

SIDC Space Weather Briefing

04 October 2020 - 11 October 2020

Jesse Andries

& the SIDC forecaster team



Royal Observatory
of Belgium

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Data analysis Centre
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Summary Report

Solar activity from 2020-10-04 to 2020-10-11

Active regions	2 regions developed on disc: Catania 43, NOAA 2774 and Catania 44, NOAA 2775
Flares	# B-class flare: 0 # C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filament eruptions	SW quadrant: no associated CME
Coronal Holes	None

Proton flux	Quiet
Electron flux	Enhanced

Solar wind and geomagnetic conditions from 2020-10-04T12:00:00 to 2020-10-11T12:00:00

ICME	None
SW Conditions	B : 0.64 - 11.33 nT // Bz: -9.29 nT to 8.02 nT // Speed: 283.2 - 421.3km/s
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 4

All Quiet Alert: on since 2/10

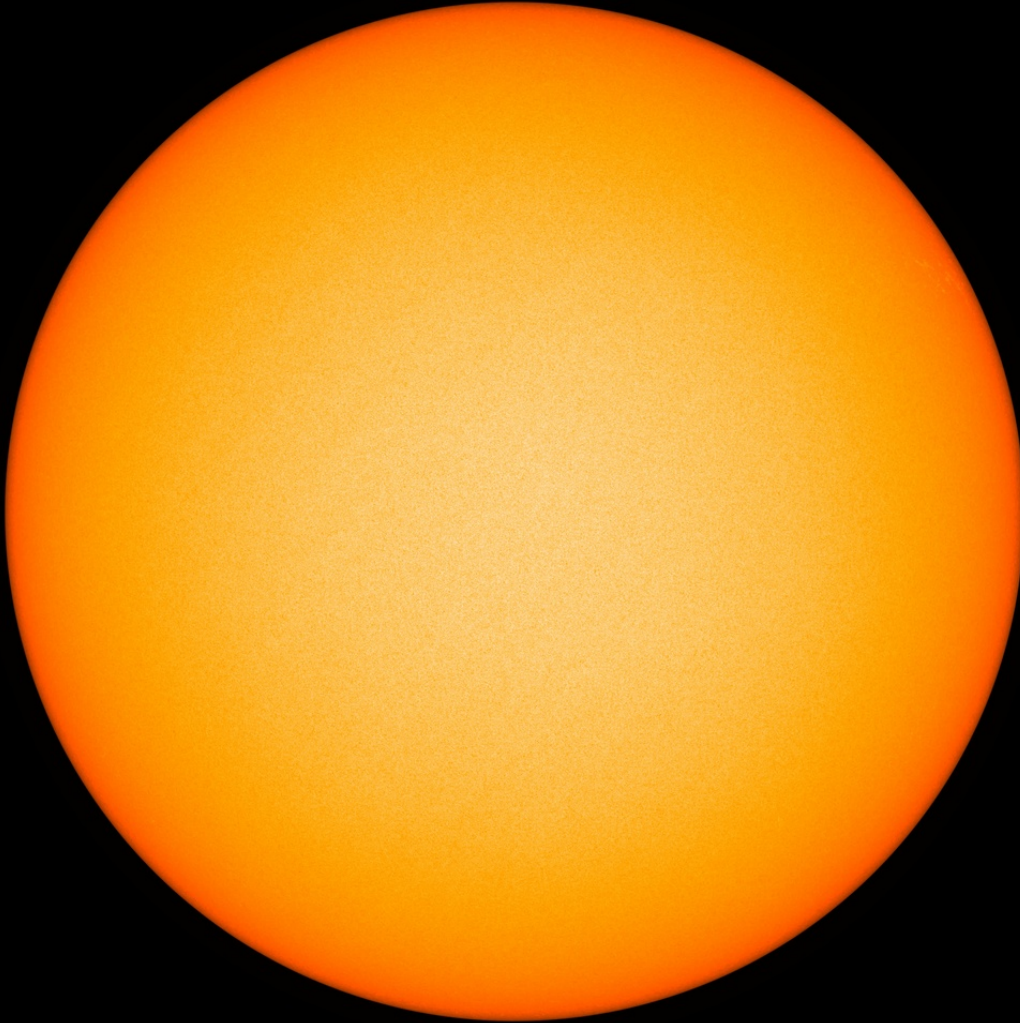
Solar Activity



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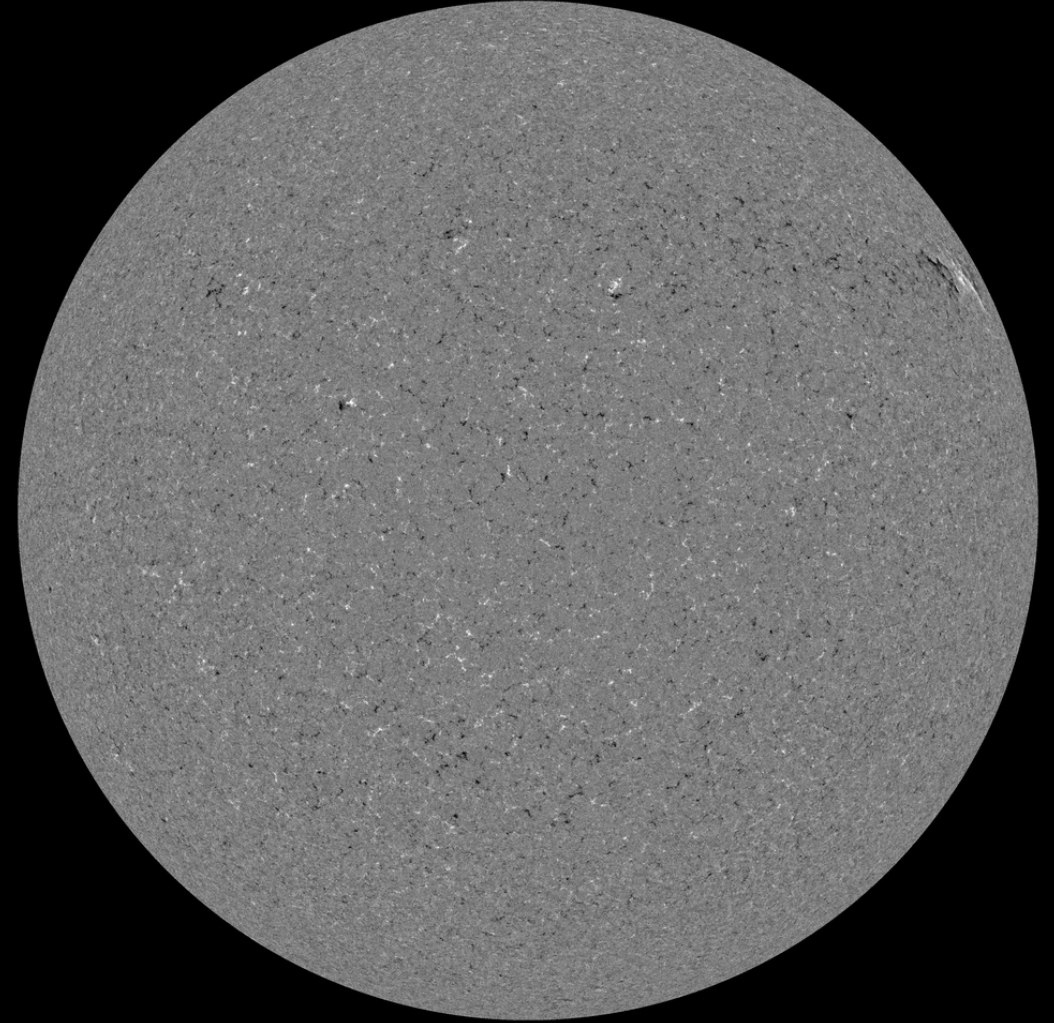
Solar active regions - Sunday

