

SIDC Space Weather Briefing

13 August 2023-20 August 2023

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& the SIDC forecaster team



Royal Observatory
of Belgium

Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2023-08-13 12:00 to 2023-08-20 23:59

Active regions	14 regions on disk over the week (NOAA AR3394-3412), most were simple and stable.
Flares	# C-class flare: 31 # M-class flare: 0 # X-class flare: 0
Coronal Holes	1 positive and 2 negative polarity CHs
CMEs	No Earth directed CMEs observed

Proton flux	Nominal Levels
Electron flux	Over the 1000pfu threshold at the start of the week, then nominal conditions

Solar wind and geomagnetic conditions

ICMEs	No ICMEs observed
Solar wind conditions	B : 0.76 - 14.95 nT //Bz: -11.67 nT to 11.57 nT //Speed: 266.6 - 690.0km/s
K-indices	max K-index (KBel): 4 max Kp-index (NOAA): 3

All Quiet Alert: Off

Solar Activity

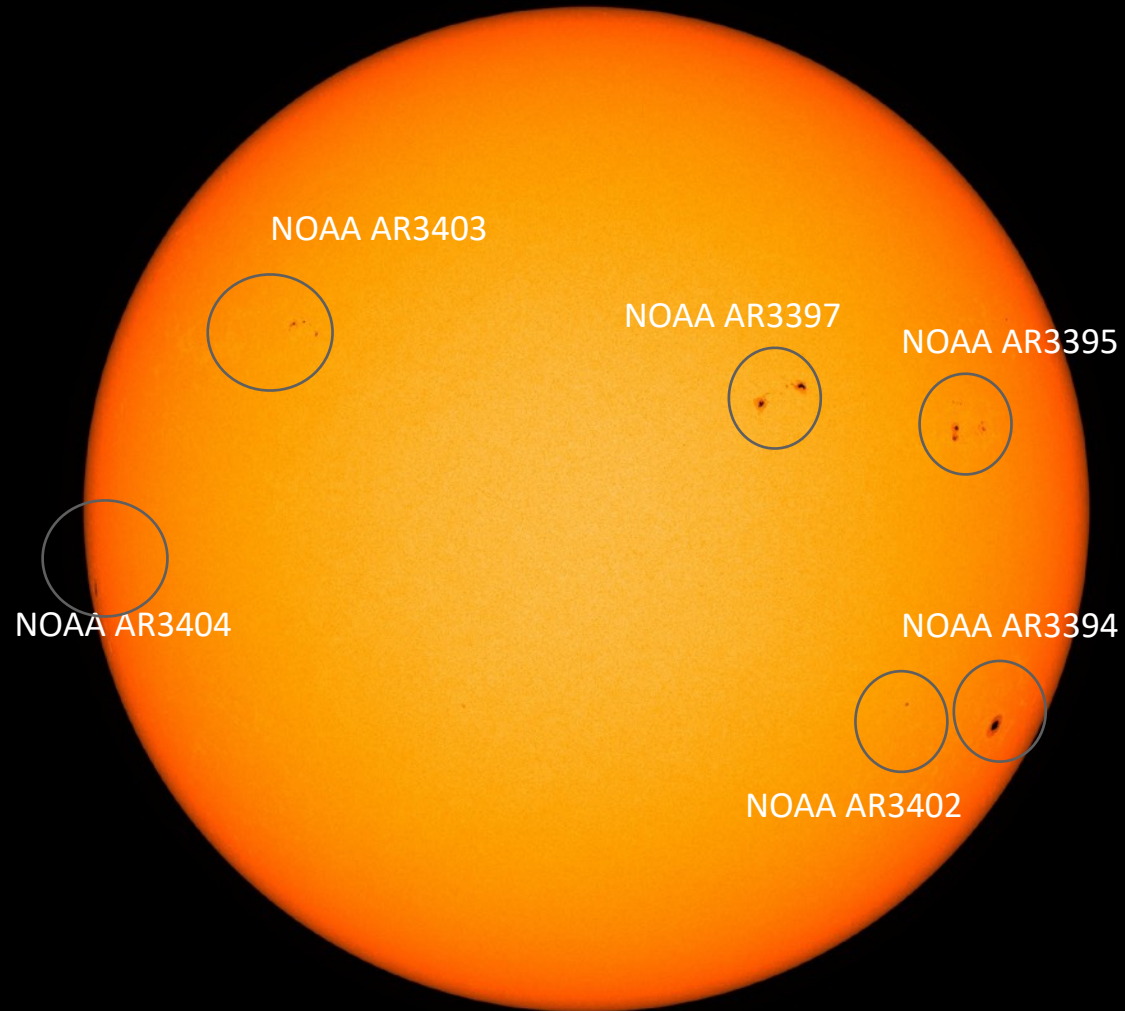


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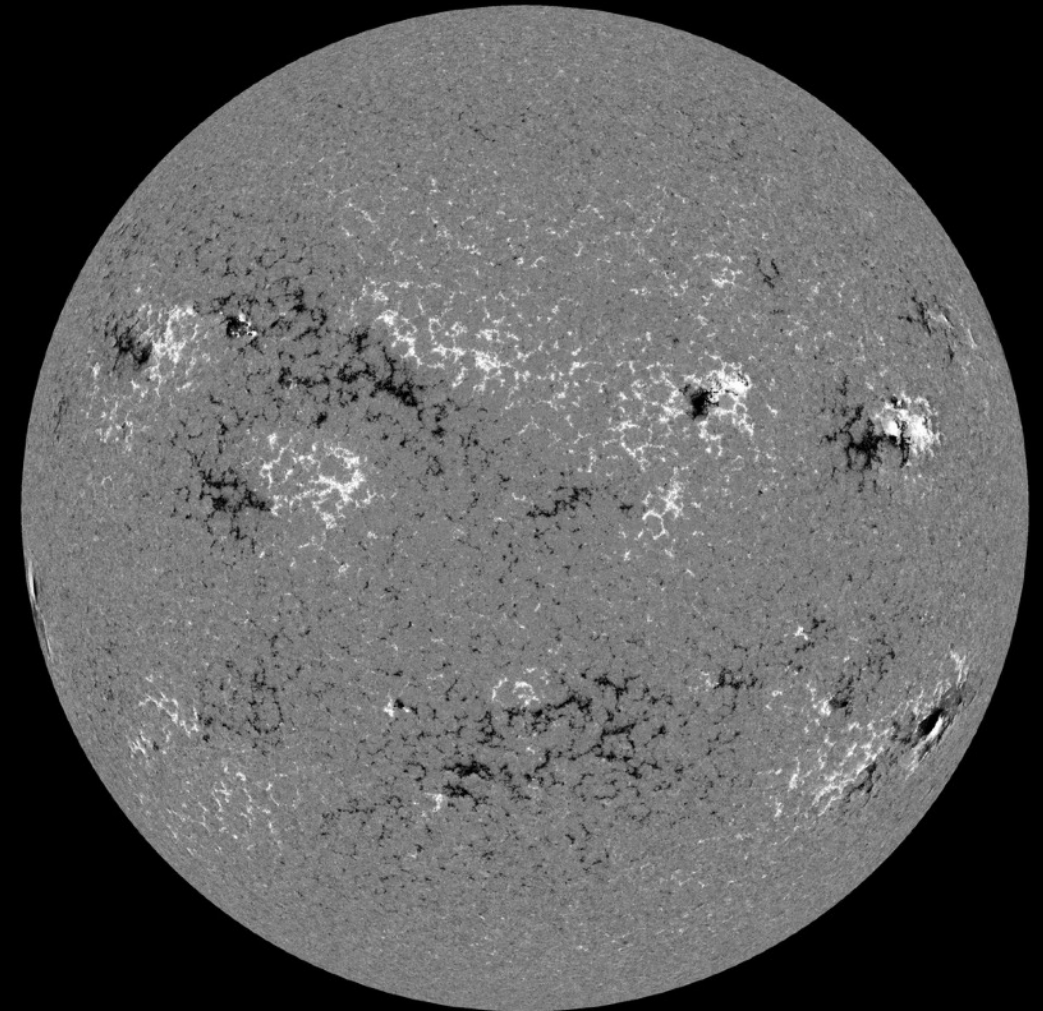
Solar active regions

