

SIDC Space Weather Briefing

19 July 2020 - 26 July 2020

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& the SIDC forecaster team



Solar Influences
Data analysis Centre
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Summary Report

Solar activity from 2020-07-19 12:00 UT to 2020-07-26 12:00 UT

Active regions	Catania sunspot groups 37 (NOAA active regions 2767)
Flaring	# B-class flare: 2 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	No filament eruption
CMEs	Faint CME on July 19th. Arrive to Earth on July 24th.
Proton Events	None

Solar wind and geomagnetic conditions from 2020-07-19 12:00 UT to 2020-07-26 12:00 UT

Coronal Holes	2 negative polarity CHs crossed Central Meridian
ICME	Arrive to Earth on July 24th.
SW Conditions	B : 0 - 11 nT // Bz: -10 nT to 10 nT // Speed: 275 – 410 km/s
K-indices	max K-index (Dourbes): 4.0 max Kp-index (NOAA): 4

All Quiet Alert: not all quiet.

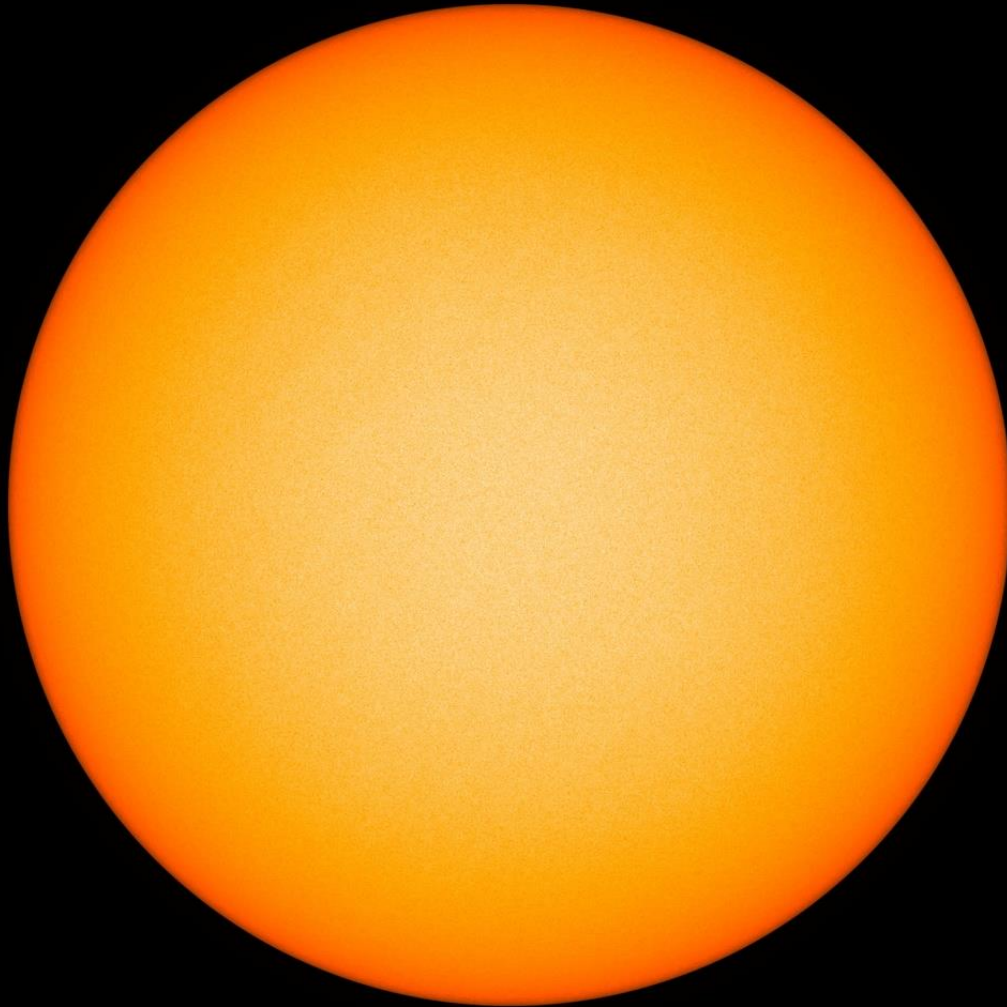
Solar Activity



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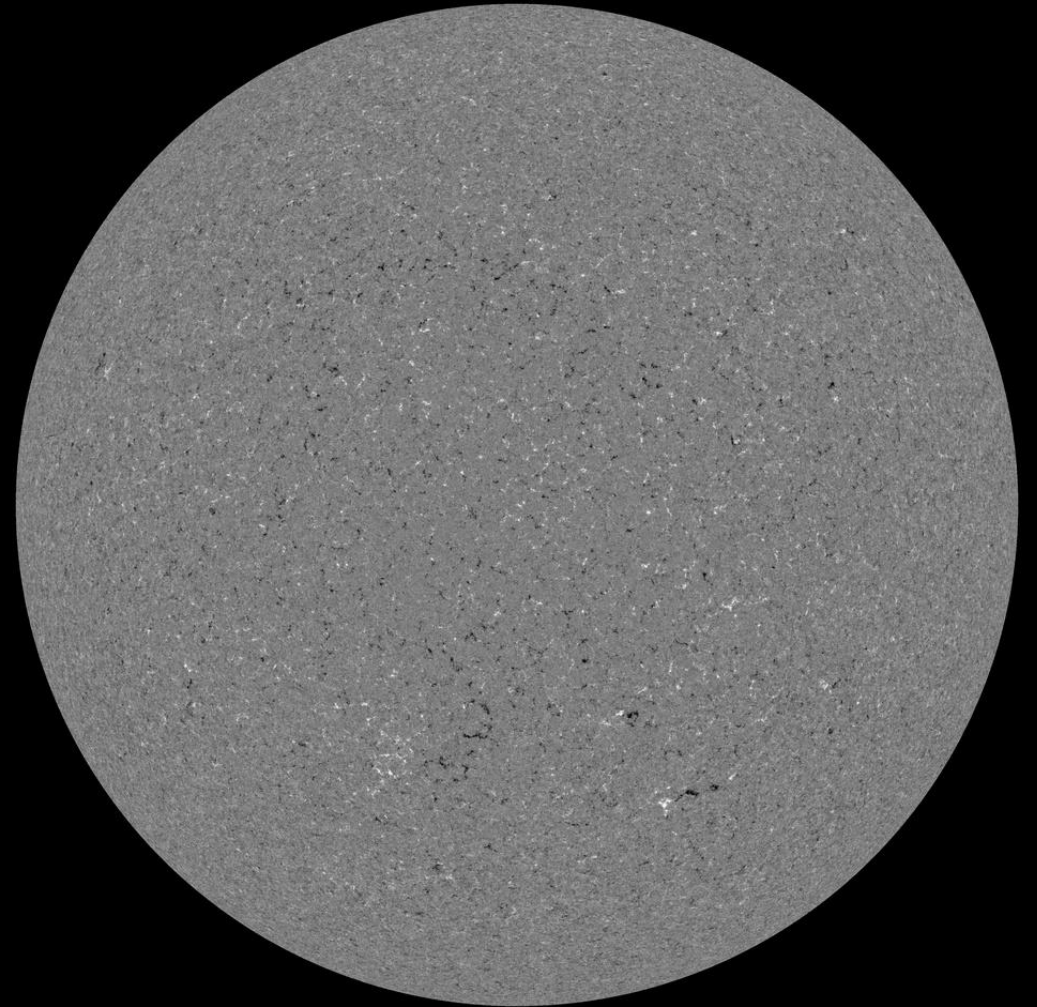
Solar active region - start of the week

