

SIDC Space Weather Briefing

17 March 2019 - 24 March 2019

Luciano Rodriguez
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2019-03-17 12:00 UT to 2019-03-24 12:00 UT

Active regions	NOAA ARs 2735 and 2736
Flaring	13 C-class flares (2736)
CMEs	1 with an Earth directed component
Proton Events	None

Solar wind and geomagnetic conditions from 2019-03-17 12:00 UT to 2019-03-24 12:00 UT

Coronal Holes	1 small, positive polarity
ICME	Only a shock arrived
SW Conditions	Slow solar wind ($V < 450$ km/s)
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 3

All Quiet Alert: Off

Solar Activity

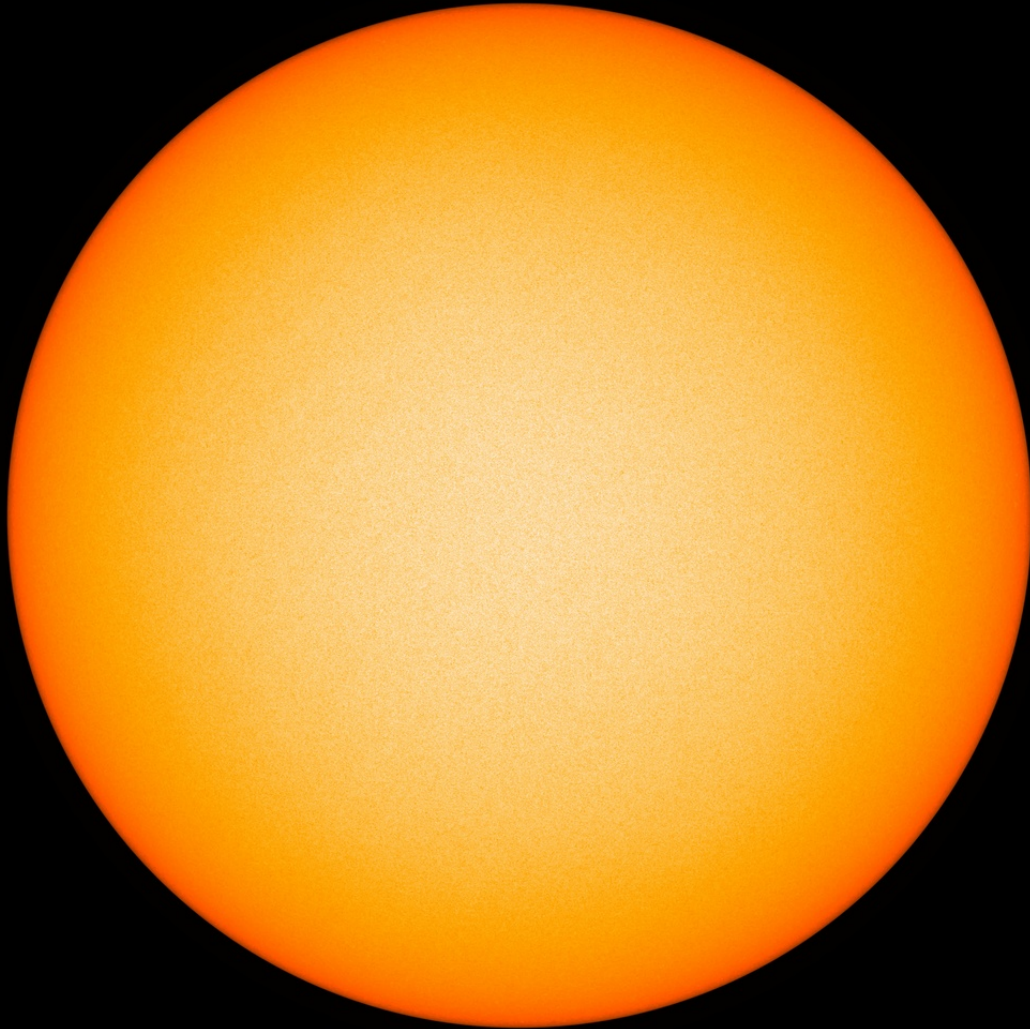


Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

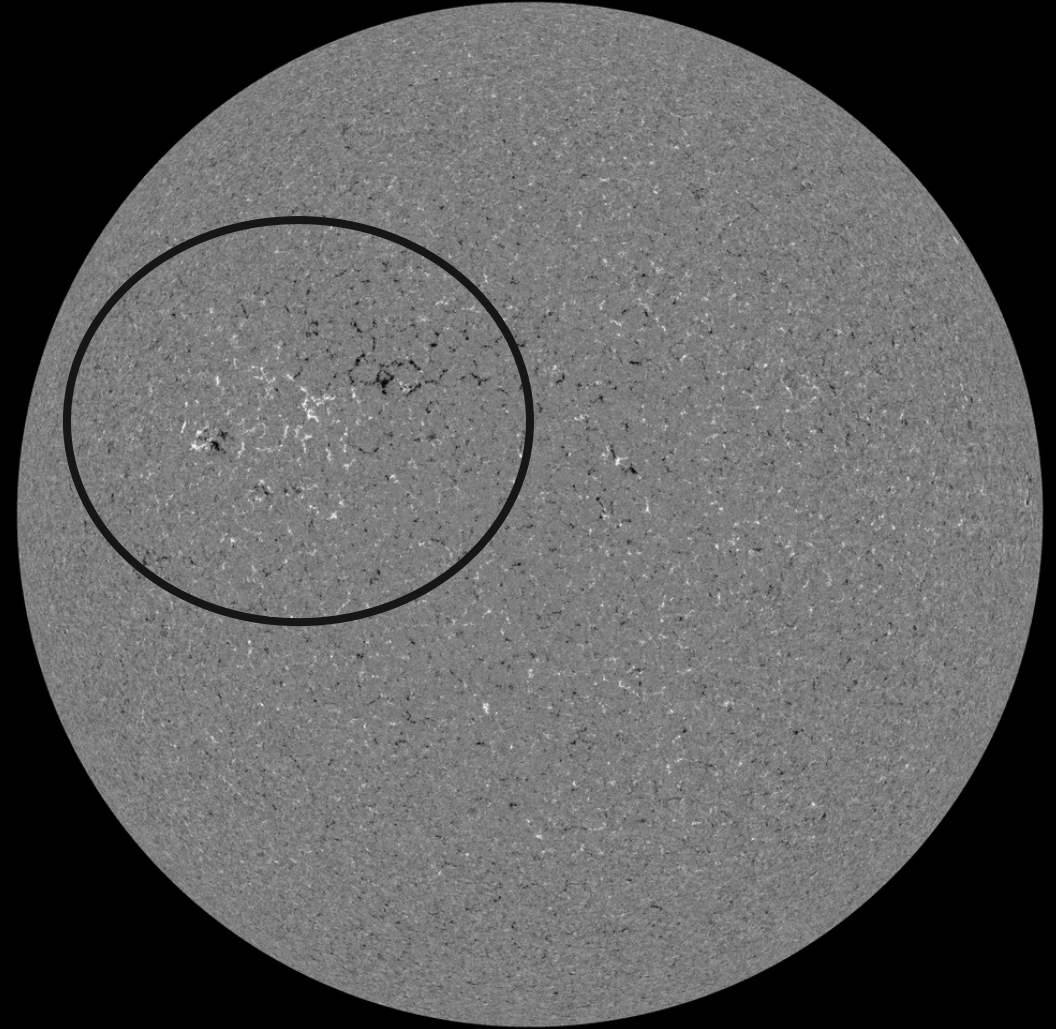
Solar active region - start of the week

SDO/HMI White Light 2019-03-17



SDO/HMI Quick-Look Continuum: 20190317_114500

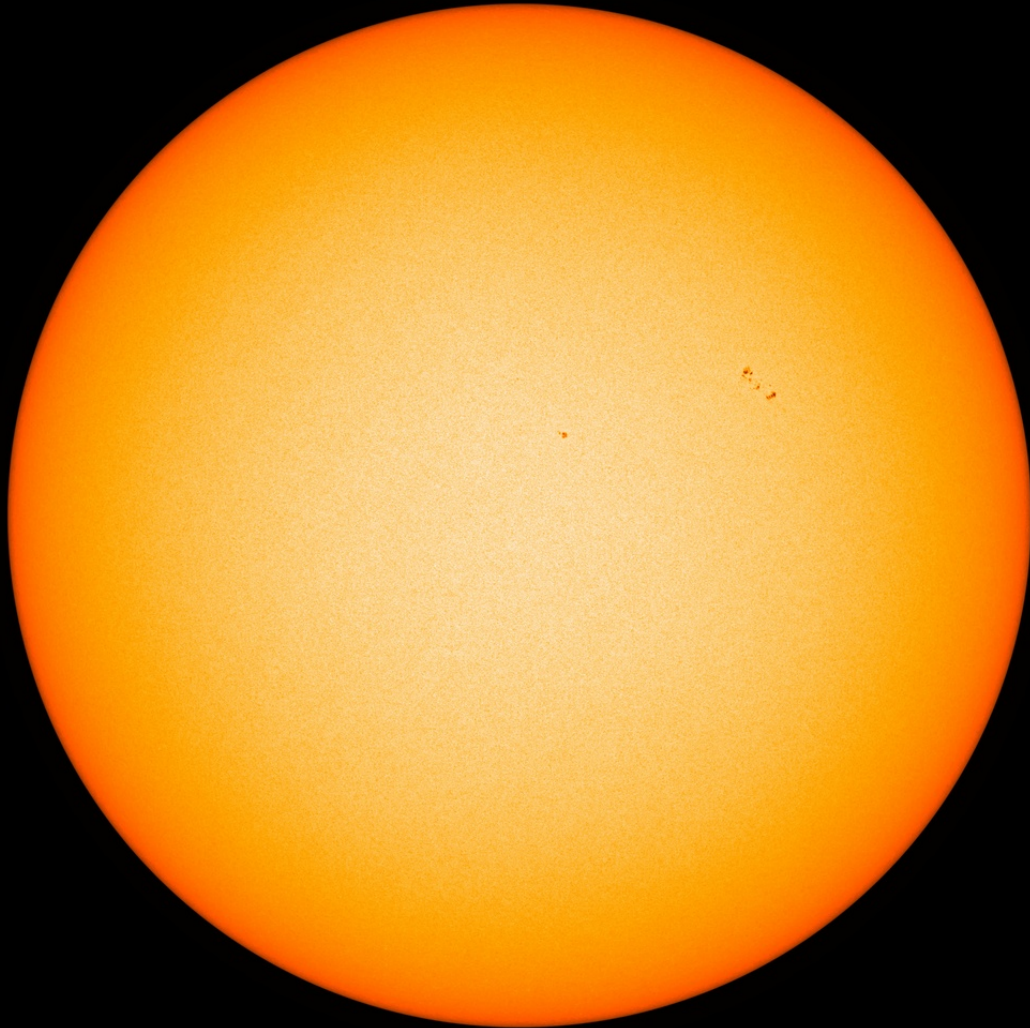
SDO/HMI Magnetogram 2019-03-17



SDO/HMI Quick-Look Magnetogram: 20190317_114500

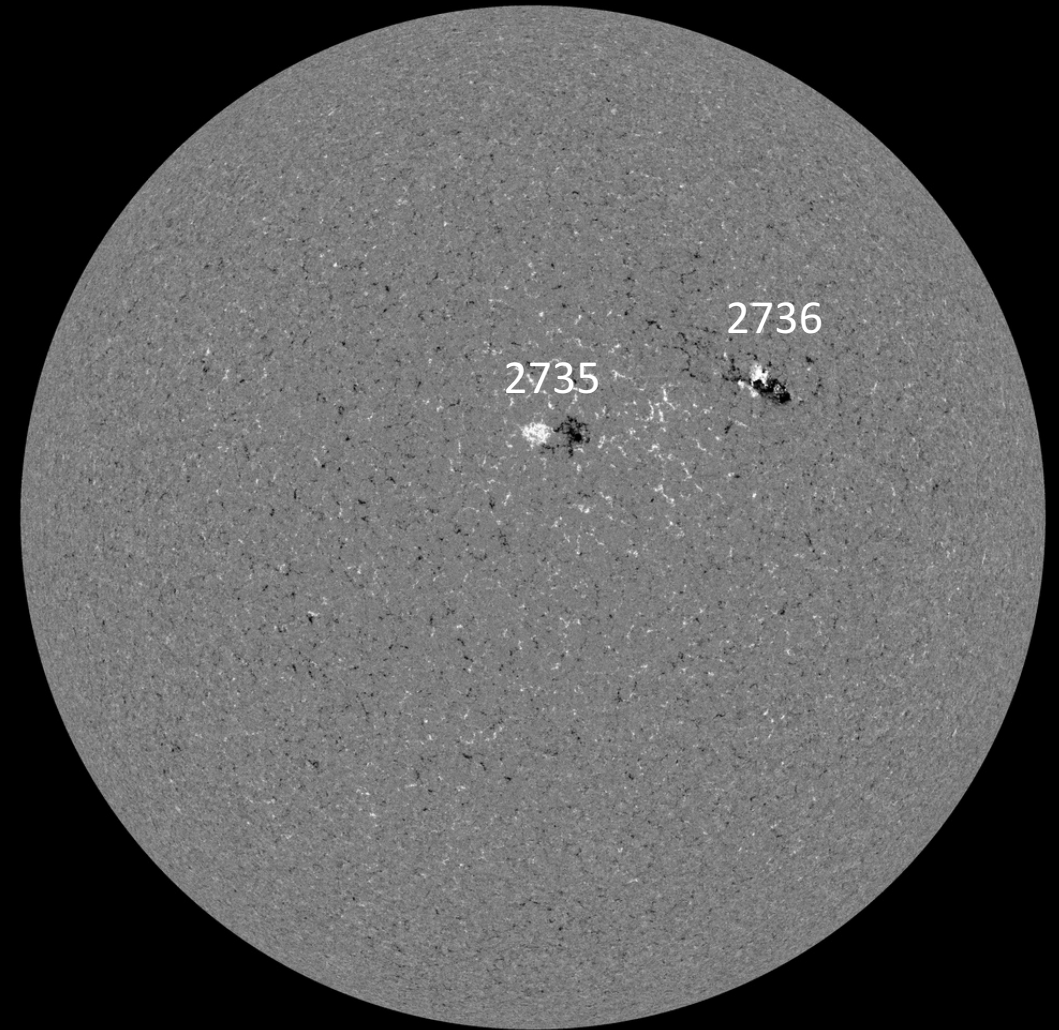
Solar active region - middle of the week

