

SIDC Space Weather Briefing

30 December 2018 - 06 January 2019

SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2018-12-30 12:00 UT to 2019-01-06 12:00 UT

Active regions	NOAA AR 2732
Flaring	# B-class flare: 7
Filaments	-
CMEs	-
Proton Events	-

Solar wind and geomagnetic conditions from 2018-12-30 12:00 UT to 2019-01-06 12:00 UT

Coronal Holes	Negative polarity CH in geoeffective position
ICME	-
SW Conditions	Max solar wind speed = 525 km/s, MAX Bz variations [-9 nT; +9 nT] - January 4
4K-indices	max K-index (Dourbes): 4.0 max Kp-index (NOAA): 5

All Quiet Alert: Text and Color to be included

Solar Activity

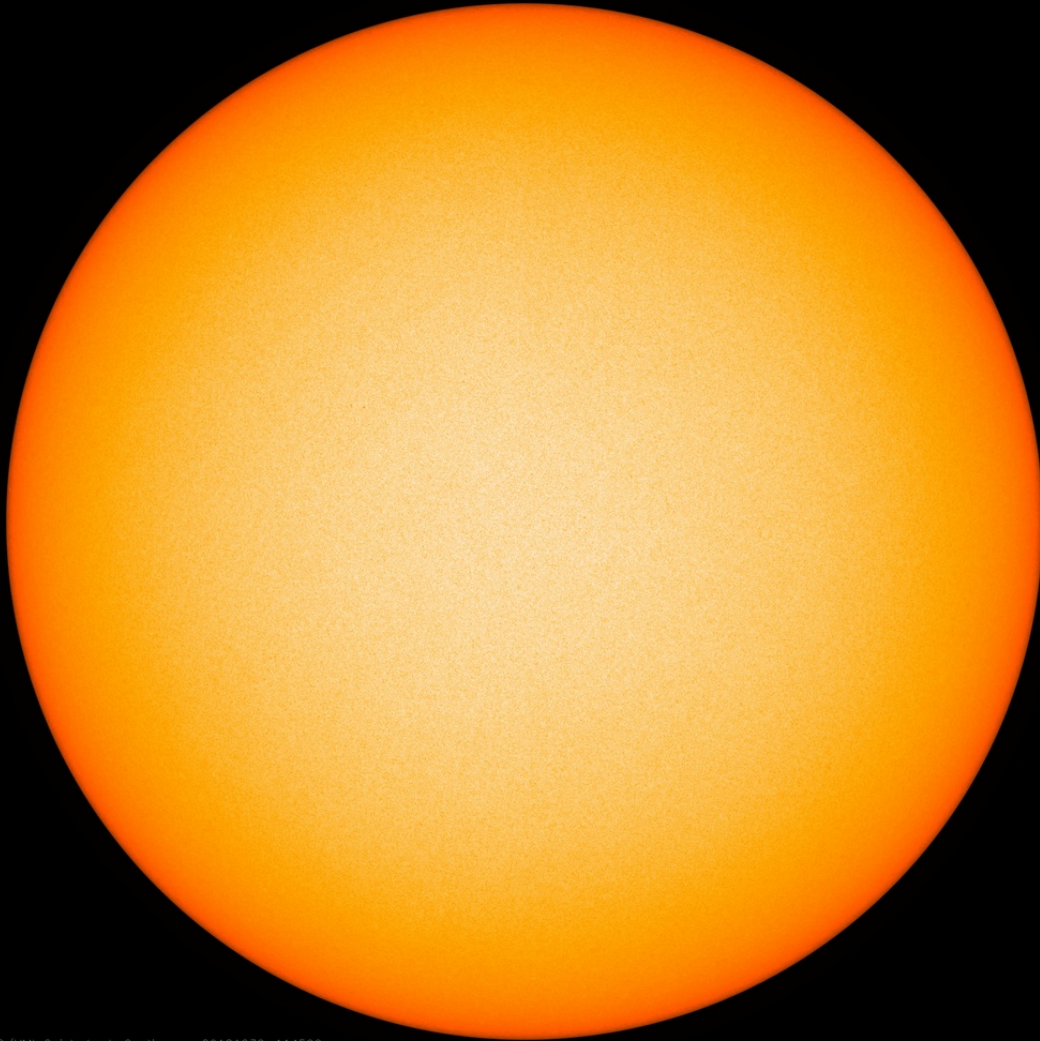


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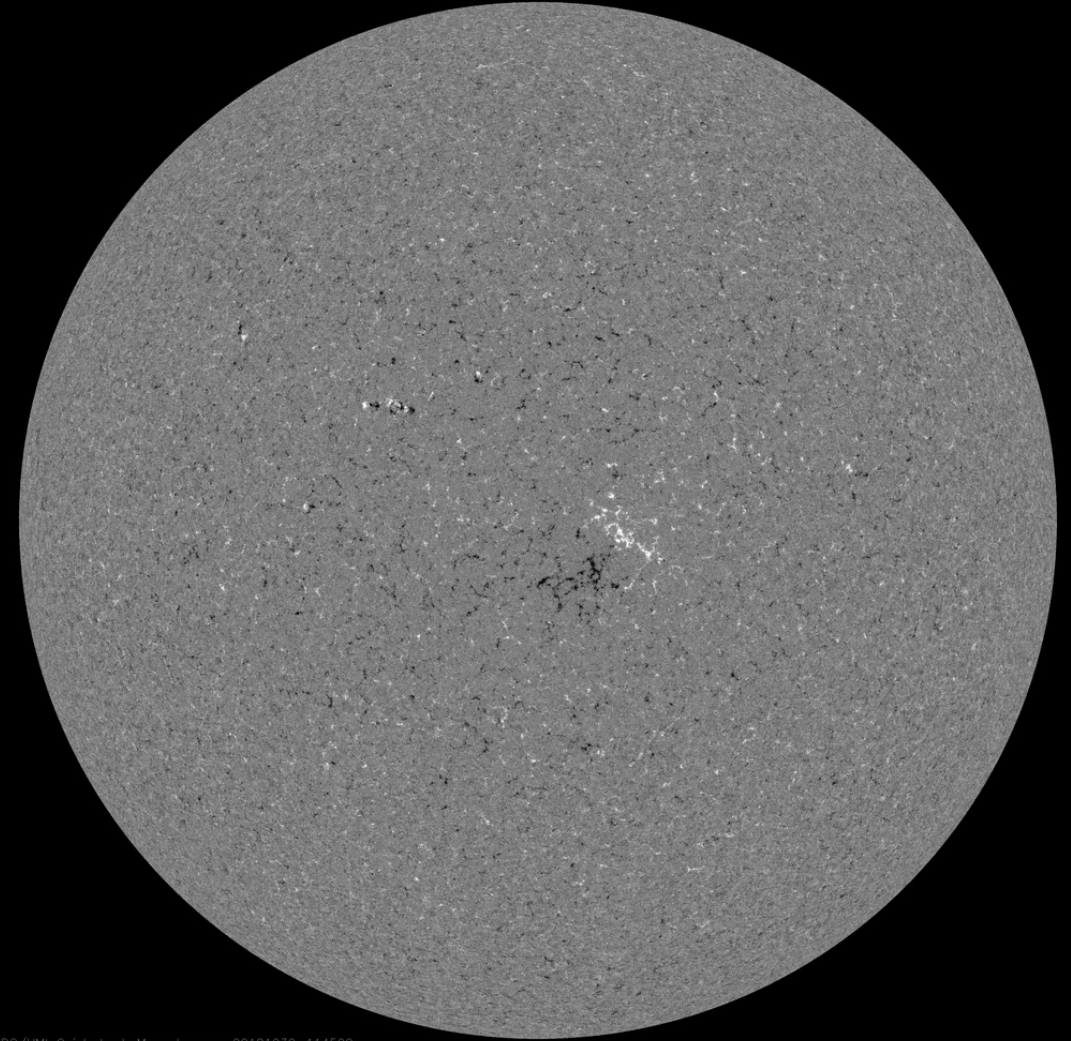
Solar active region - start of the week