SDO/HMI White Light 2020-07-19



SDO/HMI Quick-Look Continuum: 20200719_114500

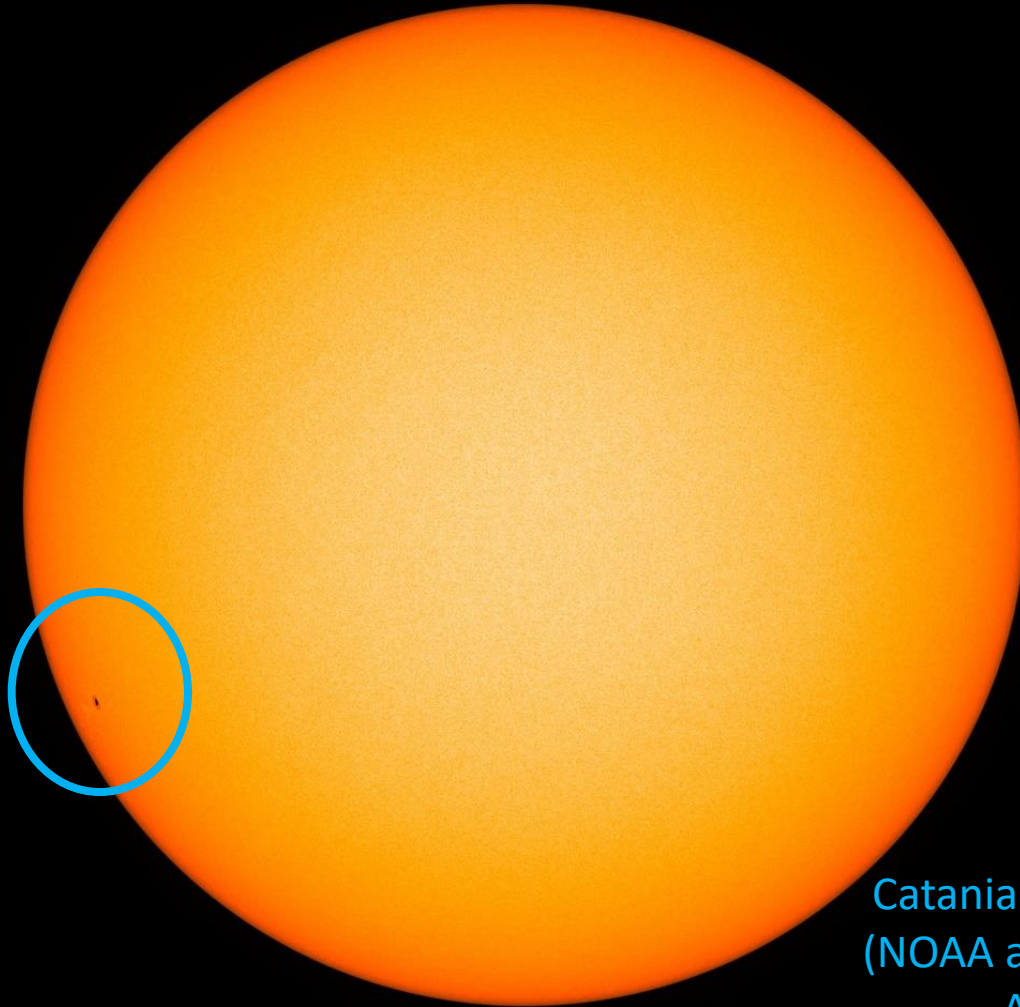
SDO/HMI Magnetogram 2020-07-19



SDO/HMI Quick-Look Magnetogram: 20200719_114500

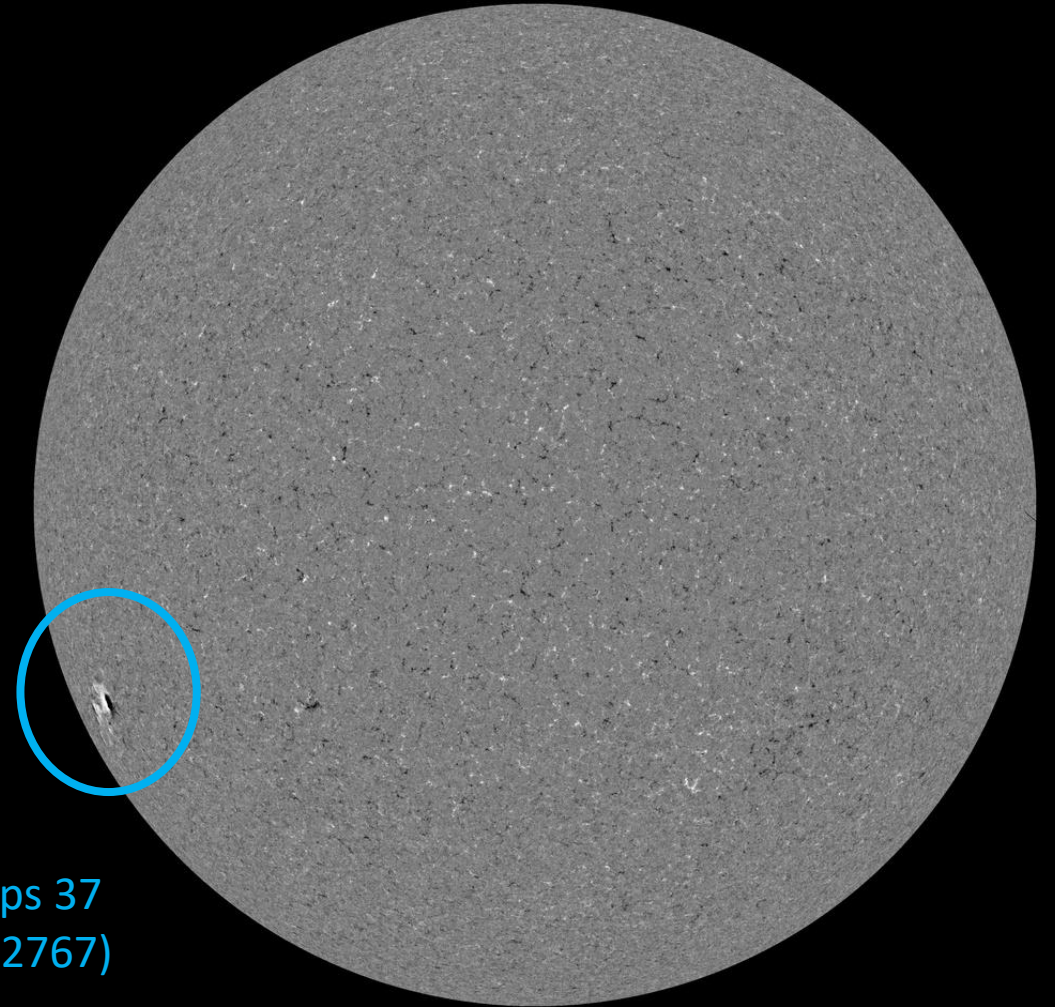
Solar active region - middle of the week

