

SIDC Space Weather Briefing

04 April 2021 - 11 April 2021

Konstantina Loumou

& the SIDC forecaster team



Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2021-04-04 12:00 to 2021-04-11 23:59

Active regions	Catania 54/ NOAA 12813, currently one in SE quadrant
Flares	# C-class flare: 0 # M-class flare: 0 # X-class flare: 0
Filament eruptions	None of importance
Coronal Holes	North: 1 positive(effects on April 13-14) South: 1 negative (effects on April 11)

Proton flux	Background levels
Electron flux	Below 1000 pfu threshold

Solar wind and geomagnetic conditions

ICME	Possible ICME seen in Stereo A on March 31. None during this week.
SW Conditions	B : 0.3 - 15.57 nT // Bz: -13.04 nT to 14.53 nT // Speed: 279.2 - 523.8km/s
K-indices	max K-index (Dourbes): 4 max Kp-index (NOAA): 5

All Quiet Alert: Off on April 7.

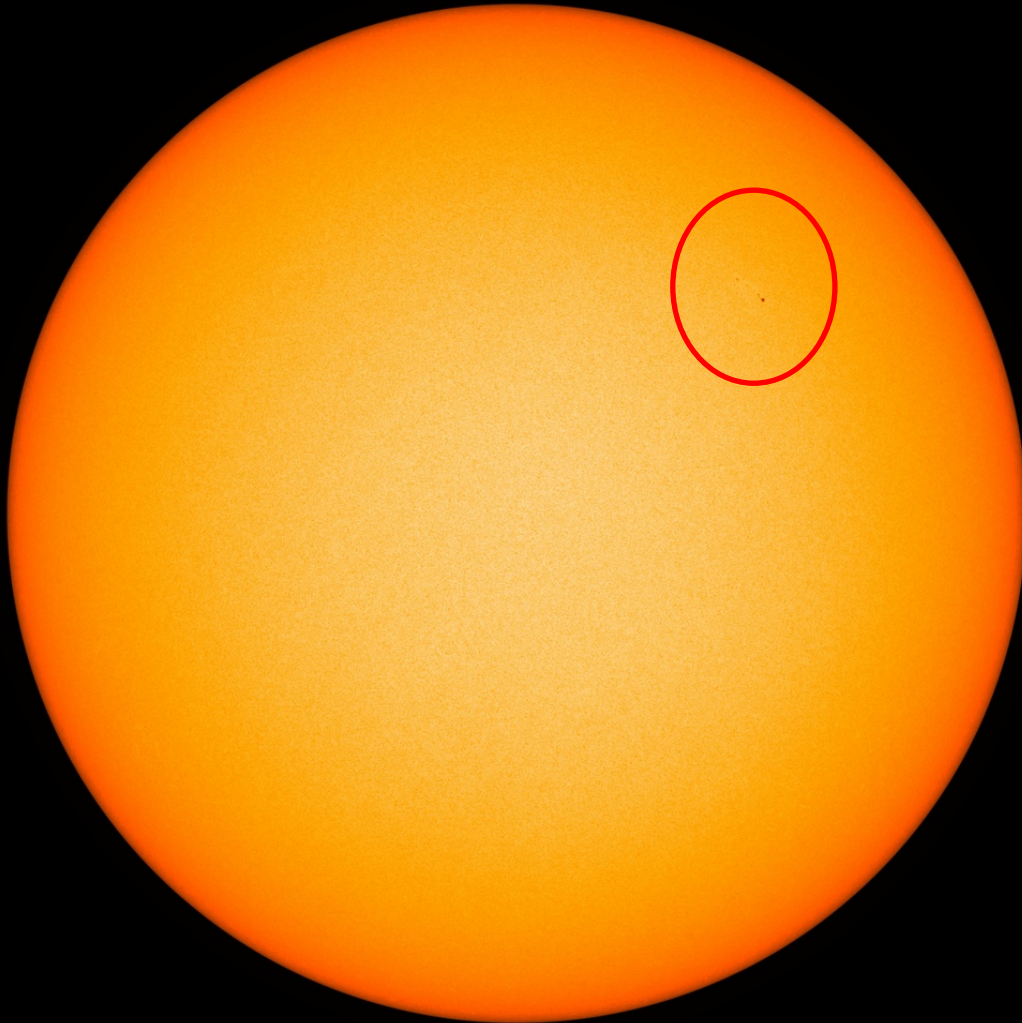
Solar Activity



Solar Influences
Data analysis Centre
www.sidc.be

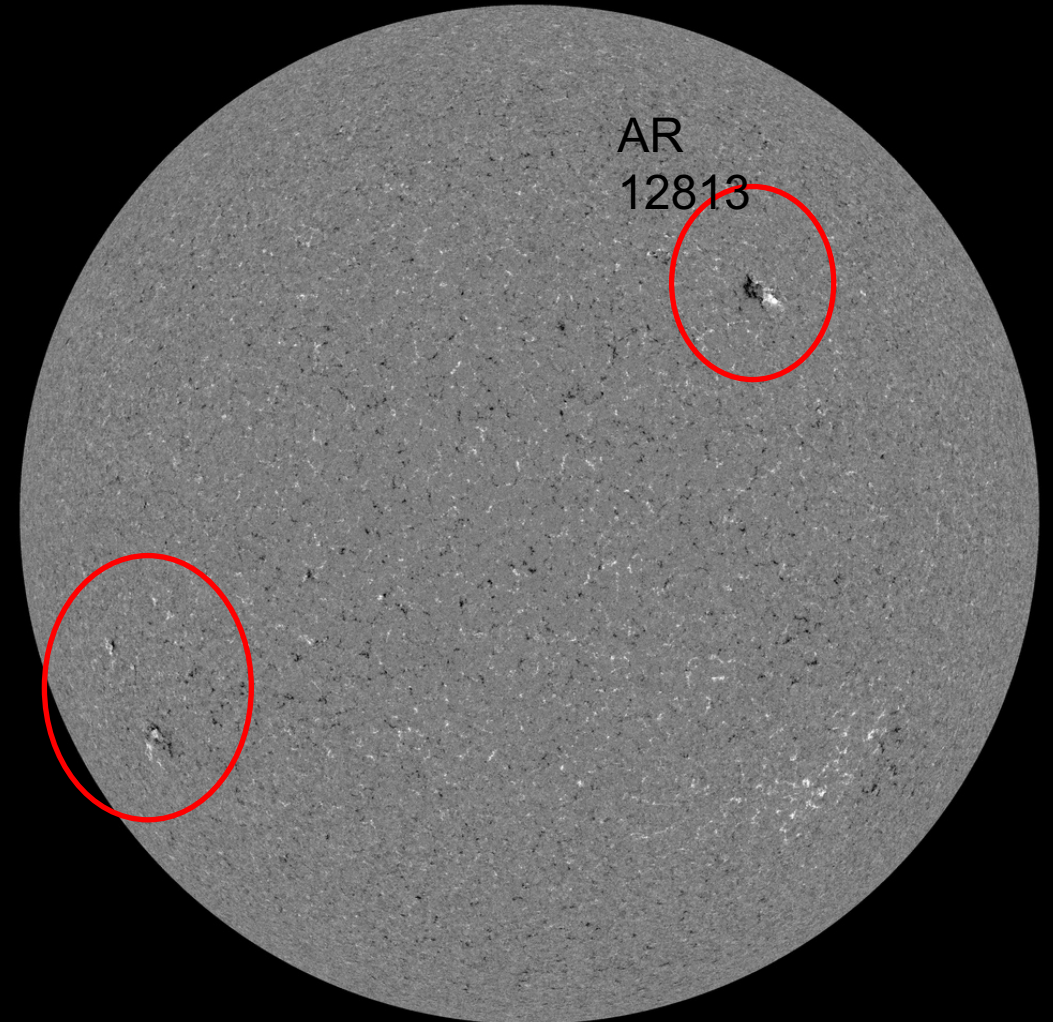
Solar active regions

SDO/HMI White Light 2021-04-04



SDO/HMI Quick-Look Continuum: 20210404_120000

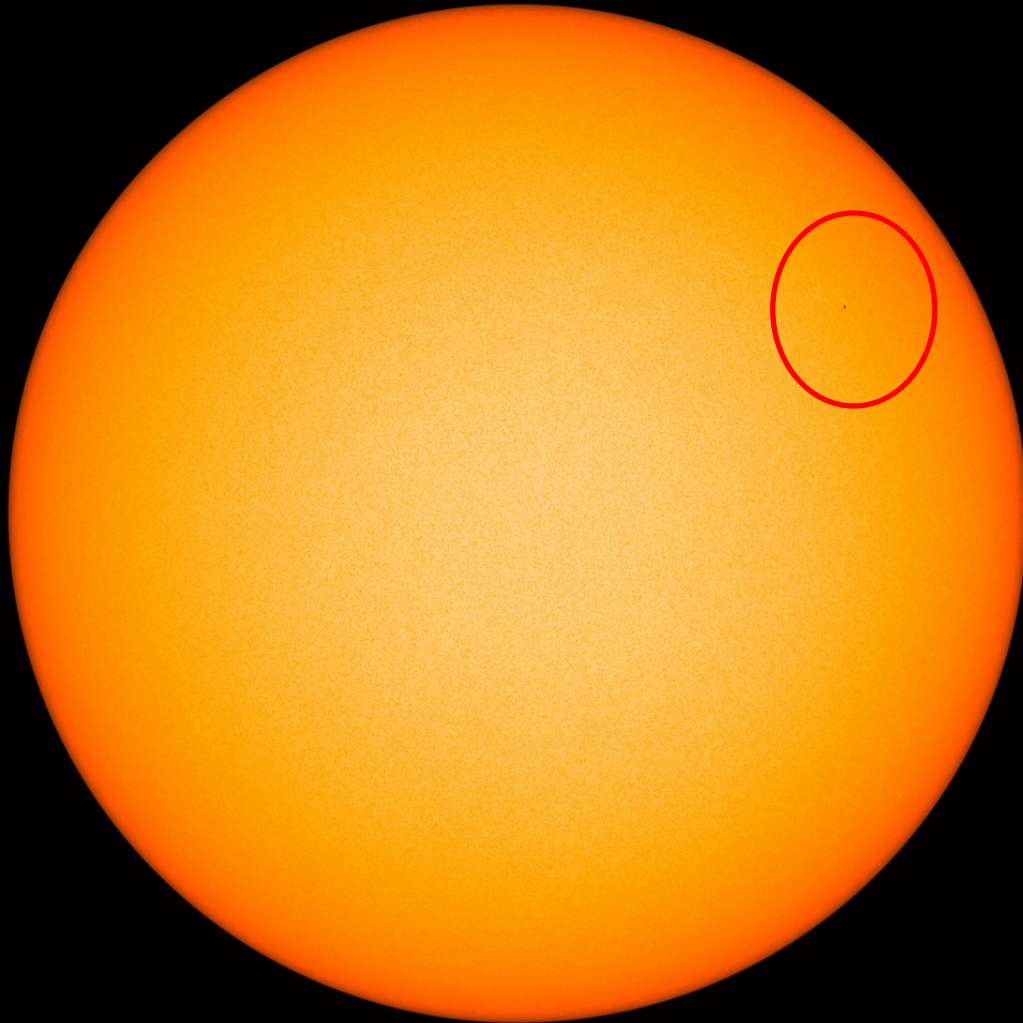
SDO/HMI Magnetogram 2021-04-04



SDO/HMI Quick-Look Magnetogram: 20210404_114500

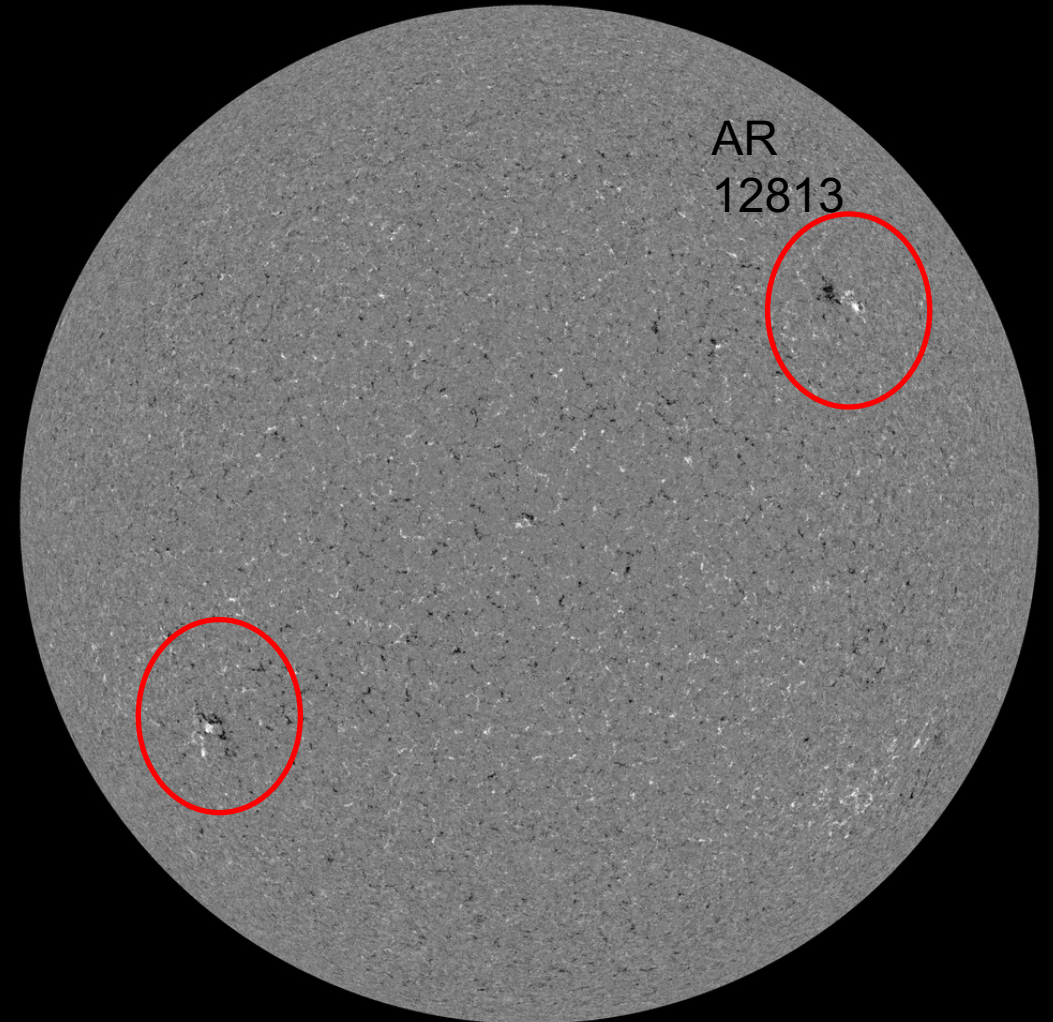
Solar active regions

SDO/HMI White Light 2021-04-05



SDO/HMI Quick-Look Continuum: 20210405_081500

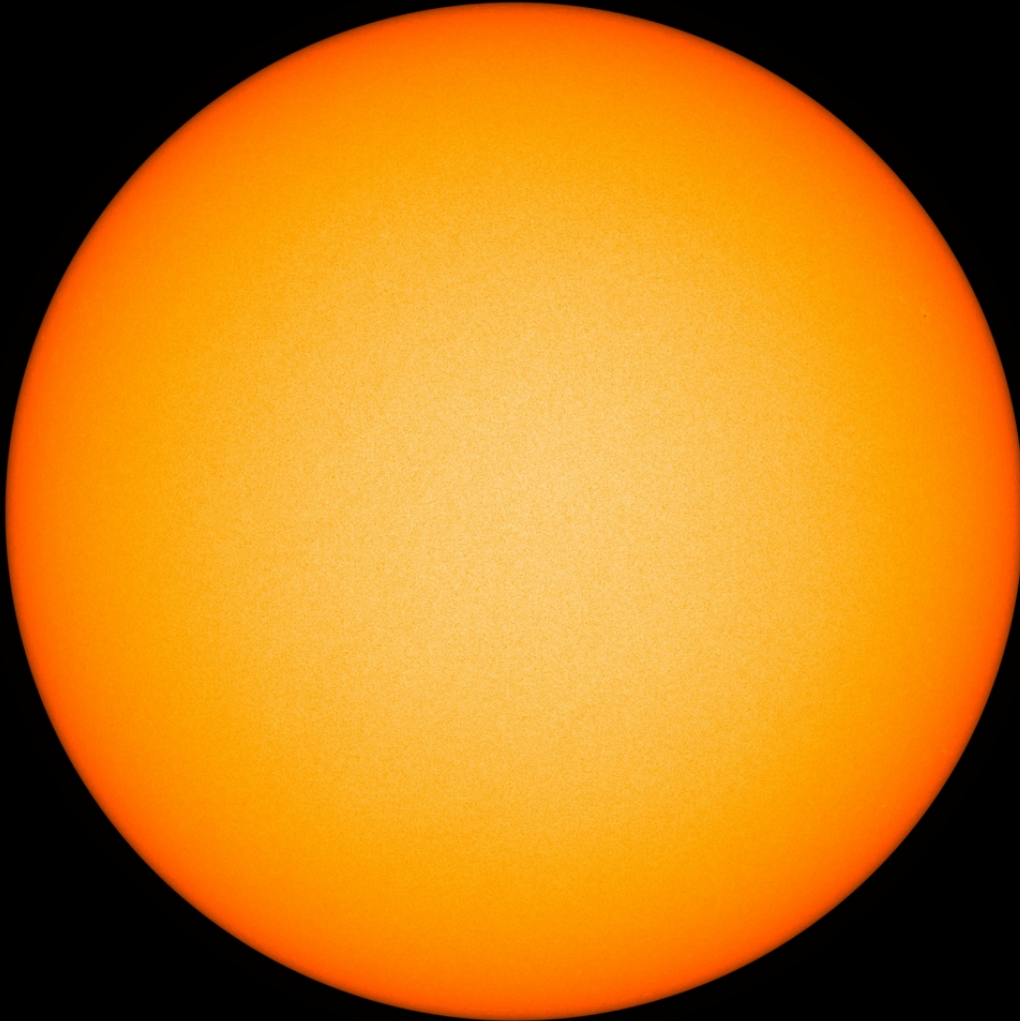
