

SIDC Space Weather Briefing

17 January 2021 - 24 January 2021

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& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2021-01-17 12:00 to 2021-01-24 23:59

Active regions	NOAA AR 2796, 2797, 2798, 2799, 2800?
Flares	2 C-class flare: 2 # M-class flare: 0 # X-class flare: 0
Filament eruptions	Two filament eruptions
Coronal Holes	One coronal hole

Proton flux	quiet
Electron flux	quiet

Solar wind and geomagnetic conditions

ICME	none
SW Conditions	B : 0.48 - 9.39 nT // Bz: -6.67 nT to 8.07 nT // Speed: 270.3 - 401.6km/s
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 3

All Quiet Alert canceled in the beginning of the week.

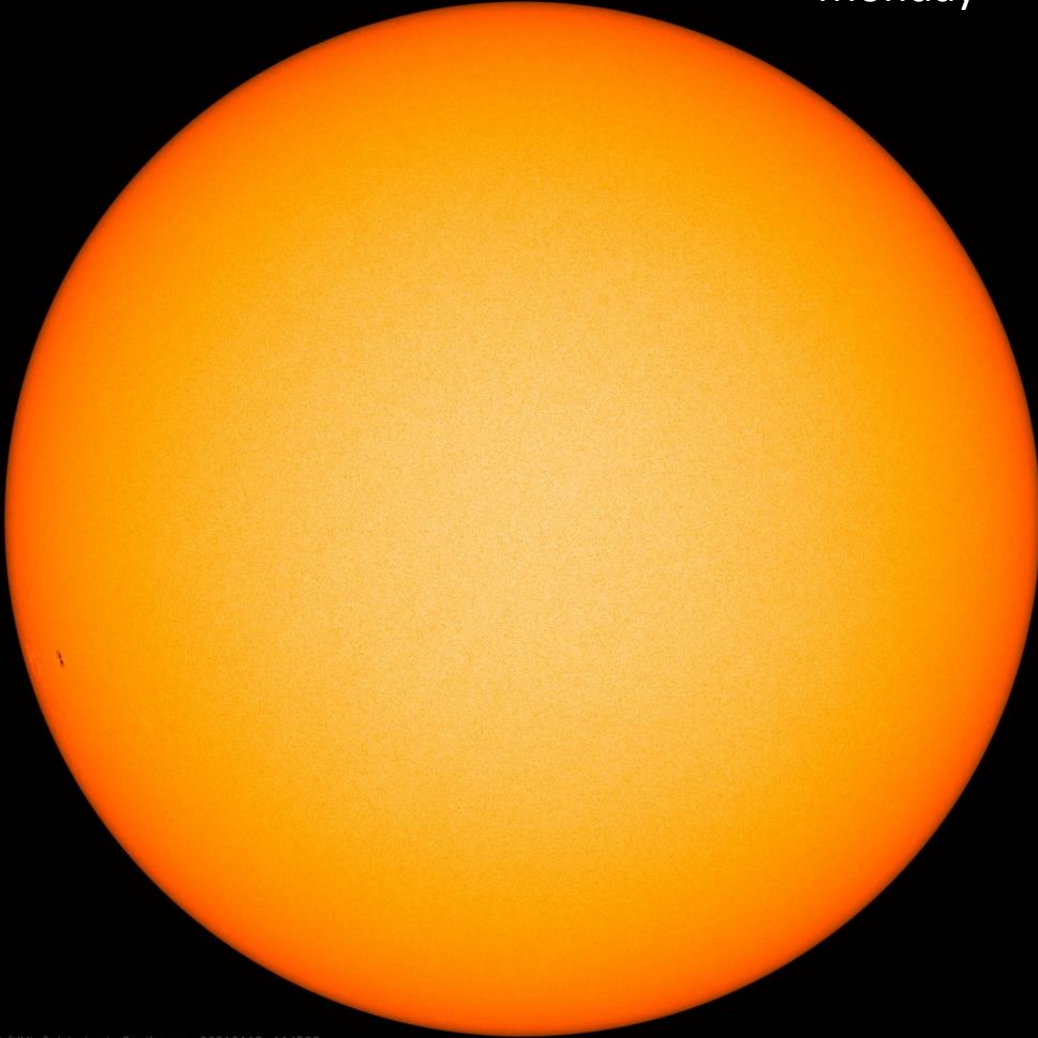
Solar Activity



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Solar active regions

SDO/HMI White Light 2021-01-18
Monday



SDO/HMI Quick-Look Continuum: 20210118_114500

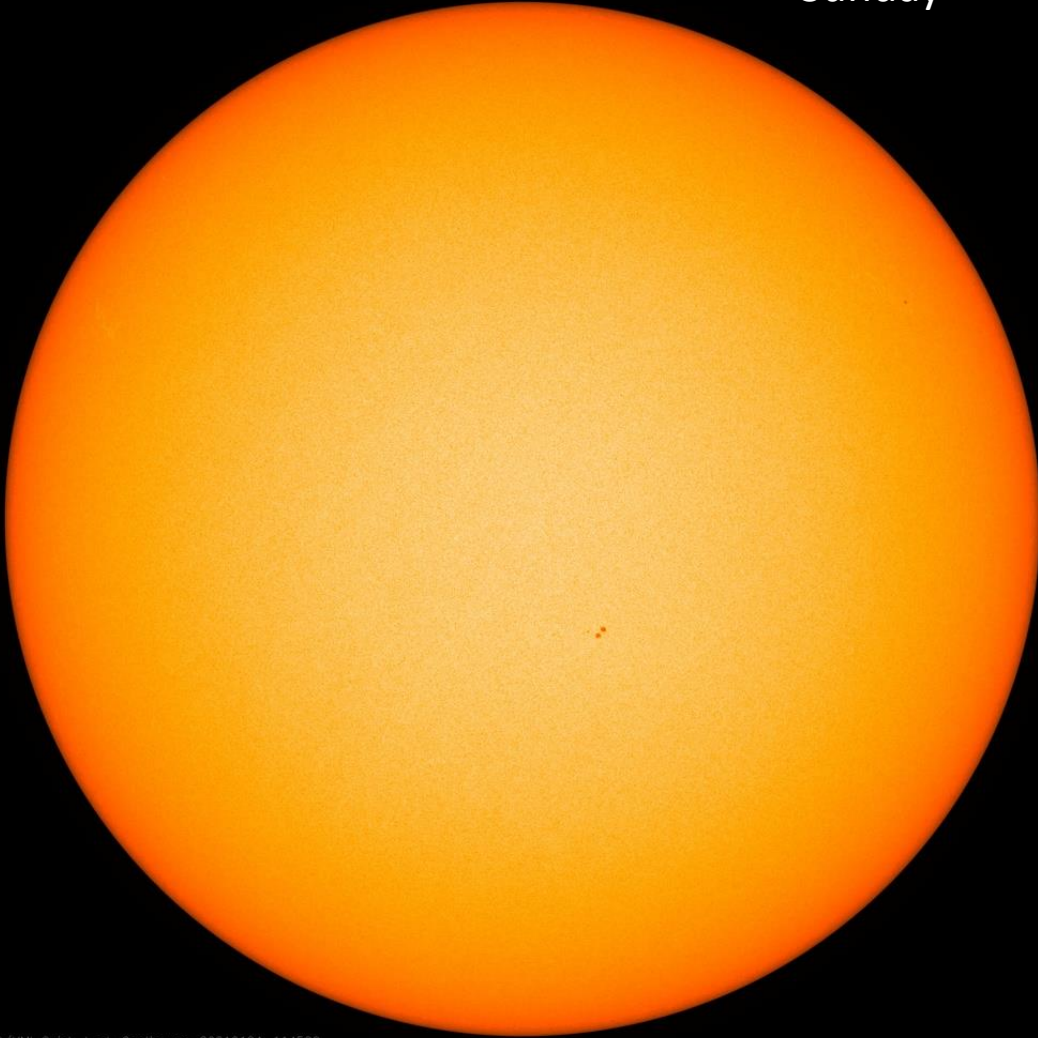
SDO/HMI Magnetogram 2021-01-18
Monday



SDO/HMI Quick-Look Magnetogram: 20210118_114500

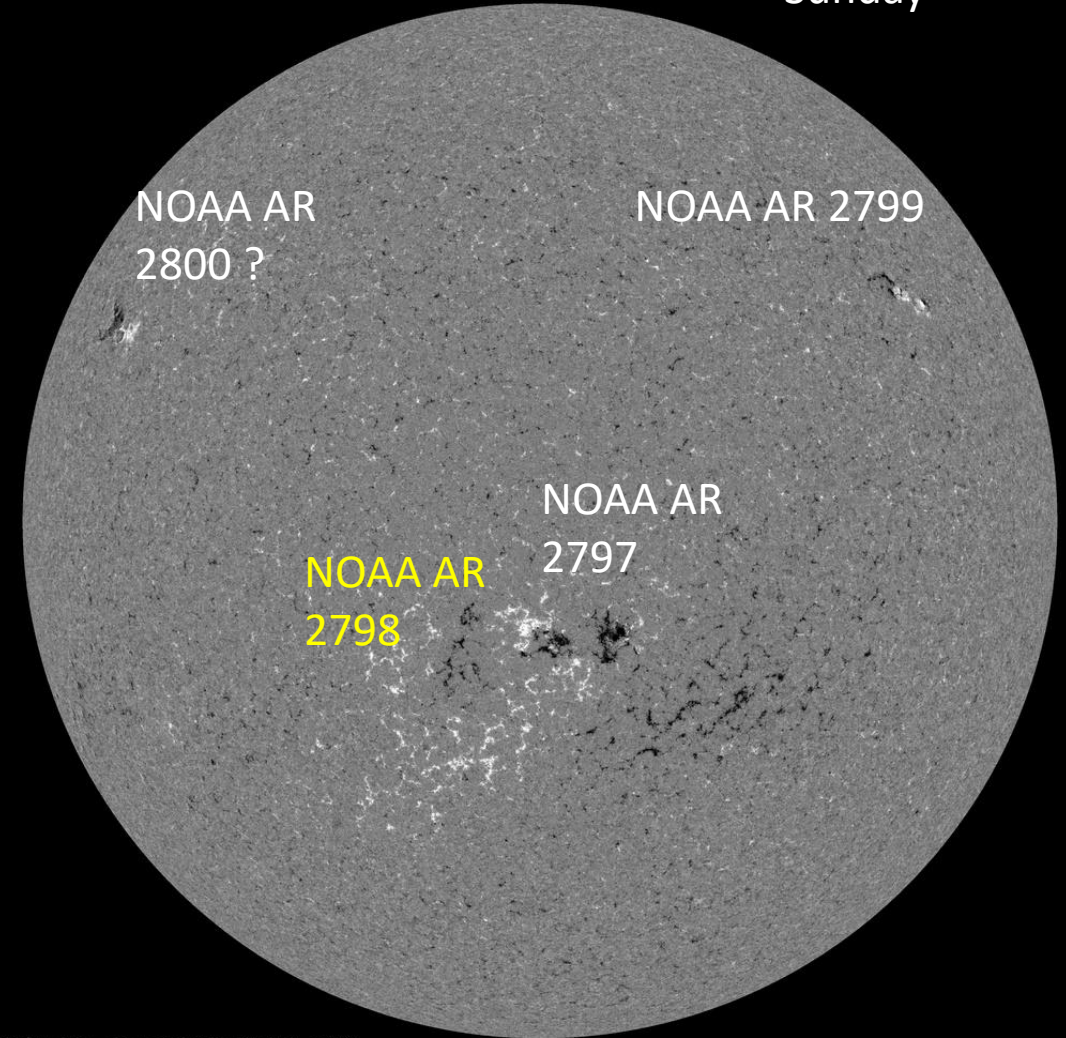
Solar active regions

SDO/HMI White Light 2021-01-24
Sunday



SDO/HMI Quick-Look Continuum: 20210124_114500

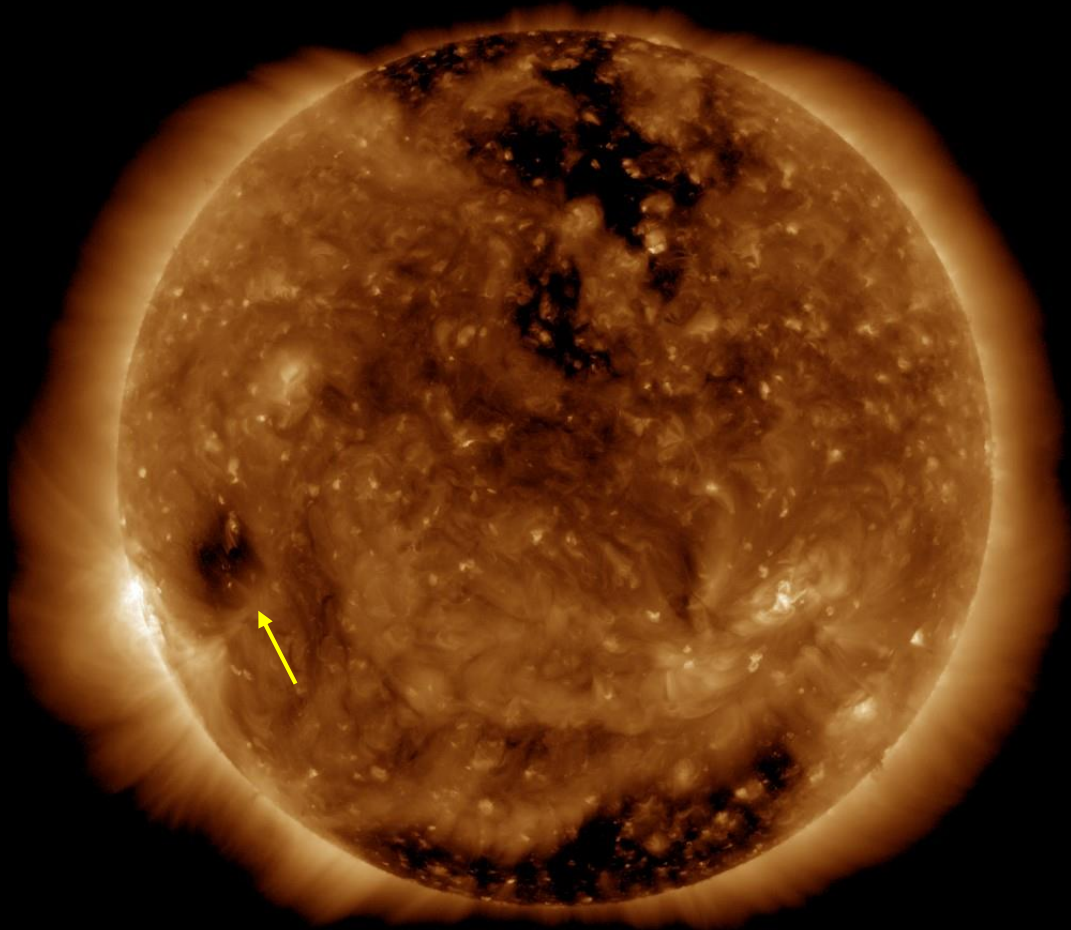
SDO/HMI Magnetogram 2021-01-24
Sunday



SDO/HMI Quick-Look Magnetogram: 20210124_114500

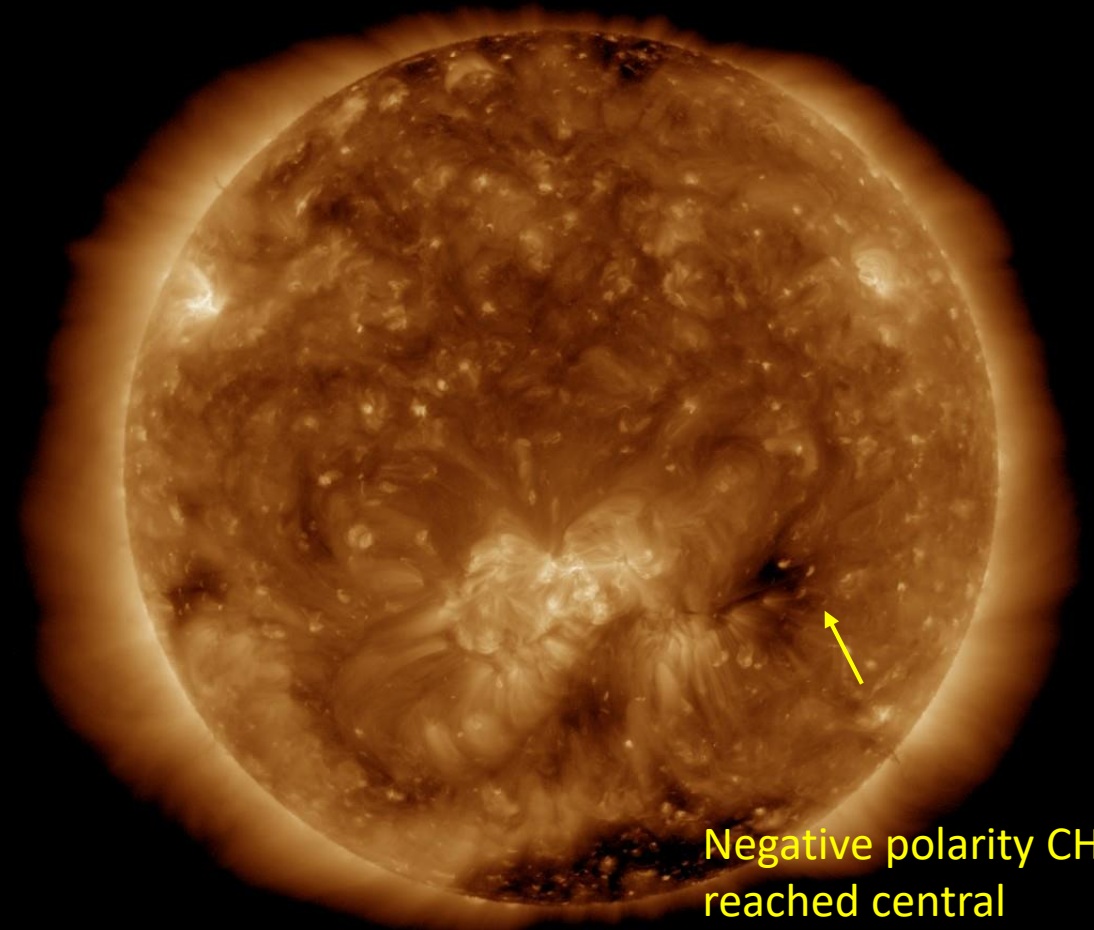
Coronal holes

SDO/AIA 19.3 nm 2021-01-18