SDO/HMI White Light 2018-12-30



SDO/HMI Quick-Look Continuum: 20181230_114500

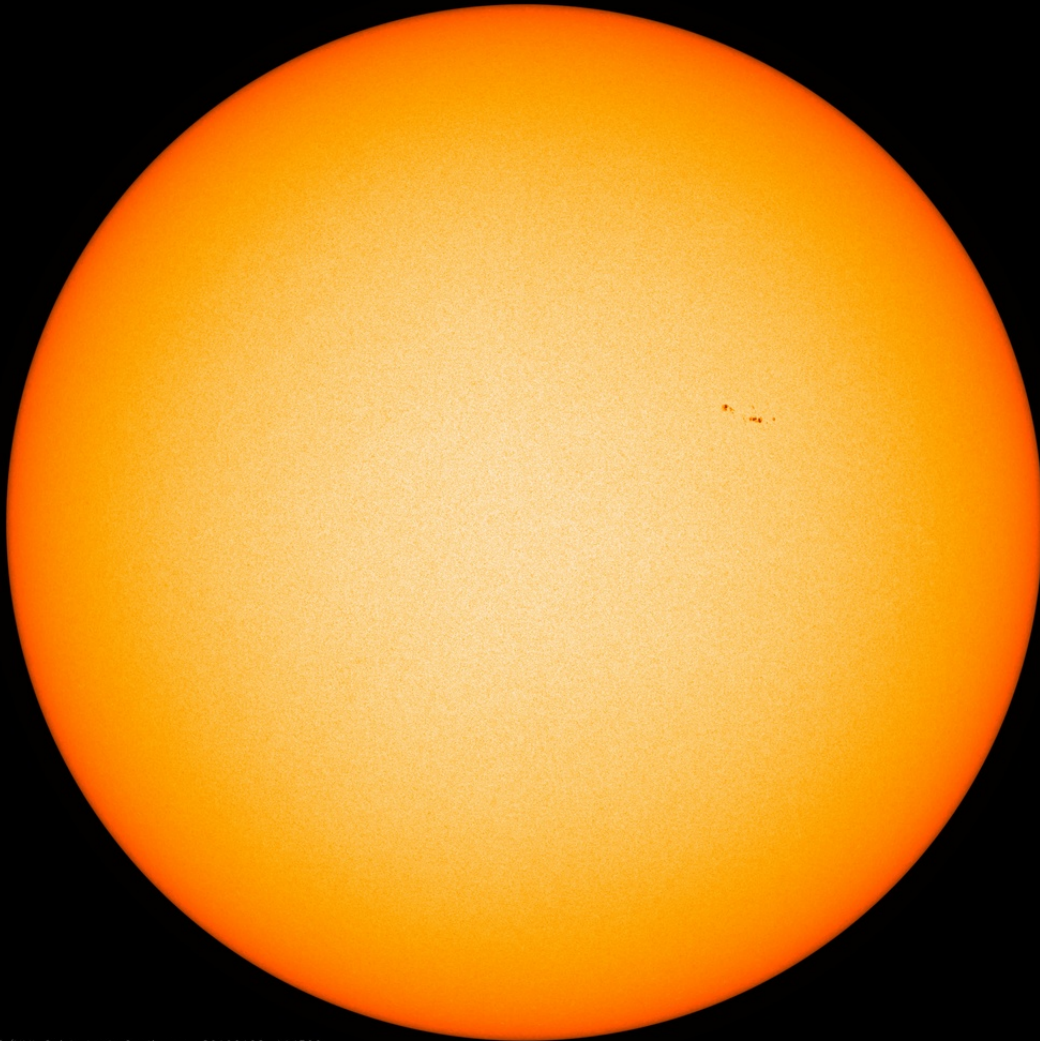
SDO/HMI Magnetogram 2018-12-30



SDO/HMI Quick-Look Magnetogram: 20181230_114500

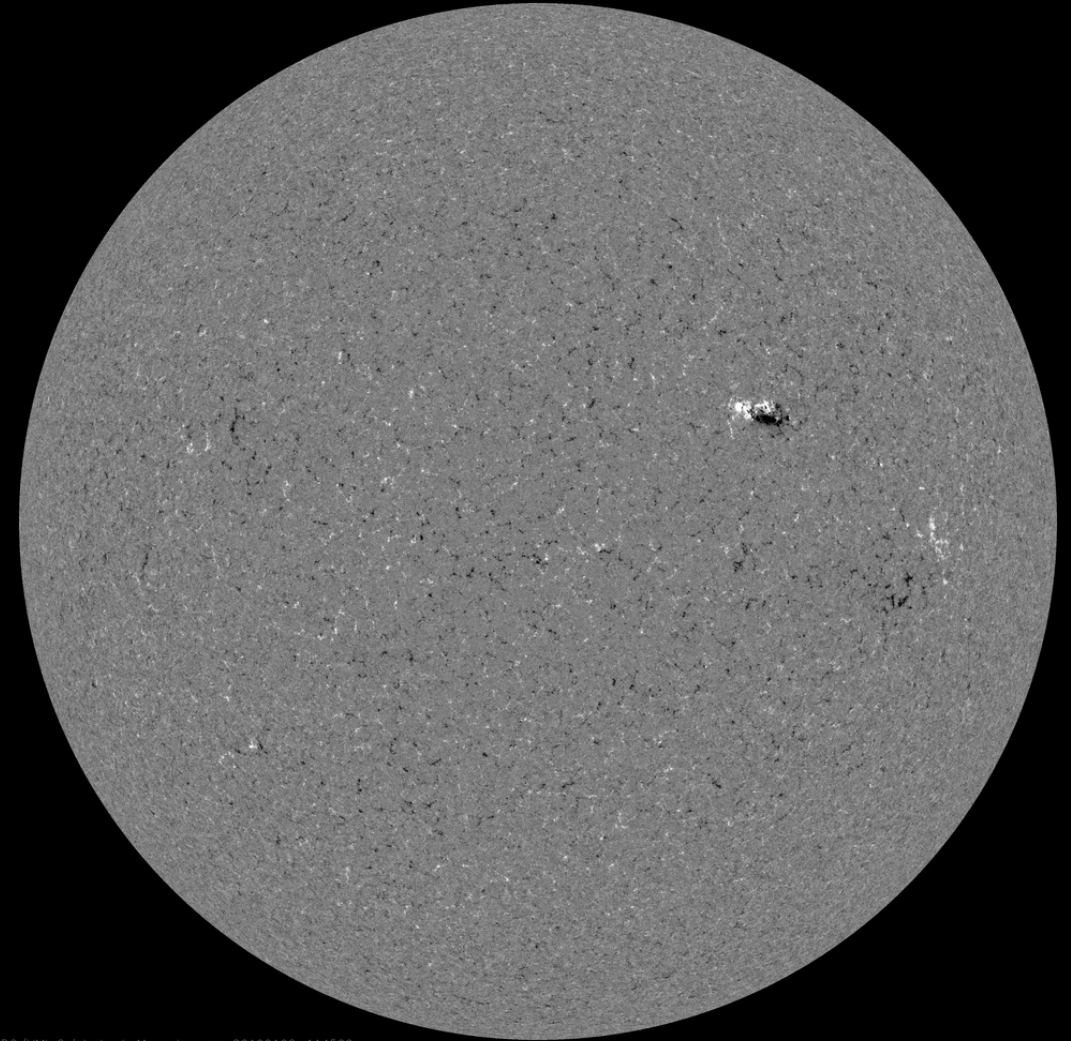
Solar active region - middle of the week

SDO/HMI White Light 2019-01-02



SDO/HMI Quick-Look Continuum: 20190102_114500

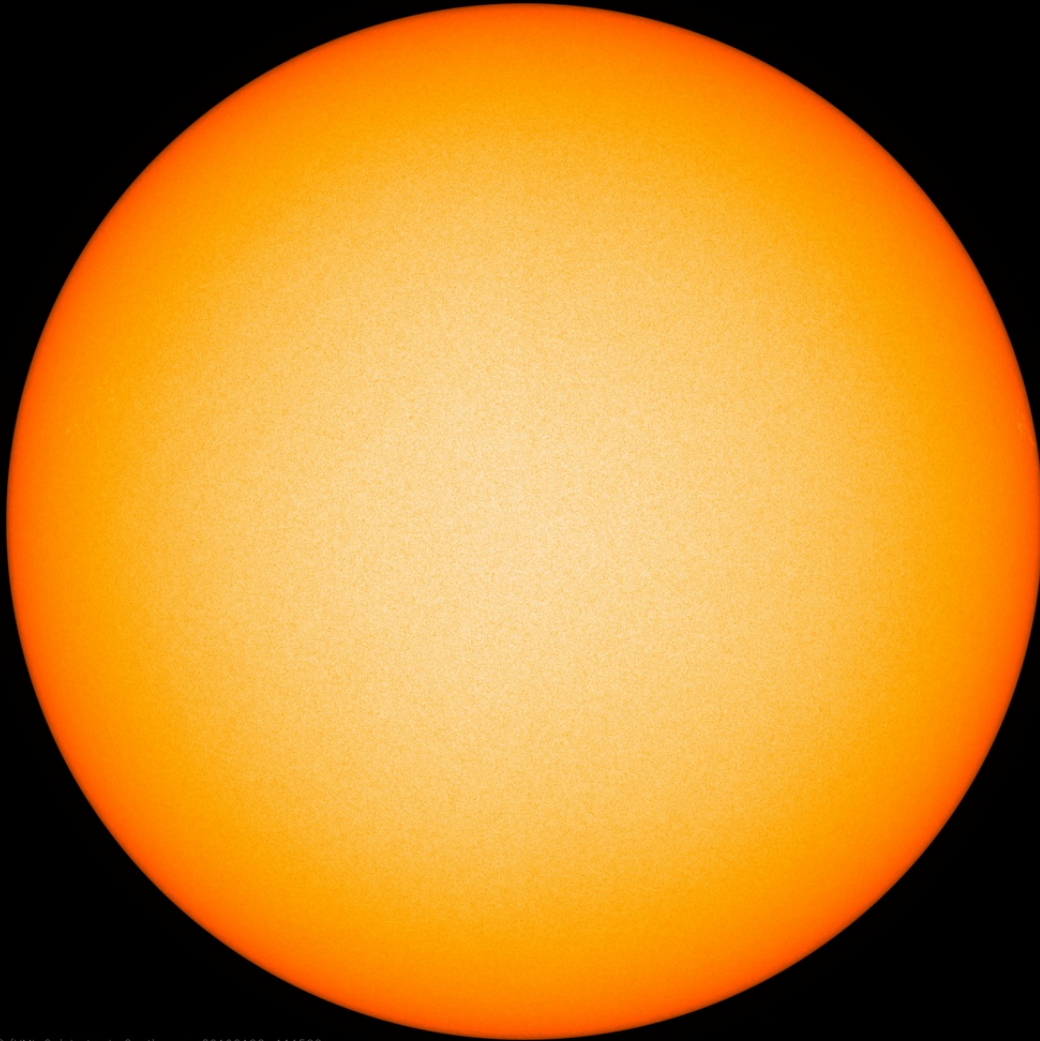
SDO/HMI Magnetogram 2019-01-02



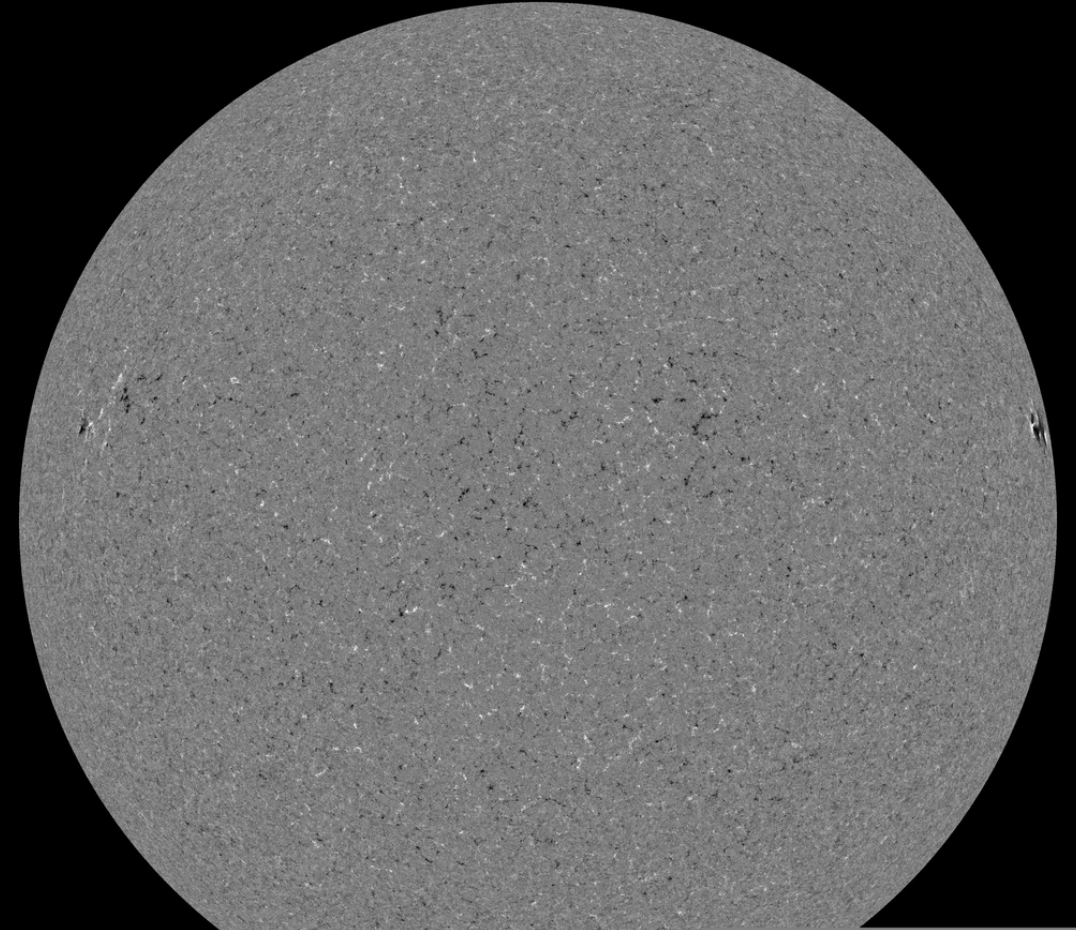
SDO/HMI Quick-Look Magnetogram: 20190102_114500

