

SIDC Space Weather Briefing

21 March 2021 - 28 March 2021

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& the SIDC forecaster team



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Summary Report

Solar activity from 2021-03-21 12:00 to 2021-03-28 23:59

Active regions	NOAA ARs 2810, 2811, 2812
Flares	# C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filament eruptions	One in the north, related to a CME
Coronal Holes	One influencing the Earth at the beginning of the week, and a weak one at the end

Proton flux	Normal levels
Electron flux	Fluctuating, elevated first part of the week

Solar wind and geomagnetic conditions

ICME	2 (weak)
SW Conditions	B : 0.36 - 8.89 nT // Bz: -7.51 nT to 6.55 nT // Speed: 335.1 - 682.4km/s
K-indices	max K-index (Dourbes): 5 max Kp-index (NOAA): 5

All Quiet Alert: Off

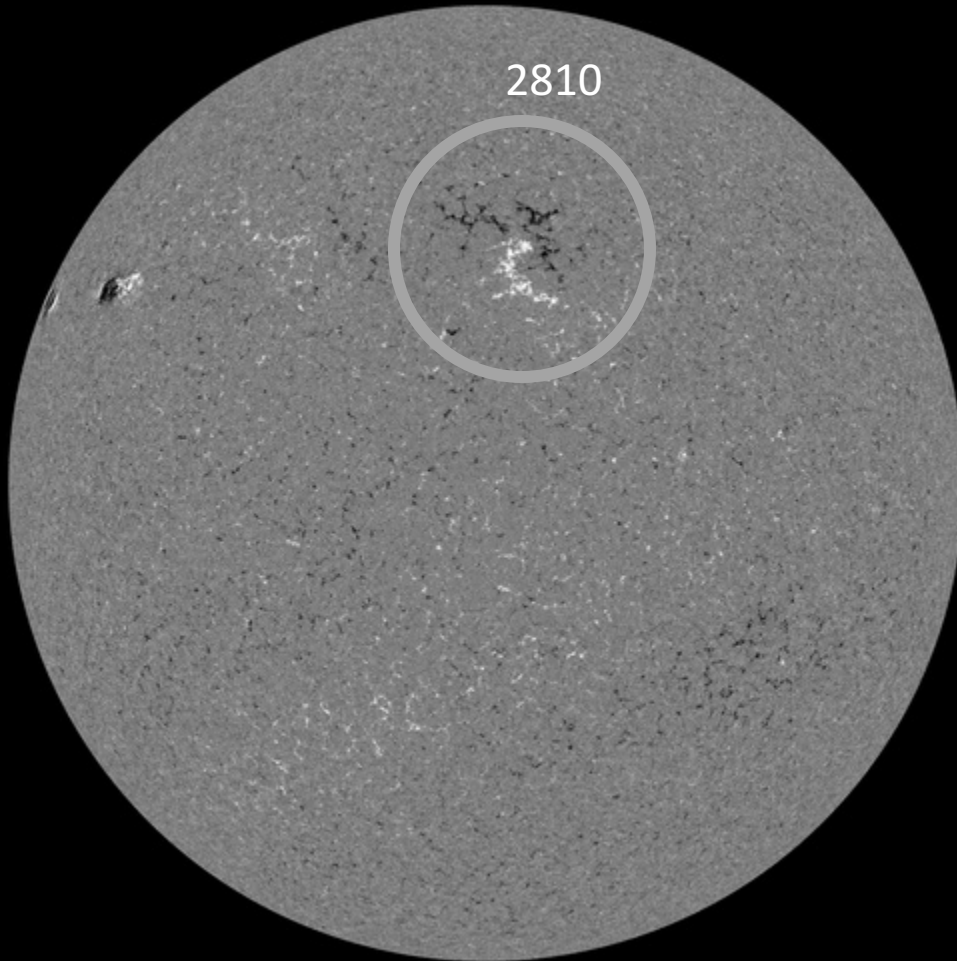
Solar Activity



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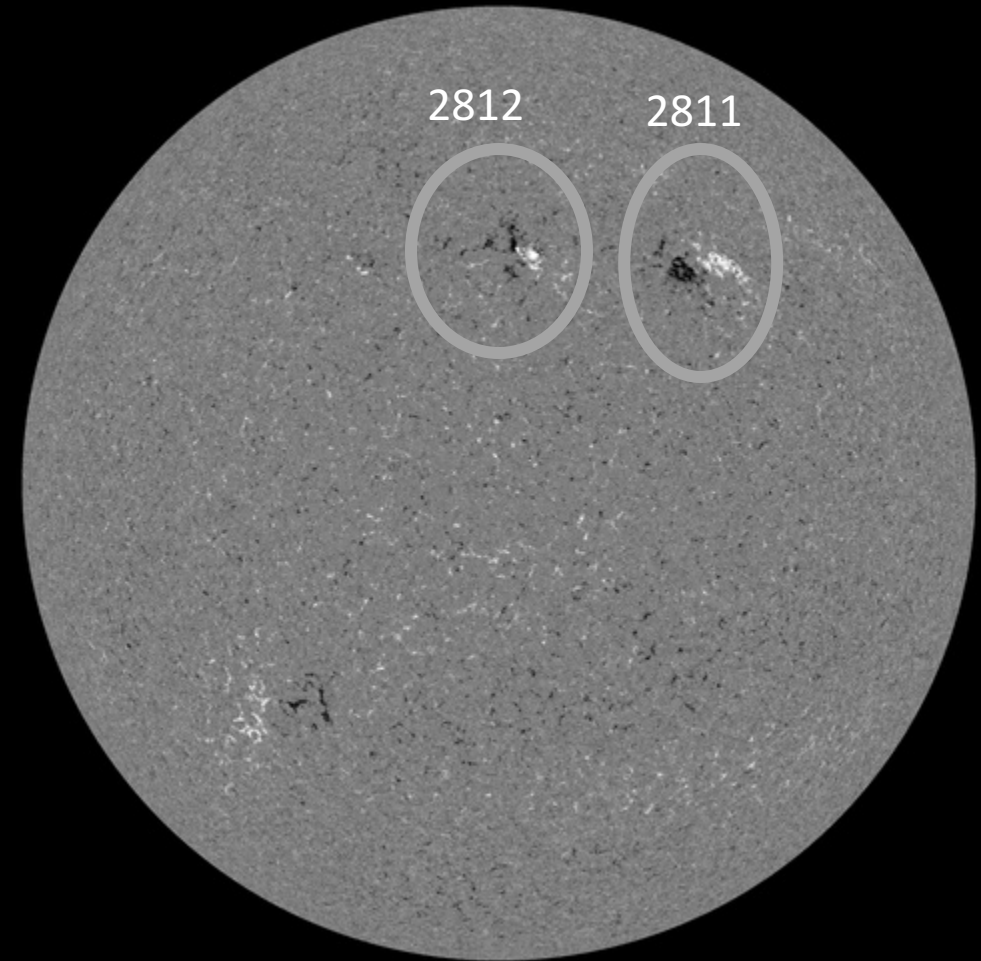
Solar active regions