SDO/AIA 193 2021-01-18 03:47:53 UT

SDO/AIA 19.3 nm 2021-01-24

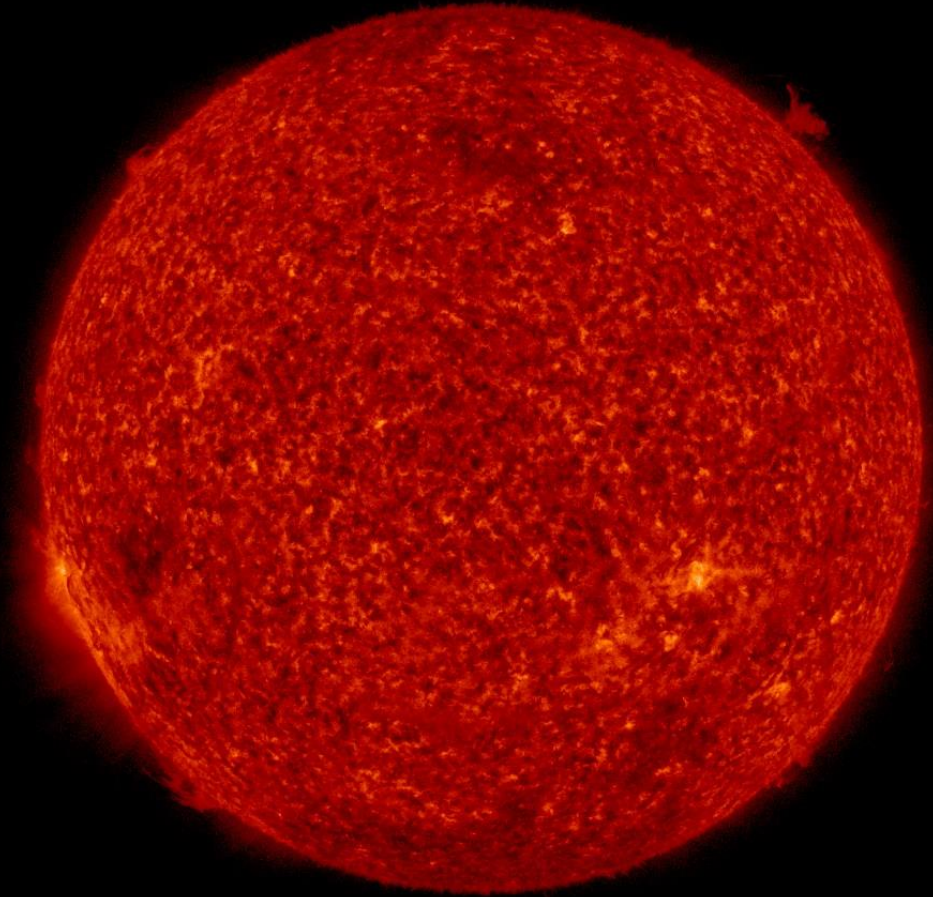


SDO/AIA 193 2021-01-24 12:17:53 UT

Negative polarity CH
reached central
meridian on January 20

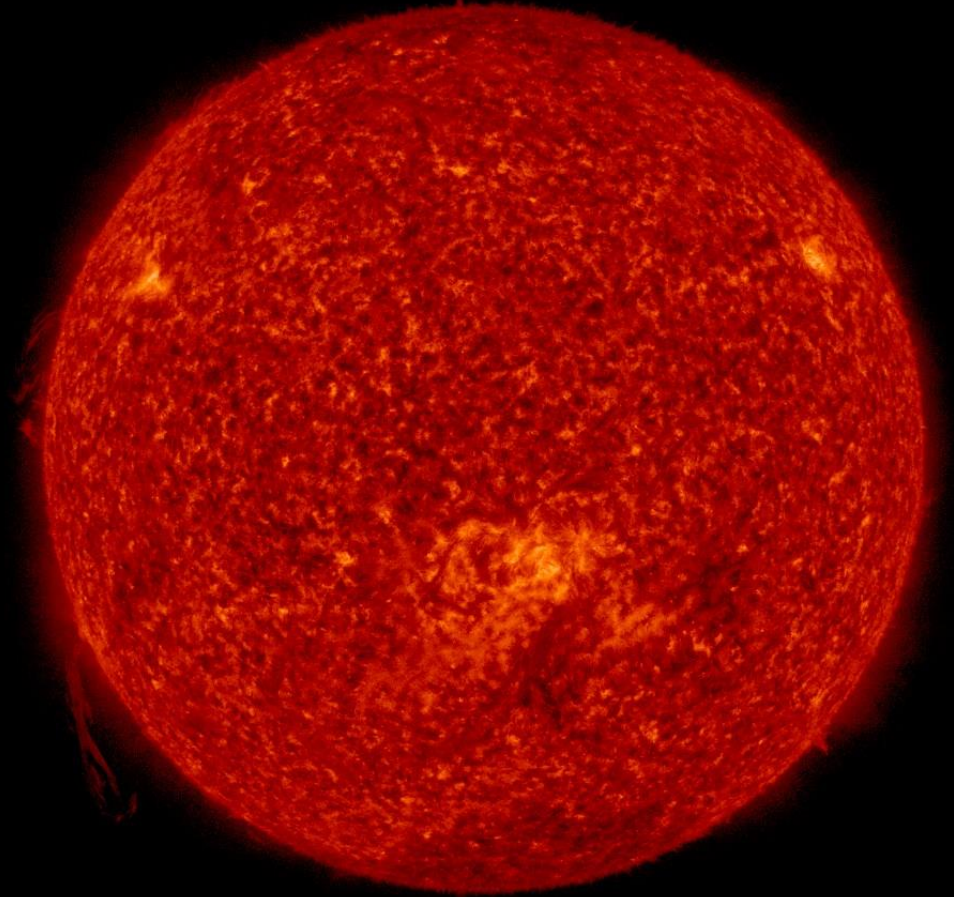
Filaments

SDO/AIA 30.4 nm 2021-01-18



SDO/AIA 304 2021-01-18 00:00:18 UT

SDO/AIA 30.4 nm 2021-01-24

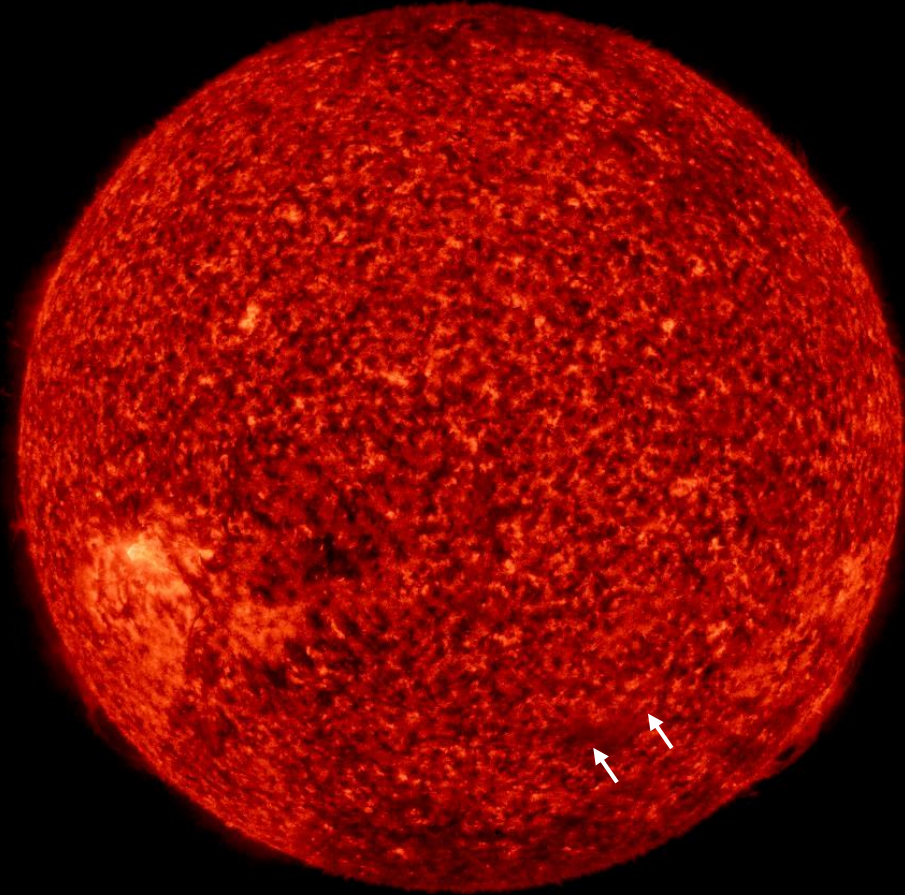


SDO/AIA 304 2021-01-24 22:38:42 UT

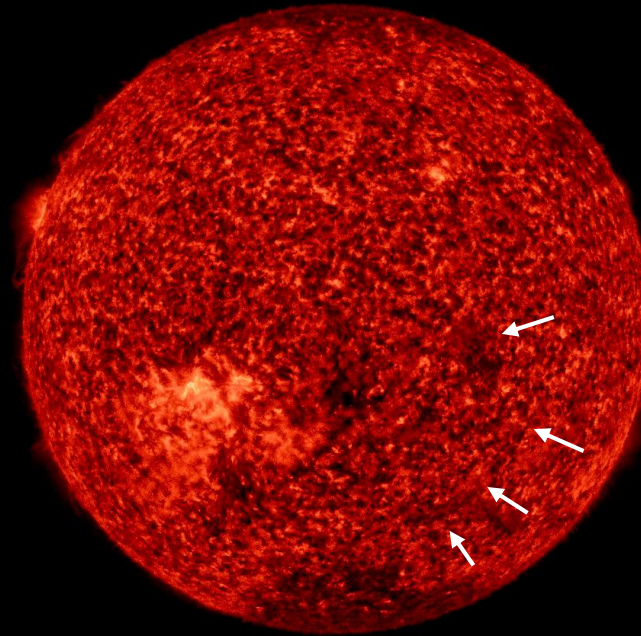
Filaments & Filament eruptions

2021-01-20

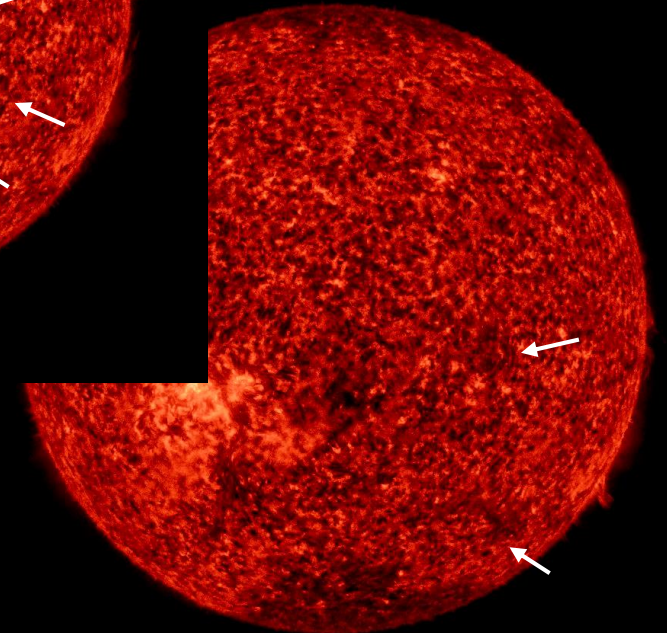
2021-01-22



SDO/AIA 304 2021-01-20 18:38:54 UT

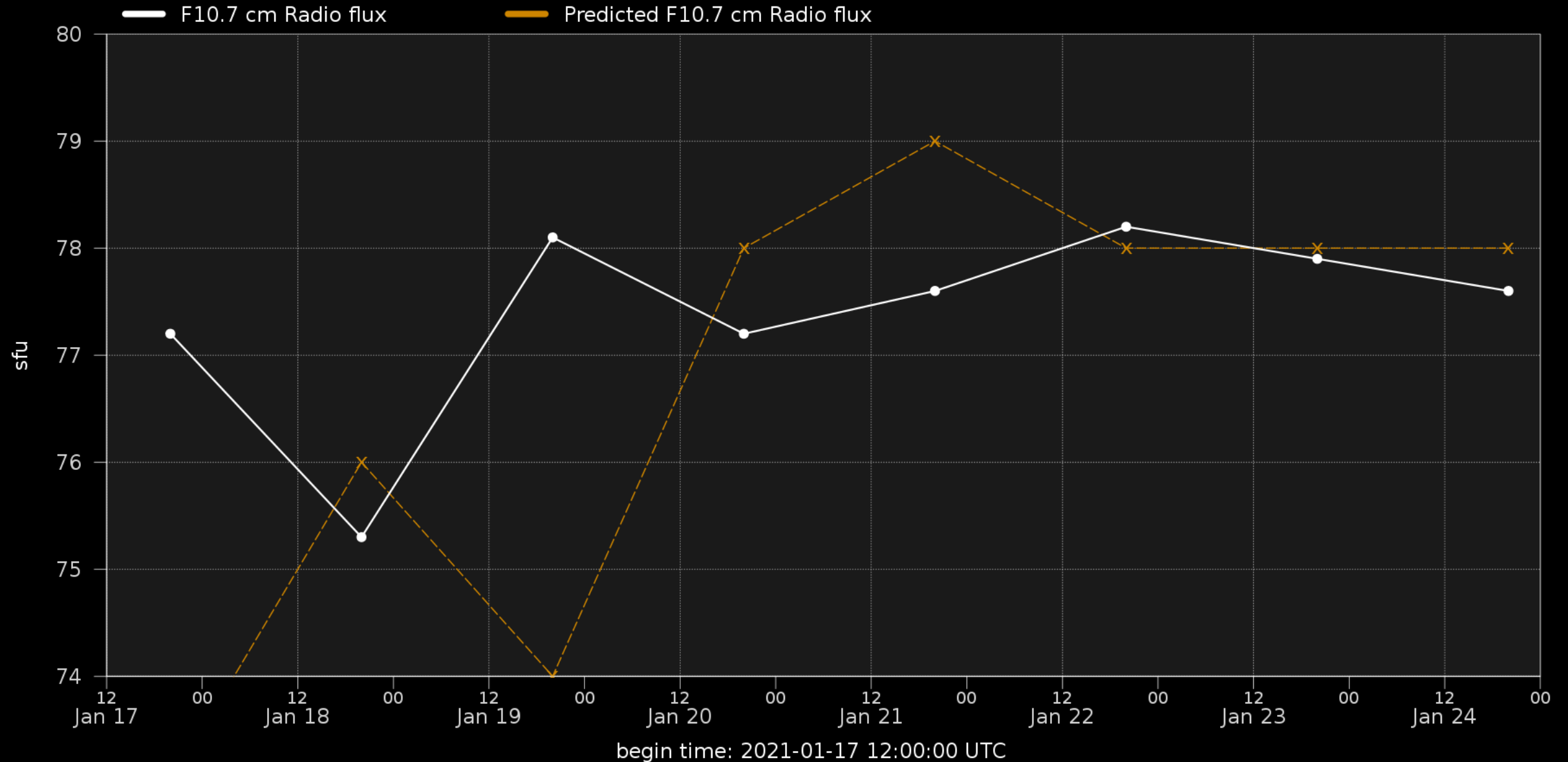


SDO/AIA 304 2021-01-22 08:28:18 UT

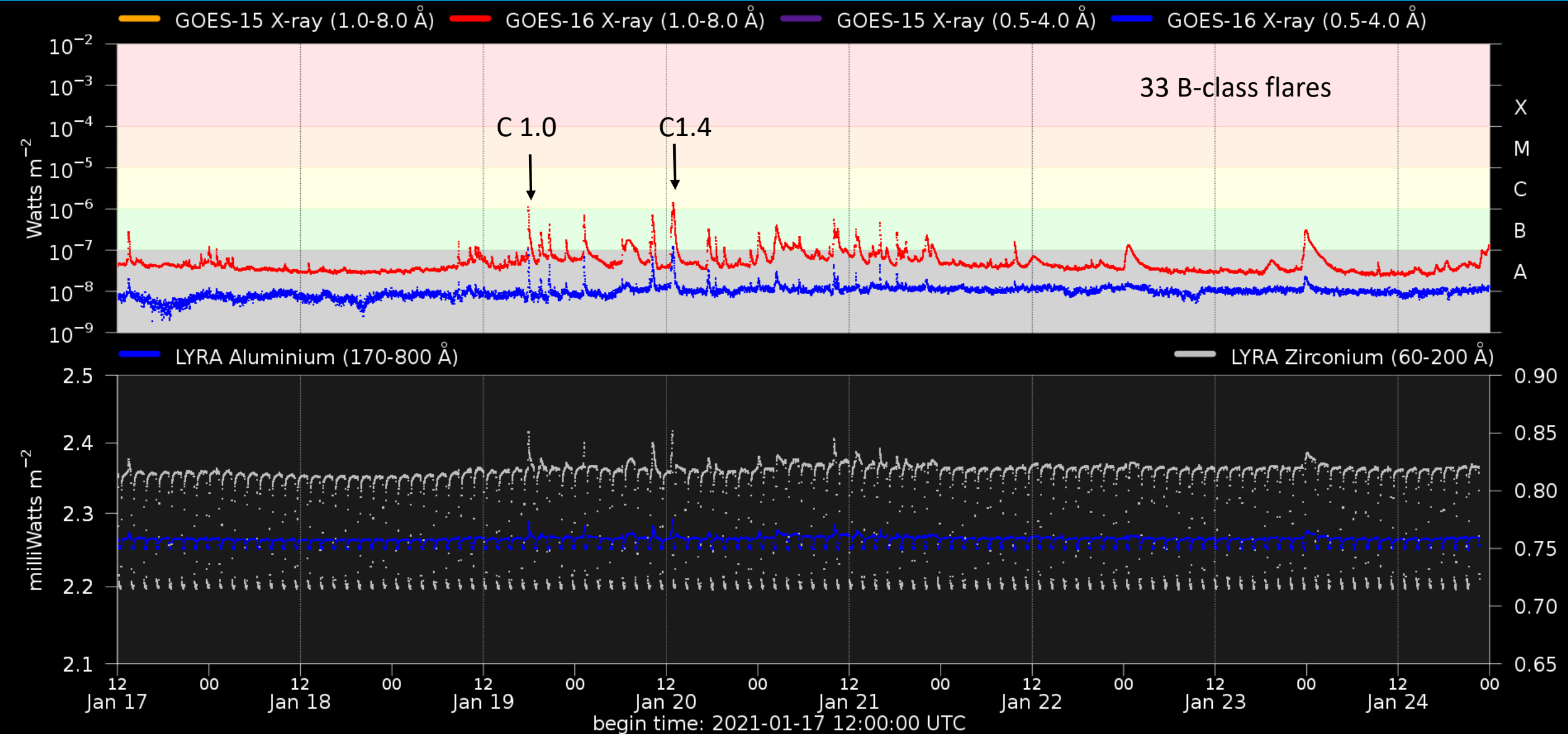


