

SIDC Space Weather Briefing

13 – 19 January 2020

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& the SIDC forecaster team



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Summary Report

Solar activity from 2019-12-08 12:00 UT to 2019-12-15 12:00 UT

Active regions	None
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Nothing large
CMEs	Few narrow CMEs
Proton Events	None

Solar wind and geomagnetic conditions from 2019-12-08 12:00 UT to 2019-12-15 12:00 UT

Coronal Holes	Equatorial, negative polarity CH (16/01)
ICME	Possibly earth directed CME (January 14, 09:55 UT)
SW Conditions	Mostly quiet to unsettled
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 3

All Quiet Alert: no

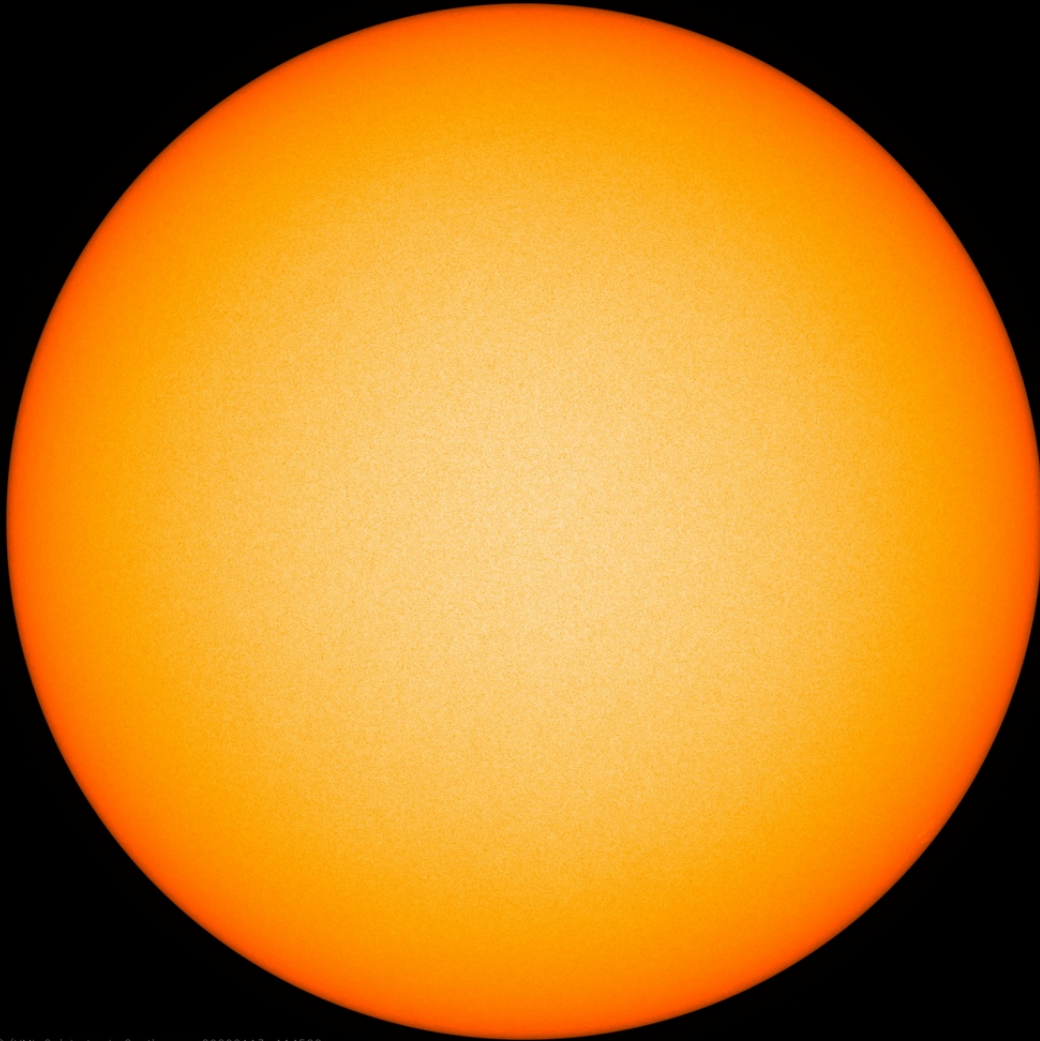
Solar Activity



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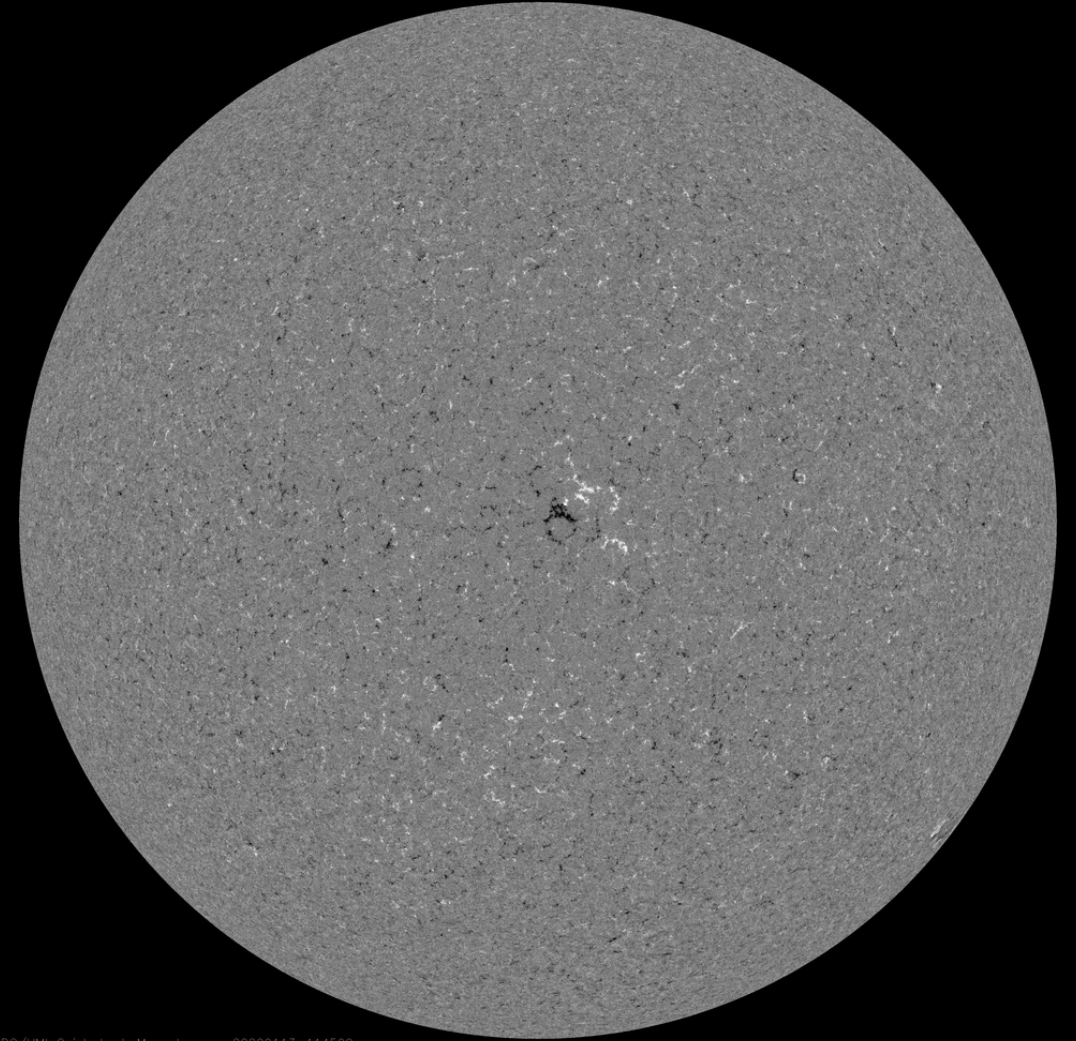
Solar active region - start of the week

