

SIDC Space Weather Briefing

08 December 2019 - 15 December 2019

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& the SIDC forecaster team



Royal Observatory
of Belgium

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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 (10/12) & equatorial, positive polarity CH (14/12)
ICME	Possible
SW Conditions	Mostly quiet to unsettled
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 3

All Quiet Alert: on all week.

Solar Activity

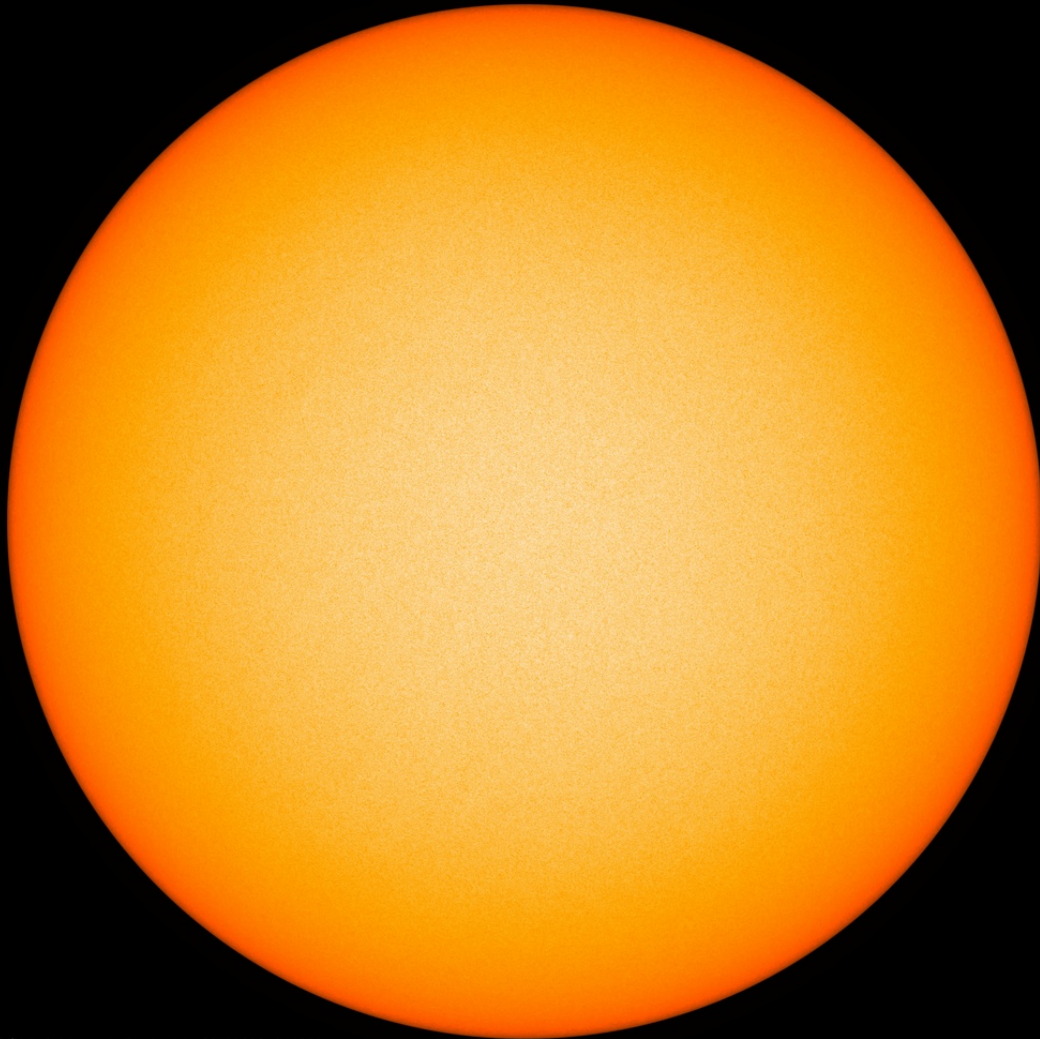


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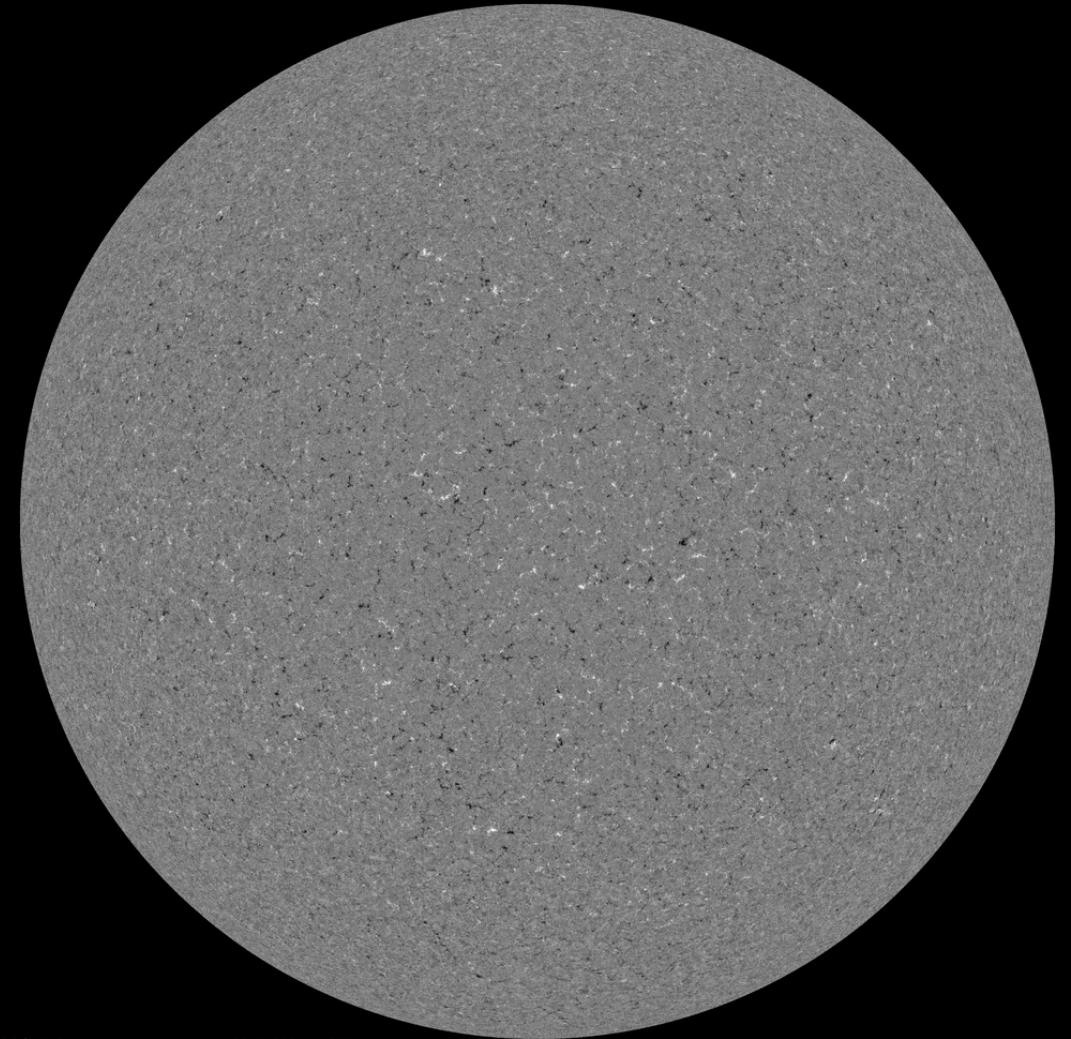
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Solar active region - start of the week

