

SIDC Space Weather Briefing

16 February 2020 - 23 February 2020

Luciano Rodriguez
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2020-02-16 12:00 UT to 2020-02-23 12:00 UT

Active regions	None
Flaring	# B-class flare: 0 # 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 2020-02-16 12:00 UT to 2020-02-23 12:00 UT

Coronal Holes	Small patchy equatorial CHs, negative polarity
ICME	1
SW Conditions	max V 520 km/s, max B 12 nT
K-indices	max K-index (Dourbes): 4.0 max Kp-index (NOAA): 5

All Quiet Alert: Off between 18 and 20 February

Solar Activity

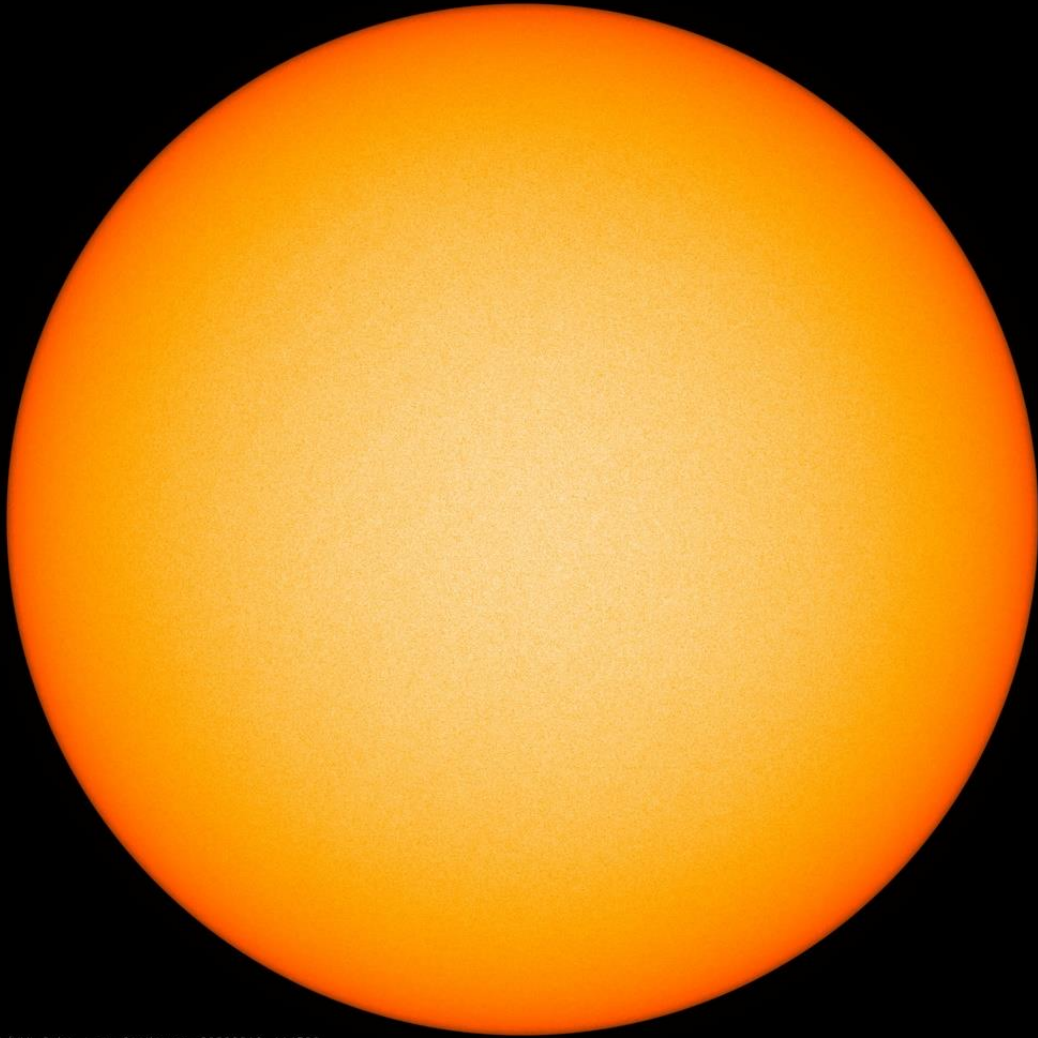


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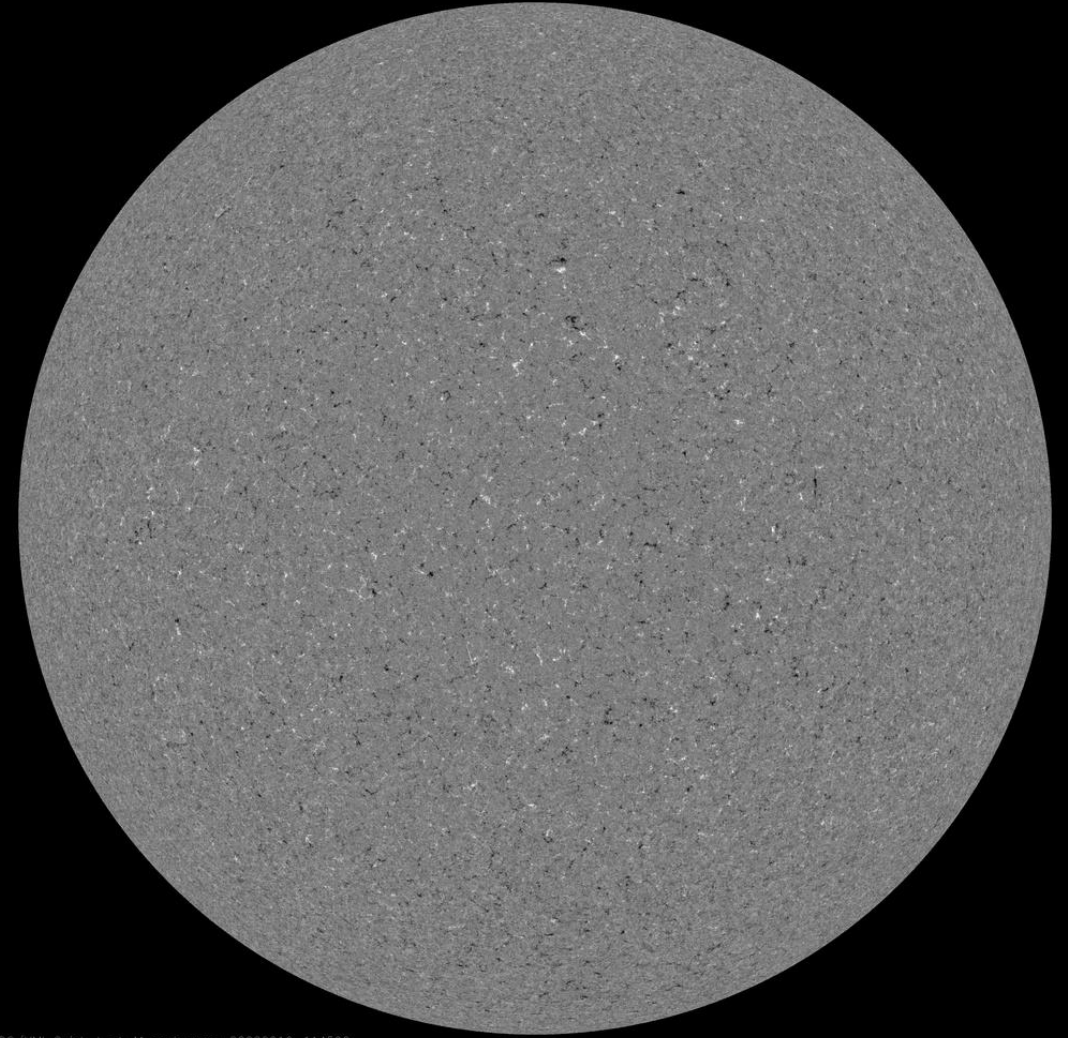
Solar active region - start of the week

