

SIDC Space Weather Briefing

04 August 2019 - 11 August 2019

Jan Janssens
& the SIDC forecaster team



Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2019-08-04 12:00 UT to 2019-08-11 12:00 UT

Active regions	Two small and short-lived active regions NOAA 2746 and NOAA 2747
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Erupting filament near northern polar CH on 4 August
CMEs	Some small non-earth directed CMEs were observed
Proton Events	None

Solar wind and geomagnetic conditions from 2019-08-04 12:00 UT to 2019-08-11 12:00 UT

Coronal Holes	One major pos. pol. equatorial CH ; patchy neg. pol. CH
ICME	No obvious signature in the solar wind
SW Conditions	High speeds near 700 km/s on 5 August to 400 km/s on 11 August
K-indices	max K-index (Dourbes): 5 max Kp-index (NOAA): 5

All Quiet Alert: Issued on 8 August

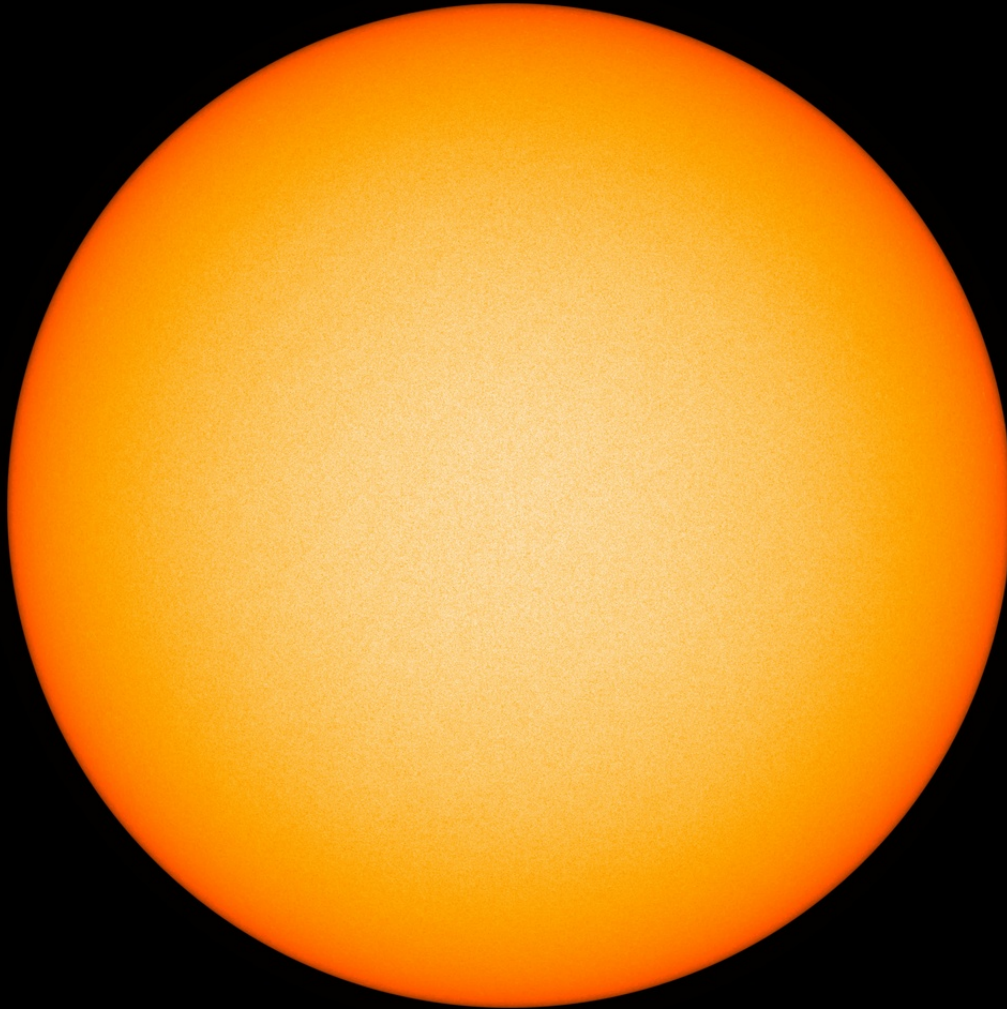
Solar Activity



Solar Influences
Data analysis Centre
www.sidc.be

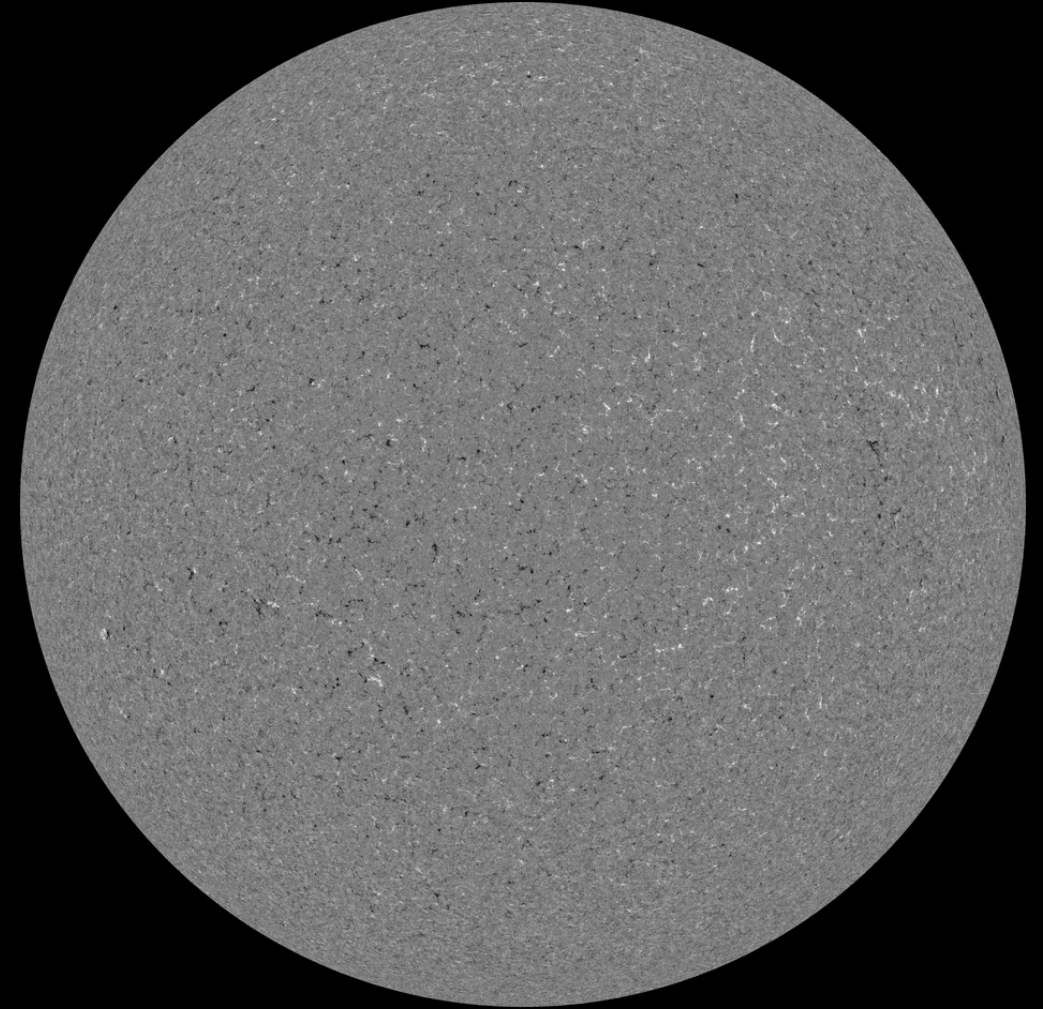
Solar active region - start of the week

SDO/HMI White Light 2019-08-04



SDO/HMI Quick-Look Continuum: 20190804_114500

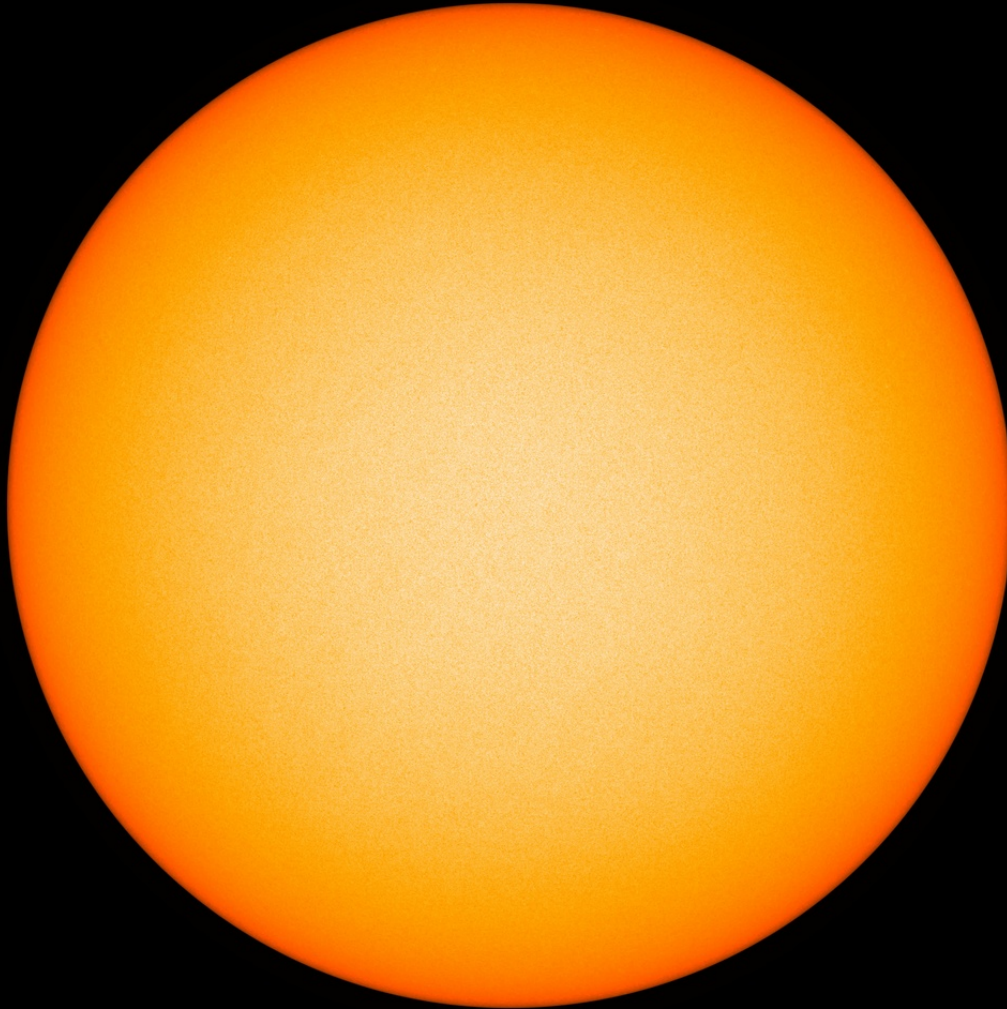
SDO/HMI Magnetogram 2019-08-04



SDO/HMI Quick-Look Magnetogram: 20190804_114500

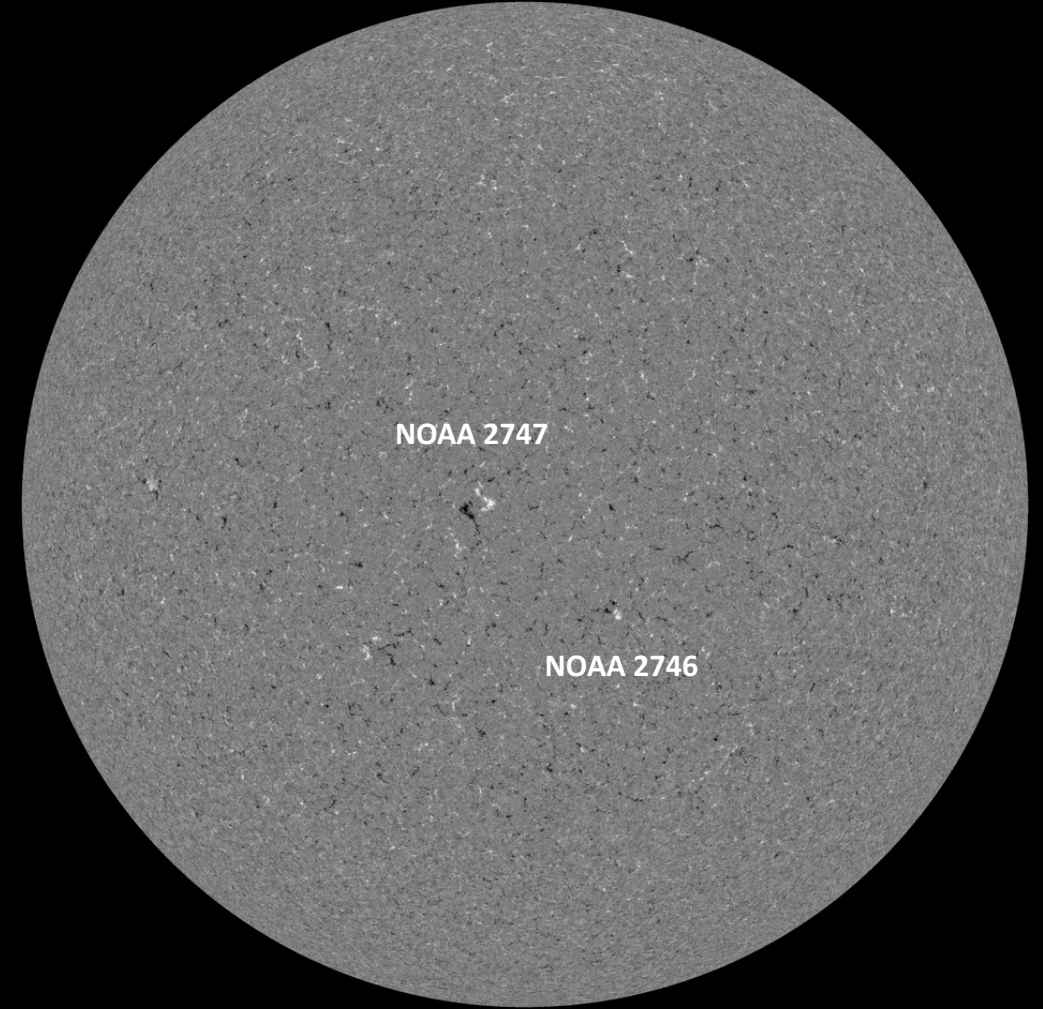
Solar active region - middle of the week

