

SIDC Space Weather Briefing

09 December 2018 - 16 December 2018

Cis Verbeeck
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2018-12-09 12:00 UT to 2018-12-16 12:00 UT

Active regions	AR 2729 (beta), AR 2730 (alpha) and AR 2731 (beta)
Flaring	# B-class flare: 3 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	None
CMEs	None
Proton Events	None

Solar wind and geomagnetic conditions from 2018-12-09 12:00 UT to 2018-12-16 12:00 UT

Coronal Holes	Two equatorial-South polar negative polarity coronal holes
ICME	None
SW Conditions	High speed stream from equatorial-South polar negative polarity CH (first half of the week)
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 4

Solar Activity

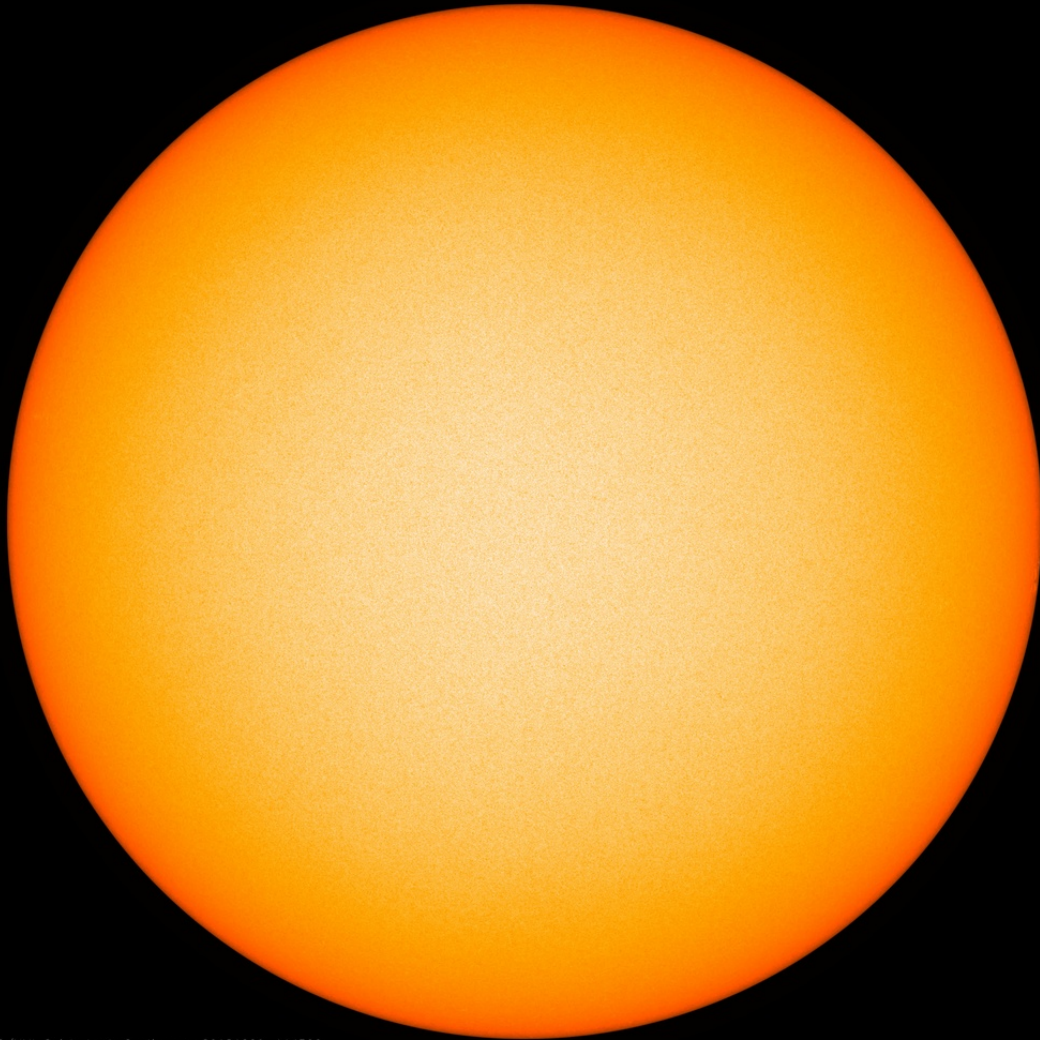


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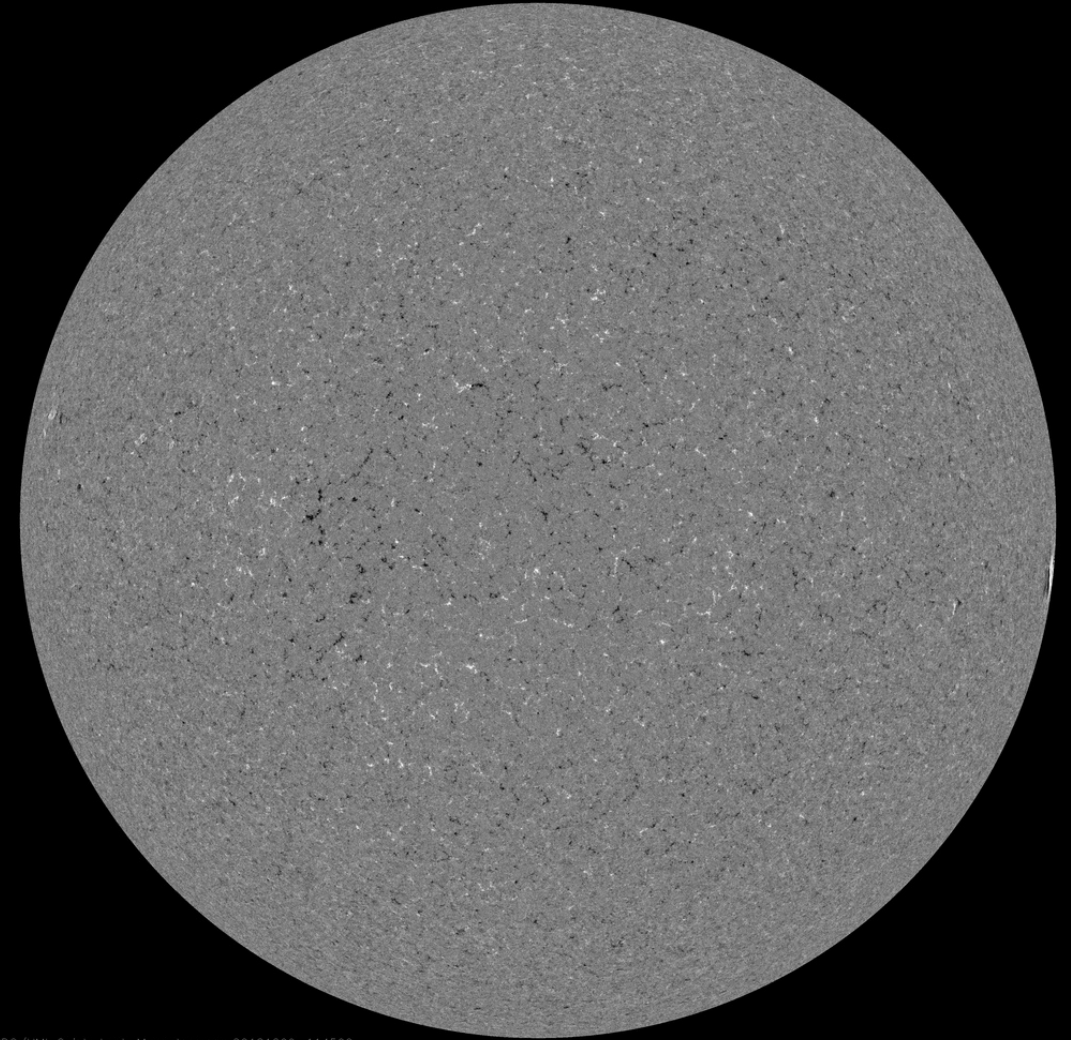
Solar active region - start of the week

