

SIDC Space Weather Briefing

05 May 2019 - 12 May 2019

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& the SIDC forecaster team



Royal Observatory
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Solar Influences
Data analysis Centre
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Summary Report

Solar activity from 2019-05-05 12:00 UT to 2019-05-12 12:00 UT

Active regions	Catania group 16 (NOAA AR 2740): active , later decaying stable Catania group 17 (NOAA AR 2741): inactive throughout
Flaring	# B-class flare: --- # C-class flare: 10 # M-class flare: 0 # X-class flare: 0
Filaments	May 6 ; May 10/11, filaments eruptions near disk centre
CMEs	May 6 ; May 10/11
Proton Events	None

Solar wind and geomagnetic conditions from 2019-05-05 12:00 UT to 2019-05-12 12:00 UT

Coronal Holes	Small equatorial negative polarity
ICME	May 6 CME arrived May 10, 16:55UT
SW Conditions	May 6 CME passage: near nominal speed but elevated and negative Bz
K-indices	max K-index (Dourbes): 4.0 max Kp-index (NOAA): 5

All Quiet Alert: Not all quiet

Solar Activity

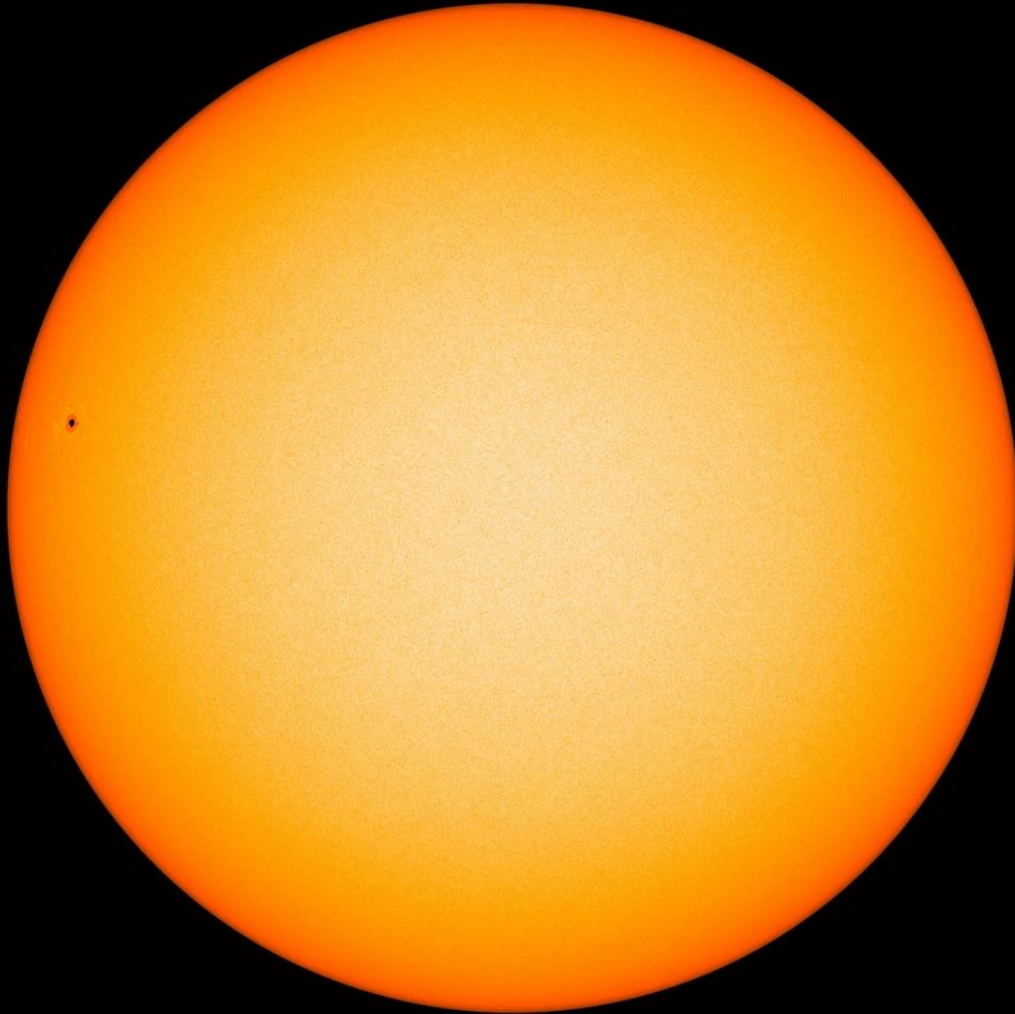


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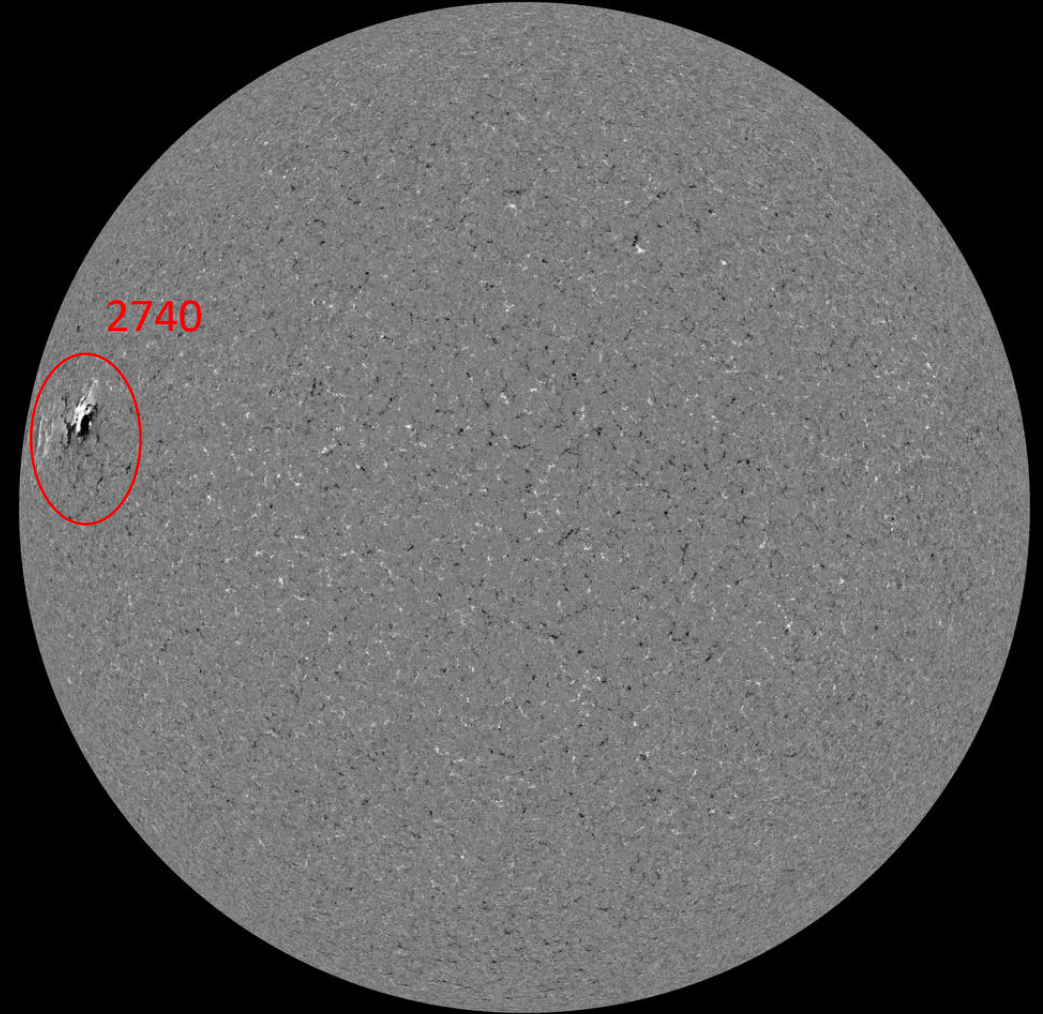
Solar active region - start of the week

