

SIDC Space Weather Briefing

05 July 2020 - 12 July 2020

Jan Janssens
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2020-07-05 12:00 UT to 2020-07-12 12:00 UT

Active regions	Very small: NOAA 2766, Catania 35 and 36
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Filament eruptions on 05 and 08-09 July
CMEs	Some CMEs observed, one may be earth-directed (09 July)
Proton Events	Proton flux at nominal levels

Solar wind and geomagnetic conditions from 2020-07-05 12:00 UT to 2020-07-12 12:00 UT

Coronal Holes	Patchy equatorial + and – polarity CHs on 09 July
ICME	None observed
SW Conditions	Nominal levels after CH wind stream early in the week
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 3

All Quiet Alert: ON since 06 July 2020

Solar Activity

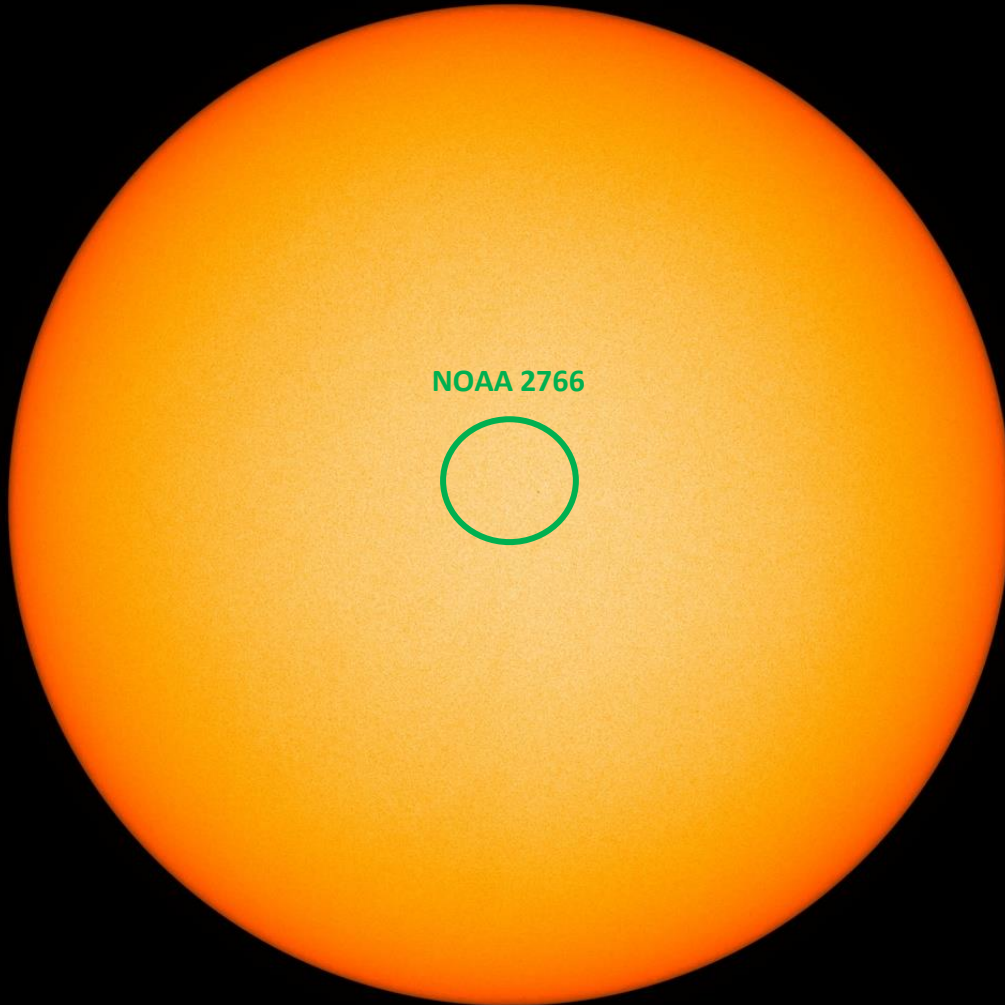


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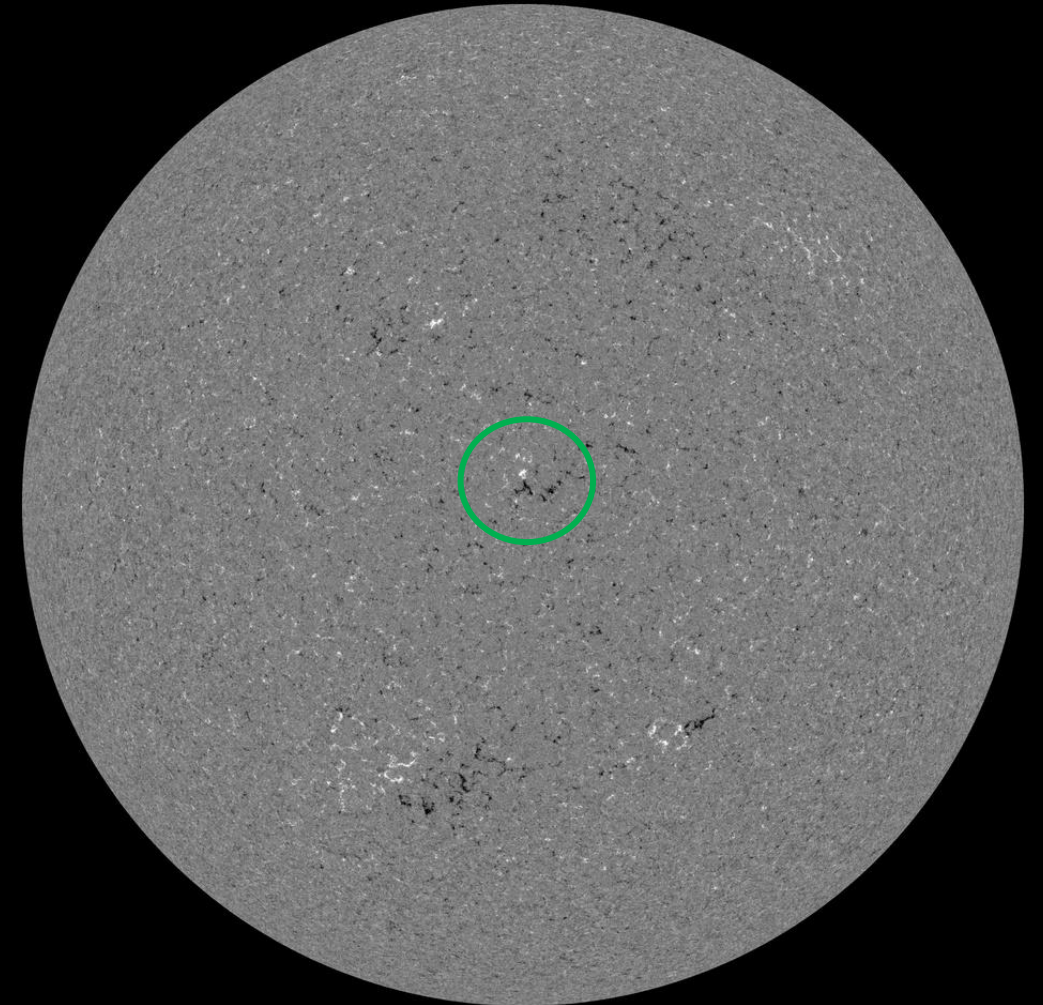
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Solar active region - start of the week

SDO/HMI White Light 2020-07-06



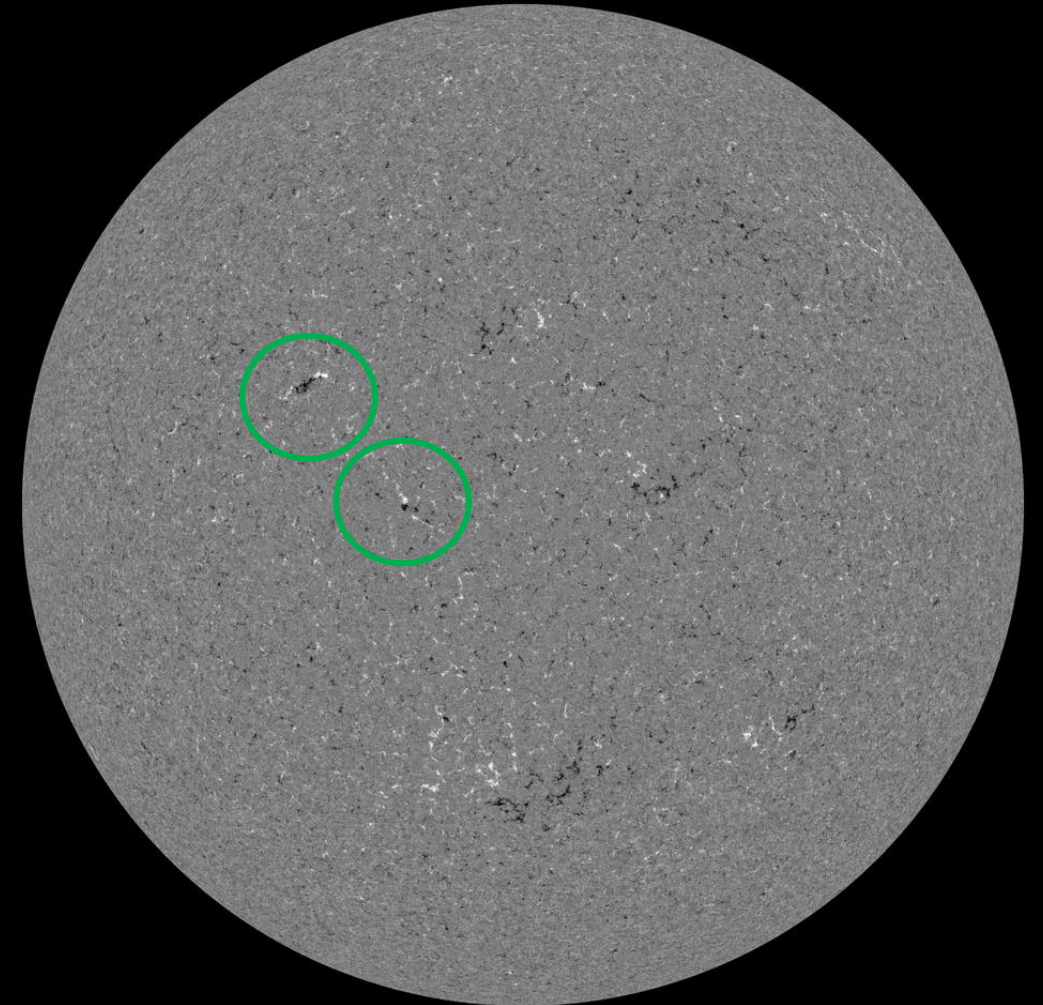
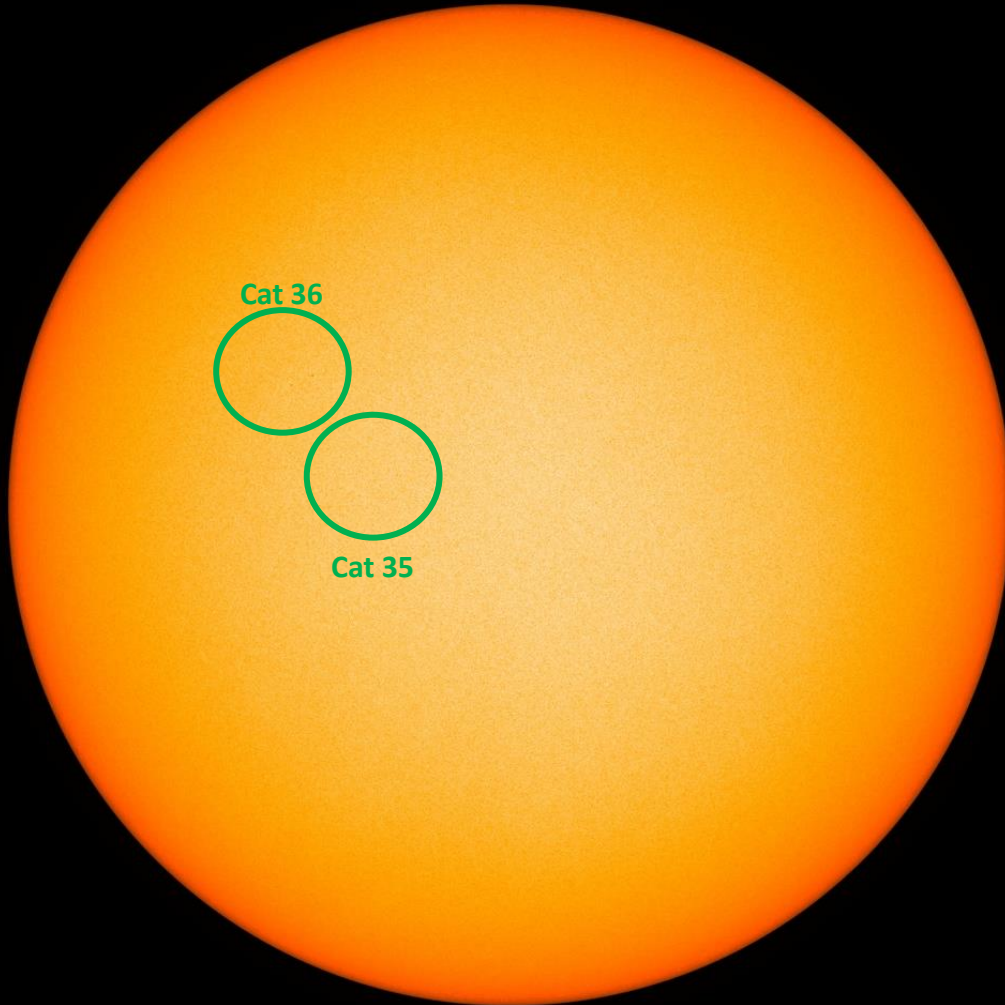
SDO/HMI Magnetogram 2020-07-06