SDO/HMI White Light 2018-12-09



SDO/HMI Quick-Look Continuum: 20181209_114500

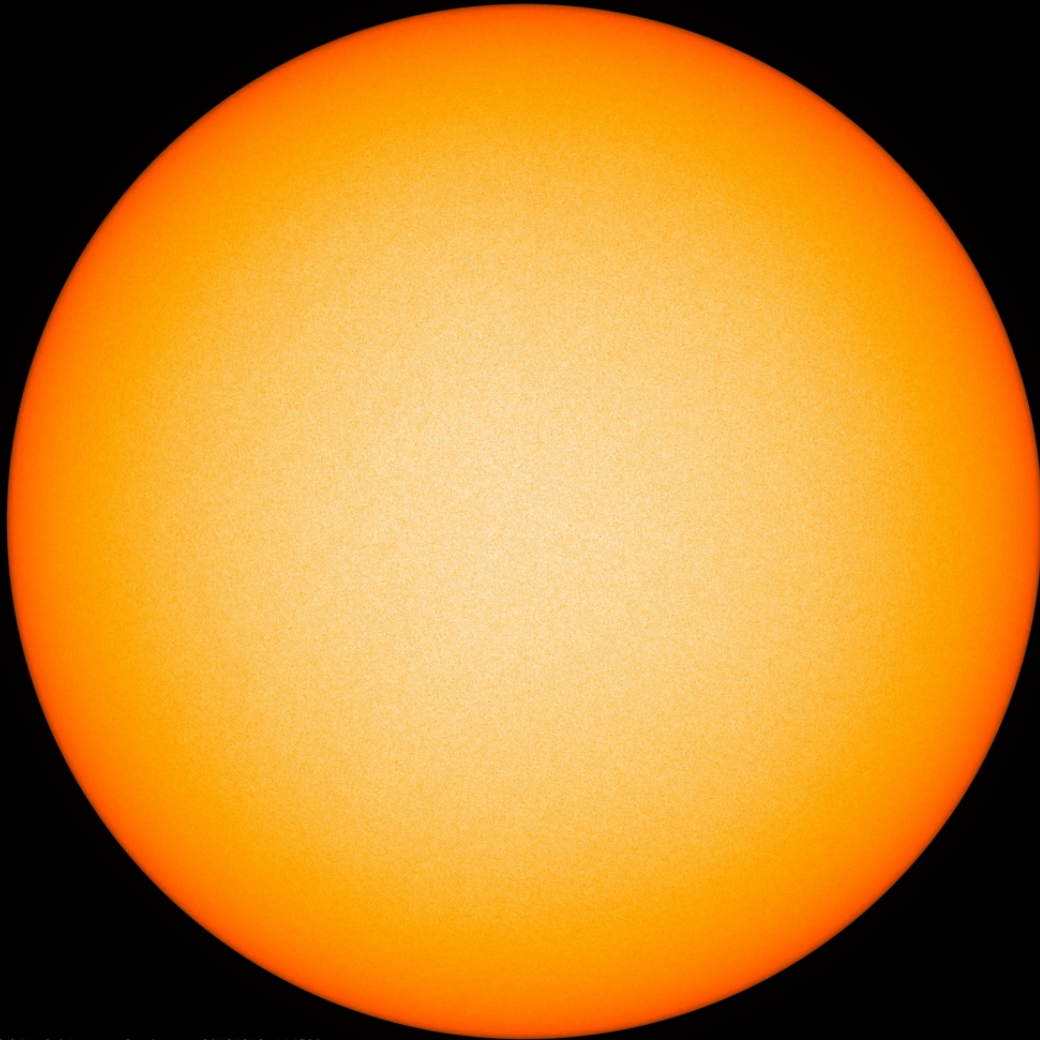
SDO/HMI Magnetogram 2018-12-09



SDO/HMI Quick-Look Magnetogram: 20181209_114500

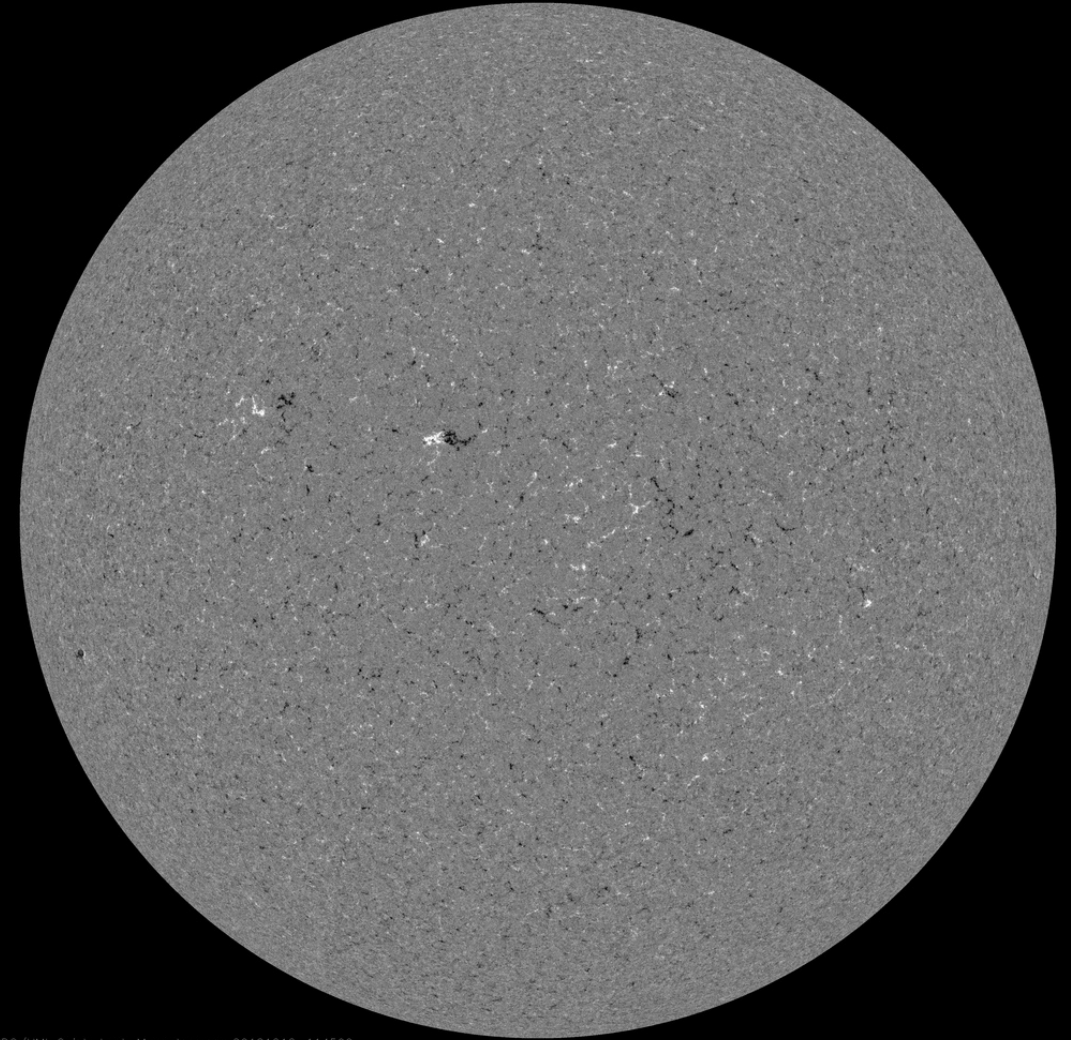
Solar active region - middle of the week