SDO/HMI White Light 2019-08-07



SDO/HMI Quick-Look Continuum: 20190807_120000

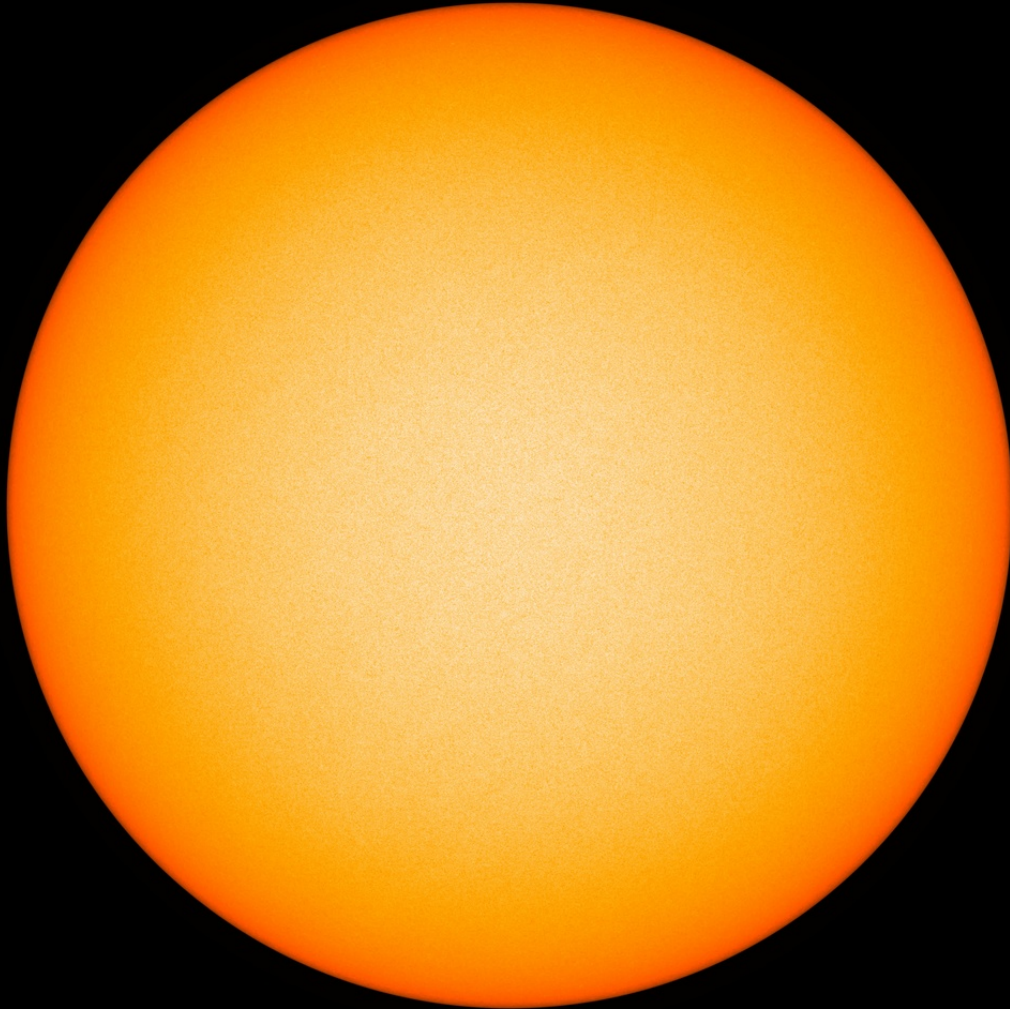
SDO/HMI Magnetogram 2019-08-07



SDO/HMI Quick-Look Magnetogram: 20190807_114500

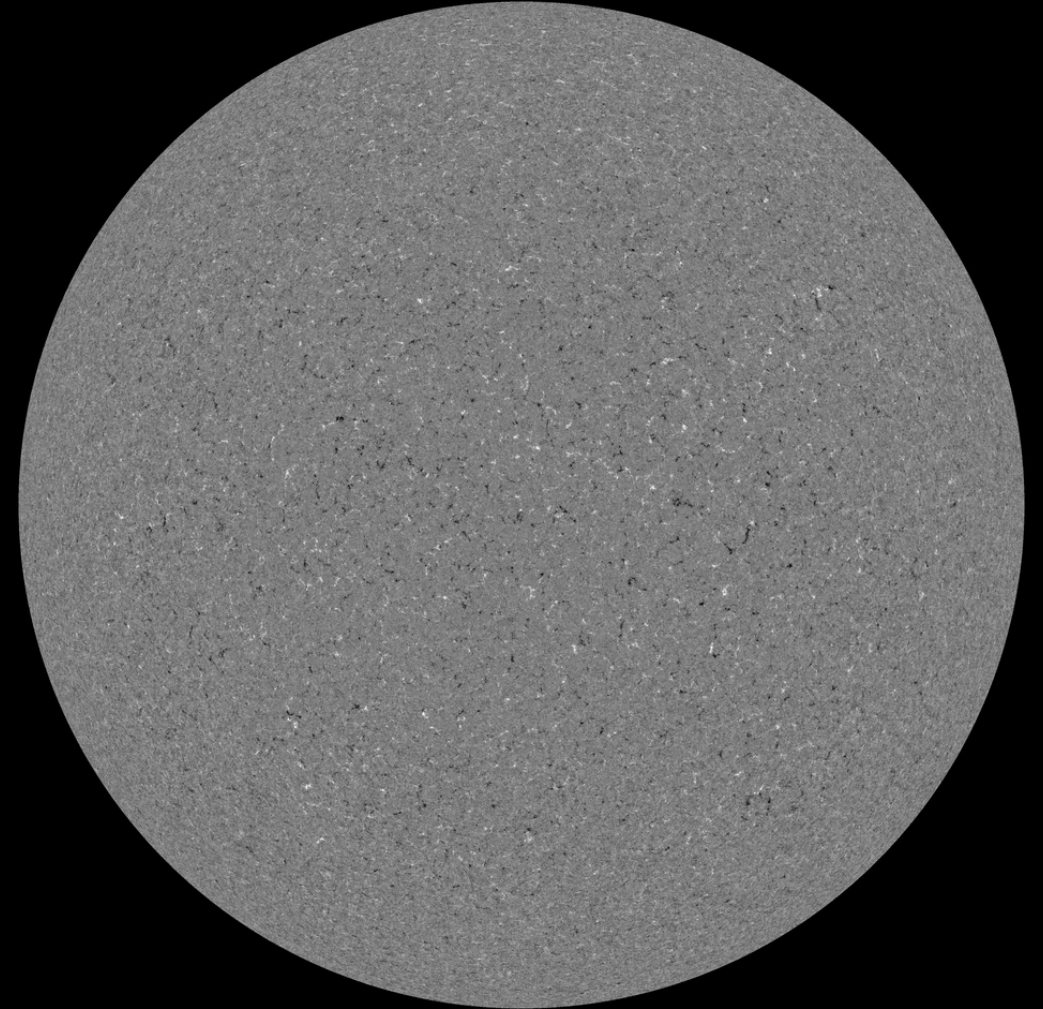
Solar active region - end of the week

SDO/HMI White Light 2019-08-11



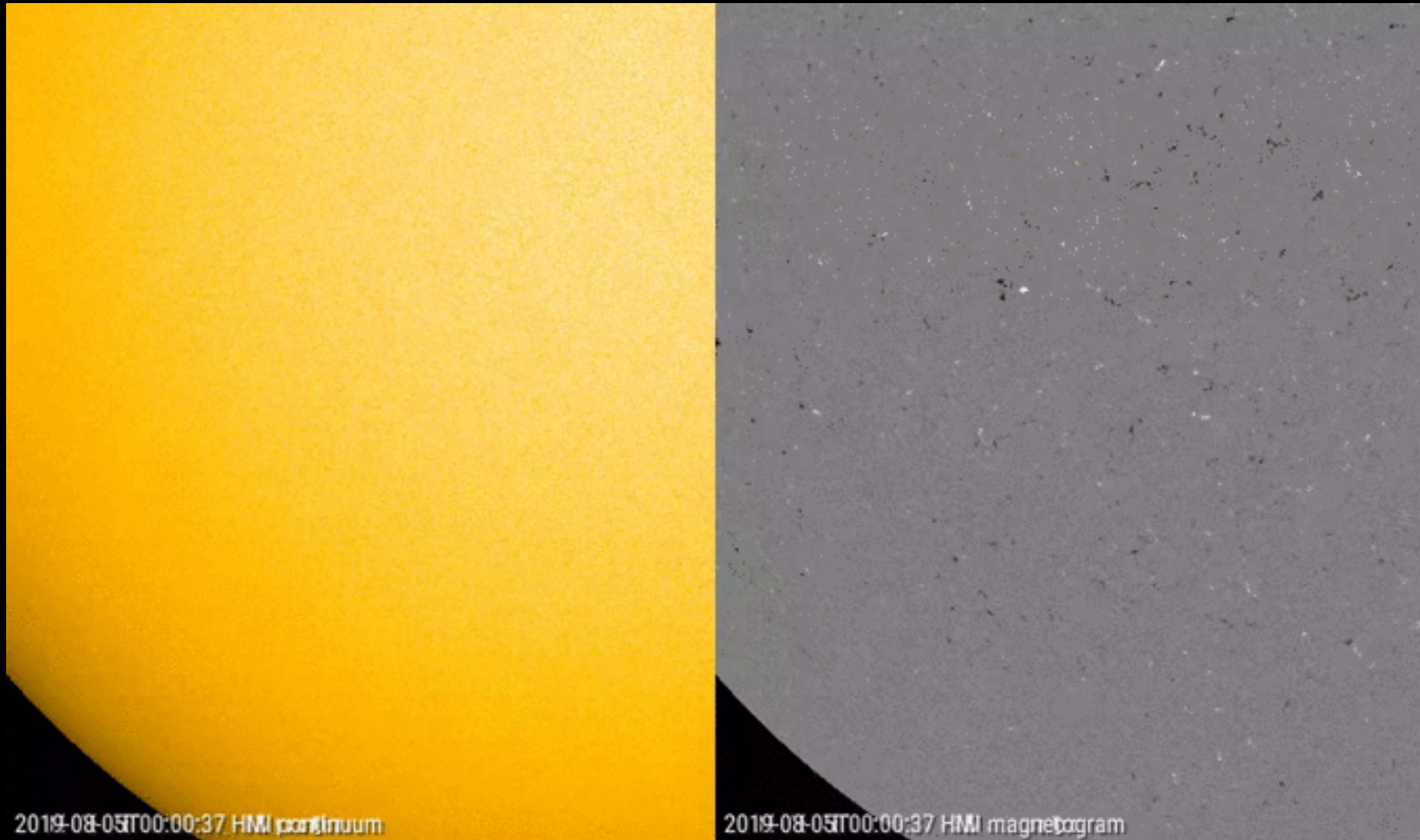
SDO/HMI Quick-Look Continuum: 20190811_120000

