

SIDC Space Weather Briefing

09 June 2019 - 16 June 2019

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& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2019-06-09 12:00 UT to 2019-06-16 12:00 UT

Active regions	The Sun was spotless all week
Flaring	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filaments	Some minor, quiescent filaments
CMEs	No earth-directed CMEs were observed
Proton Events	The ≥ 10 MeV proton flux was at nominal levels

Solar wind and geomagnetic conditions from 2019-06-09 12:00 UT to 2019-06-16 12:00 UT

Coronal Holes	Extension of pos. pol. northern polar CH; Eq. diffuse neg. pol. CH
ICME	None observed
SW Conditions	SW speed: 300-500 km/s ; Bz: -7 - +7 nT
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 4

All Quiet Alert: Off since 09 June

Solar Activity

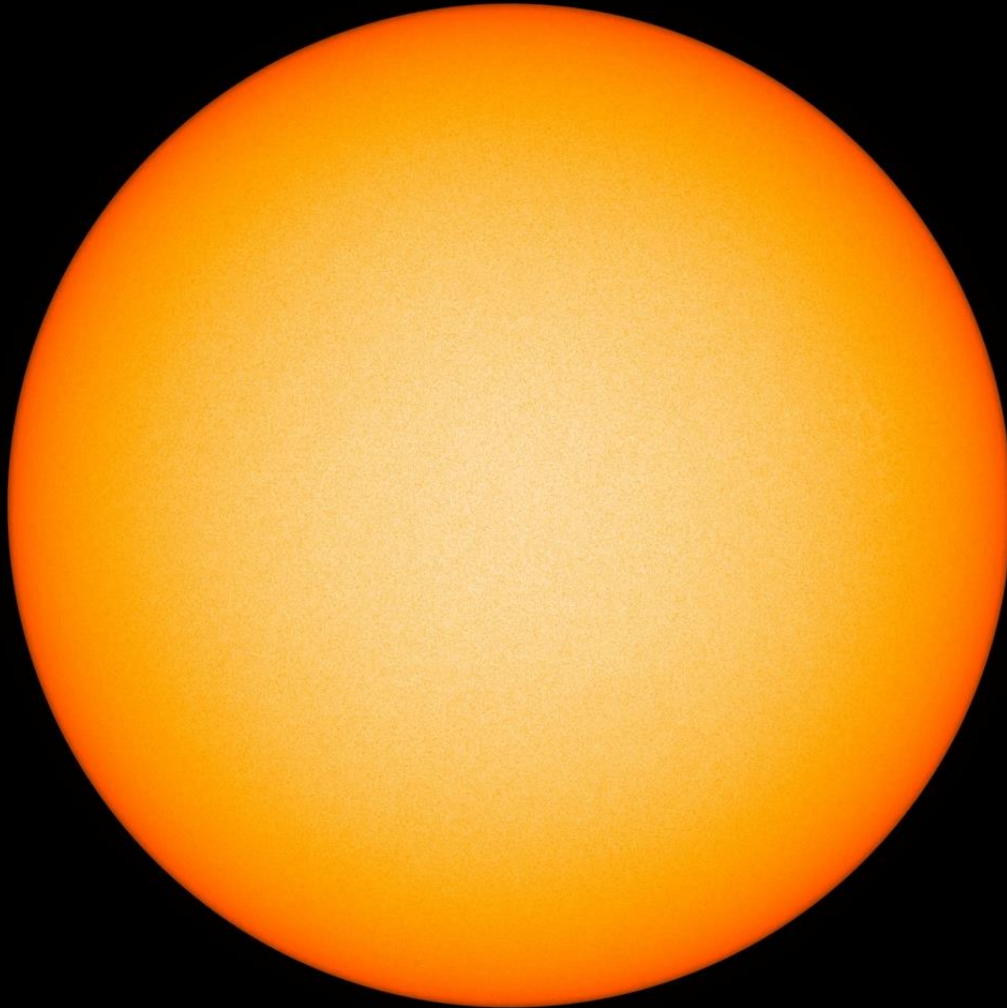


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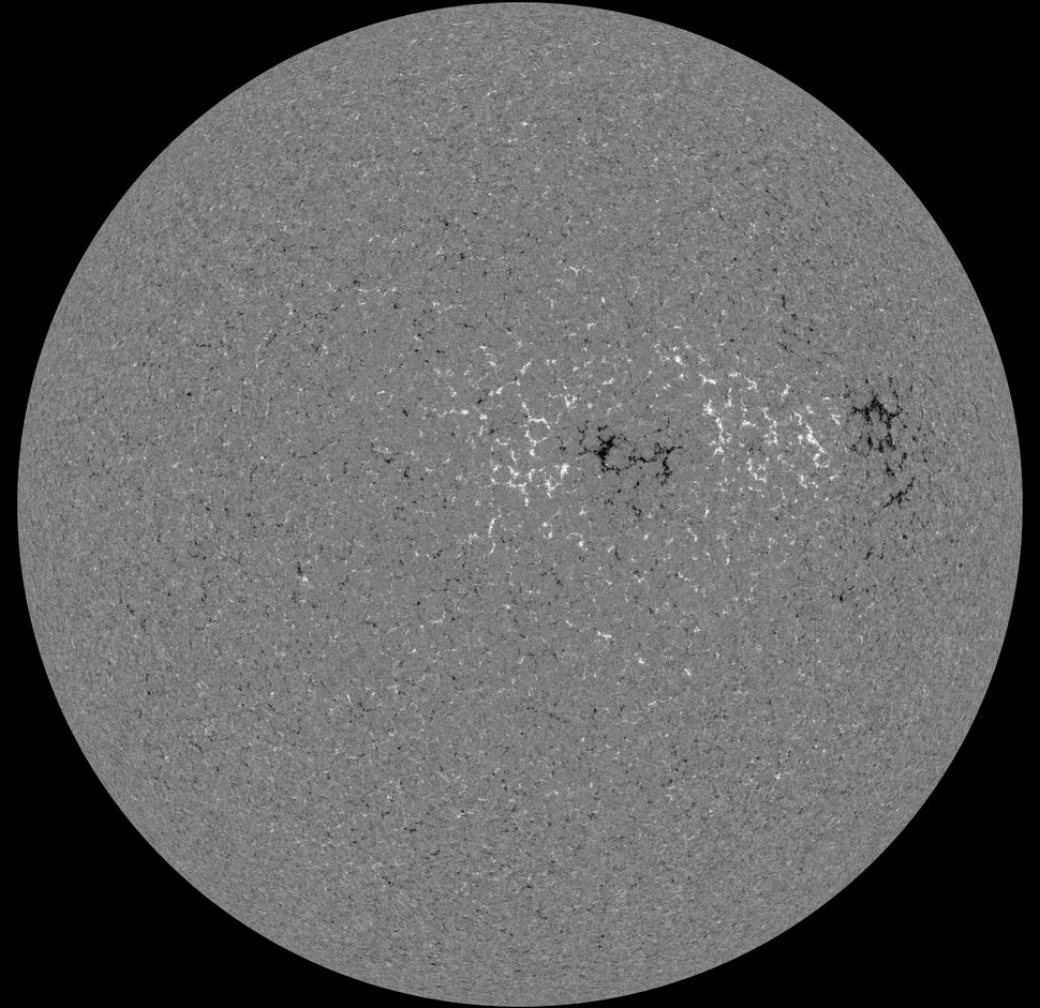
Solar active region - start of the week