SDO/HMI White Light 2020-10-04



SDO/HMI Quick-Look Continuum: 20201004_114500

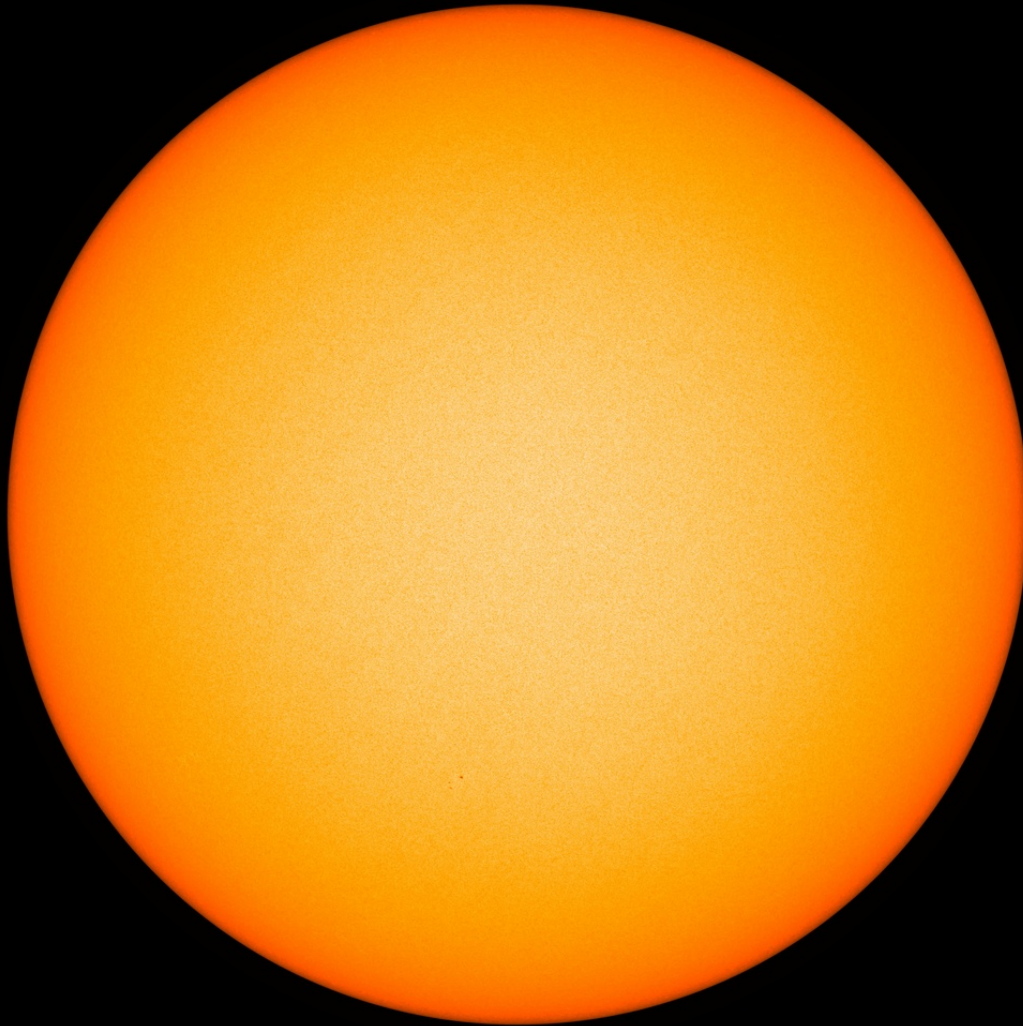
SDO/HMI Magnetogram 2020-10-04



SDO/HMI Quick-Look Magnetogram: 20201004_114500

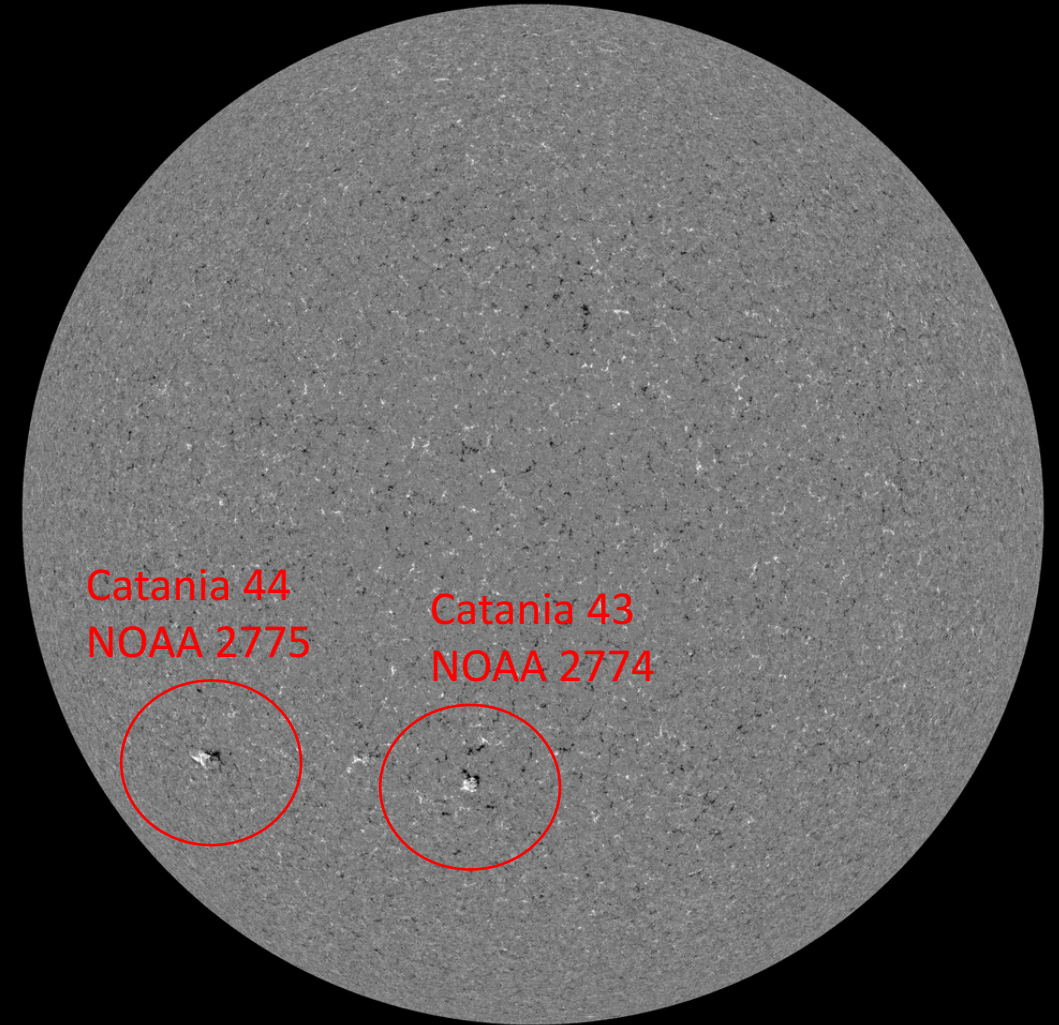
Solar active regions - Thursday

SDO/HMI White Light 2020-10-08



SDO/HMI Quick-Look Continuum: 20201008_114500

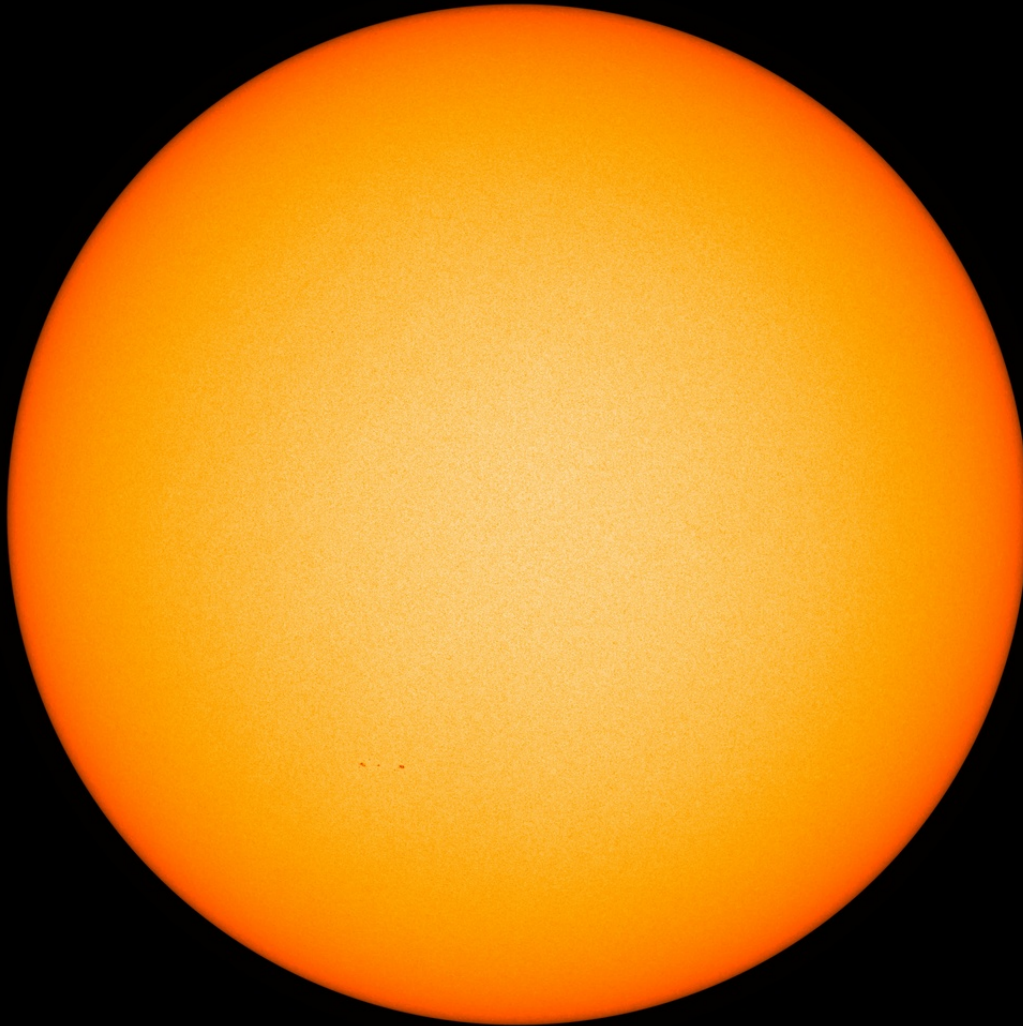
SDO/HMI Magnetogram 2020-10-08