HMI magnetogram 22 March



SDO/HMI Quick-Look Magnetogram: 20210322_091500

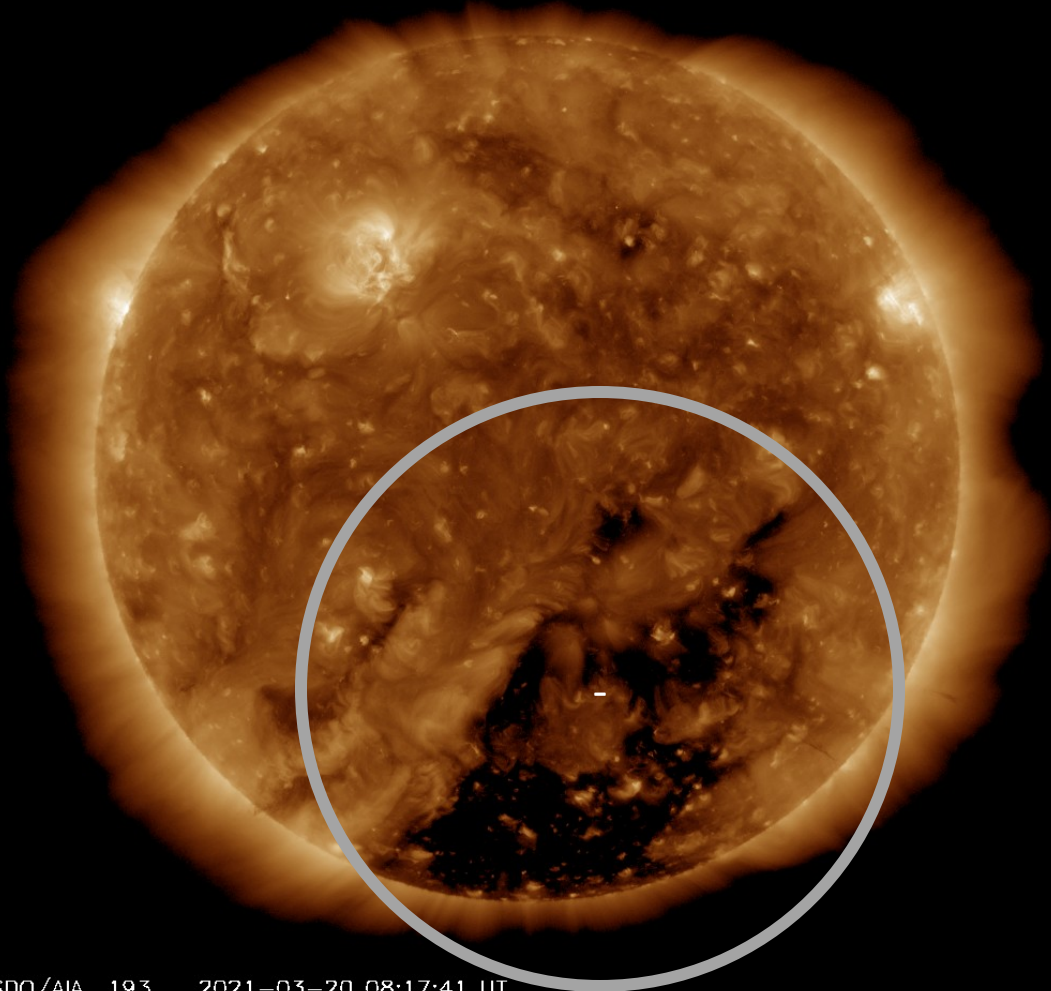
HMI magnetogram 28 March



SDO/HMI Quick-Look Magnetogram: 20210328_153000

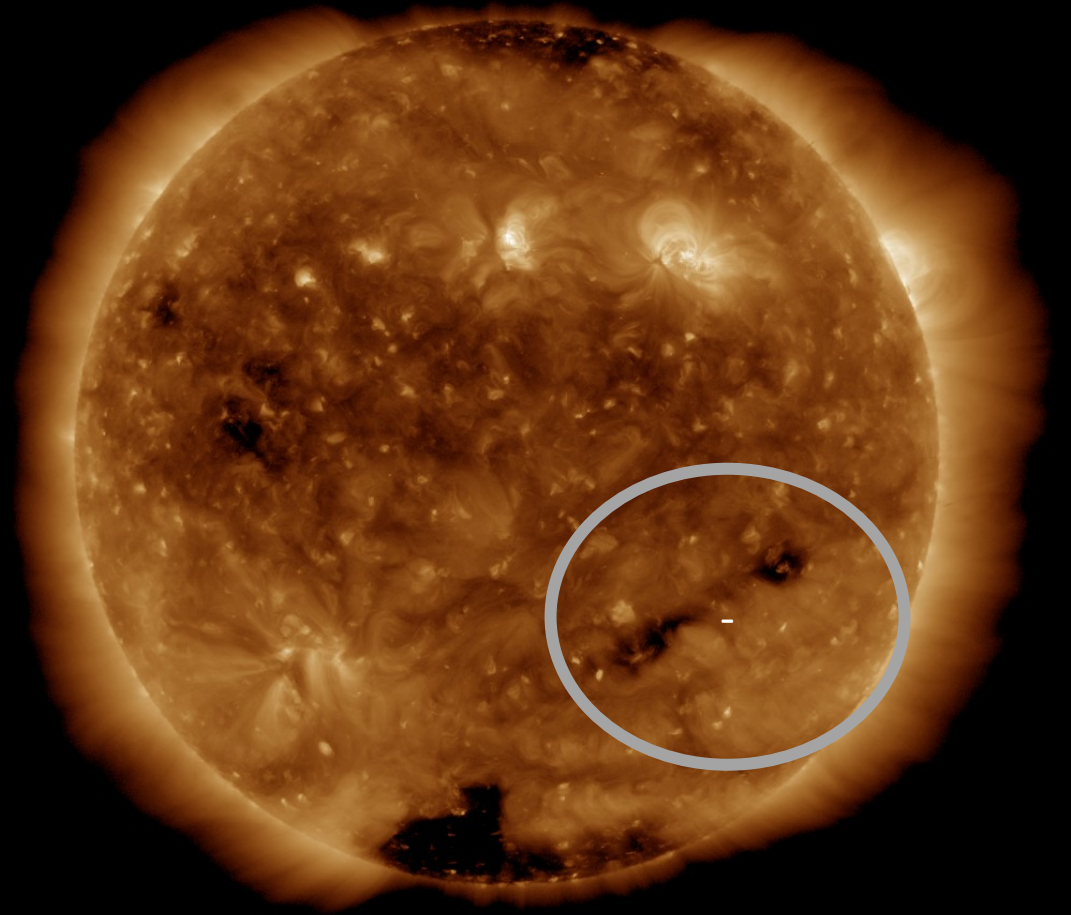
Coronal holes

SDO/AIA 19.3 nm 2021-03-20



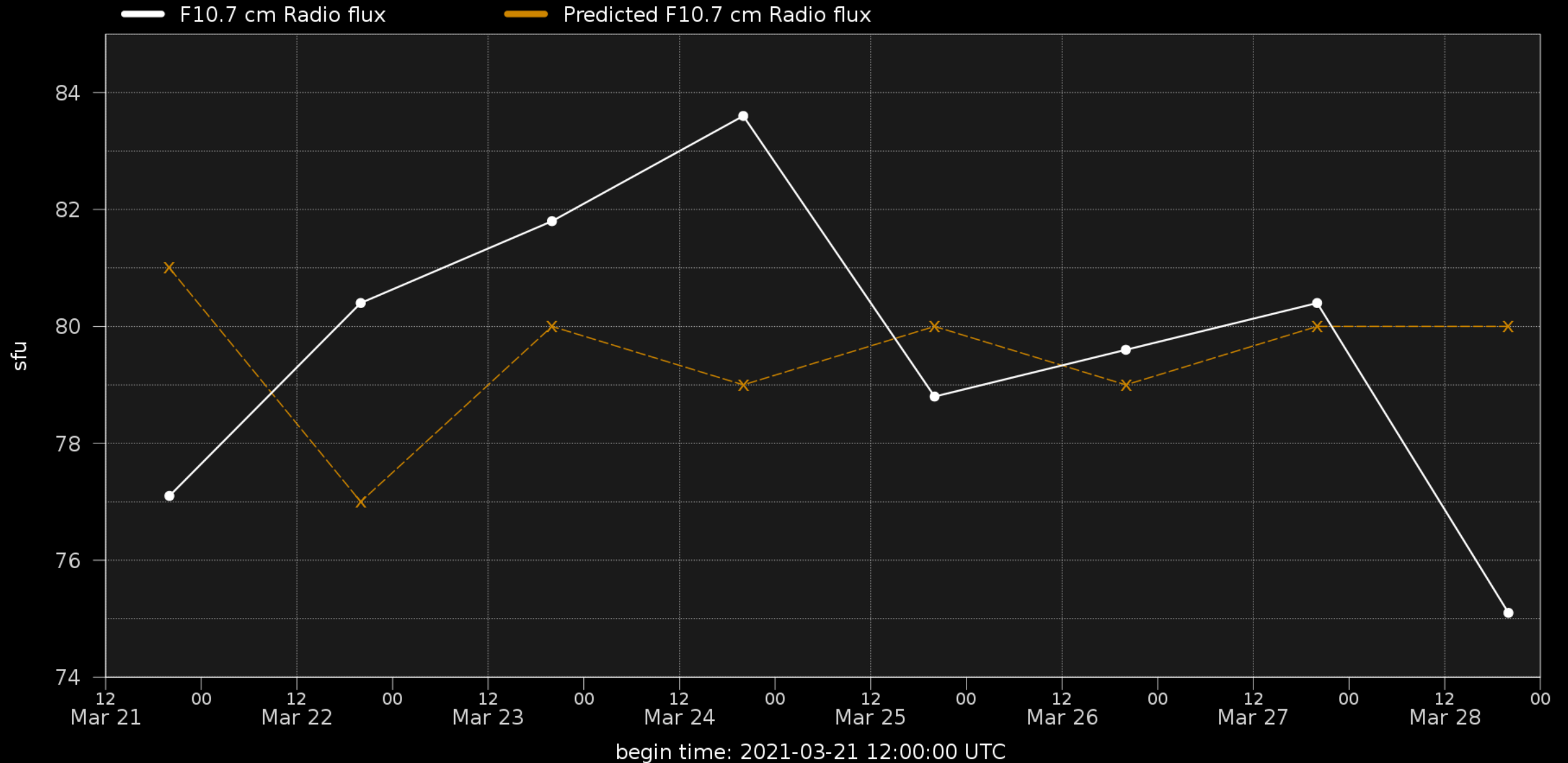
SDO/AIA 193 2021-03-20 08:17:41 UT