Solar active region - middle of the week

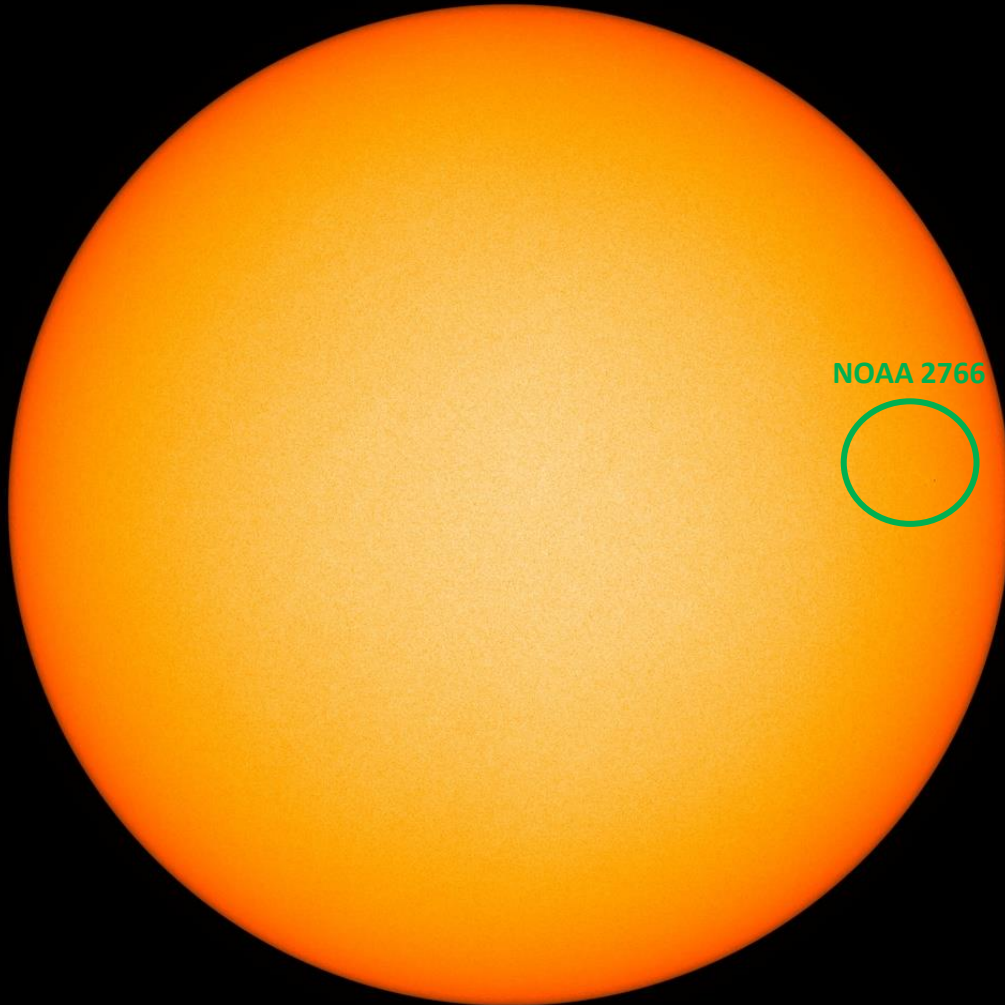
SDO/HMI White Light 2020-07-07

SDO/HMI Magnetogram 2020-07-07



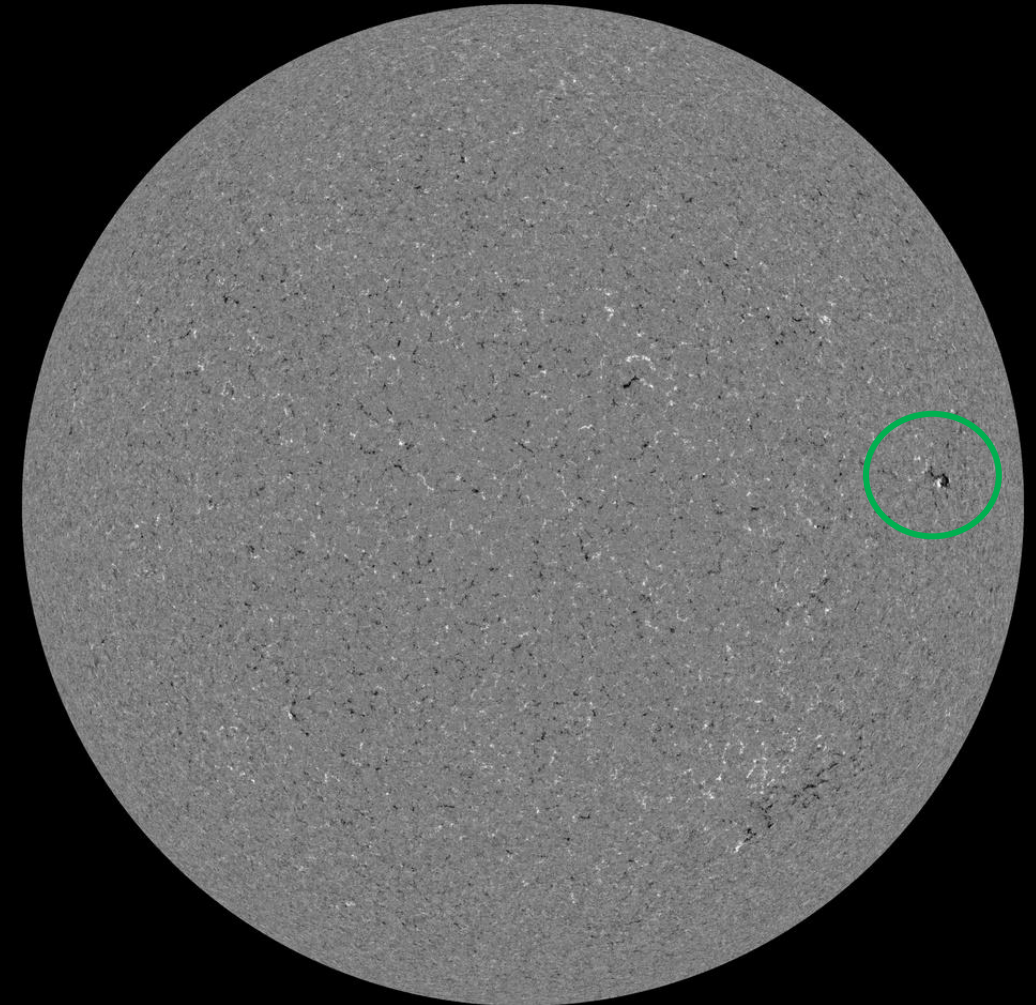
Solar active region - end of the week

SDO/HMI White Light 2020-07-10

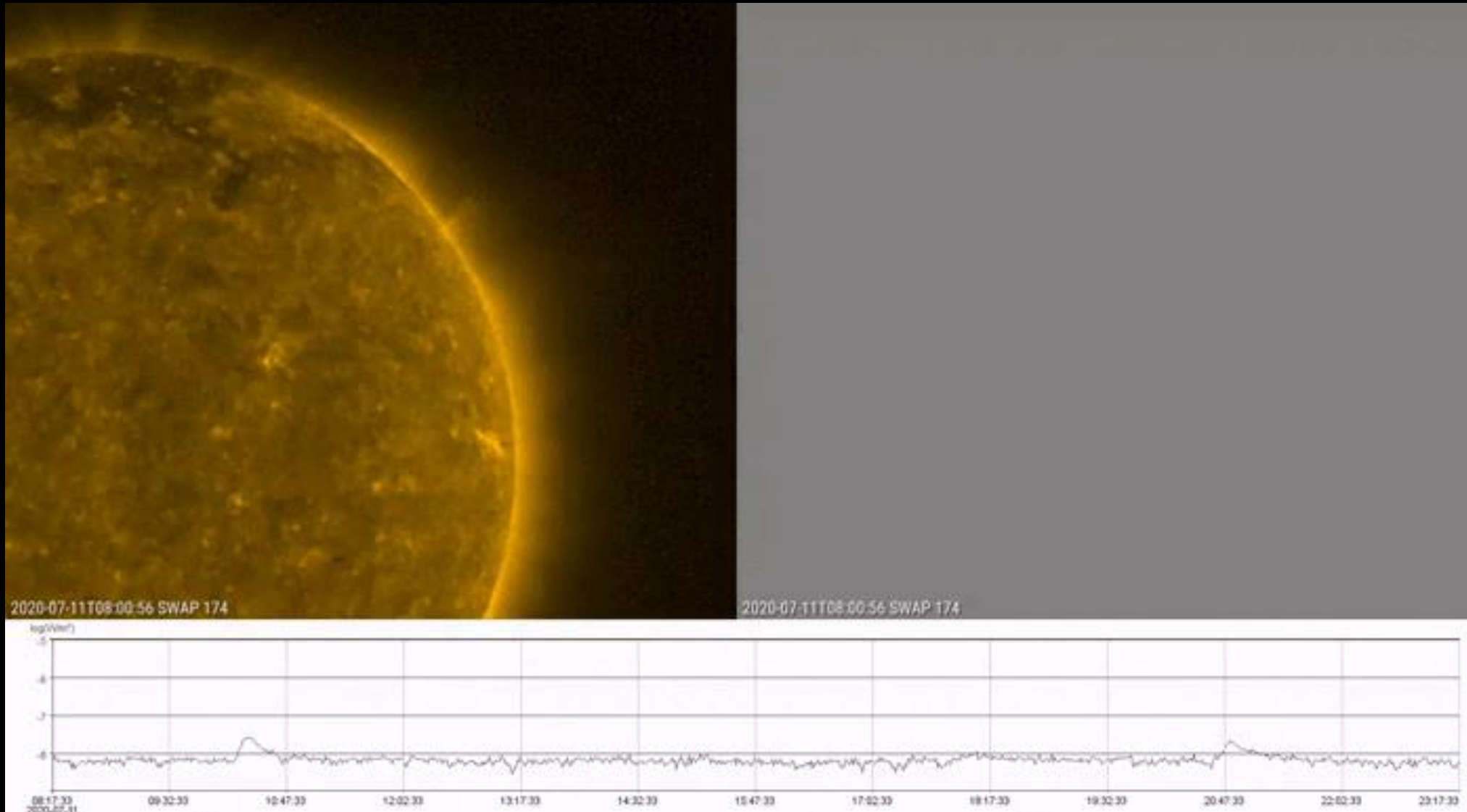


NOAA 2766

SDO/HMI Magnetogram 2020-07-10

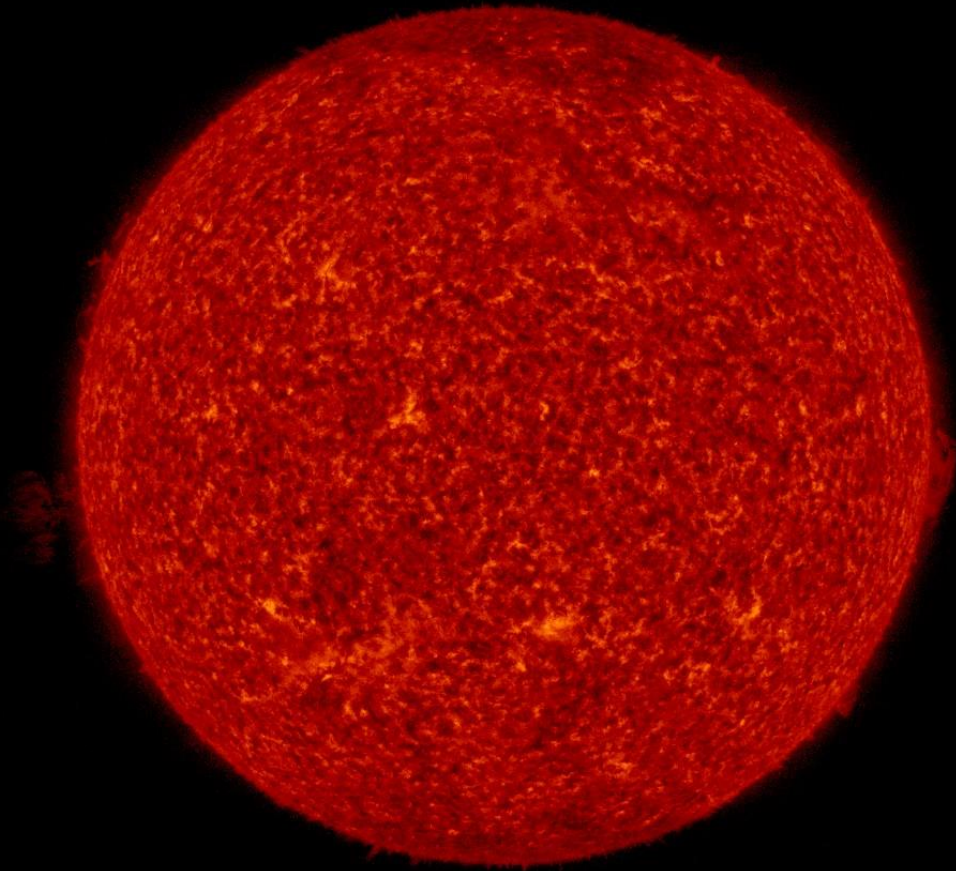


