

SIDC Space Weather Briefing

14 July 2019 - 21 July 2019

Jennifer O'Hara
& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2019-07-14 12:00 UT to 2019-07-21 12:00 UT

Active regions	None
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Some stable filaments visible on disk, no filament eruptions
CMEs	No Earth directed CMEs
Proton Events	No Proton events

Solar wind and geomagnetic conditions from 2019-07-14 12:00 UT to 2019-07-21 12:00 UT

Coronal Holes	- Small patchy negative polarity equatorial coronal hole - Extension of southern polar coronal hole
ICME	No ICME
SW Conditions	Background solar wind conditions
K-indices	max K-index (Dourbes): 3.0 max Kp-index (NOAA): 3

All Quiet Alert: On from 17 July

Solar Activity

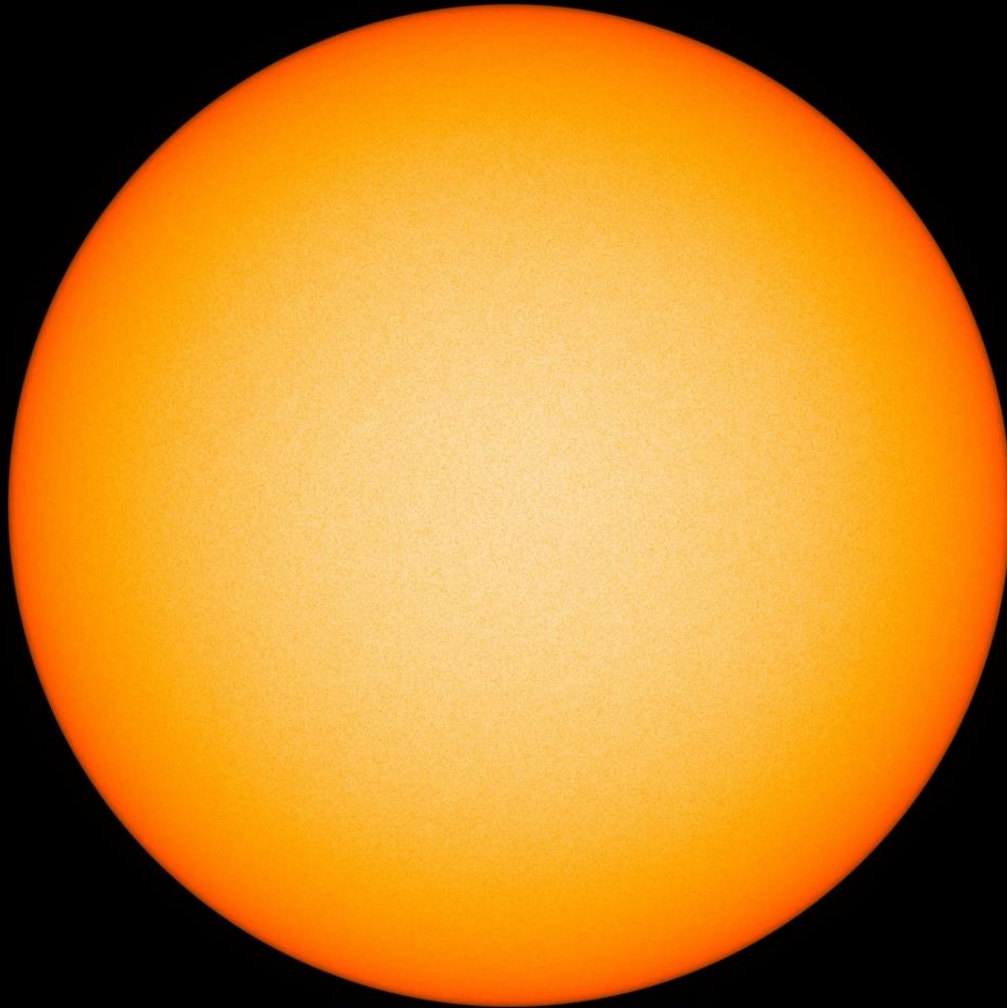


Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

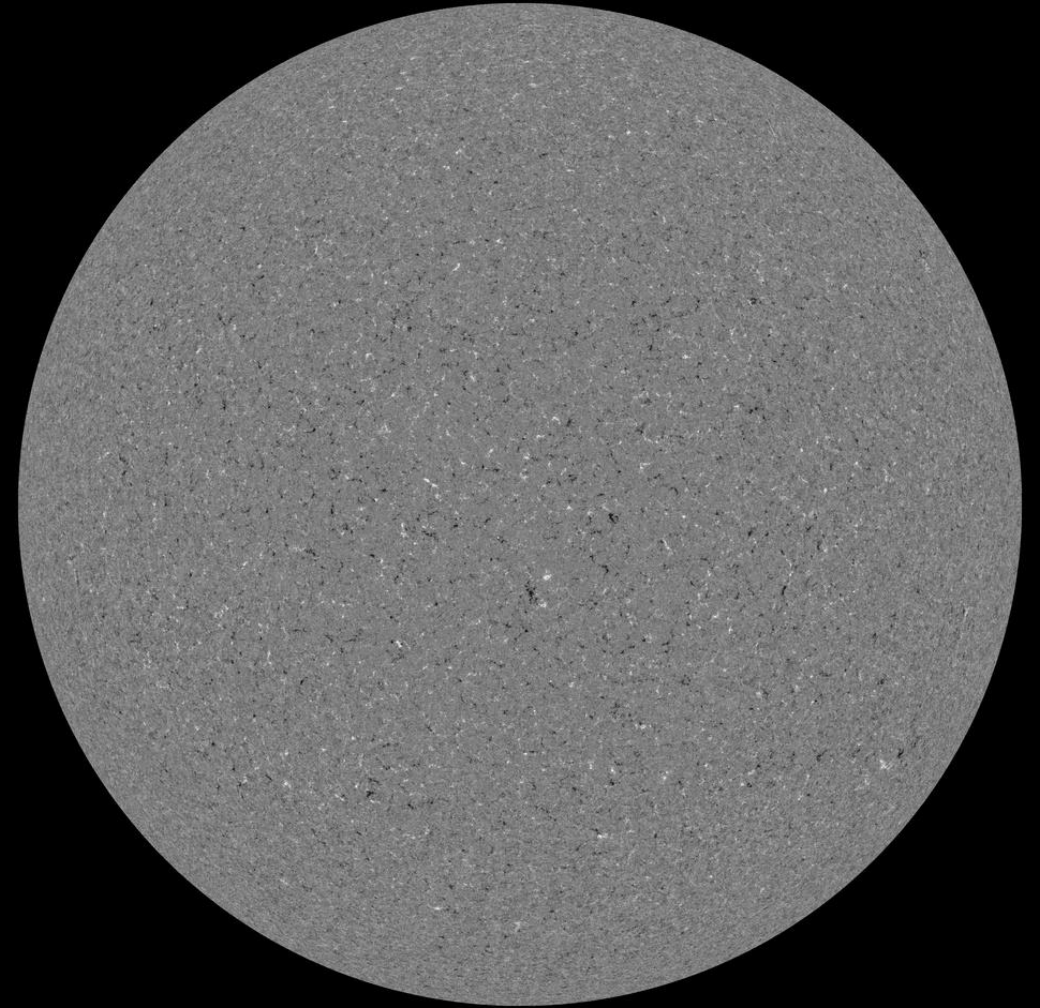
Solar active region - start of the week

SDO/HMI White Light 2019-07-15



SDO/HMI Quick-Look Continuum: 20190715_091500

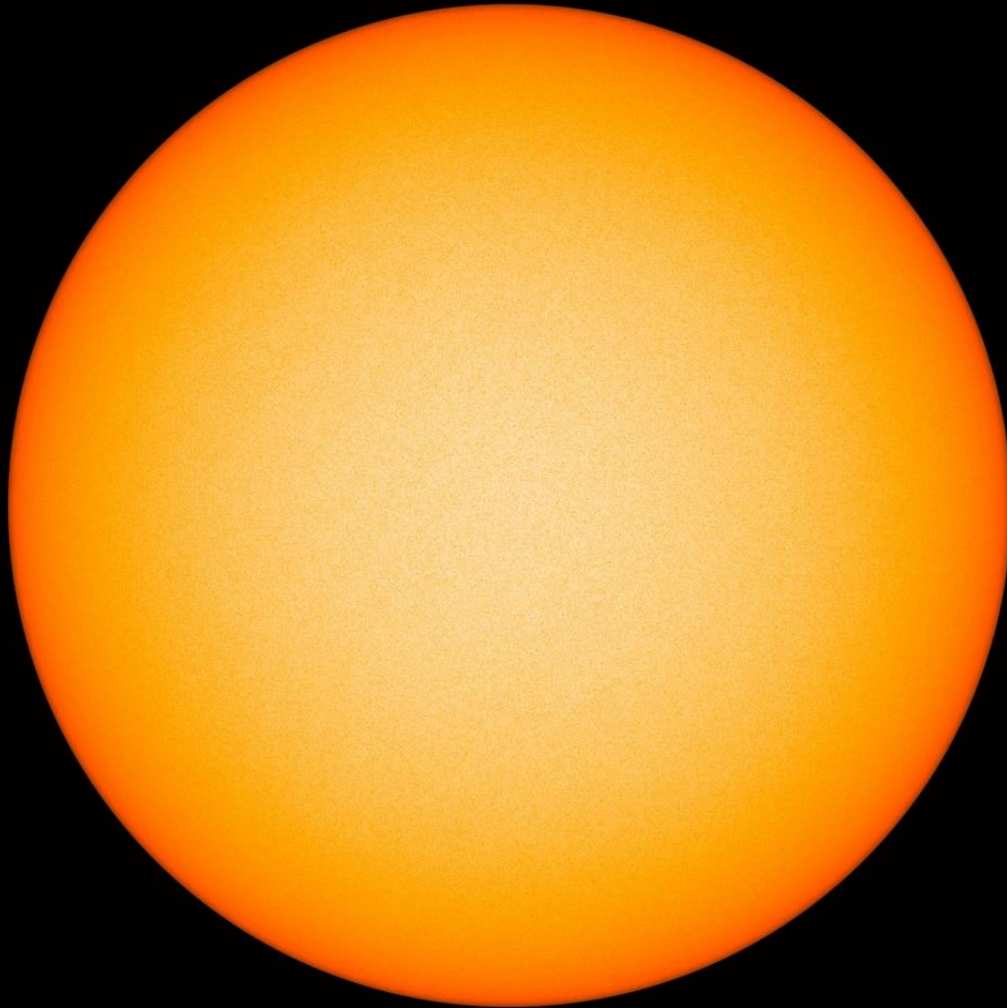
SDO/HMI Magnetogram 2019-07-15



SDO/HMI Quick-Look Magnetogram: 20190715_091500

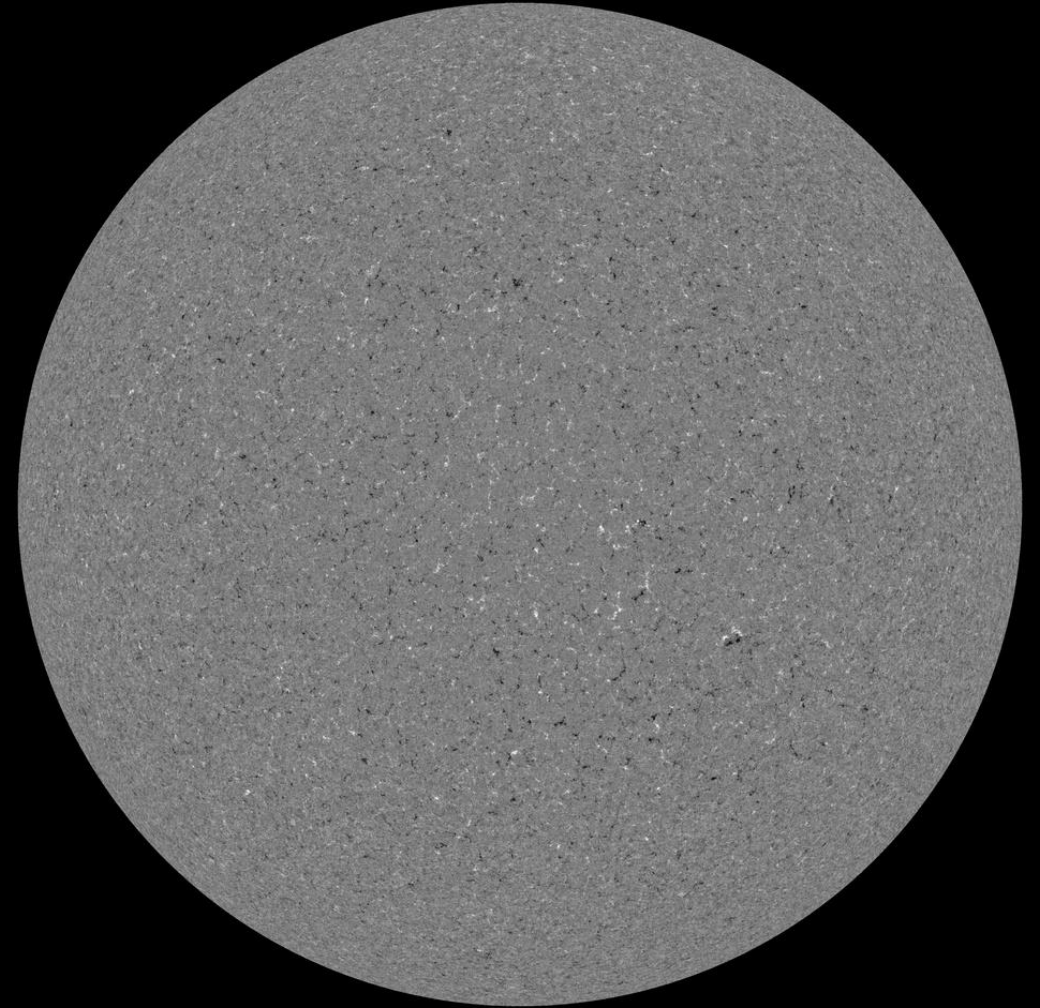
Solar active region - end of the week