SDO/HMI White Light 2019-03-20



SDO/HMI Quick-Look Continuum: 20190320_114500

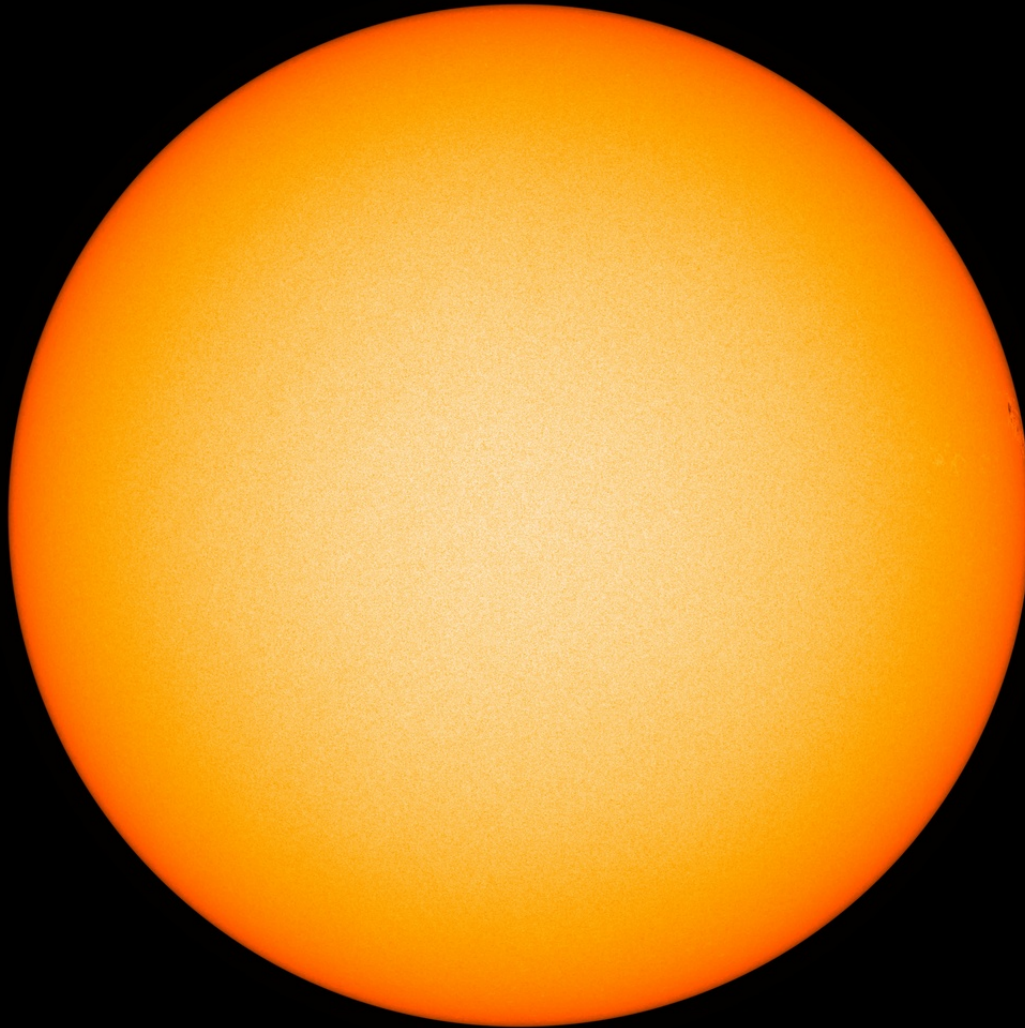
SDO/HMI Magnetogram 2019-03-20



SDO/HMI Quick-Look Magnetogram: 20190320_114500

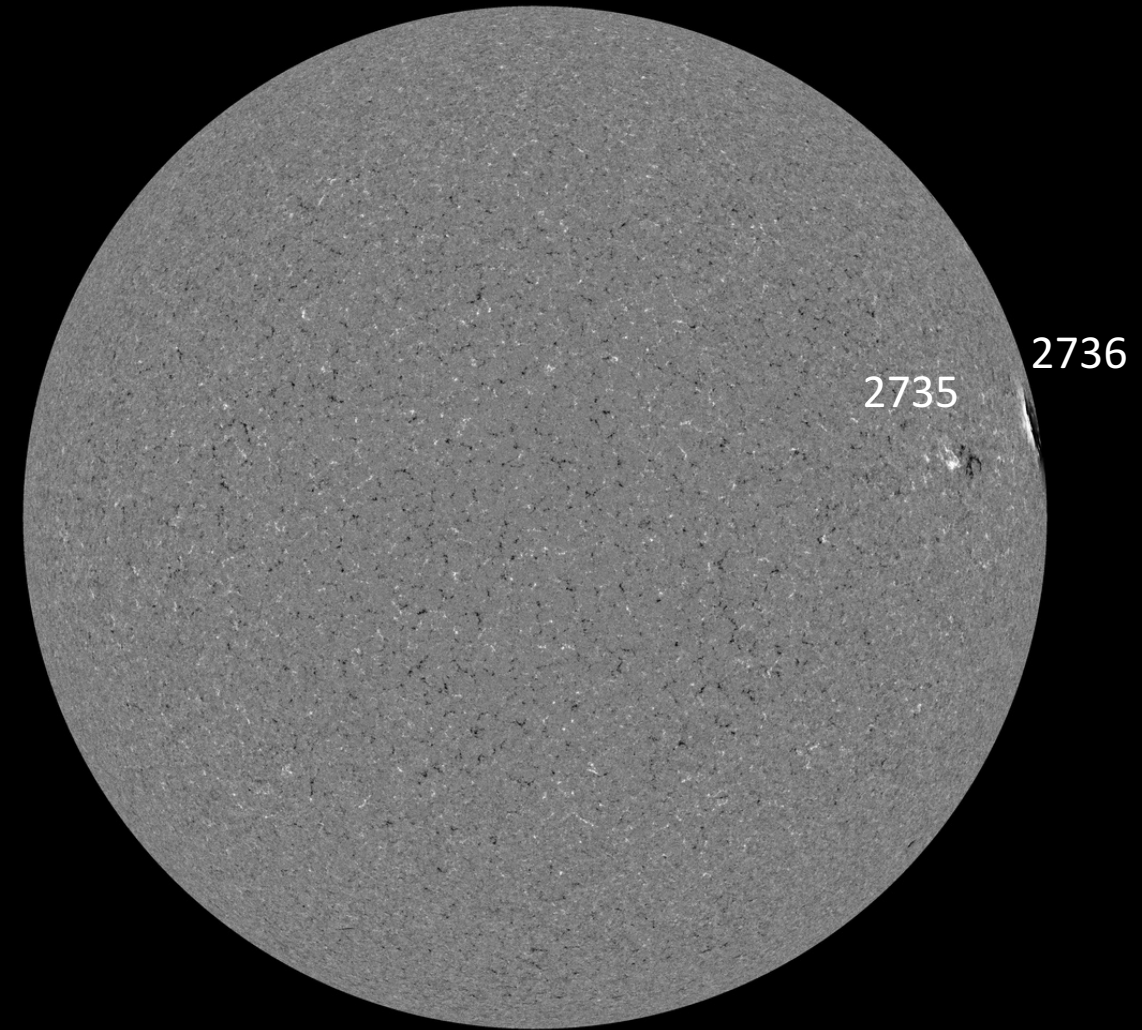
Solar active region - end of the week

SDO/HMI White Light 2019-03-24



SDO/HMI Quick-Look Continuum: 20190324_114500

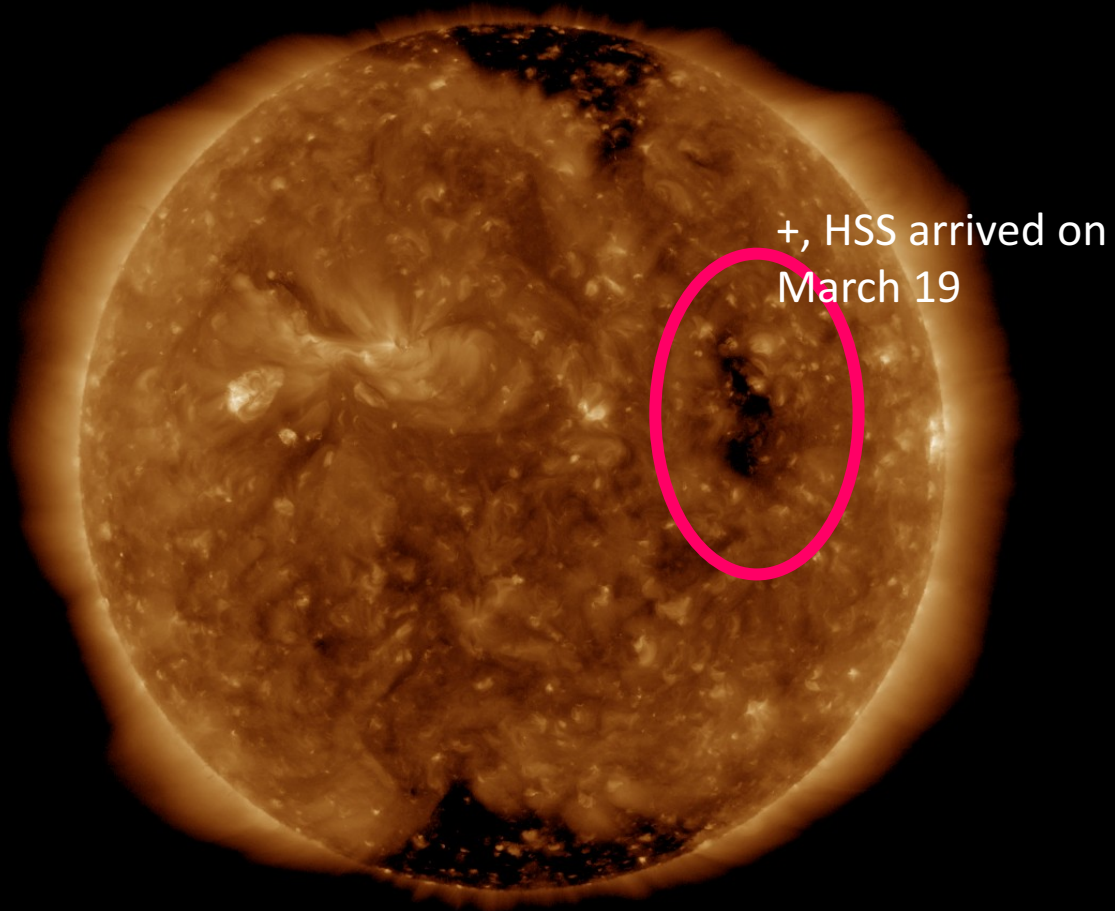
SDO/HMI Magnetogram 2019-03-24



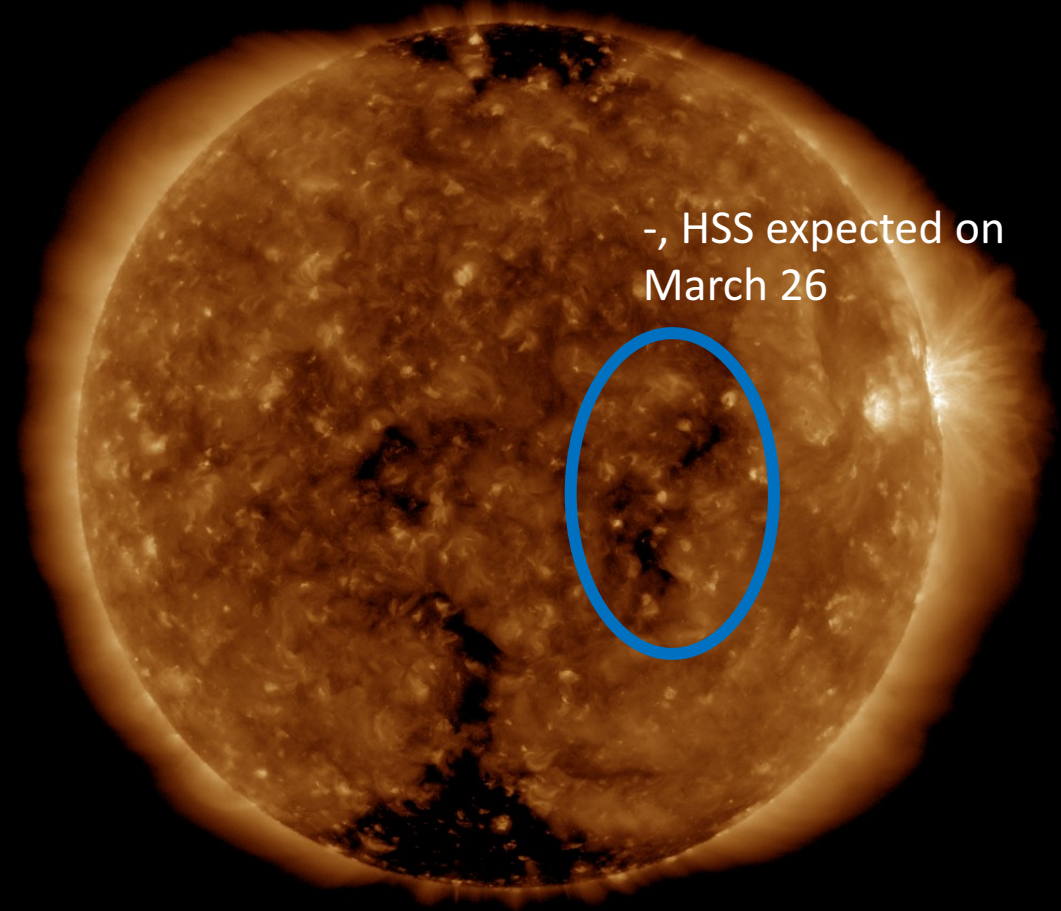
SDO/HMI Quick-Look Magnetogram: 20190324_114500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-03-17