NOAA 2766 –Eruptive activity on 11 July *(two A2 flares)*



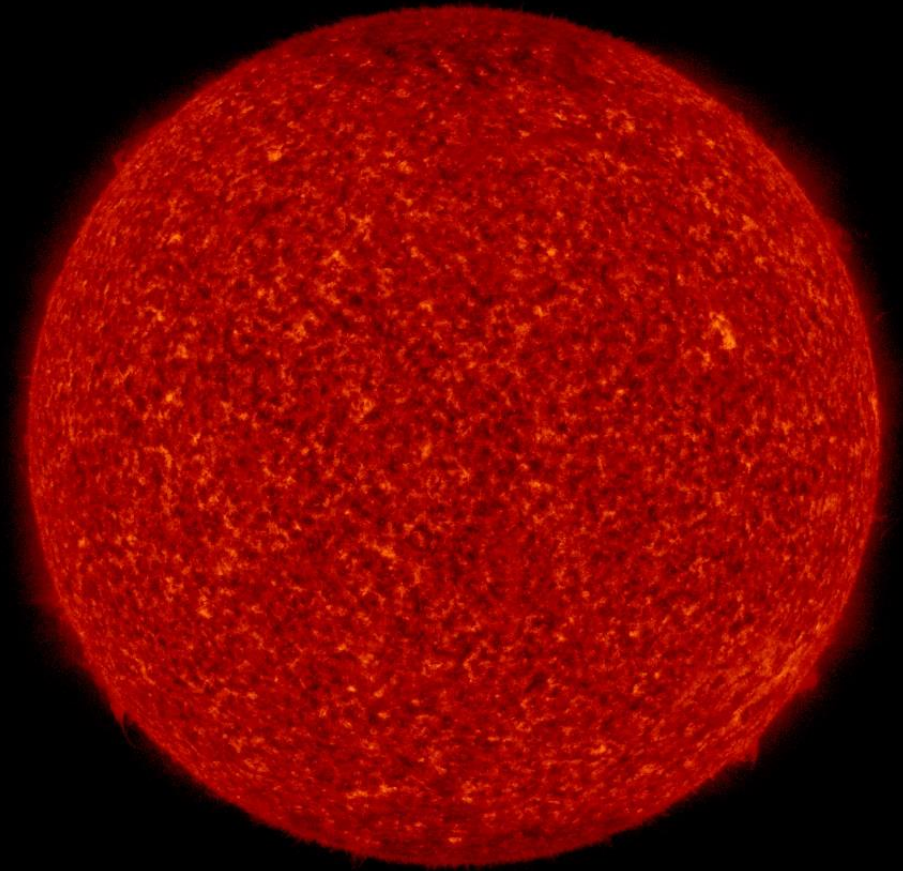
Prominences & Filaments

SDO/AIA 30.4 nm 2020-07-05



SDO/AIA 304 2020-07-05 12:19:06 UT

SDO/AIA 30.4 nm 2020-07-12



SDO/AIA 304 2020-07-12 12:18:06 UT

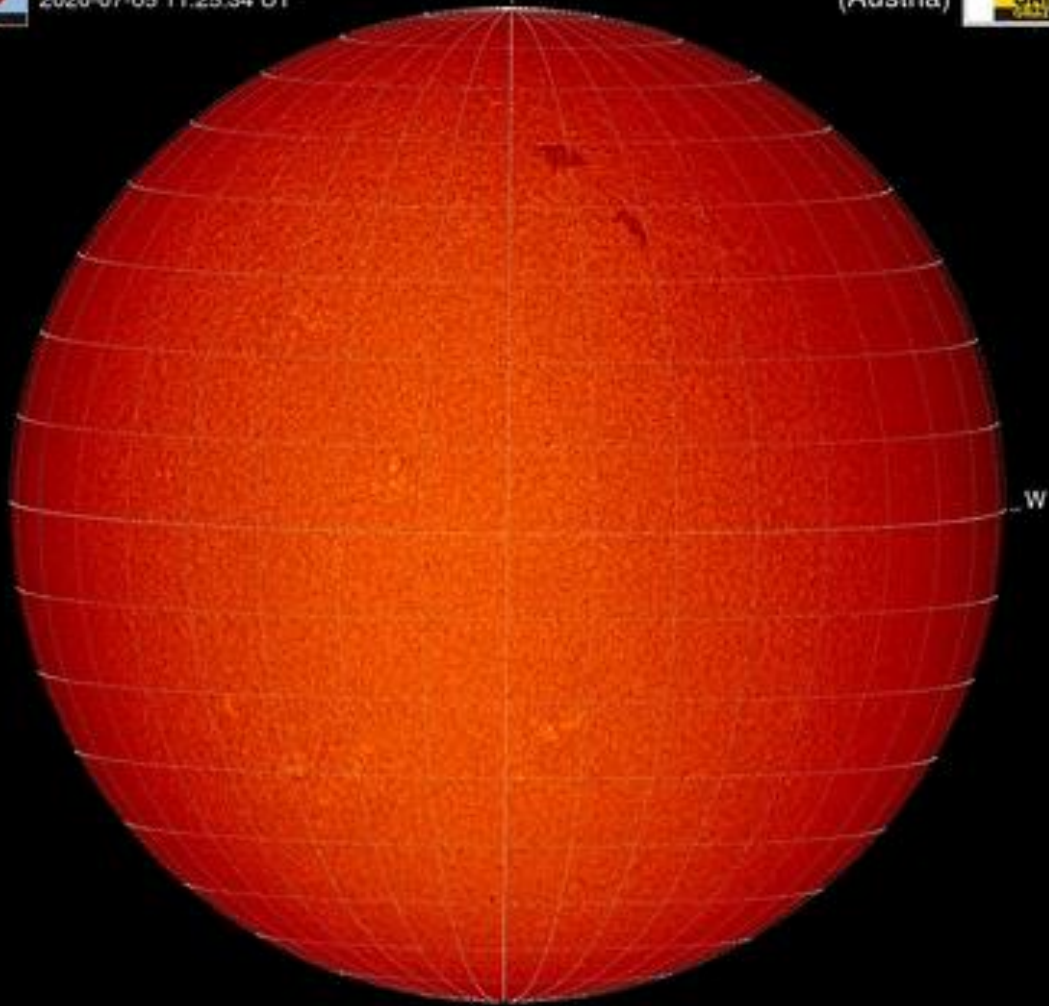
Filaments & Filament eruptions

H-alpha 2020-07-05



Kanzelhöhe Observatory
2020-07-05 11:25:34 UT

University of Graz
(Austria)

