

# SIDC Space Weather Briefing

28 February 2021 - 07 March 2021

Cis Verbeeck

& the SIDC forecaster team



Royal Observatory  
of Belgium

Solar Influences  
Data analysis Centre  
[www.sidc.be](http://www.sidc.be)

# Summary Report

Solar activity from 2021-02-28 12:00 to 2021-03-07 23:59

Active regions	Beta regions 2806 and 2807
Flares	# C-class flare: 1 # M-class flare: 0 # X-class flare: 0
Filament eruptions	NONE
Coronal Holes	Negative south polar CH at CM 26/02; positive equatorial CH at CM 01/03

Proton flux	Nominal, below 1 pfu
Electron flux	Moderate

## Solar wind and geomagnetic conditions

ICME	No ICMEs
SW Conditions	B : 1.02 - 14.43 nT // Bz: -13.85 nT to 8.81 nT // Speed: 287.6 - 691.5km/s
K-indices	max K-index (Dourbes): 5 max Kp-index (NOAA): 6

# Solar Activity

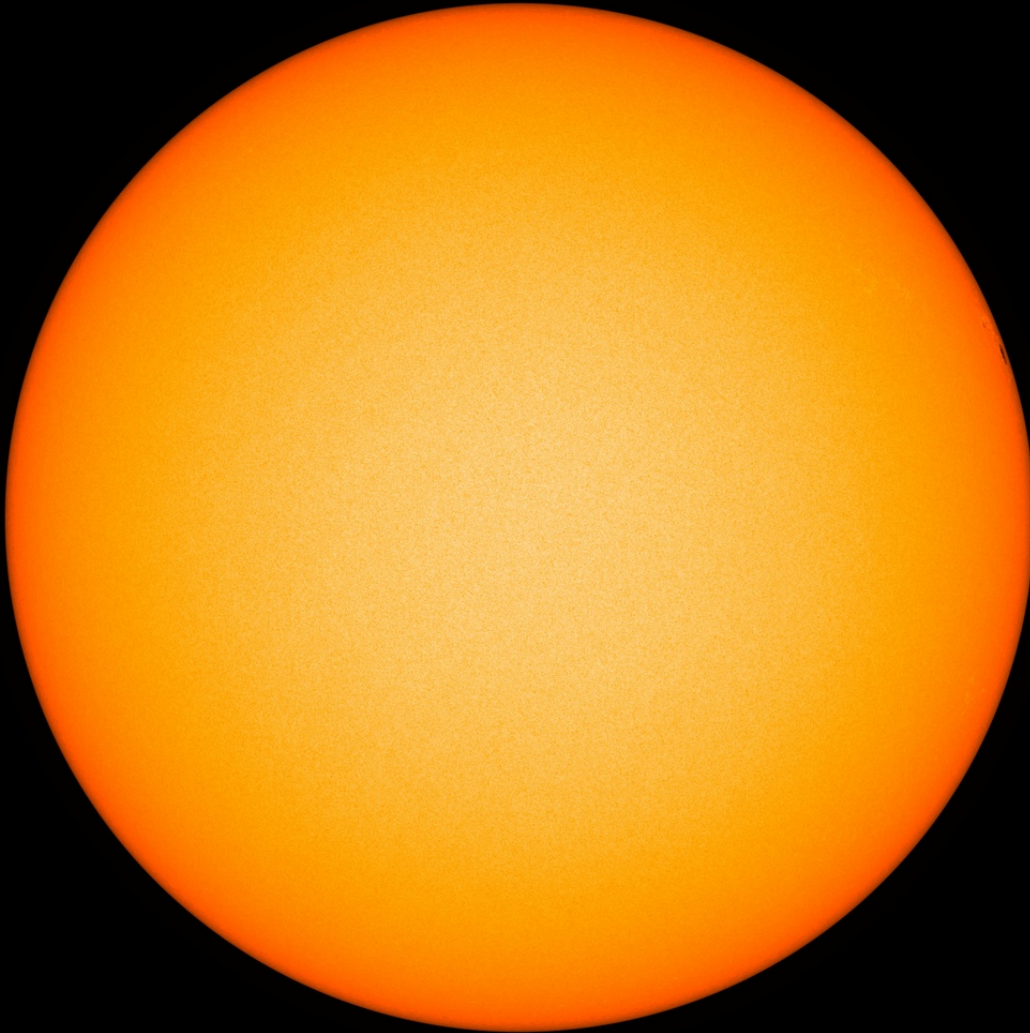


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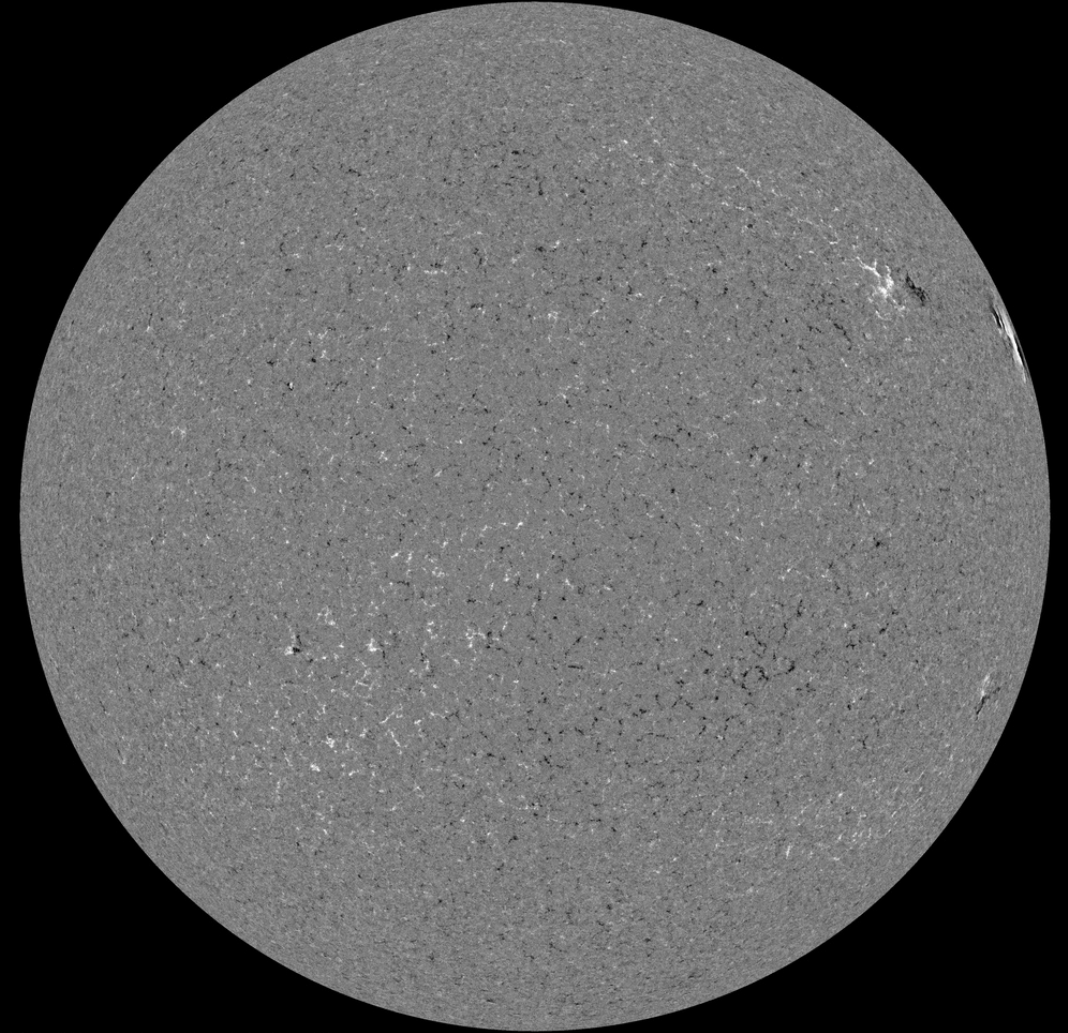
# Solar active regions