SDO/HMI White Light 2019-05-05



SDO/HMI Quick-Look Continuum: 20190505_114500

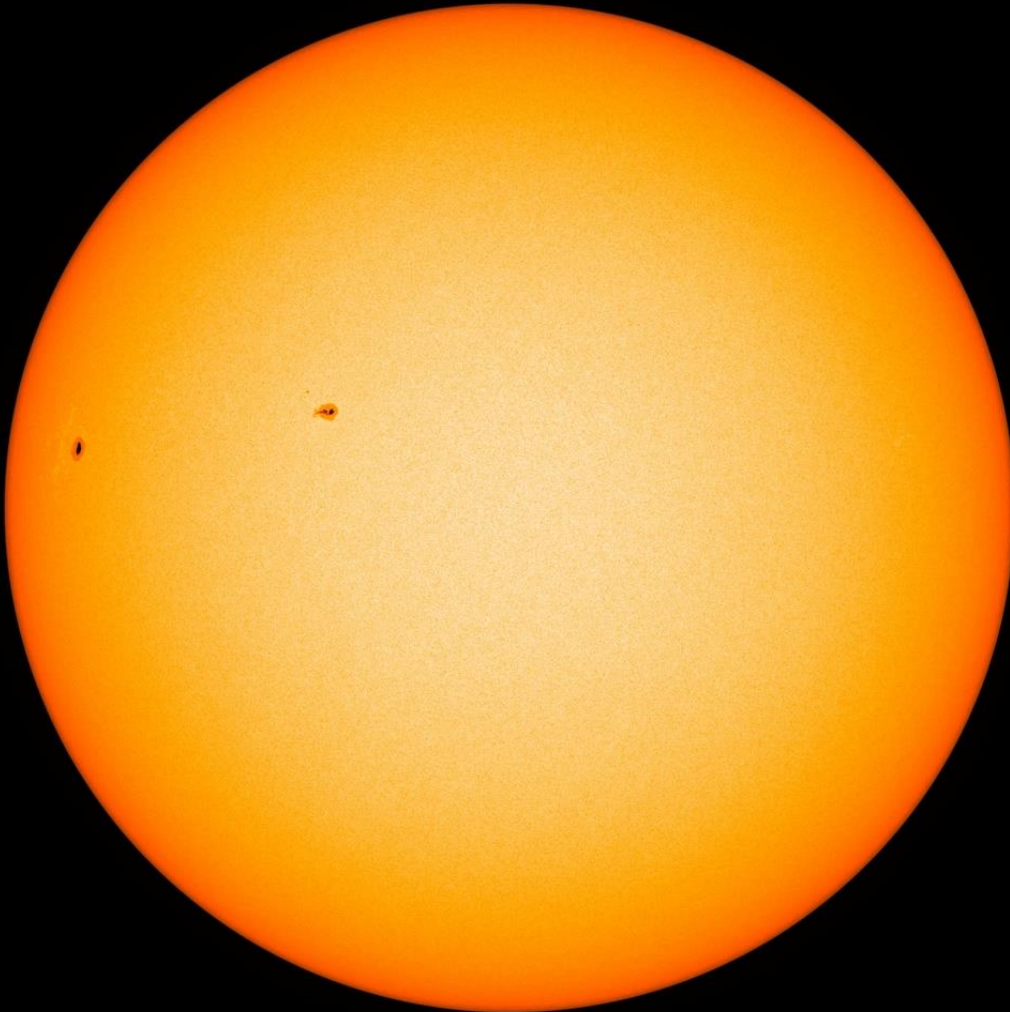
SDO/HMI Magnetogram 2019-05-05



SDO/HMI Quick-Look Magnetogram: 20190505_114500

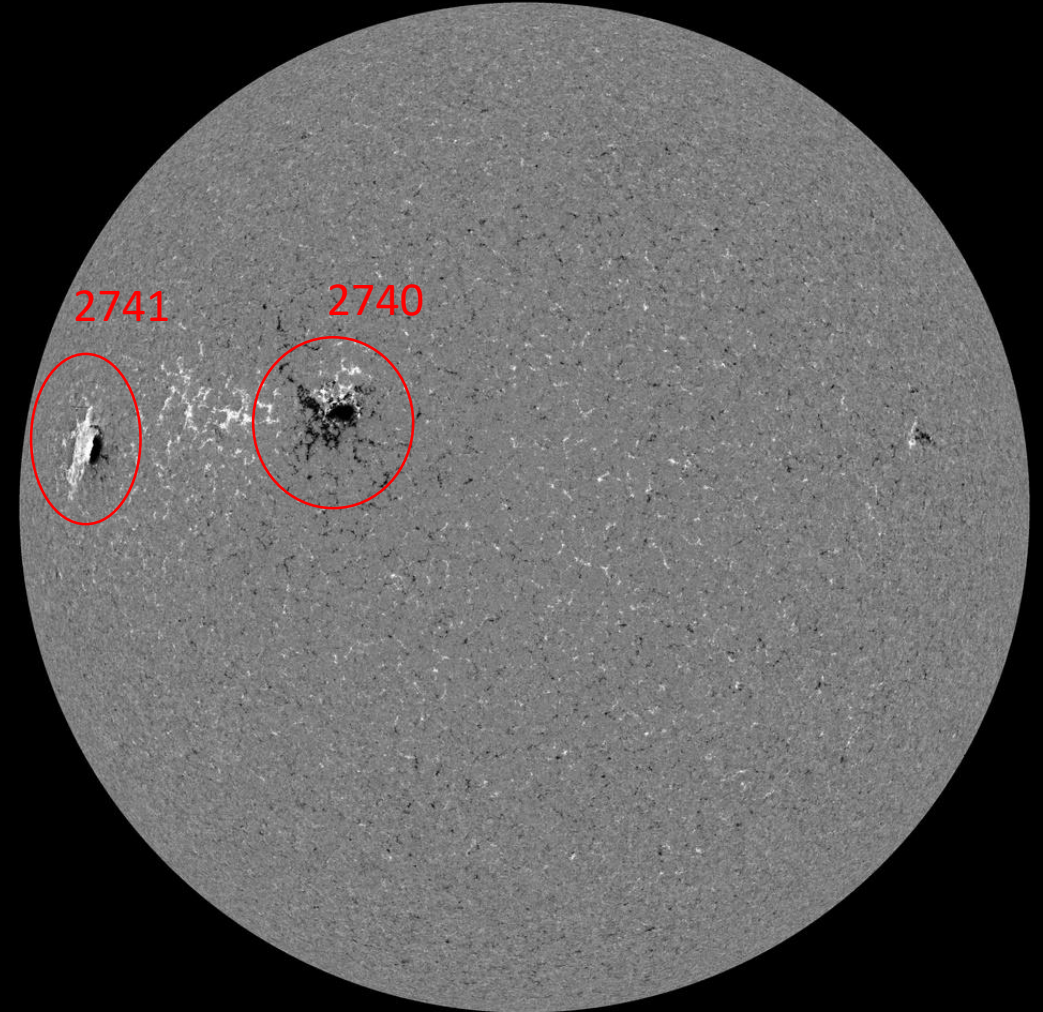
Solar active region - middle of the week

