

SIDC Space Weather Briefing

31 May 2020 - 07 June 2020

Jesse Andries
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2020-05-31 12:00 UT to 2020-06-07 12:00 UT

Active regions	NOAA 2764 (North, insignificant) and NOAA 2765 (South, low level of activity)
Flaring	# B-class flare: 14 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Filament eruption from S50W20 on June 3 (no associated CMEs)
CMEs	None Earth directed
Proton Events	Quiet

Solar wind and geomagnetic conditions from 2020-05-31 12:00 UT to 2020-06-07 12:00 UT

Coronal Holes	Faint positive polarity (extensions of Northern polar coronal hole)
ICME	None
SW Conditions	Near-nominal up till yesterday
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 4

All Quiet Alert: All quiet since June 1

Solar Activity

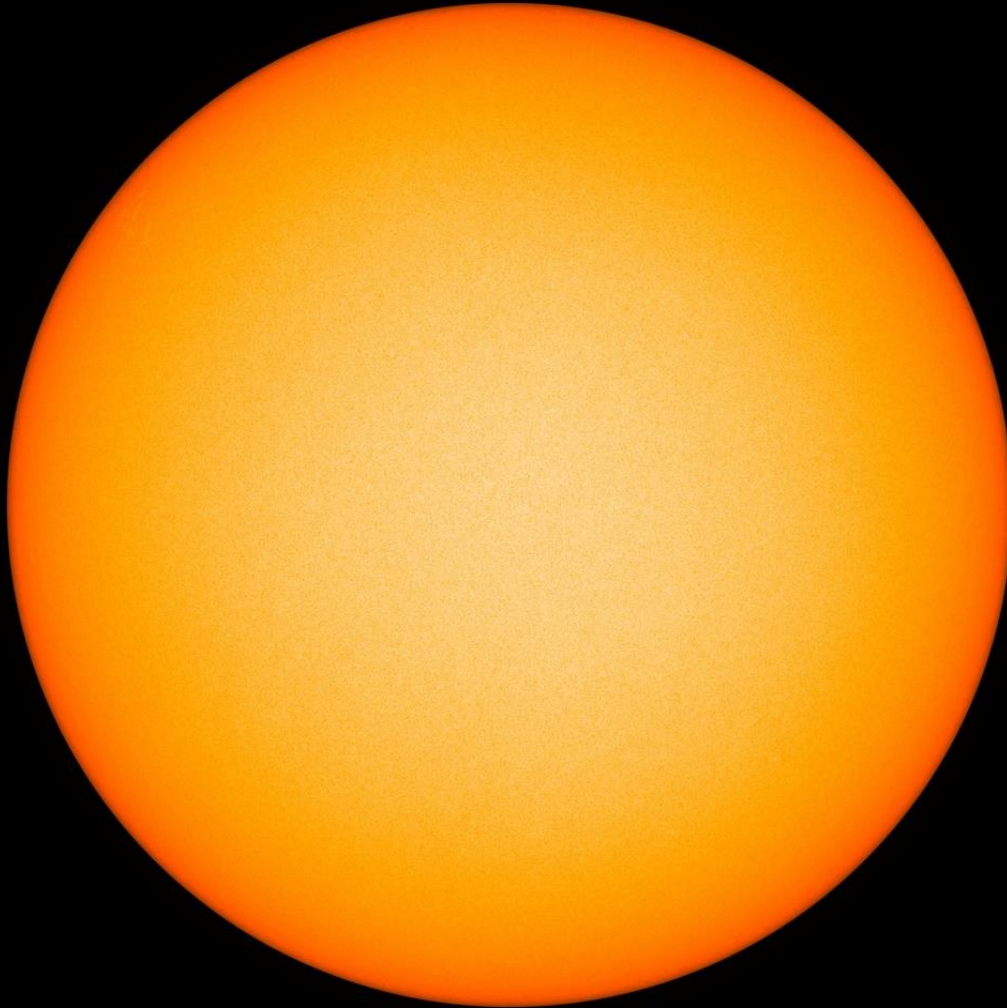


Royal Observatory
of Belgium

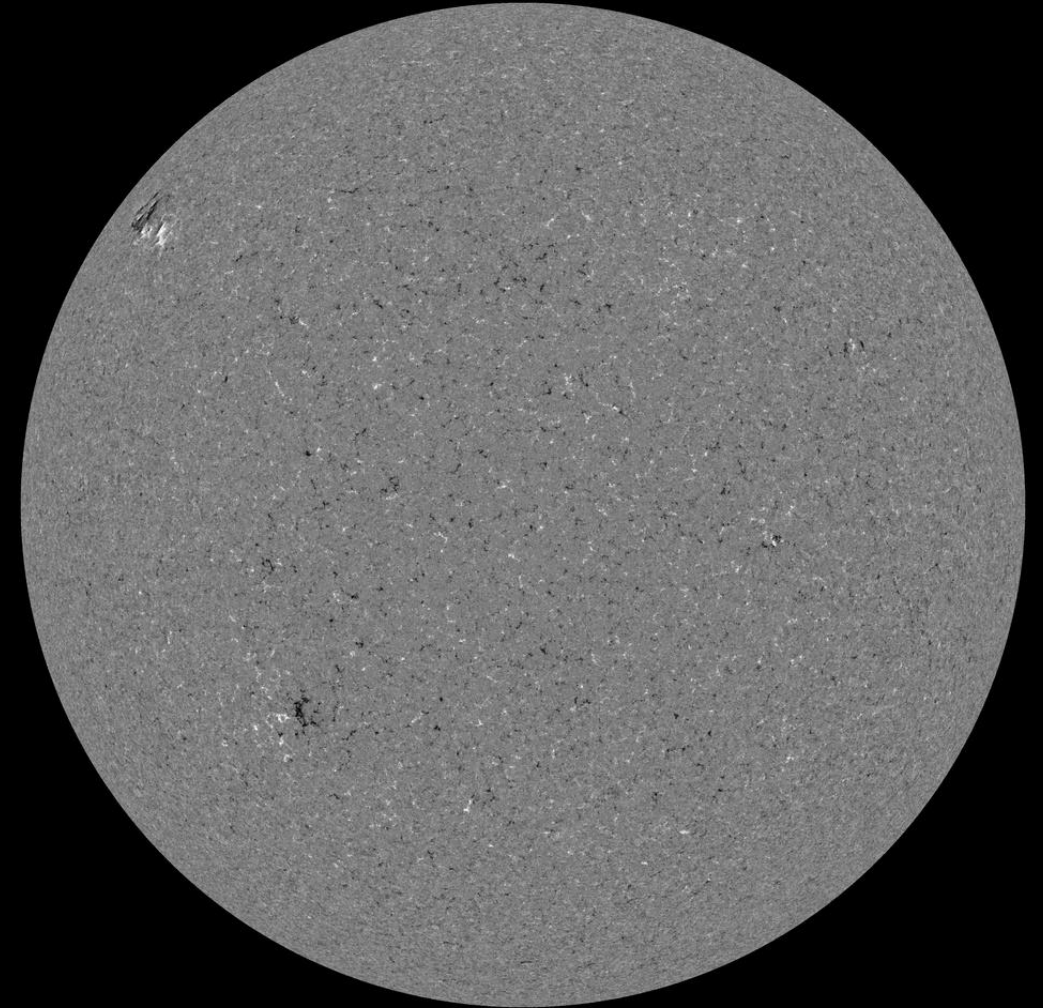
Solar Influences
Data analysis Centre
www.sidc.be