SDO/HMI White Light 2019-06-09



SDO/HMI Quick-Look Continuum: 20190609_114500

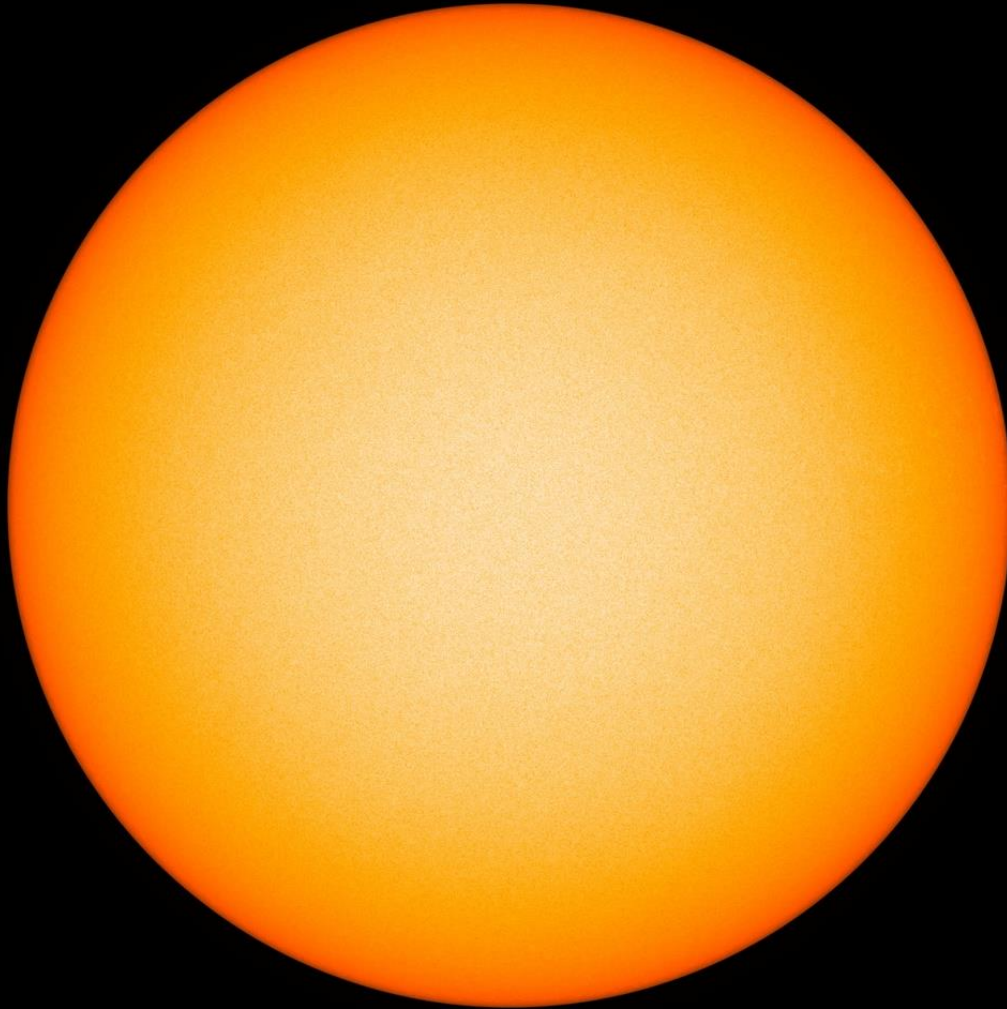
SDO/HMI Magnetogram 2019-06-09



SDO/HMI Quick-Look Magnetogram: 20190609_114500

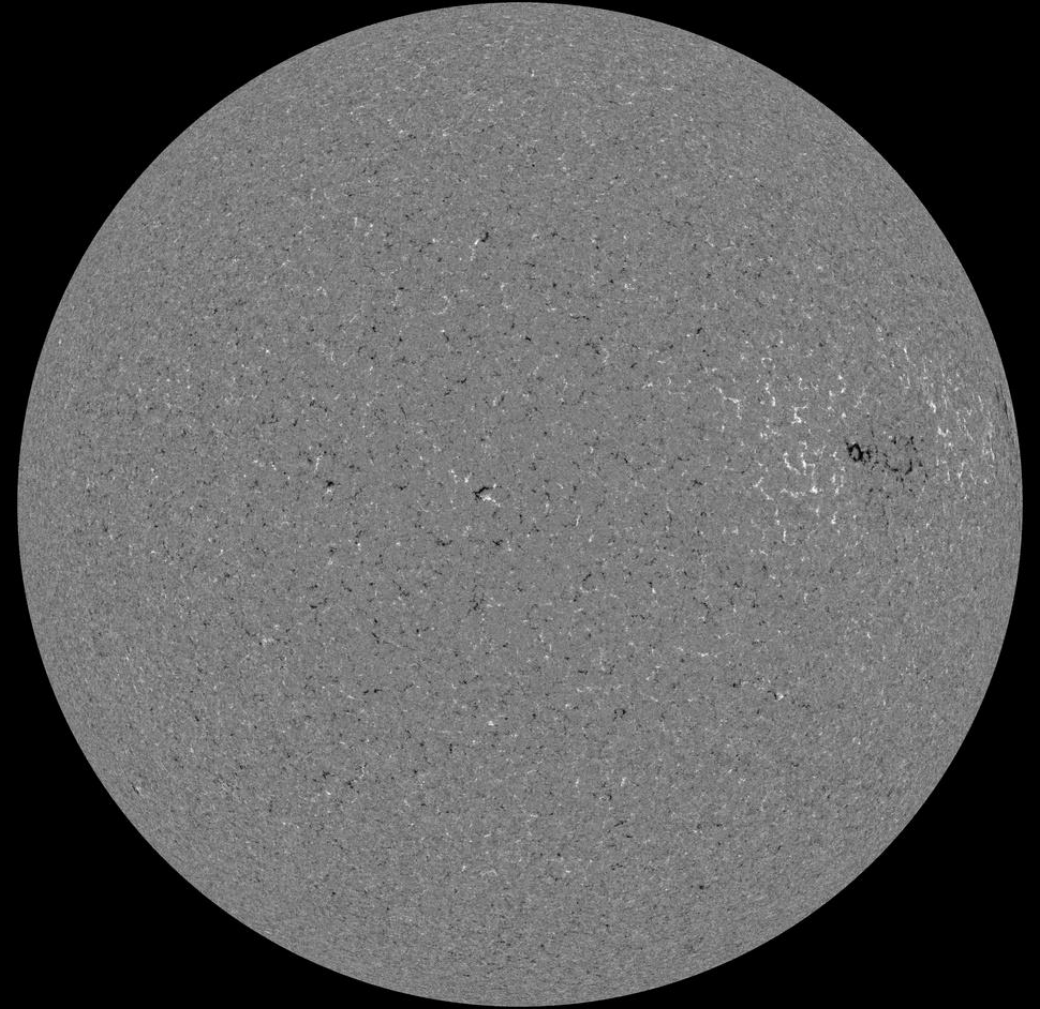
Solar active region - middle of the week

SDO/HMI White Light 2019-06-12



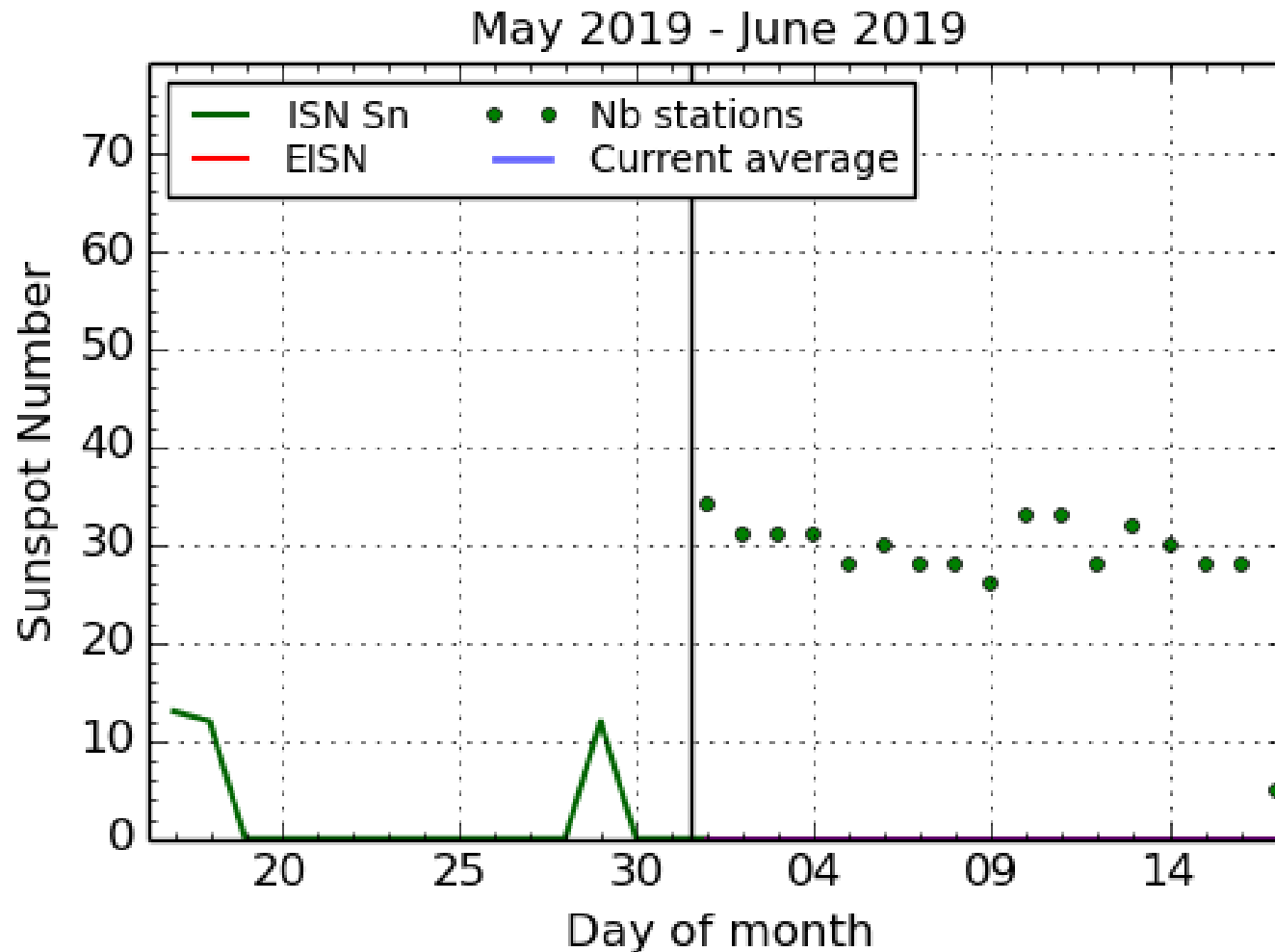
SDO/HMI Quick-Look Continuum: 20190612_003000