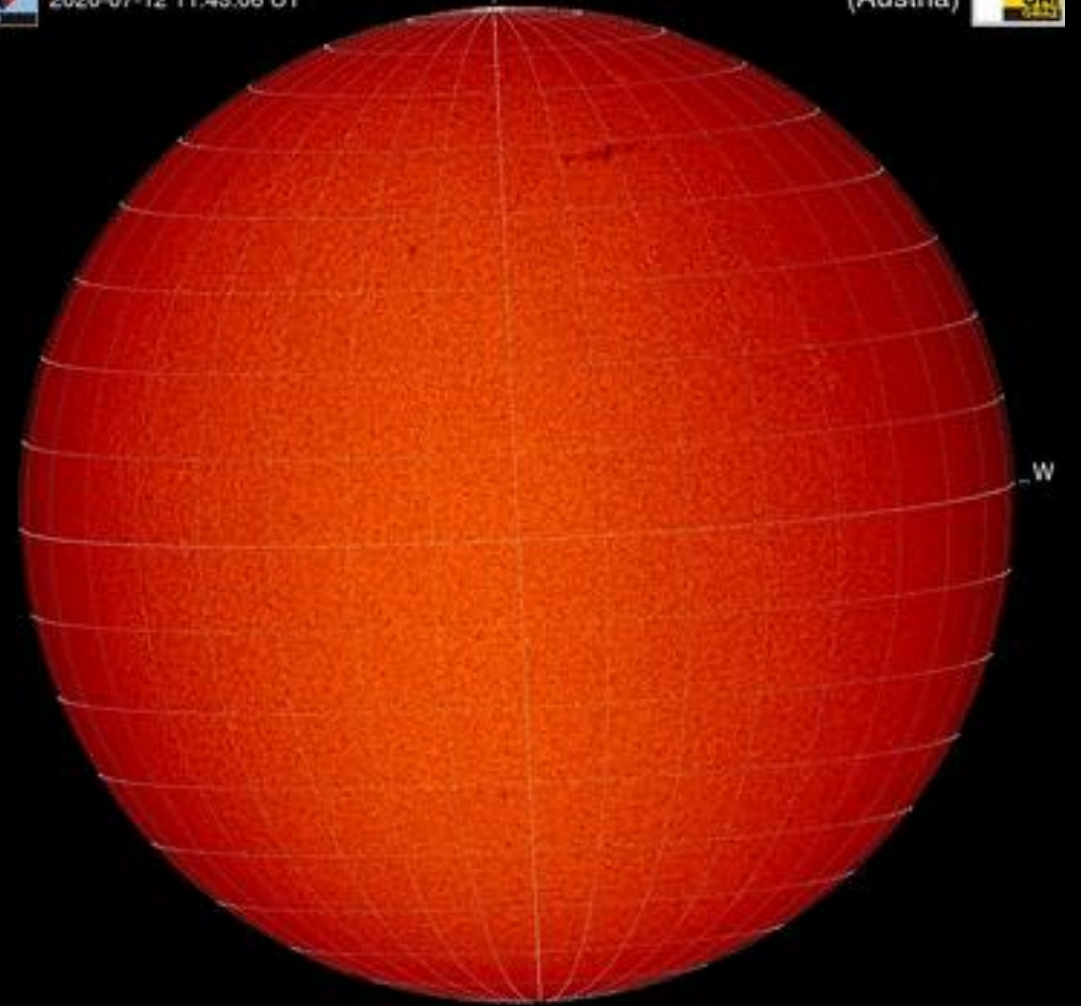


H-alpha 2020-07-12

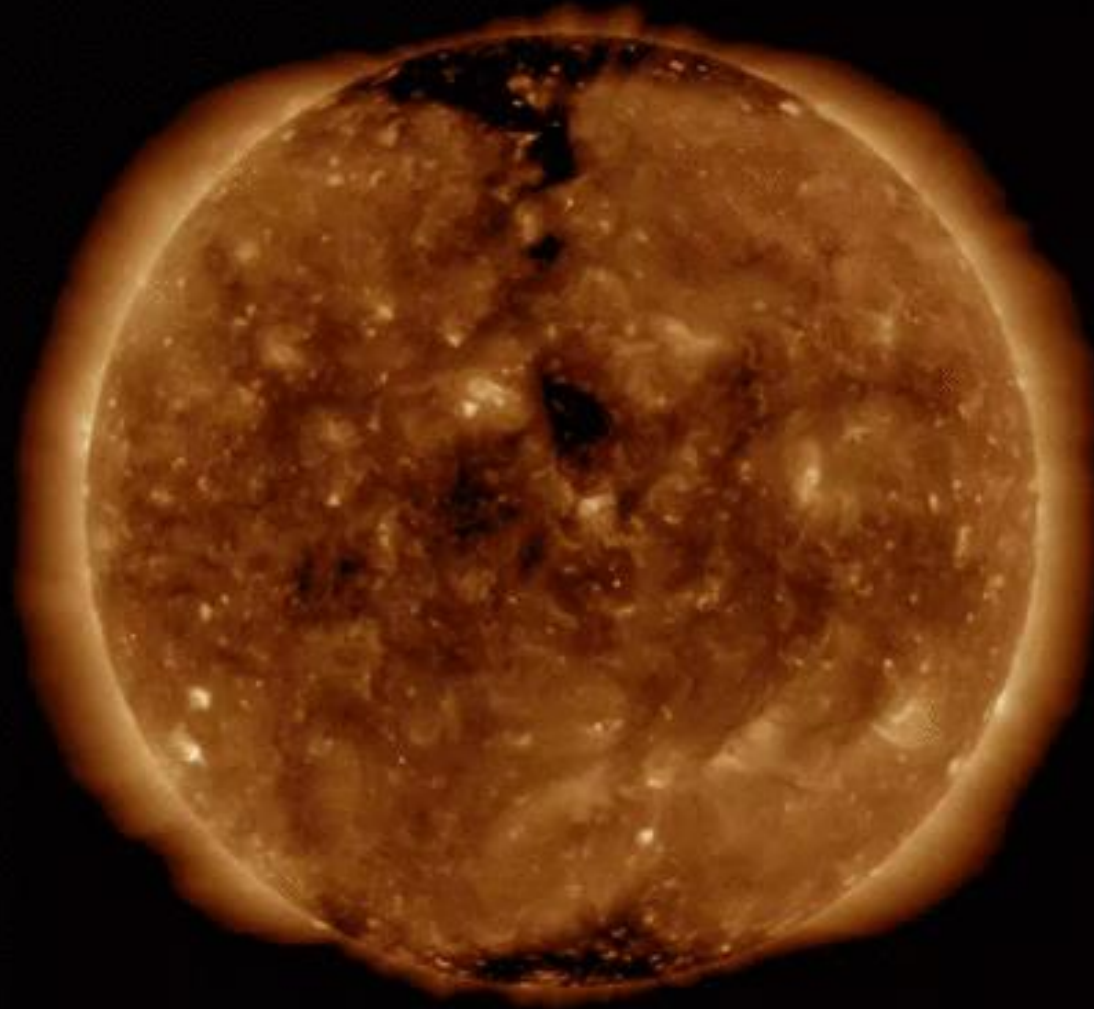


Kanzelhöhe Observatory
2020-07-12 11:43:06 UT

University of Graz
(Austria)