Solar active region - start of the week

SDO/HMI White Light 2020-05-31



SDO/HMI Magnetogram 2020-05-31

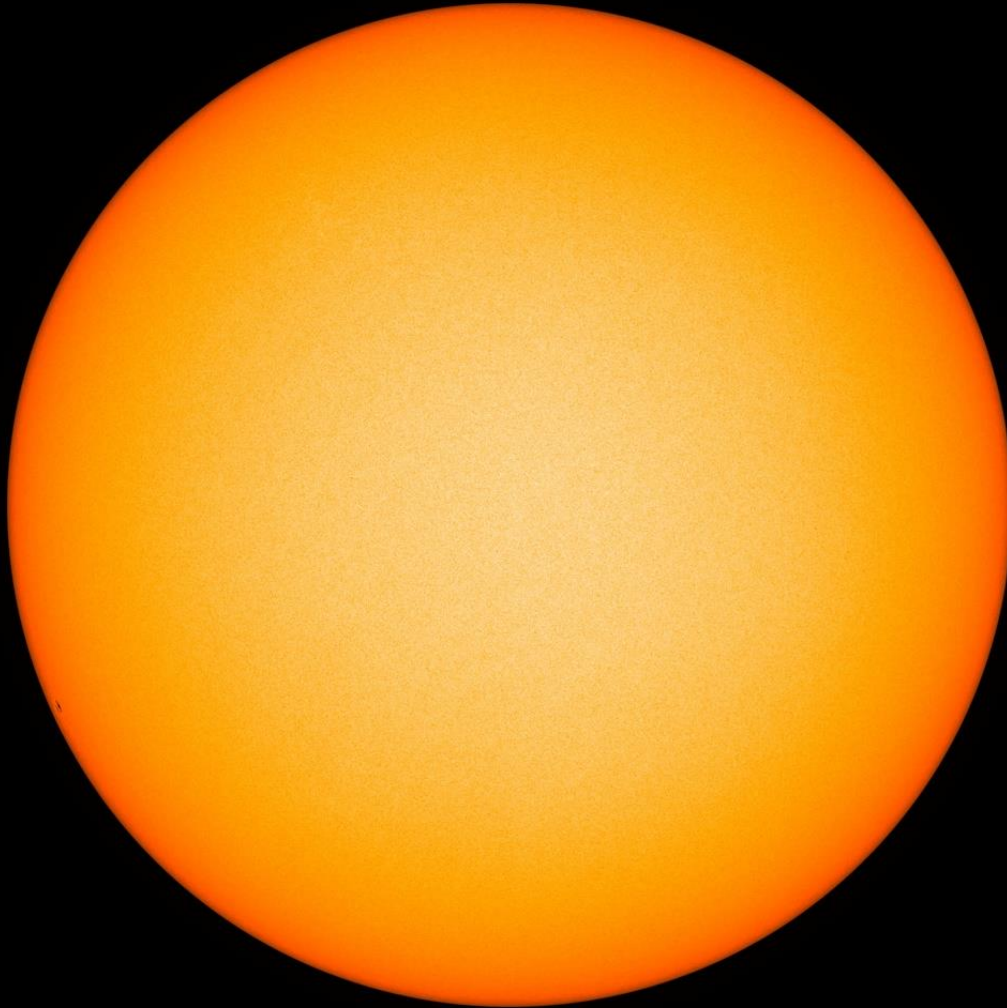


SDO/HMI Quick-Look Continuum: 20200531_114500

SDO/HMI Quick-Look Magnetogram: 20200531_114500

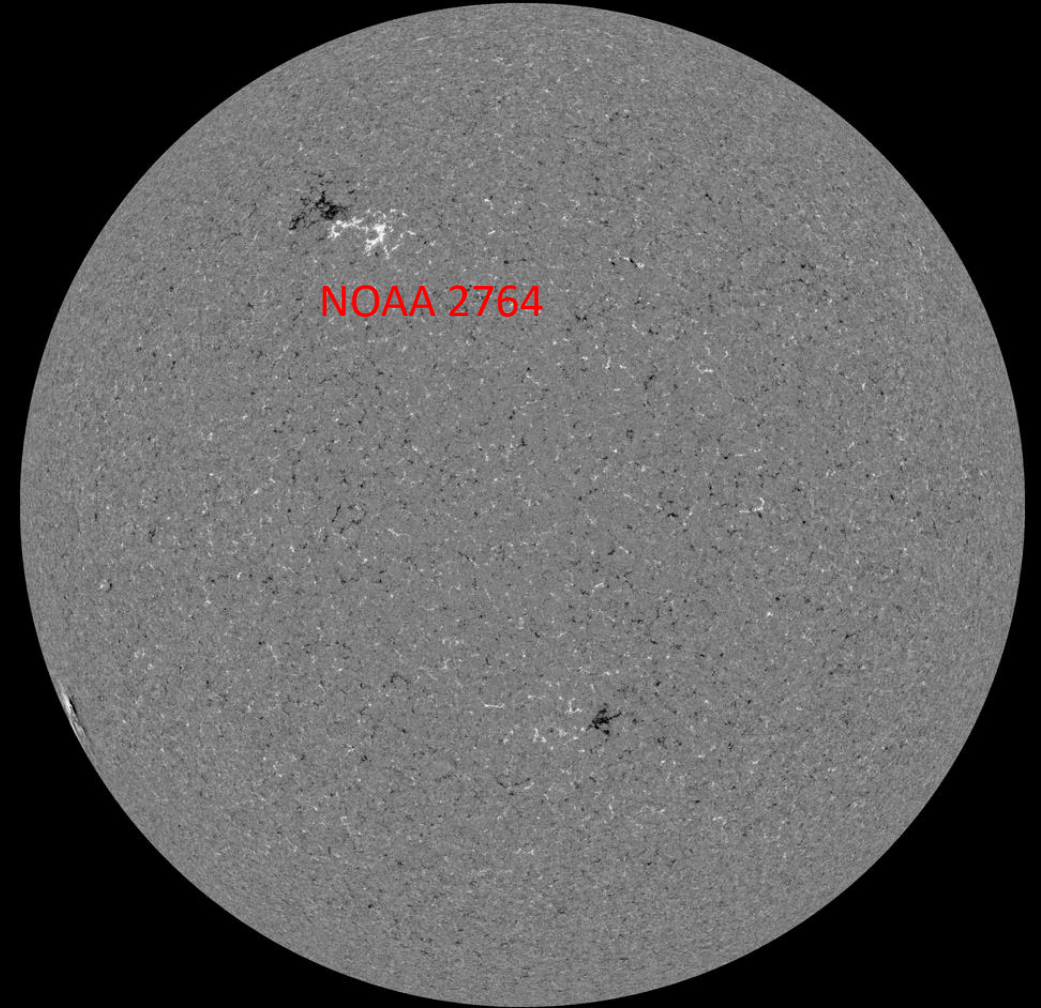
Solar active region - middle of the week