SDO/HMI Magnetogram 2019-08-11

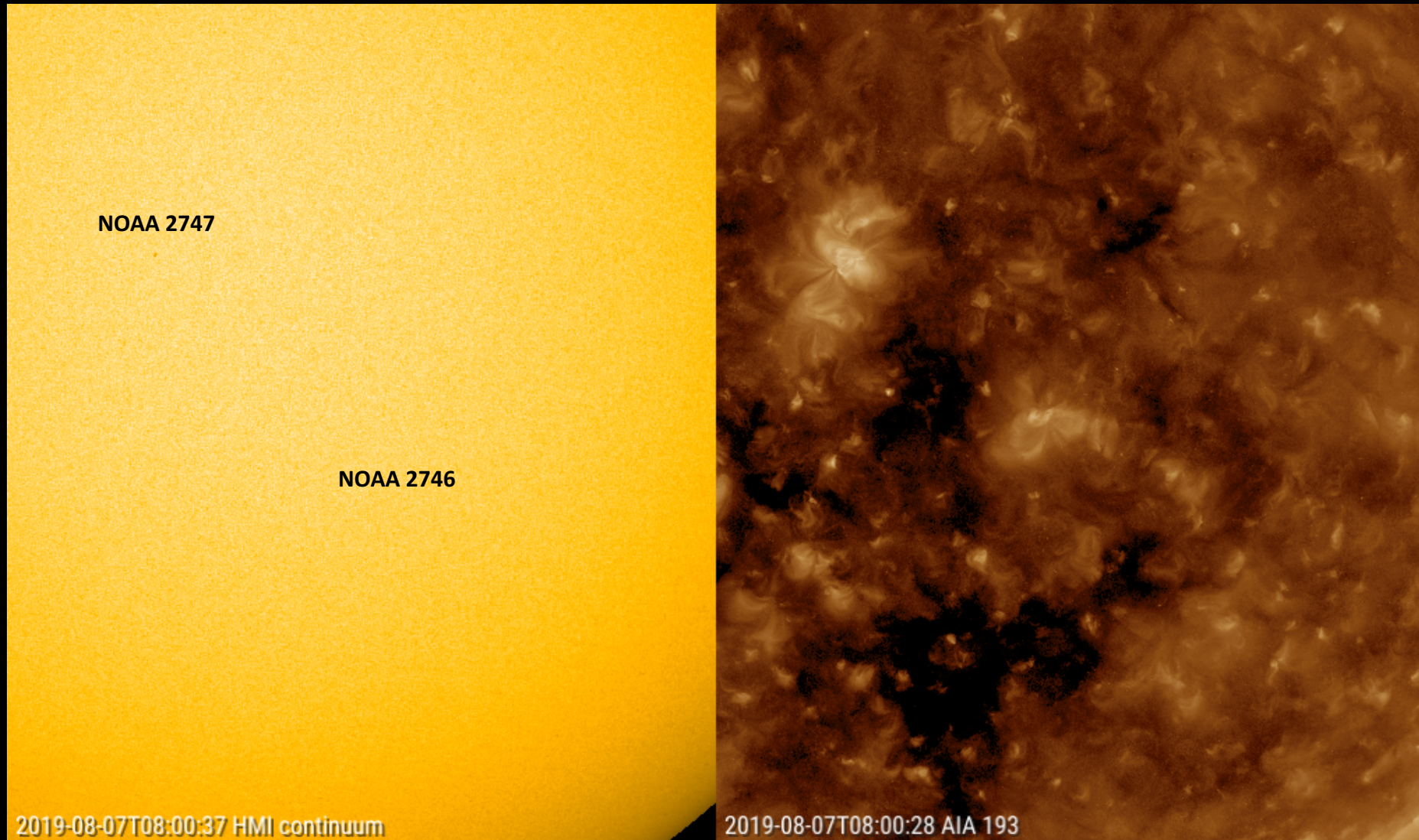


SDO/HMI Quick-Look Magnetogram: 20190812_060000

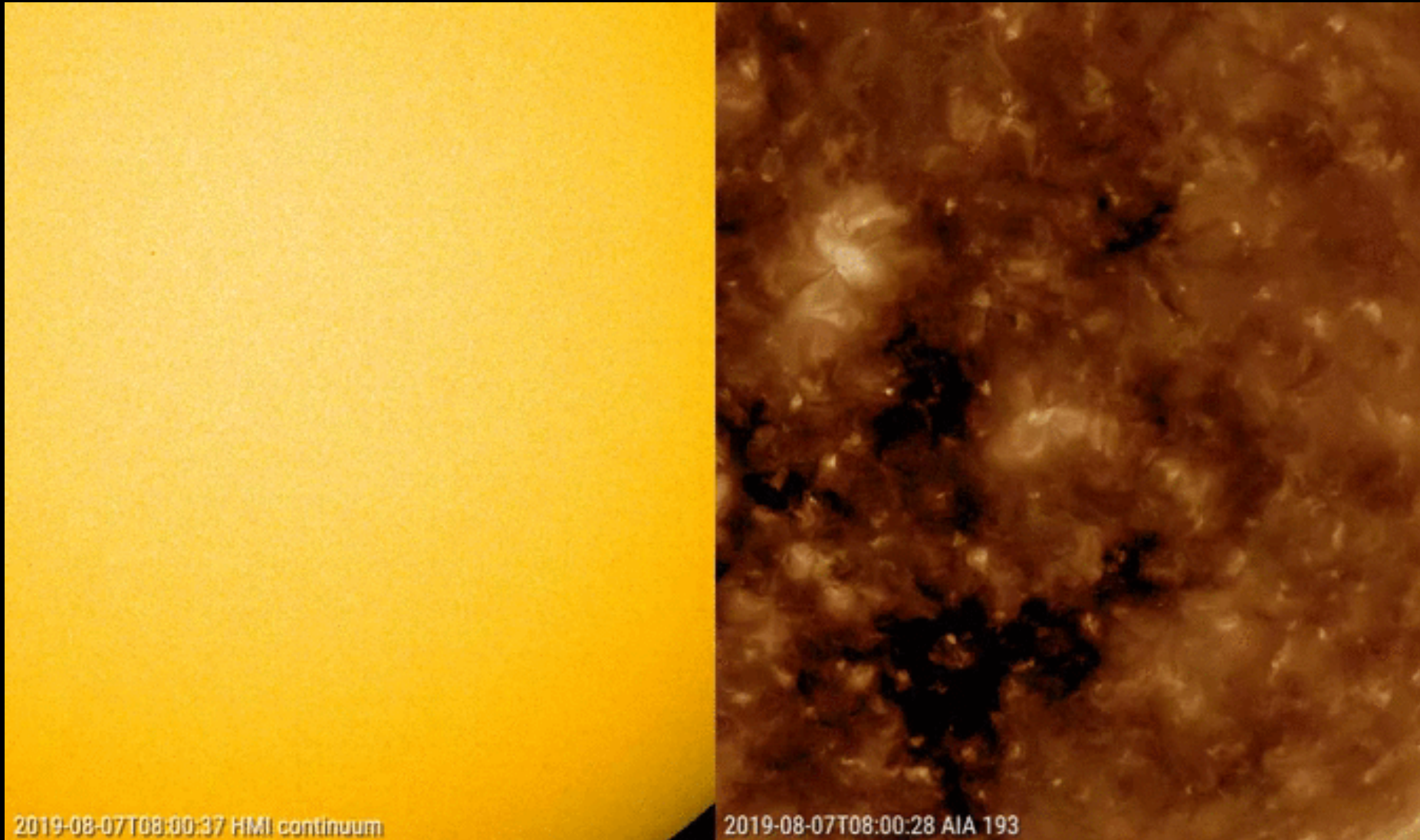
NOAA 2746 and NOAA 2747 were old SC24 regions