SDO/HMI White Light 2019-12-08

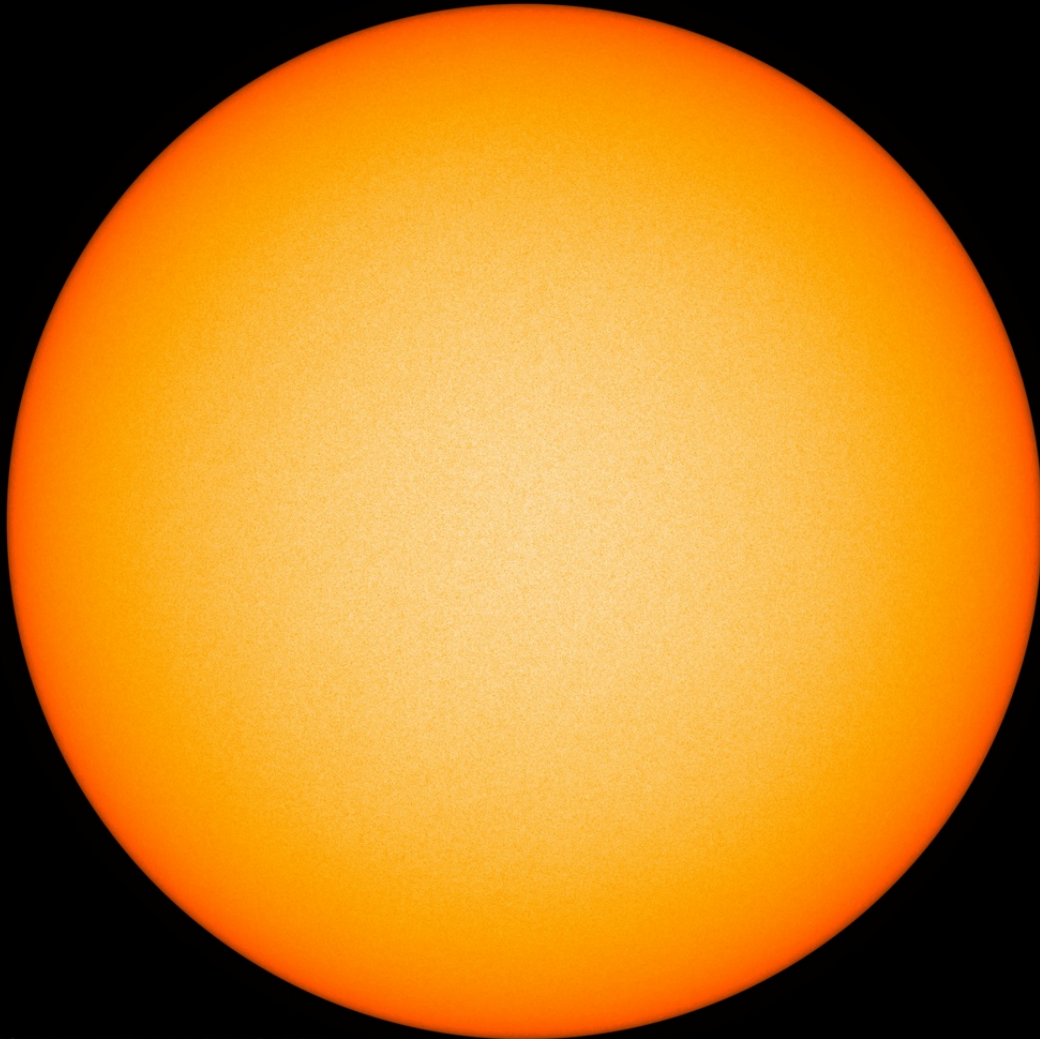


SDO/HMI Magnetogram 2019-12-08



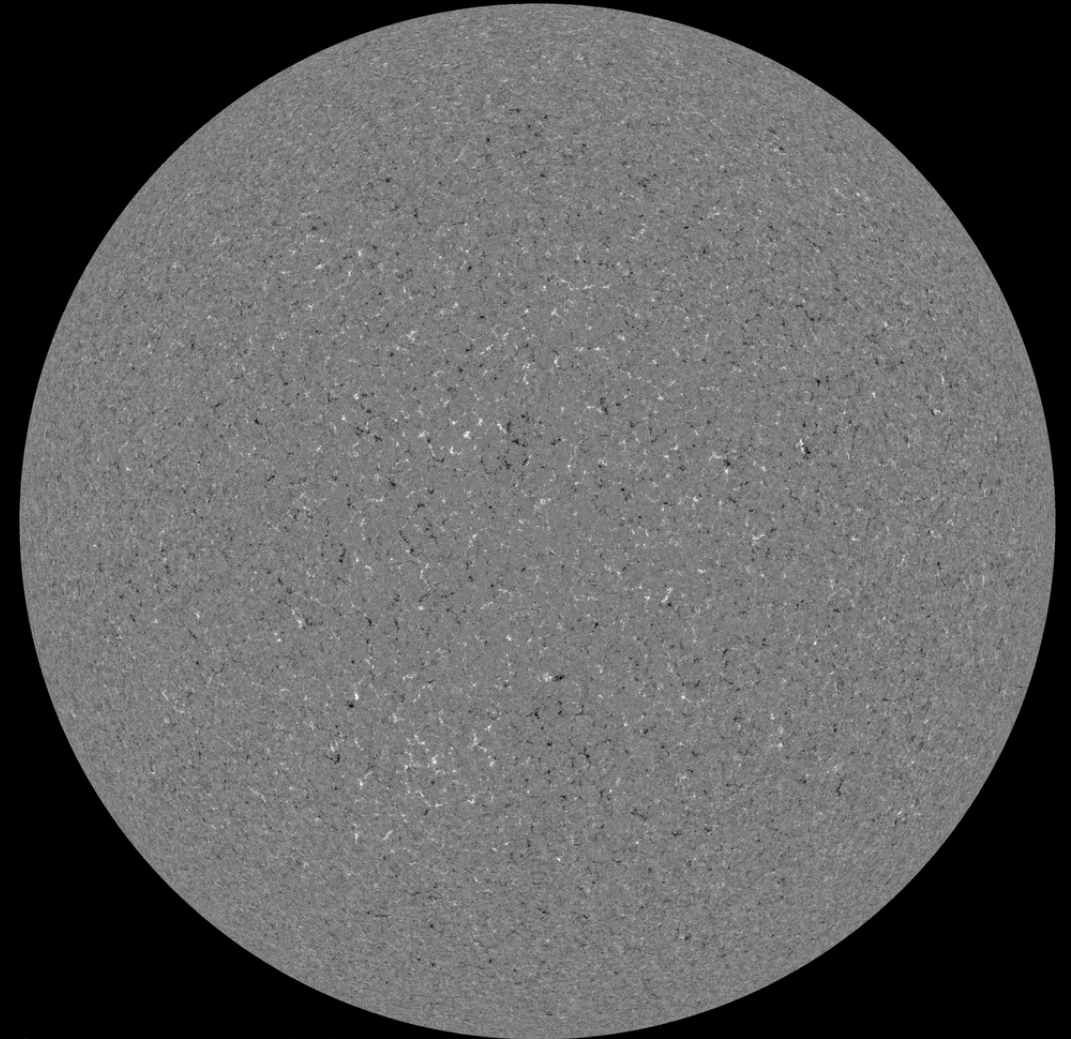
Solar active region - end of the week

SDO/HMI White Light 2019-12-15



SDO/HMI Quick-Look Continuum: 20191215_120000

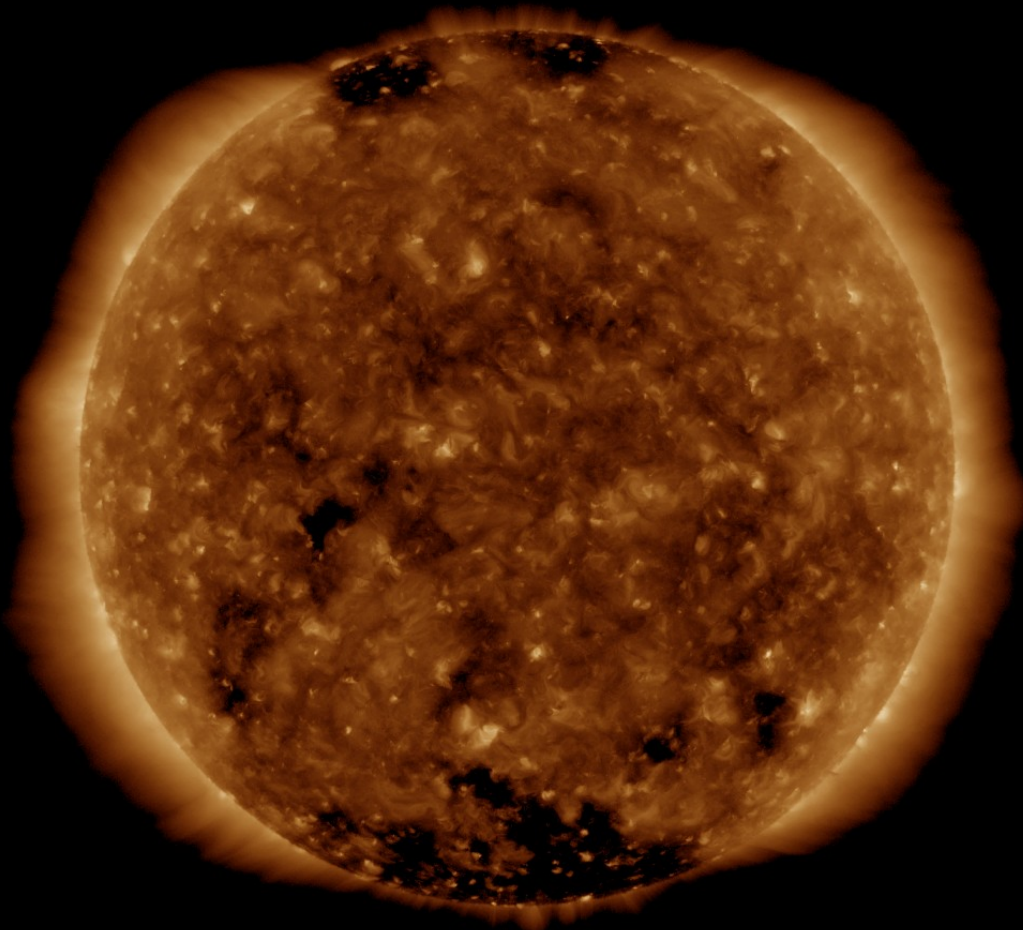
SDO/HMI Magnetogram 2019-12-15



SDO/HMI Quick-Look Magnetogram: 20191215_114500