SDO/HMI White Light 2019-07-21



SDO/HMI Quick-Look Continuum: 20190721_114500

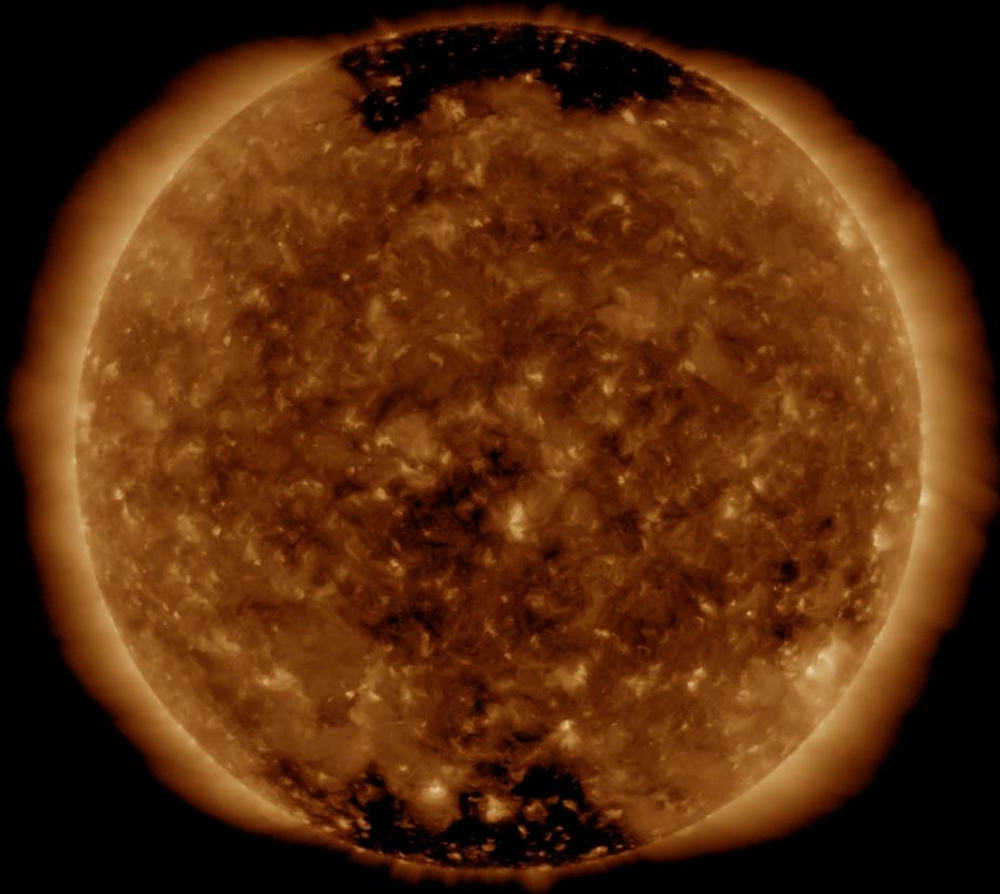
SDO/HMI Magnetogram 2019-07-21



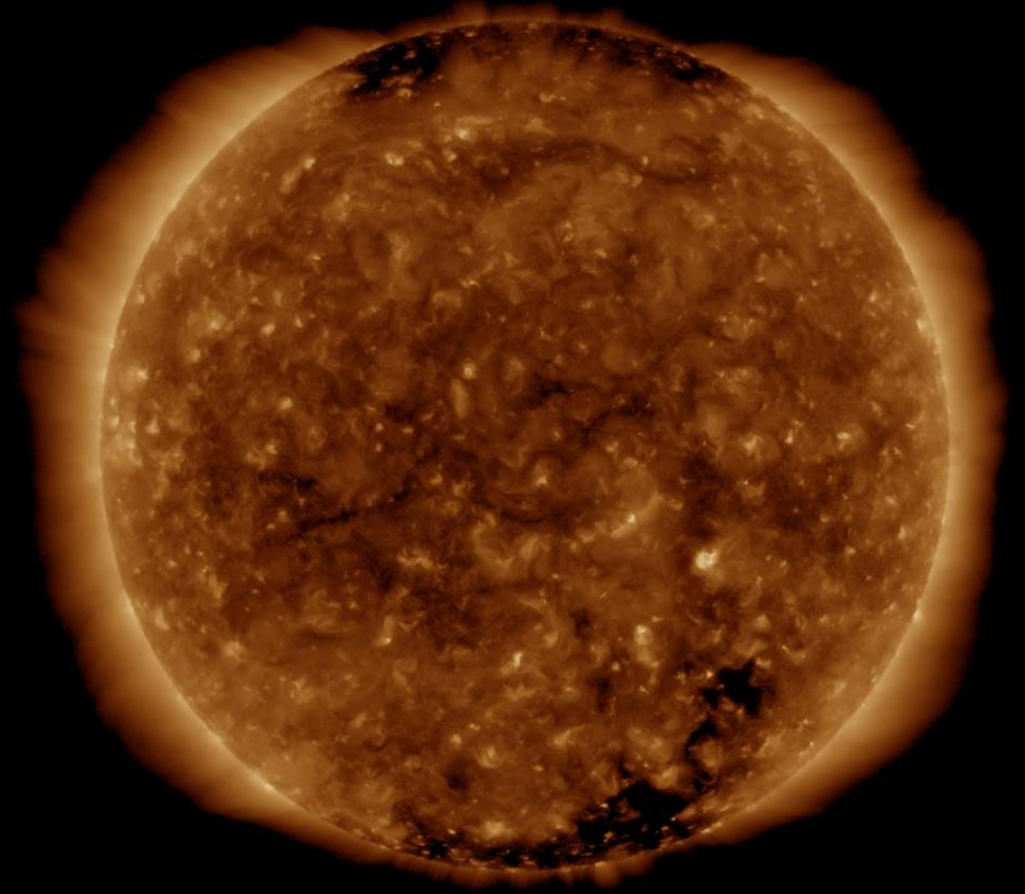
SDO/HMI Quick-Look Magnetogram: 20190721_114500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-07-15



SDO/AIA 19.3 nm 2019-07-21



SDO/AIA 193 2019-07-15 09:41:05 UT

SDO/AIA 193 2019-07-21 12:10:05 UT

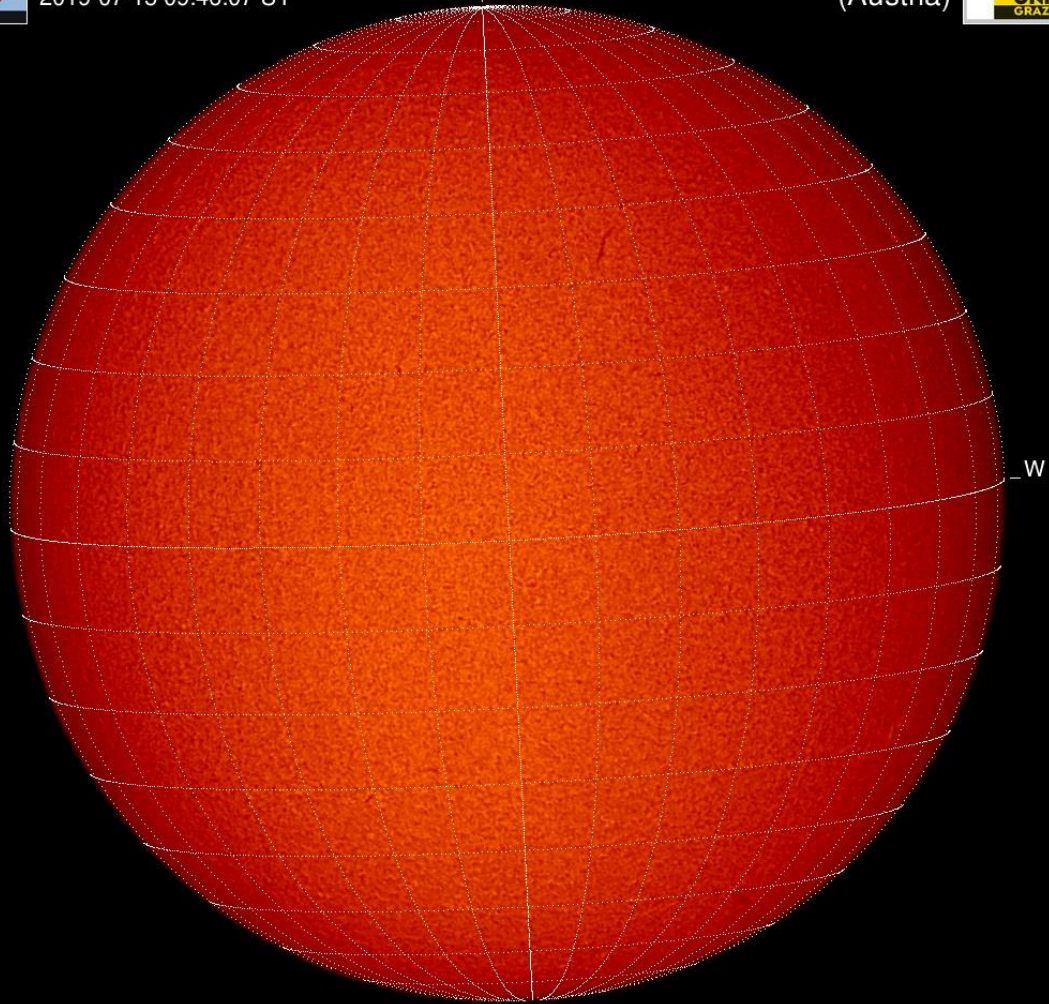
Filament & Filament eruption

H-alpha 2019-07-15



Kanzelhöhe Observatory
2019-07-15 09:46:07 UT

University of Graz
(Austria)