NOAA 2746 and NOAA 2747 were old SC24 regions

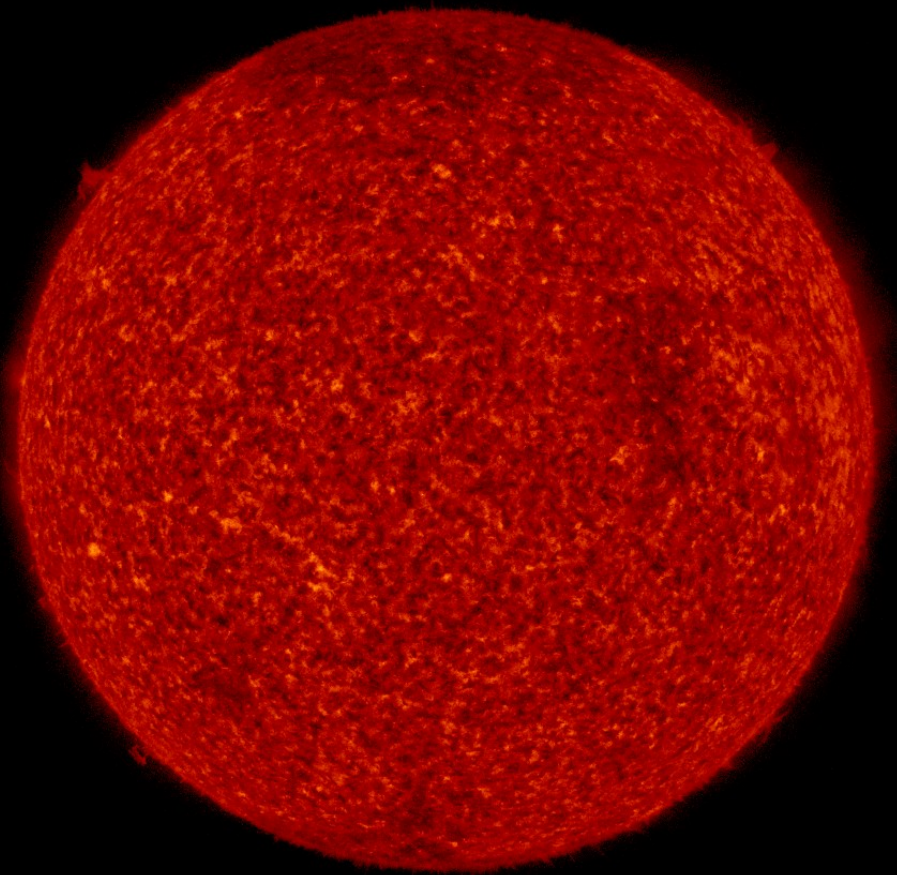


Small eruption in spotless NOAA 2746 on 07 August



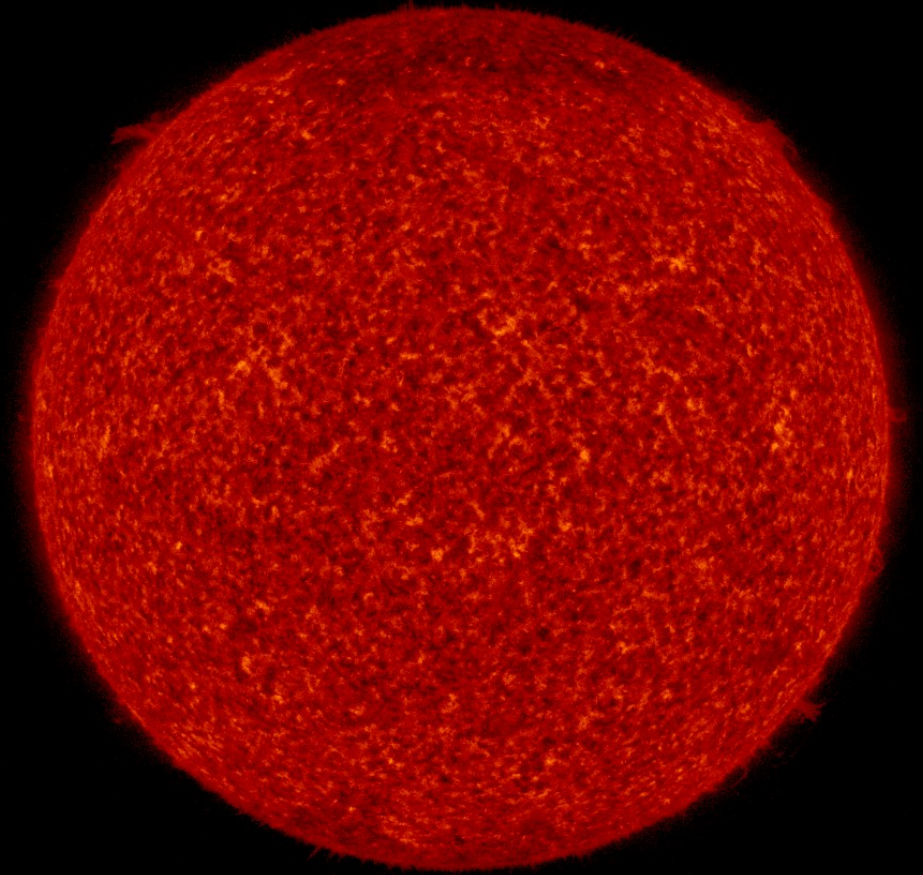
Solar active region & Filament

SDO/AIA 30.4 nm 2019-08-04



SDO/AIA 304 2019-08-04 12:13:18 UT

SDO/AIA 30.4 nm 2019-08-11



SDO/AIA 304 2019-08-11 12:13:30 UT

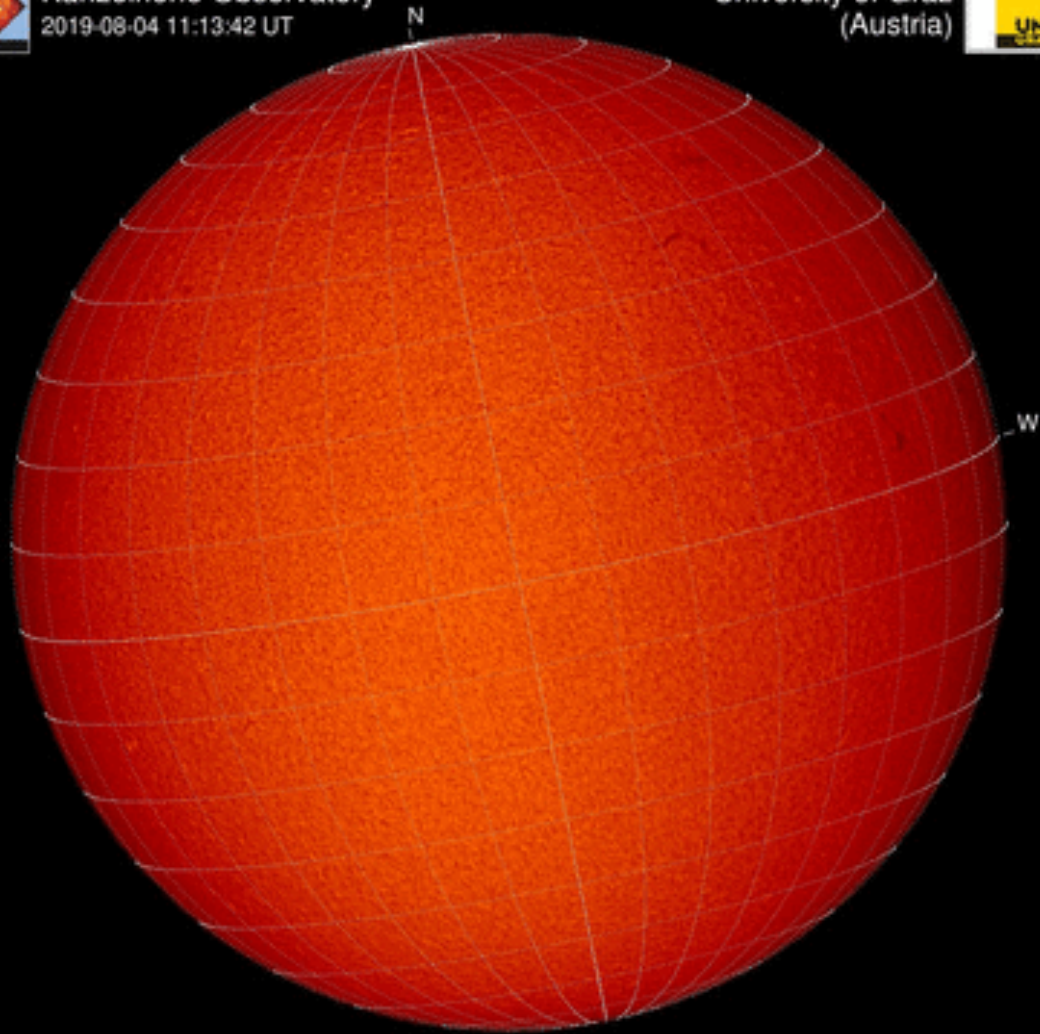
Filament & Filament eruption

H-alpha 2019-08-04



Kanzelhöhe Observatory
2019-08-04 11:13:42 UT

University of Graz
(Austria)

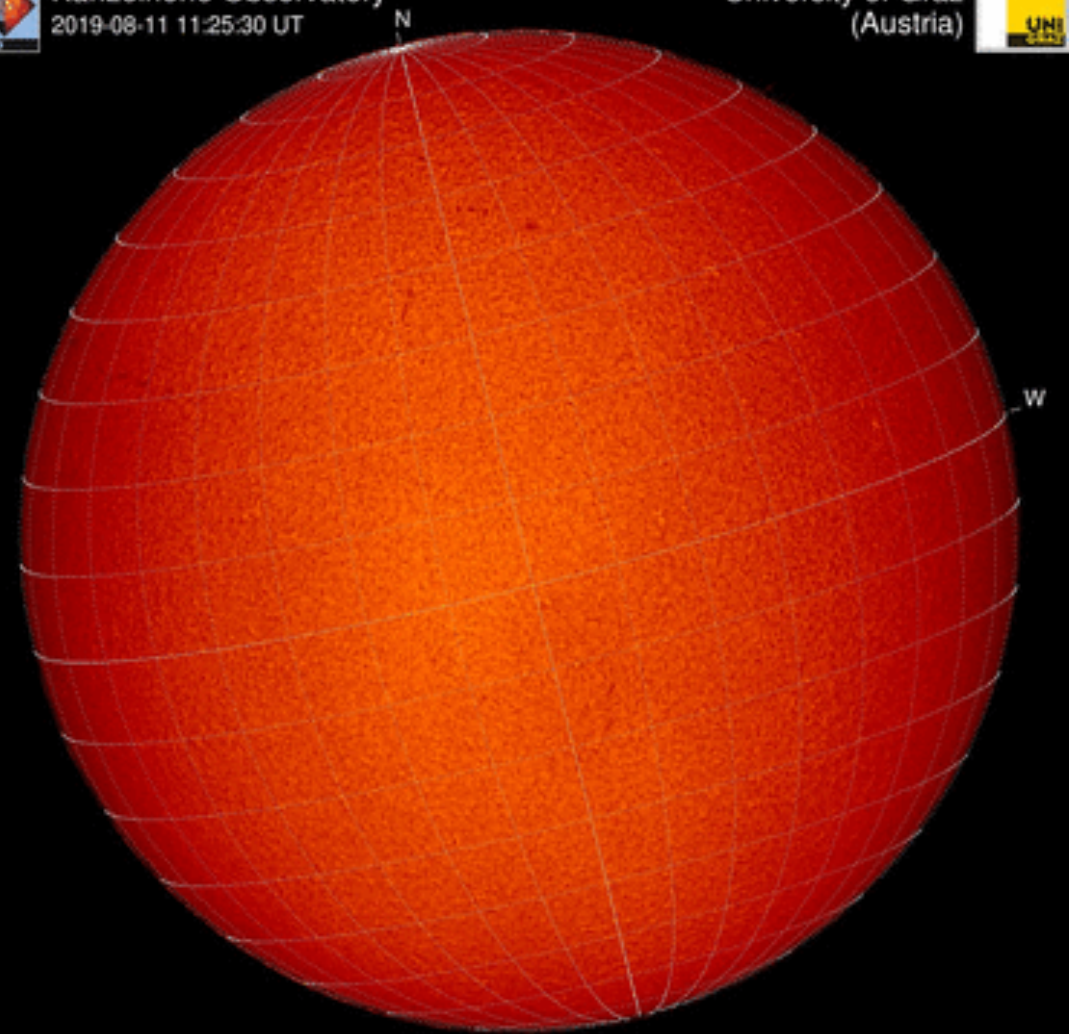


H-alpha 2019-08-11

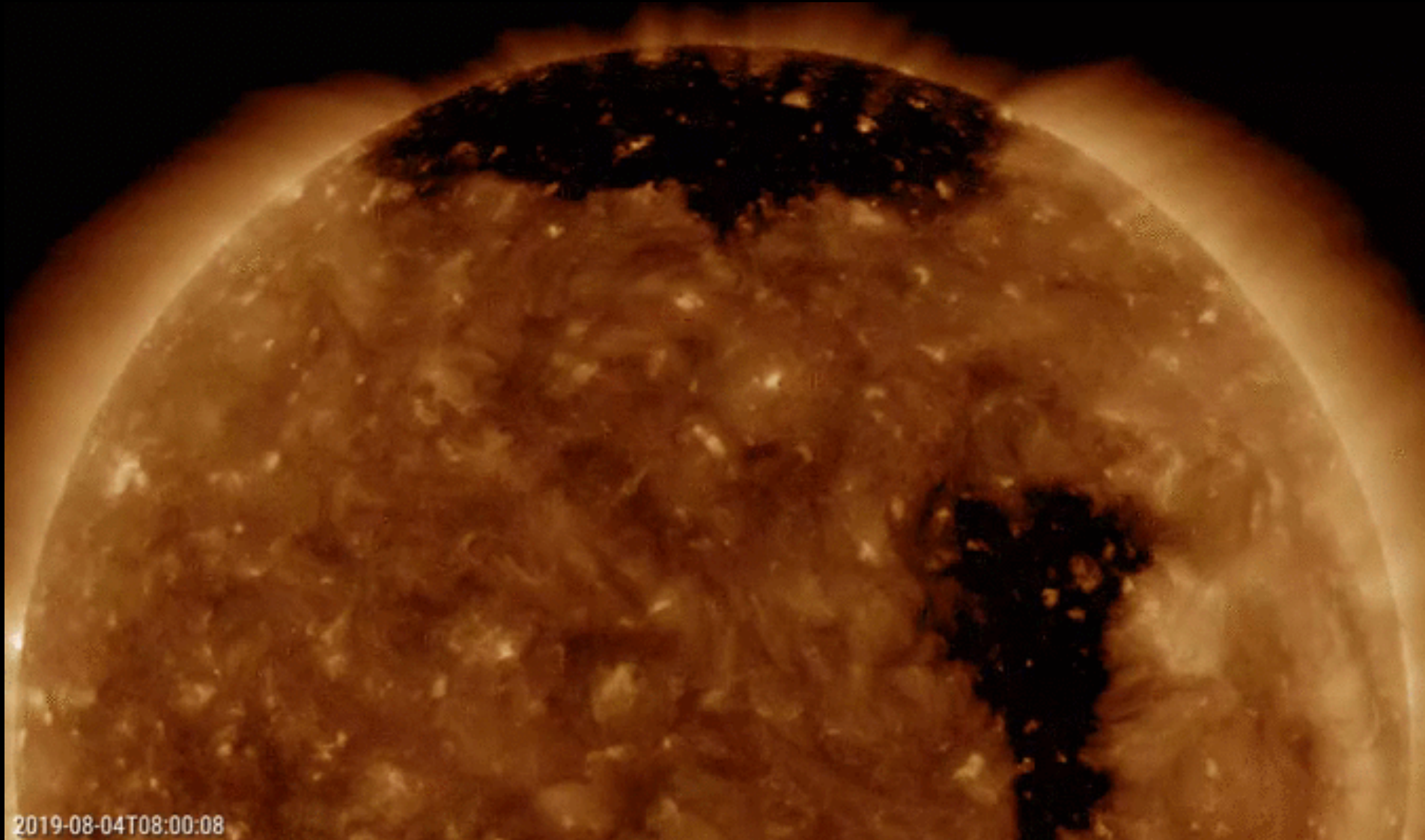


Kanzelhöhe Observatory
2019-08-11 11:25:30 UT

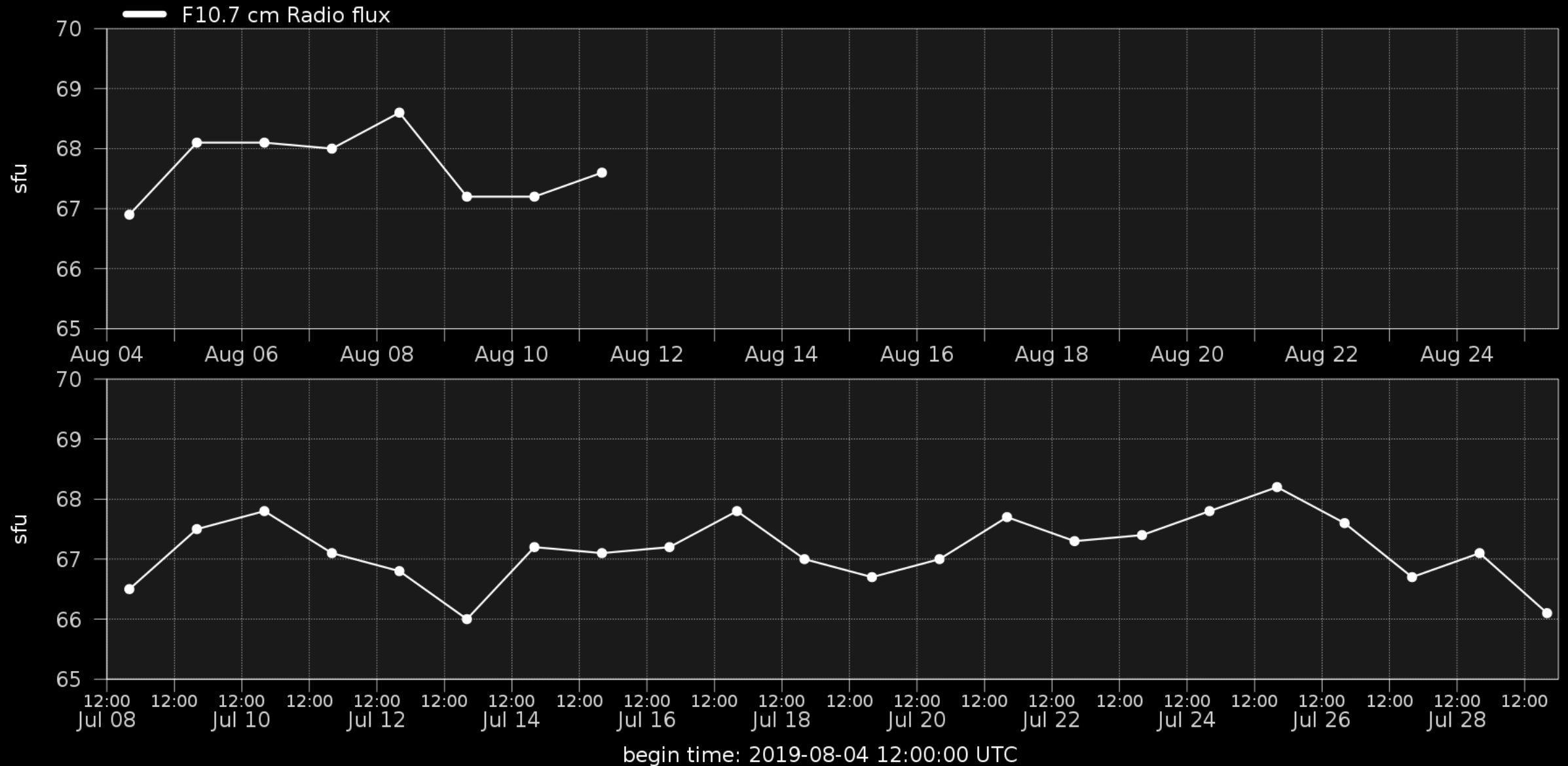
University of Graz
(Austria)