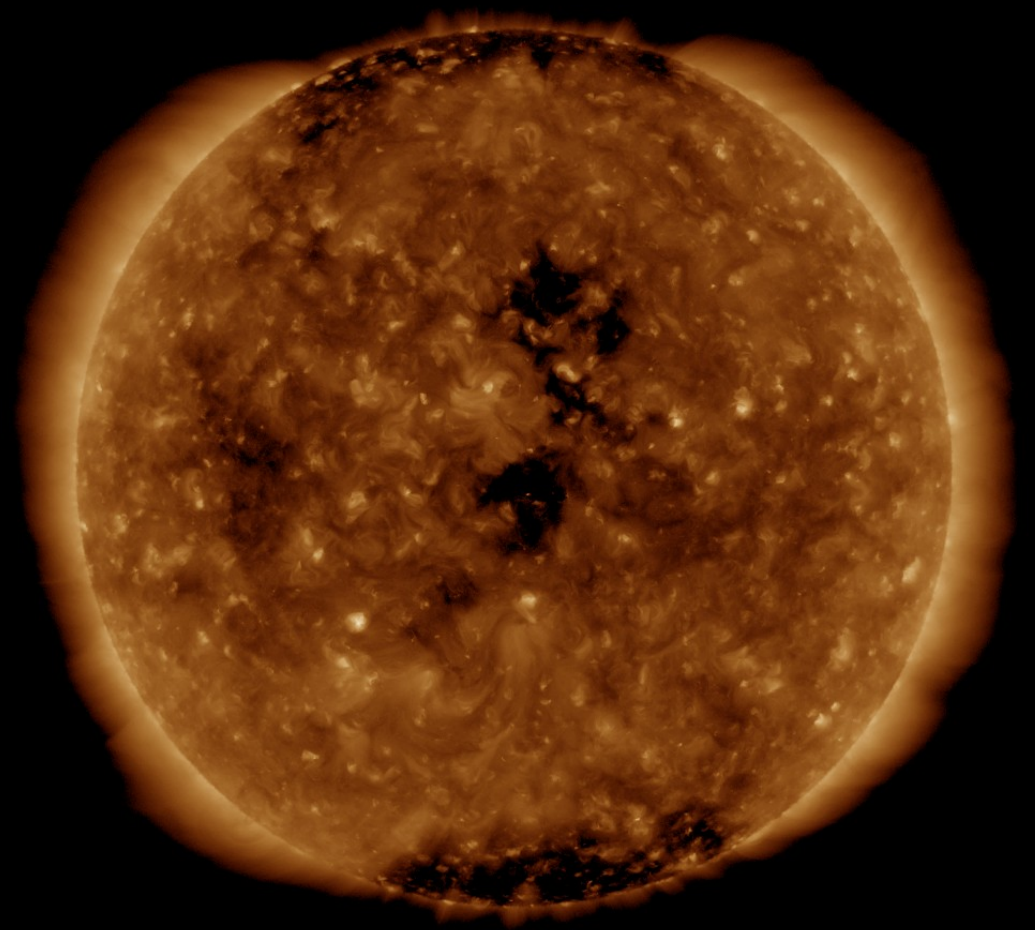
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-12-08



SDO/AIA 193 2019-12-08 12:10:53 UT

SDO/AIA 19.3 nm 2019-12-15

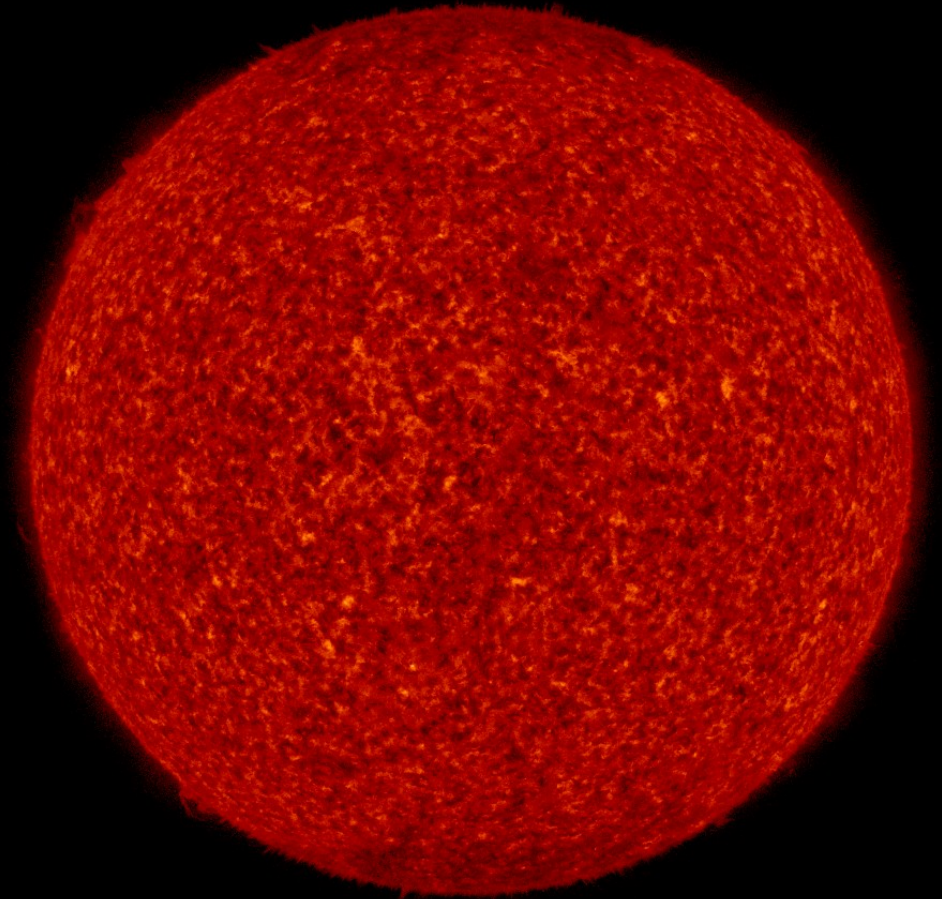
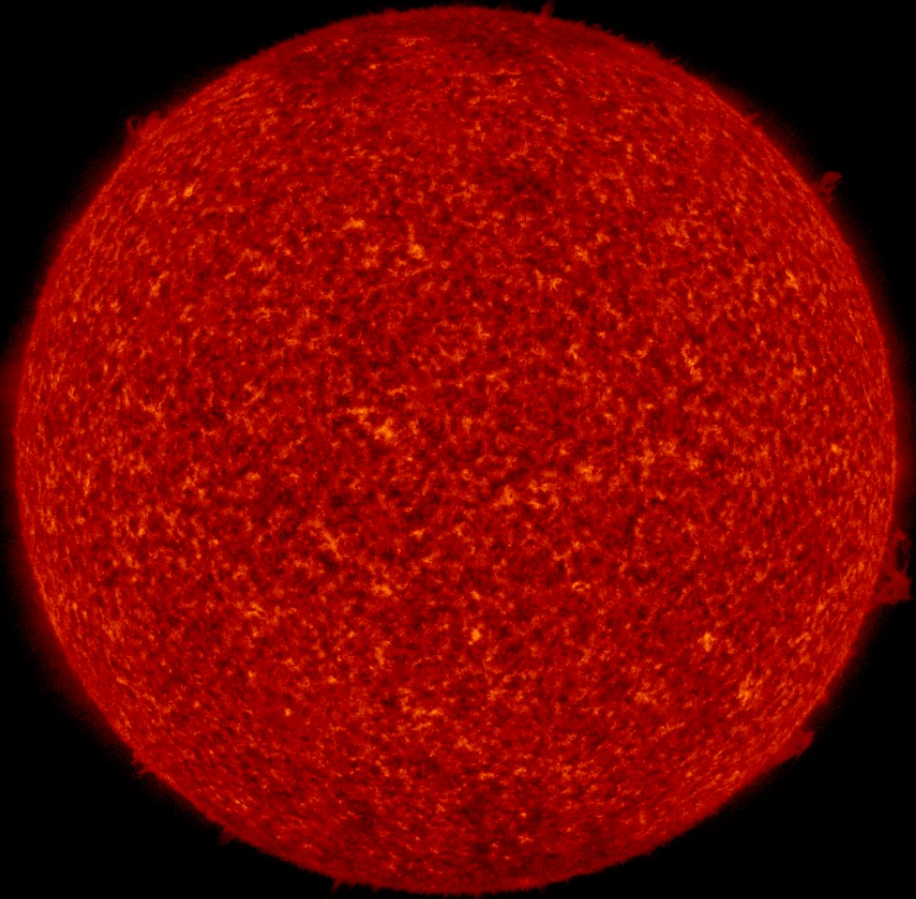


SDO/AIA 193 2019-12-15 12:10:29 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2019-12-08