SDO/HMI White Light 2020-06-03



SDO/HMI Quick-Look Continuum: 20200603_114500

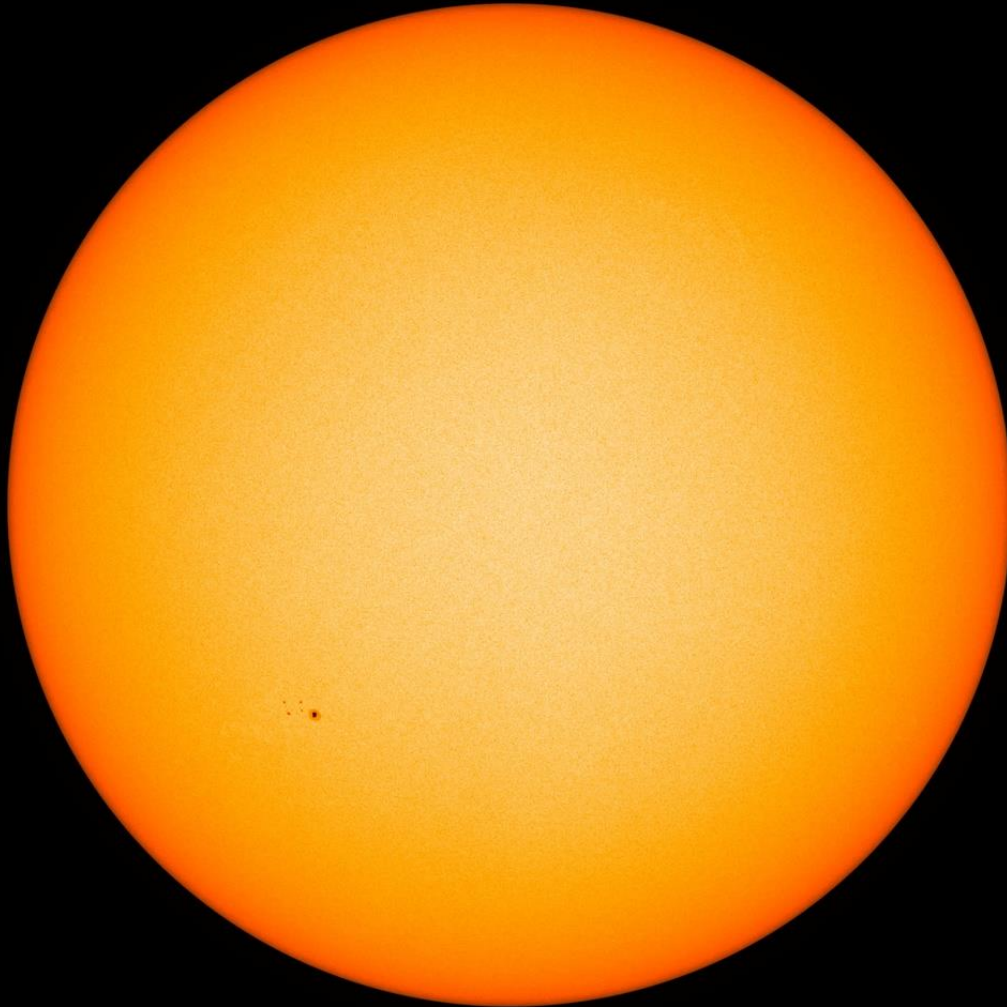
SDO/HMI Magnetogram 2020-06-03



SDO/HMI Quick-Look Magnetogram: 20200603_114500

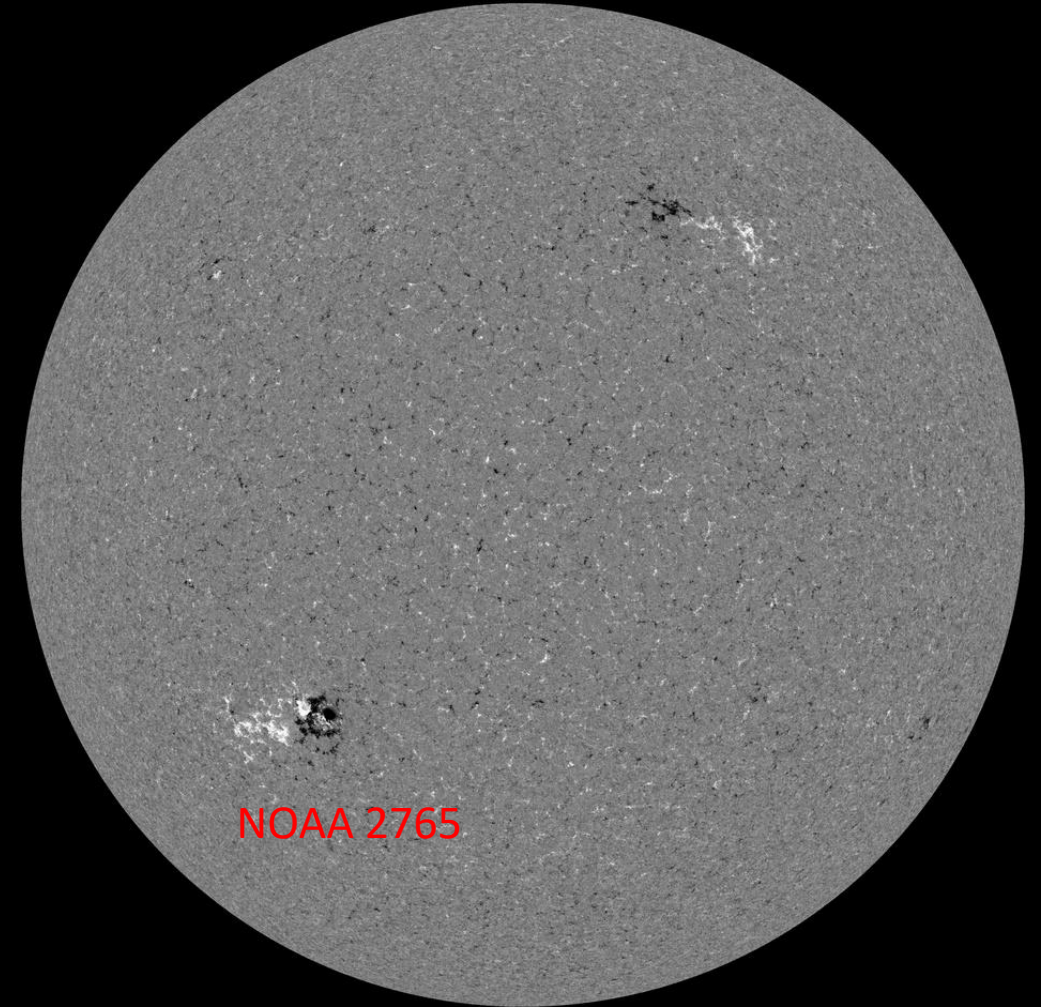
Solar active region - end of the week

SDO/HMI White Light 2020-06-07



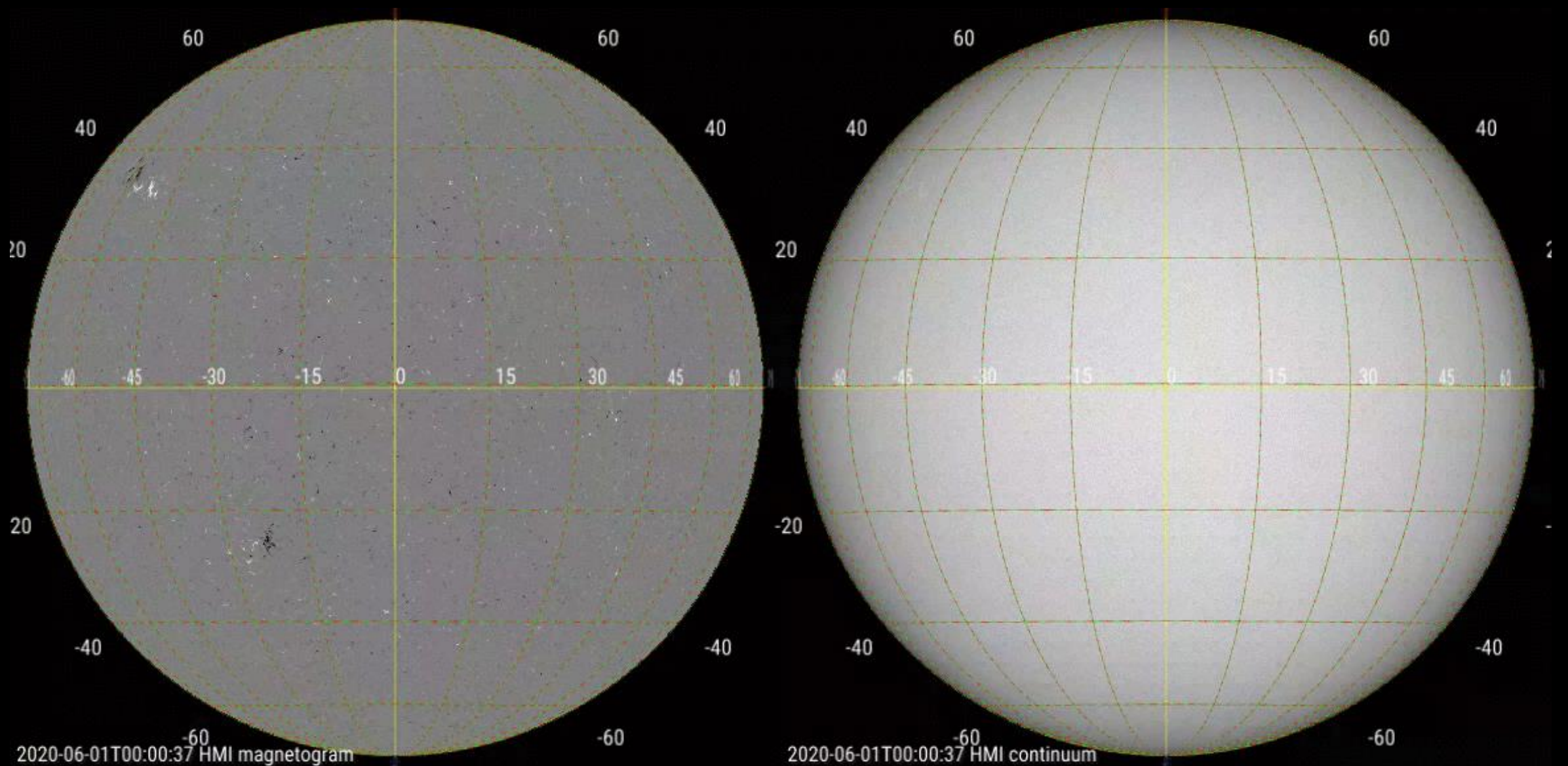
SDO/HMI Quick-Look Continuum: 20200607_114500

SDO/HMI Magnetogram 2020-06-07



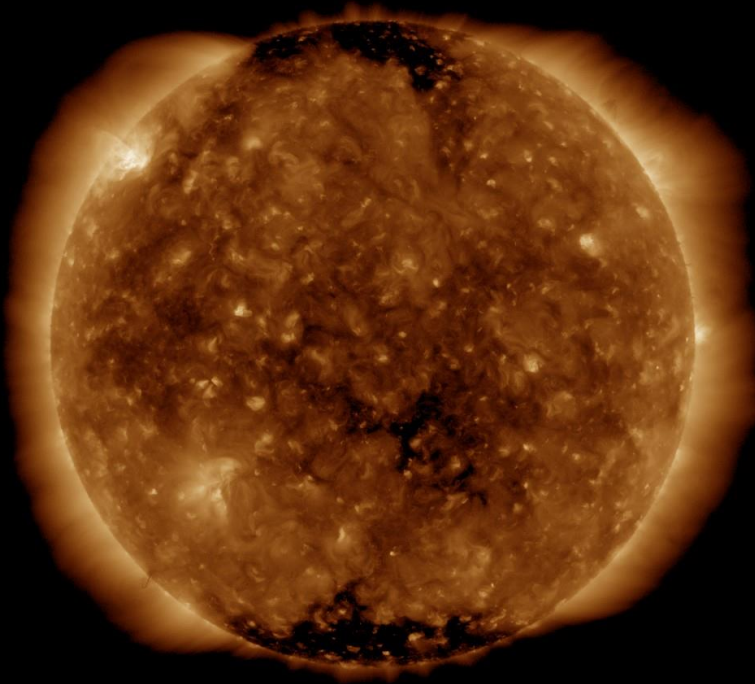
SDO/HMI Quick-Look Magnetogram: 20200607_114500

Solar active region – week movie



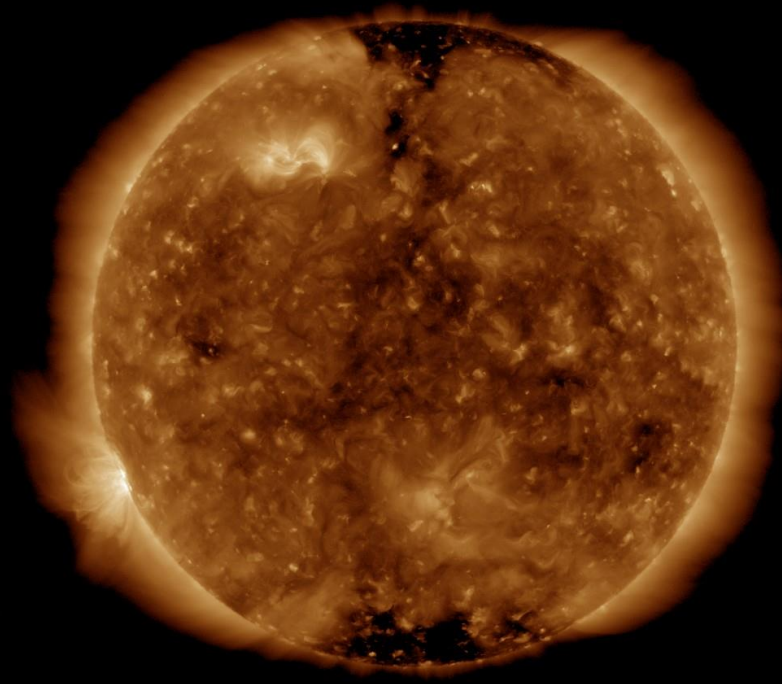
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2020-05-31