SDO/HMI Magnetogram 2019-06-12



SDO/HMI Quick-Look Magnetogram: 20190612_003000

Solar active region - end of the week

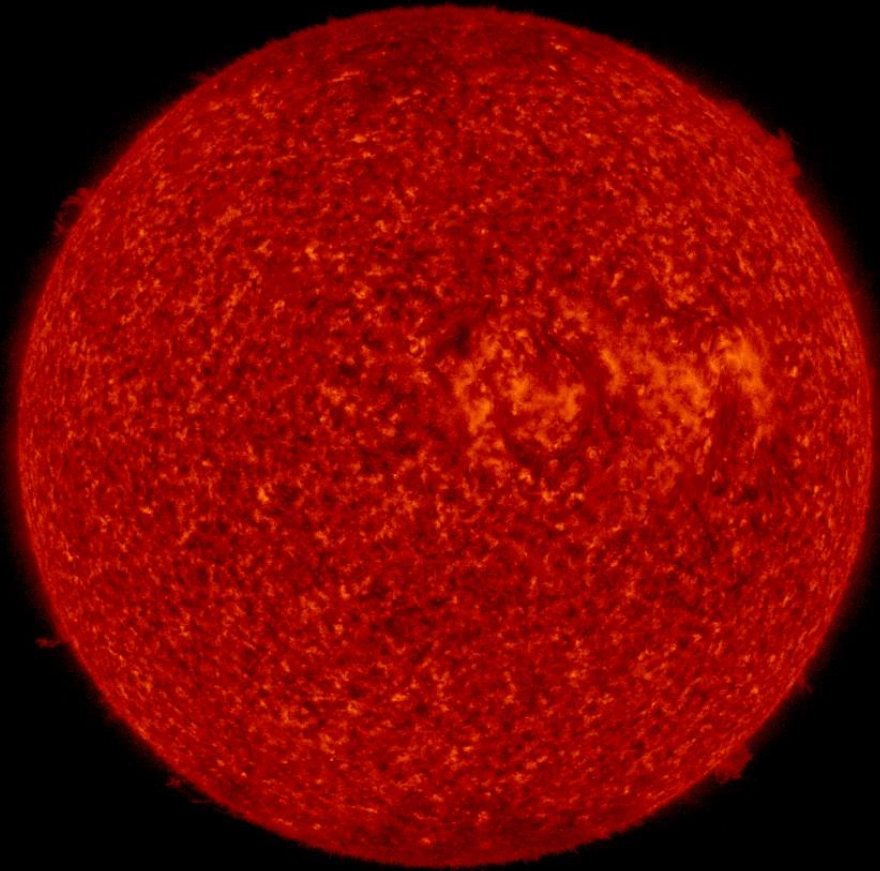


SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium, 2019 June 17

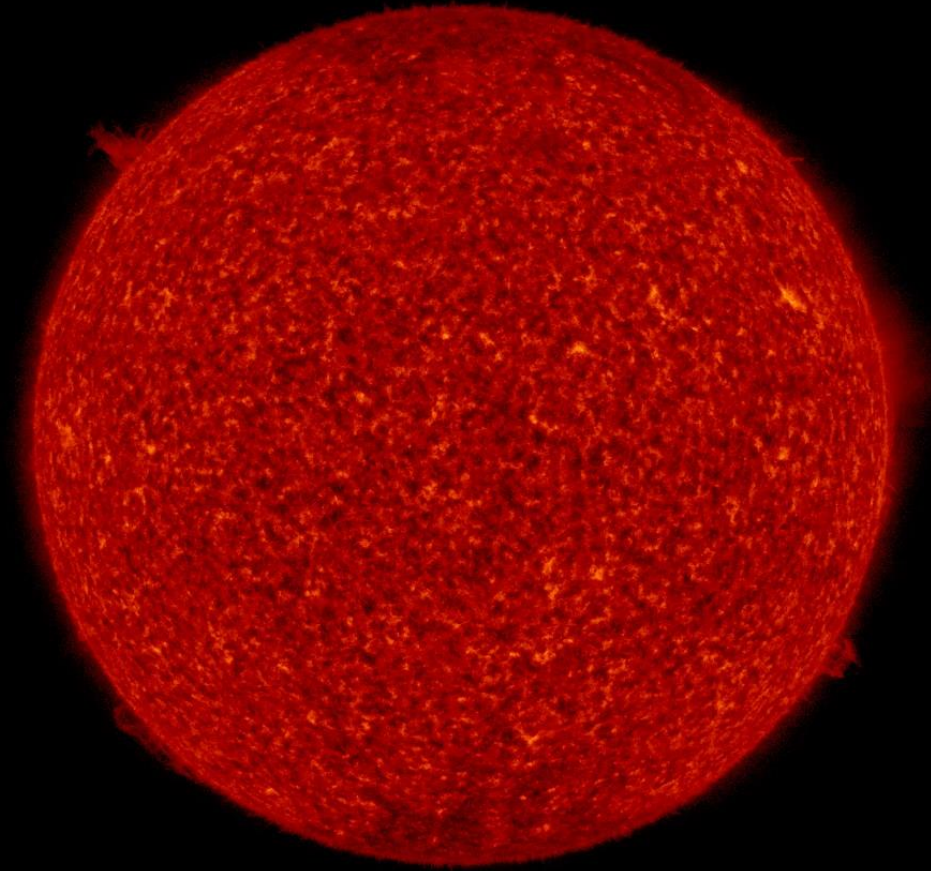
Longest spotless stretch during the SC24-25 transit... and still ongoing!

Solar active region & Filament

SDO/AIA 30.4 nm 2019-06-09



SDO/AIA 30.4 nm 2019-06-16



SDO/AIA 304 2019-06-09 12:13:18 UT

SDO/AIA 304 2019-06-16 07:00:42 UT

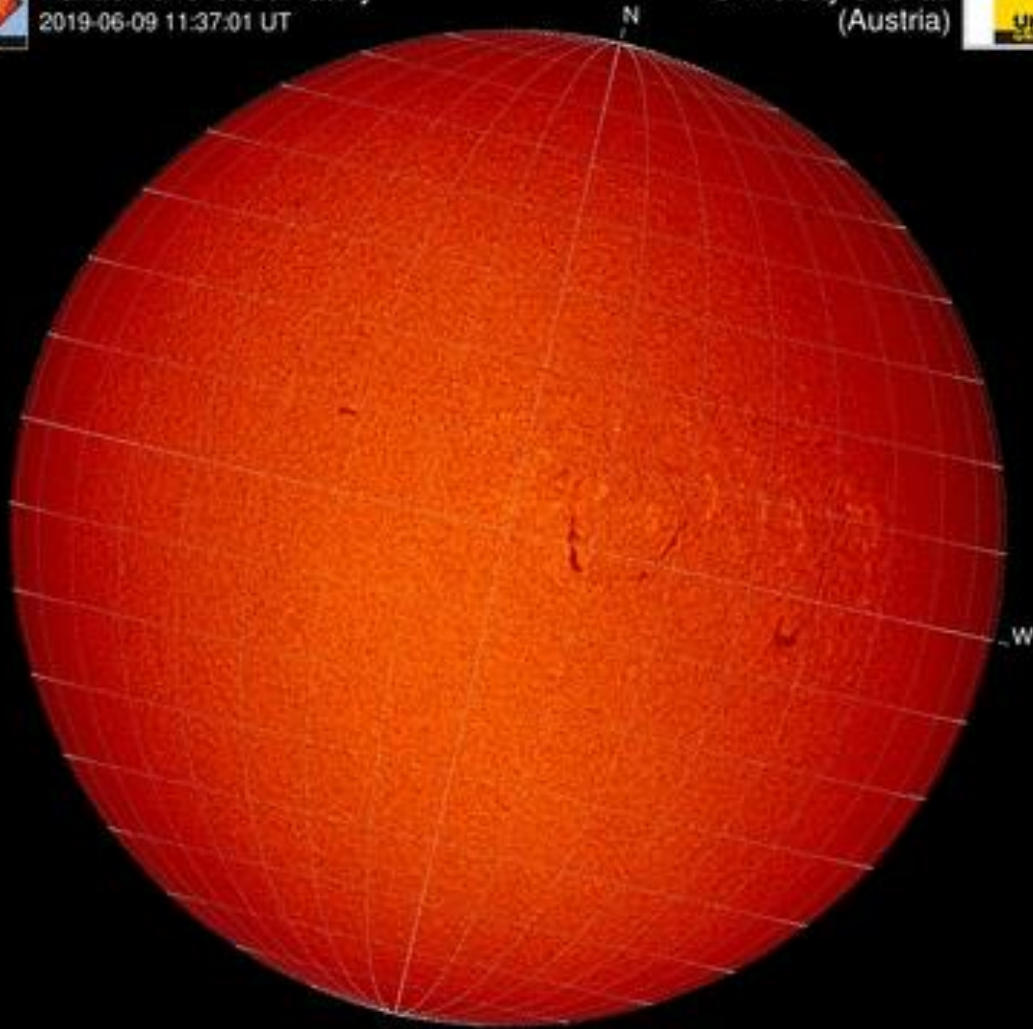
Filament & Filament eruption

H-alpha 2019-06-09



Kanzelhöhe Observatory
2019-06-09 11:37:01 UT

University of Graz
(Austria)