SDO/AIA 30.4 nm 2019-12-15



SDO/AIA 304 2019-12-08 12:13:18 UT

SDO/AIA 304 2019-12-15 20:29:06 UT

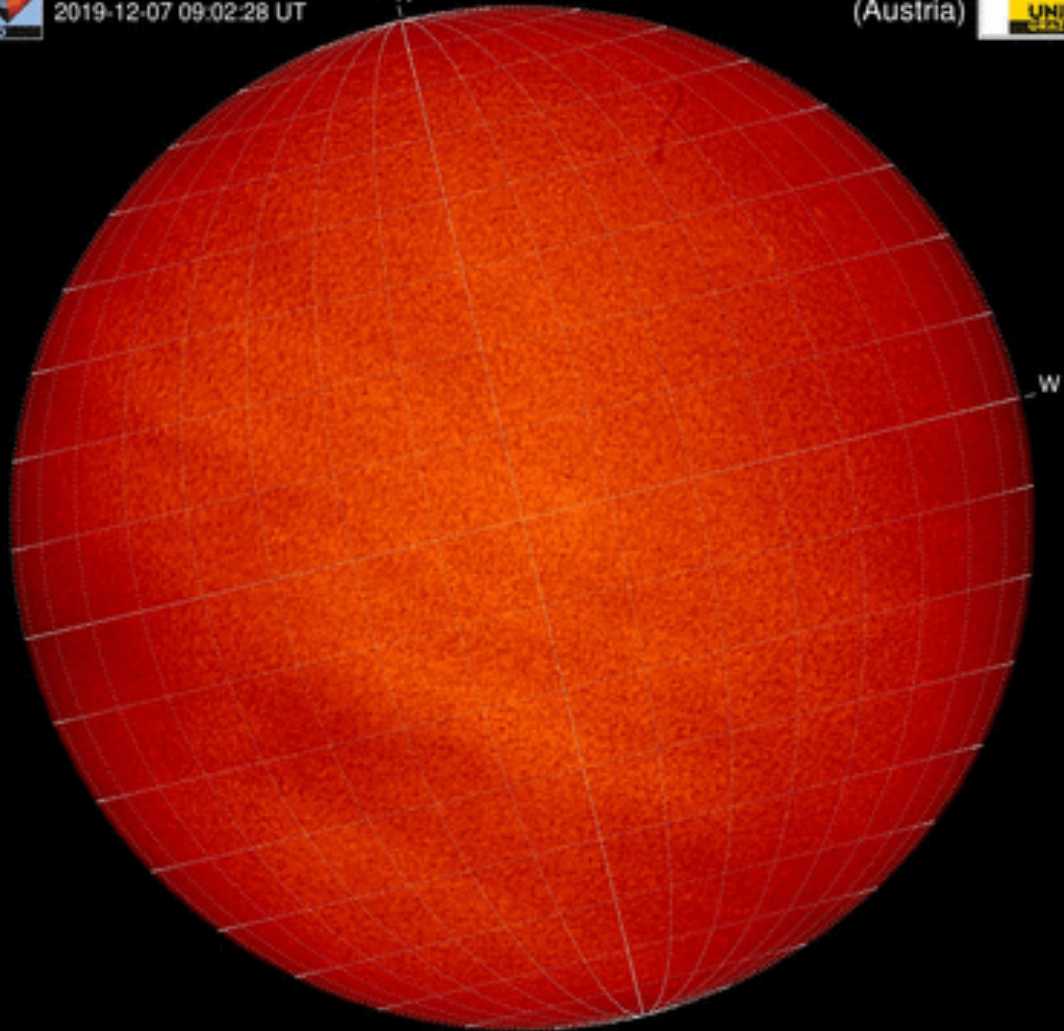
Filament & Filament eruption

H-alpha 2019-12-08



Kanzelhöhe Observatory
2019-12-07 09:02:28 UT

University of Graz
(Austria)