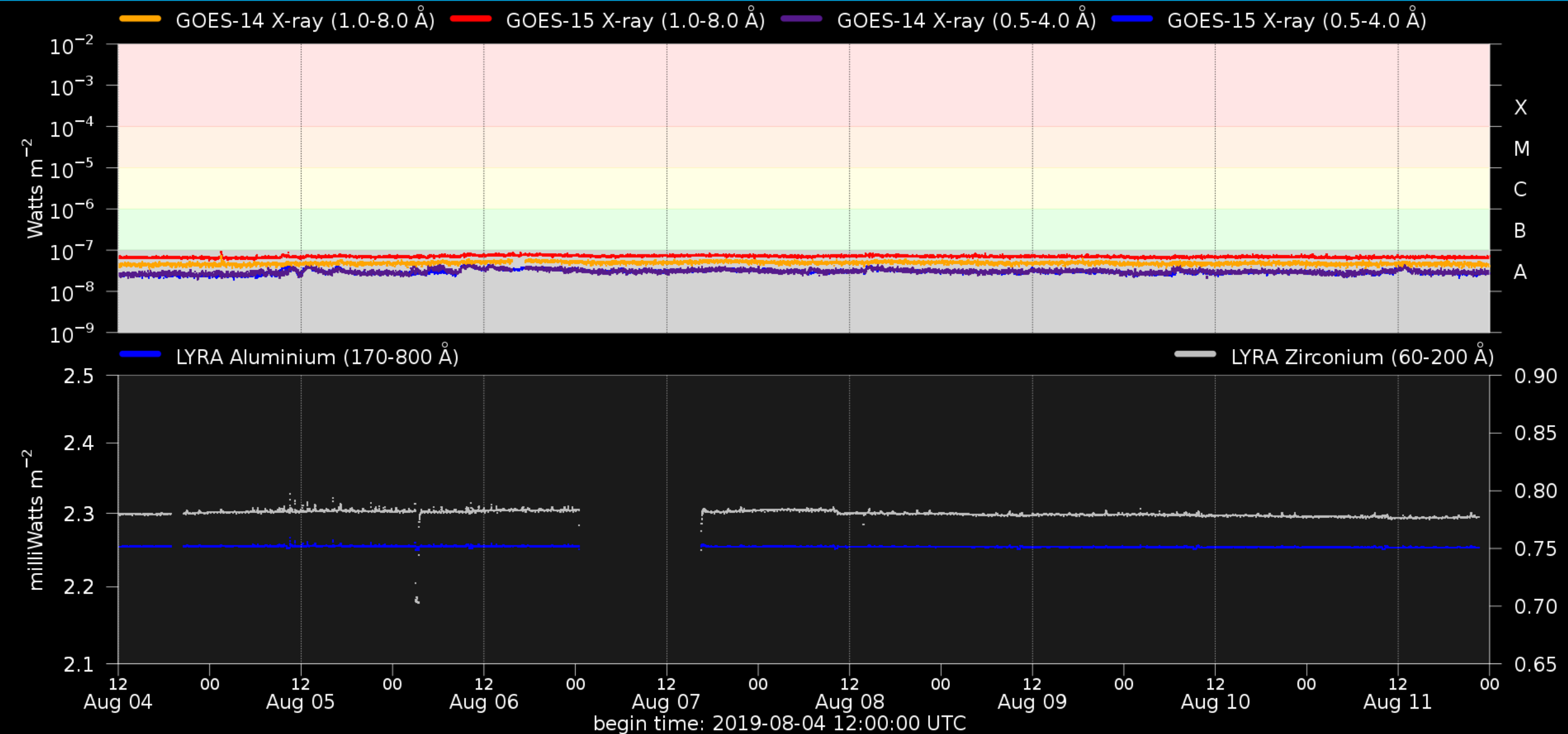
Filament eruption on 4 August near northern polar CH



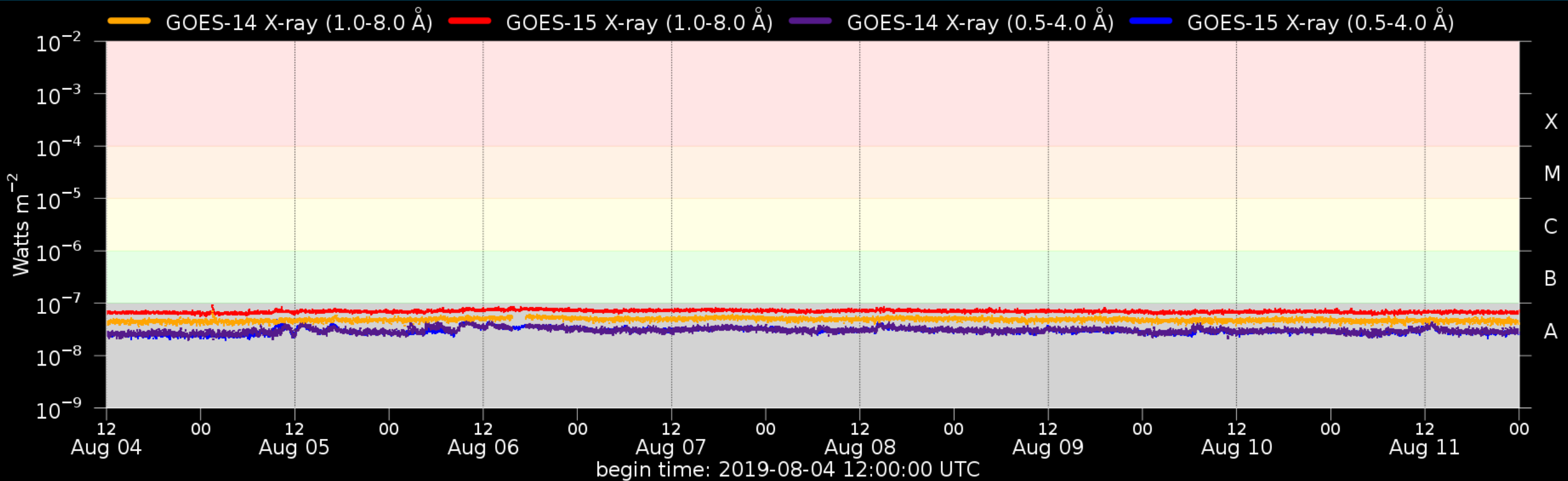
Solar F10.7cm radio flux



Solar X-Ray and UV flux



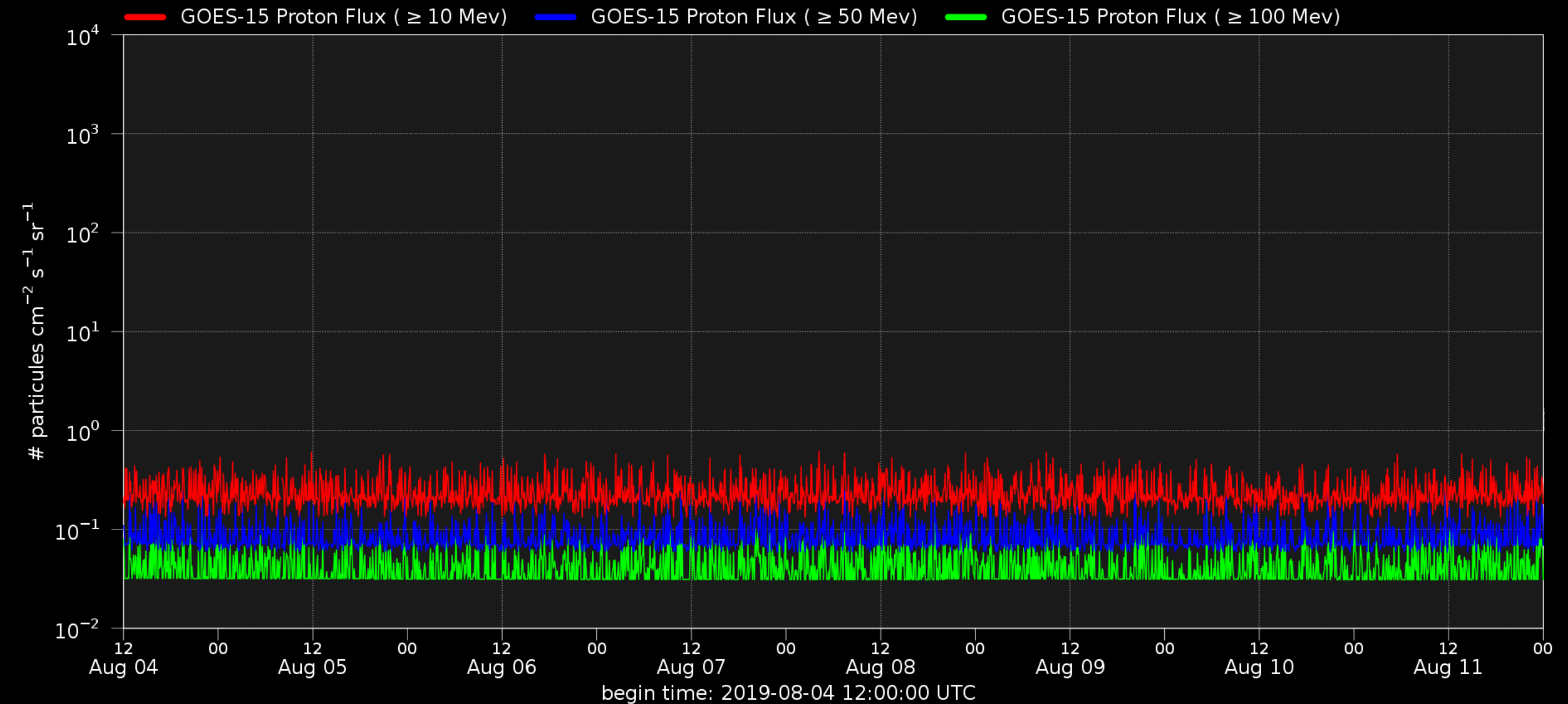
Flaring activity



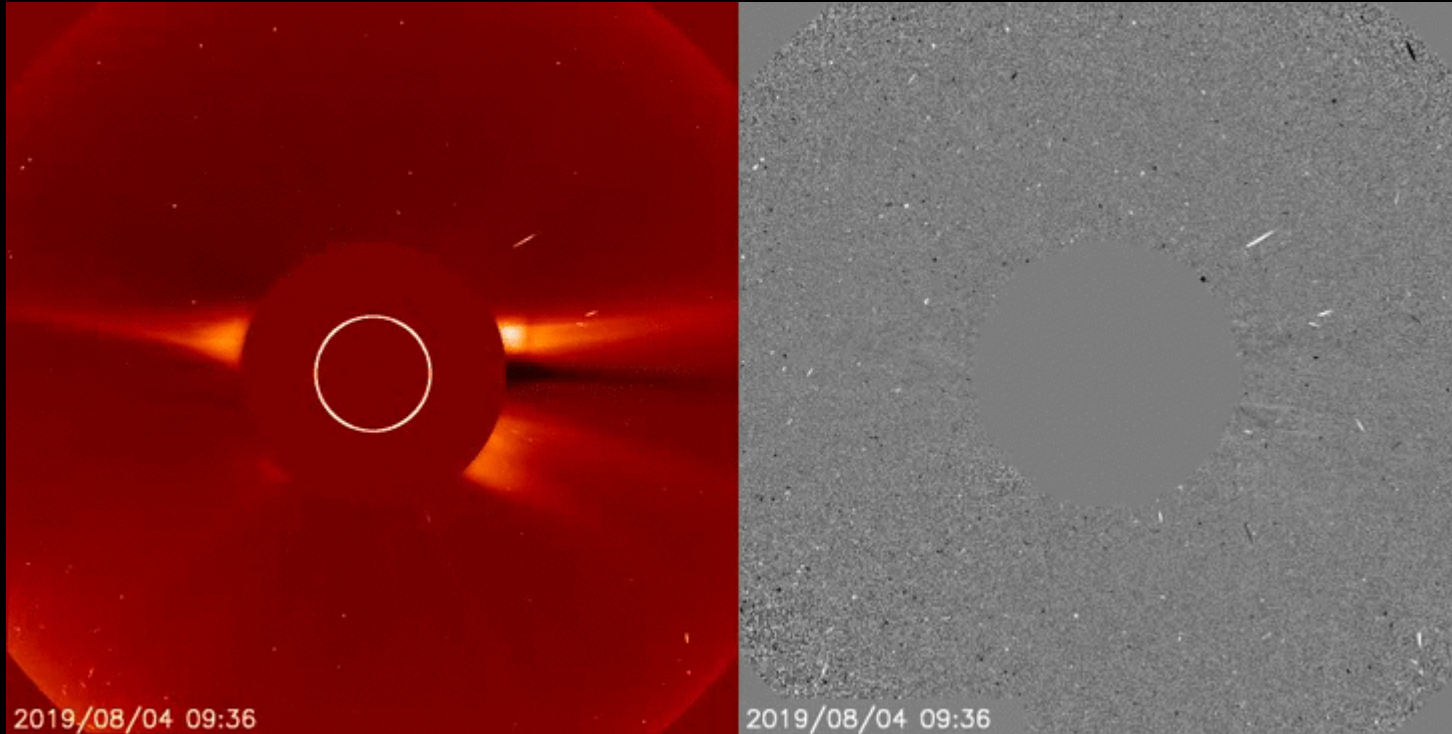
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2019-08-04	2019-08-05	2019-08-06	2019-08-07	2019-08-08	2019-08-09	2019-08-10	2019-08-11
Probability	--- 01 01 01	--- 05 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

