

SIDC Space Weather Briefing

20 January 2019 - 27 January 2019

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& the SIDC forecaster team



Royal Observatory

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

- Solar activity from 2019-01-20 12:00 UT to 2019-01-27 12:00 UT

Active regions	NOAA AR 2733			
Flaring	B-class flare: 18	C-class flare: 1	M-class flare: 0	X-class flare: 0
Filaments	no			
CMEs	Only narrow			
Proton Events	no			

- Solar wind and geomagnetic conditions from 2019-01-20 12:00 UT to 2019-01-27 12:00 UT

Coronal Holes	Equatorial, positive polarity CH (19/01) & Extended, equatorial, negative polarity CH (27/01)
ICME	no
SW Conditions	Mostly unsettled to active with one interval of minor storm conditions
K-indices	max K-index (Dourbes): 5.0 max Kp-index (NOAA): 5

- All Quiet Alert canceled at the beginning of the week.

Solar Activity



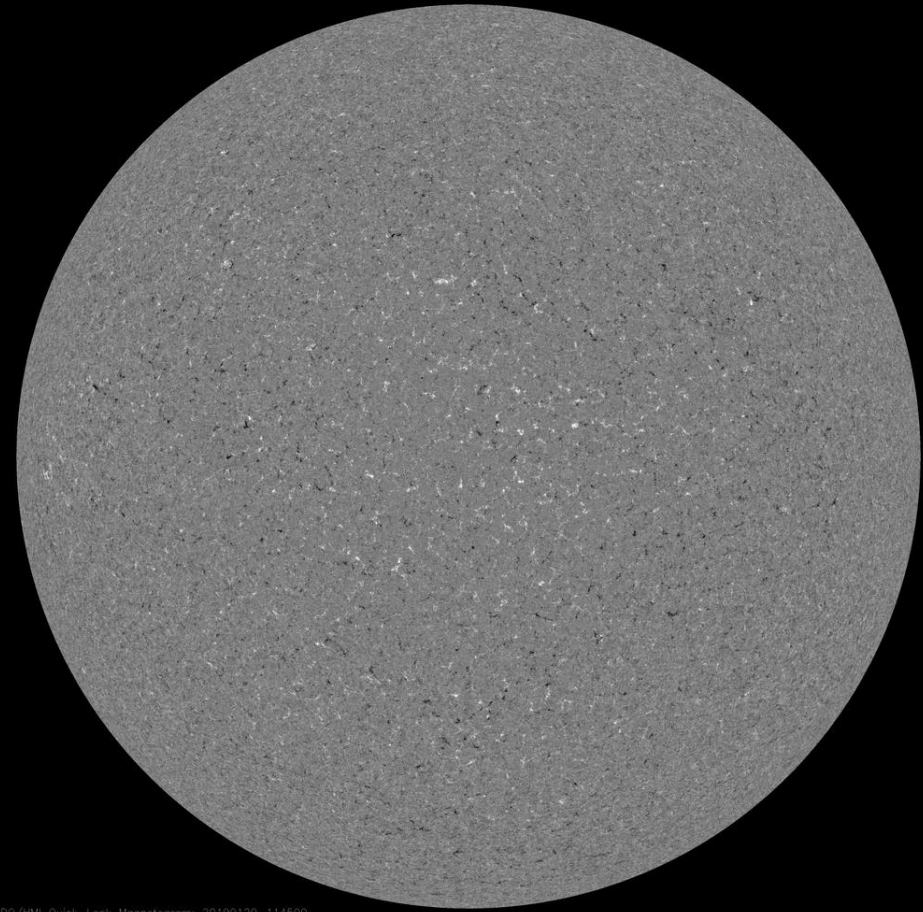
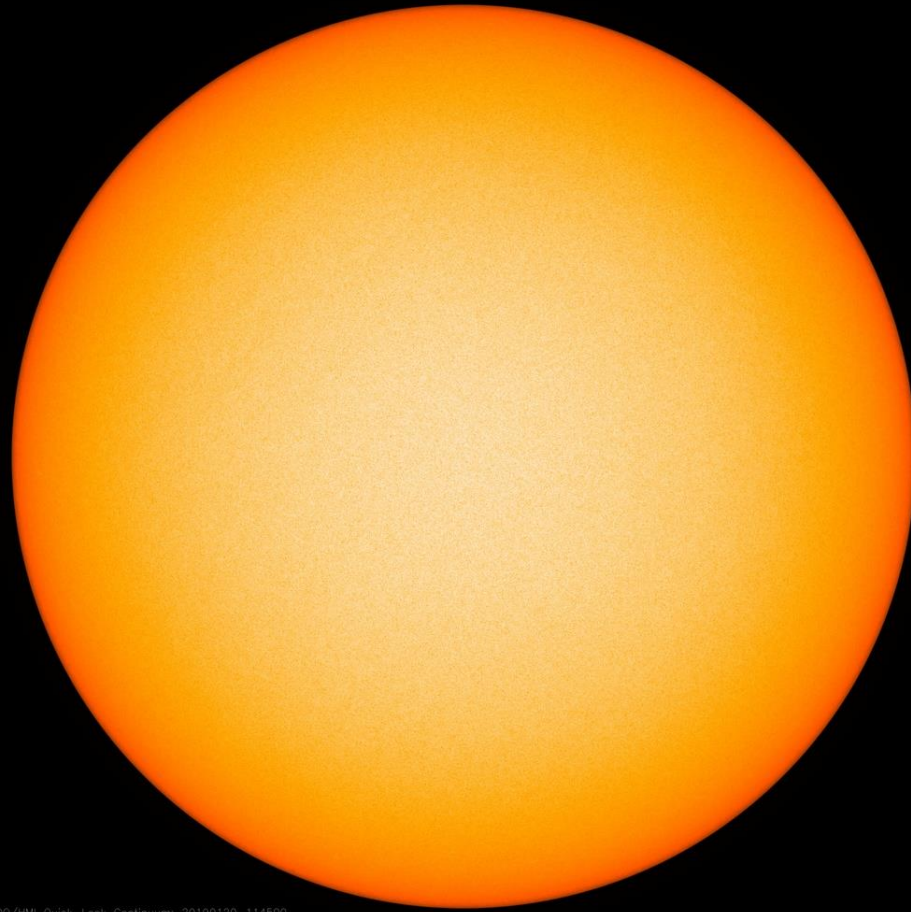
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Solar active regions - start of the week