SDO/HMI Quick-Look Magnetogram: 20201008_114500

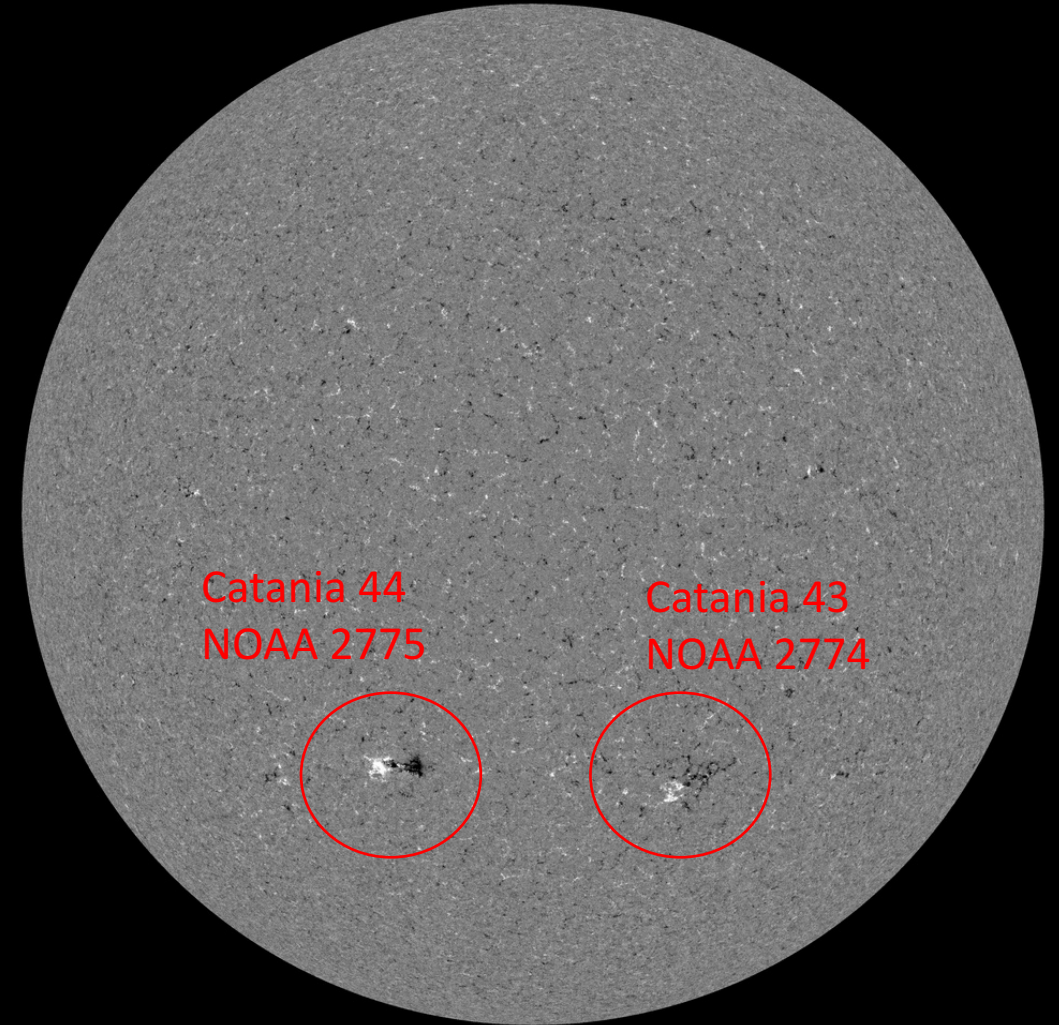
Solar active regions - Saturday

SDO/HMI White Light 2020-10-10



SDO/HMI Quick-Look Continuum: 20201010_114500

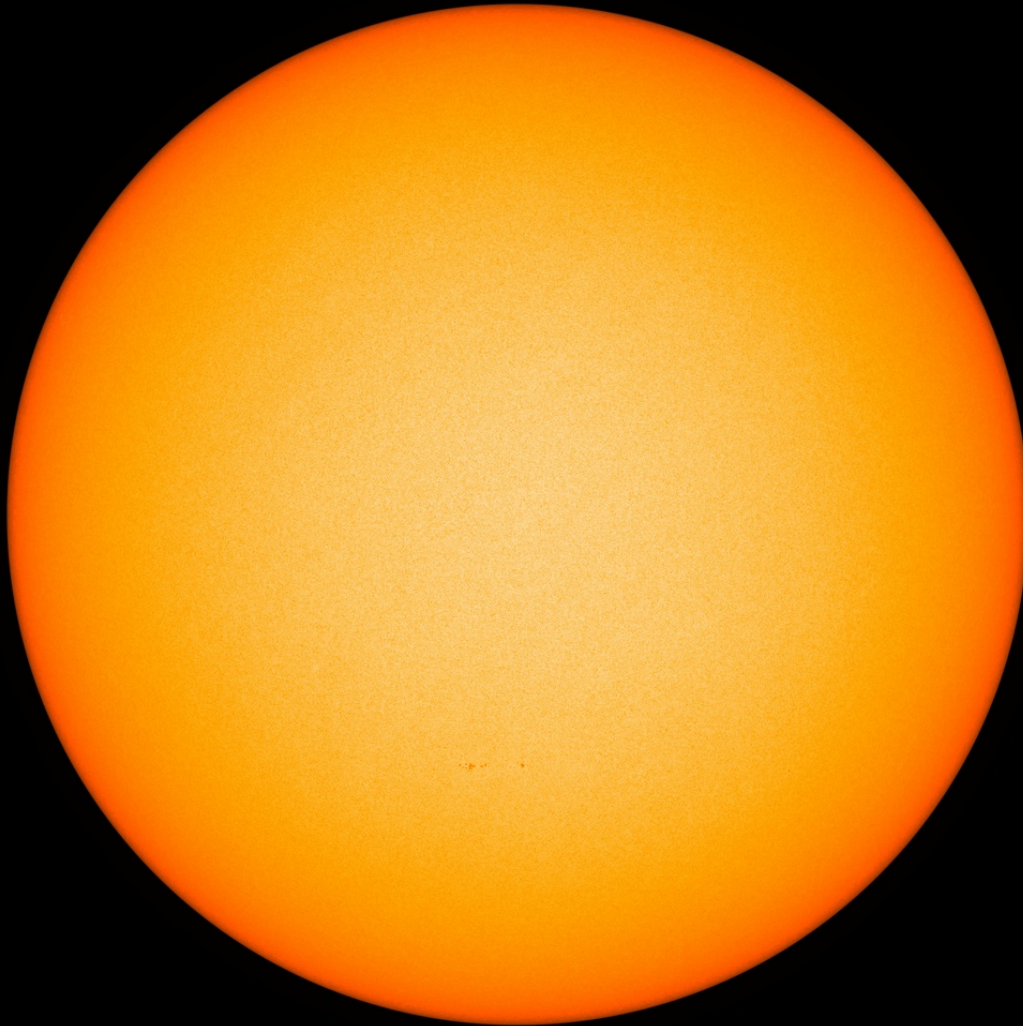
SDO/HMI Magnetogram 2020-10-10



SDO/HMI Quick-Look Magnetogram: 20201010_114500

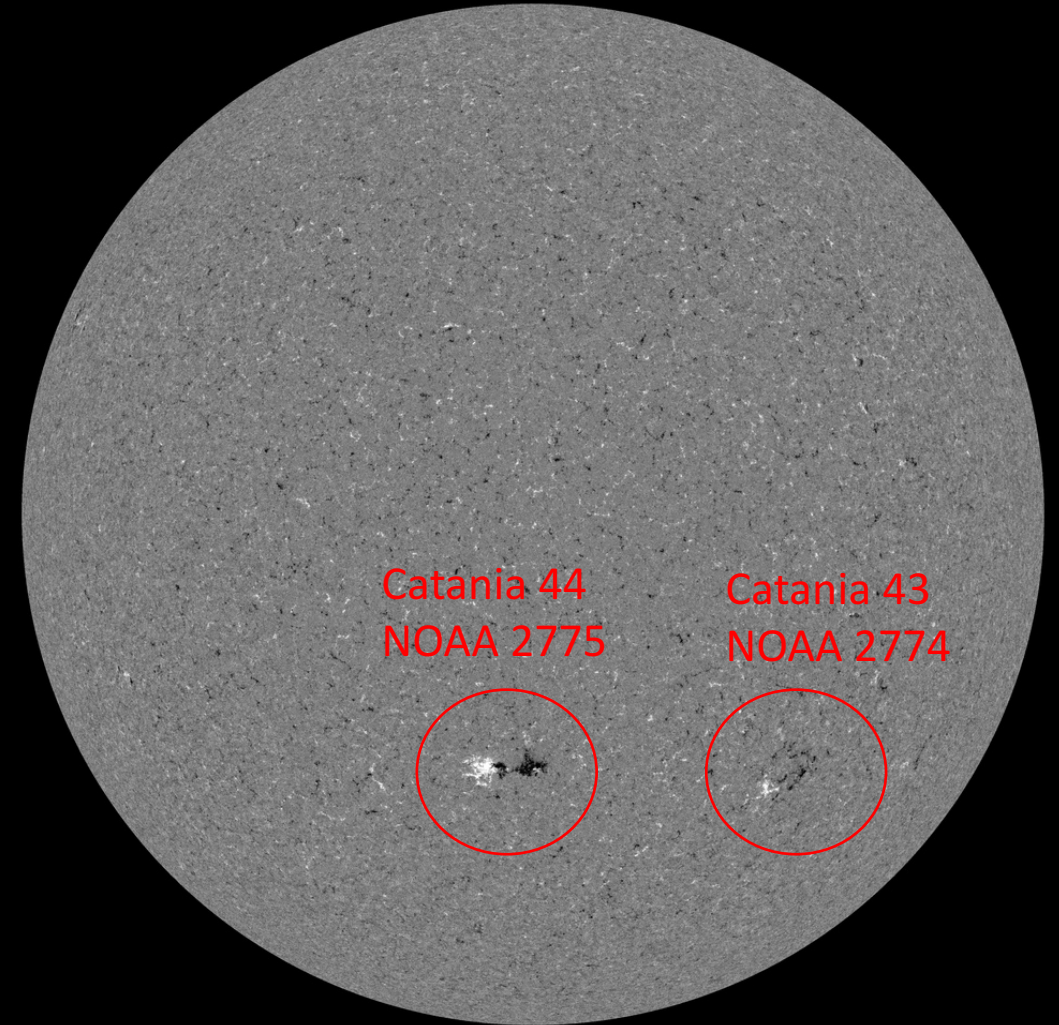
Solar active regions - Sunday

SDO/HMI White Light 2020-10-11