SDO/HMI White Light 2020-02-16



SDO/HMI Quick-Look Continuum: 20200216_114500

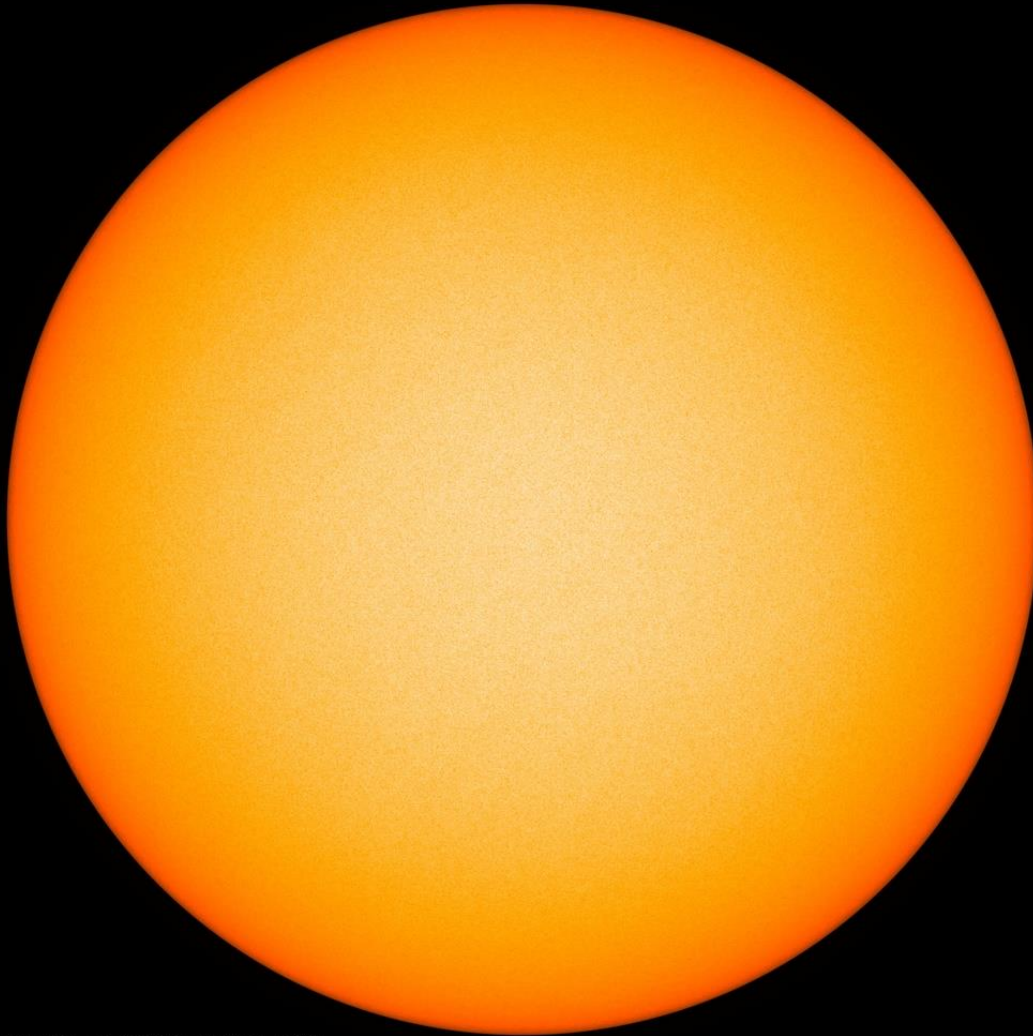
SDO/HMI Magnetogram 2020-02-16



SDO/HMI Quick-Look Magnetogram: 20200216_114500

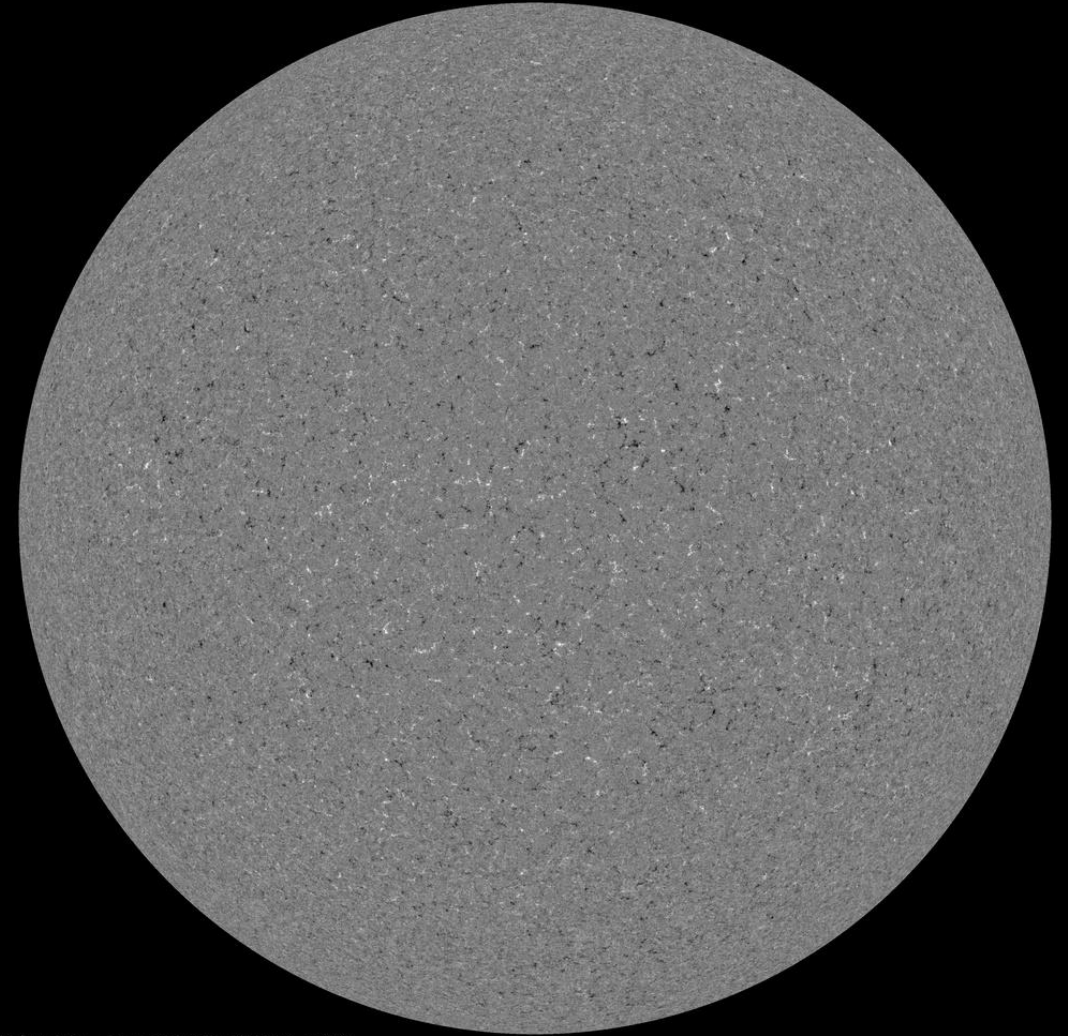
Solar active region - middle of the week