SDO/HMI White Light 2020-01-13



SDO/HMI Quick-Look Continuum: 20200113_114500

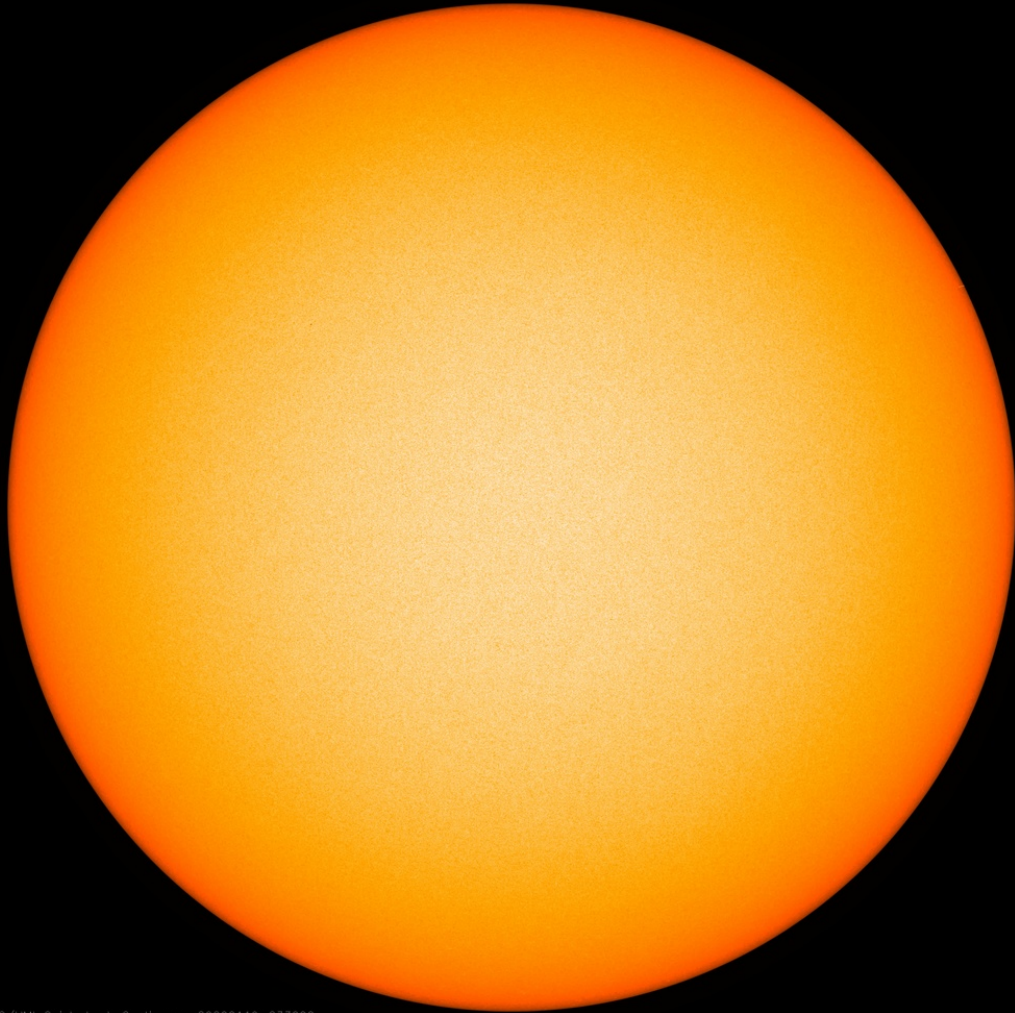
SDO/HMI Magnetogram 2020-01-13



SDO/HMI Quick-Look Magnetogram: 20200113_114500

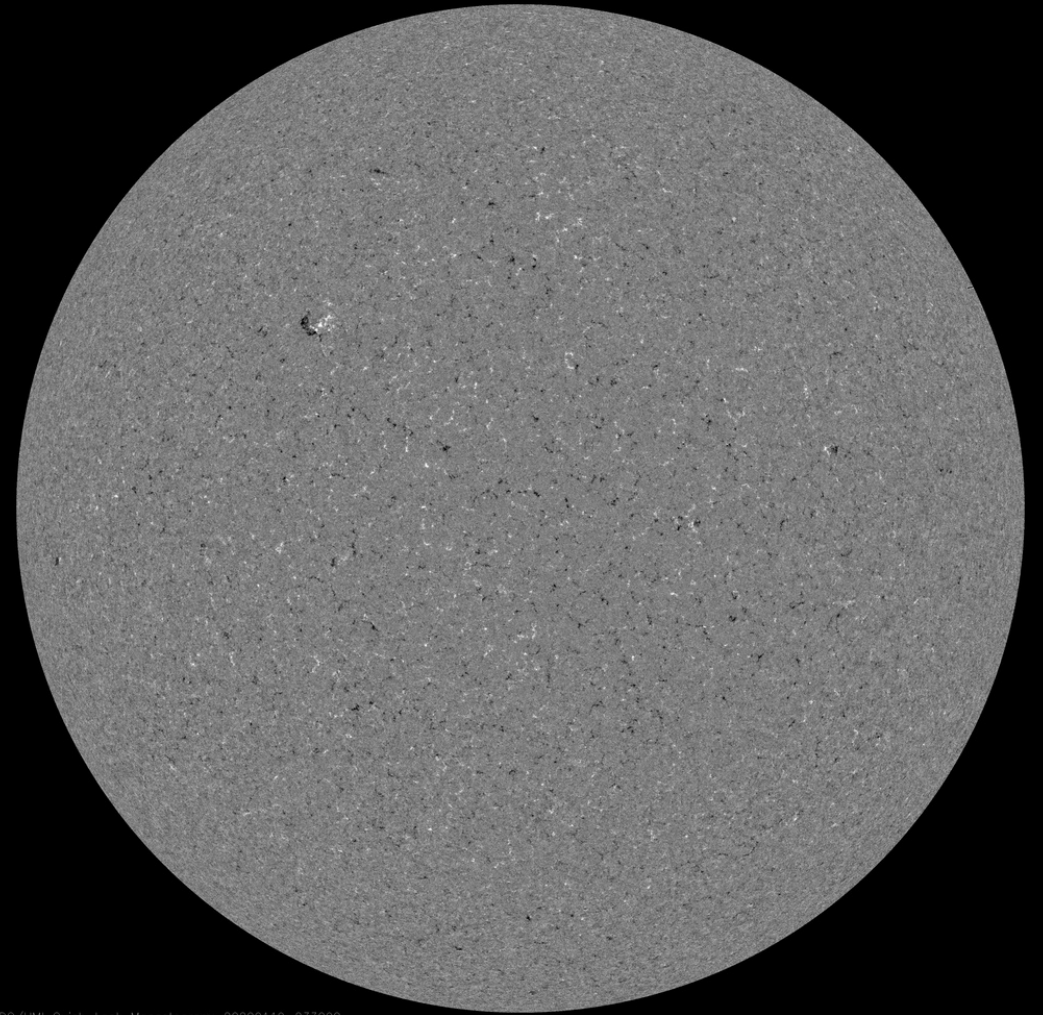
Solar active region - end of the week

SDO/HMI White Light 2020-01-19



SDO/HMI Quick-Look Continuum: 20200119_233000