SDO/HMI White Light 2019-05-08



SDO/HMI Quick-Look Continuum: 20190508_114500

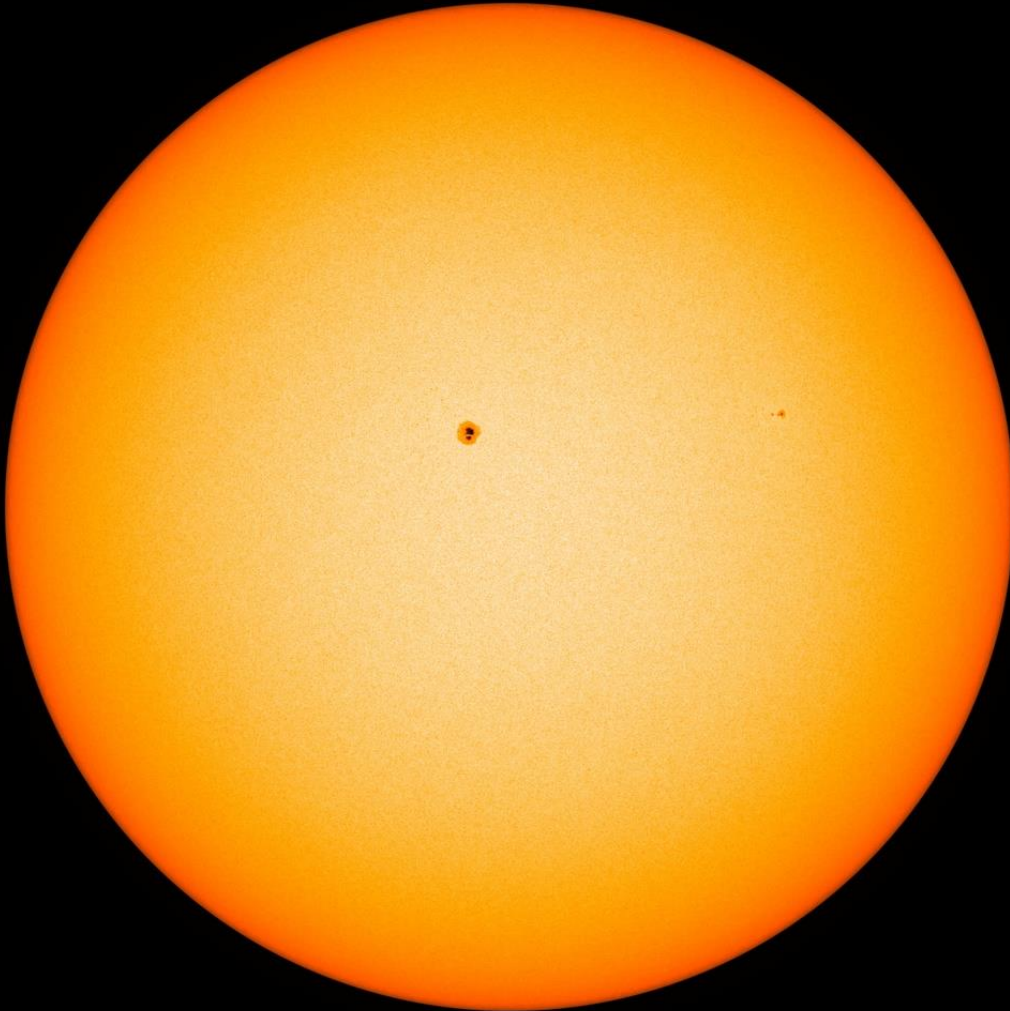
SDO/HMI Magnetogram 2019-05-08



SDO/HMI Quick-Look Magnetogram: 20190508_114500

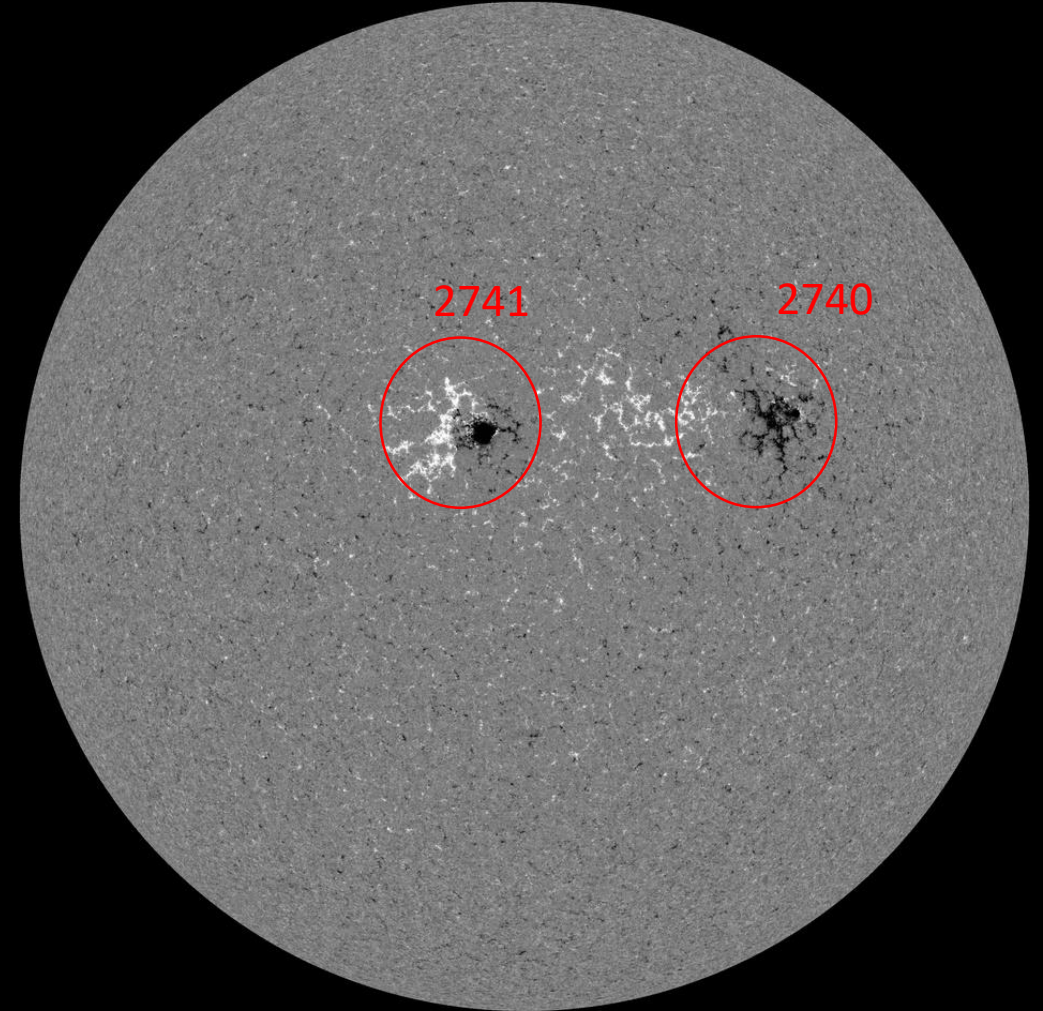
Solar active region - end of the week

SDO/HMI White Light 2019-05-12



SDO/HMI Quick-Look Continuum: 20190512_114500

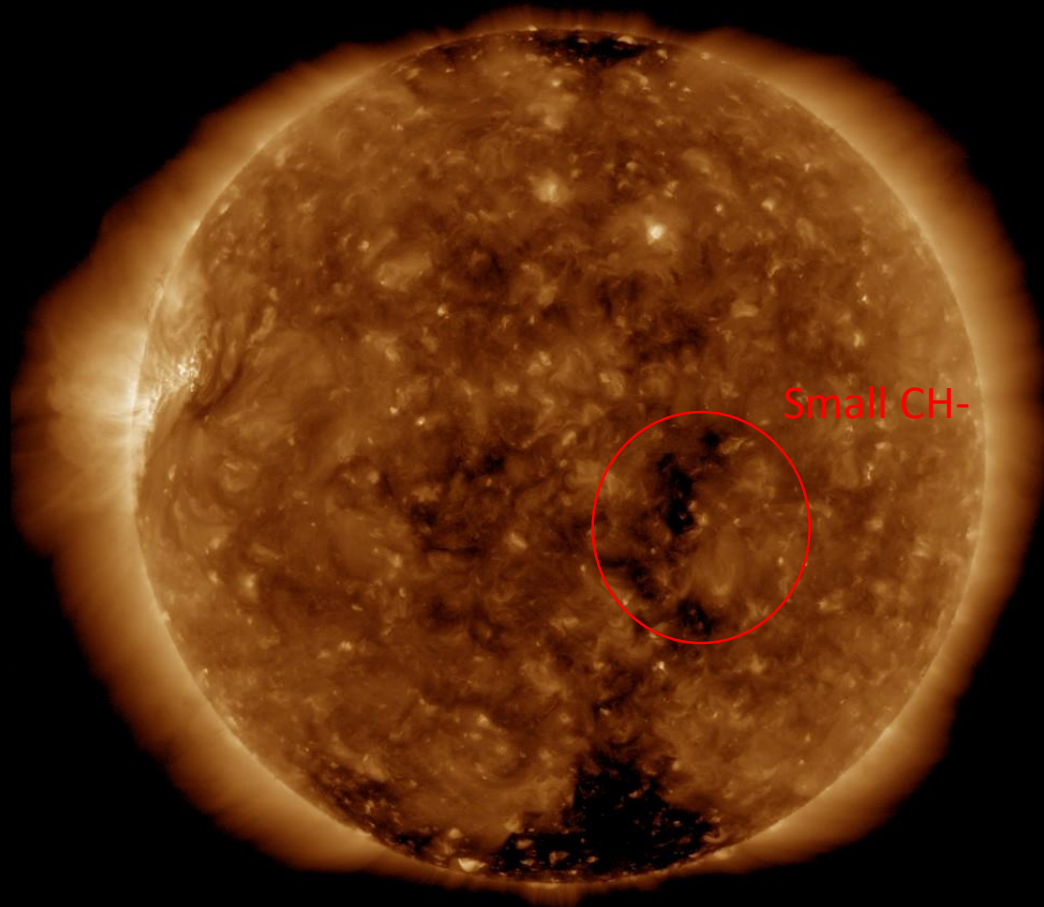
SDO/HMI Magnetogram 2019-05-12



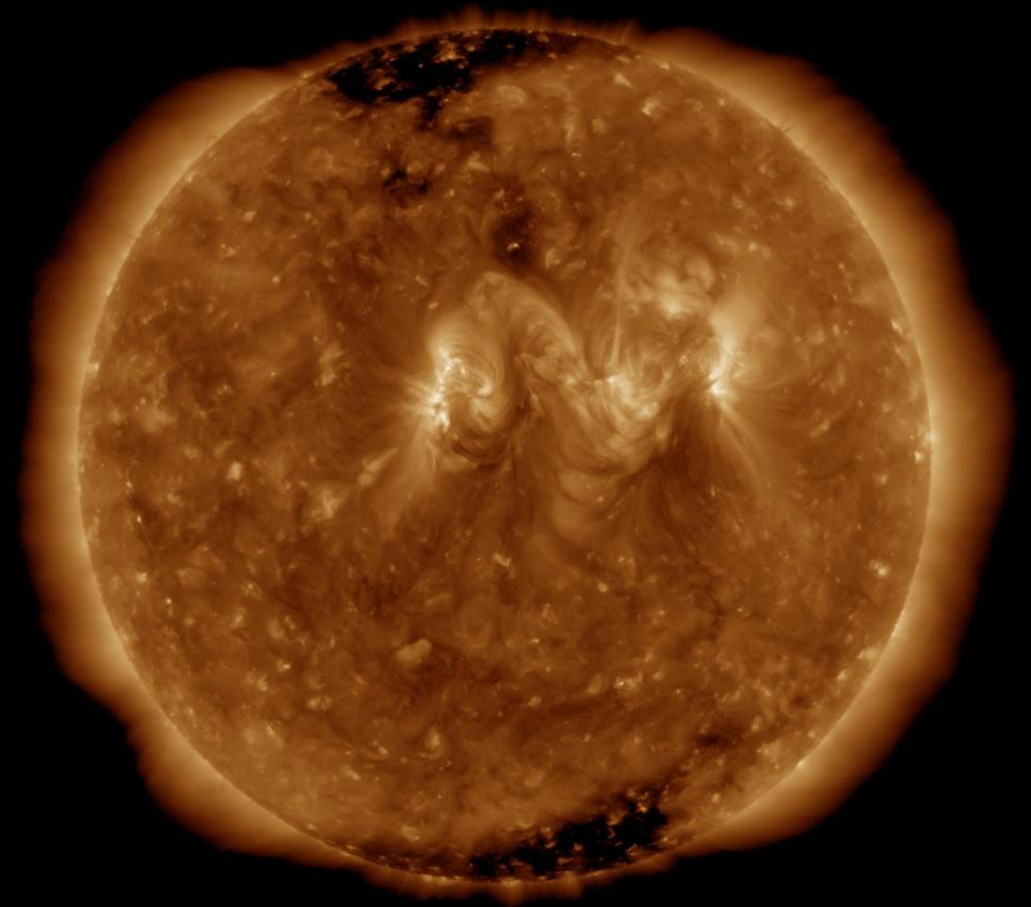
SDO/HMI Quick-Look Magnetogram: 20190512_114500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-05-05