SDO/AIA 19.3 nm 2021-03-28

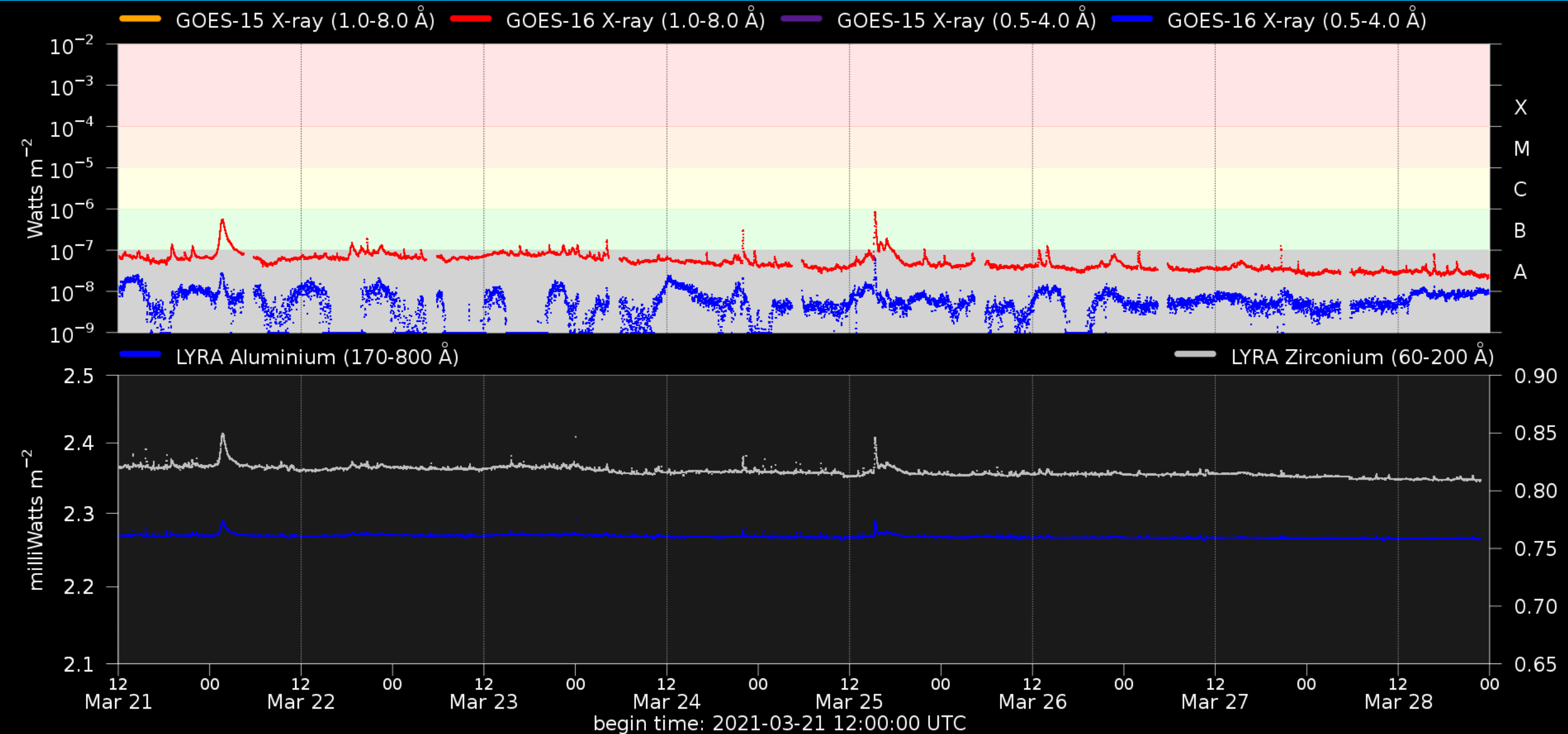


SDO/AIA 193 2021-03-28 12:17:41 UT

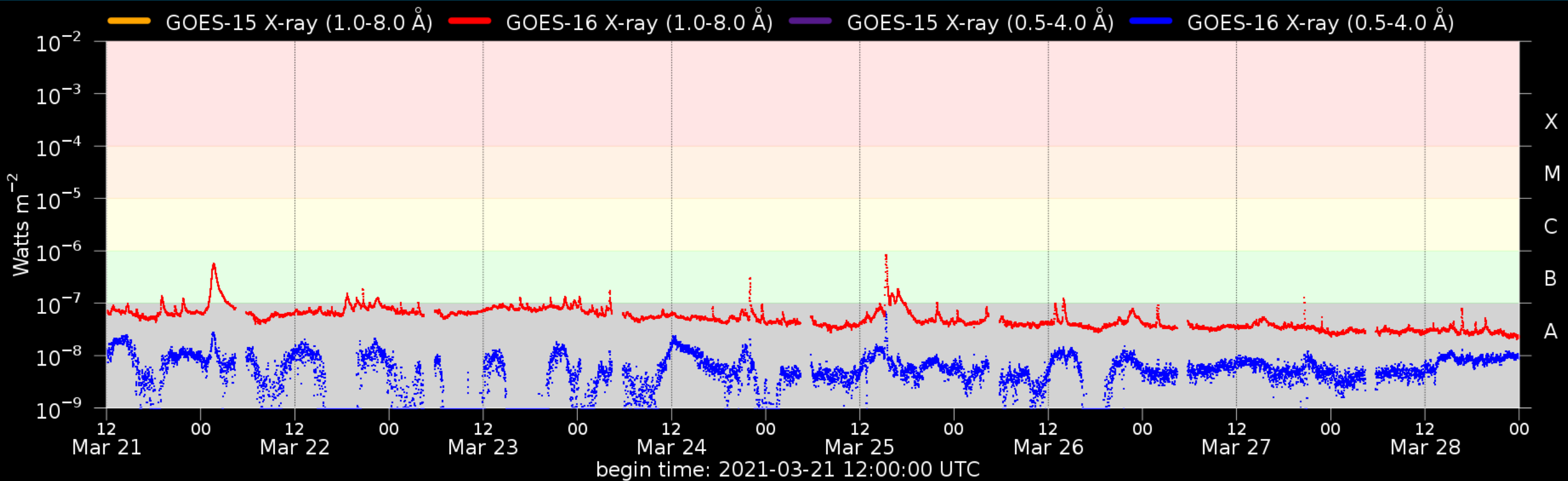
Solar F10.7cm radio flux



Solar X-Ray and UV flux



Flaring activity

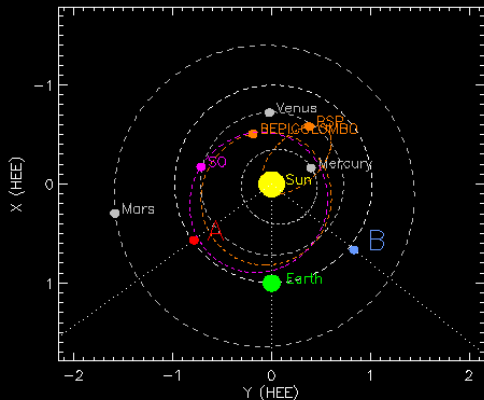
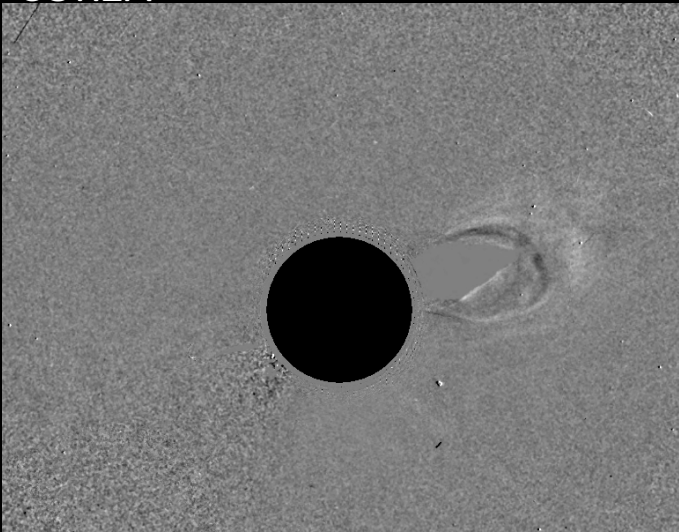