SDO/HMI White Light 2023-08-13



SDO/HMI Quick-Look Continuum: 20230813_114500

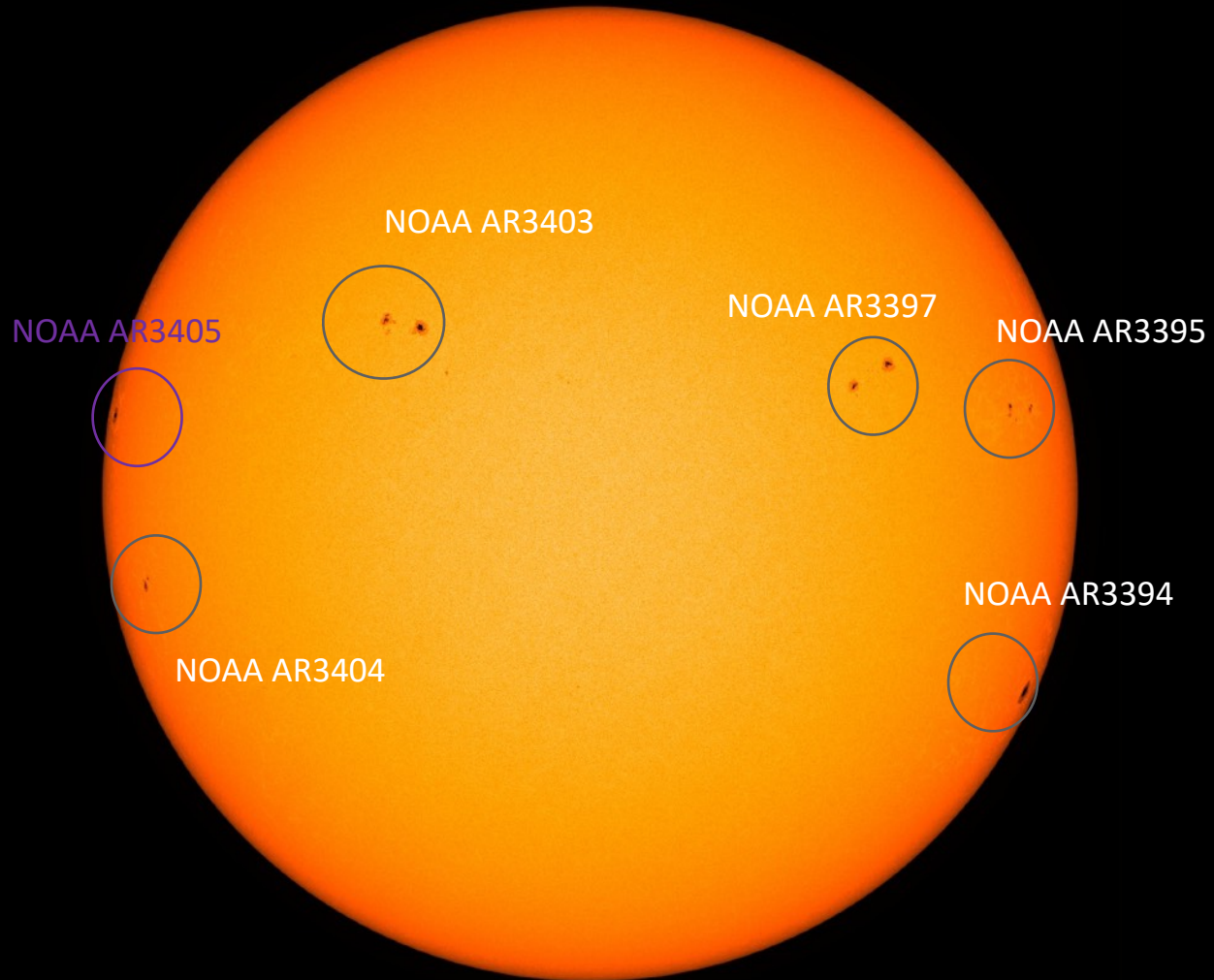
SDO/HMI Magnetogram 2023-08-13



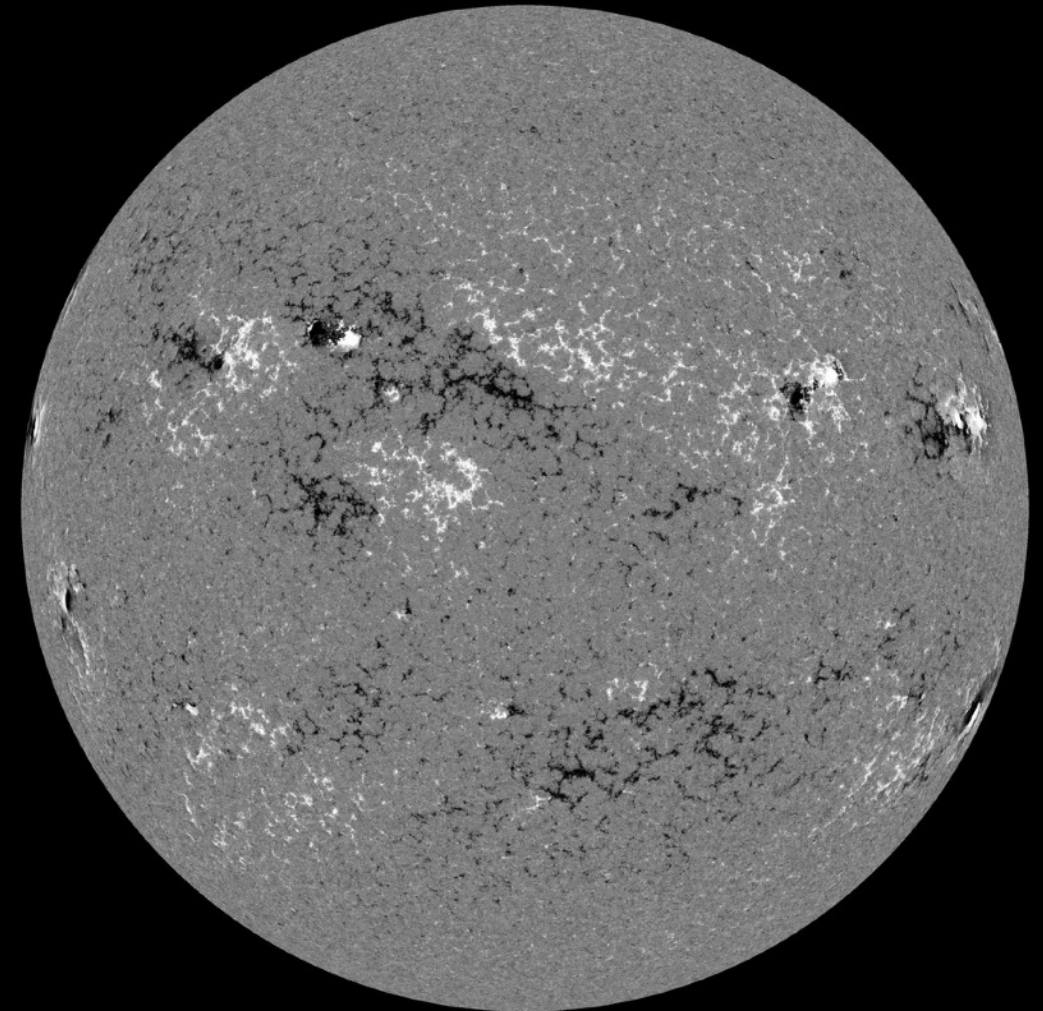
SDO/HMI Quick-Look Magnetogram: 20230813_114500