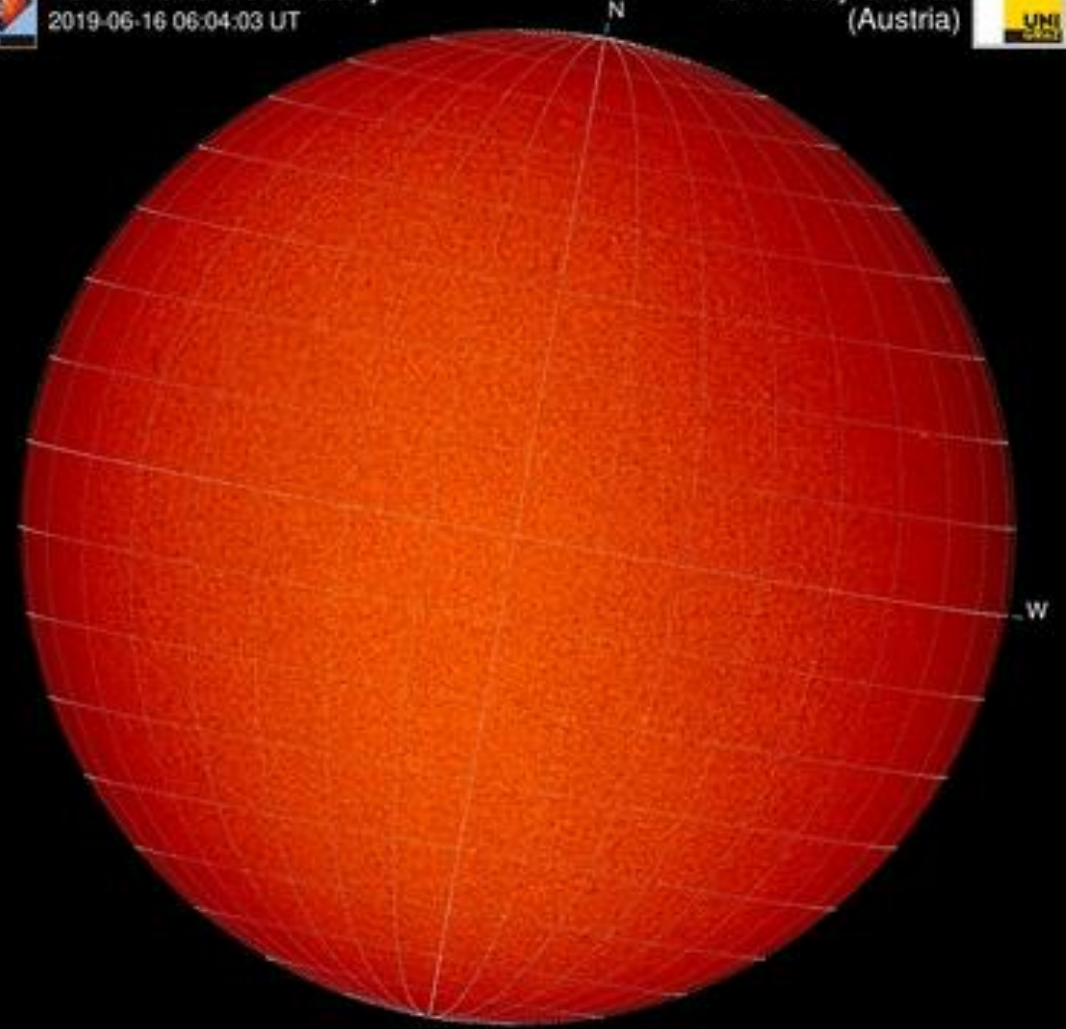


H-alpha 2019-06-16

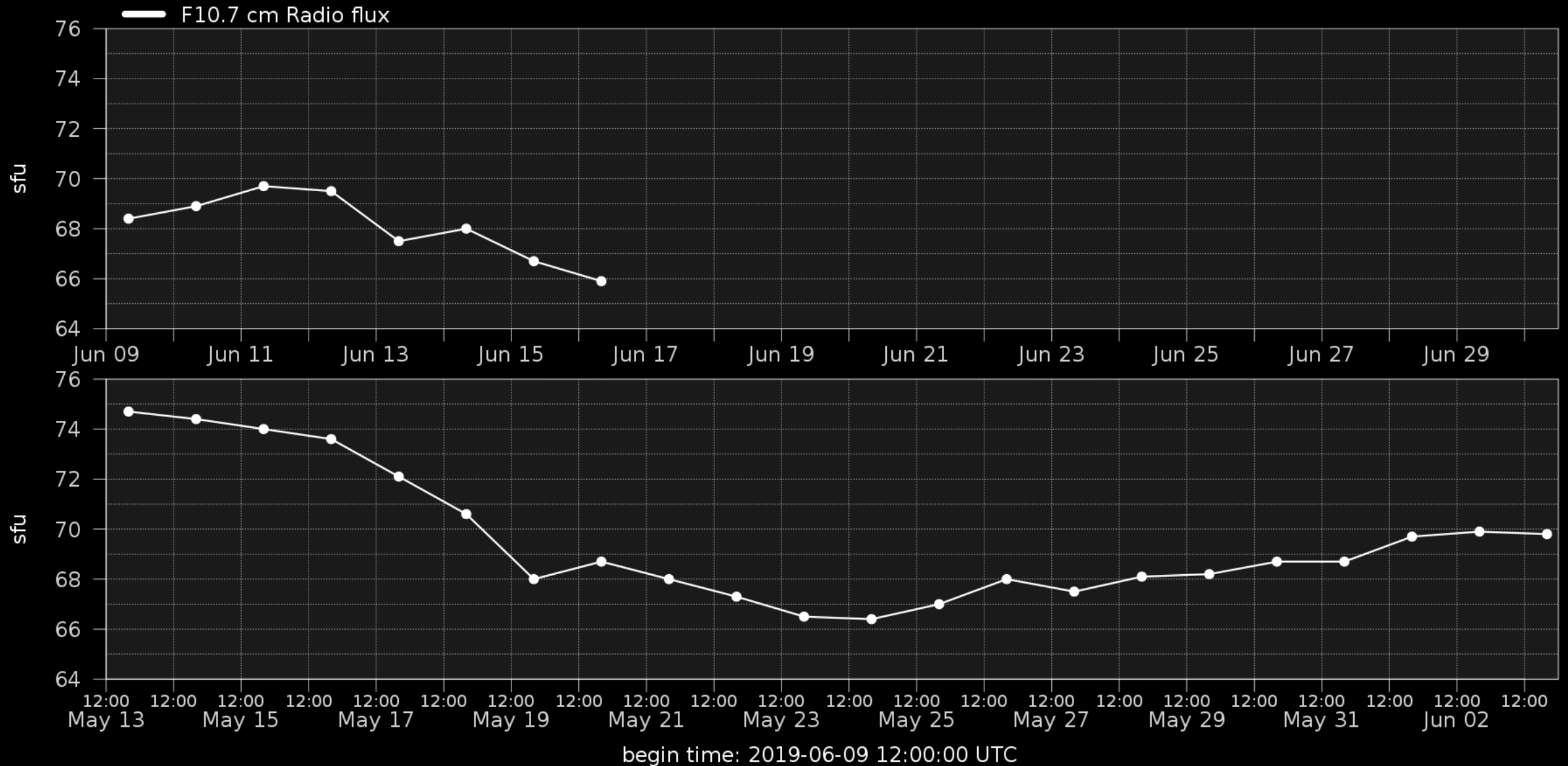


Kanzelhöhe Observatory
2019-06-16 06:04:03 UT

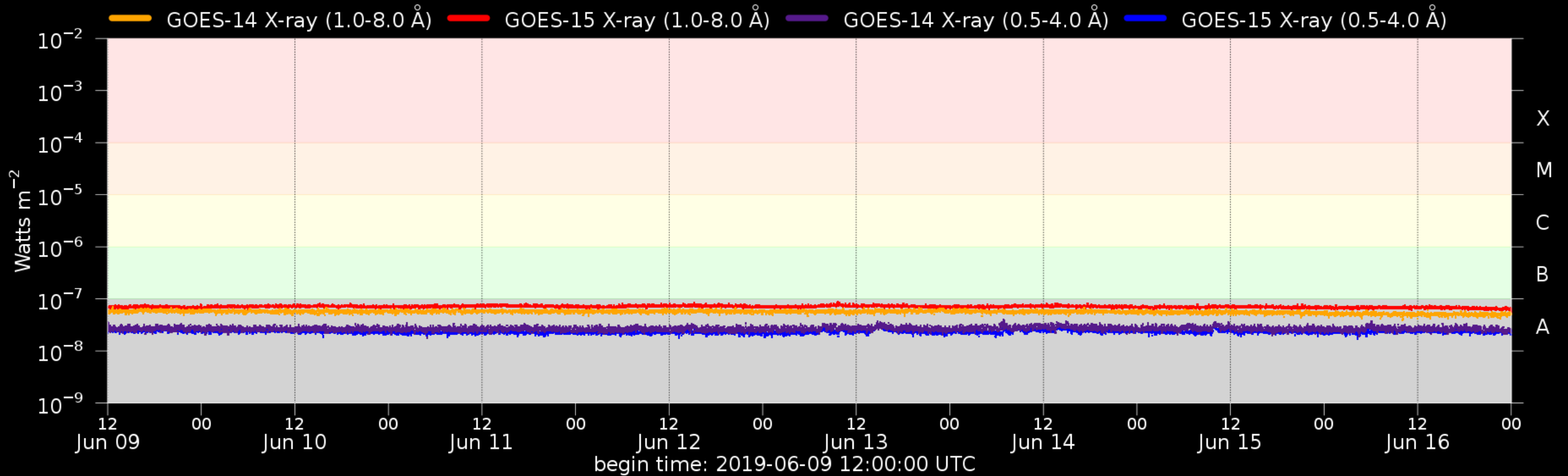
University of Graz
(Austria)



Solar F10.7cm radio flux



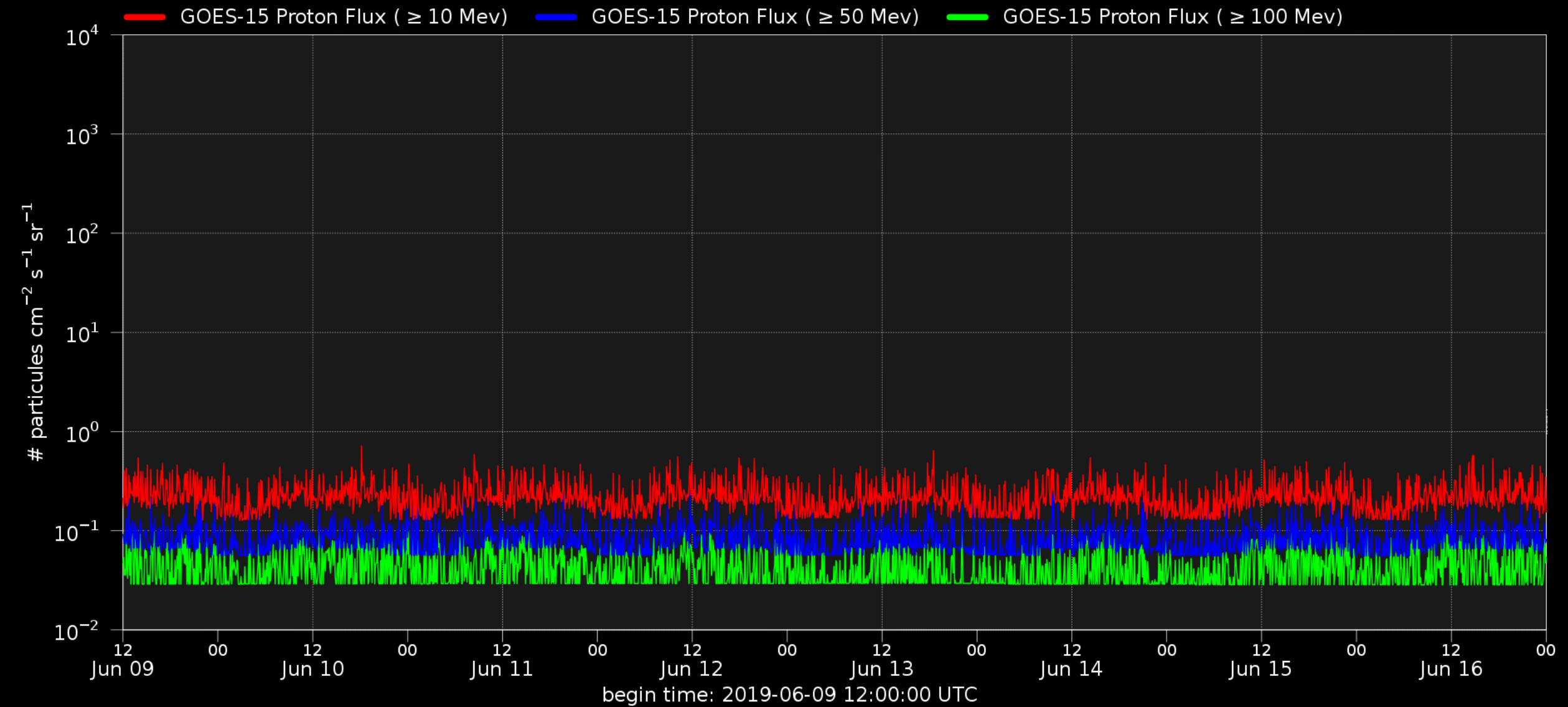
Flaring activity



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

Issue date	2019-06-09	2019-06-10	2019-06-11	2019-06-12	2019-06-13	2019-06-14	2019-06-15	2019-06-16
Probability	--- 05 00 00	--- 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