SDO/HMI White Light 2021-02-28



SDO/HMI Quick-Look Continuum: 20210228\_114500

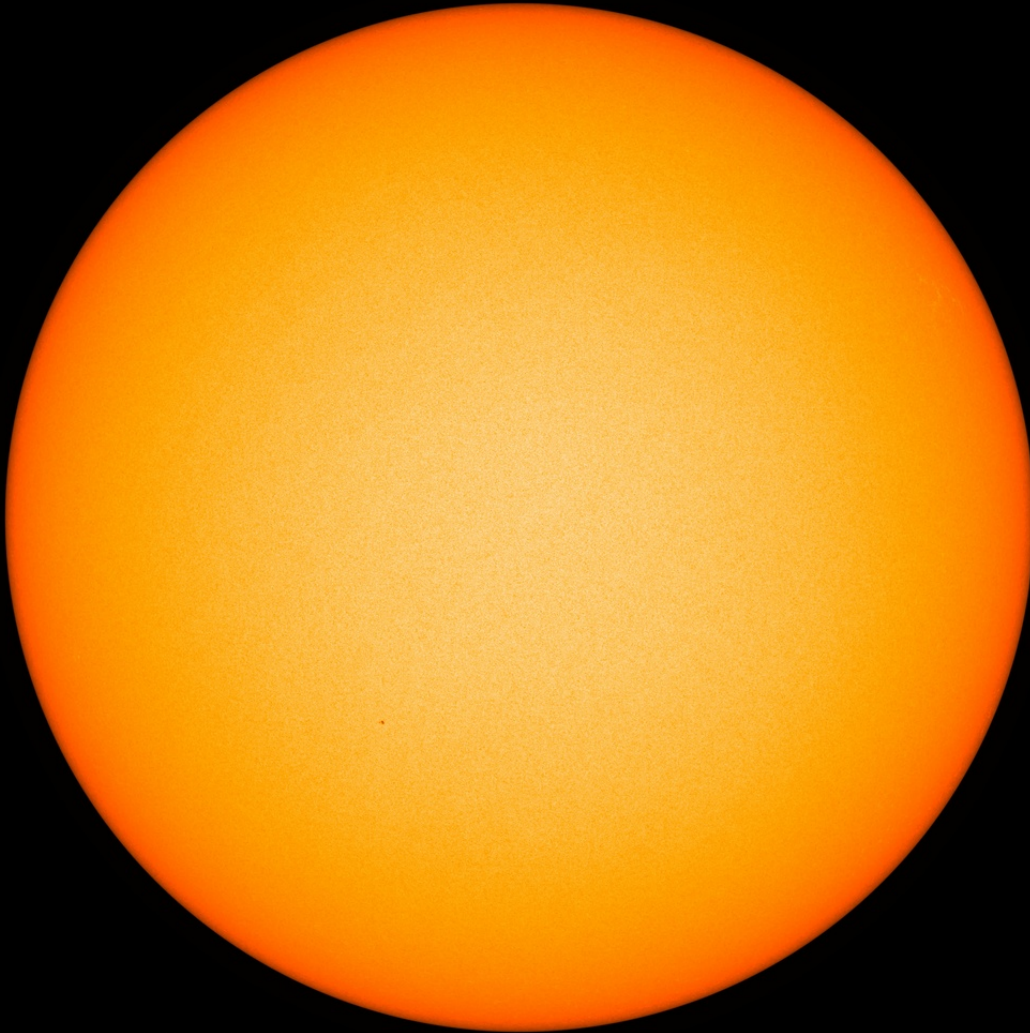
SDO/HMI Magnetogram 2021-02-28



SDO/HMI Quick-Look Magnetogram: 20210228\_114500

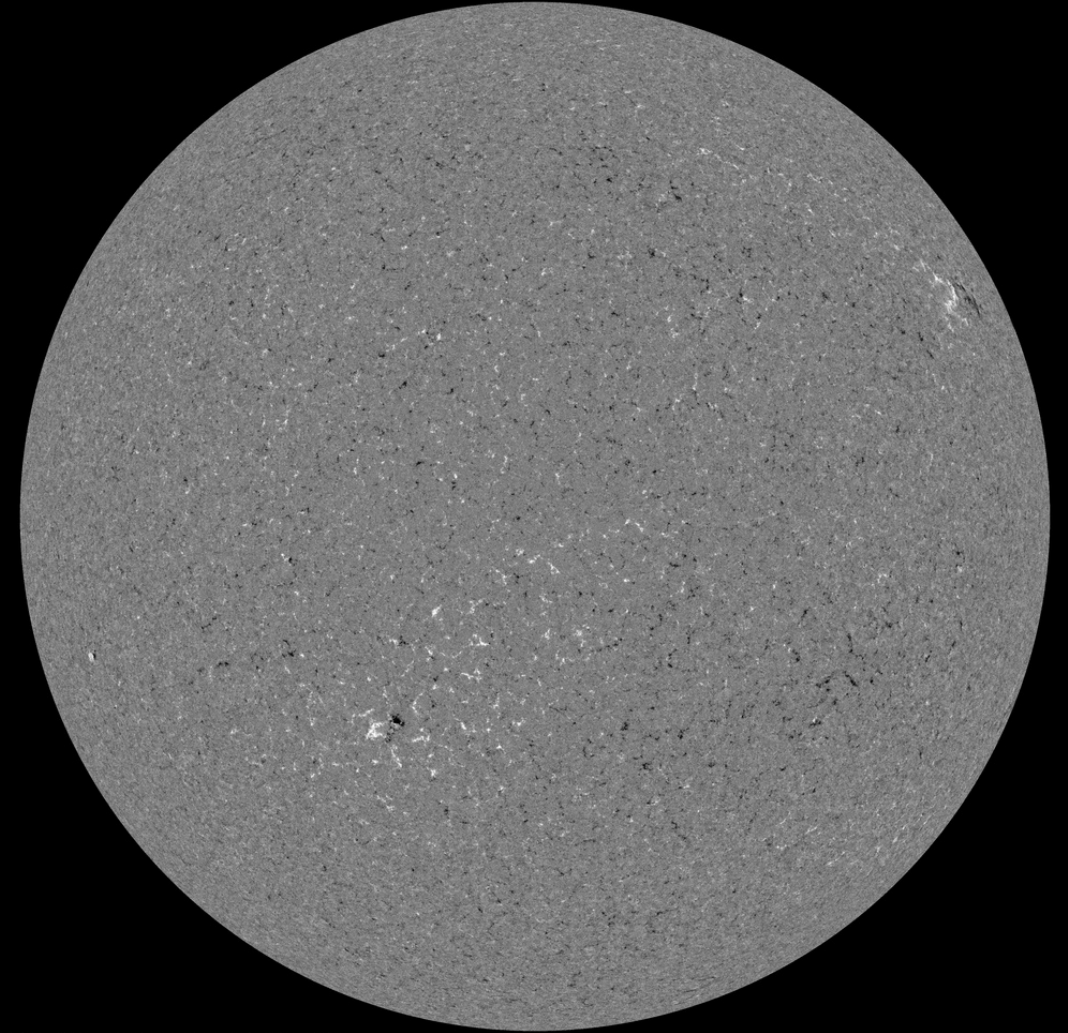
# Solar active regions

SDO/HMI White Light 2021-03-01



SDO/HMI Quick-Look Continuum: 20210301\_114500

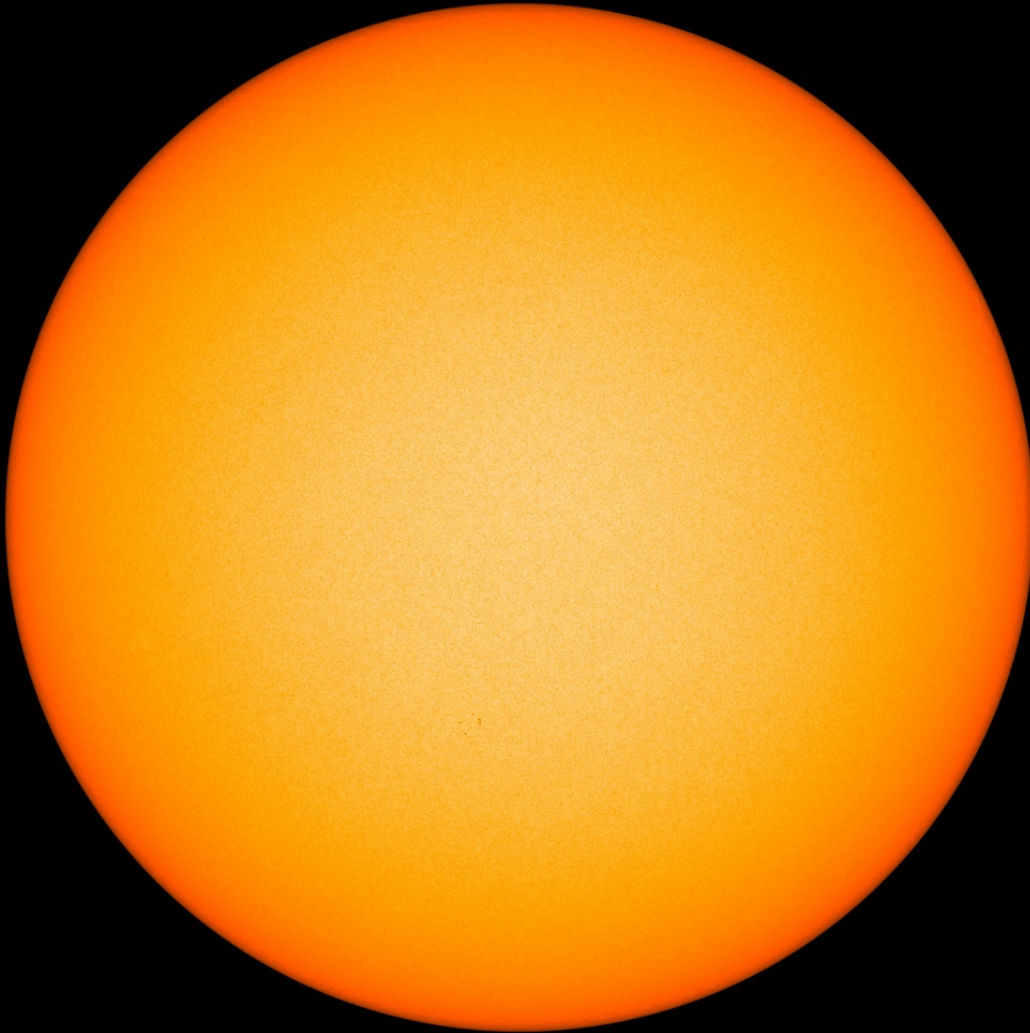
SDO/HMI Magnetogram 2021-03-01



SDO/HMI Quick-Look Magnetogram: 20210301\_114500

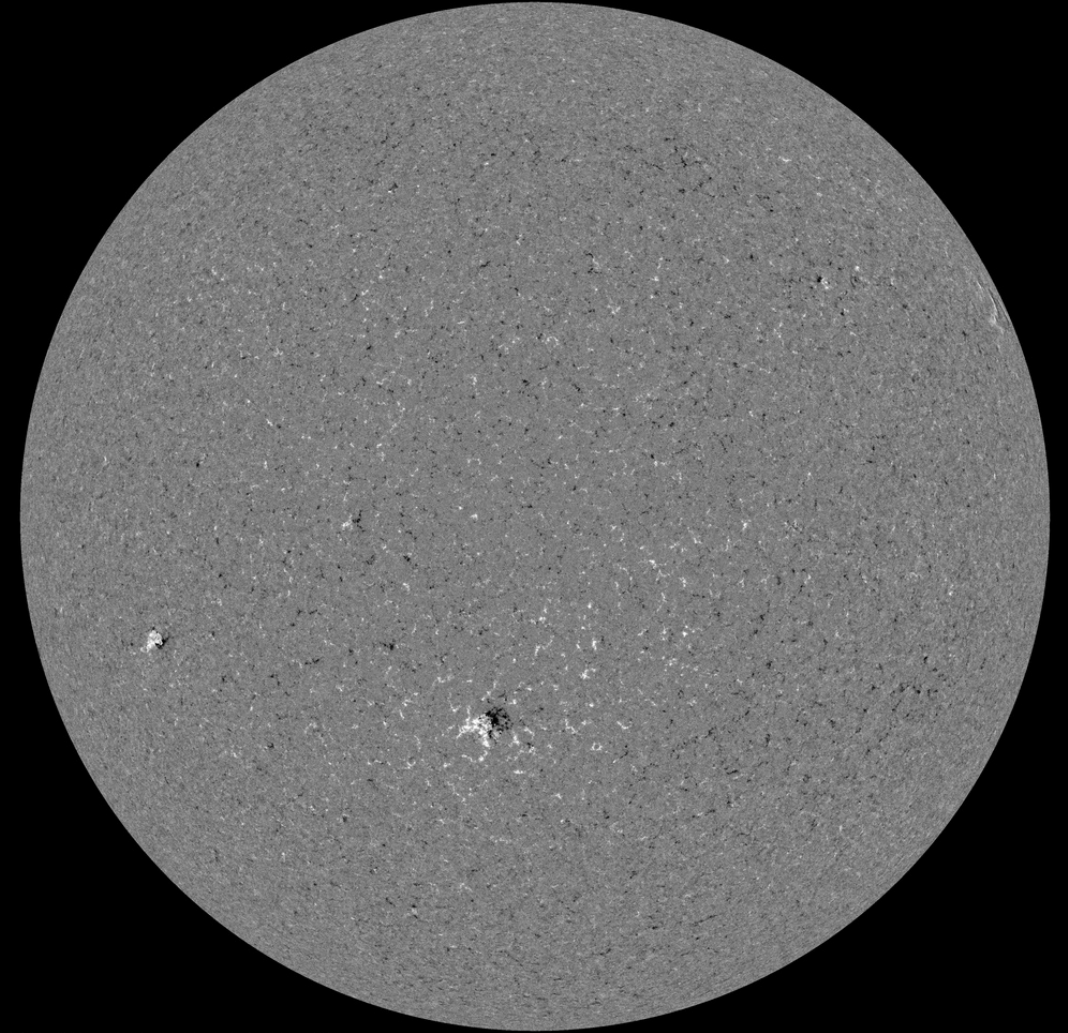
# Solar active regions

SDO/HMI White Light 2021-03-02



SDO/HMI Quick-Look Continuum: 20210302\_114500