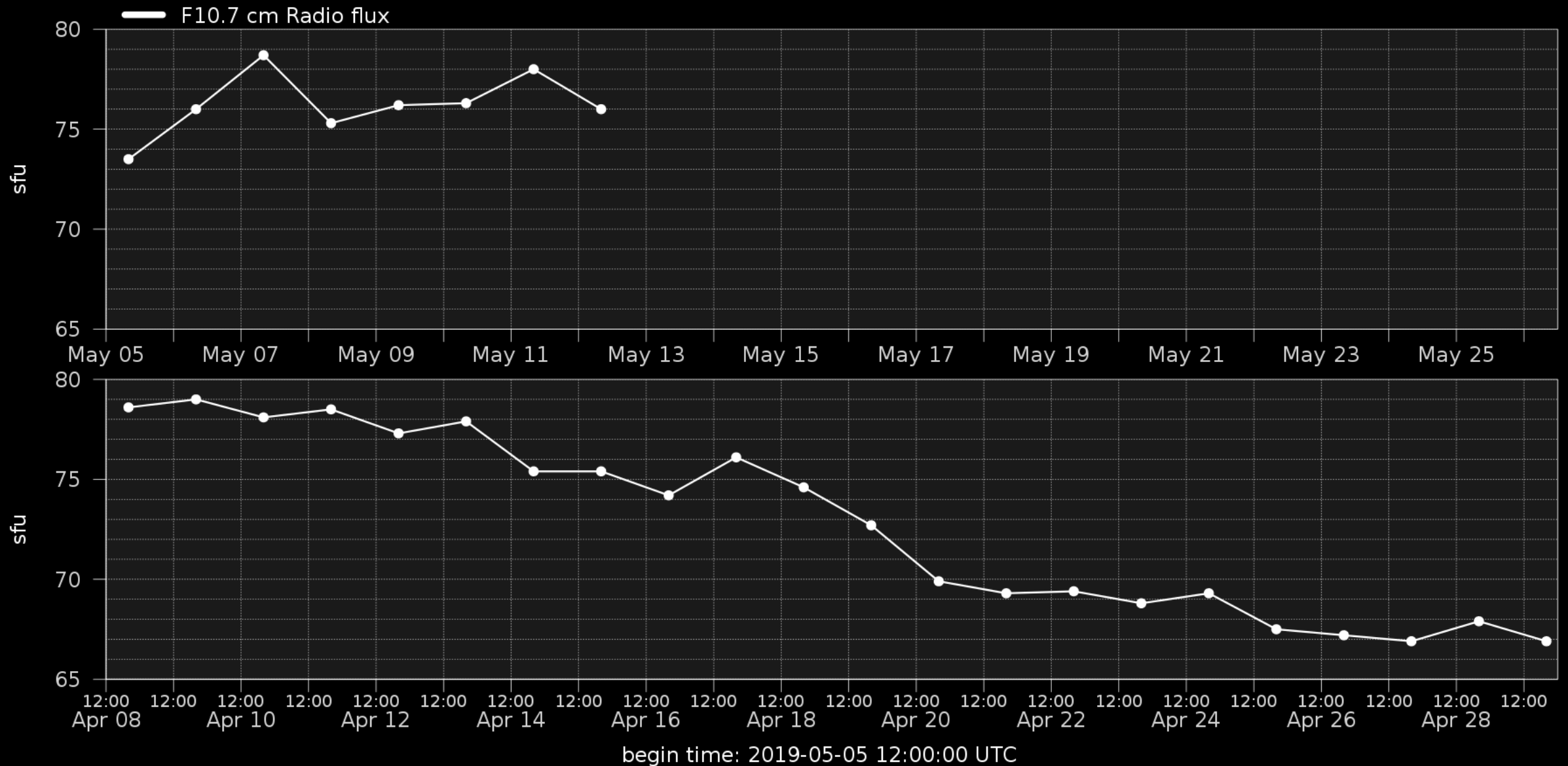
SDO/AIA 19.3 nm 2019-05-12



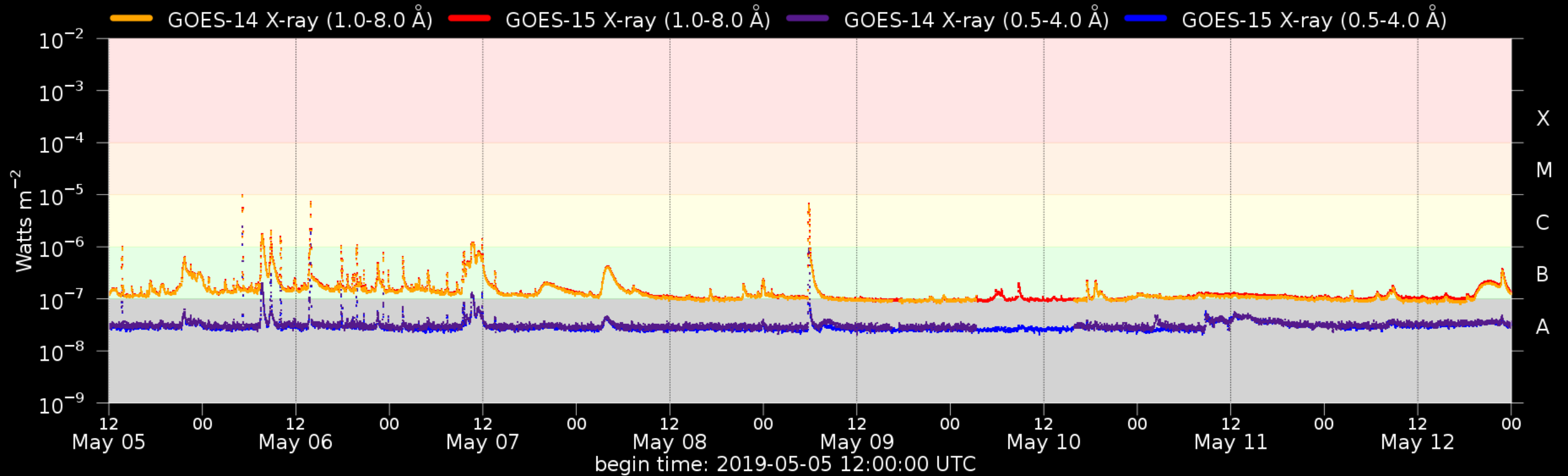
SDO/AIA 193 2019-05-05 12:10:53 UT

SDO/AIA 193 2019-05-12 12:10:41 UT

Solar F10.7cm radio flux



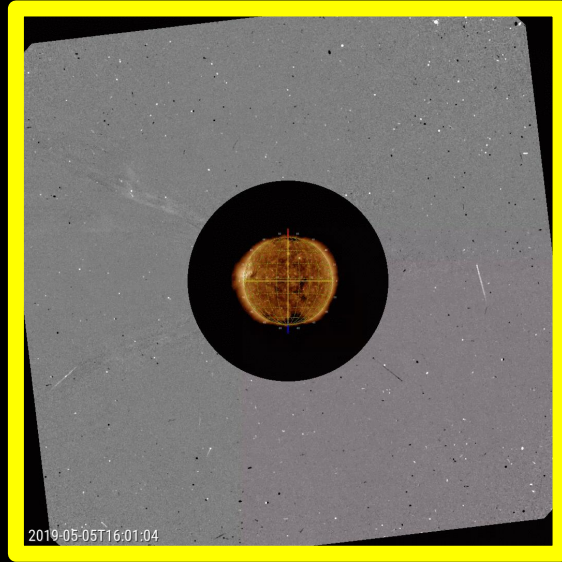
Flaring activity



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

Issue date	2019-05-05	2019-05-06	2019-05-07	2019-05-08	2019-05-09	2019-05-10	2019-05-11	2019-05-12
Probability	--- 30 05 01	--- 60 05 01	--- 65 05 01	--- 40 01 01	--- 45 01 01	--- 25 01 01	--- 15 01 01	--- 10 01 01
Observed	--- 00 00 00	--- 07 00 00	--- 02 00 00	--- 01 00 00	--- 01 00 00	--- 00 00 00	--- 00 00 00	--- 00 00 00

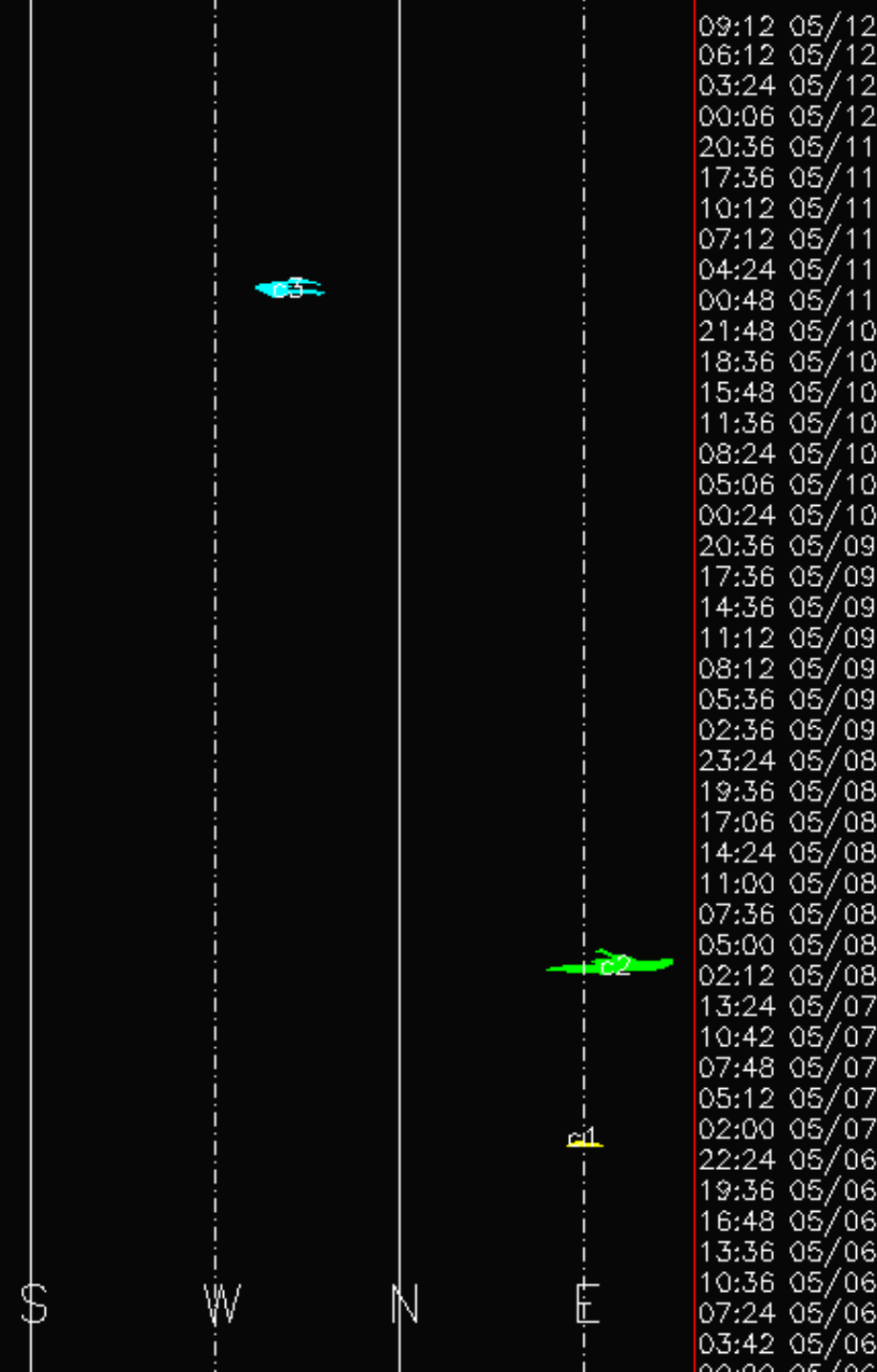
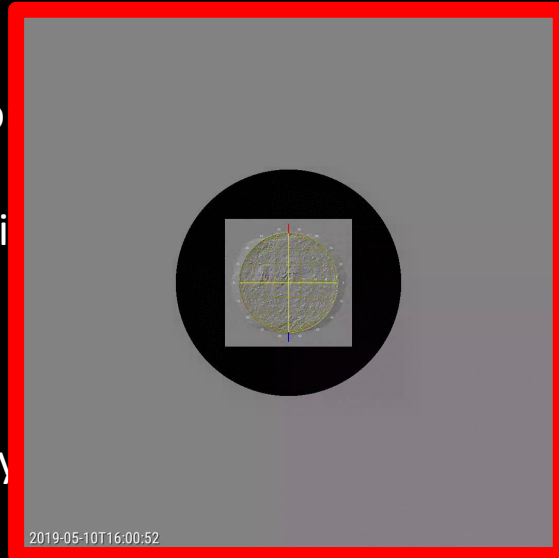
Coronal Mass Ejection