Solar proton flux



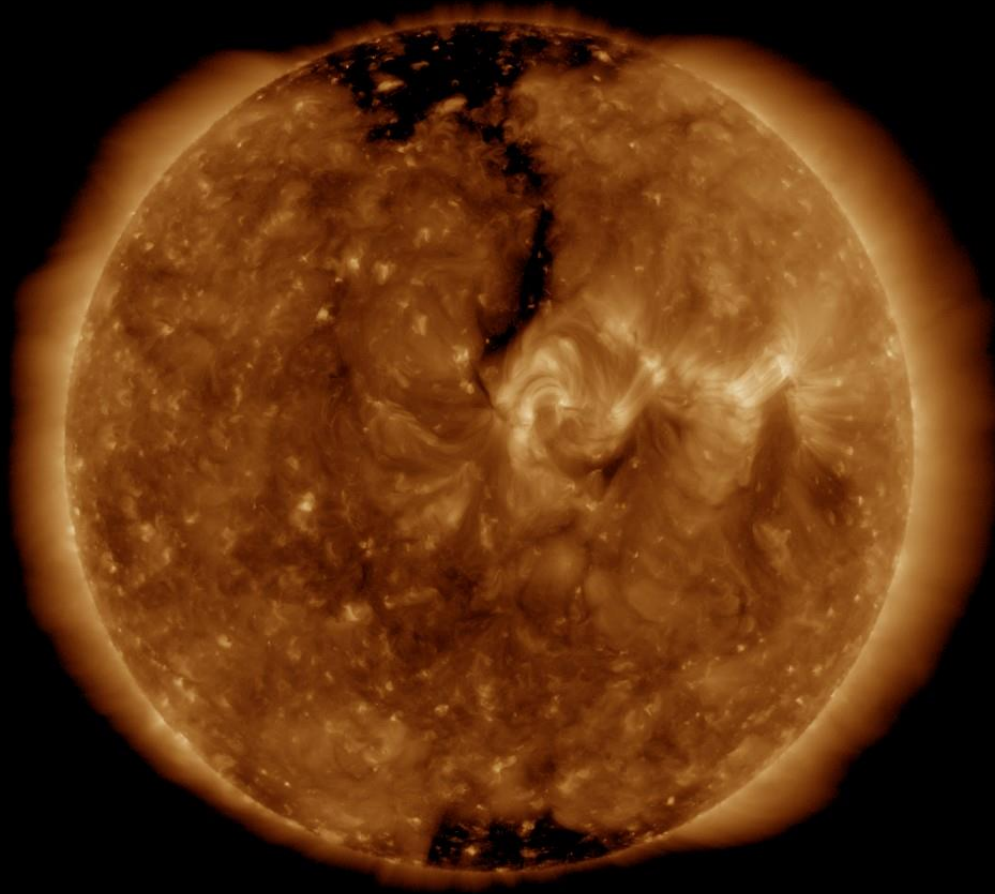
Coronal Mass Ejection



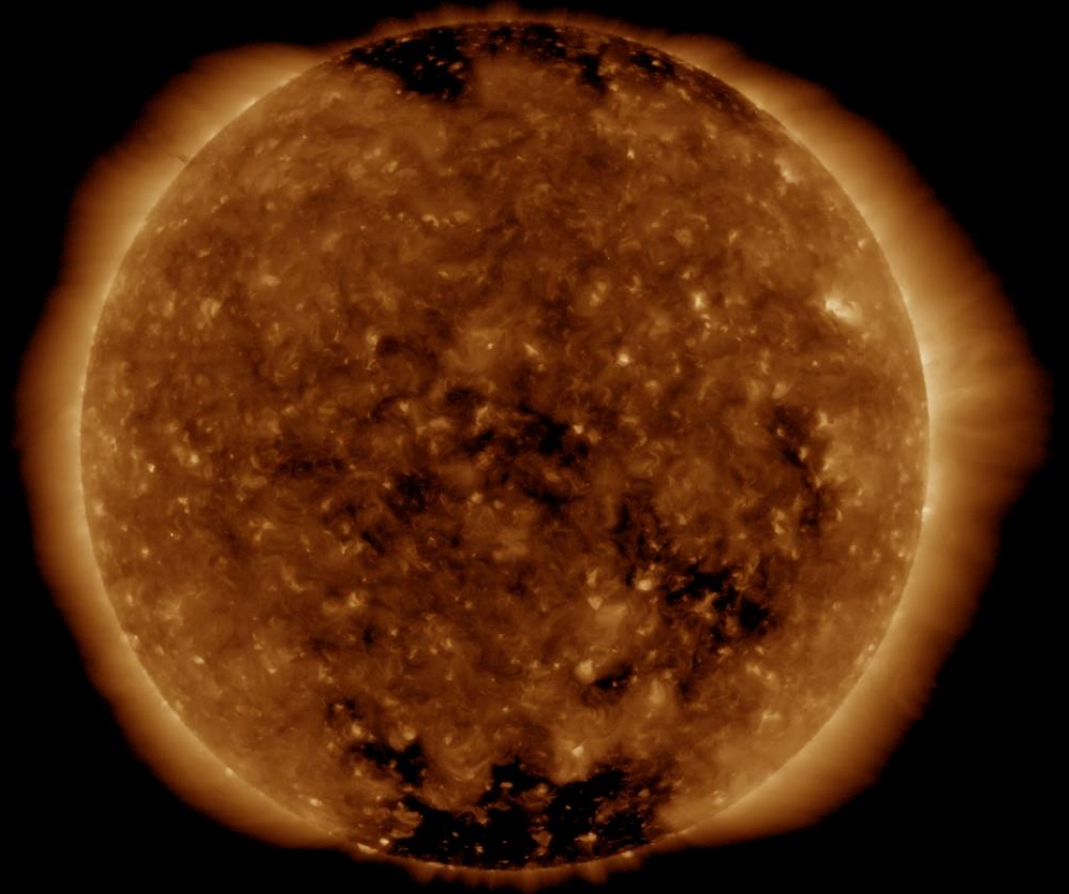
00:36 06/16
21:12 06/15
18:24 06/15
15:42 06/15
12:12 06/15
09:36 06/15
06:48 06/15
04:00 06/15
00:36 06/15
21:36 06/14
18:48 06/14
16:00 06/14
12:24 06/14
09:42 06/14
06:12 06/14
02:00 06/14
22:24 06/13
19:00 06/13
16:36 06/13
13:25 06/13
10:00 06/13
07:00 06/13
04:24 06/13
01:36 06/13
22:12 06/12
19:00 06/12
16:12 06/12
12:48 06/12
10:00 06/12
07:12 06/12
04:36 06/12
01:36 06/12
22:12 06/11
19:00 06/11
16:00 06/11
12:24 06/11
09:42 06/11
07:00 06/11
04:12 06/11
00:48 06/11
21:48 06/10
18:48 06/10
15:24 06/10
11:48 06/10
09:06 06/10