SDO/HMI White Light 2020-02-19



SDO/HMI Quick-Look Continuum: 20200219_114500

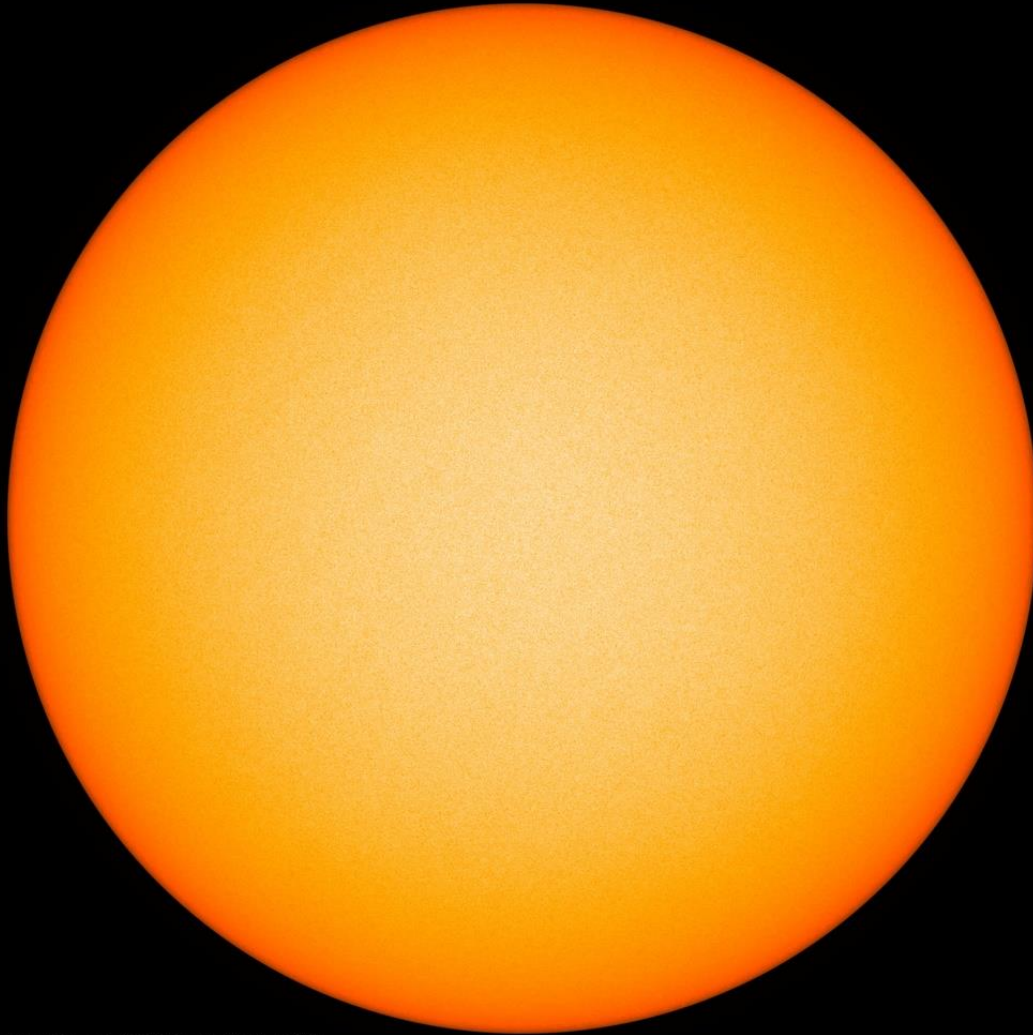
SDO/HMI Magnetogram 2020-02-19



SDO/HMI Quick-Look Magnetogram: 20200219_114500

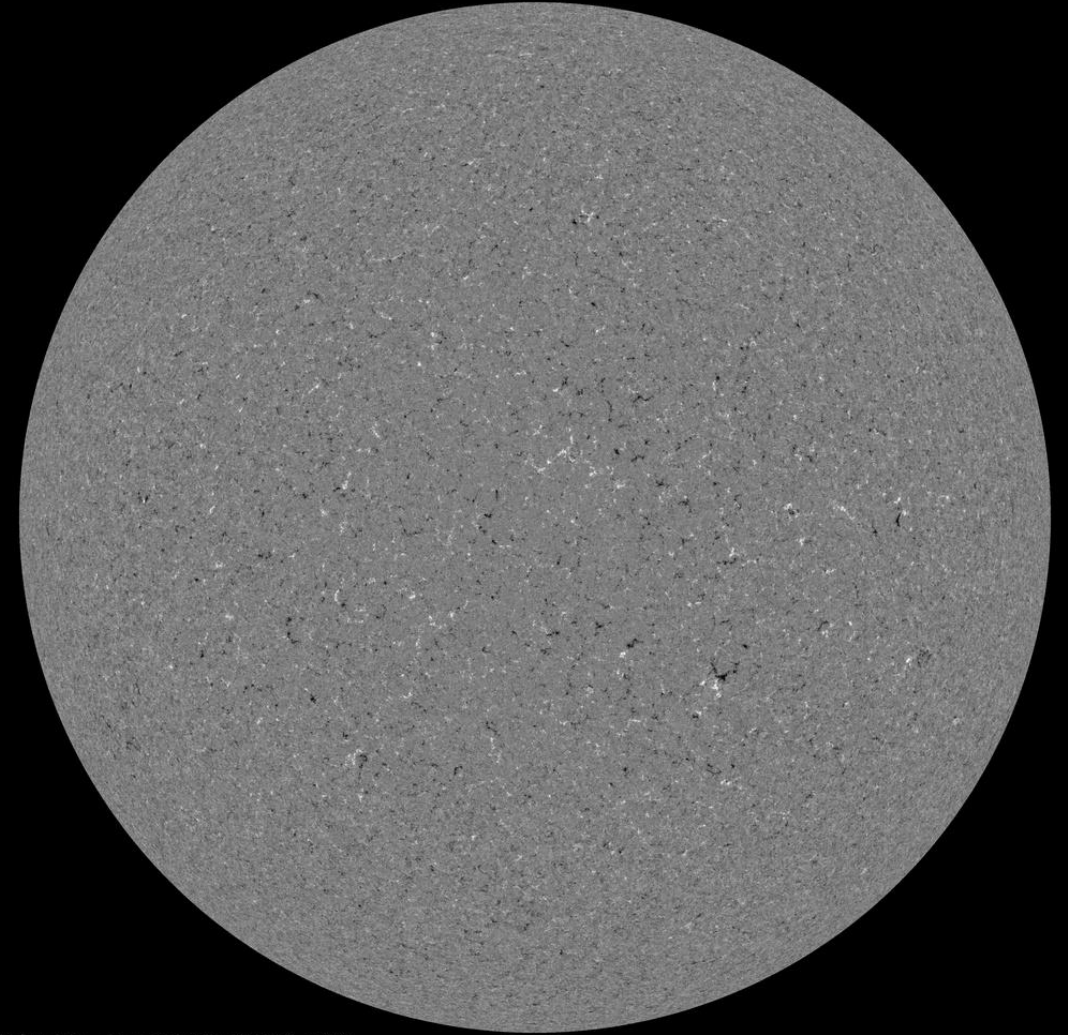
Solar active region - end of the week

SDO/HMI White Light 2020-02-23



SDO/HMI Quick-Look Continuum: 20200223_114500

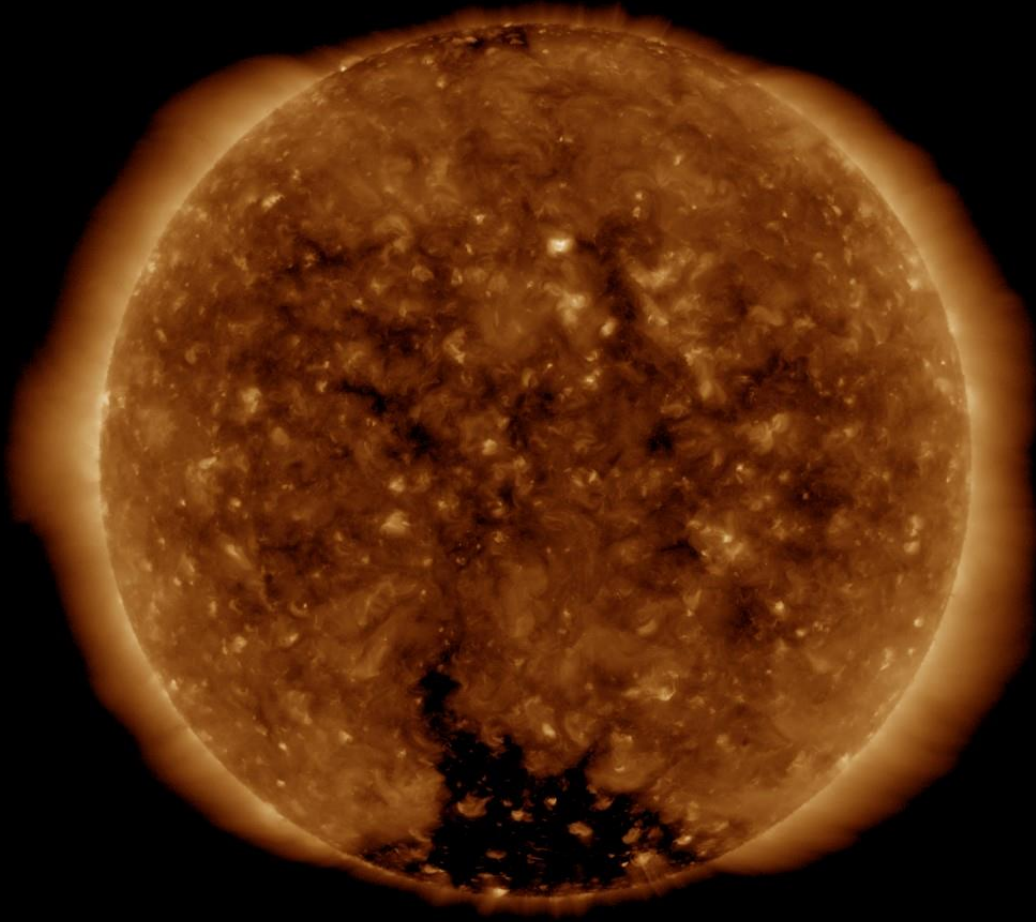
SDO/HMI Magnetogram 2020-02-23



SDO/HMI Quick-Look Magnetogram: 20200223_114500

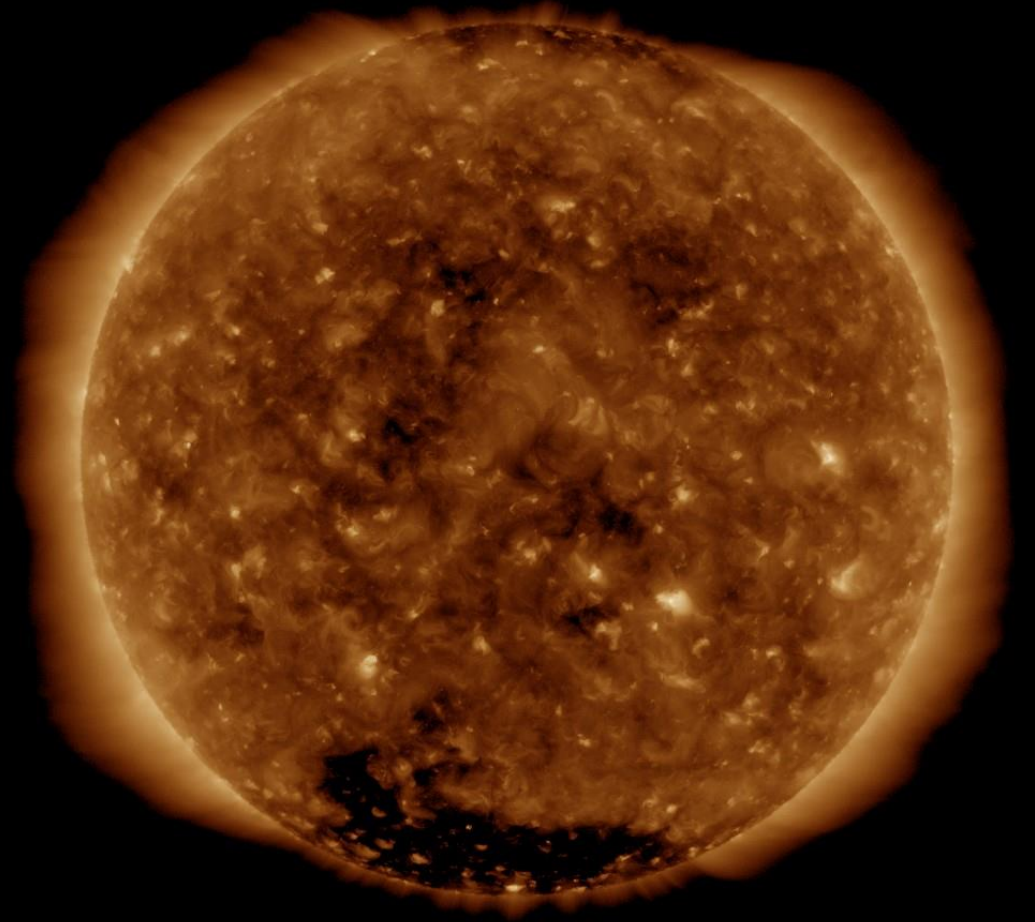
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2020-02-16