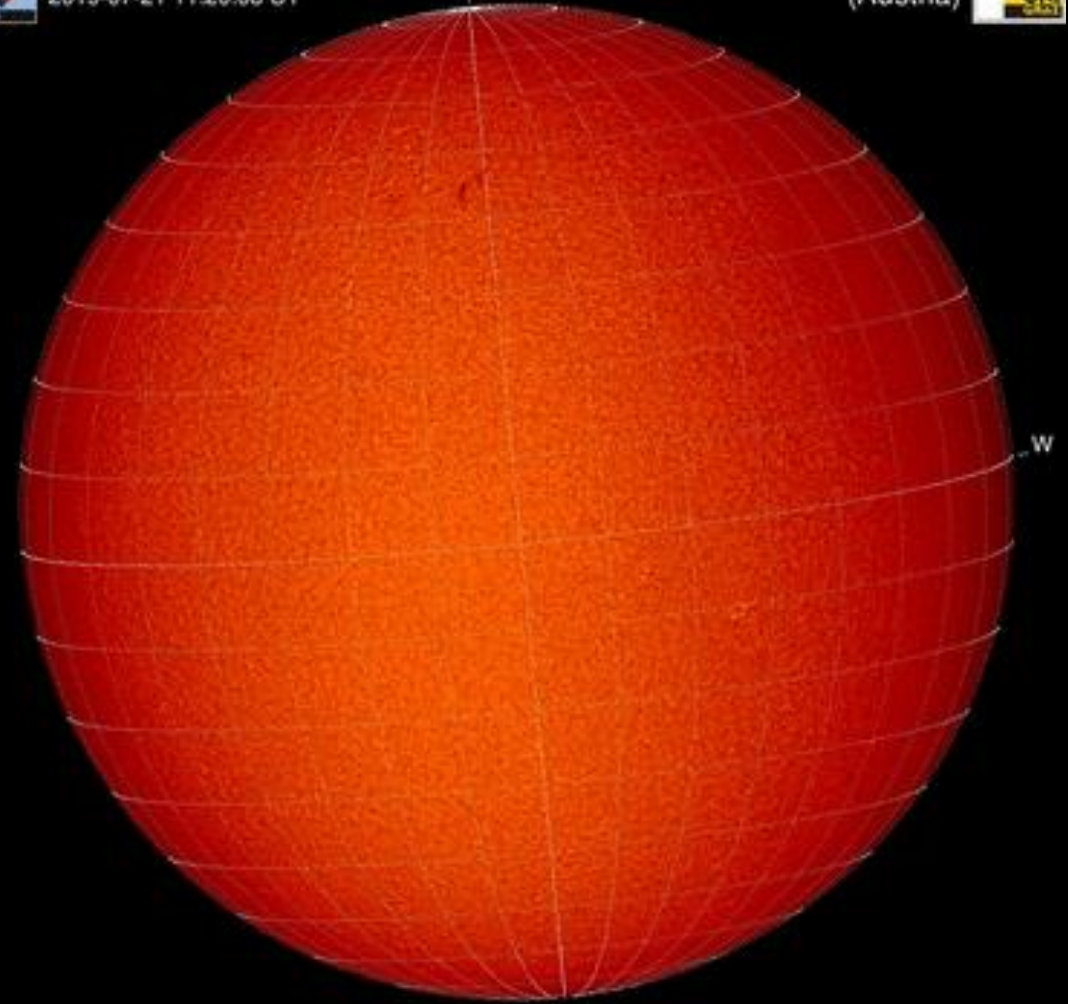


H-alpha 2019-07-21

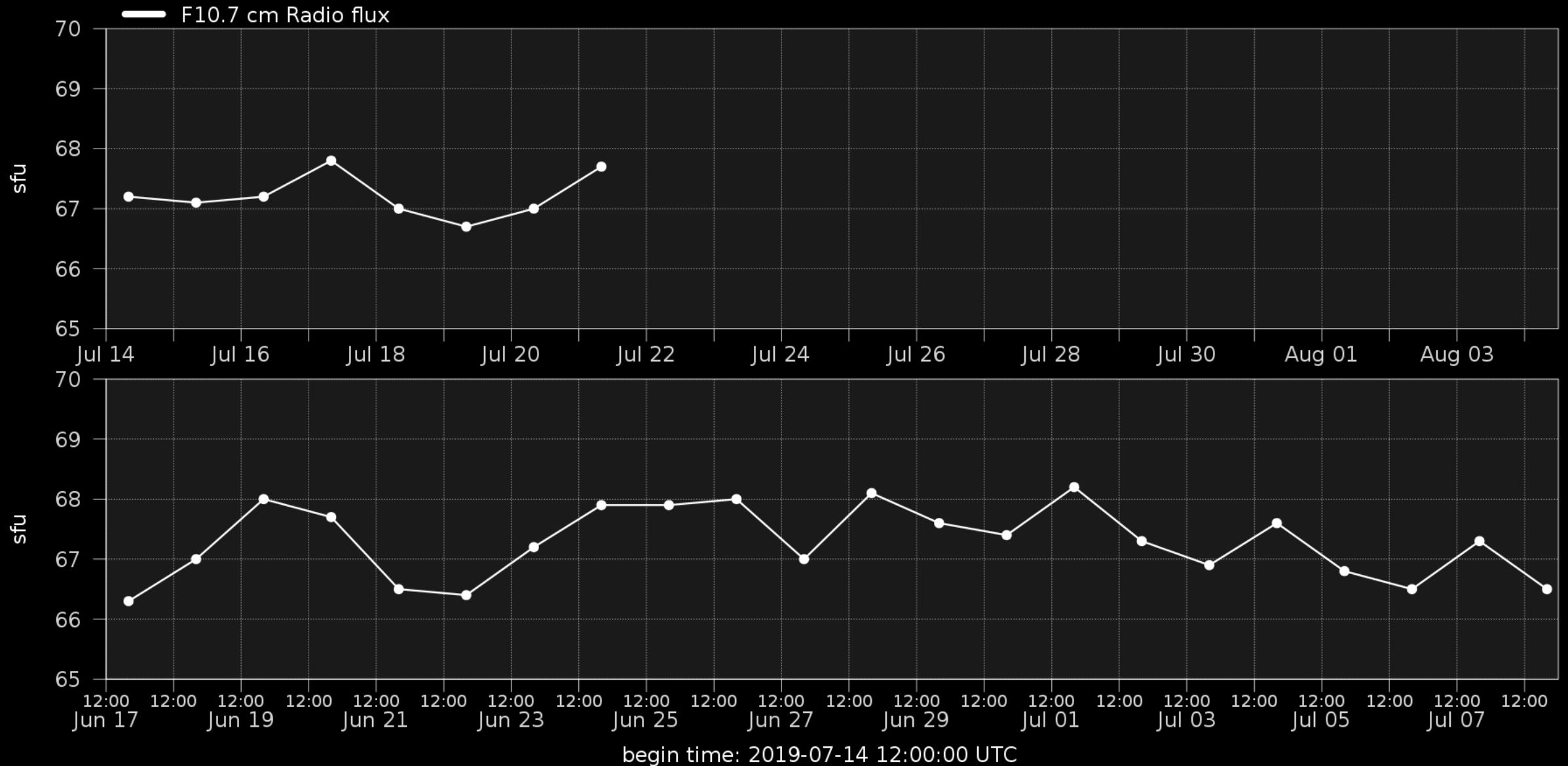


Kanzelhöhe Observatory
2019-07-21 11:20:08 UT

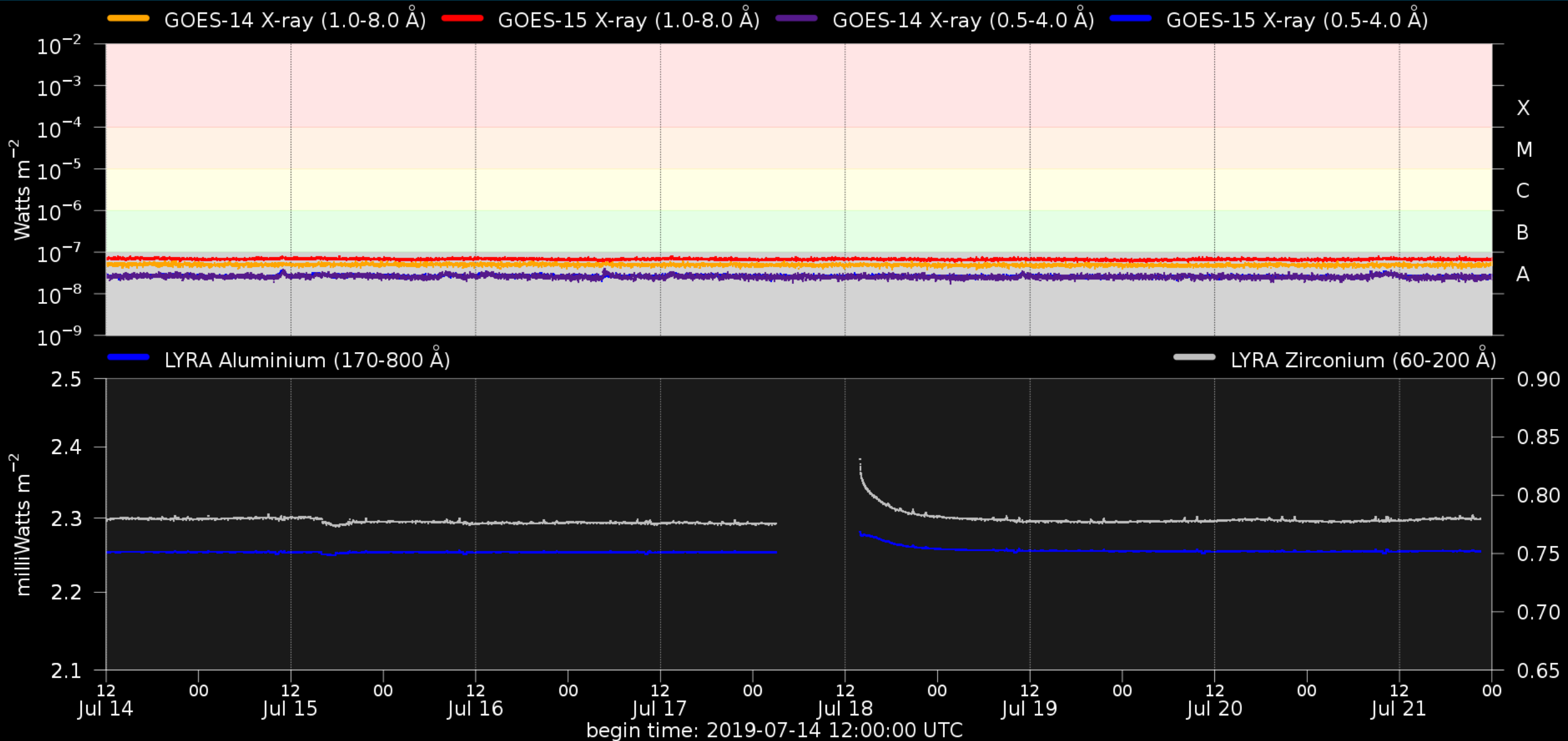
University of Graz
(Austria)