SDO/HMI White Light 2019-01-20

SDO/HMI Magnetogram 2019-01-20



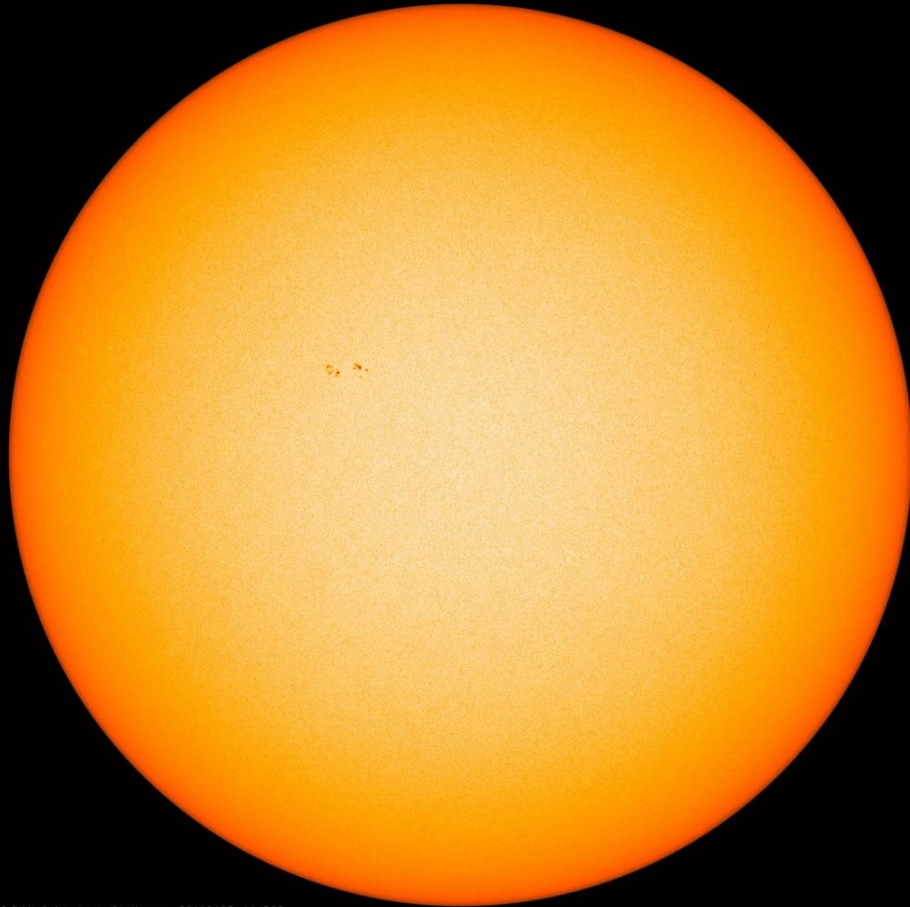
SDO/HMI Quick-Look Continuum: 20190120_114500

SDO/HMI Quick-Look Magnetogram: 20190120_114500

Solar active region - middle of the week

SDO/HMI White Light 2019-01-23

SDO/HMI Magnetogram 2019-01-23



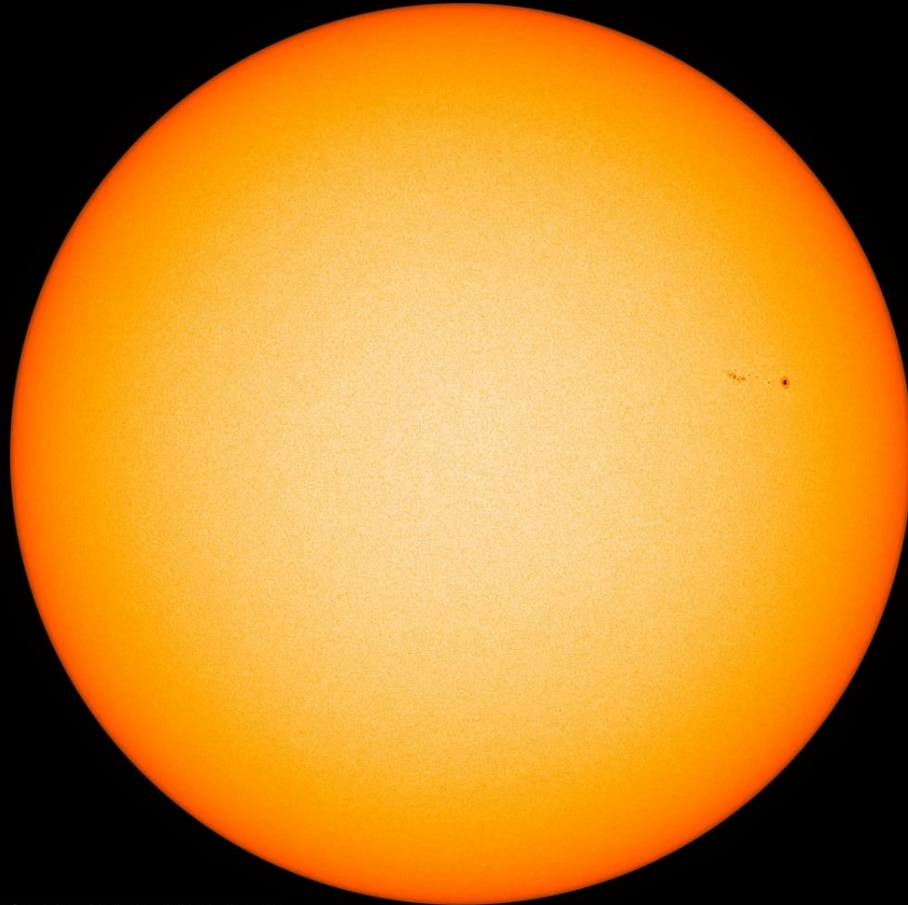
SDO/HMI Quick-Look Continuum: 20190123_114500

SDO/HMI Quick-Look Magnetogram: 20190123_114500

Solar active regions - end of the week

SDO/HMI White Light 2019-01-27

SDO/HMI Magnetogram 2019-01-27



NOAA AR 2733

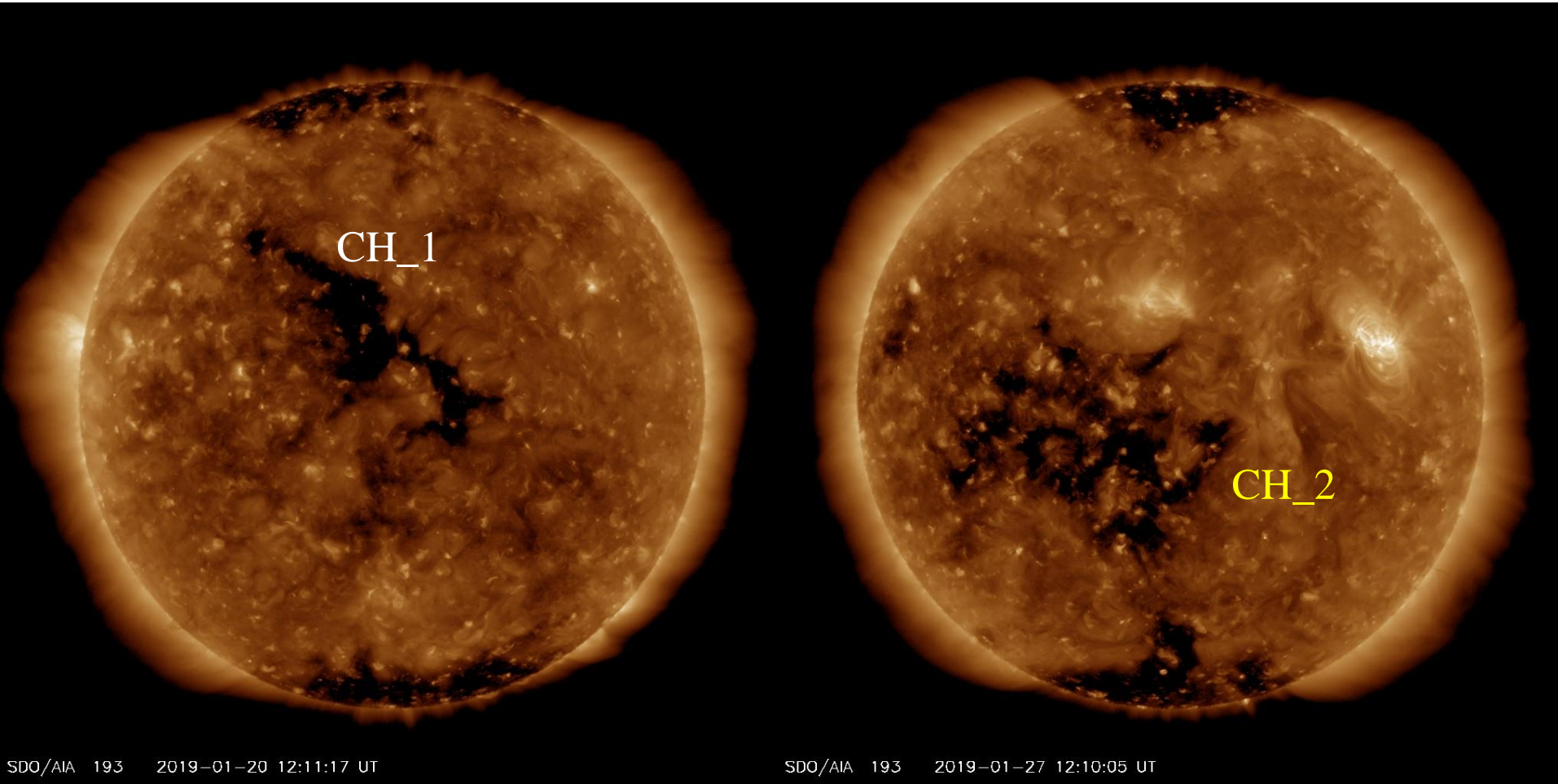
SDO/HMI Quick-Look Continuum: 20190127_114500