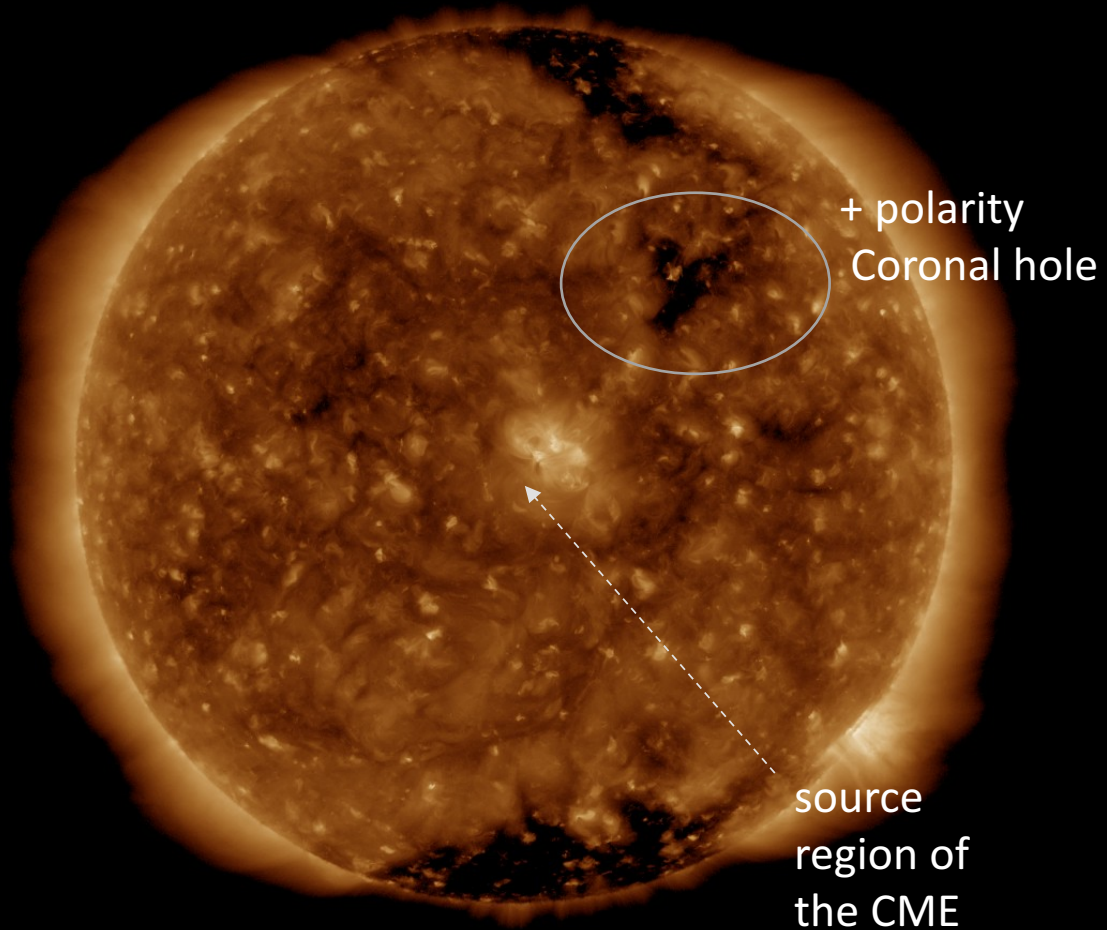
SDO/HMI Magnetogram 2020-01-19



SDO/HMI Quick-Look Magnetogram: 20200119_233000

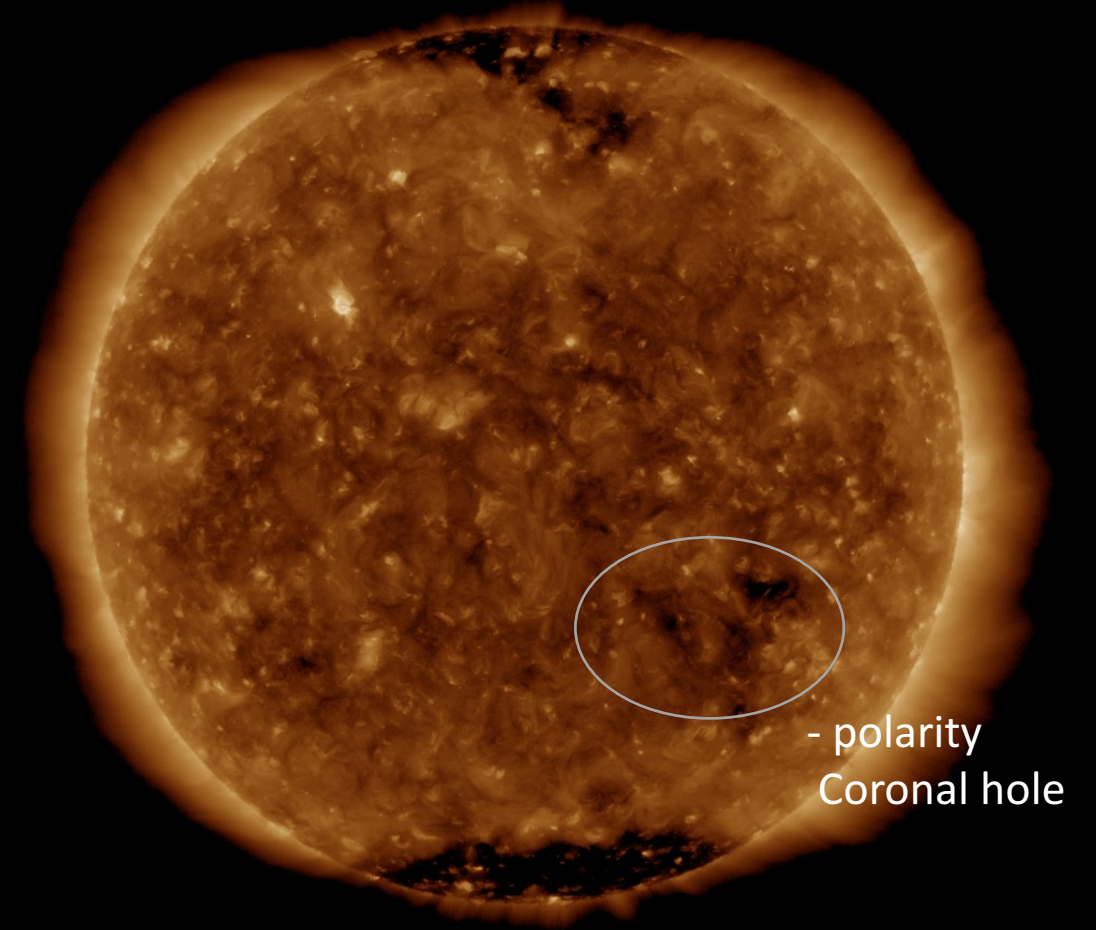
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2020-01-13



SDO/AIA 193 2020-01-13 12:10:29 UT

SDO/AIA 19.3 nm 2020-01-19

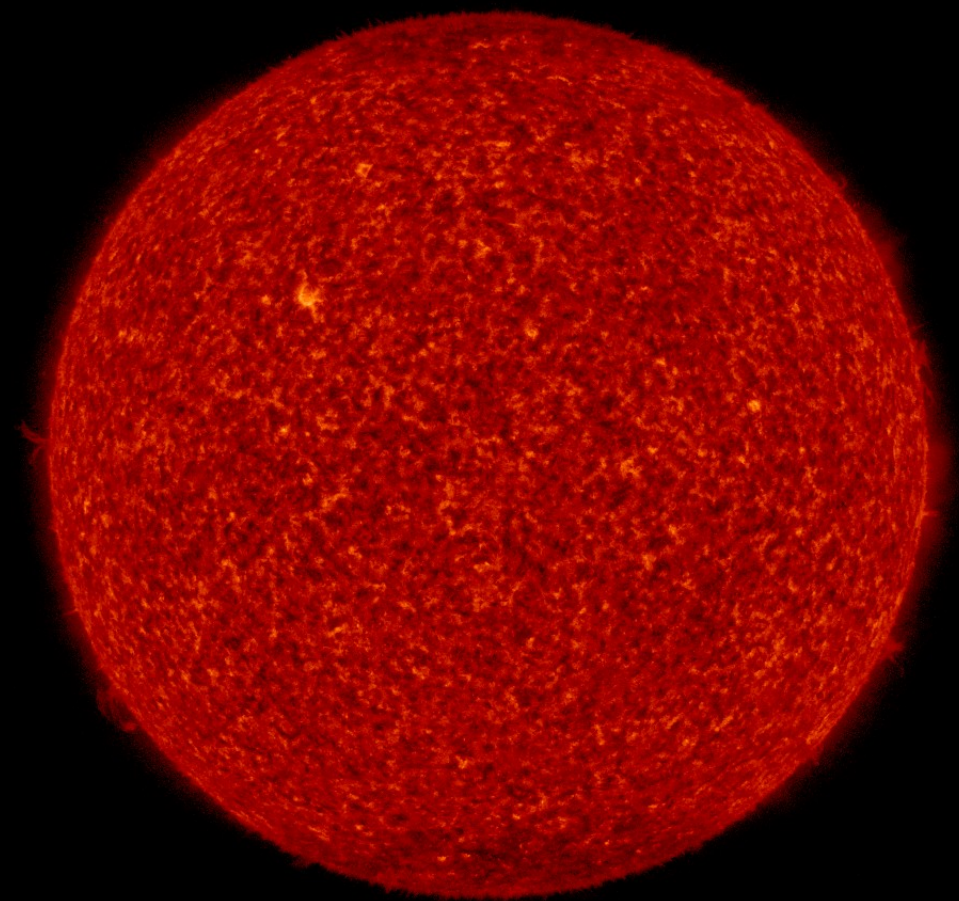
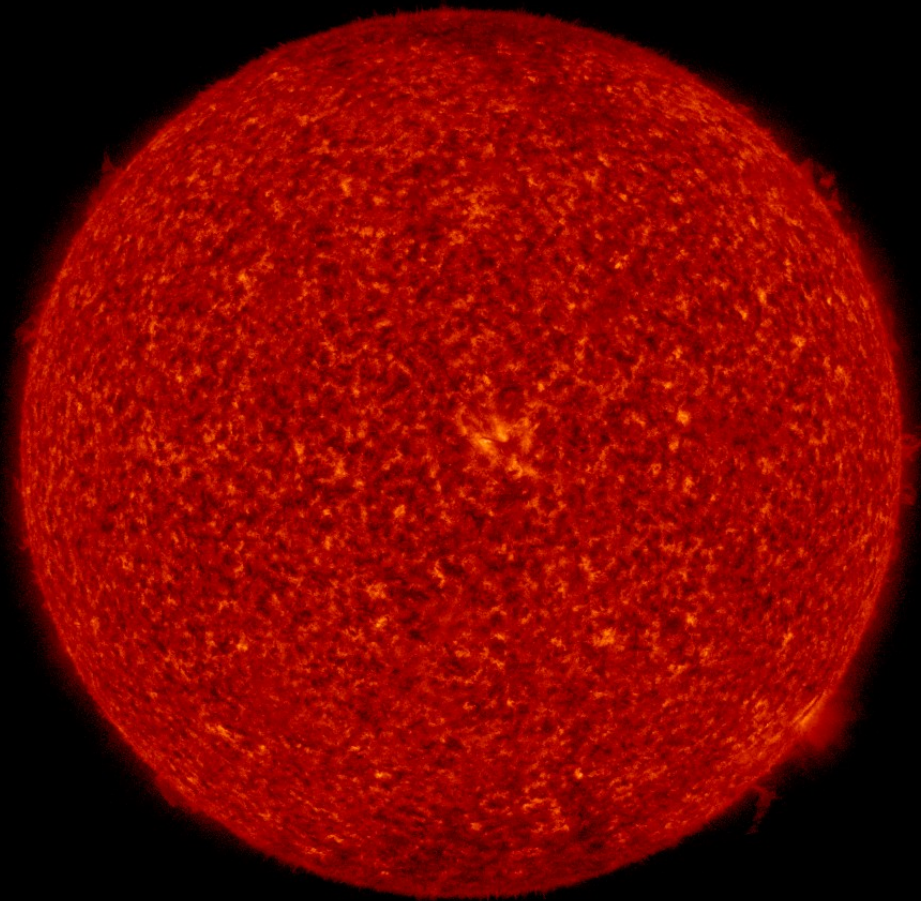