SDO/HMI White Light 2018-12-12



SDO/HMI Quick-Look Continuum: 20181212_114500

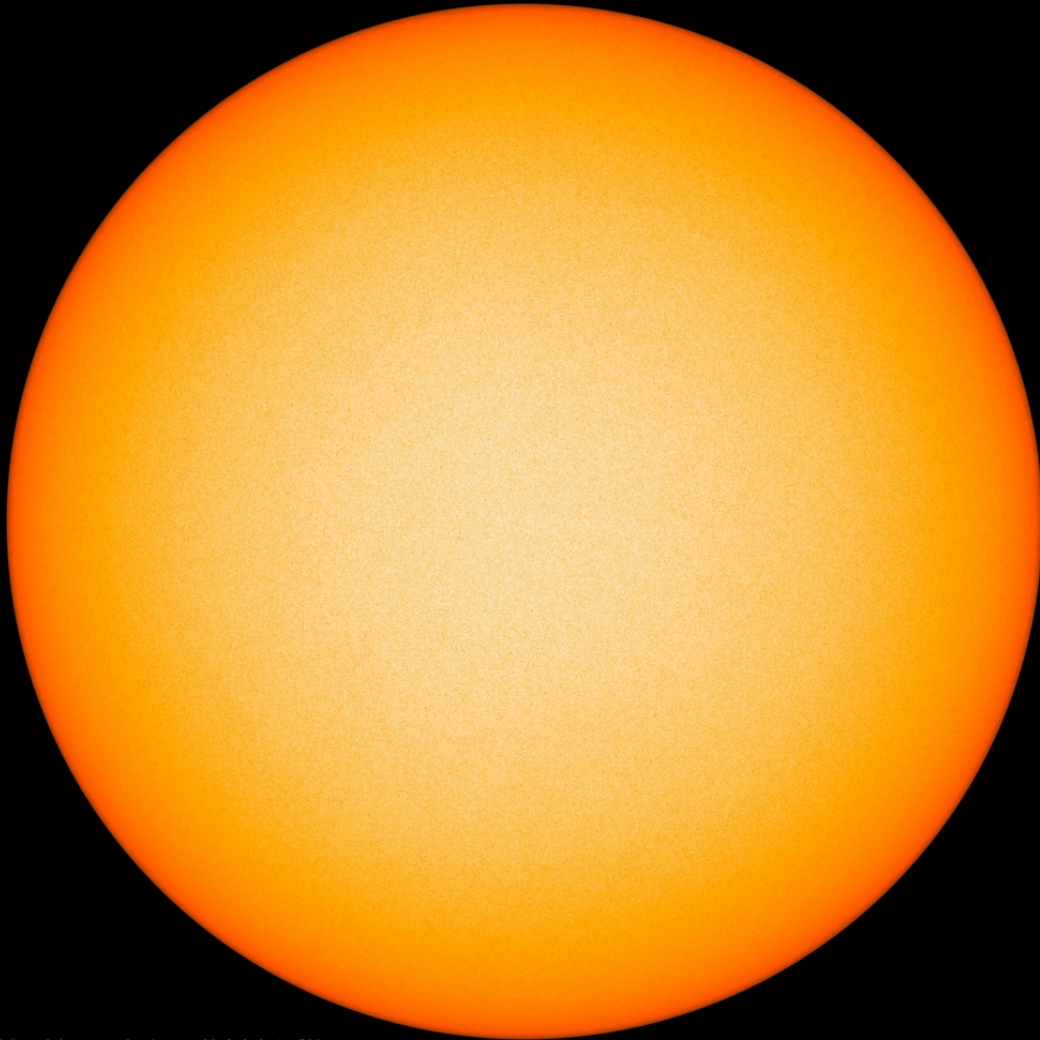
SDO/HMI Magnetogram 2018-12-12



SDO/HMI Quick-Look Magnetogram: 20181212_114500

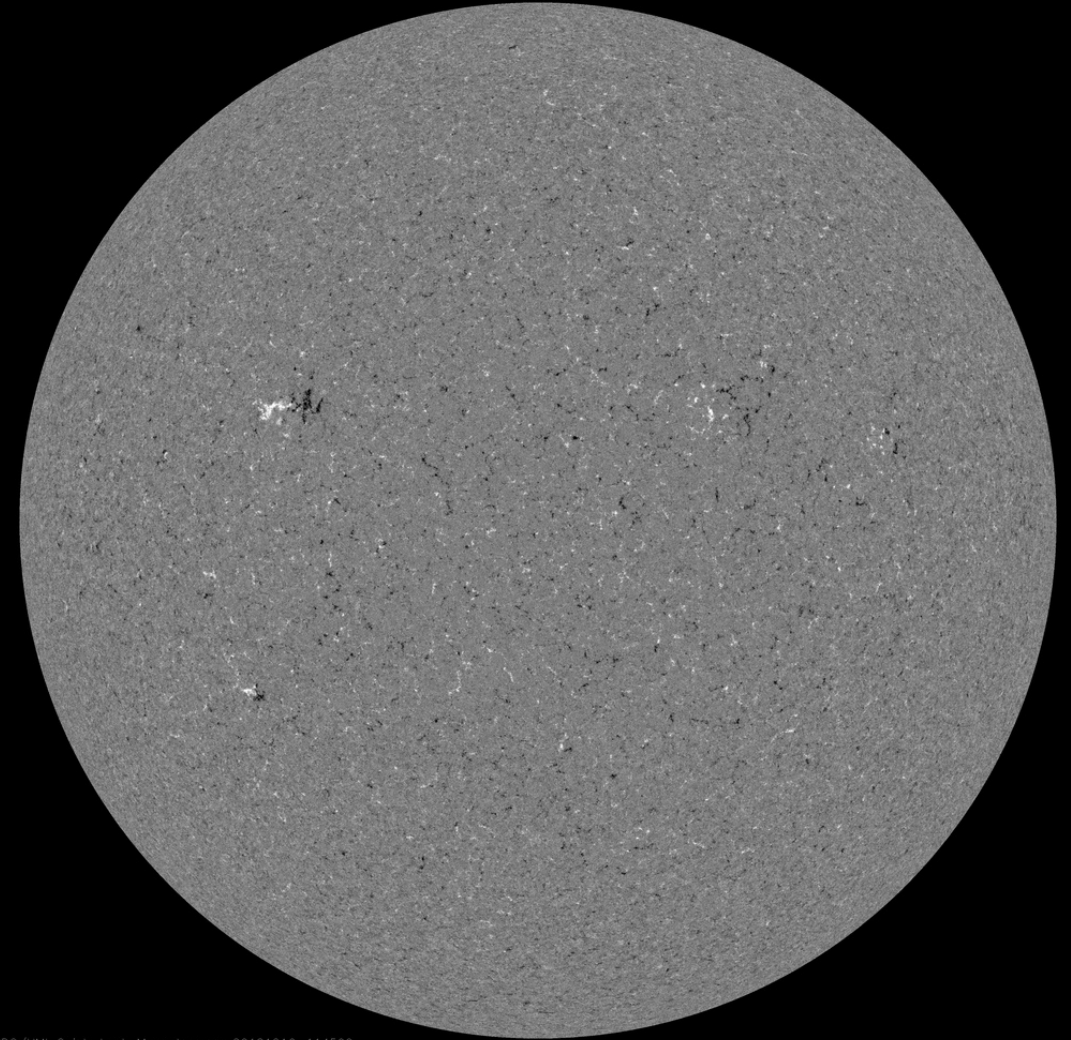
Solar active region - end of the week

SDO/HMI White Light 2018-12-16



SDO/HMI Quick-Look Continuum: 20181216_114500

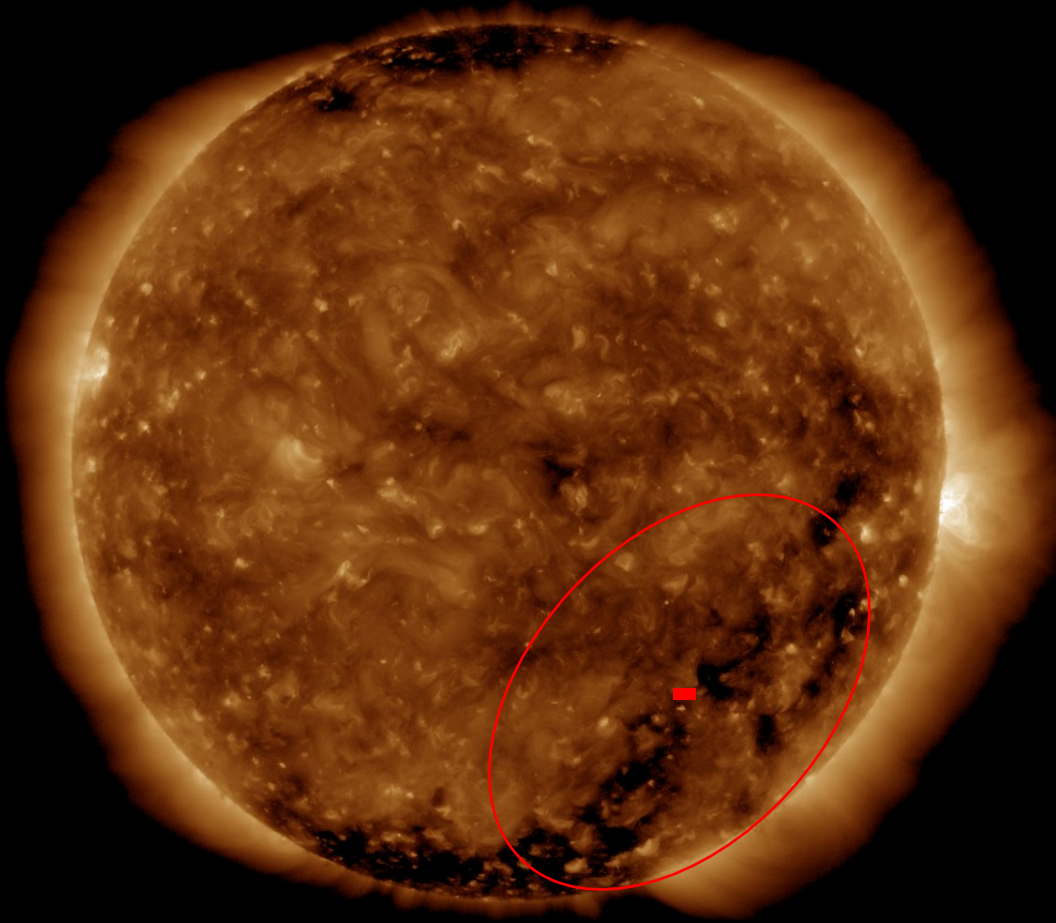
SDO/HMI Magnetogram 2018-12-16



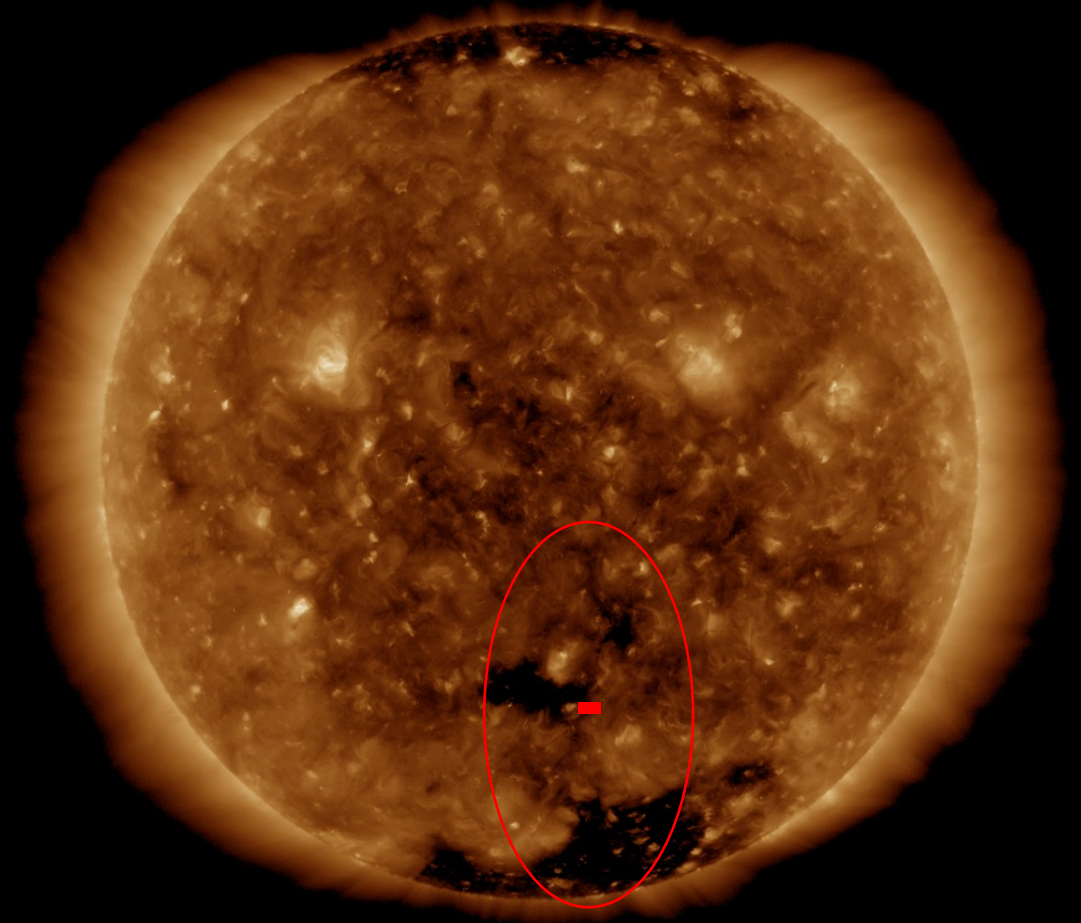
SDO/HMI Quick-Look Magnetogram: 20181216_114500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2018-12-09