SDO/AIA 304 2021-01-22 09:47:54 UT

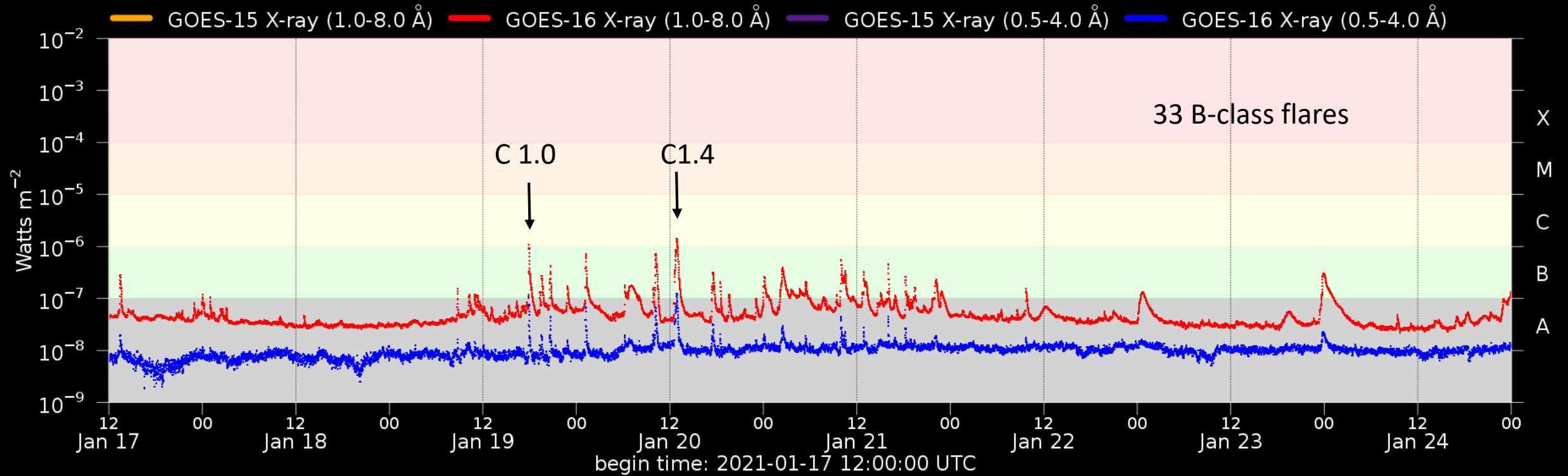
Solar F10.7cm radio flux



Solar X-Ray and UV flux



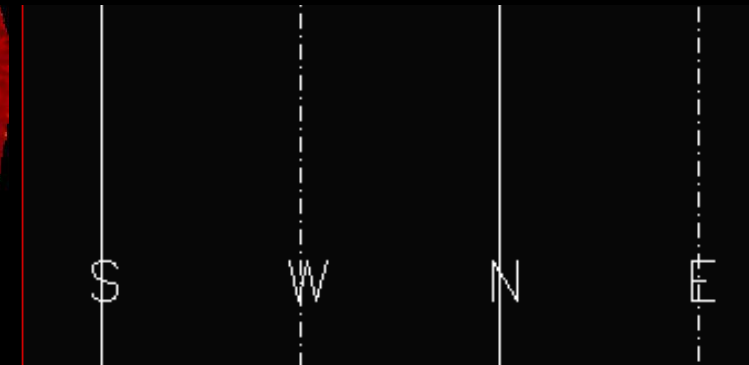
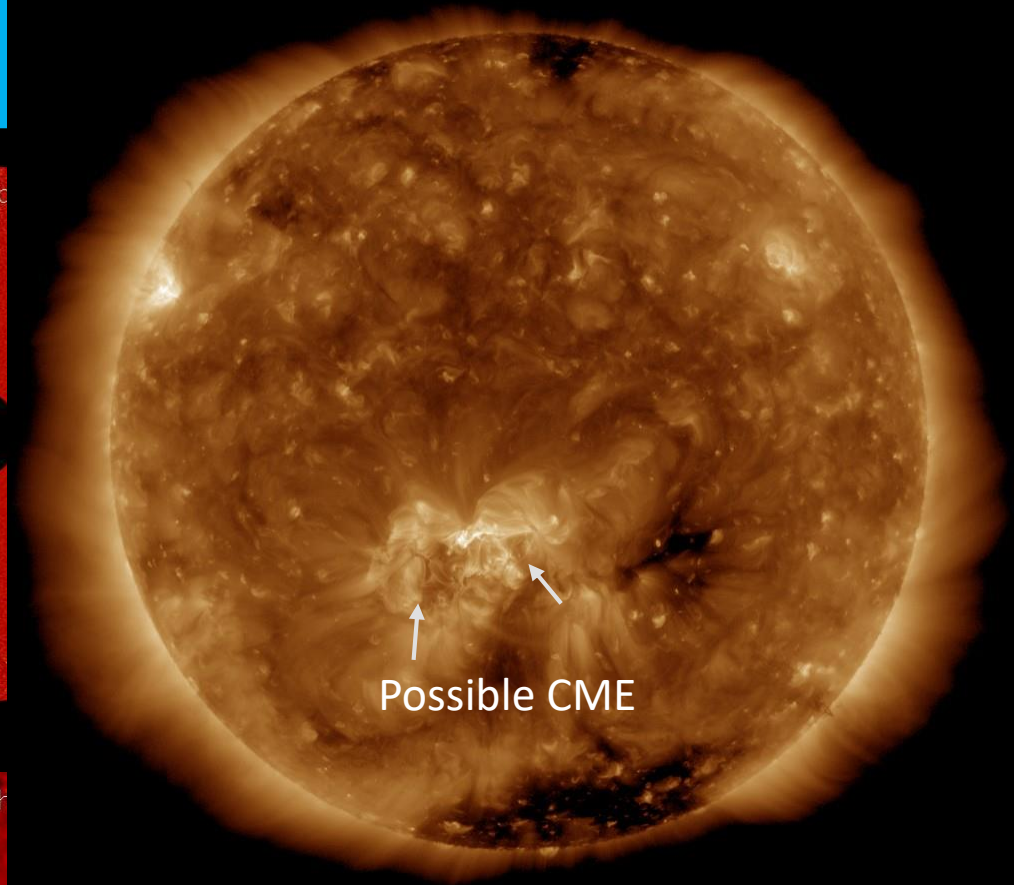
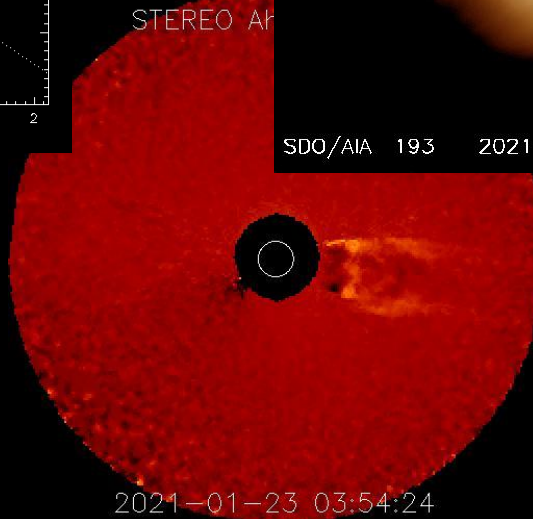
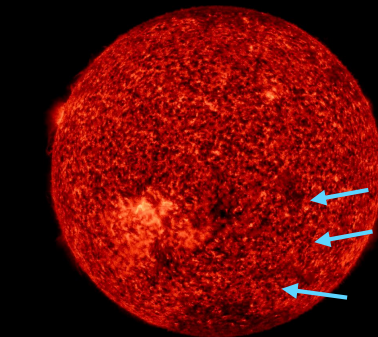
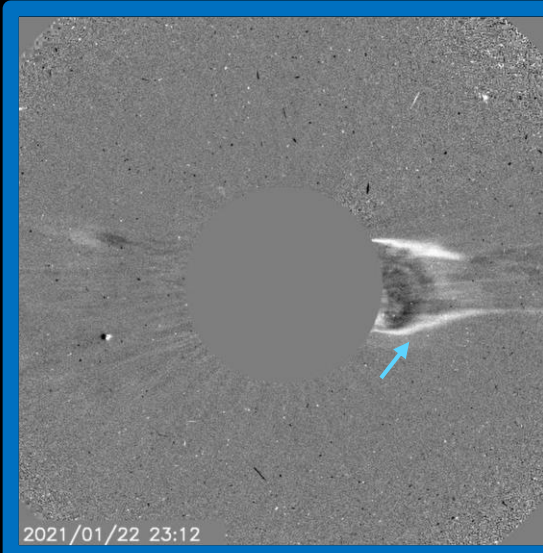
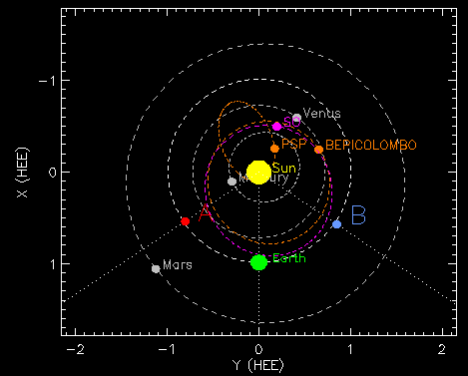
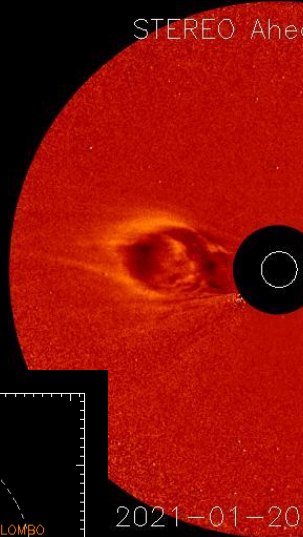
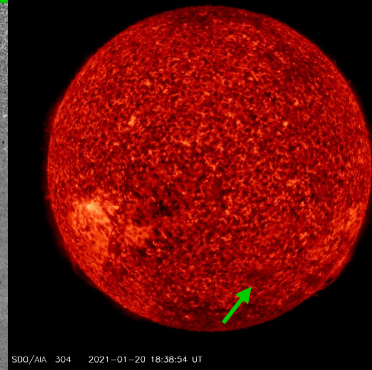
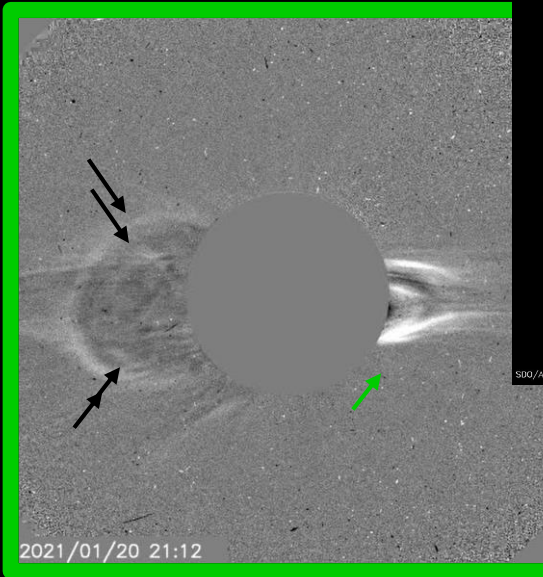
Flaring activity



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

Issue date	2021-01-17	2021-01-18	2021-01-19	2021-01-20	2021-01-21	2021-01-22	2021-01-23	2021-01-24