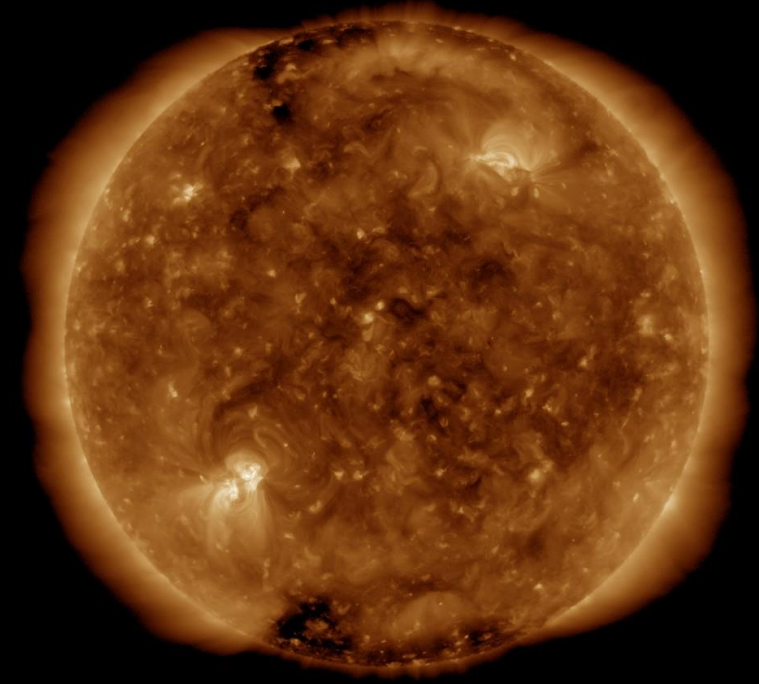
SDO/AIA 193 2020-05-31 12:16:53 UT

SDO/AIA 19.3 nm 2020-06-03



SDO/AIA 193 2020-06-03 12:18:17 UT

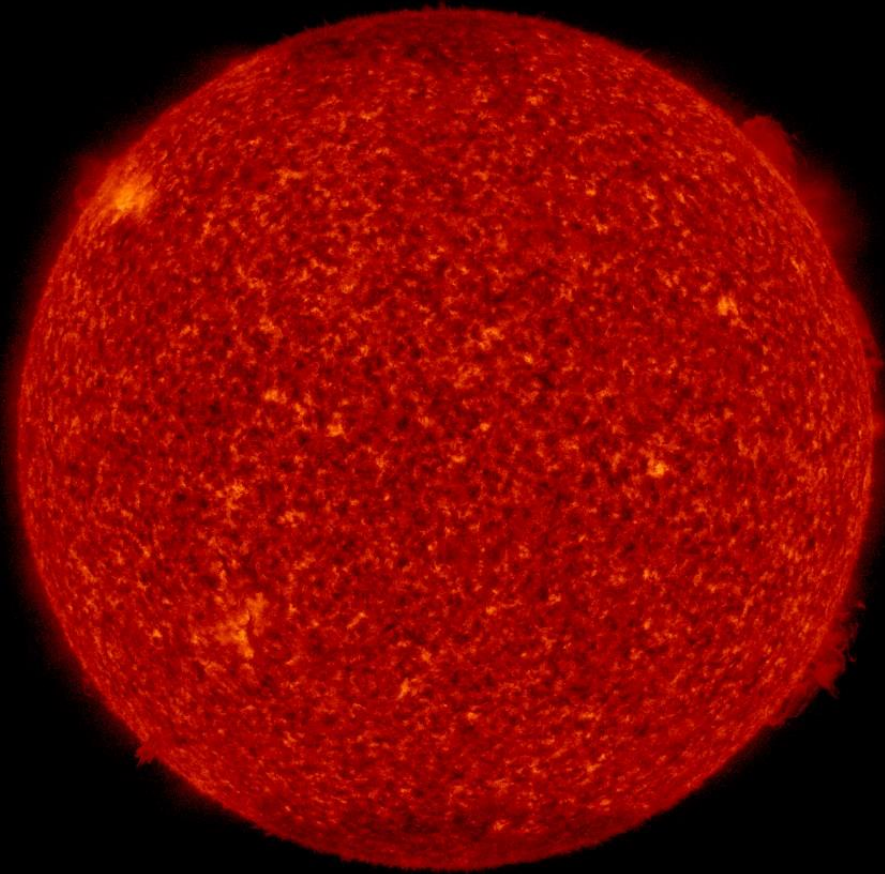
SDO/AIA 19.3 nm 2020-06-07



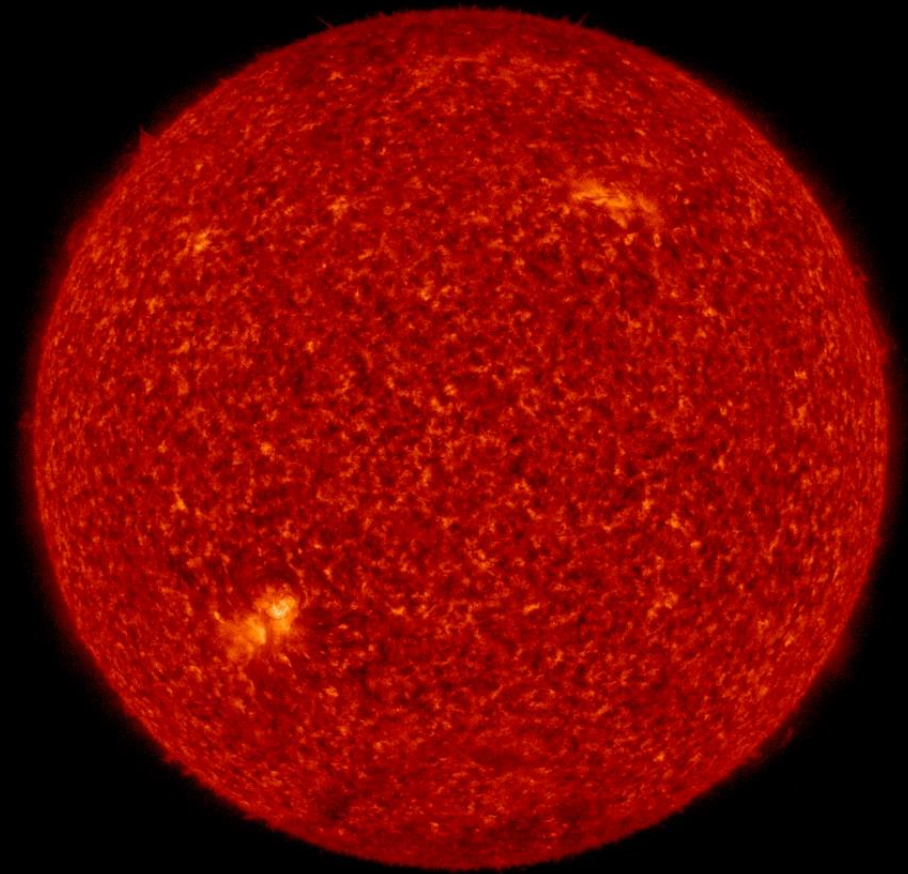
SDO/AIA 193 2020-06-07 12:17:41 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2020-05-31



SDO/AIA 30.4 nm 2020-06-07



SDO/AIA 304 2020-05-31 12:18:30 UT

SDO/AIA 304 2020-06-07 12:18:42 UT

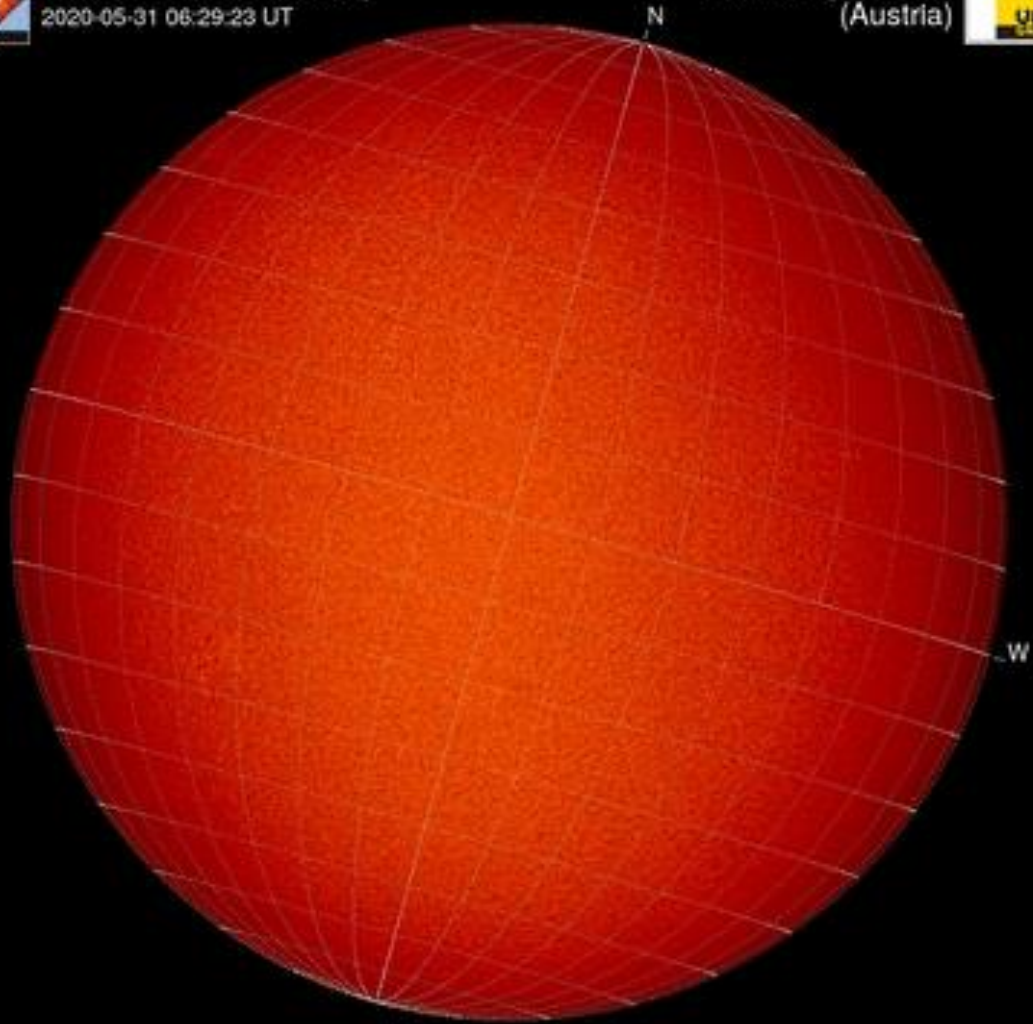
Filament & Filament eruption

H-alpha 2020-05-31



Kanzelhöhe Observatory
2020-05-31 06:29:23 UT

University of Graz
(Austria)