Solar active regions

SDO/HMI White Light 2023-08-14

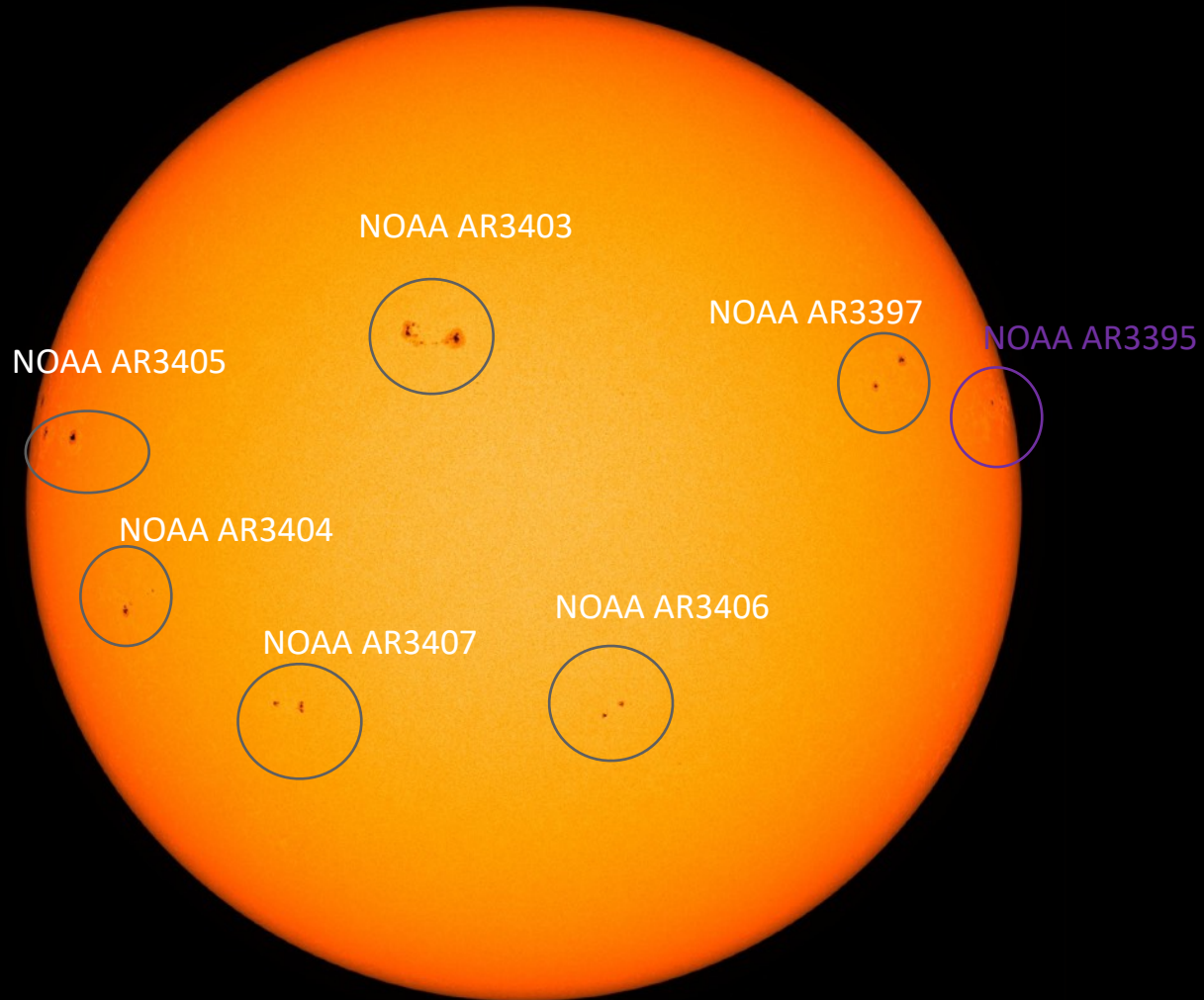


SDO/HMI Magnetogram 2023-08-14

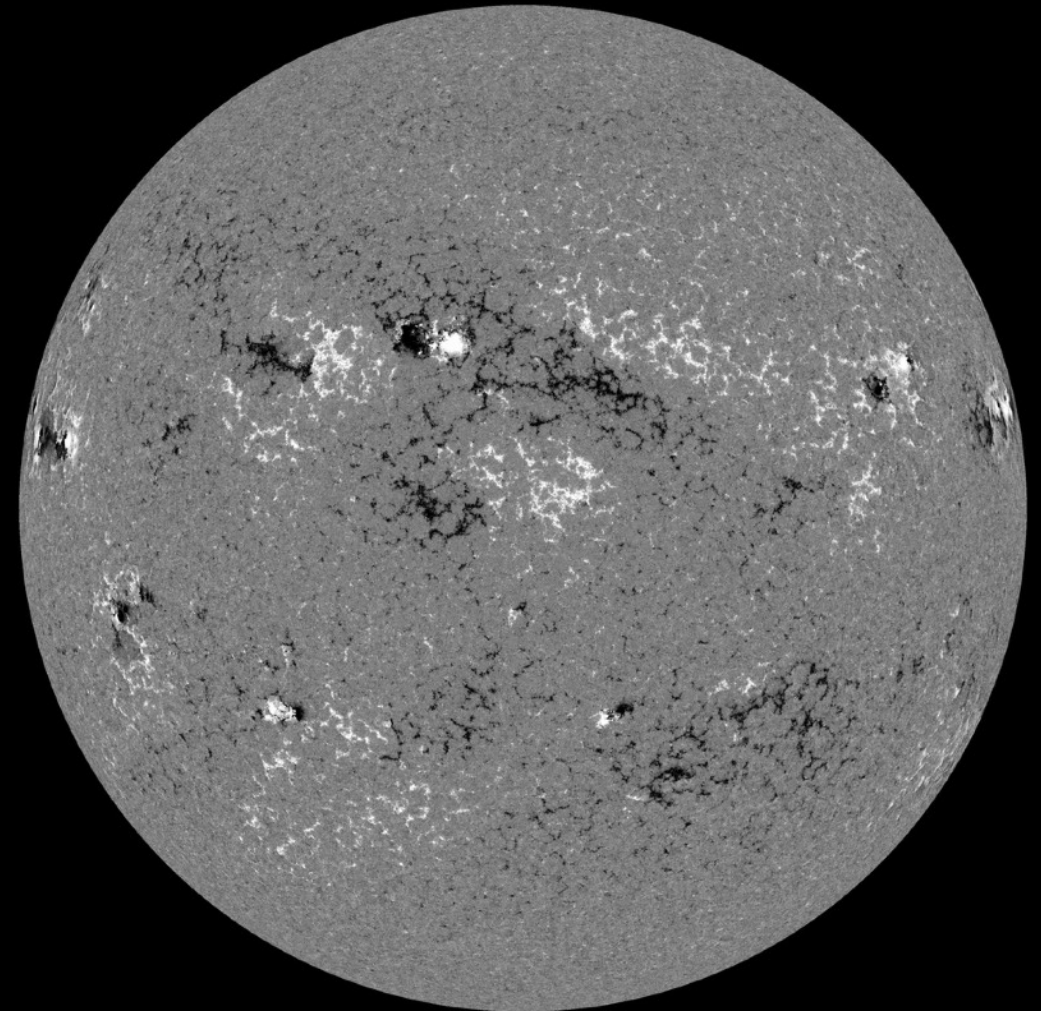


Solar active regions

SDO/HMI White Light 2023-08-15

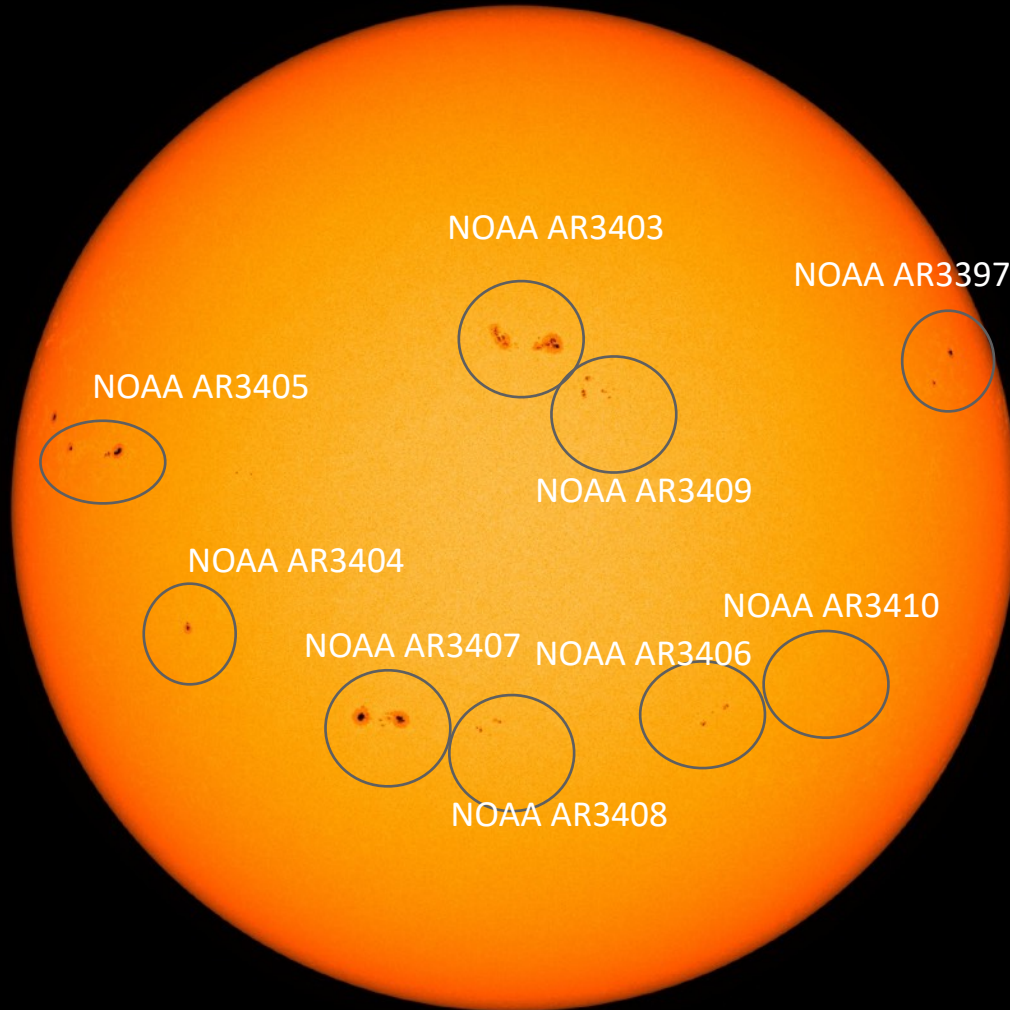


SDO/HMI Magnetogram 2023-08-15



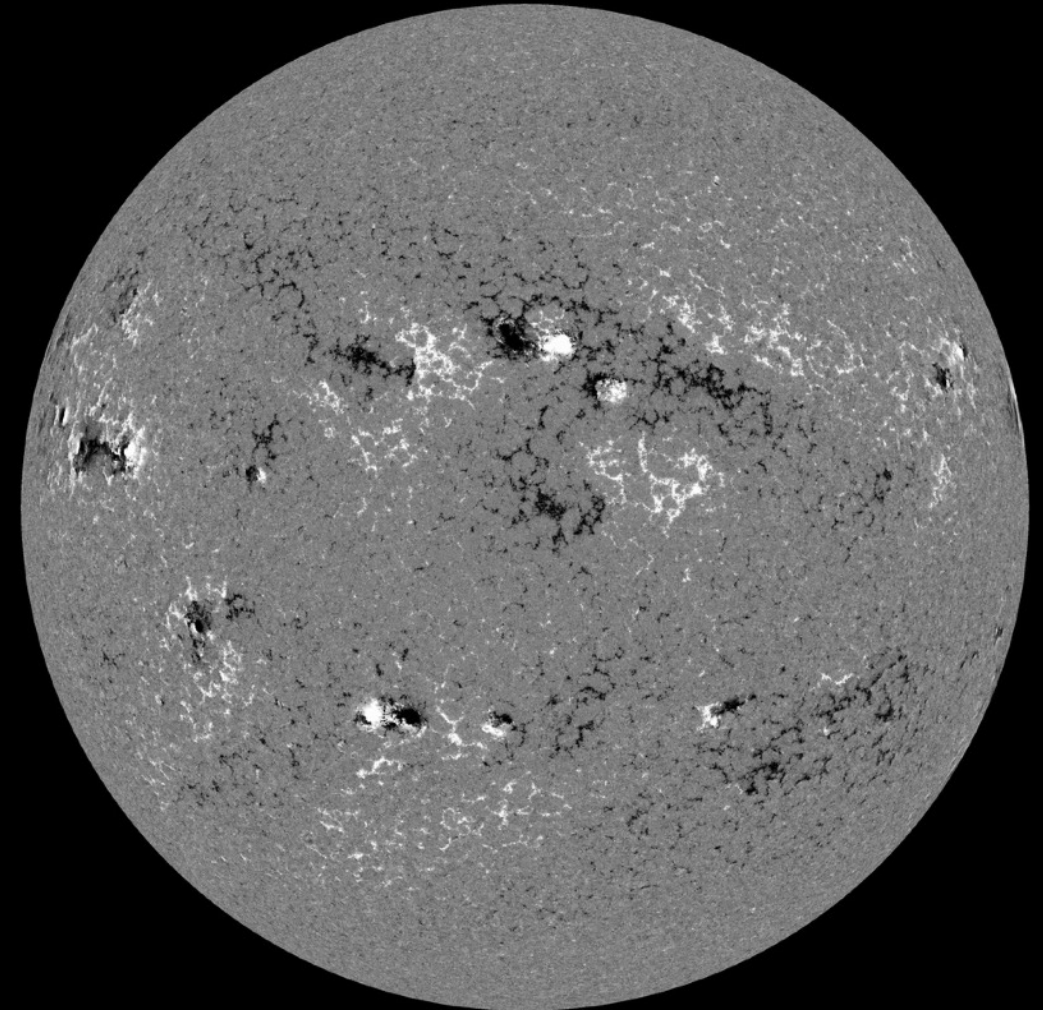