May 6: North-East directed with faint South-West halo (23:12UT)
Expected arrival: May 10, 15:00UT

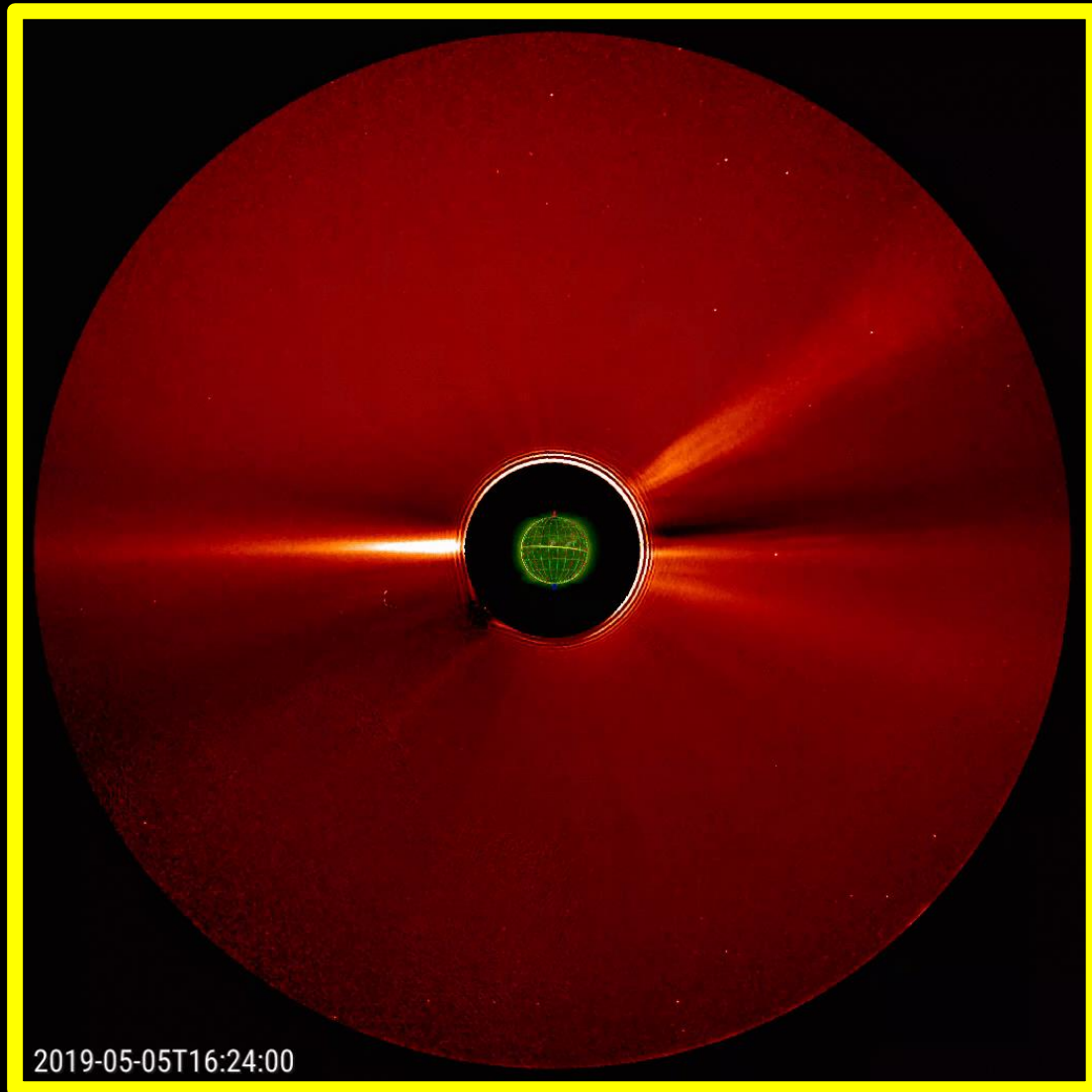
May 10/11: Two small filament eruptions from near AR 2740.
Two clear CMEs from STEREO perspective
Halo in SoHO/LASCO C2 from 3:02UT onwards