Solar active region - end of the week

SDO/HMI White Light 2019-01-06



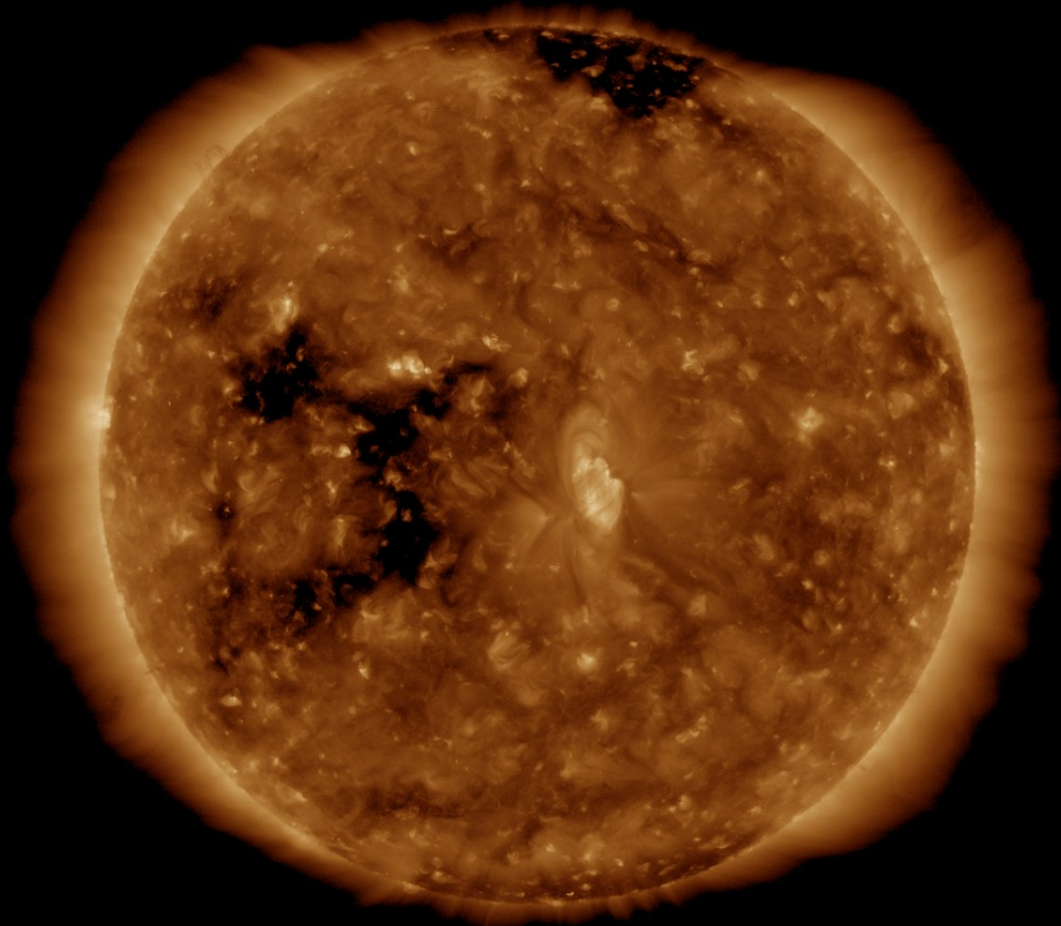
SDO/HMI Magnetogram 2019-01-06



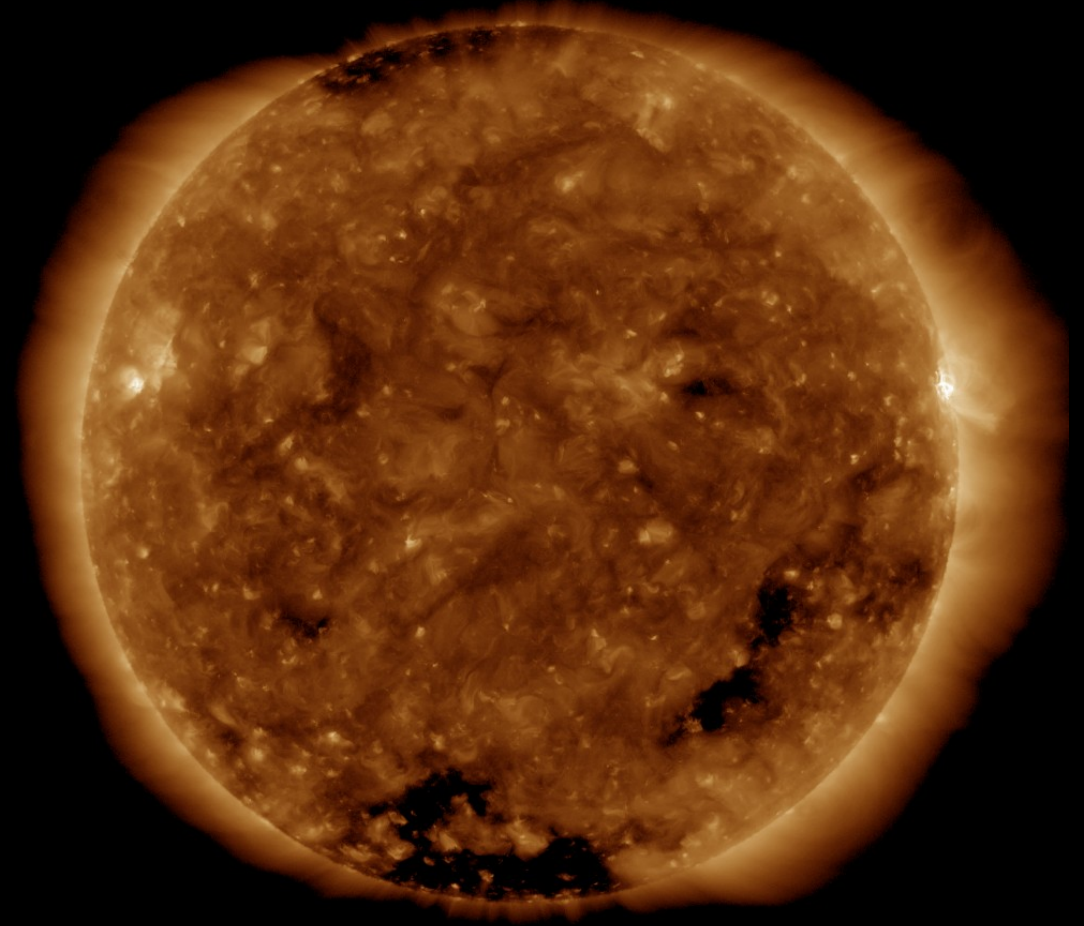
SDO/HMI Quick-Look Continuum: 20190106_111500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2018-12-30