SDO/HMI Magnetogram 2021-04-05



SDO/HMI Quick-Look Magnetogram: 20210405_081500

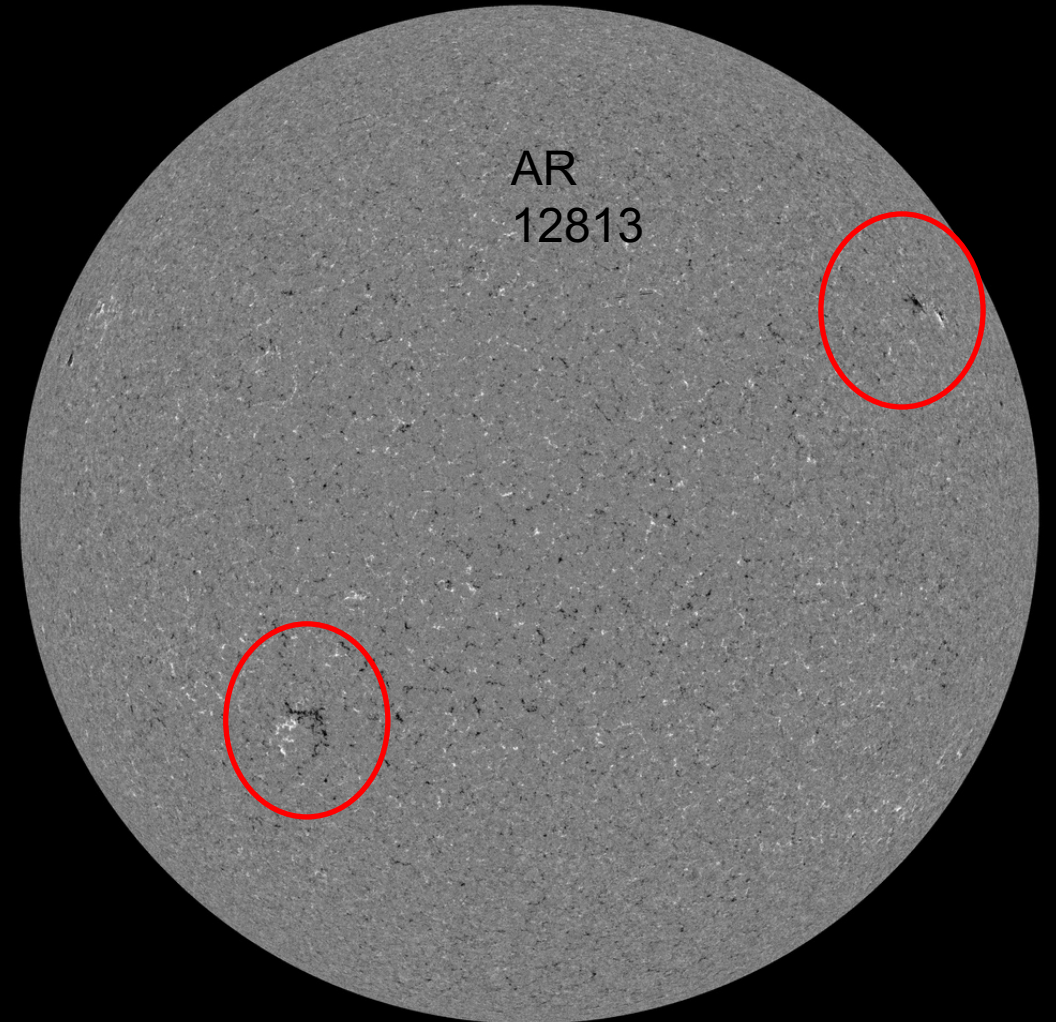
Solar active regions

SDO/HMI White Light 2021-04-06



SDO/HMI Quick-Look Continuum: 20210406_114500

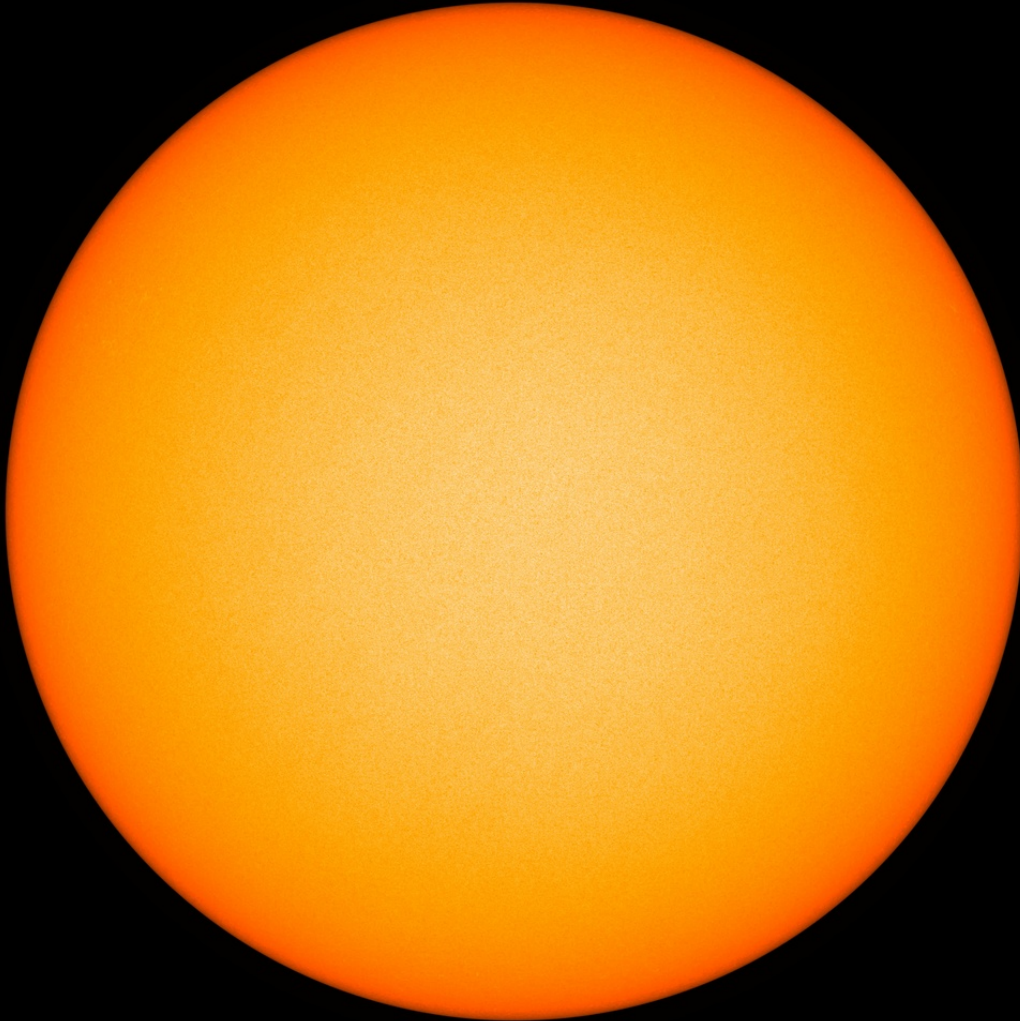
SDO/HMI Magnetogram 2021-04-06



SDO/HMI Quick-Look Magnetogram: 20210406_114500

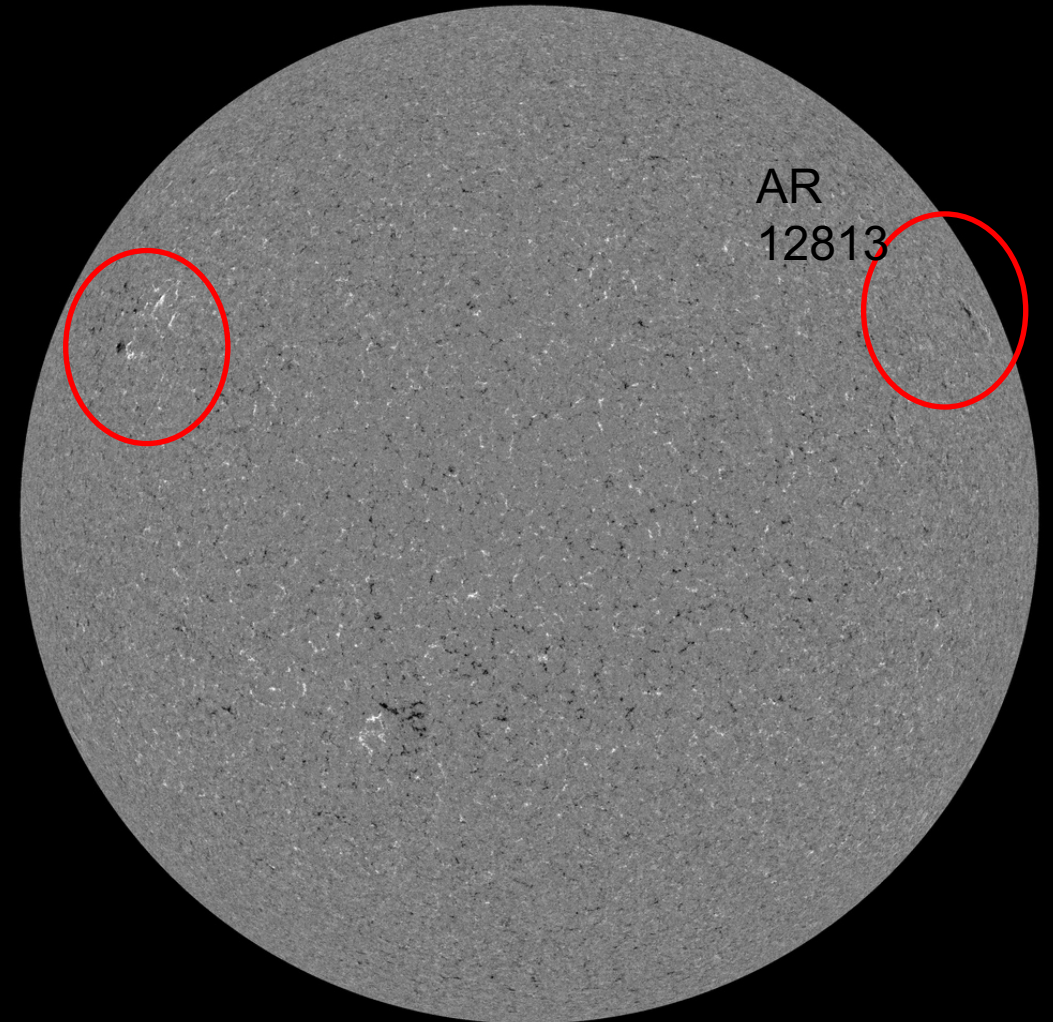
Solar active regions

SDO/HMI White Light 2021-04-07



SDO/HMI Quick-Look Continuum: 20210407_114500

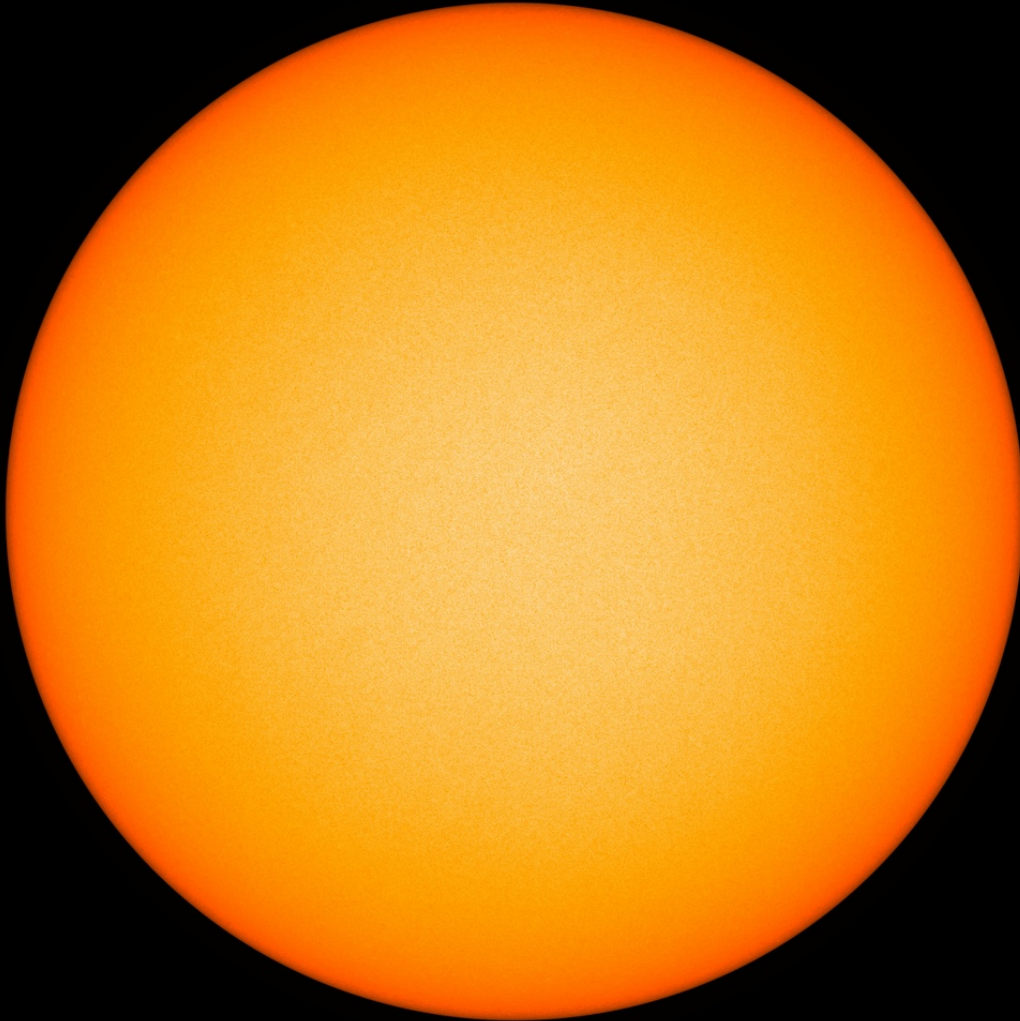
SDO/HMI Magnetogram 2021-04-07



SDO/HMI Quick-Look Magnetogram: 20210407_114500

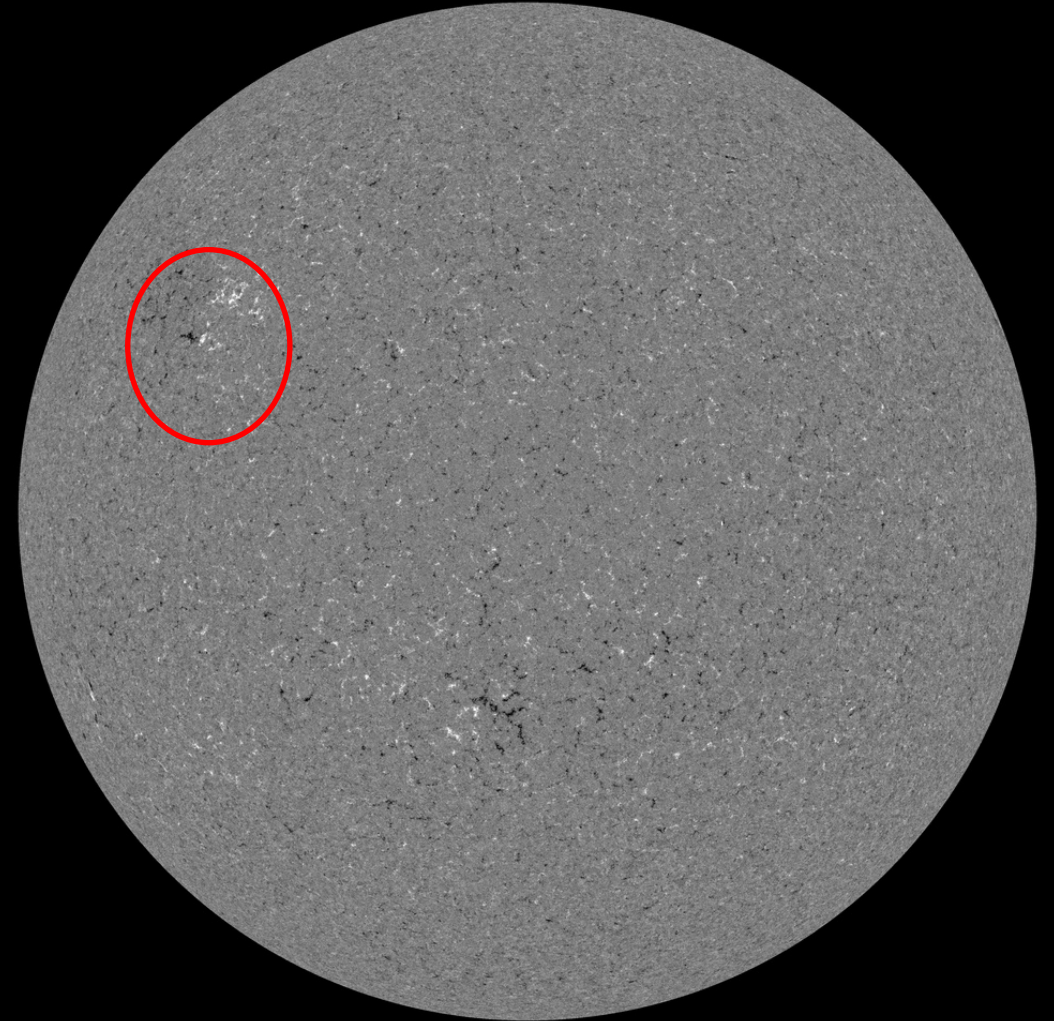
Solar active regions

SDO/HMI White Light 2021-04-08



