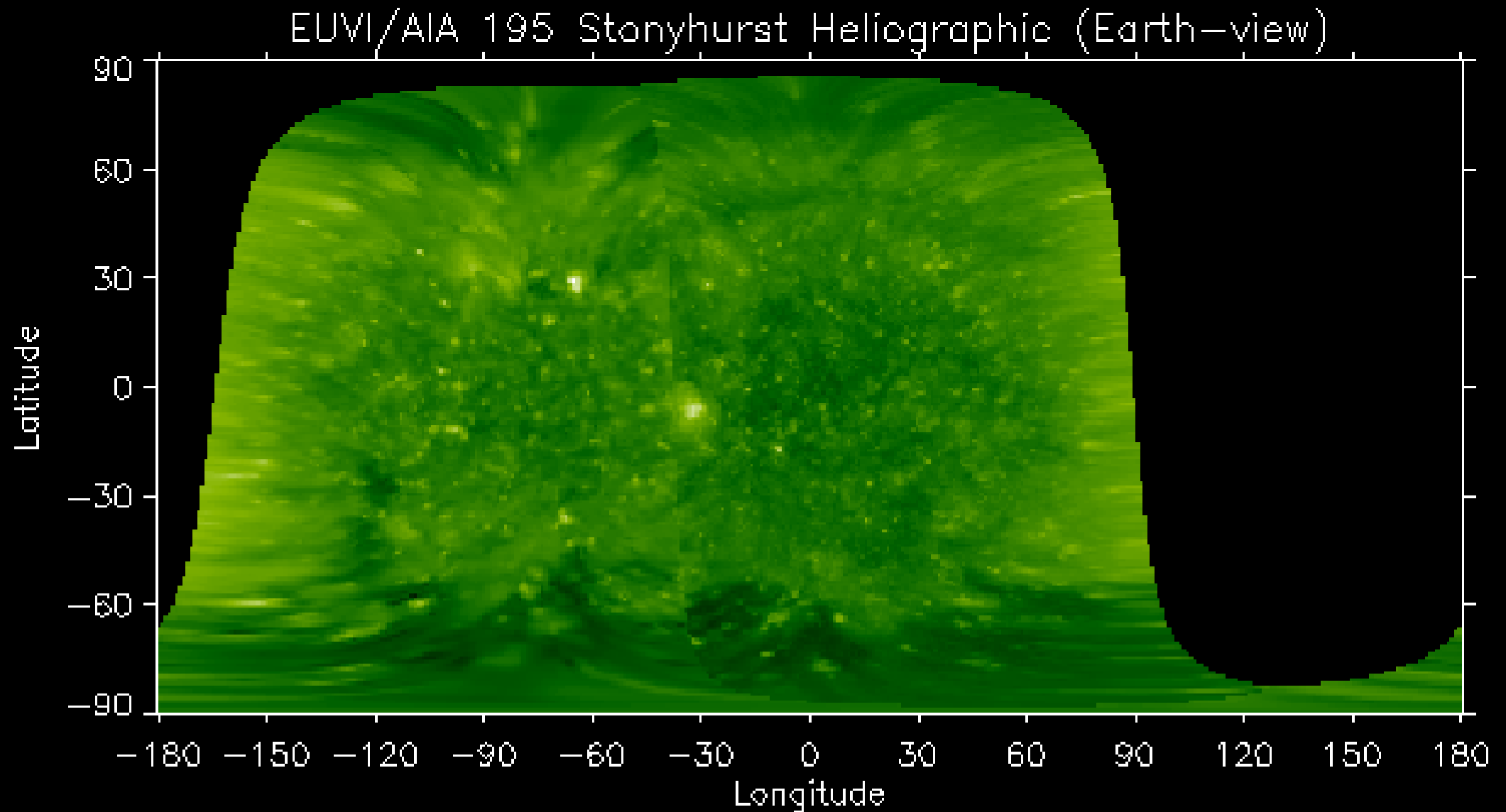
# Outlook



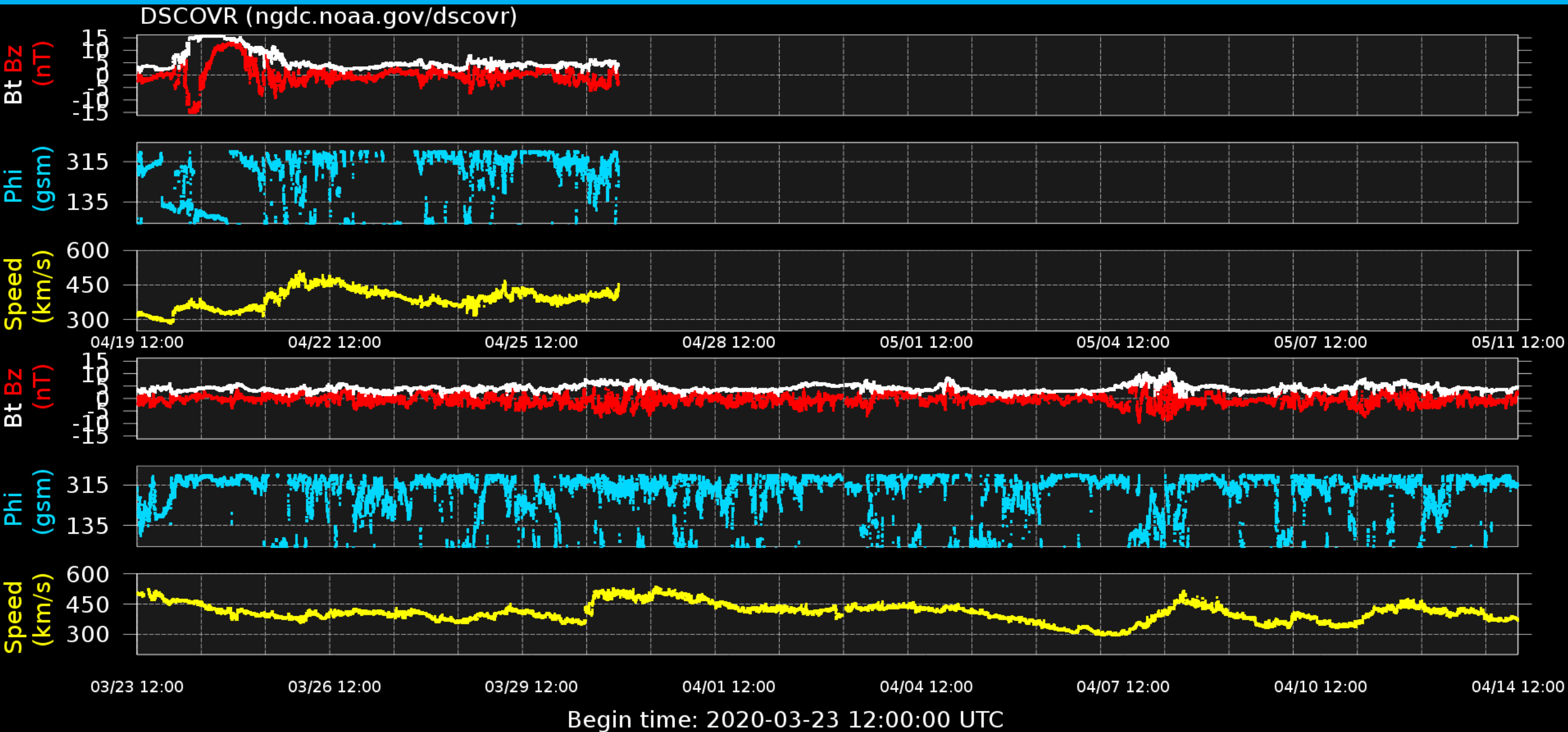
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# Outlook: Solar activity

