

SIDC Space Weather Briefing

12 May 2019 - 19 May 2019

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& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
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Summary Report

Solar activity from 2019-05-12 12:00 UT to 2019-05-19 12:00 UT

Active regions	Alpha regions 2740 and 2741
Flaring	# B-class flare: 10 # C-class flare: 1 # M-class flare: 0 # X-class flare: 0
Filaments	Filament eruption near region 2741 on May 12, 22:50
CMEs	May 9, 10, 11, 12, 13, 18
Proton Events	None

Solar wind and geomagnetic conditions from 2019-05-12 12:00 UT to 2019-05-19 12:00 UT

Coronal Holes	Small, recurrent, negative polarity, equatorial coronal hole at CM on May 17-19
ICME	From CMEs May 9, 10, 11, 12, 13
SW Conditions	Enhanced due to weak CME influence
K-indices	max K-index (Dourbes): 6 max Kp-index (NOAA): 7

Solar Activity

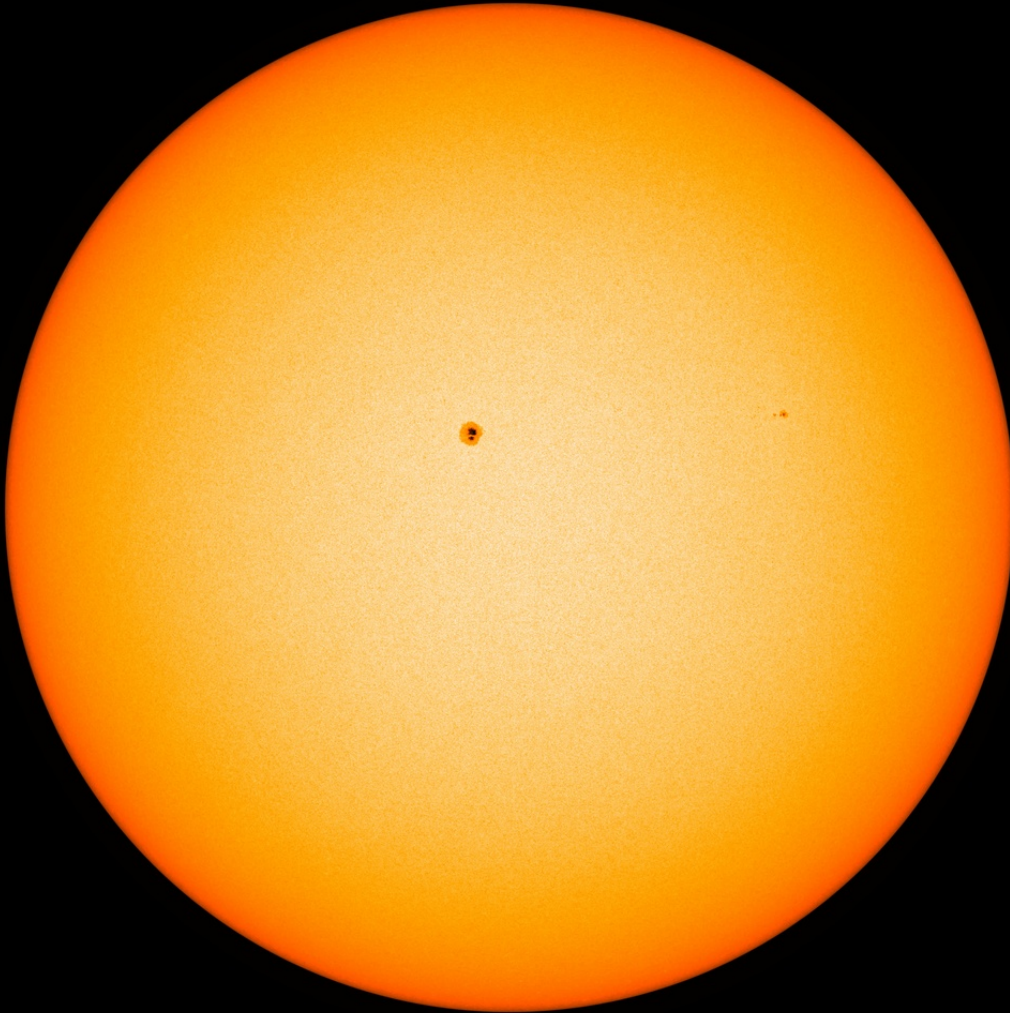


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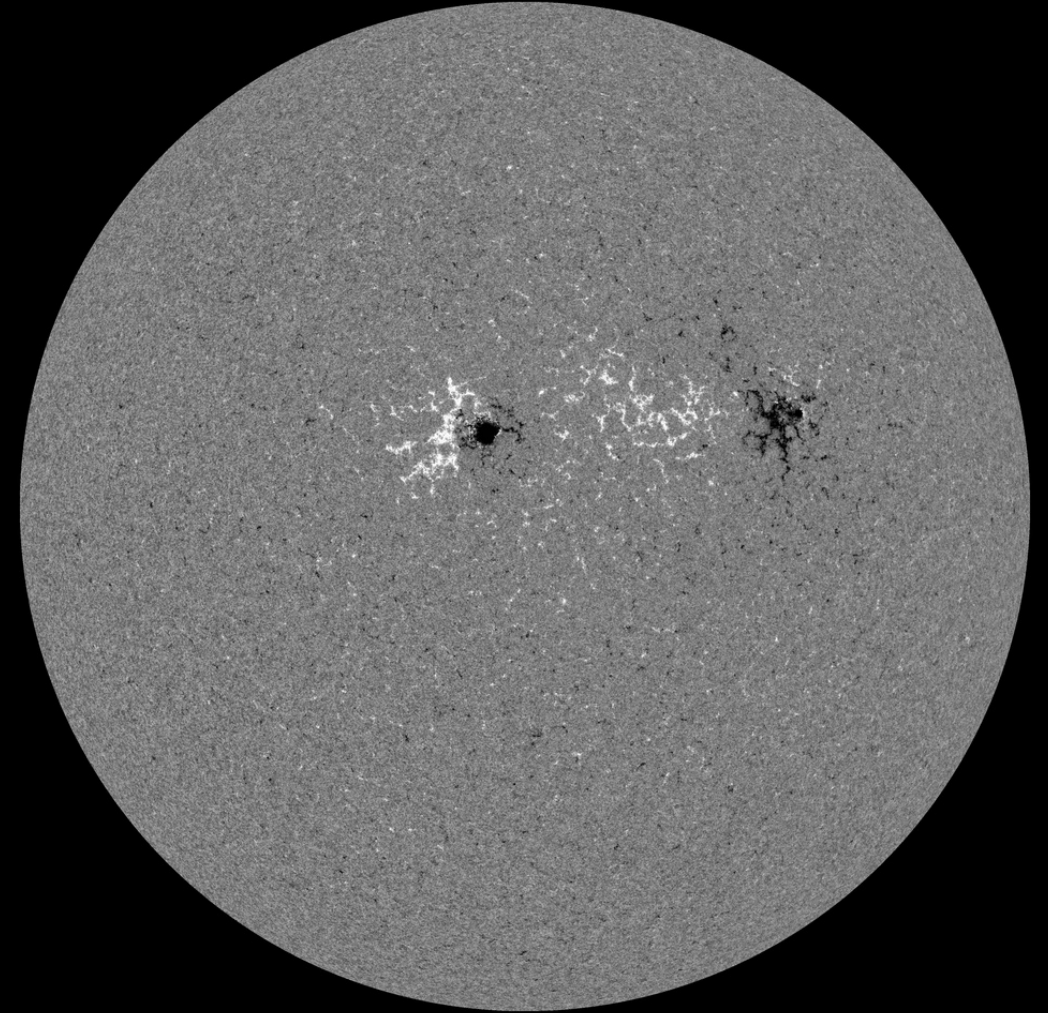
Solar active region - start of the week