Probabilities (%) and occurrences (#) of C/M/X-flares issued at 12:30 and over the next 24h:

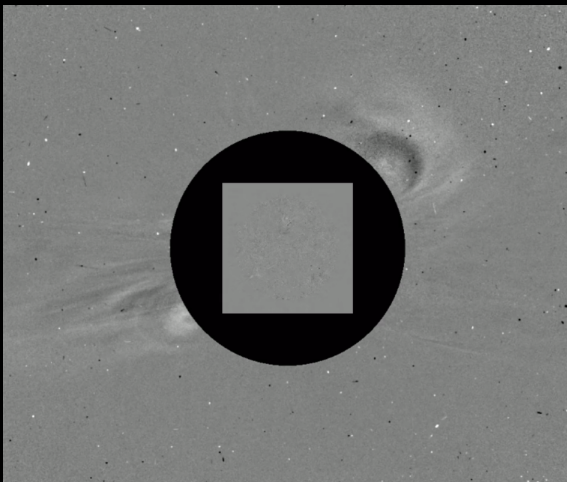
Issue date	2021-03-21	2021-03-22	2021-03-23	2021-03-24	2021-03-25	2021-03-26	2021-03-27	2021-03-28
Probability (%)	10 01 01	10 01 01	05 01 01	15 01 01	06 01 01	15 01 01	10 01 01	10 01 01
Observed (#)	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00