SDO/AIA 19.3 nm 2018-12-16



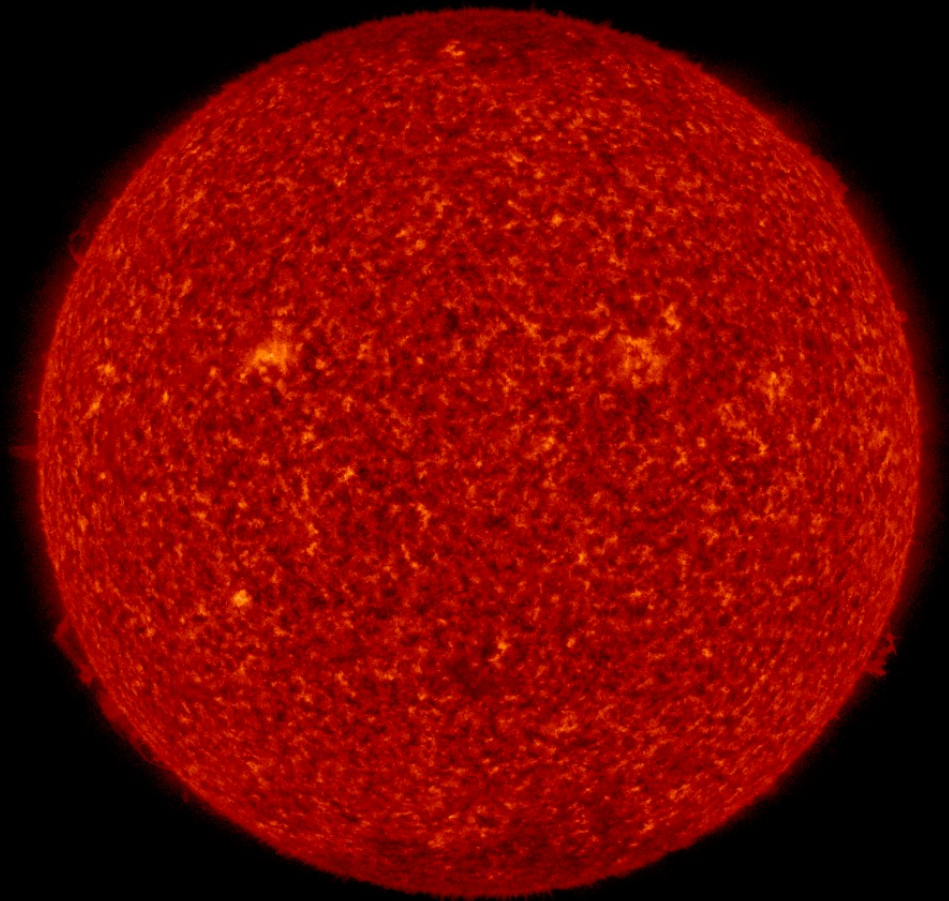
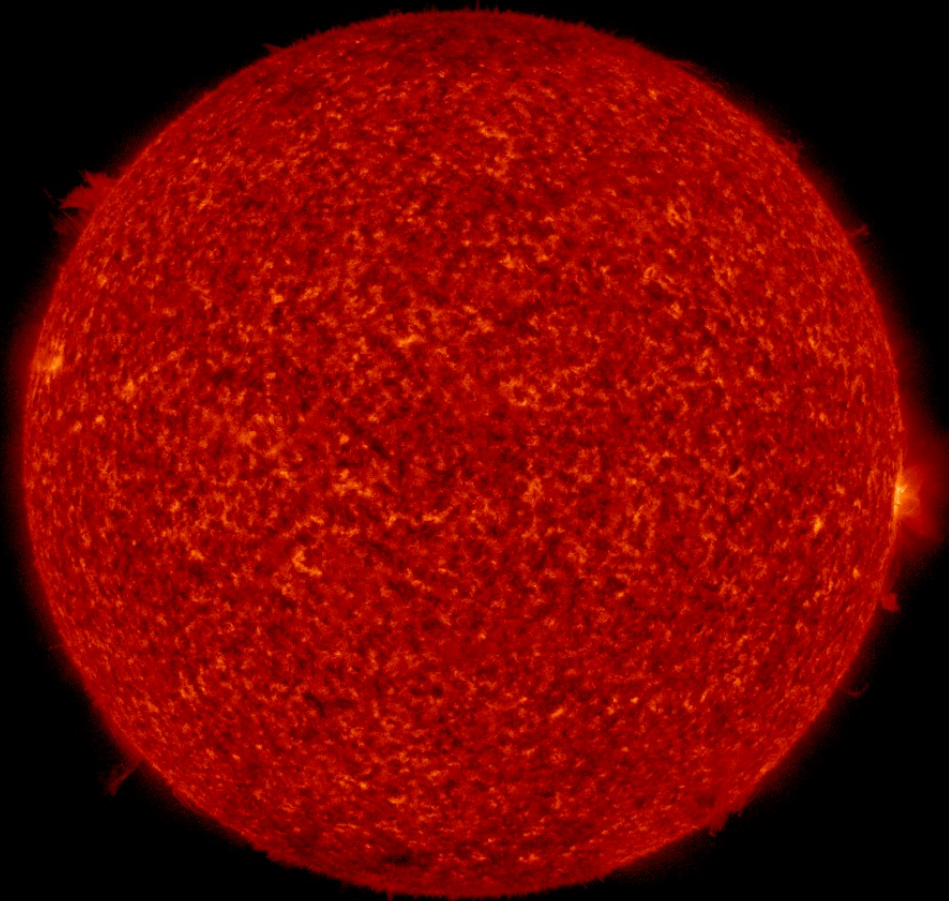
SDO/AIA 193 2018-12-09 12:10:53 UT

SDO/AIA 193 2018-12-16 12:09:29 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2018-12-09

SDO/AIA 30.4 nm 2018-12-16



SDO/AIA 304 2018-12-09 12:13:30 UT

SDO/AIA 304 2018-12-16 12:13:18 UT

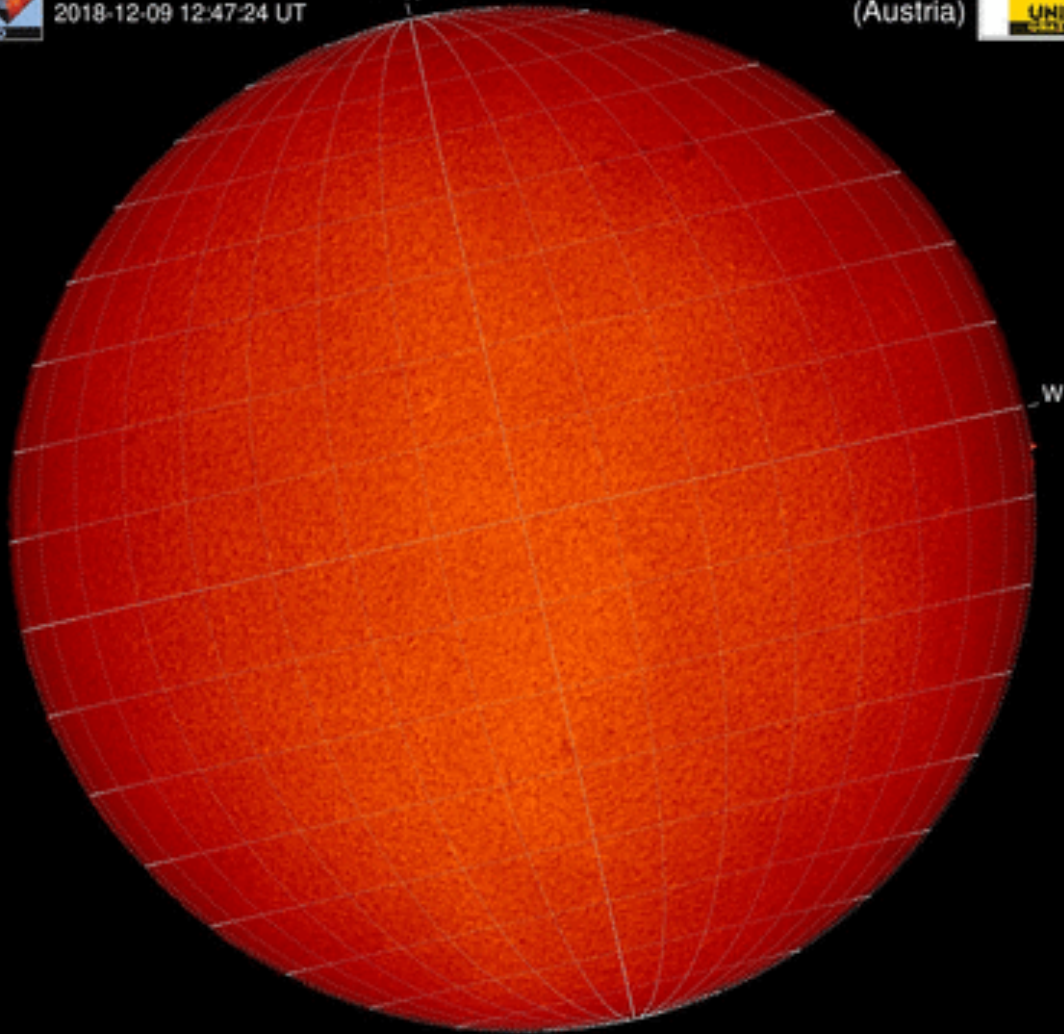
Filament & Filament eruption

H-alpha 2018-12-09



Kanzelhöhe Observatory
2018-12-09 12:47:24 UT

University of Graz
(Austria)