SDO/HMI White Light 2019-05-12



SDO/HMI Quick-Look Continuum: 20190512_121500

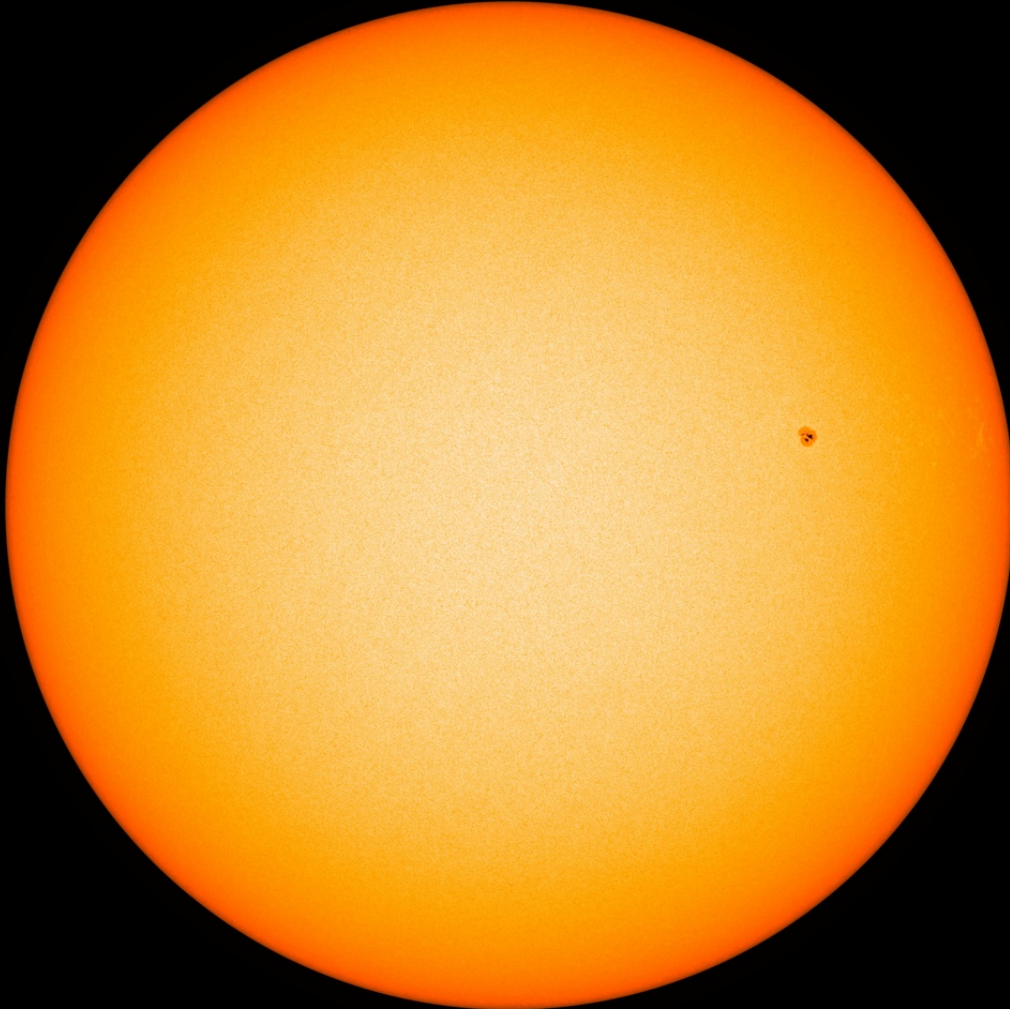
SDO/HMI Magnetogram 2019-05-12



SDO/HMI Quick-Look Magnetogram: 20190512_121500

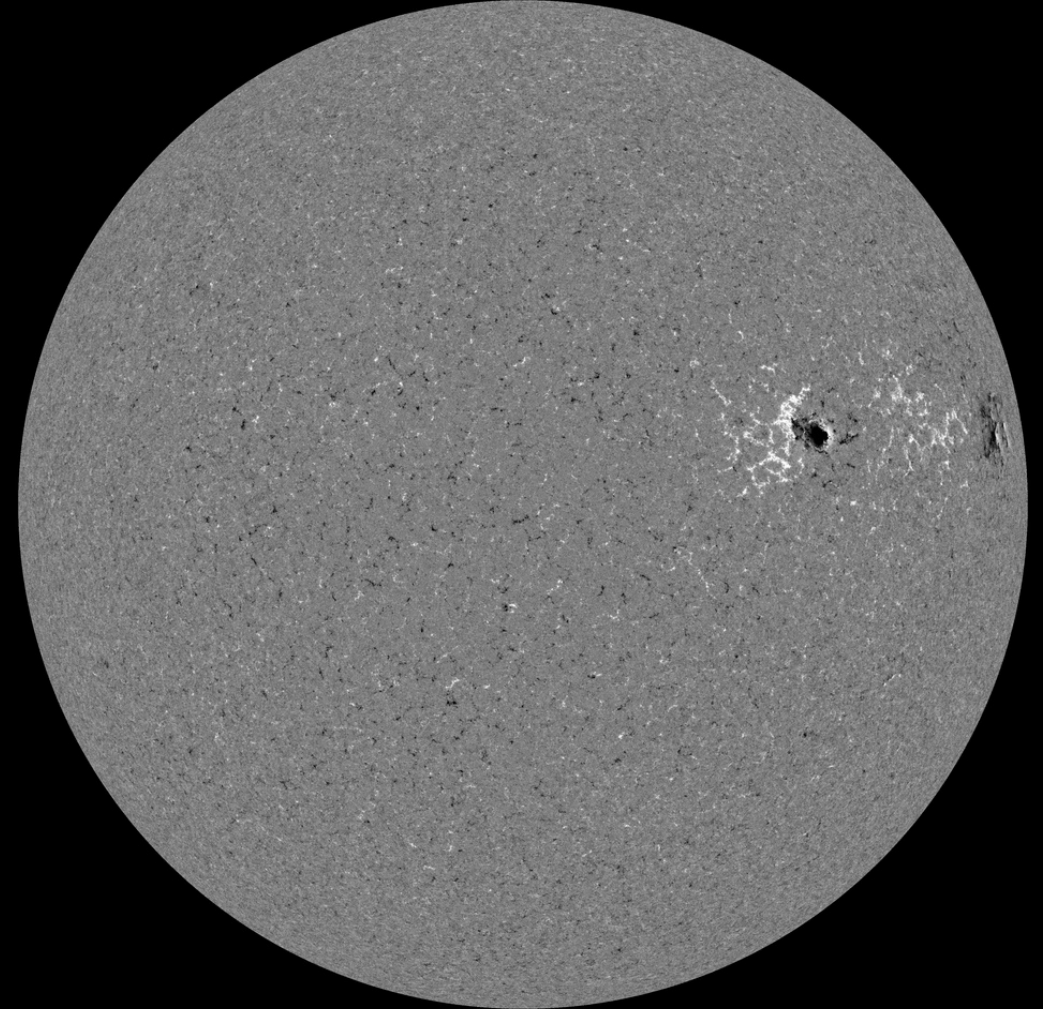
Solar active region - middle of the week