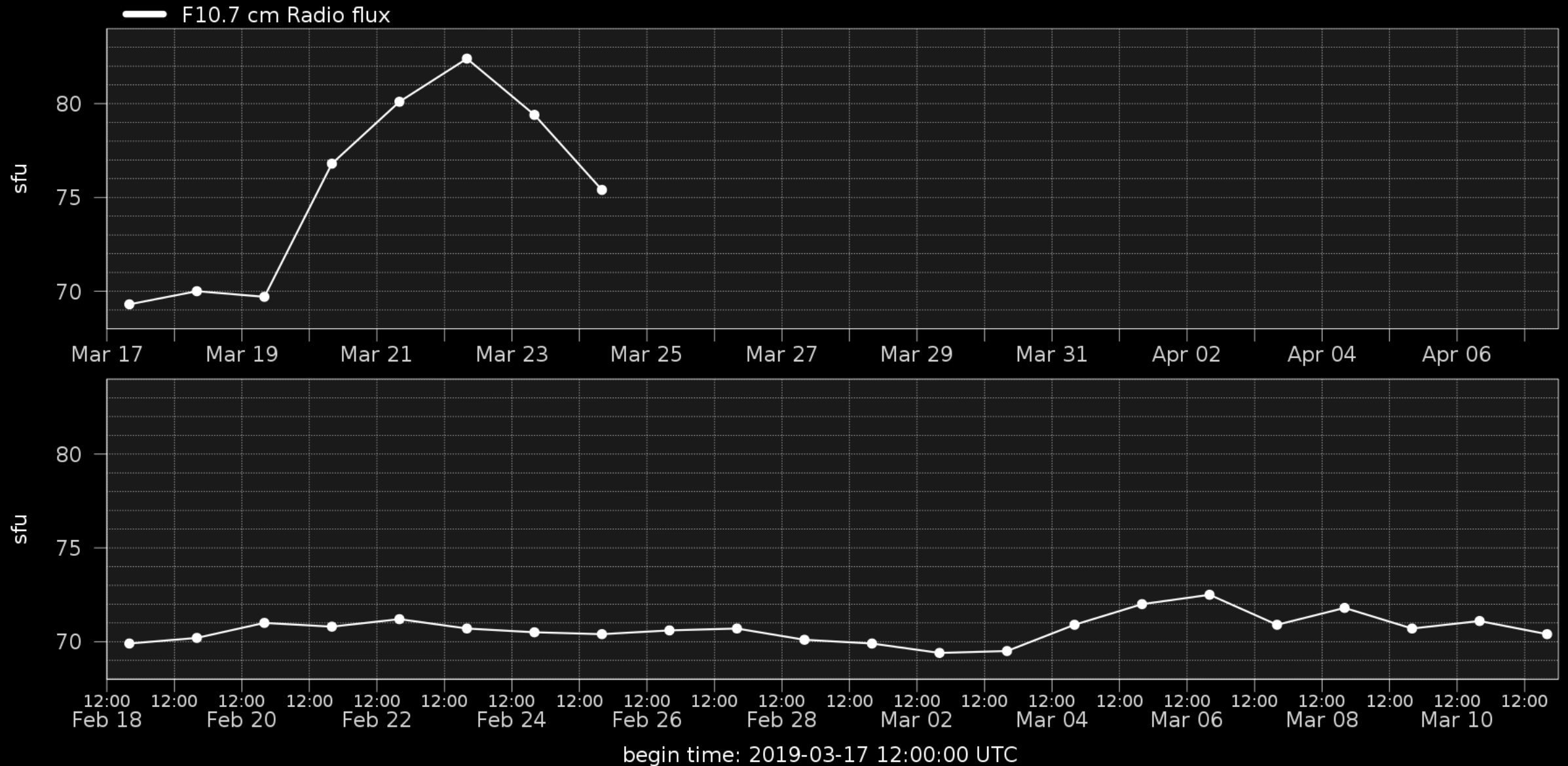
SDO/AIA 19.3 nm 2019-03-24



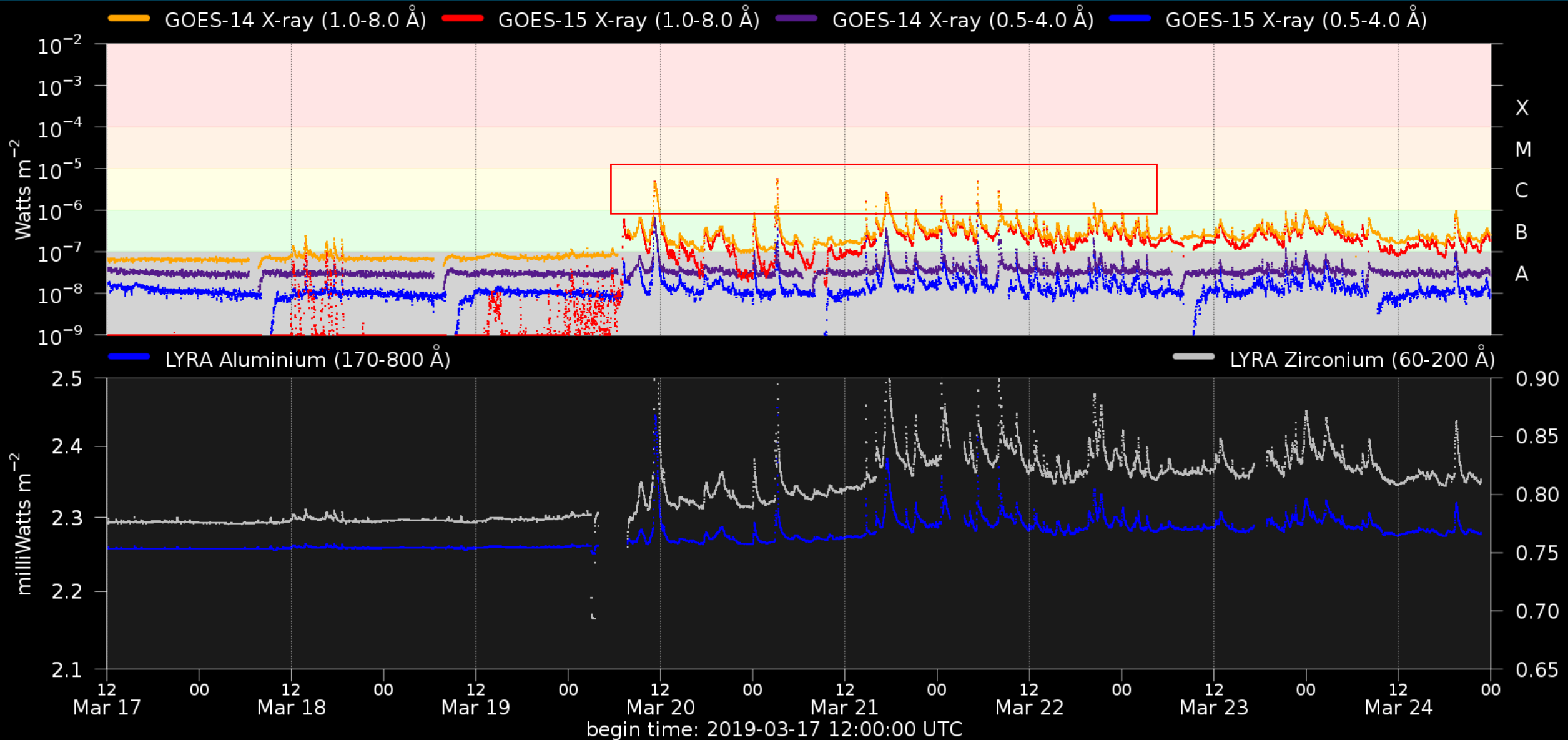
SDO/AIA 193 2019-03-17 12:09:41 UT

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

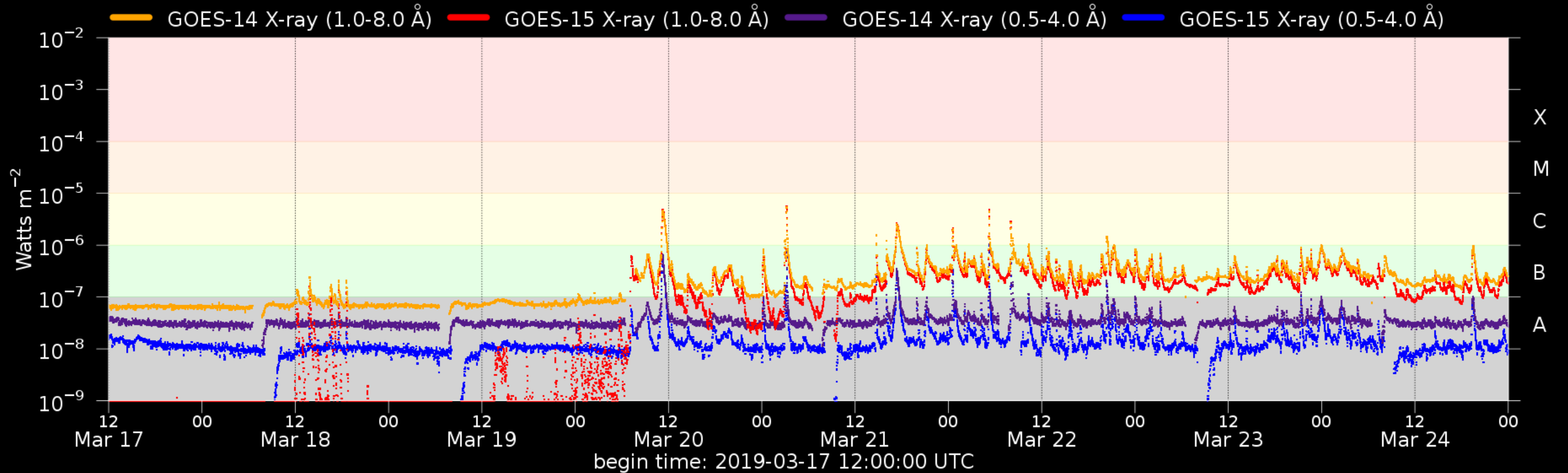
Solar F10.7cm radio flux



Solar X-Ray and UV flux



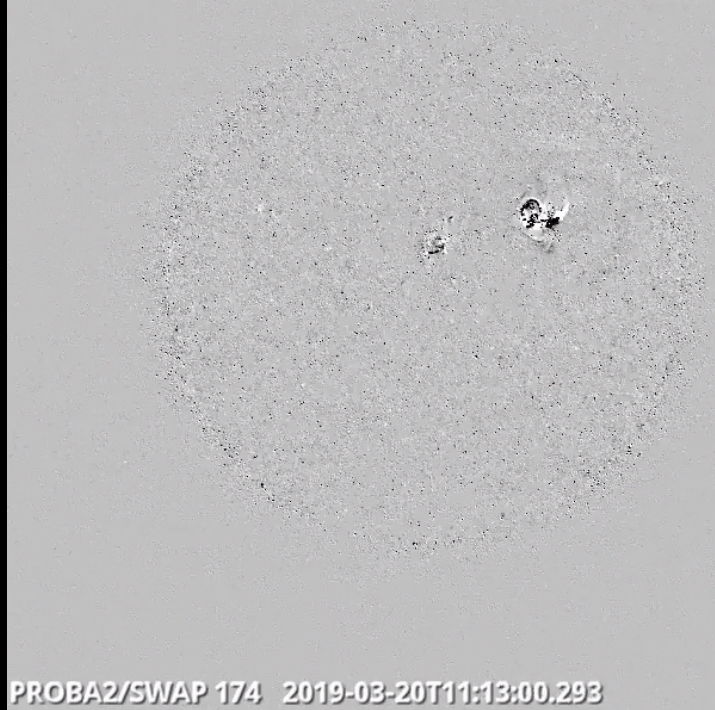
Flaring activity



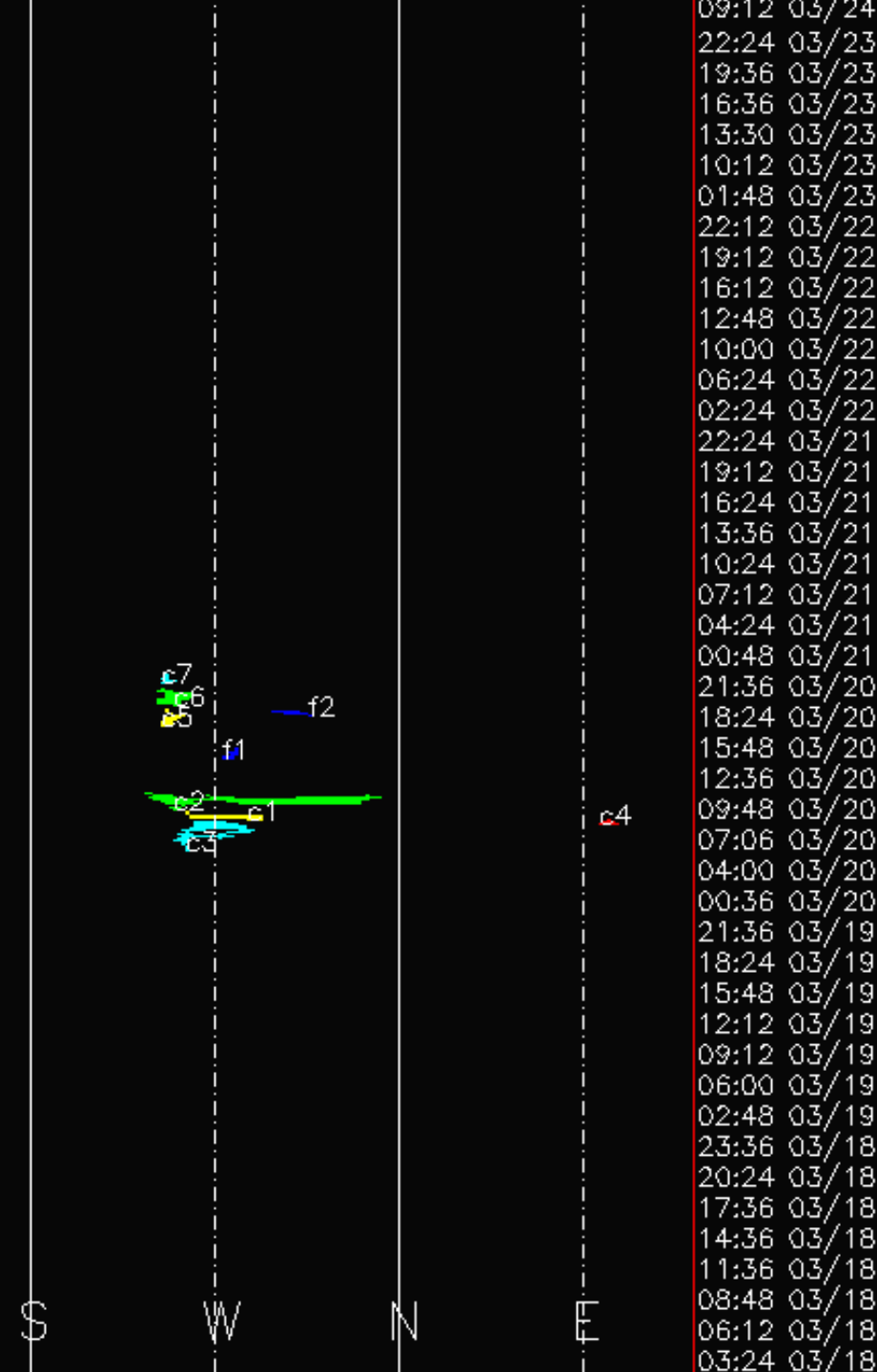