SDO/HMI Quick-Look Continuum: 20210408_120000

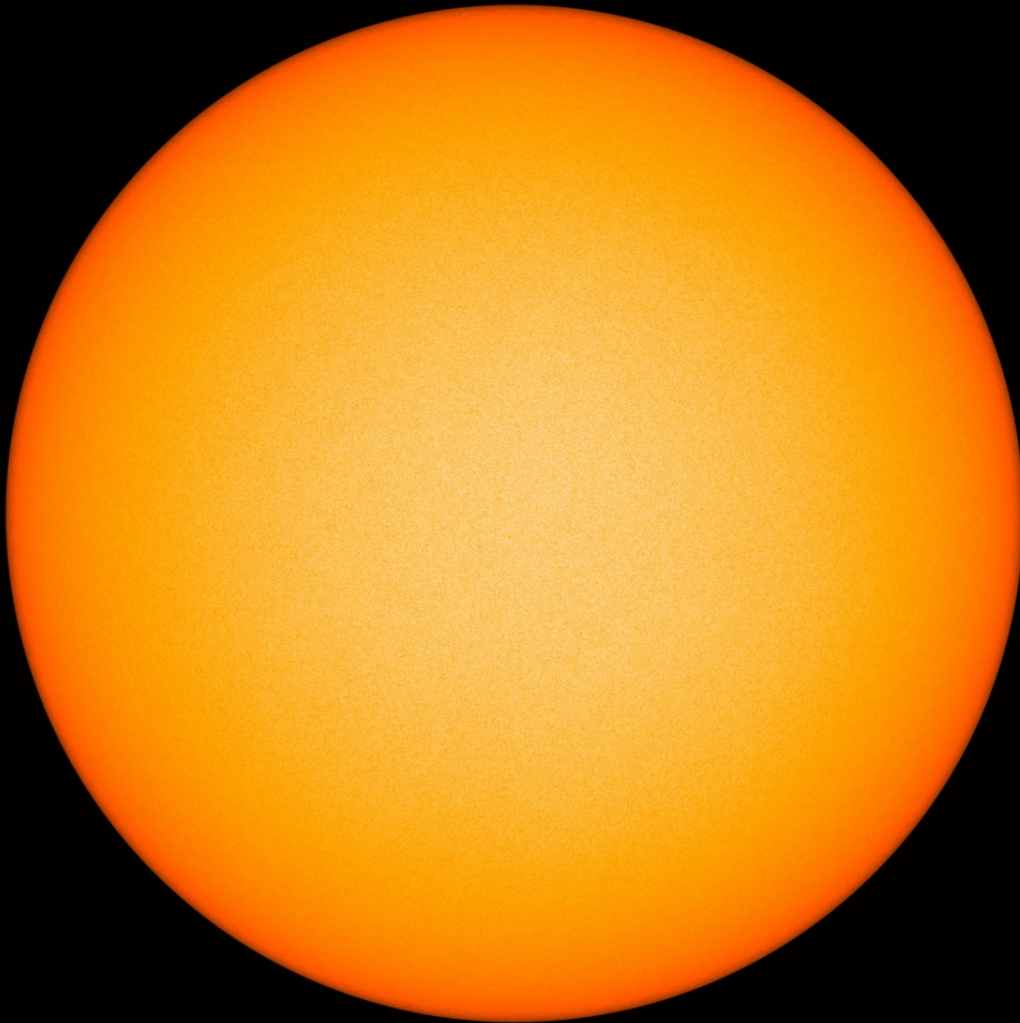
SDO/HMI Magnetogram 2021-04-08



SDO/HMI Quick-Look Magnetogram: 20210408_114500

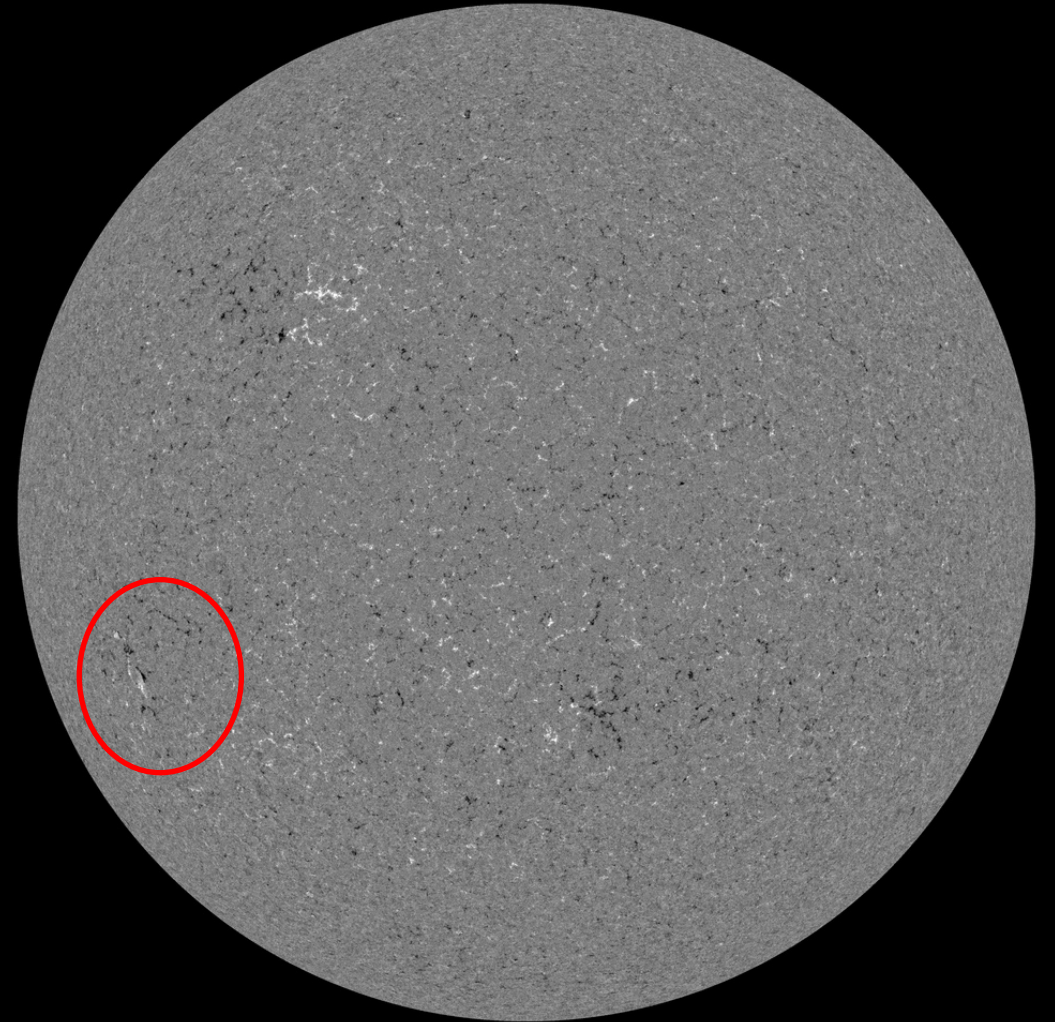
Solar active regions

SDO/HMI White Light 2021-04-09



SDO/HMI Quick-Look Continuum: 20210409_114500

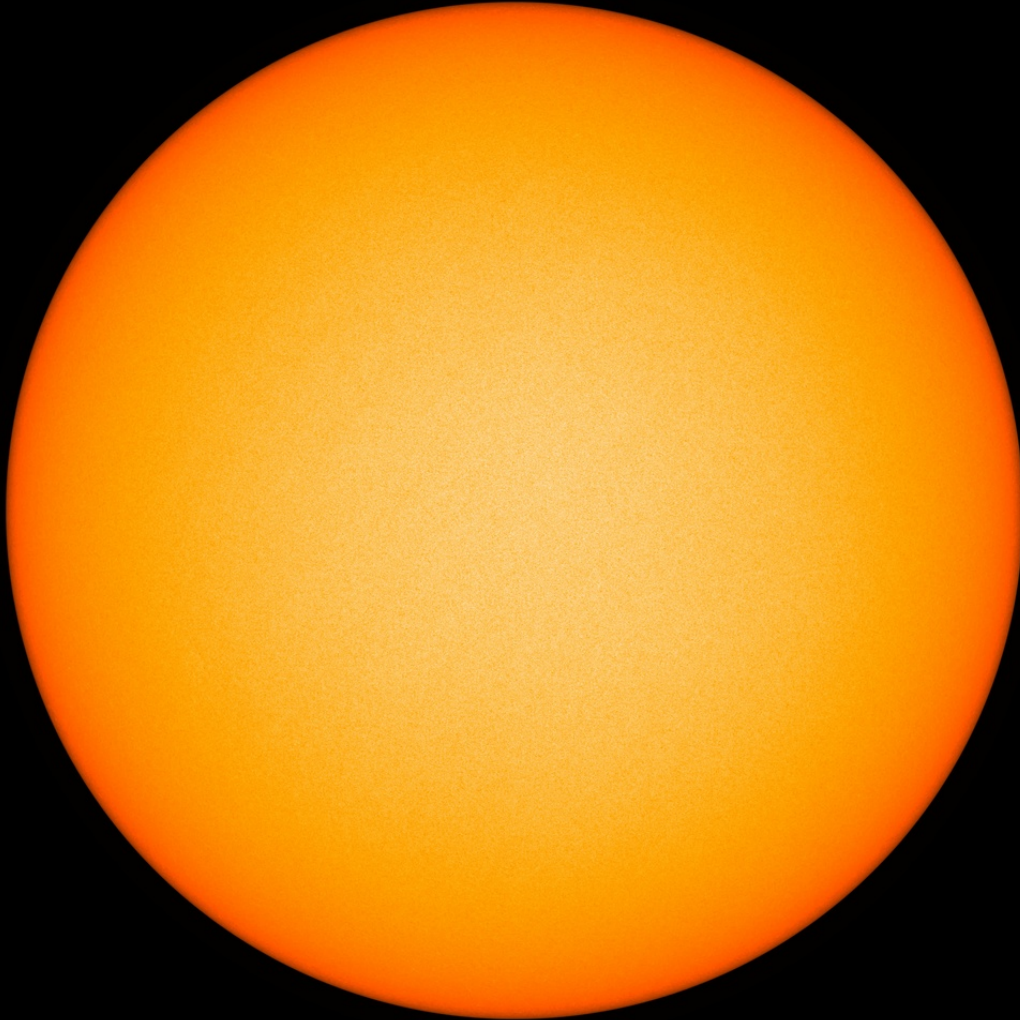
SDO/HMI Magnetogram 2021-04-09



SDO/HMI Quick-Look Magnetogram: 20210409_114500

Solar active regions

SDO/HMI White Light 2021-04-10



SDO/HMI Quick-Look Continuum: 20210410_114500

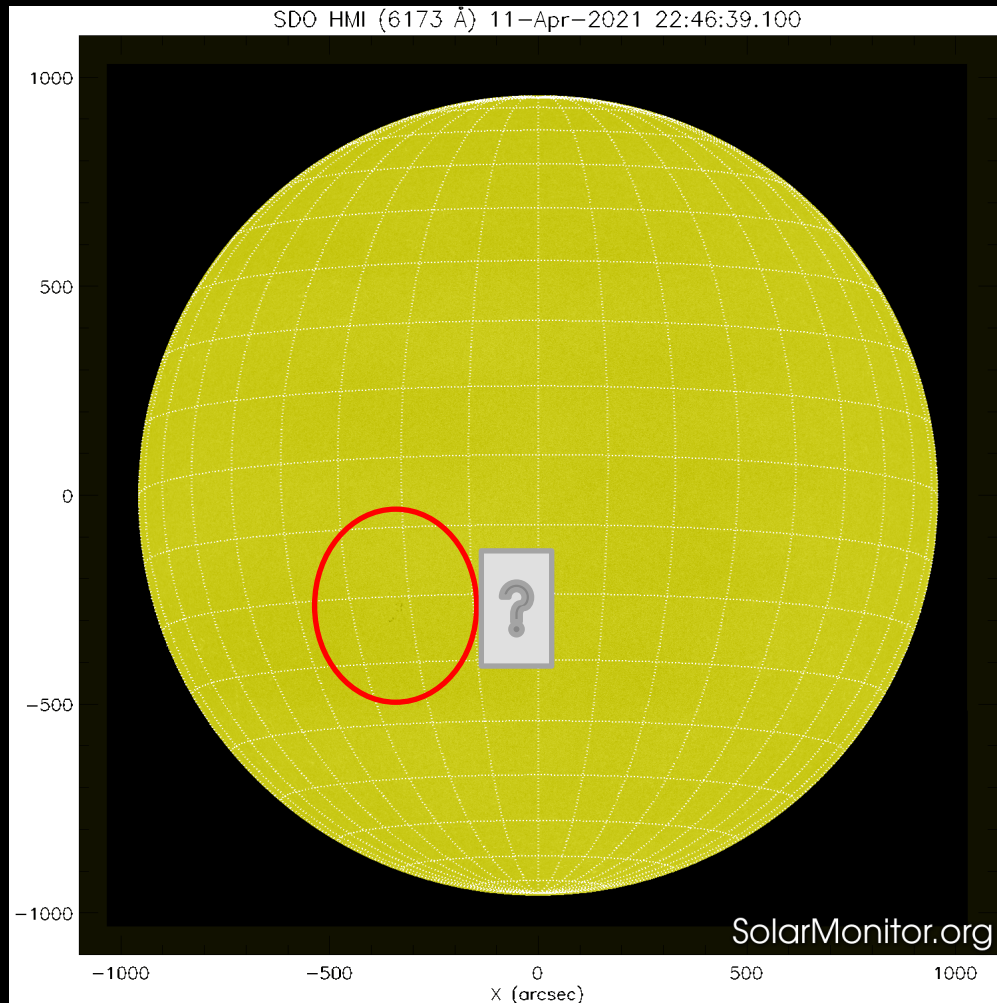
SDO/HMI Magnetogram 2021-04-10



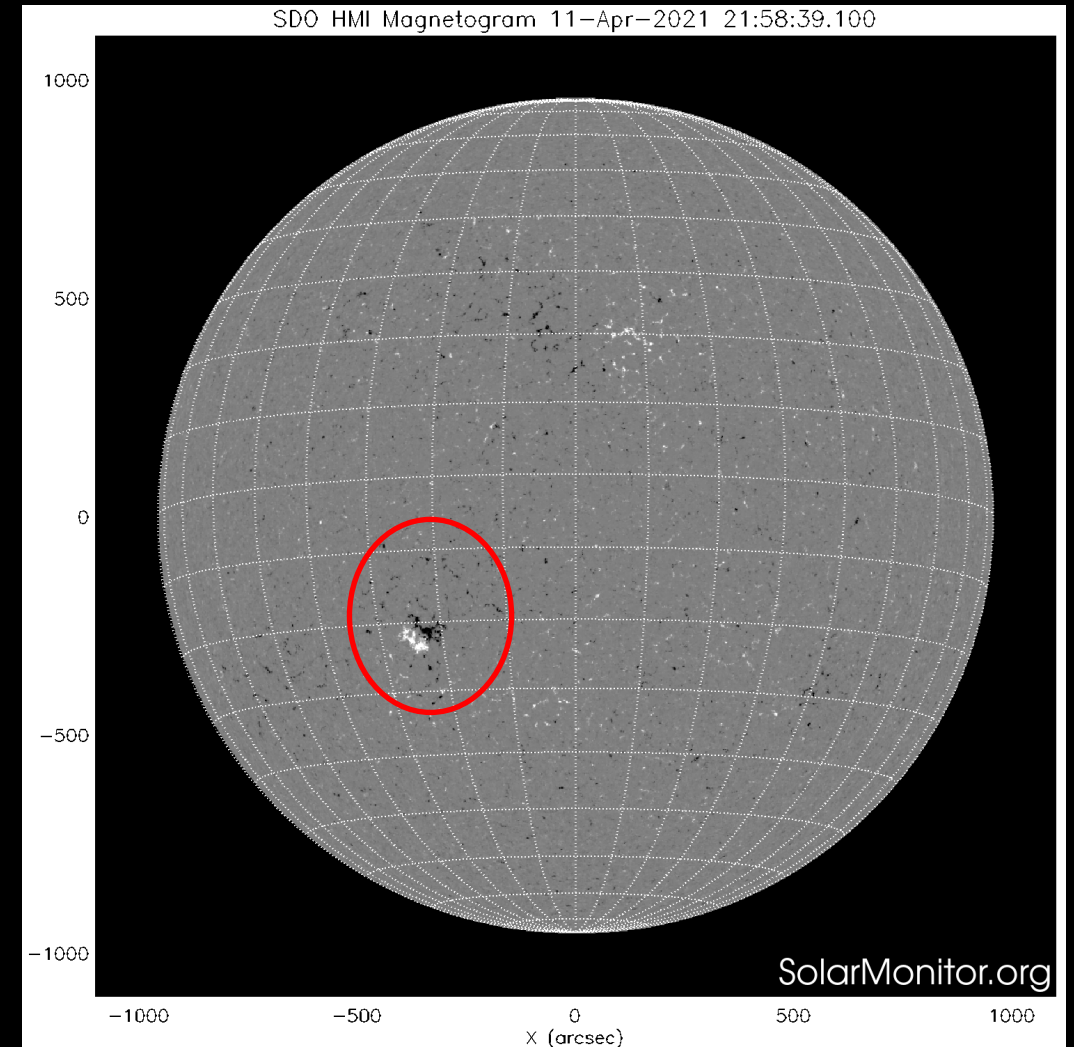
SDO/HMI Quick-Look Magnetogram: 20210410_114500