SDO/AIA 193 2020-01-19 23:10:05 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2020-01-13

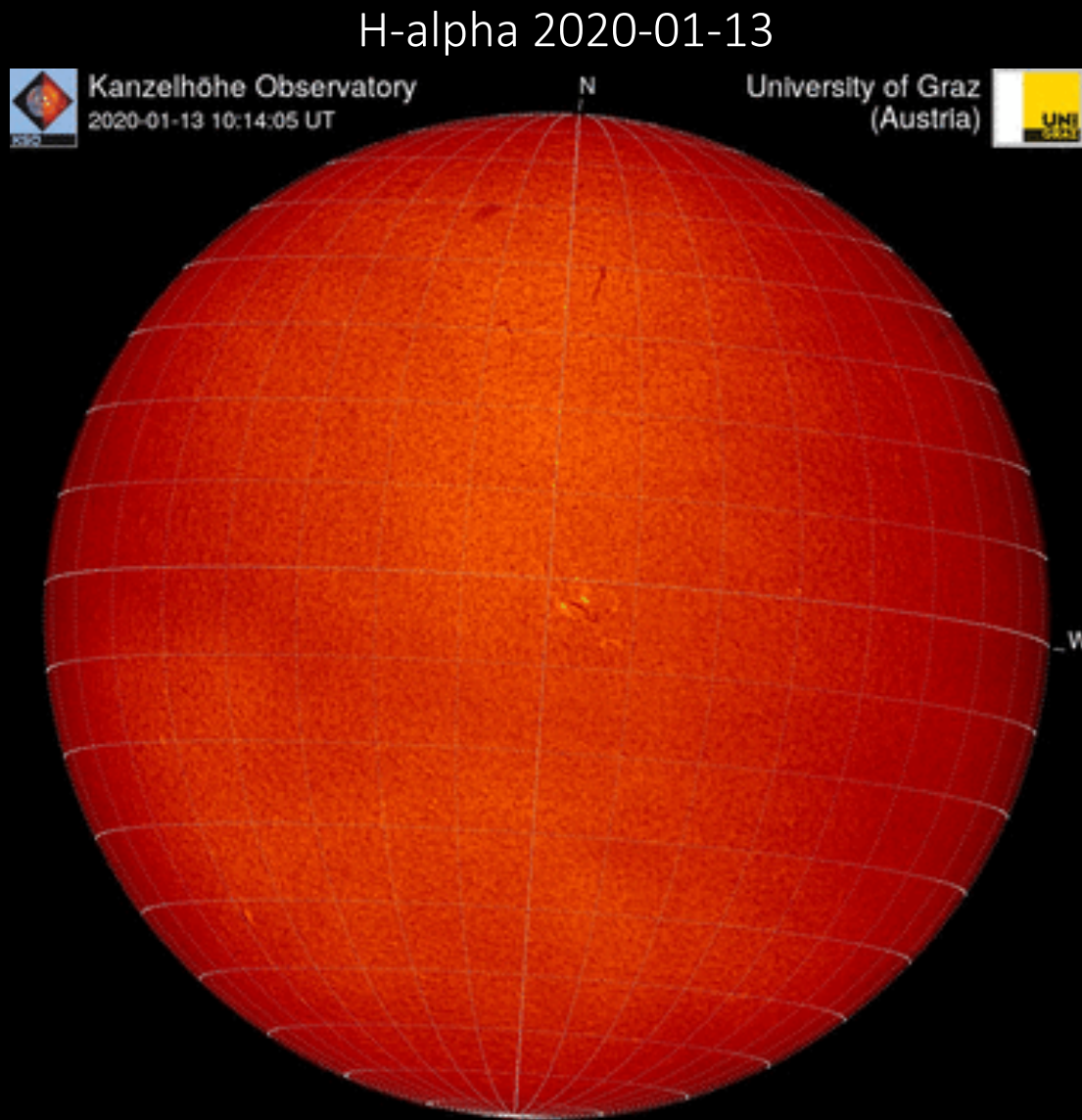
SDO/AIA 30.4 nm 2020-01-19



SDO/AIA 304 2020-01-13 12:14:06 UT

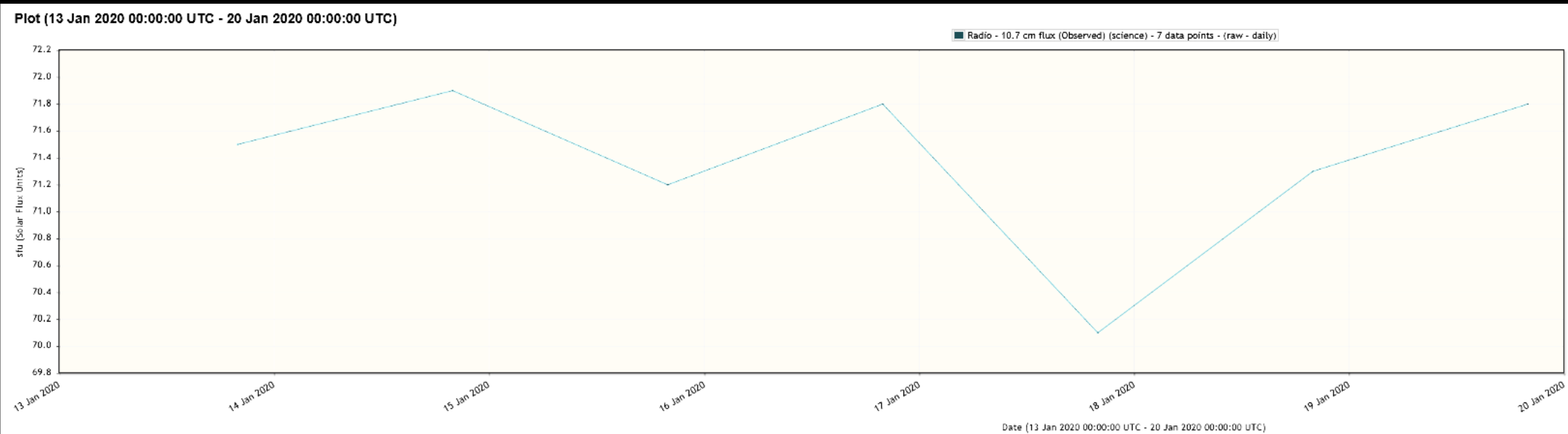
SDO/AIA 304 2020-01-19 22:58:18 UT

Filament & Filament eruption



- No large filament eruptions observed this week.