SDO/HMI White Light 2020-07-22



SDO/HMI Quick-Look Continuum: 20200722_114500

SDO/HMI Magnetogram 2020-07-22



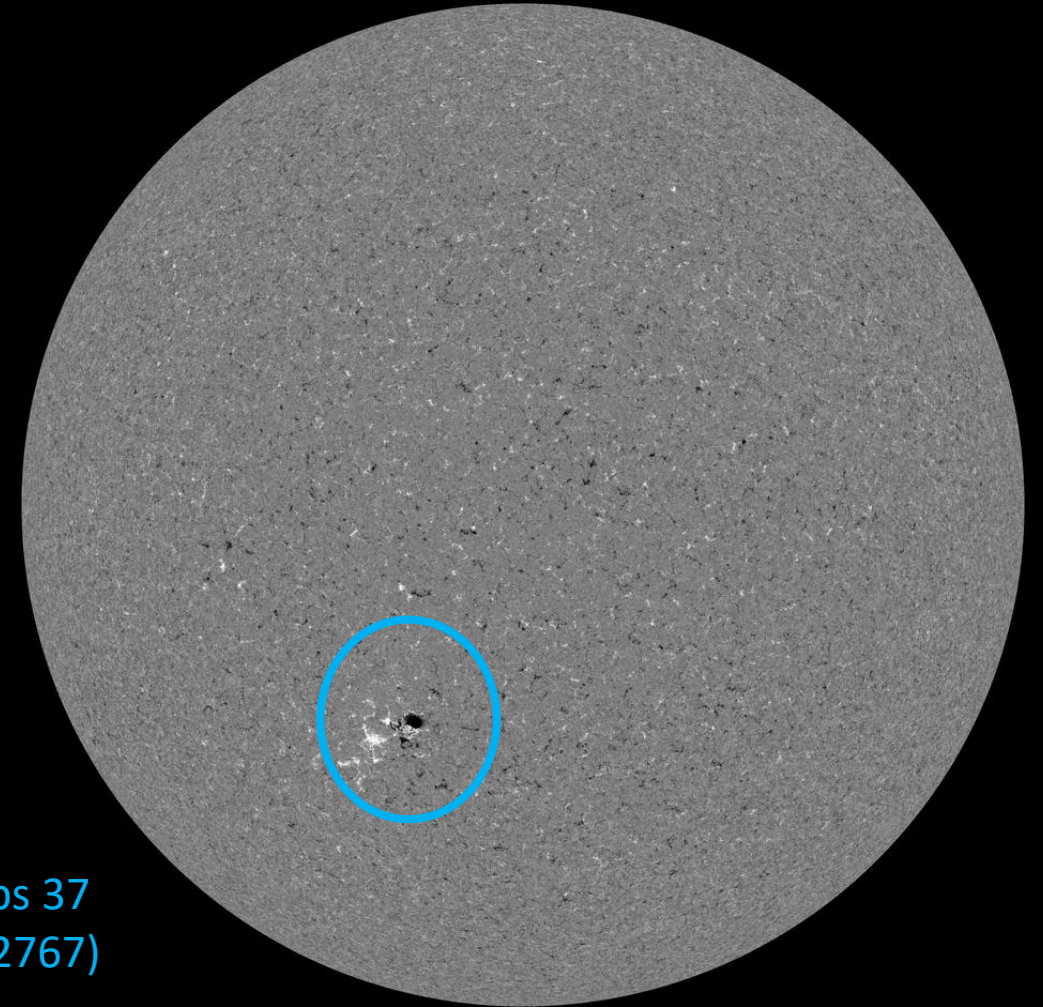
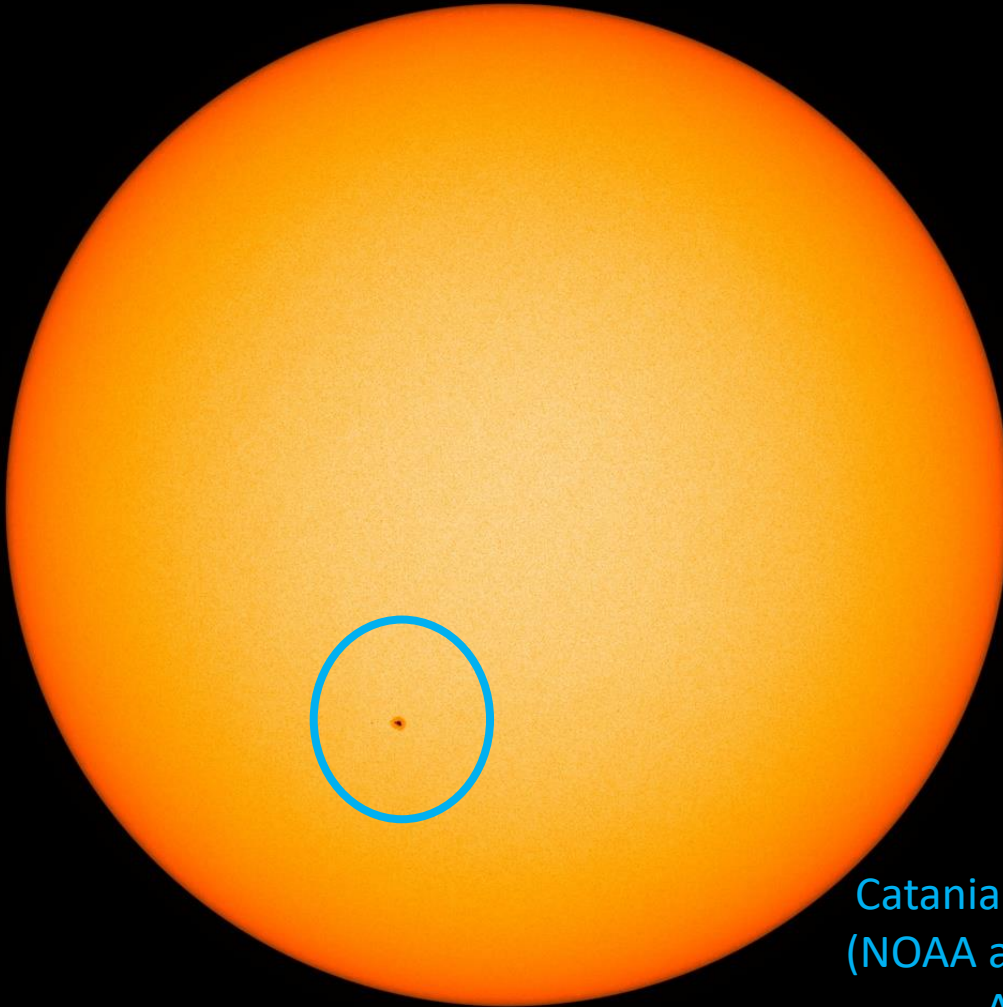
SDO/HMI Quick-Look Magnetogram: 20200722_114500

Catania sunspot groups 37
(NOAA active regions 2767)
Alpha Region

Solar active region - end of the week

SDO/HMI White Light 2020-07-26

SDO/HMI Magnetogram 2020-07-26



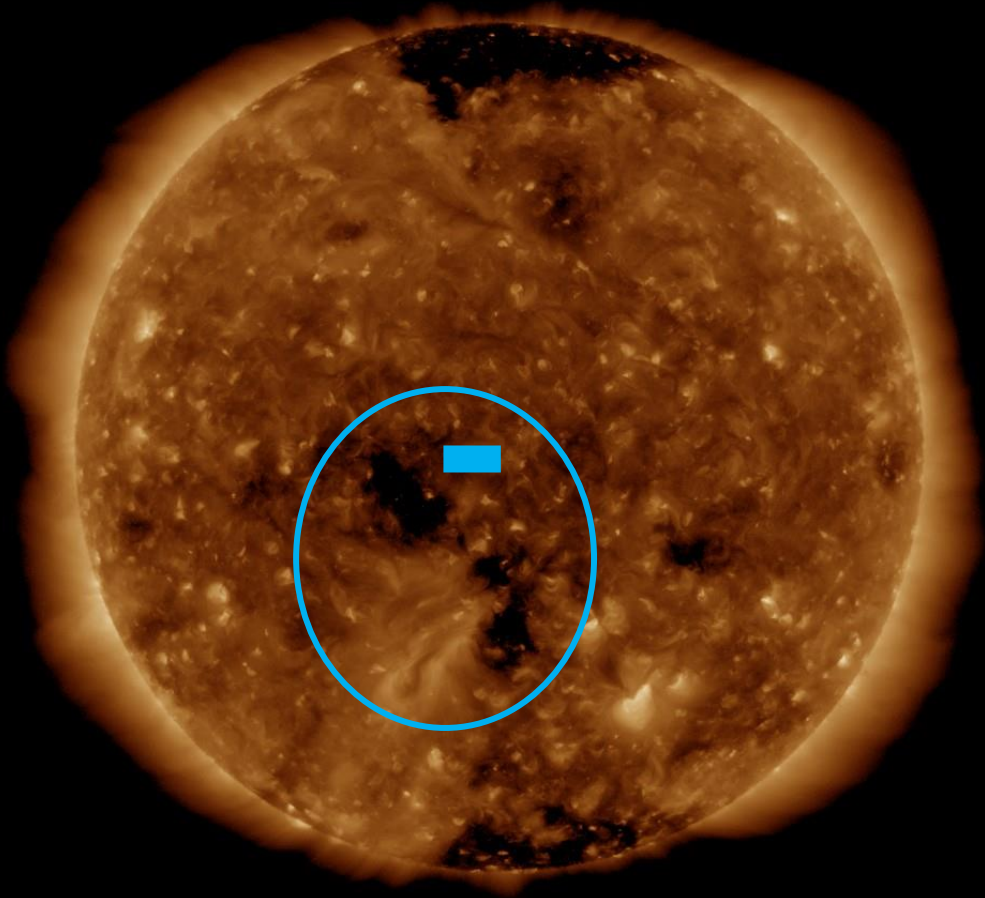
Catania sunspot groups 37
(NOAA active regions 2767)
Alpha Region