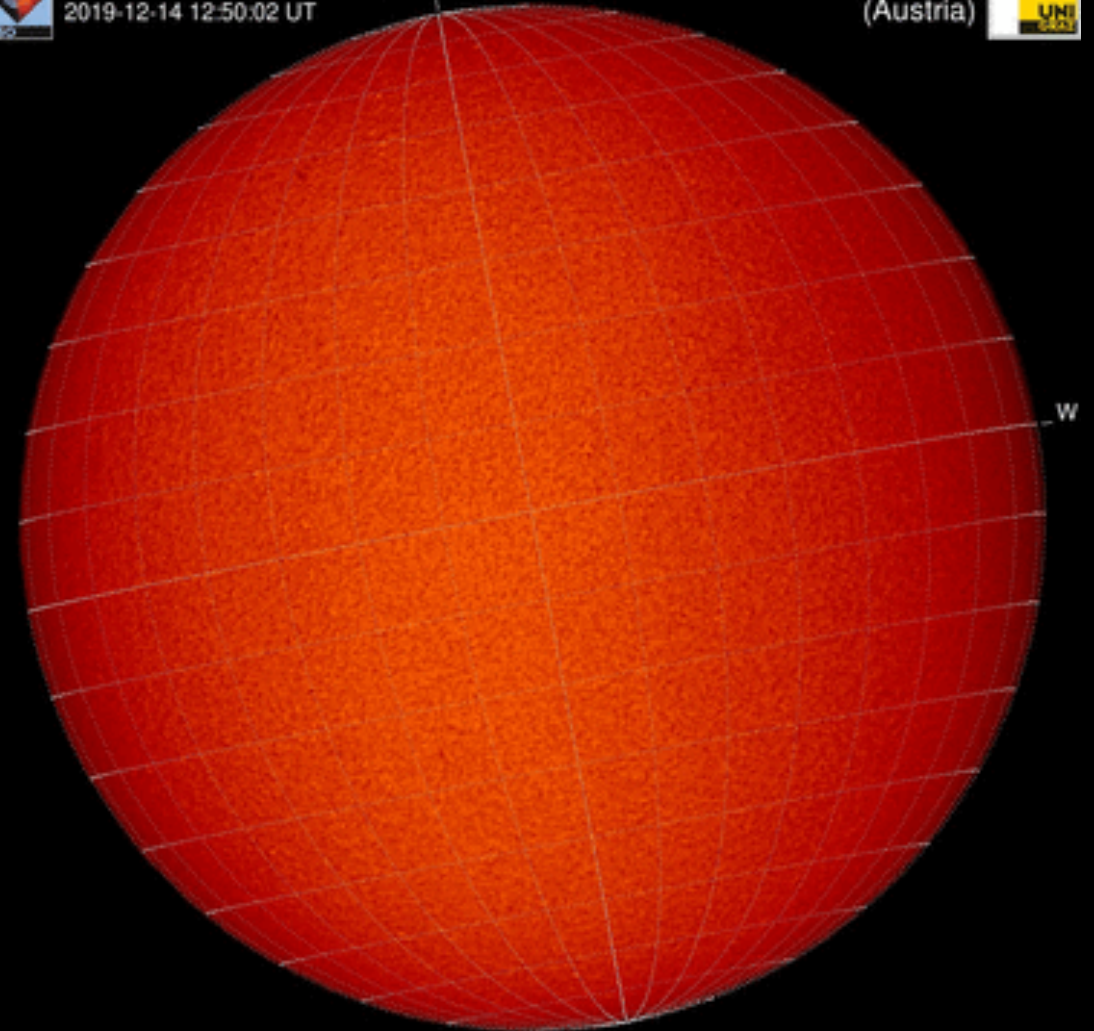


H-alpha 2019-12-15

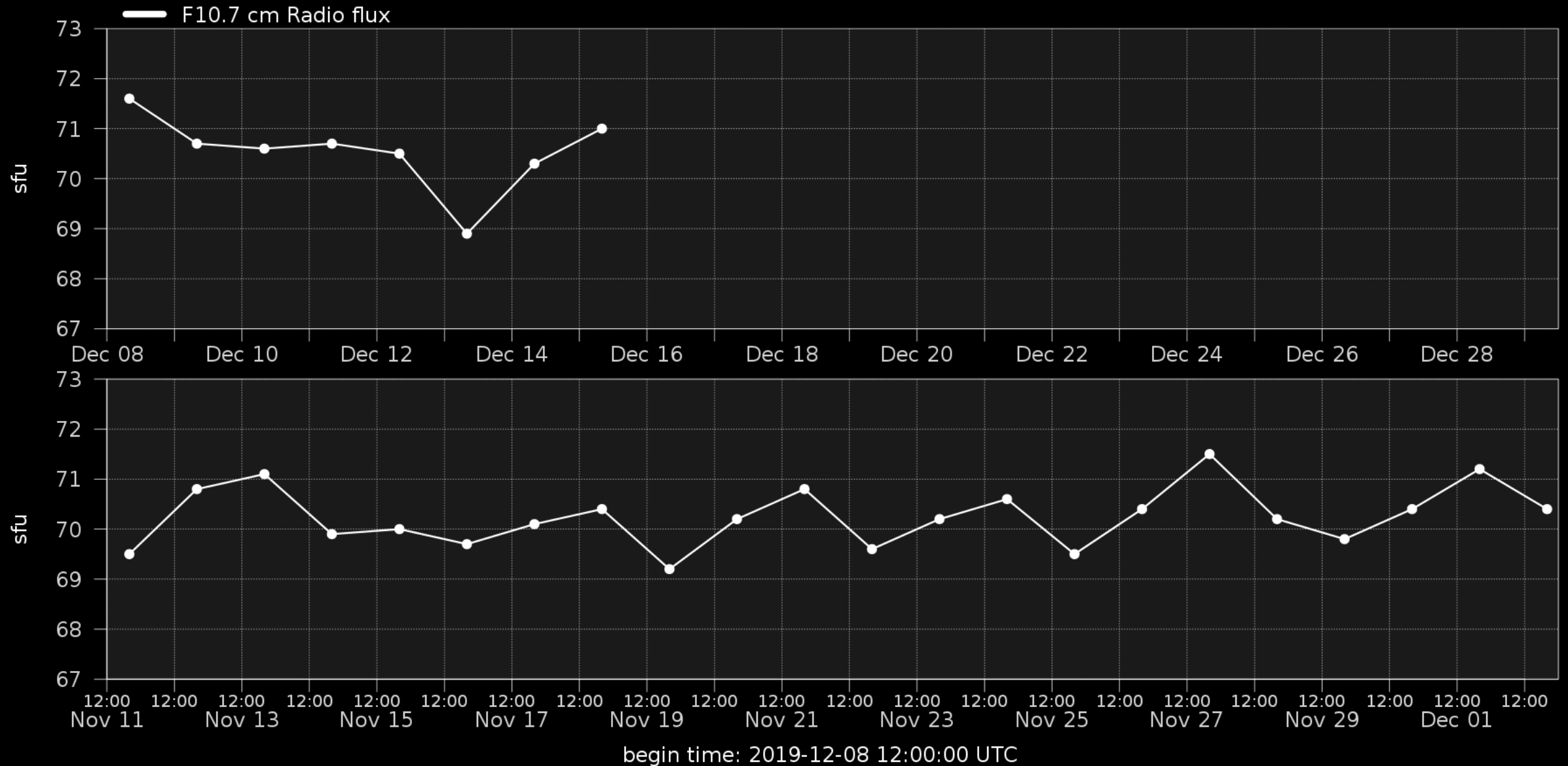


Kanzelhöhe Observatory
2019-12-14 12:50:02 UT

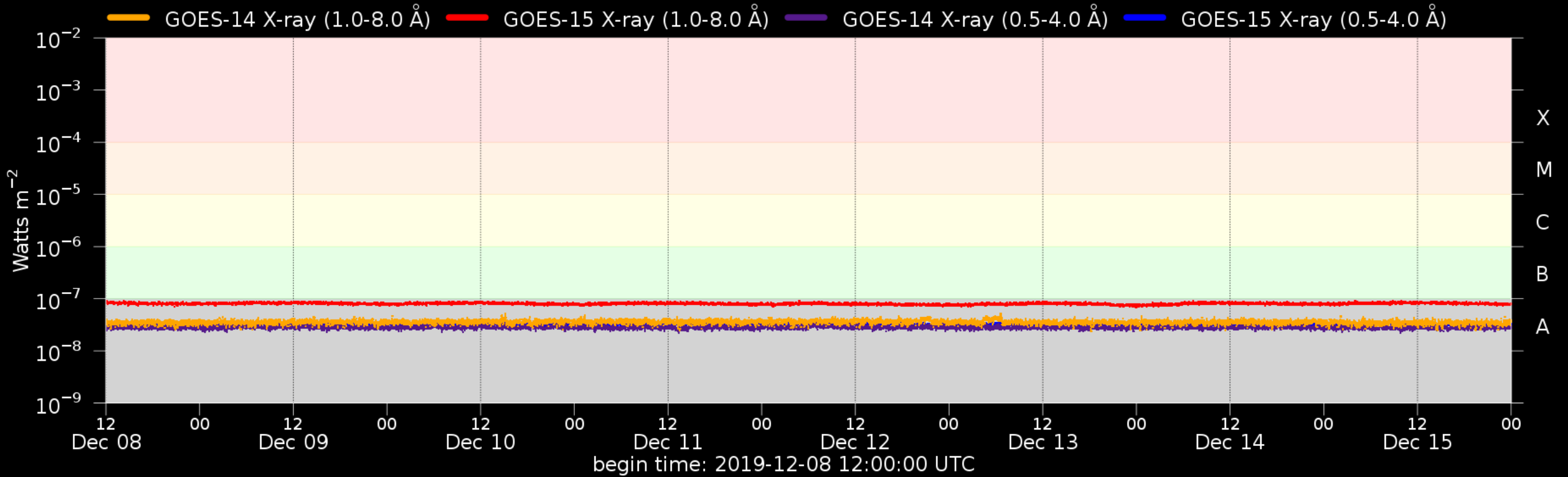
University of Graz
(Austria)



Solar F10.7cm radio flux



Flaring activity

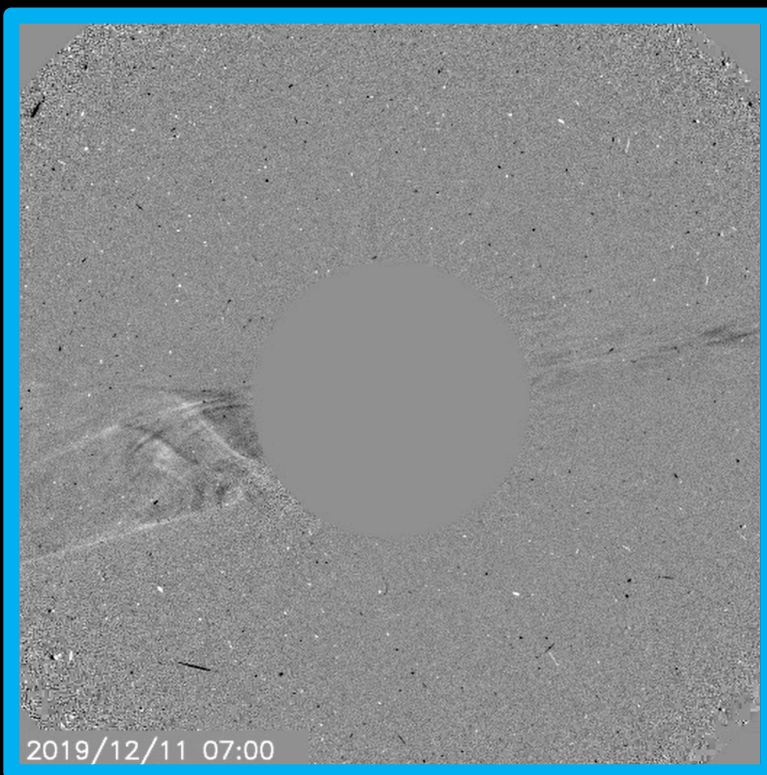


Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2019-12-08	2019-12-09	2019-12-10	2019-12-11	2019-12-12	2019-12-13	2019-12-14	2019-12-15
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

