

SIDC Space Weather Briefing

21 February 2021 - 28 February 2021

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& the SIDC forecaster team



Solar Influences
Data analysis Centre
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Summary Report

Solar activity from 2021-02-21 12:00 to 2021-02-28 23:59

Active regions	AR 12803, AR12804 (2 C class flares, 1 CME), AR12805 (1 B class flare, 1 CME)
Flares	# C-class flare: 2 # M-class flare: 0 # X-class flare: 0
Filament eruptions	Non-Earth directed
Coronal Holes	Southern (-) and northern (+) CH

Proton flux	Background levels
Electron flux	Above 1000 pfu threshold levels most of week

Solar wind and geomagnetic conditions

ICME	ICME from Feb 20 th
SW Conditions	B : 0.13 - 11.1 nT // Bz: -7.97 nT to 7.91 nT // Speed: 343.8 - 636.1km/s
K-indices	max K-index (Dourbes): 4 max Kp-index (NOAA): 4 (on Mar 1 st Kp=6)

All Quiet Alert: All quiet on Saturday

Solar Activity

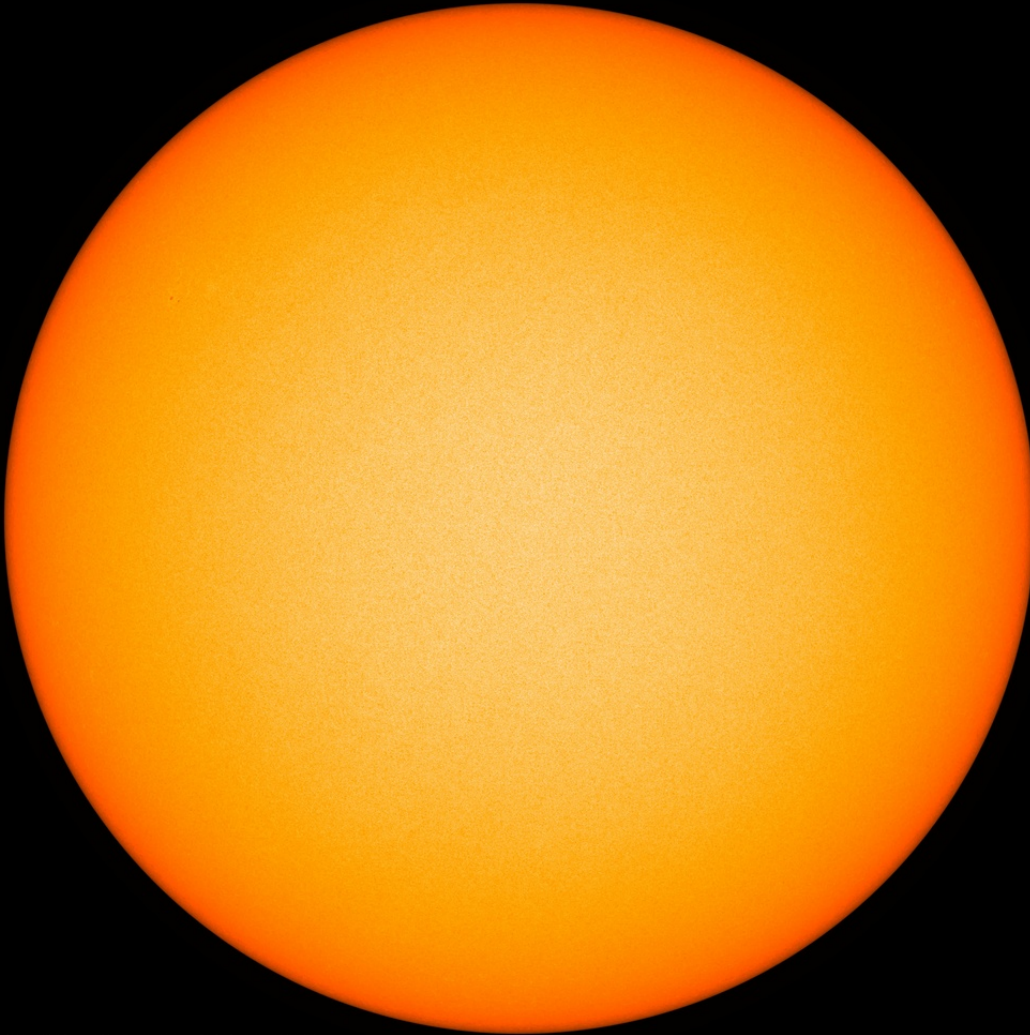


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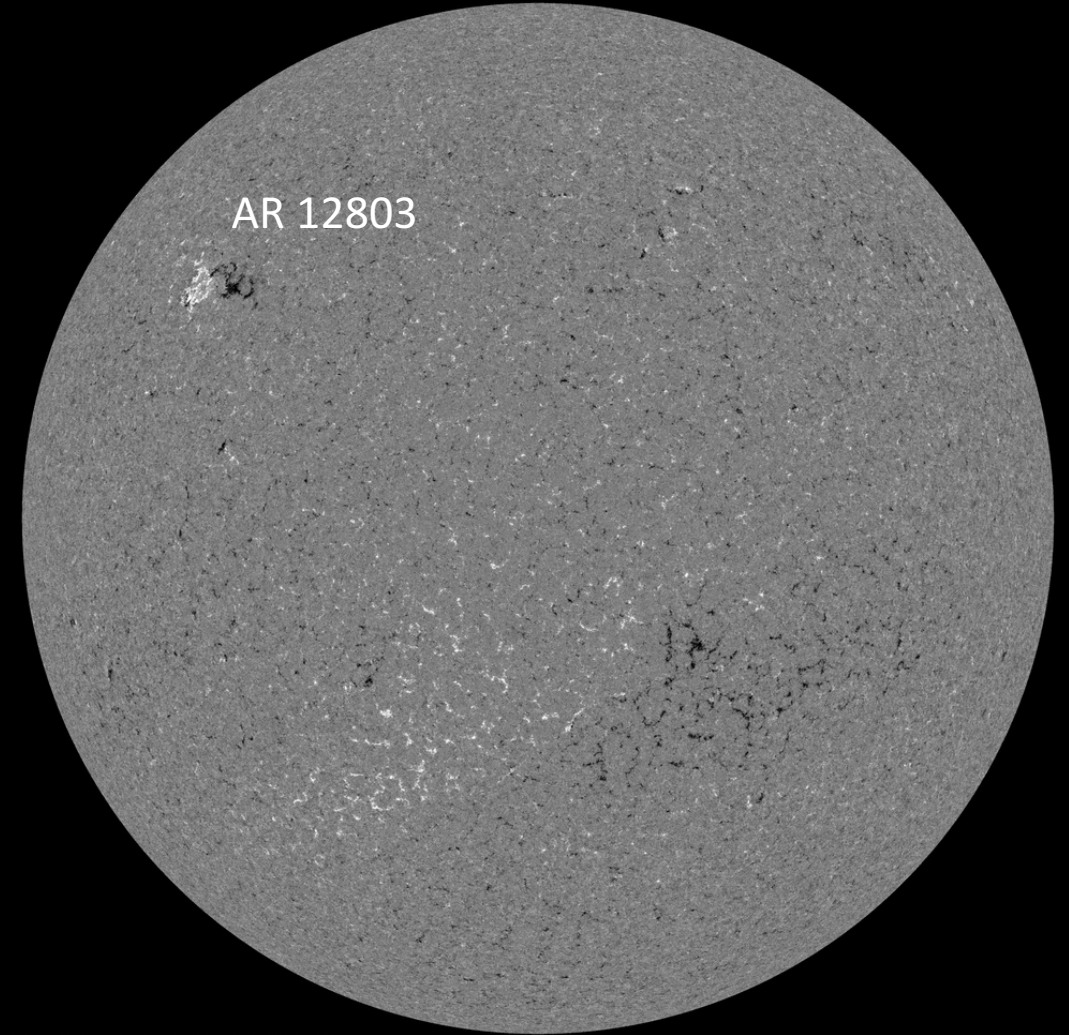
Solar active regions