SDO/HMI White Light 2019-05-15



SDO/HMI Quick-Look Continuum: 20190515_121500

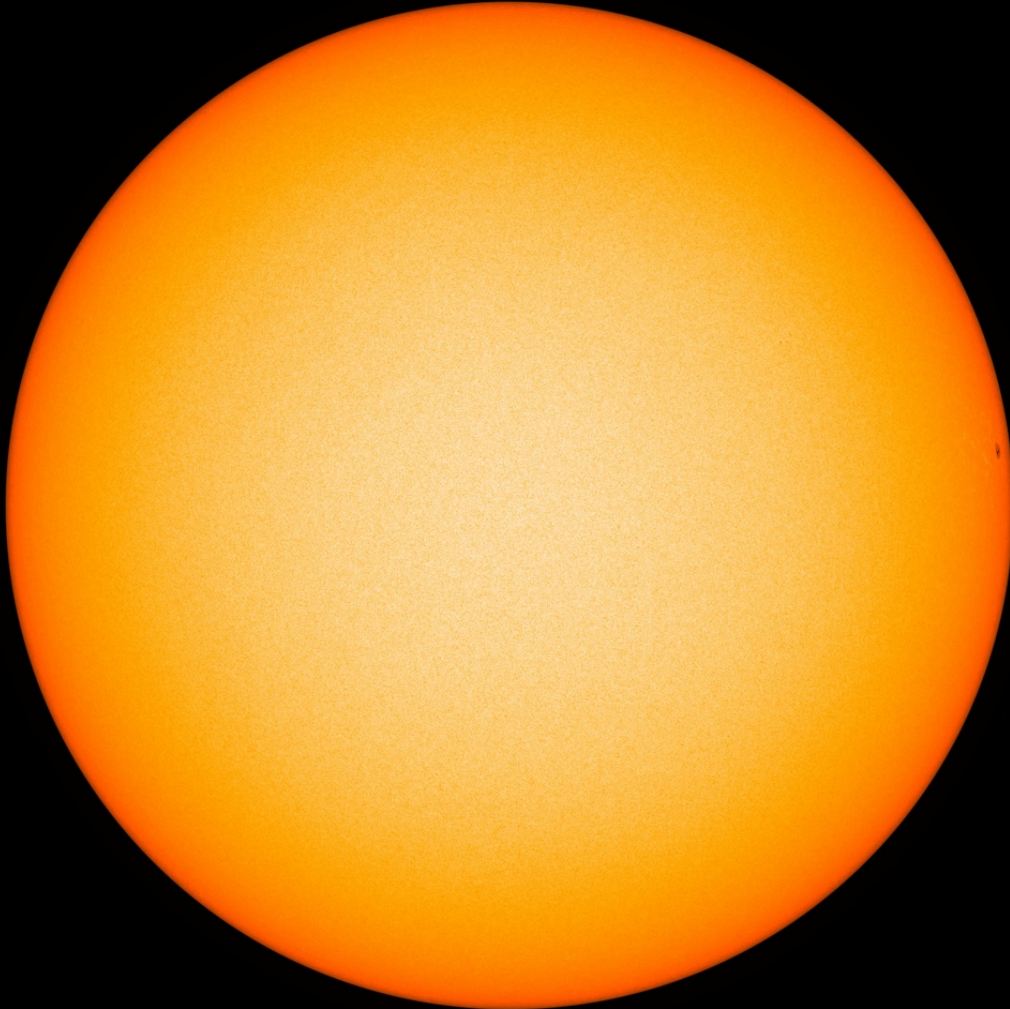
SDO/HMI Magnetogram 2019-05-15



SDO/HMI Quick-Look Magnetogram: 20190515_121500

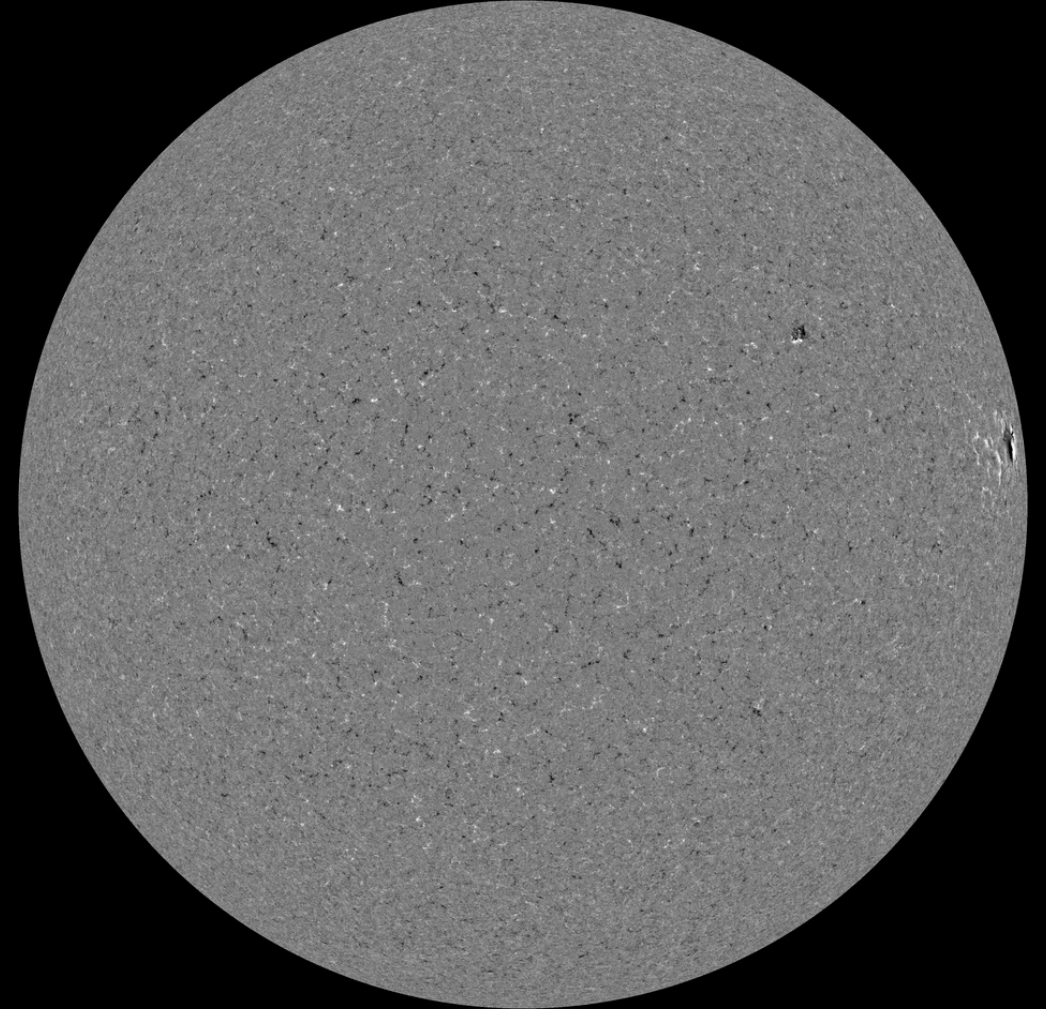
Solar active region - end of the week

SDO/HMI White Light 2019-05-18



SDO/HMI Quick-Look Continuum: 20190518_121500