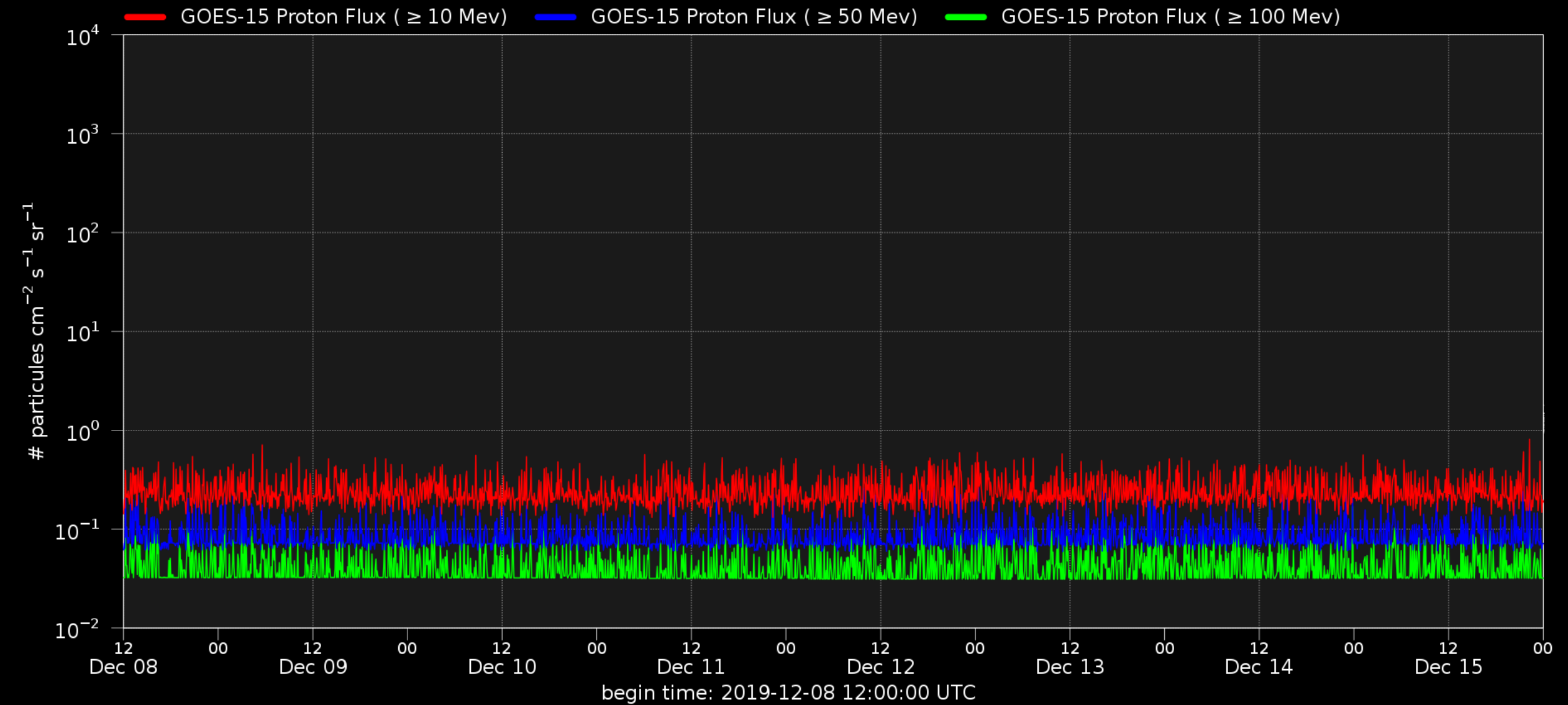


f2
f1 f1

c3

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

Solar proton flux



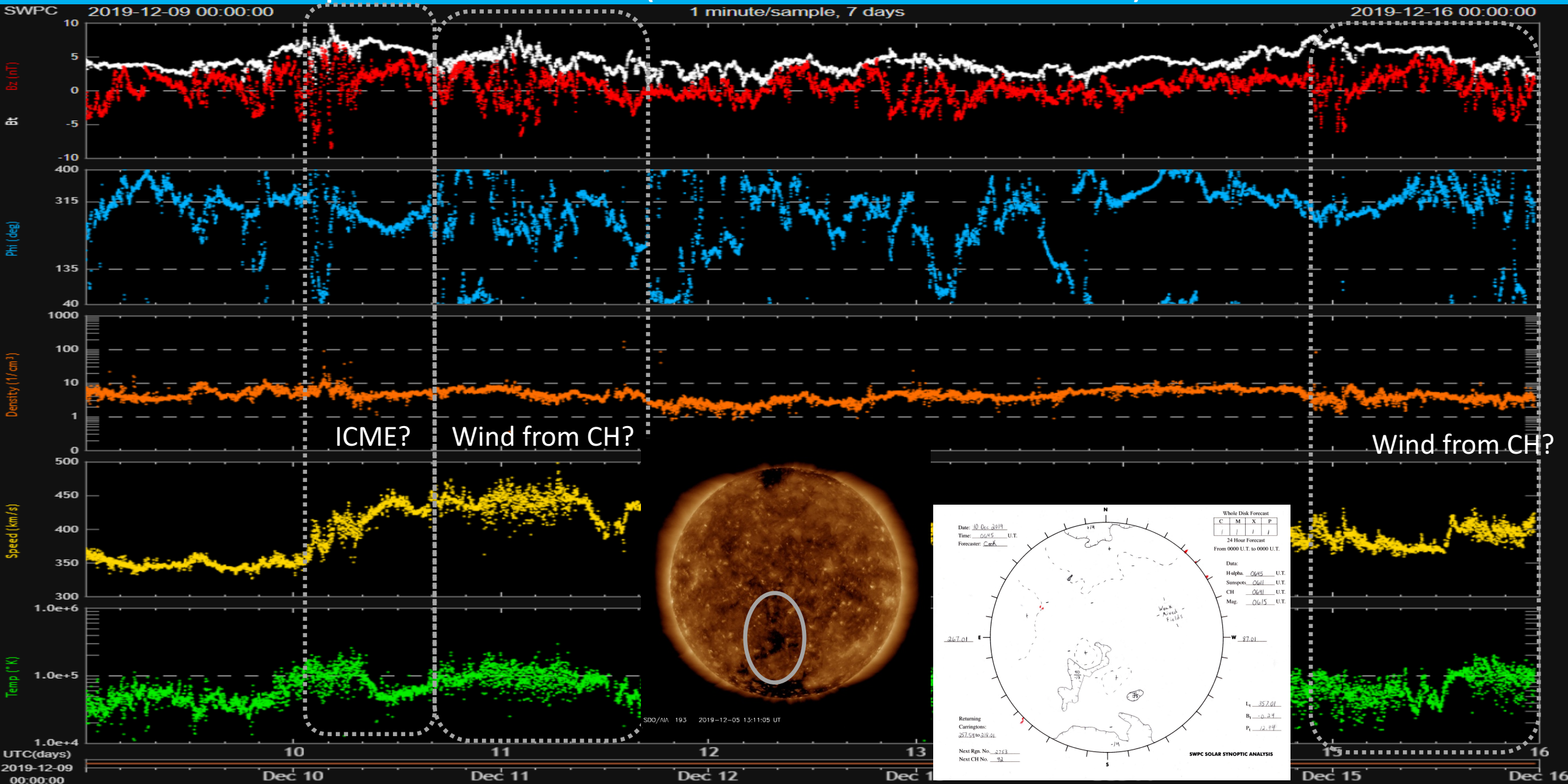
Solar Wind and Geomagnetic Activity



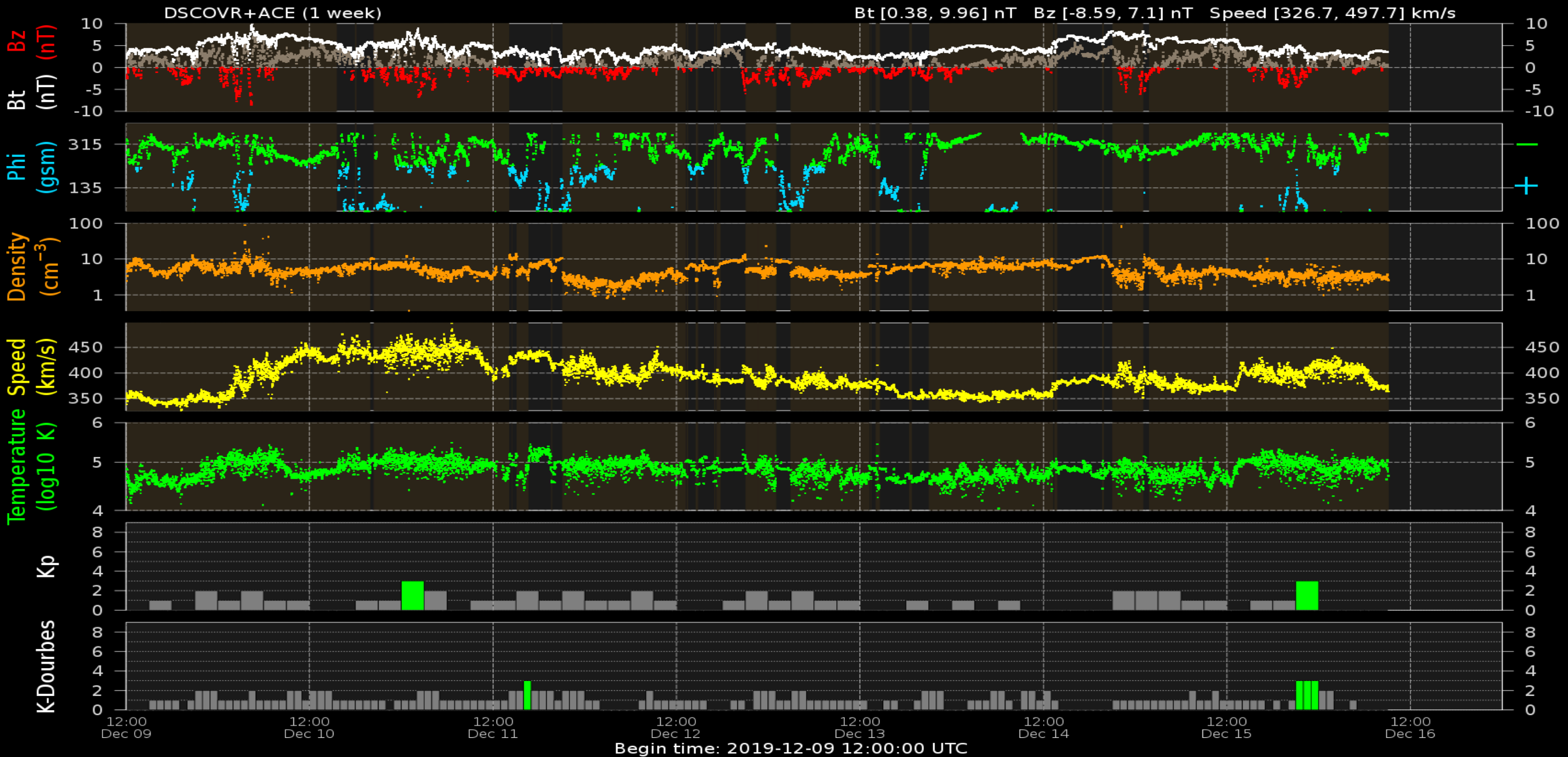
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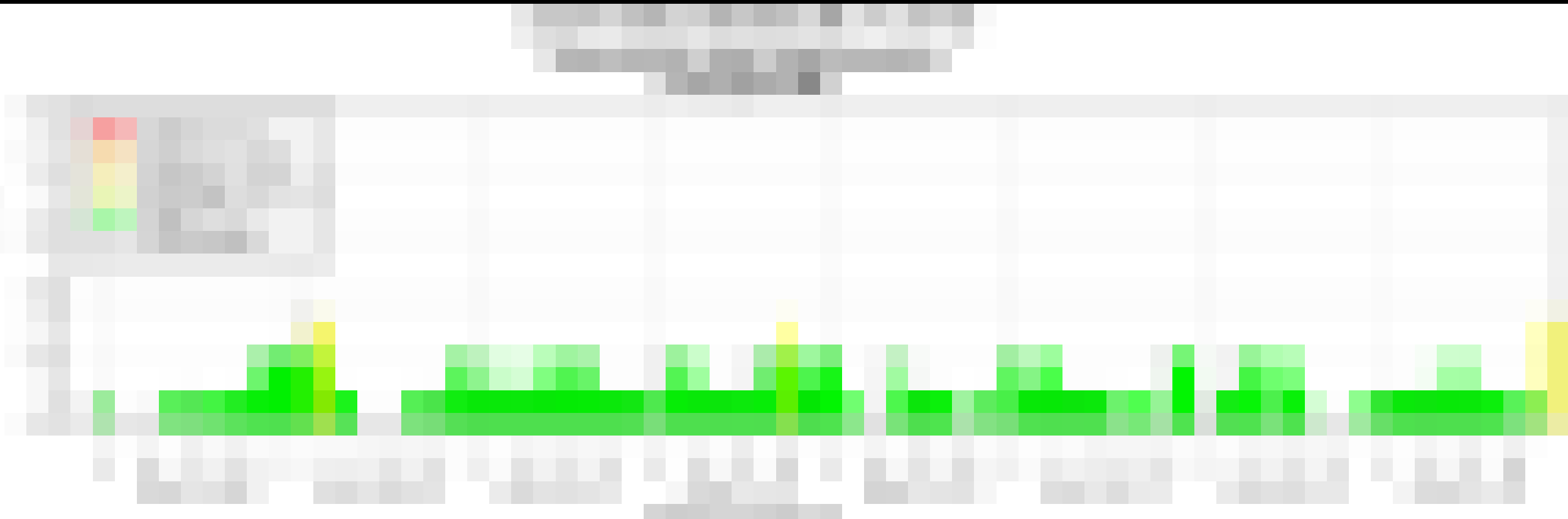
Solar wind parameters (DSCOVR/ACE data)