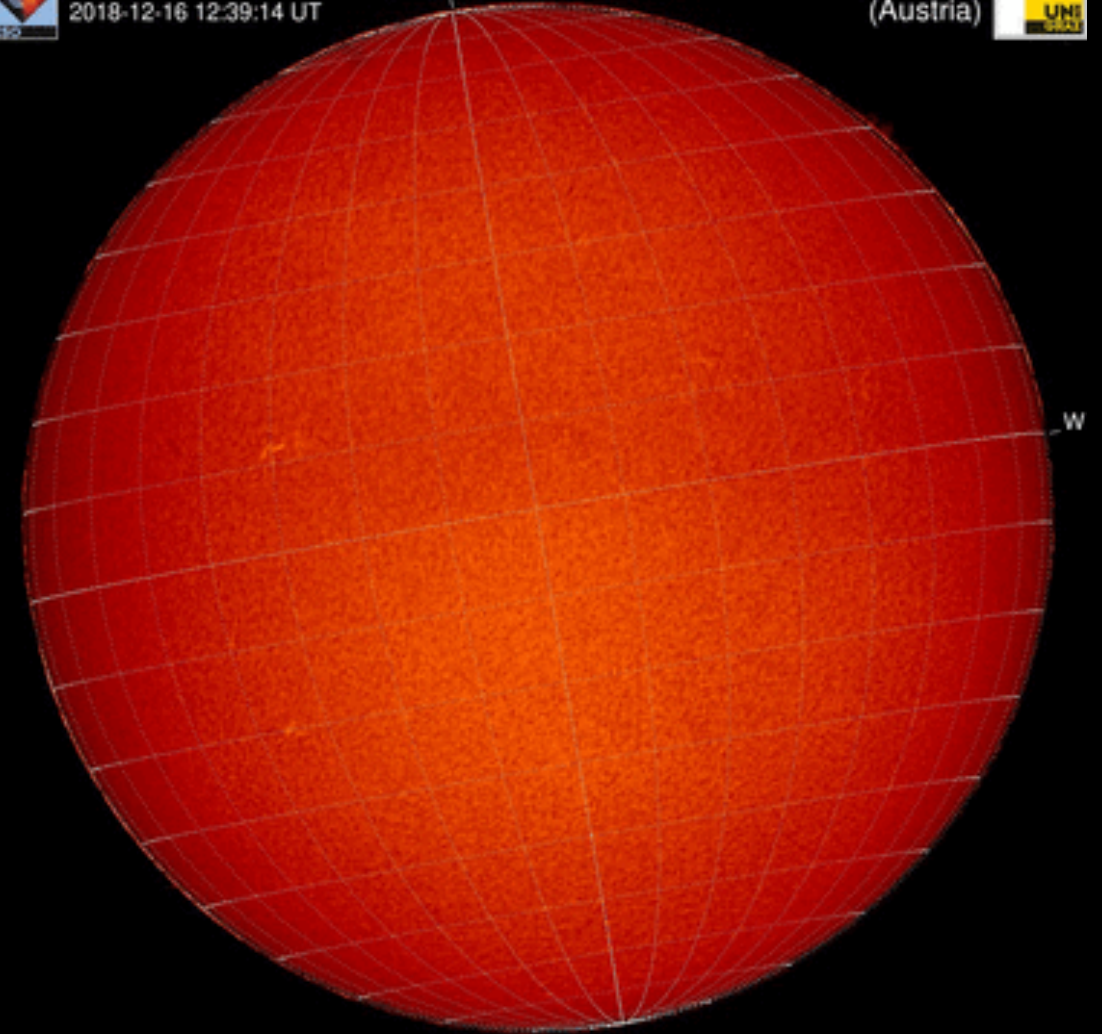


H-alpha 2018-12-16

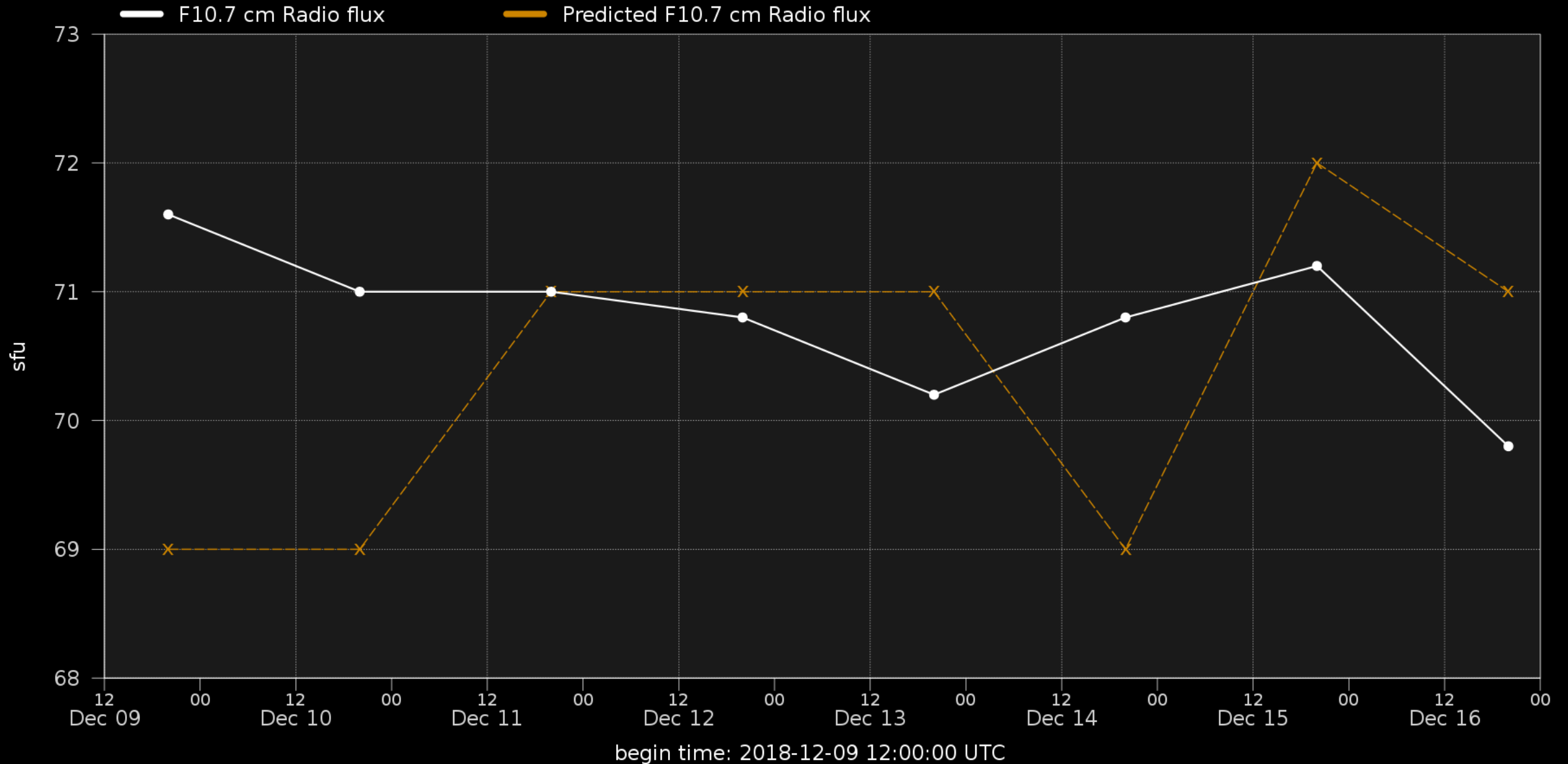


Kanzelhöhe Observatory
2018-12-16 12:39:14 UT

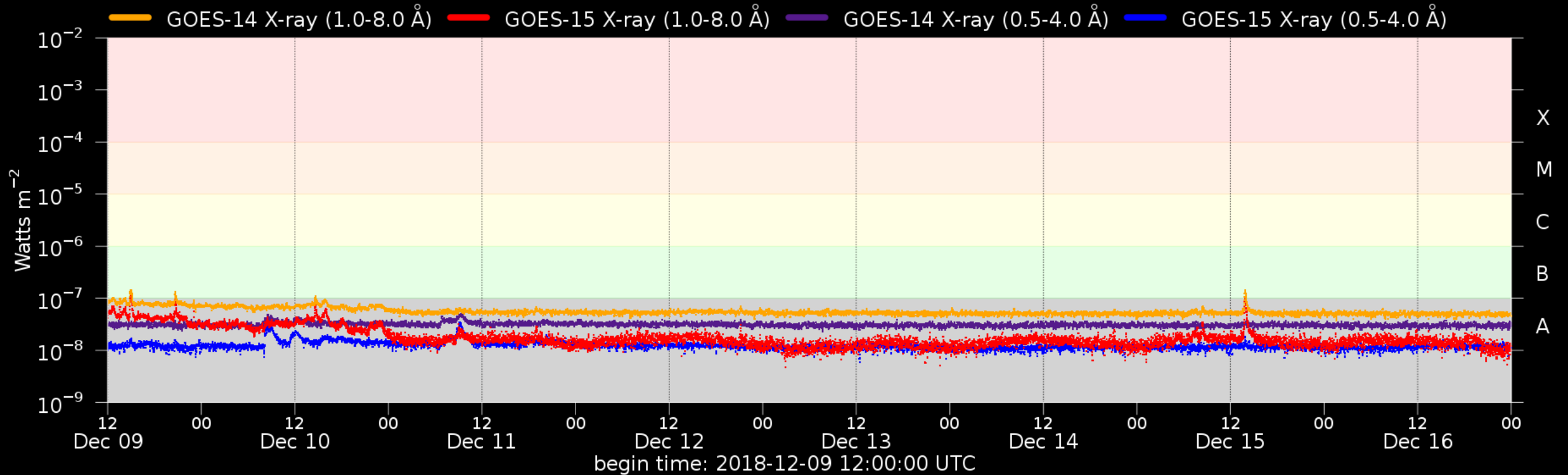
University of Graz
(Austria)