Solar active regions

SDO/HMI White Light 2023-08-16



SDO/HMI Quick-Look Continuum: 20230816_114500

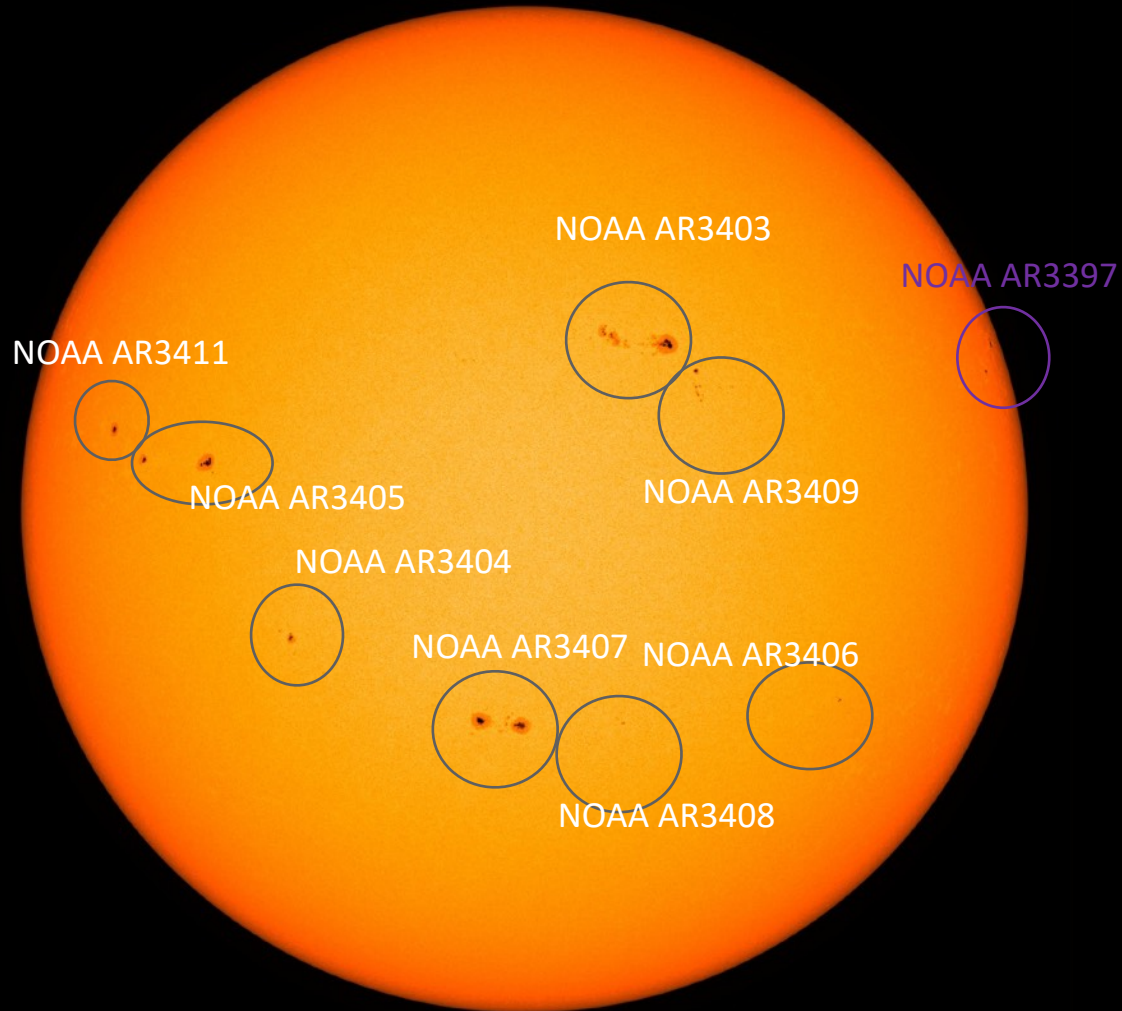
SDO/HMI Magnetogram 2023-08-16



SDO/HMI Quick-Look Magnetogram: 20230816_114500

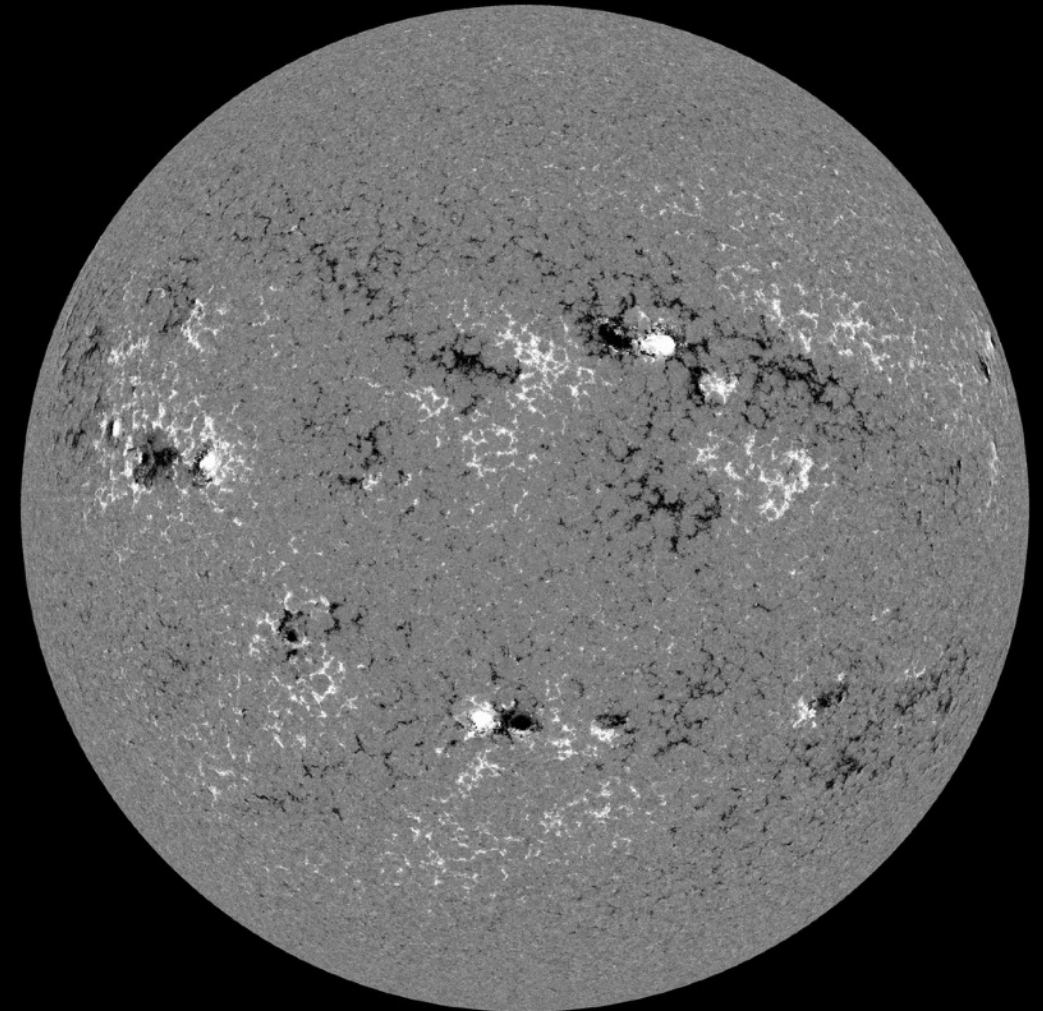
Solar active regions

SDO/HMI White Light 2023-08-17



SDO/HMI Quick-Look Continuum: 20230817_114500