SDO/AIA 19.3 nm 2019-01-06



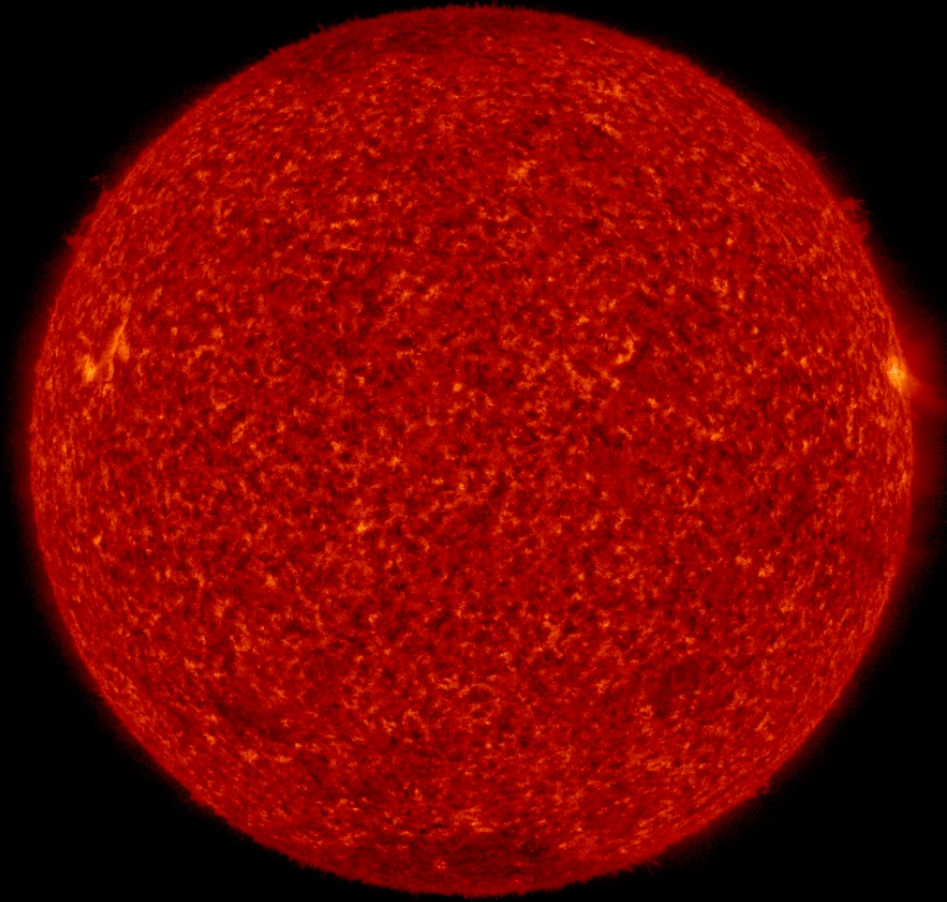
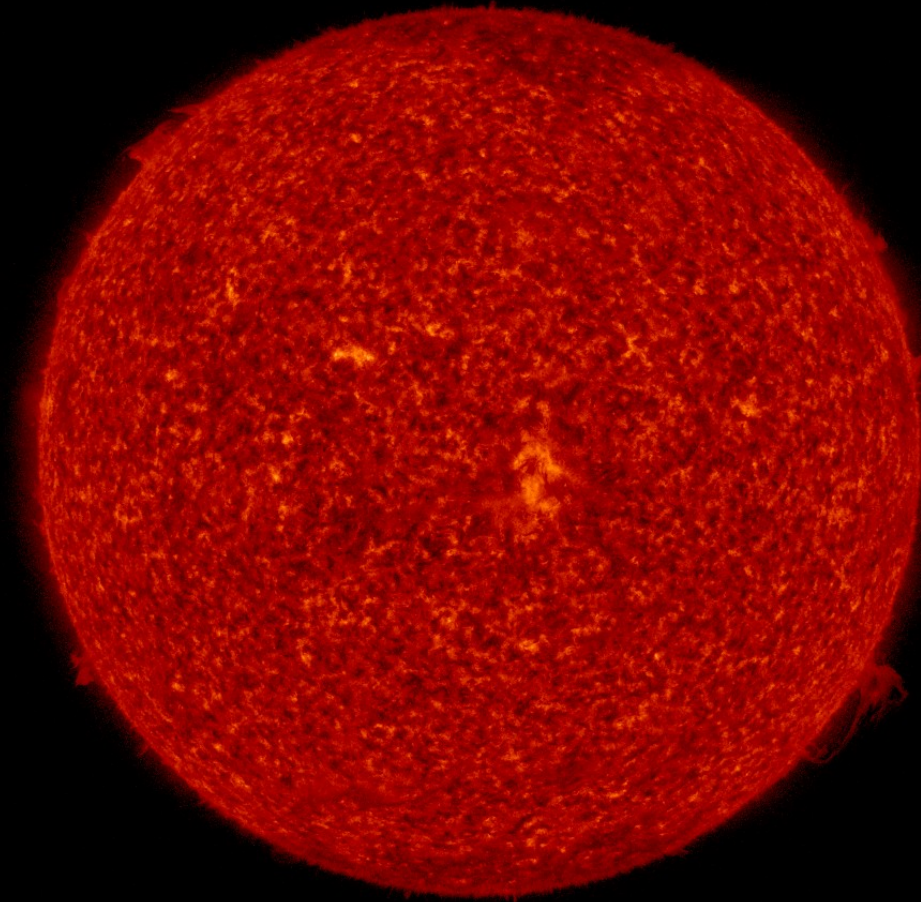
SDO/AIA 193 2018-12-30 12:10:53 UT

SDO/AIA 193 2019-01-06 11:41:17 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2018-12-30

SDO/AIA 30.4 nm 2019-01-06



SDO/AIA 304 2018-12-30 12:13:54 UT

SDO/AIA 304 2019-01-06 11:43:42 UT

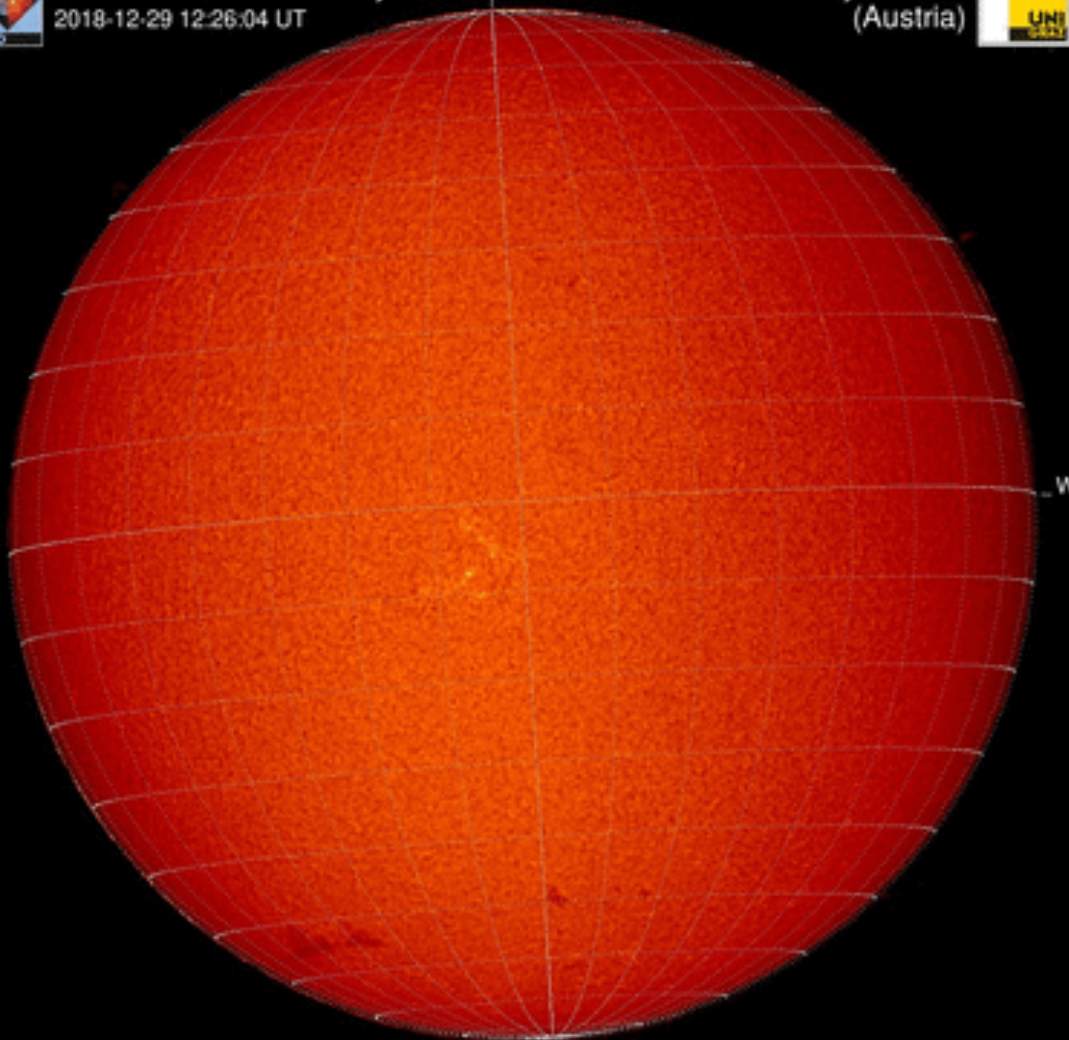
Filament & Filament eruption

H-alpha 2018-12-30



Kanzelhöhe Observatory
2018-12-29 12:26:04 UT

University of Graz
(Austria)