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-06-09



SDO/AIA 19.3 nm 2019-06-16

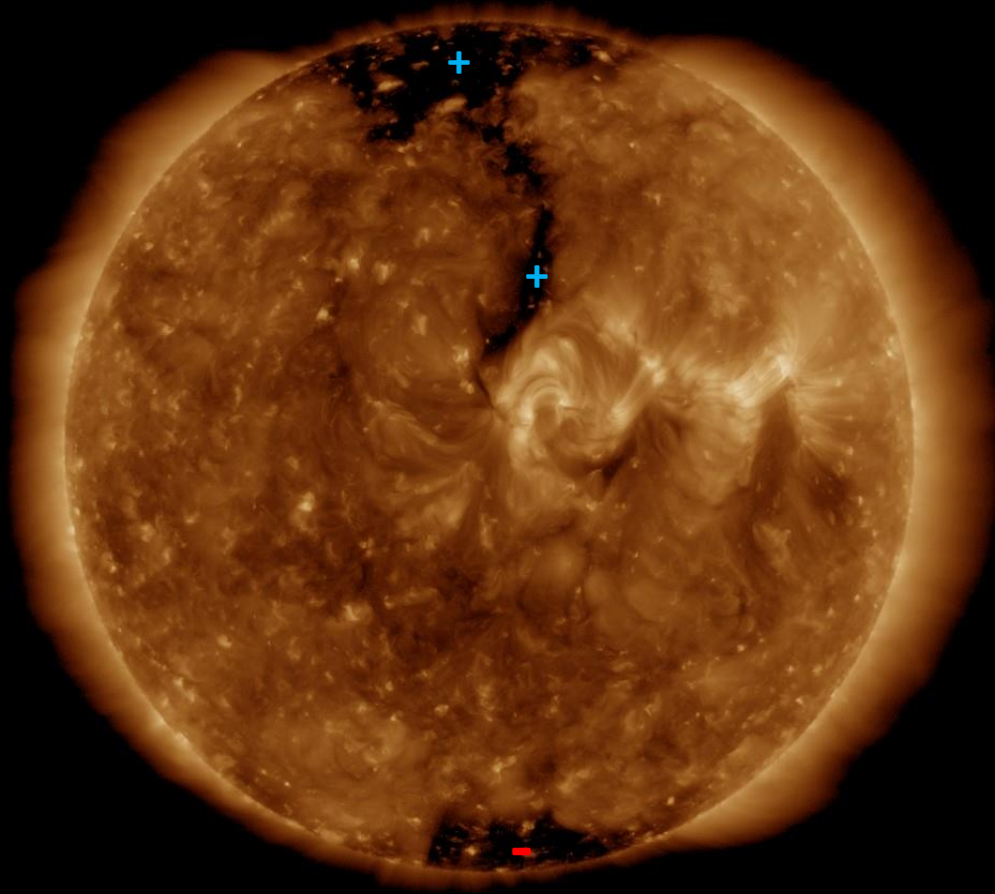


SDO/AIA 193 2019-06-09 12:11:17 UT

SDO/AIA 193 2019-06-16 06:59:53 UT

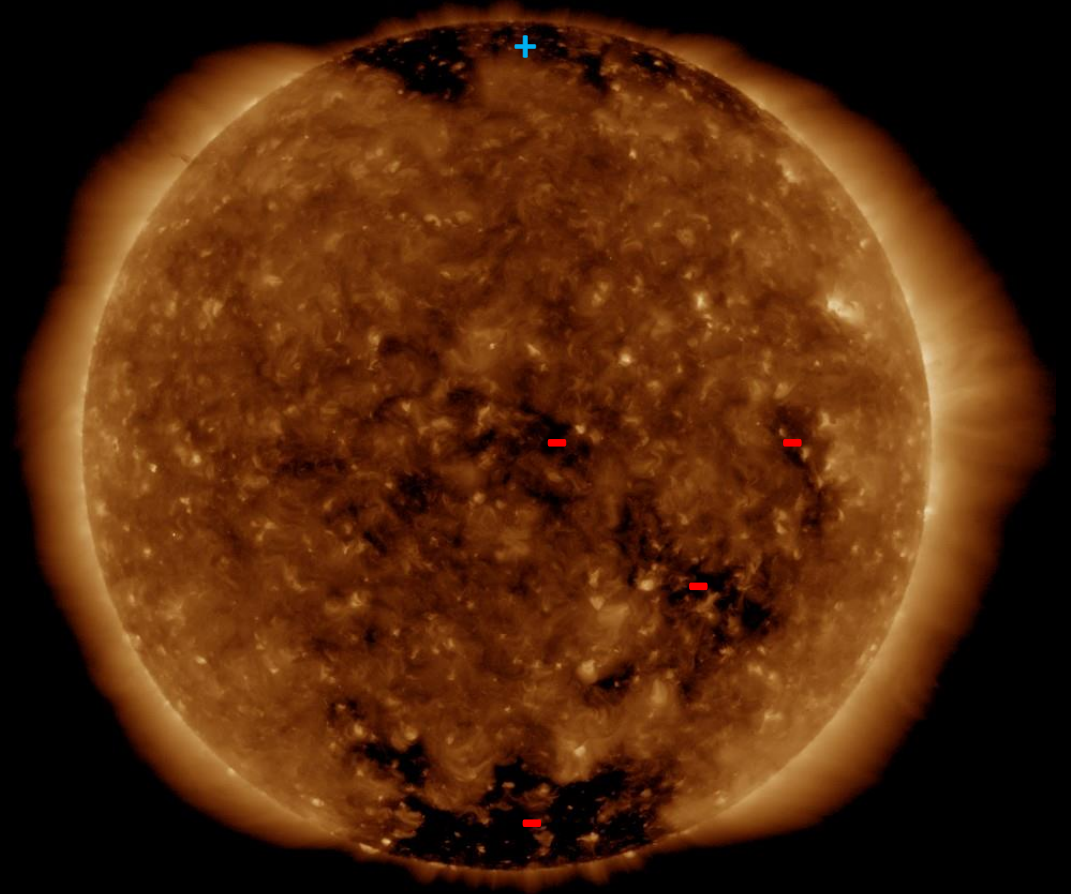
Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-06-09