SDO/HMI Quick-Look Continuum: 20201011_114500

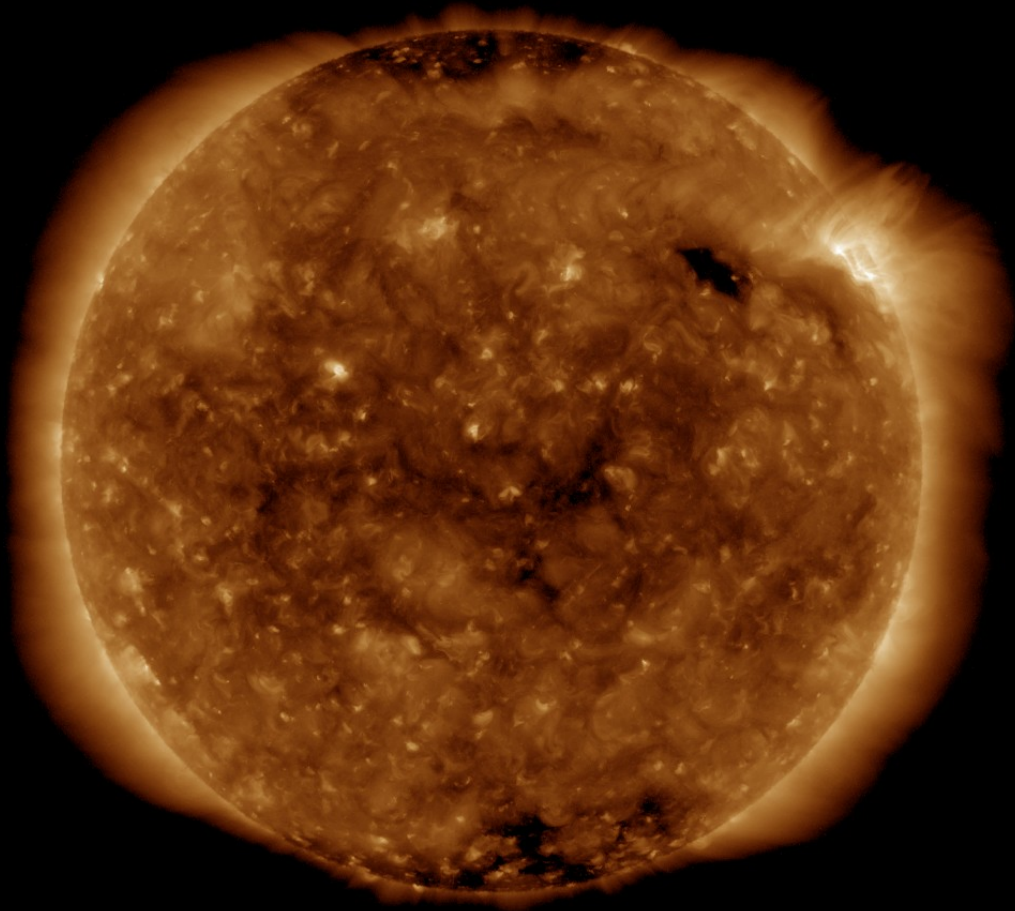
SDO/HMI Magnetogram 2020-10-11



SDO/HMI Quick-Look Magnetogram: 20201011_114500

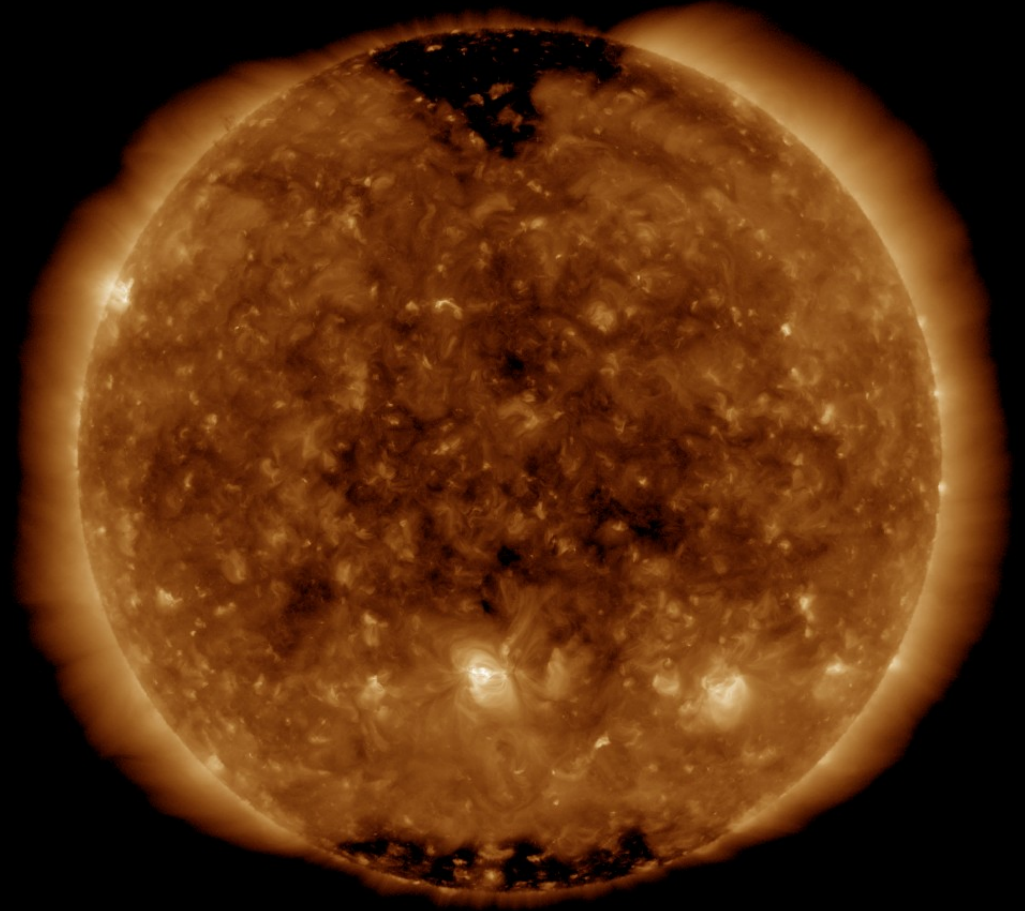
Coronal holes

SDO/AIA 19.3 nm 2020-10-04



SDO/AIA 193 2020-10-04 12:18:17 UT

SDO/AIA 19.3 nm 2020-10-11

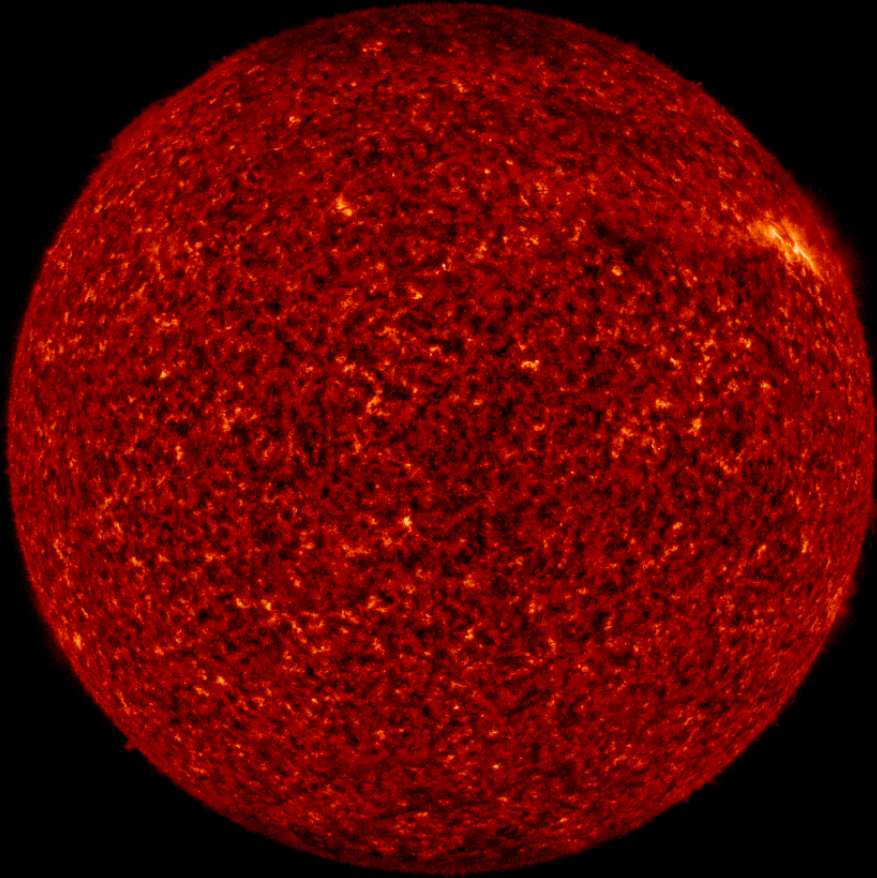


SDO/AIA 193 2020-10-11 12:18:17 UT

Filaments

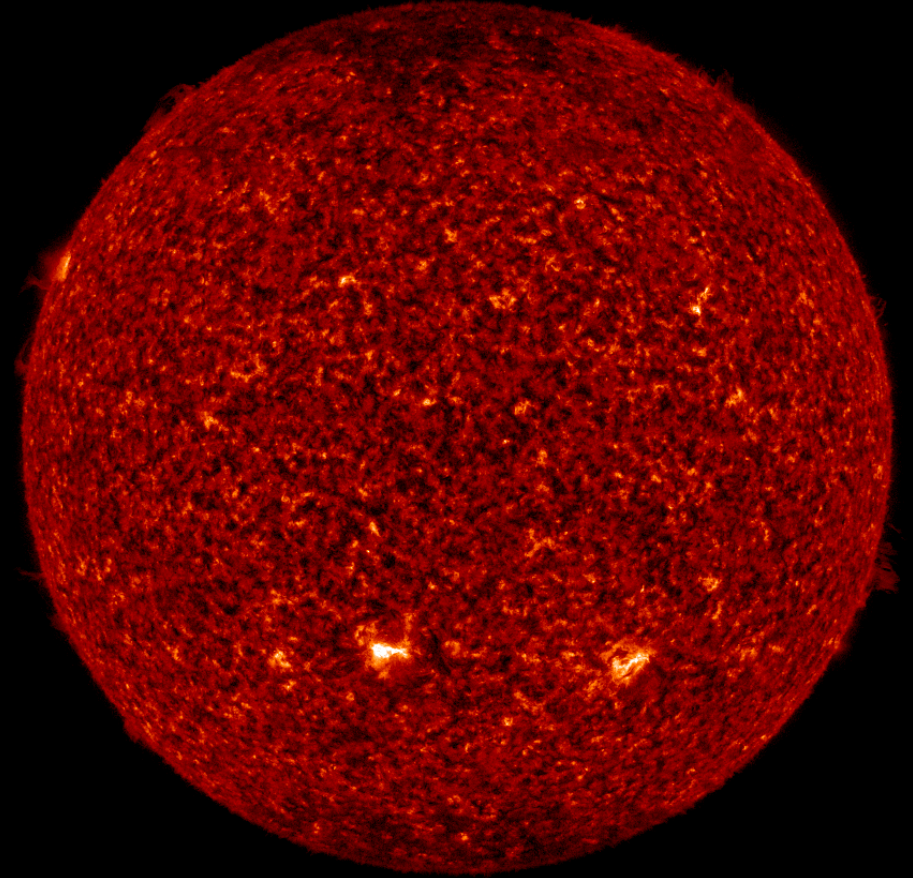