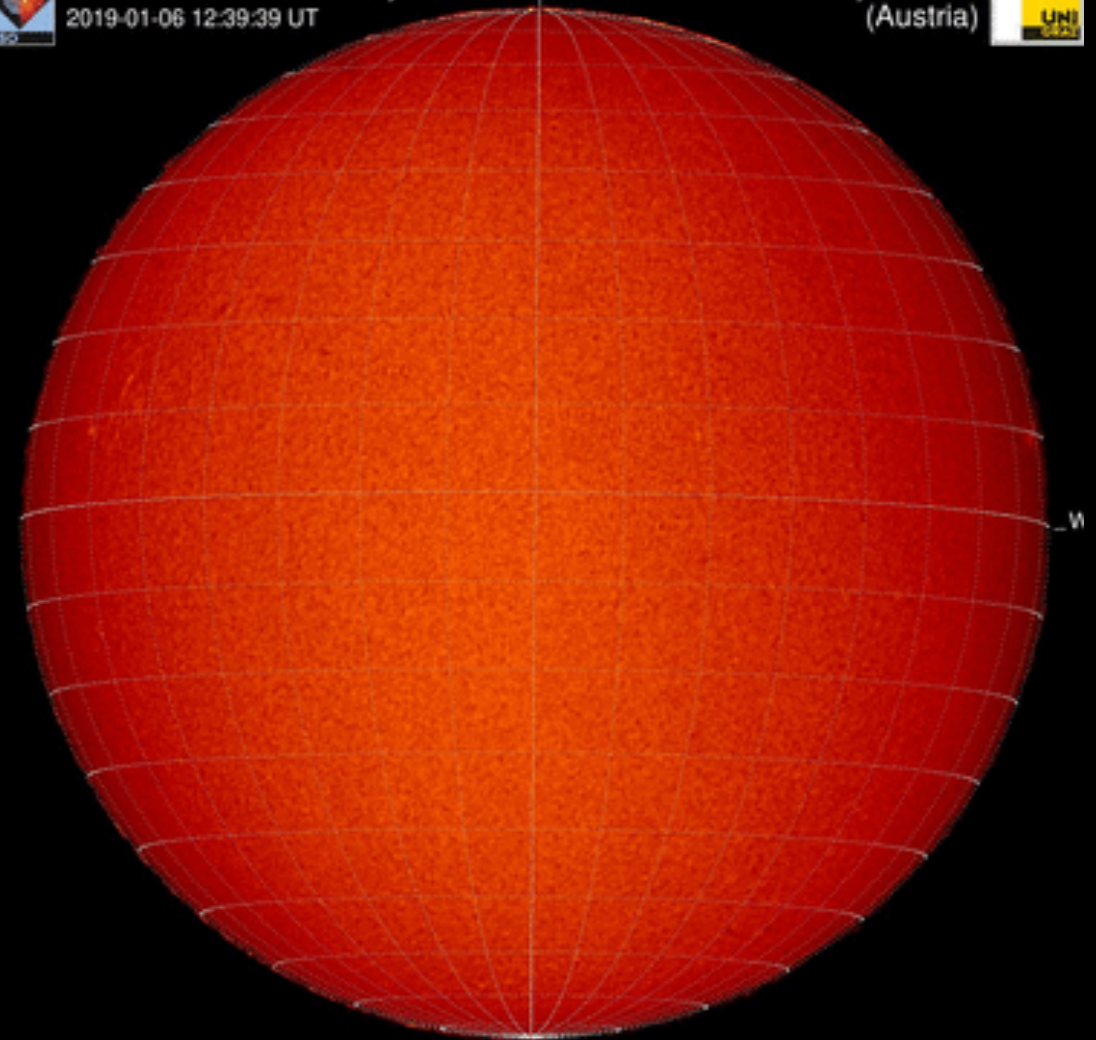


H-alpha 2019-01-06

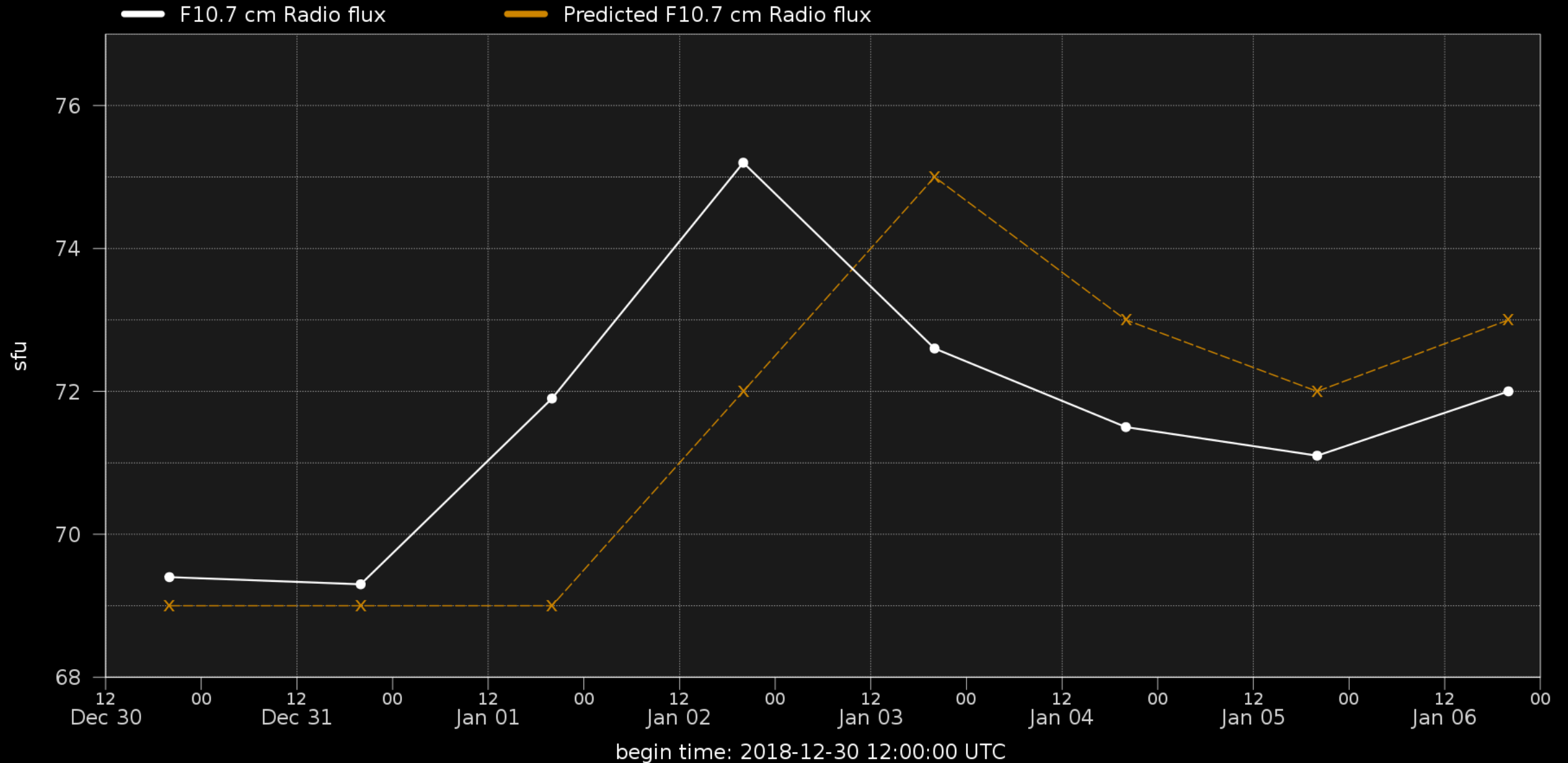


Kanzelhöhe Observatory
2019-01-06 12:39:39 UT

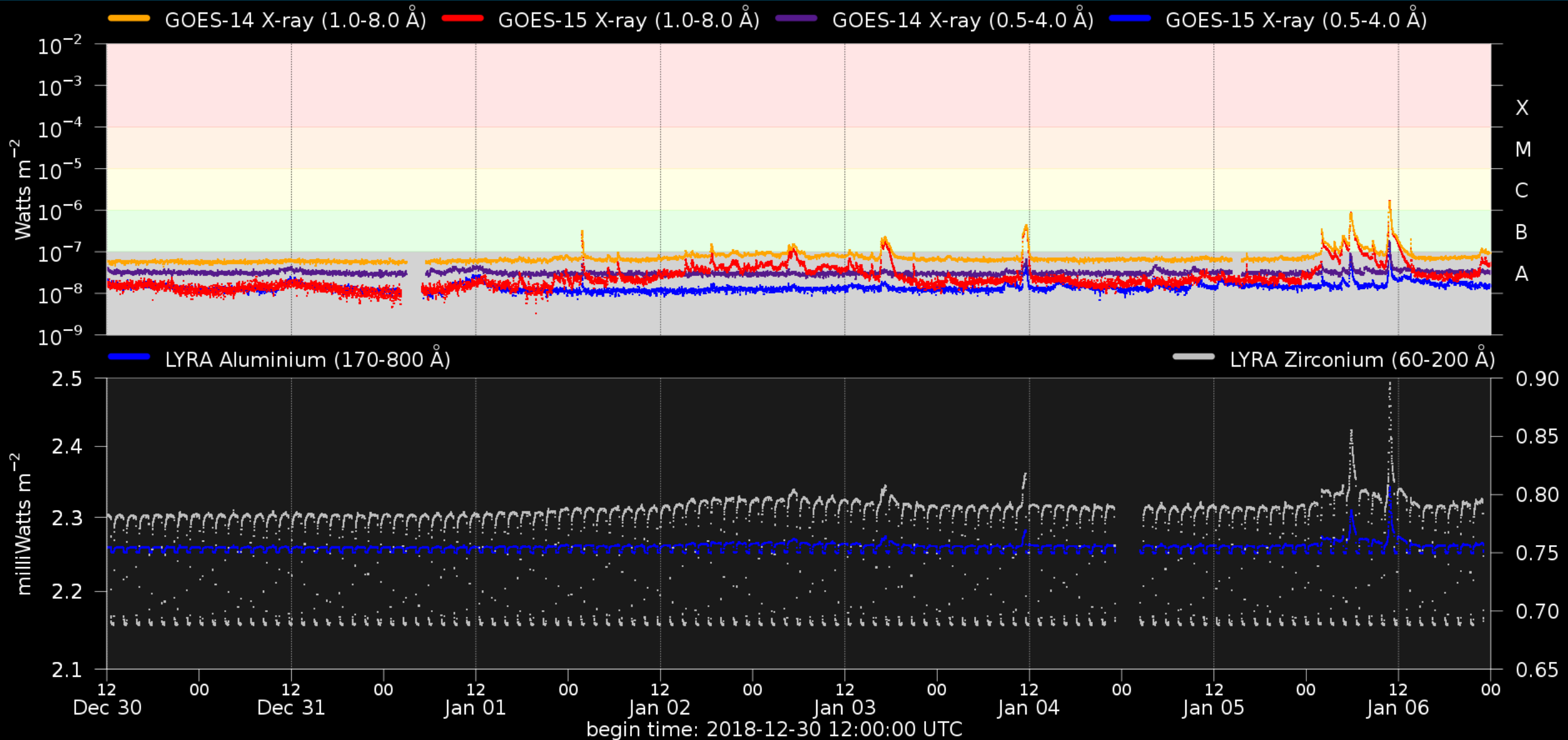
University of Graz
(Austria)



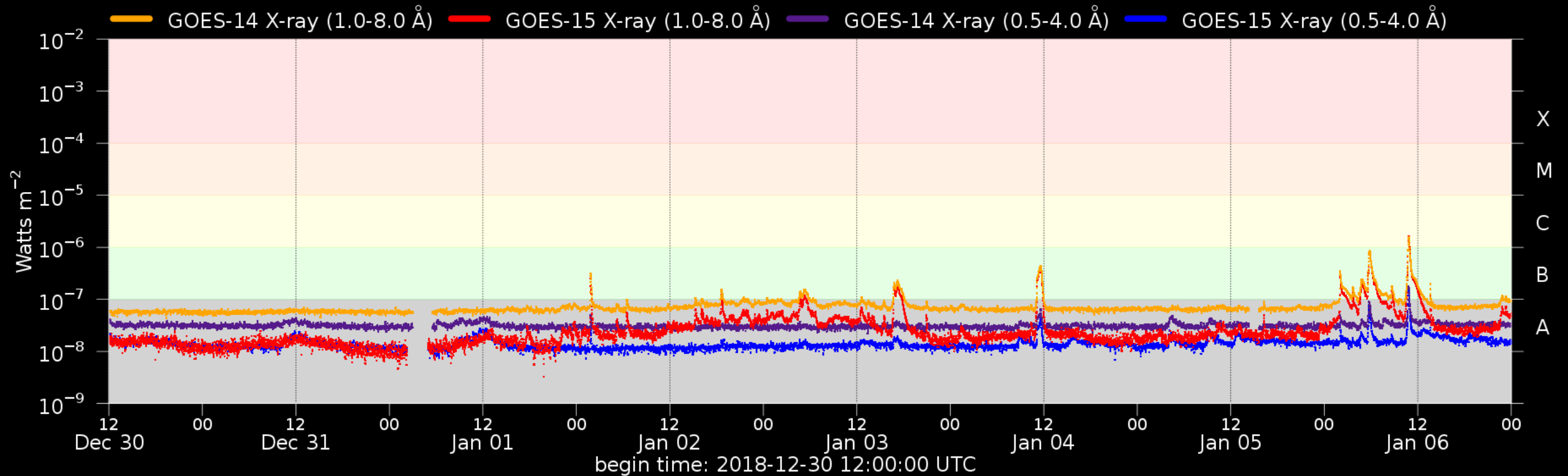
Solar F10.7cm radio flux



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:

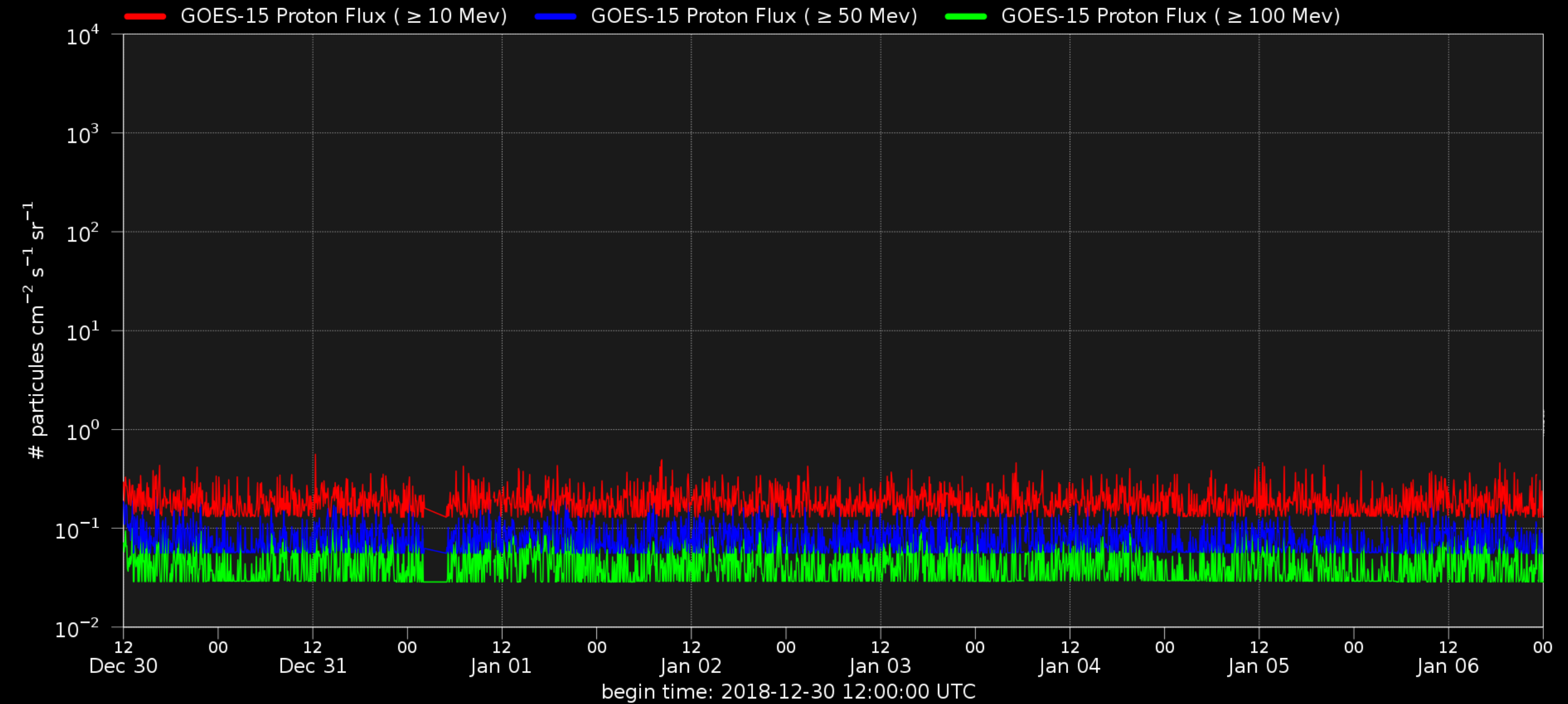
Issue date	2018-12-30	2018-12-31	2019-01-01	2019-01-02	2019-01-03	2019-01-04	2019-01-05	2019-01-06
Probability	--- 01 01 01	--- 05 01 01	--- 03 01 01	--- 10 01 01	--- 20 05 01	--- 20 01 01	--- 20 03 01	--- 20 05 01
Observed	00 00 00 00	00 00 00 00	01 00 00 00	02 00 00 00	02 00 00 00	01 00 00 00	06 01 00 00	01 00 00 00

Coronal Mass Ejection

64

20:18 01/05
17:24 01/05
14:24 01/05
11:18 01/05
08:12 01/05
05:36 01/05
02:48 01/05
23:36 01/04
20:00 01/04
17:24 01/04
14:12 01/04
11:00 01/04
07:36 01/04
03:24 01/04
23:18 01/03
19:48 01/03
17:06 01/03
14:18 01/03
11:24 01/03
08:36 01/03
06:12 01/03
03:36 01/03
00:24 01/03
21:12 01/02
18:24 01/02
15:37 01/02
12:24 01/02
09:48 01/02
06:36 01/02
03:48 01/02
00:24 01/02
21:12 01/01
18:00 01/01
15:12 01/01
11:48 01/01
08:48 01/01
06:00 01/01
03:24 01/01
23:48 12/31
20:24 12/31
17:48 12/31
14:36 12/31
11:48 12/31
09:06 12/31
06:12 12/31