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2019-03-17	2019-03-18	2019-03-19	2019-03-20	2019-03-21	2019-03-22	2019-03-23	2019-03-24
Probability	--- 01 01 01	--- 05 01 01	--- 10 01 01	--- 75 15 01	--- 70 15 01	--- 80 20 05	--- 50 05 01	--- 45 05 01
Observed	00 00 00 00	04 00 00 00	03 00 00 00	18 03 00 00	22 09 00 00	35 01 00 00	25 00 00 00	10 00 00 00

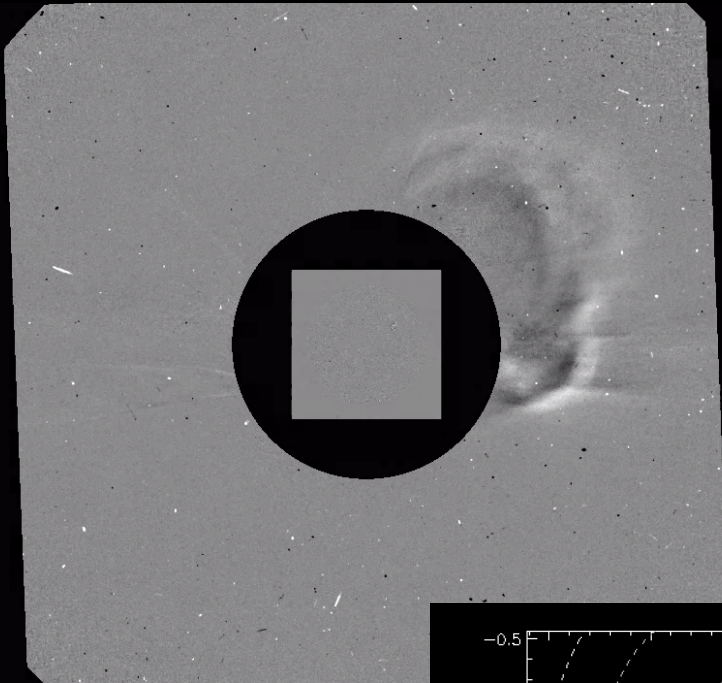
Coronal Mass Ejection



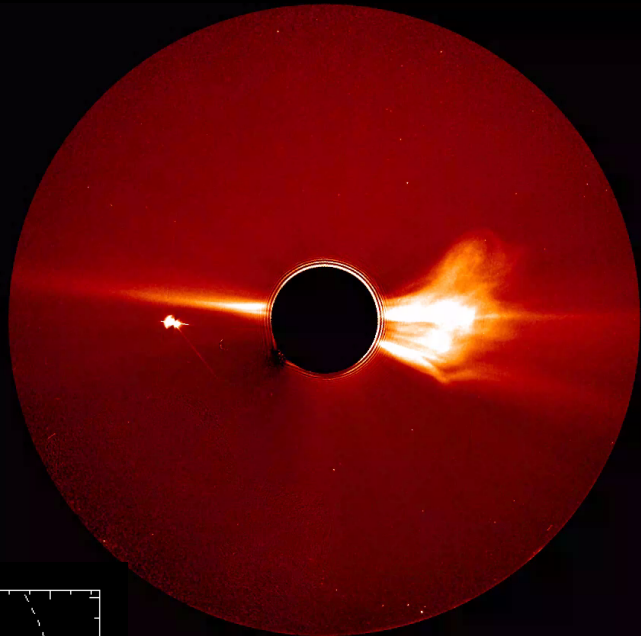
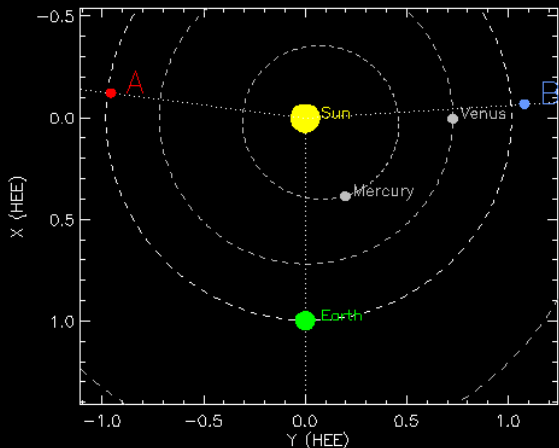
SWAP