SDO/HMI White Light 2021-02-21



SDO/HMI Quick-Look Continuum: 20210221_114500

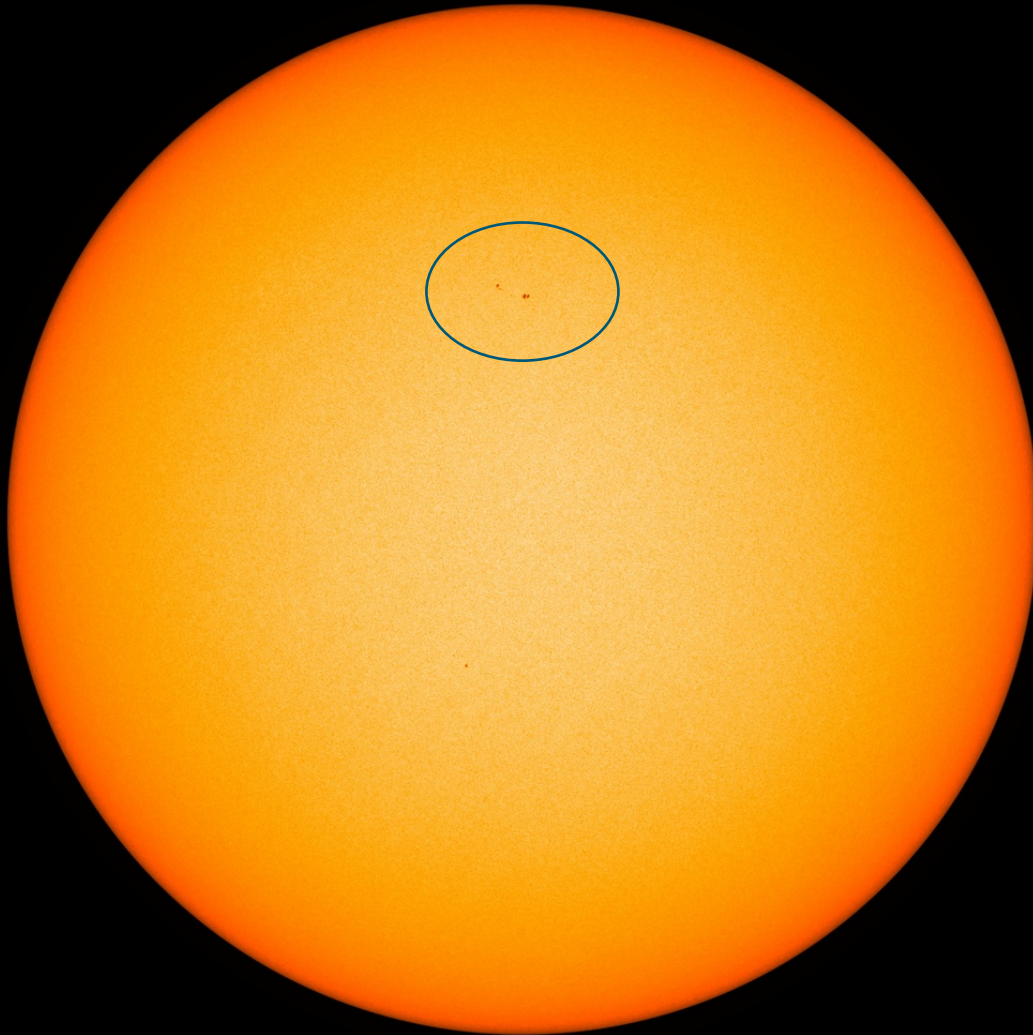
SDO/HMI Magnetogram 2021-02-21



SDO/HMI Quick-Look Magnetogram: 20210221_114500

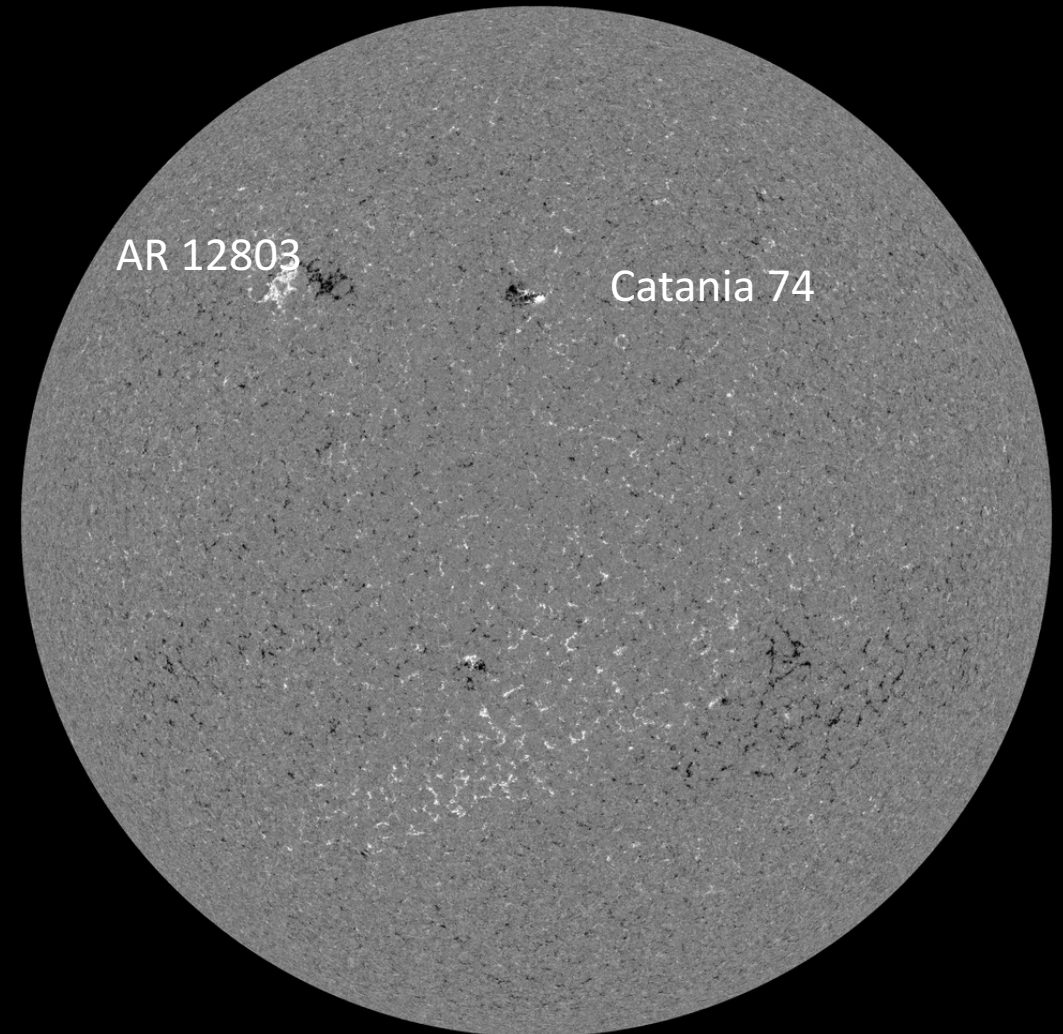
Solar active regions

SDO/HMI White Light 2021-02-22



SDO/HMI Quick-Look Continuum: 20210222_114500

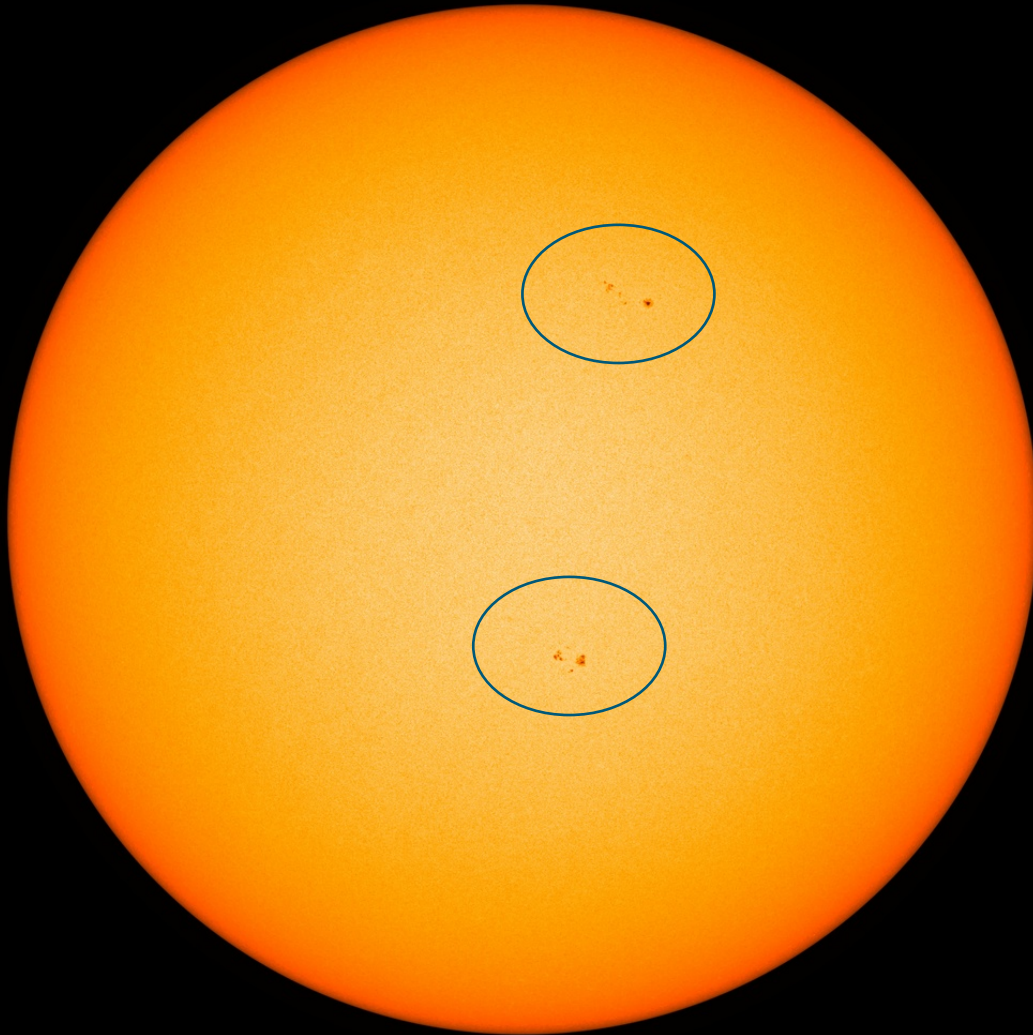
SDO/HMI Magnetogram 2021-02-22



SDO/HMI Quick-Look Magnetogram: 20210222_114500

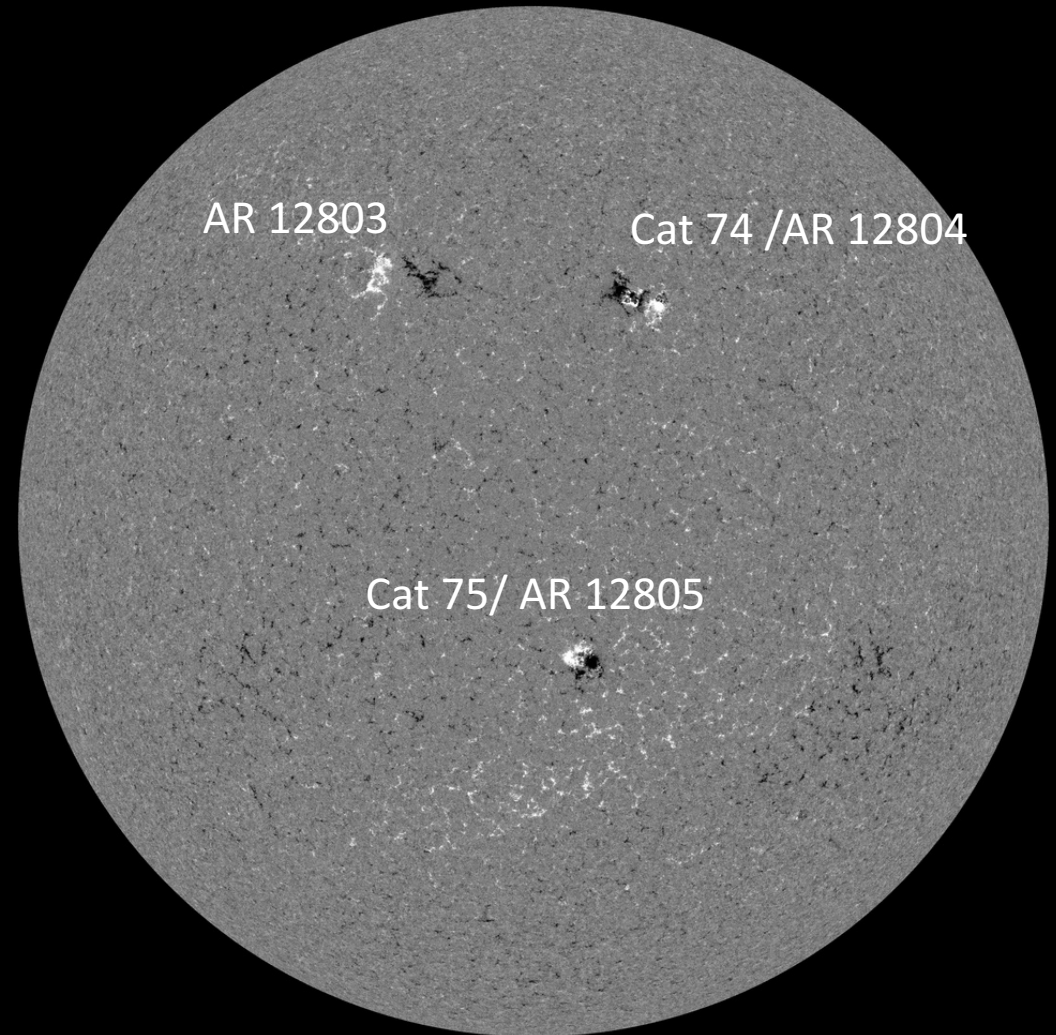
Solar active regions

SDO/HMI White Light 2021-02-23