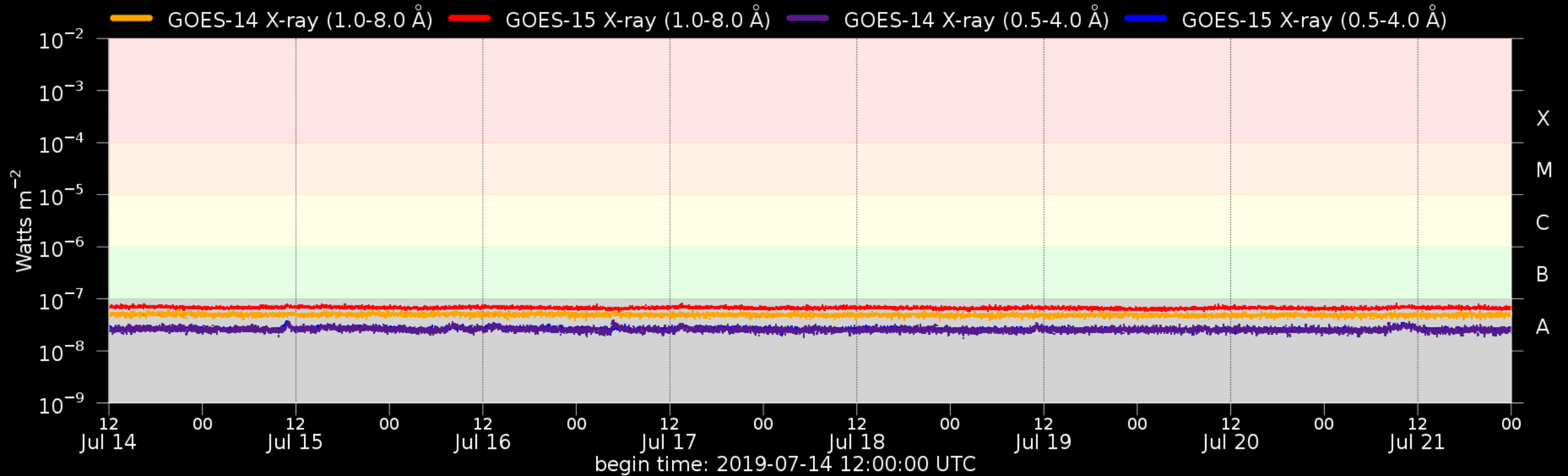
Solar F10.7cm radio flux



Solar X-Ray and UV flux



Flaring activity



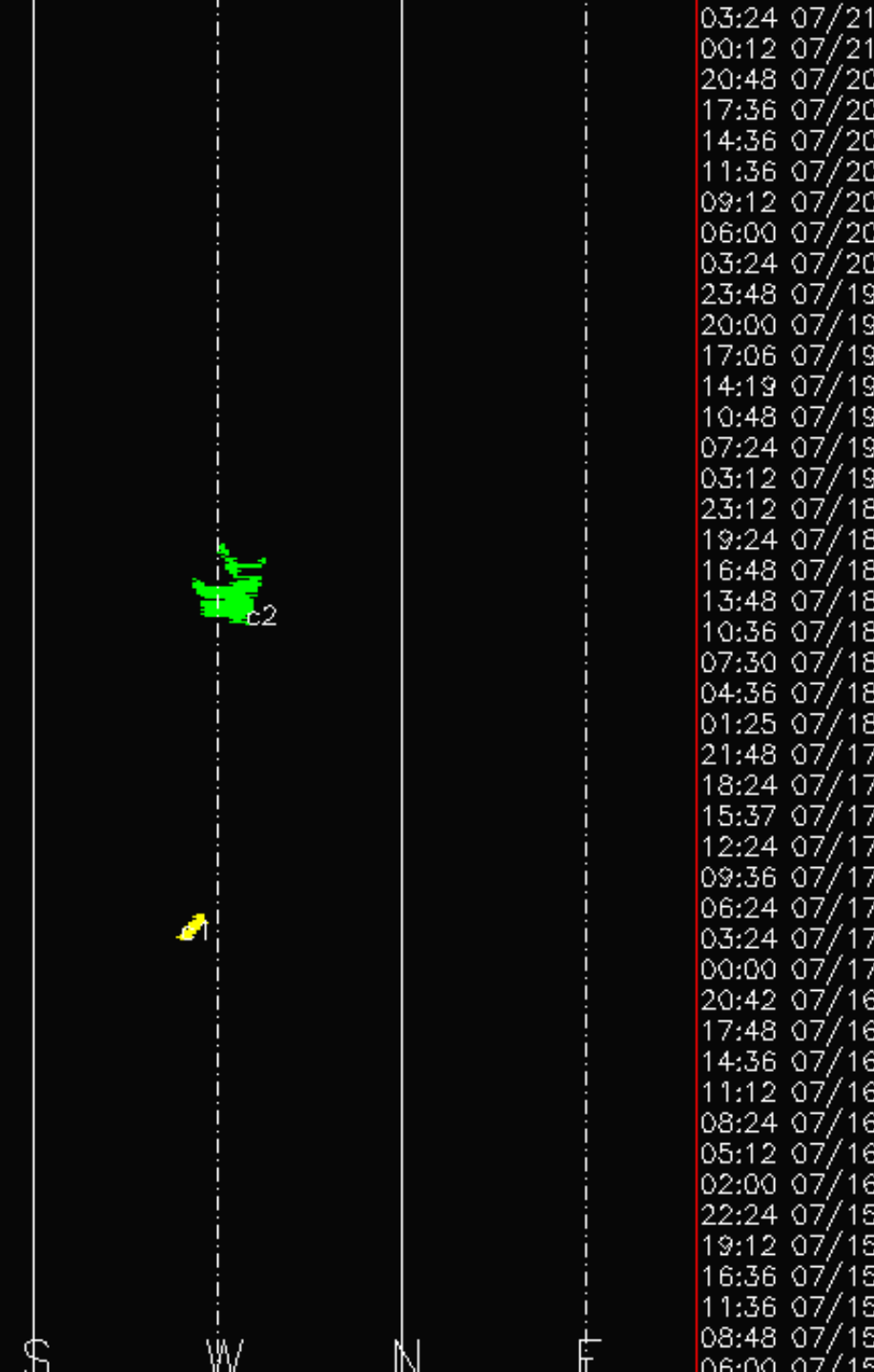
Probabilities (%) and occurrences (#) of B/C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2019-07-14	2019-07-15	2019-07-16	2019-07-17	2019-07-18	2019-07-19	2019-07-20	2019-07-21
Probability	--- 05 01 01	--- 01 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