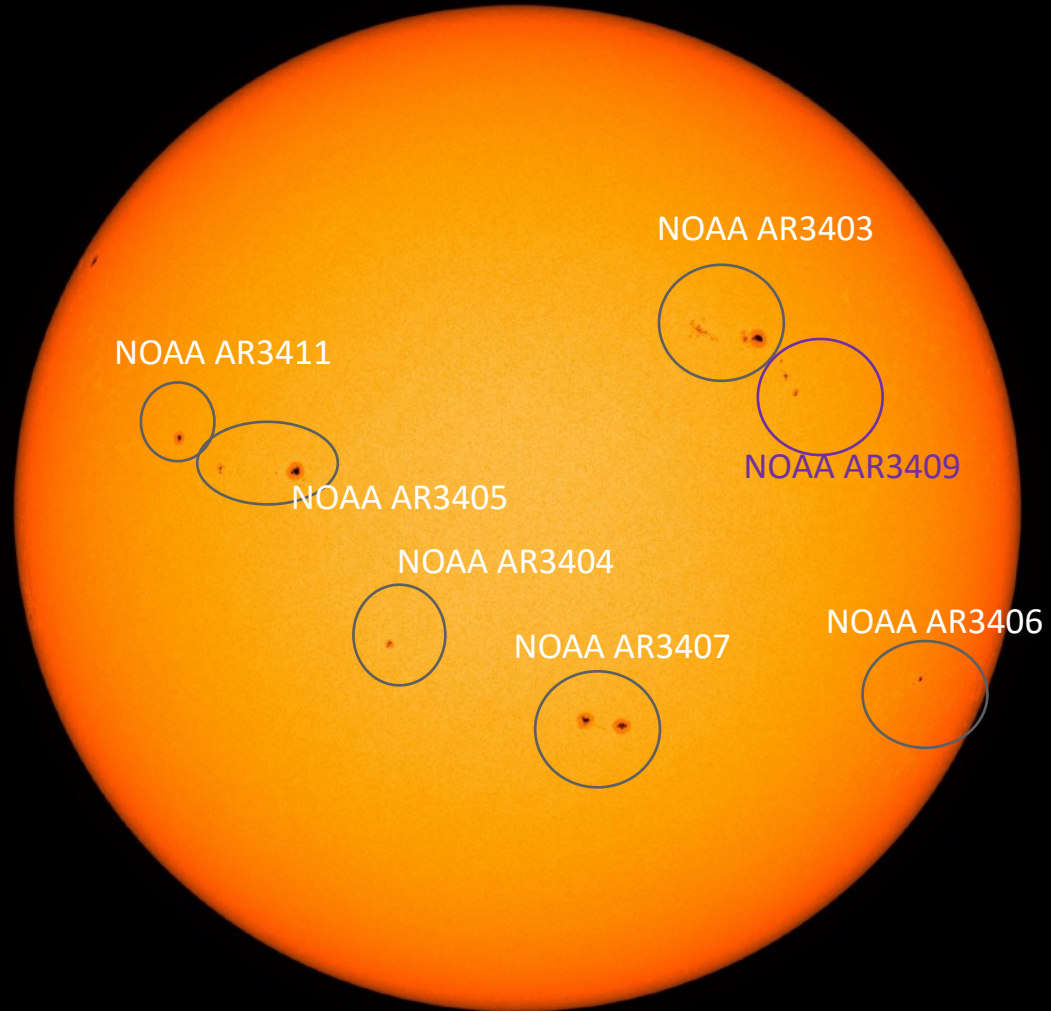
SDO/HMI Magnetogram 2023-08-17



SDO/HMI Quick-Look Magnetogram: 20230817_114500

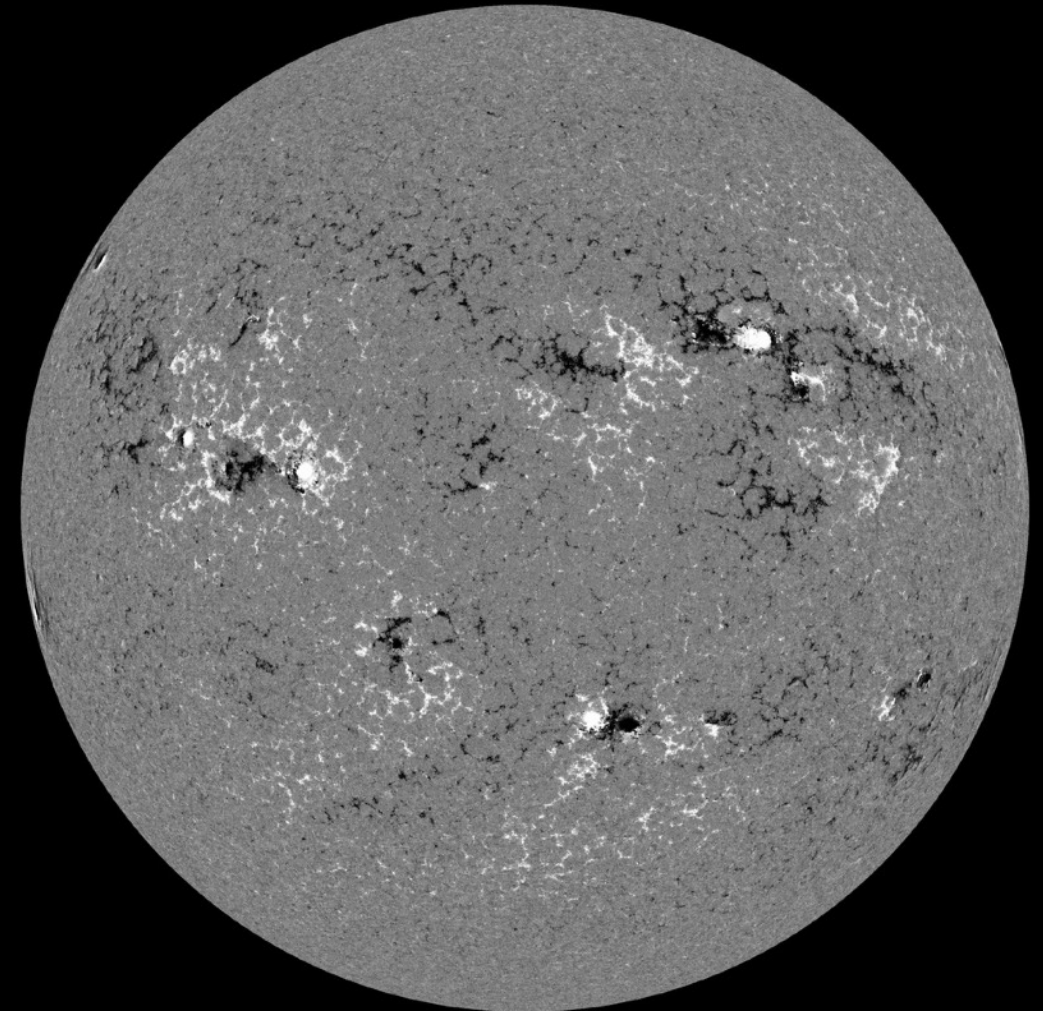
Solar active regions

SDO/HMI White Light 2023-08-18



SDO/HMI Quick-Look Continuum: 20230818_114500

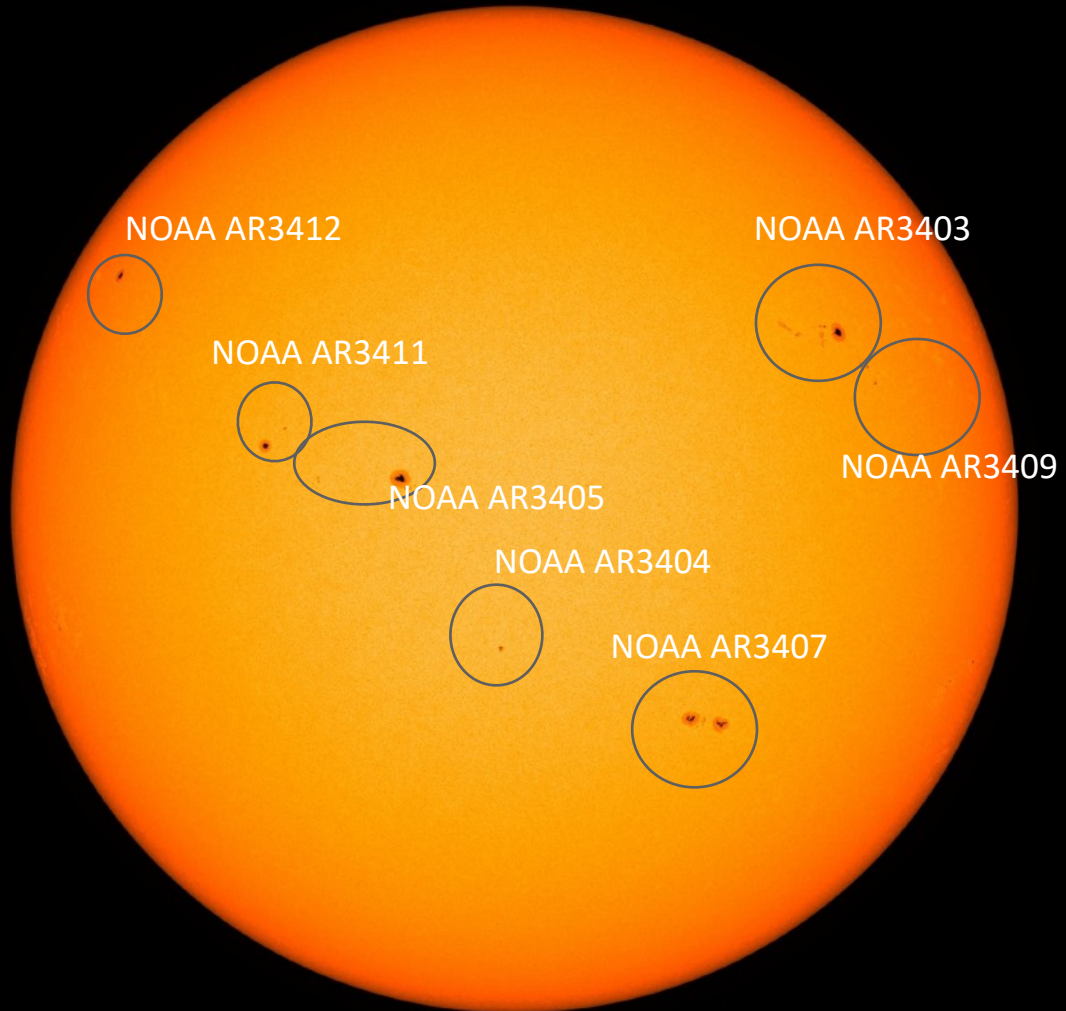
SDO/HMI Magnetogram 2023-08-18