SDO/HMI Quick-Look Continuum: 20200726_114500

SDO/HMI Quick-Look Magnetogram: 20200726_114500

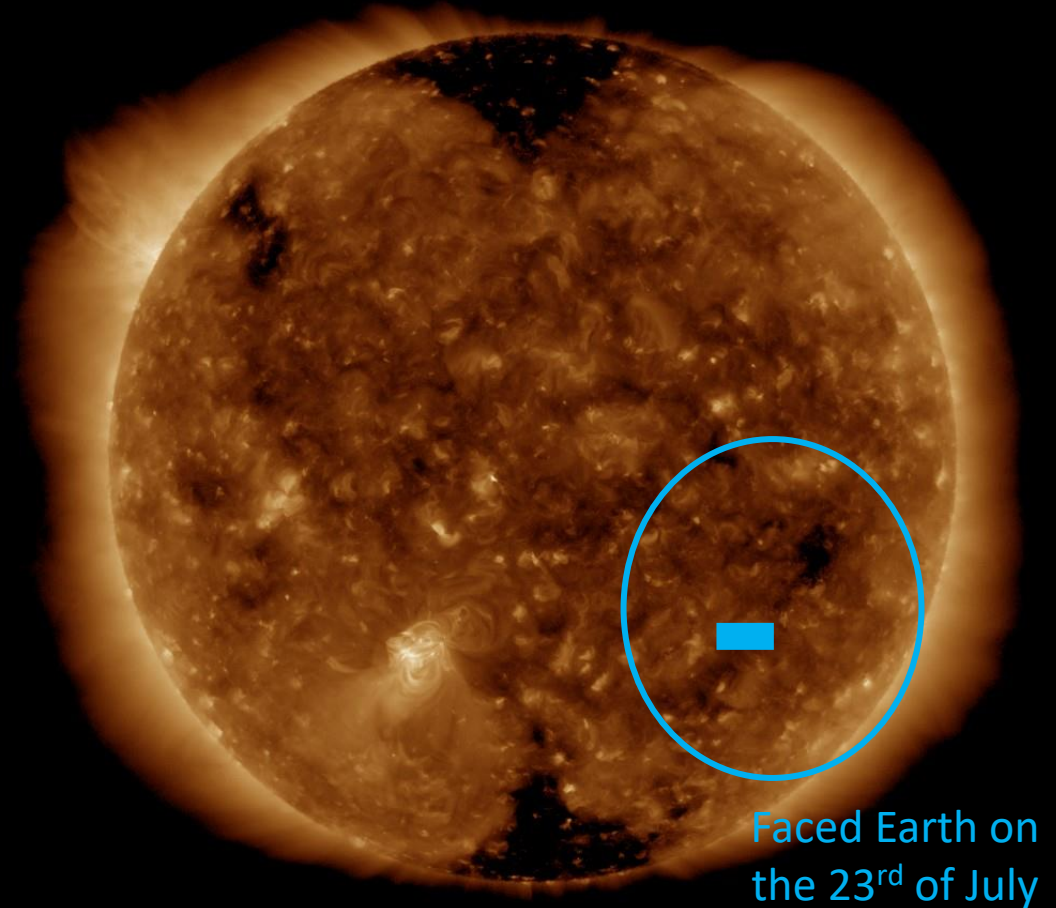
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2020-07-19