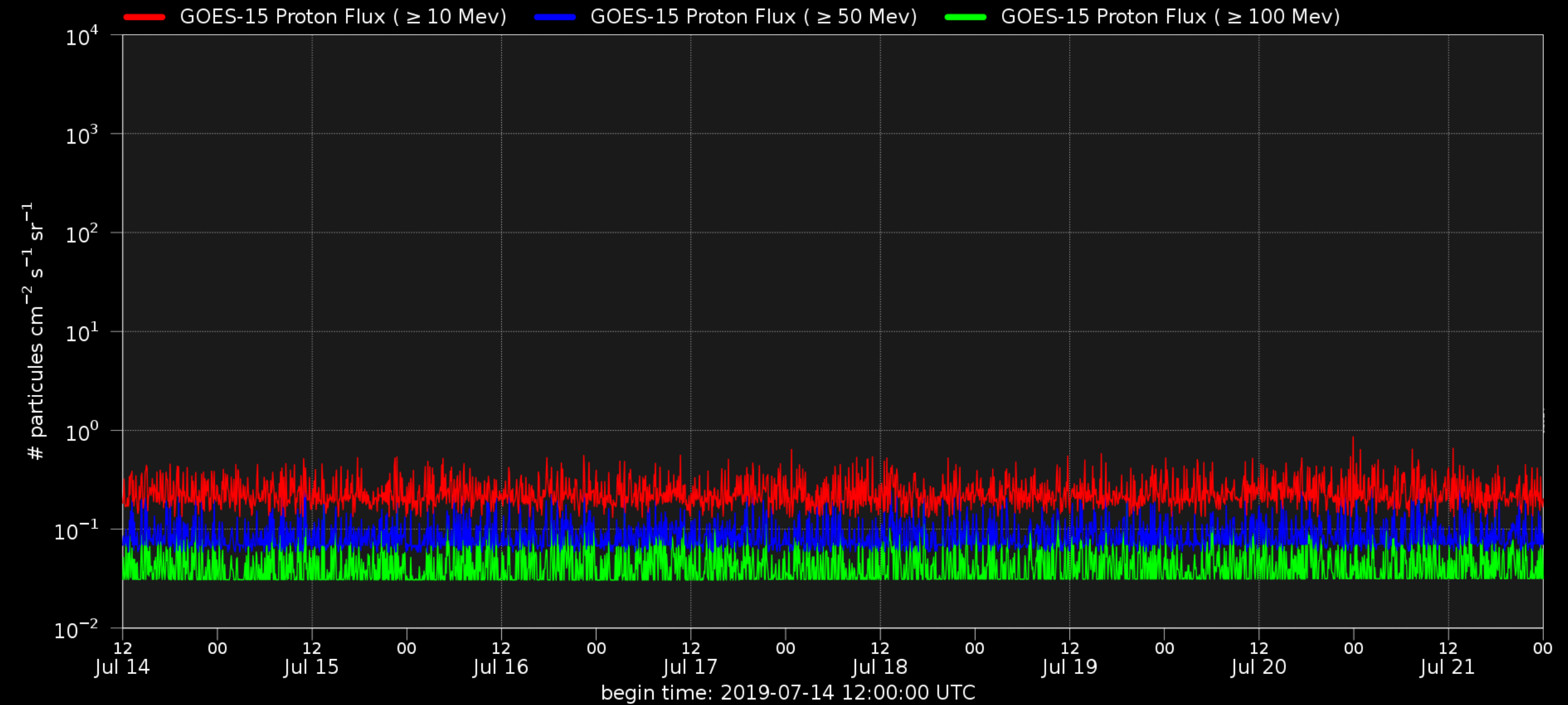
Coronal Mass Ejection



No Earth-directed CMEs



Solar proton flux

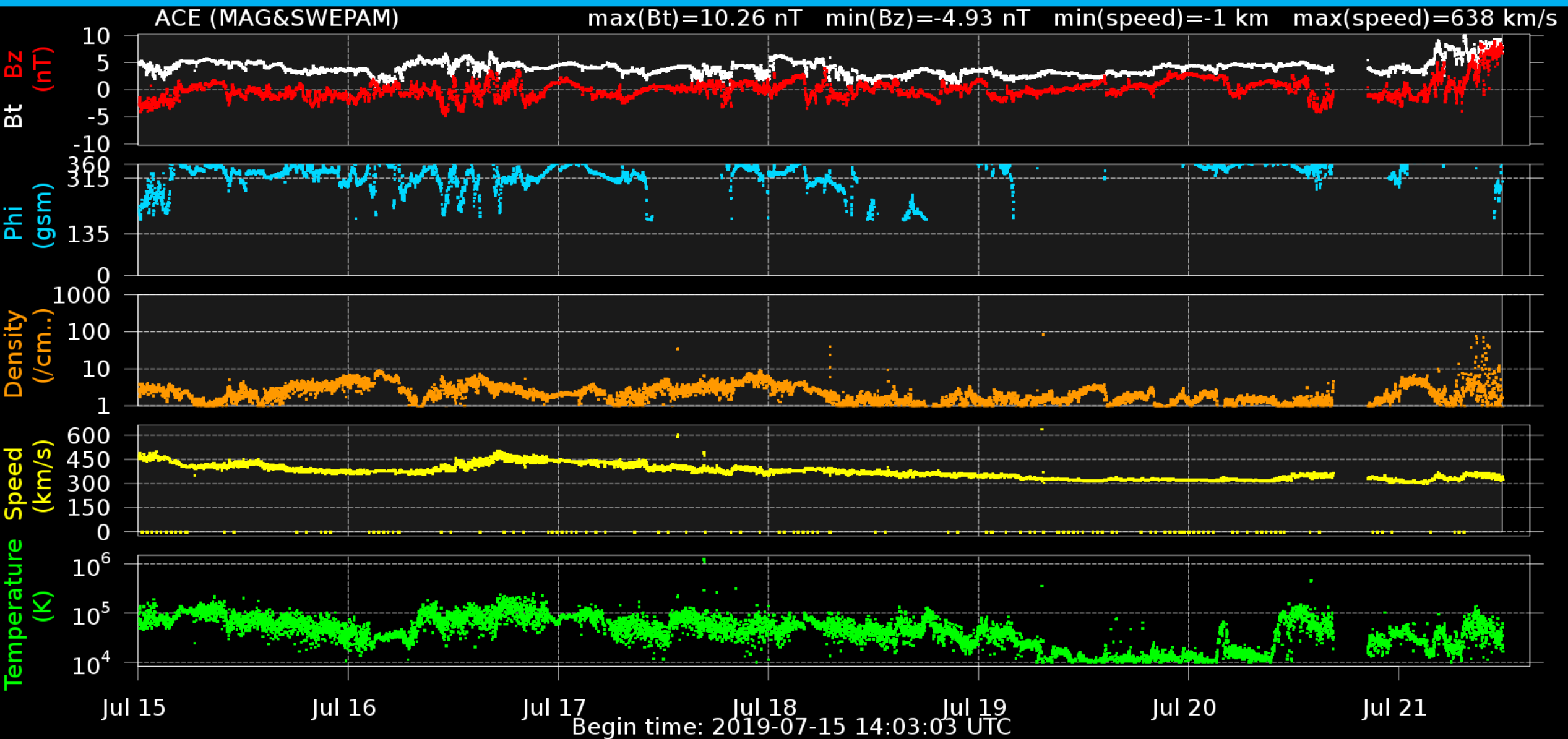


Solar Wind and Geomagnetic Activity

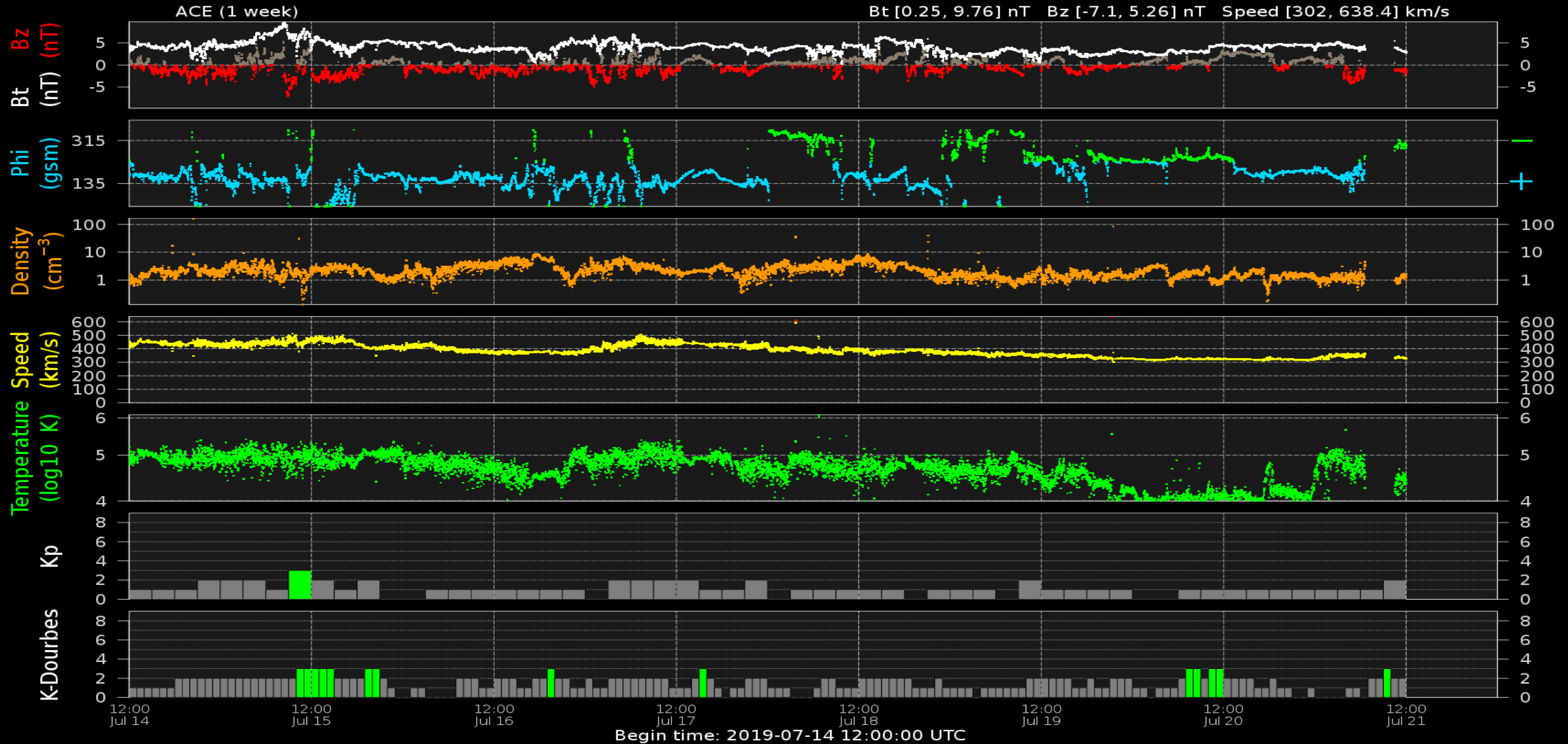