Coronal Mass Ejections: 22 March

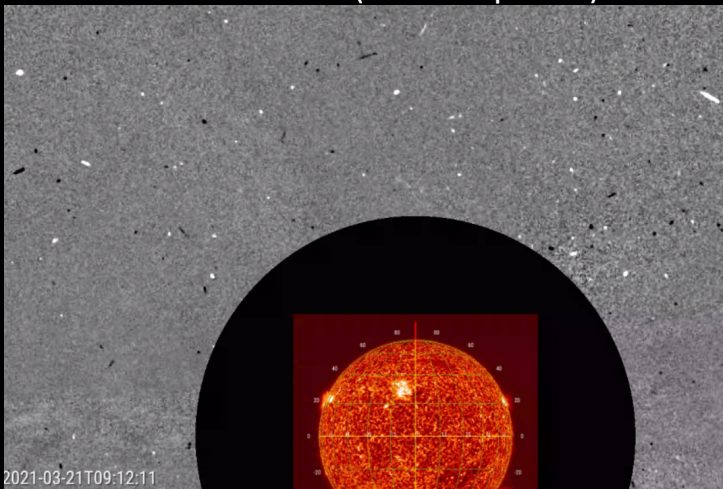
COR2A



LASCO-AIA



LASCO-AIA (Dana Talpenau)



f4

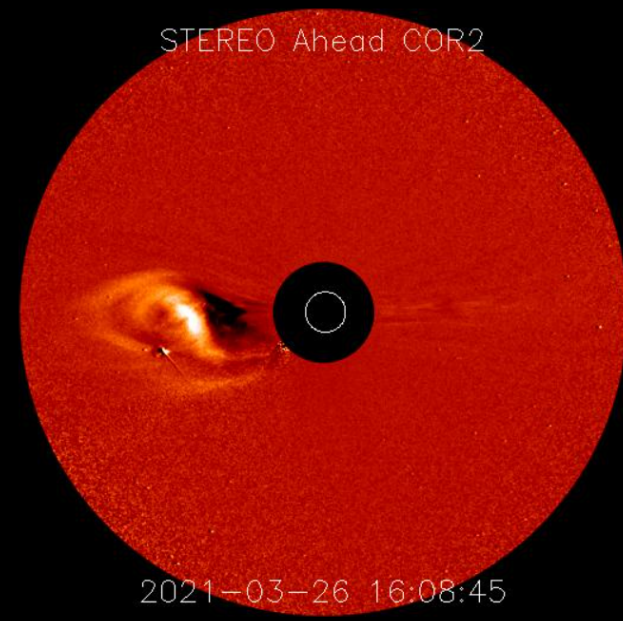
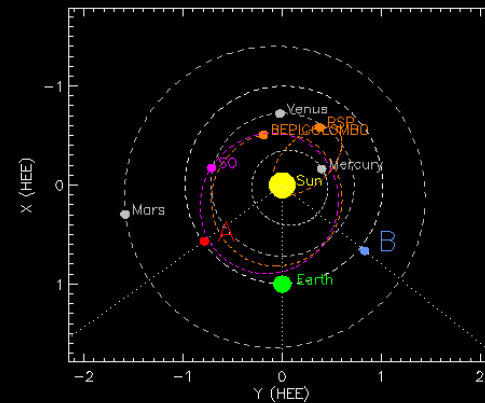
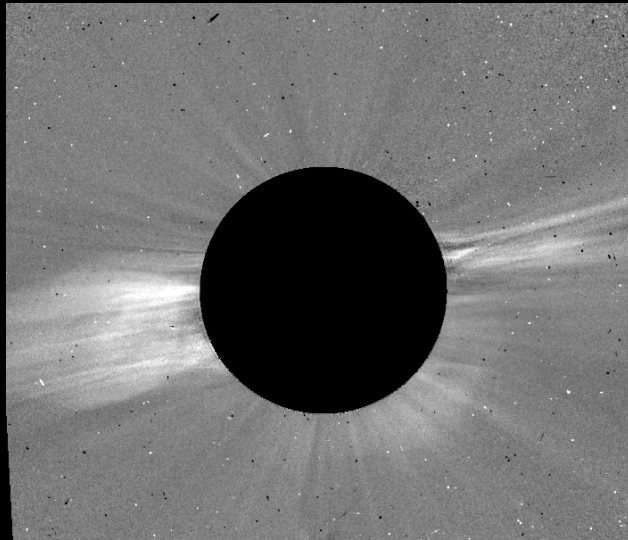
c5

c4

15:23
14:13
14:11

08:38	03/27
21:36	03/27
18:36	03/27
16:00	03/27
12:48	03/27
10:00	03/27
07:12	03/27
04:54	03/27
02:06	03/27
22:36	03/26
19:36	03/26
16:38	03/26
12:48	03/26
10:00	03/26
06:12	03/26
02:24	03/26
22:24	03/25
19:12	03/25
16:36	03/25
13:25	03/25
10:12	03/25
07:00	03/25
04:30	03/25
01:30	03/25
22:12	03/24
18:48	03/24
16:00	03/24
12:42	03/24
09:48	03/24
06:36	03/24
04:00	03/24
00:36	03/24
20:48	03/23
18:00	03/23
15:36	03/23
12:36	03/23
10:00	03/23
07:00	03/23
04:00	03/23
00:24	03/23
21:24	03/22
18:12	03/22
14:48	03/22
11:48	03/22
09:12	03/22