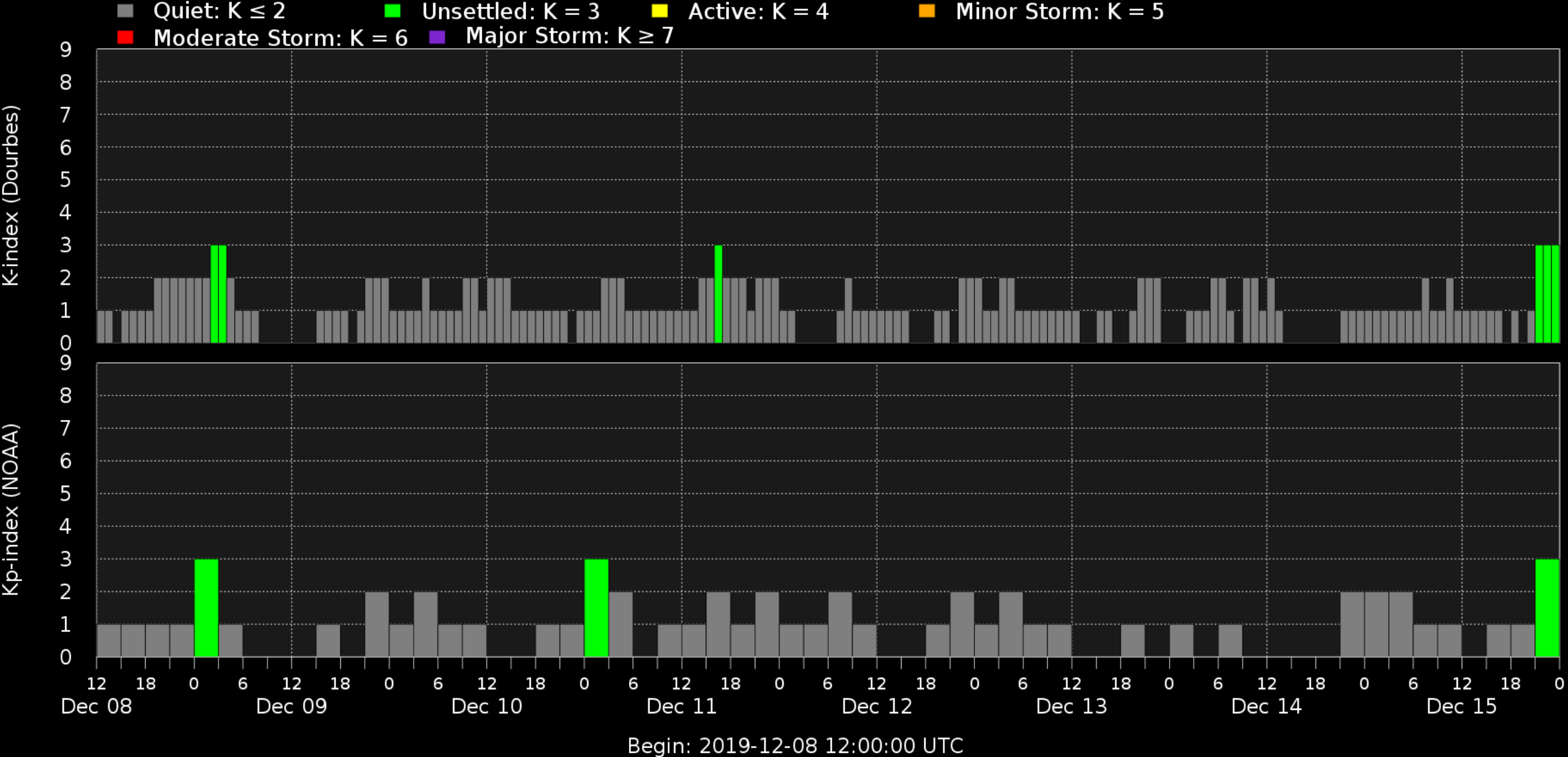
Solar wind parameters & K-index (DSCOVR/Dourbes)



Geomagnetic activity: K-Dourbes index



Geomagnetic activity (K-indexes)