Solar F10.7cm radio flux



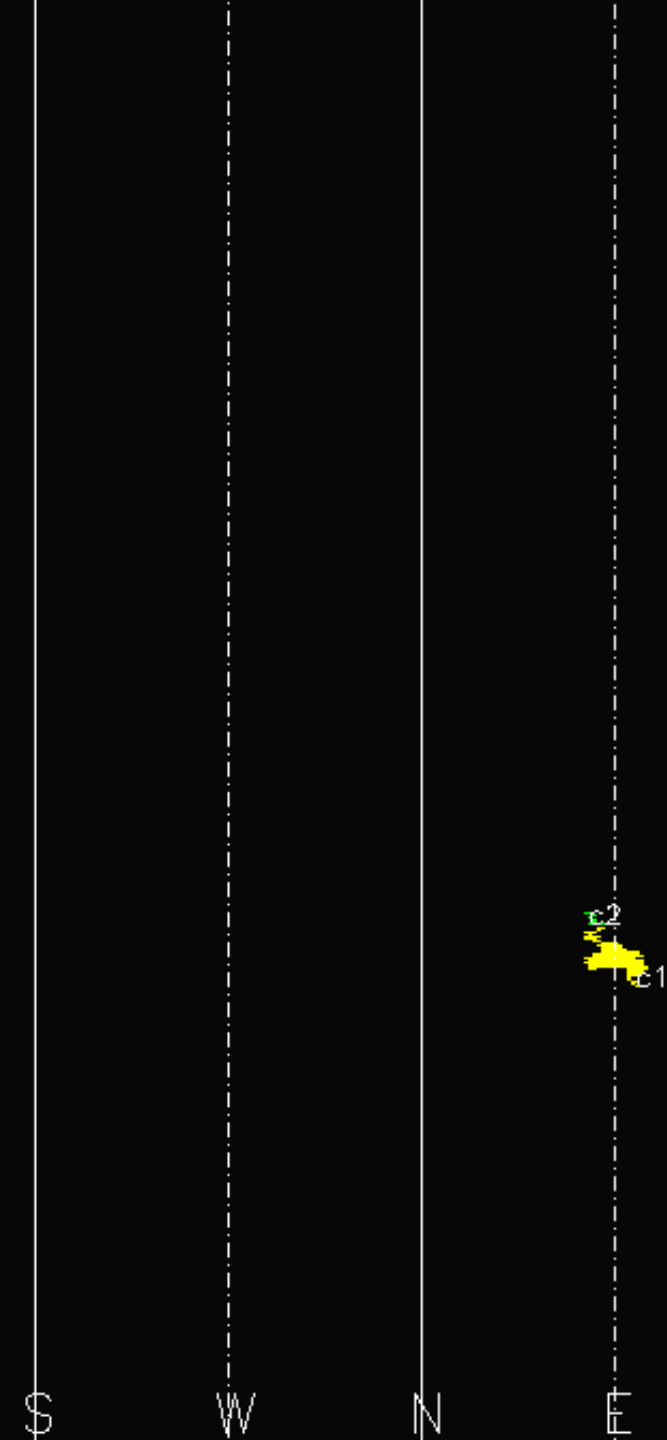
Flaring activity



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

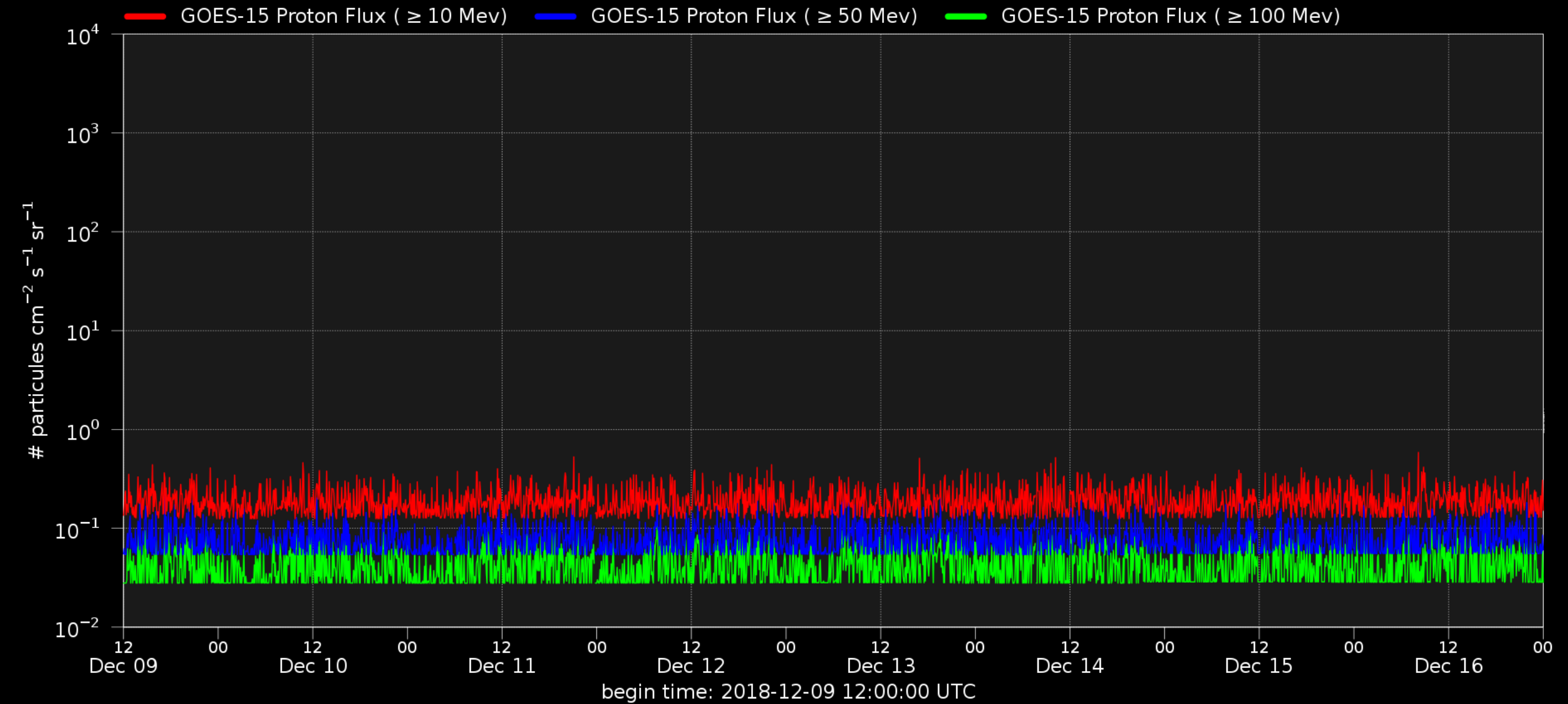
Issue date	2018-12-09	2018-12-10	2018-12-11	2018-12-12	2018-12-13	2018-12-14	2018-12-15	2018-12-16
Probability	--- 05 01 01	--- 01 00 00	--- 05 00 00	--- 05 01 01	--- 02 01 01	--- 02 01 01	--- 05 01 01	--- 05 01 01
Observed	03 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	01 00 00 00	00 00 00 00

Coronal Mass Ejection



22:36	12/15
19:36	12/15
17:00	12/15
13:48	12/15
10:48	12/15
07:48	12/15
04:36	12/15
01:36	12/15
22:12	12/14
19:12	12/14
16:24	12/14
13:25	12/14
10:24	12/14
07:24	12/14
03:30	12/14
00:06	12/14
20:36	12/13
18:12	12/13
15:36	12/13
12:00	12/13
09:36	12/13
06:12	12/13
03:48	12/13
00:48	12/13
21:24	12/12
18:12	12/12
15:05	12/12
11:36	12/12
08:48	12/12
06:00	12/12
03:12	12/12
00:00	12/12
20:24	12/11
17:36	12/11
14:12	12/11
10:48	12/11
07:42	12/11
05:00	12/11
01:48	12/11
21:48	12/10
18:24	12/10
15:36	12/10
11:48	12/10
08:48	12/10
06:12	12/10