SDO/HMI Quick-Look Continuum: 20210223_114500

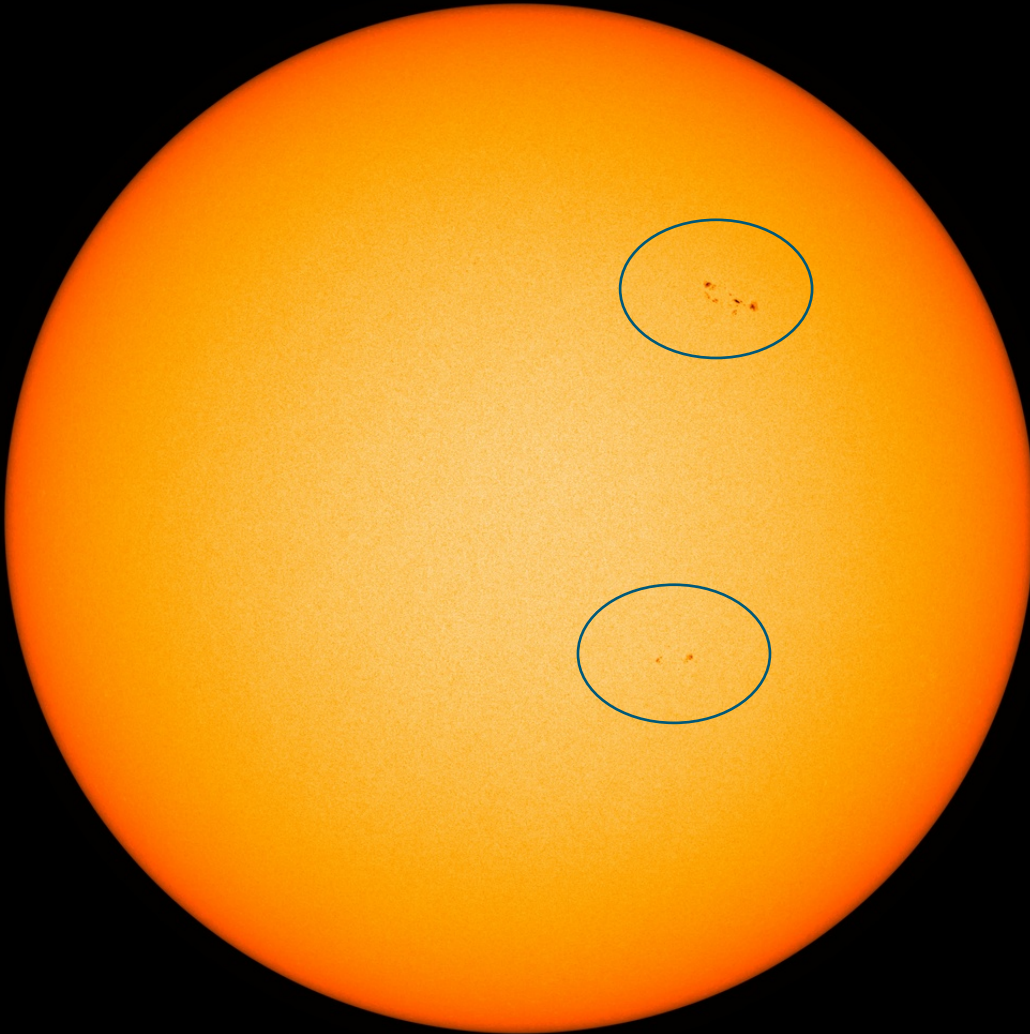
SDO/HMI Magnetogram 2021-02-23



SDO/HMI Quick-Look Magnetogram: 20210223_114500

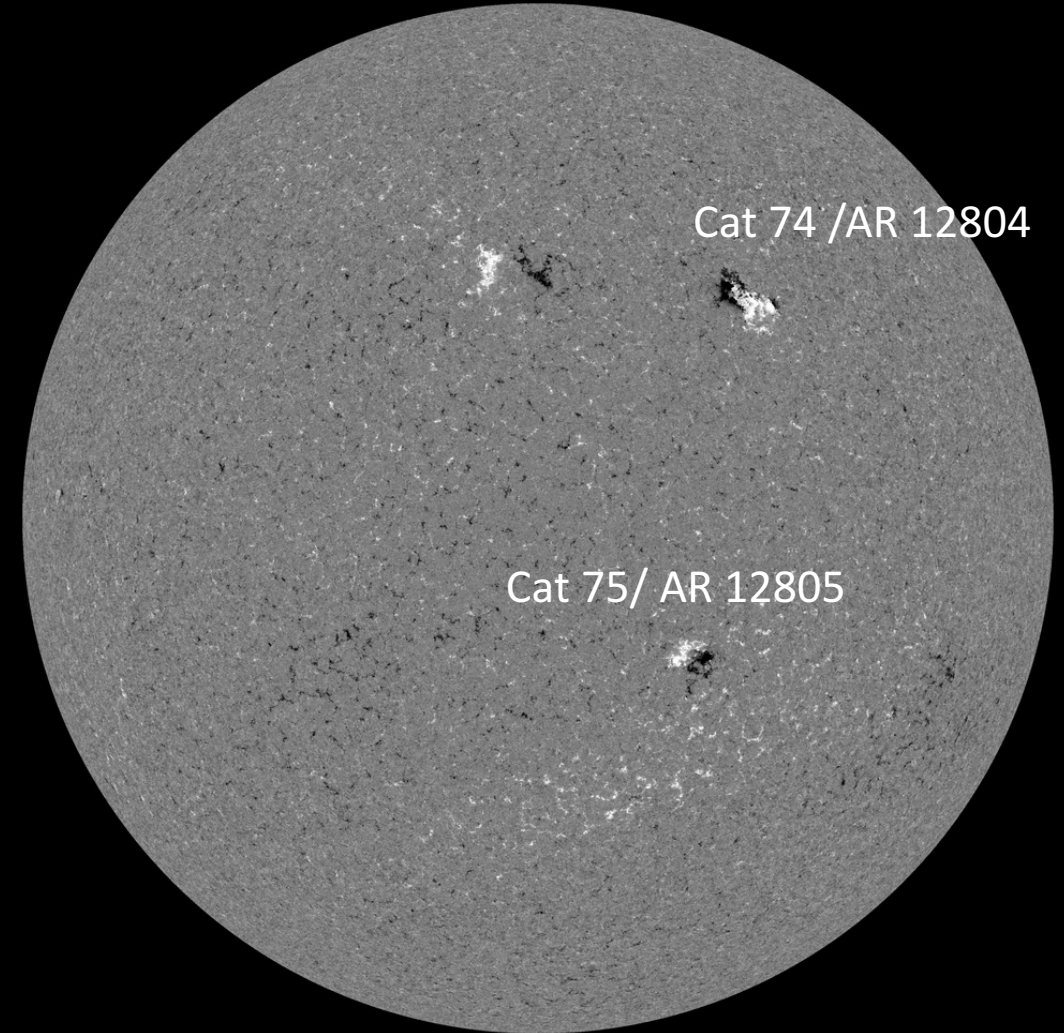
Solar active regions

SDO/HMI White Light 2021-02-24



SDO/HMI Quick-Look Continuum: 20210224_120000

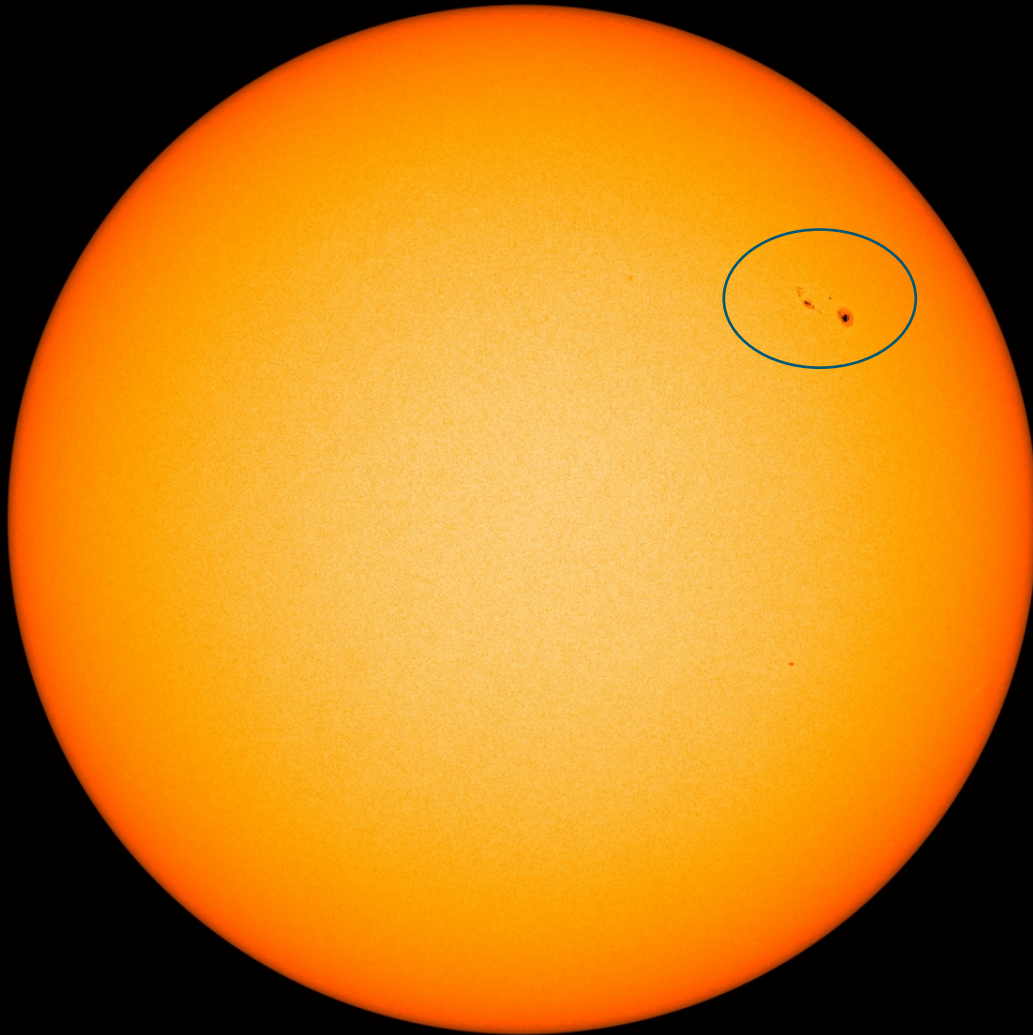
SDO/HMI Magnetogram 2021-02-24



SDO/HMI Quick-Look Magnetogram: 20210224_114500

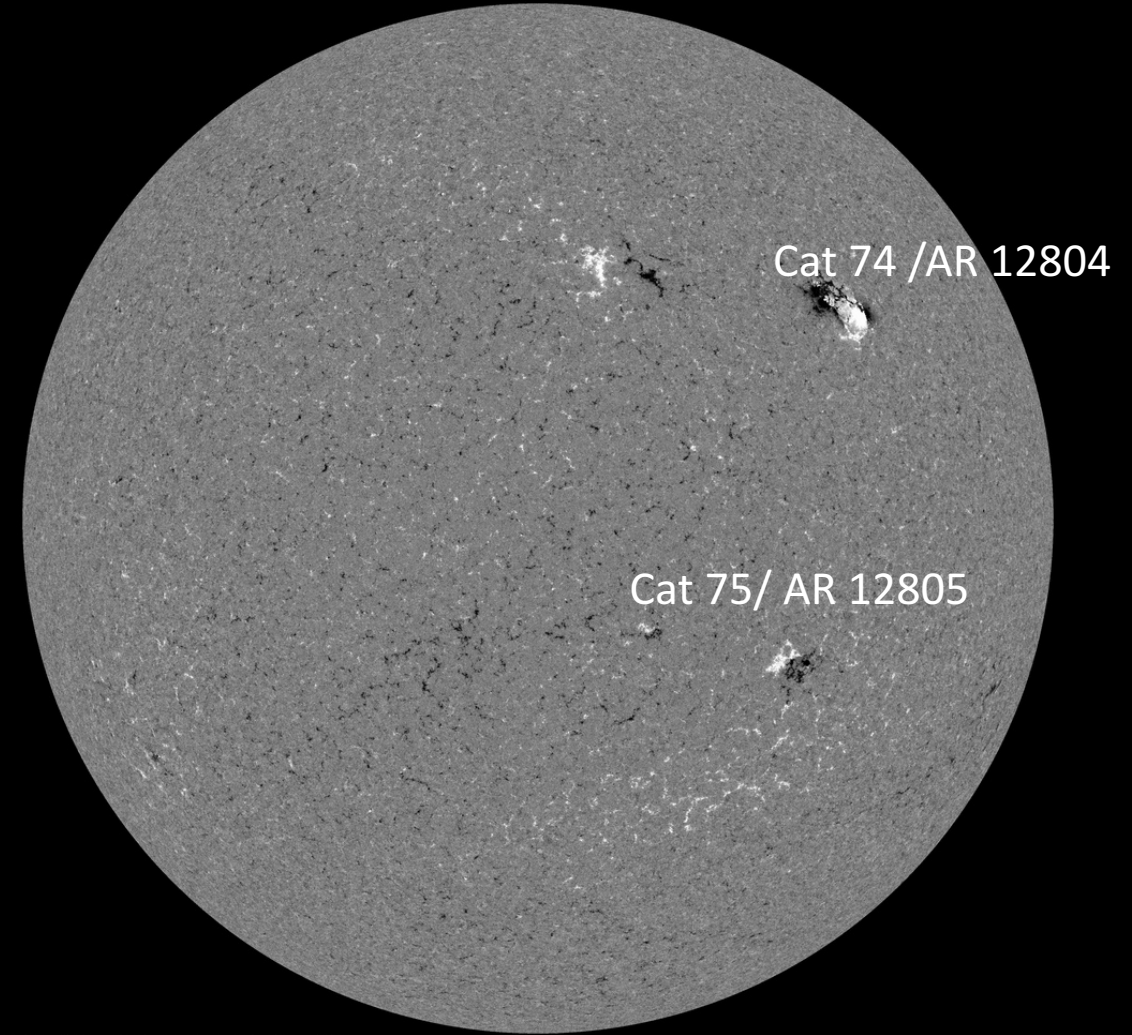
Solar active regions

SDO/HMI White Light 2021-02-25



SDO/HMI Quick-Look Continuum: 20210225_114500

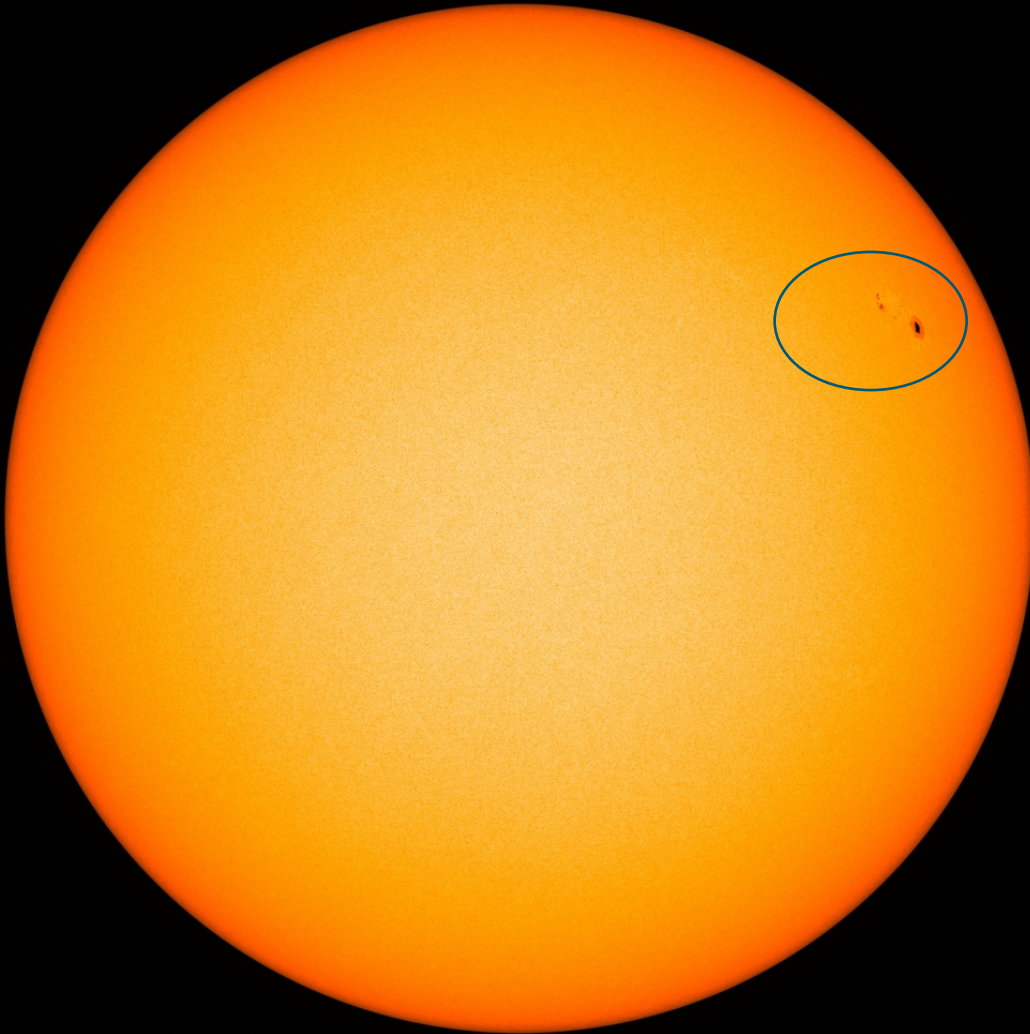