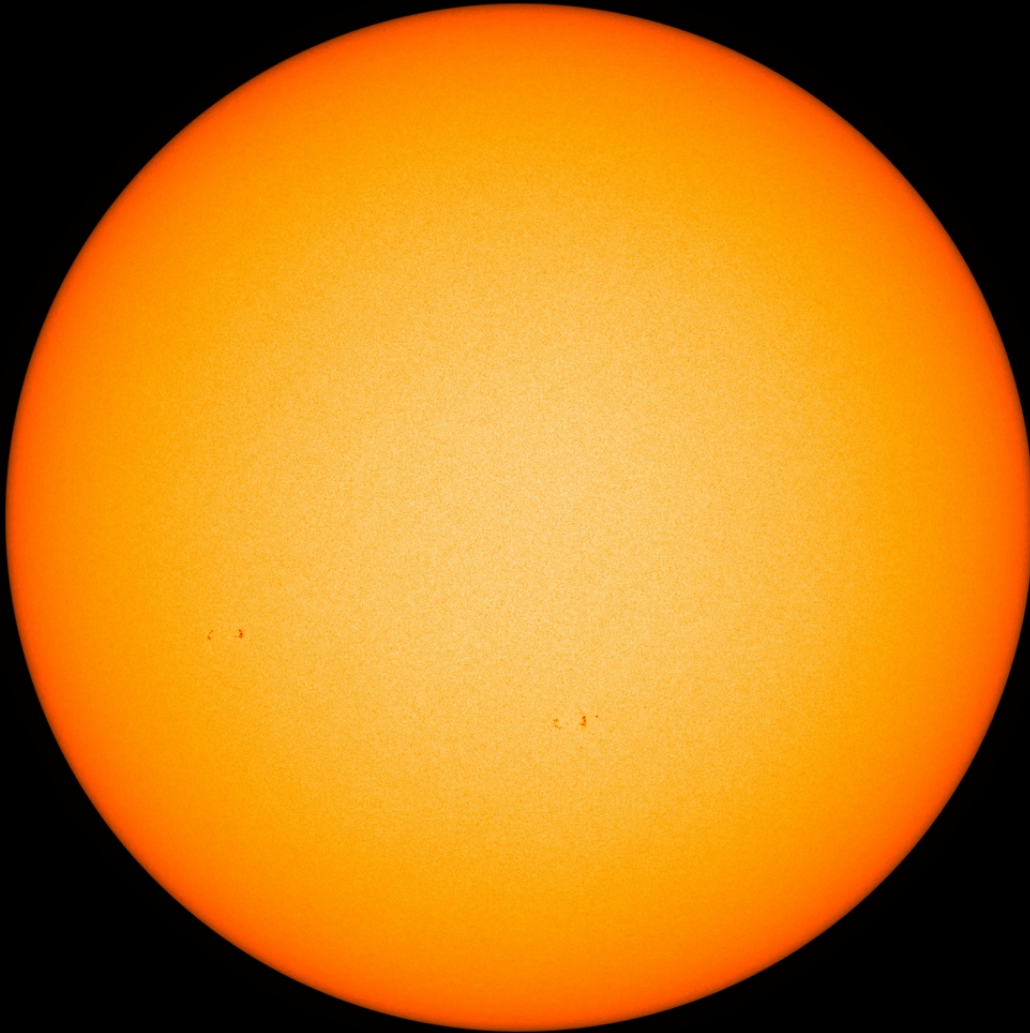
SDO/HMI Magnetogram 2021-03-02



SDO/HMI Quick-Look Magnetogram: 20210302\_114500

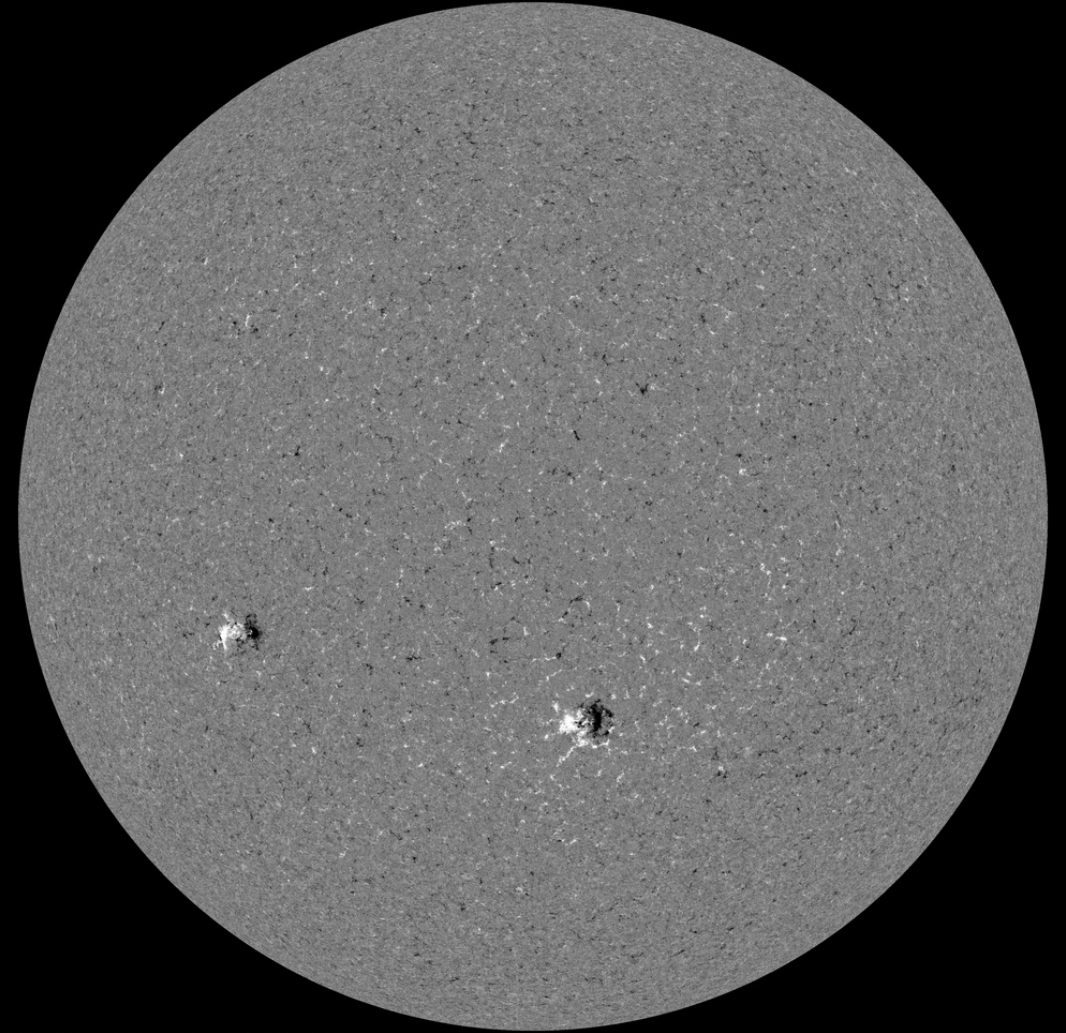
# Solar active regions

SDO/HMI White Light 2021-03-03



SDO/HMI Quick-Look Continuum: 20210303\_114500

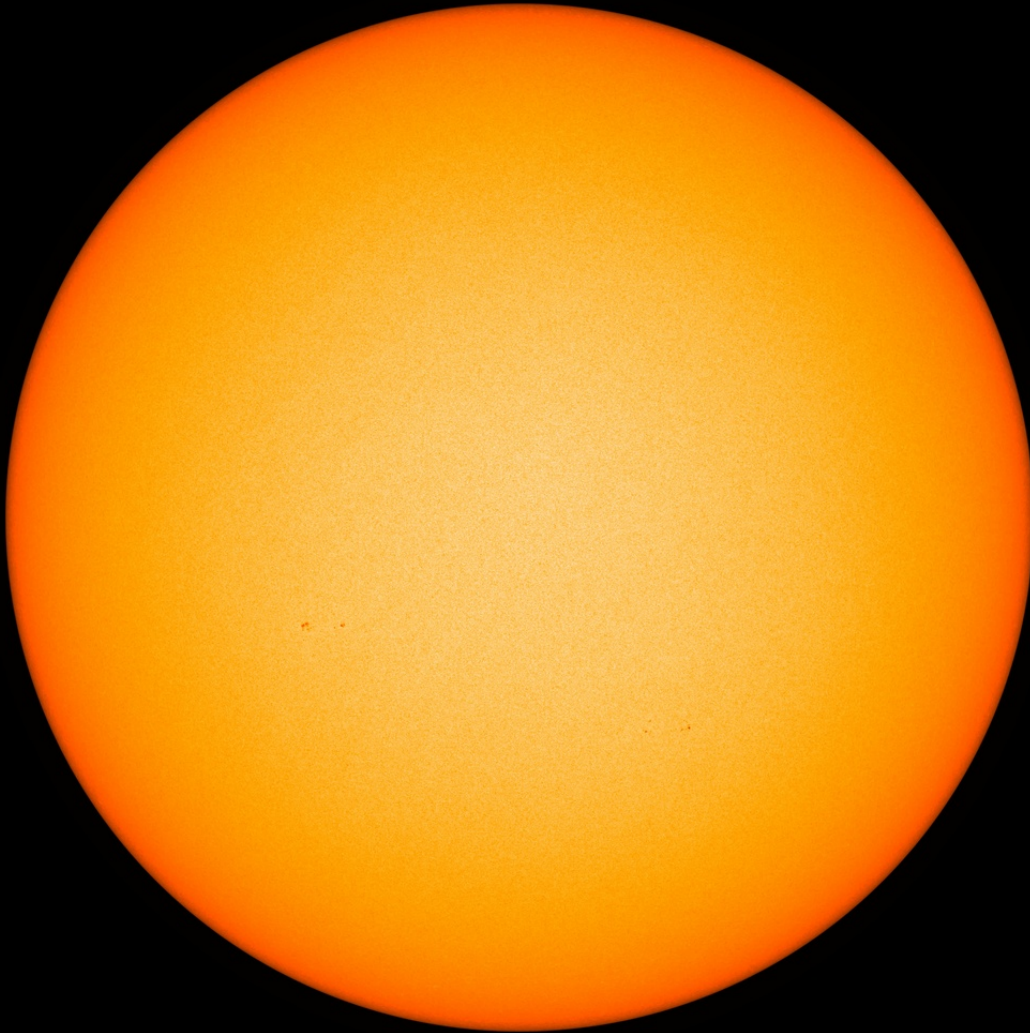
SDO/HMI Magnetogram 2021-03-03



SDO/HMI Quick-Look Magnetogram: 20210303\_114500

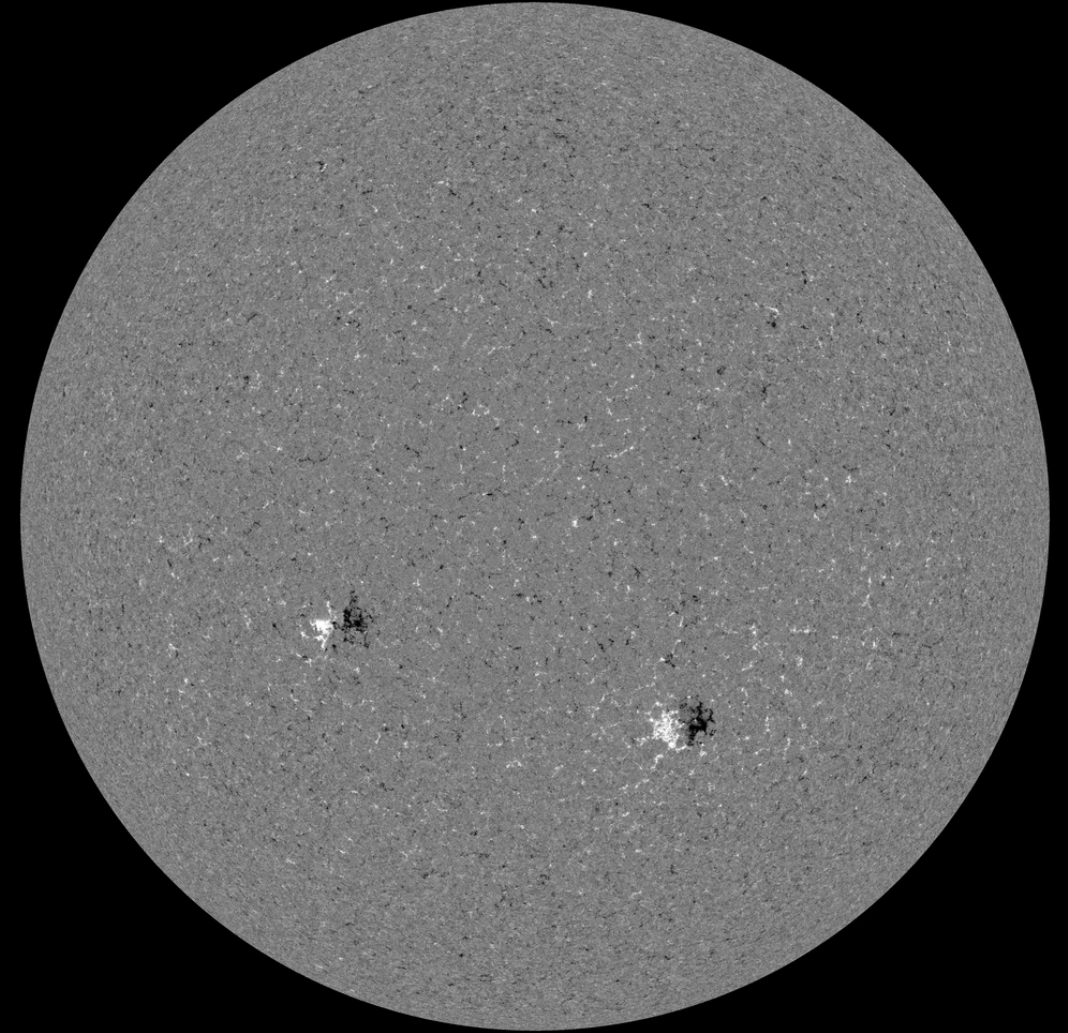
# Solar active regions

SDO/HMI White Light 2021-03-04



SDO/HMI Quick-Look Continuum: 20210304\_114500

SDO/HMI Magnetogram 2021-03-04

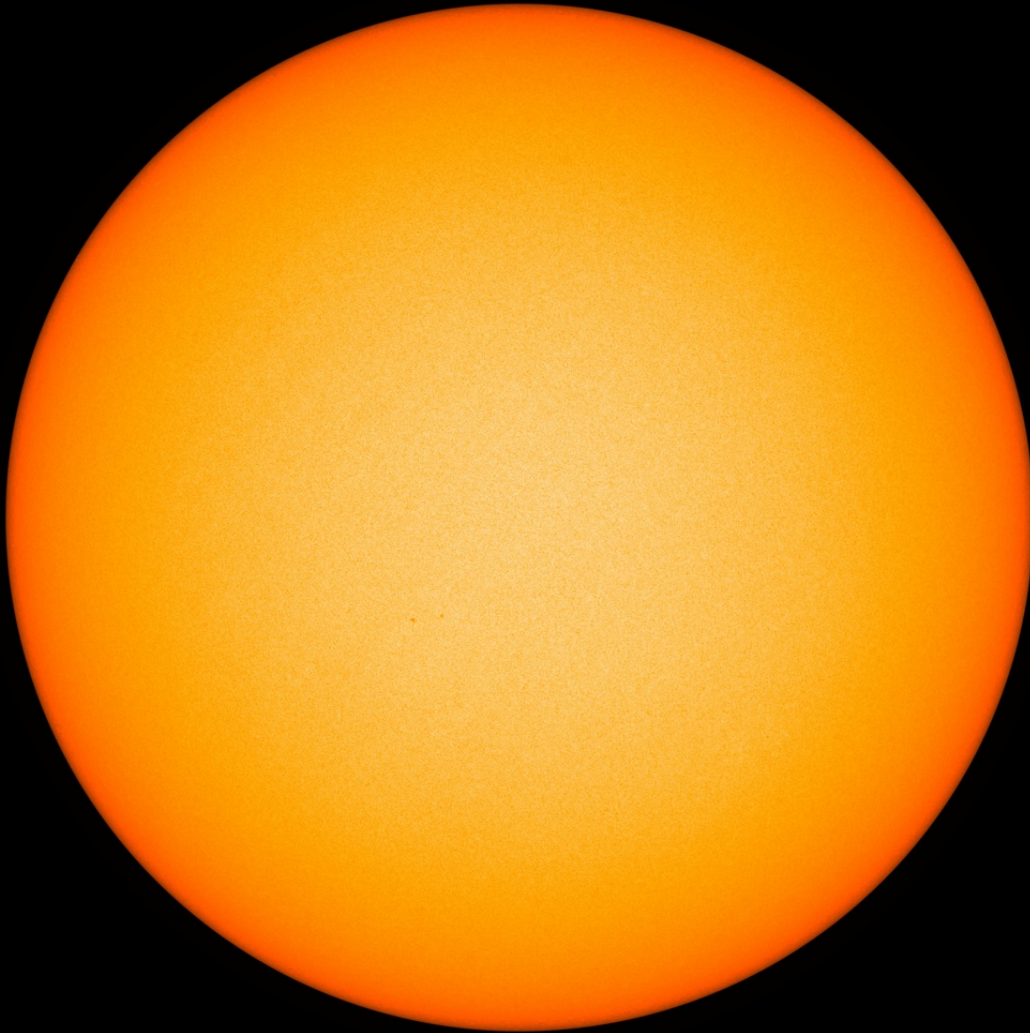


SDO/HMI Quick-Look Magnetogram: 20210304\_114500