SDO/AIA 193 2019-06-09 12:11:17 UT

SDO/AIA 19.3 nm 2019-06-16



SDO/AIA 193 2019-06-16 06:59:53 UT

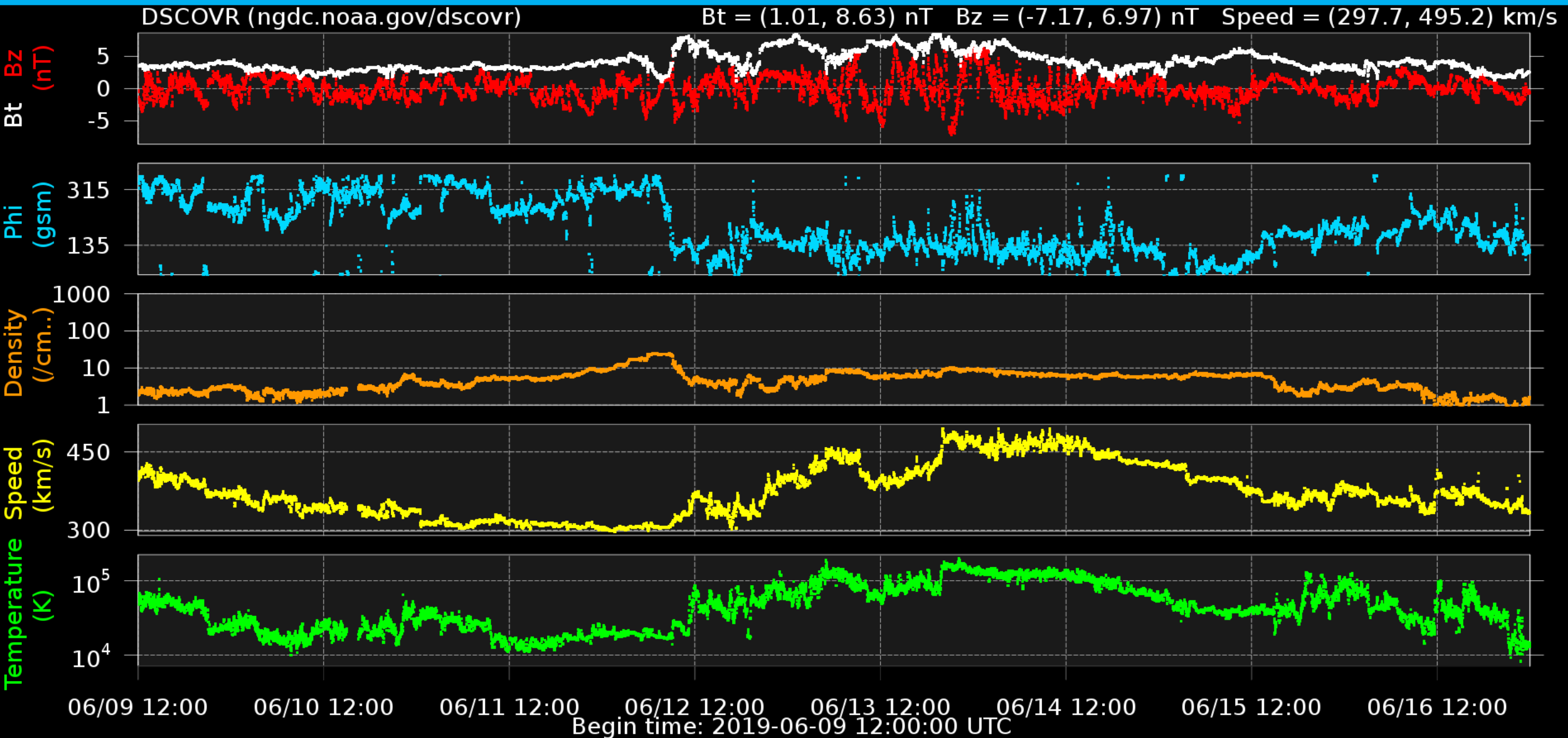
Solar Wind and Geomagnetic Activity



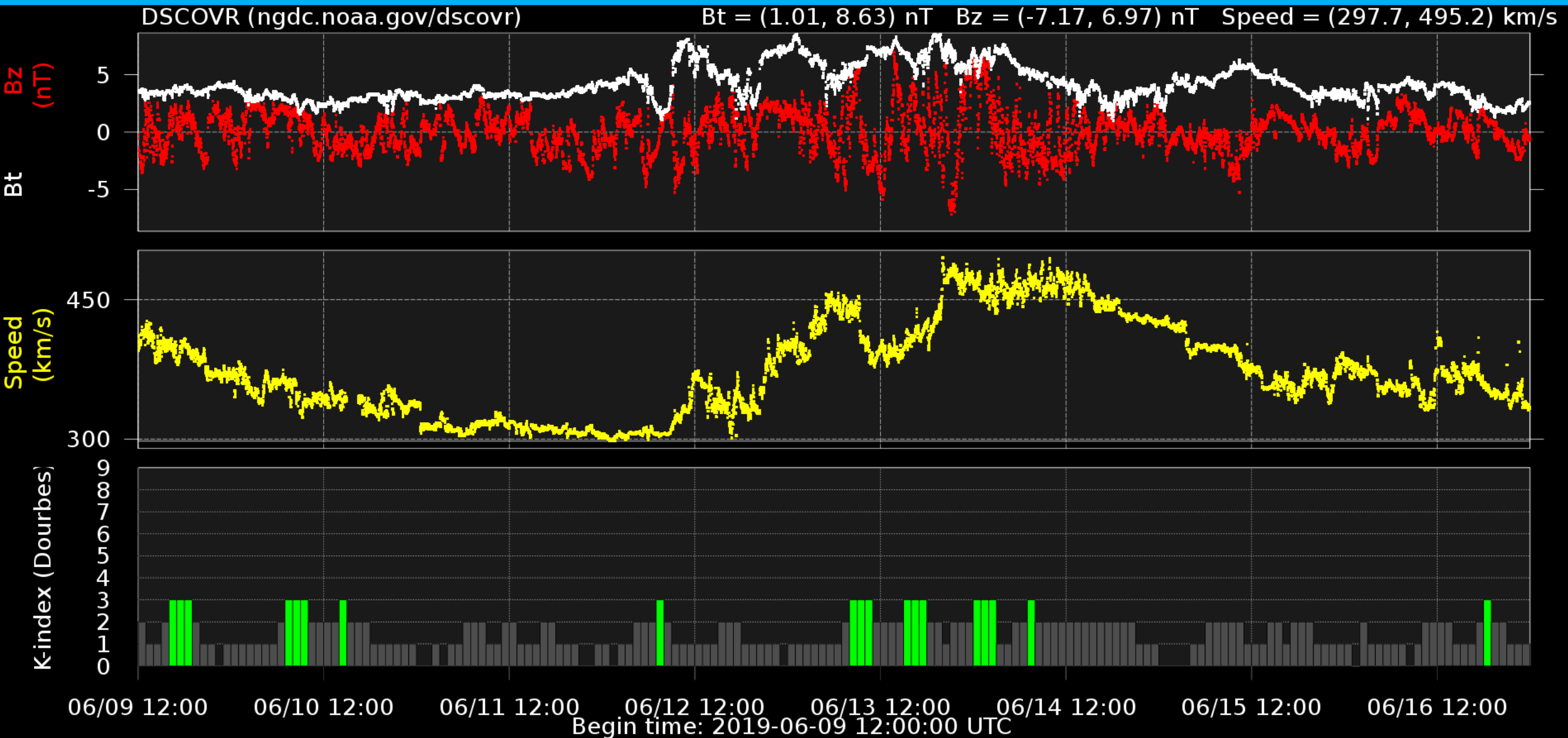
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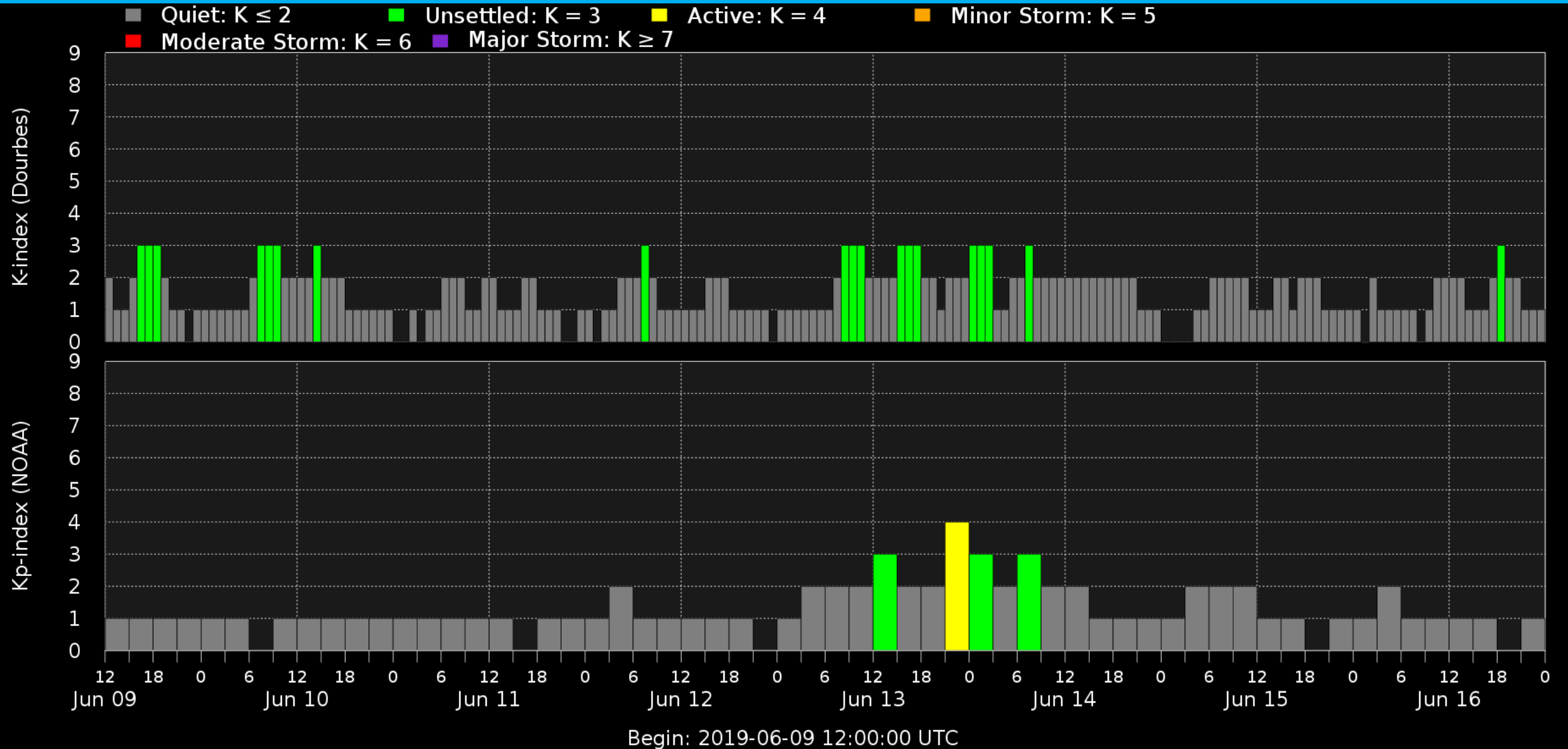
Solar wind parameters (DSCOVR data)



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



Geomagnetic activity (K-indexes)



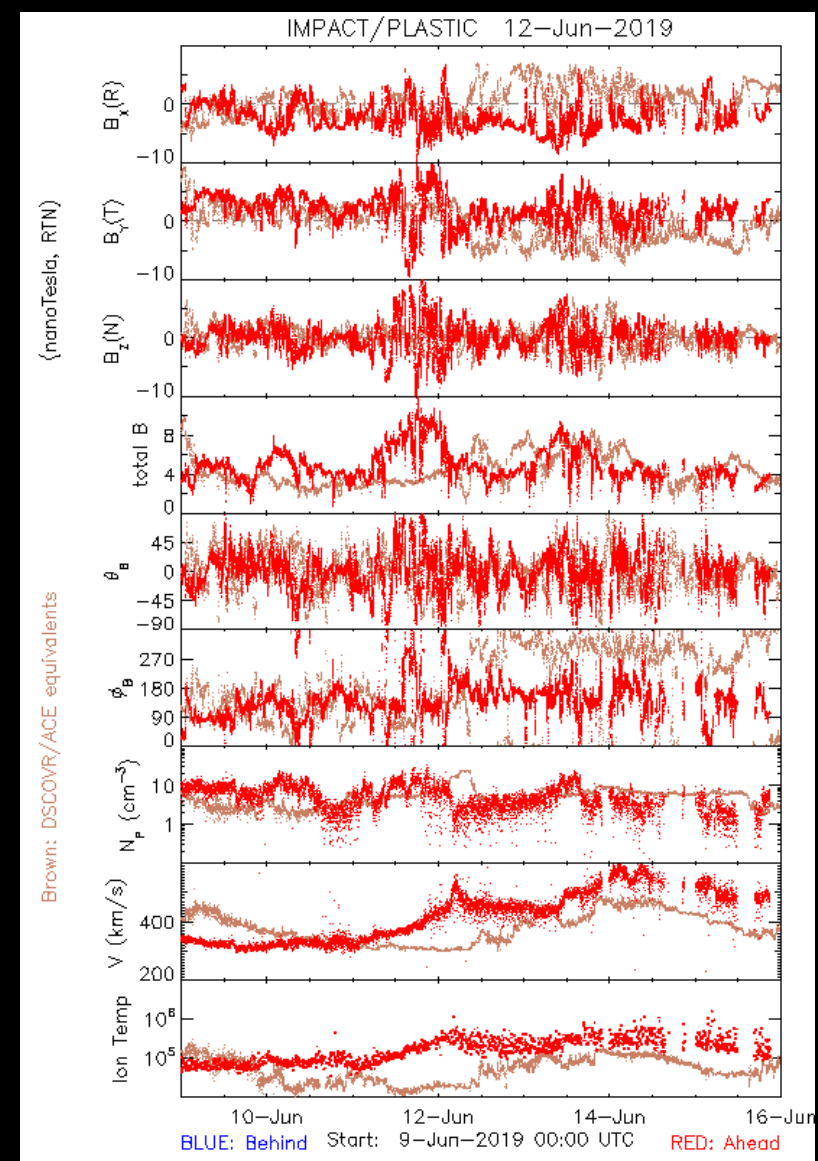
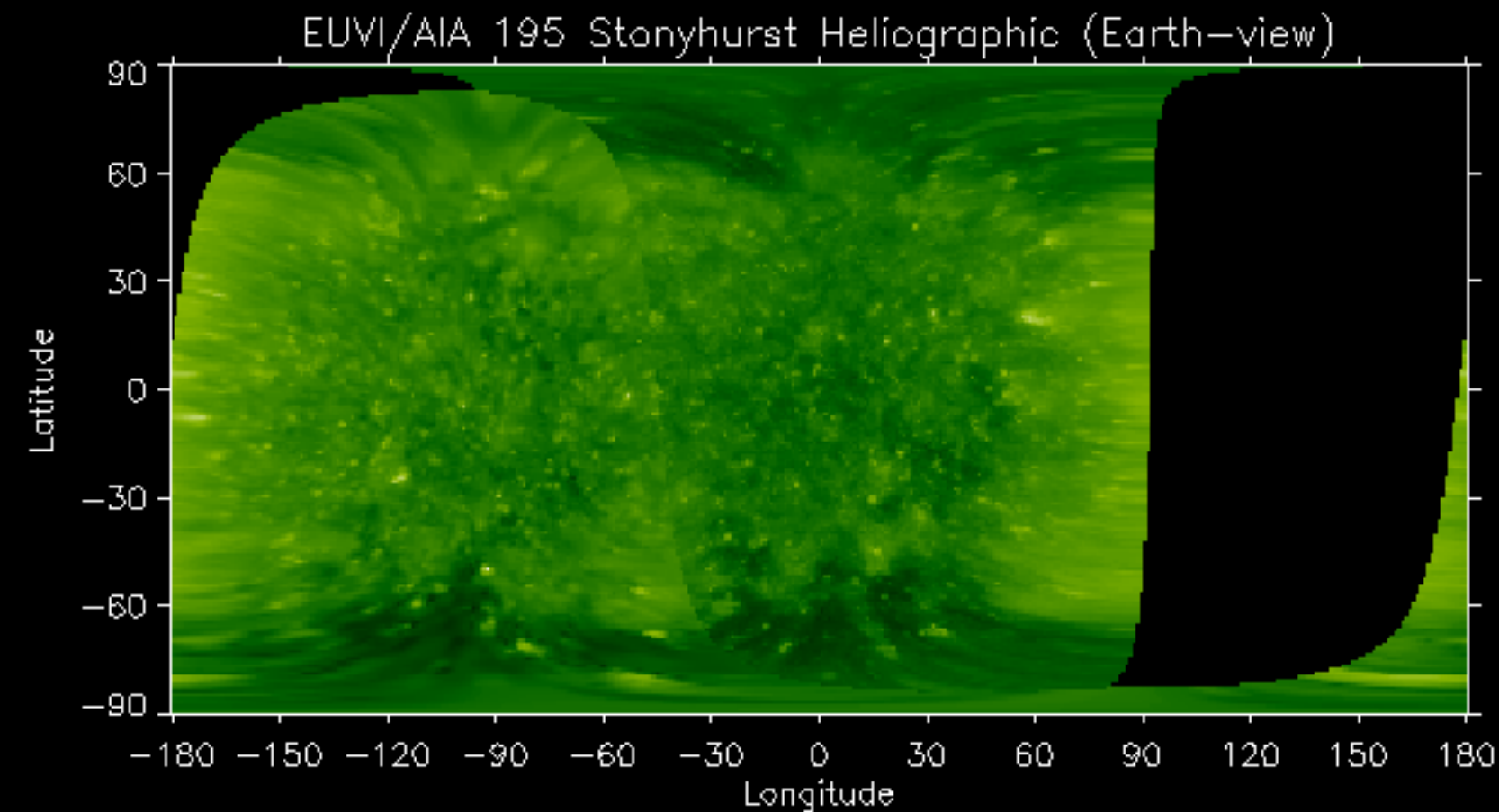
Outlook