Coronal Mass Ejections: 26 March



f4

c5

c4

15:23
14:13
14:11

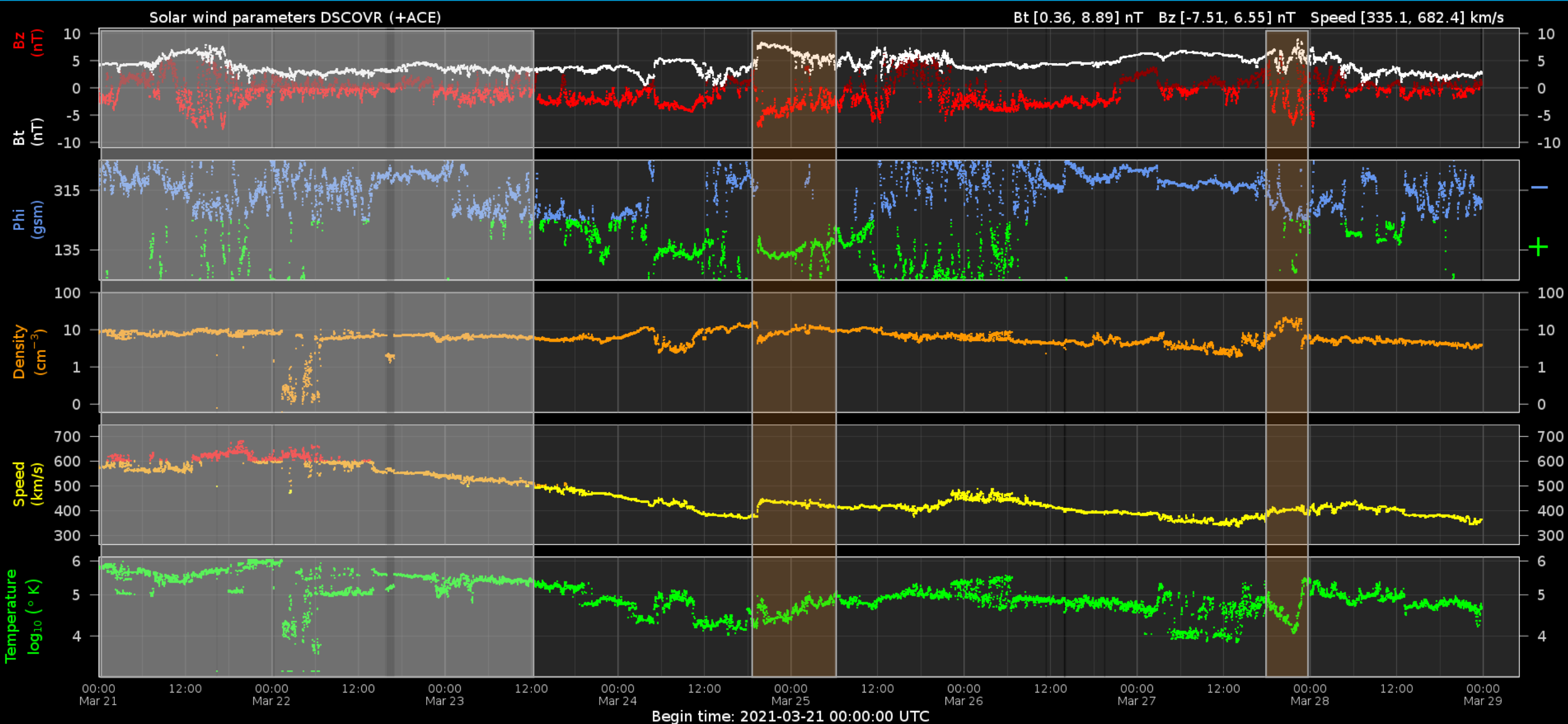
03:38 03/26
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18:36 03/27
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16:36 03/25
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07:00 03/25
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11:48 03/22
09:12 03/22