Solar active regions

SDO/HMI White Light 2021-04-11

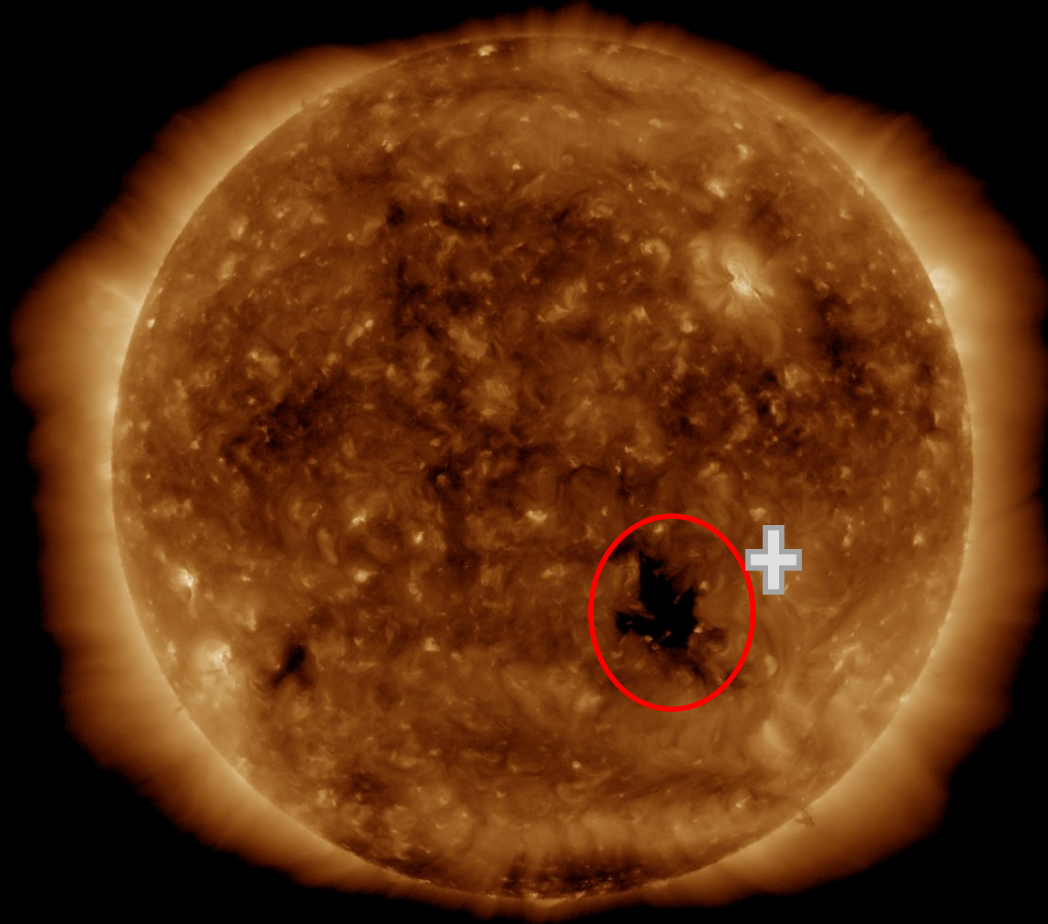


SDO/HMI Magnetogram 2021-04-11



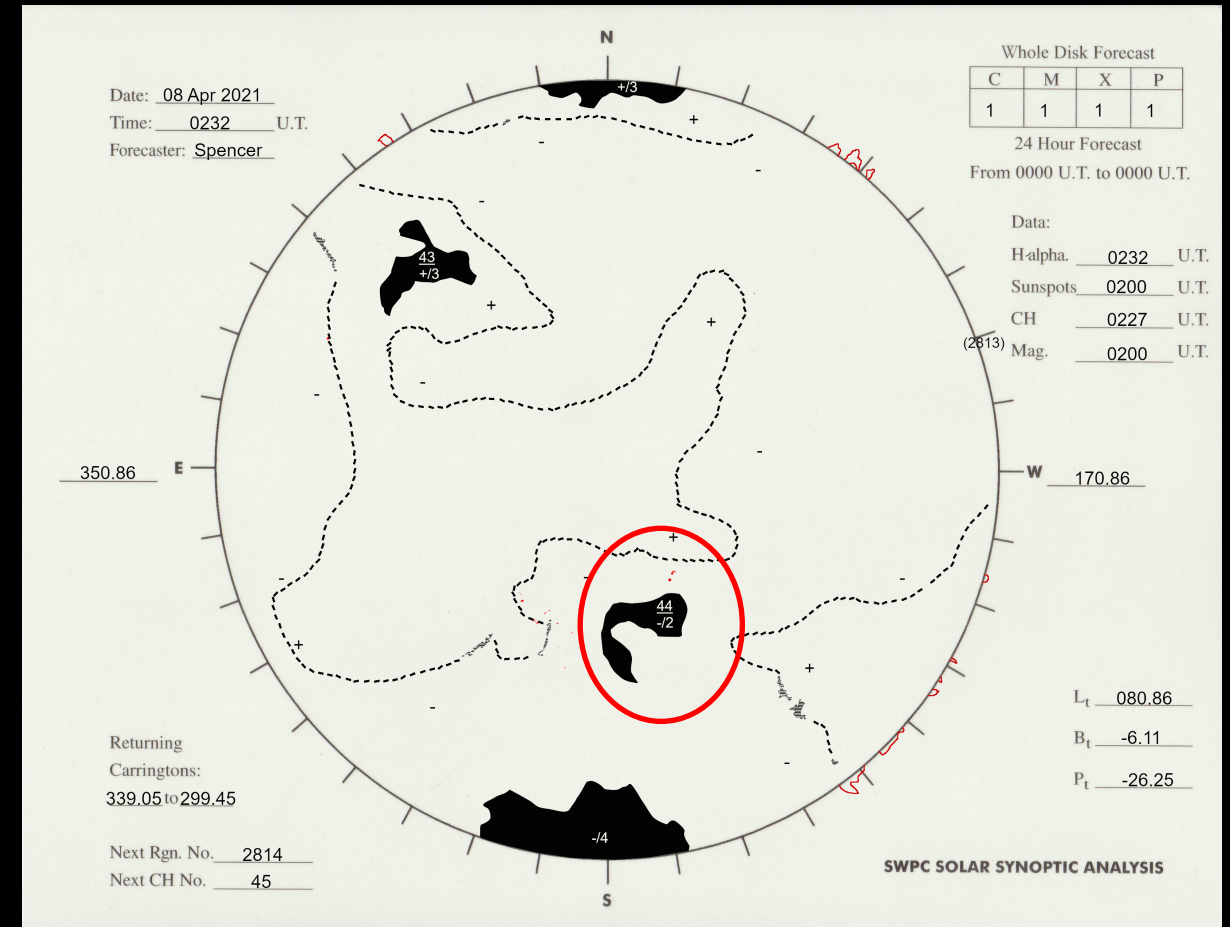
Coronal holes

SDO/AIA 19.3 nm 2021-04-04



SDO/AIA 193 2021-04-04 12:17:41 UT

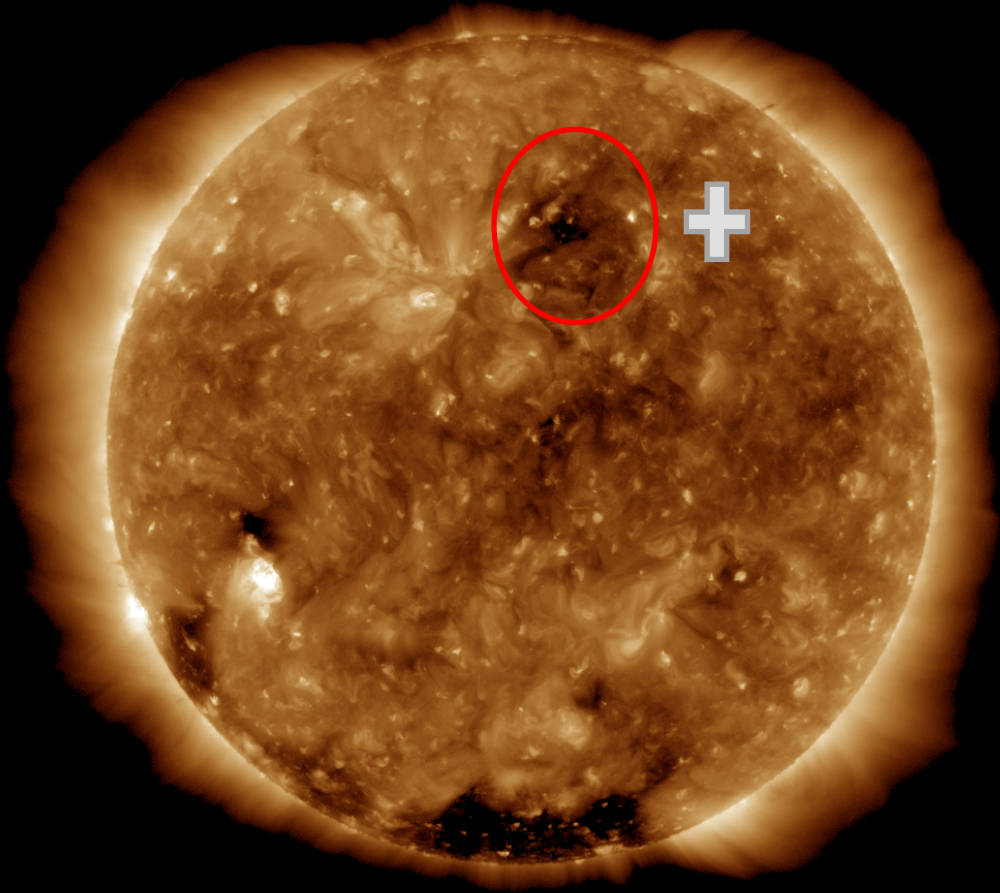
SDO/AIA 19.3 nm 2021-04-08



Coronal holes

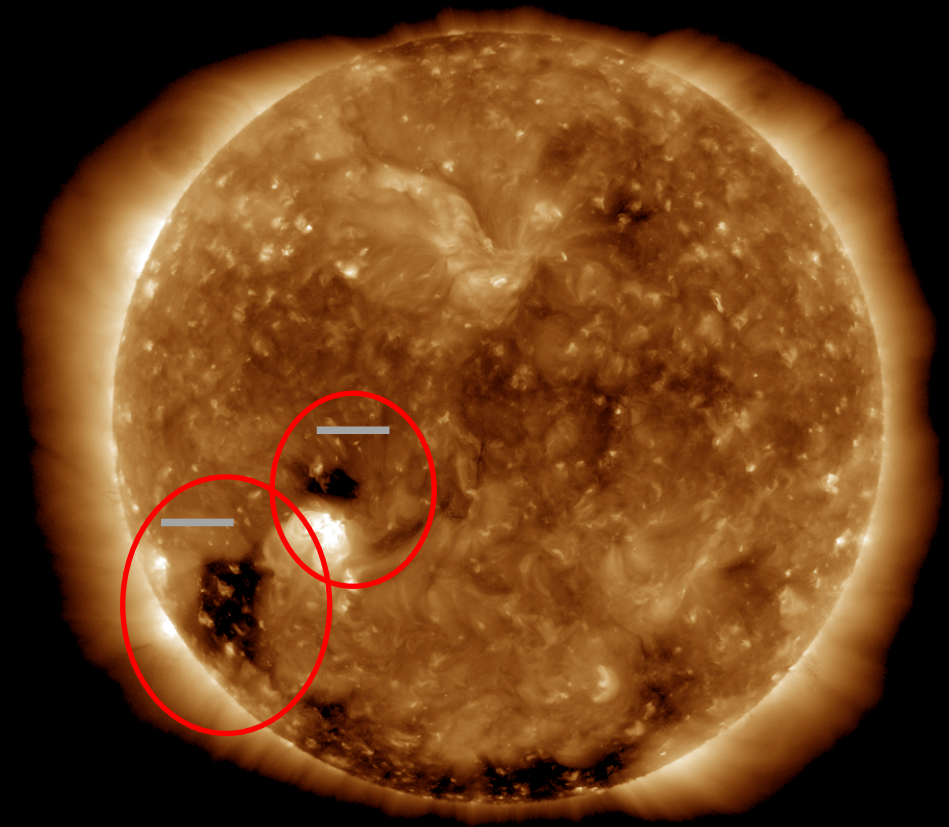
SDO/AIA 19.3 nm 2021-04-10

SDO/AIA AIA 193Å 2021-04-10T14:00:05.843



SDO/AIA 19.3 nm 2021-04-11

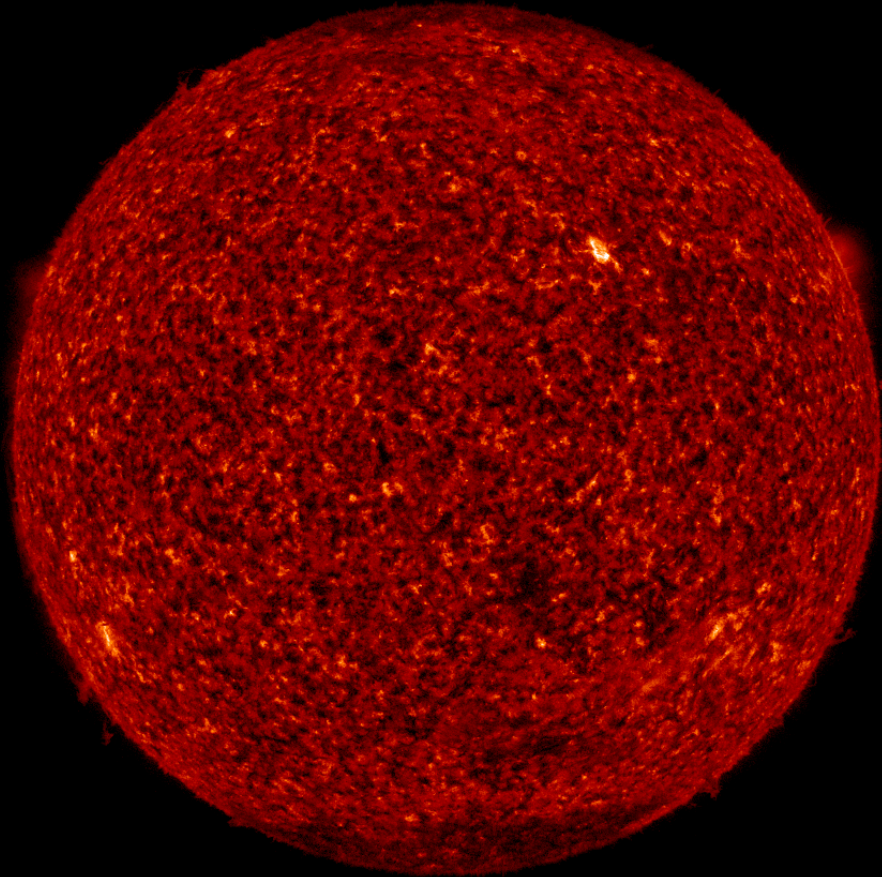
SDO/AIA AIA 193Å 2021-04-11T14:00:05.843