Solar Influences
Data analysis Centre
www.sidc.be

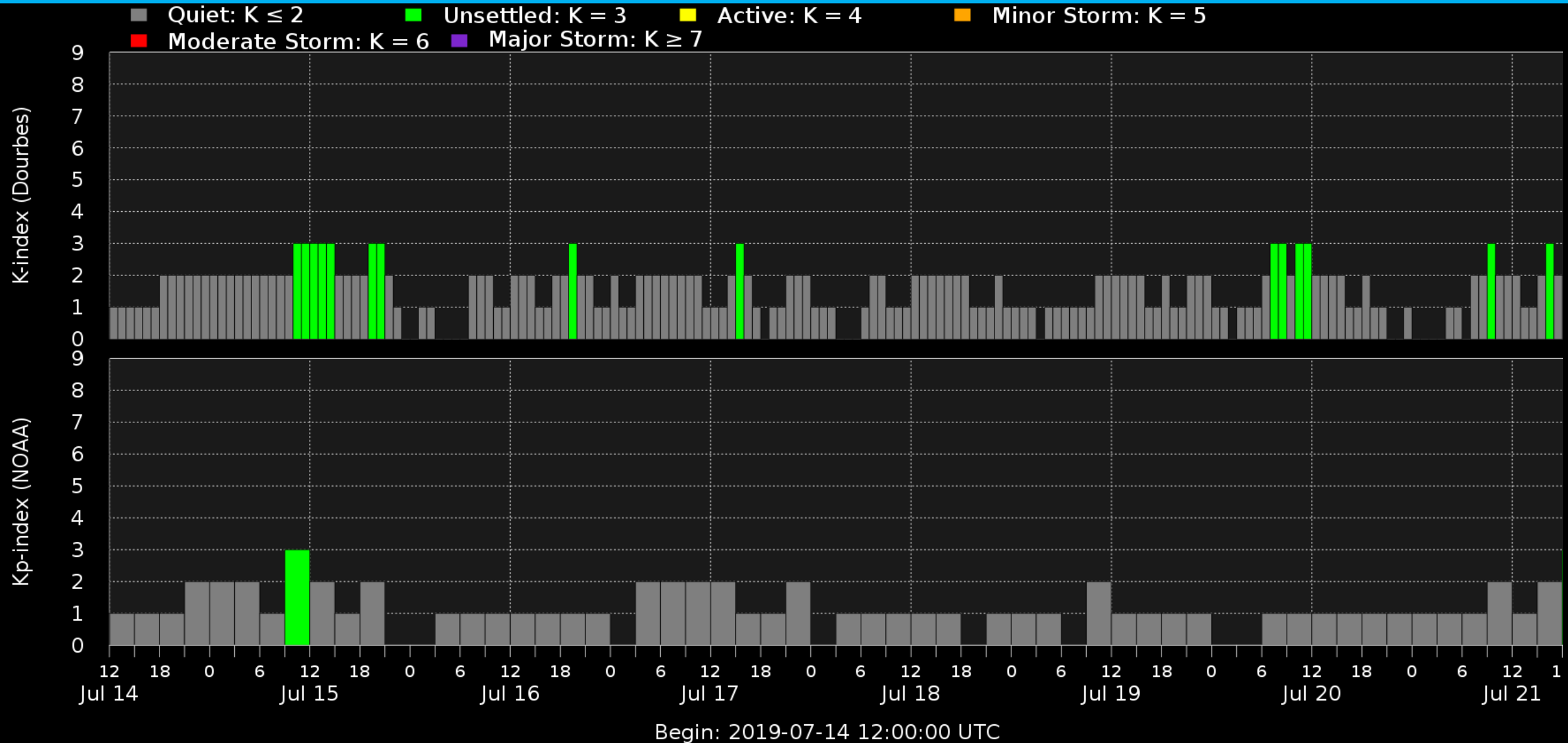
Solar wind parameters (ACE data)



Solar wind parameters (ACE data)



Geomagnetic activity (K-indexes)