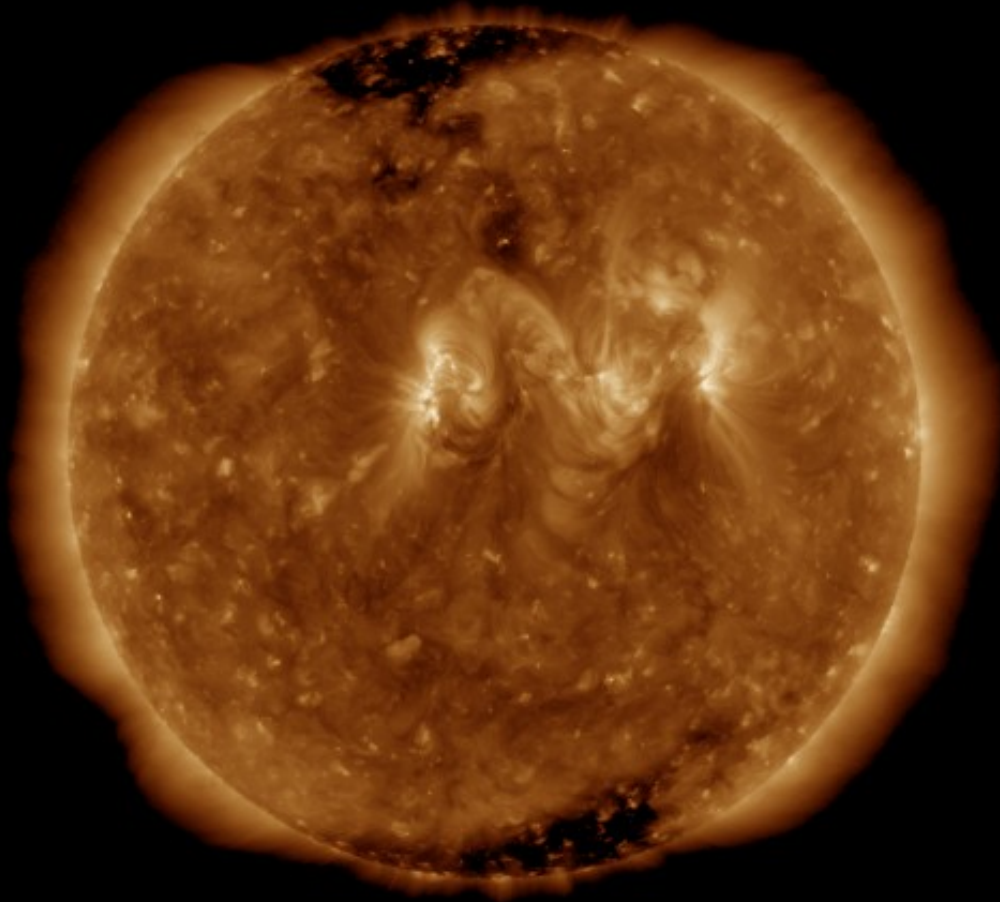
SDO/HMI Magnetogram 2019-05-18



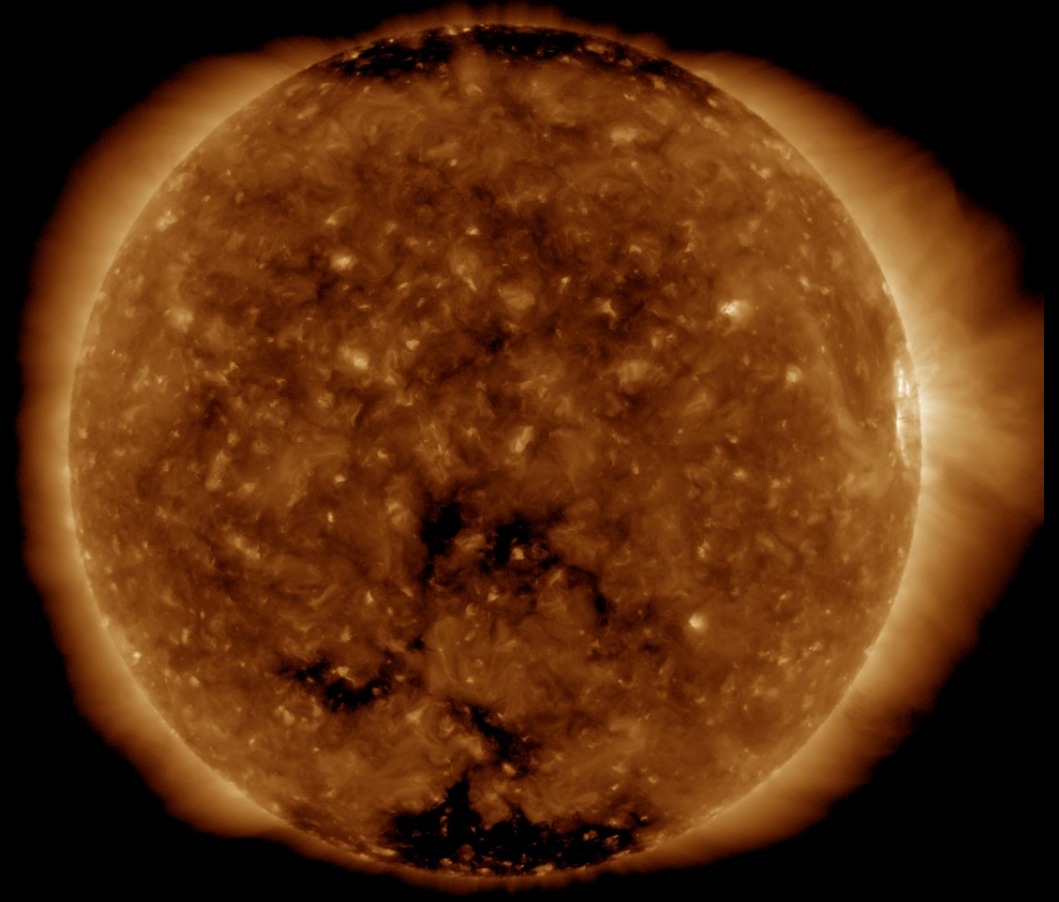
SDO/HMI Quick-Look Magnetogram: 20190518_121500

Solar active region & Coronal hole

SDO/AIA 19.3 nm 2019-05-12



SDO/AIA 19.3 nm 2019-05-18



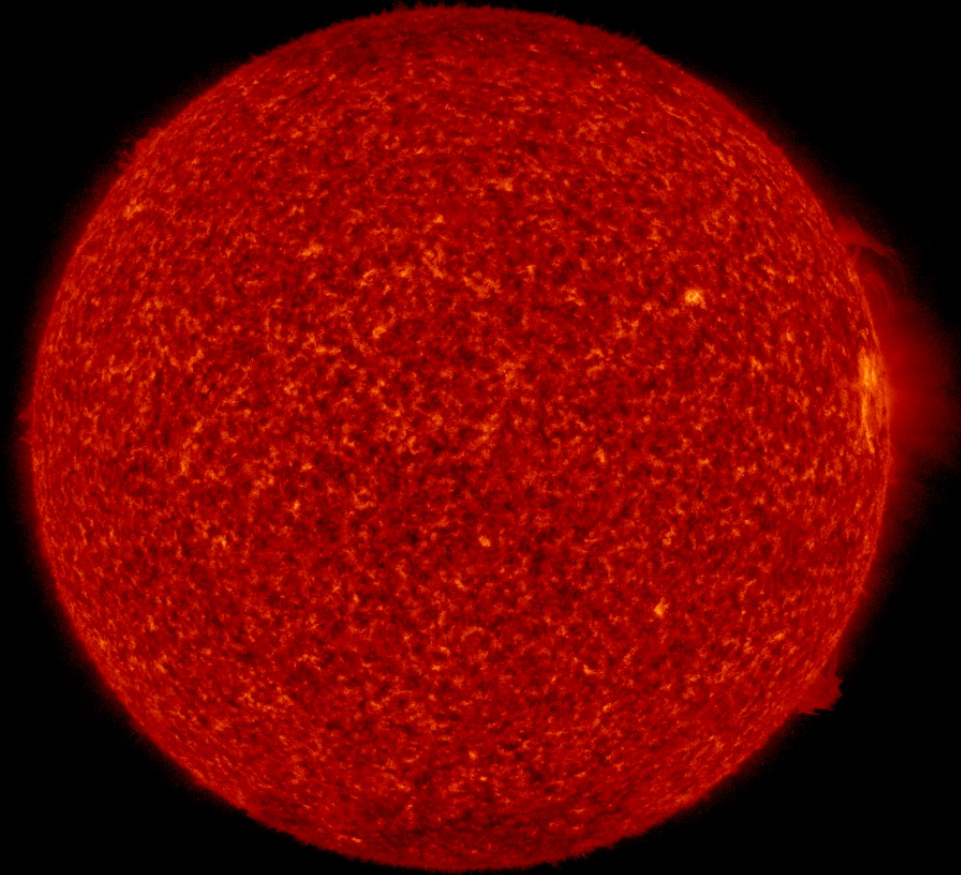
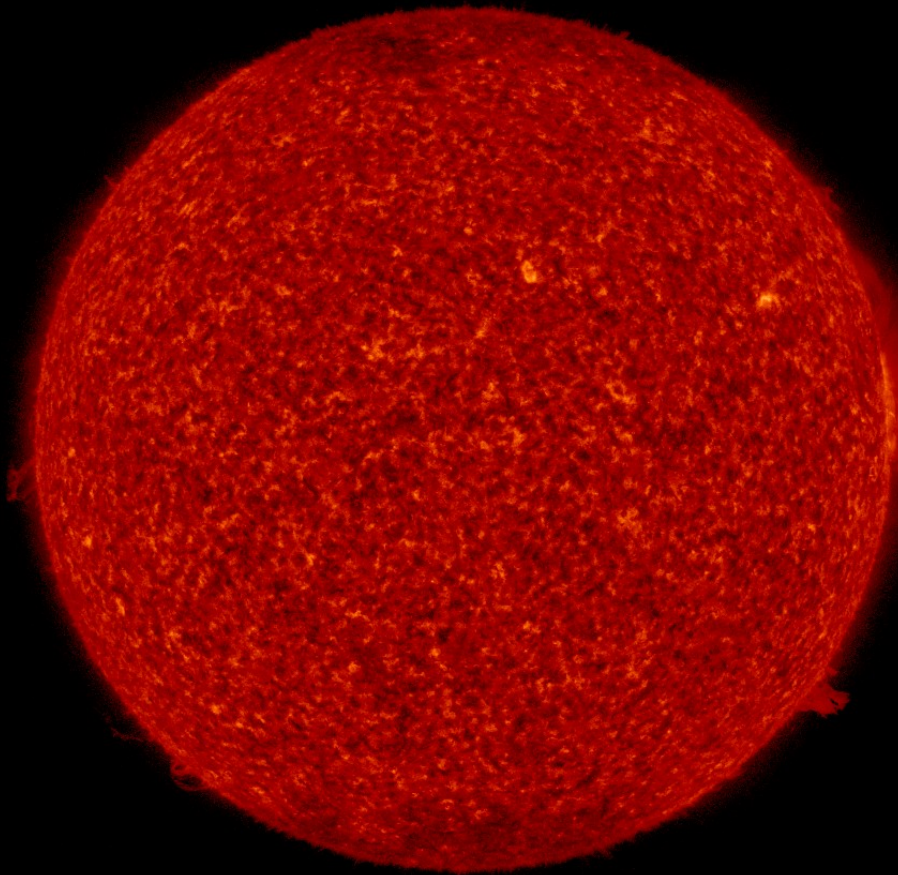
SDO/AIA 193 2019-05-12 12:10:41 UT