Solar proton flux



Coronal Mass Ejection



Coronal Mass Ejection

Planet Venus moving to its superior conjunction on 14 August



S

W

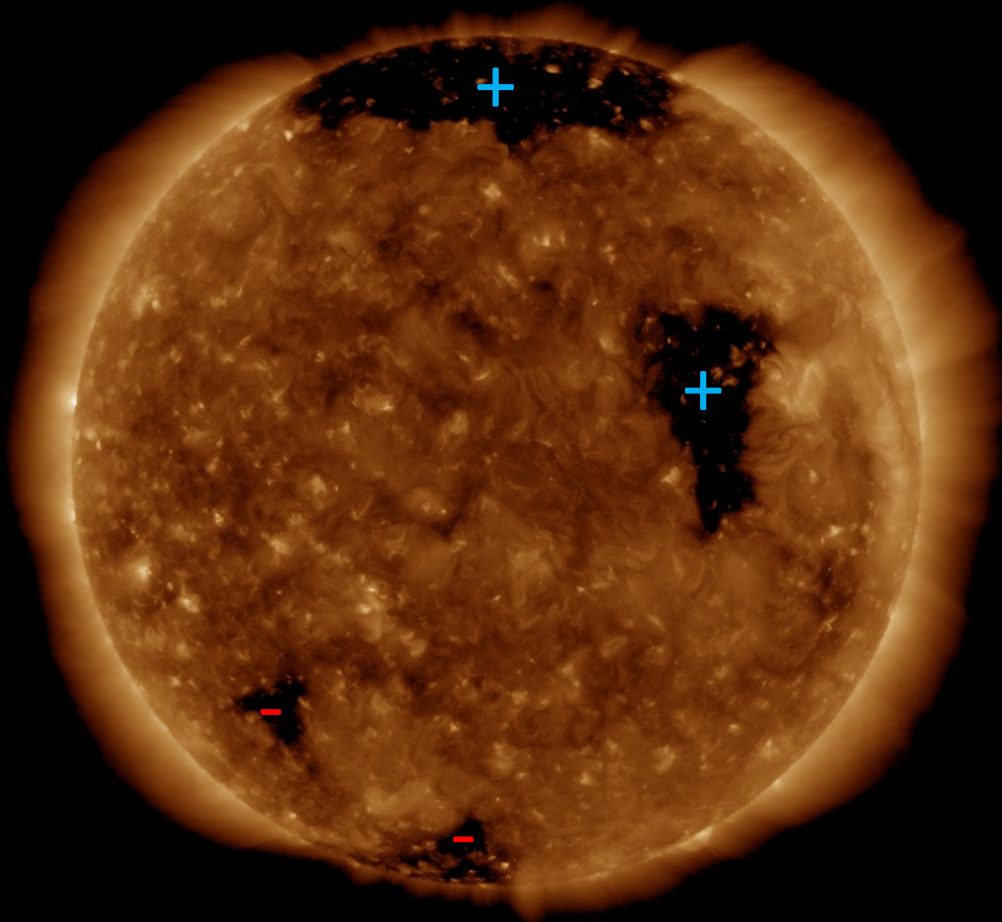
N

E

18:36 08/06
16:00 08/06
12:36 08/06
09:36 08/06
06:36 08/06
03:36 08/06
16:24 08/05
13:25 08/05
10:12 08/05
06:48 08/05
04:00 08/05
00:36 08/05
20:48 08/04
17:48 08/04
14:58 08/04
11:12 08/04
08:00 08/04
04:48 08/04
01:48 08/04
22:00 08/03
19:06 08/03
16:12 08/03
12:36 08/03
09:54 08/03
06:24 08/03
03:42 08/03
00:48 08/03
21:36 08/02
18:42 08/02
15:58 08/02
23:36 08/01
20:00 08/01
17:00 08/01
14:24 08/01
11:12 08/01
08:00 08/01
05:00 08/01
02:00 08/01
21:36 07/31
18:24 07/31
15:24 07/31
11:36 07/31
08:36 07/31
05:48 07/31
03:12 07/31
00:00 07/31

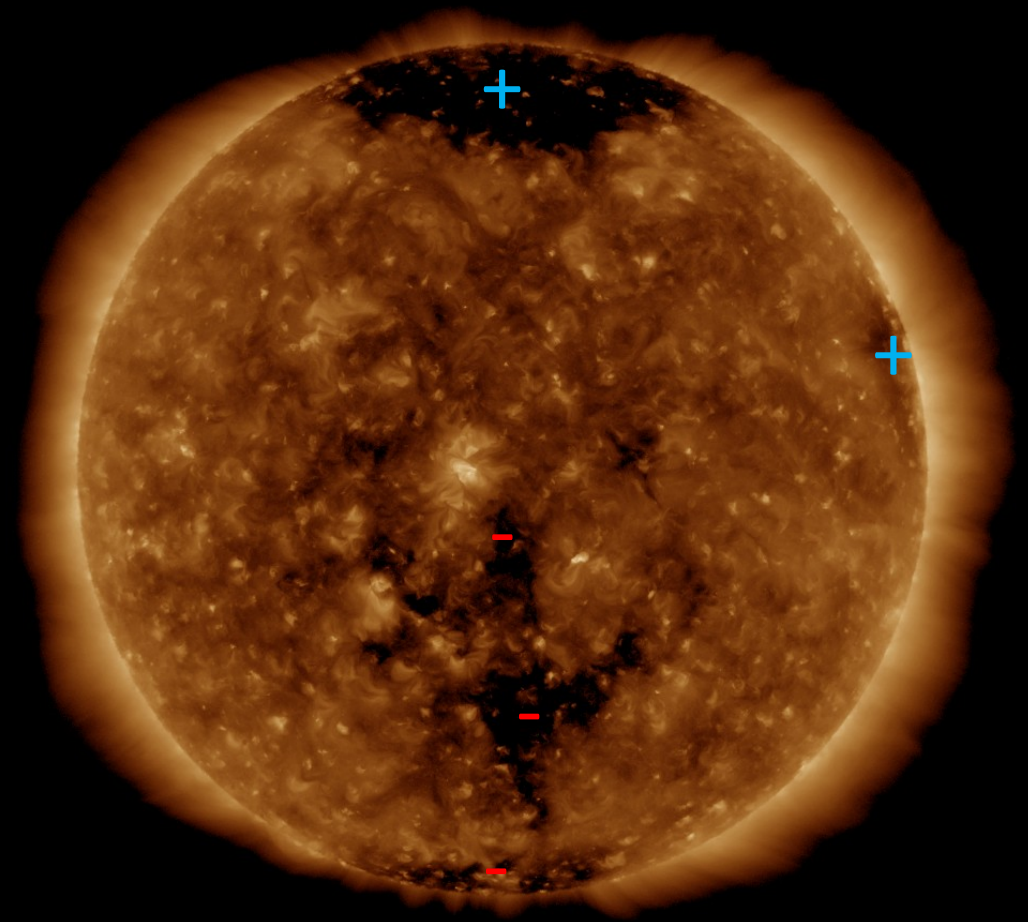
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-08-04



SDO/AIA 193 2019-08-04 12:11:05 UT

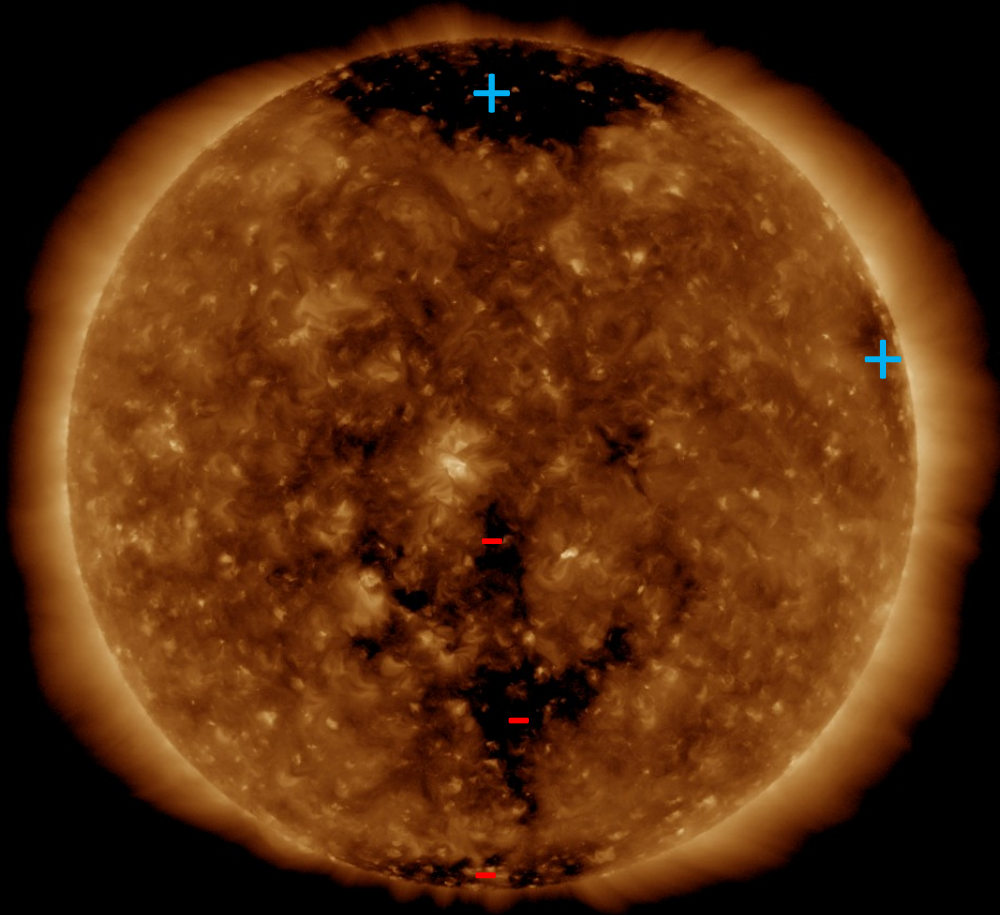
SDO/AIA 19.3 nm 2019-08-07



SDO/AIA 193 2019-08-07 12:11:05 UT

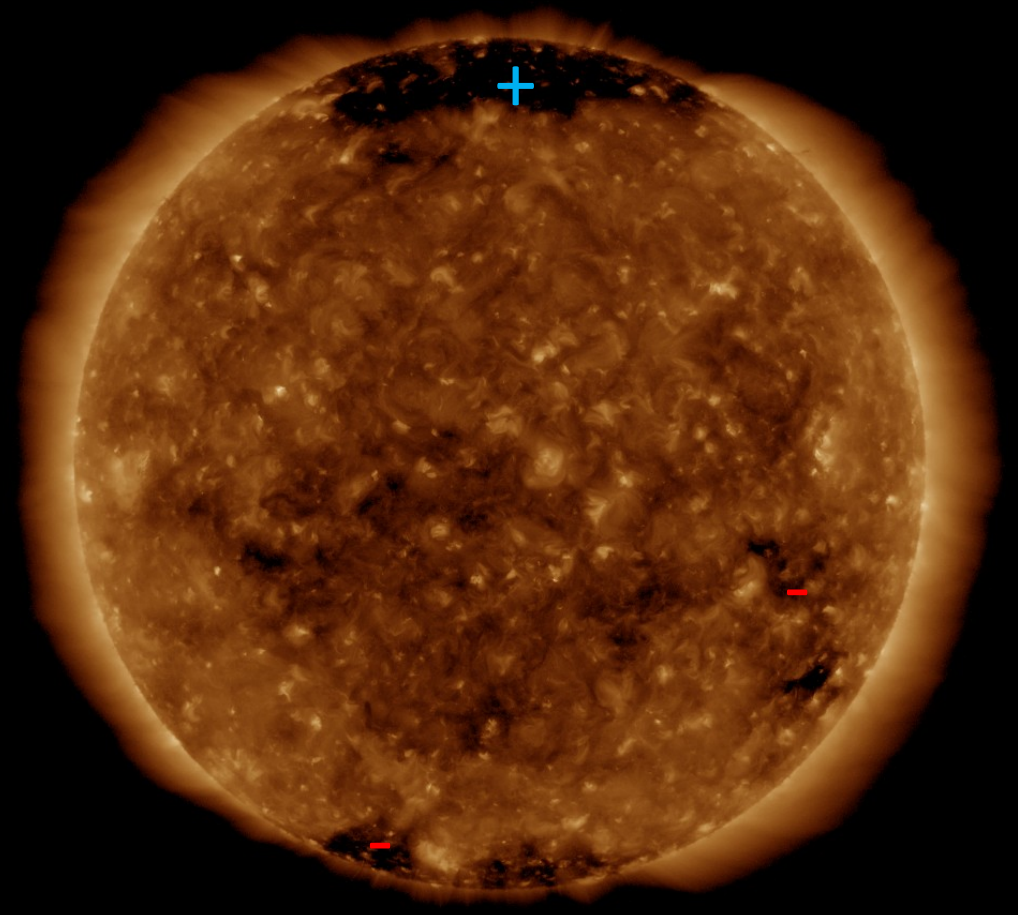
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-08-07