Solar proton flux

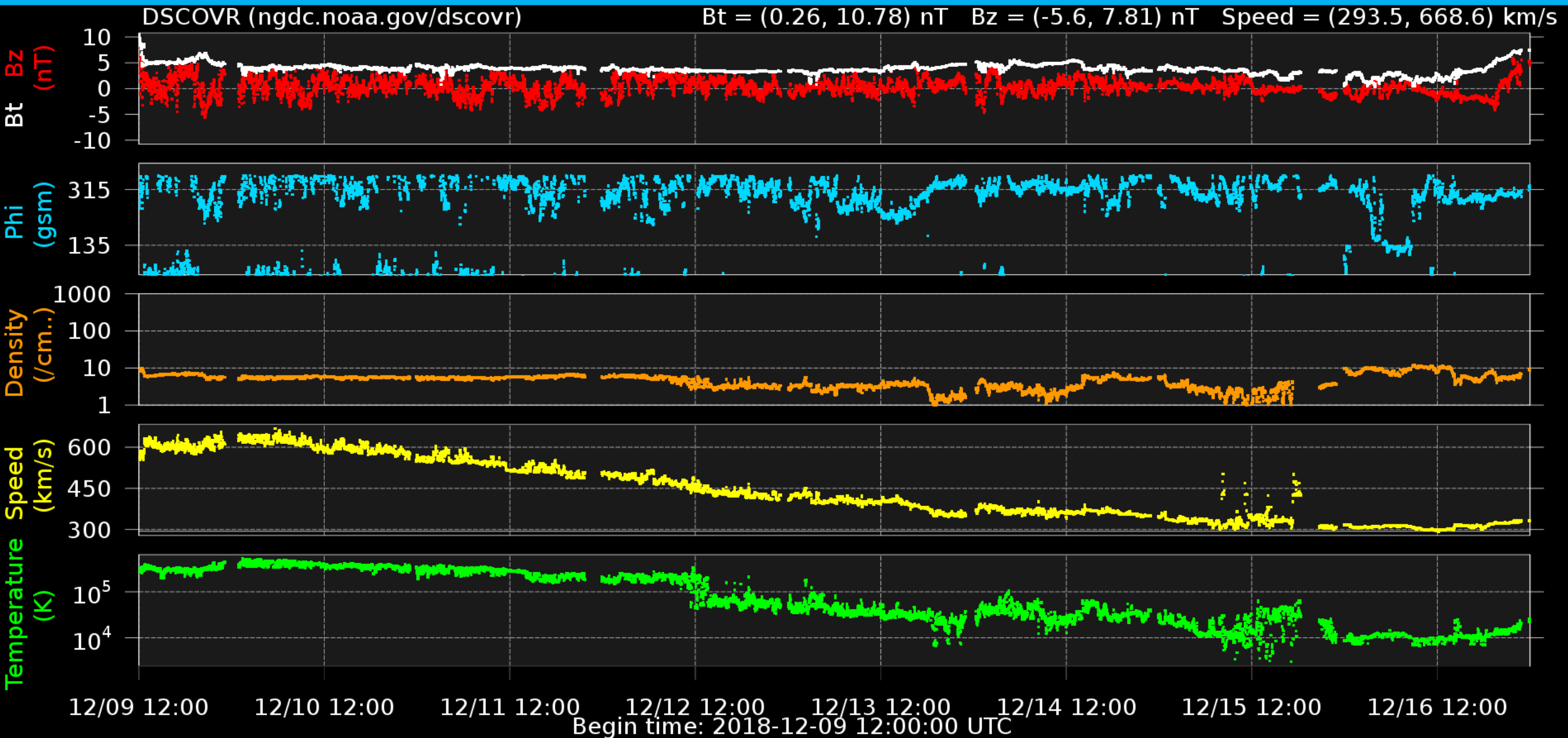


Solar Wind and Geomagnetic Activity

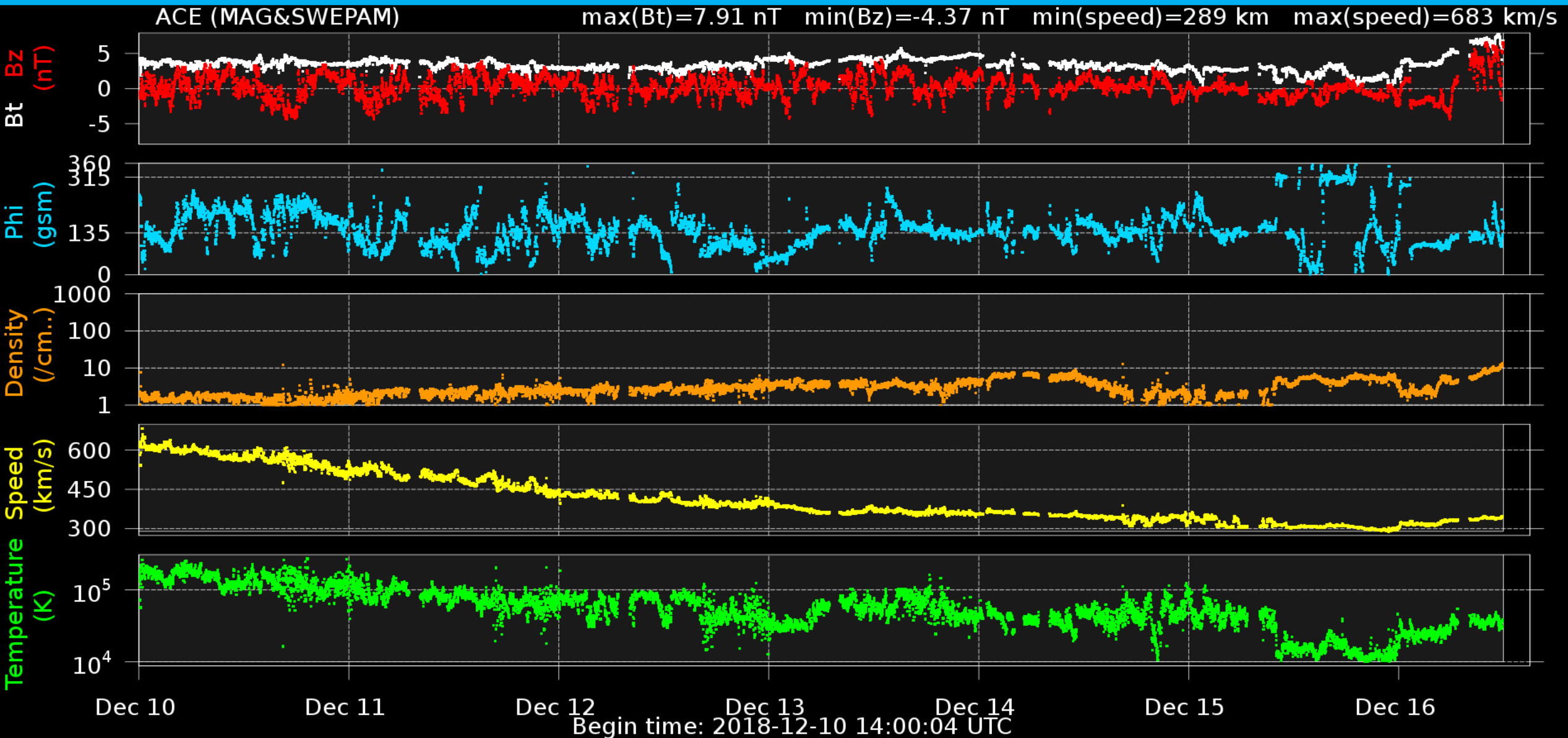


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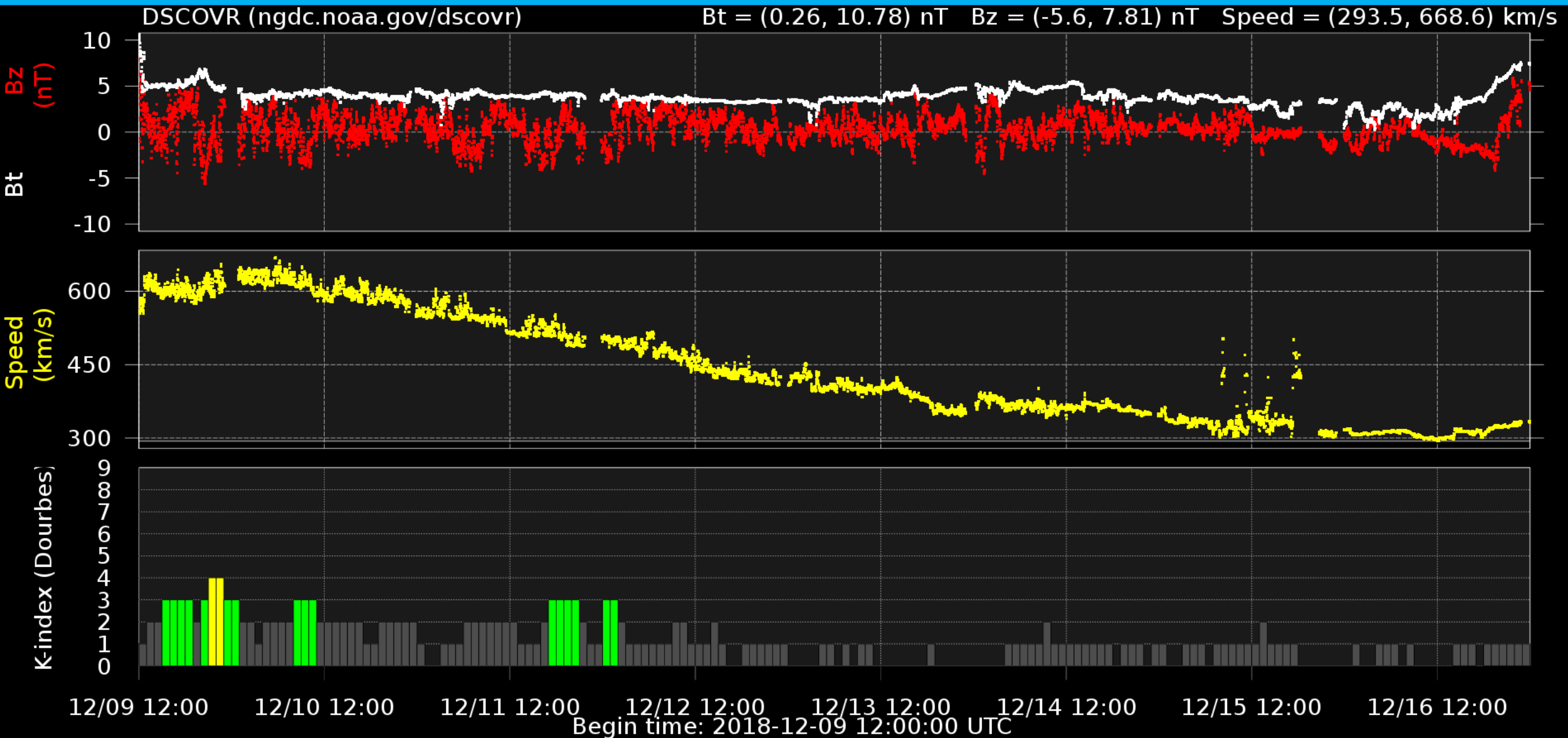
Solar wind parameters (DSCOVR data)