SDO/HMI Magnetogram 2021-02-25



SDO/HMI Quick-Look Magnetogram: 20210225_114500

Solar active regions

SDO/HMI White Light 2021-02-26



SDO/HMI Quick-Look Continuum: 20210226_114500

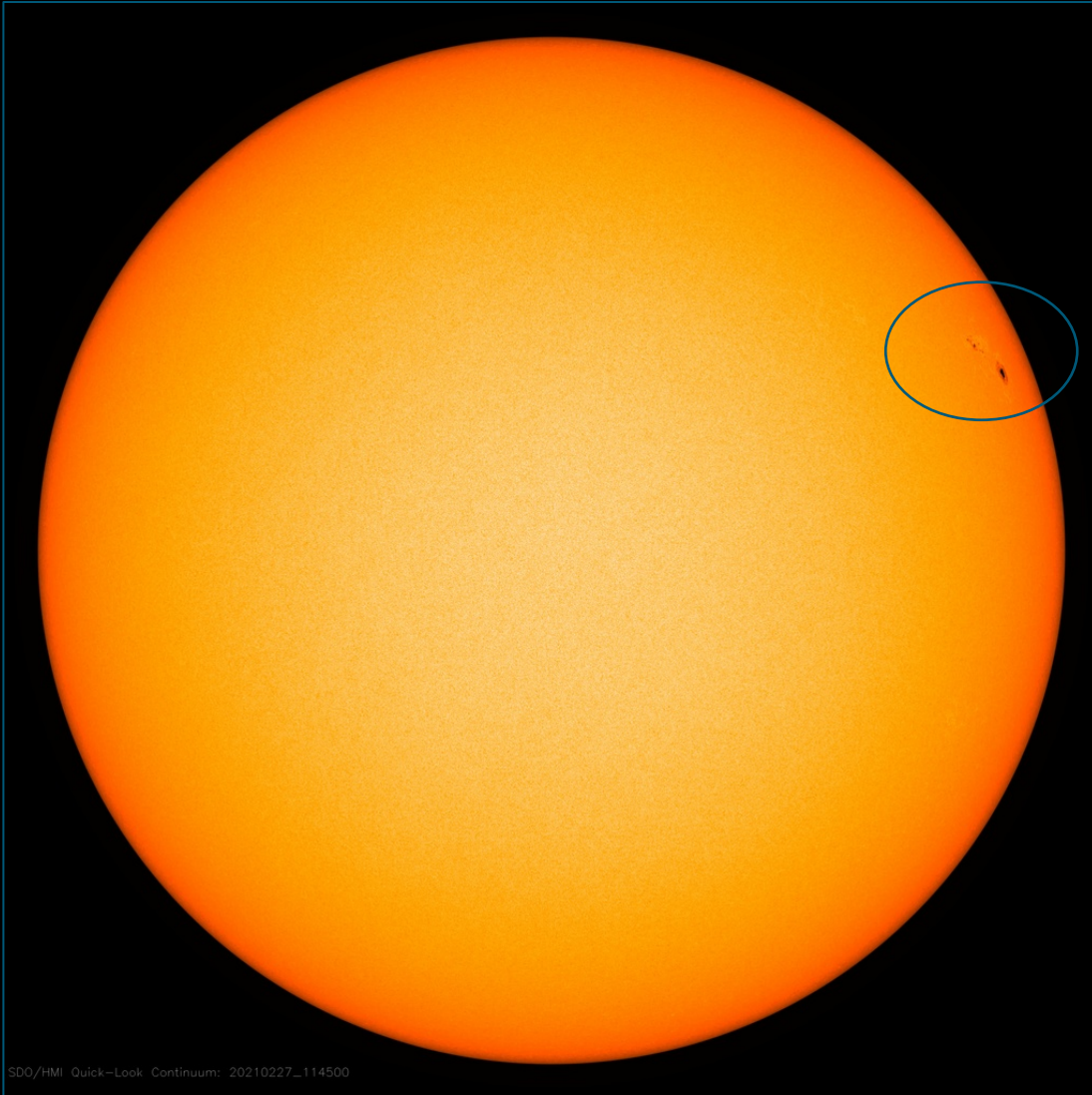
SDO/HMI Magnetogram 2021-02-26



SDO/HMI Quick-Look Magnetogram: 20210226_114500

Solar active regions

SDO/HMI White Light 2021-02-27

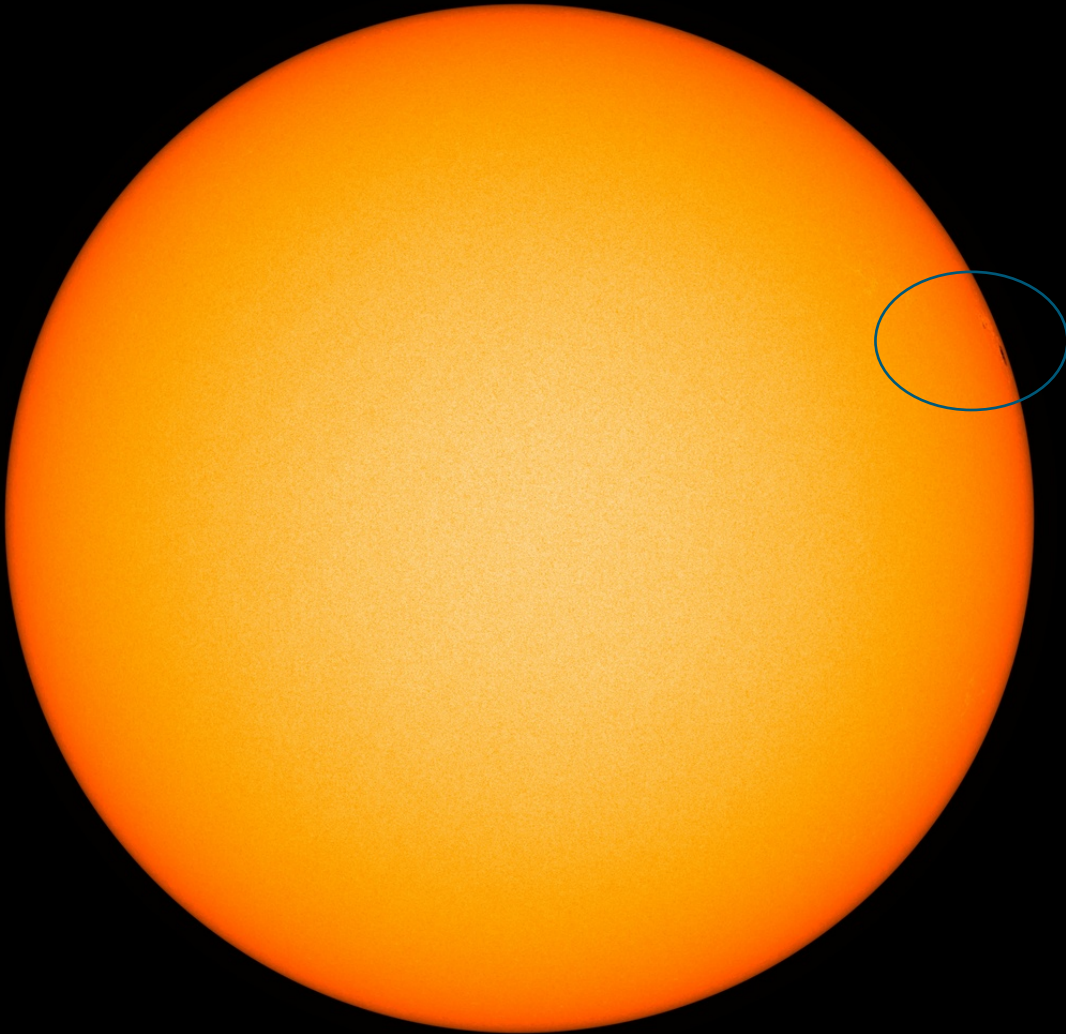


SDO/HMI Magnetogram 2021-02-27



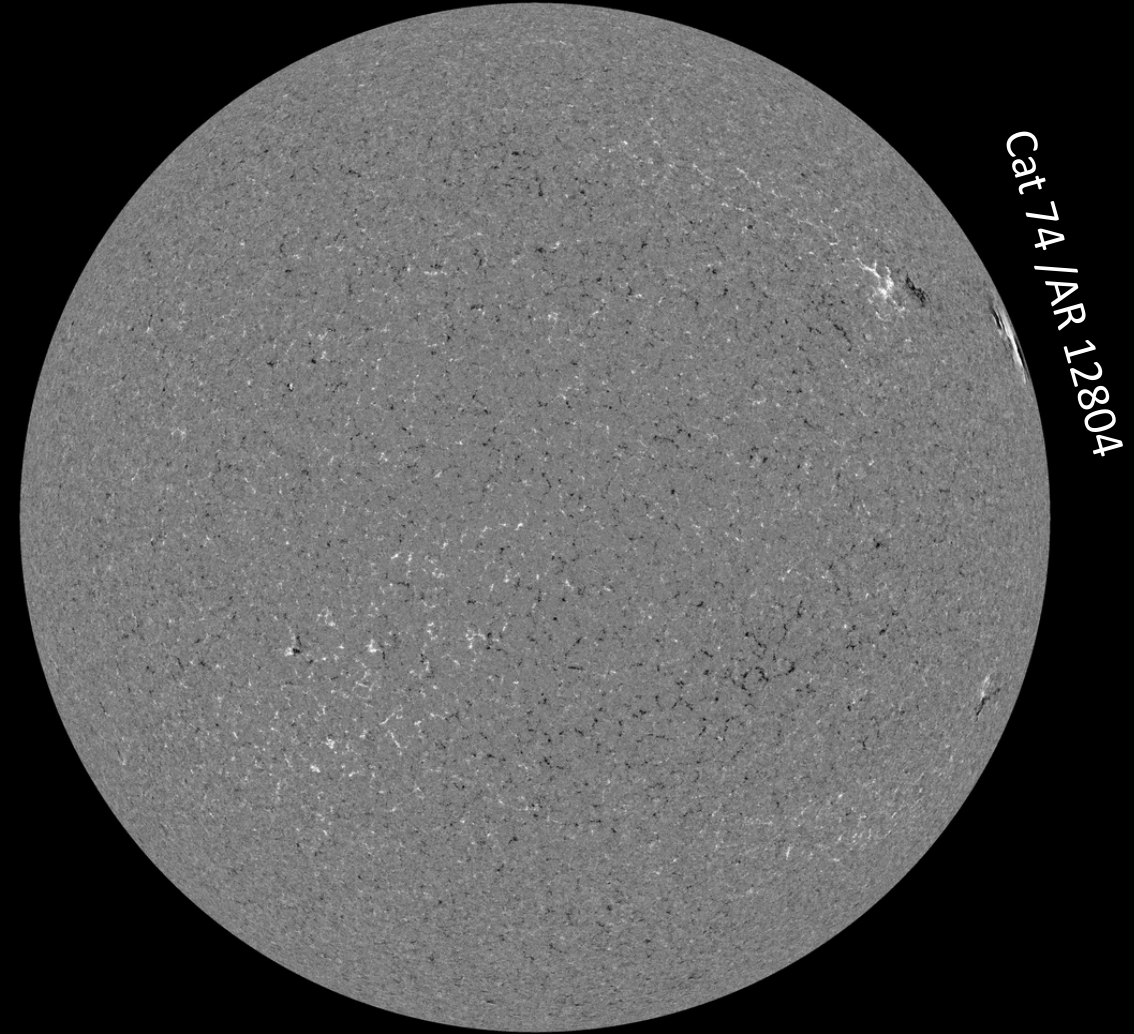
Solar active regions

SDO/HMI White Light 2021-02-28



SDO/HMI Quick-Look Continuum: 20210228_114500