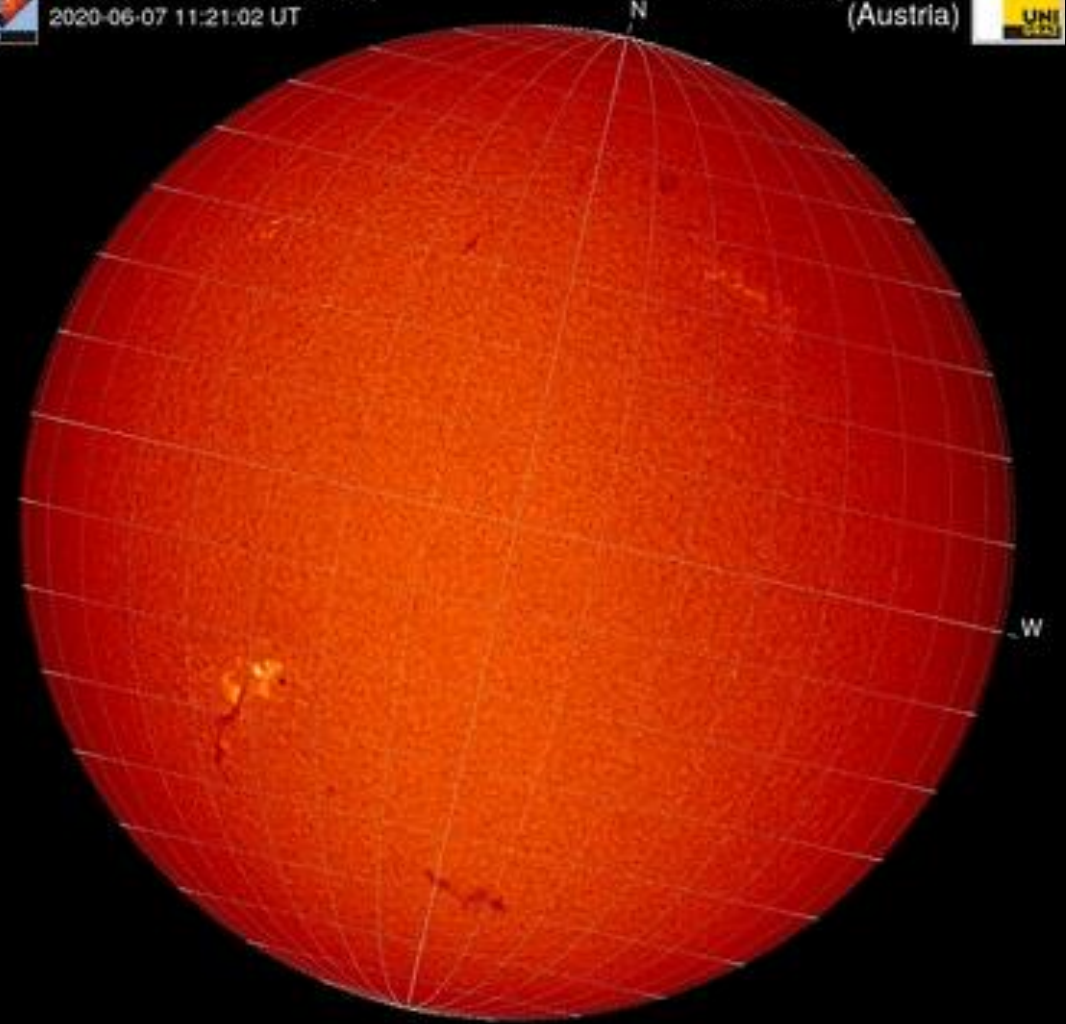


H-alpha 2020-06-07



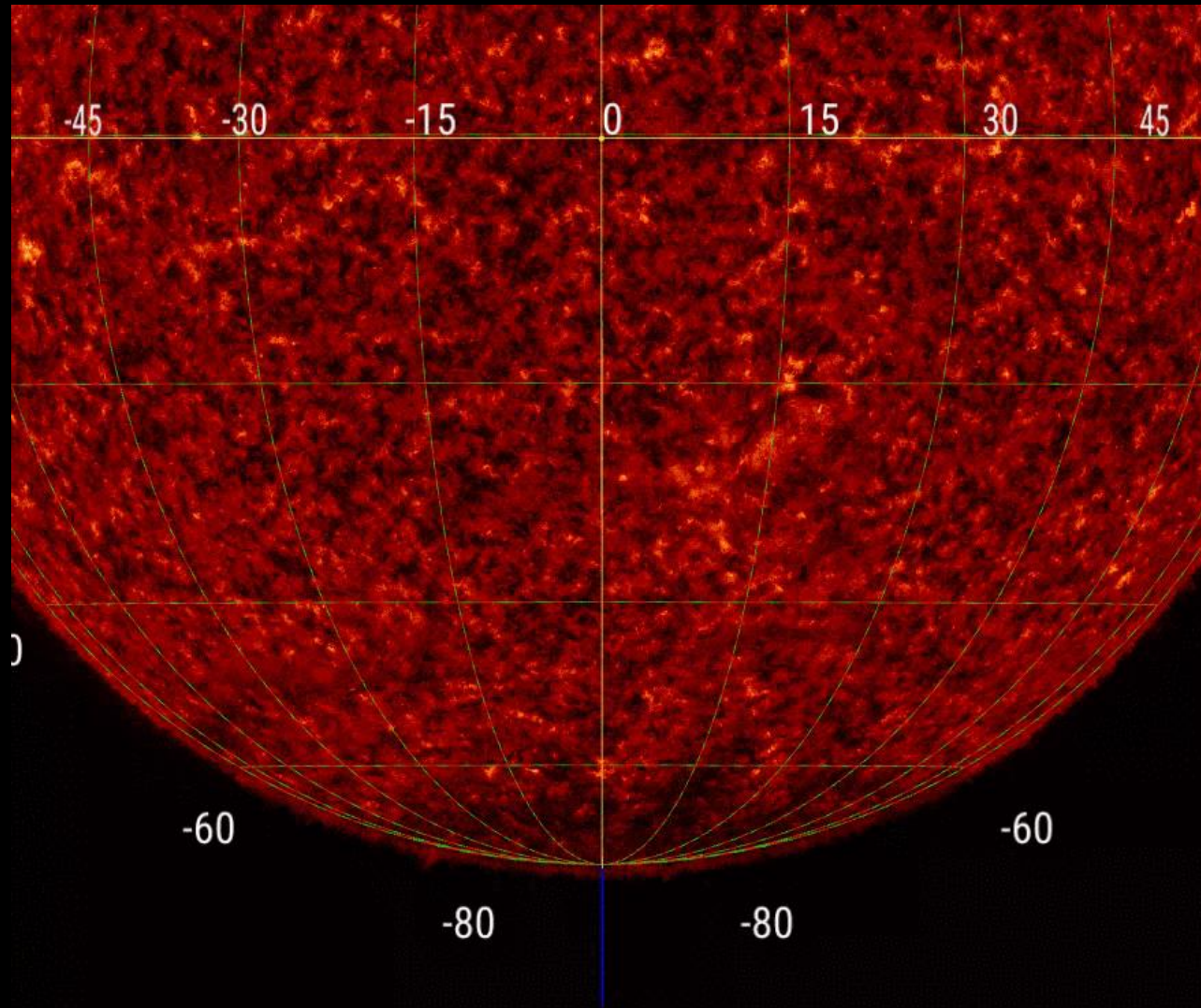
Kanzelhöhe Observatory
2020-06-07 11:21:02 UT

University of Graz
(Austria)