SDO/AIA 193 2019-08-07 12:11:05 UT

SDO/AIA 19.3 nm 2019-08-11



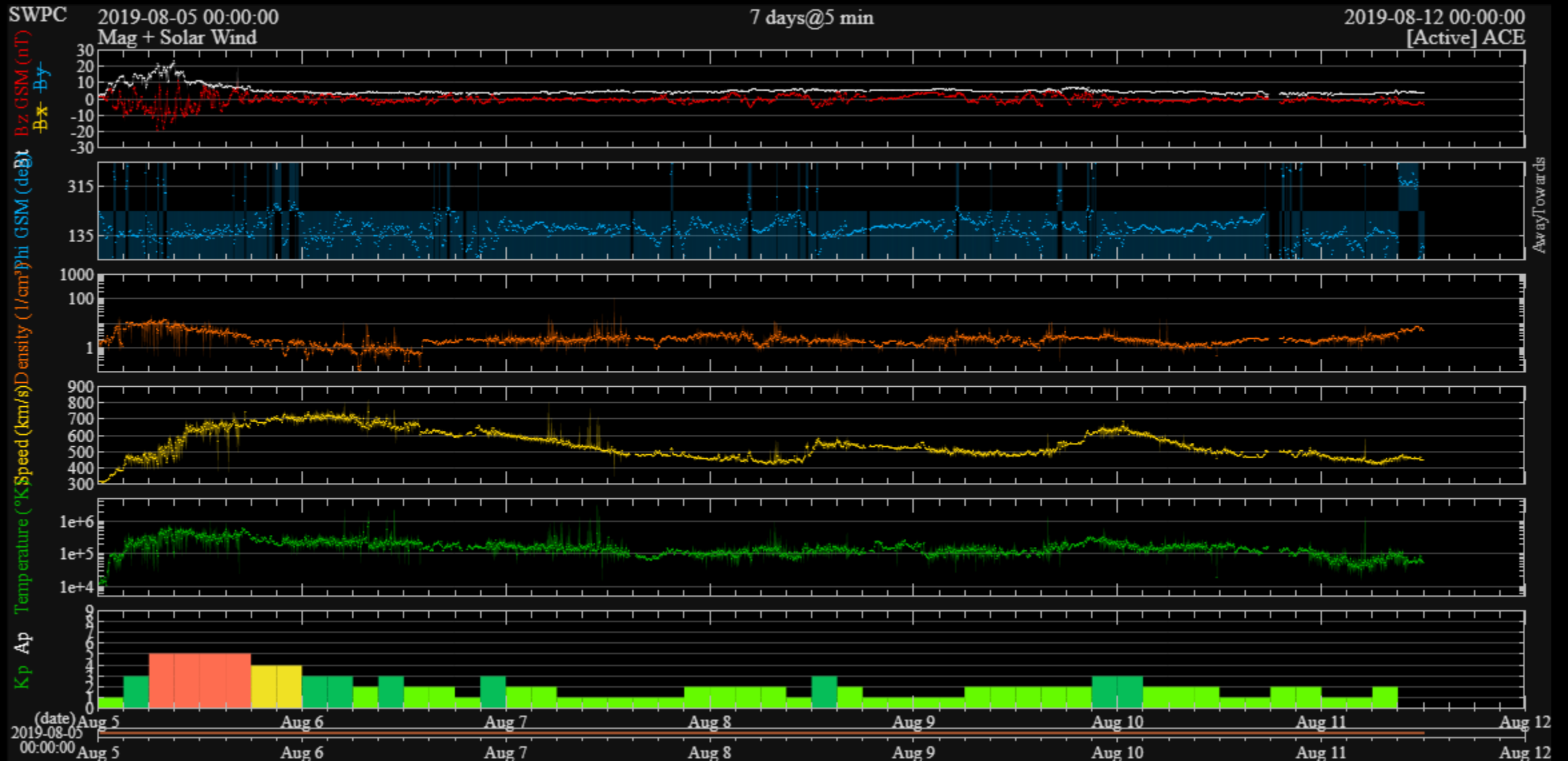
SDO/AIA 193 2019-08-11 12:11:17 UT

Solar Wind and Geomagnetic Activity

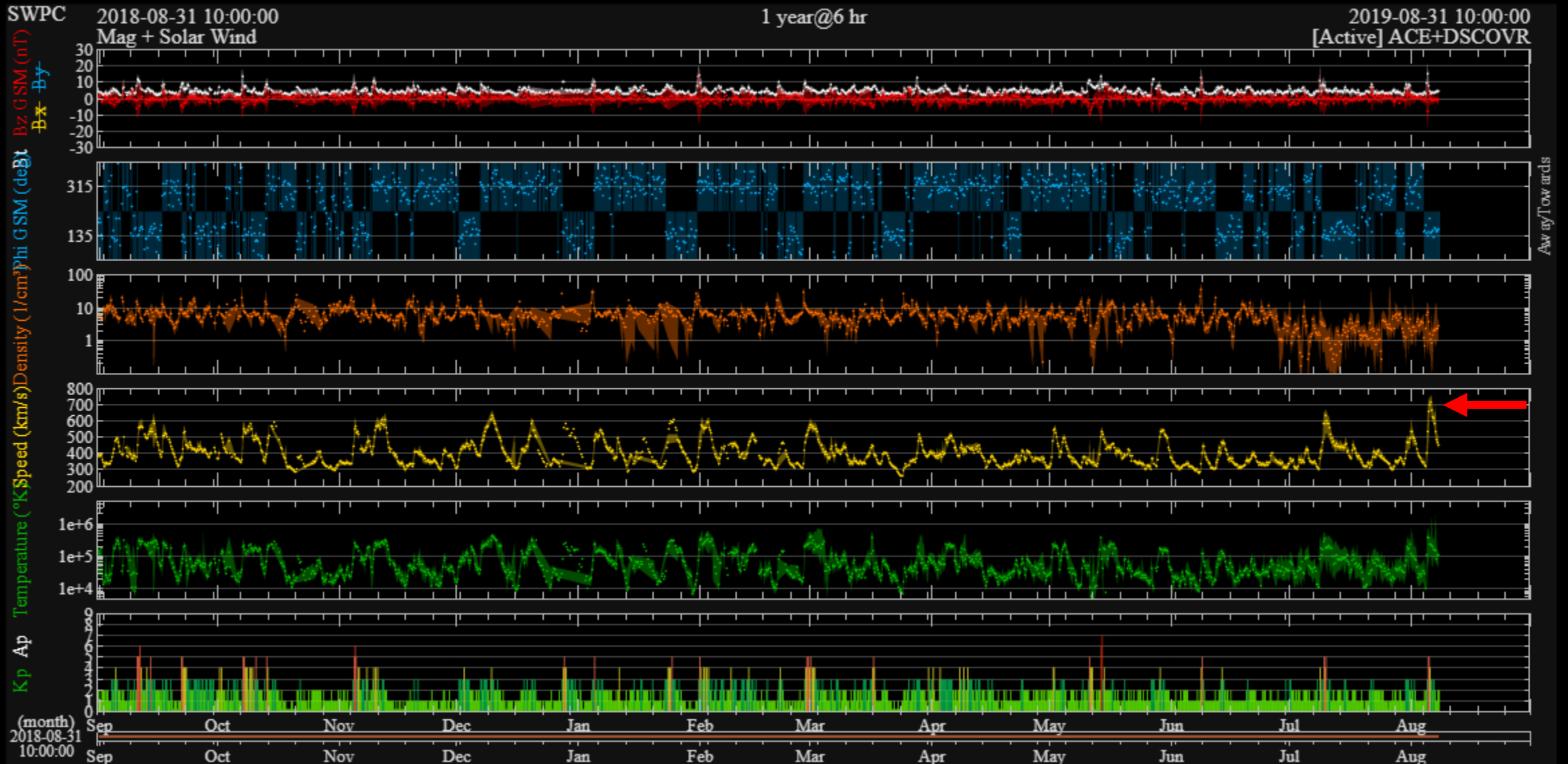


Solar Influences
Data analysis Centre
www.sidc.be

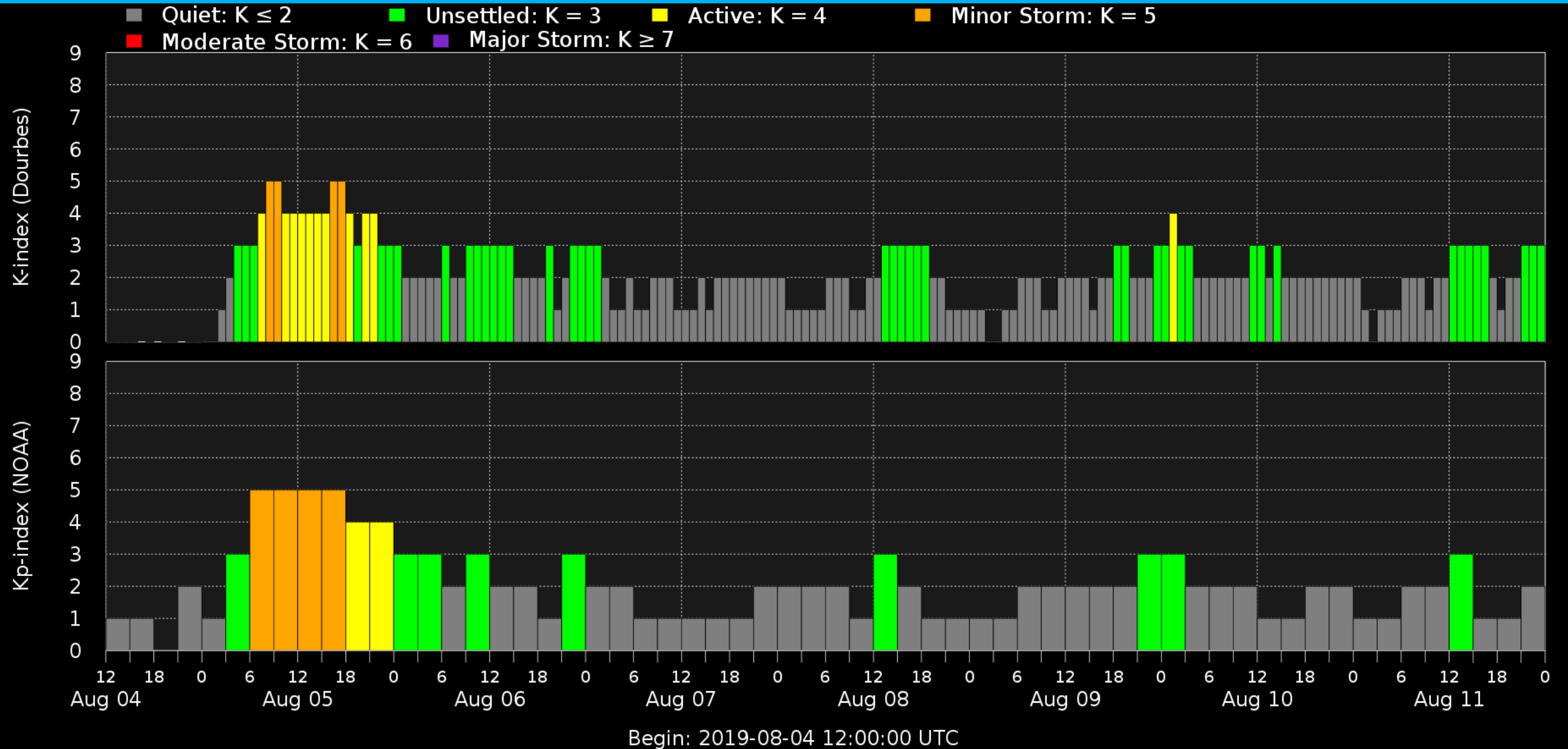
Solar wind parameters (ACE data)



Solar wind speed strongest in more than a year!