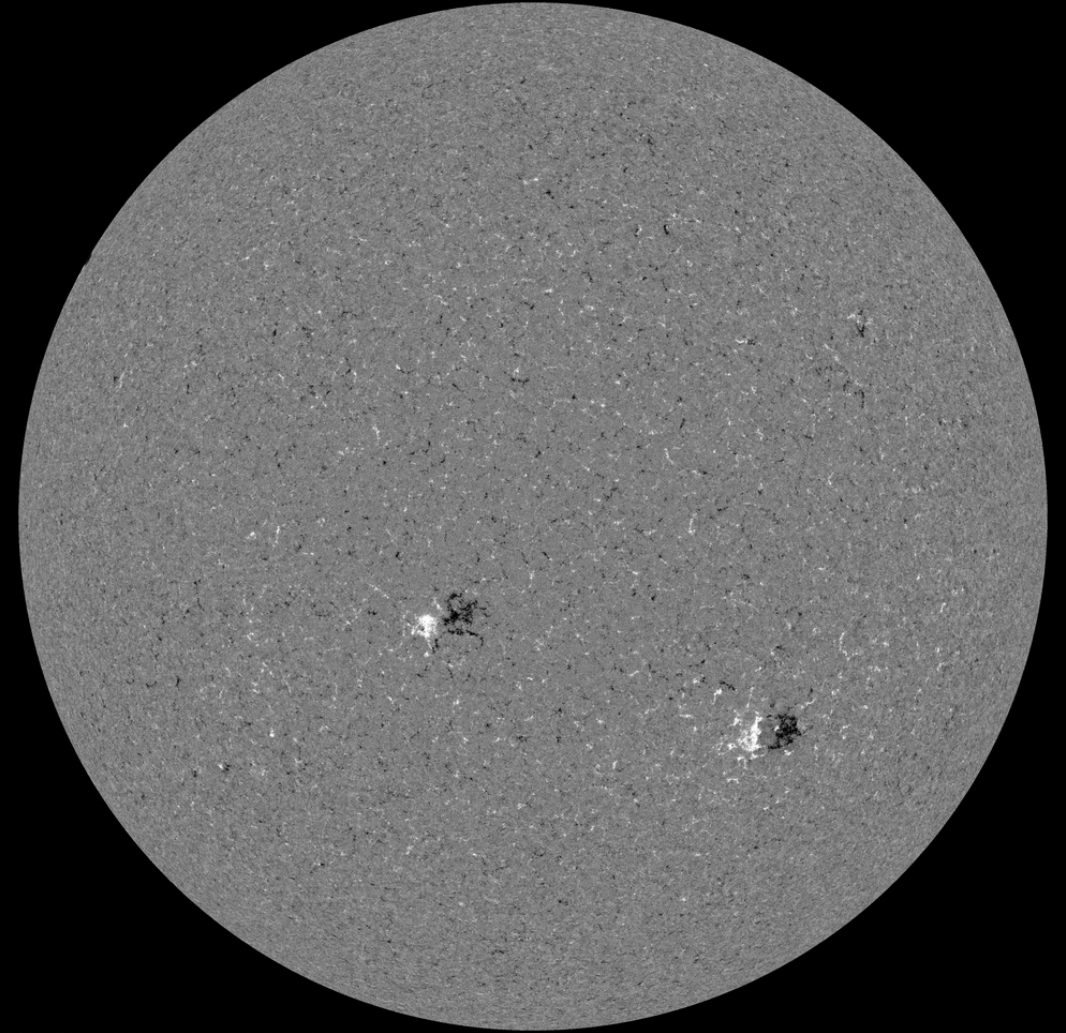
# Solar active regions

SDO/HMI White Light 2021-03-05



SDO/HMI Quick-Look Continuum: 20210305\_114500

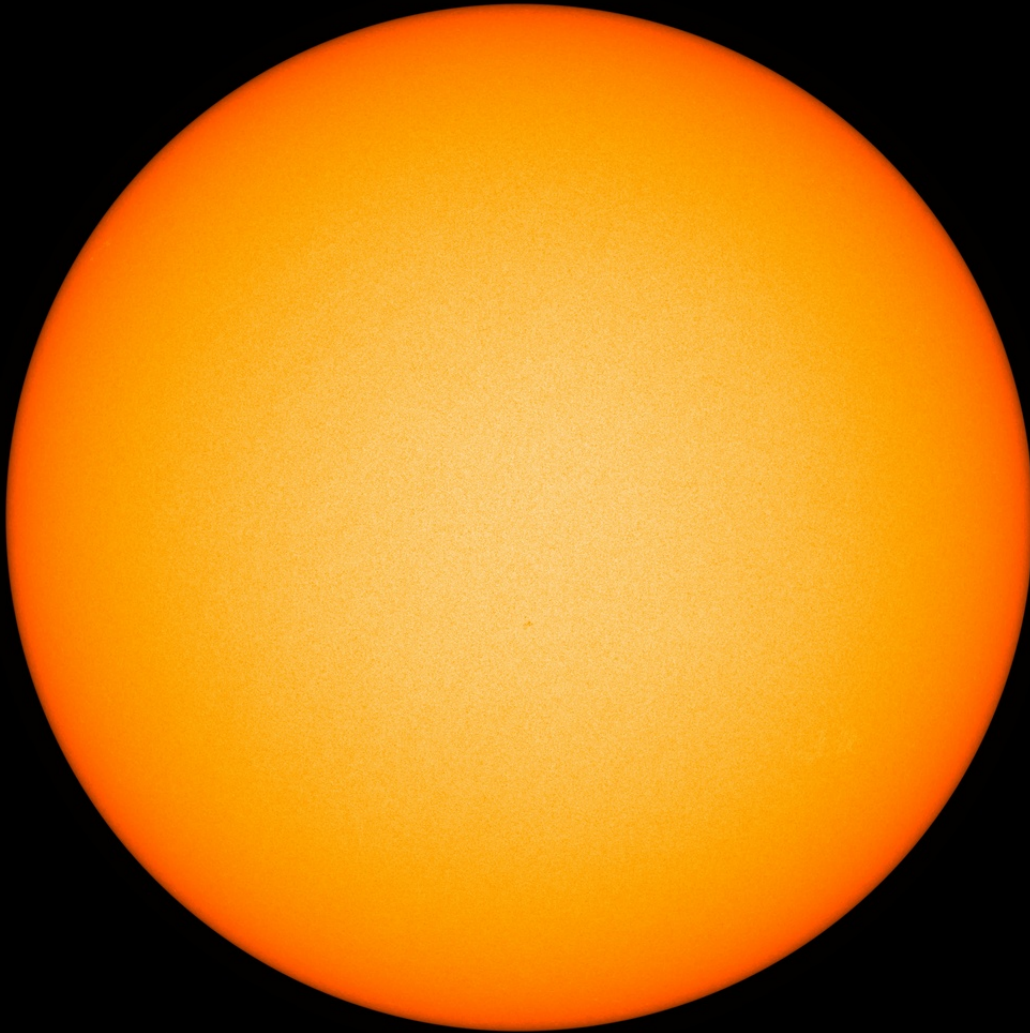
SDO/HMI Magnetogram 2021-03-05



SDO/HMI Quick-Look Magnetogram: 20210305\_114500

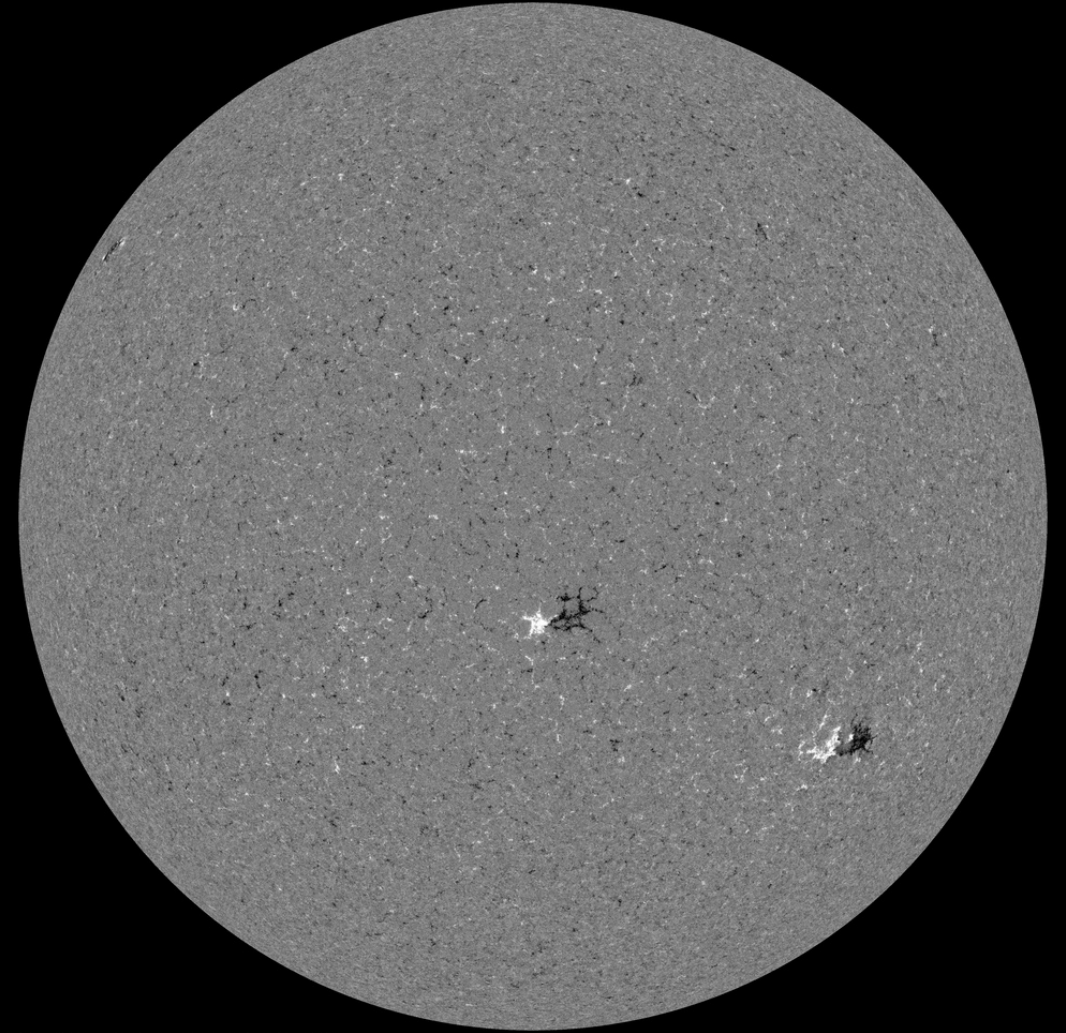
# Solar active regions

SDO/HMI White Light 2021-03-06



SDO/HMI Quick-Look Continuum: 20210306\_114500

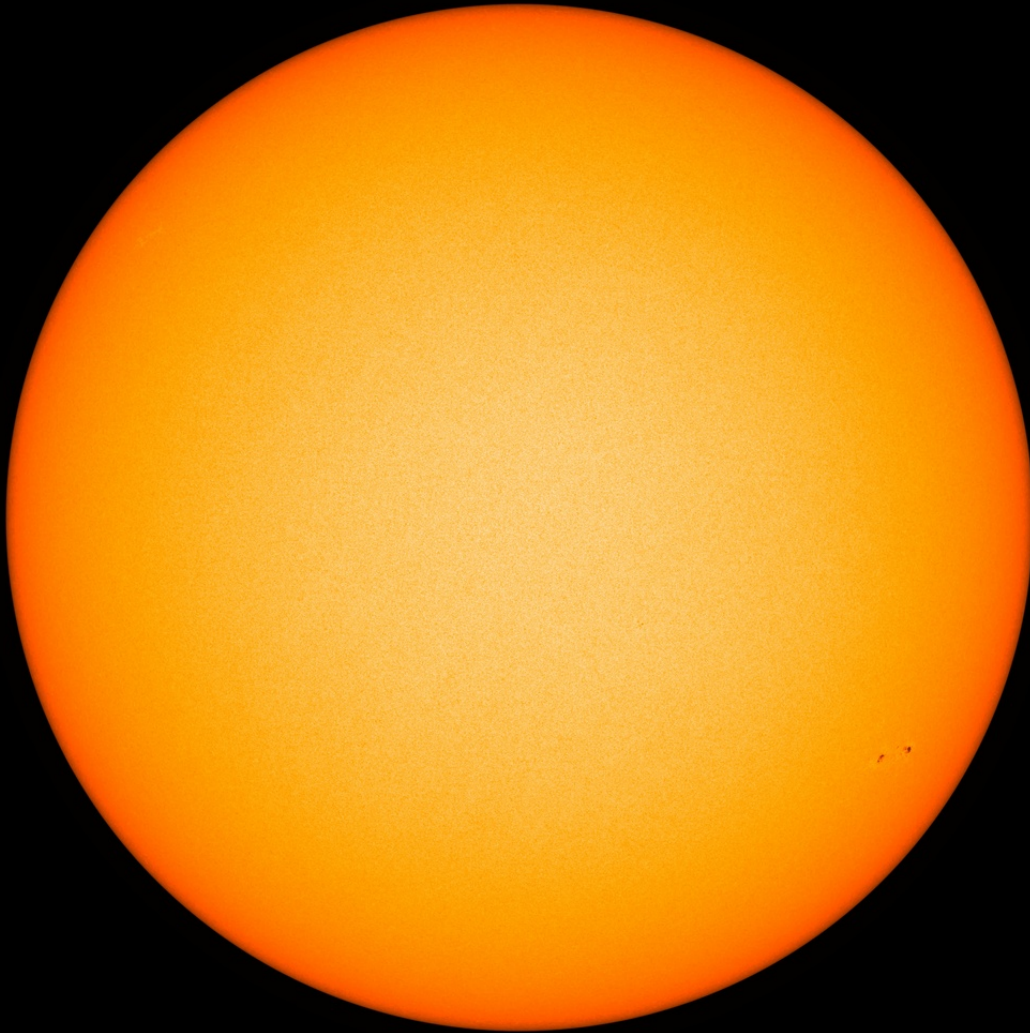
SDO/HMI Magnetogram 2021-03-06



SDO/HMI Quick-Look Magnetogram: 20210306\_114500

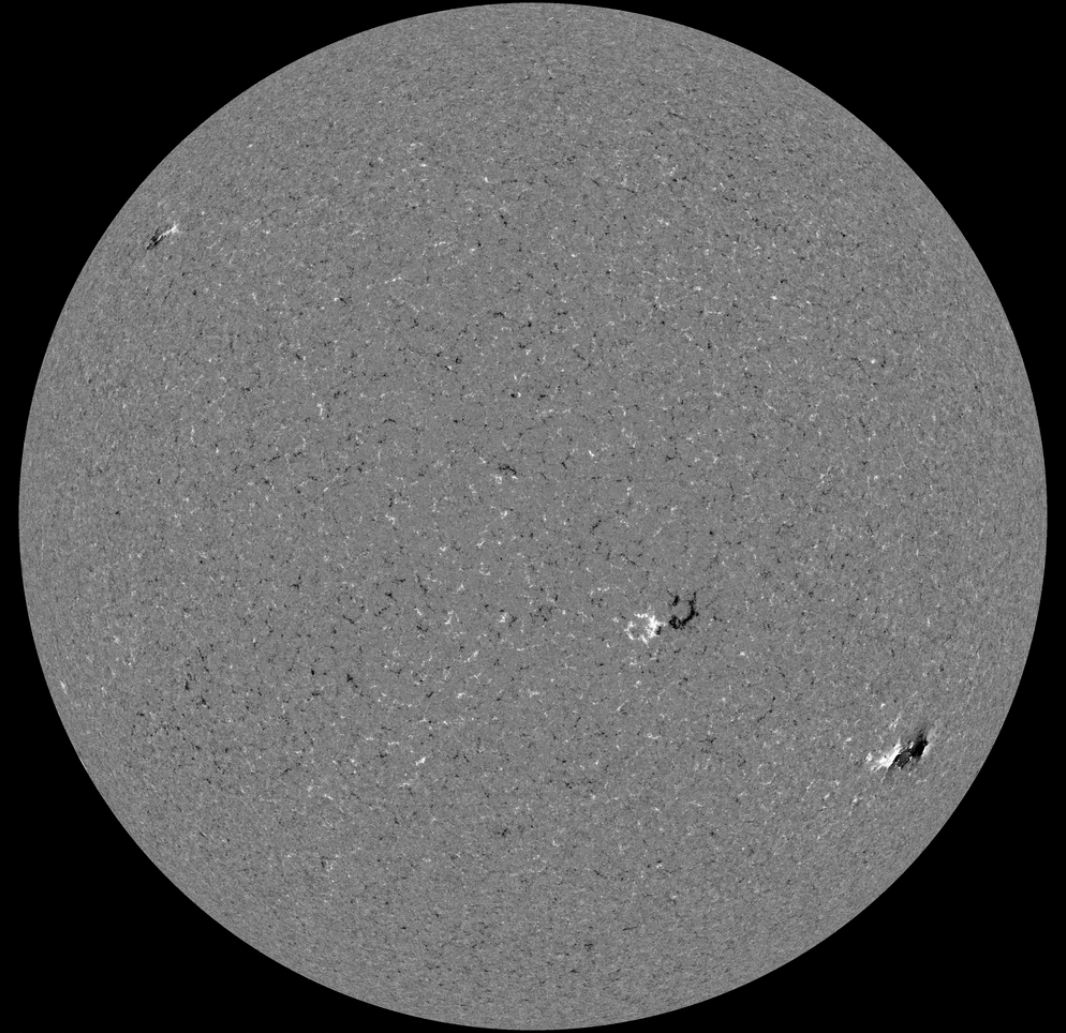
# Solar active regions

SDO/HMI White Light 2021-03-07