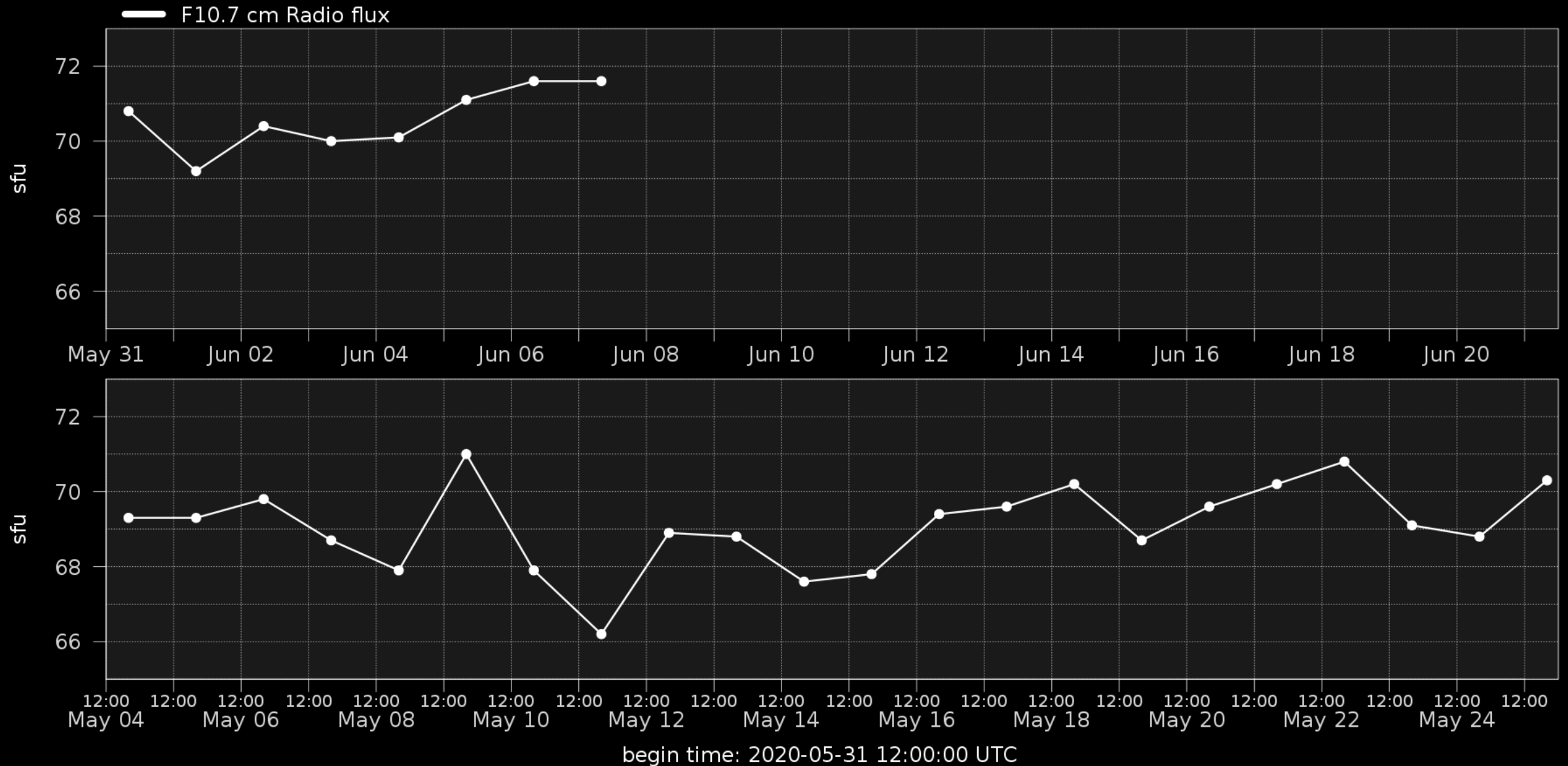
Filament & Filament eruption

SDO/AIA 304 2020-06-03

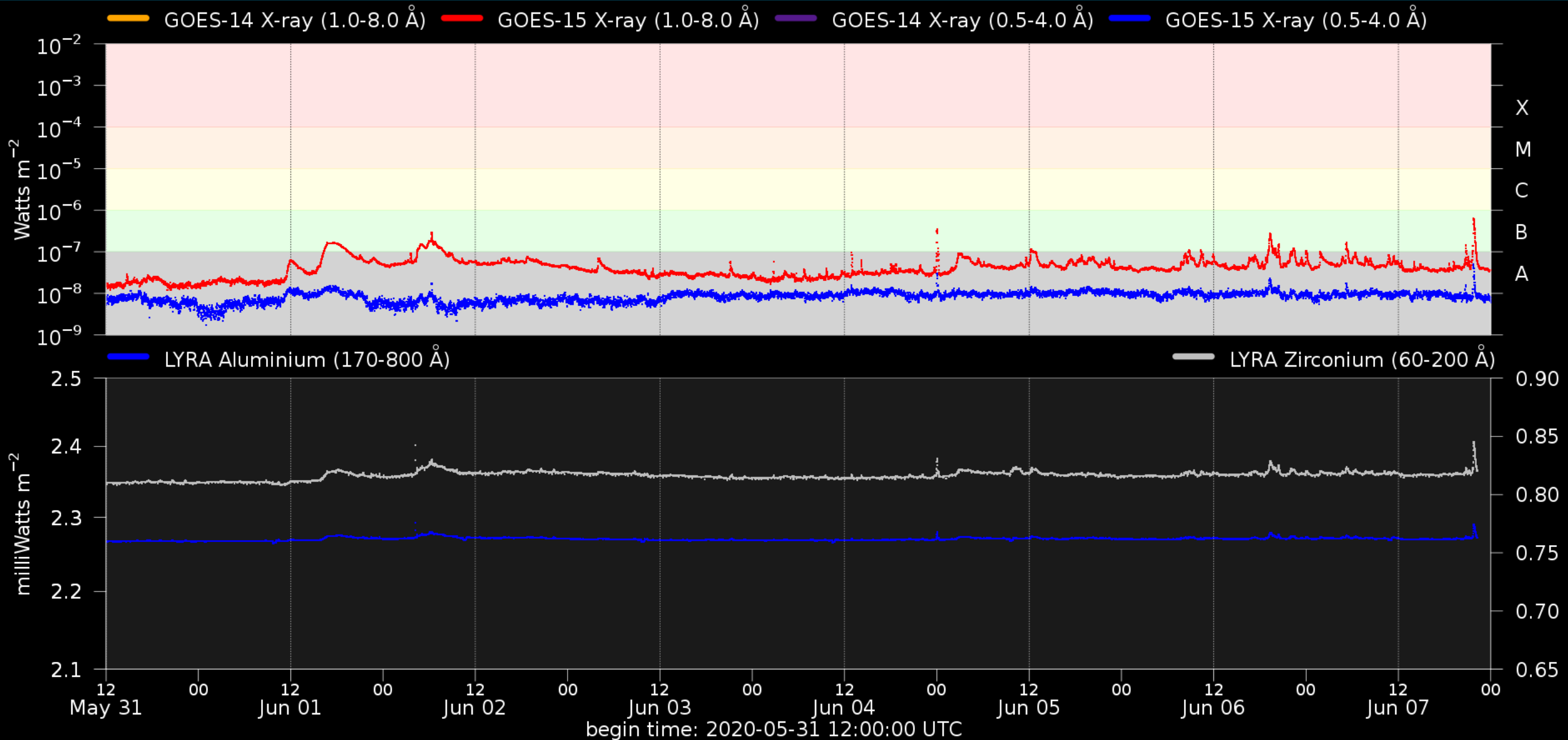


2020-06-03T20:00:17

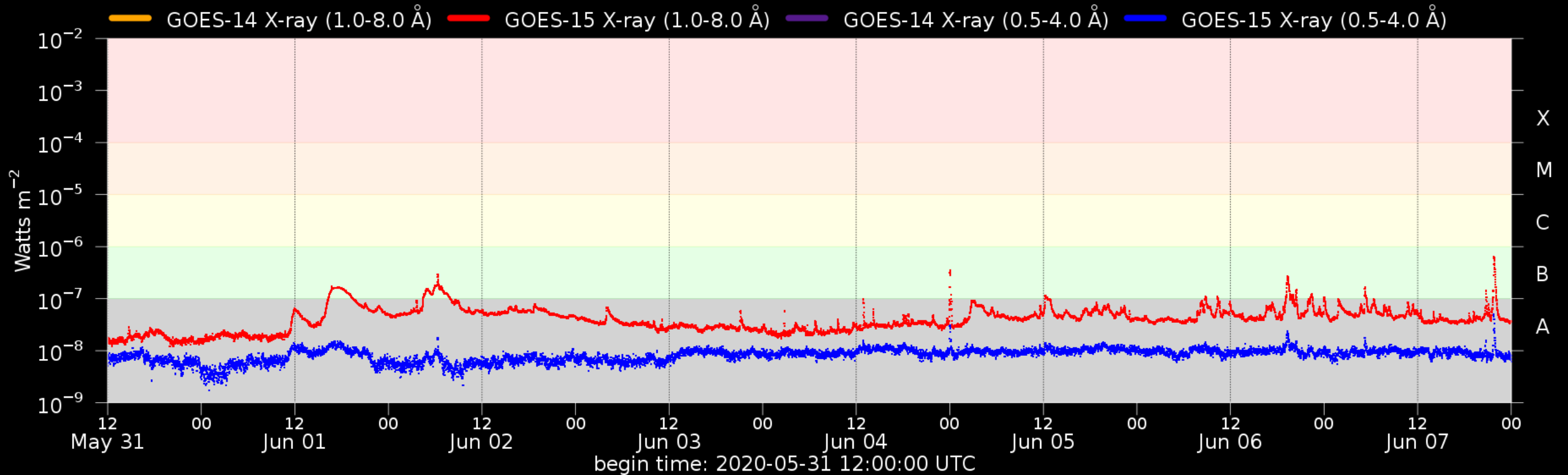
Solar F10.7cm radio flux



Solar X-Ray and UV flux



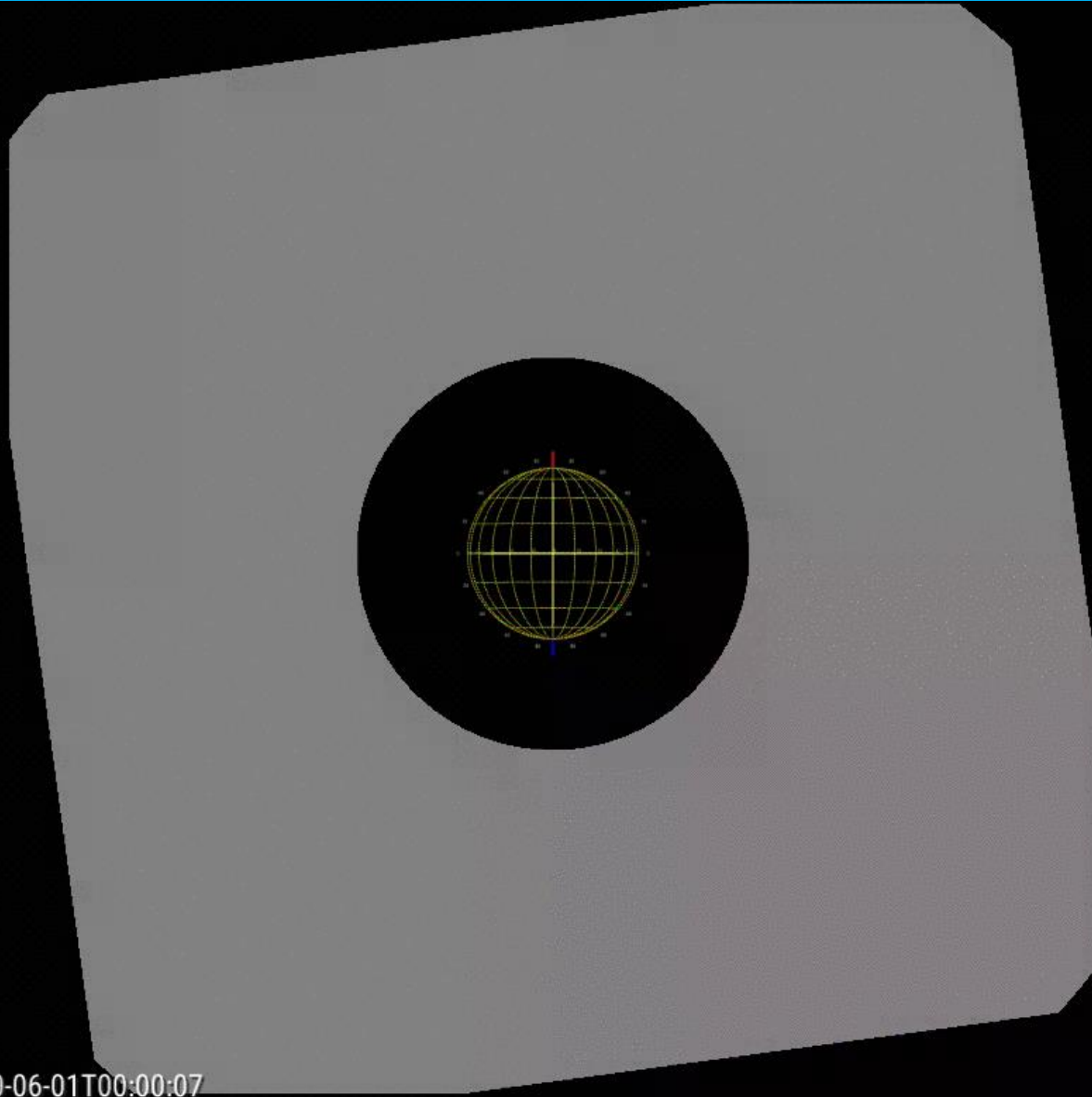
Flaring activity



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

Issue date	2020-05-31	2020-06-01	2020-06-02	2020-06-03	2020-06-04	2020-06-05	2020-06-06	2020-06-07
Probability	--- 10 01 01	--- 10 01 01	--- 15 01 01	--- 05 01 01	--- 10 01 01	--- 10 01 01	--- 15 01 01	--- 15 01 01
Observed	00 00 00 00	01 00 00 00	00 00 00 00	00 00 00 00	02 00 00 00	02 00 00 00	07 00 00 00	02 00 00 00

Coronal Mass Ejection



2020-06-01T00:00:07

S

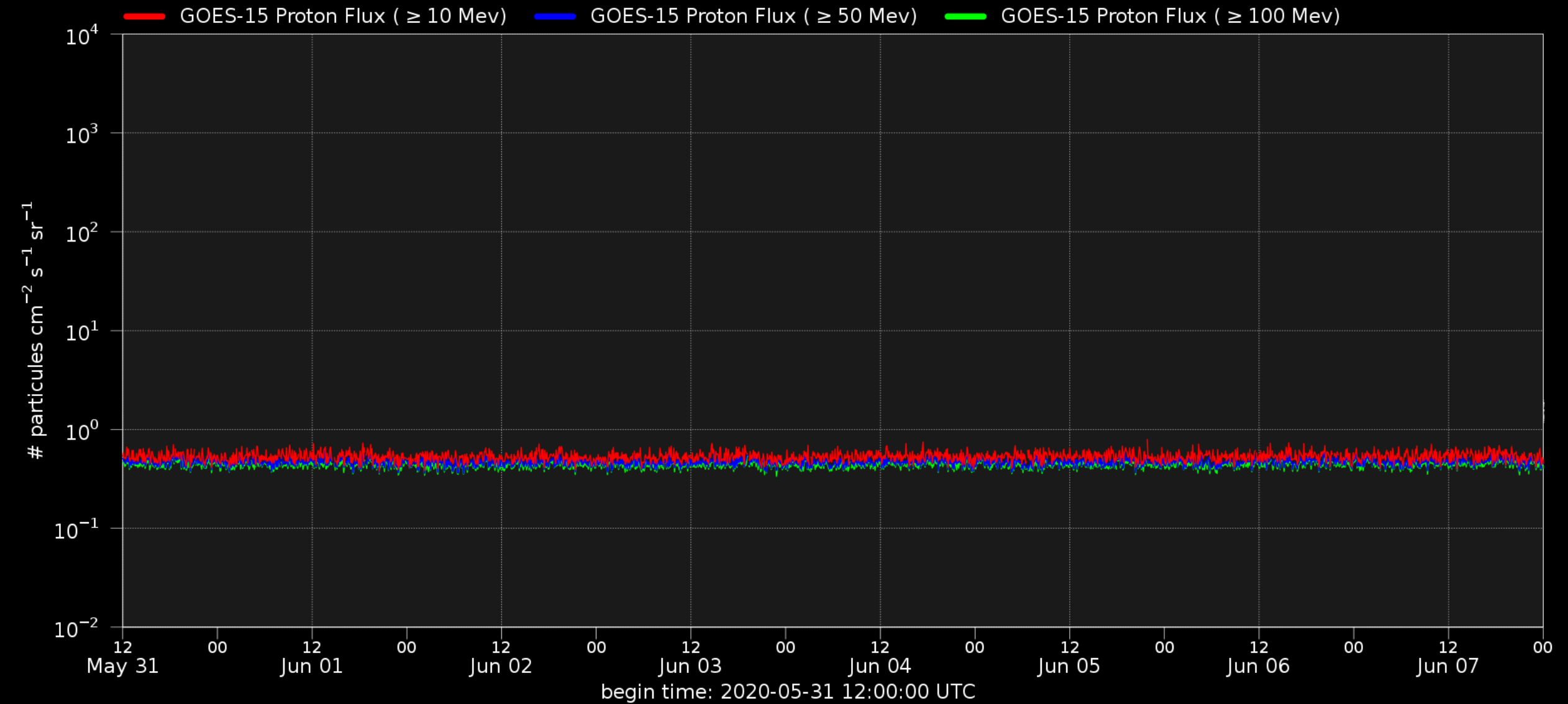
W

N

EET

04:11 06/07
02:47 06/07
01:18 06/07
23:54 06/06
20:48 06/06
14:36 06/06
11:24 06/06
08:48 06/06
06:06 06/06
03:12 06/06
23:36 06/05
14:36 06/05
11:36 06/05
08:00 06/05
04:33 06/05
00:12 06/05
20:36 06/04
17:12 06/04
14:12 06/04
10:48 06/04
07:48 06/04
05:00 06/04
02:00 06/04
22:00 06/03
18:36 06/03
15:48 06/03
12:12 06/03
09:24 06/03
06:00 06/03
02:48 06/03
23:36 06/02
20:00 06/02
16:44 06/02
13:36 06/02
10:24 06/02
07:24 06/02
04:24 06/02
00:48 06/02
21:48 06/01
18:36 06/01
16:00 06/01
12:36 06/01
09:48 06/01
06:24 06/01
03:48 06/01