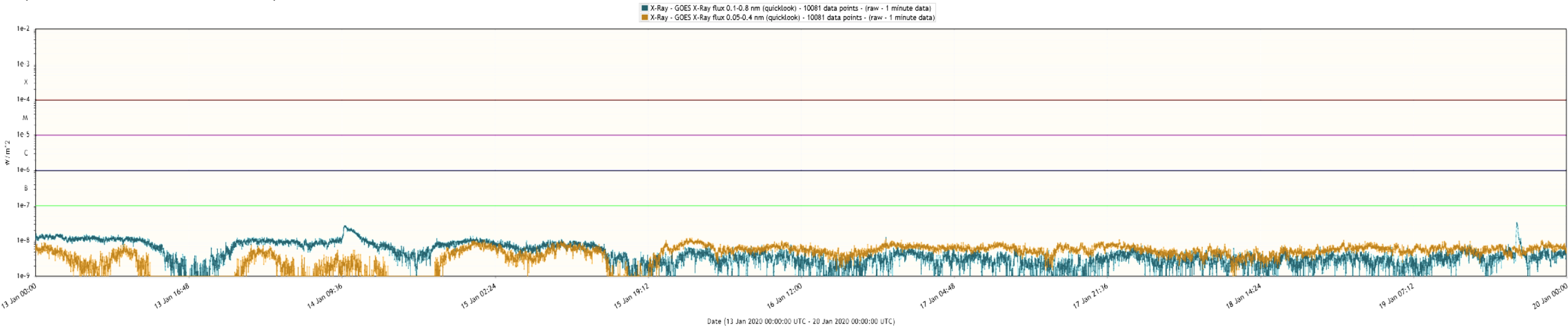
Solar F10.7cm radio flux



F10.7 was during this week between 70 and 72 sfu.

Flaring activity

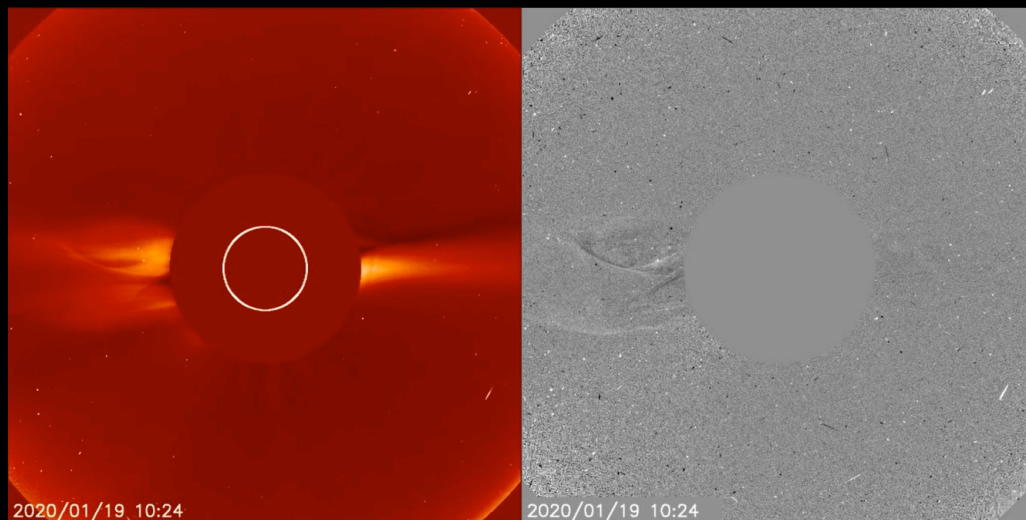
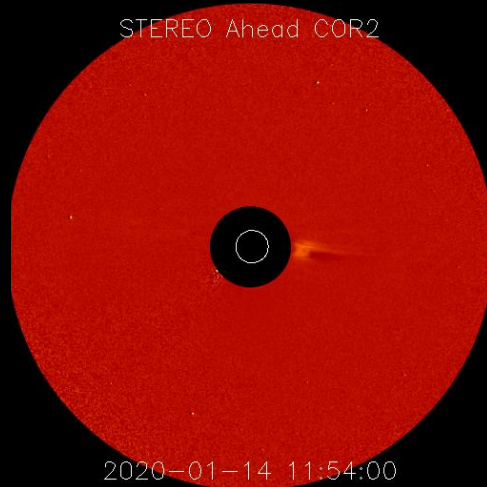
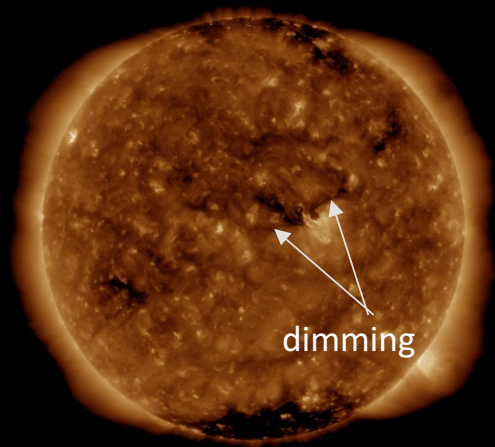
Plot (13 Jan 2020 00:00:00 UTC - 20 Jan 2020 00:00:00 UTC)



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

Issue date	2020-01-13	2020-01-14	2020-01-15	2020-01-16	2020-01-17	2020-01-18	2020-01-19	2020-01-20
Probability	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 01 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

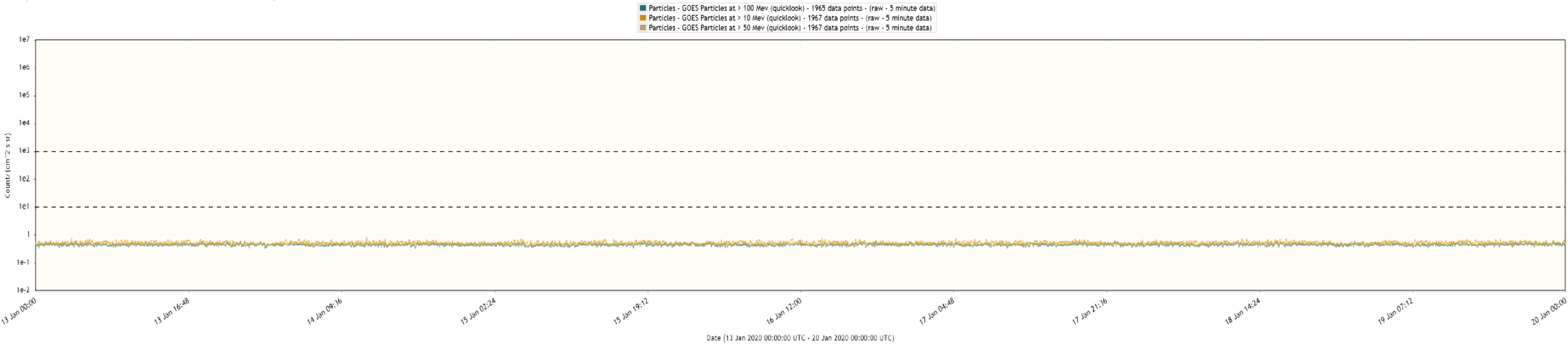


- Few narrow and slow CMEs
- CME on January 14 (09:55 UT)
 - observed only by STEREO A
 - possibly Earth-directed
 - source region on the center of the solar disc

10:24 01/19
07:12 01/19
04:12 01/19
00:48 01/19
21:24 01/18
18:24 01/18
15:36 01/18
12:12 01/18
09:36 01/18
06:12 01/18
03:12 01/18
23:48 01/17
20:00 01/17
17:30 01/17
14:36 01/17
11:24 01/17
08:12 01/17
05:18 01/17
00:48 01/17
21:36 01/16
18:36 01/16
14:48 01/16
11:48 01/16
08:48 01/16
05:36 01/16
02:24 01/16
22:00 01/15
18:36 01/15
14:12 01/15
11:00 01/15
08:12 01/15
05:06 01/15
02:12 01/15
22:36 01/14
19:36 01/14
17:00 01/14
14:00 01/14
10:54 01/14
07:36 01/14
04:48 01/14
01:25 01/14
21:48 01/13
18:48 01/13
15:49 01/13
12:06 01/13