Solar Wind and Geomagnetic Activity

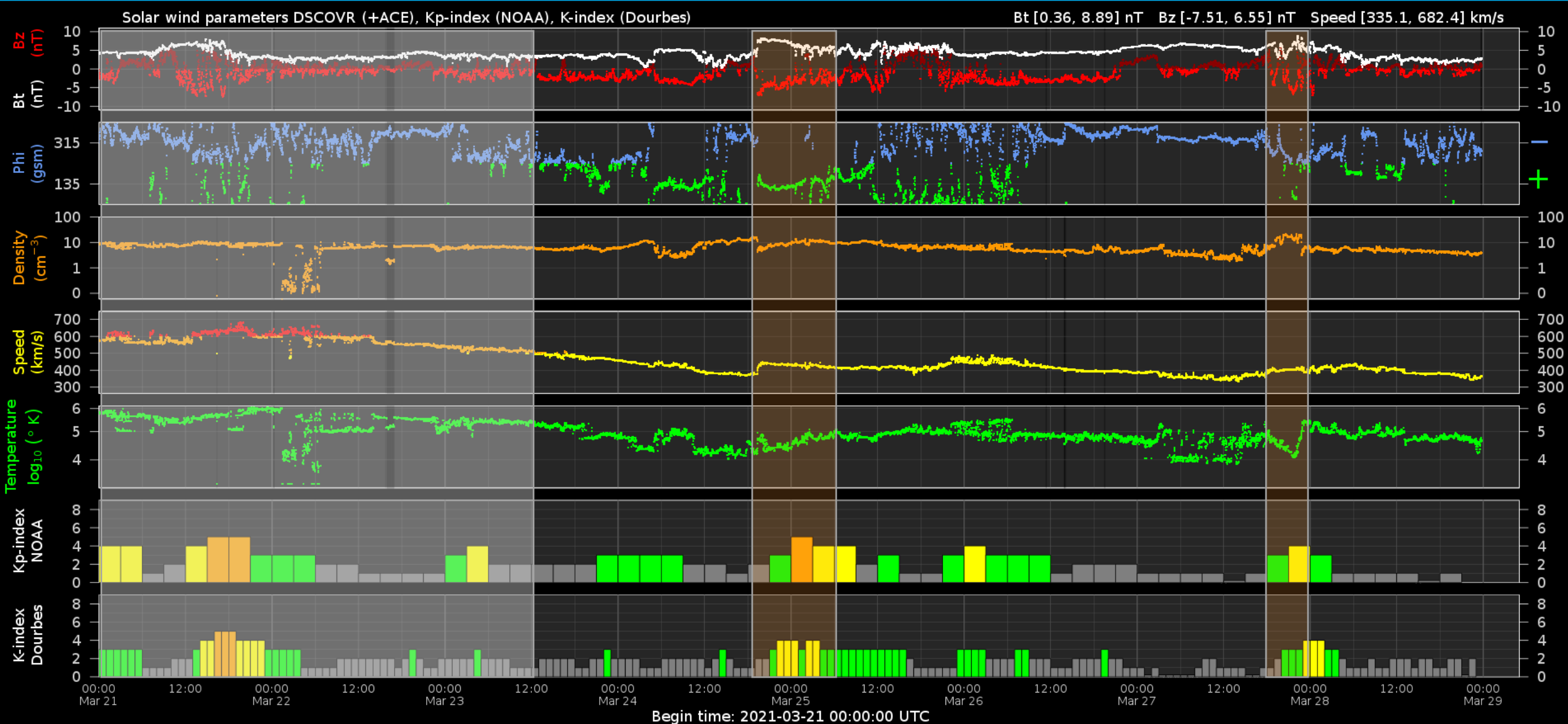


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Solar wind parameters



Solar wind parameters & K-indices

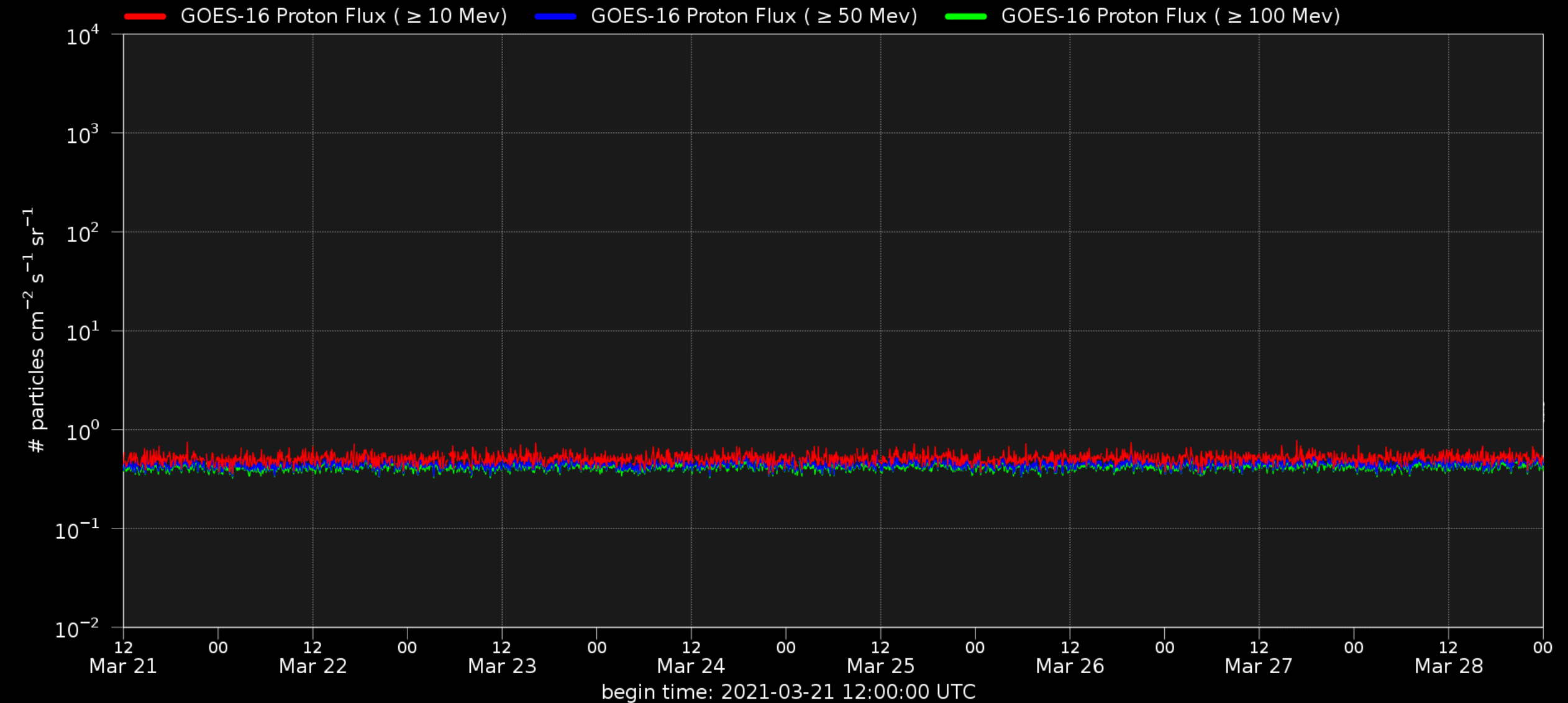


Energetic Particles

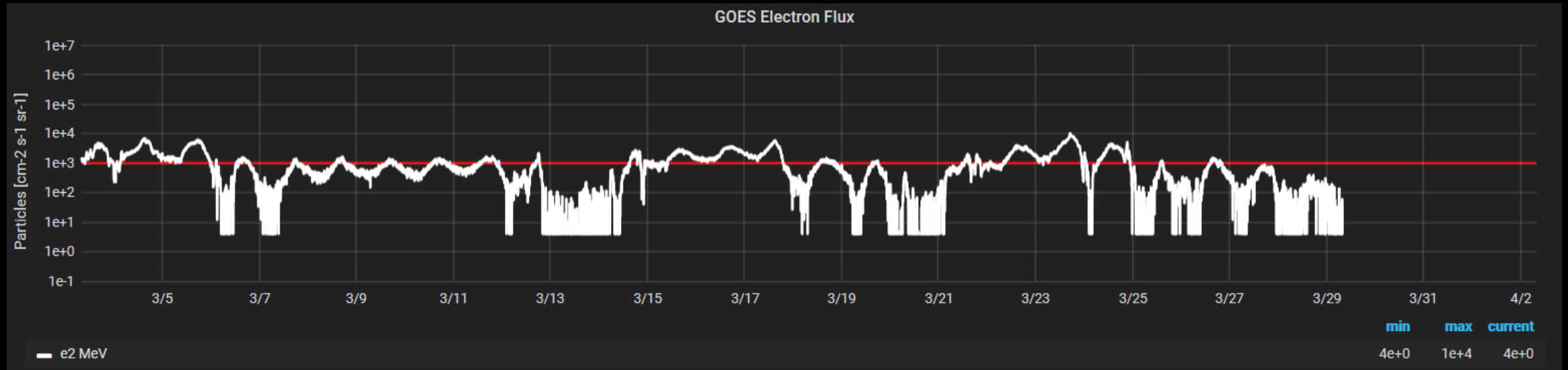


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Solar proton flux



Electron flux at GEO