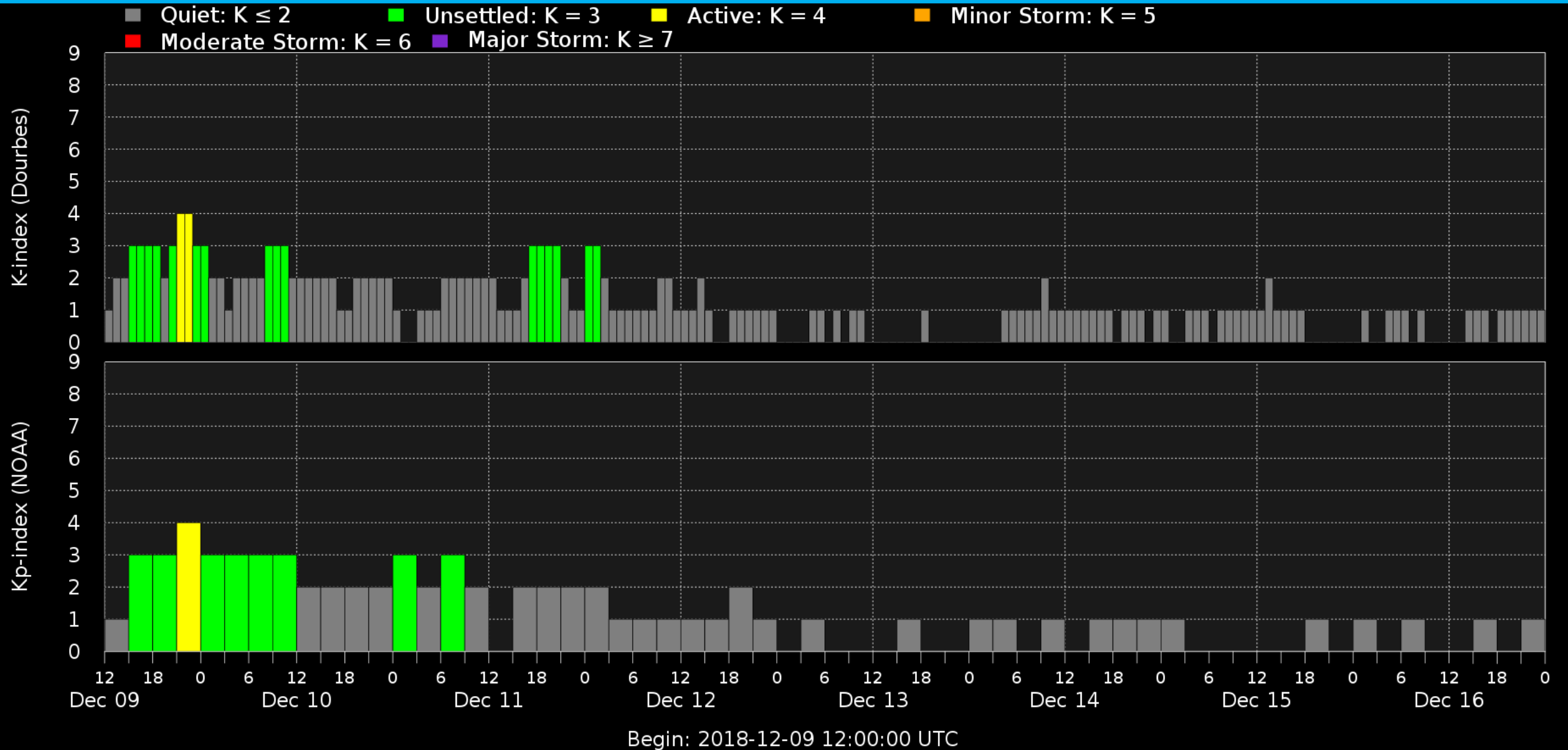
Solar wind parameters (ACE data)



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



Geomagnetic activity (K-indexes)



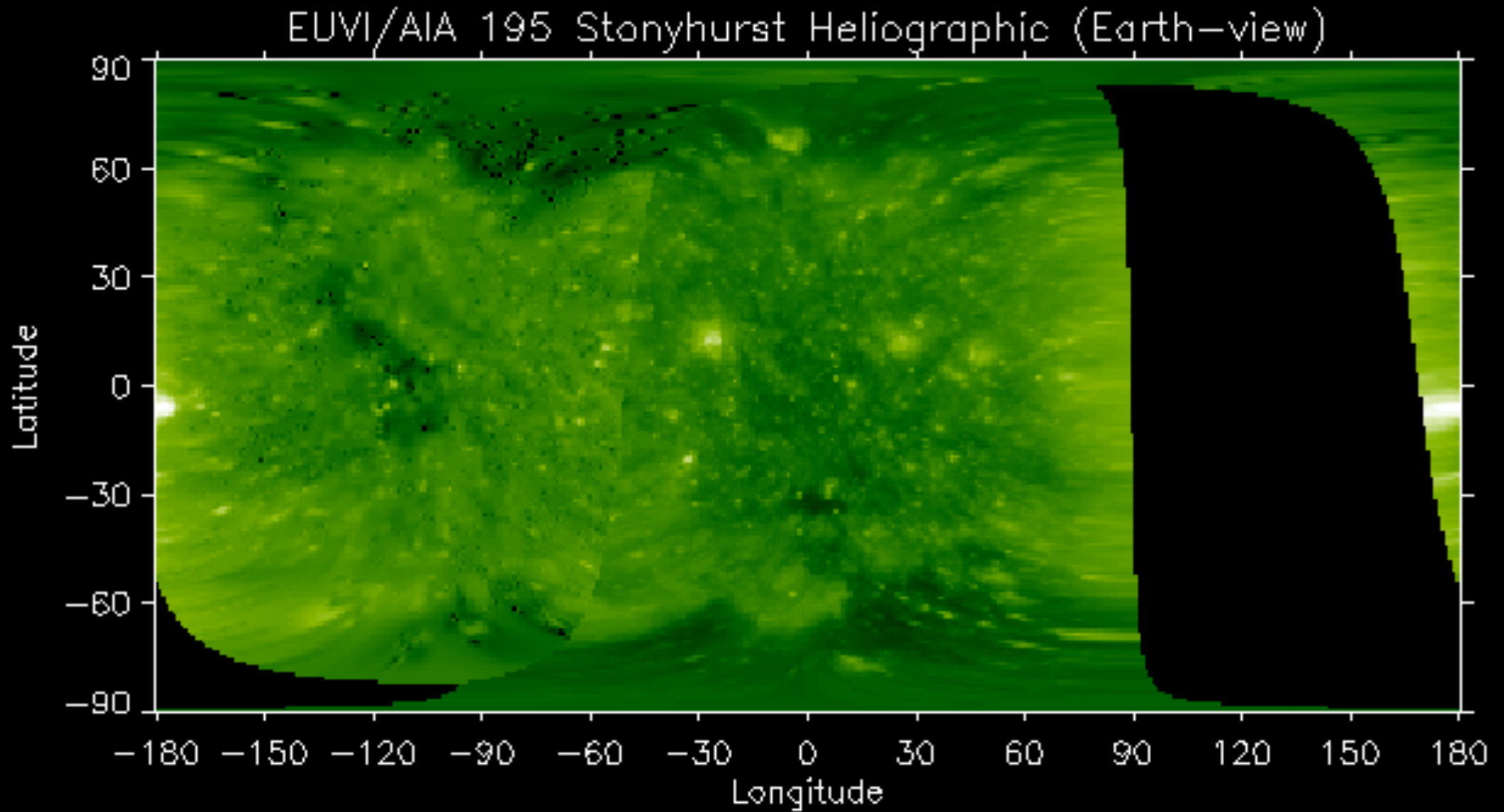
Outlook



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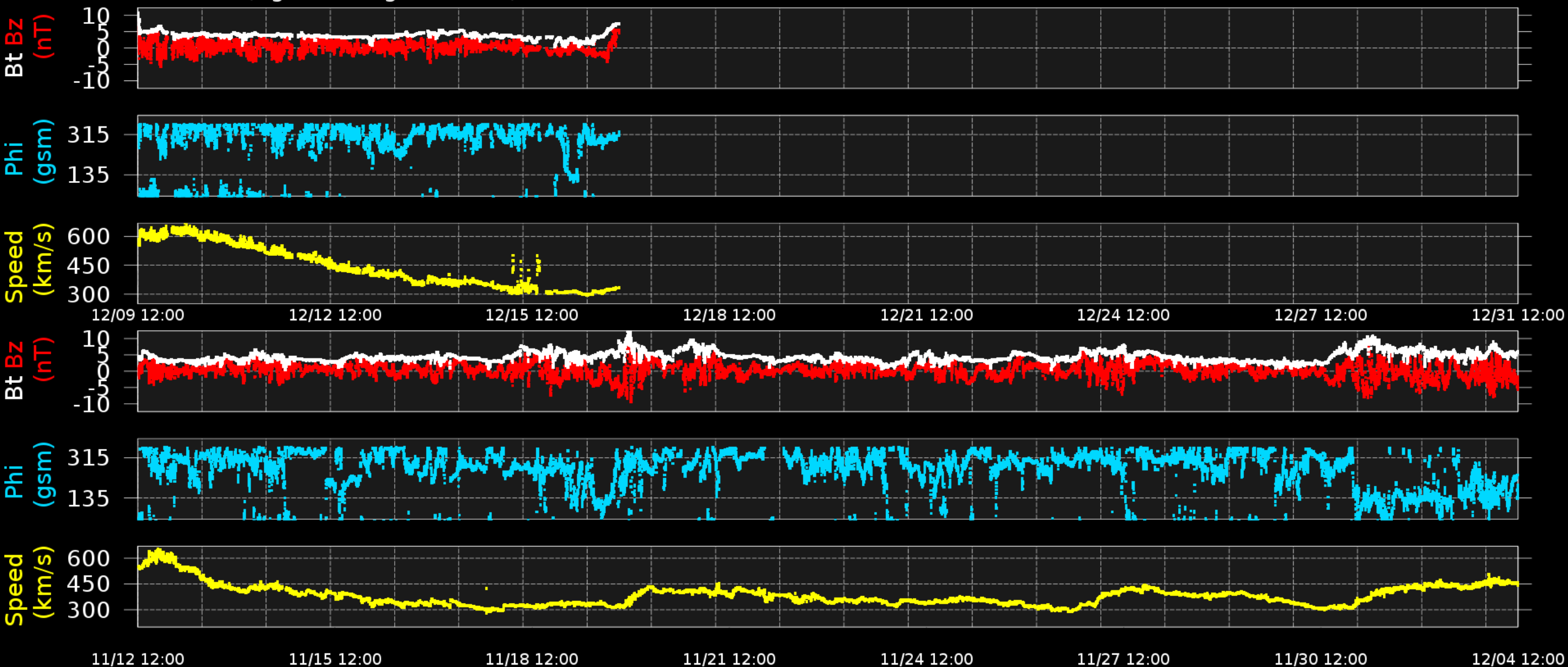
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Outlook: Solar activity



Outlook: Solar wind

DSCOVR (ngdc.noaa.gov/dscovr)



Begin time: 2018-11-12 12:00:00 UTC

SIDC Space Weather Briefing

See you at our next briefing!

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