Expected arrival: May 15, 12:00UT, May 16, 7:00UT

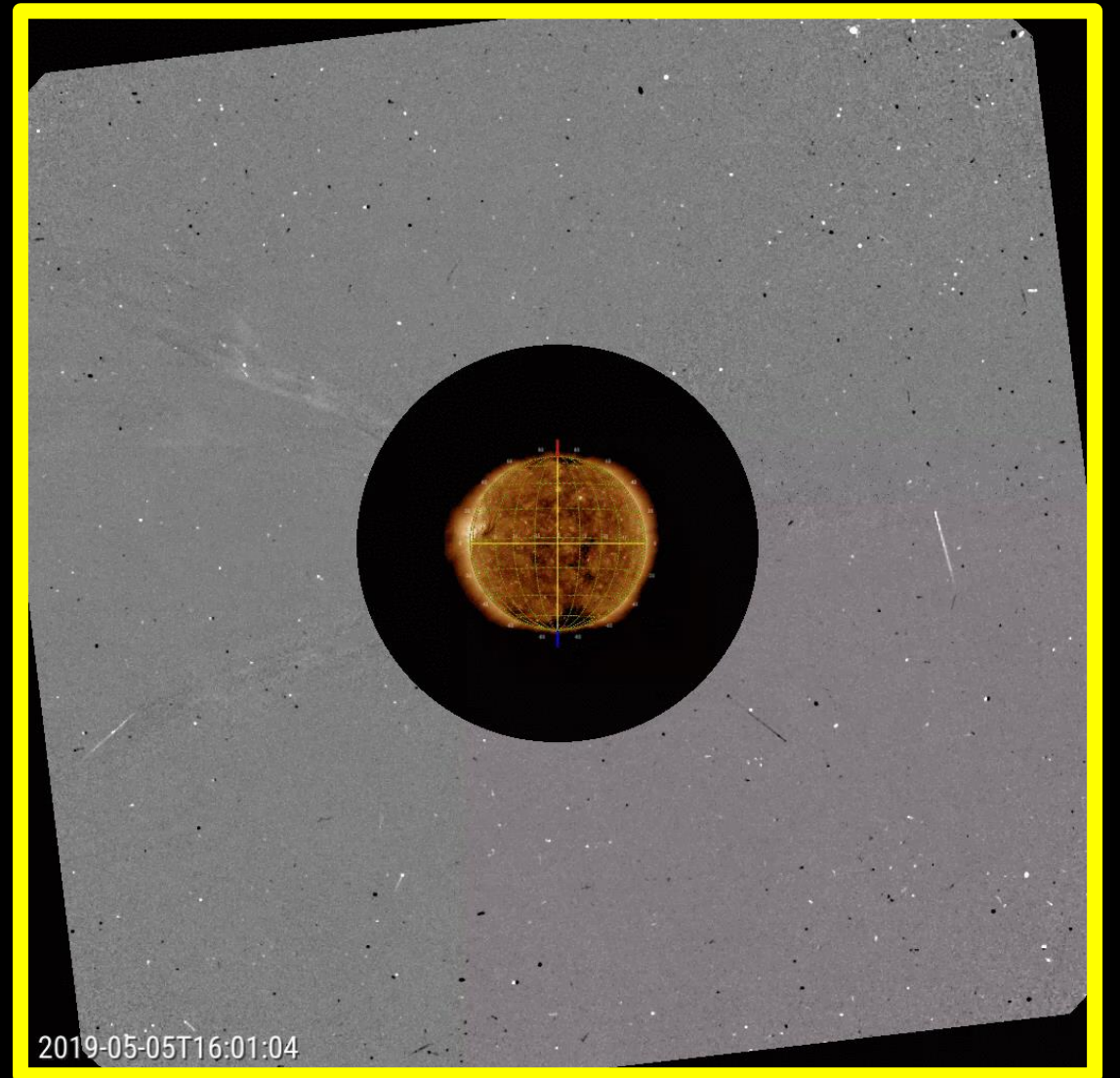


Coronal Mass Ejection of May 6

STEREO A perspective

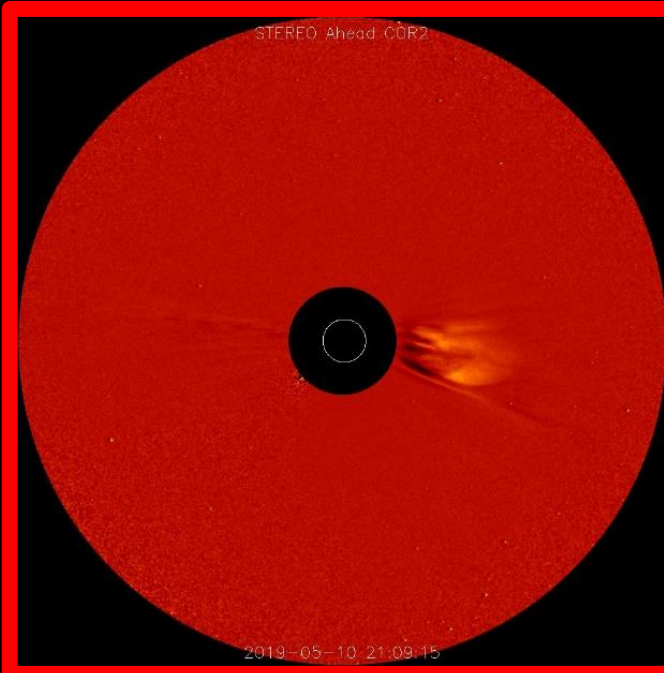


Earth perspective

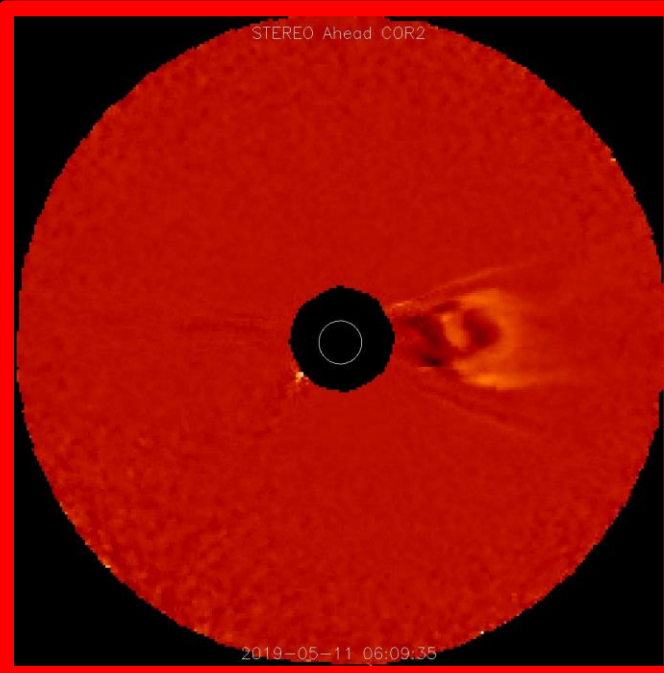


Coronal Mass Ejection of May 10/11

STEREO A perspective

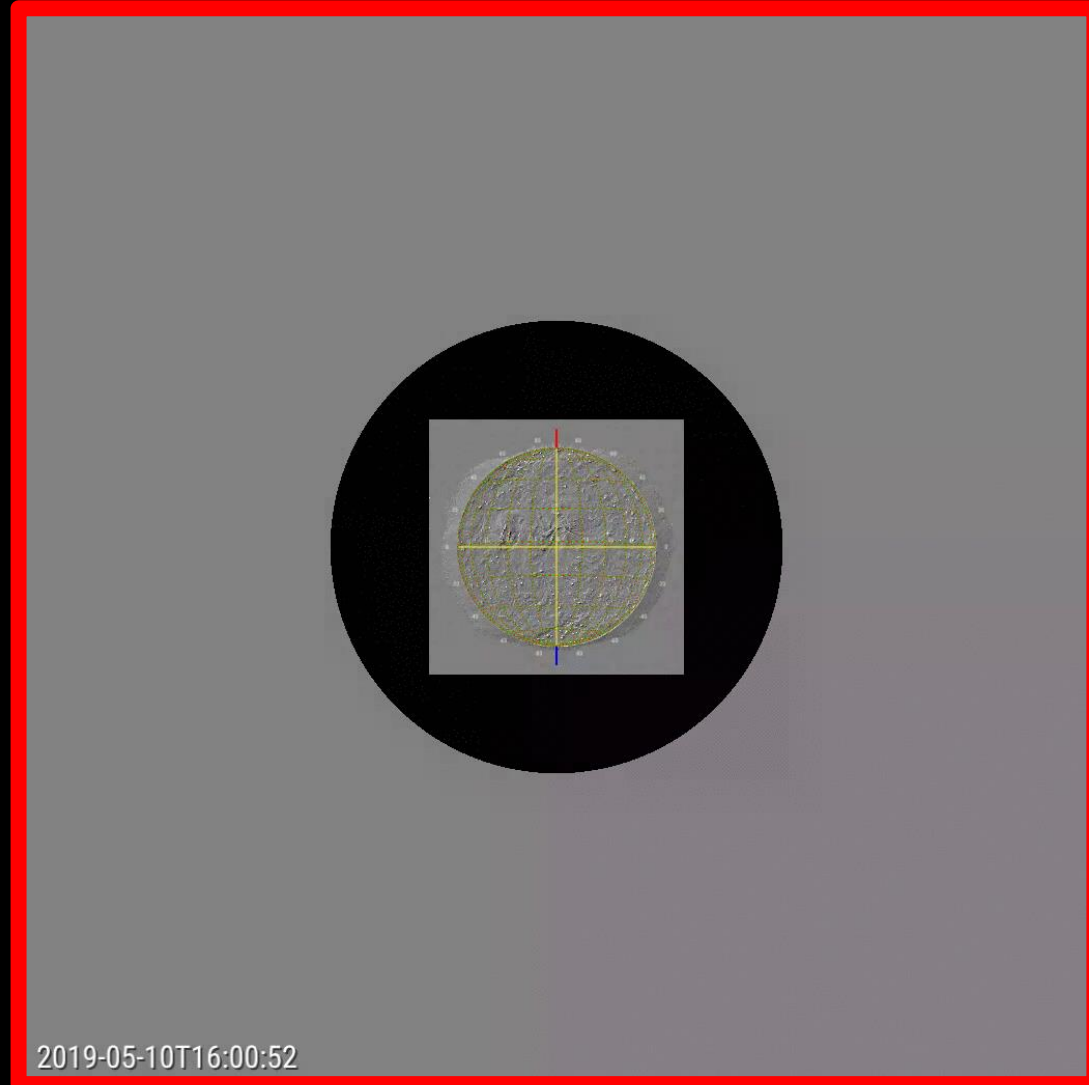


First CME

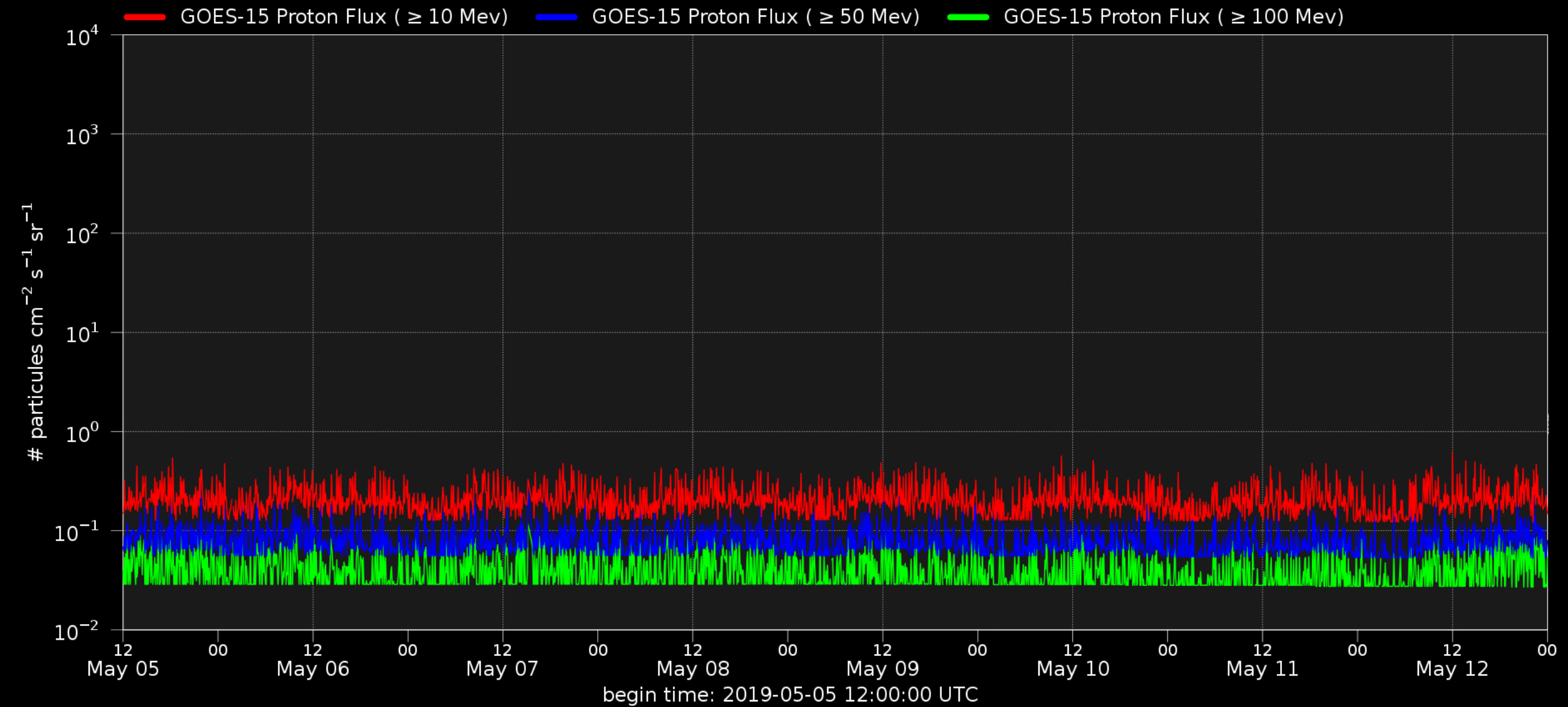