SDO/HMI Quick-Look Magnetogram: 20190127_114500

Solar active regions & Coronal holes

SDO/AIA 19.3 nm 2019-01-20

SDO/AIA 19.3 nm 2019-01-27



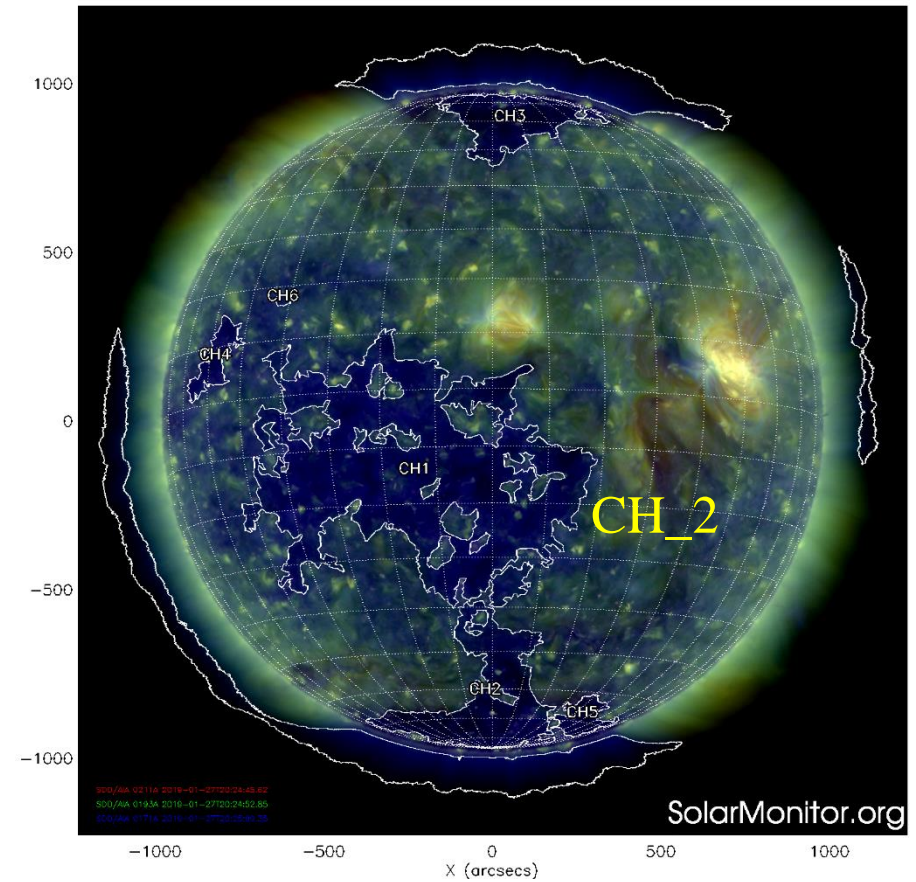
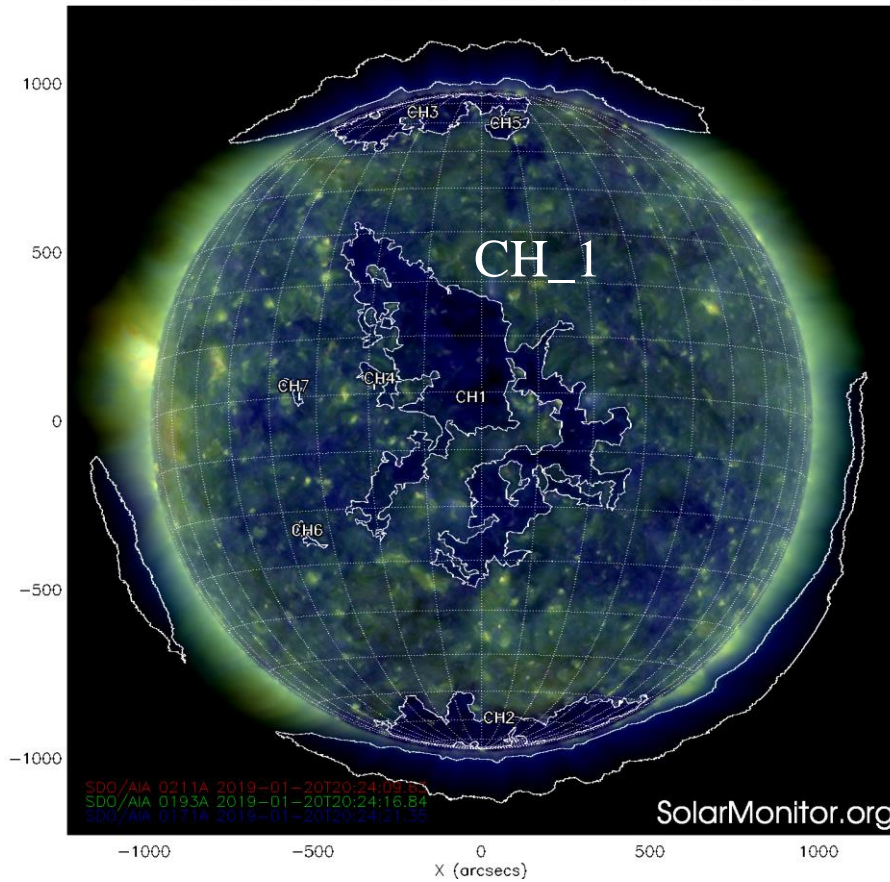
Solar active regions & Coronal holes