SDO/AIA 193 2019-05-18 12:10:53 UT

Solar active region & Filament

SDO/AIA 30.4 nm 2019-05-12

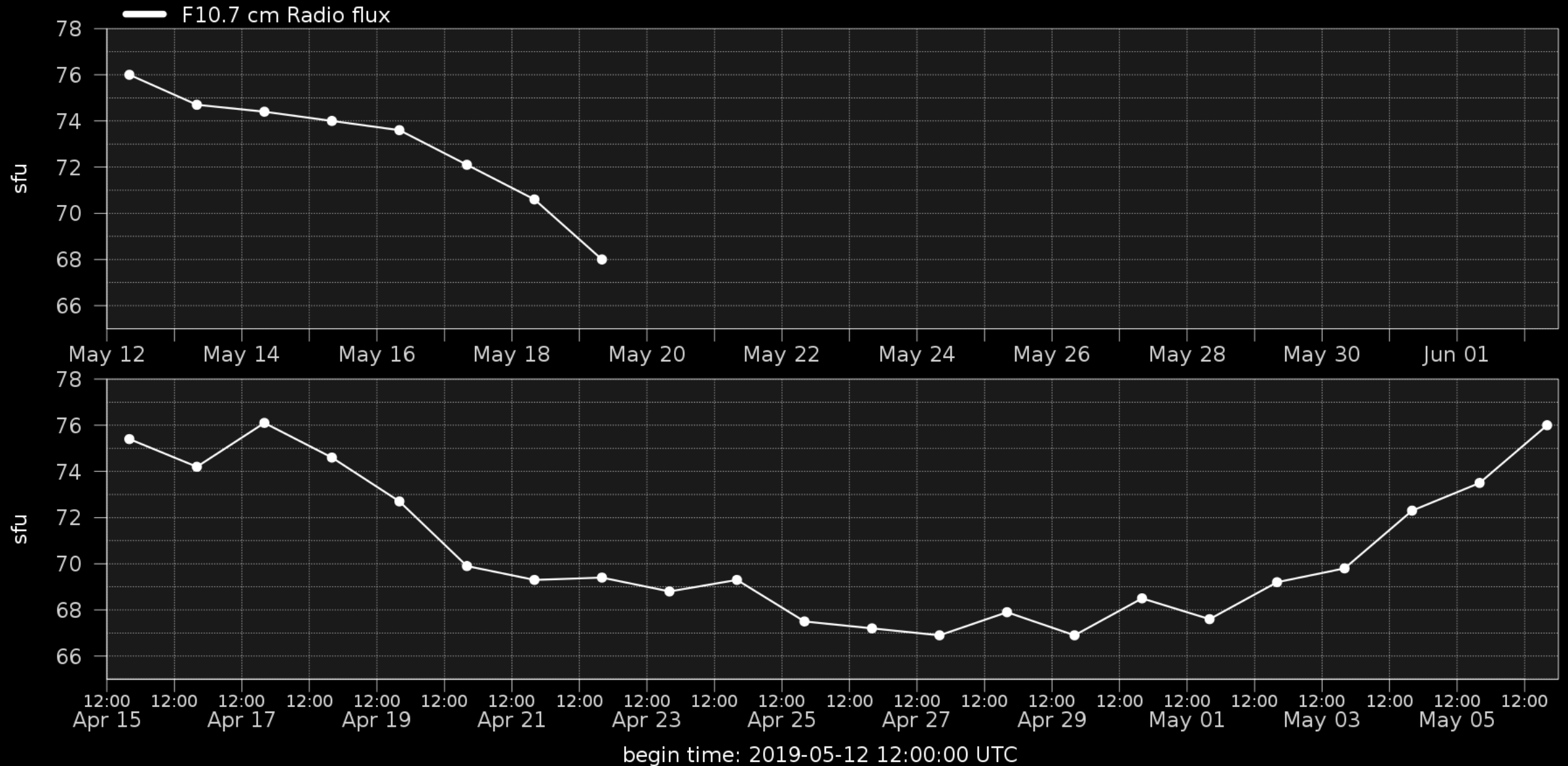
SDO/AIA 30.4 nm 2019-05-18



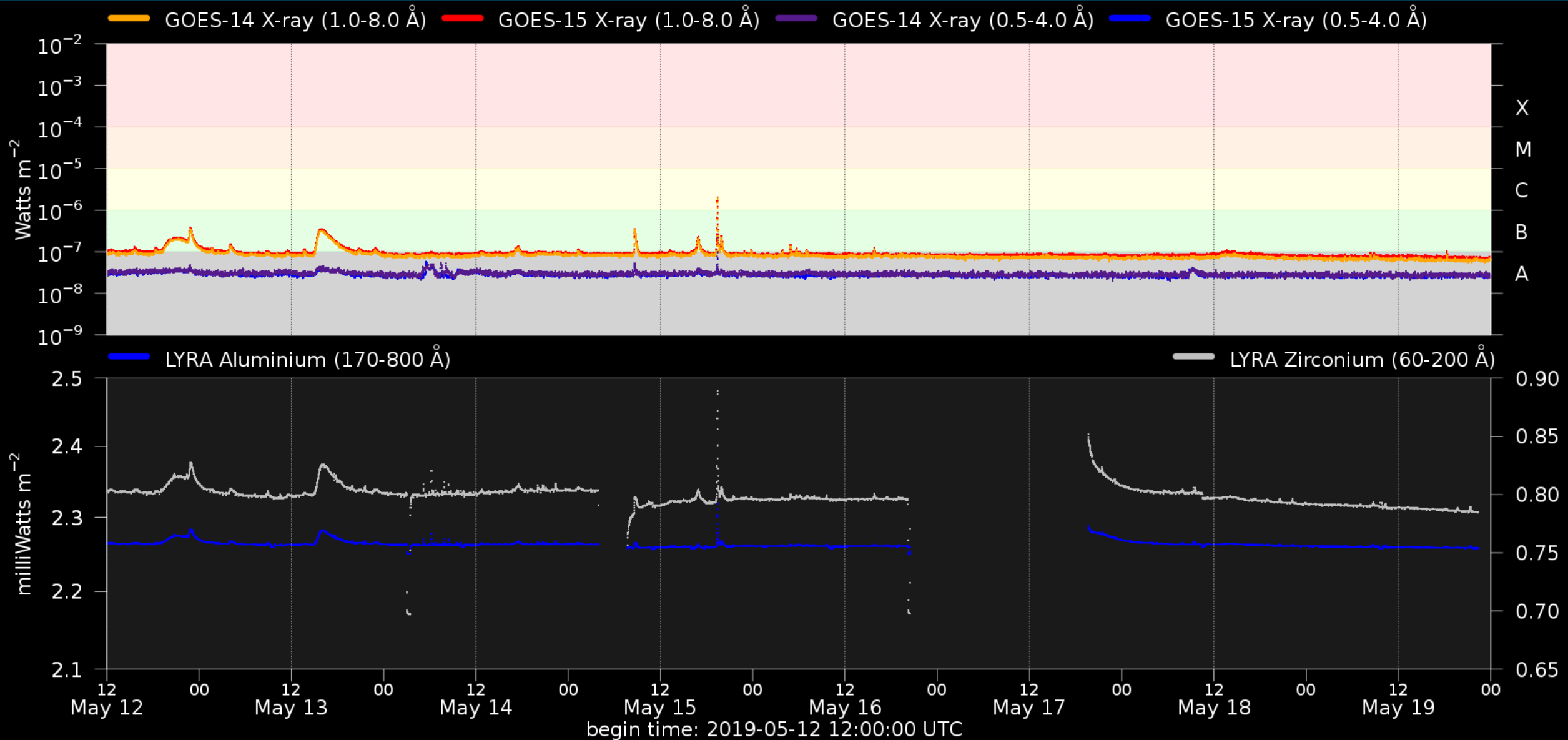
SDO/AIA 304 2019-05-19 12:13:42 UT

SDO/AIA 304 2019-05-18 12:13:18 UT

Solar F10.7cm radio flux

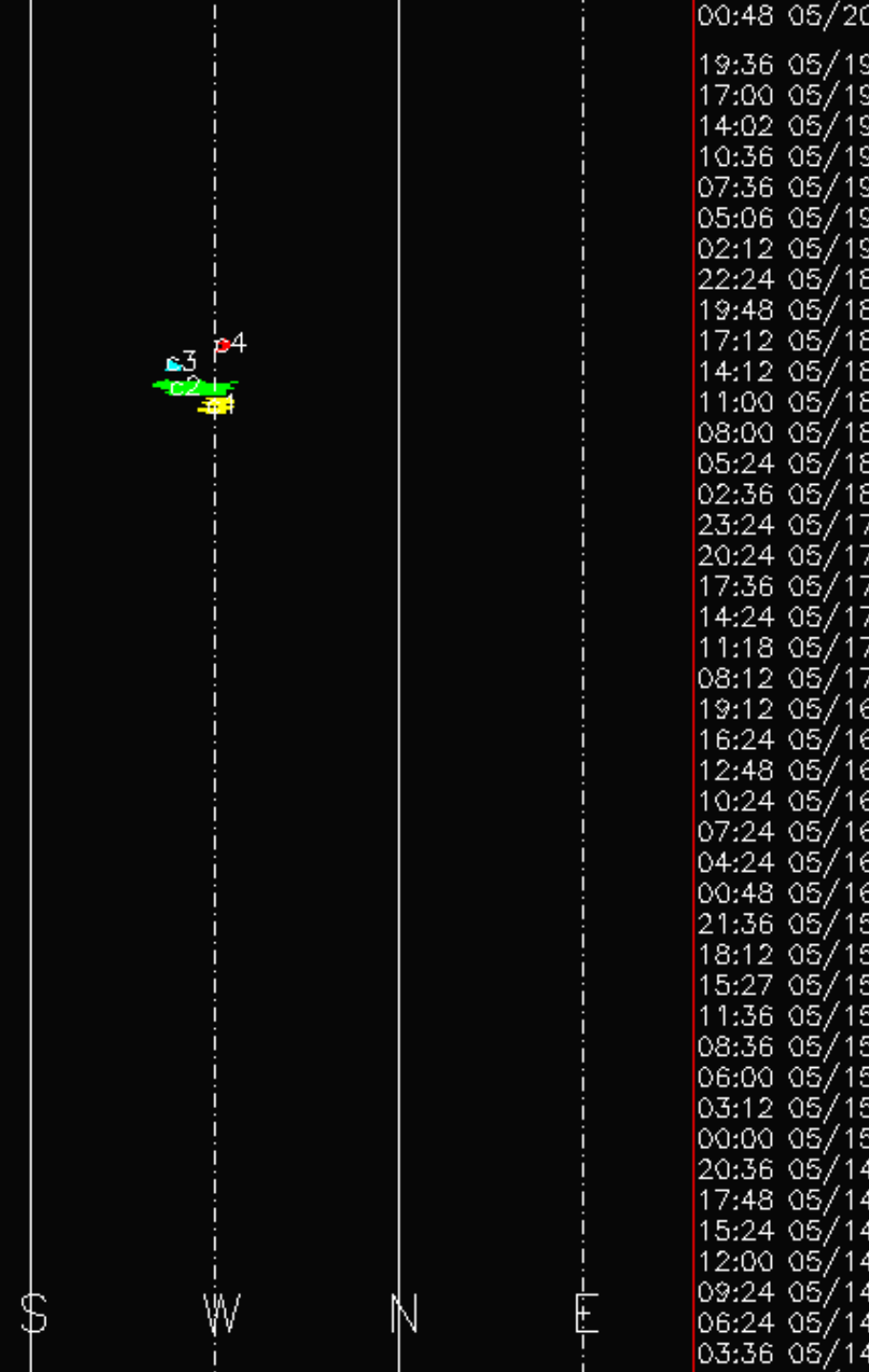


Solar X-Ray and UV flux

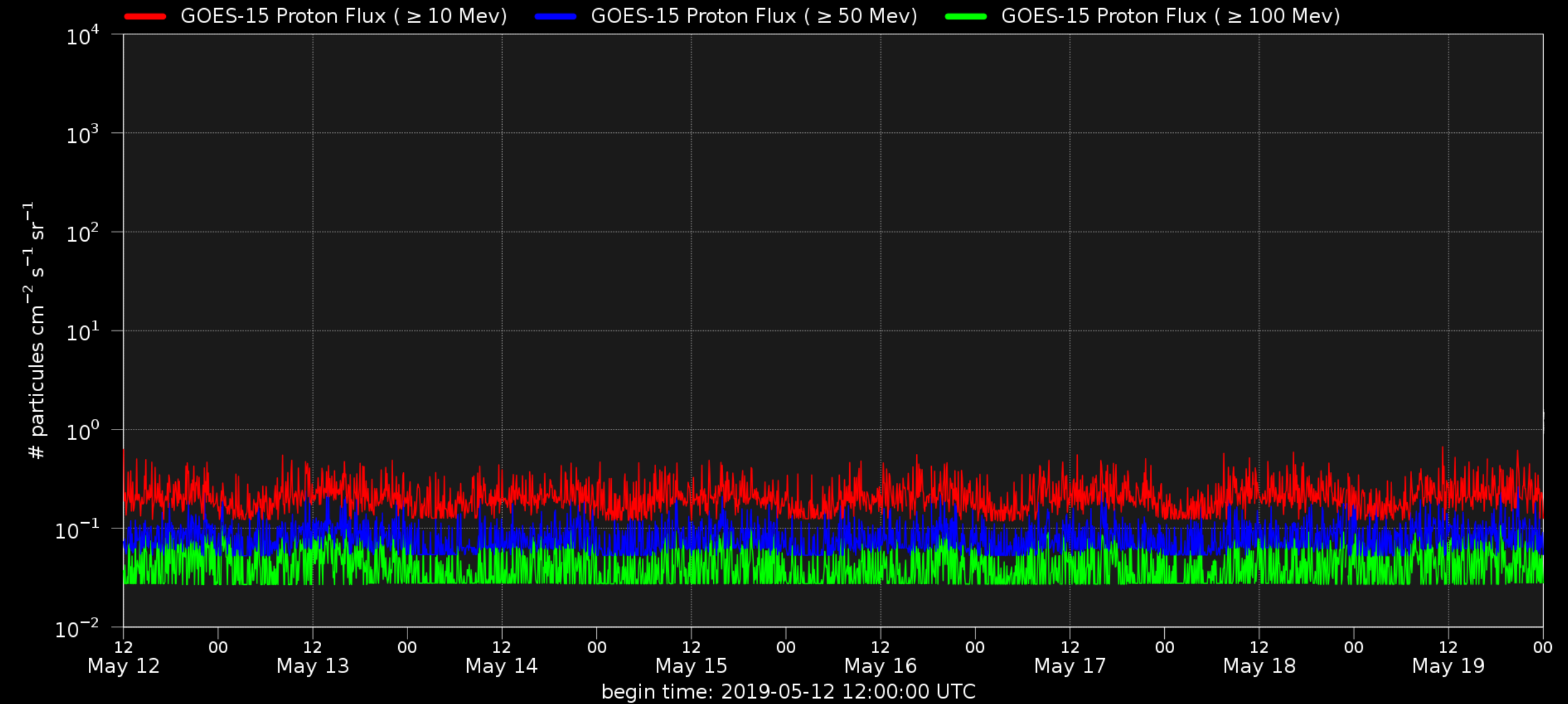


Coronal Mass Ejection

- CME on May 9, 6:42 (COR2 A), associated with filament eruption
- CME on May 10, 18:41 (COR2 A), associated with B2.3 flare
- Halo CME on May 11, 03:30 (LASCO C2-C3)
- CME on May 12, 20:36 (LASCO C2-C3), associated with filament eruption
- Faint halo CME on May 13 (LASCO C2-C3), associated with B3.5 flare and dimming
- CME on May 18, 13:10 (LASCO C2-C3)