Solar proton flux

Plot (13 Jan 2020 00:00:00 UTC - 20 Jan 2020 00:00:00 UTC)

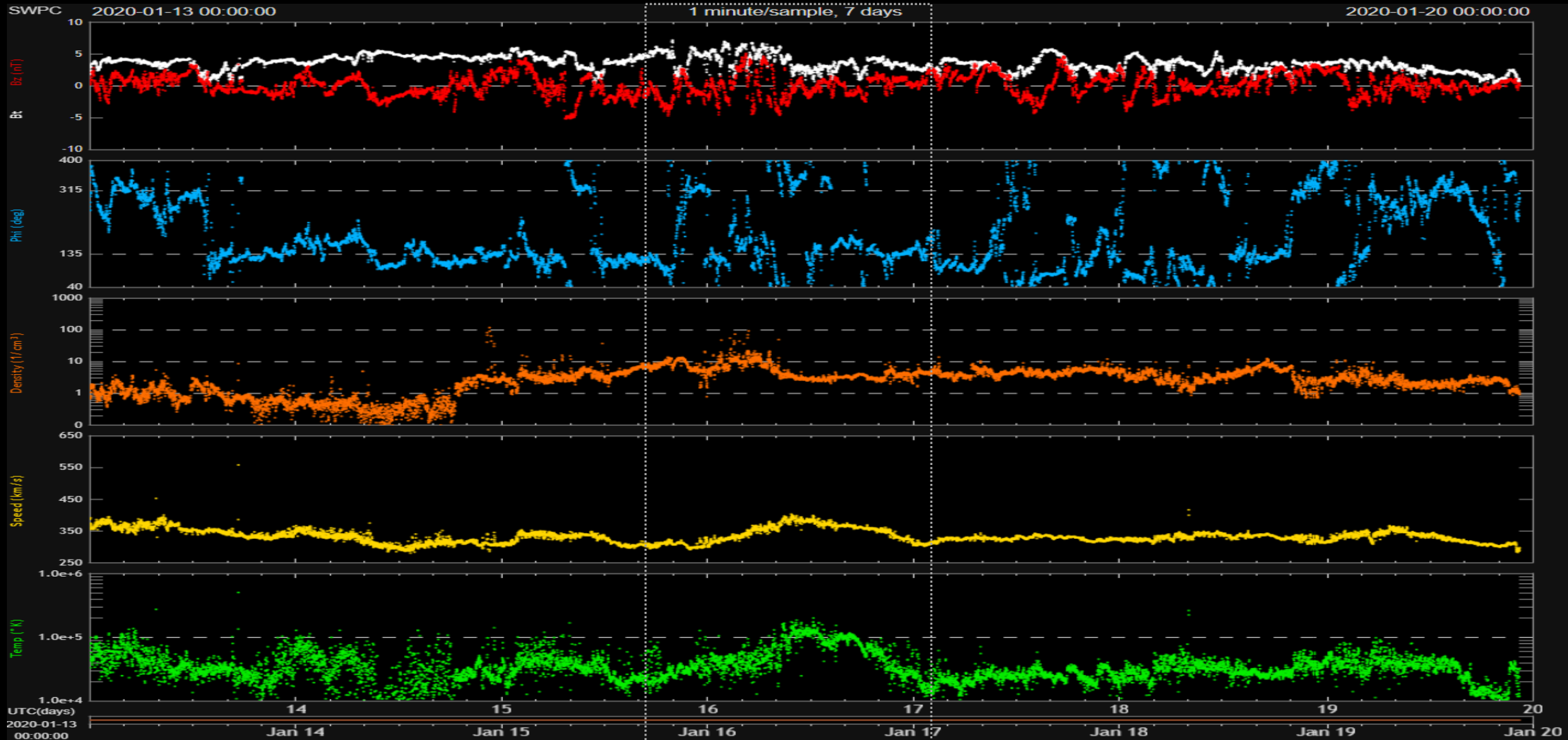


Solar Wind and Geomagnetic Activity

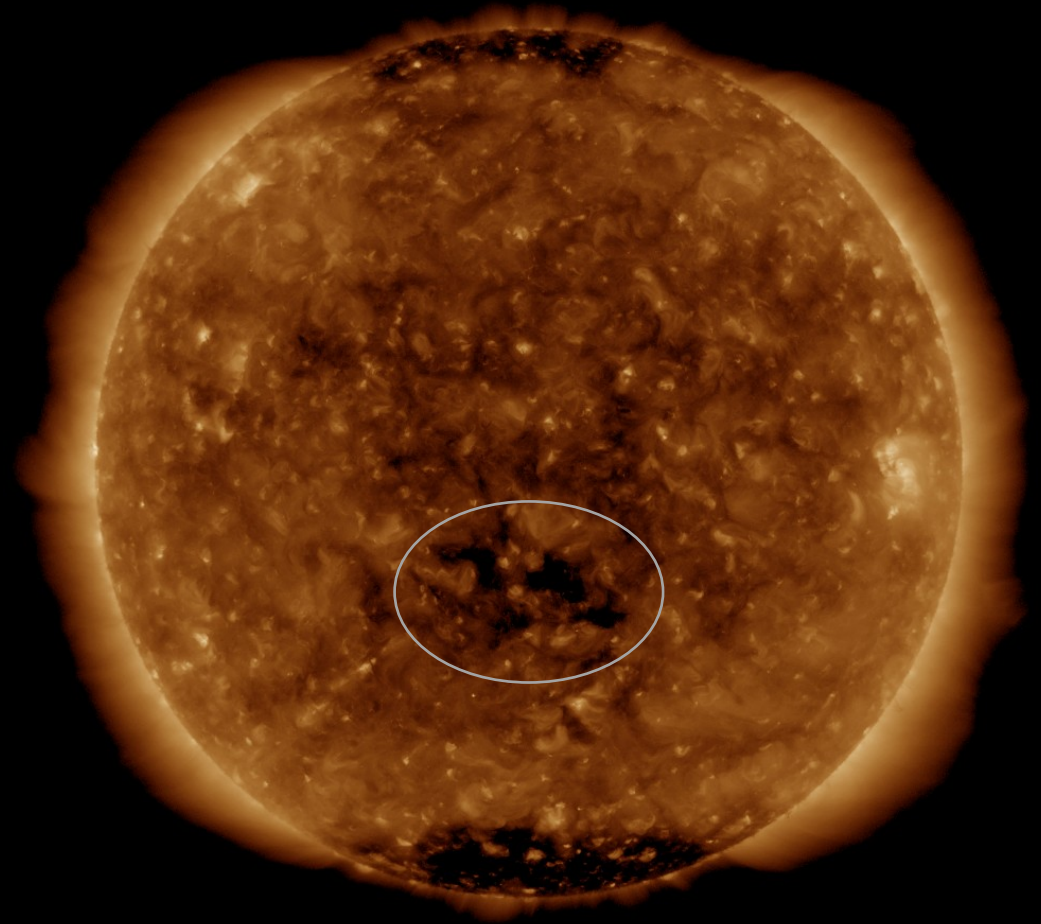
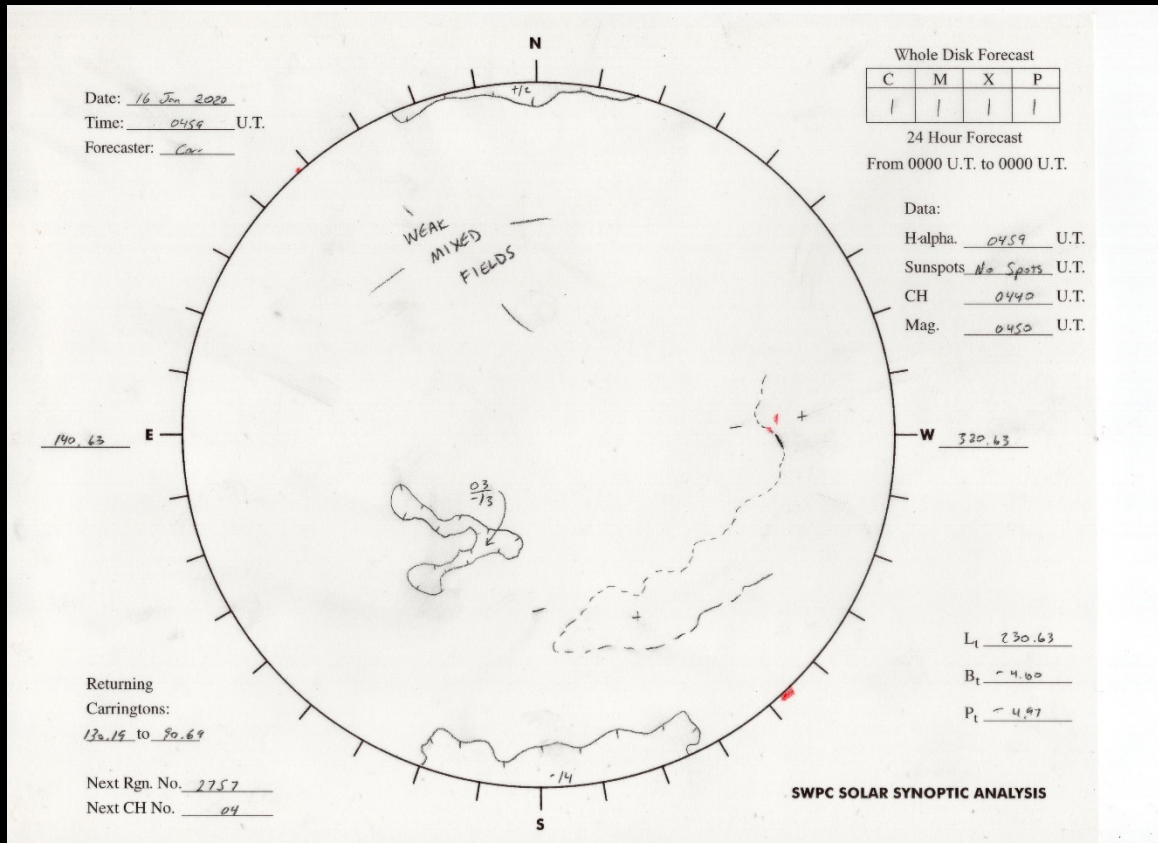