SDO/AIA 19.3 nm 2019-01-20

SDO/AIA 19.3 nm 2019-01-27

CHIMERA Coronal Holes at 20-Jan-2019 20:24:16.840 UT

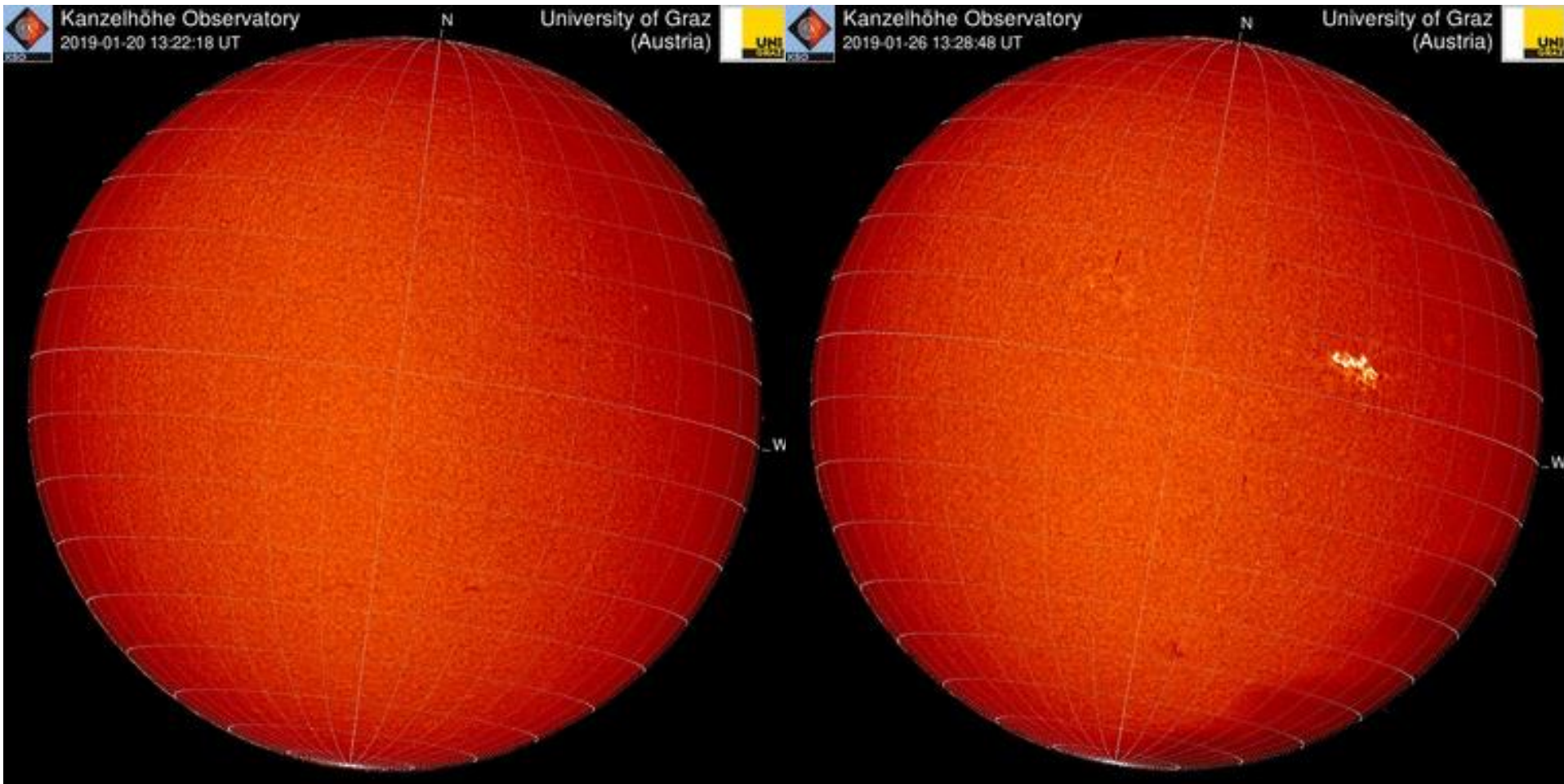
CHIMERA Coronal Holes at 27-Jan-2019 20:24:52.850 UT