Filaments

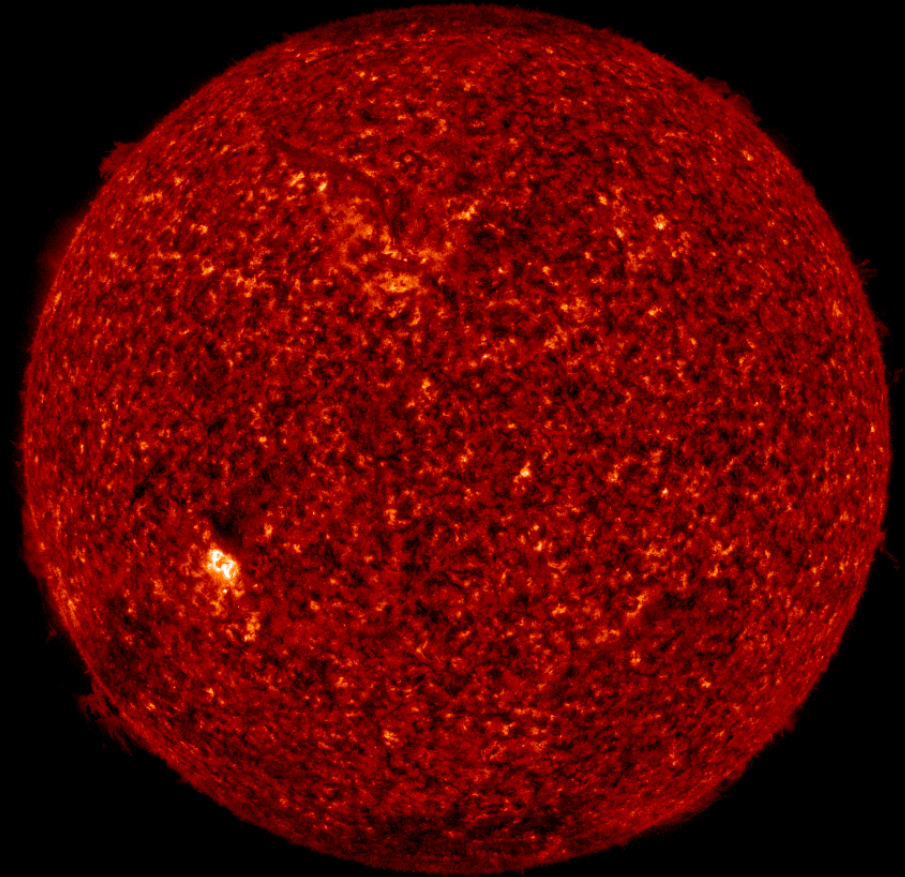
SDO/AIA 30.4 nm 2021-04-04

SDO/AIA AIA 304Å 2021-04-04T00:00:06.580

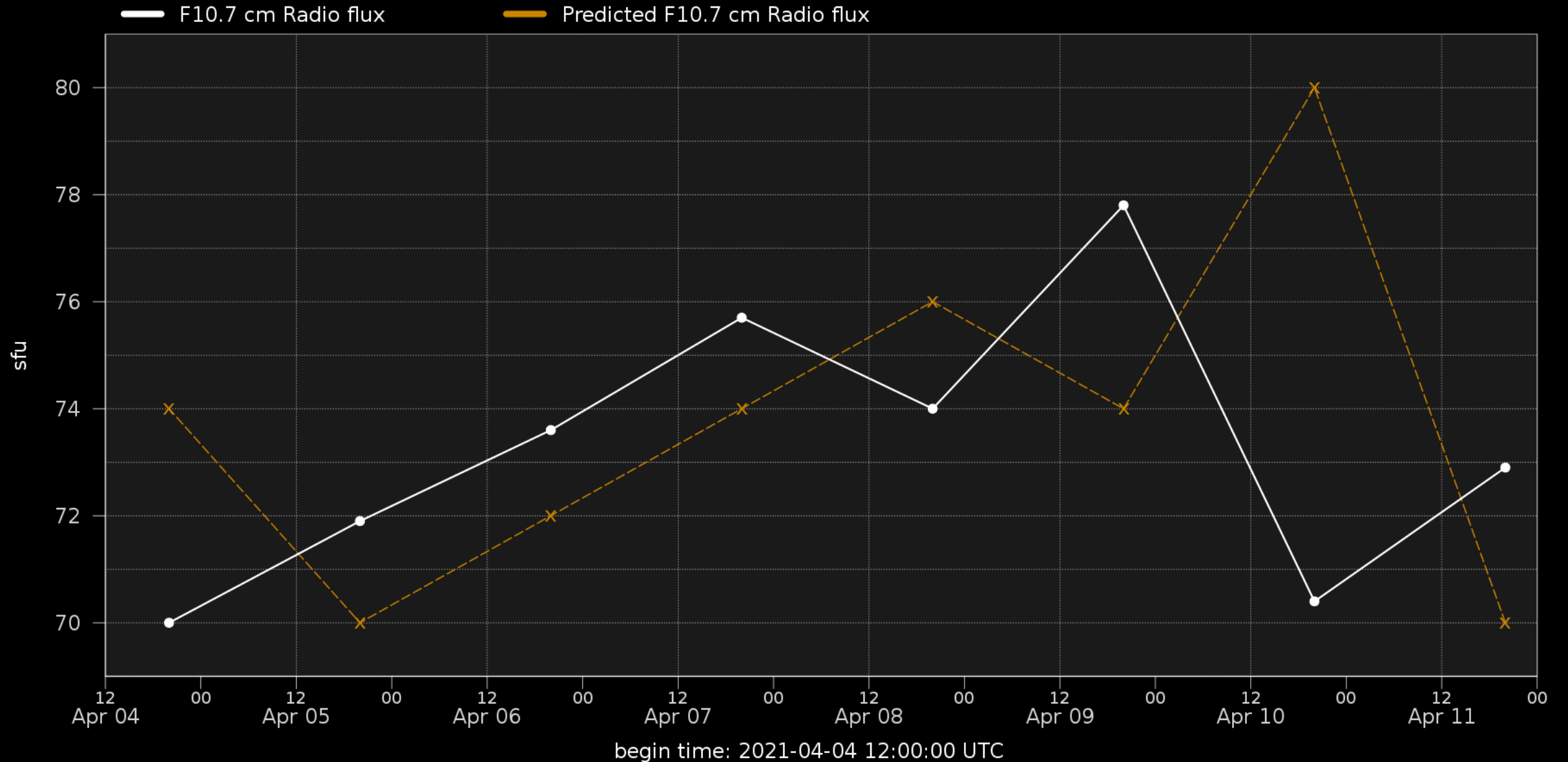


SDO/AIA 30.4 nm 2021-04-11

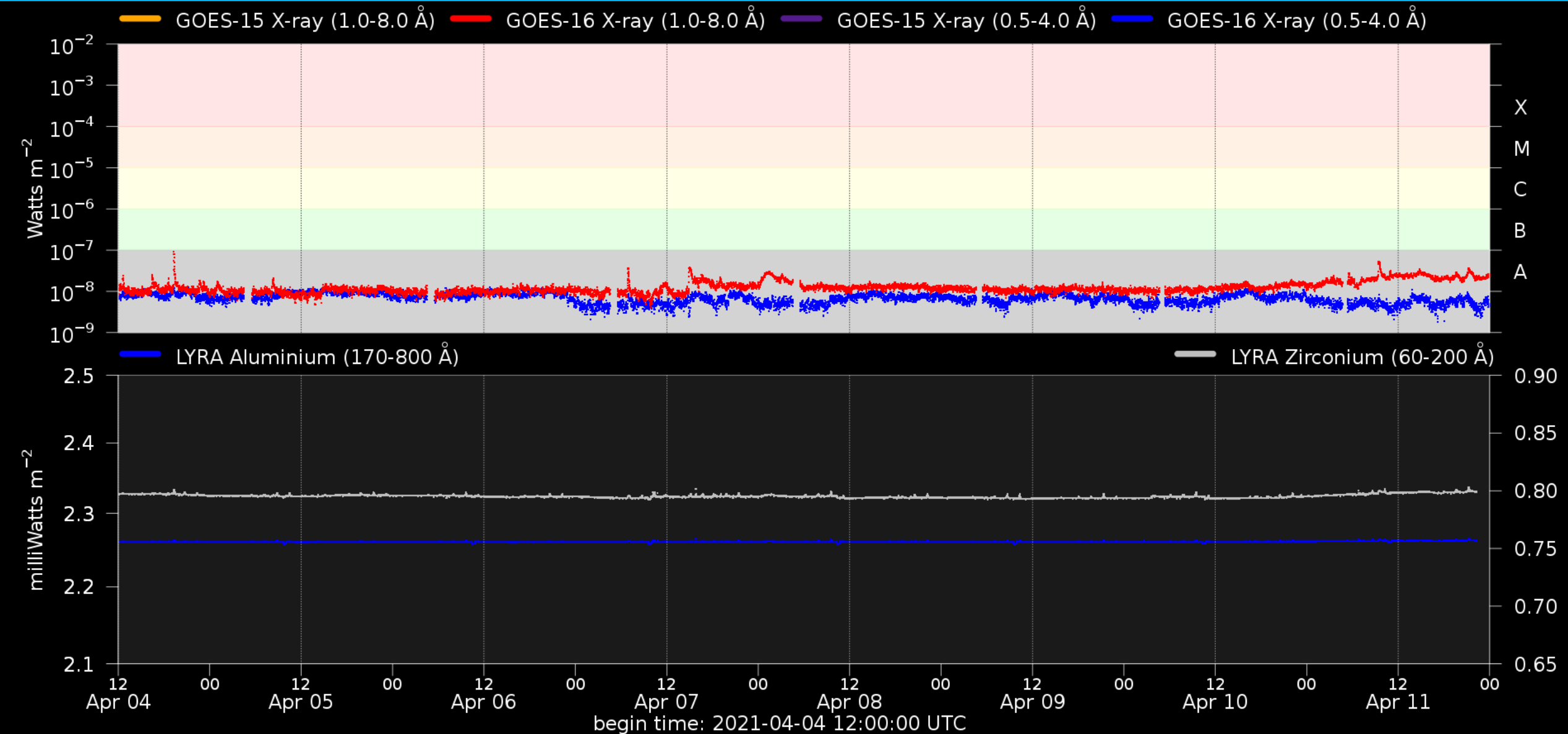
SDO/AIA AIA 304Å 2021-04-11T00:00:06.580