Solar proton flux

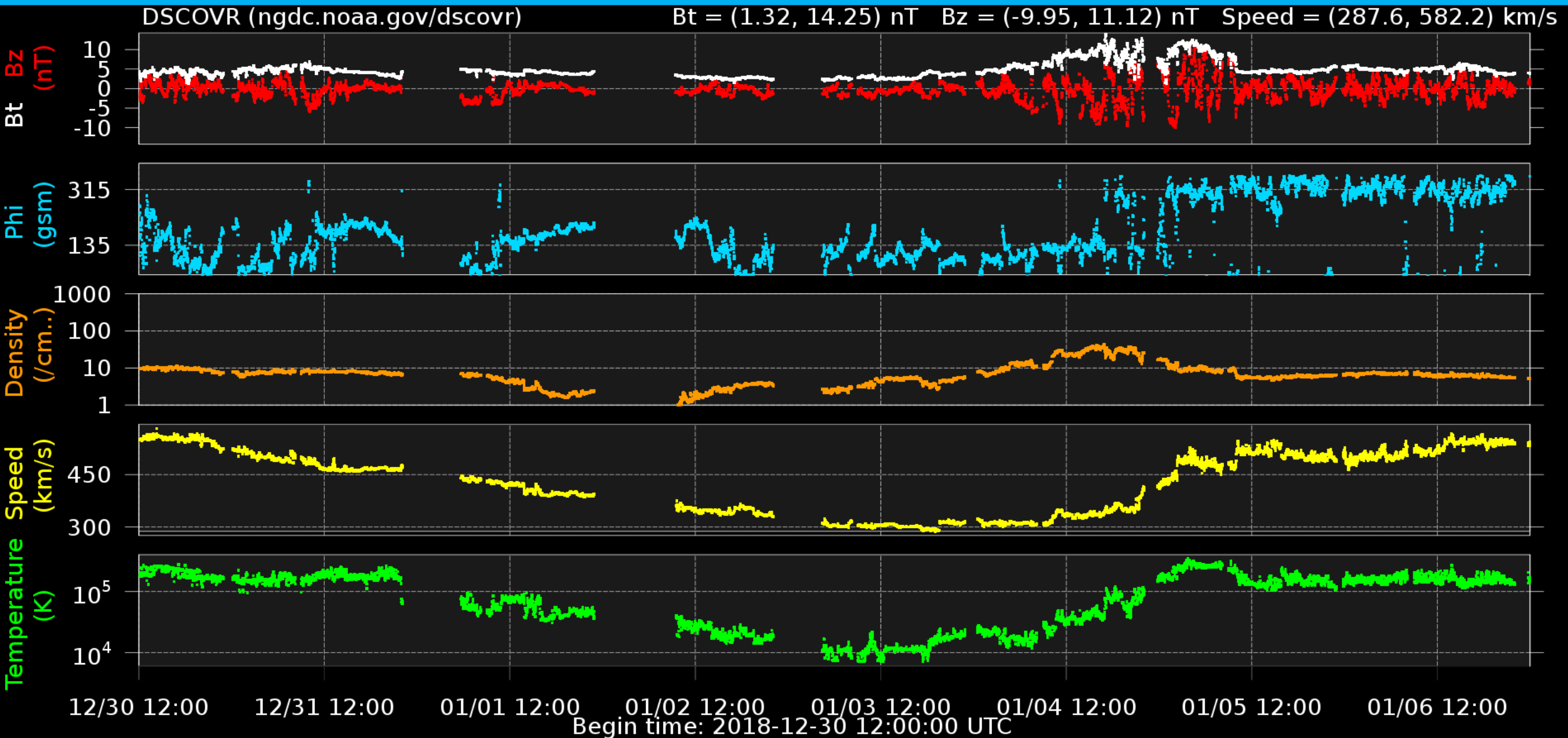


Solar Wind and Geomagnetic Activity

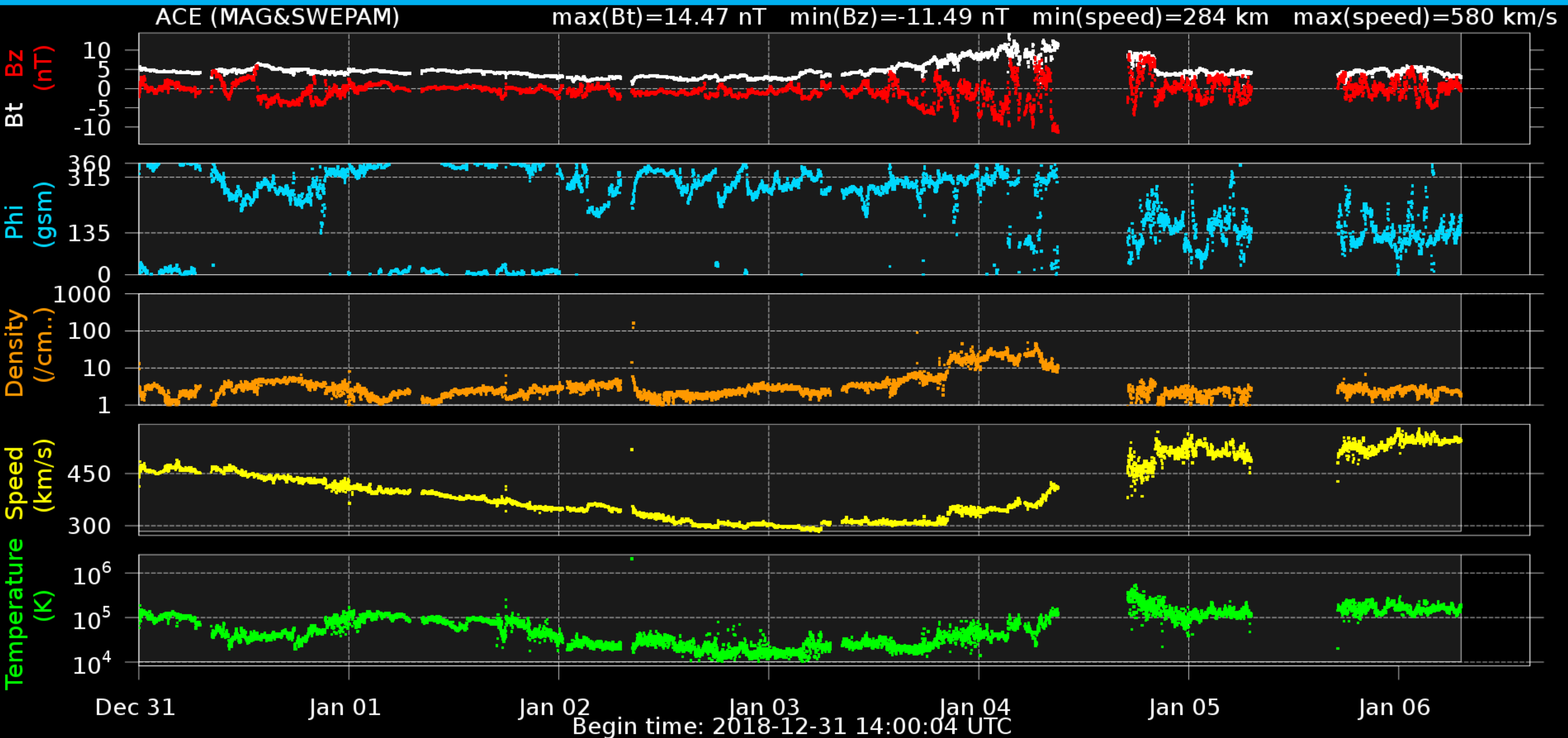


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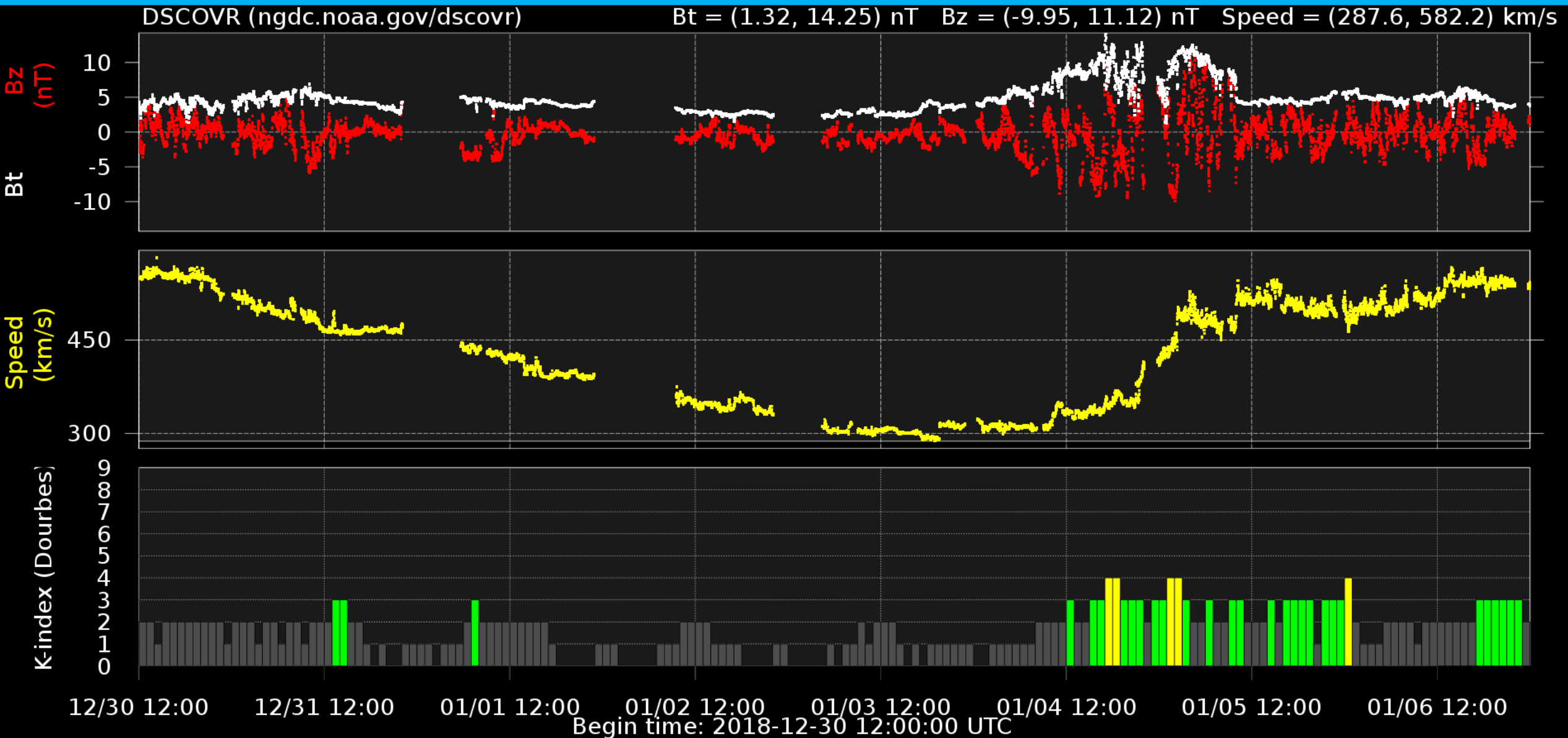
Solar wind parameters (DSCOVR data)



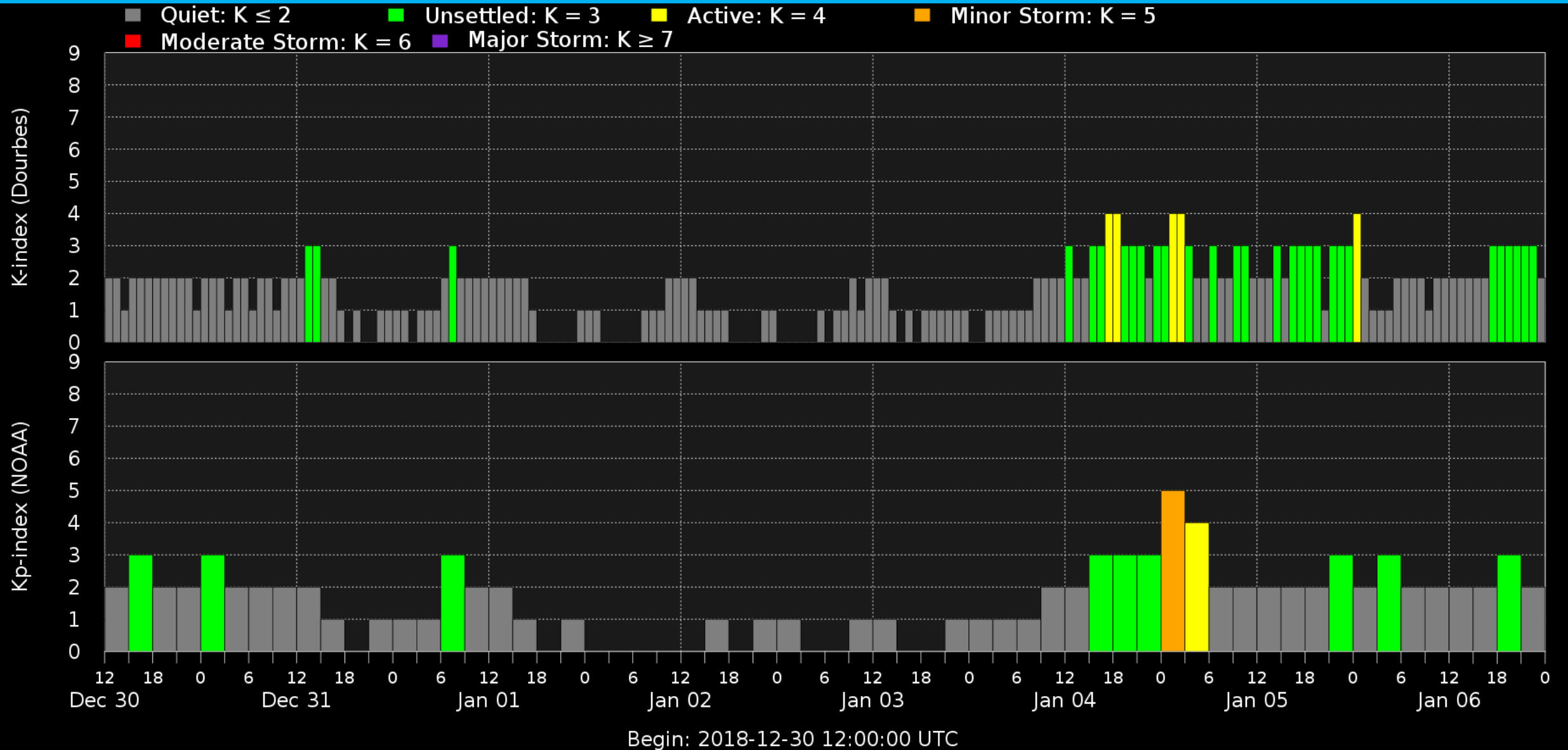
Solar wind parameters (ACE data)



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



Geomagnetic activity (K-indexes)