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Solar wind parameters (DSCOVR/ACE data)

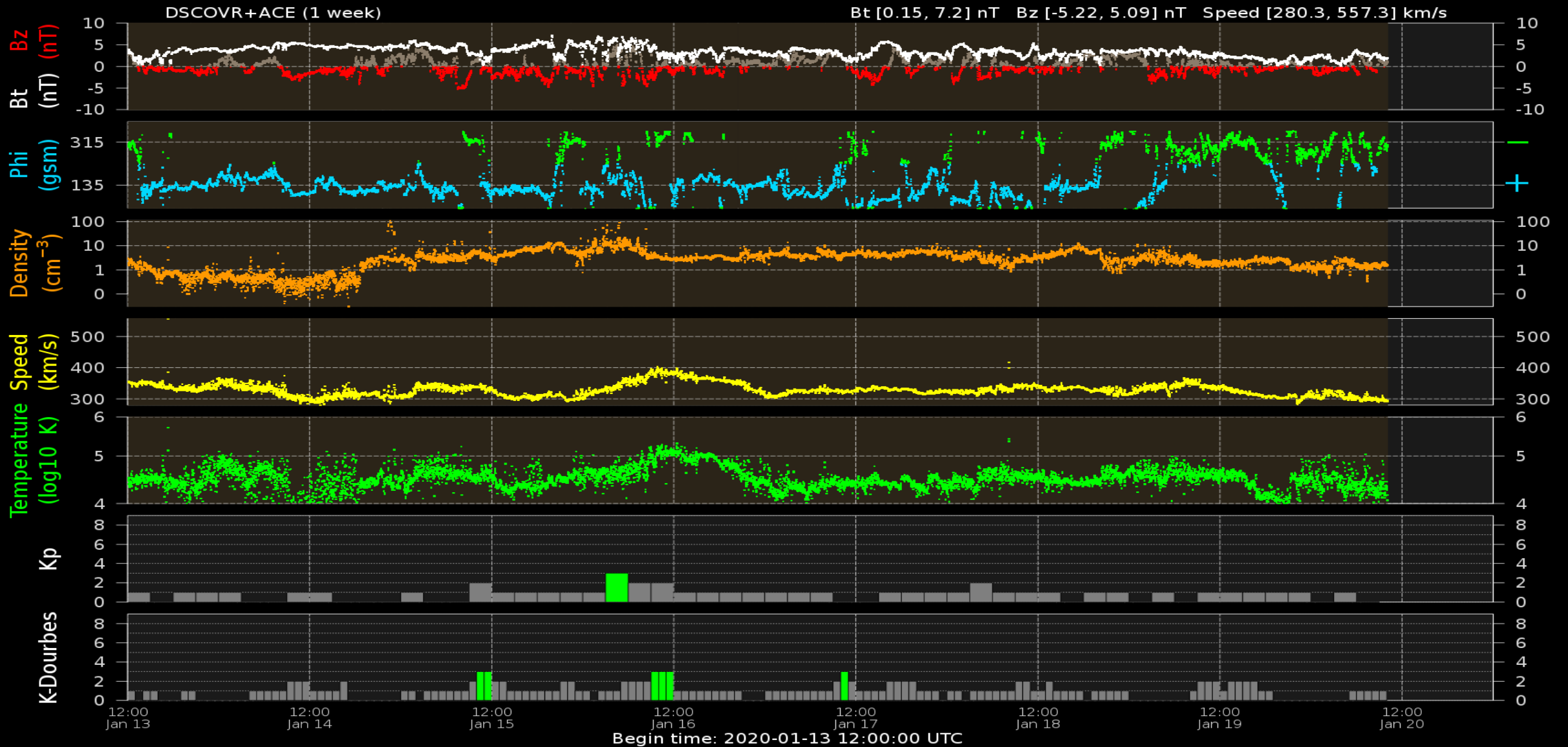


Coronal holes

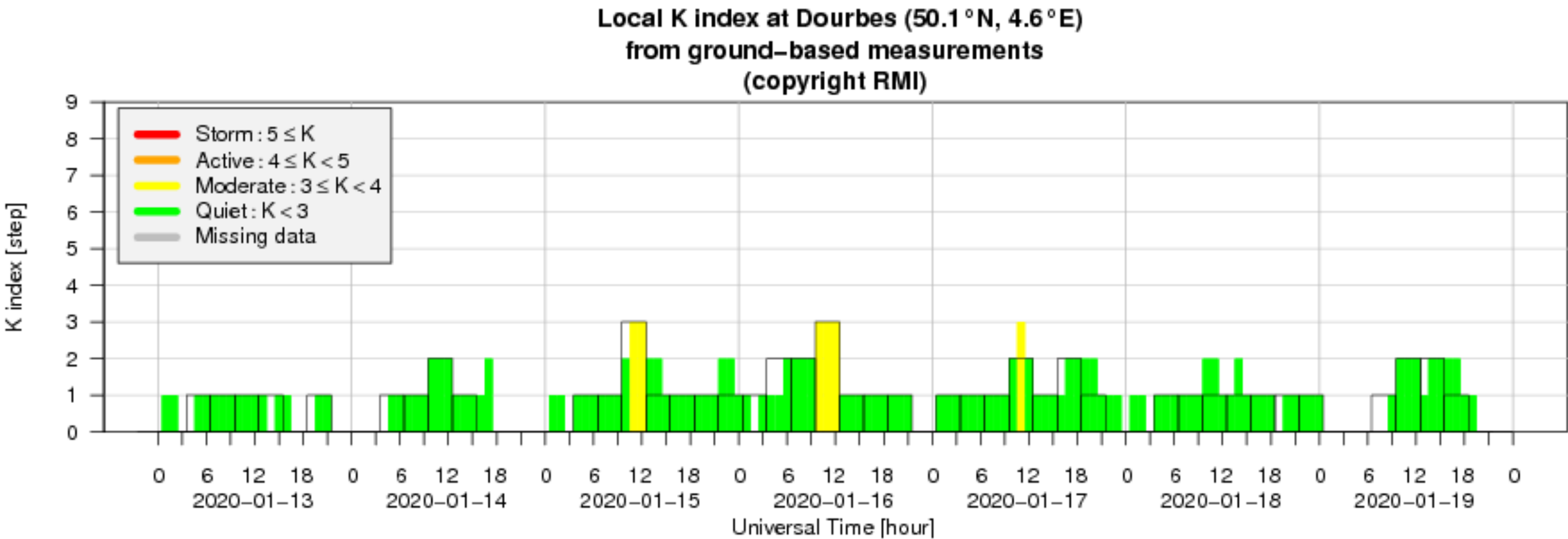


SDO/AIA 193 2020-01-17 08:55:41 UT

Solar wind & geomagnetic activity



Geomagnetic activity: K-Dourbes index