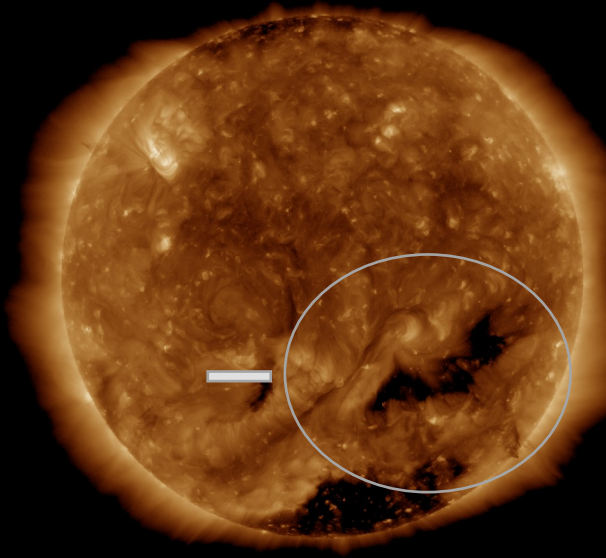
SDO/HMI Magnetogram 2021-02-28



SDO/HMI Quick-Look Magnetogram: 20210228_114500

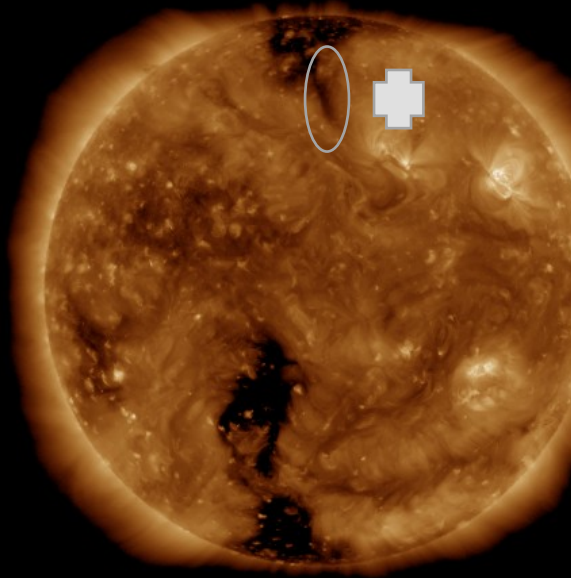
Coronal holes SDO/AIA 19.3 nm

2021-02-21



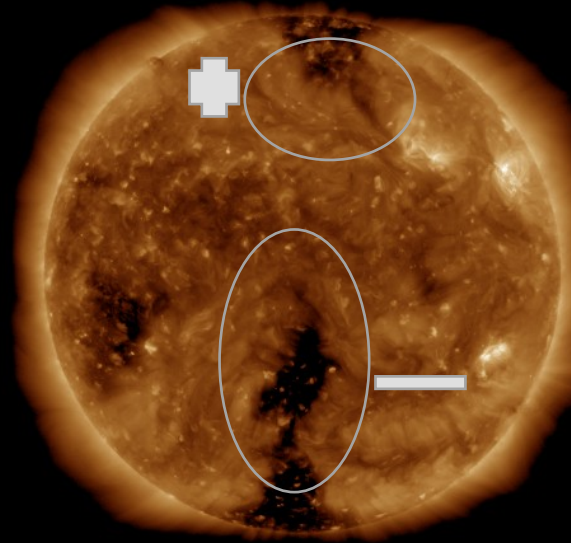
SDO/AIA 193 2021-02-21 12:17:41 UT

2021-02-25



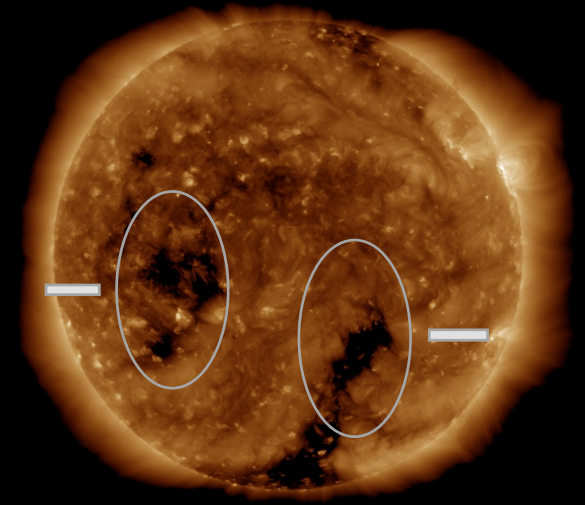
SDO/AIA 193 2021-02-25 23:27:53 UT

2021-02-26



SDO/AIA 193 2021-02-26 22:48:17 UT

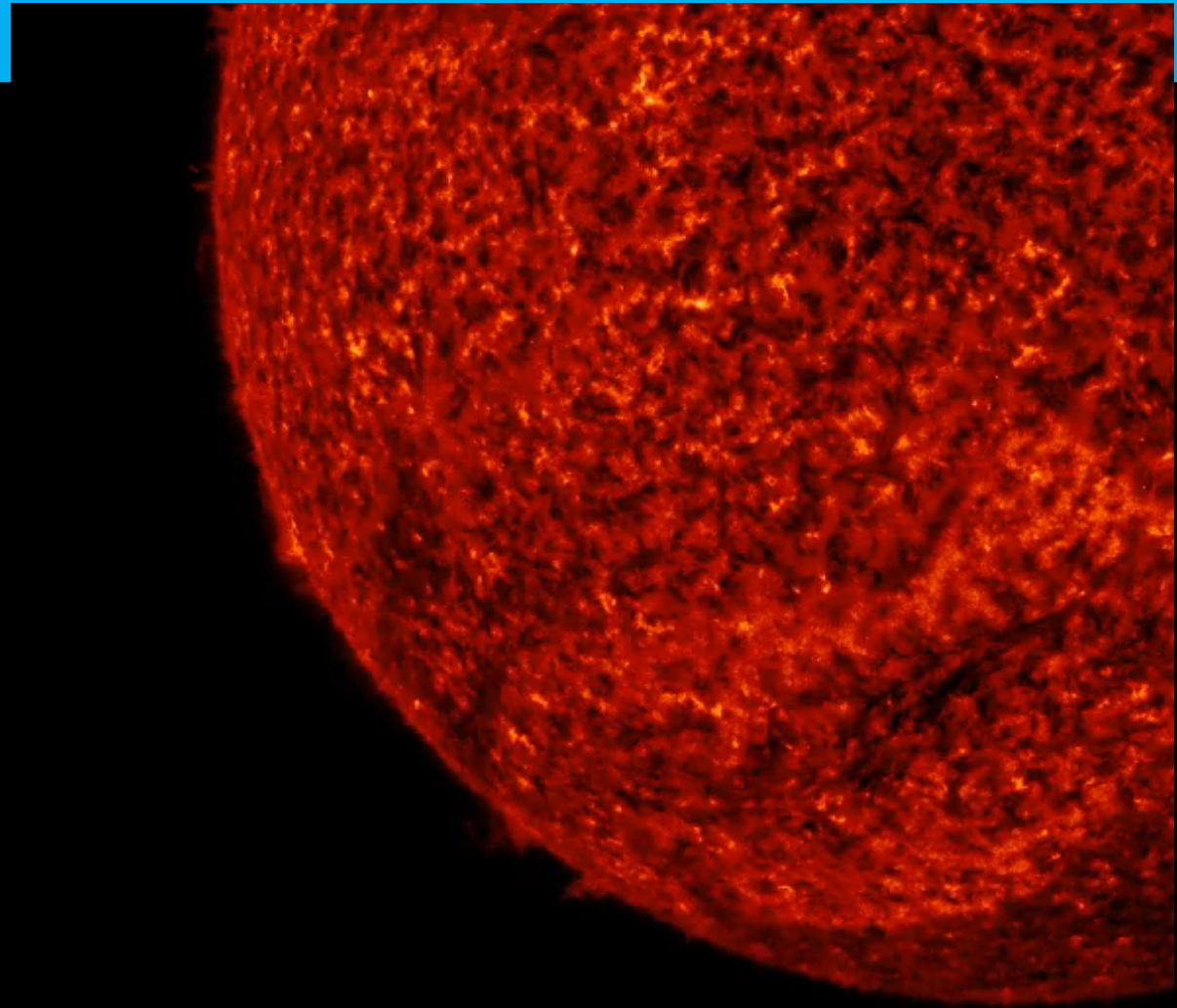
2021-02-28



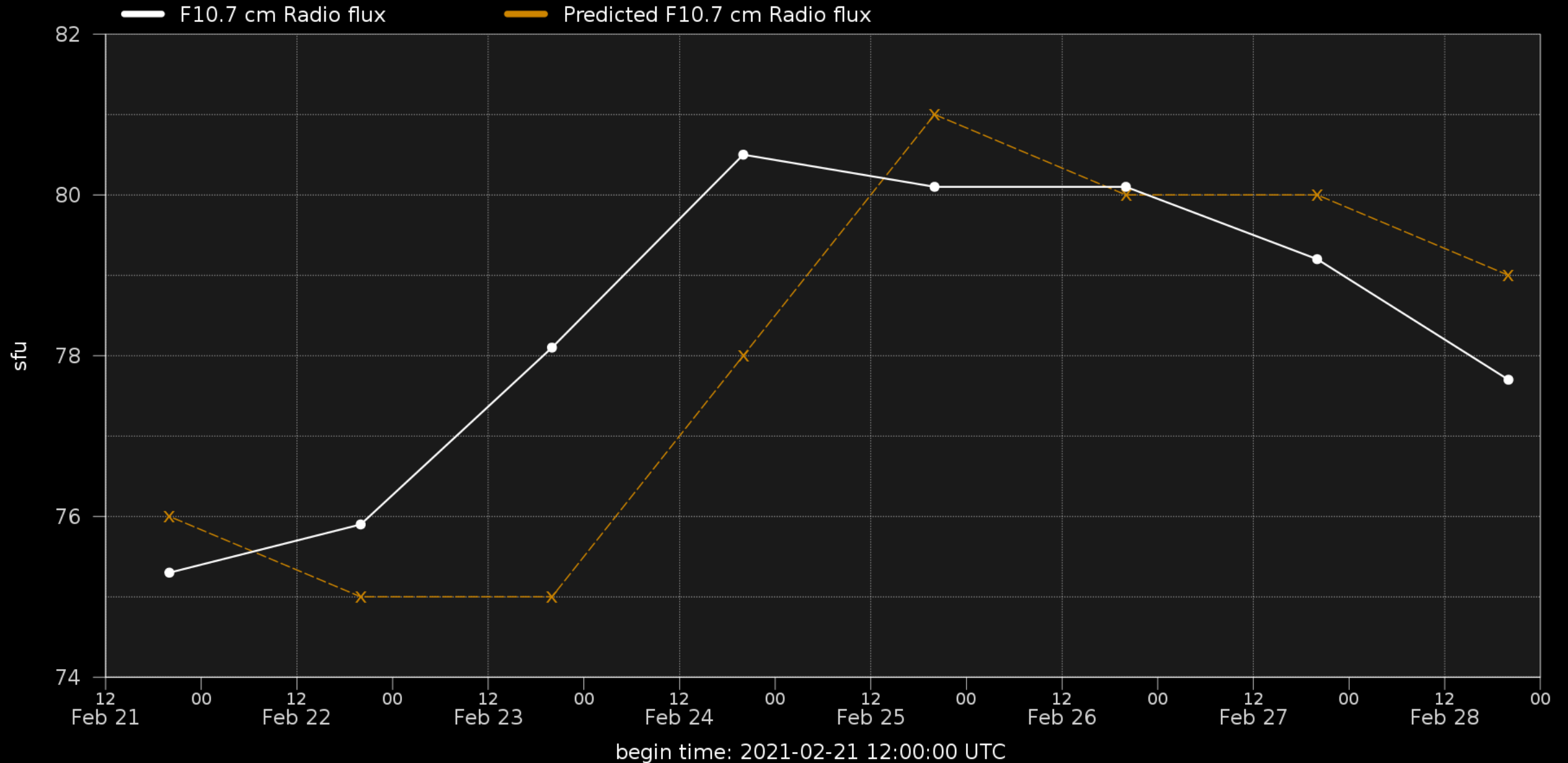
SDO/AIA 193 2021-02-28 12:17:53 UT

Filaments