Second CME

Earth perspective



Solar proton flux



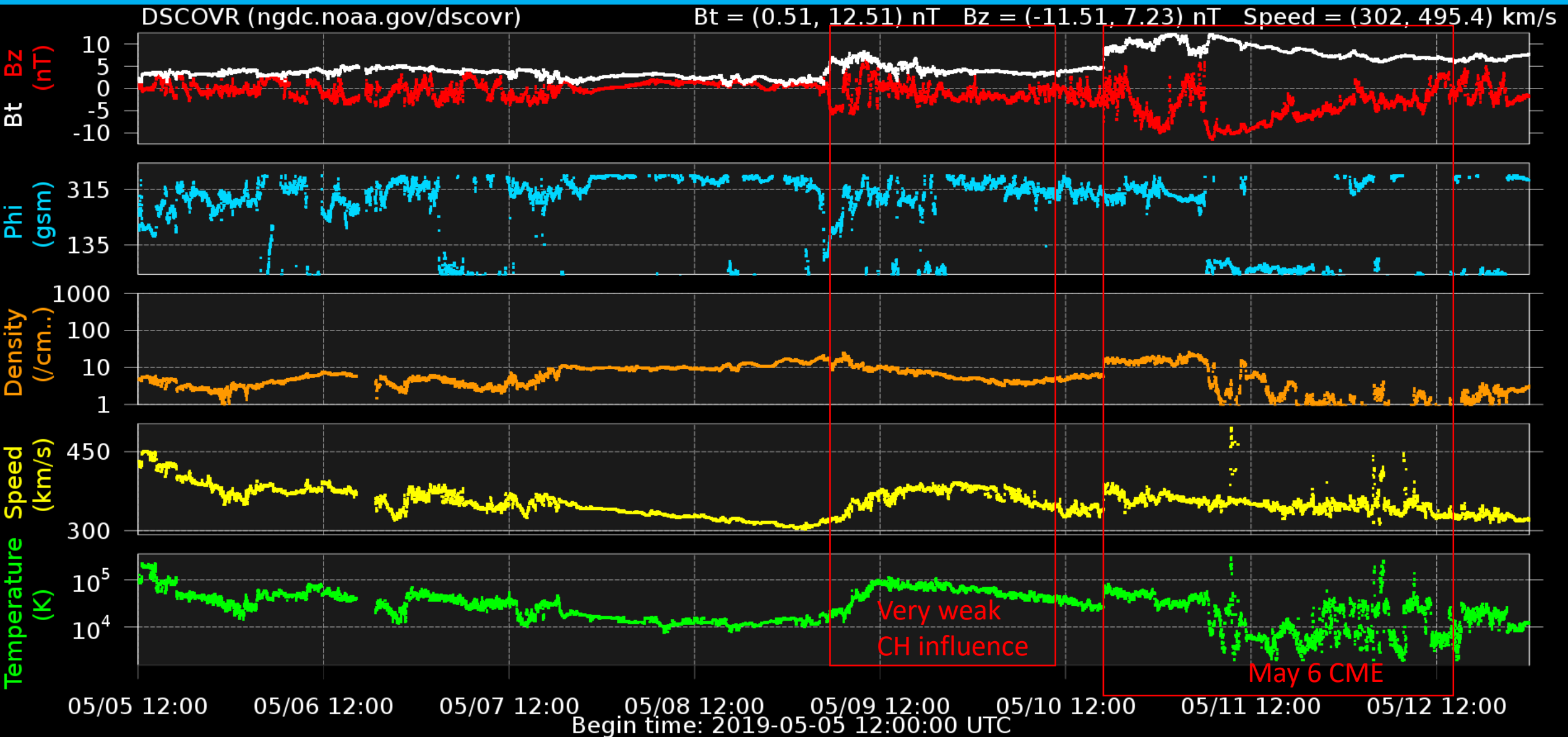
Solar Wind and Geomagnetic Activity



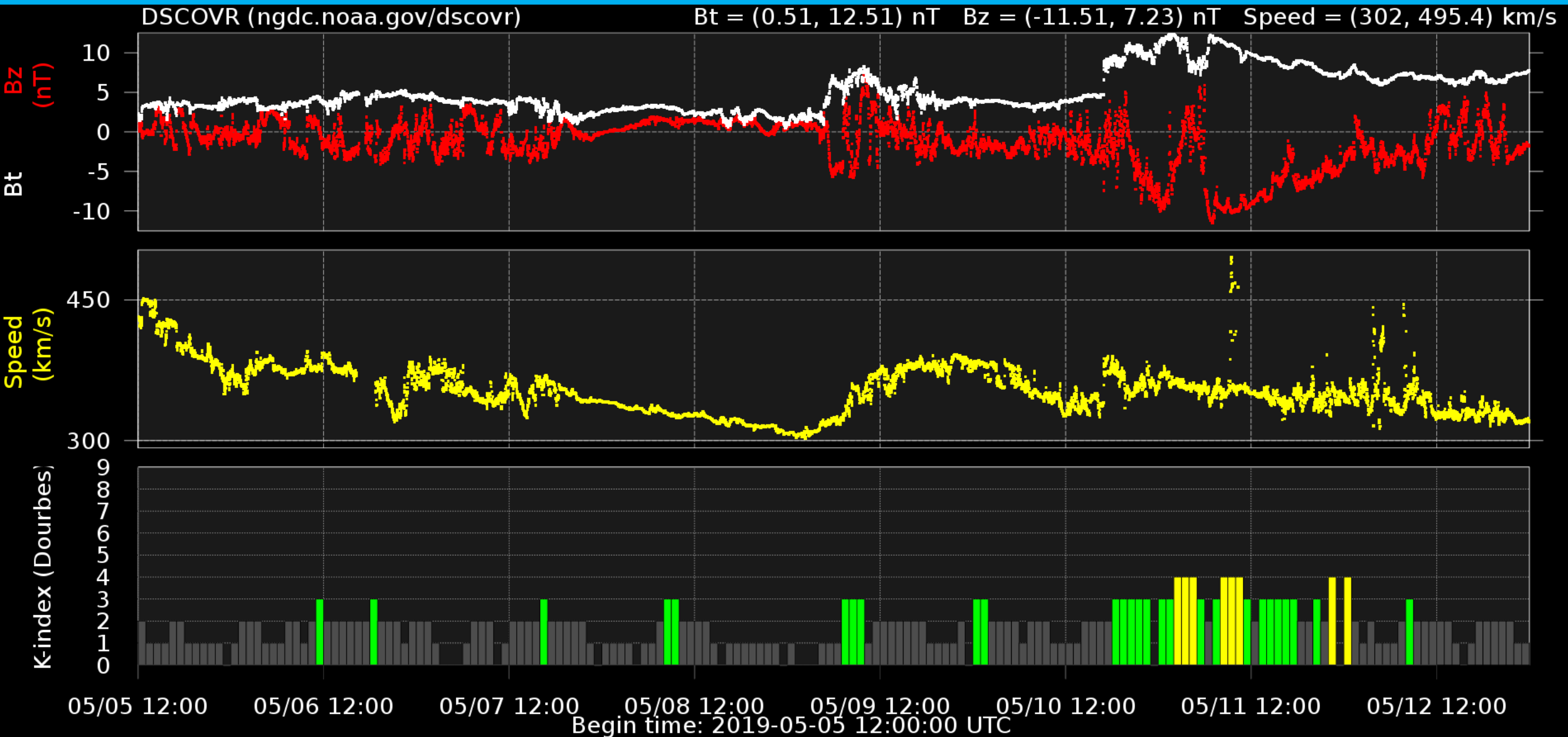
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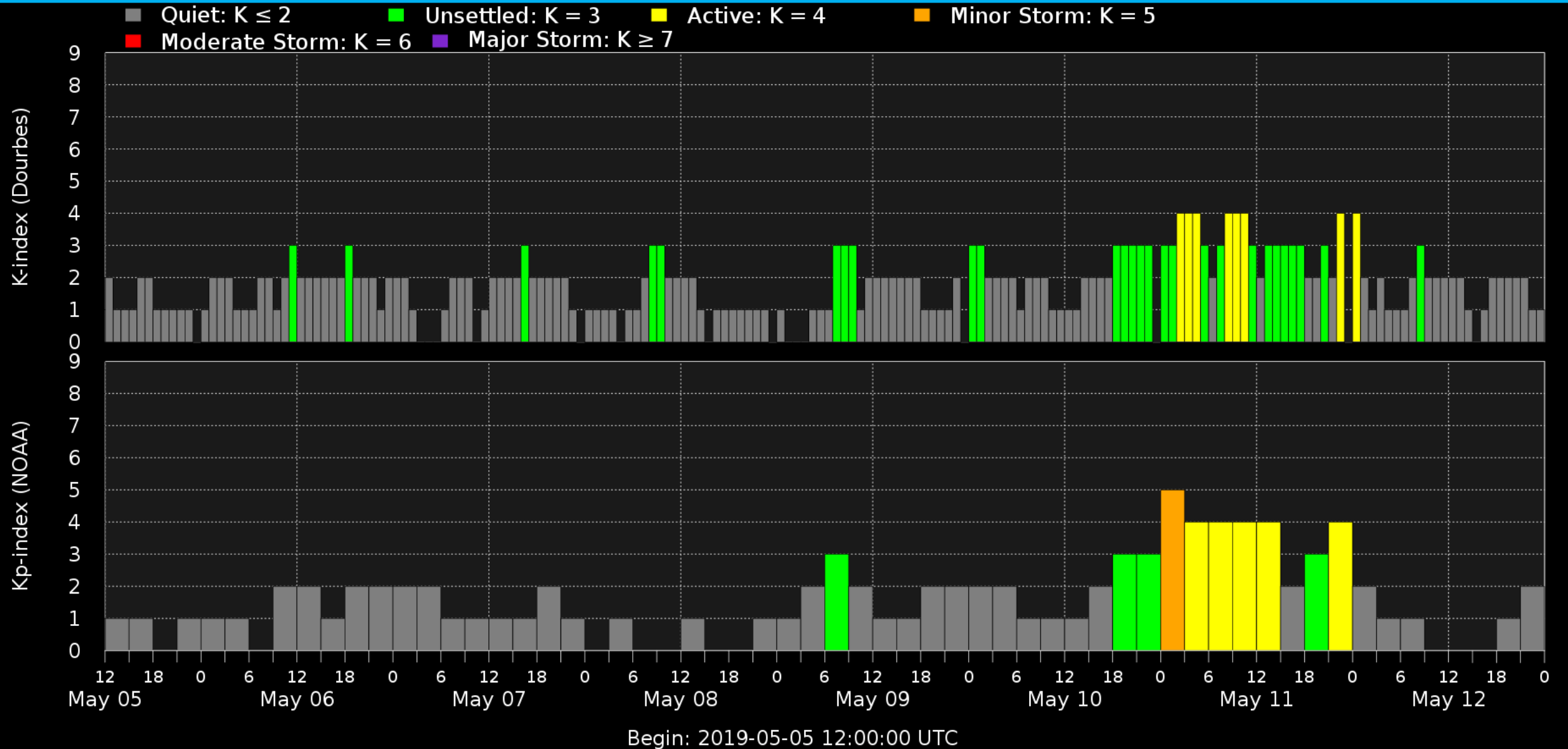
Solar wind parameters (DSCOVR data)



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



Geomagnetic activity (K-indexes)