SDO/HMI Quick-Look Magnetogram: 20230818_114500

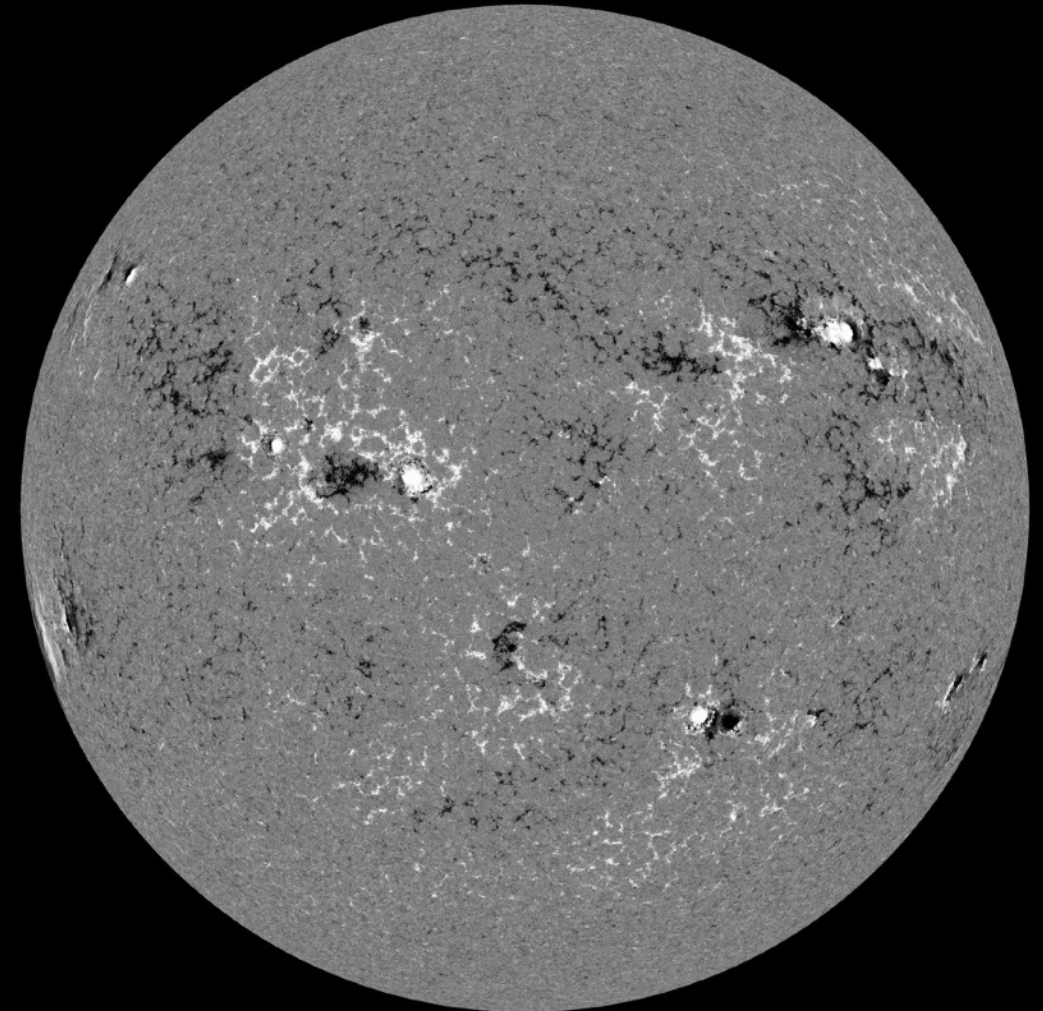
Solar active regions

SDO/HMI White Light 2023-08-19



SDO/HMI Quick-Look Continuum: 20230819_114500

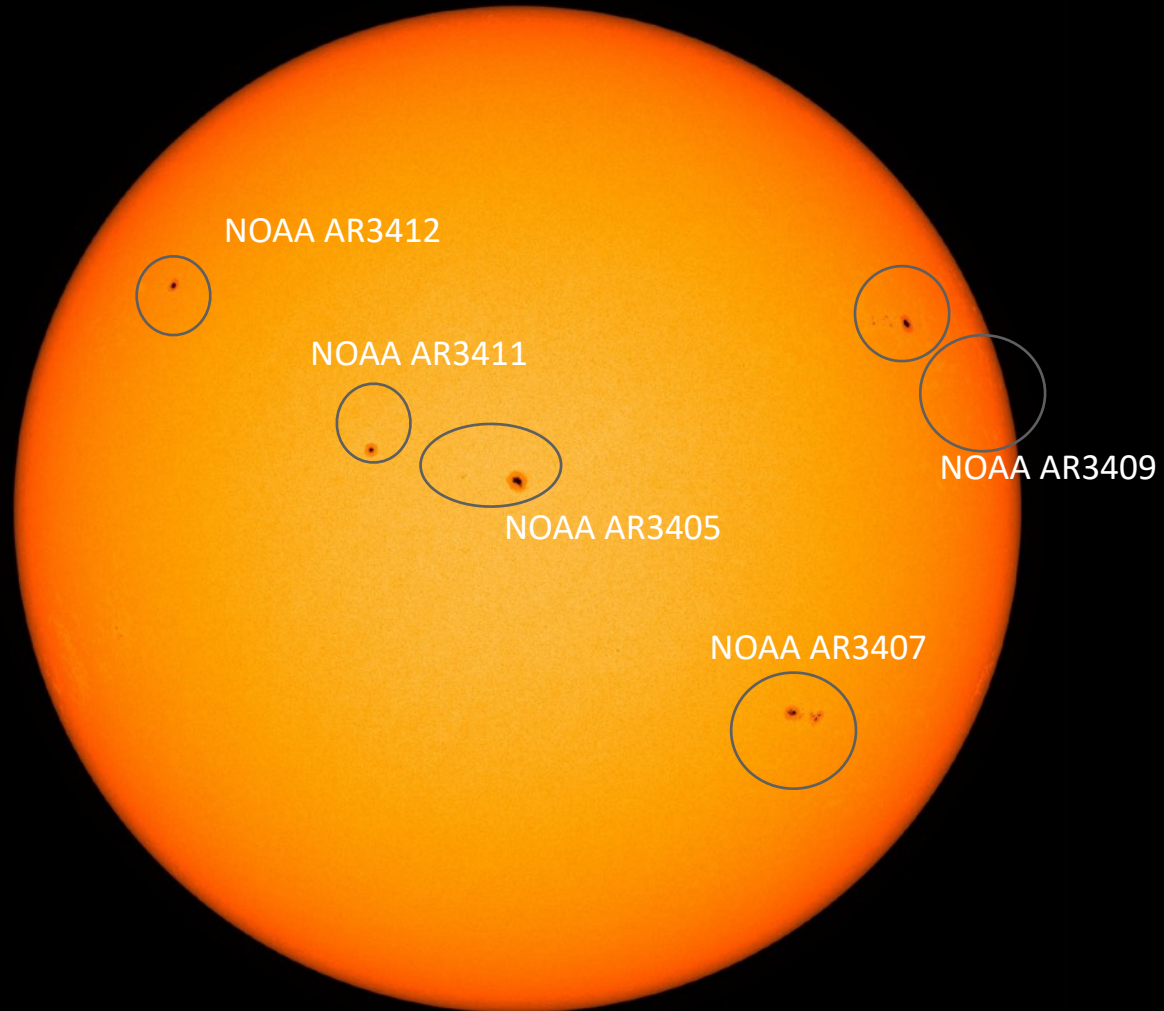
SDO/HMI Magnetogram 2023-08-19



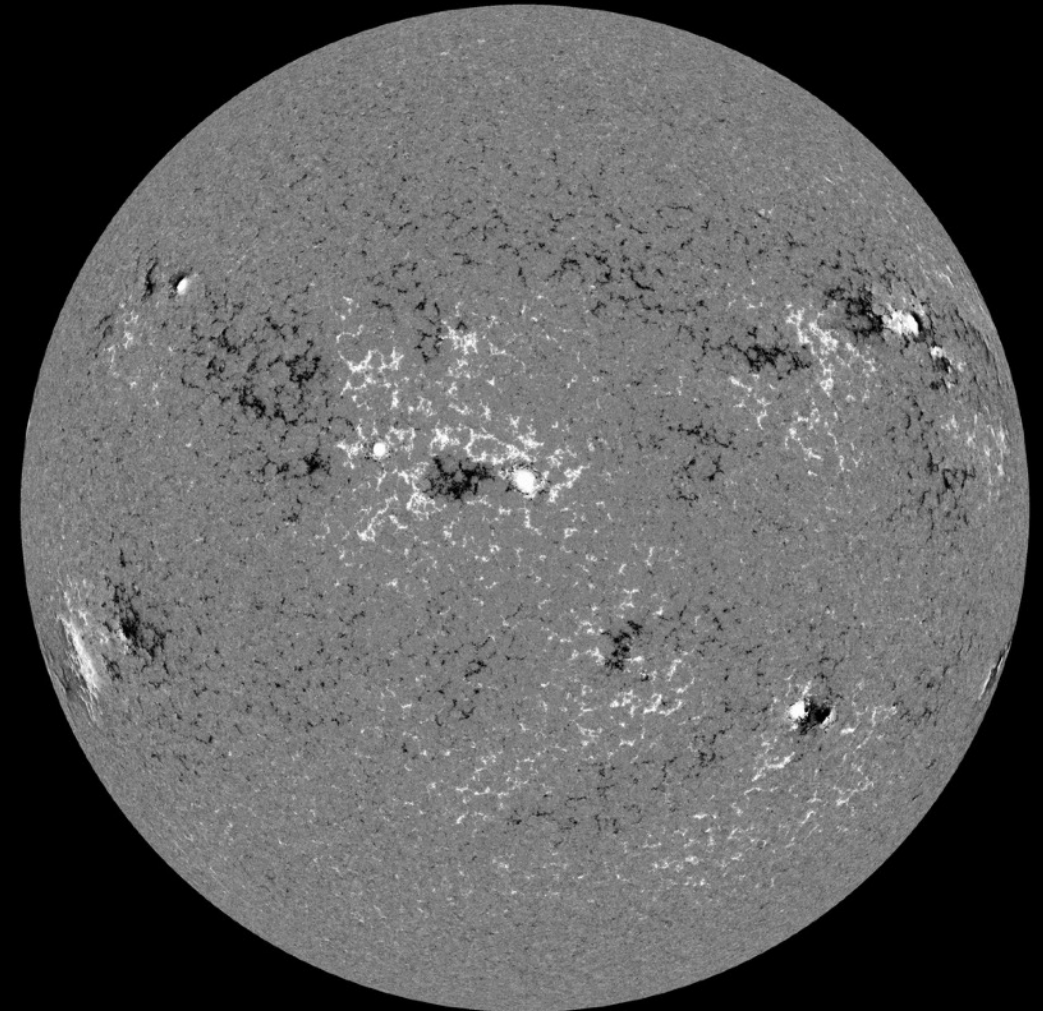
SDO/HMI Quick-Look Magnetogram: 20230819_114500