SDO/HMI Quick-Look Continuum: 20210307\_114500

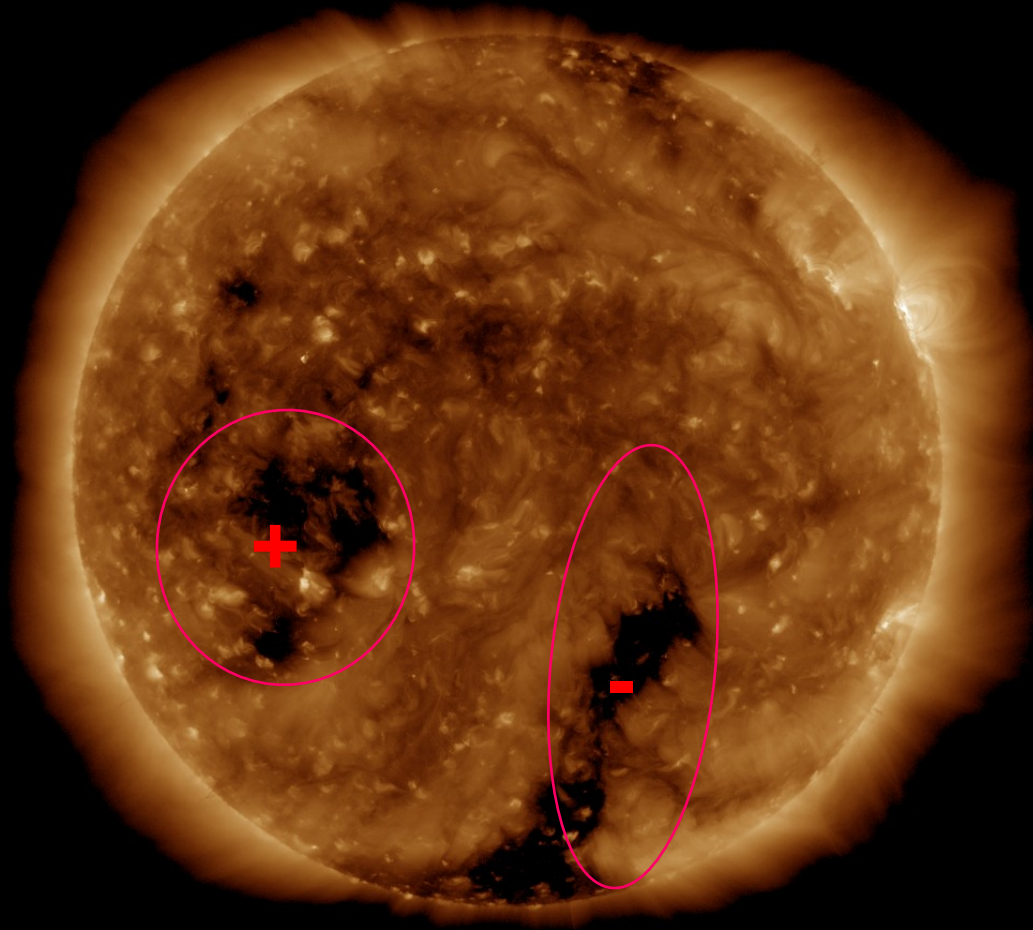
SDO/HMI Magnetogram 2021-03-07



SDO/HMI Quick-Look Magnetogram: 20210307\_114500

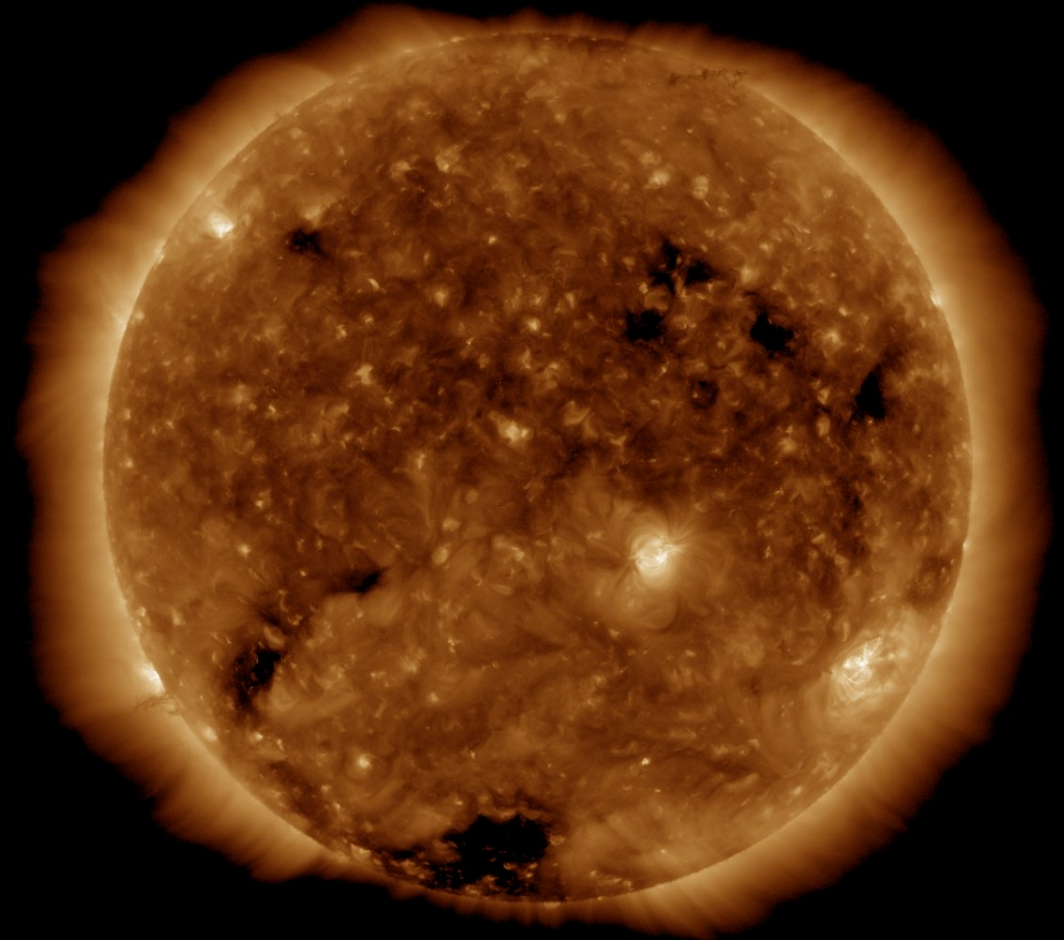
# Coronal holes

SDO/AIA 19.3 nm 2021-02-28



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

SDO/AIA 19.3 nm 2021-03-07

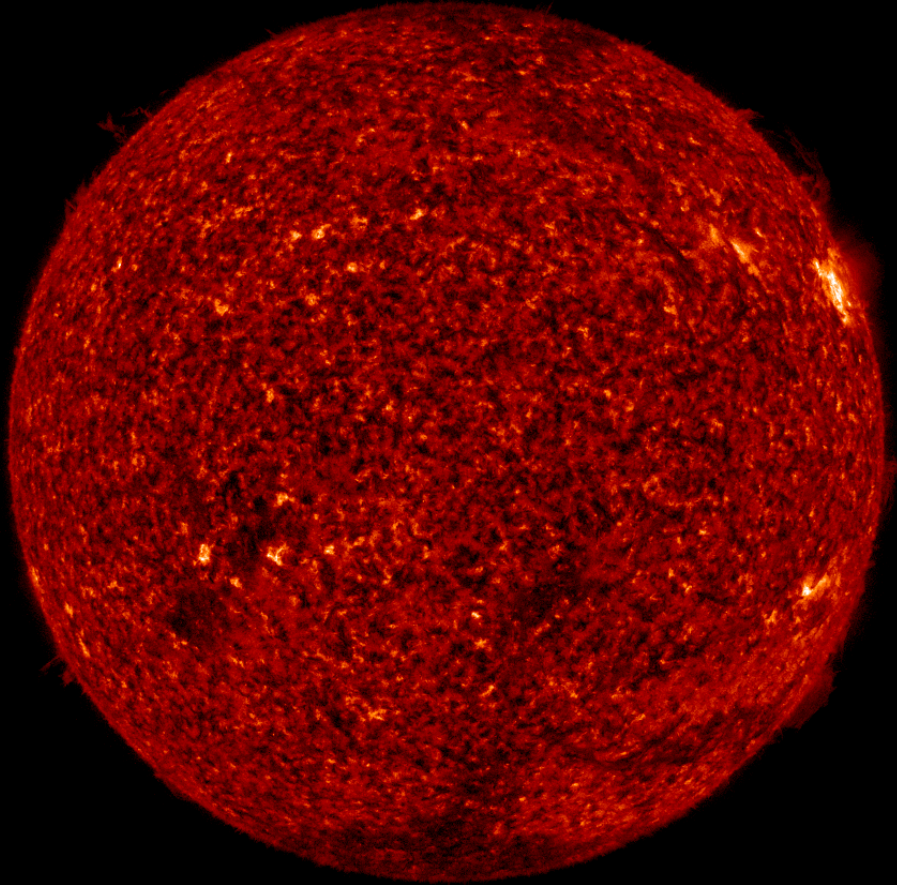


SDO/AIA 193 2021-03-07 12:18:29 UT

# Filaments

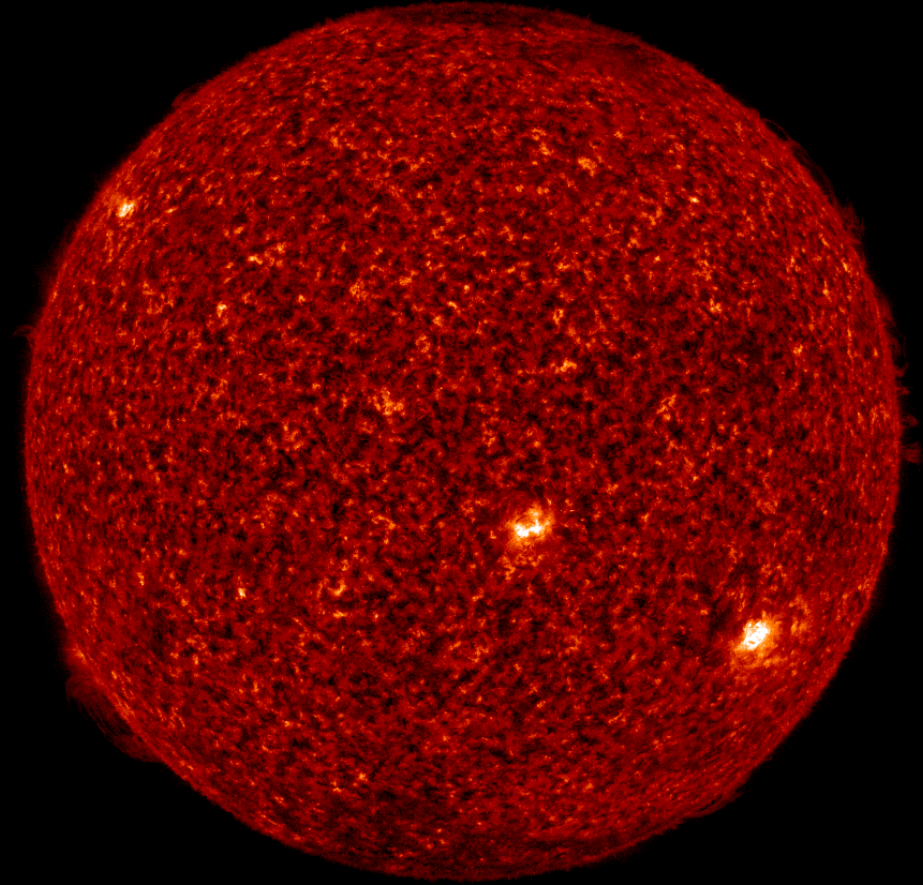
SDO/AIA 30.4 nm 2021-02-28

SDO/AIA AIA 304Å 2021-02-28T00:00:06.580

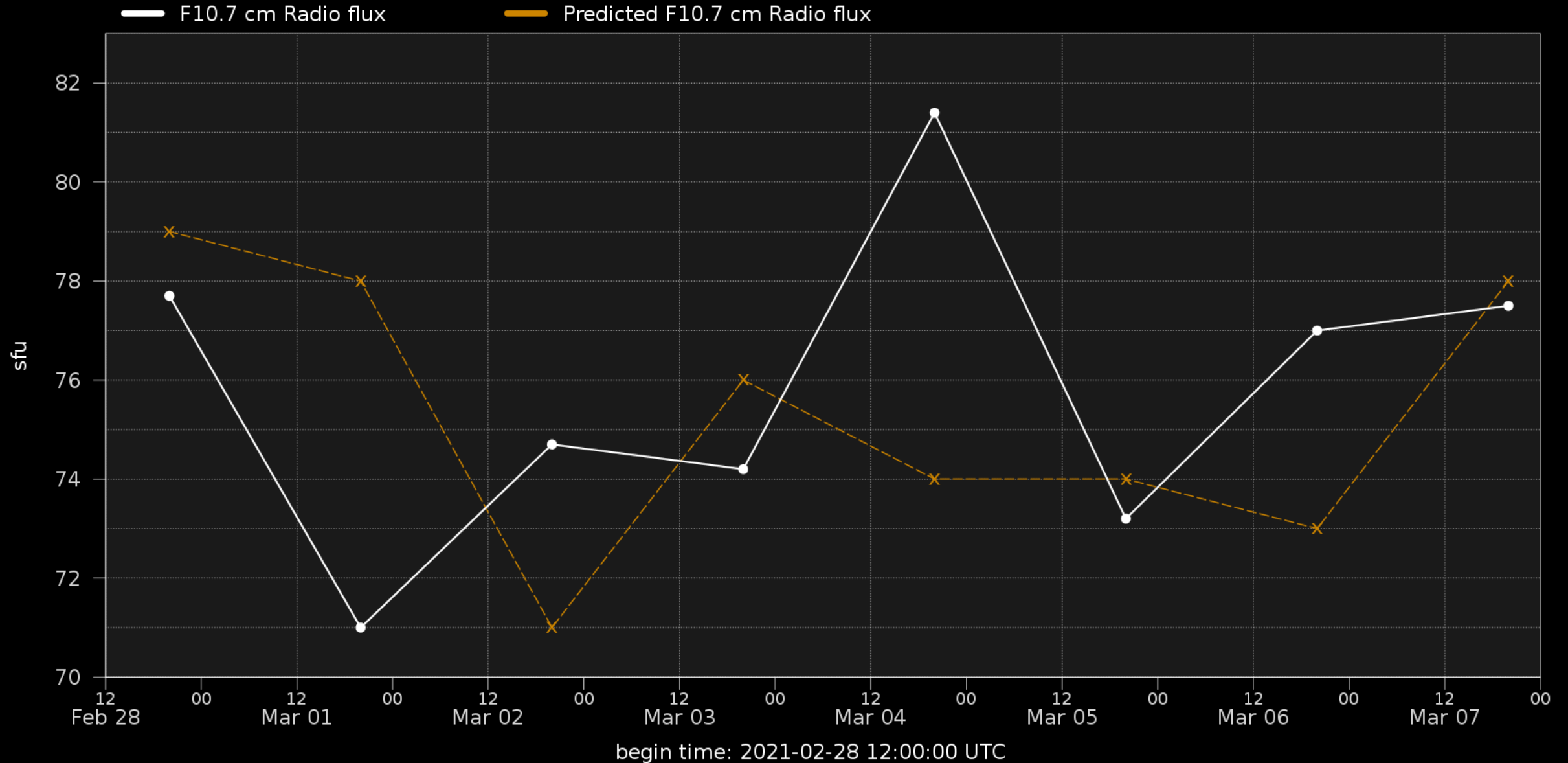


SDO/AIA 30.4 nm 2021-03-07