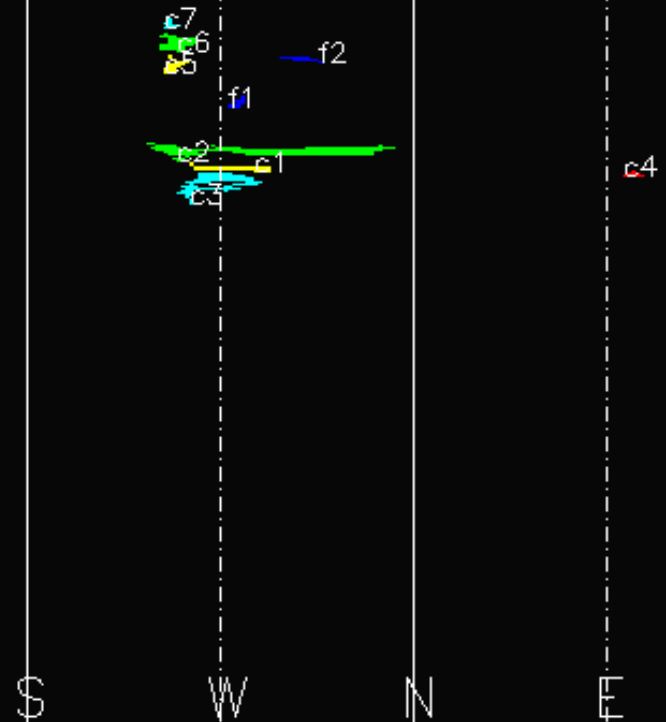
Coronal Mass Ejection



LASCO - AIA

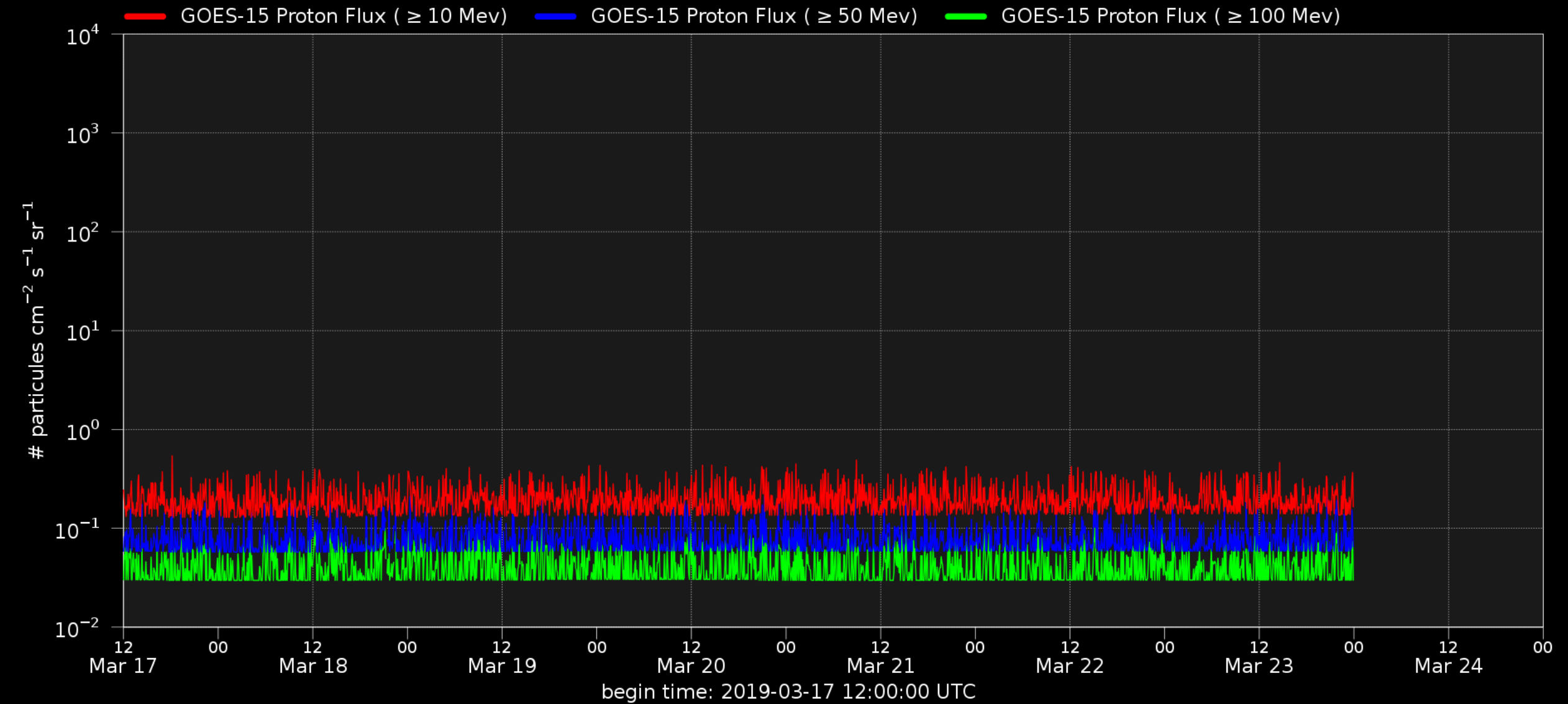


COR2A



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

Solar proton flux

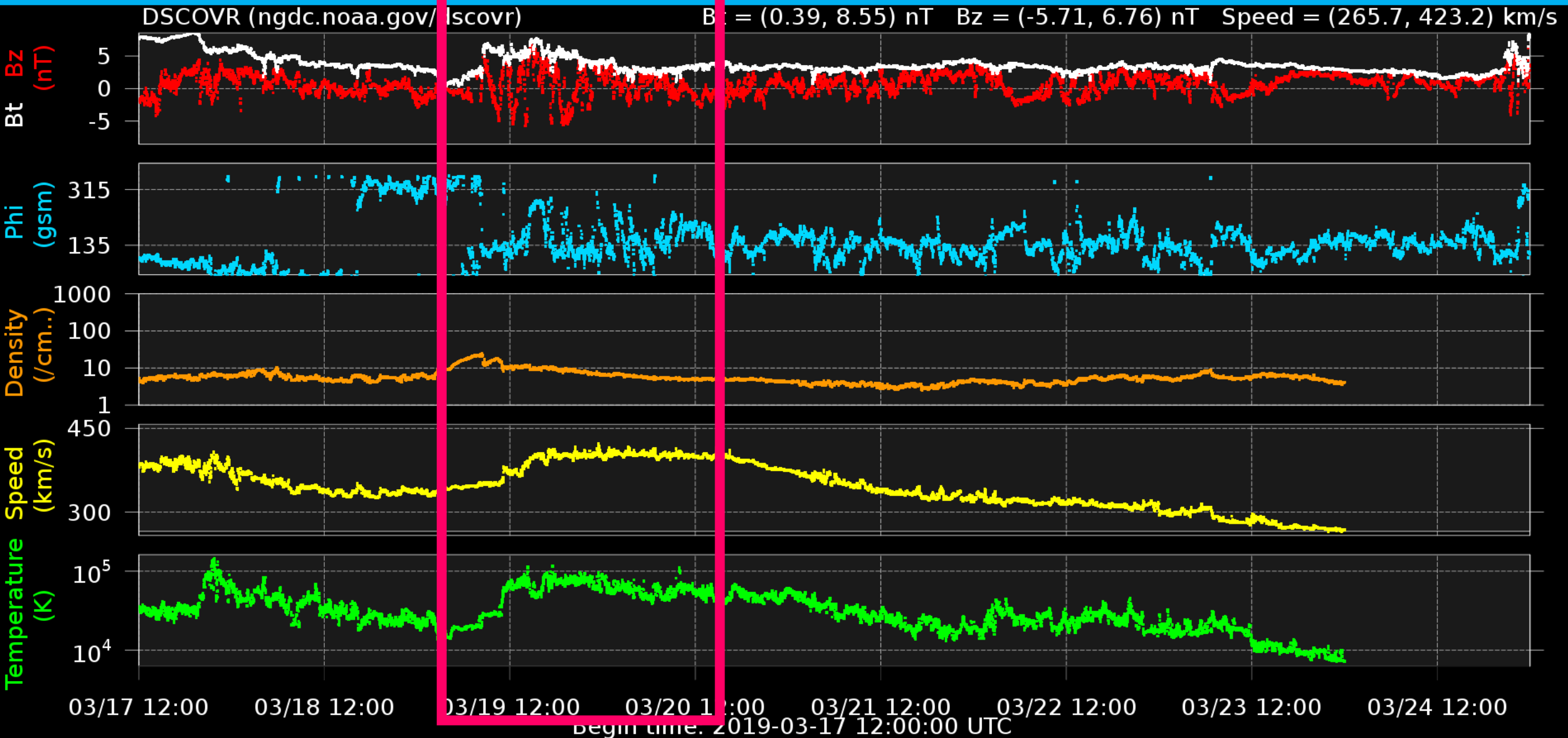


Solar Wind and Geomagnetic Activity

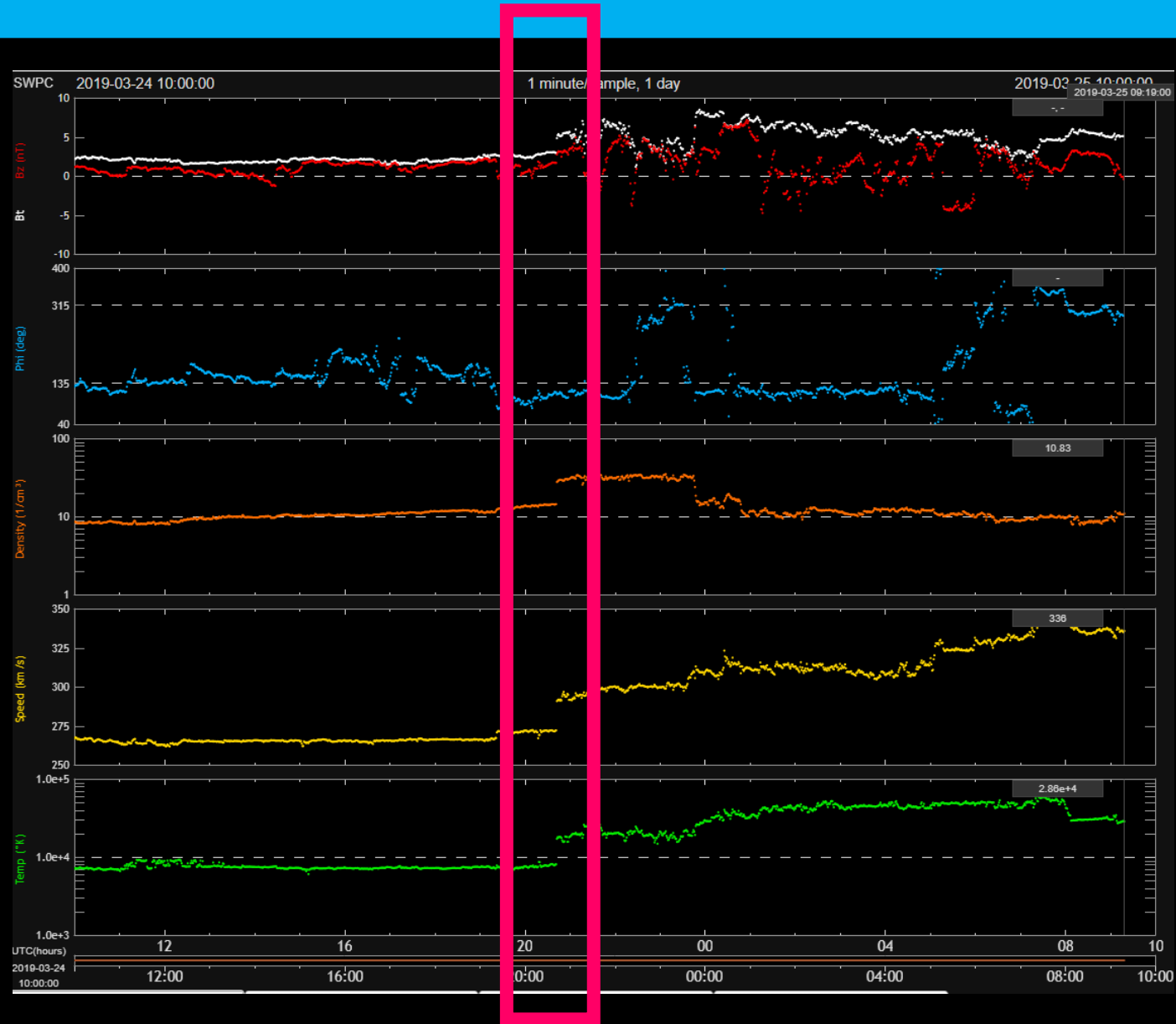