Solar proton flux

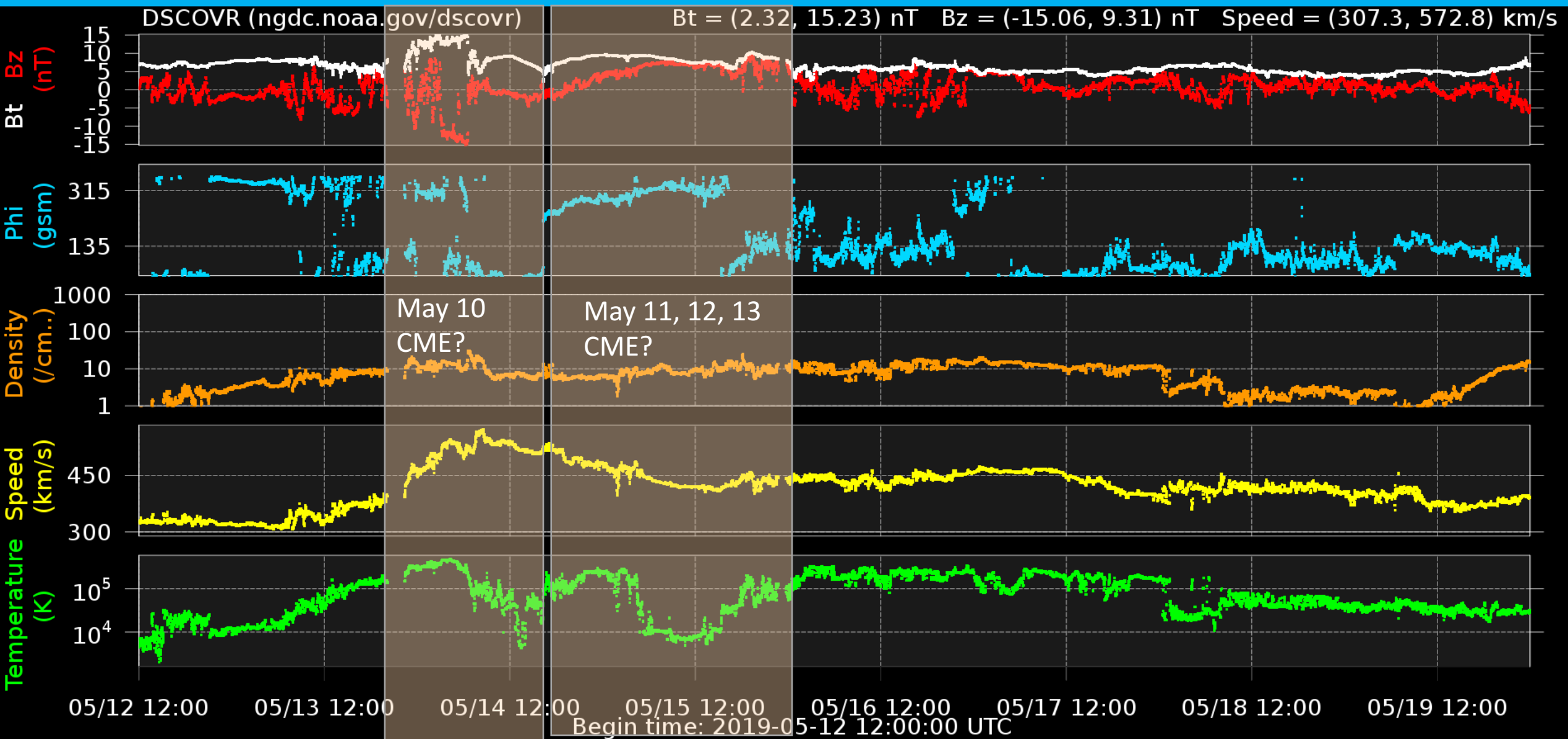


Solar Wind and Geomagnetic Activity



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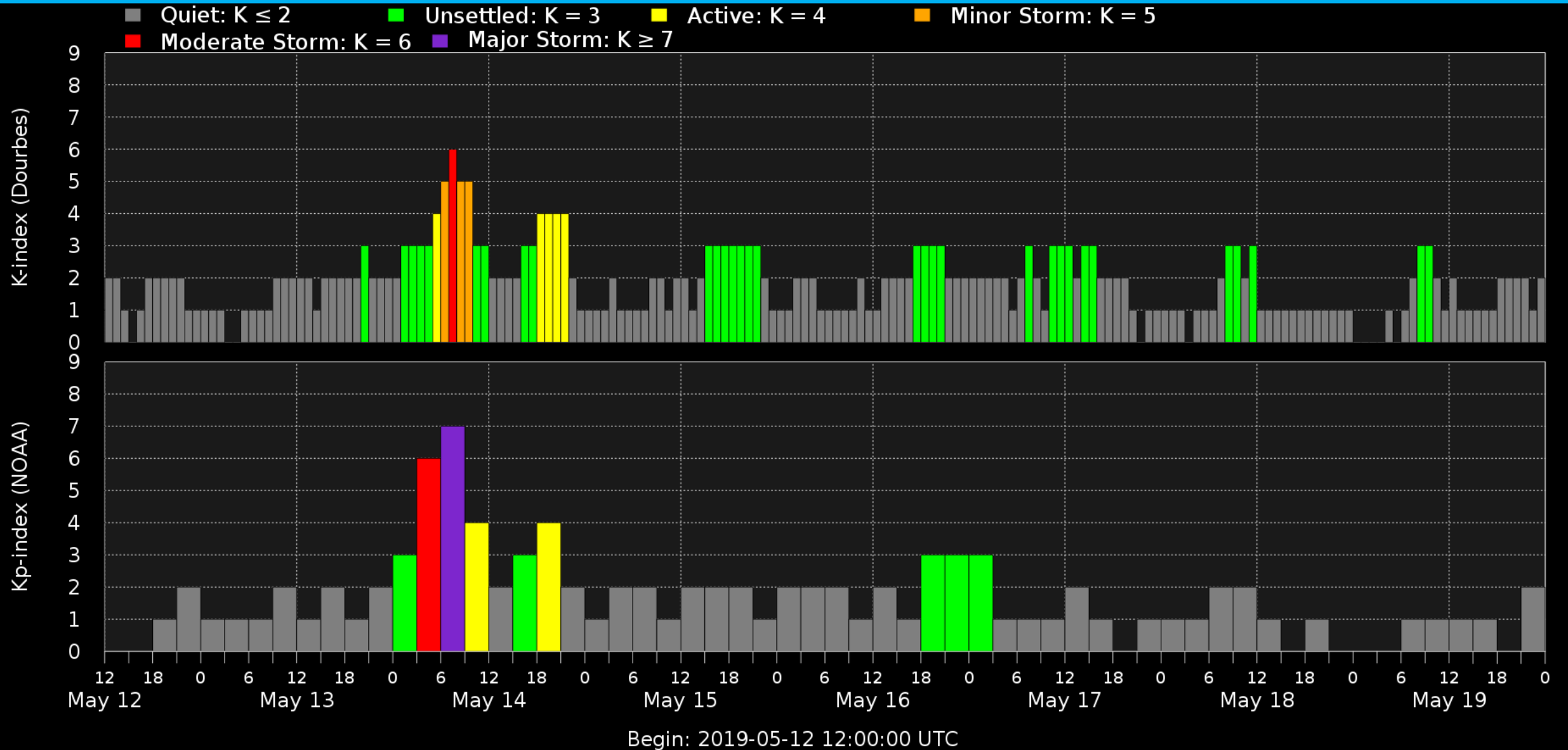
Solar wind parameters (DSCOVR data)