SDO/AIA 193 2020-02-16 12:10:53 UT

SDO/AIA 19.3 nm 2020-02-23

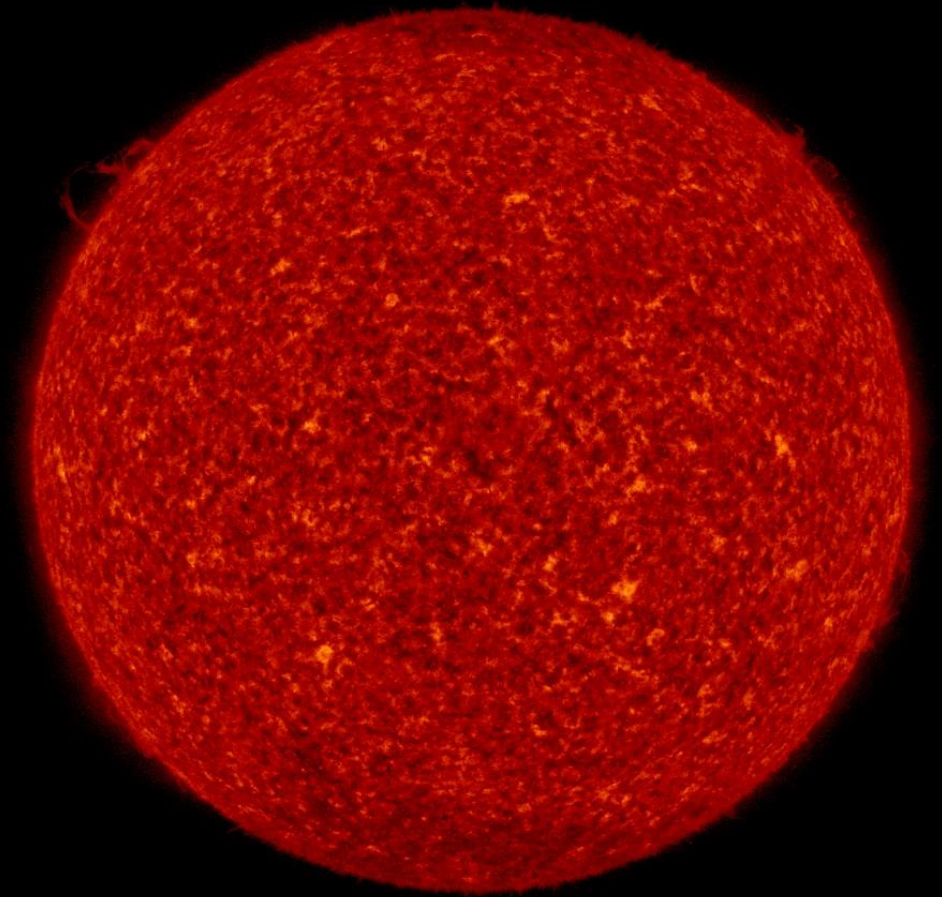
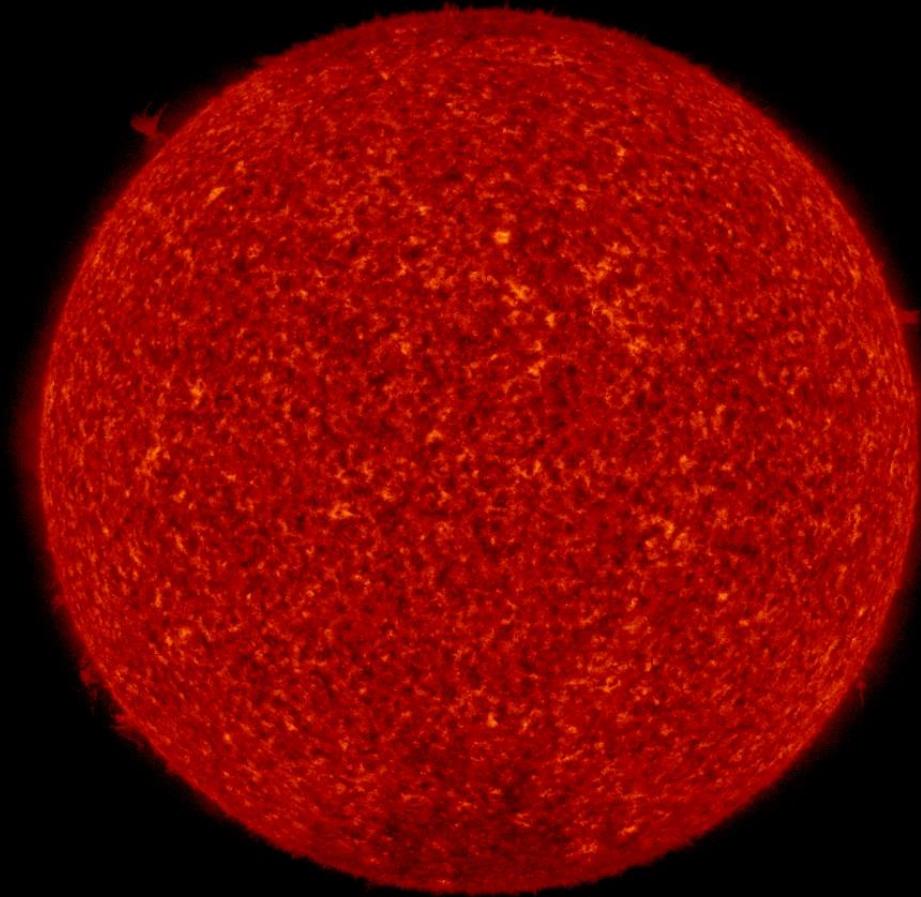


SDO/AIA 193 2020-02-23 12:11:05 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2020-02-16

SDO/AIA 30.4 nm 2020-02-23



SDO/AIA 304 2020-02-16 12:13:42 UT

SDO/AIA 304 2020-02-23 12:14:18 UT

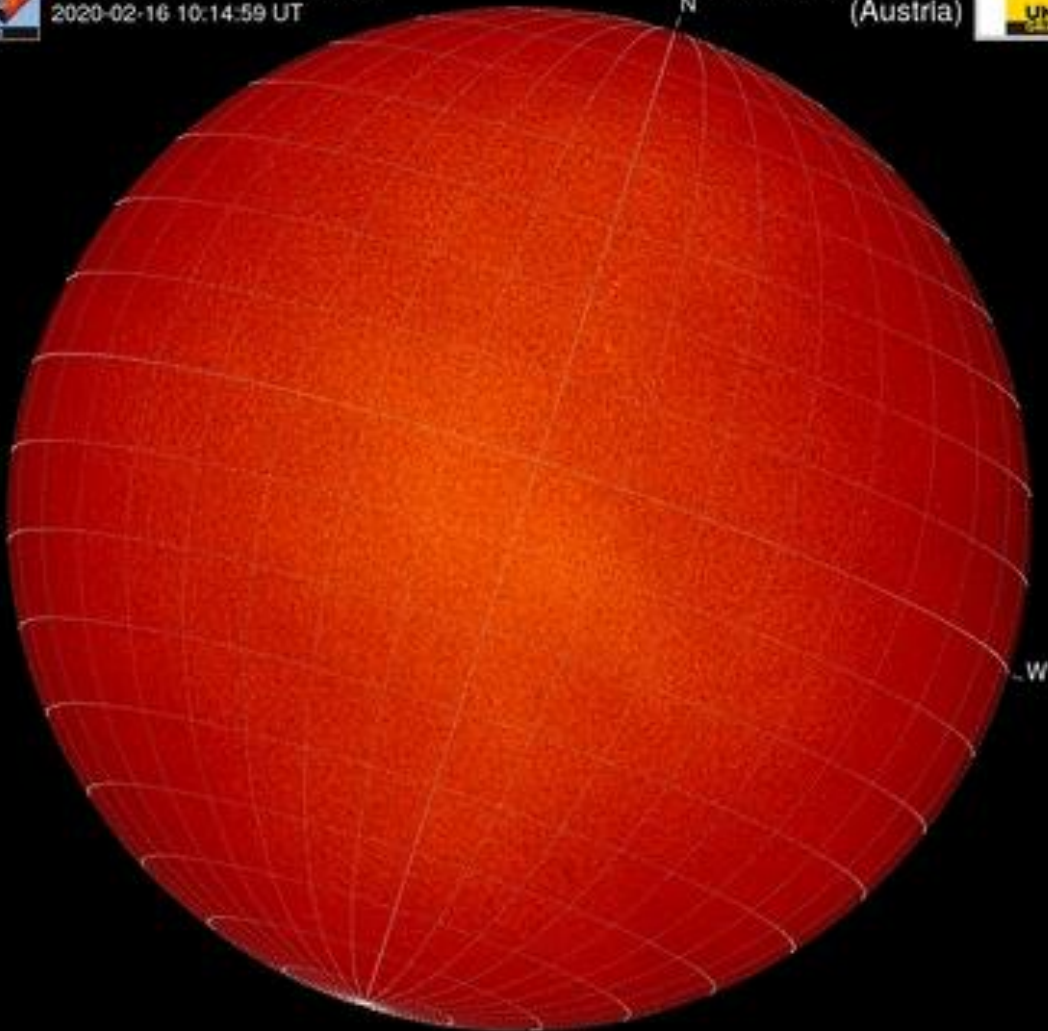
Filament & Filament eruption

H-alpha 2020-02-16



Kanzelhöhe Observatory
2020-02-16 10:14:59 UT

University of Graz
(Austria)