SDO/AIA 30.4 nm 2020-10-04

SDO/AIA AIA 304Å 2020-10-04T00:00:06.58



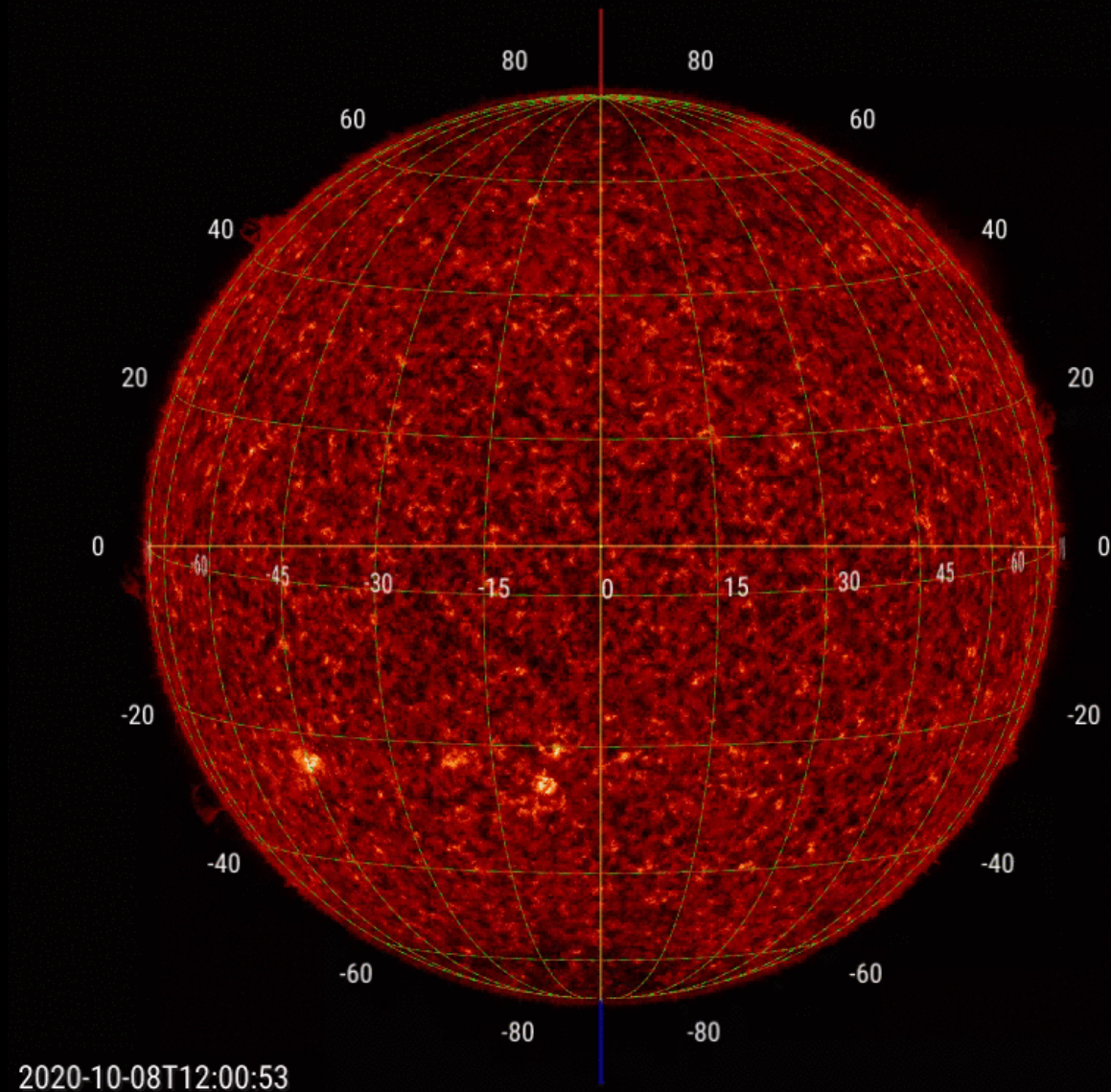
SDO/AIA 30.4 nm 2020-10-11

SDO/AIA AIA 304Å 2020-10-11T00:00:06.58

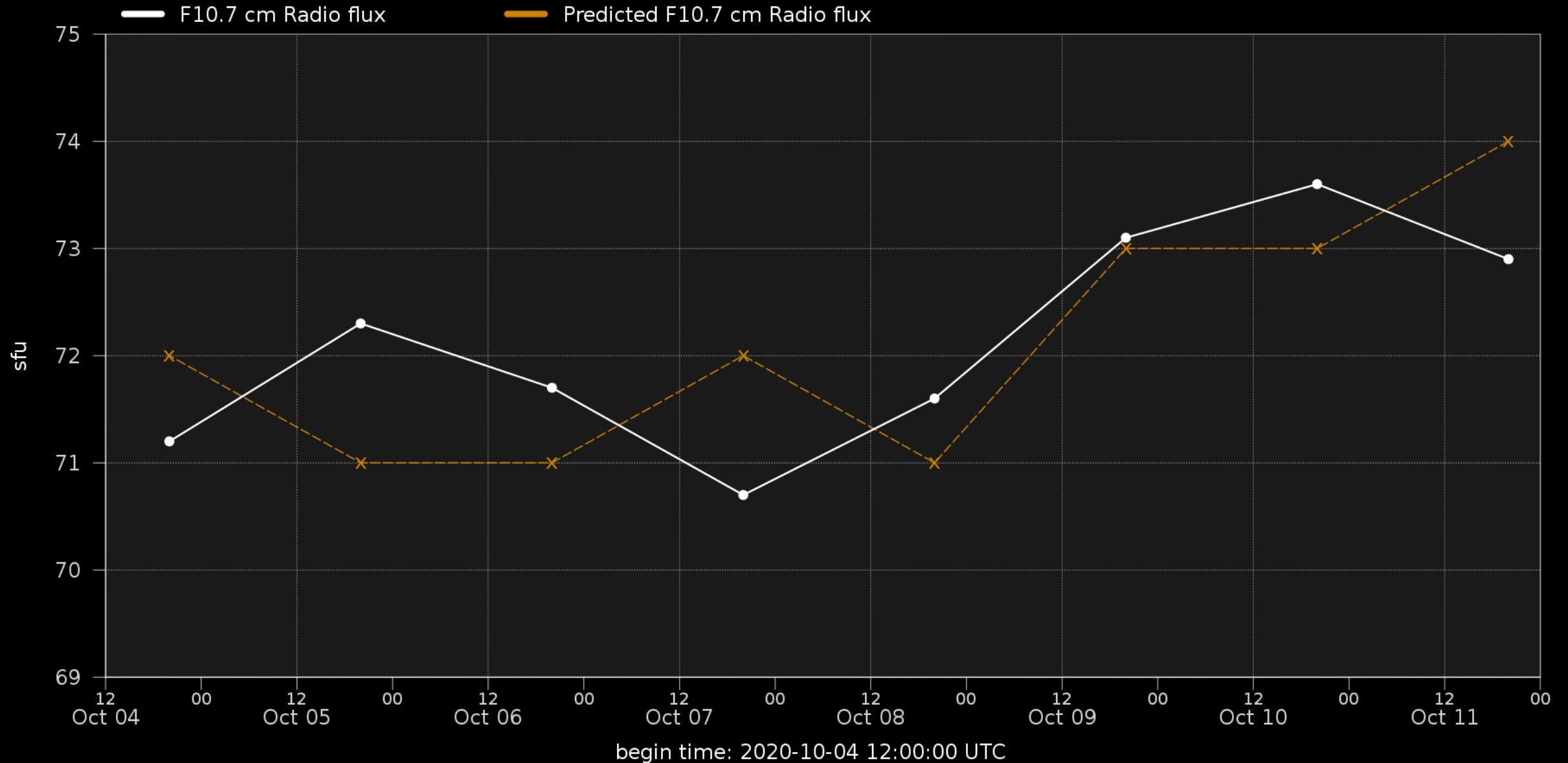


Filaments

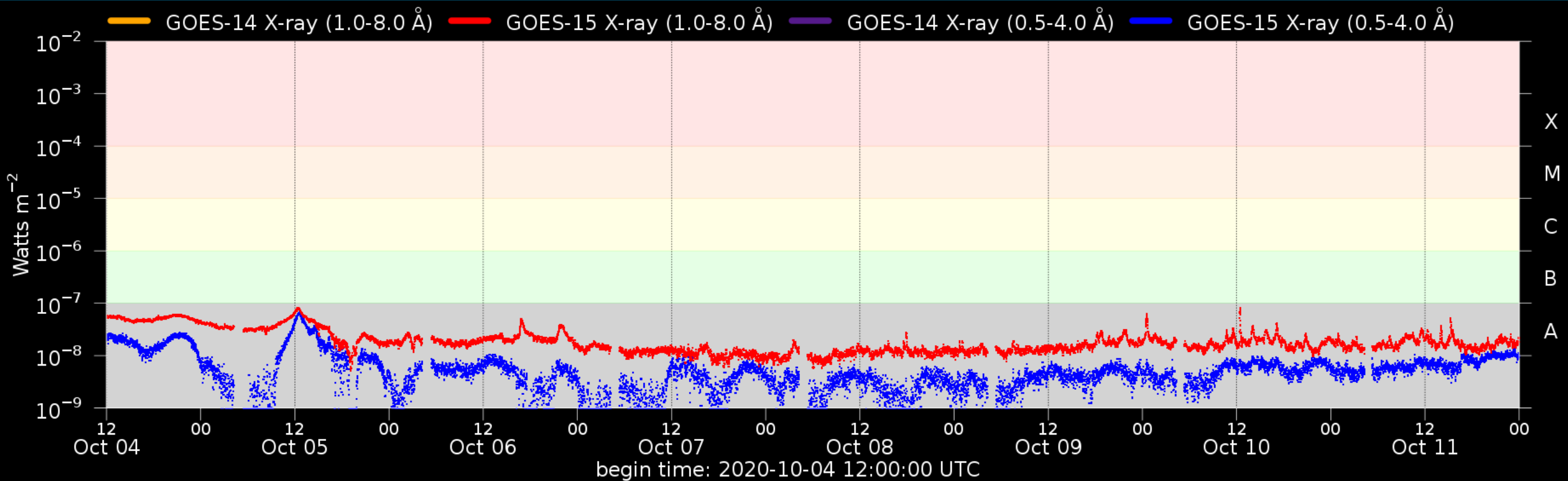
SDO/AIA 30.4 nm 2020-10-08



Solar F10.7cm radio flux



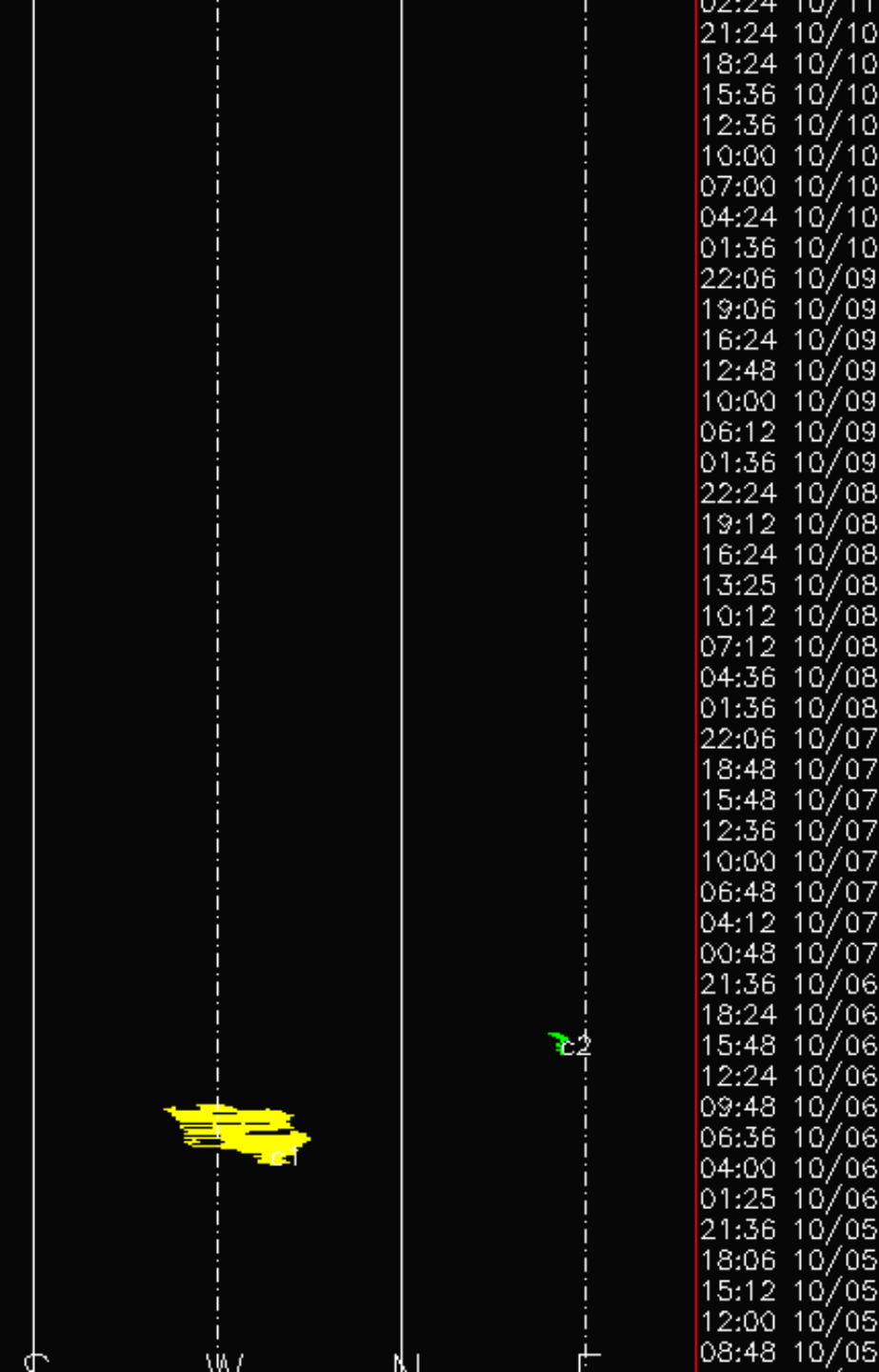
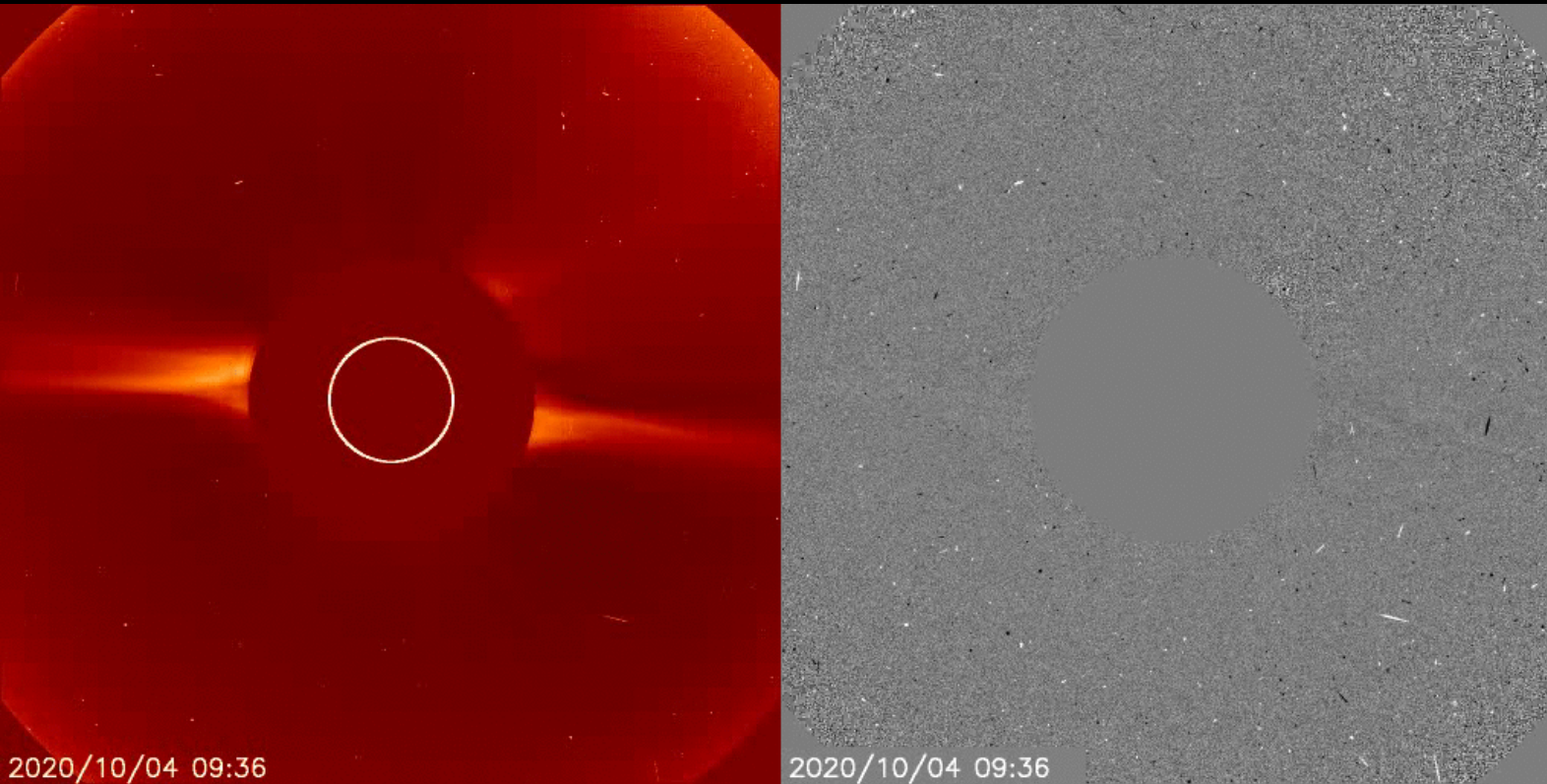
Flaring activity