Solar proton flux



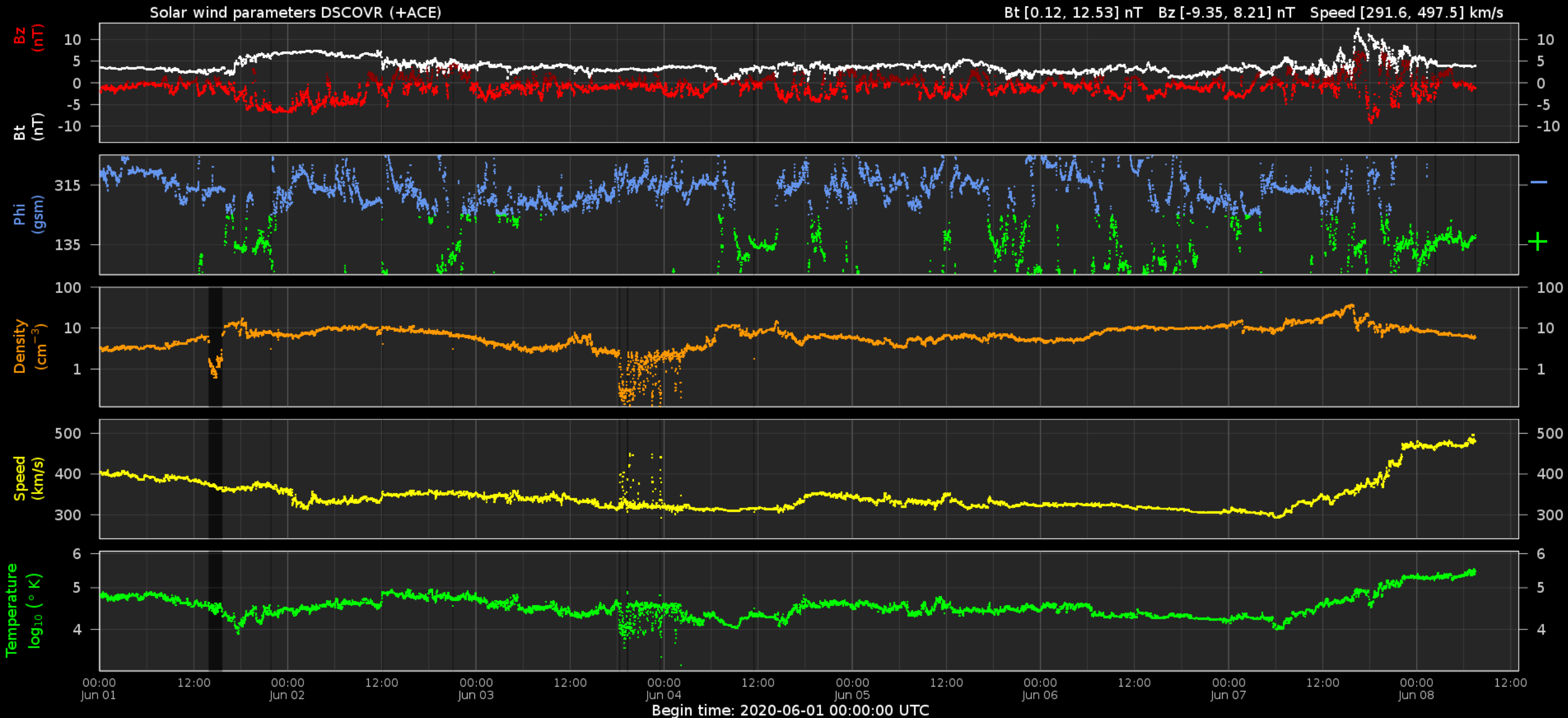
Solar Wind and Geomagnetic Activity



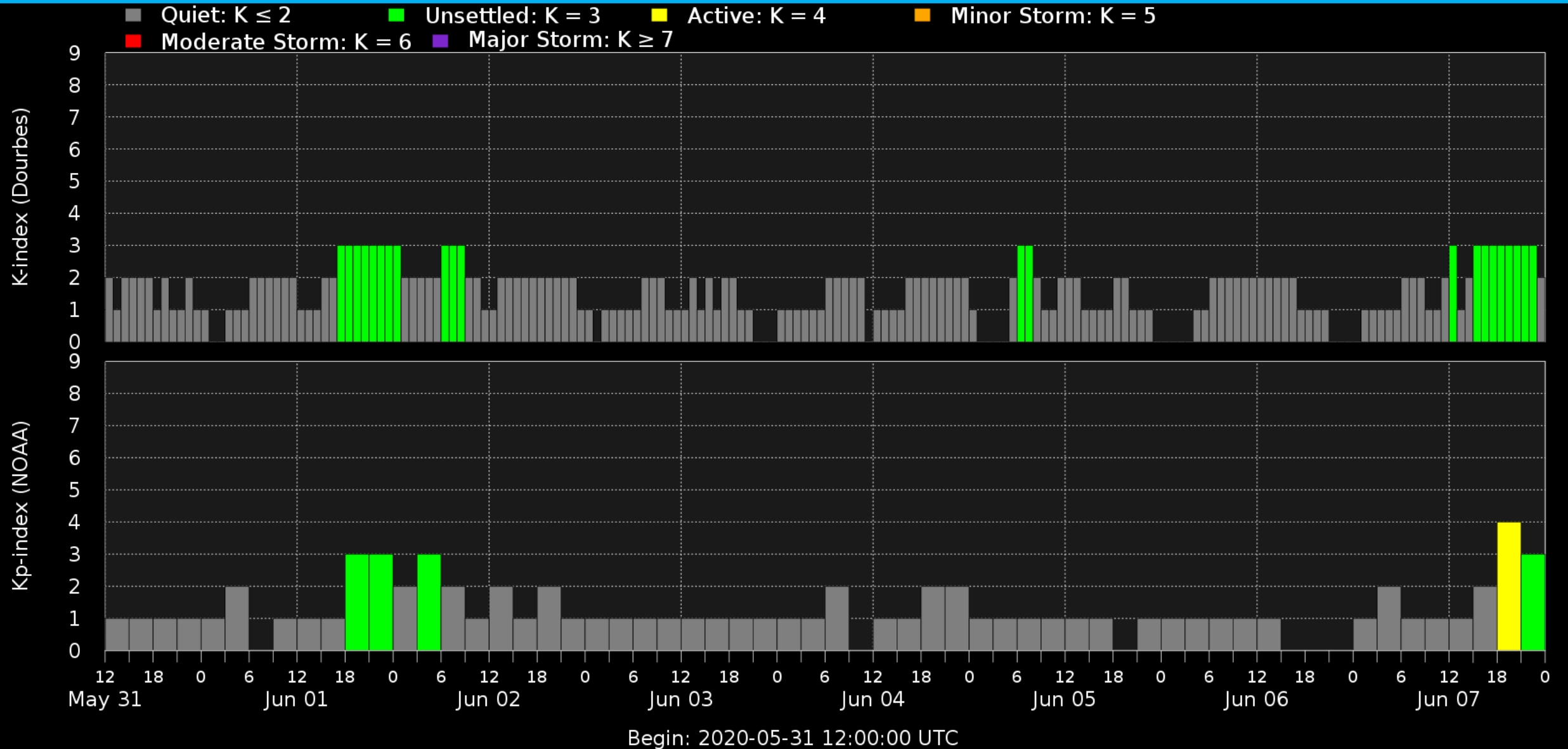
Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

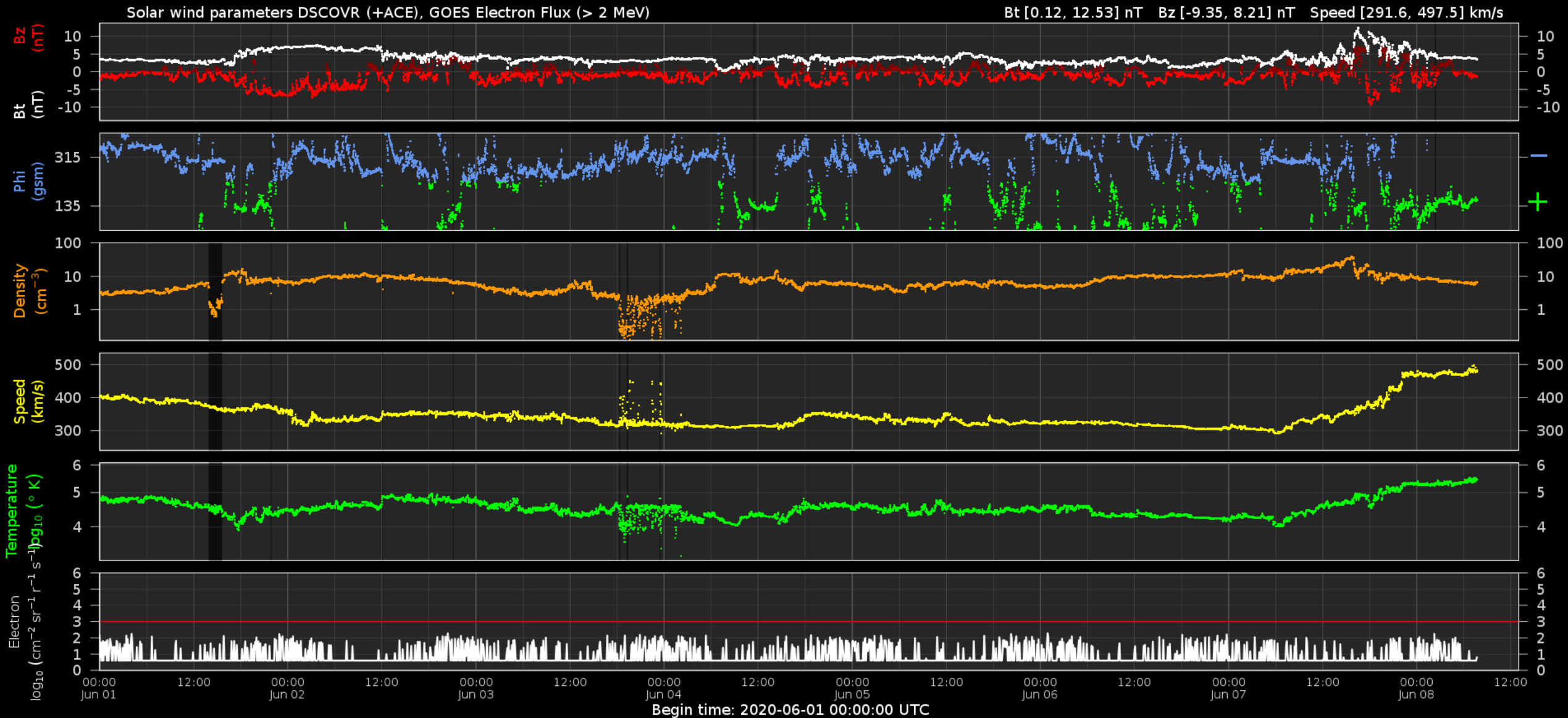
Solar wind parameters (DSCOVR+ACE data)



Geomagnetic activity (K-indexes)