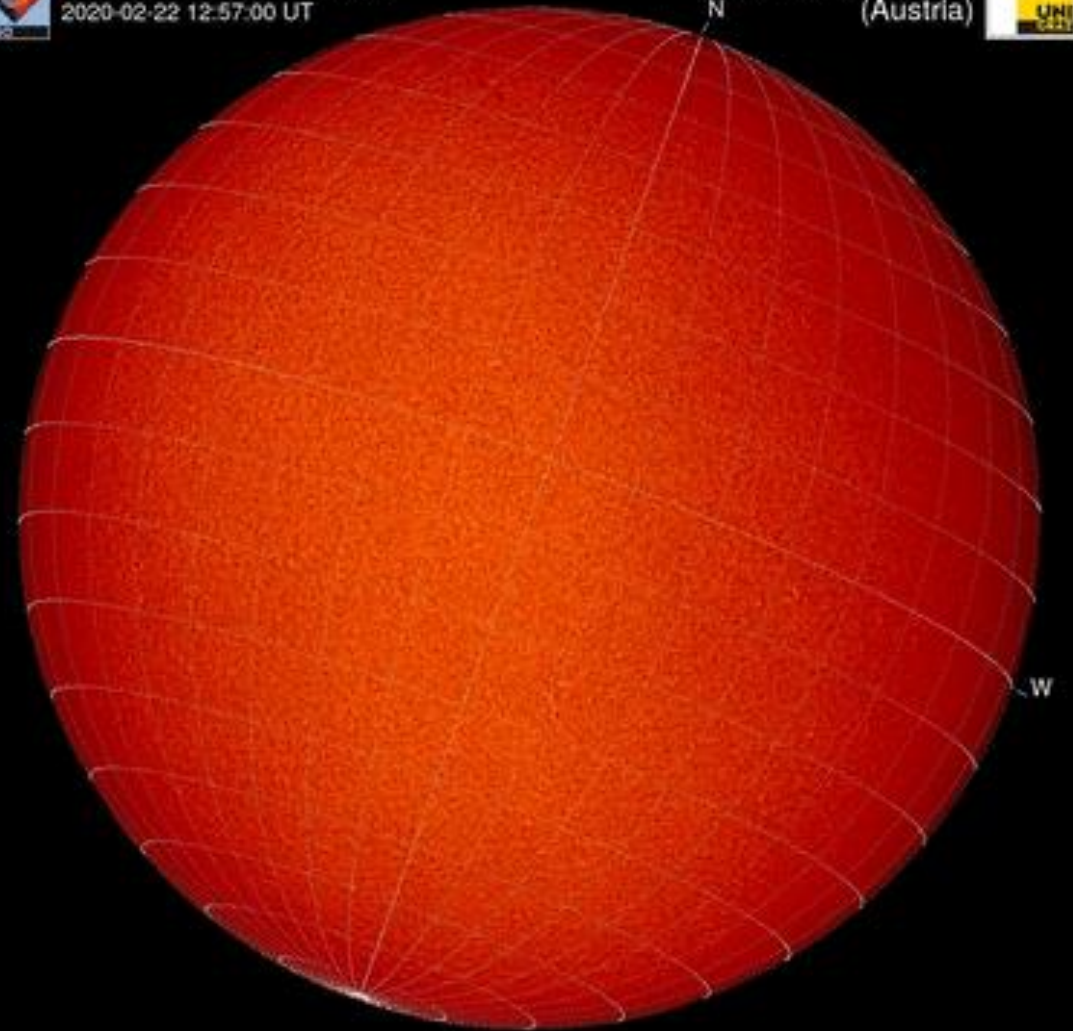


H-alpha 2020-02-23

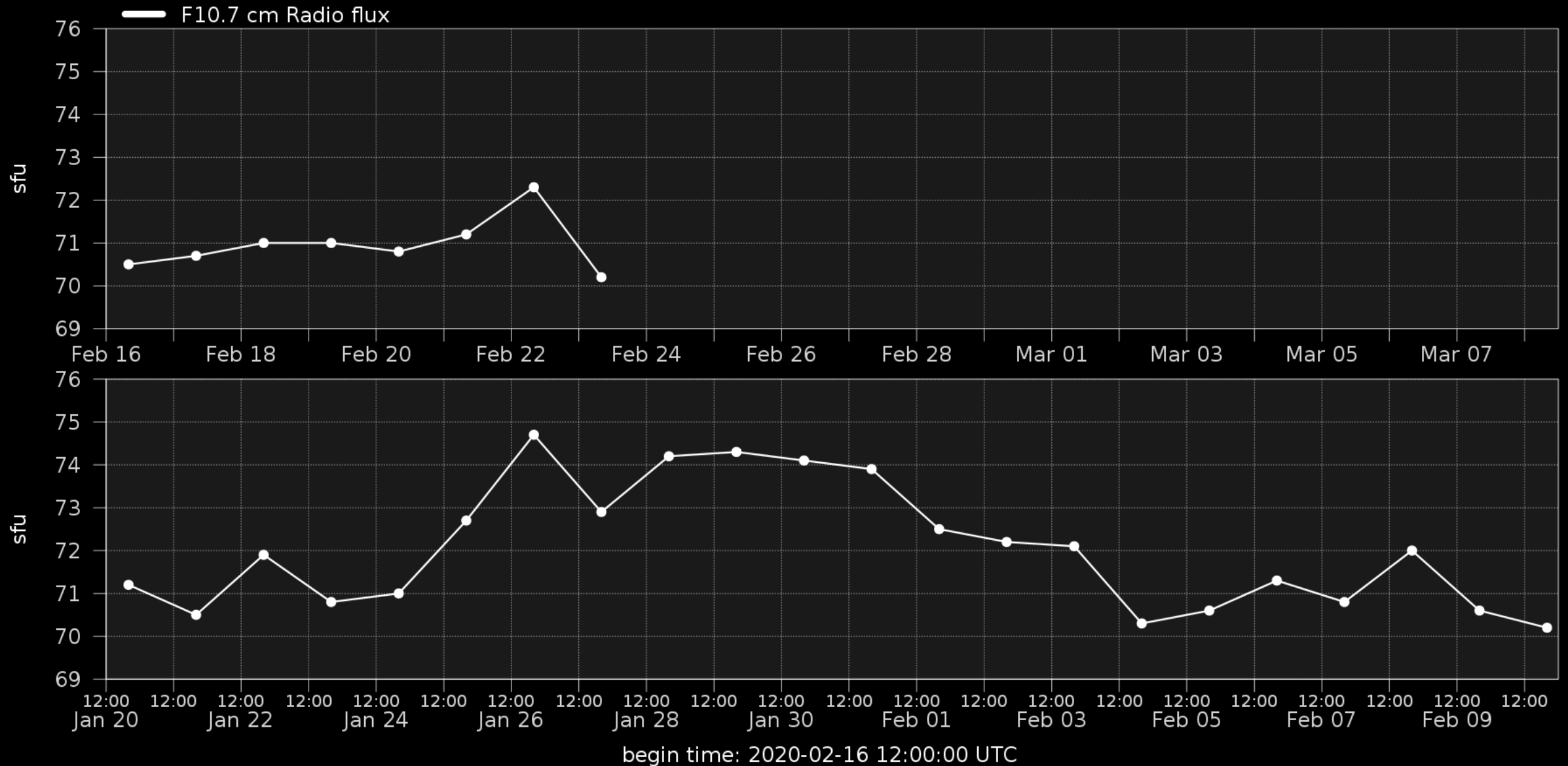


Kanzelhöhe Observatory
2020-02-22 12:57:00 UT

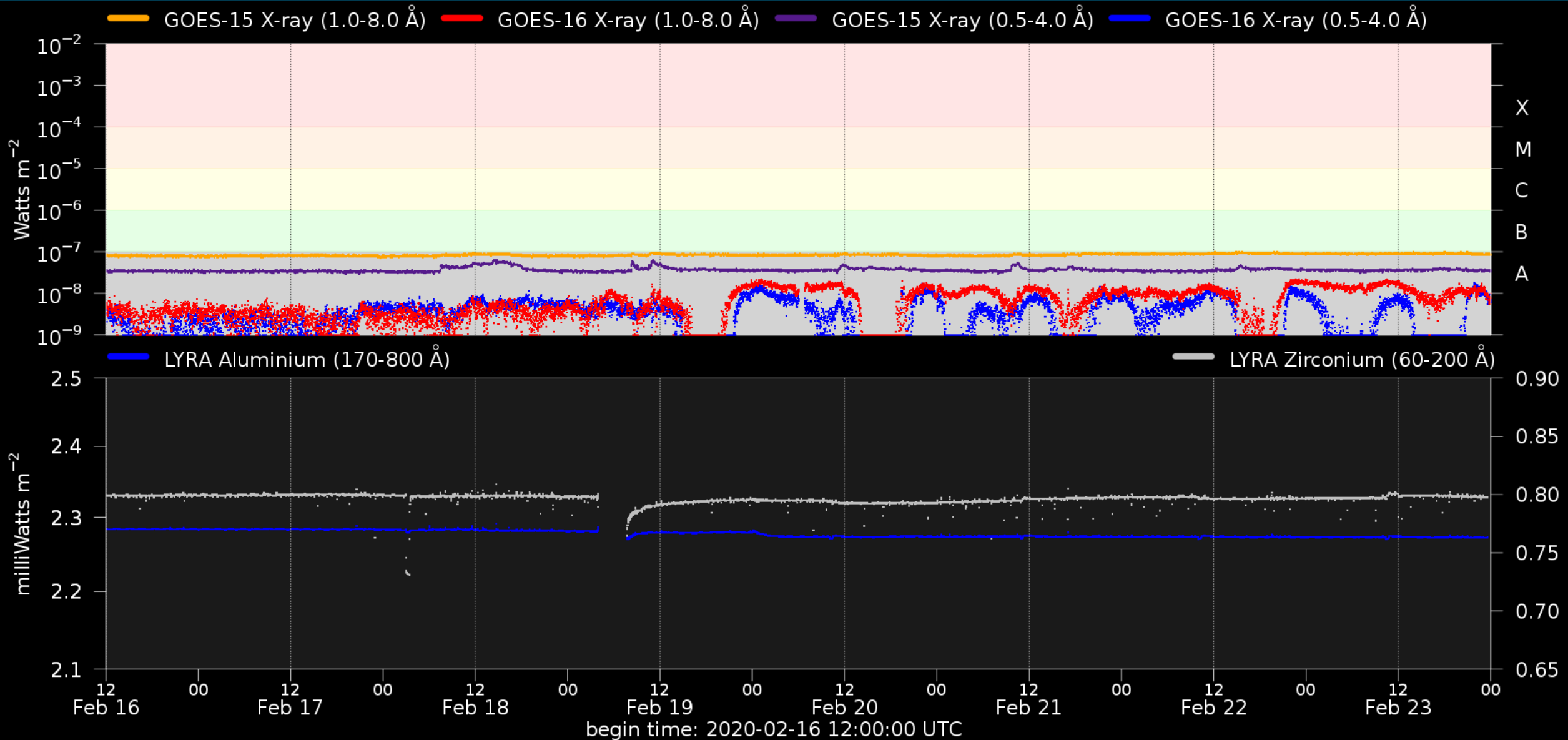
University of Graz
(Austria)



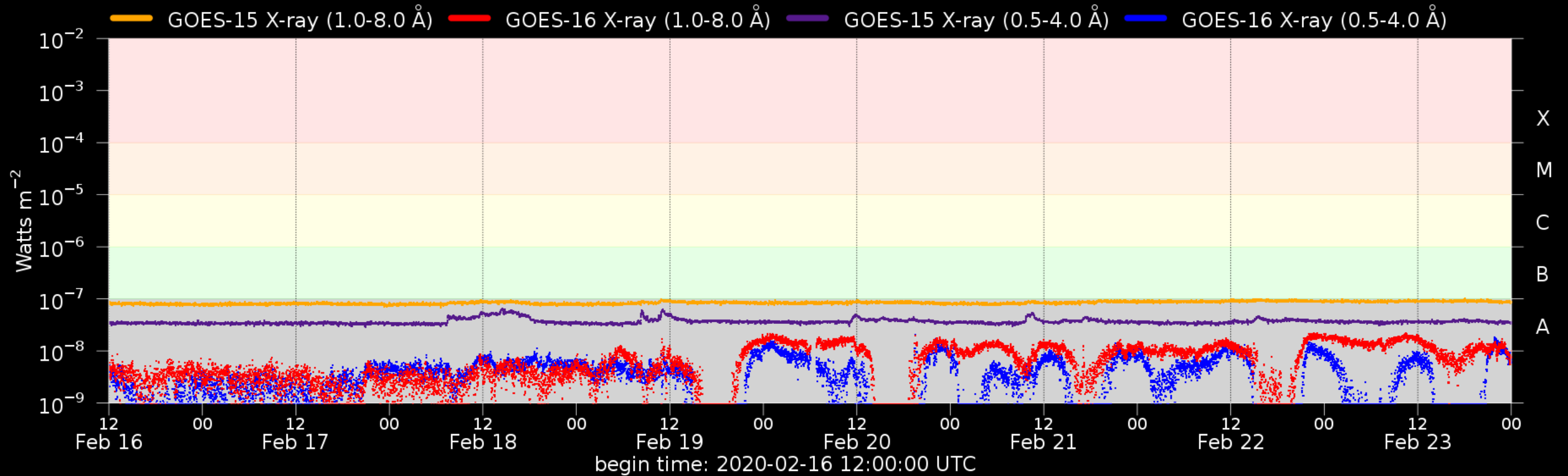
Solar F10.7cm radio flux



Solar X-Ray and UV flux



Flaring activity



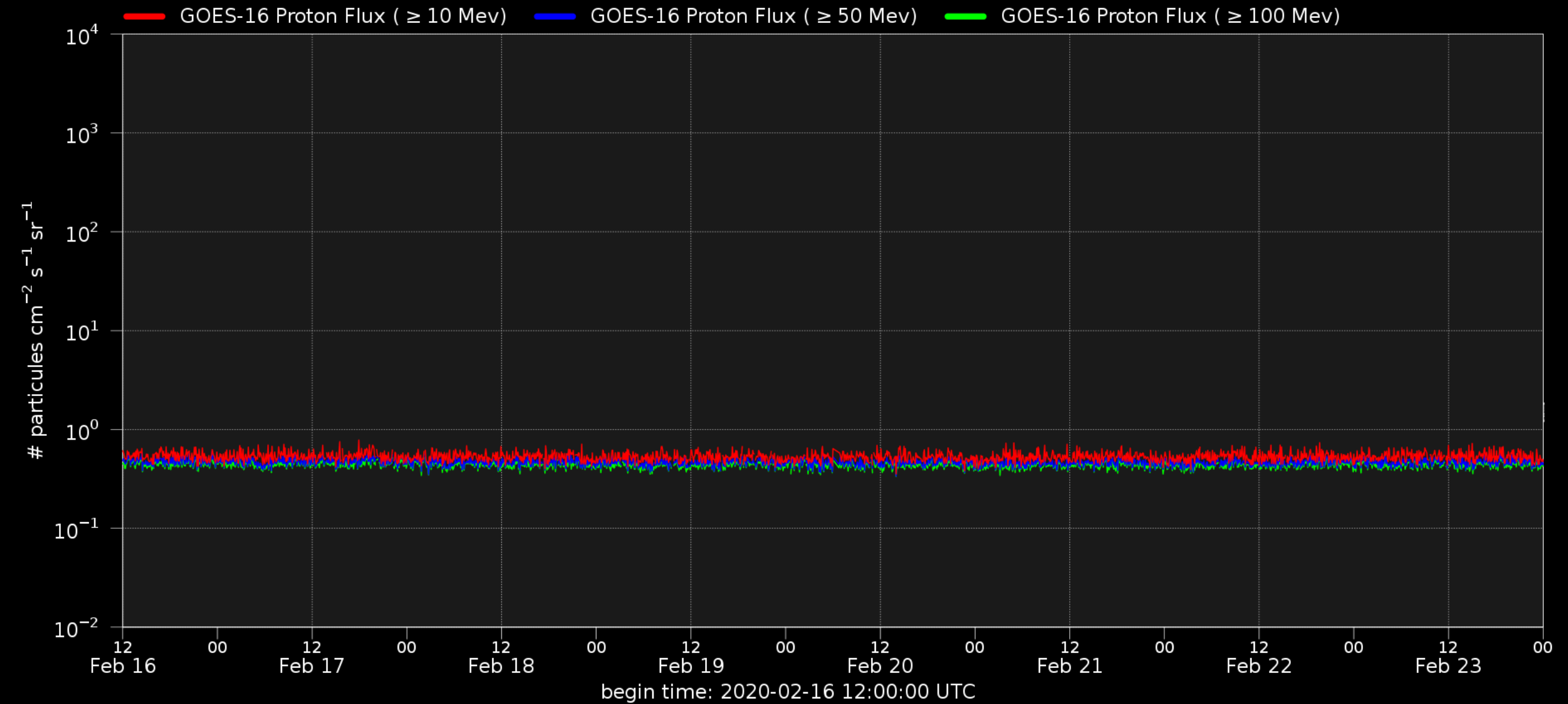
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2020-02-16	2020-02-17	2020-02-18	2020-02-19	2020-02-20	2020-02-21	2020-02-22	2020-02-23
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

00:12 02/23
20:36 02/22
18:18 02/22
15:36 02/22
12:24 02/22
09:48 02/22
06:48 02/22
04:12 02/22
00:48 02/22
21:48 02/21
19:12 02/21
16:00 02/21
12:36 02/21
09:36 02/21
05:24 02/21
01:26 02/21
21:24 02/20
18:00 02/20
14:36 02/20
11:54 02/20
09:18 02/20
06:24 02/20
03:36 02/20
00:00 02/20
20:24 02/19
18:00 02/19
15:16 02/19
12:24 02/19
09:48 02/19
07:00 02/19
04:12 02/19
00:36 02/19
21:30 02/18
19:00 02/18
15:48 02/18
12:36 02/18
10:00 02/18
07:12 02/18
04:12 02/18
00:54 02/18
21:48 02/17
18:36 02/17
16:00 02/17
12:24 02/17
09:36 02/17