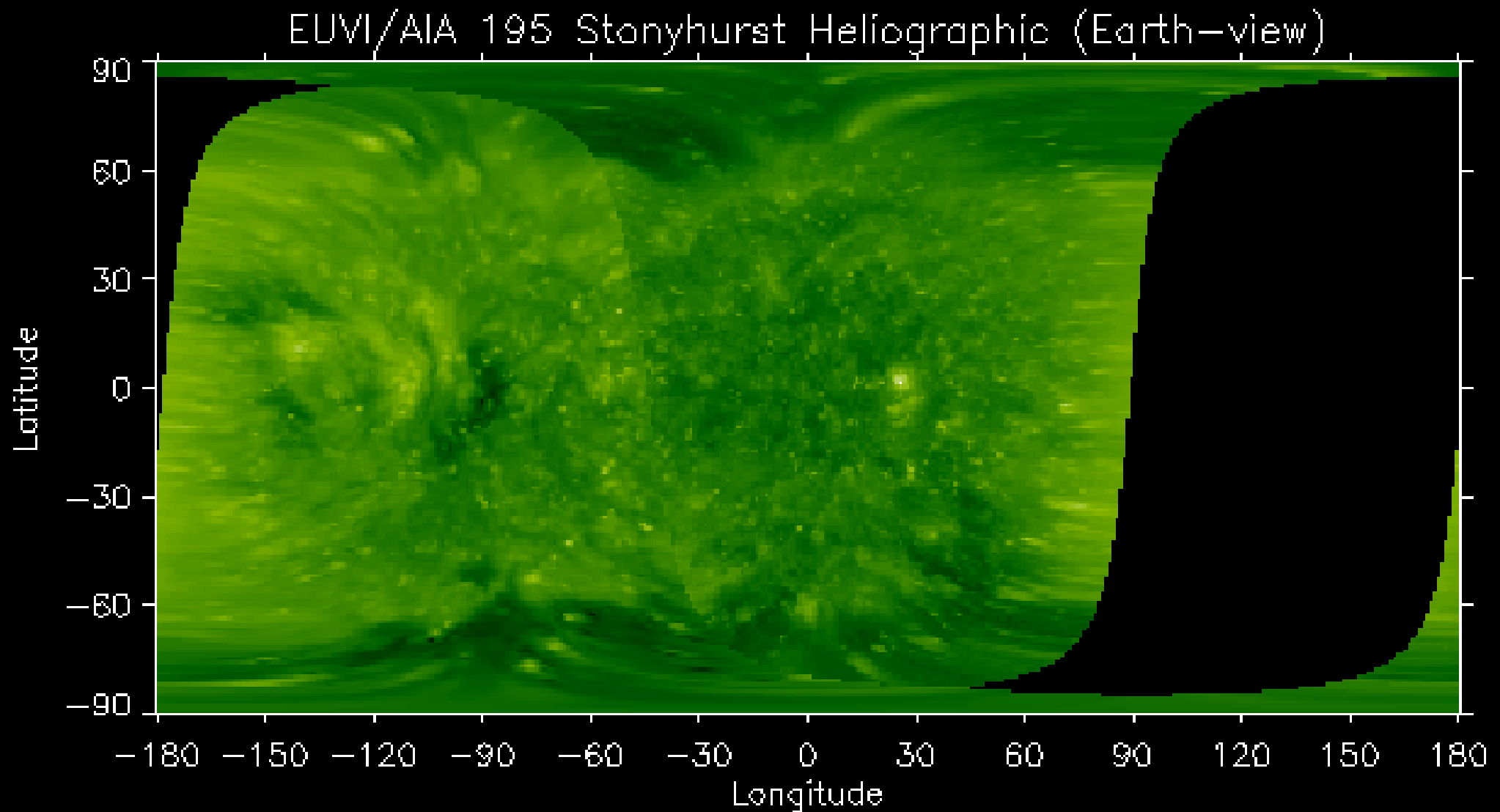
Outlook



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Outlook: Solar activity



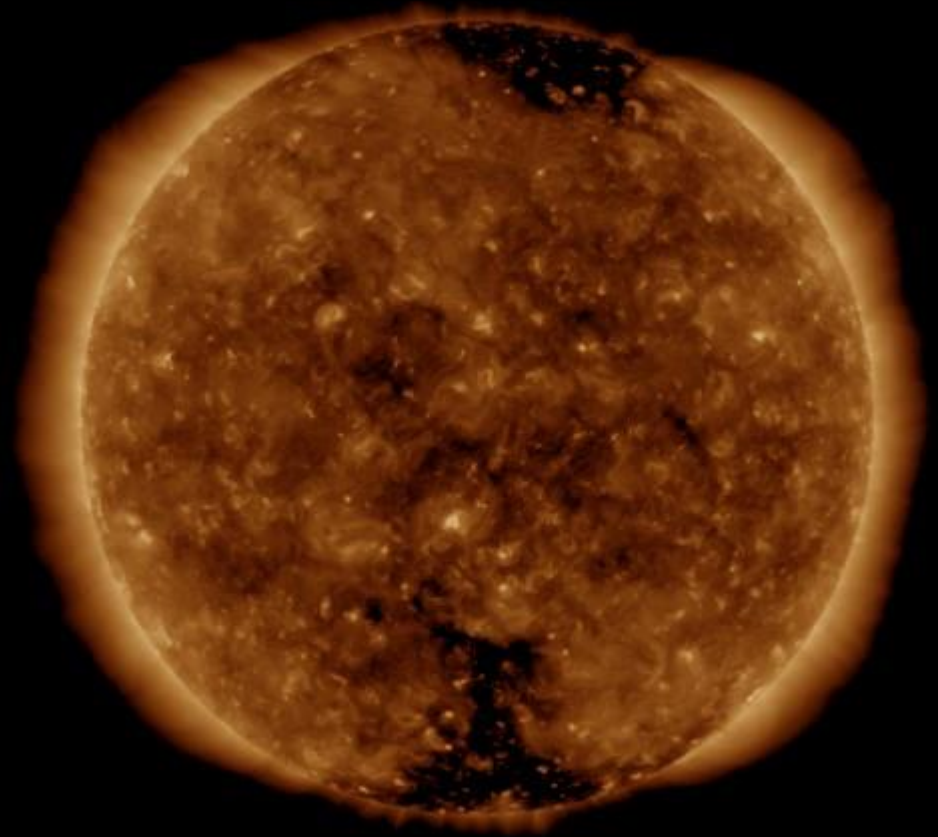
Outlook: Solar wind

SDO/AIA 19.3 nm 2019-06-22



SDO/AIA 193 2019-06-23 04:25:29 UT

SDO/AIA 19.3 nm 2019-07-19

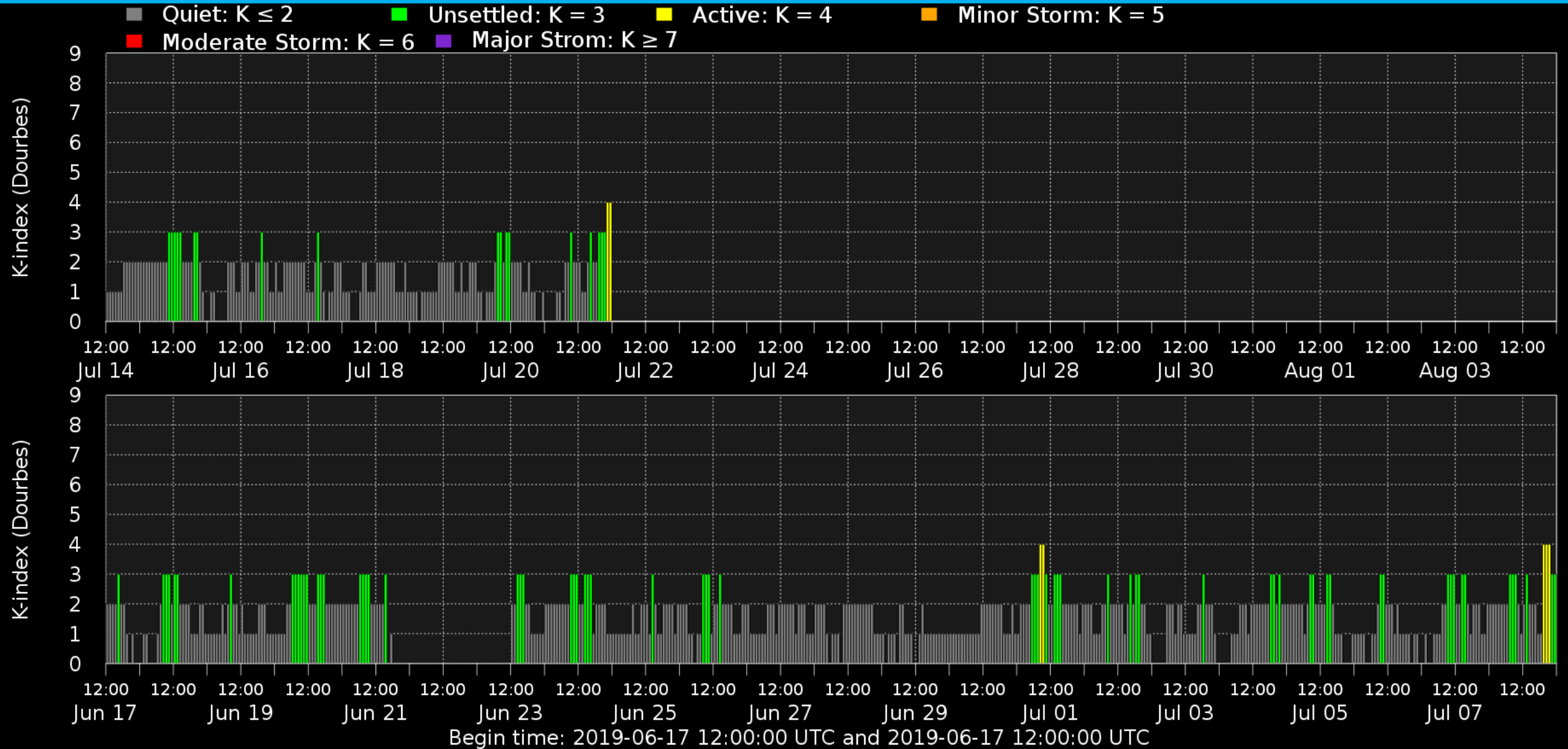


SDO/AIA 193 2019-07-19 05:26:05 UT

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