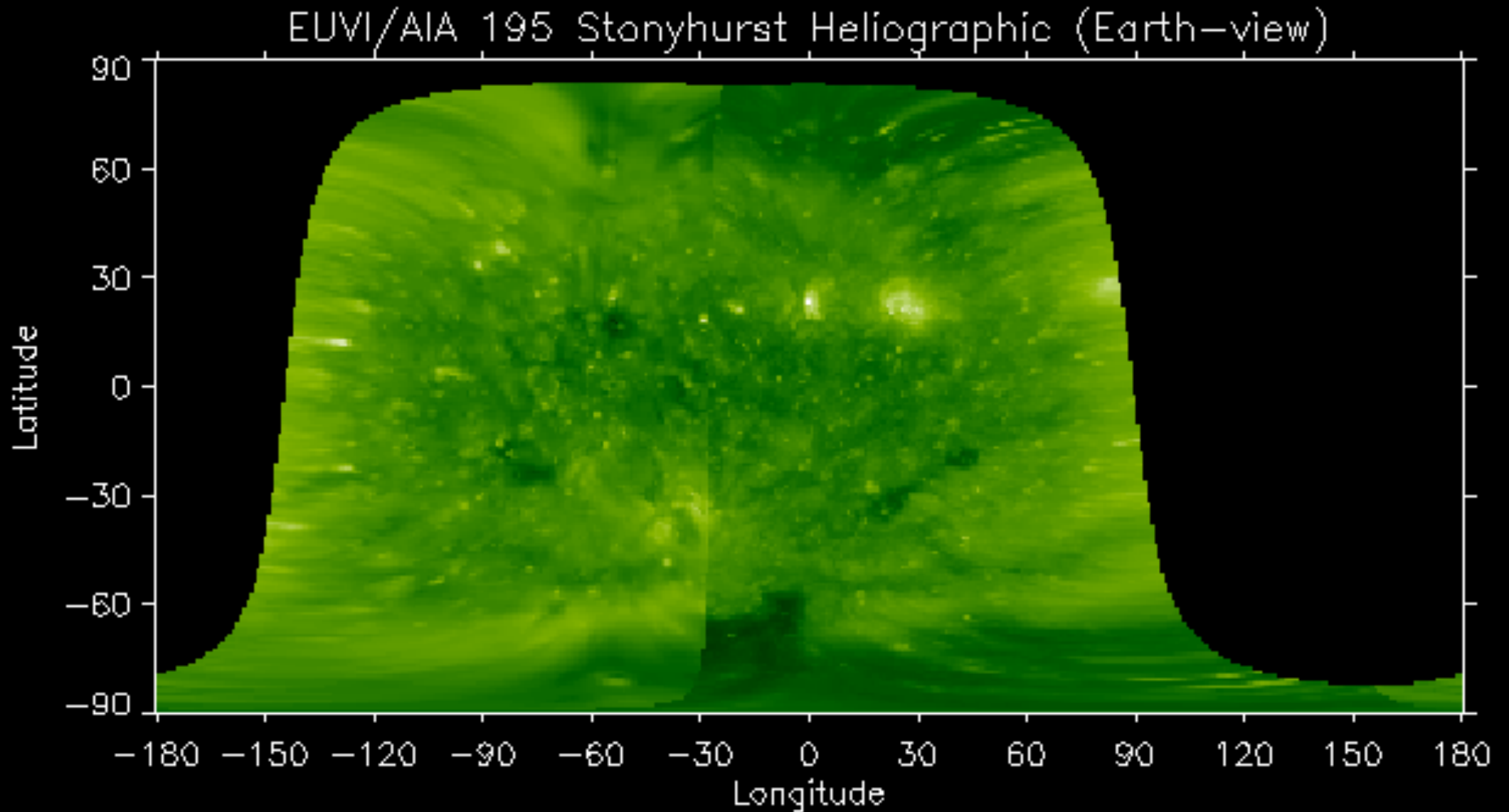
Outlook



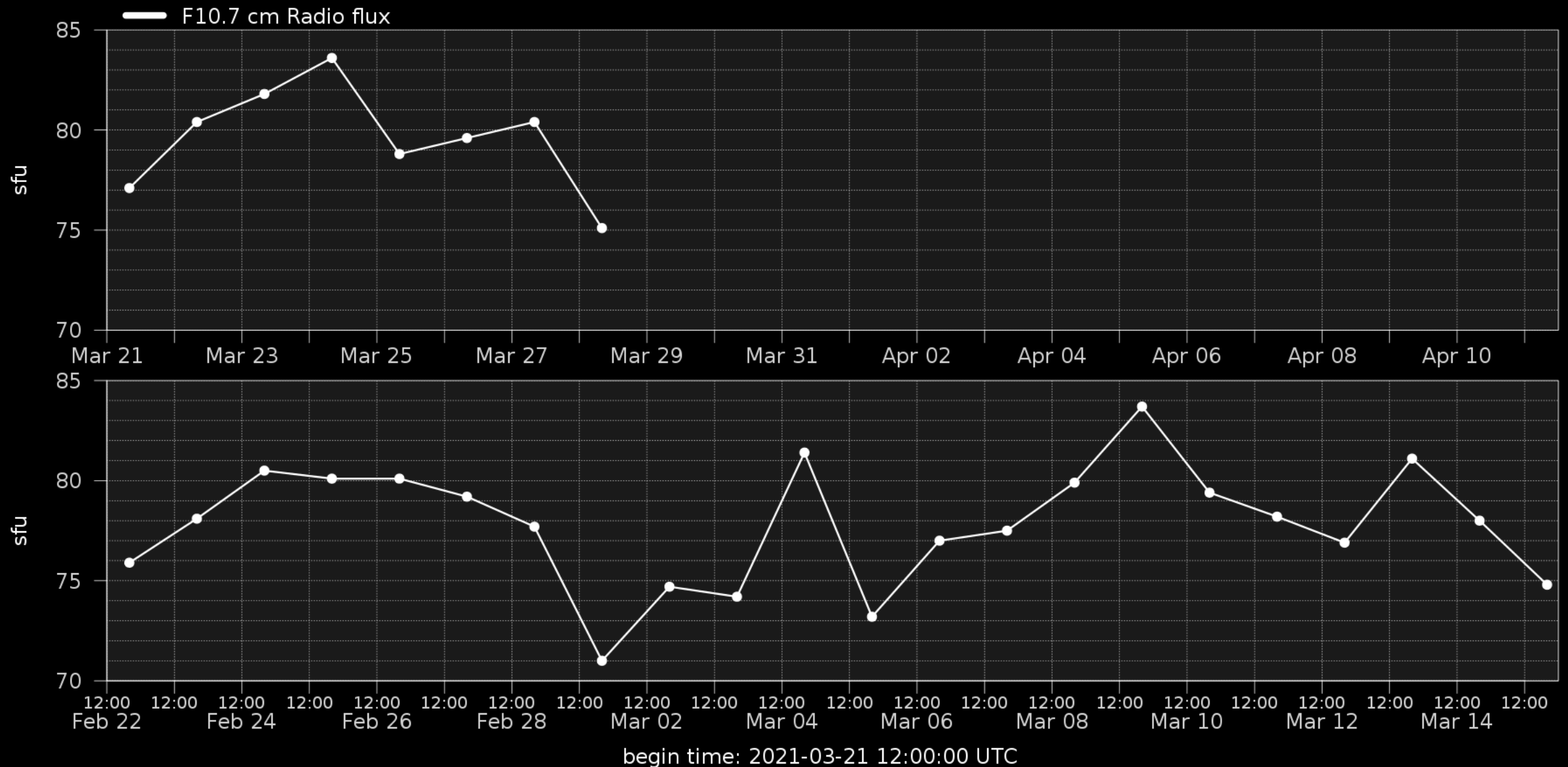
Royal Observatory
of Belgium

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Outlook: Solar activity



Outlook: Solar F10.7cm radio flux



Outlook



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See you at our next briefing!

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