Solar proton flux



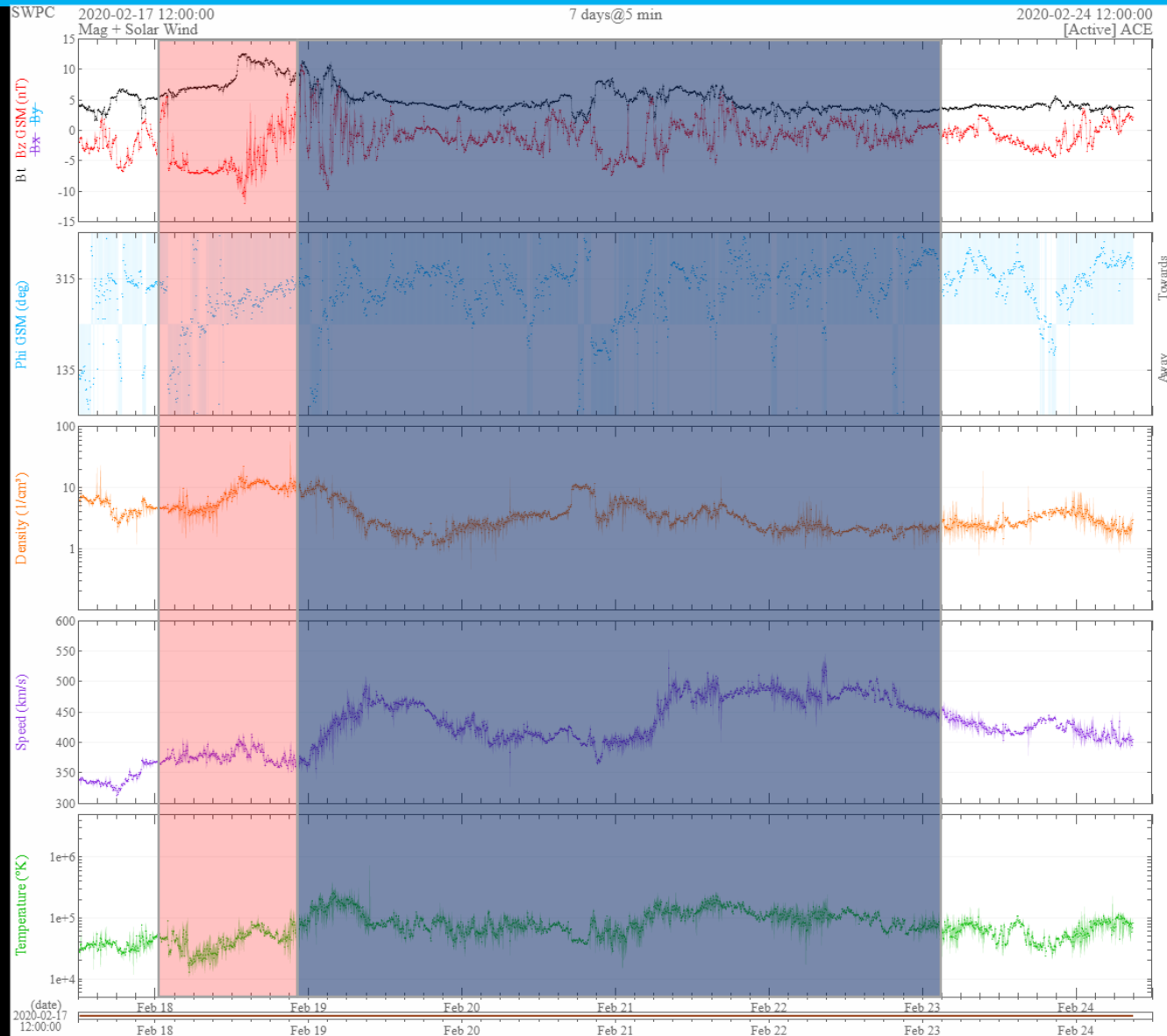
Solar Wind and Geomagnetic Activity



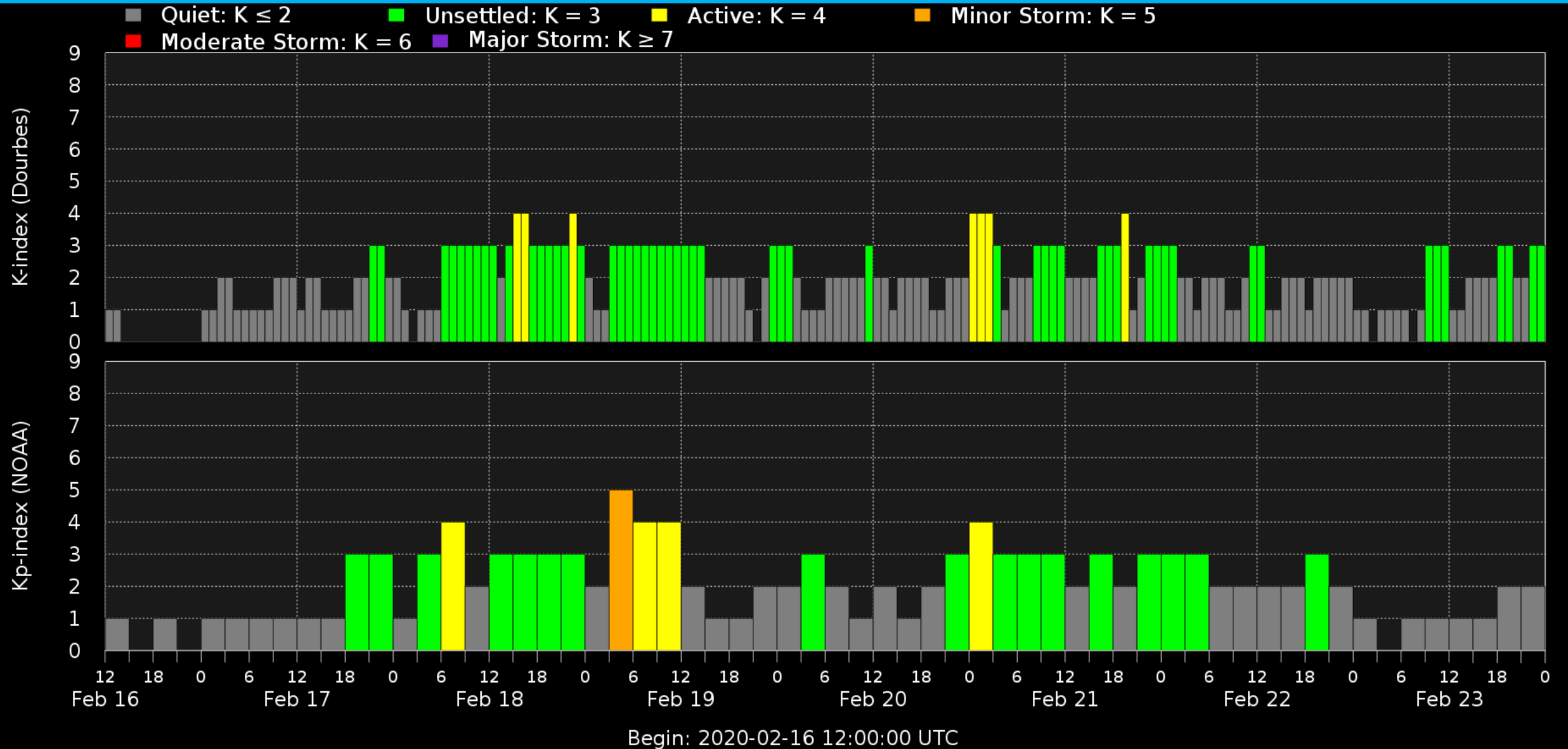
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Solar wind parameters (ACE data)



Geomagnetic activity (K-indexes)