SDO/AIA 193 2020-07-19 12:18:05 UT

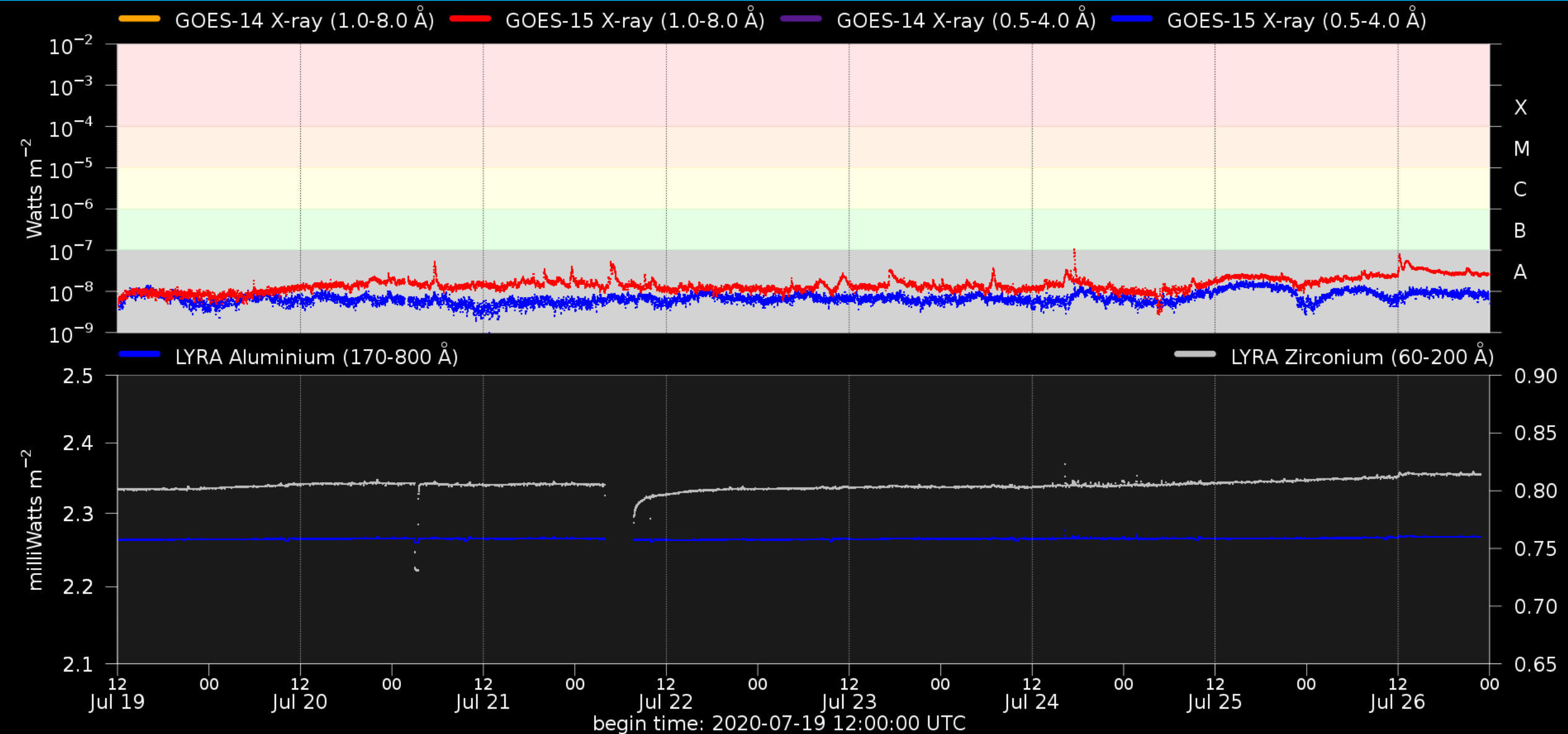
SDO/AIA 19.3 nm 2020-07-26



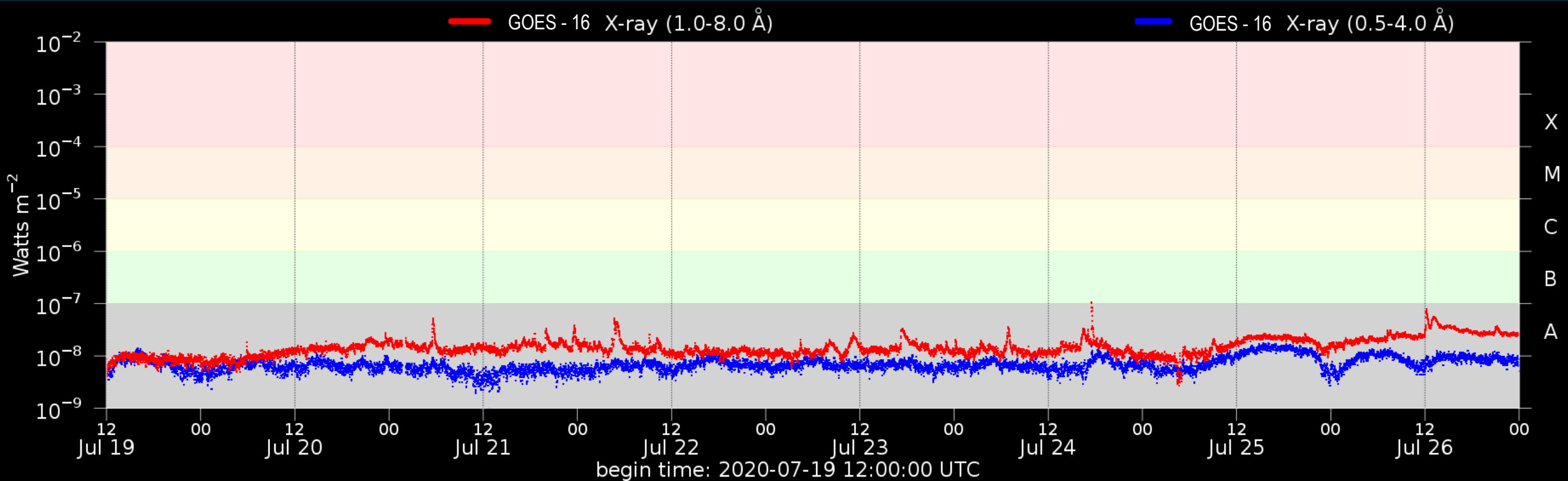
Faced Earth on
the 23rd of July

SDO/AIA 193 2020-07-26 12:17:17 UT

Solar X-Ray and UV flux



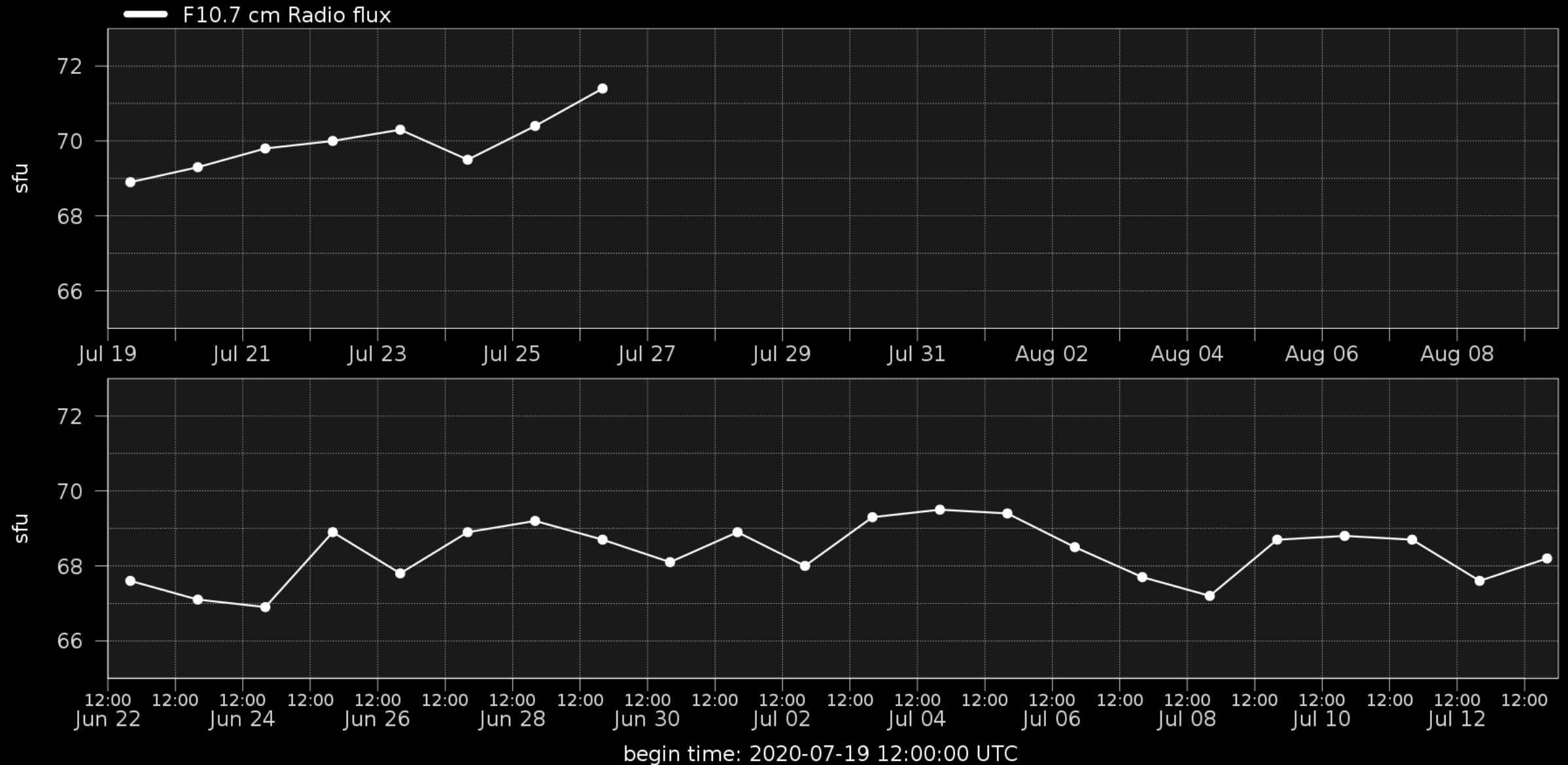
Flaring activity



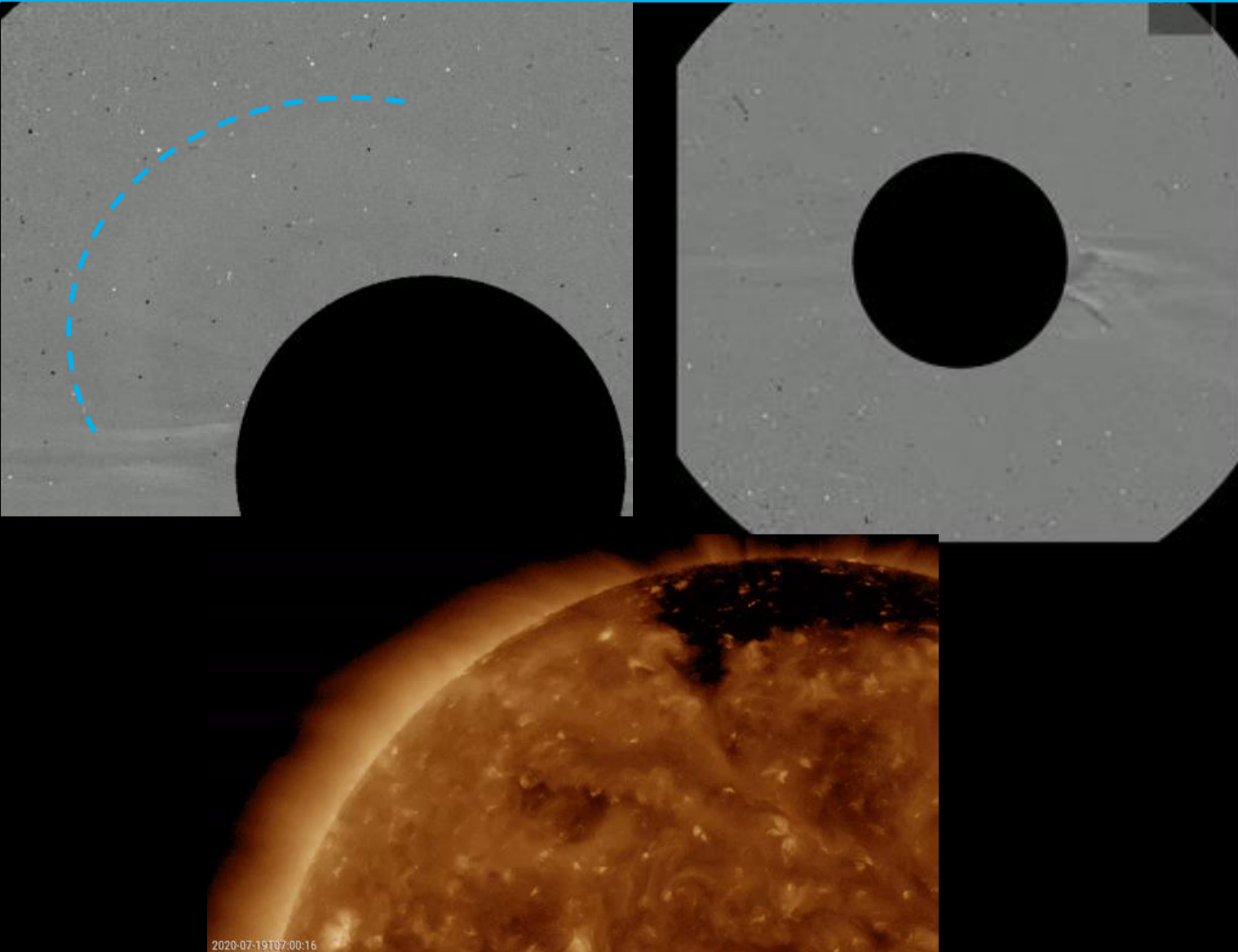
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2020-07-19	2020-07-20	2020-07-21	2020-07-22	2020-07-23	2020-07-24	2020-07-25	2020-07-26
Probability	--- 01 01 01	--- 01 01 01	--- 01 01 01	--- 05 01 01	--- 05 01 01	--- 05 01 01	--- 05 01 01	--- 05 01 01
Observed	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	00 00 00 00	02 00 00 00	00 00 00 00	00 00 00 00