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



Geomagnetic activity (K-indexes)



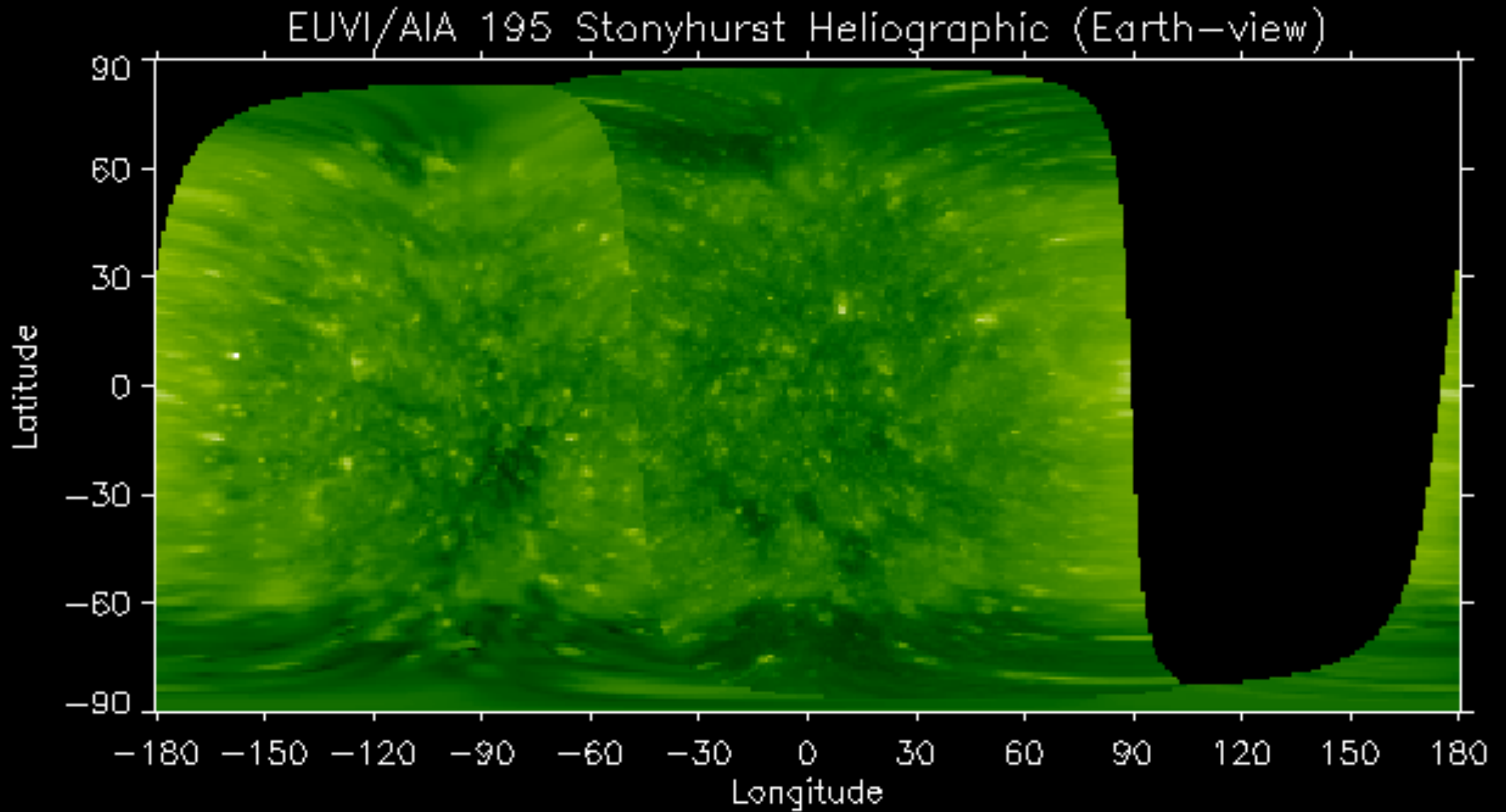
Outlook



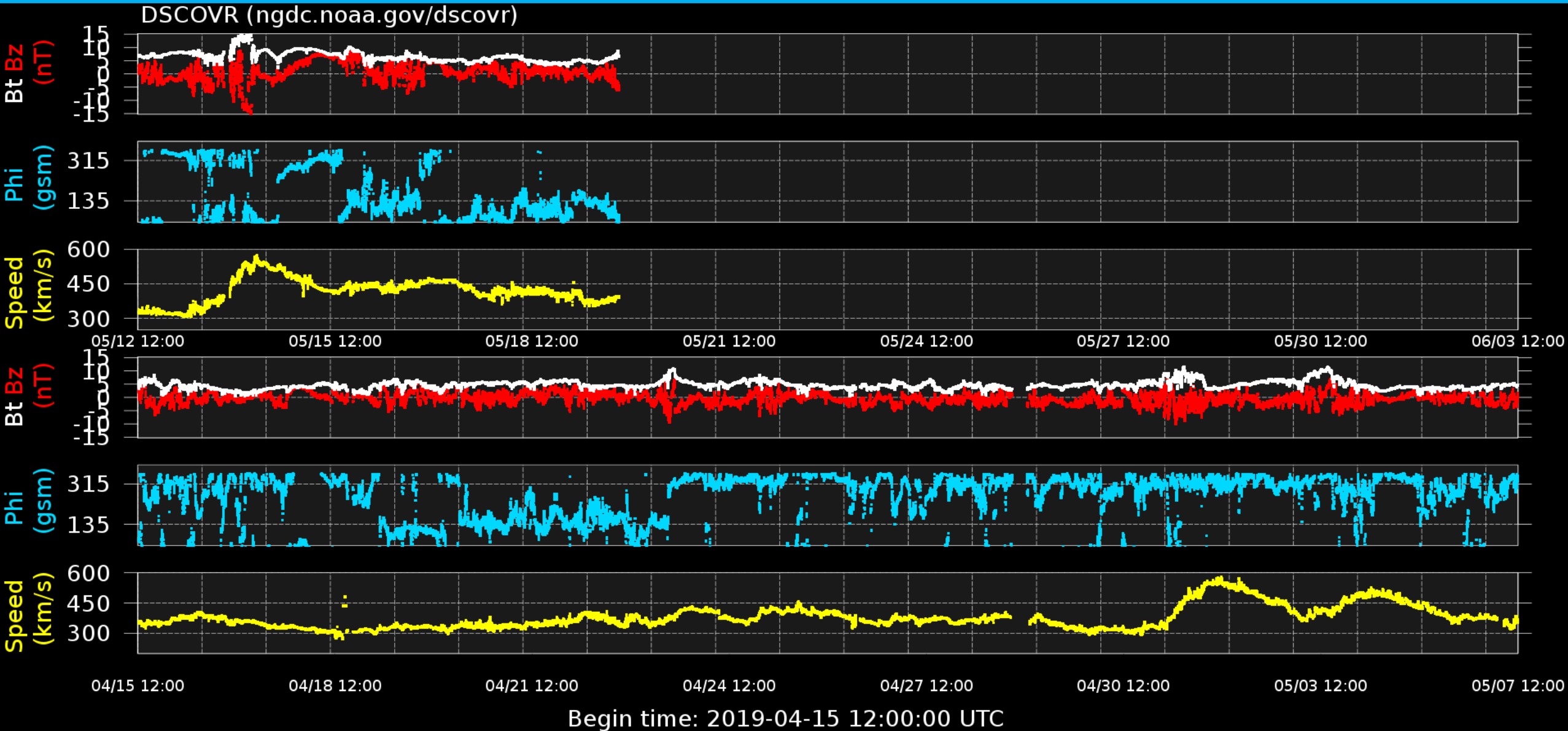
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Outlook: Solar activity



Outlook: Solar wind



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