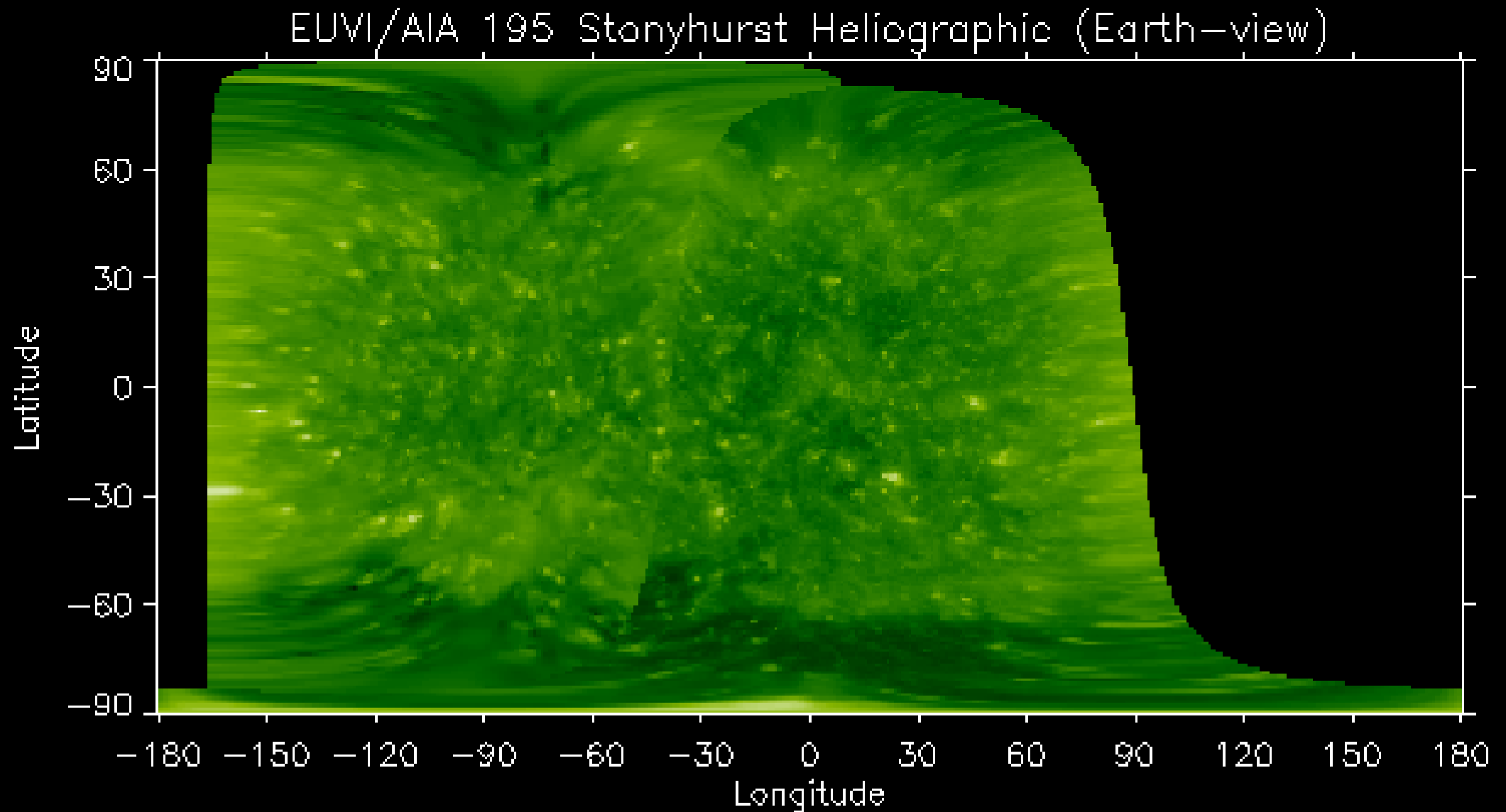
Outlook



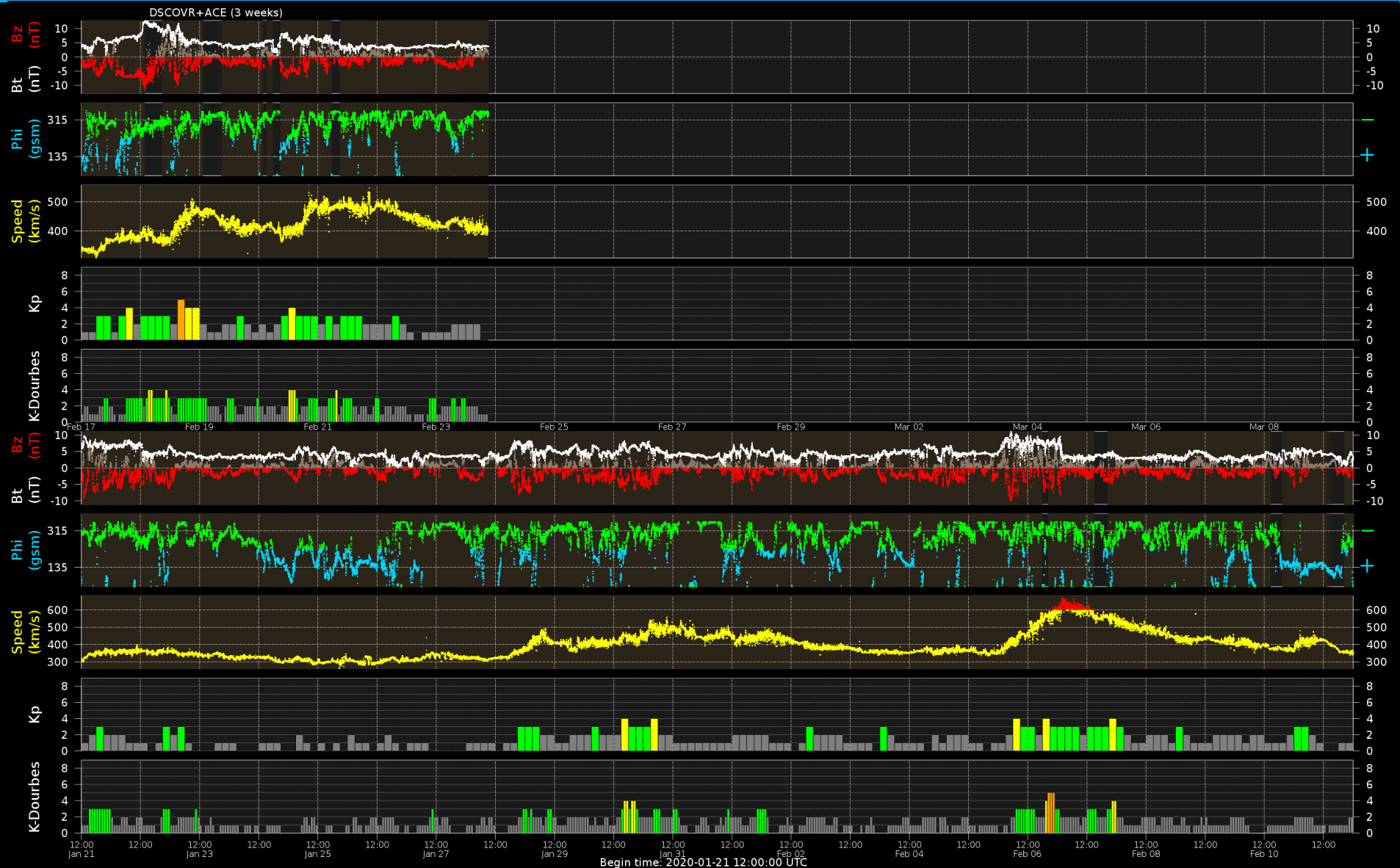
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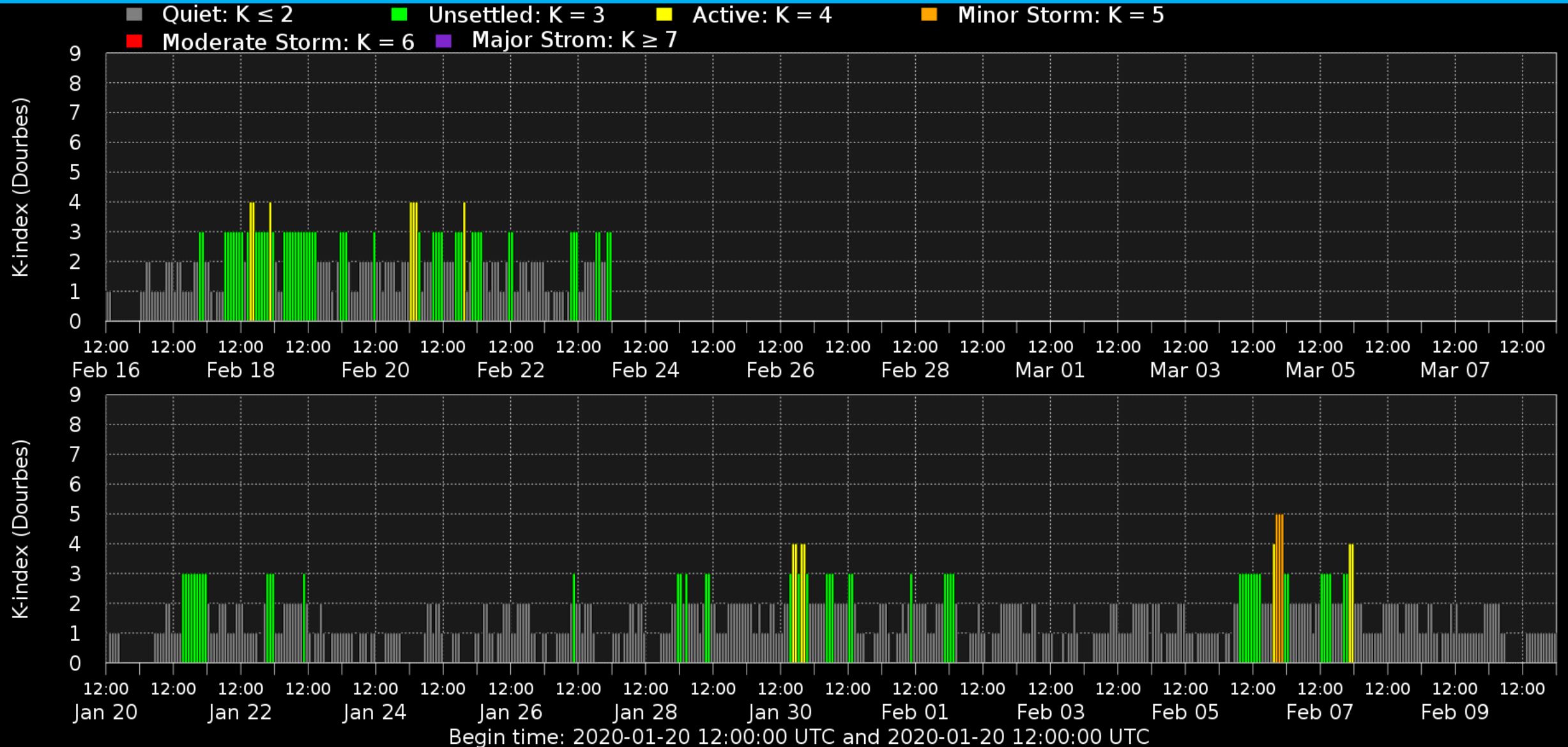
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

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