Solar wind and electron flux



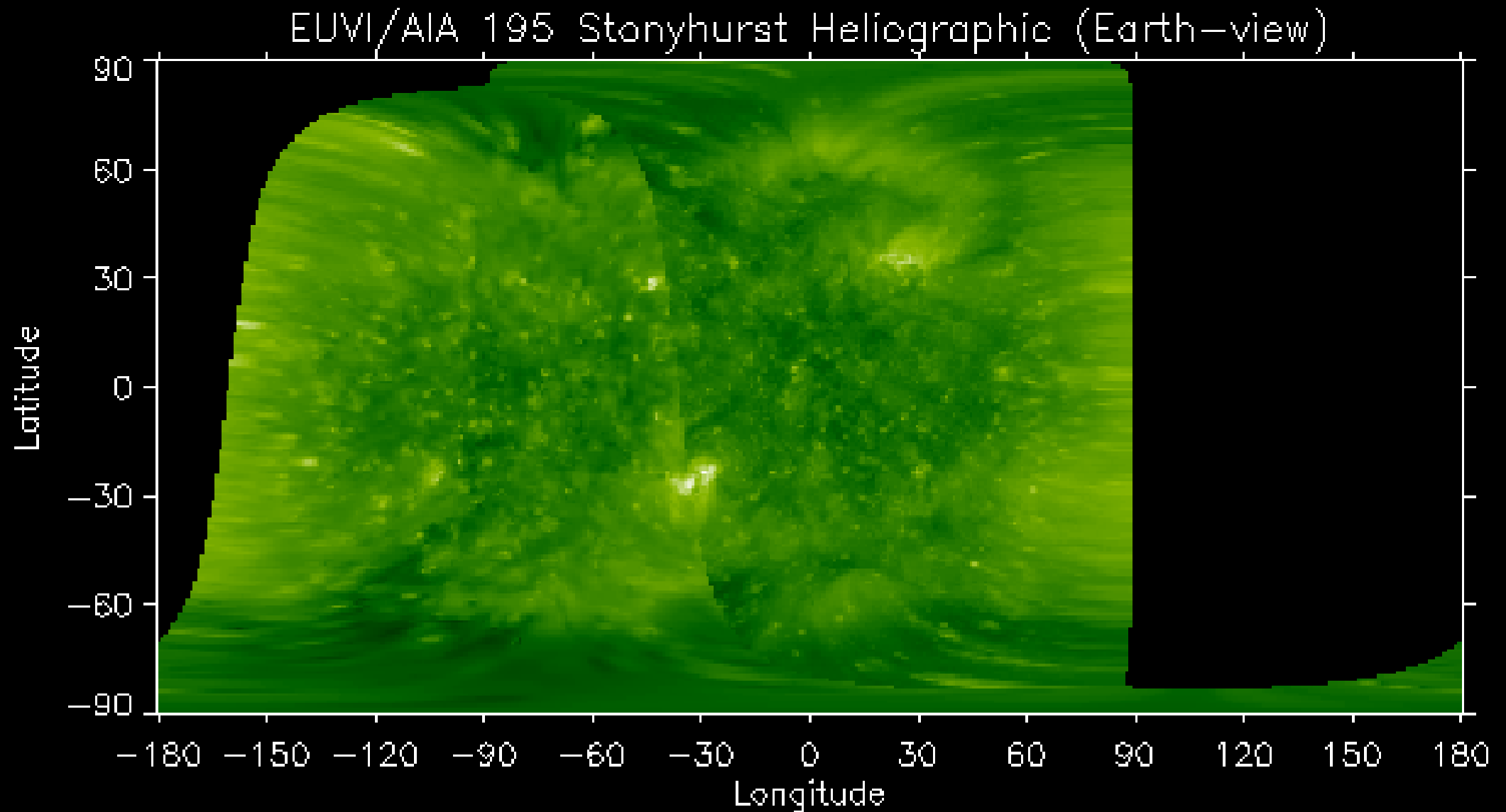
Outlook



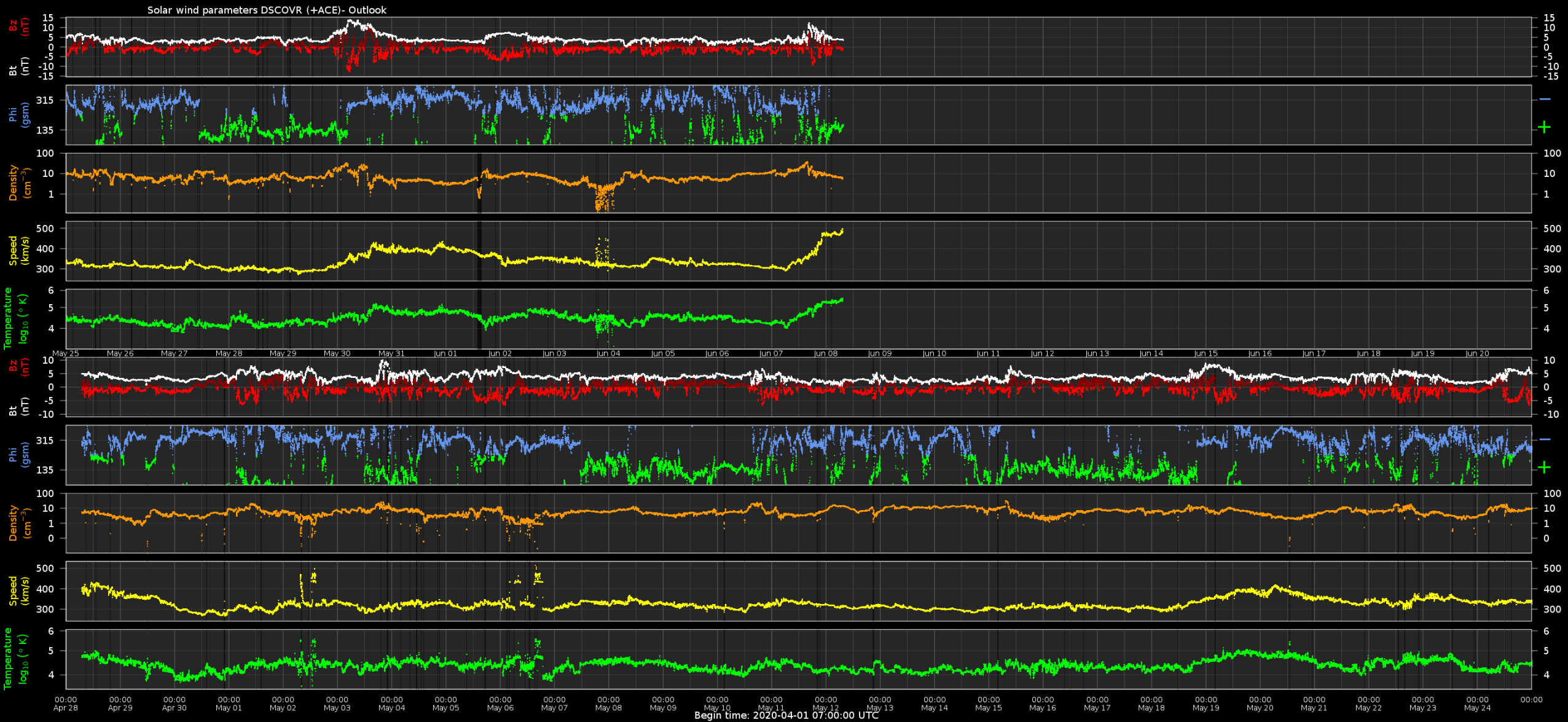
Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

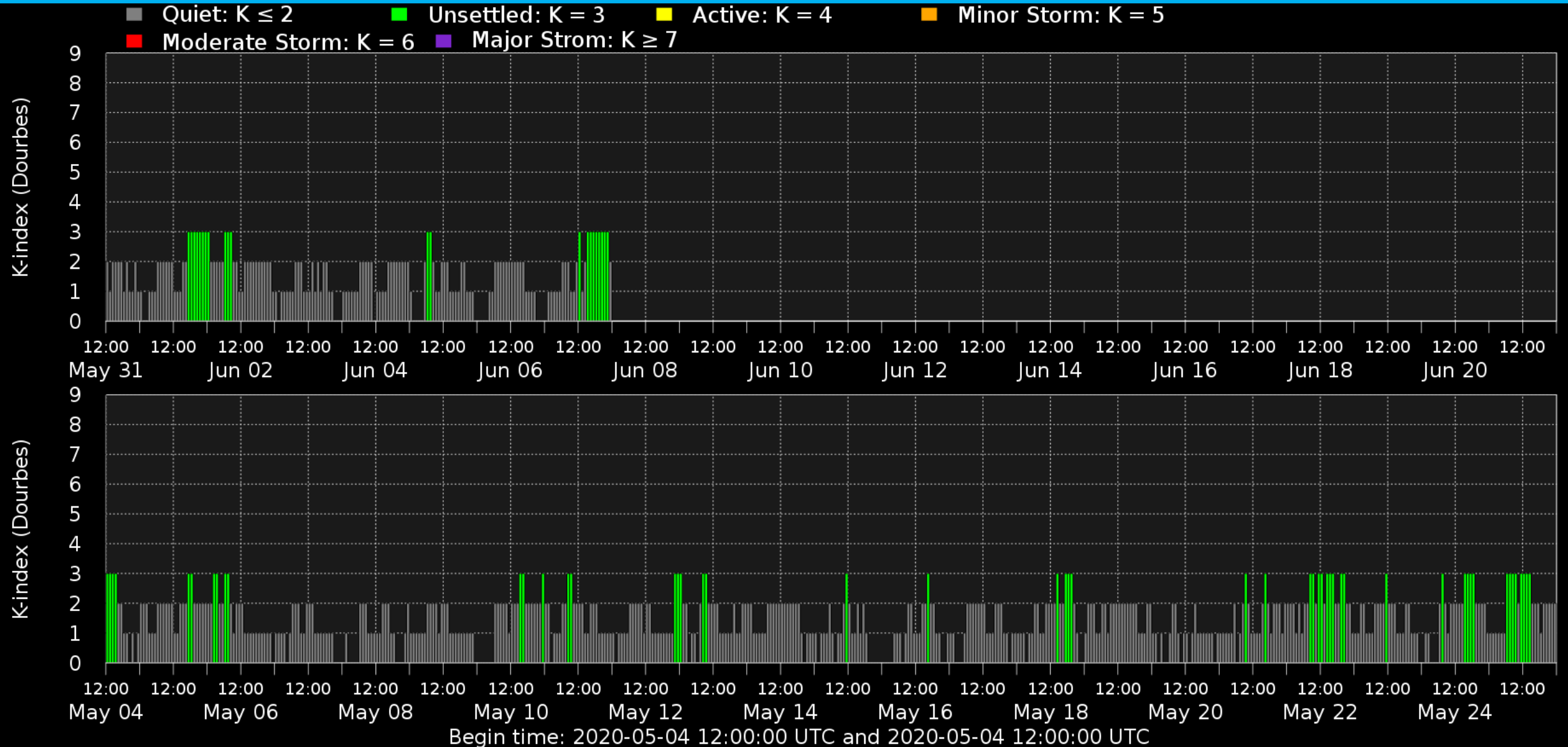
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be