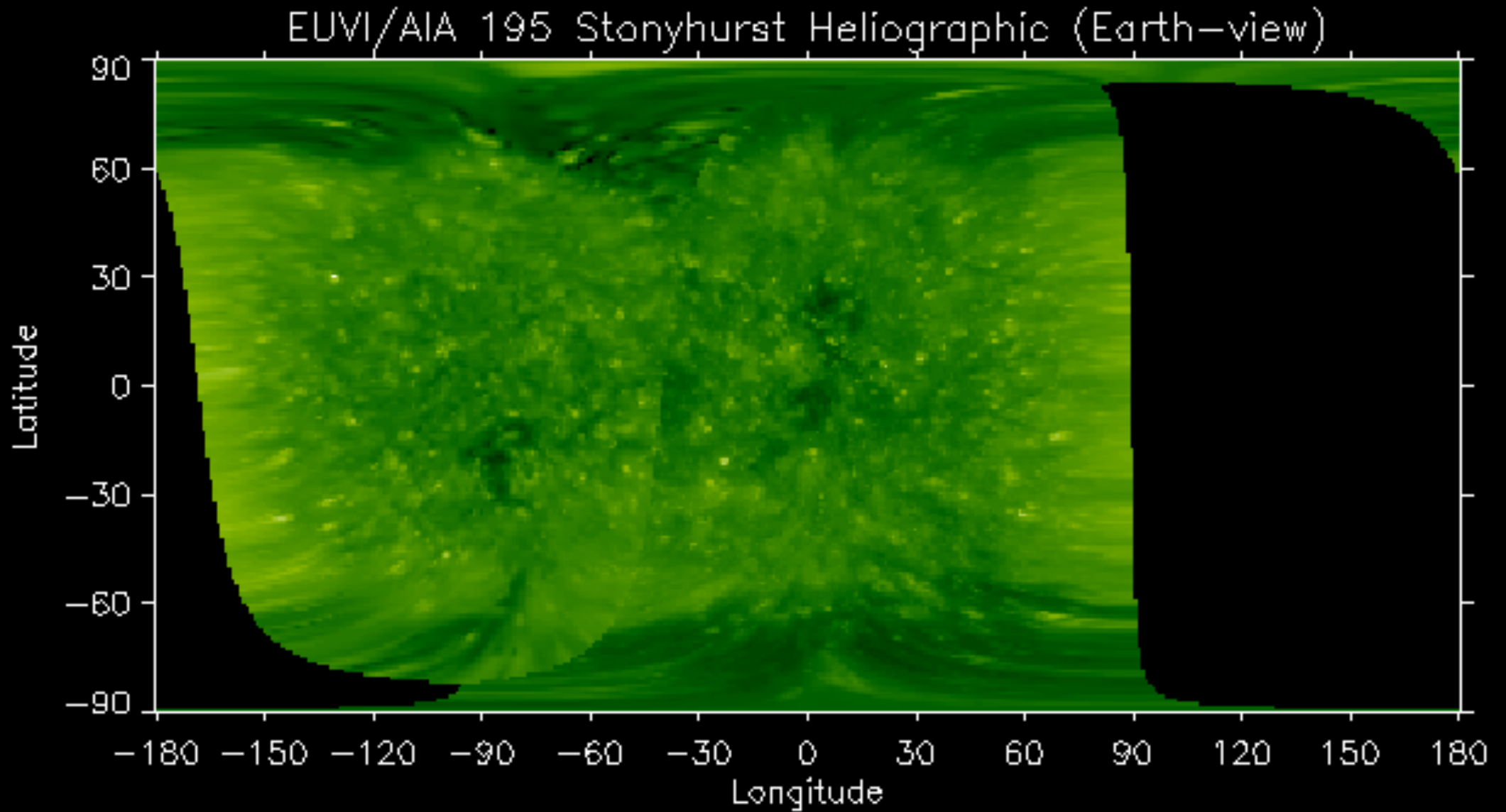
Outlook



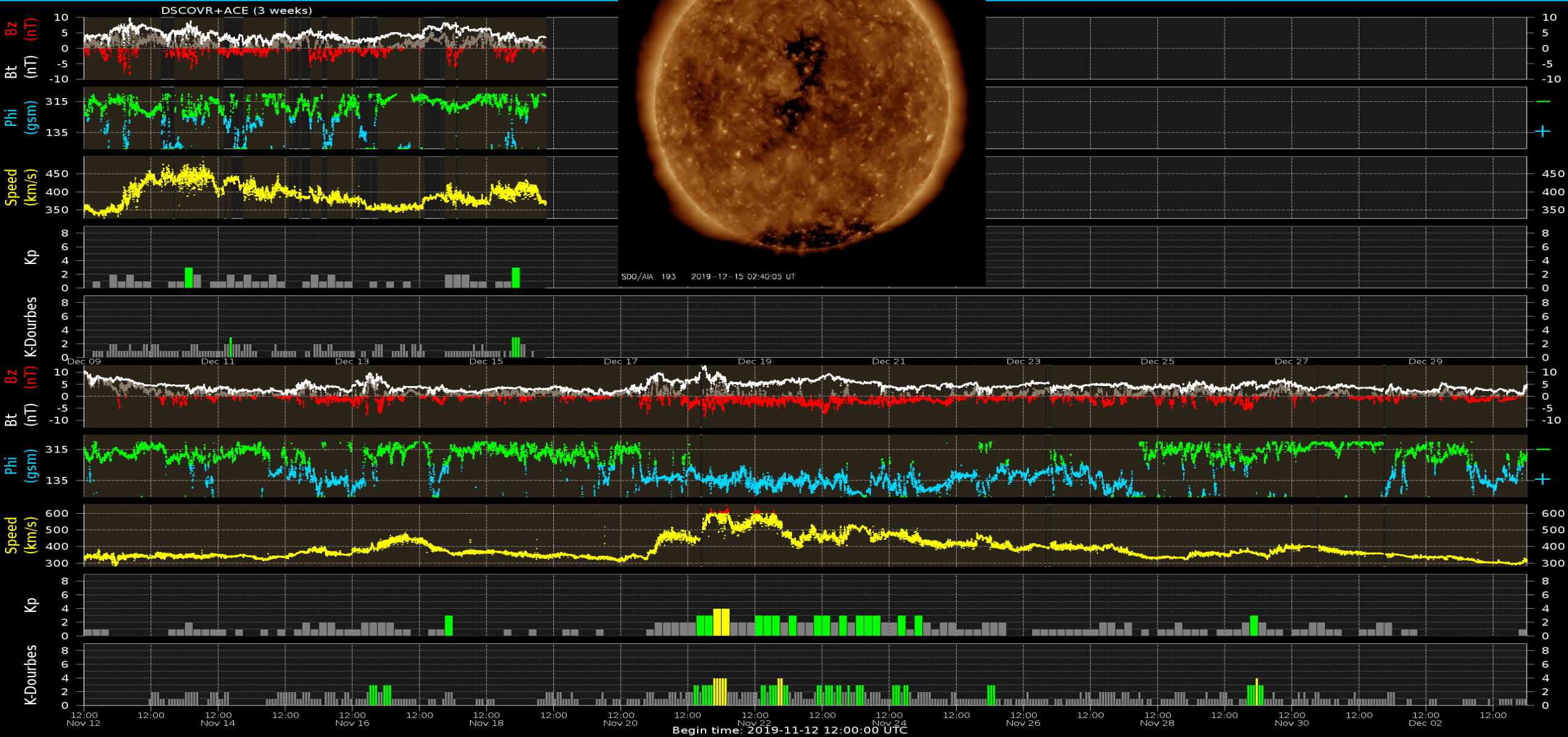
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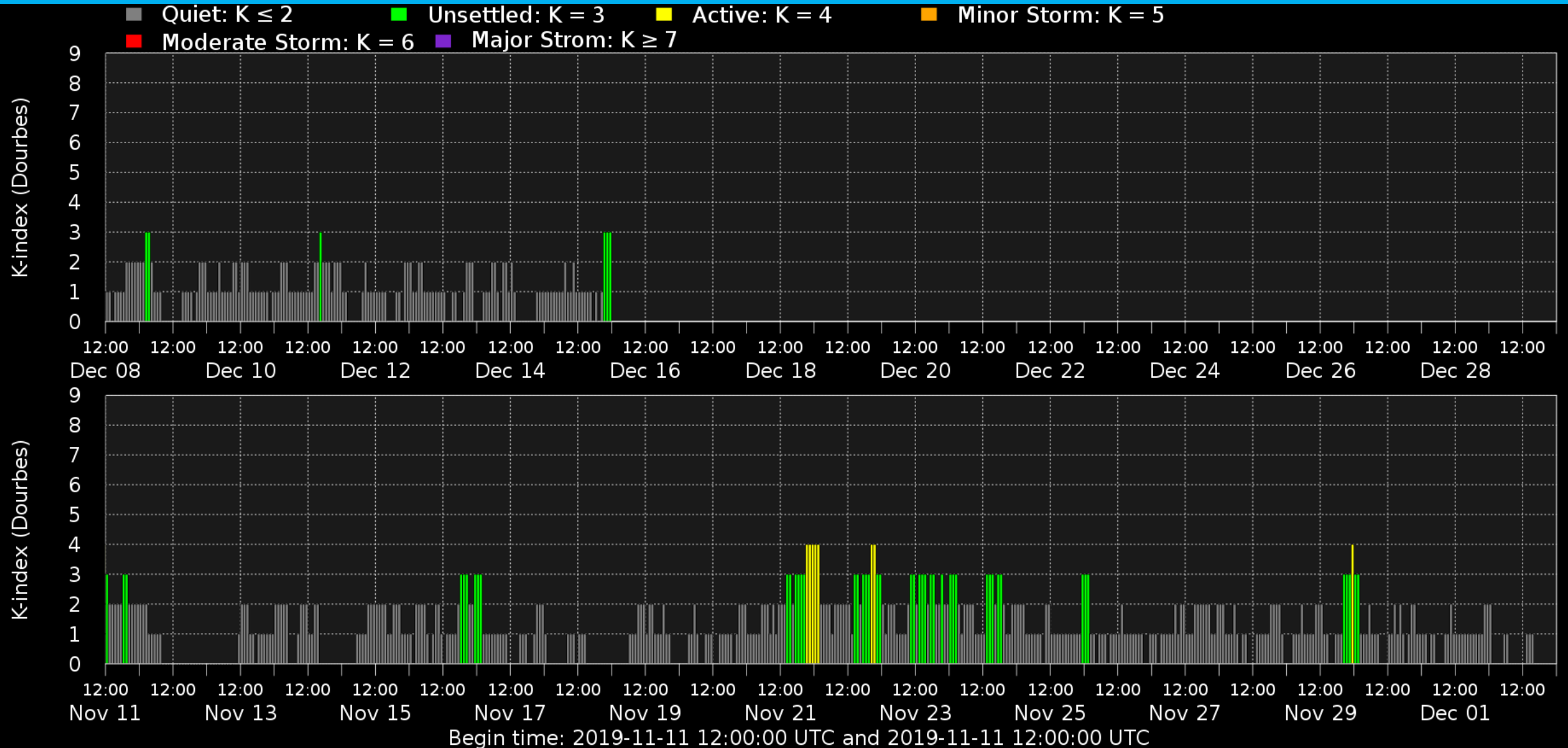
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

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