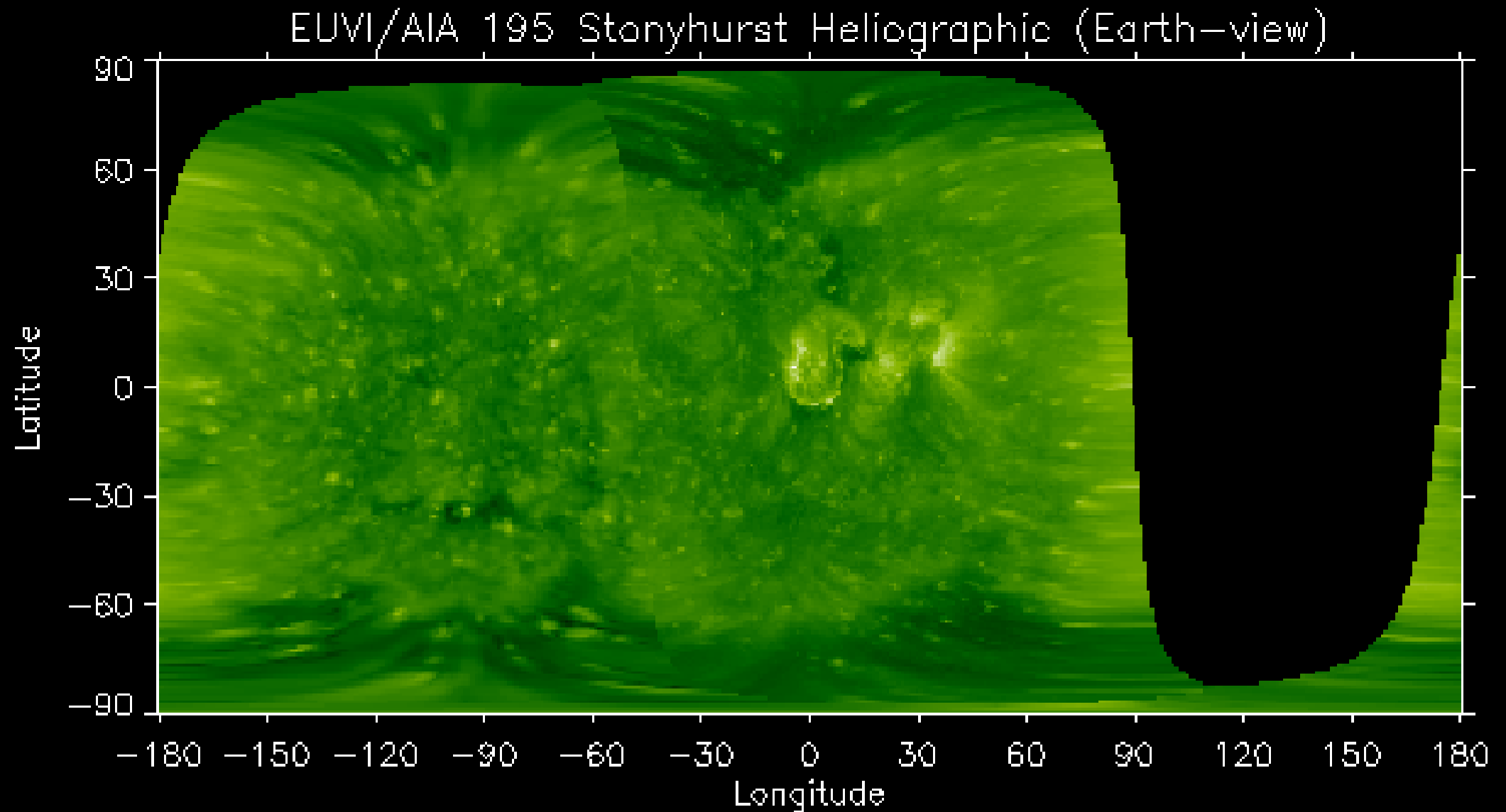
Outlook



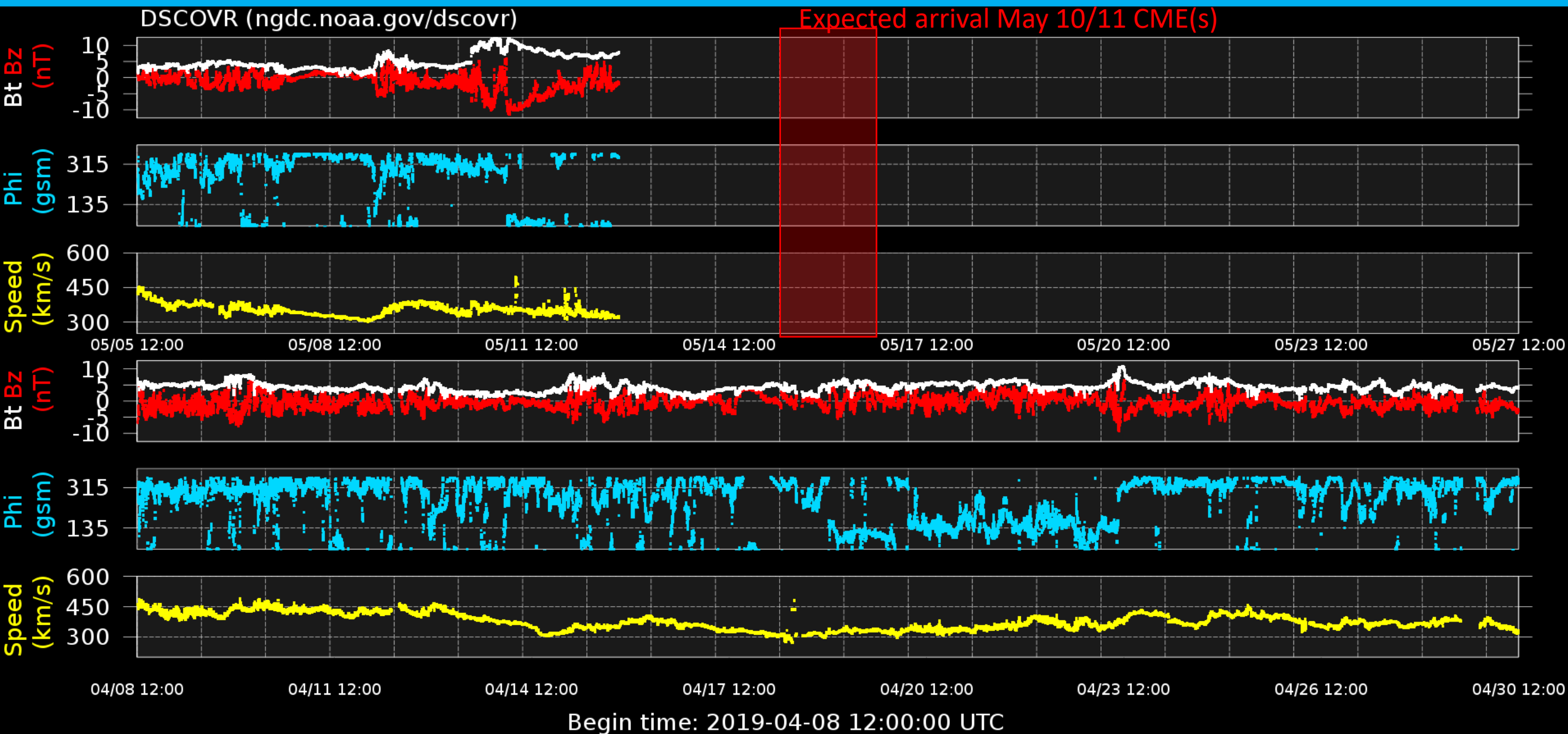
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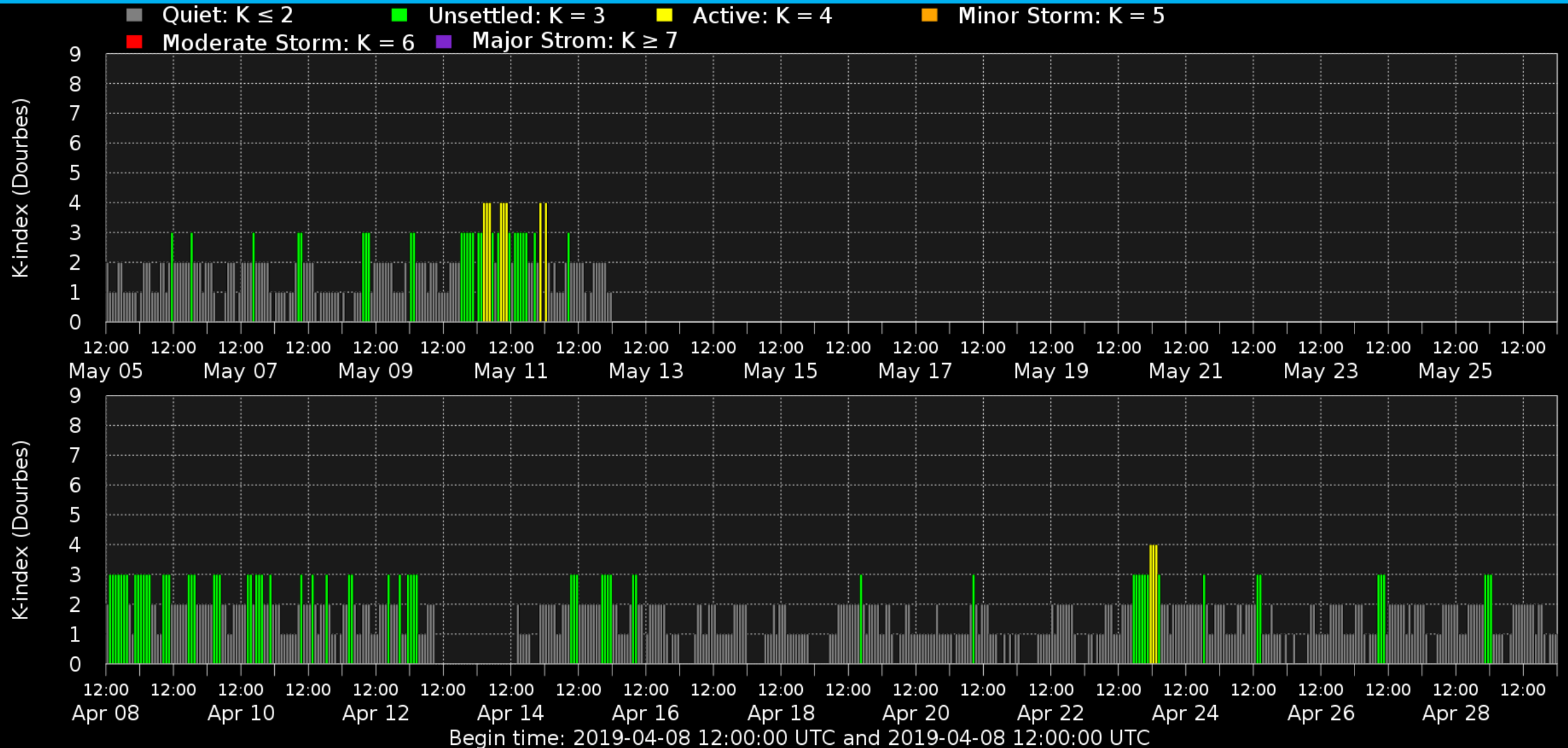
Outlook: Solar activity



Outlook: Solar wind



Outlook: Geomagnetic activity



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