Solar Influences
Data analysis Centre
www.sidc.be

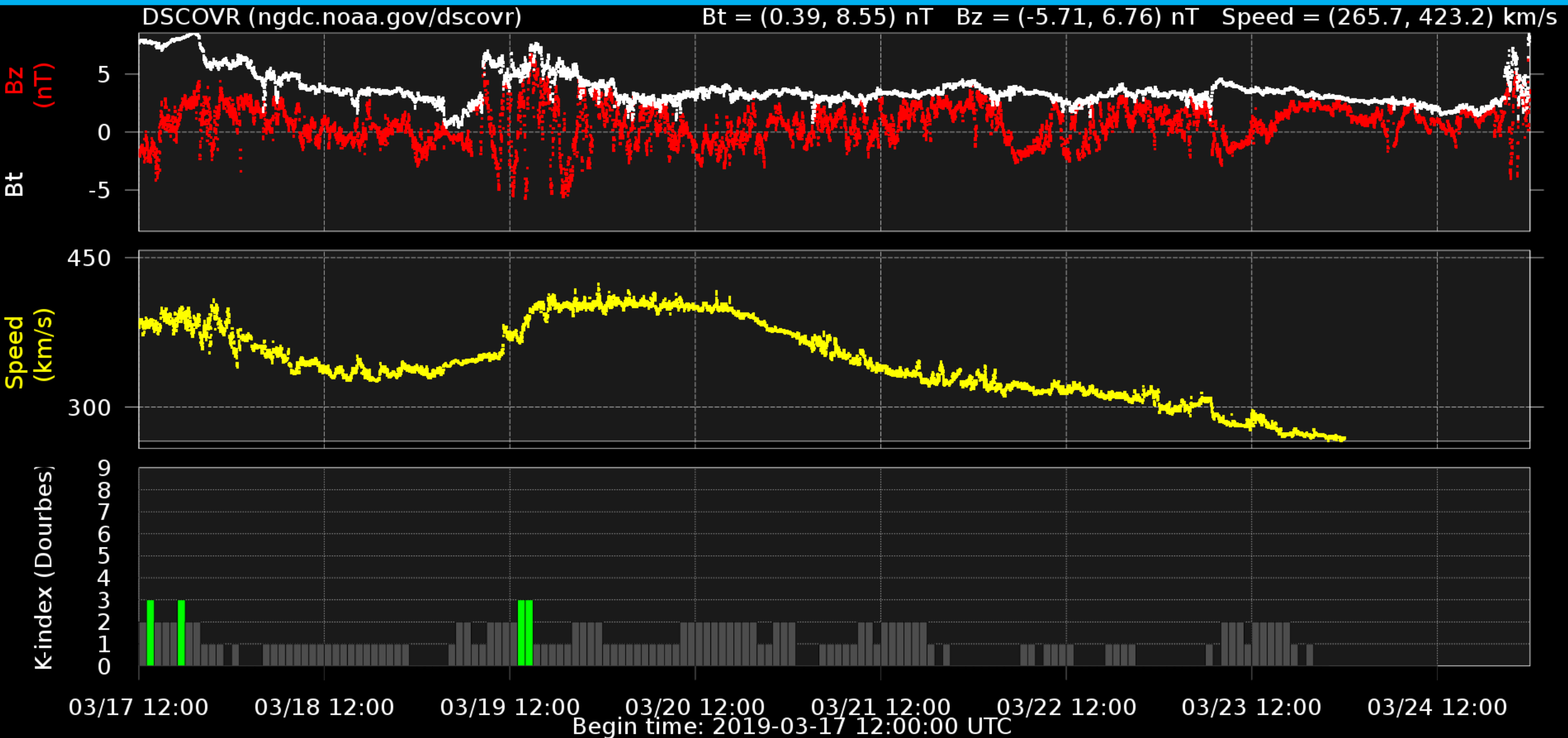
Solar wind parameters (DSCOVR data)



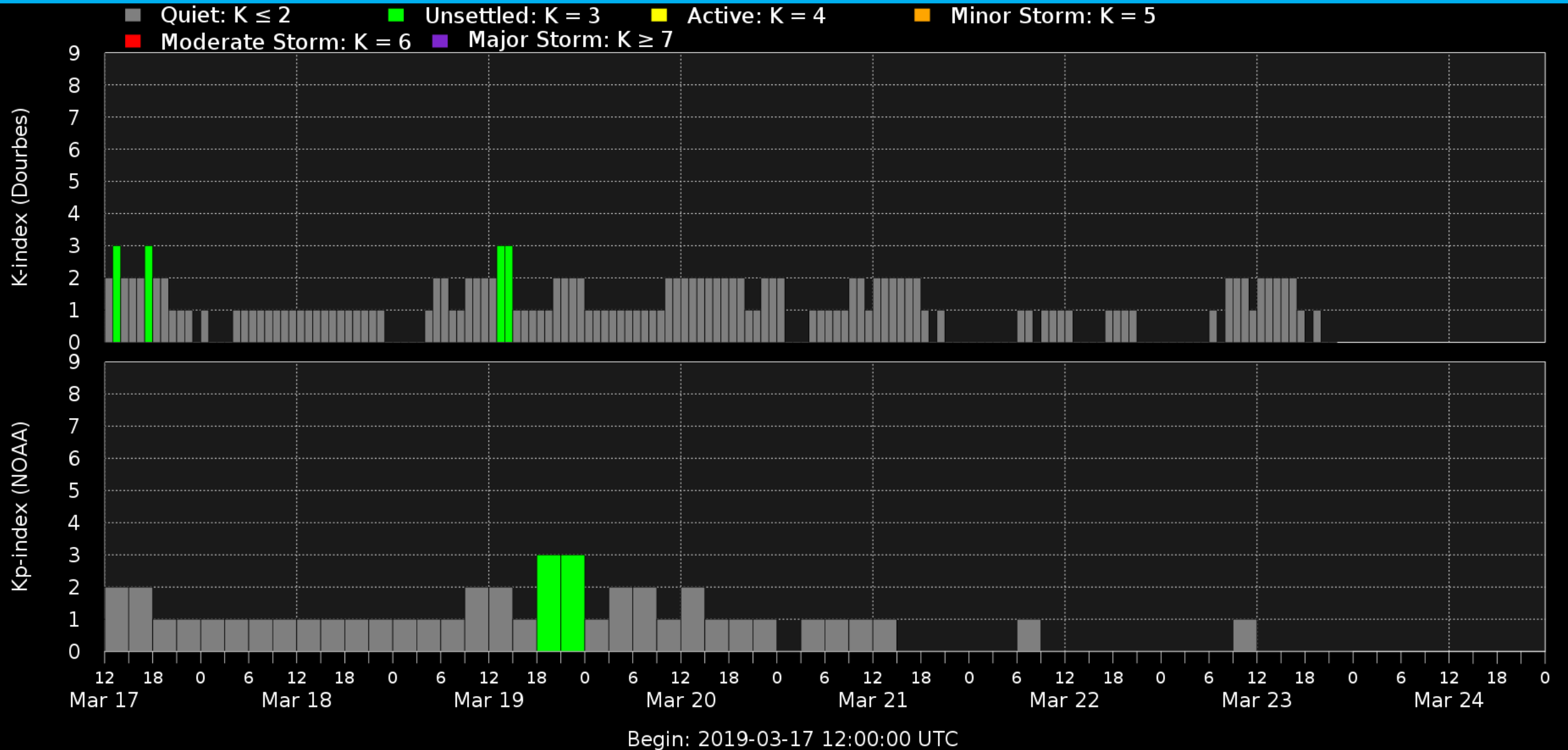
Solar wind parameters



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



Geomagnetic activity (K-indexes)