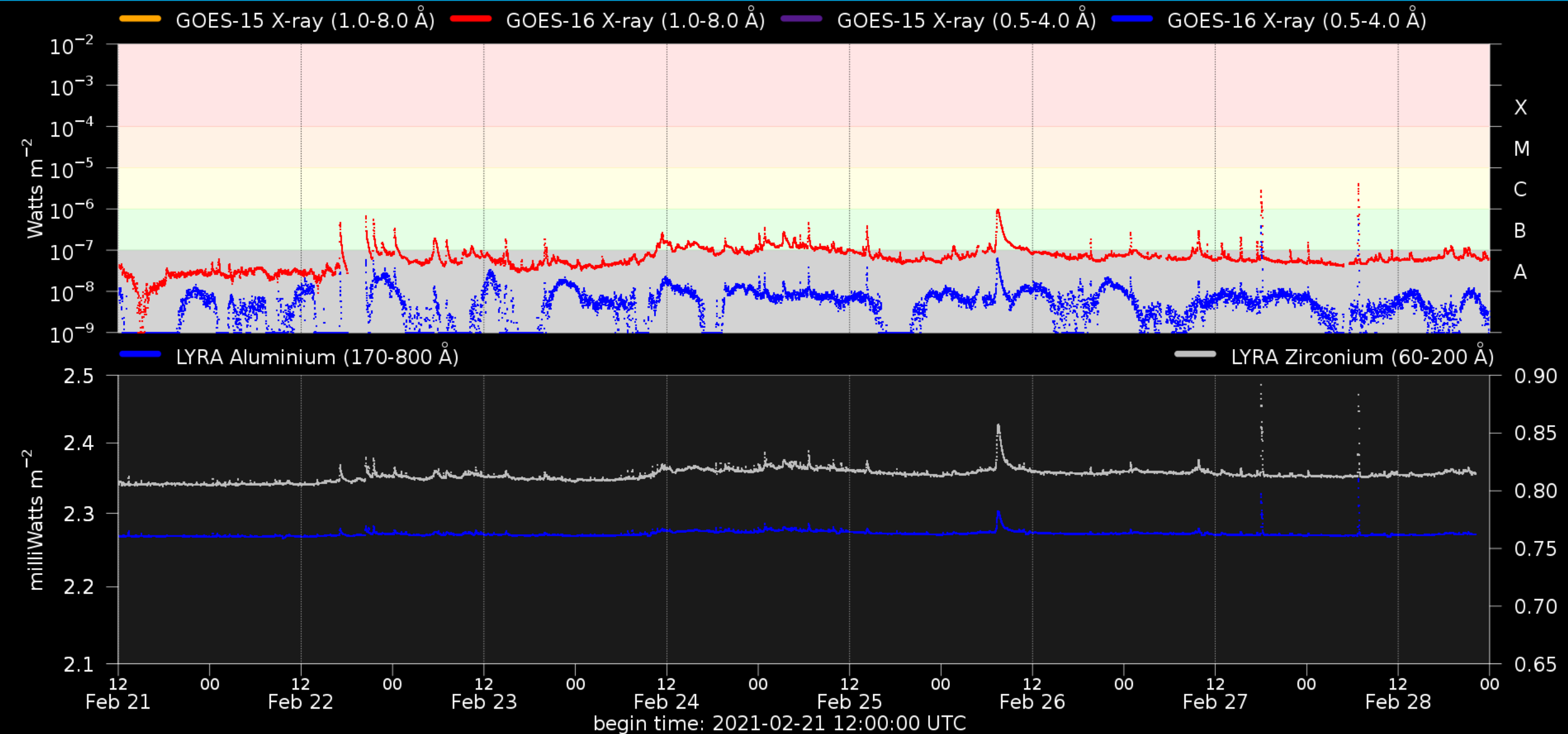
SDO/AIA 30.4 nm 2021-
02-22



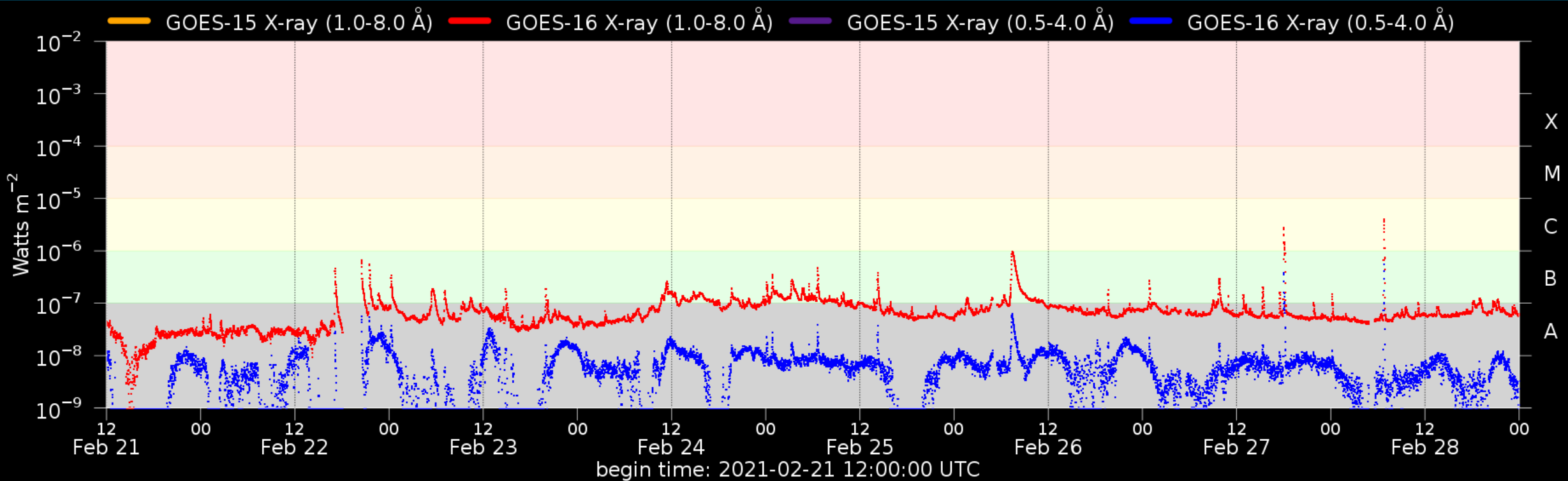
Solar F10.7cm radio flux



Solar X-Ray and UV flux



Flaring activity

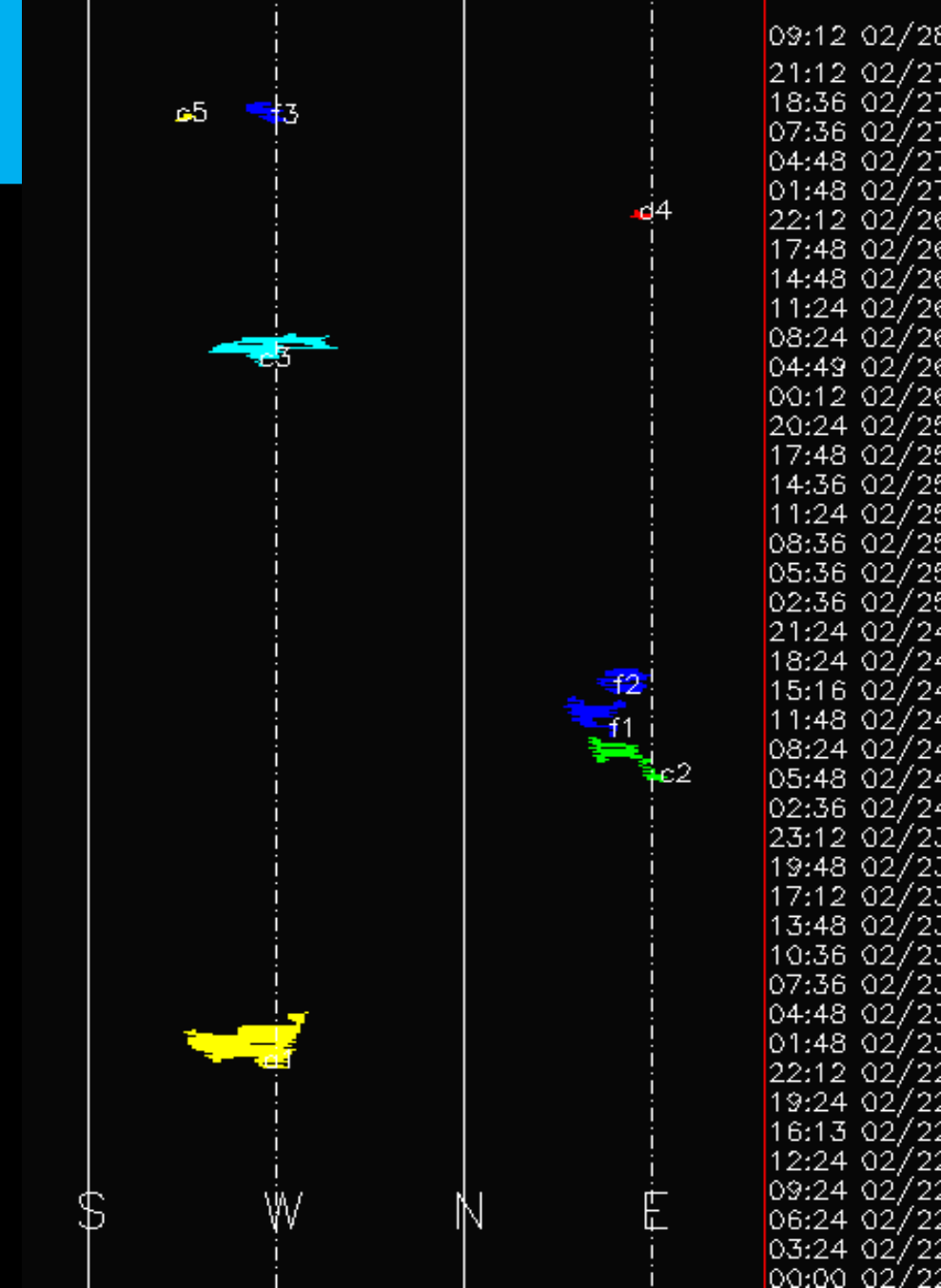


Probabilities (%) and occurrences (#) of C/M/X-flares issued at 12:30 and over the next 24h:

Issue date	2021-02-21	2021-02-22	2021-02-23	2021-02-24	2021-02-25	2021-02-26	2021-02-27	2021-02-28
Probability (%)	05 01 01	05 01 01	05 01 01	05 01 01	10 01 01	25 01 01	05 01 01	25 01 01
Observed (#)	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00	02 00 00	00 00 00