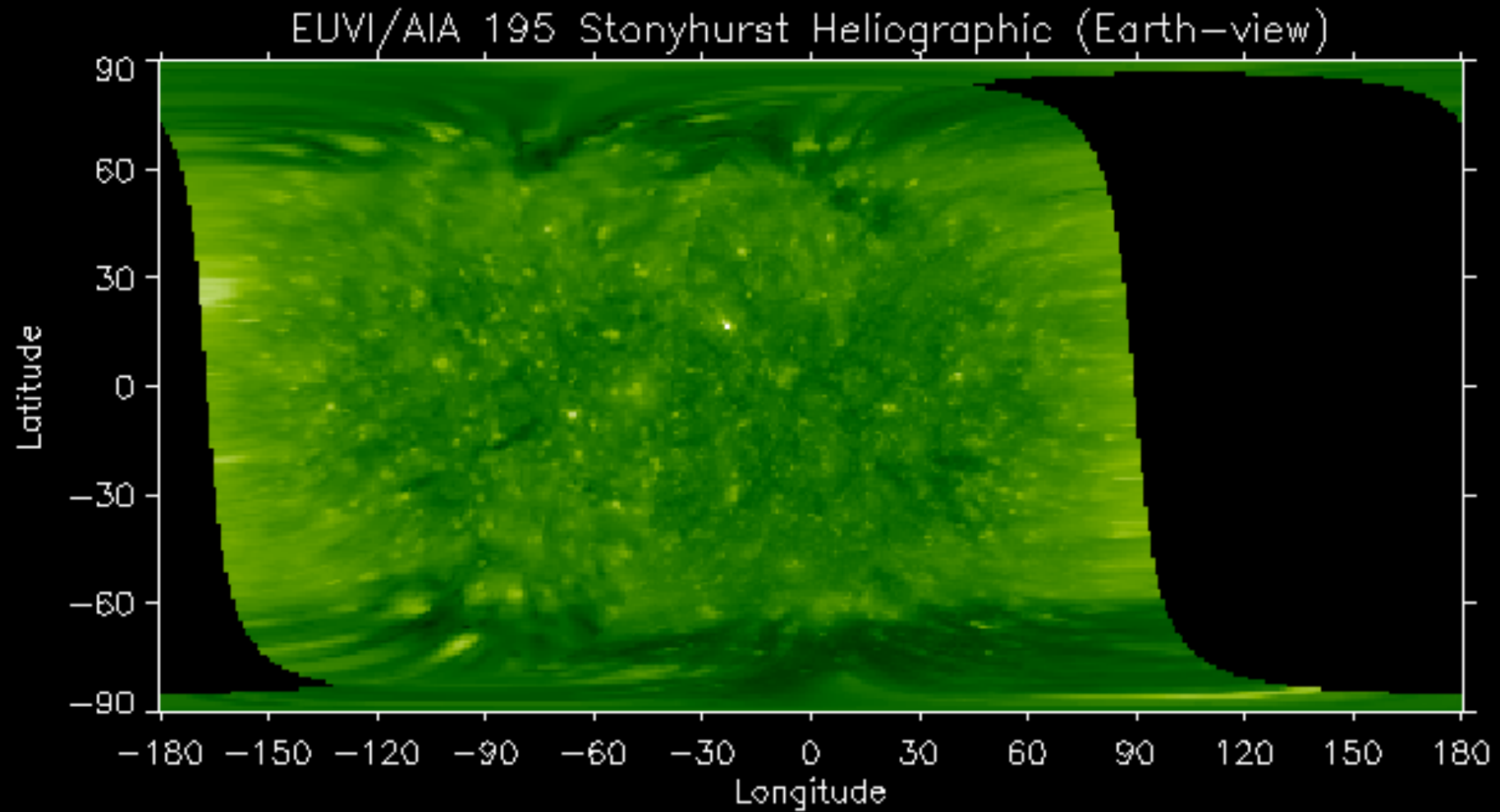


Outlook



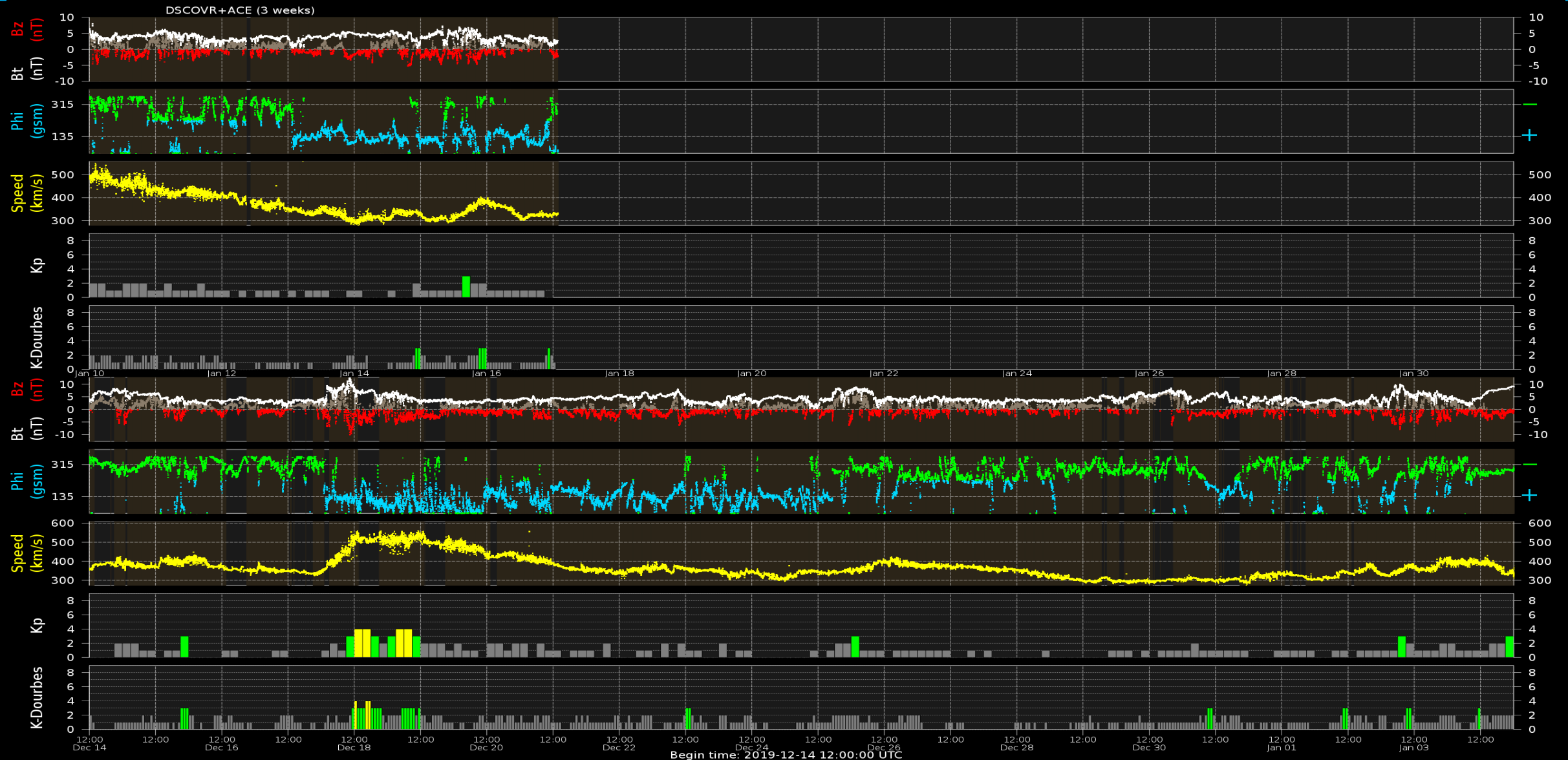
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Outlook: Solar activity



Observation date: 2020/01/20 03:45:30

Outlook: Solar wind



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