Probability (%)	10 01 01	10 01 01	05 01 01	10 01 01	15 01 01	14 01 01	10 01 01	06 01 01
Observed (#)	00 00 00	00 00 00	01 00 00	01 00 00	00 00 00	00 00 00	00 00 00	00 00 00

Coronal Mass Ejections



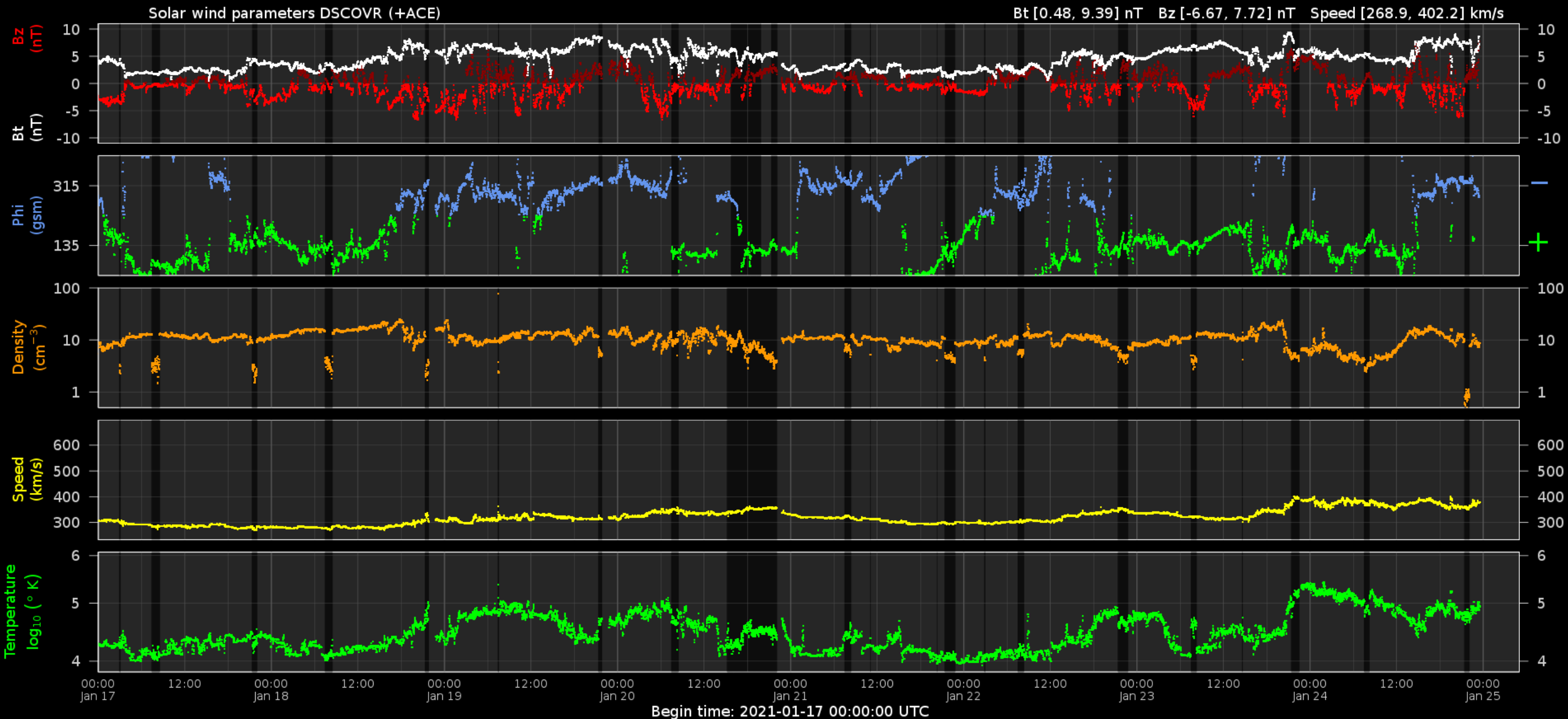
16:36	01/24
09:24	01/24
06:24	01/24
03:24	01/24
23:48	01/23
20:24	01/23
17:24	01/23
14:24	01/23
11:12	01/23
08:00	01/23
05:12	01/23
01:48	01/23
22:12	01/22
19:24	01/22
15:54	01/22
12:36	01/22
10:00	01/22
06:12	01/22
02:00	01/22
22:12	01/21
19:18	01/21
16:24	01/21
12:48	01/21
09:48	01/21
06:48	01/21
04:12	01/21
01:36	01/21
22:00	01/20
18:48	01/20
16:12	01/20
12:12	01/20
09:12	01/20
06:12	01/20
03:36	01/20
00:12	01/20
11:40	01/19
04:46	01/19
22:10	01/18
15:10	01/18
06:40	01/18
00:00	01/18