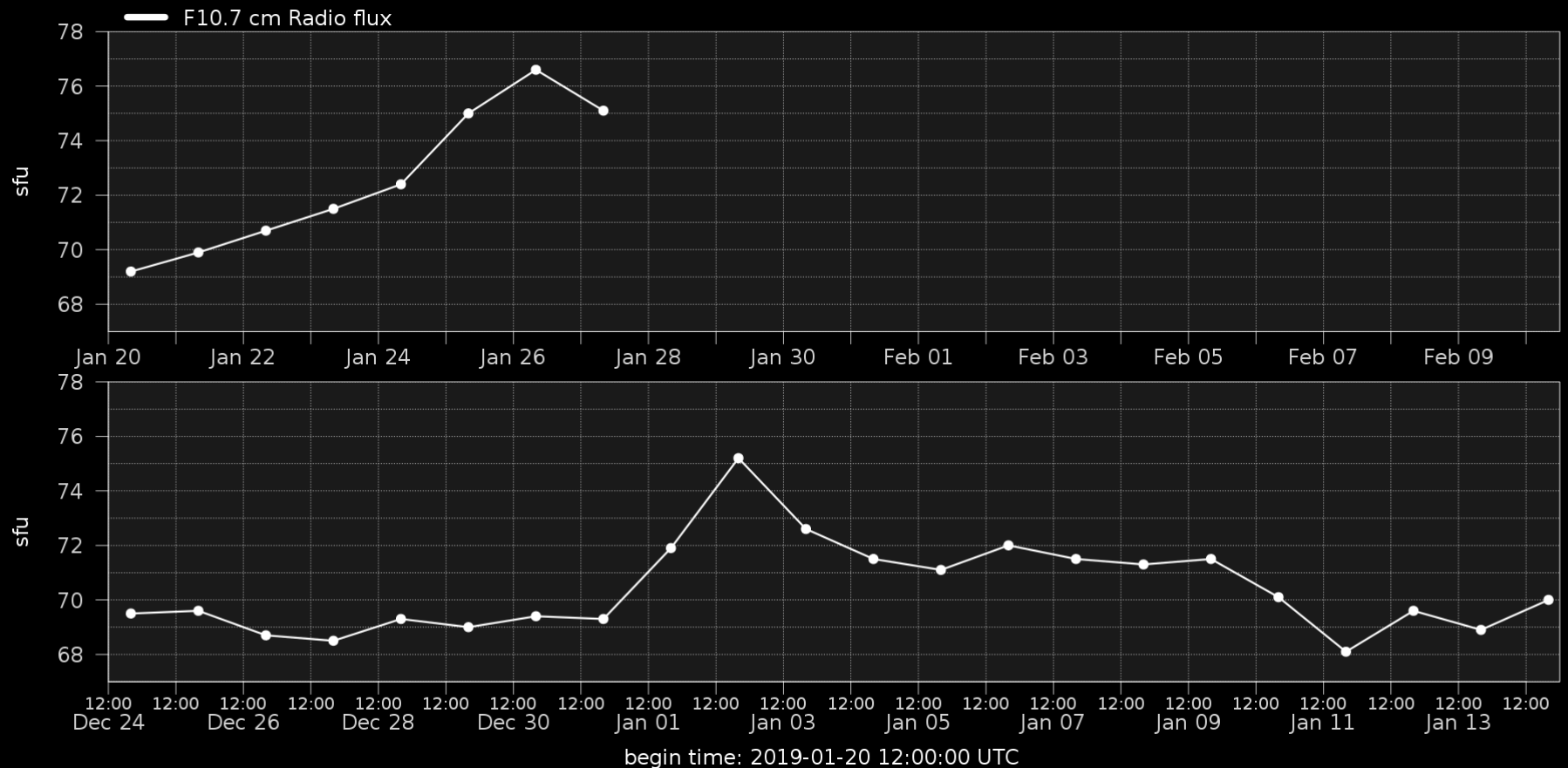
Filament & Filament eruption

H-alpha 2019-01-20

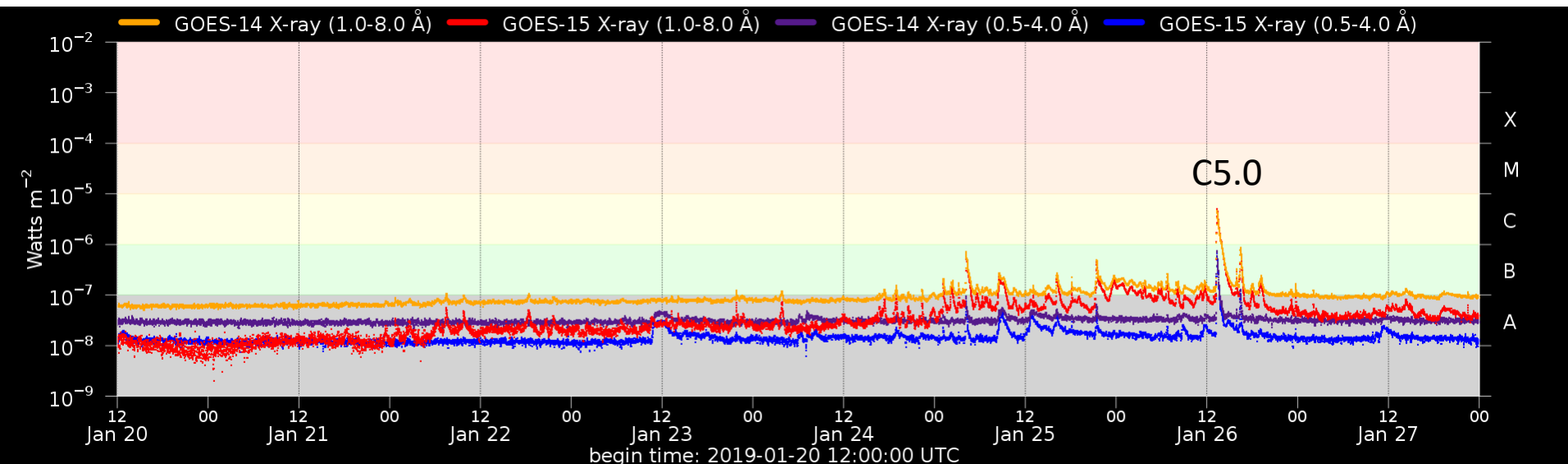
H-alpha 2019-01-27



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	2019-01-20	2019-01-21	2019-01-22	2019-01-23	2019-01-24	2019-01-25	2019-01-26	2019-01-27
Probability	--- 01 01 01	--- 01 01 01	--- 02 01 01	--- 05 01 01	--- 05 01 01	--- 15 01 01	--- 10 01 01	--- 20 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 01 00 00	00 00 00 00

Coronal Mass Ejections



No wide CMEs observed this week.

S

W

N

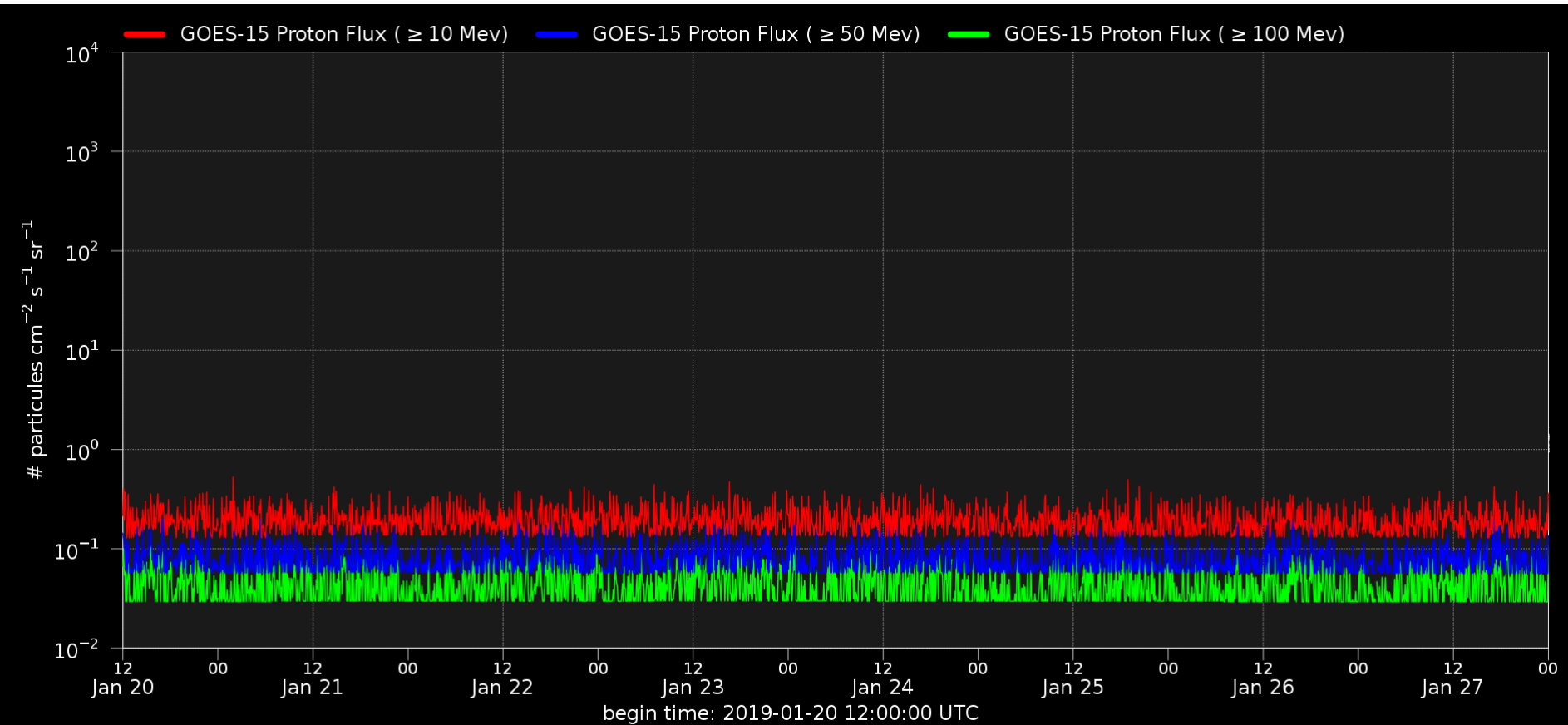
E

C4

C2

18:48 01/27
15:05 01/27
11:36 01/27
08:48 01/27
05:36 01/27
02:36 01/27
23:24 01/26
20:12 01/26
17:24 01/26
14:12 01/26
11:00 01/26
08:12 01/26
05:12 01/26
02:24 01/26
23:12 01/25
19:42 01/25
17:06 01/25
13:48 01/25
10:24 01/25
07:12 01/25
03:12 01/25
23:12 01/24
19:36 01/24
16:36 01/24
13:48 01/24
10:48 01/24
08:00 01/24
05:24 01/24
02:42 01/24
23:24 01/23
19:36 01/23
16:48 01/23
13:48 01/23
10:36 01/23
07:36 01/23
04:54 01/23
02:12 01/23
23:12 01/22
20:00 01/22
17:24 01/22
14:12 01/22
11:00 01/22
08:00 01/22
05:12 01/22
02:24 01/22
23:12 01/21
19:12 01/21