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

Issue date	2020-10-04	2020-10-05	2020-10-06	2020-10-07	2020-10-08	2020-10-09	2020-10-10	2020-10-11
Probability	-- 01 01 01	-- 01 01 01	-- 01 01 01	-- 01 01 01	-- 01 01 01	-- 05 01 01	-- 05 01 01	-- 05 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 Ejections

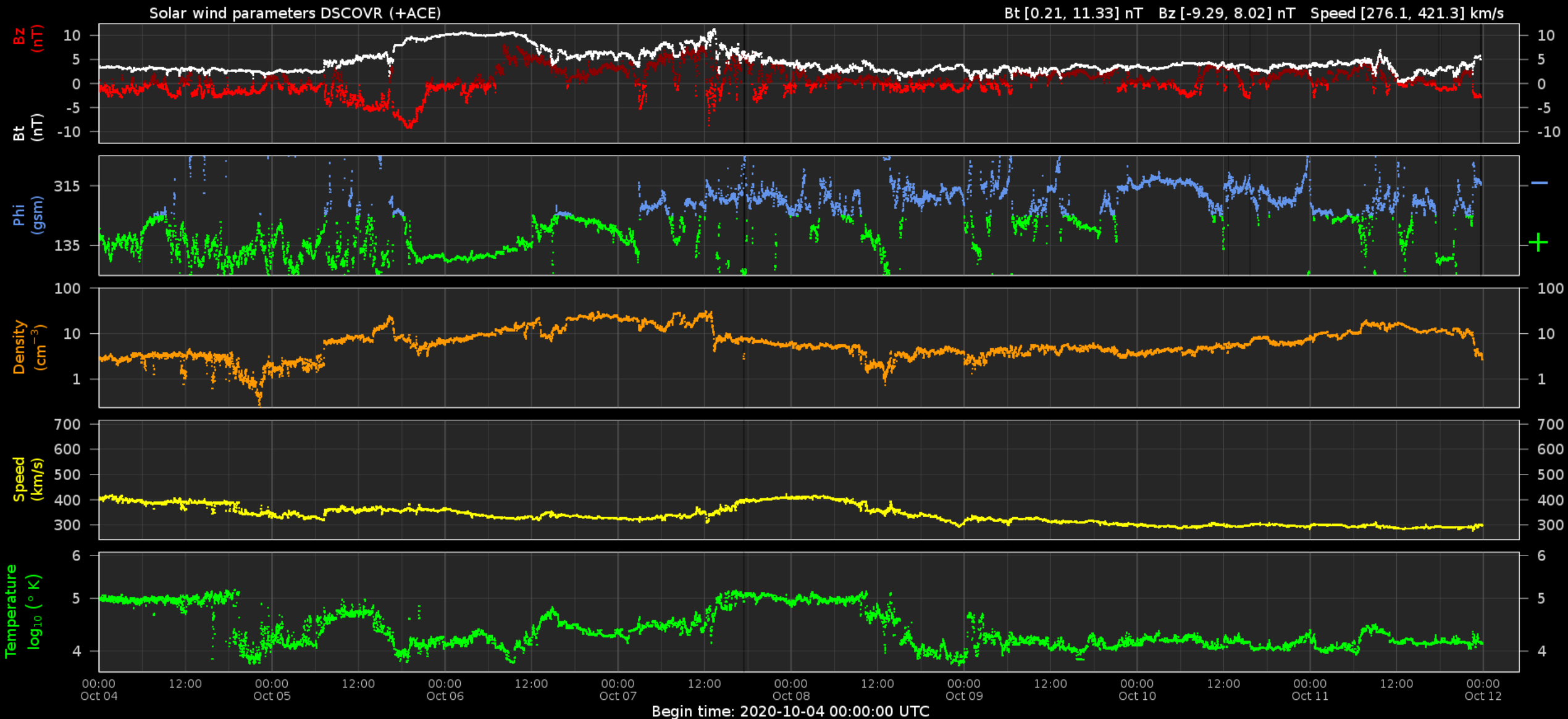


Solar Wind and Geomagnetic Activity

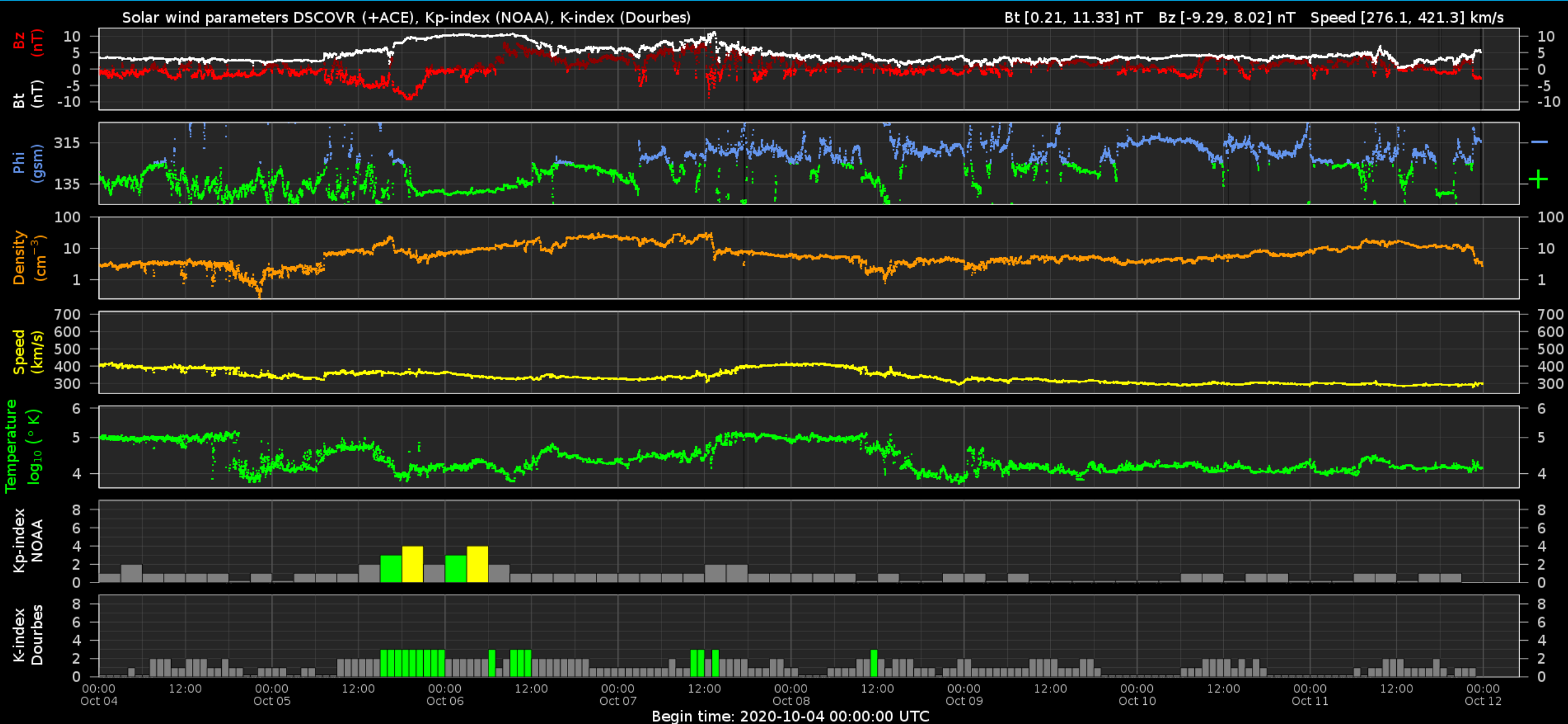


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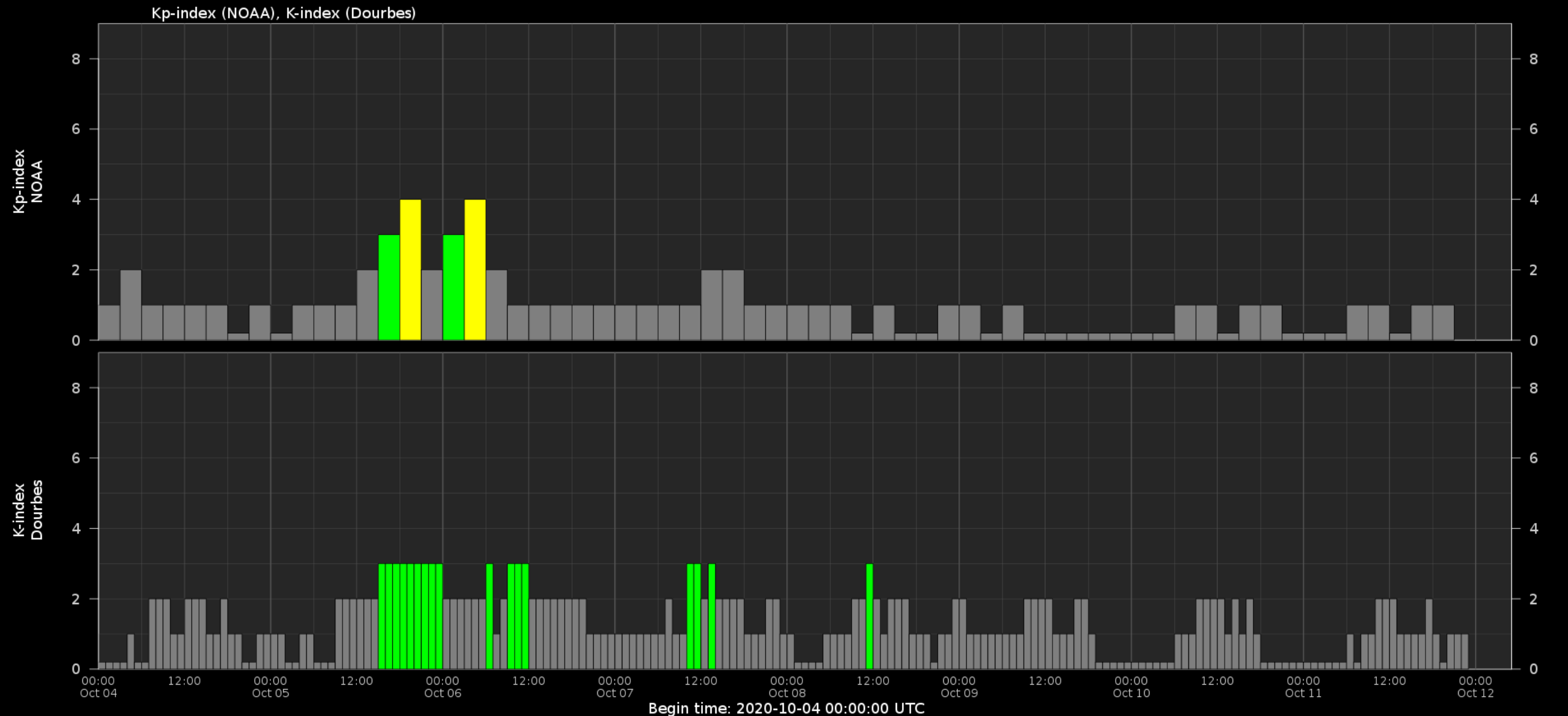
Solar wind parameters (DSCOVR data)