Solar Wind and Geomagnetic Activity



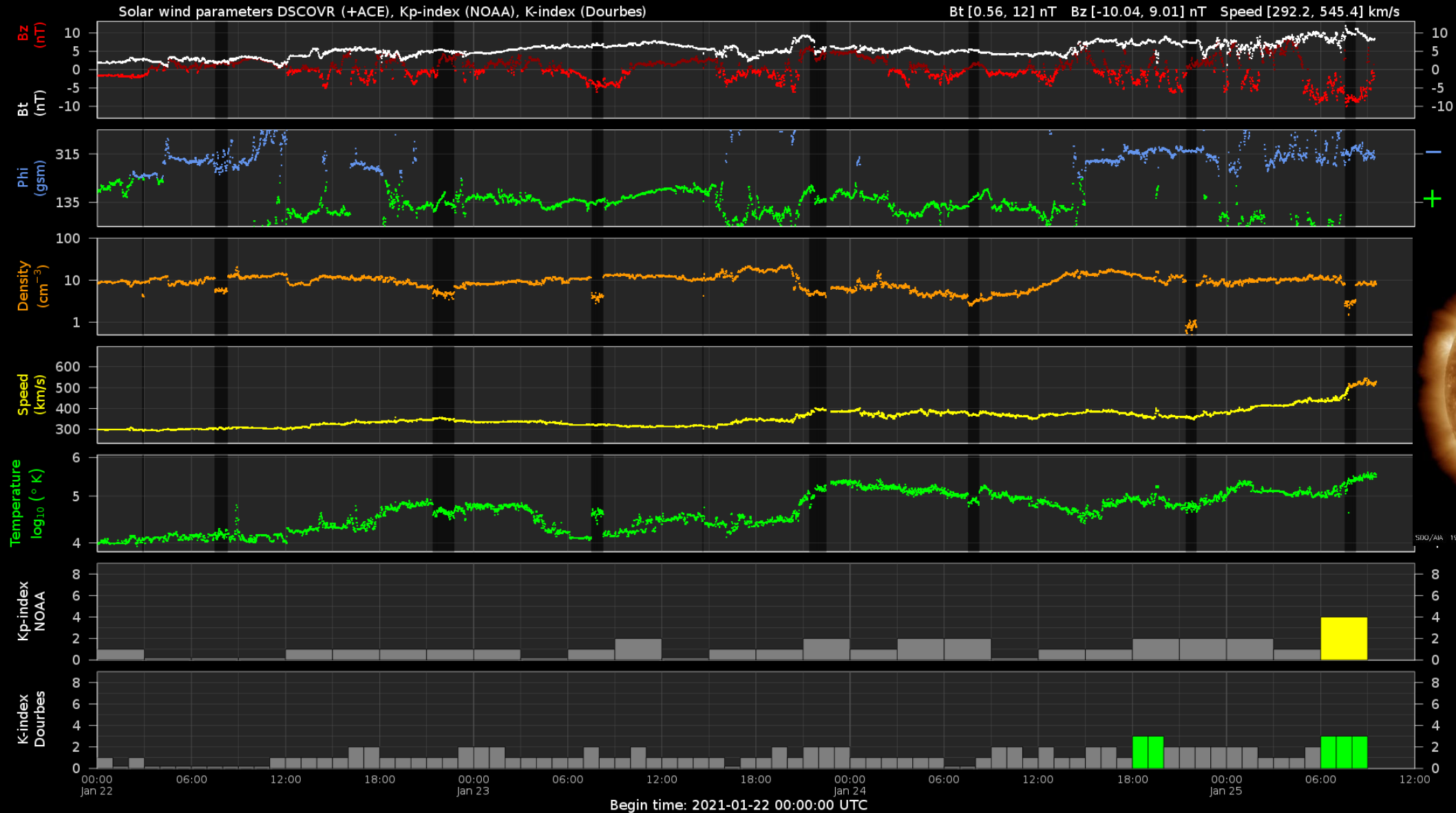
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Solar wind parameters