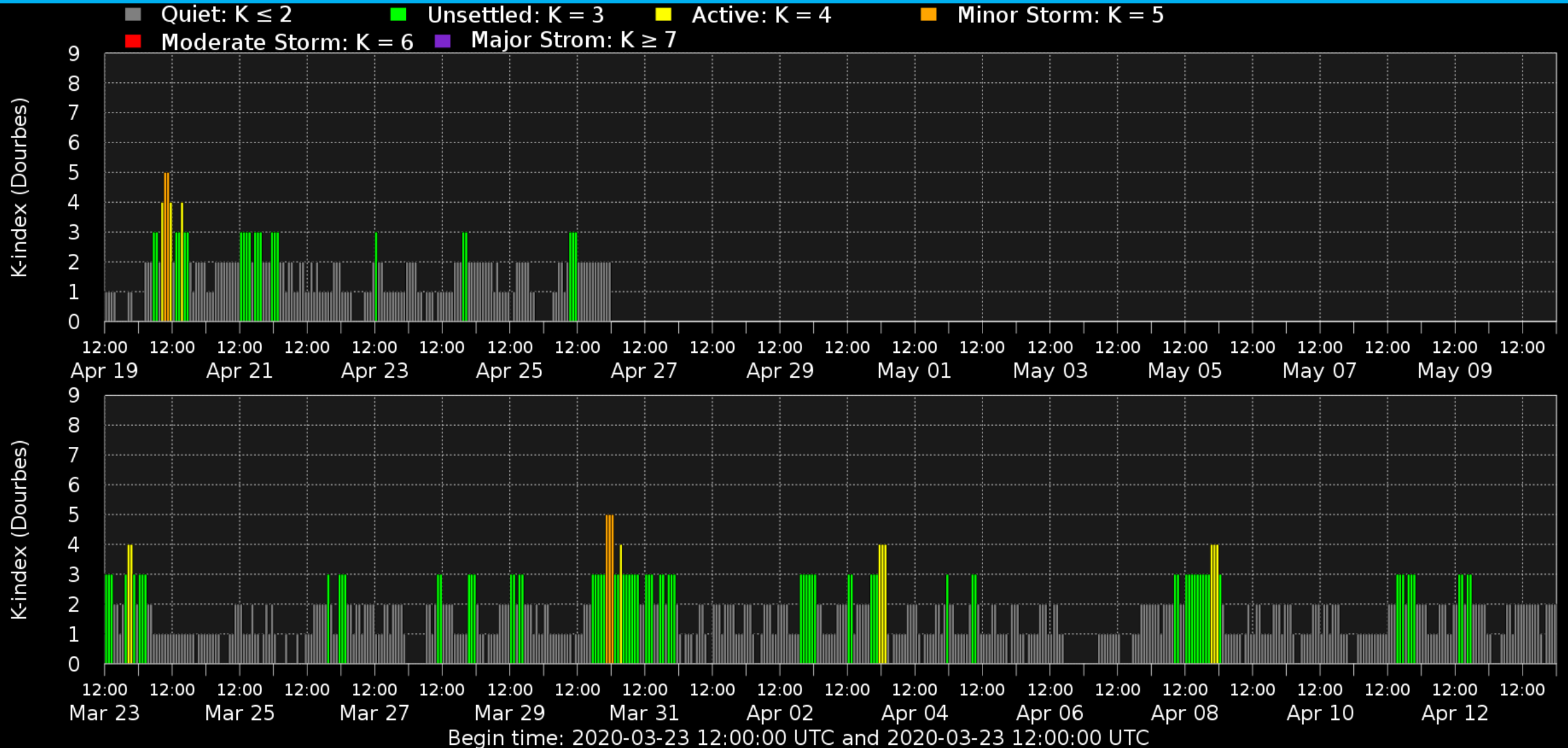


# Outlook: Solar wind





# Outlook: Geomagnetic activity



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