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



Geomagnetic activity (K-indexes)

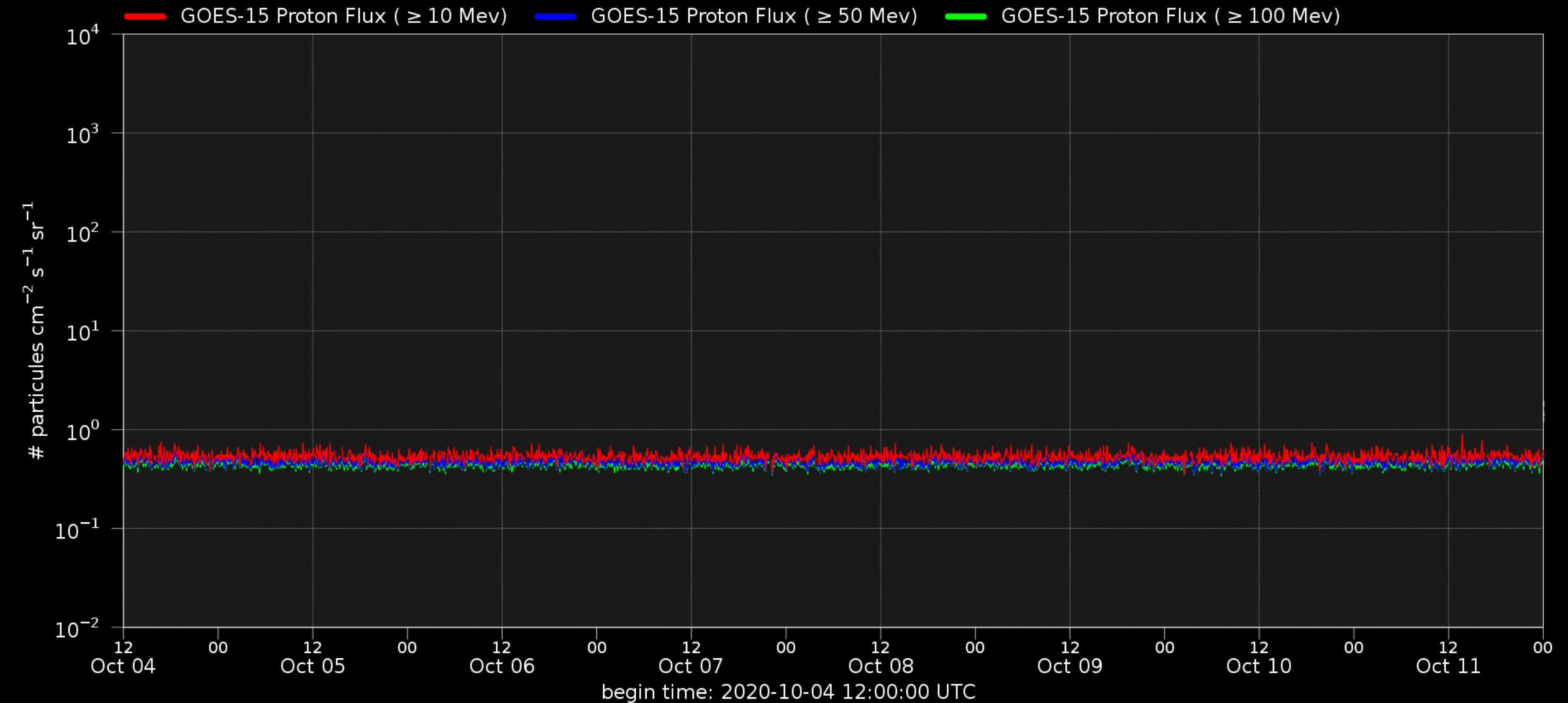


Solar Energetic Particles

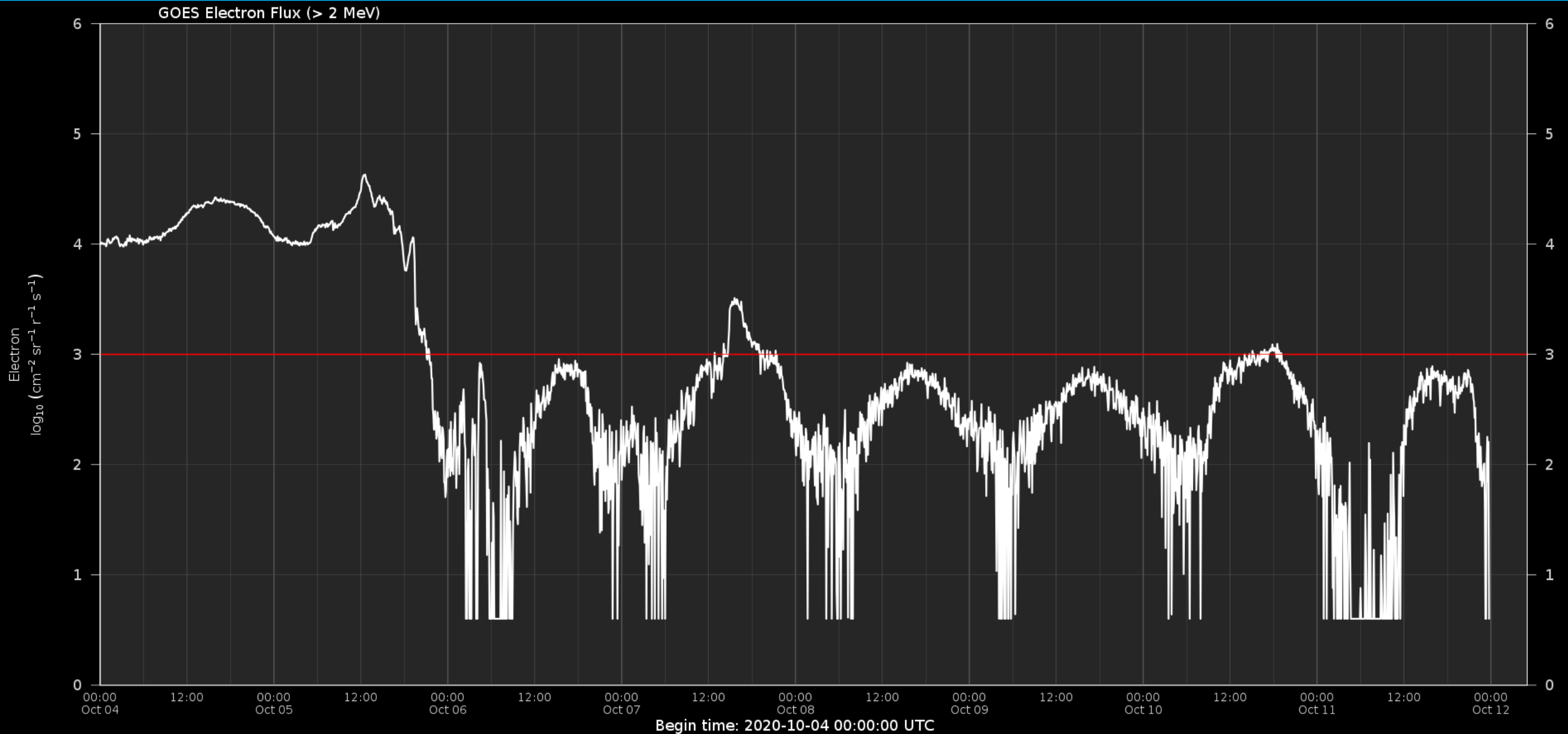


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Solar proton flux

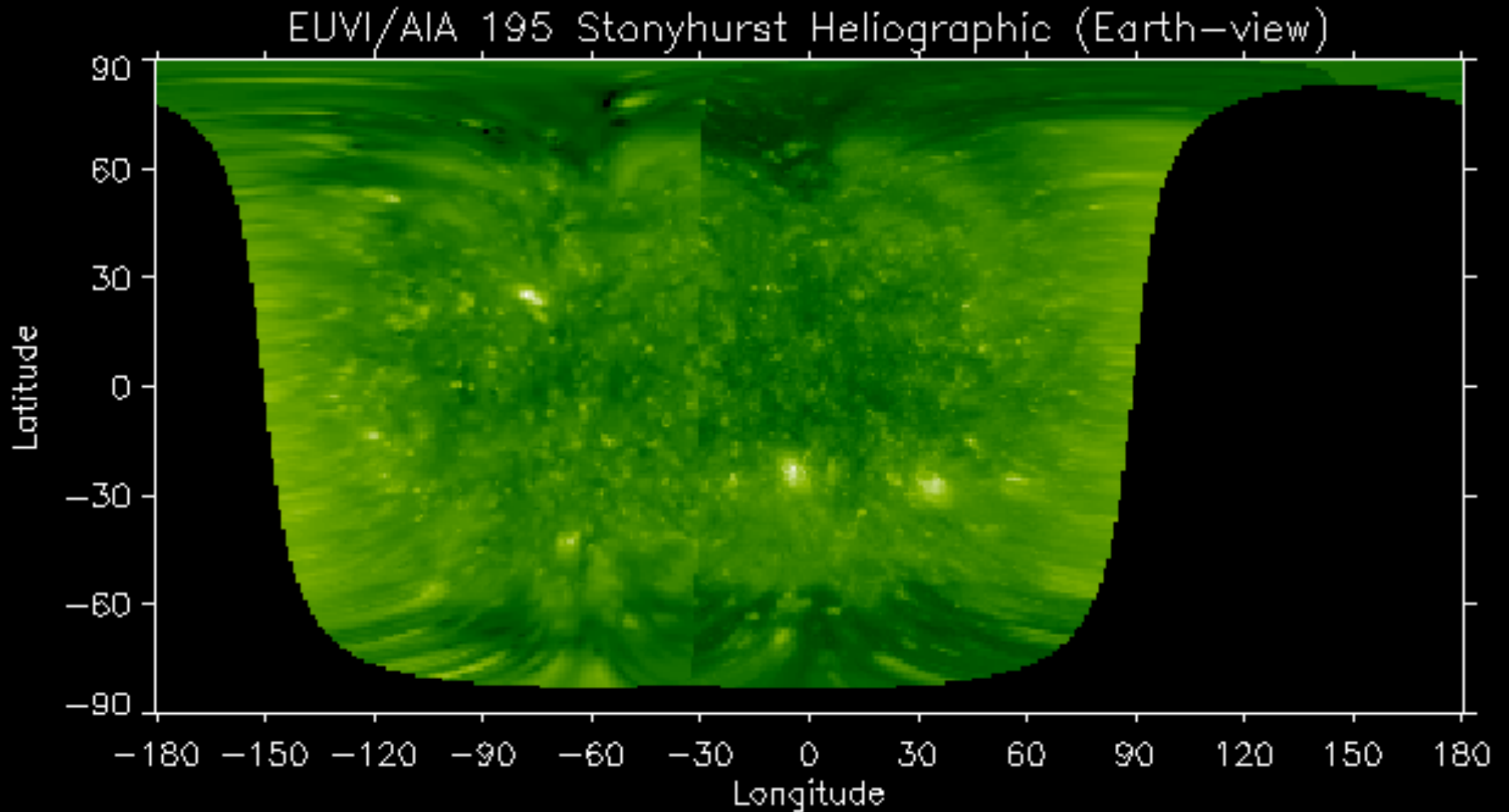