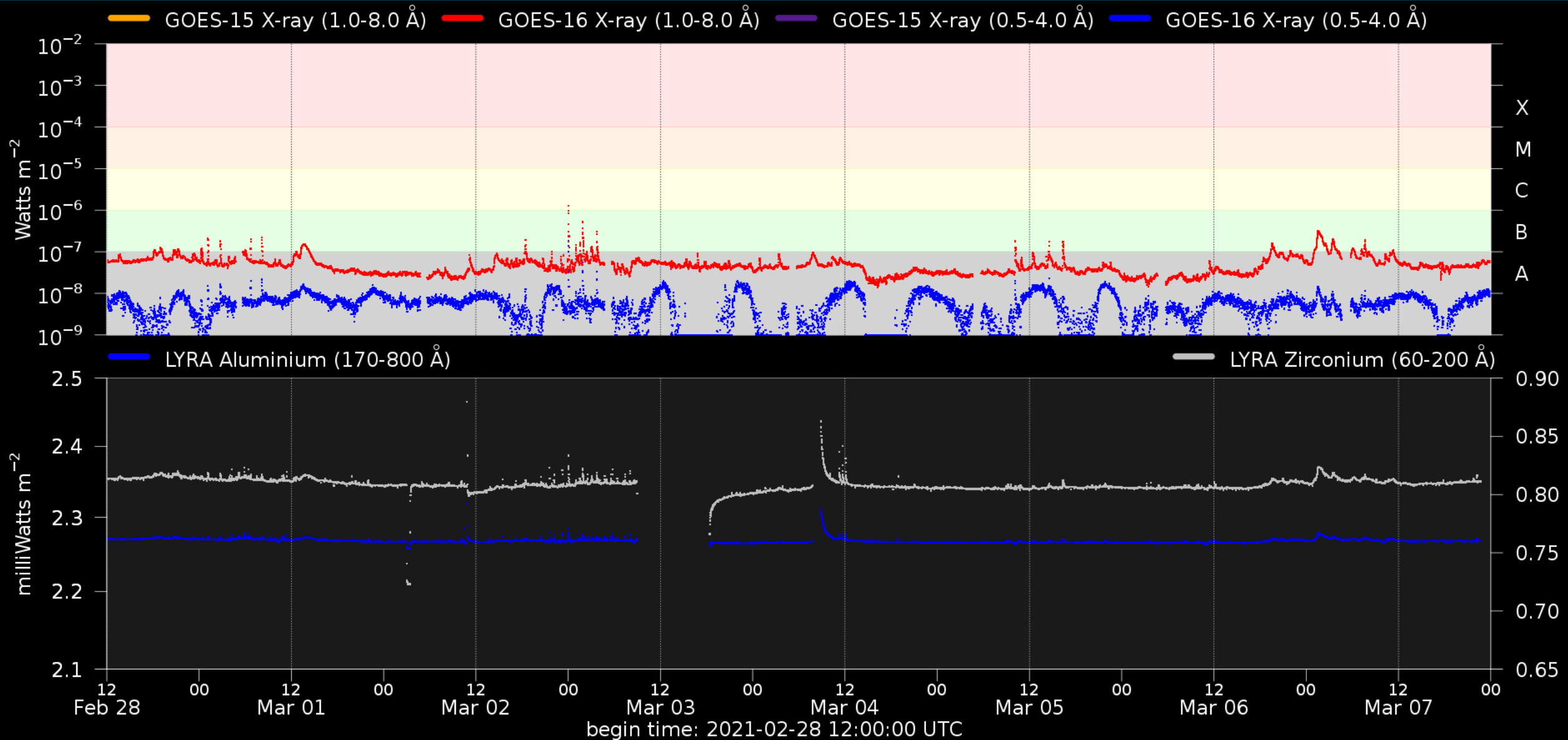
SDO/AIA AIA 304Å 2021-03-07T00:00:06.598



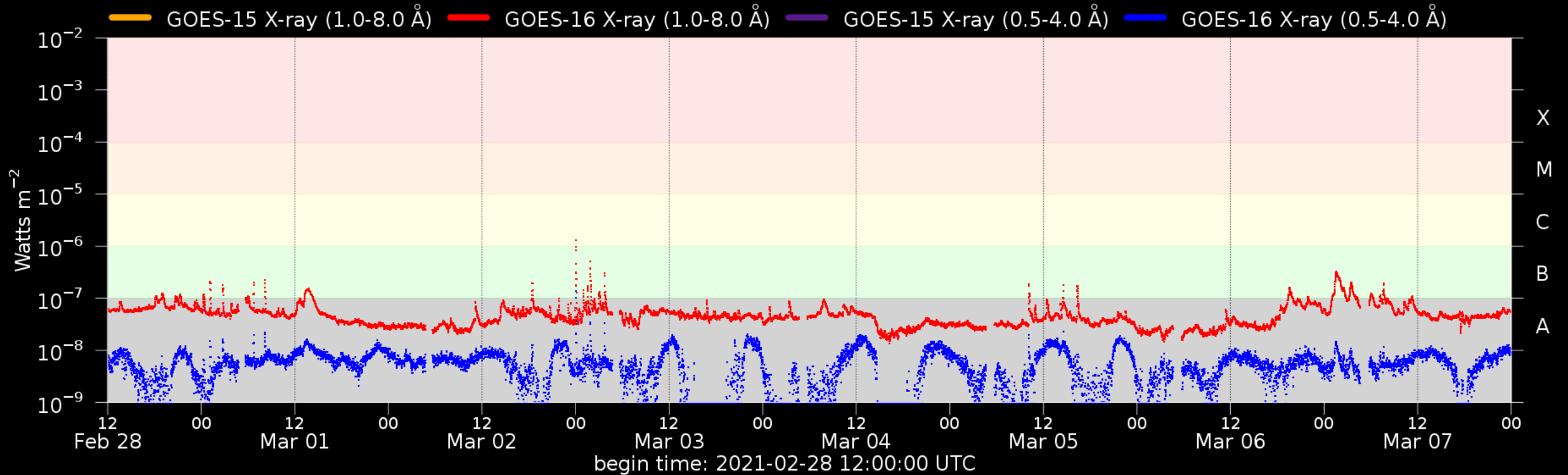
# Solar F10.7cm radio flux



# Solar X-Ray and UV flux



# Flaring activity

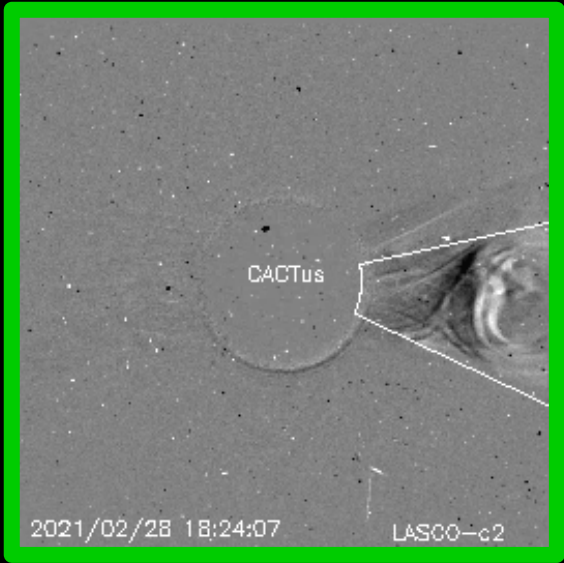


Probabilities (%) and occurrences (#) of C/M/X-flares issued at 12:30 and over the next 24h:

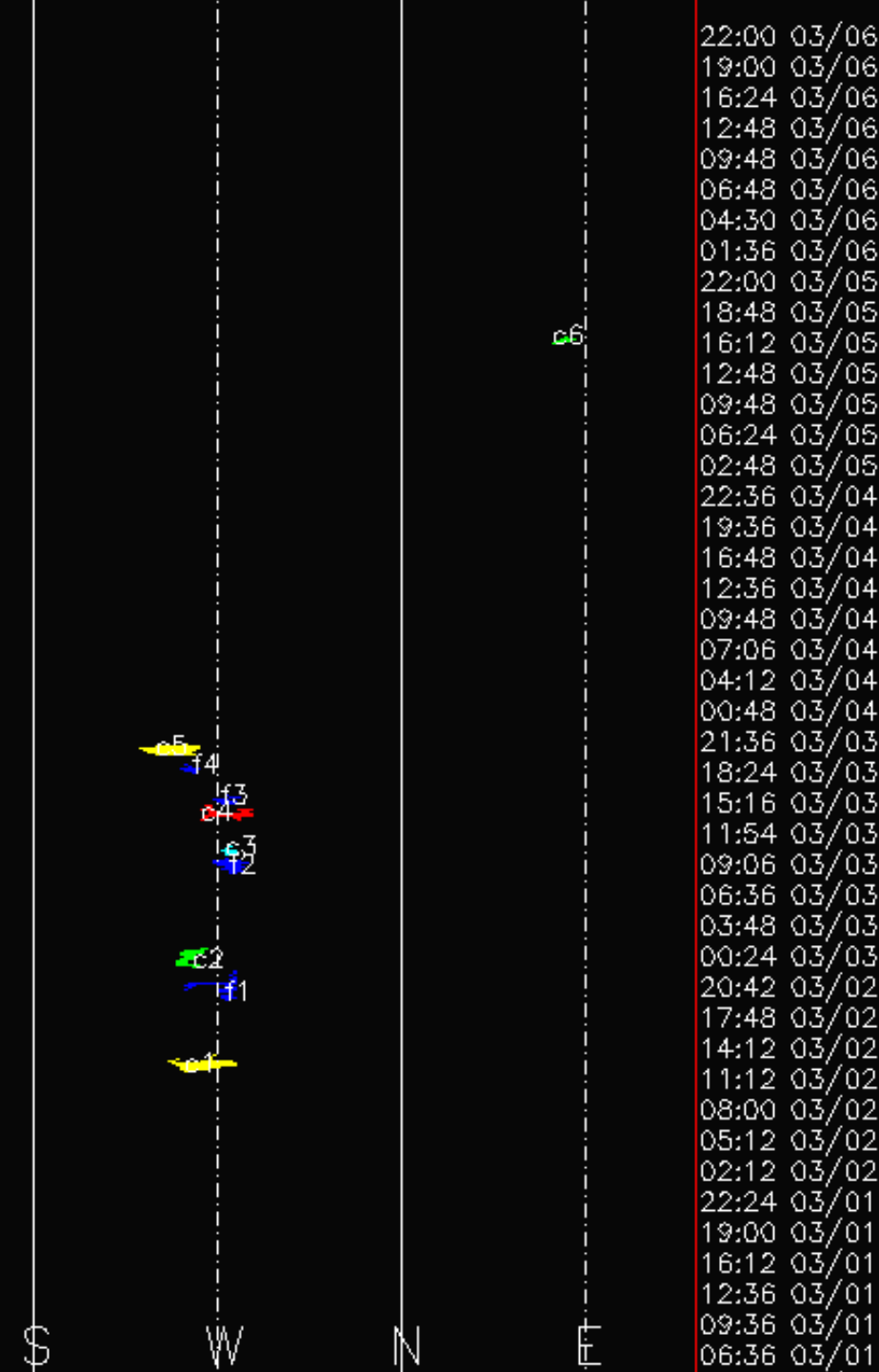
Issue date	2021-02-28	2021-03-01	2021-03-02	2021-03-03	2021-03-04	2021-03-05	2021-03-06	2021-03-07
Probability (%)	25 01 01	30 01 01	01 01 01	50 01 01	20 01 01	05 01 01	05 01 01	20 01 01
Observed (#)	00 00 00	00 00 00	01 00 00	00 00 00	00 00 00	00 00 00	00 00 00	00 00 00