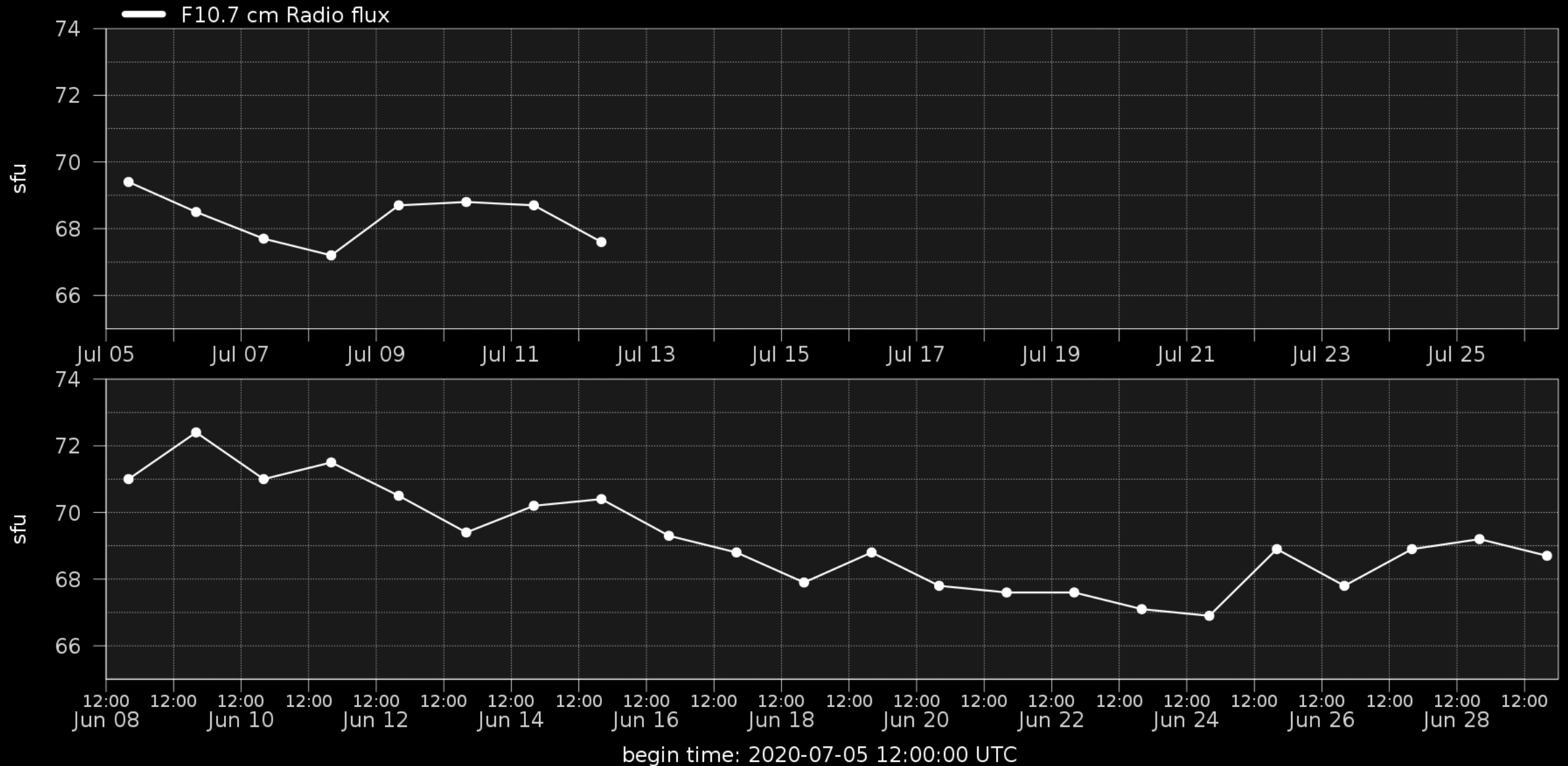


Two filament eruptions on 08-09 July

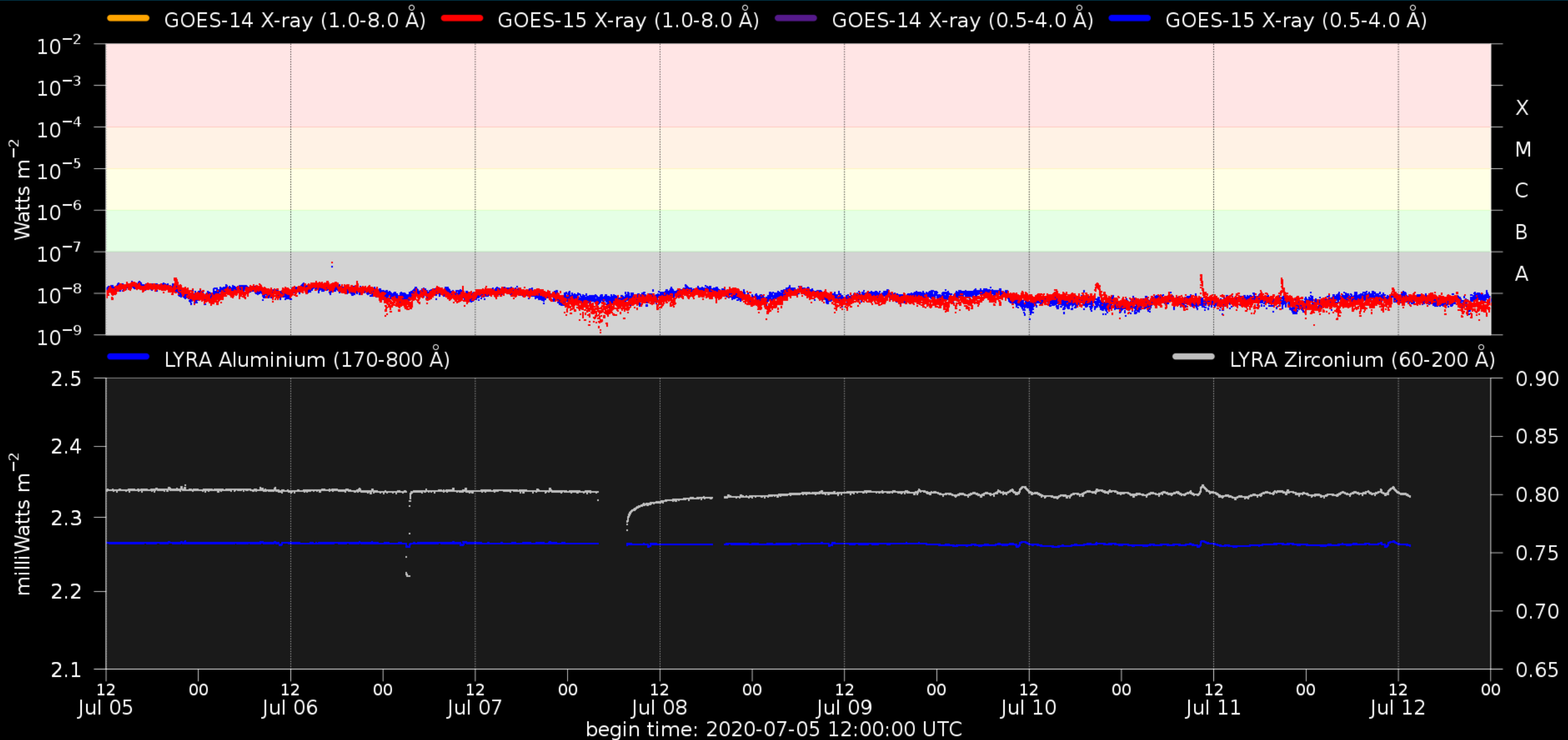


2020-07-08T18:00:23

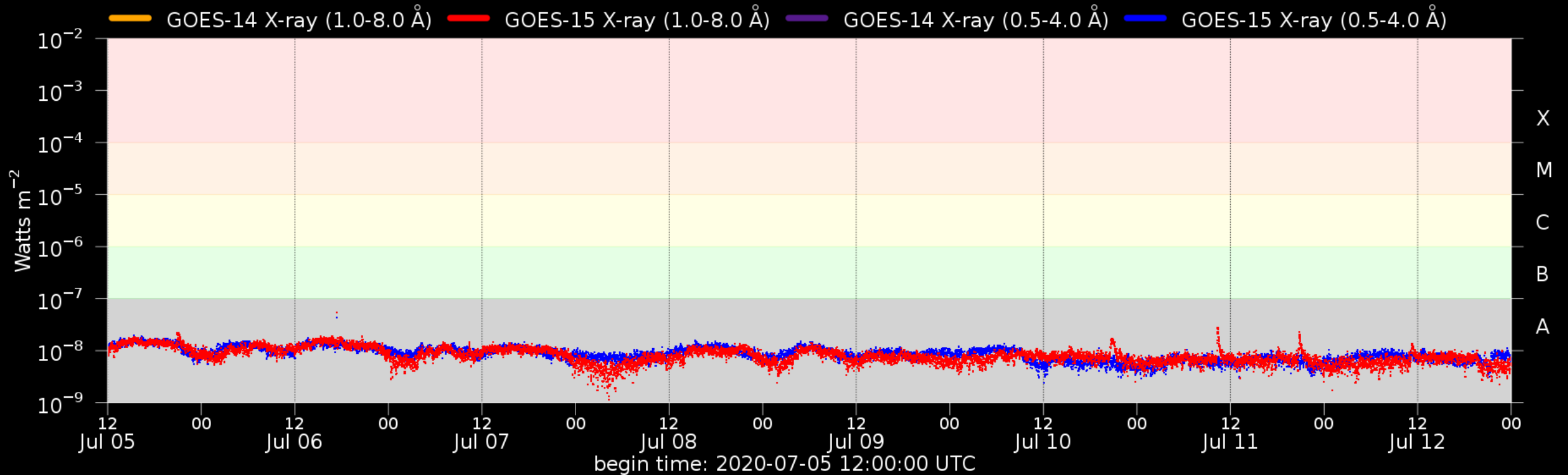
Solar F10.7cm radio flux



Solar X-Ray and UV flux



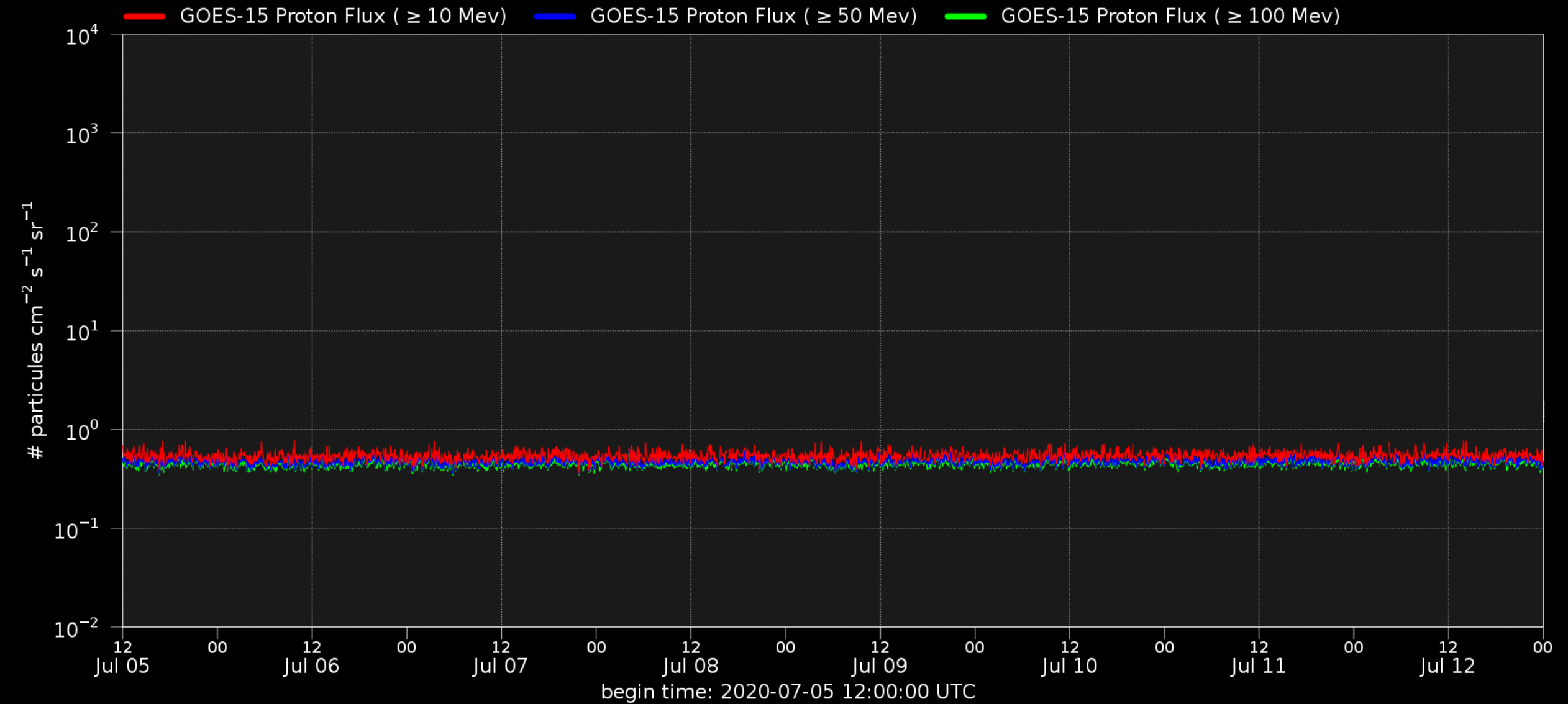
Flaring activity



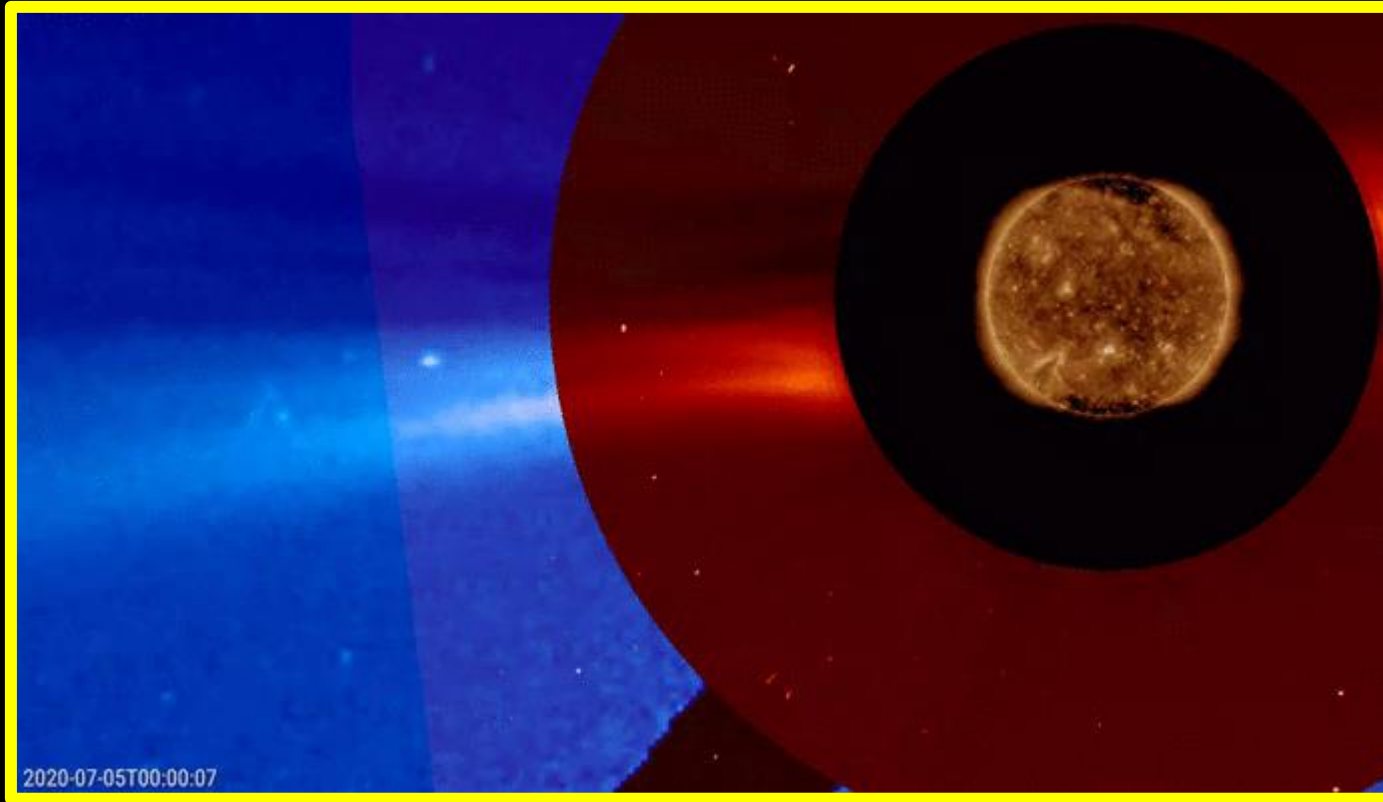
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2020-07-05	2020-07-06	2020-07-07	2020-07-08	2020-07-09	2020-07-10	2020-07-11	2020-07-12
Probability	--- 05 01 01	--- 01 01 01	--- 05 01 01	--- 01 01 01	--- 01 01 01	--- 05 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