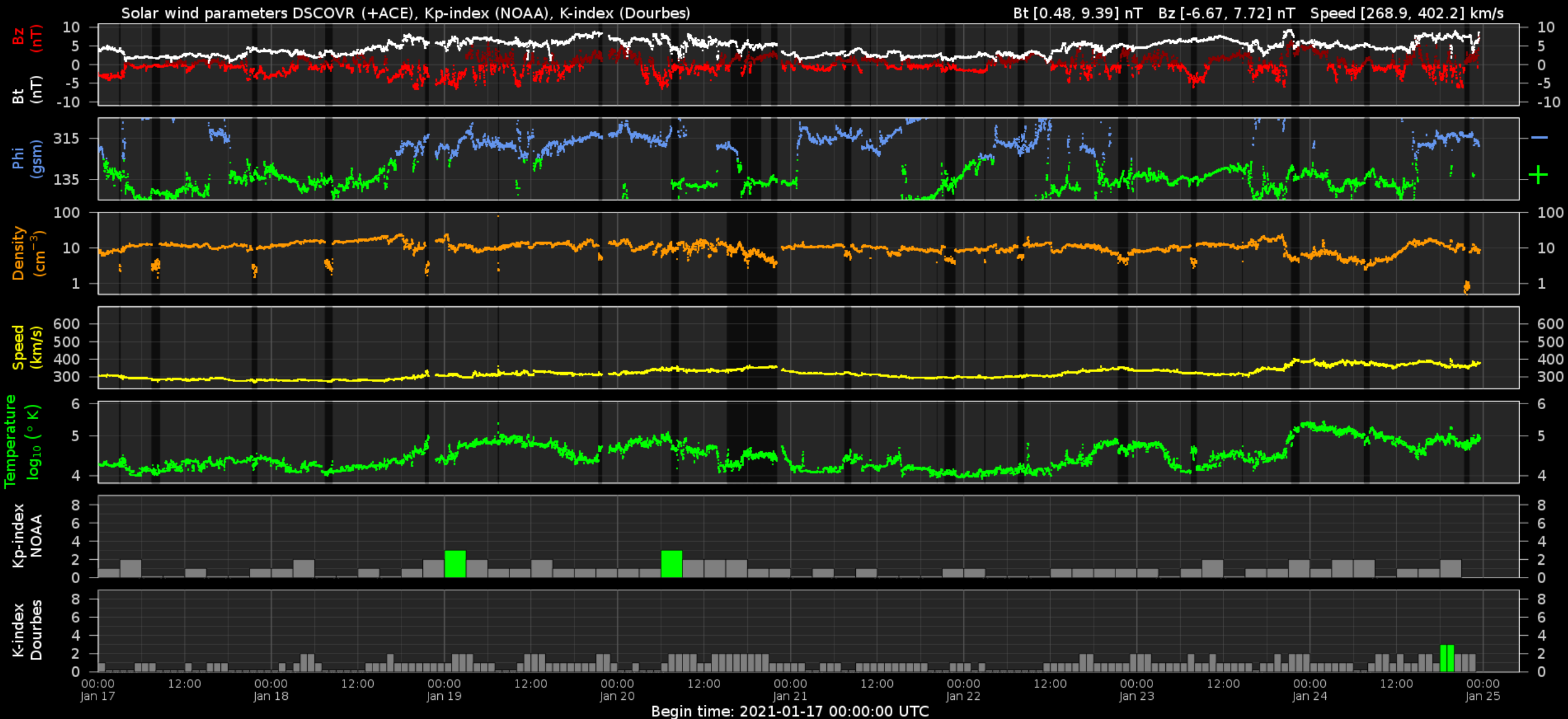


Solar wind parameters

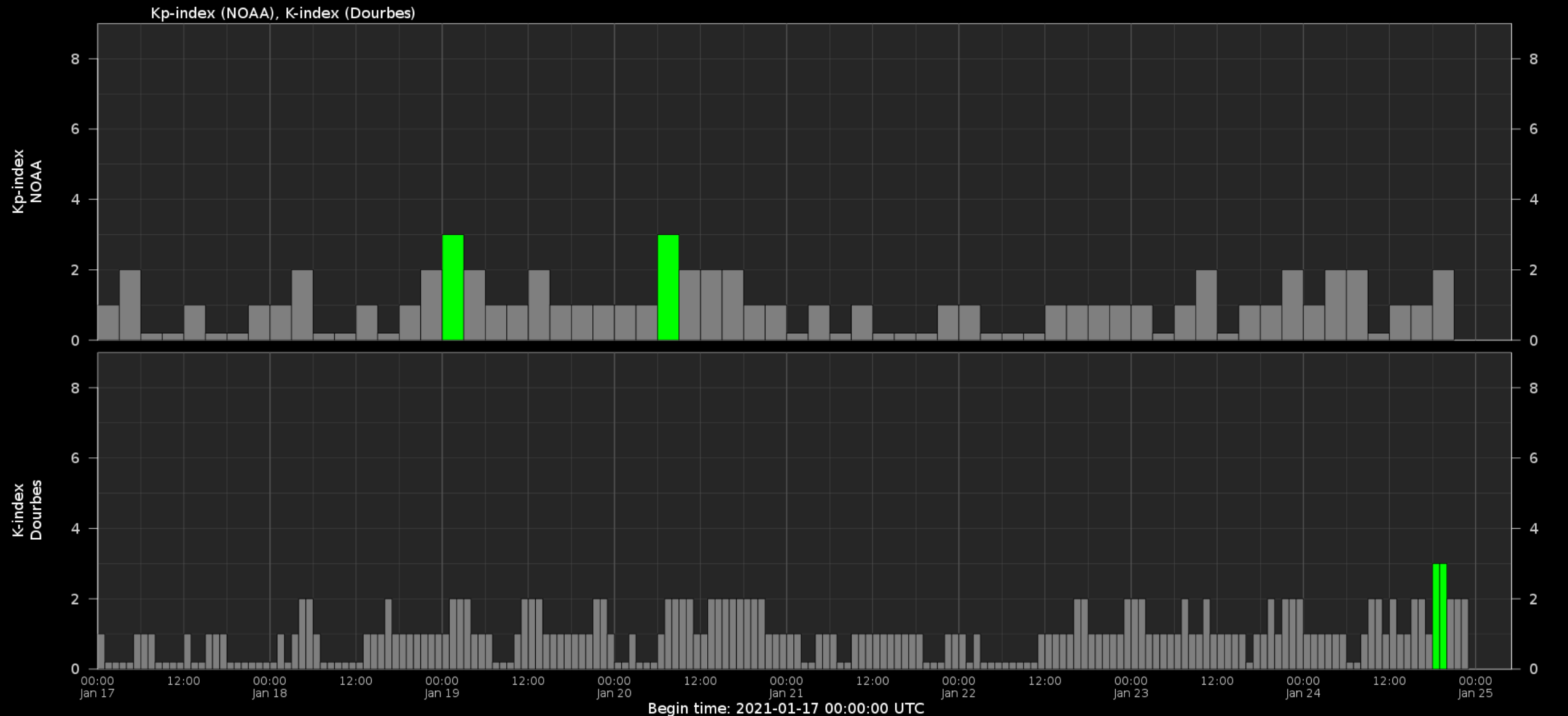
↓ January 25



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)