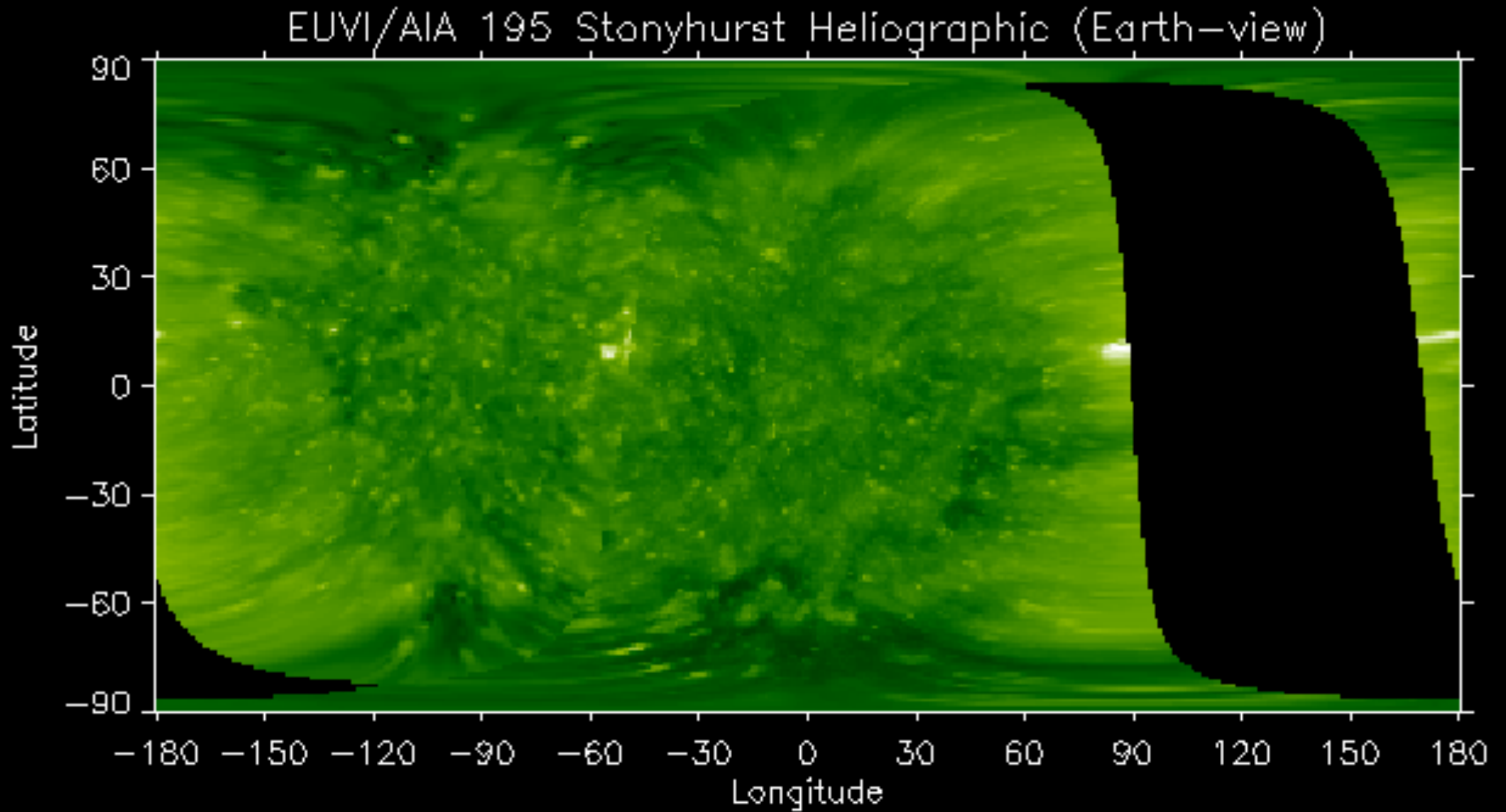
Outlook



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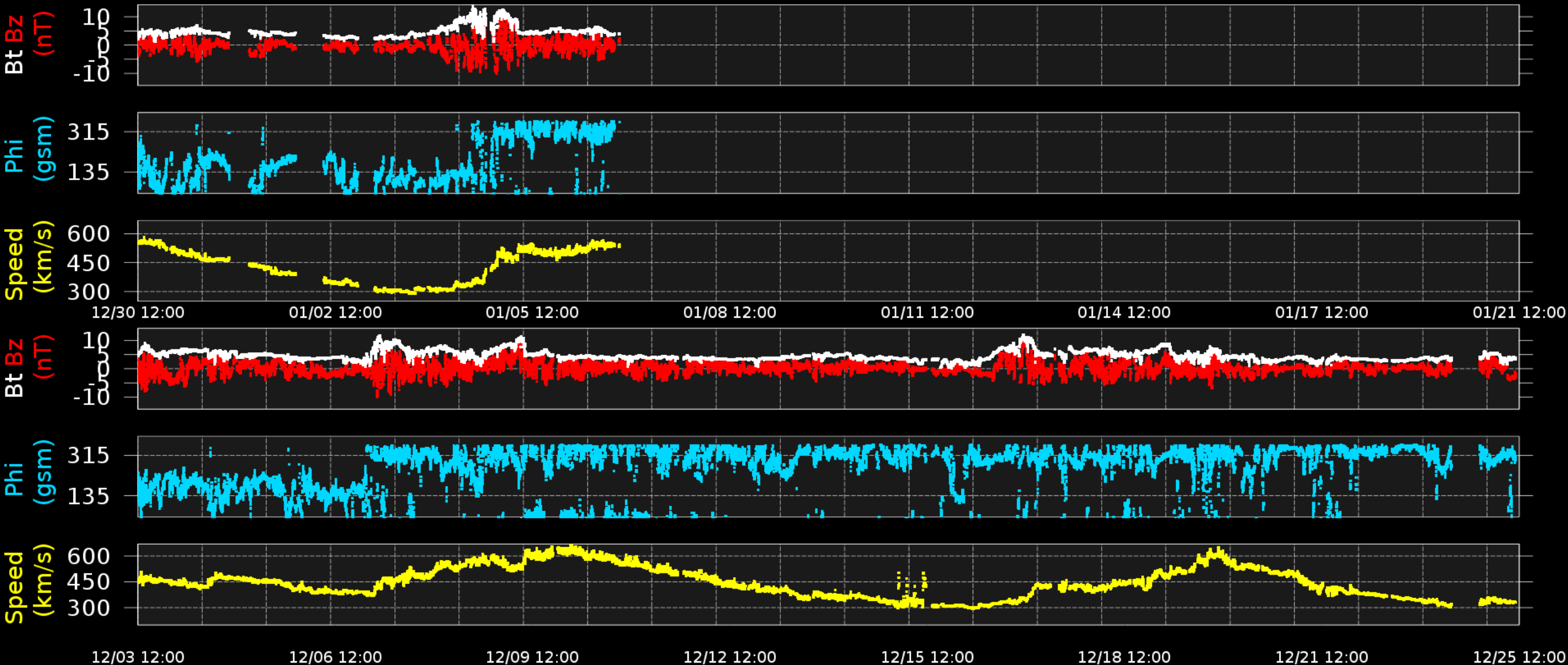
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Outlook: Solar activity

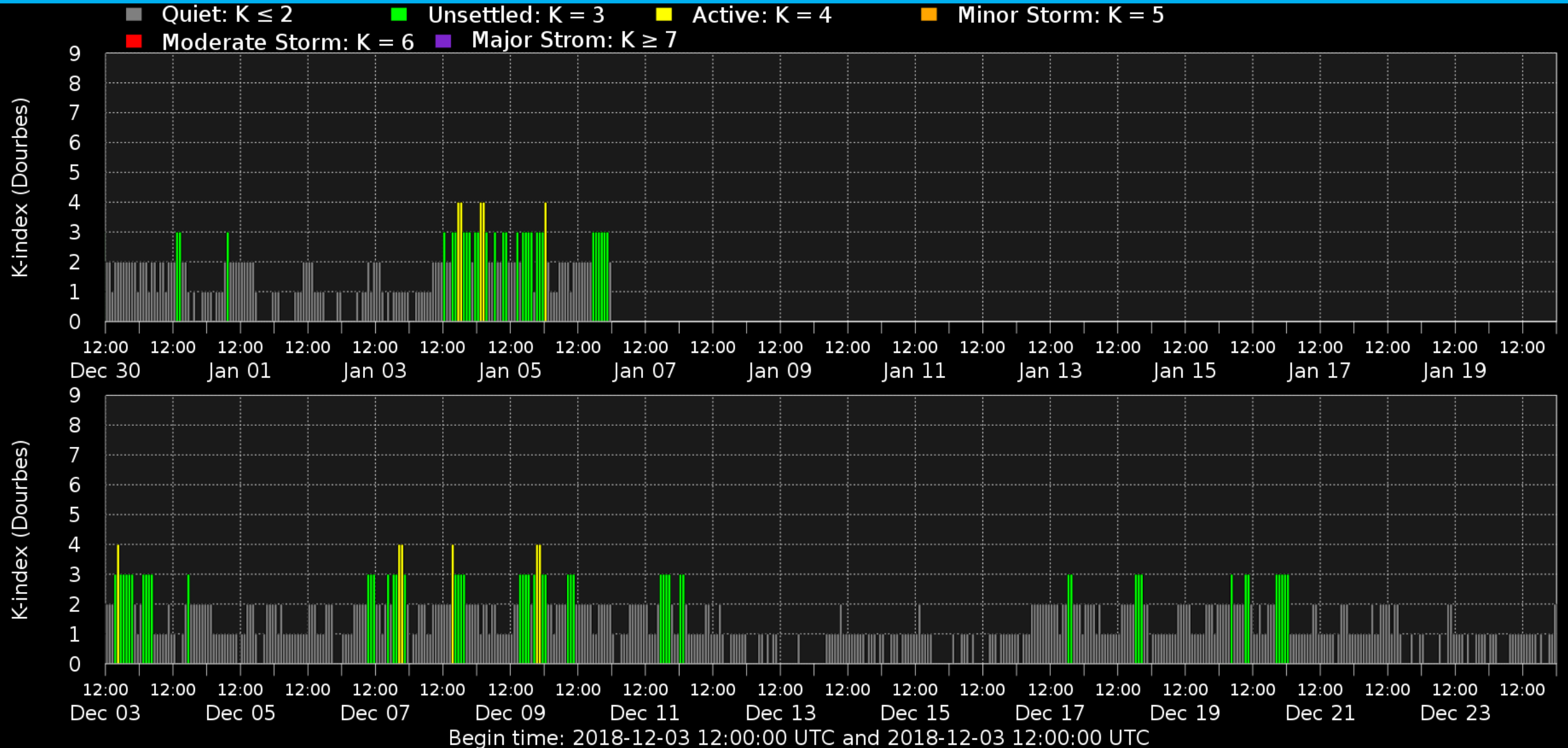


Outlook: Solar wind

DSCOVR (ngdc.noaa.gov/dscovr)



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

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