Solar proton flux



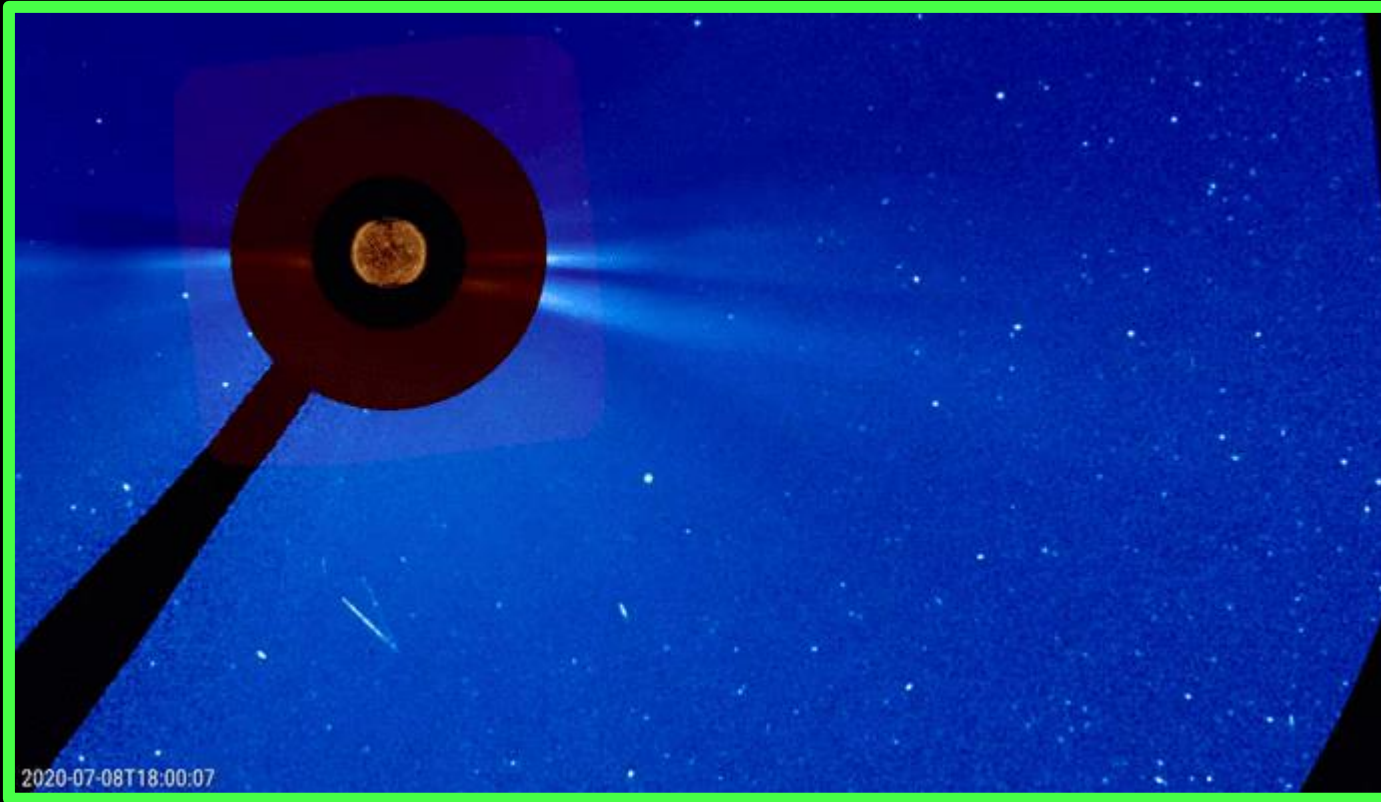
Coronal Mass Ejections



c8
f1
e2

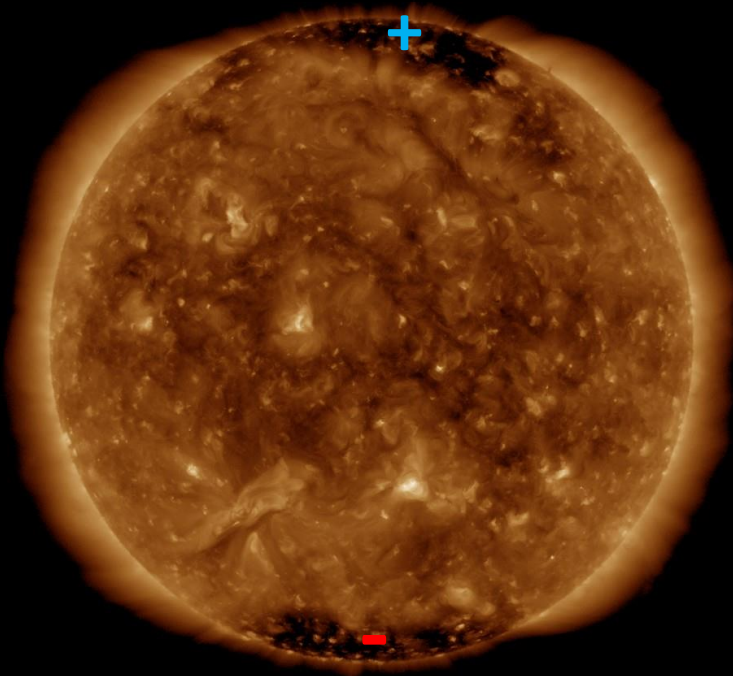
19:56 07/09
16:48 07/09
13:48 07/09
10:24 07/09
07:24 07/09
04:36 07/09
01:36 07/09
21:48 07/08
18:42 07/08
16:12 07/08
12:48 07/08
10:00 07/08
07:00 07/08
04:12 07/08
01:25 07/08
22:12 07/07
19:24 07/07
16:36 07/07
13:36 07/07
10:36 07/07
07:24 07/07
05:00 07/07
02:00 07/07
22:24 07/06
19:30 07/06
16:36 07/06
12:48 07/06
10:00 07/06
06:48 07/06
04:06 07/06
01:25 07/06
21:48 07/05
19:00 07/05
16:24 07/05
12:48 07/05
09:42 07/05
06:48 07/05
04:00 07/05
00:36 07/05
21:12 07/04
18:12 07/04
15:24 07/04
11:48 07/04
08:36 07/04
05:48 07/04