Solar proton flux



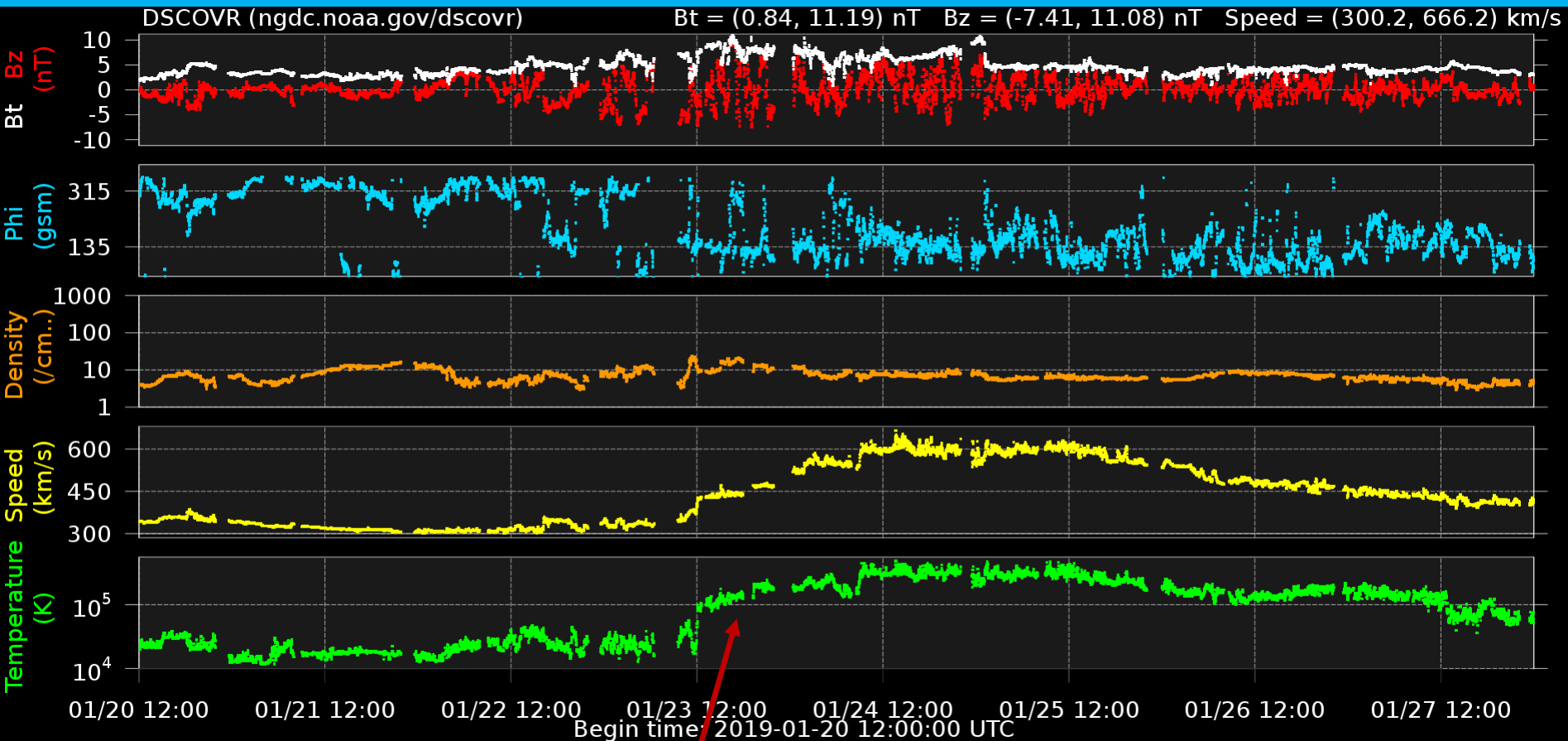
Solar Wind and Geomagnetic Activity



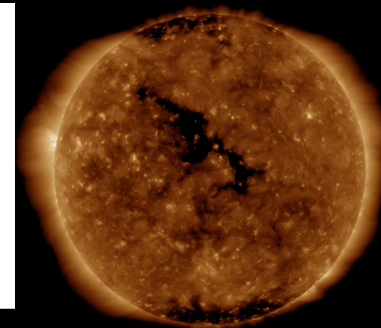
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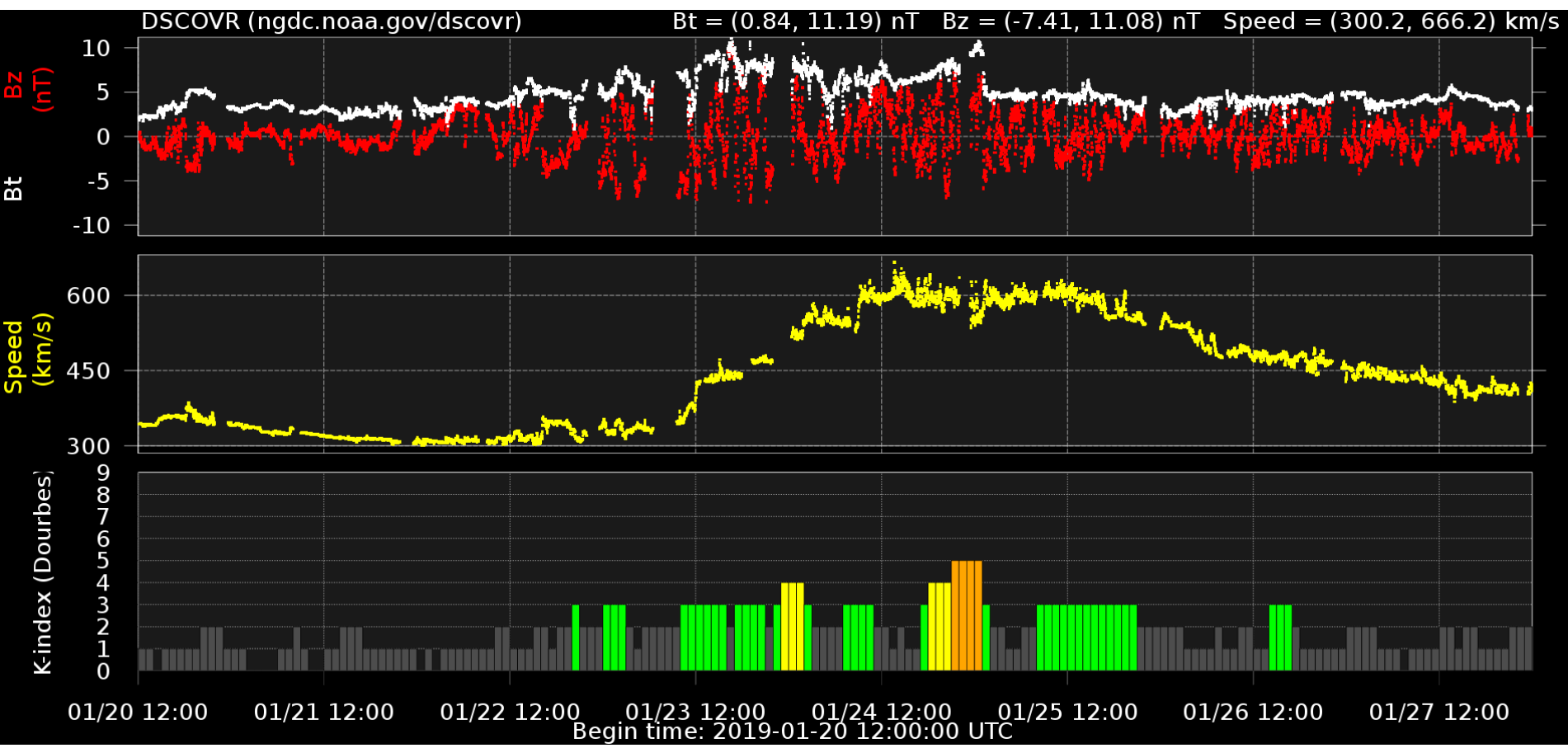
Solar wind parameters (DSCOVR data)