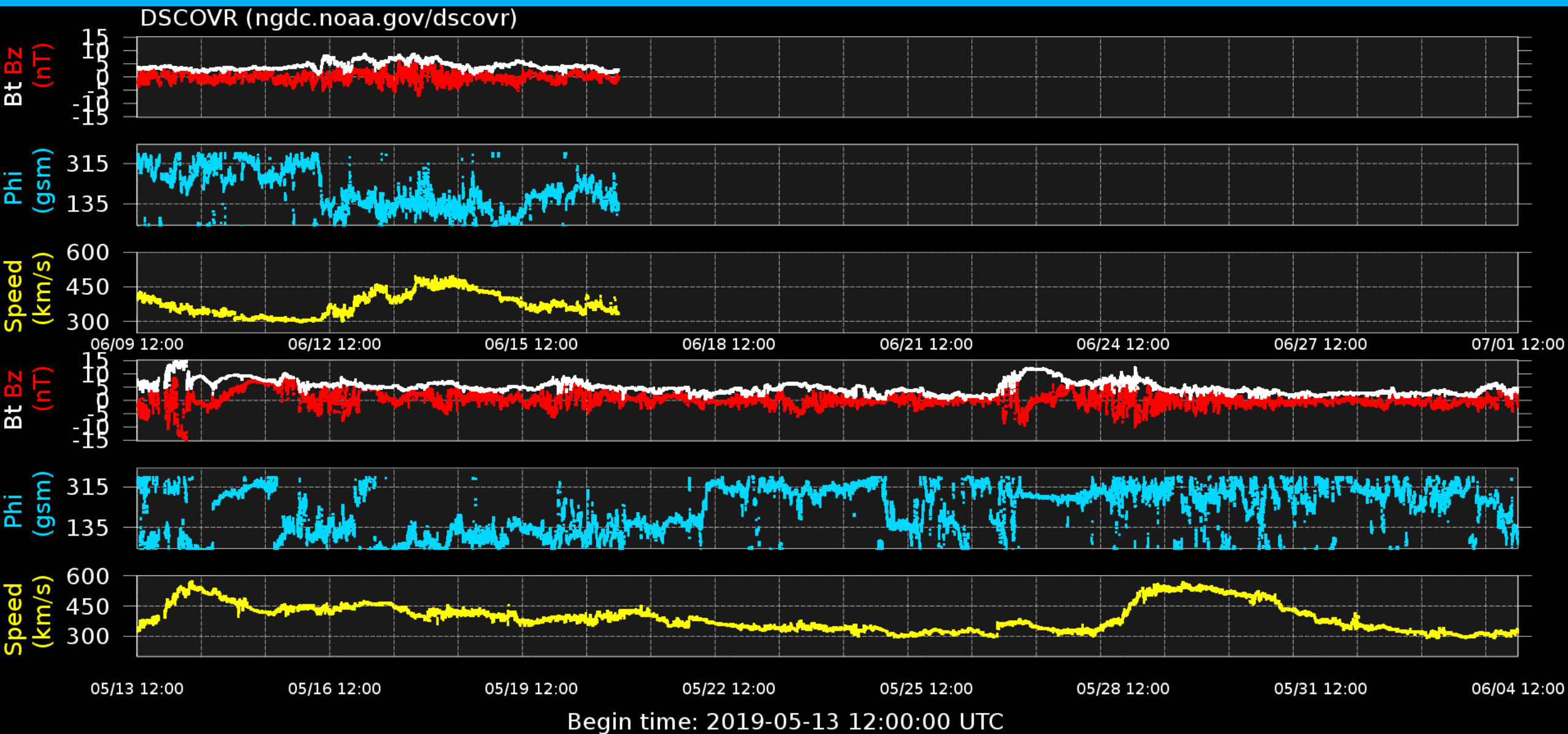
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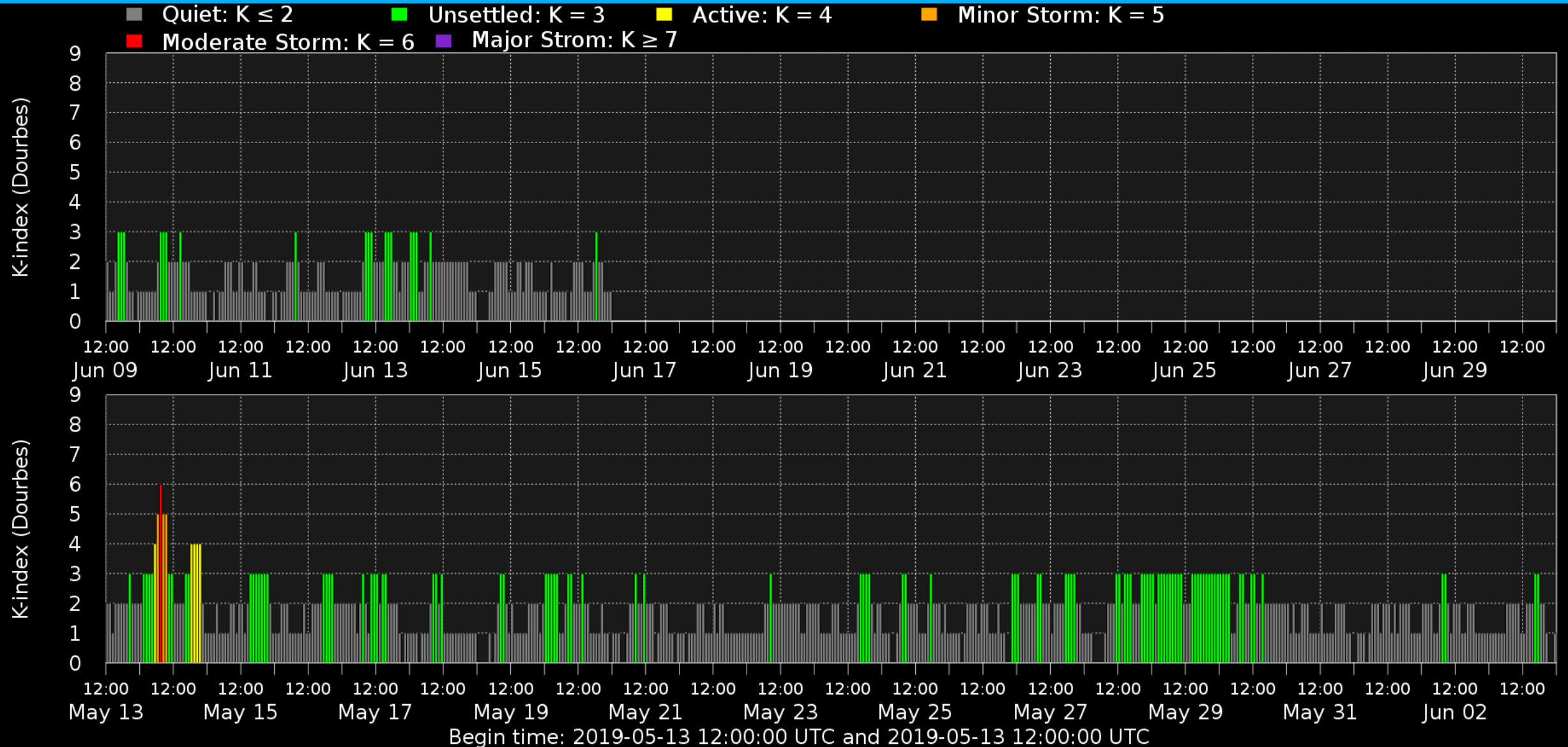
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



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See you at our next briefing!

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