Solar electron flux

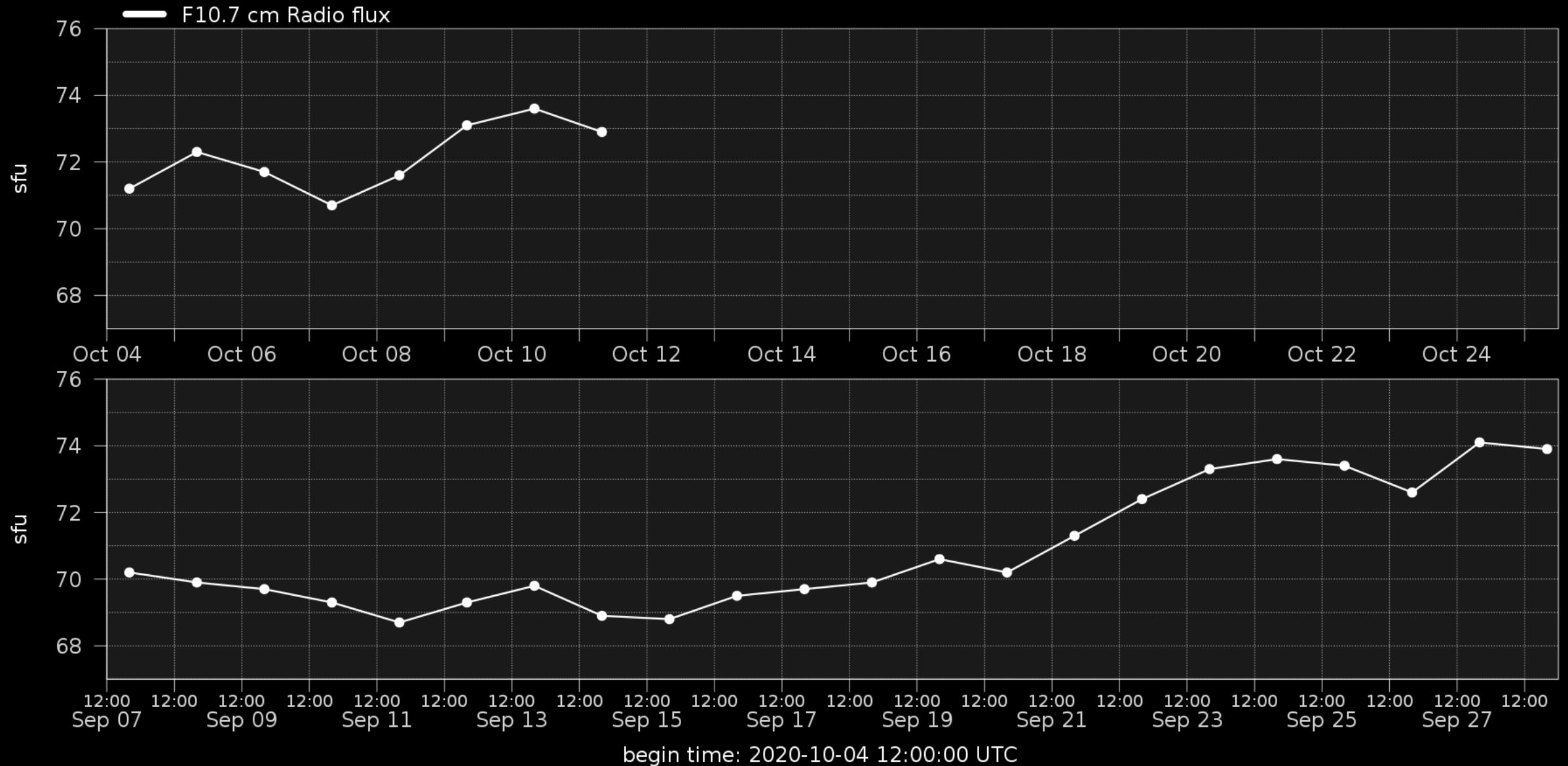


Outlook

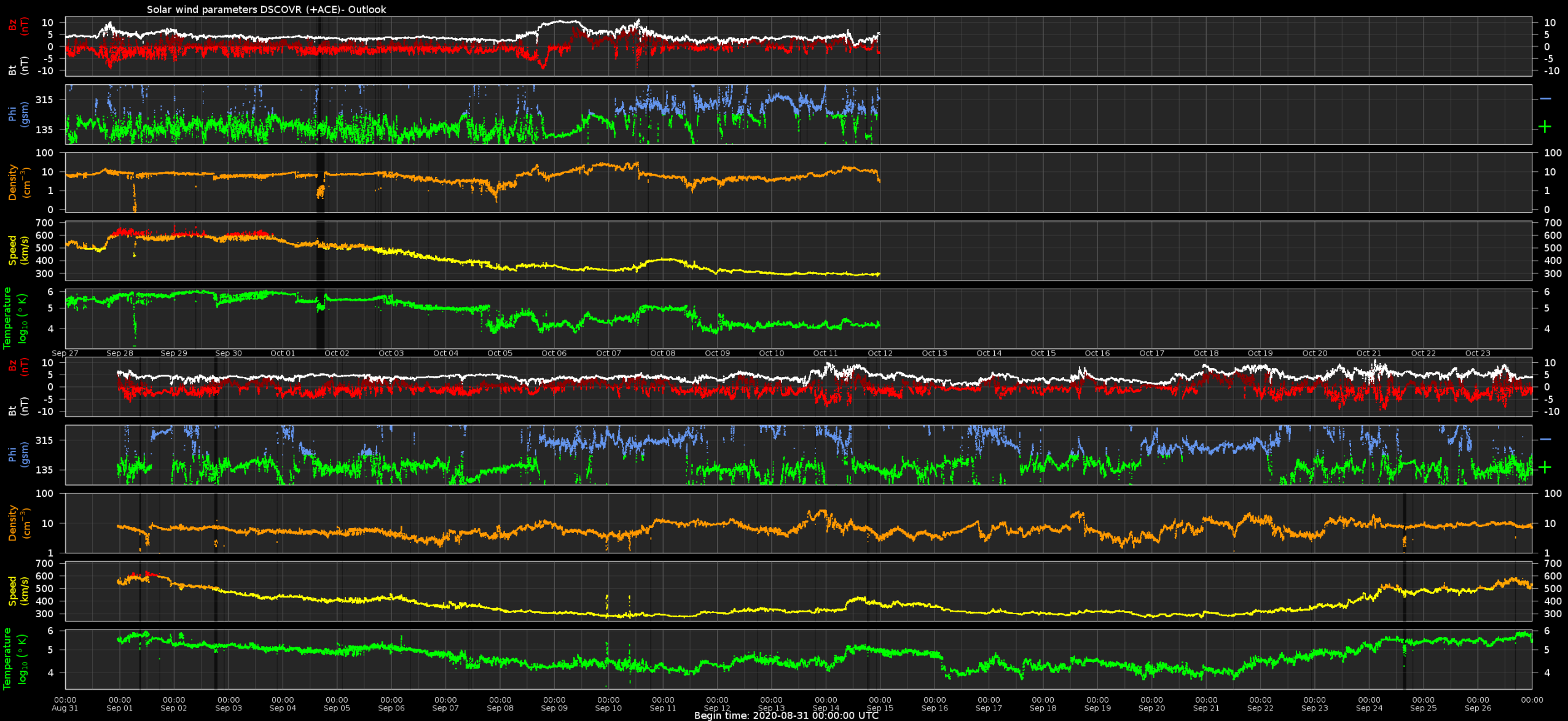
Outlook: Solar activity



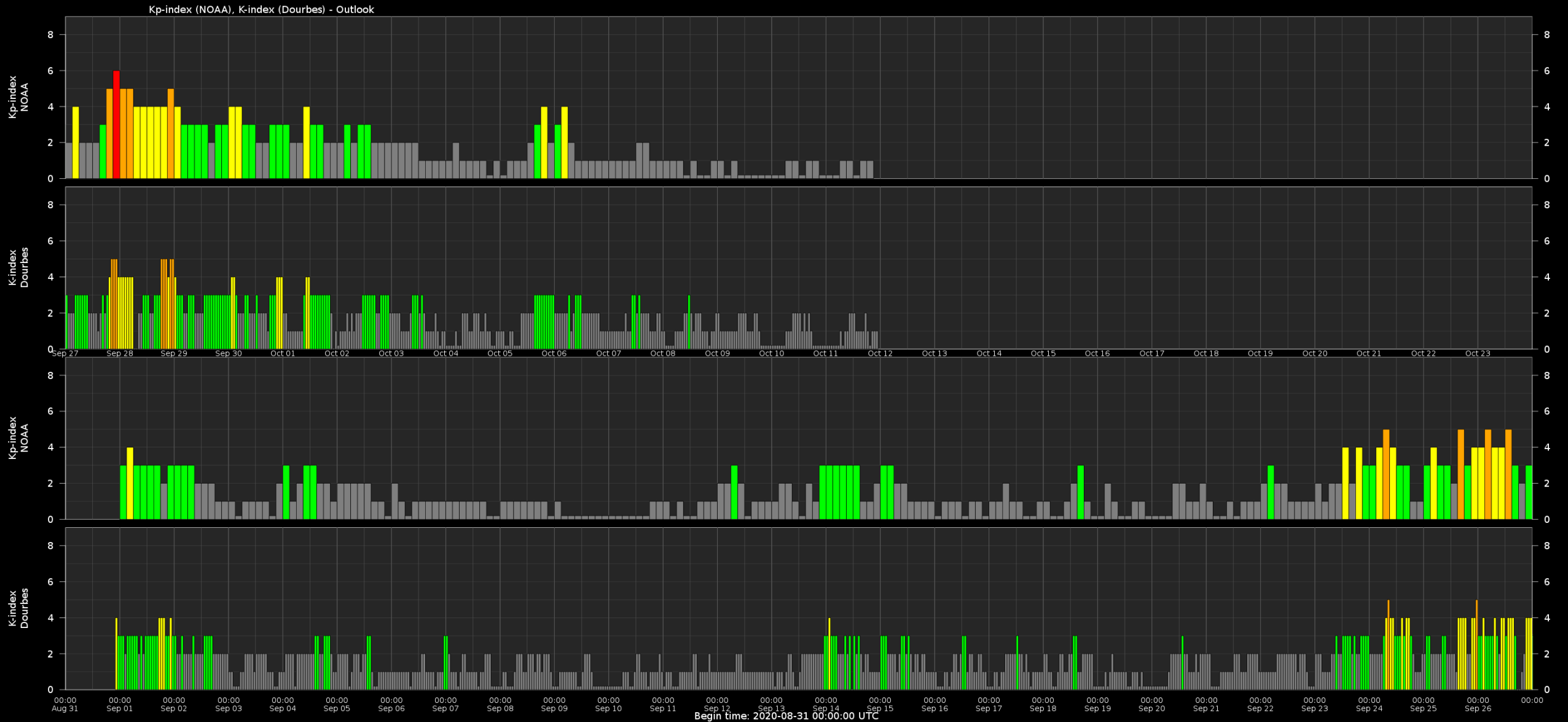
Outlook: F10 flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



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