# Coronal Mass Ejections



CME associated with C3.9 flare in region 2804 on February 28



# Solar Wind and

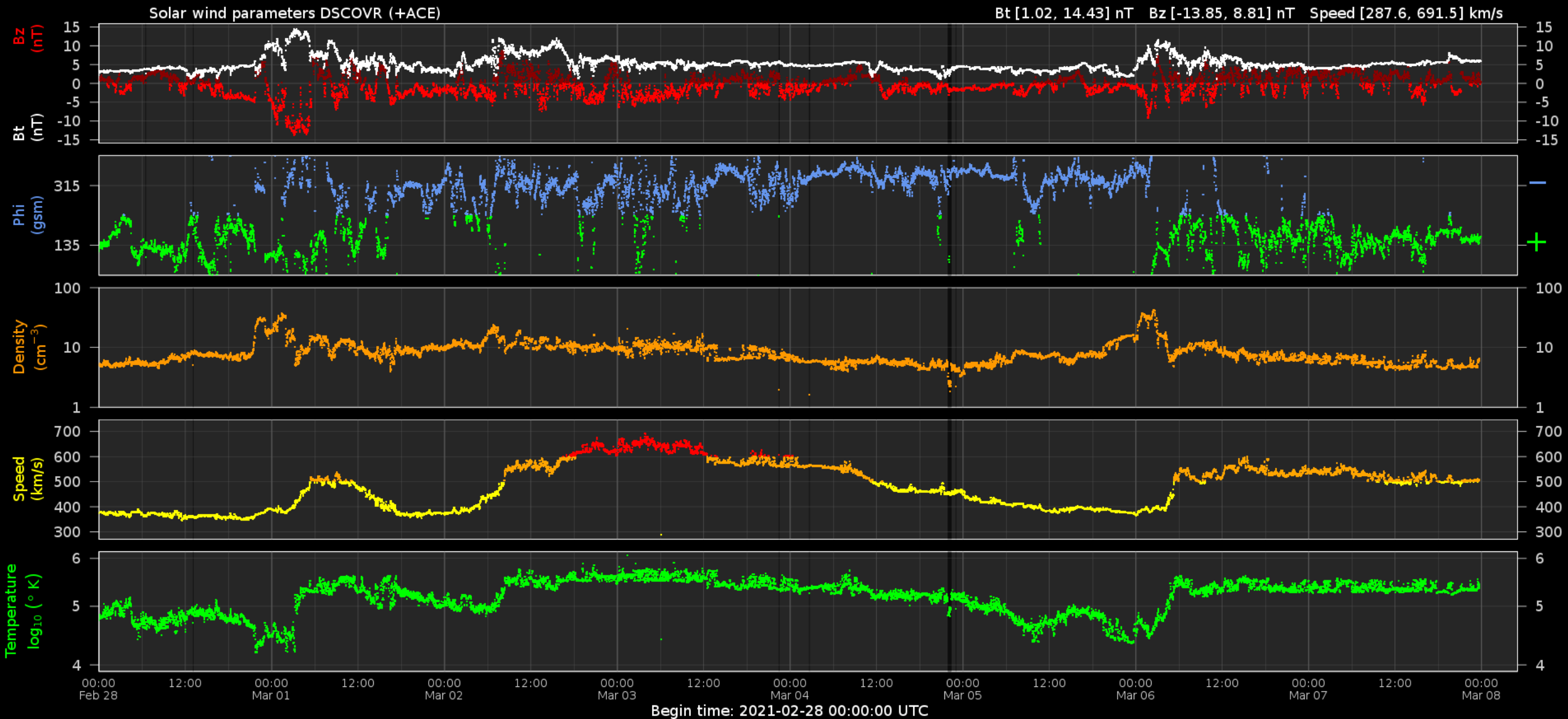
# Geomagnetic Activity



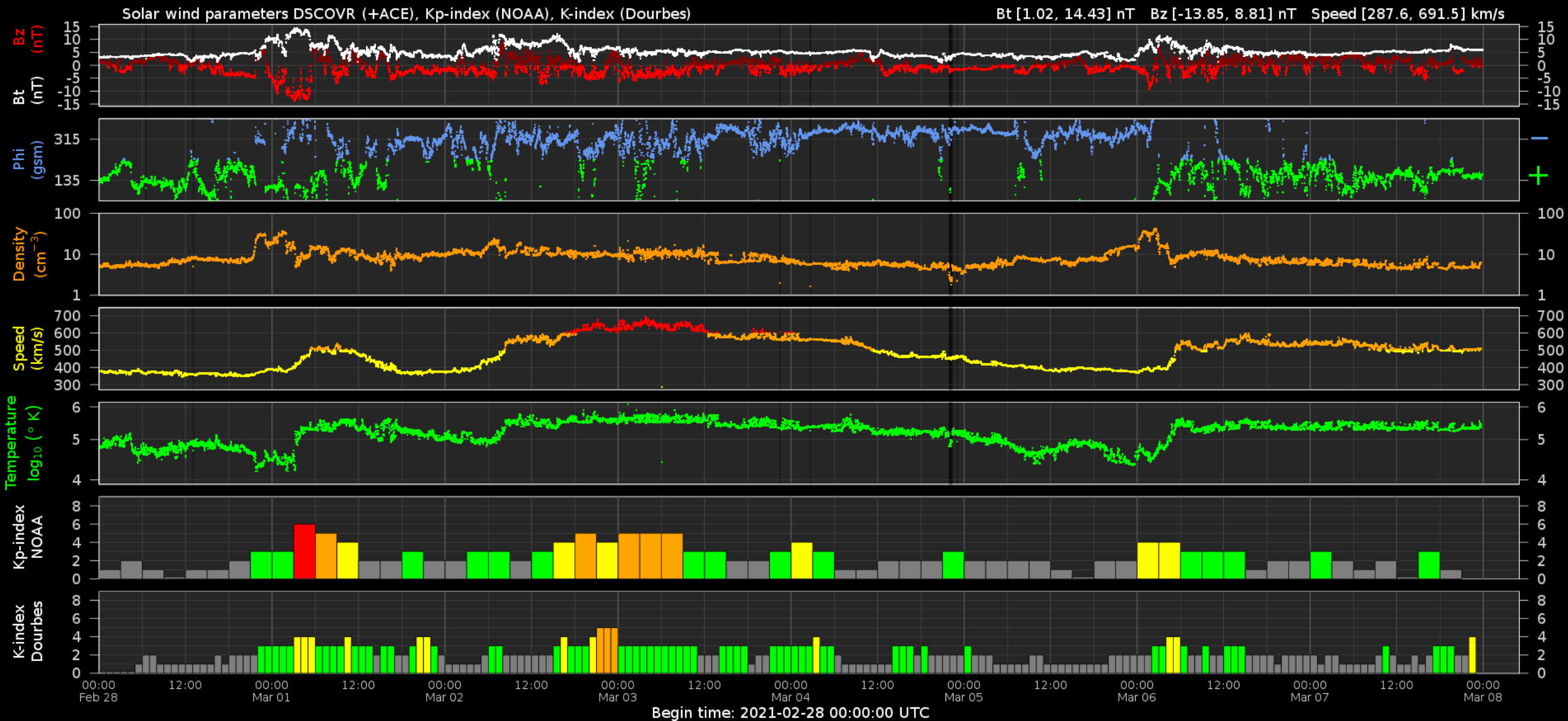
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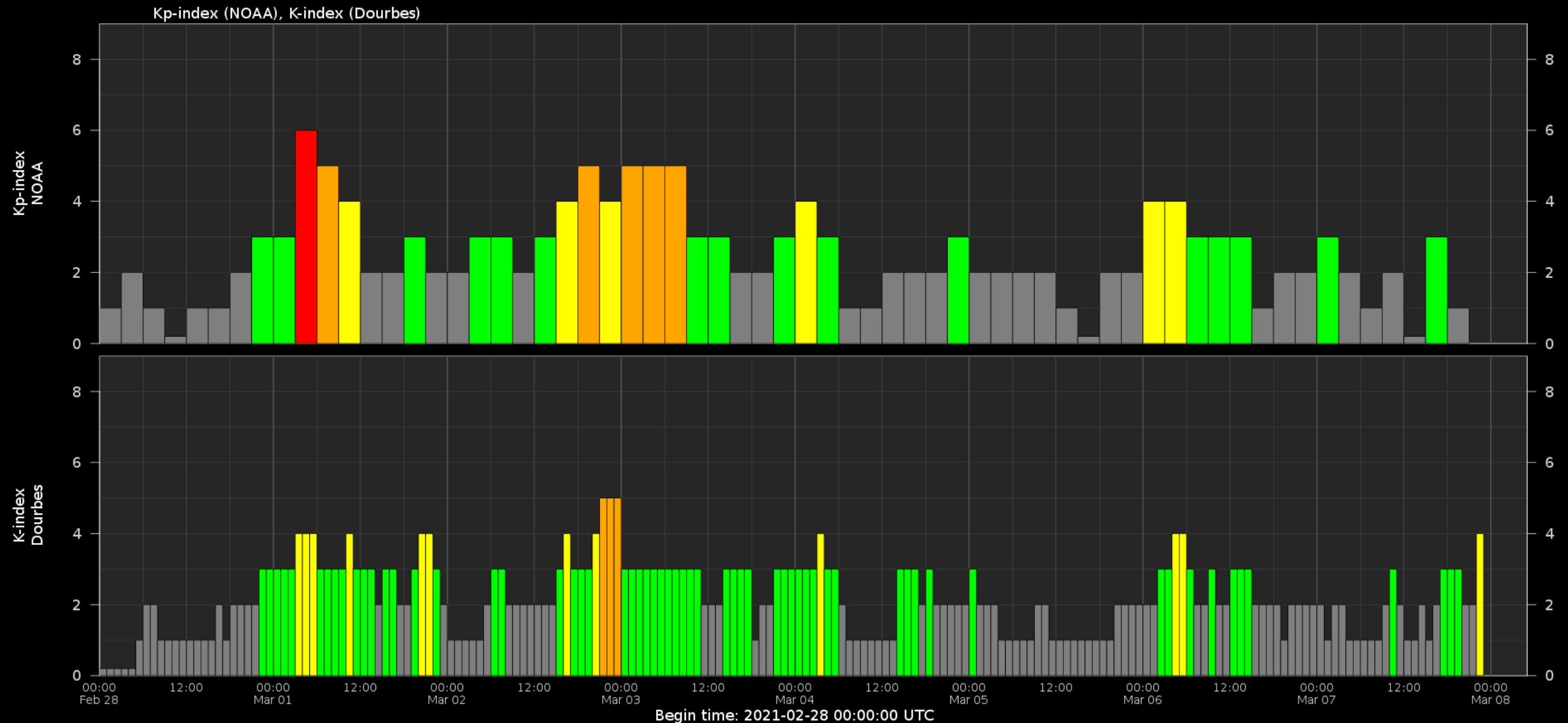
# Solar wind parameters



# Solar wind parameters & K-indices



# Geomagnetic activity (K-indexes)



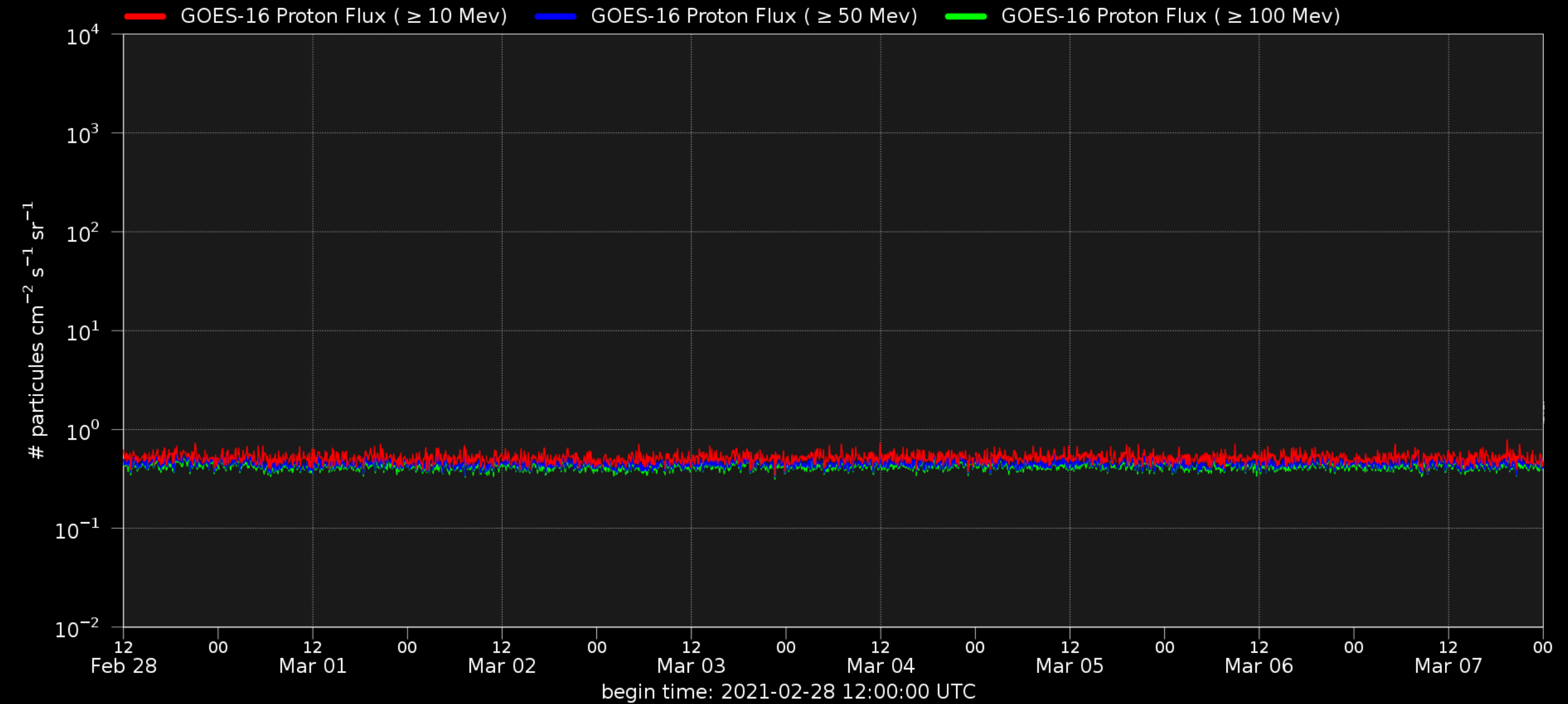
# Energetic Particles



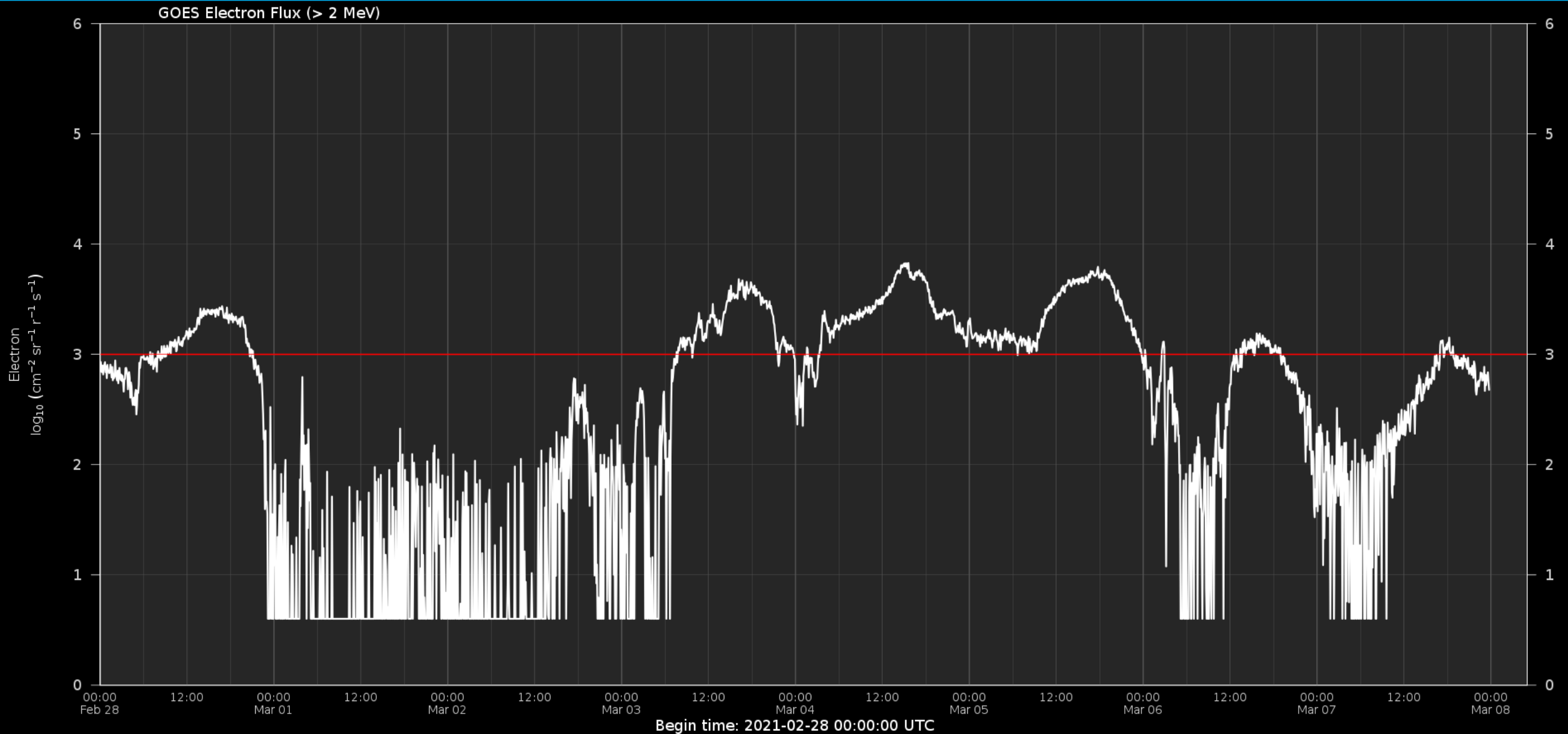
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# Solar proton flux