Solar F10.7cm radio flux



Coronal Mass Ejection



S

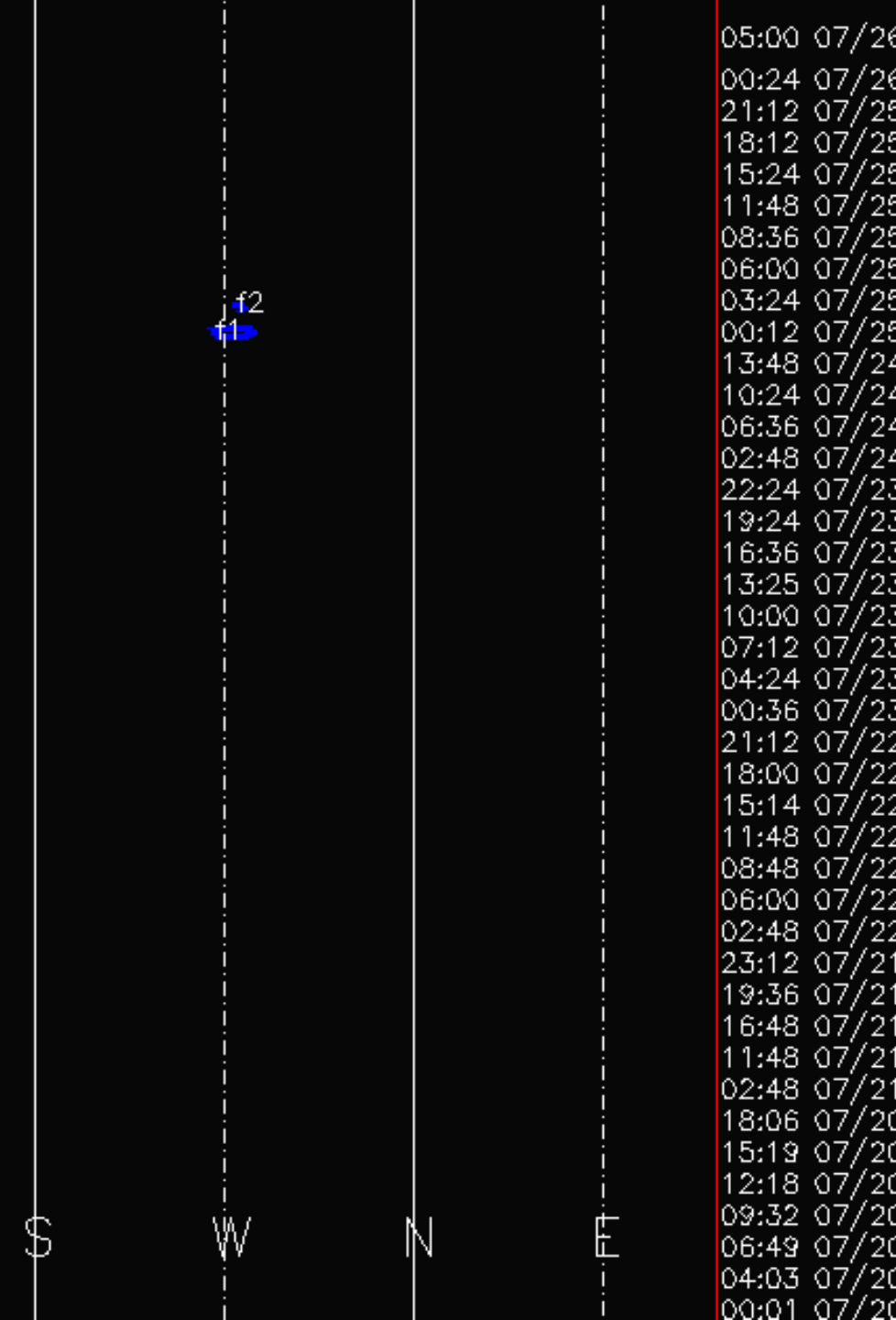
W

N

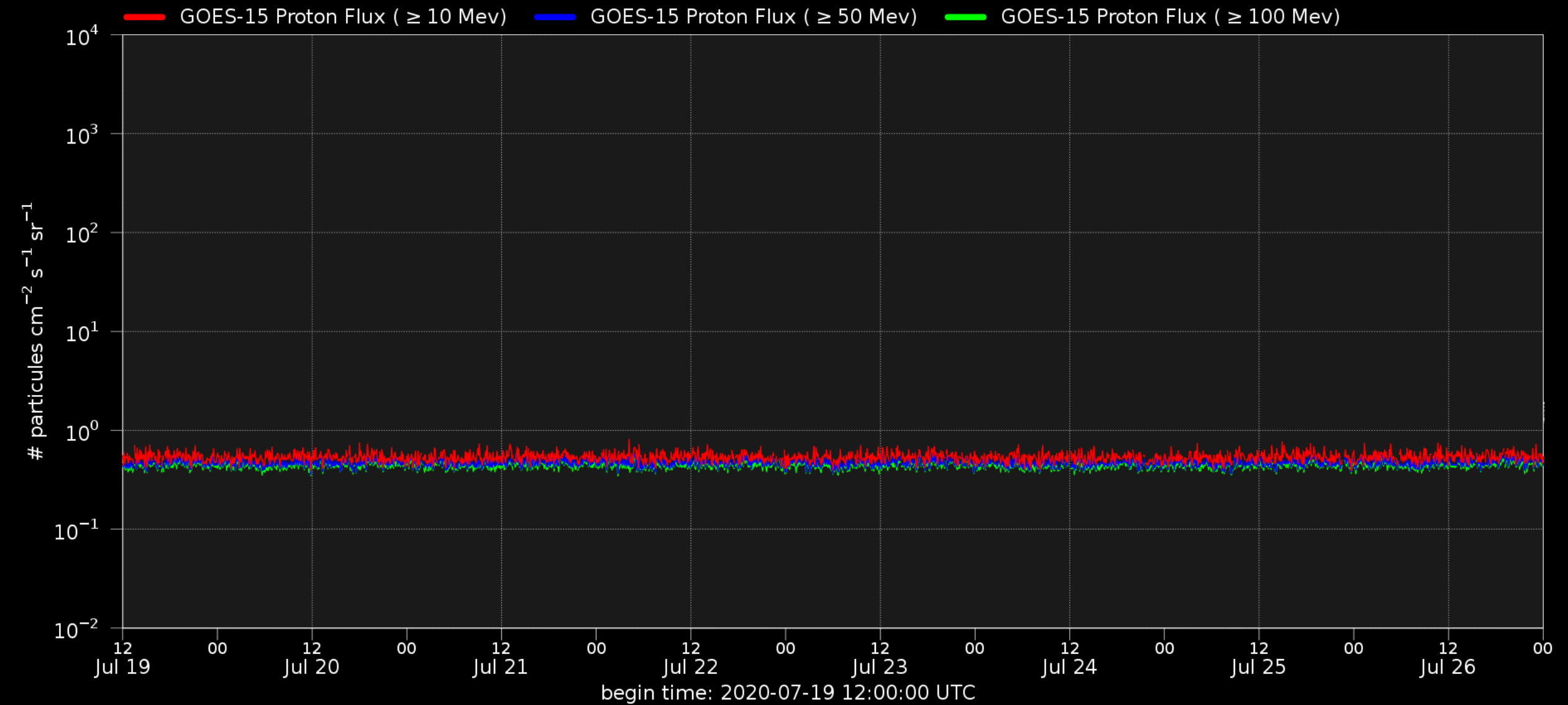
FF

02:36 07/23
16:00 07/22
12:36 07/22
09:48 07/22
06:36 07/22
03:36 07/22
00:00 07/22
20:24 07/21
17:36 07/21
12:24 07/21
03:48 07/21
19:00 07/20
16:17 07/20
12:51 07/20
10:24 07/20
07:33 07/20
05:01 07/20
01:03 07/20
21:53 07/19
19:32 07/19
16:34 07/19
13:13 07/19
10:37 07/19
07:43 07/19
04:57 07/19
01:27 07/19
21:53 07/18
17:09 07/18
13:48 07/18
06:48 07/18
04:00 07/18
00:12 07/18
20:24 07/17
17:48 07/17
15:12 07/17
11:48 07/17
08:24 07/17
04:48 07/17
00:12 07/17