Solar active regions

SDO/HMI White Light 2023-08-20



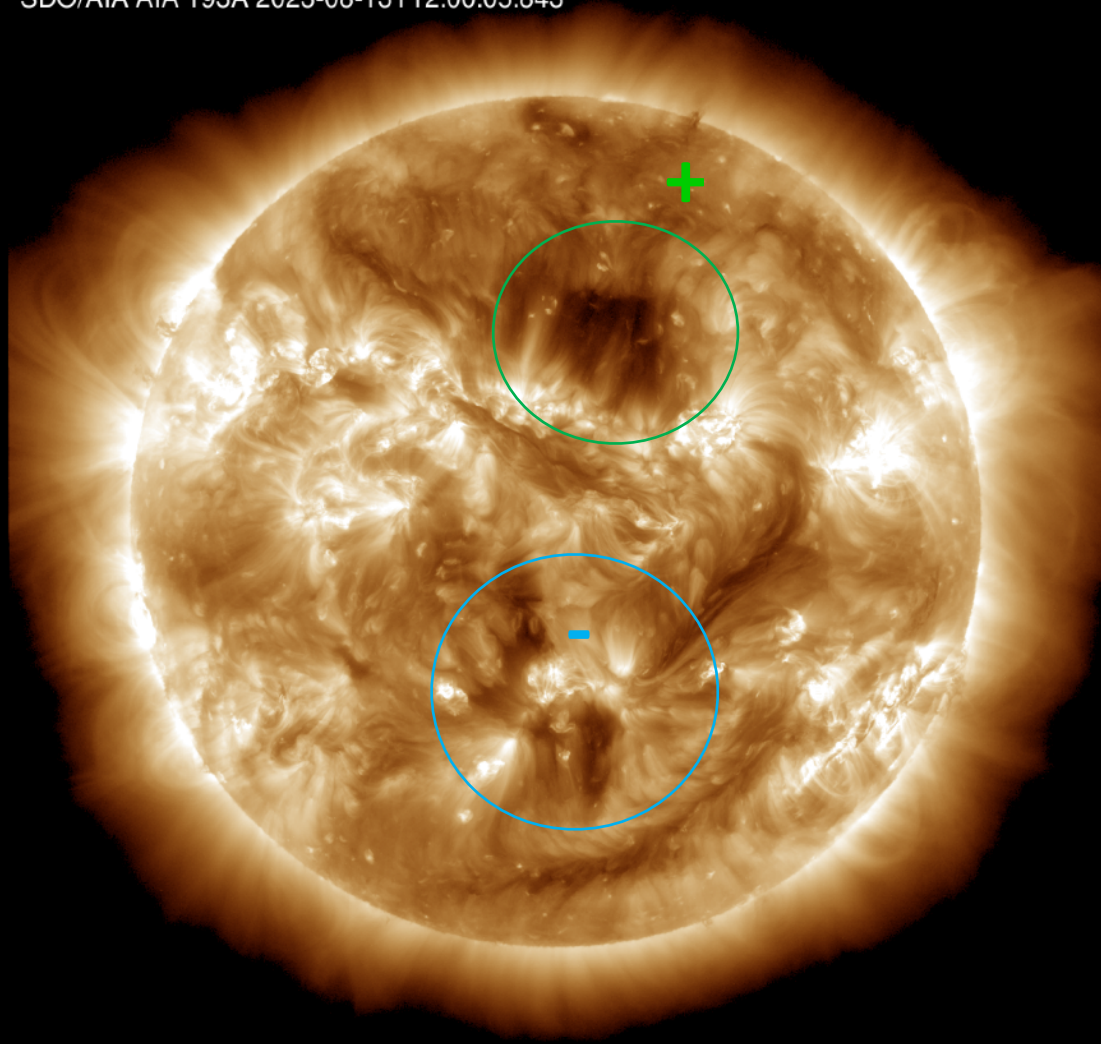
SDO/HMI Magnetogram 2023-08-20



Coronal holes

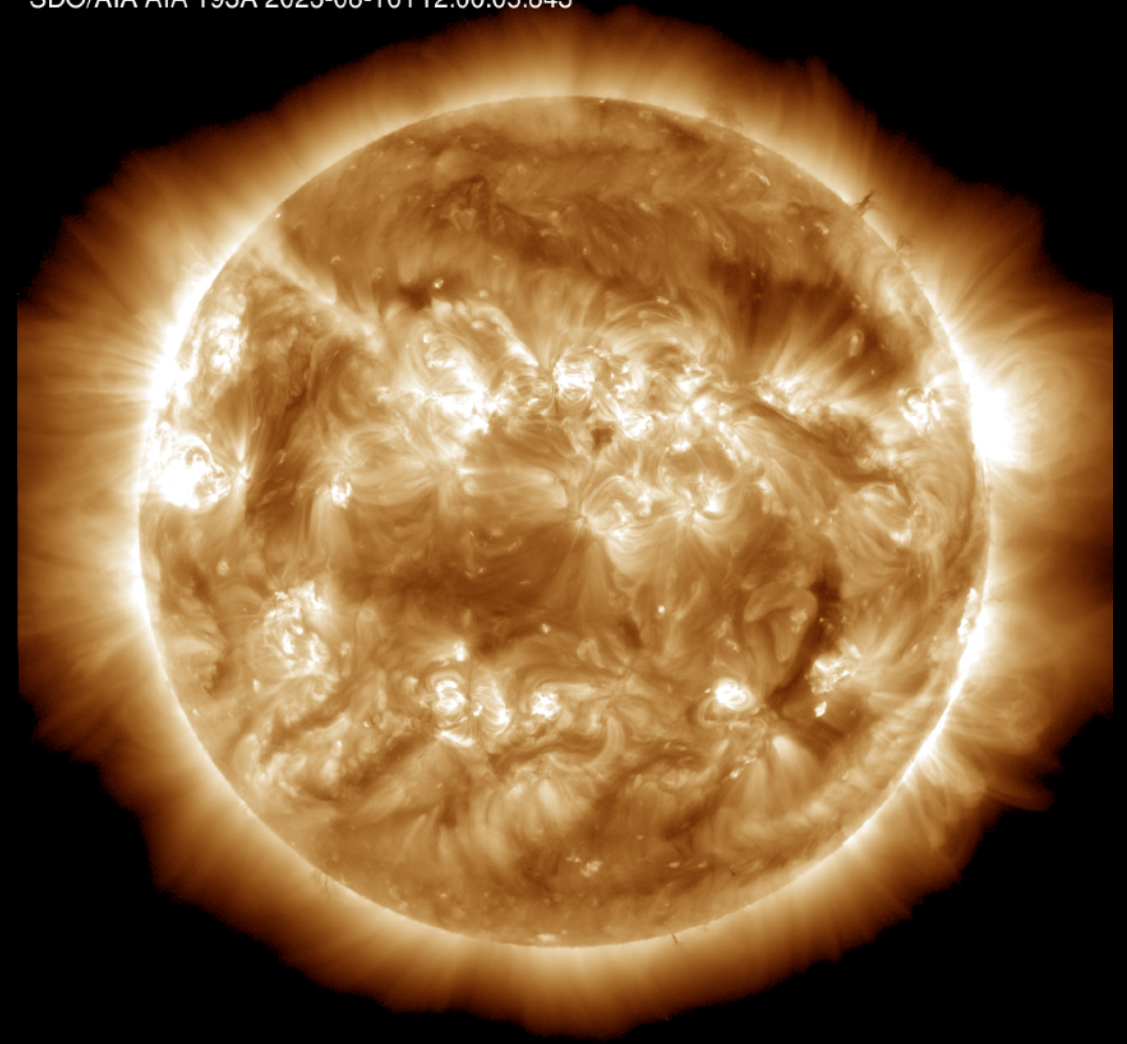
SDO/AIA 19.3 nm 2023-08-13

SDO/AIA AIA 193Å 2023-08-13T12:00:05.843



SDO/AIA 19.3 nm 2023-08-17

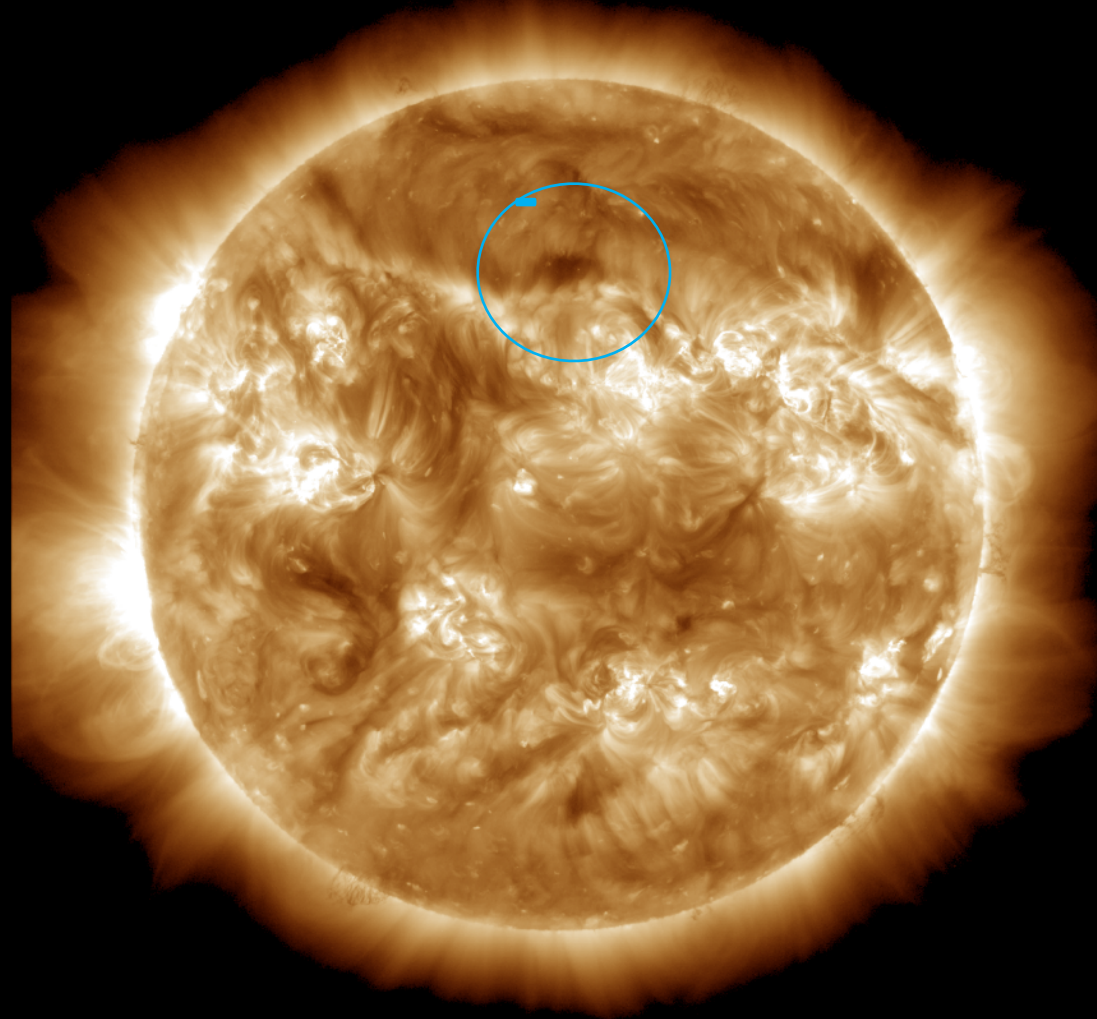
SDO/AIA AIA 193Å 2023-08-16T12:00:05.843



Coronal holes

SDO/AIA 19.3 nm 2023-08-18

SDO/AIA AIA 193Å 2023-08-18T12:00:05.844



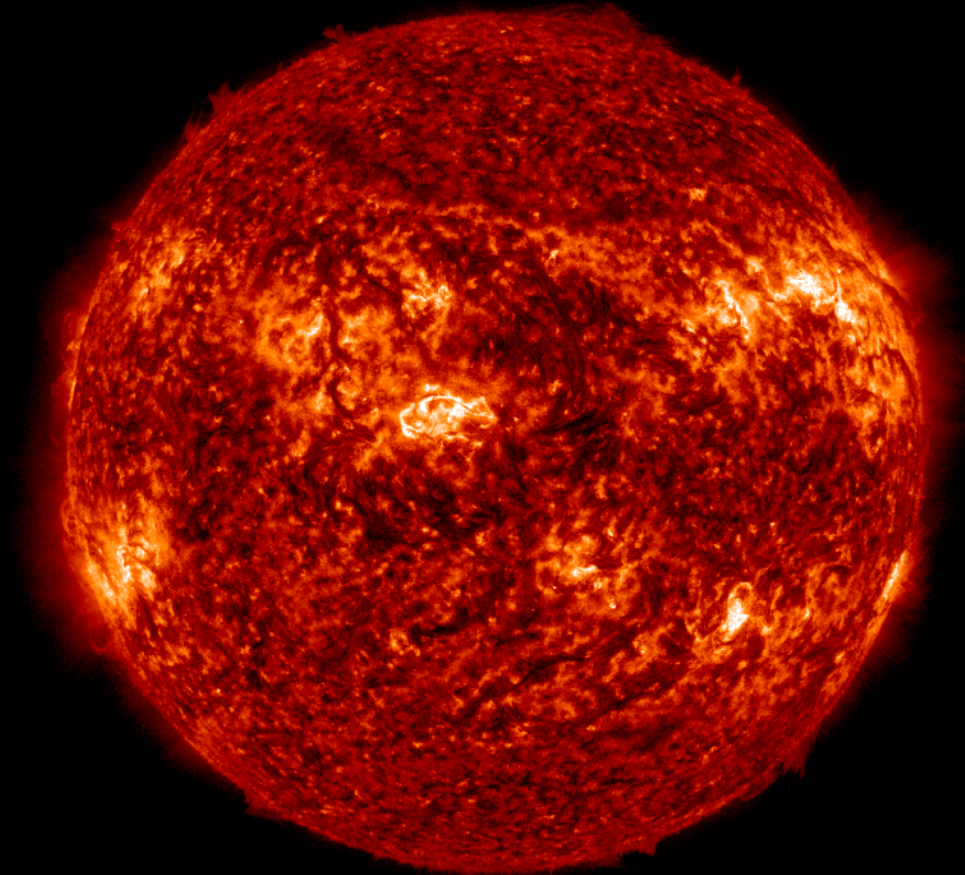
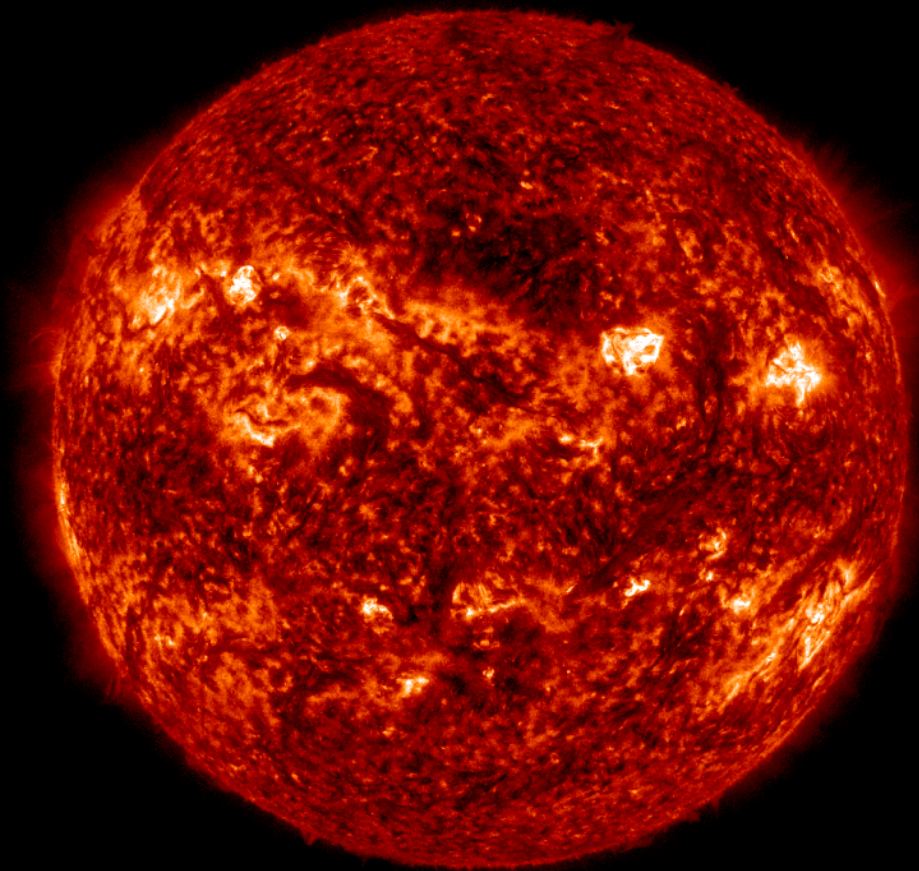
Filaments