Coronal Mass Ejections

Non Earth directed

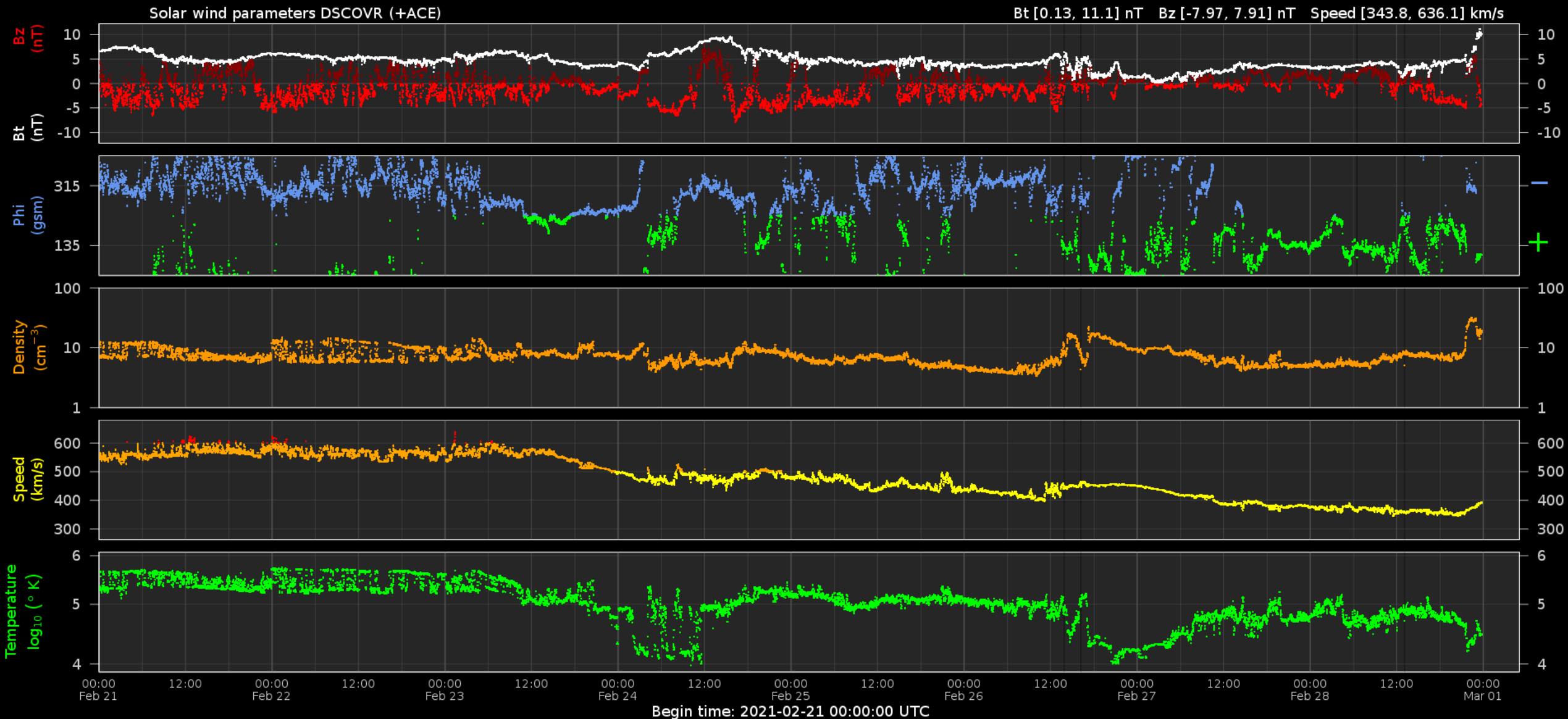


Solar Wind and Geomagnetic Activity

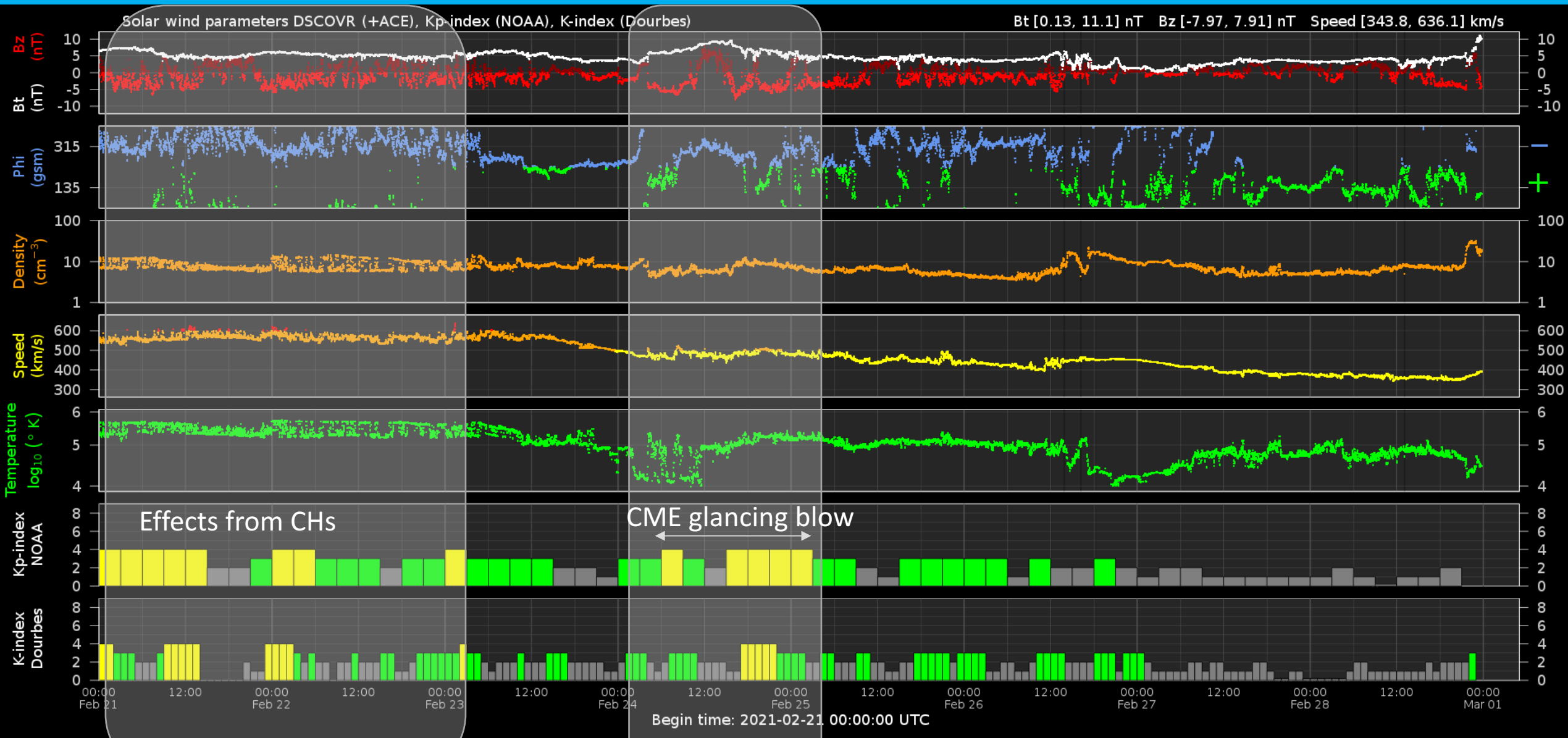


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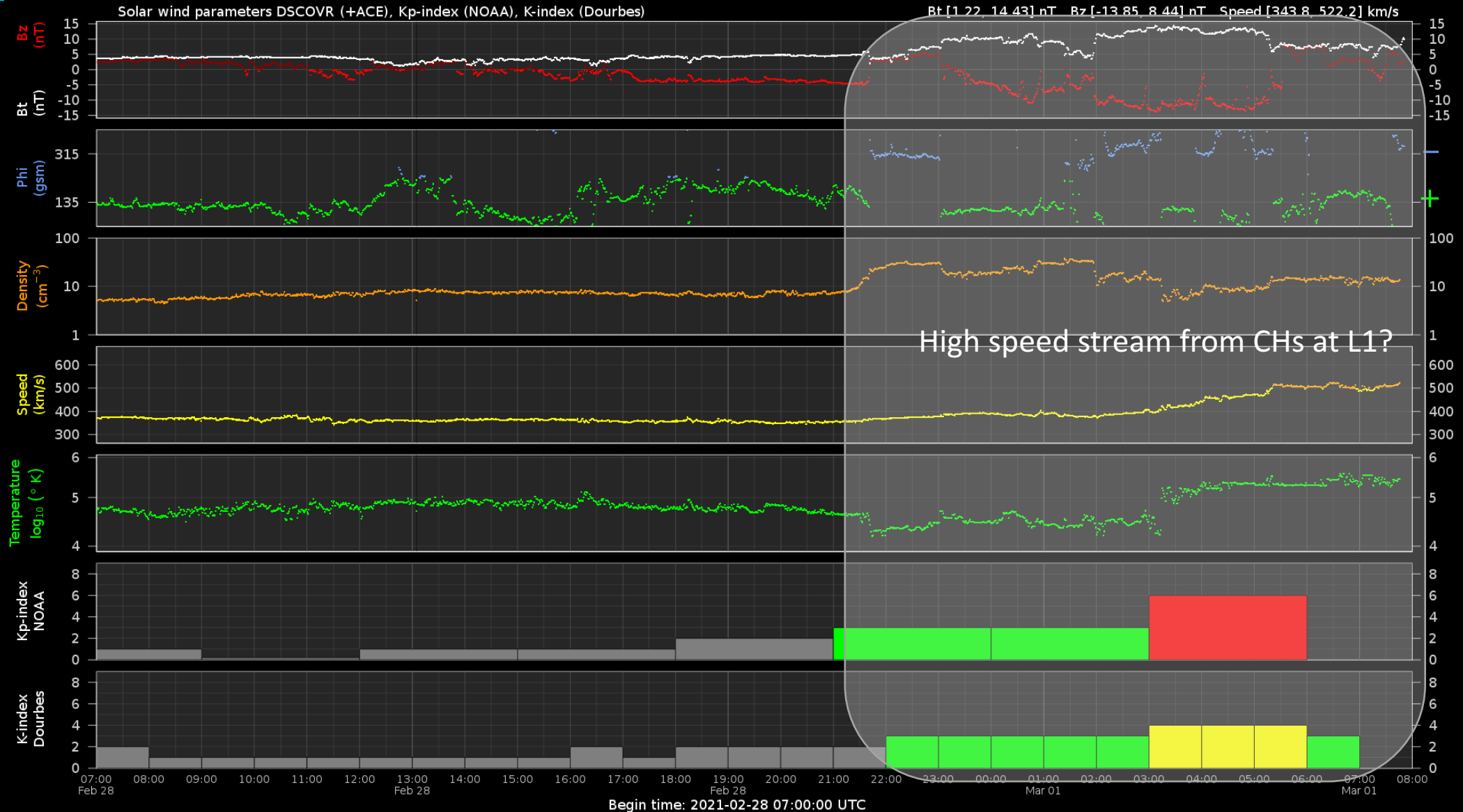
Solar wind parameters



Solar wind parameters & K-indices

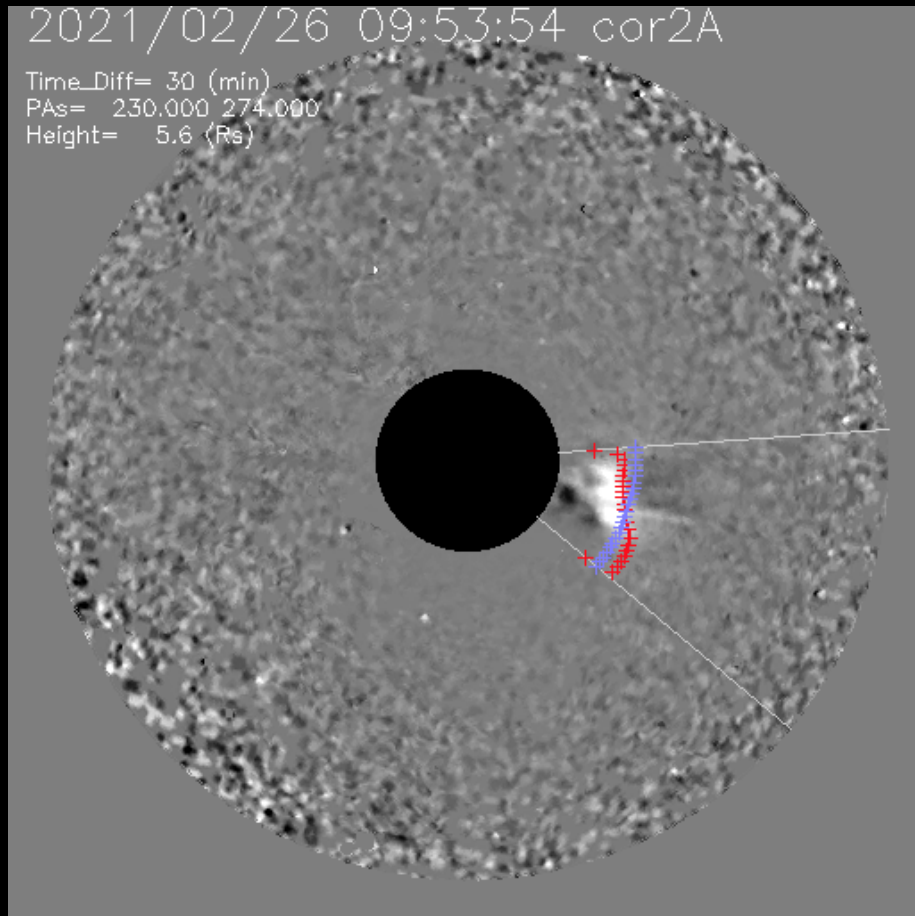


Solar Wind parameters and K-indices March 1st

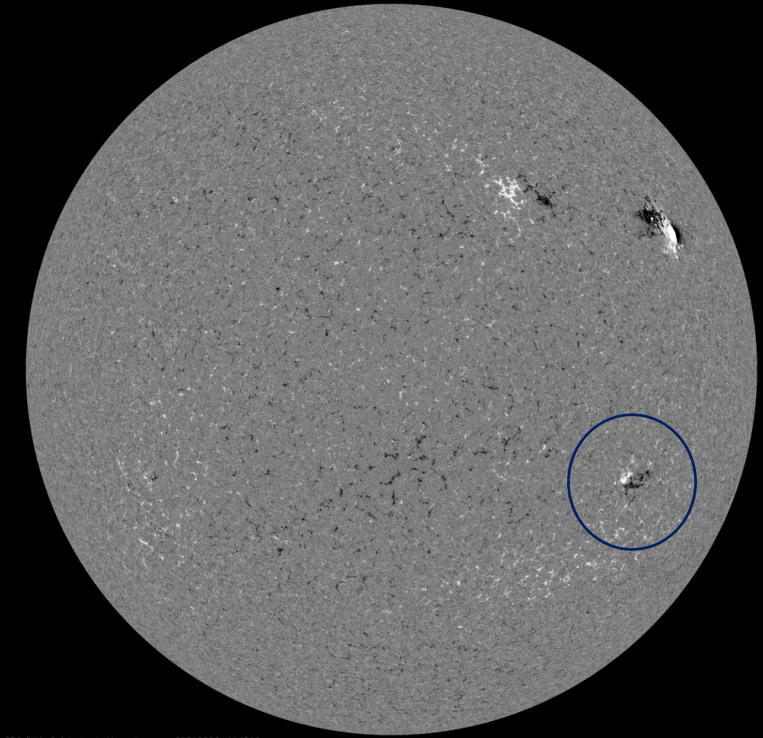
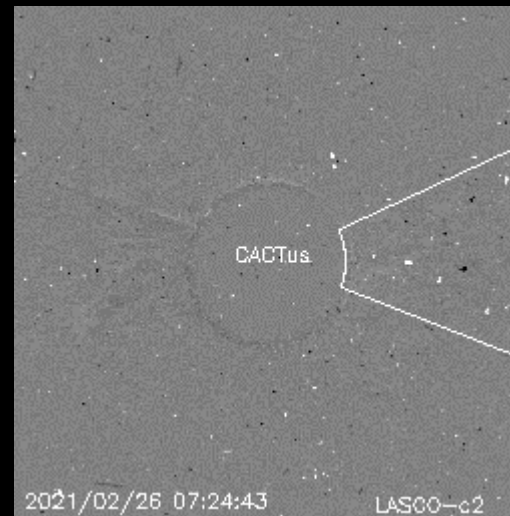