Coronal Mass Ejections



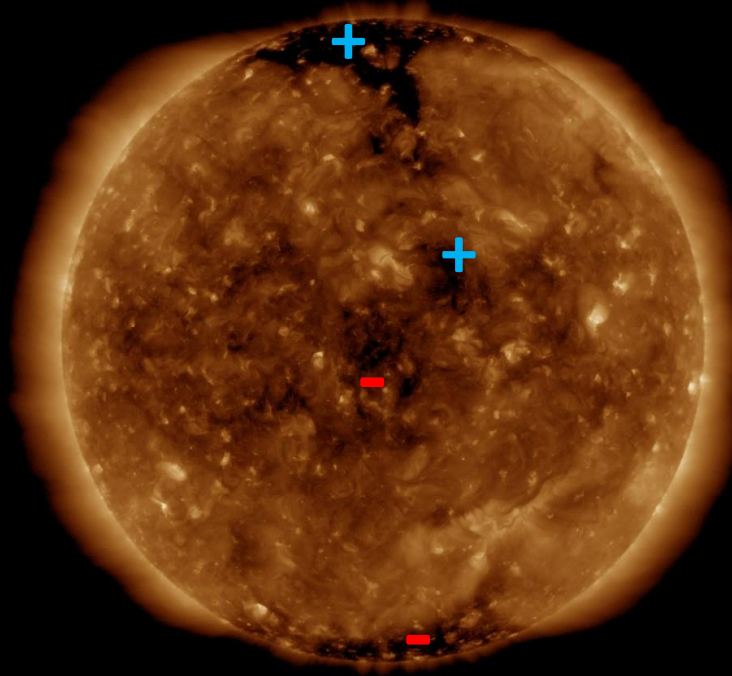
Coronal holes

SDO/AIA 19.3 nm 2020-07-05



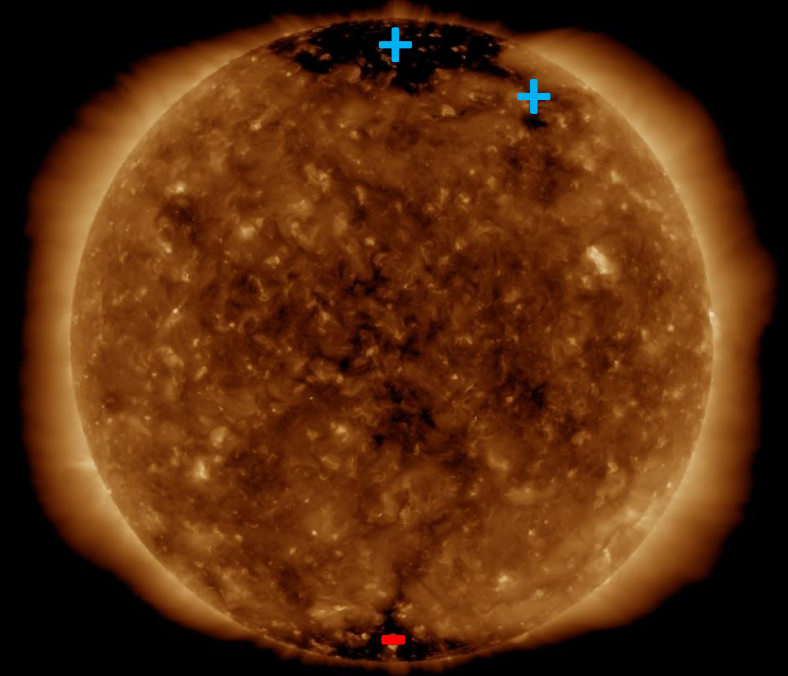
SDO/AIA 193 2020-07-05 12:17:53 UT

SDO/AIA 19.3 nm 2020-07-09



SDO/AIA 193 2020-07-09 12:17:17 UT

SDO/AIA 19.3 nm 2020-07-12



SDO/AIA 193 2020-07-12 12:17:53 UT

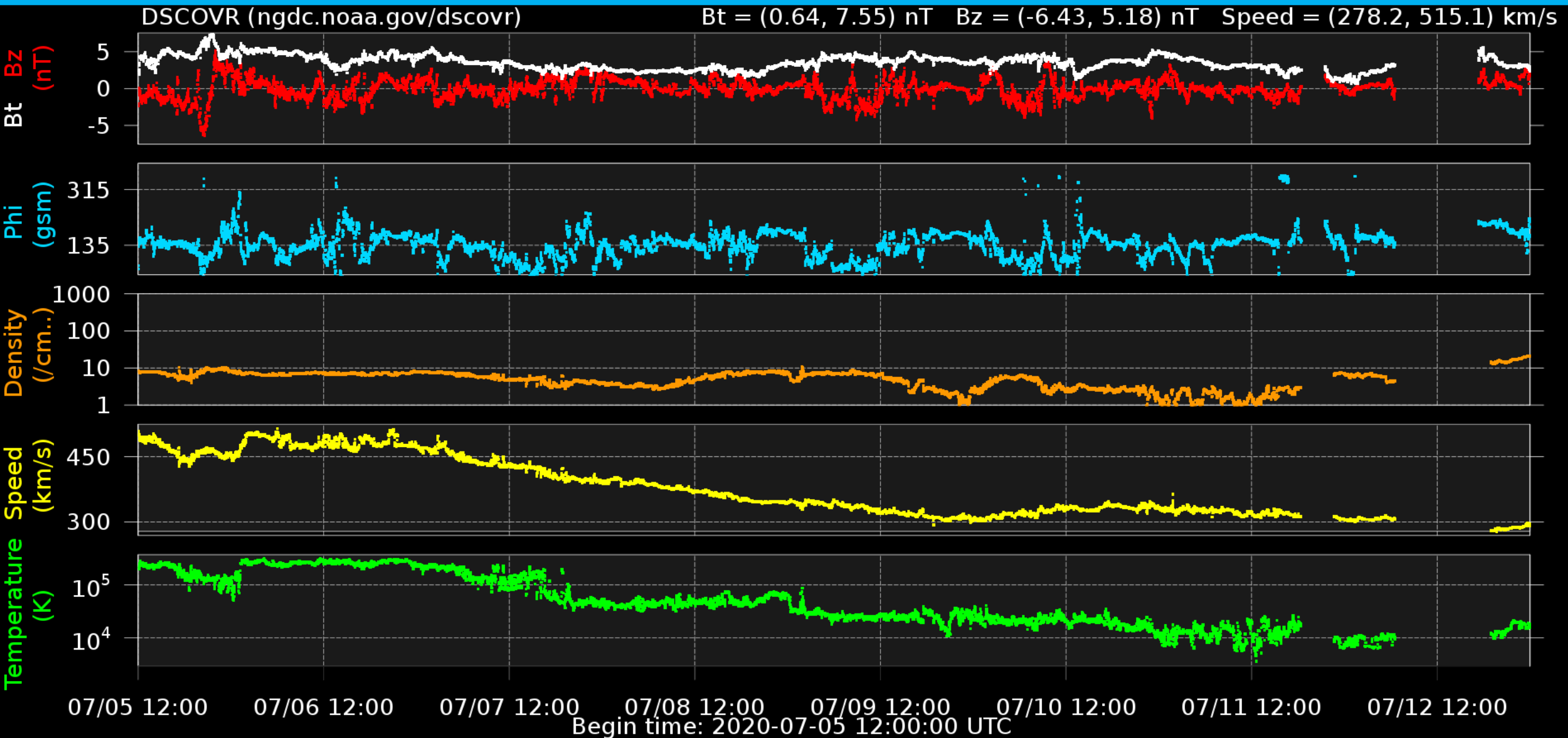
Solar Wind and Geomagnetic Activity



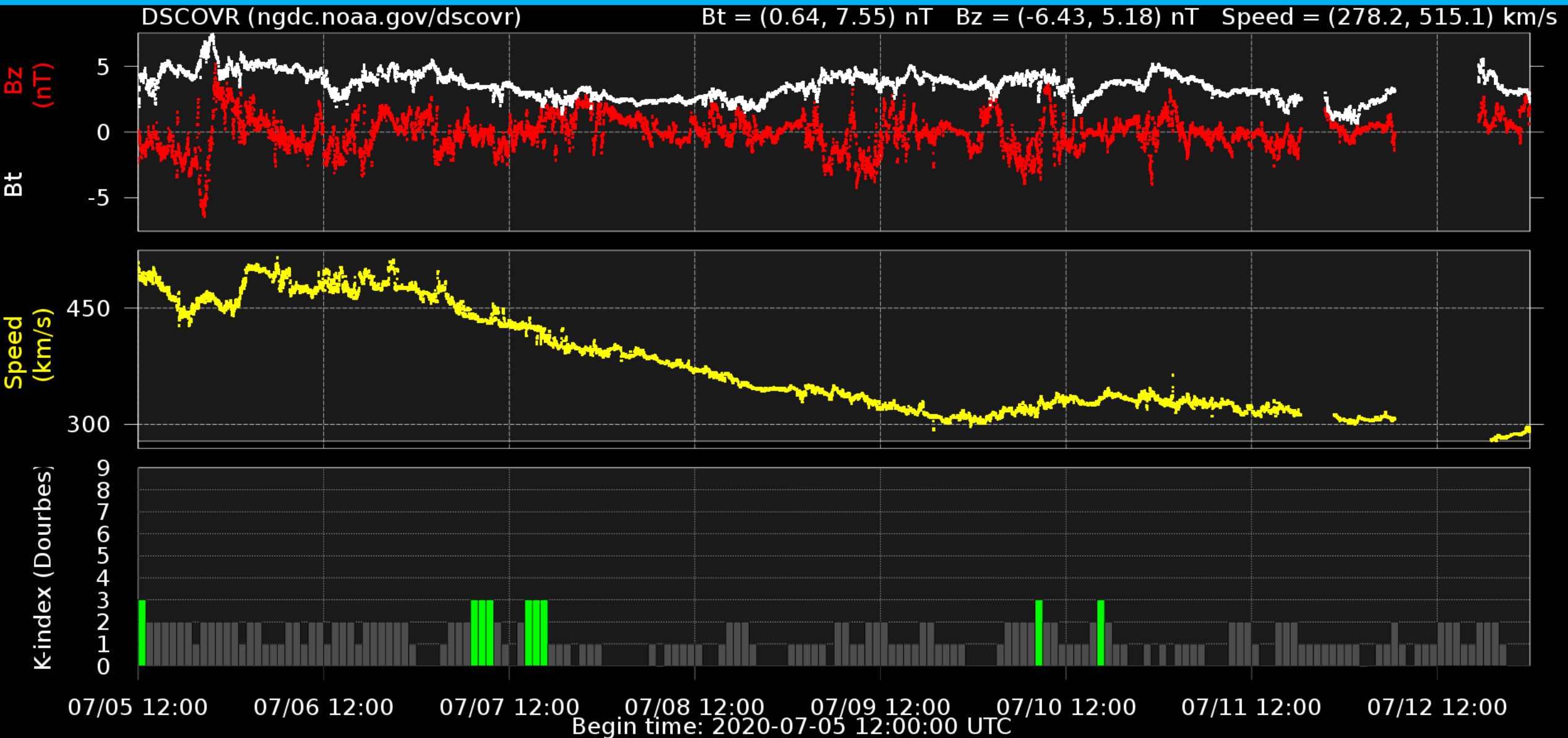
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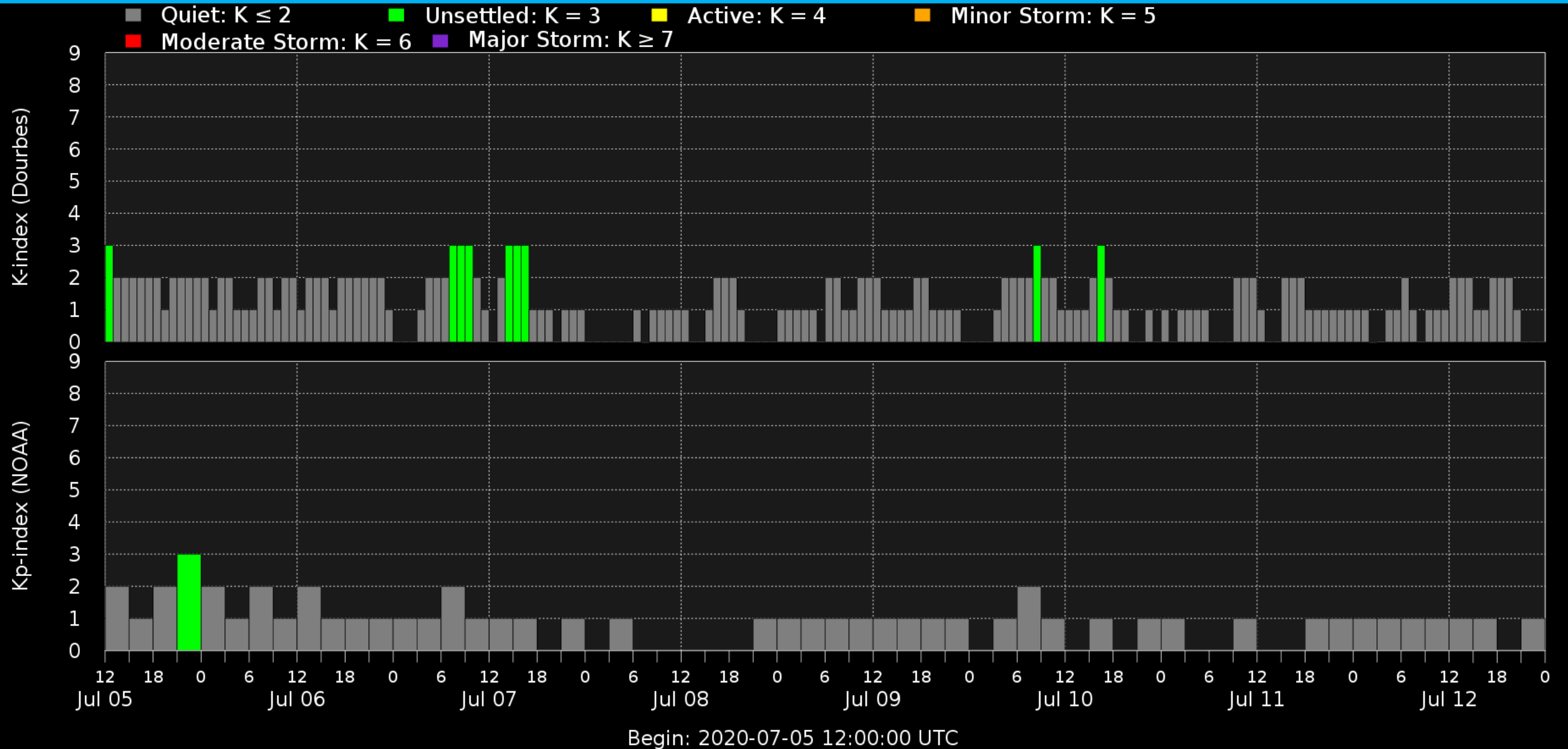
Solar wind parameters (DSCOVR data)



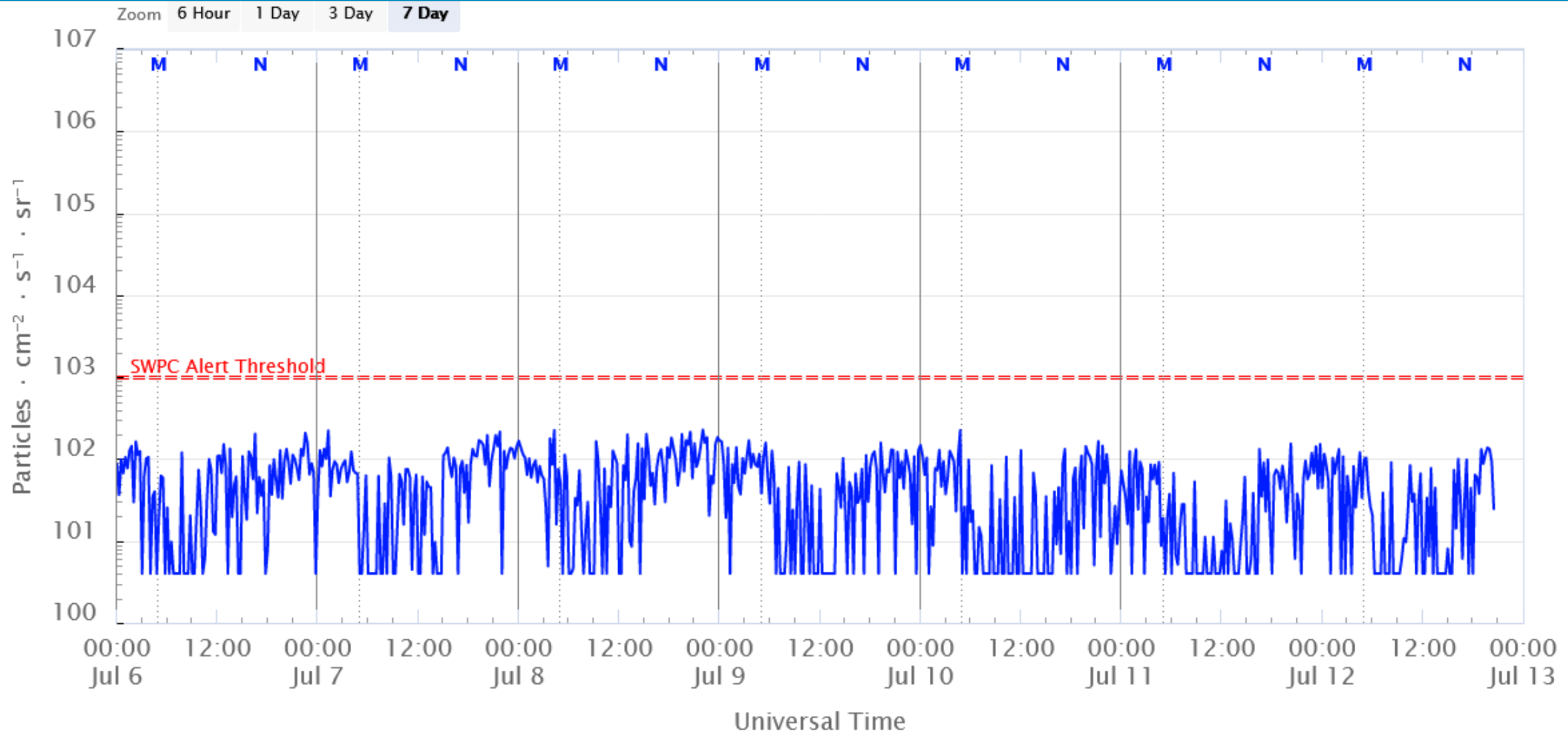
Solar wind parameters & K-index (DSCOVR/Dourbes)