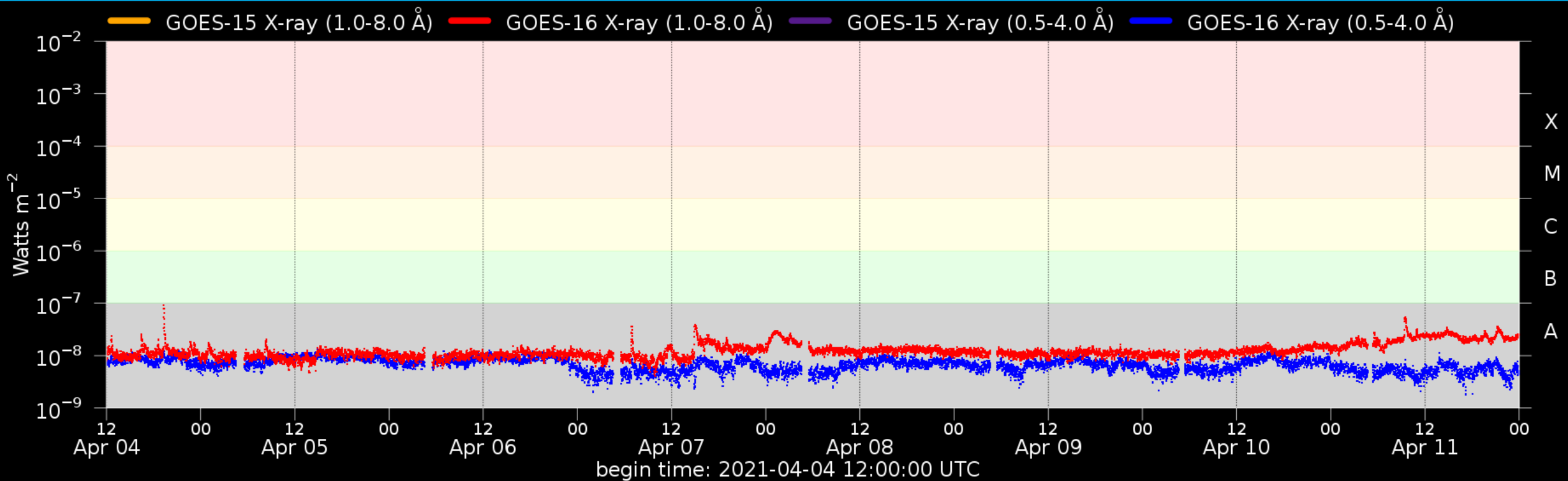
Solar F10.7cm radio flux



Solar X-Ray and UV flux



Flaring activity

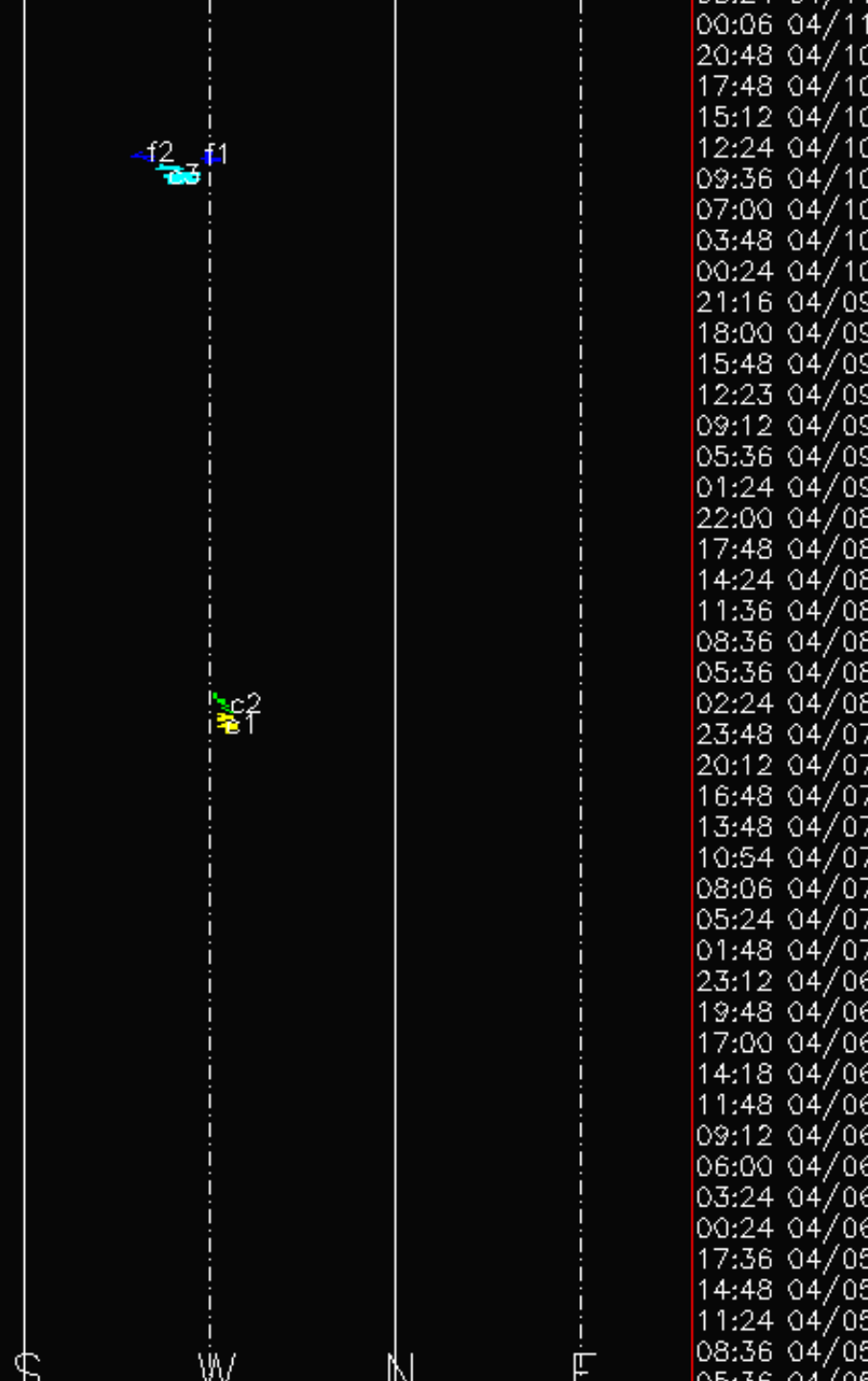
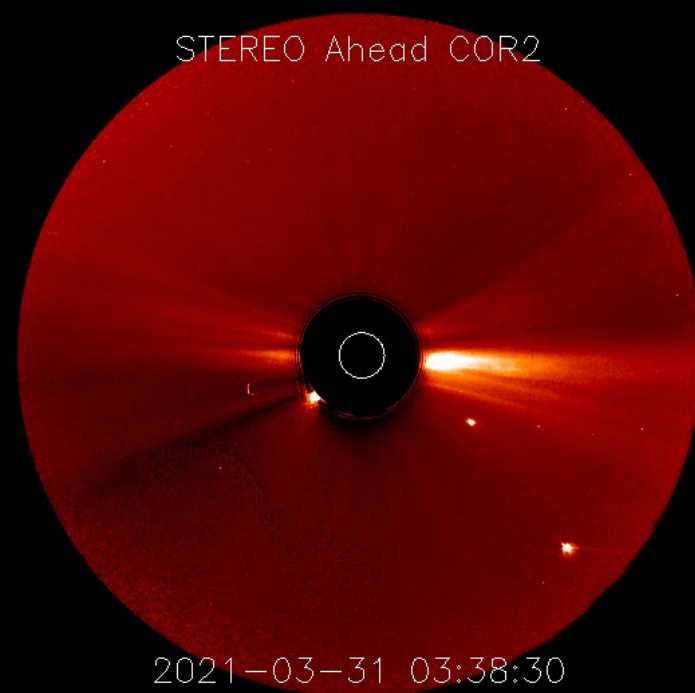
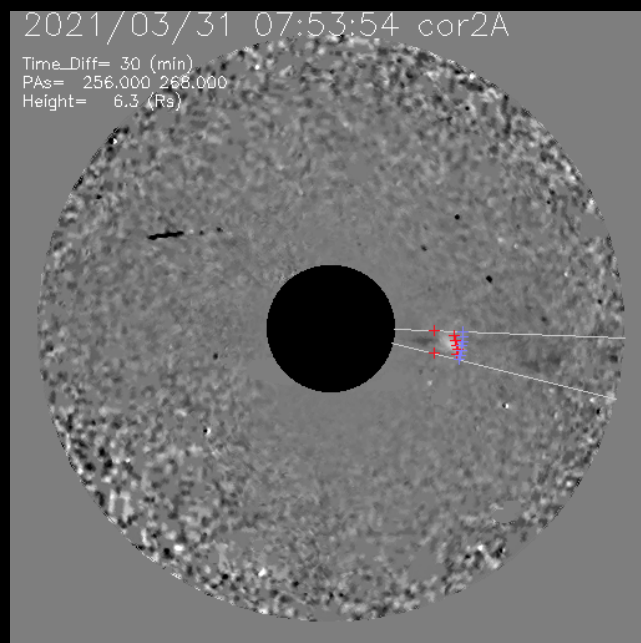


Probabilities (%) and occurrences (#) of C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2021-04-04	2021-04-05	2021-04-06	2021-04-07	2021-04-08	2021-04-09	2021-04-10	2021-04-11
Probability (%)	01 01 01	05 01 01	05 01 01	05 01 01	01 01 01	01 01 01	01 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