# Electron flux at GEO





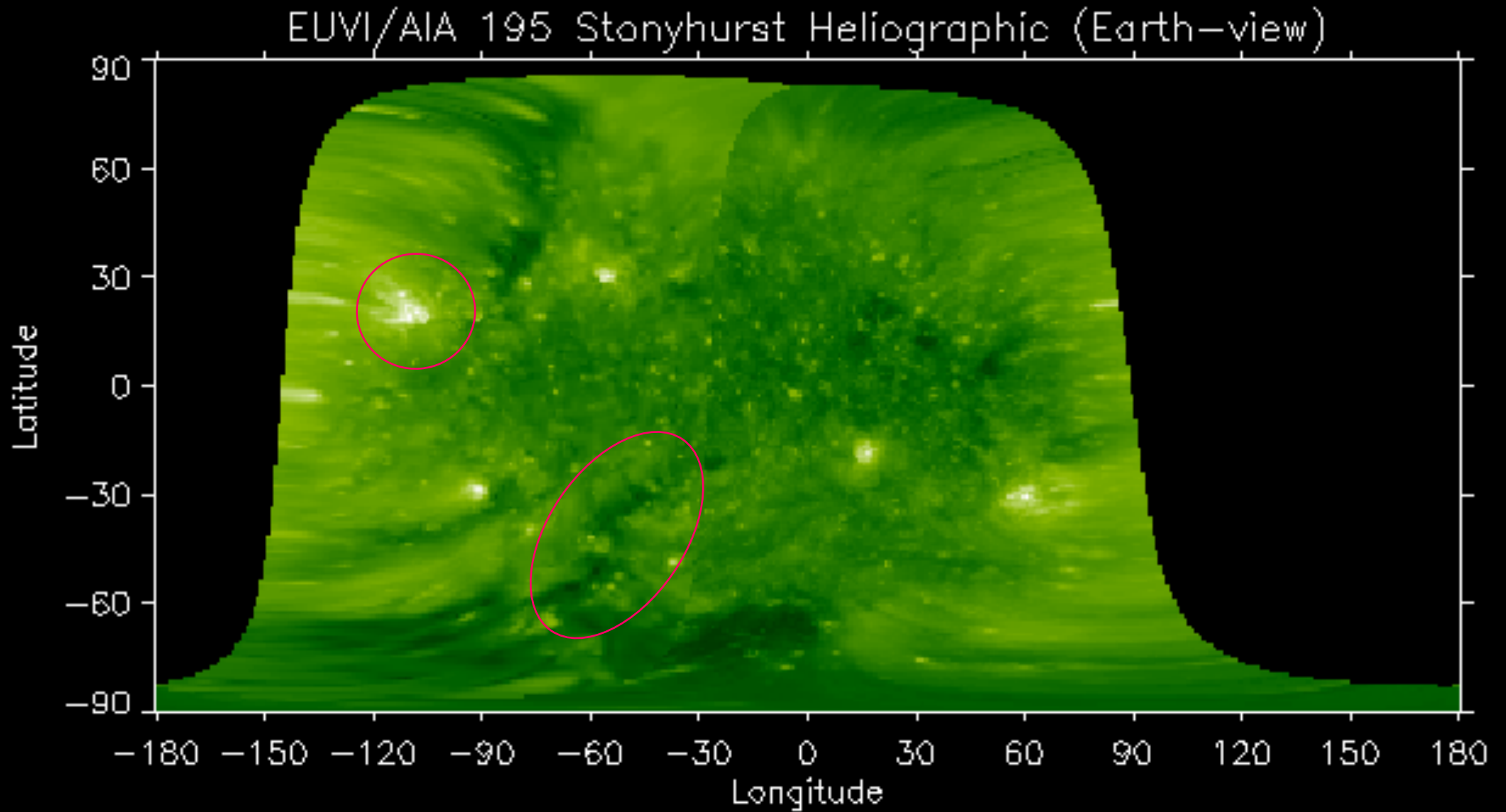
# Outlook



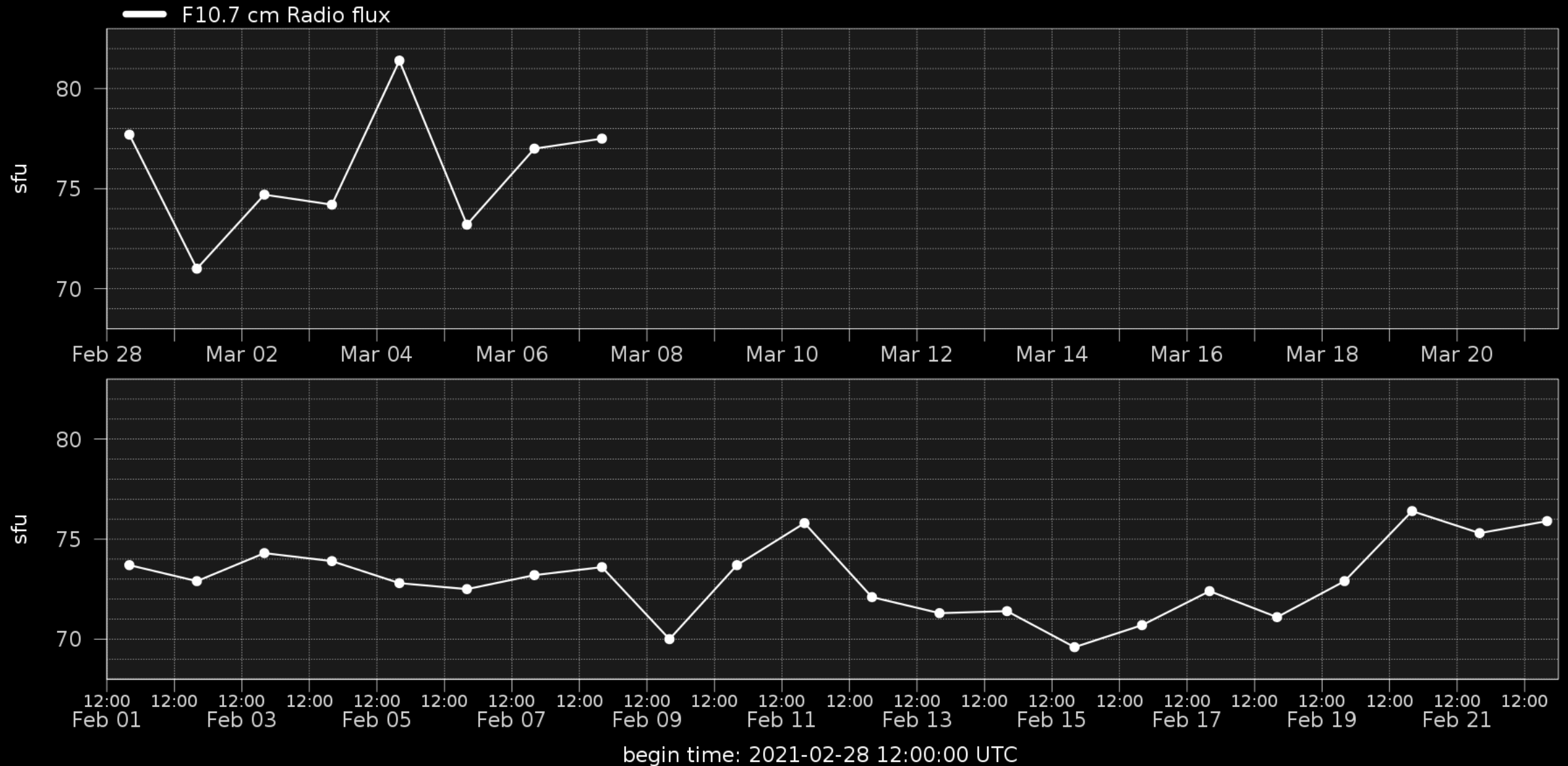
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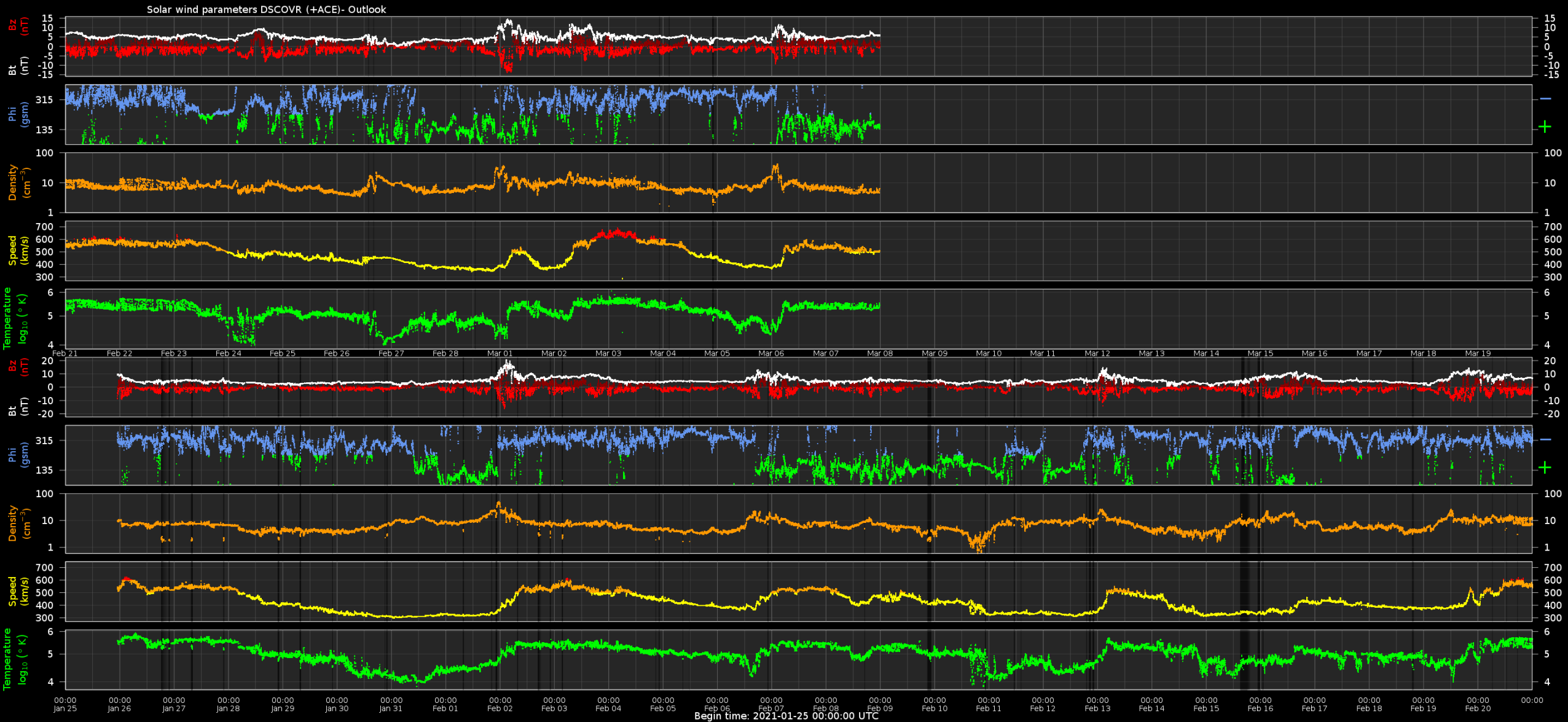
# Outlook: Solar activity



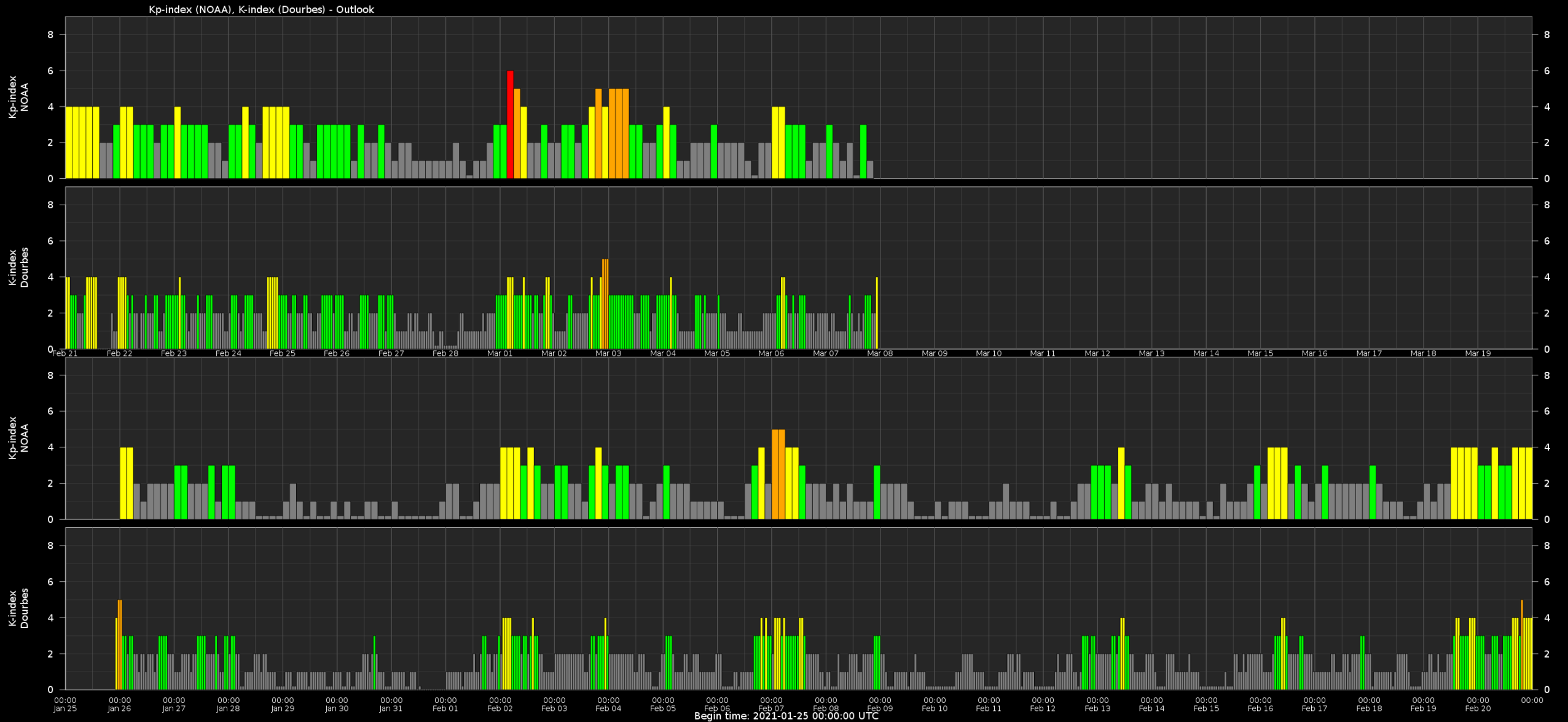
# Outlook: Solar F10.7cm radio flux



# Outlook: Solar wind parameters



# Outlook: Geomagnetic activity



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See you at our next briefing!

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