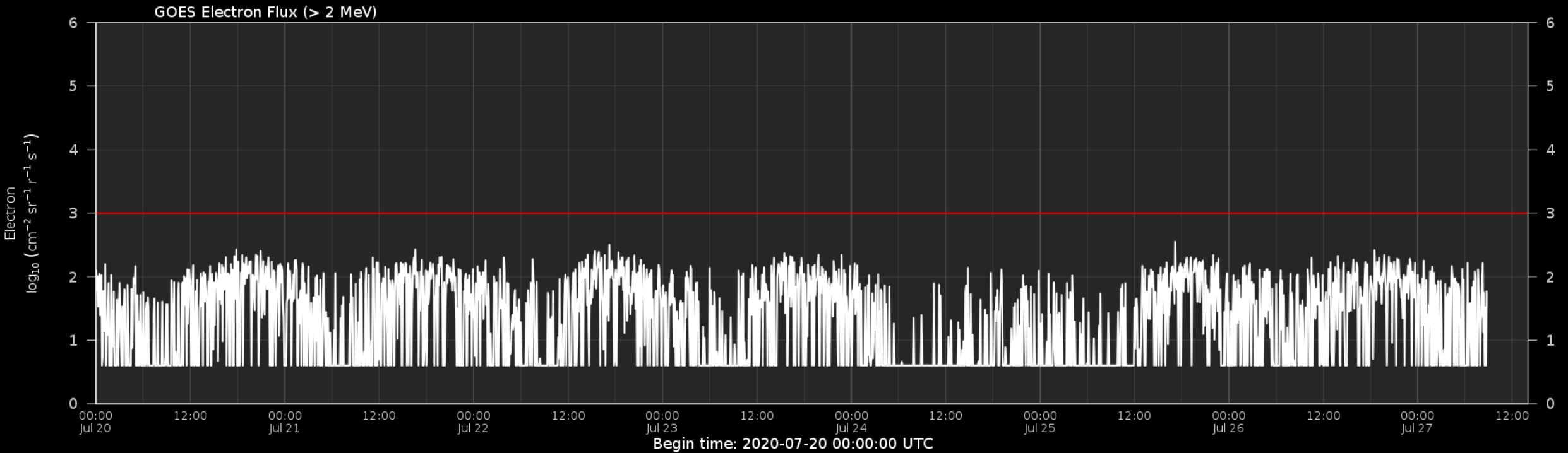
Coronal Mass Ejection



Solar proton flux



GOES > 2 MeV electron flux

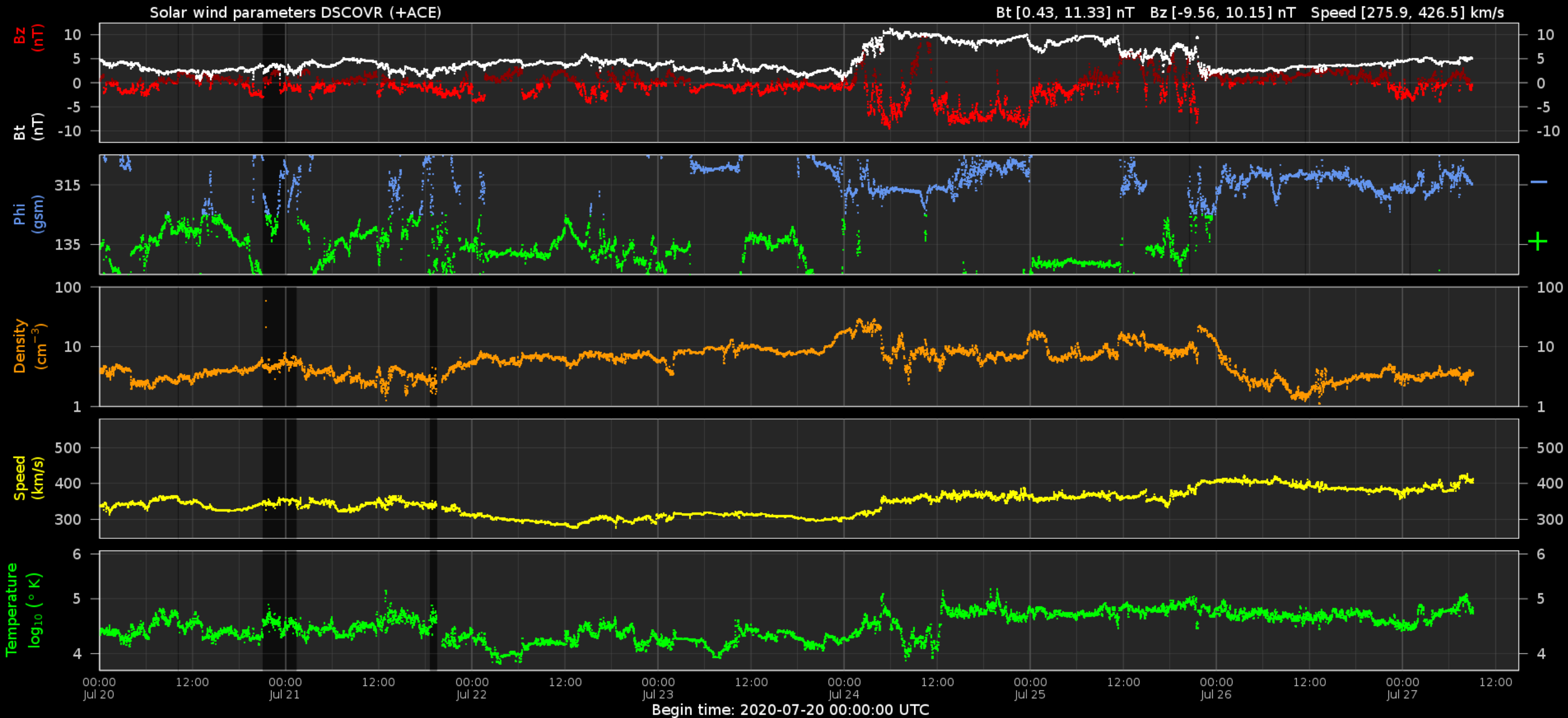


Solar Wind and Geomagnetic Activity



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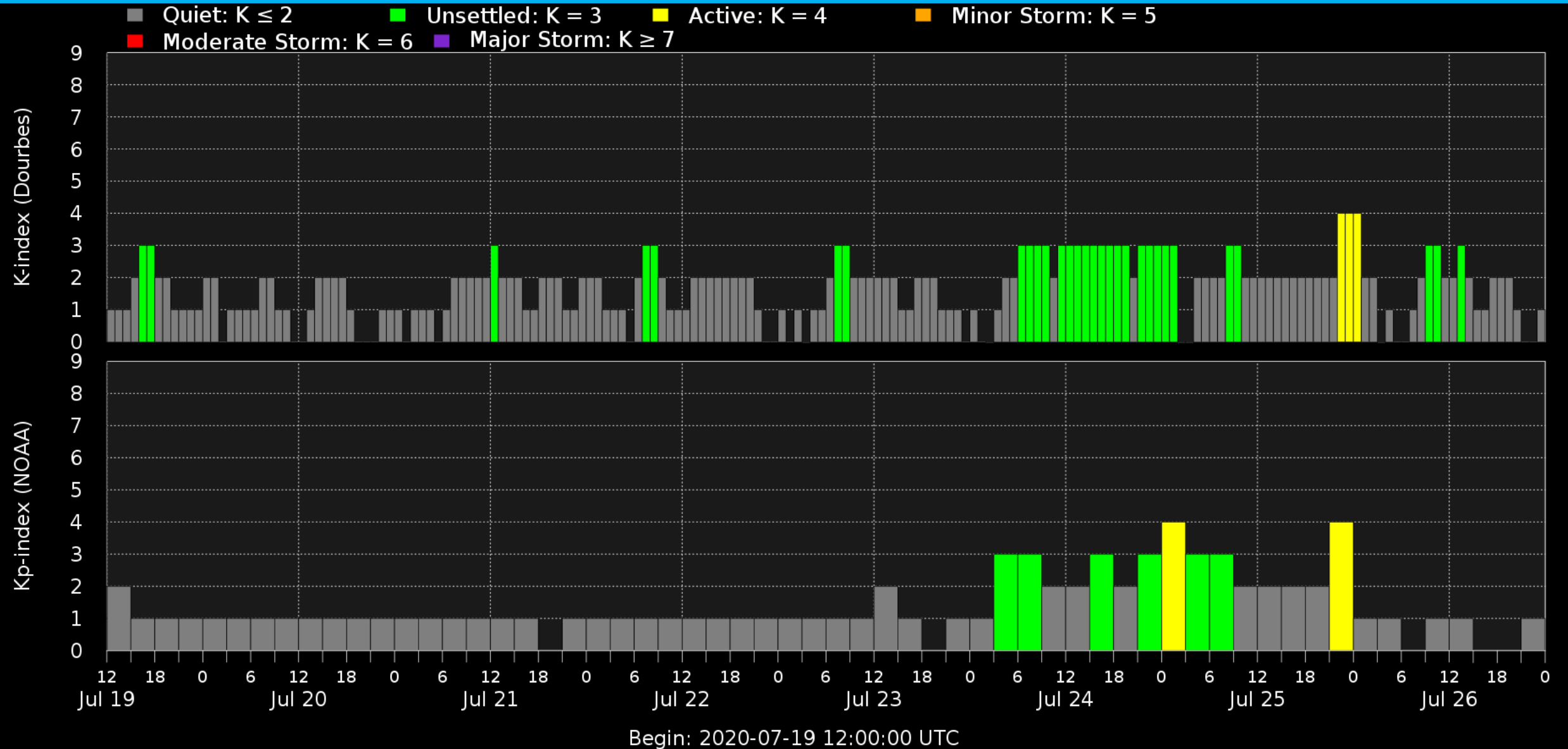
Solar wind parameters (DSCOVR data)



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



Geomagnetic activity (K-indexes)



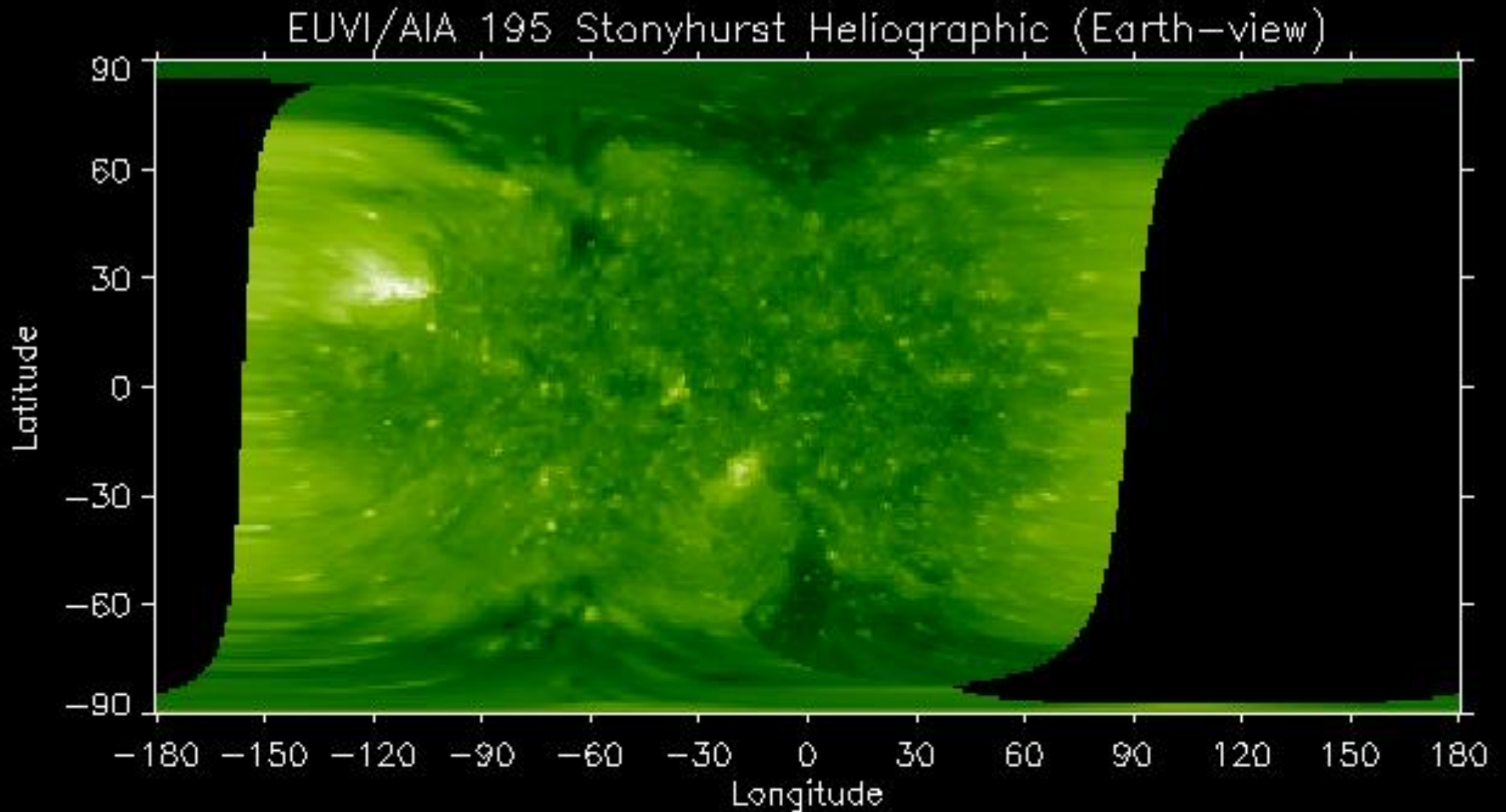
Outlook



Royal Observatory
of Belgium

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Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



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