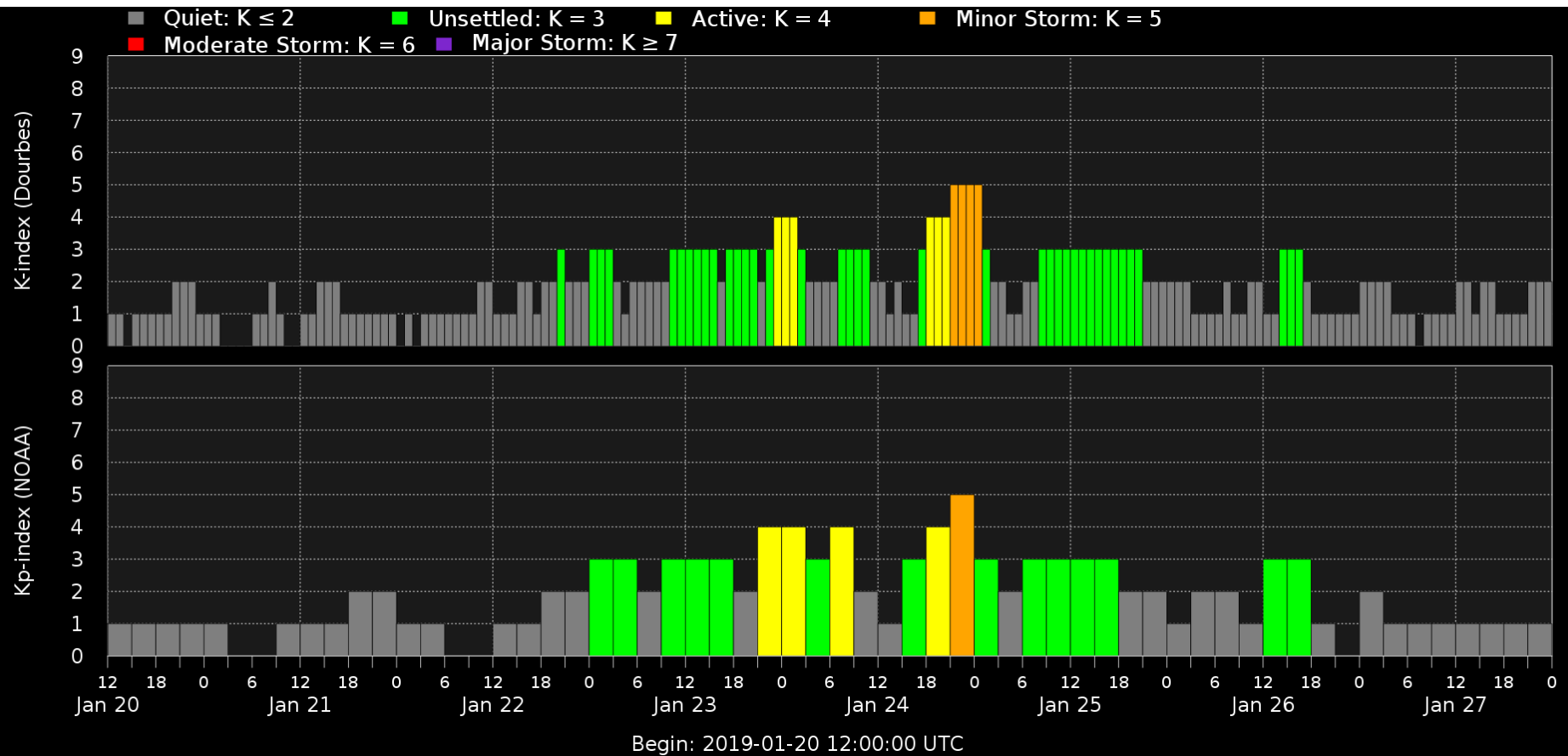
- Fast solar wind
- associated with extended (positive polarity) equatorial coronal hole (CH)
- CH reached central meridian in the early morning of January 19.



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



Geomagnetic activity (K-indexes)