Coronal Mass Ejections

Narrow CME seen in Stereo A from 2021-03-31
03:38UT



Solar Wind and

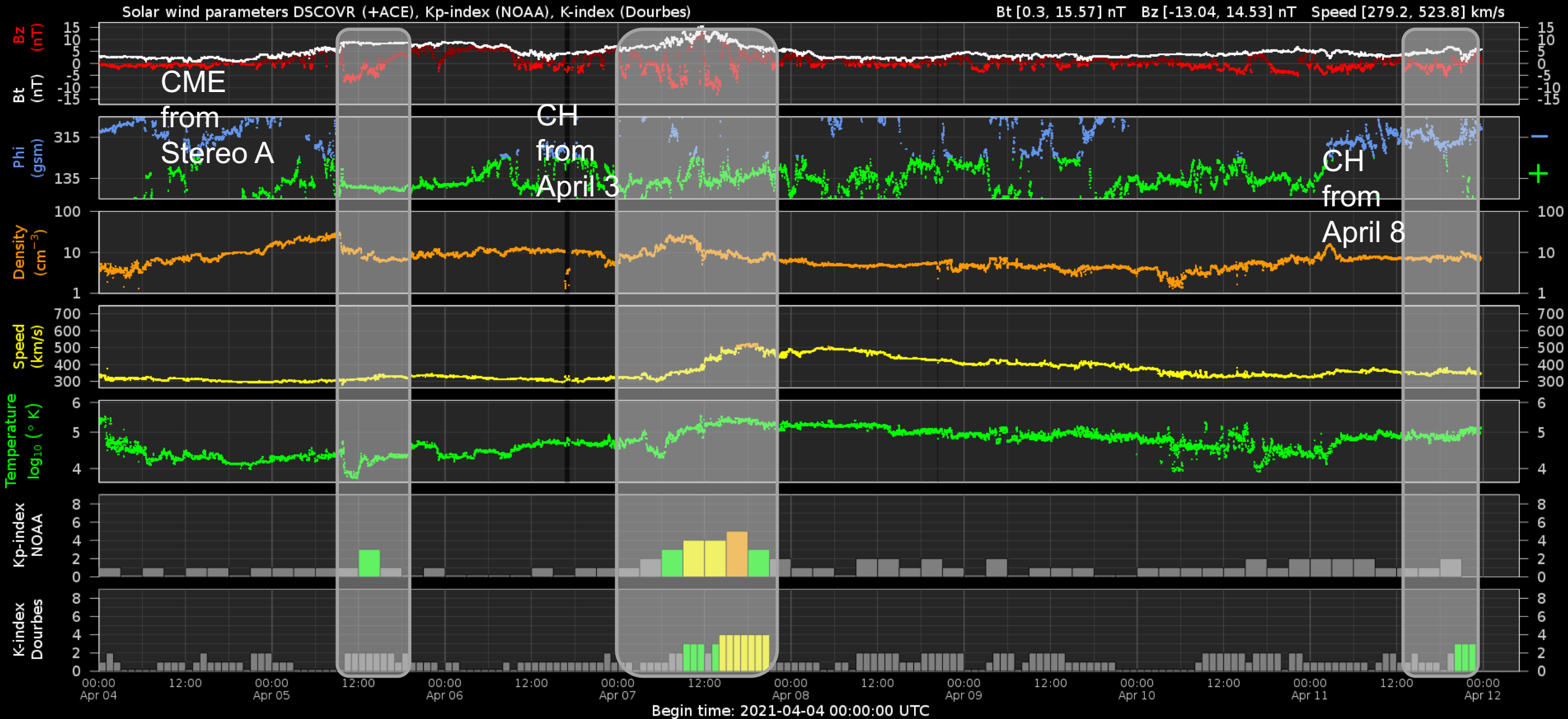
Geomagnetic Activity



Royal Observatory
of Belgium

www.sidc.be

Solar wind parameters & K-indices



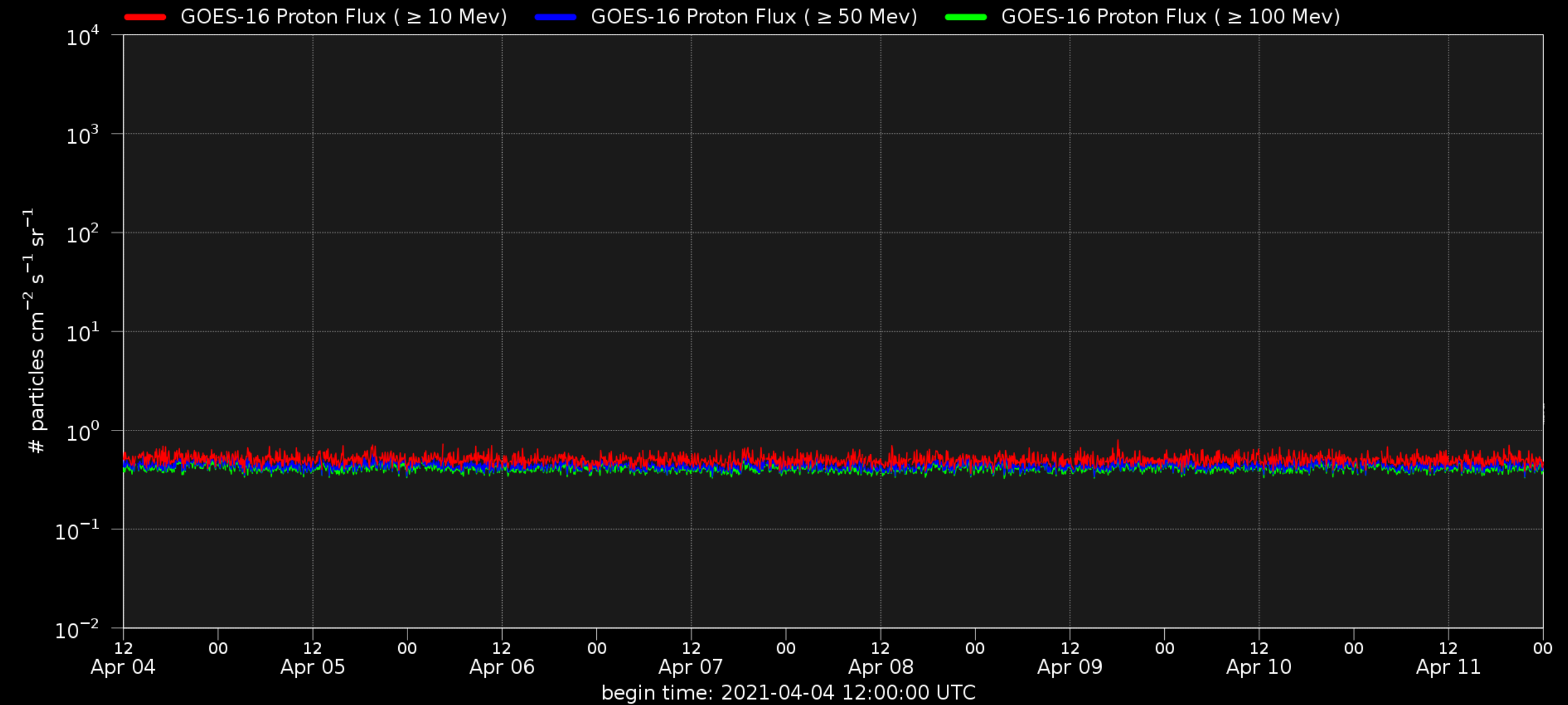
Energetic Particles



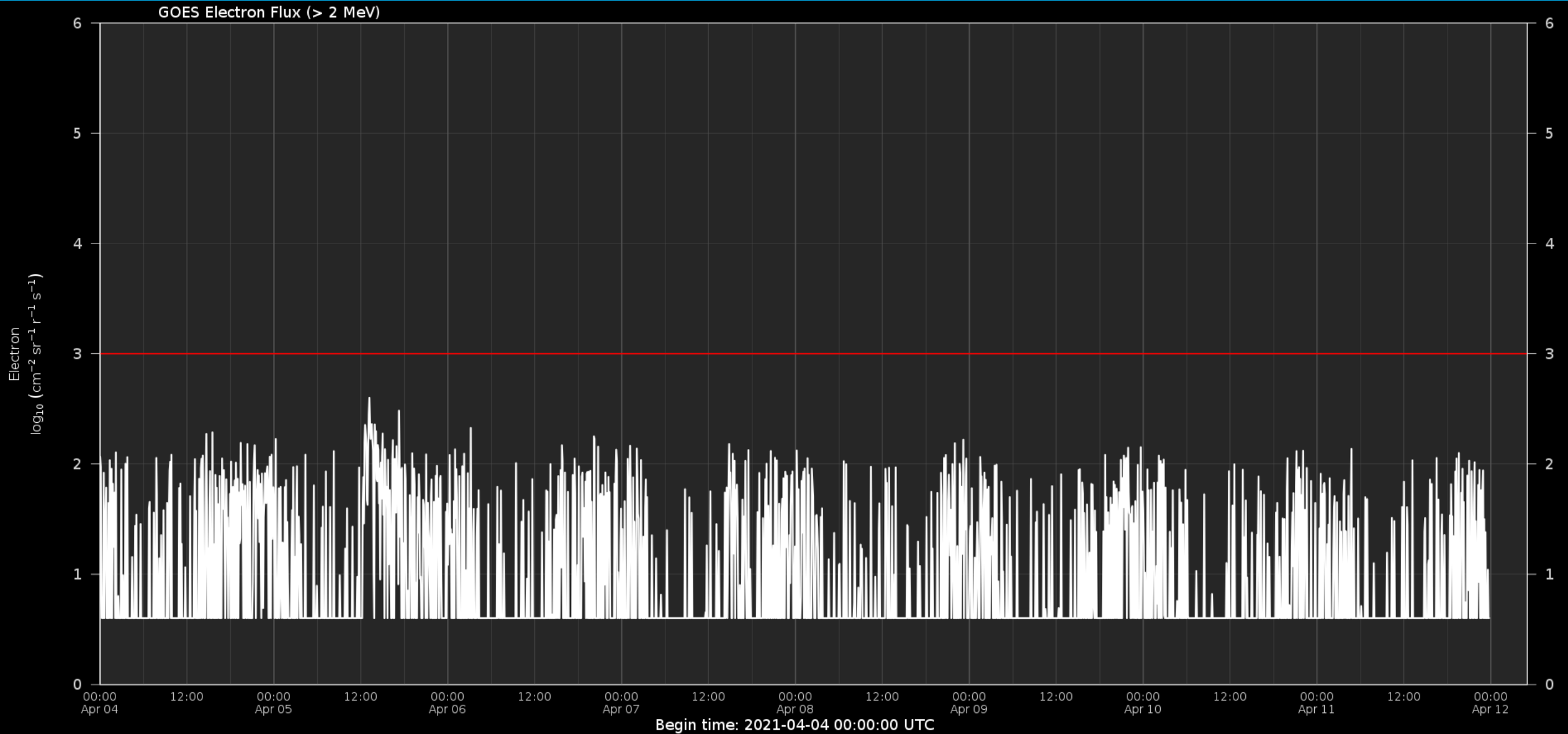
Royal Observatory
of Belgium

www.sidc.be

Solar proton flux



Electron flux at GEO



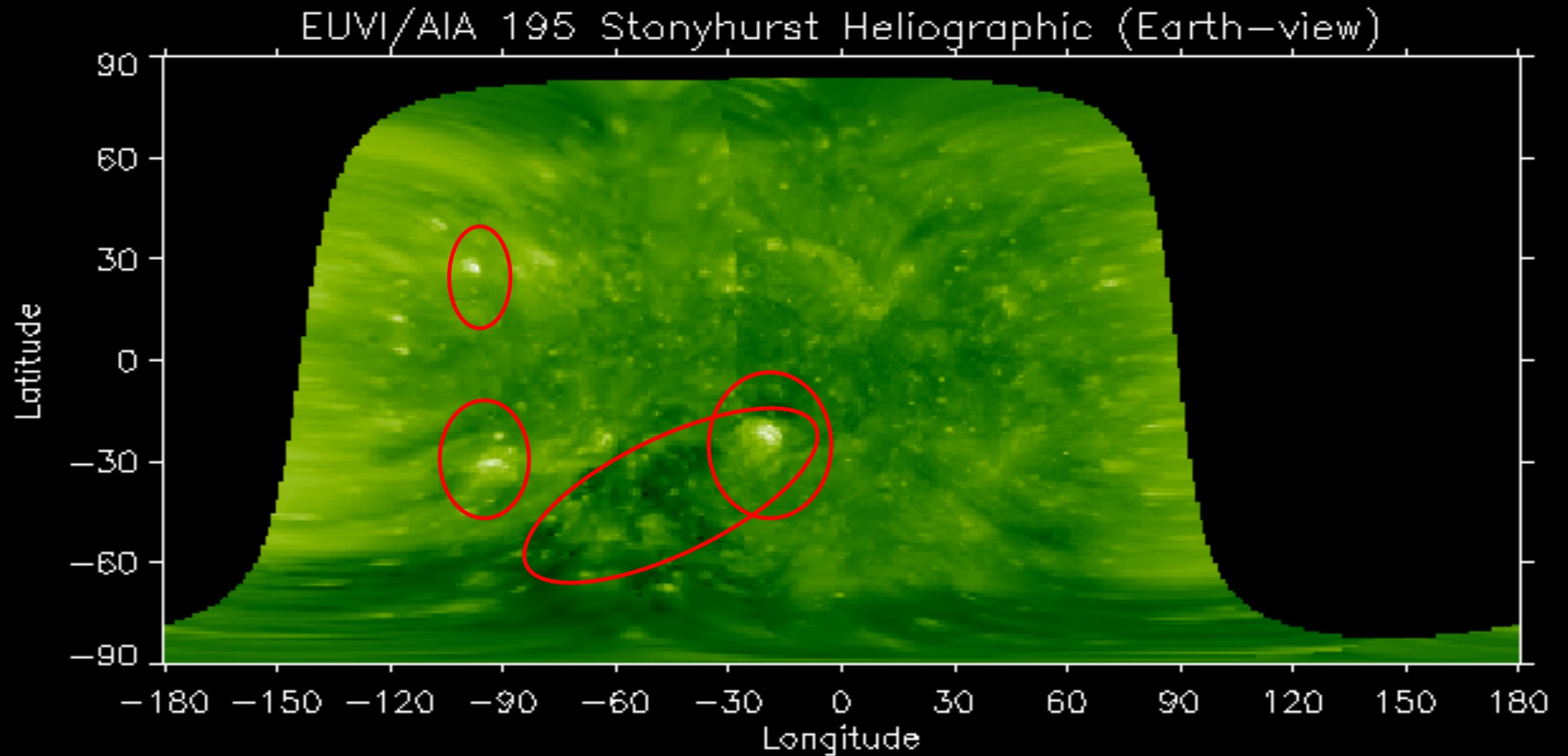
Outlook



Royal Observatory
of Belgium

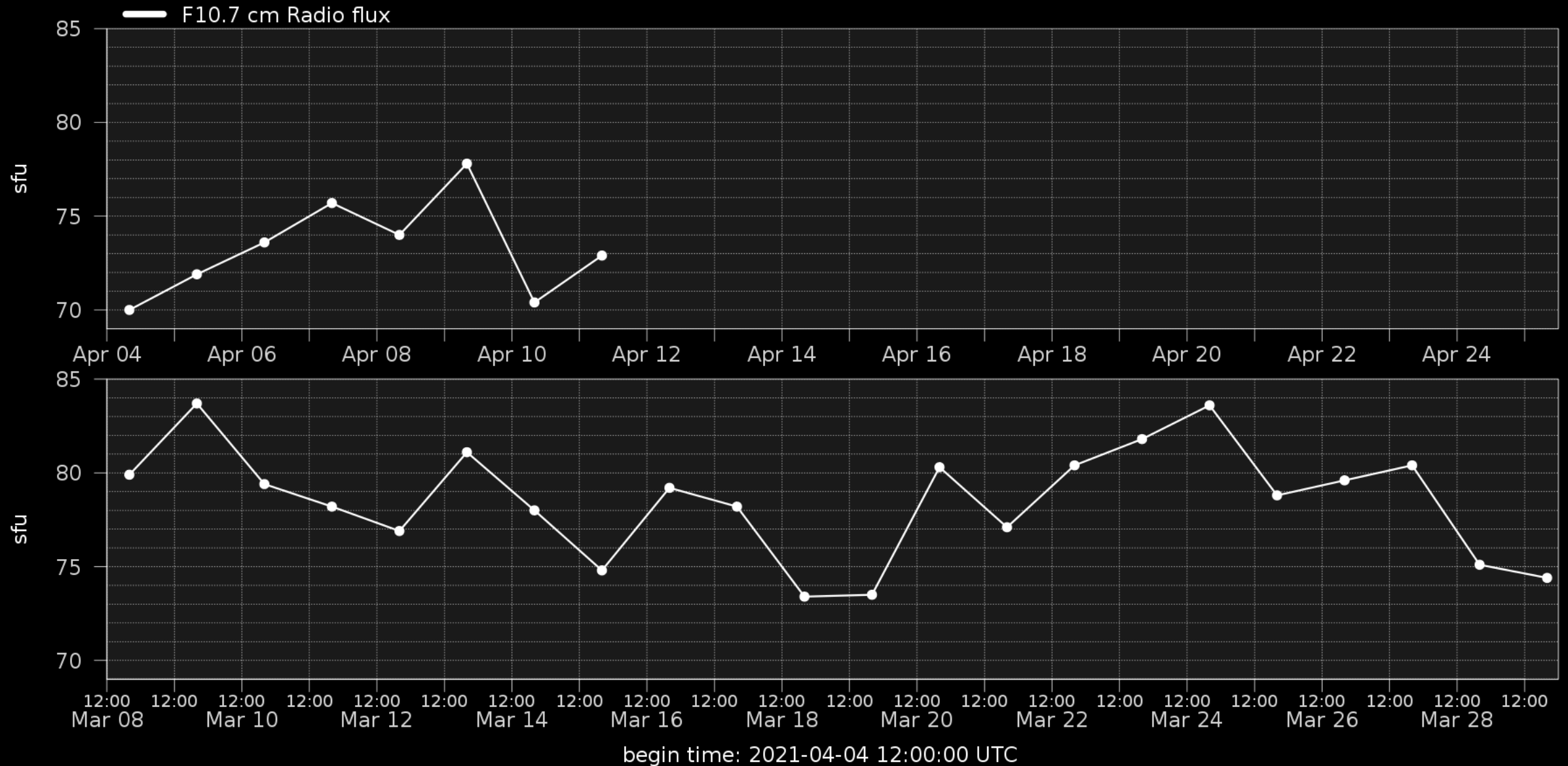
Solar Influences
Data analysis Centre
www.sidc.be

Outlook: Solar activity

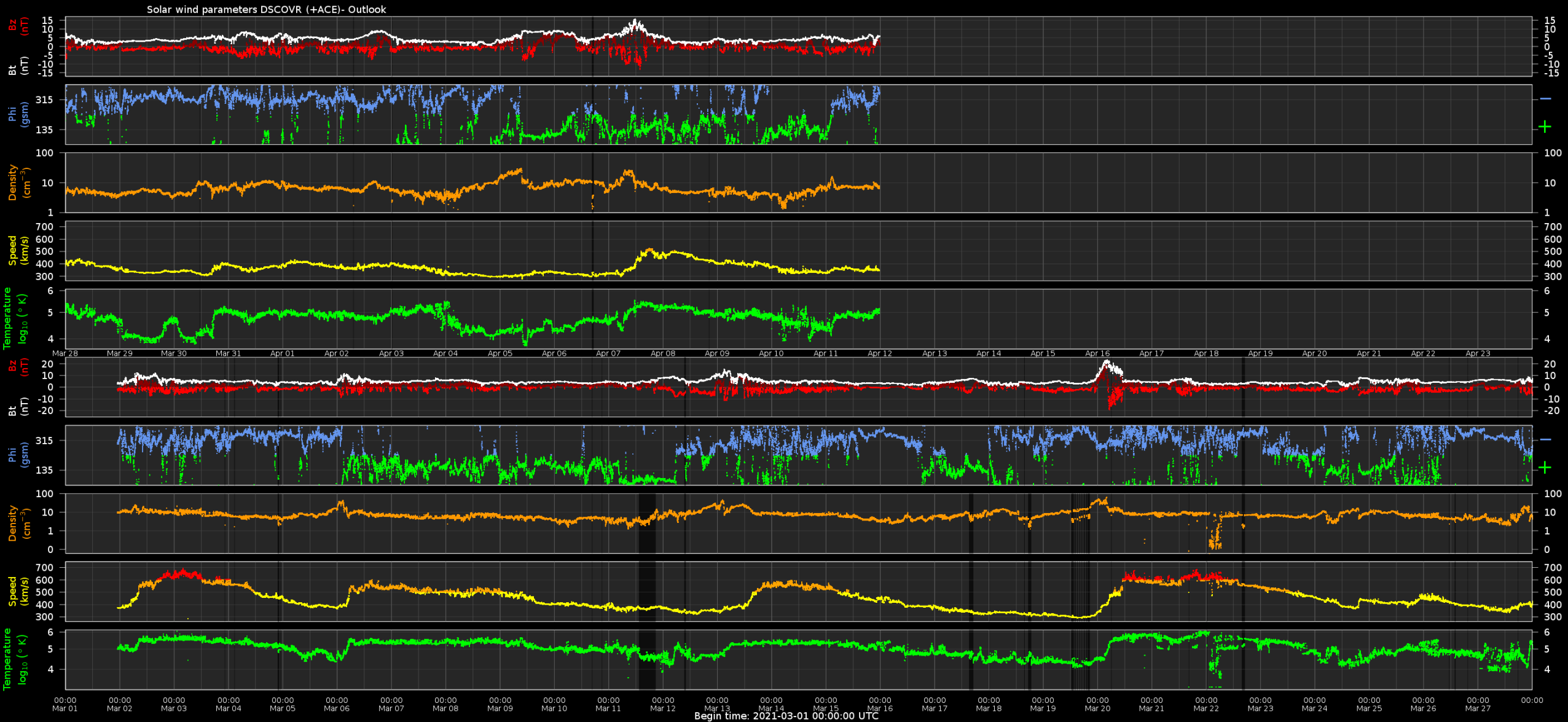


Observation date: 2021/04/12 06:45:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at www.sidc.be



Solar Influences
Data analysis Centre
www.sidc.be