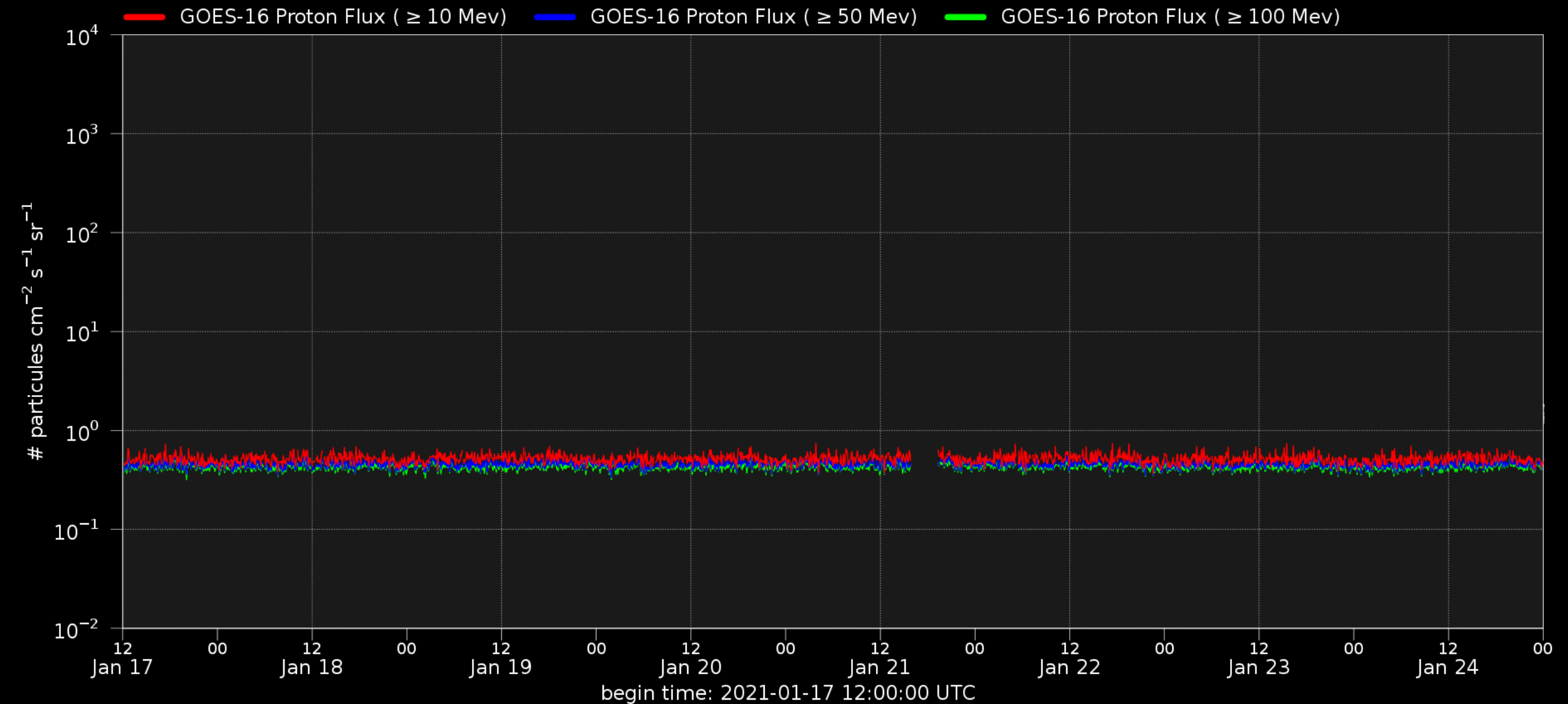


Energetic Particles

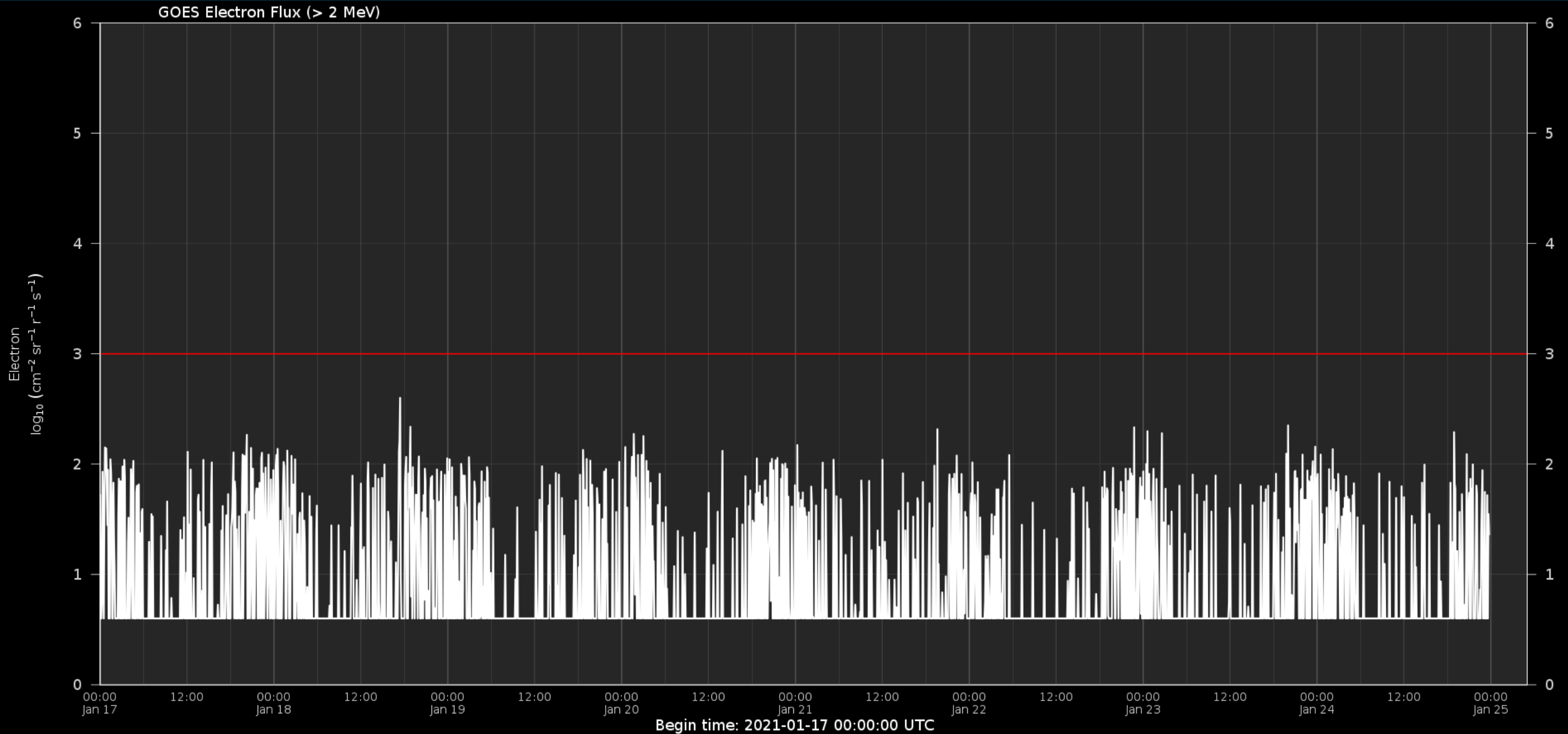


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Solar proton flux



Electron flux at GEO



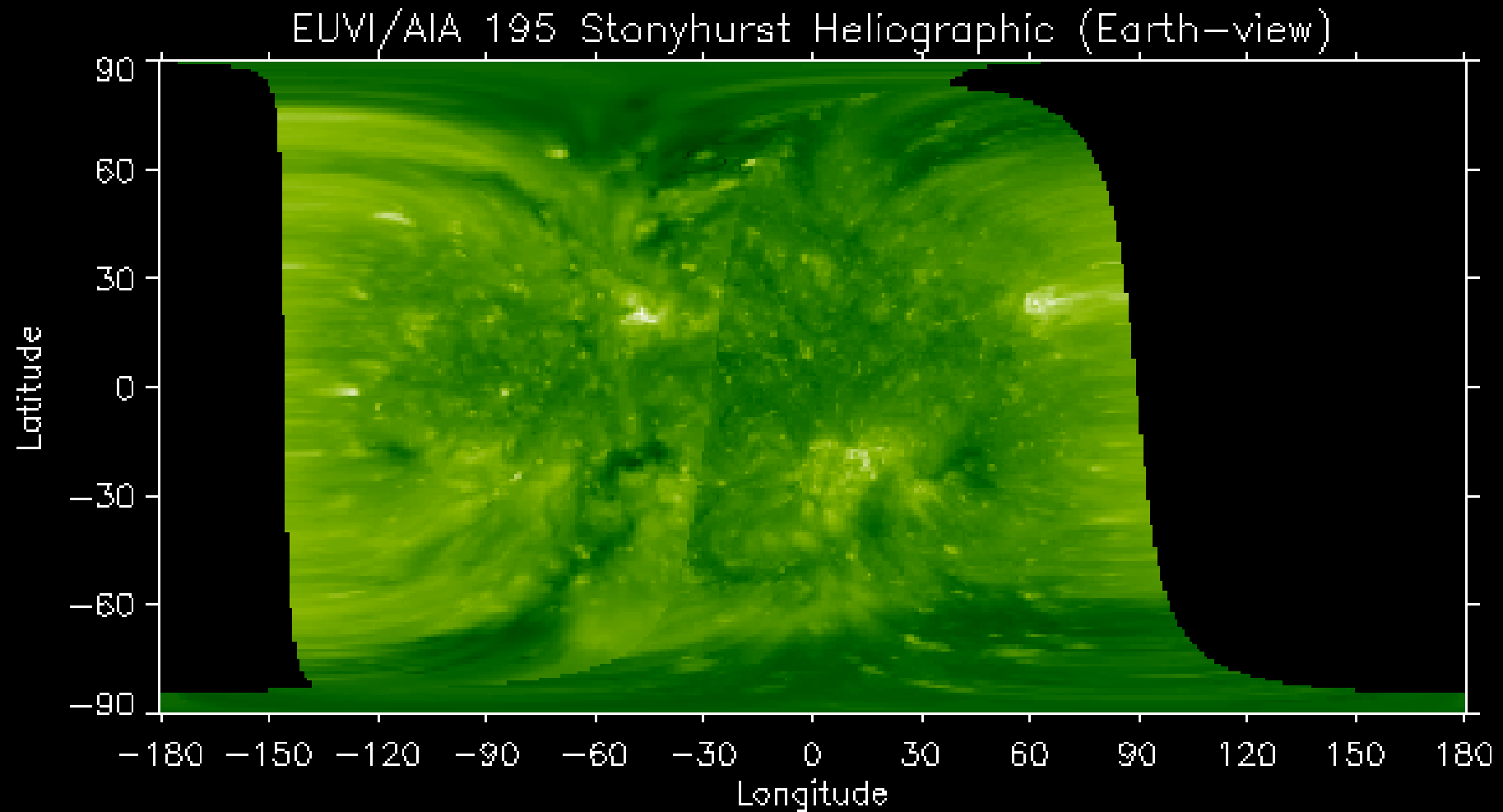
Outlook



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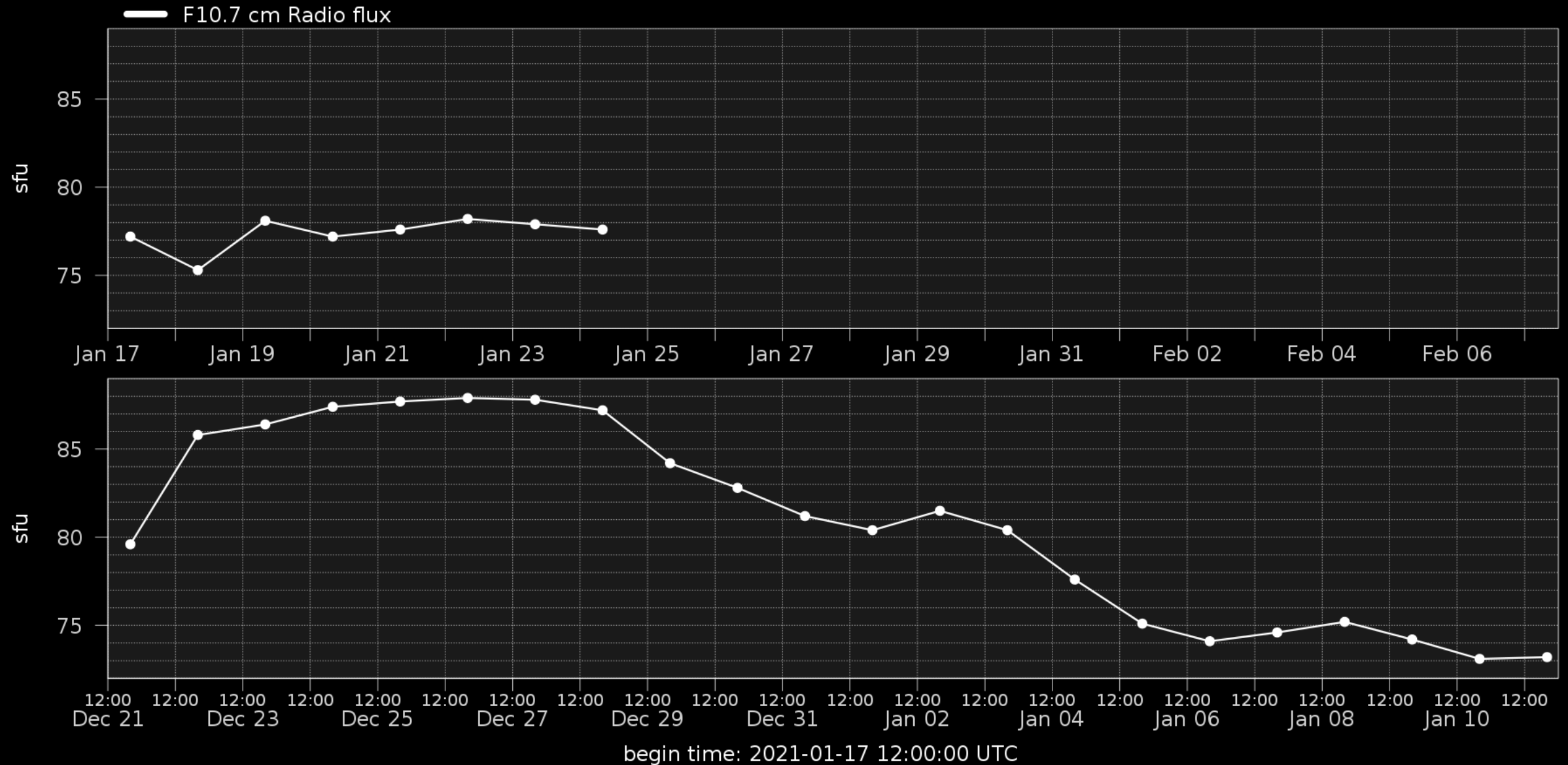
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Outlook: Solar activity

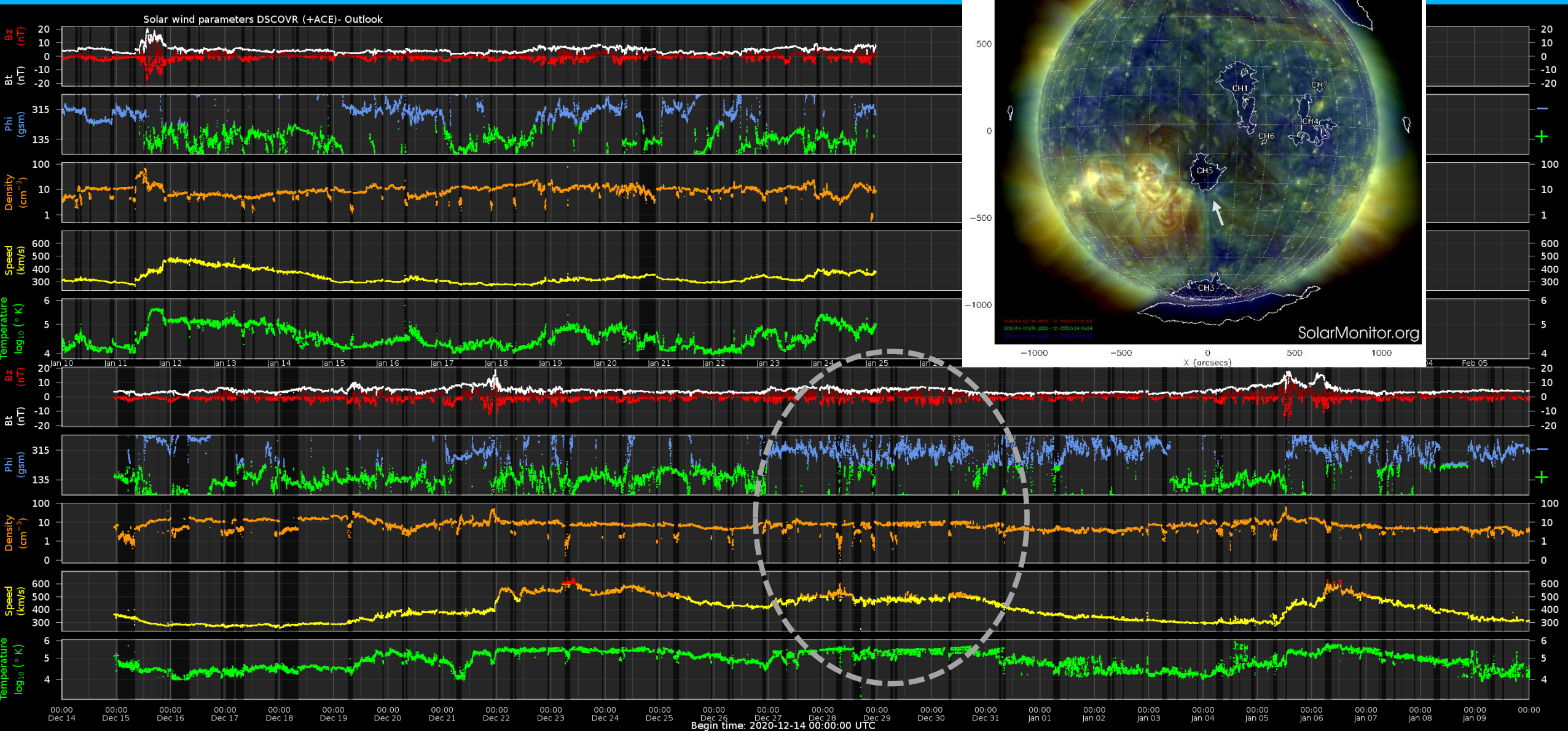


Observation date: 2021/01/25 09:25:30

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

See you at our next briefing!

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