Outlook

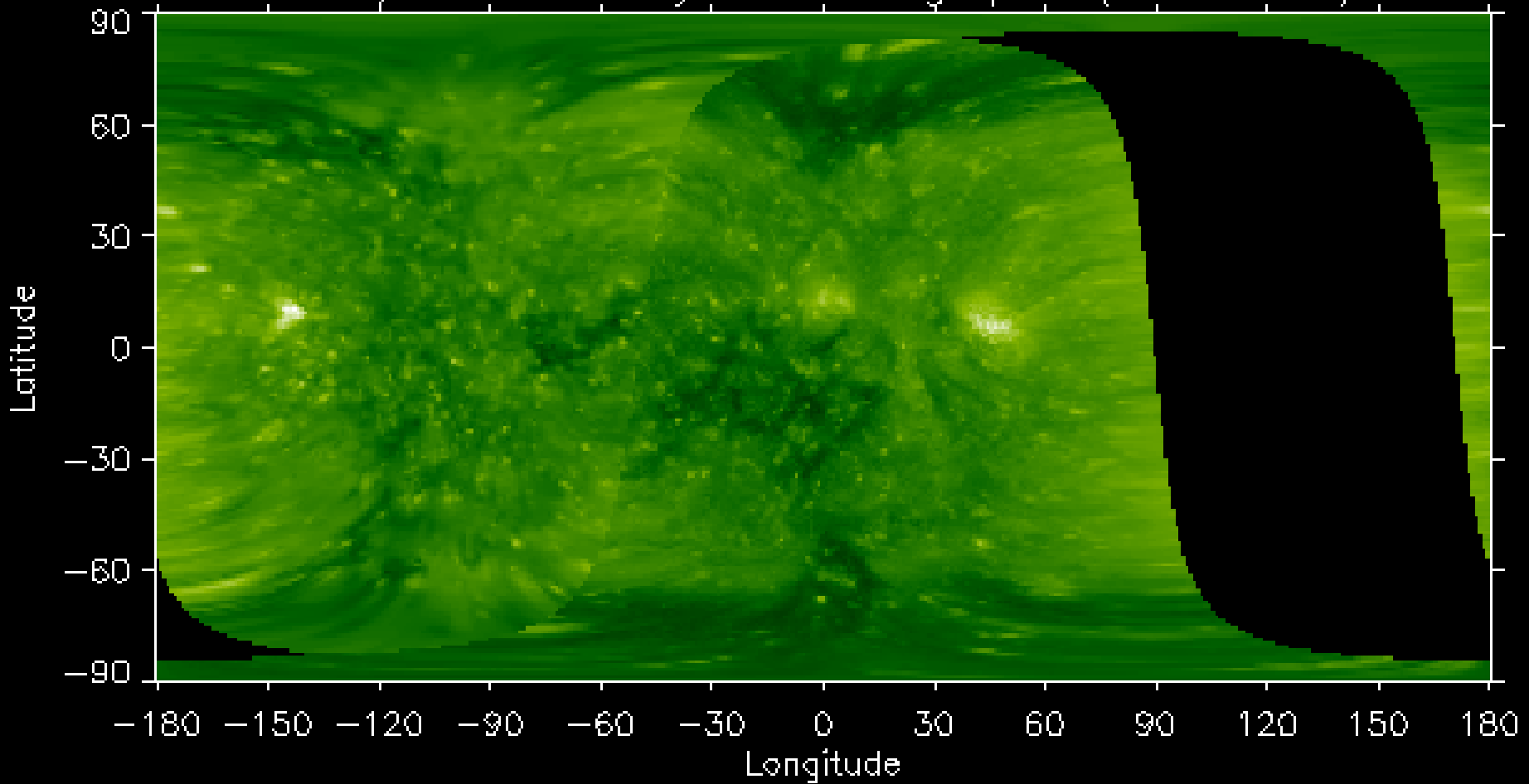


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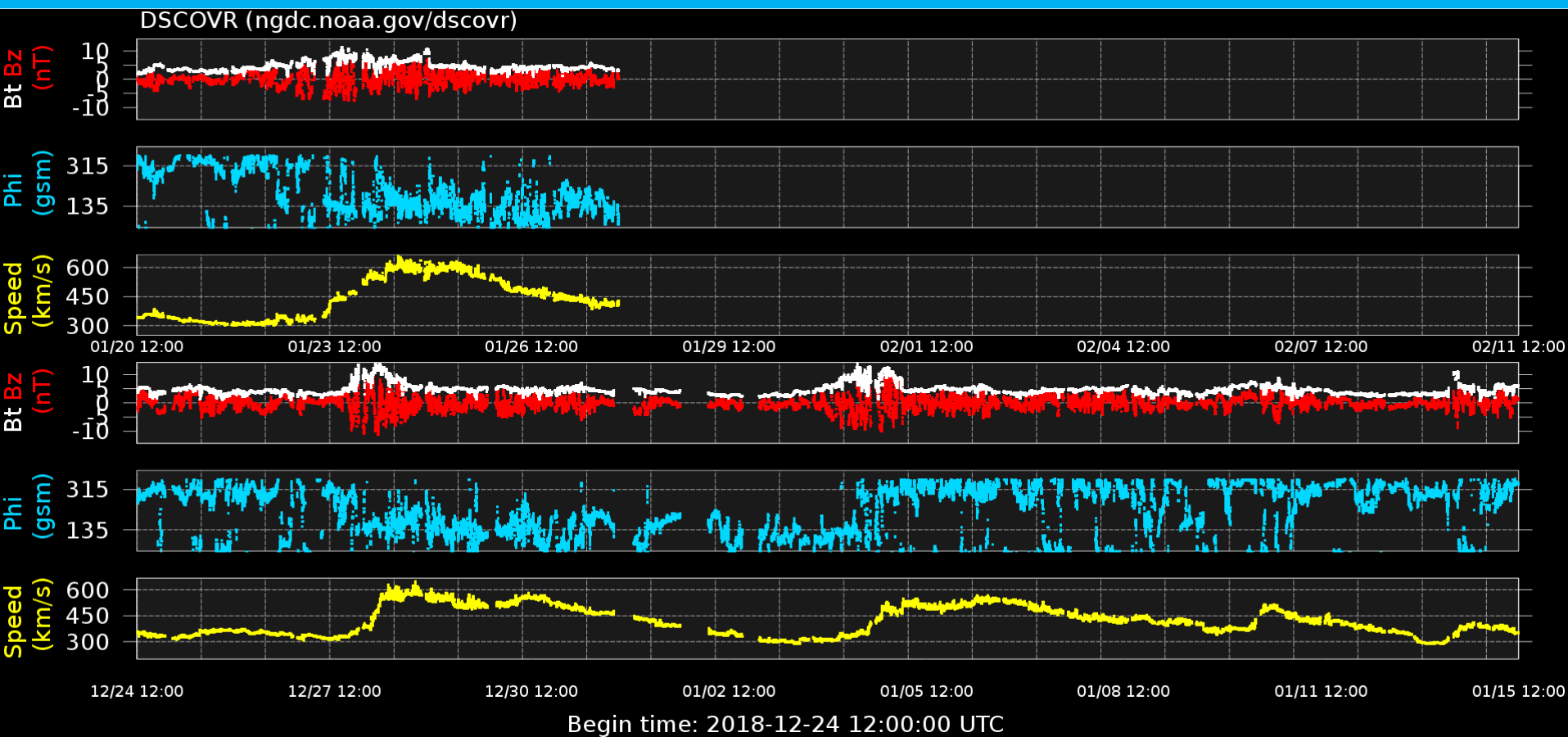
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Outlook: Solar activity

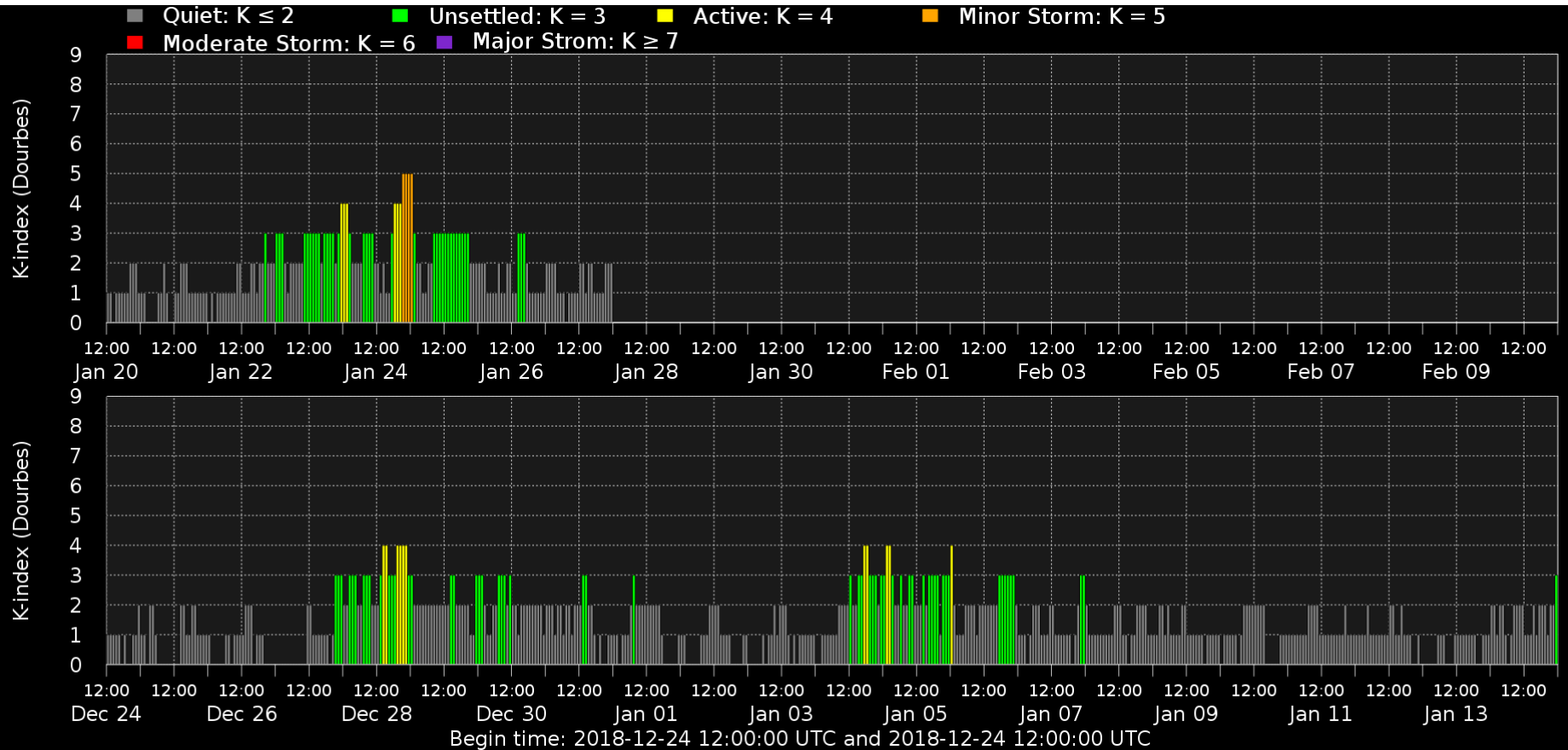
EUVI/AIA 195 Stonyhurst Heliographic (Earth-view)



Outlook: Solar wind



Outlook: Geomagnetic activity



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