Geomagnetic activity (K-indexes)



The ≥ 2 MeV electron flux



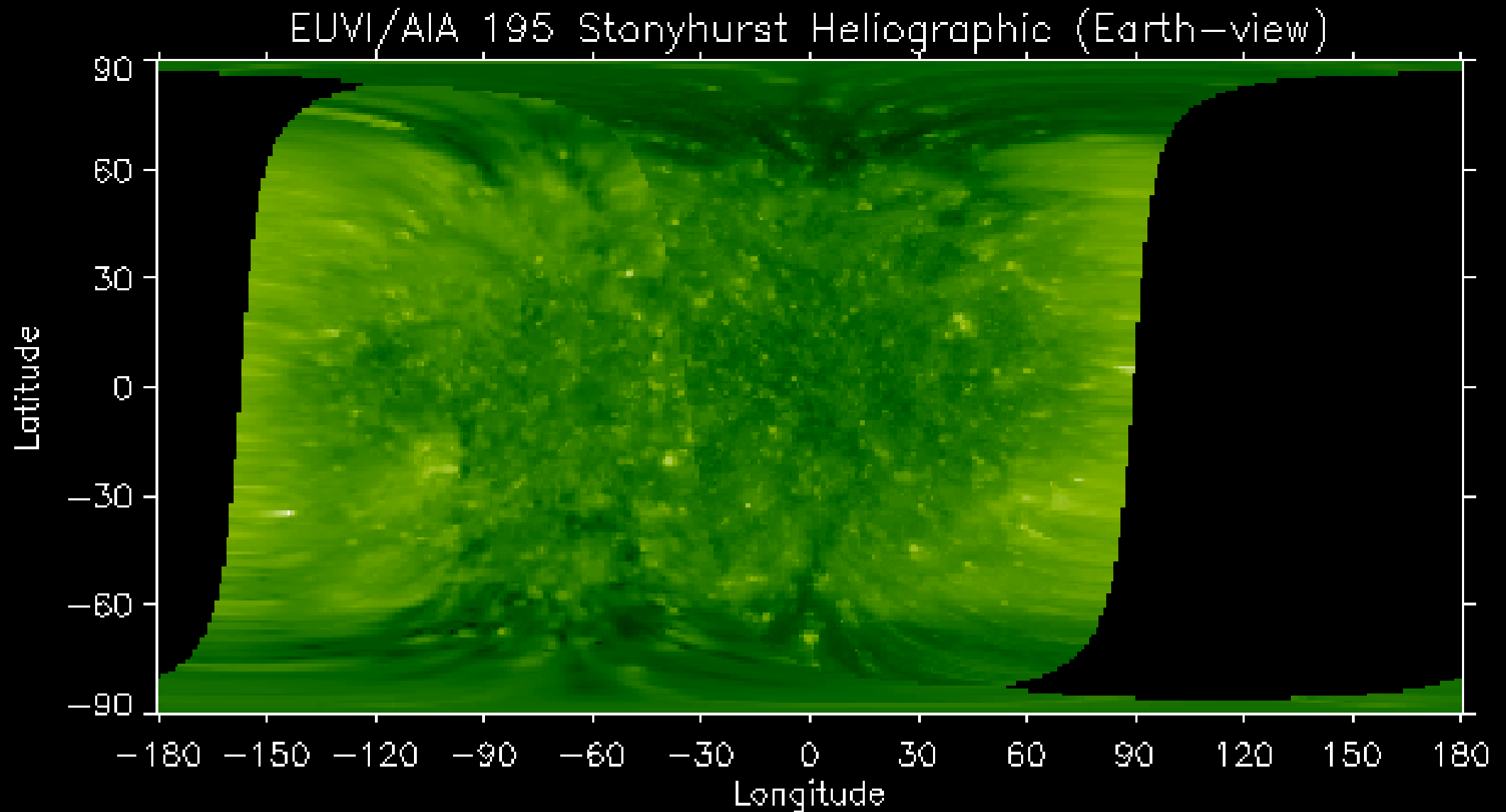
Outlook



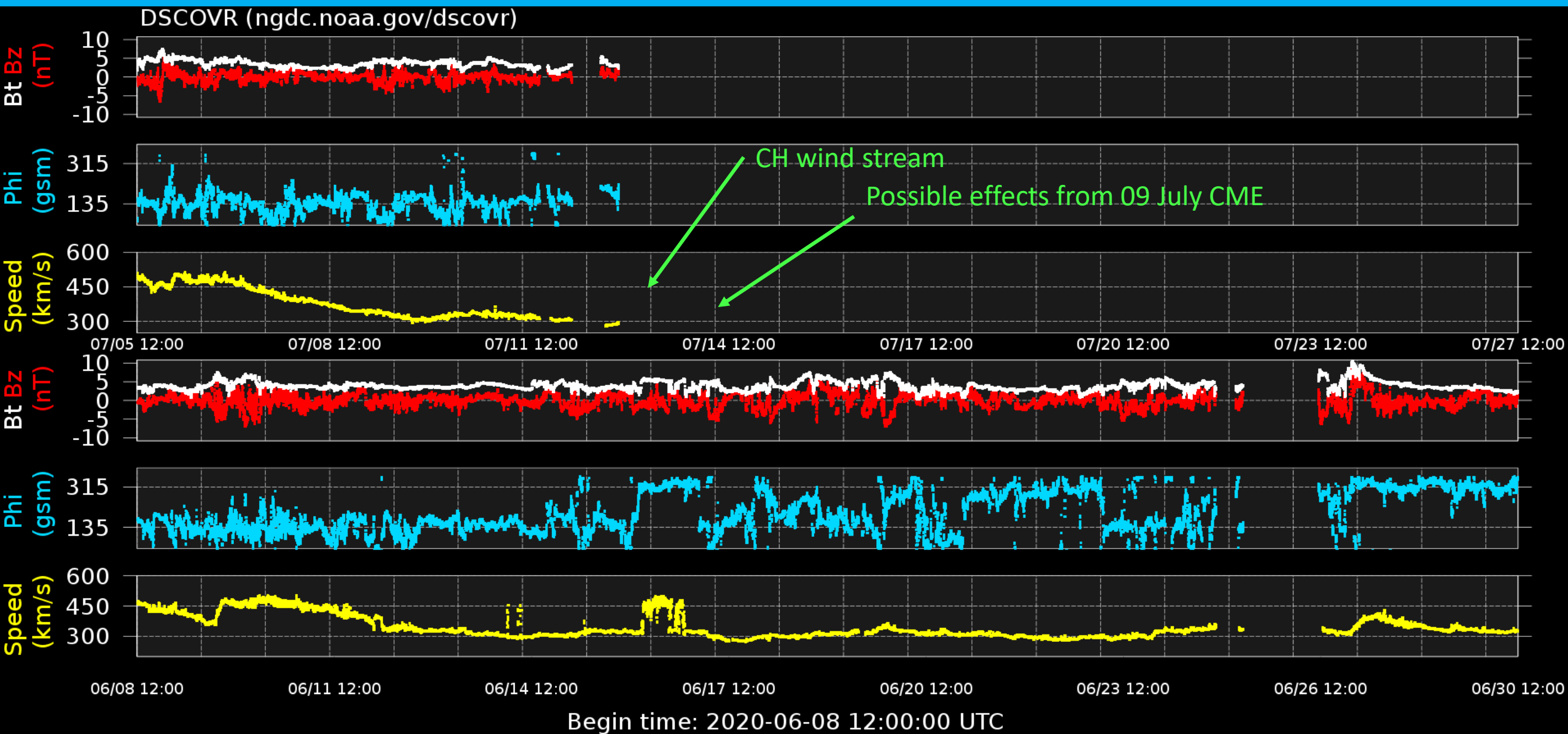
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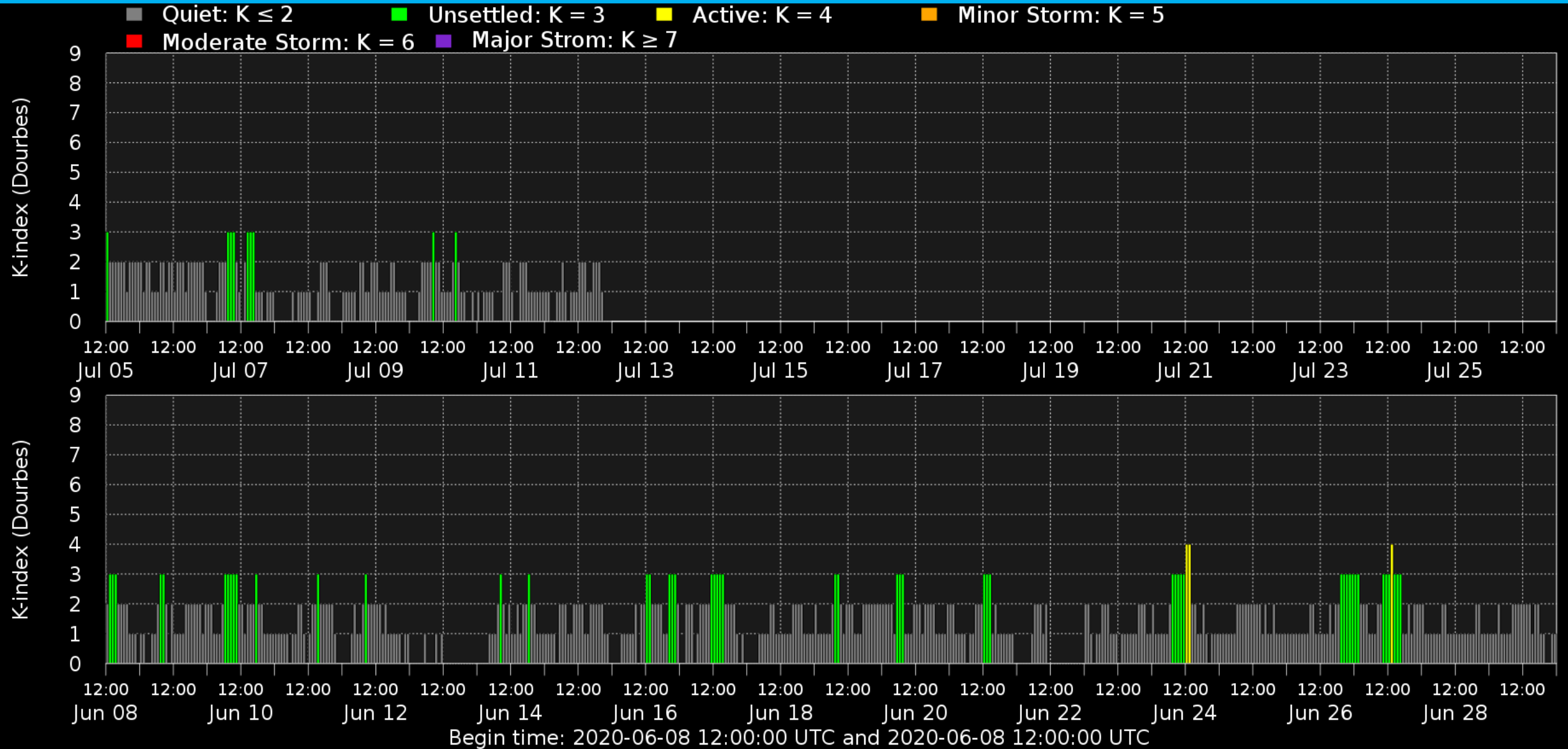
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

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