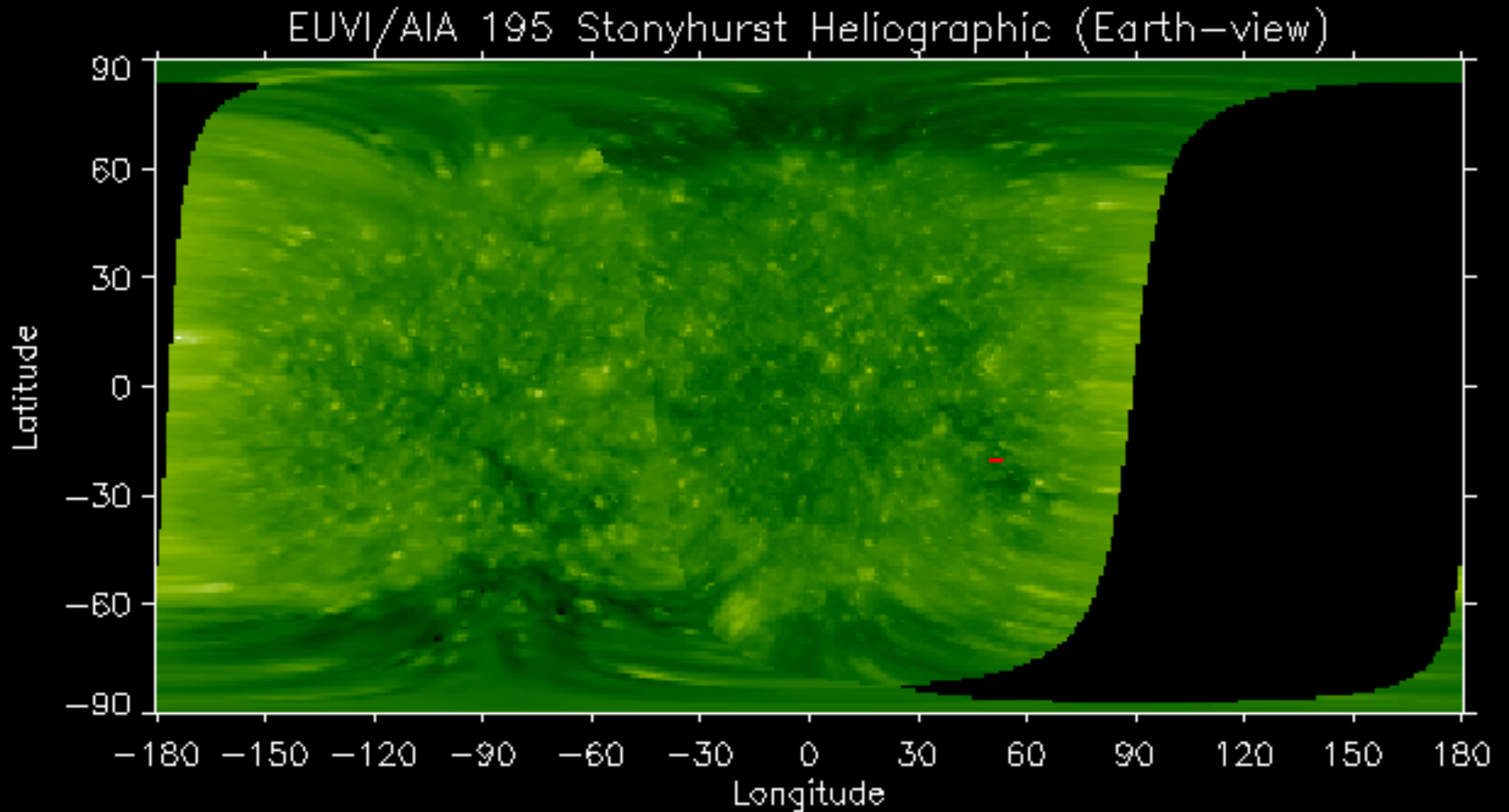


Geomagnetic activity (K-indexes)

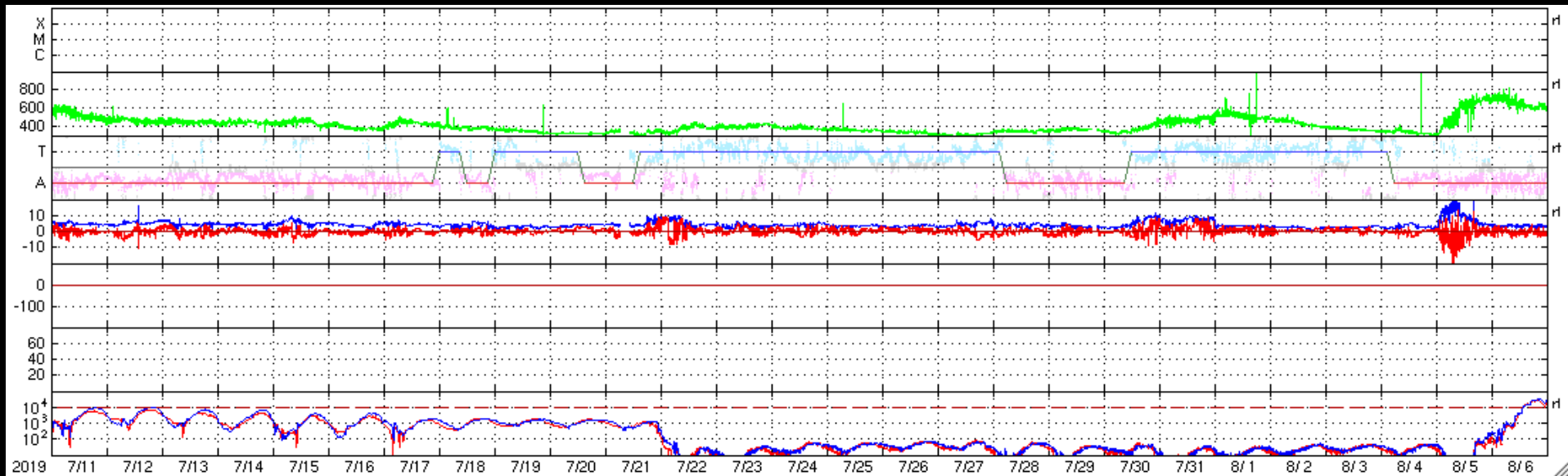
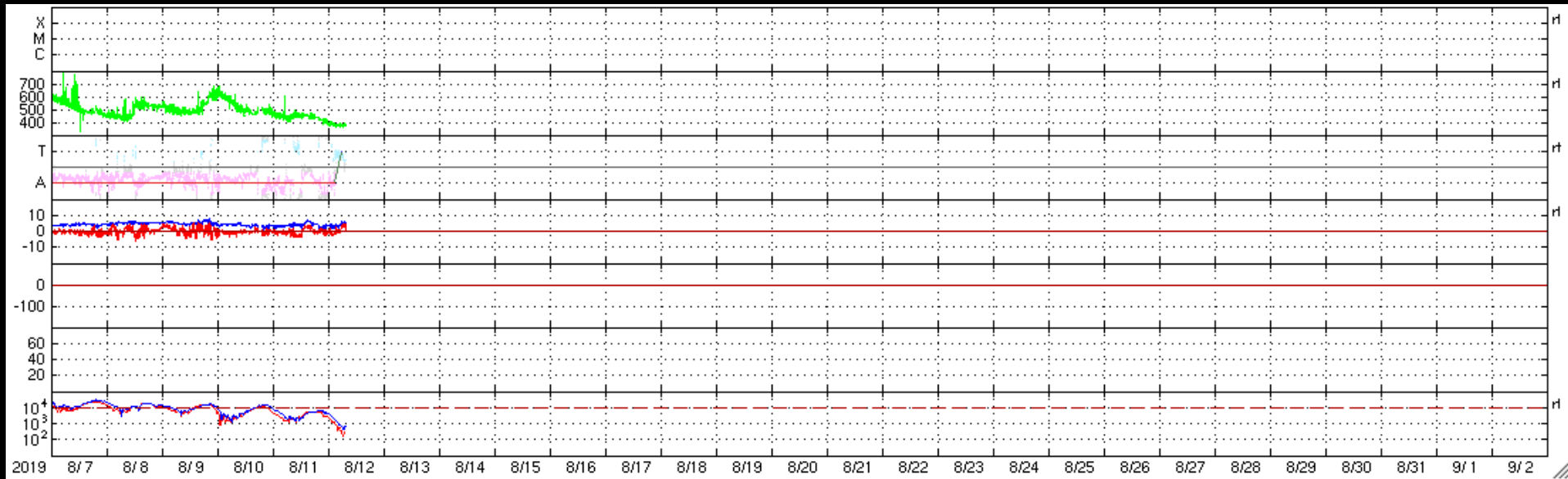


Outlook

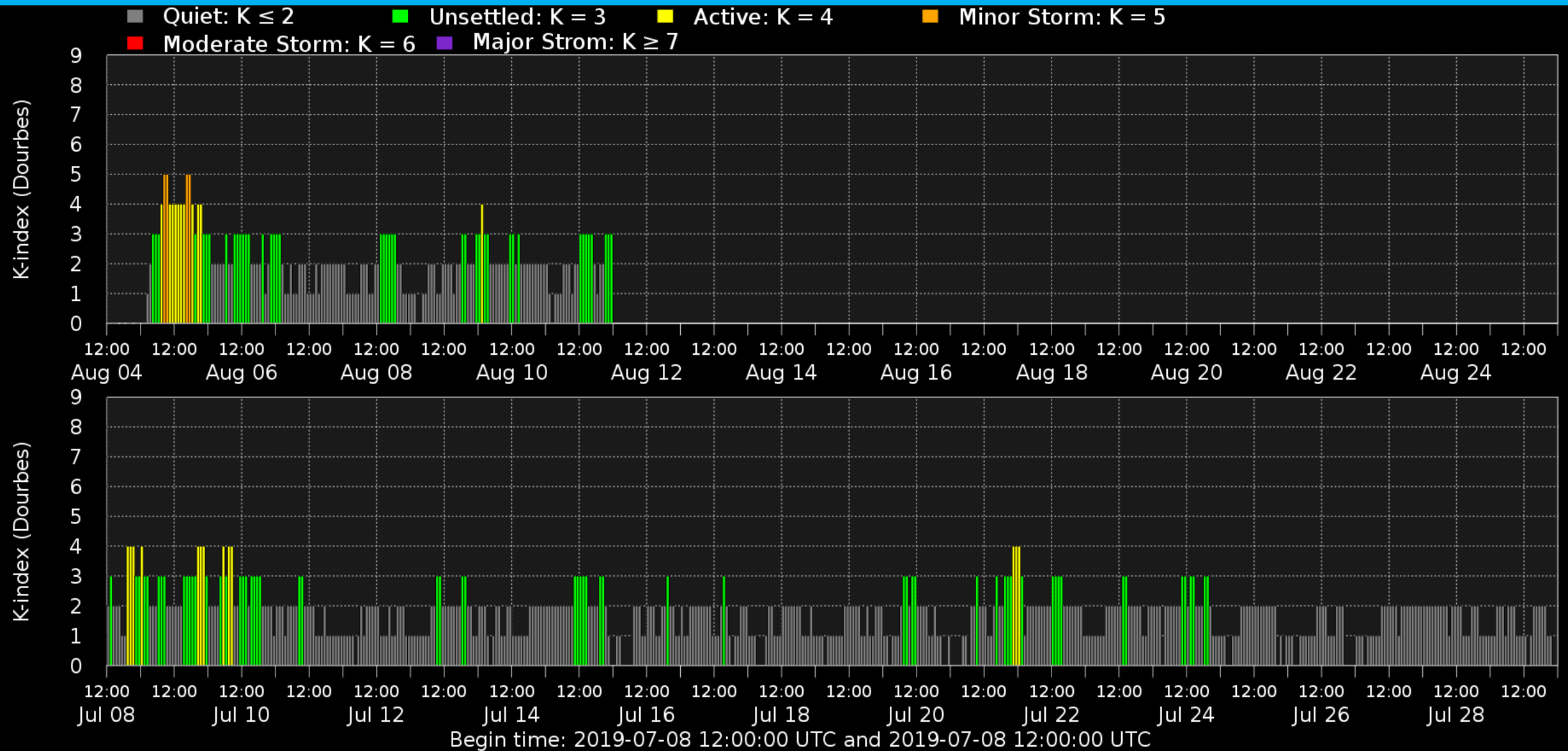
Outlook: Solar activity



Outlook: Solar wind *(Source: http://swnews.jp/rt/27d_all_27.html)*



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



Solar Influences
Data analysis Centre
www.sidc.be