CME from Feb 26th AR 12805

Stereo A



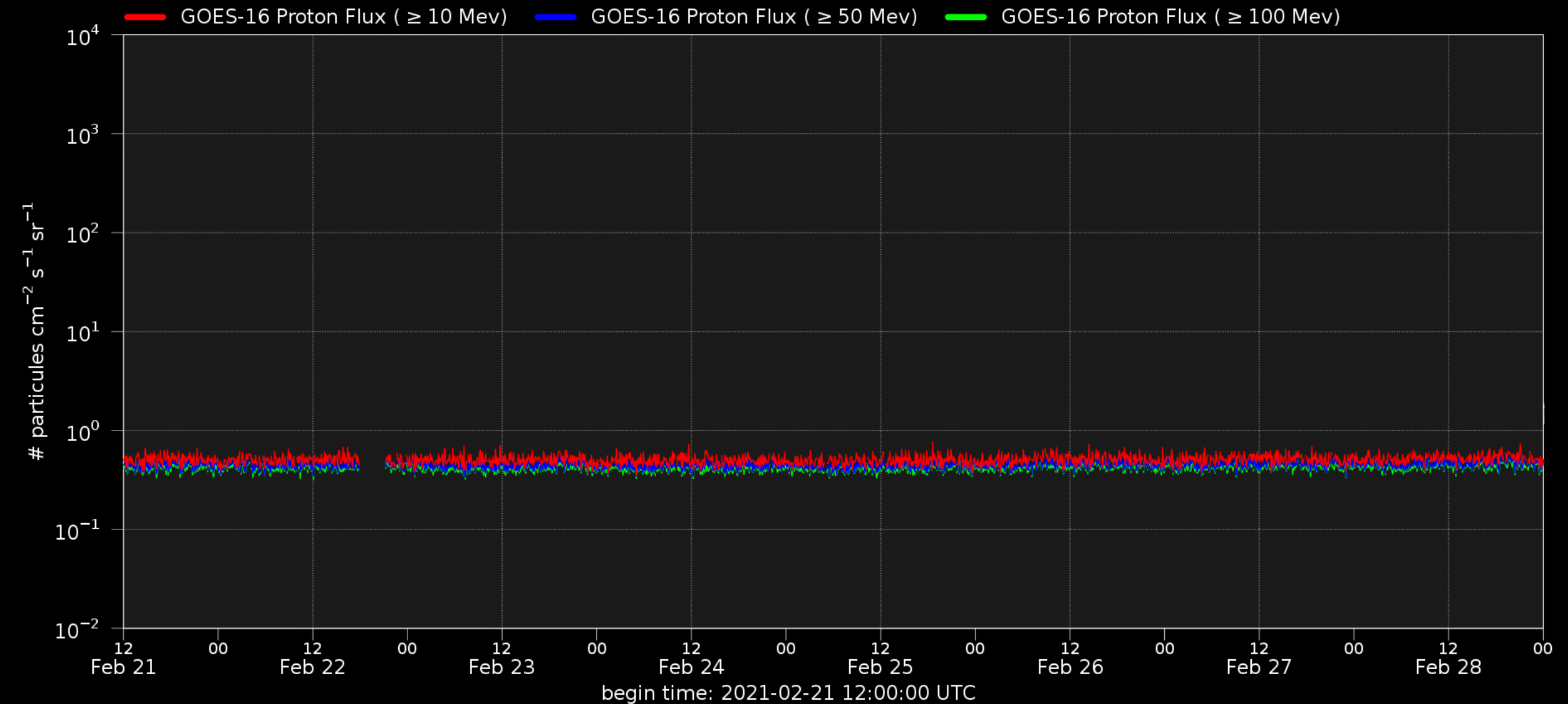
Cactus



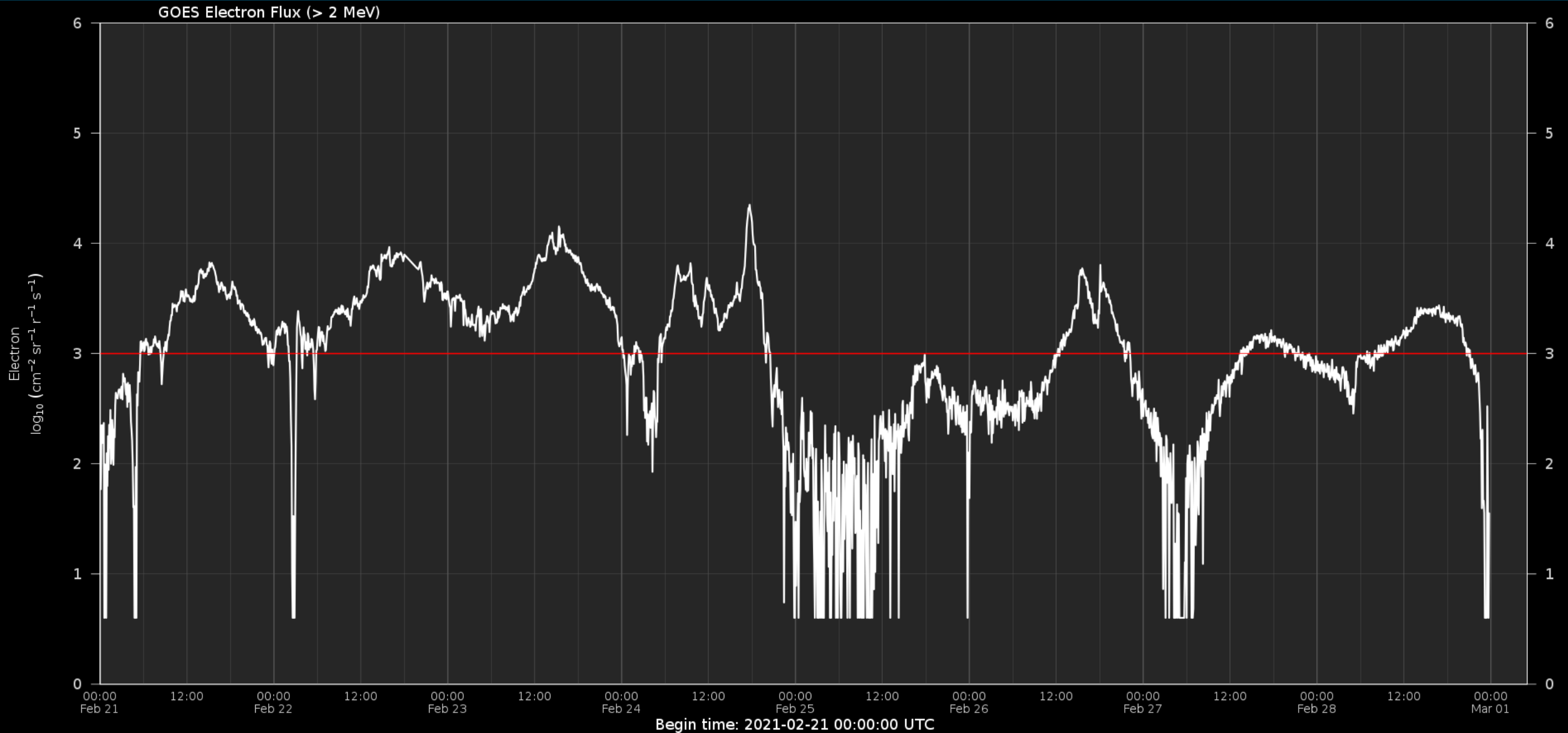
True speed not much higher than background solar wind speed. Coupled with western location of origin, believed non earth directed.

Energetic Particles

Solar proton flux

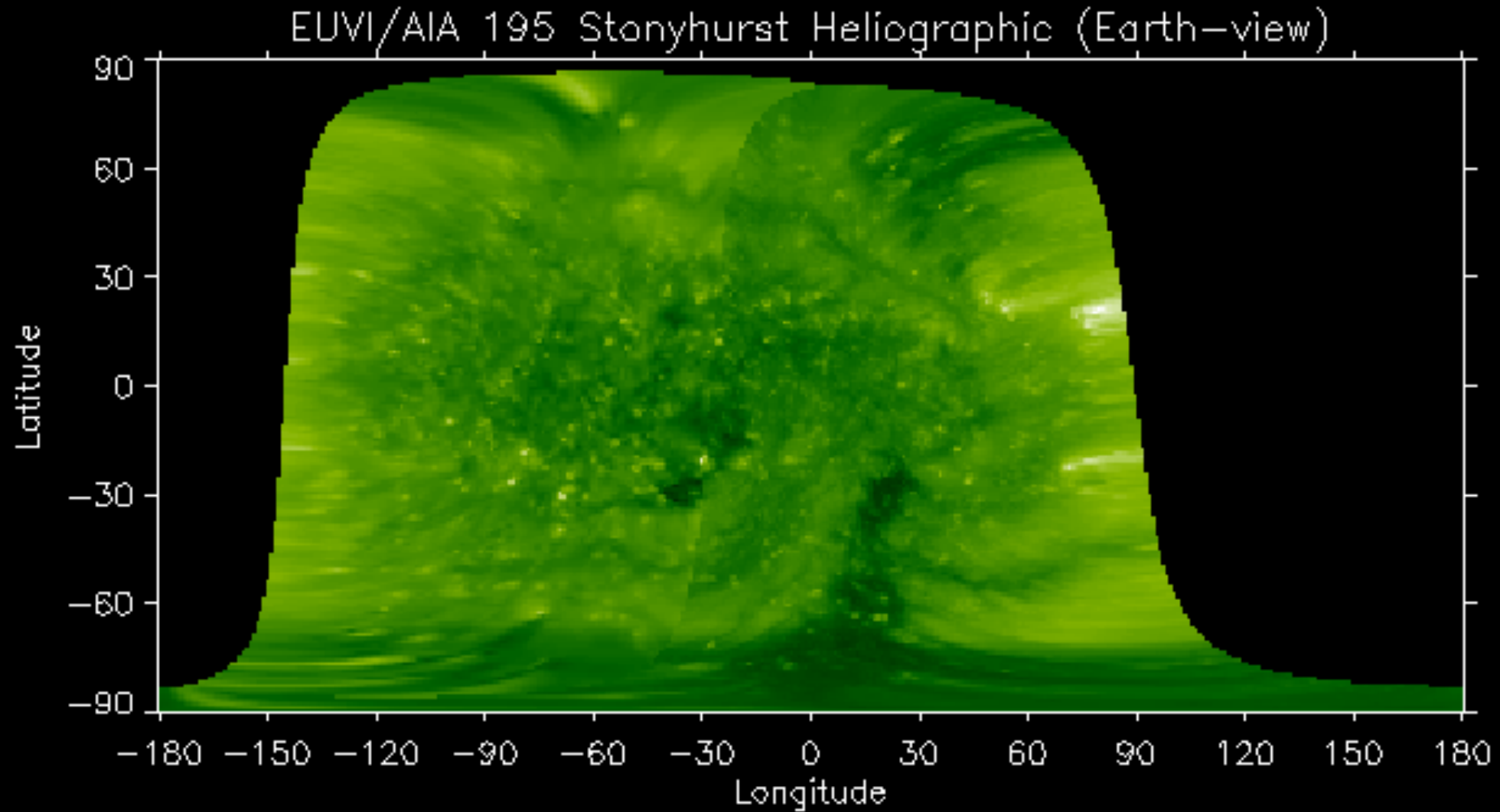


Electron flux at GEO



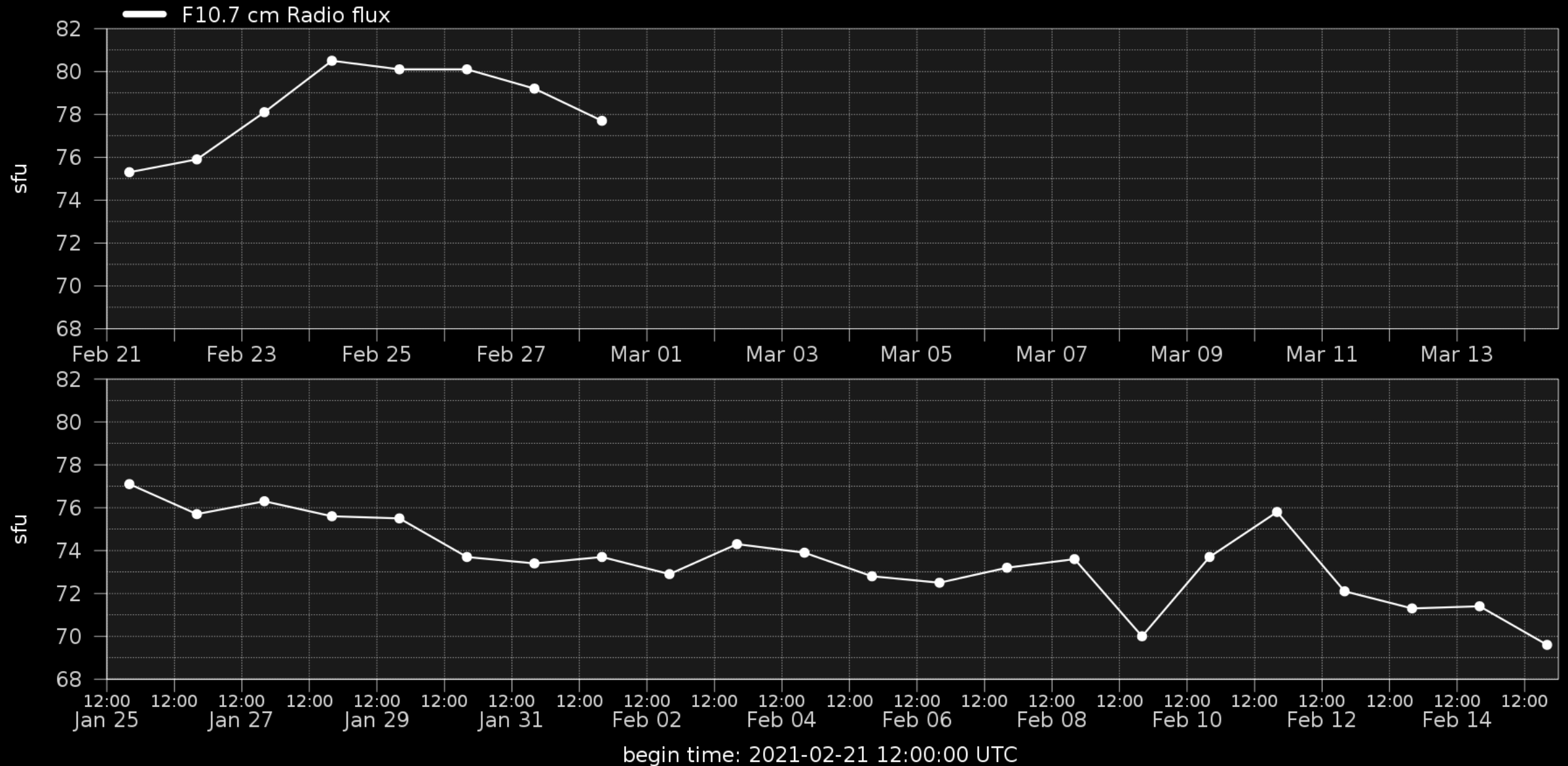
Outlook

Outlook: Solar activity

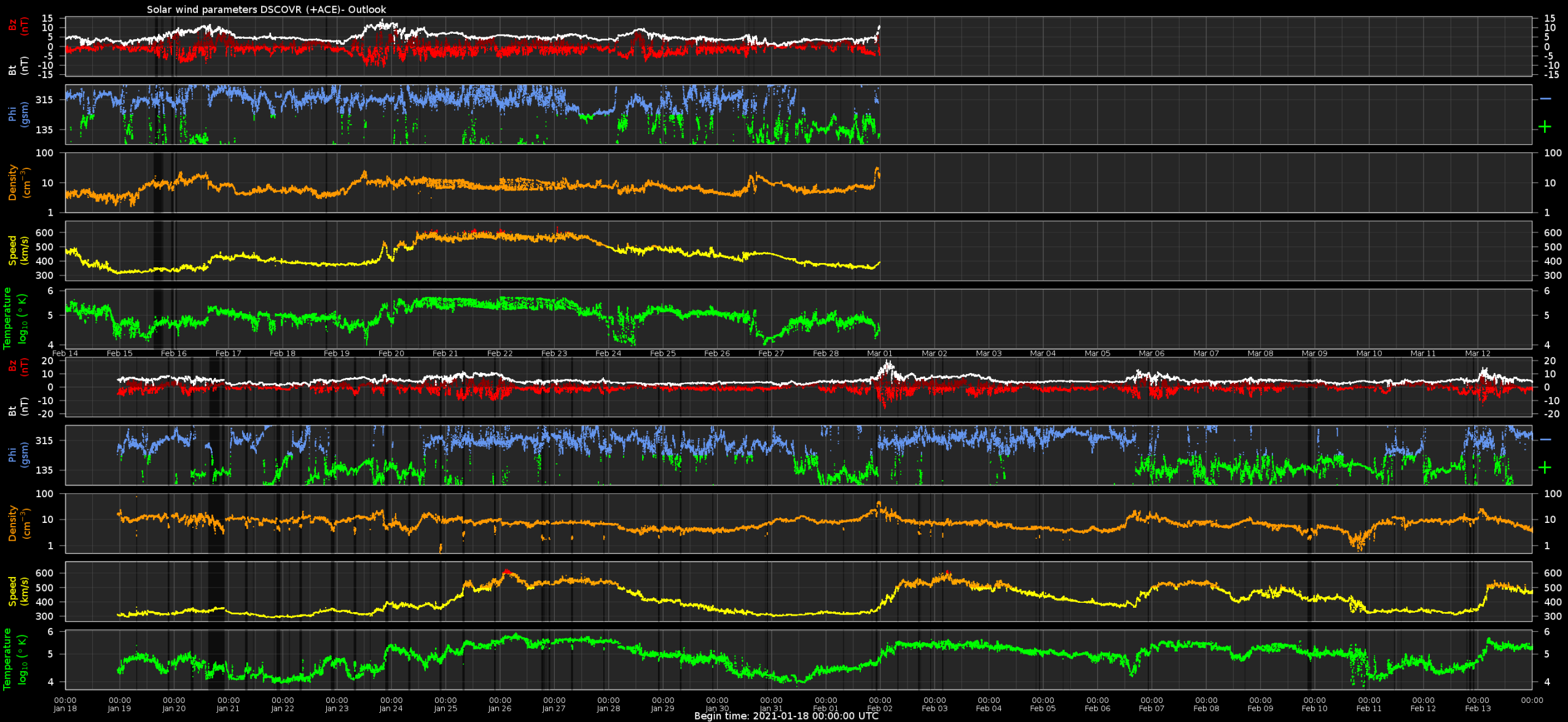


Observation date: 2021/02/28 11:55:00

Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



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See you at our next briefing!

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