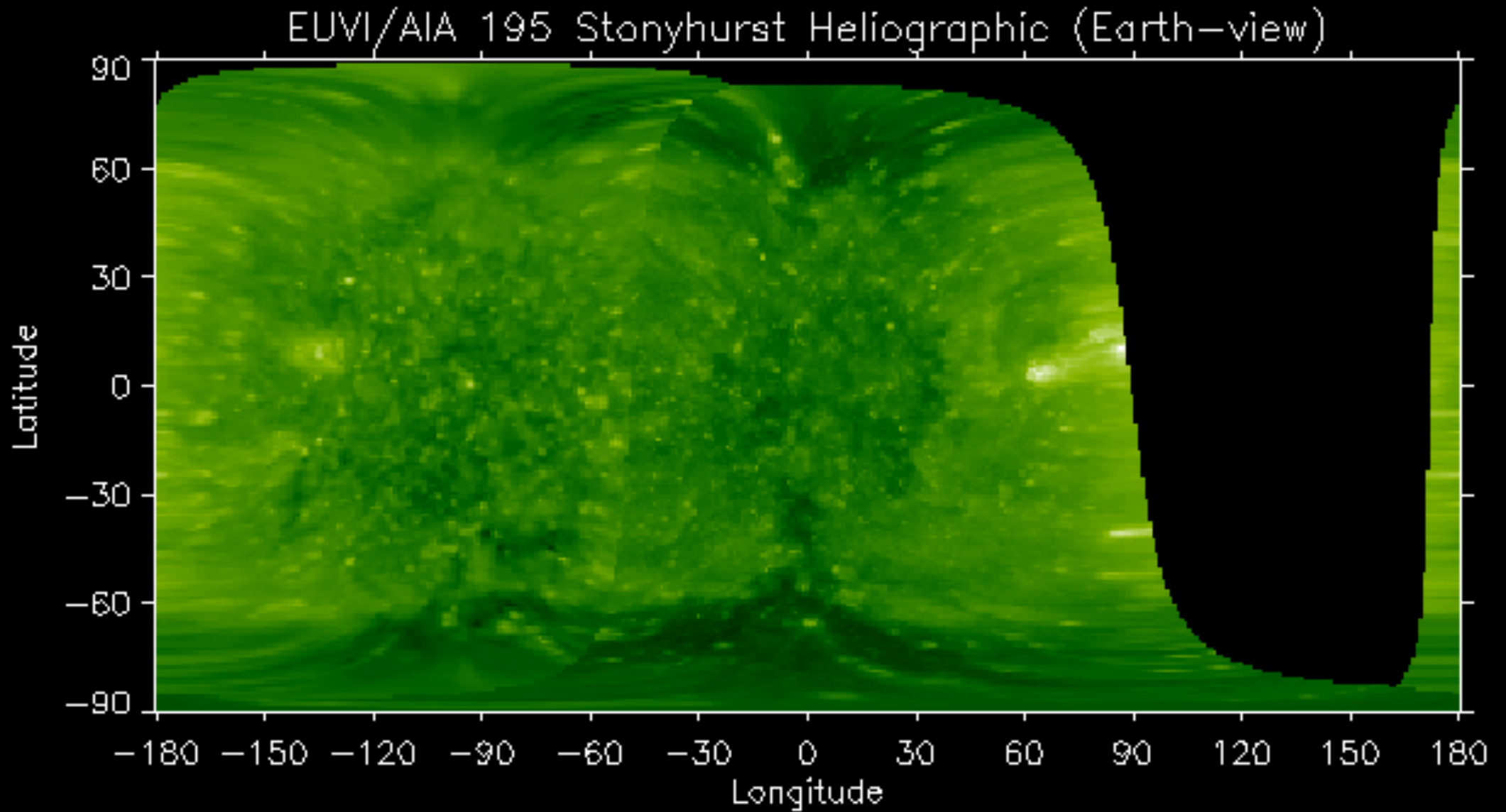
Outlook



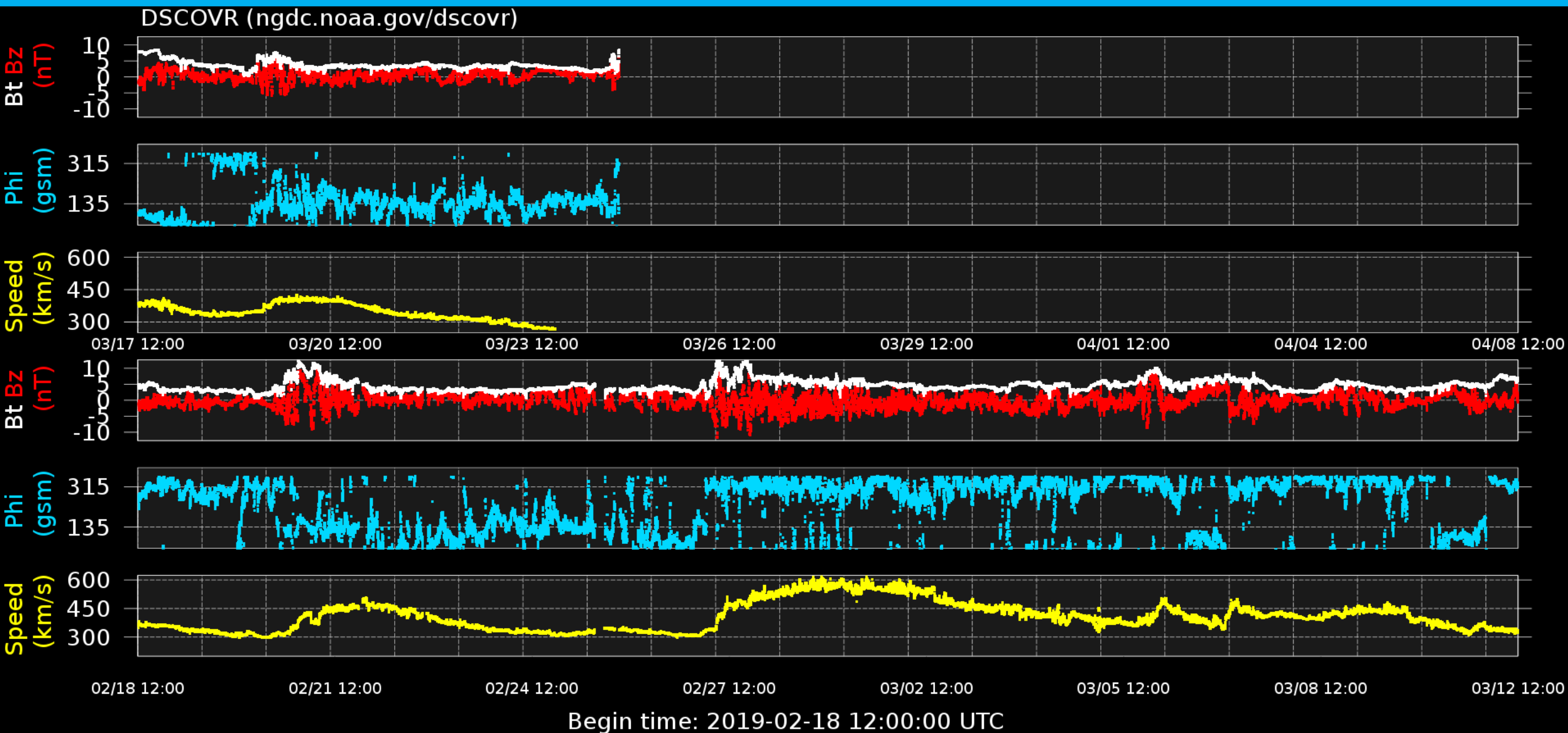
Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

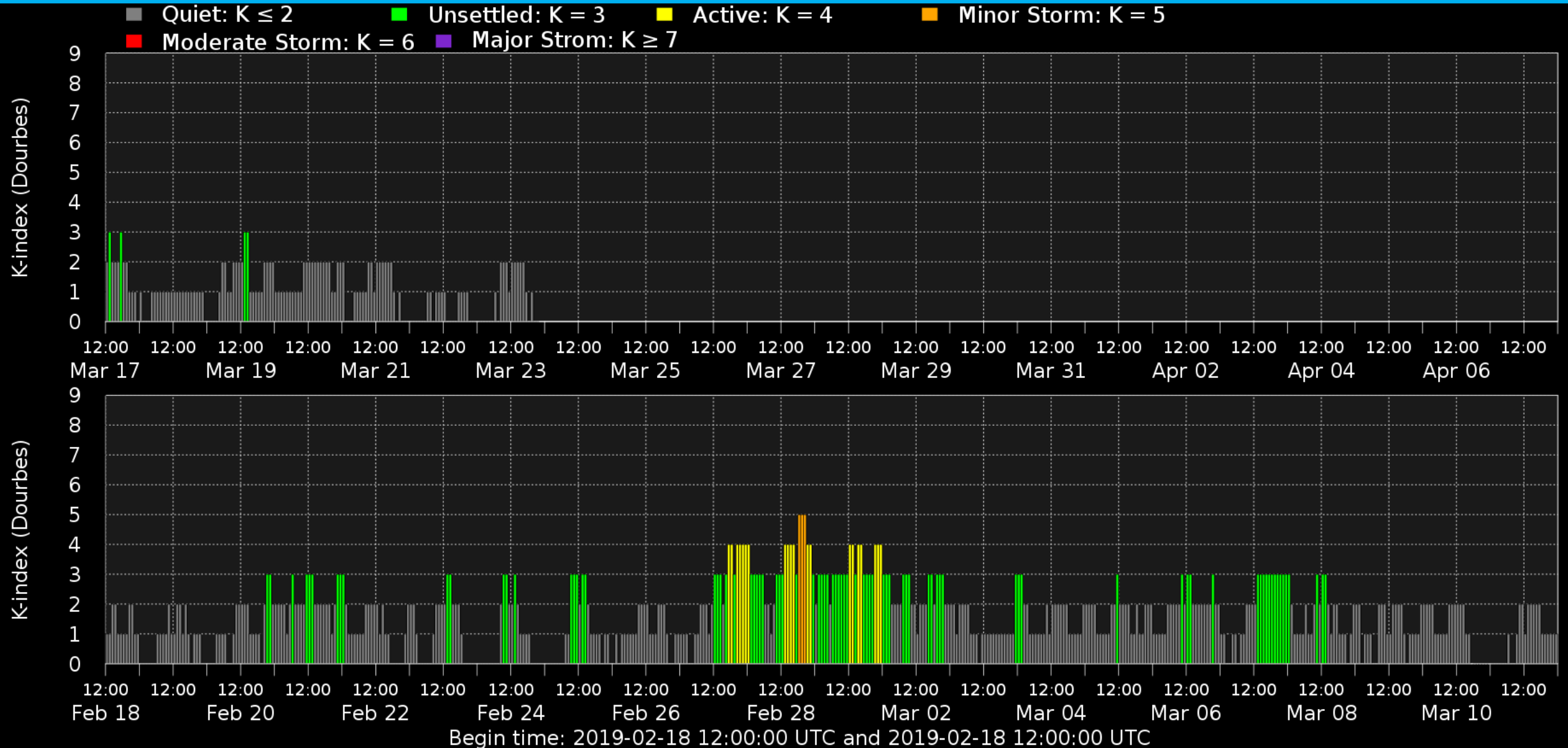
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be