SDO/AIA 30.4 nm 2023-08-13

SDO/AIA AIA 304Å 2023-08-13T12:00:06.580

SDO/AIA 30.4 nm 2023-08-20

SDO/AIA AIA 304Å 2023-08-20T12:00:06.580



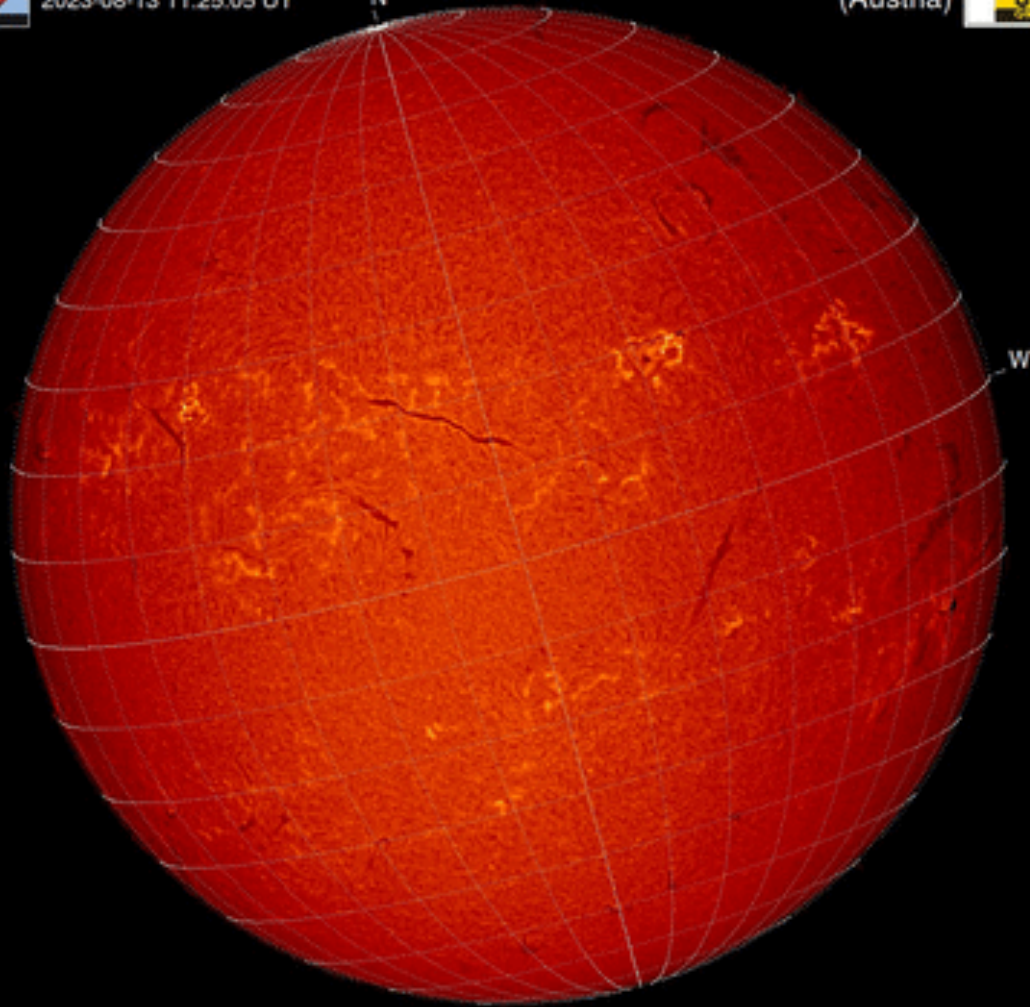
Filaments & Filament eruptions

H-alpha 2023-08-13



Kanzelhöhe Observatory
2023-08-13 11:25:05 UT

University of Graz
(Austria)

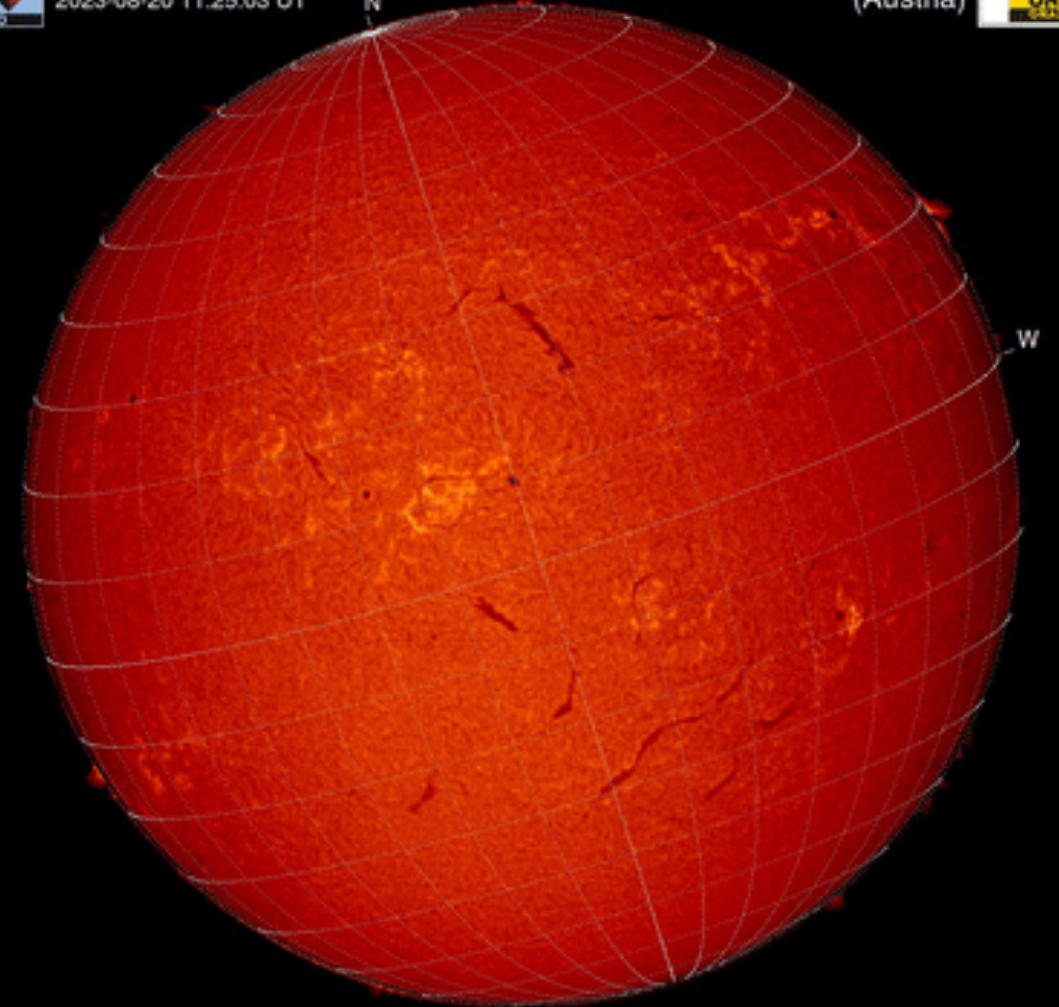


H-alpha 2023-08-20

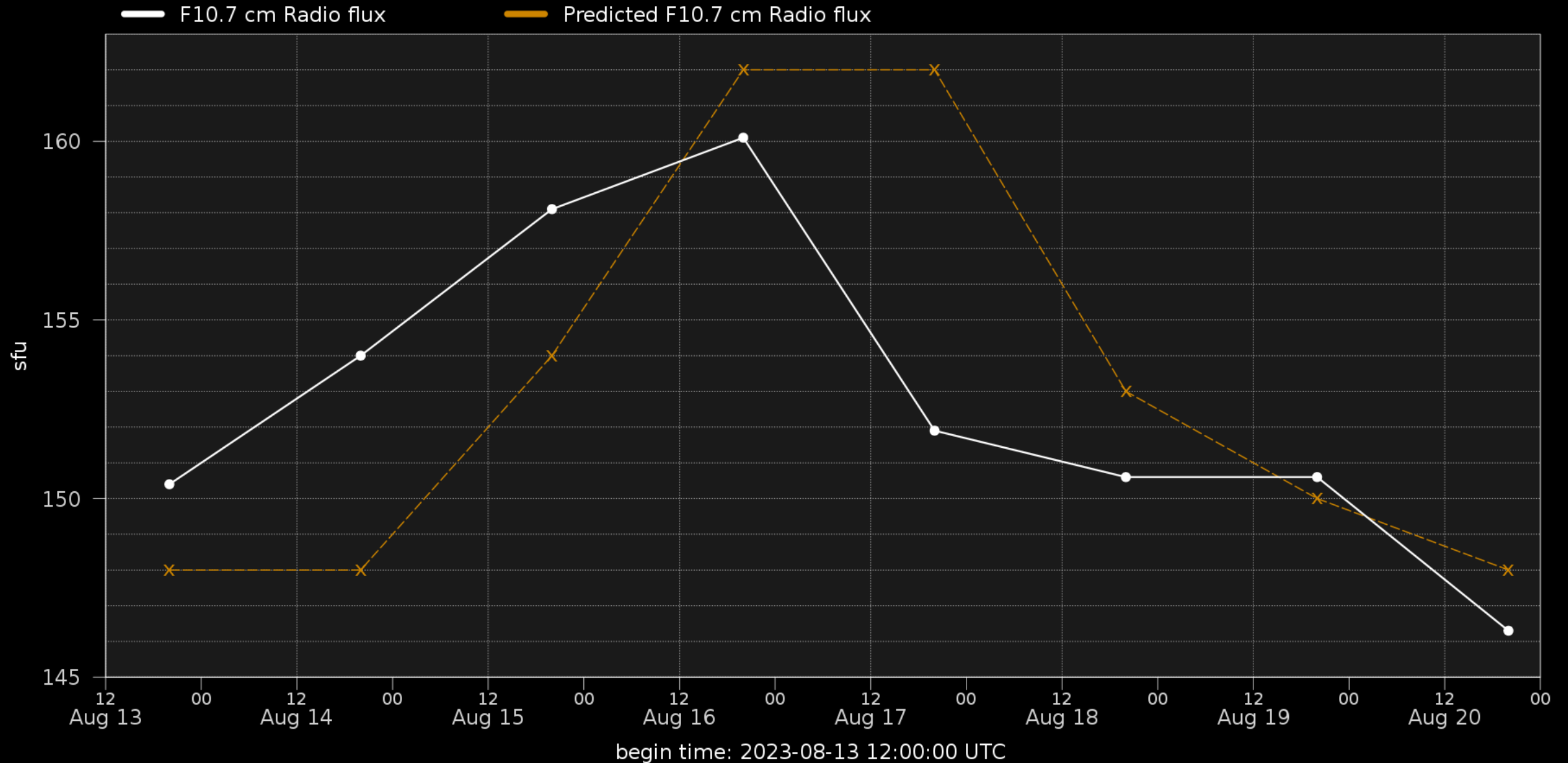


Kanzelhöhe Observatory
2023-08-20 11:25:03 UT

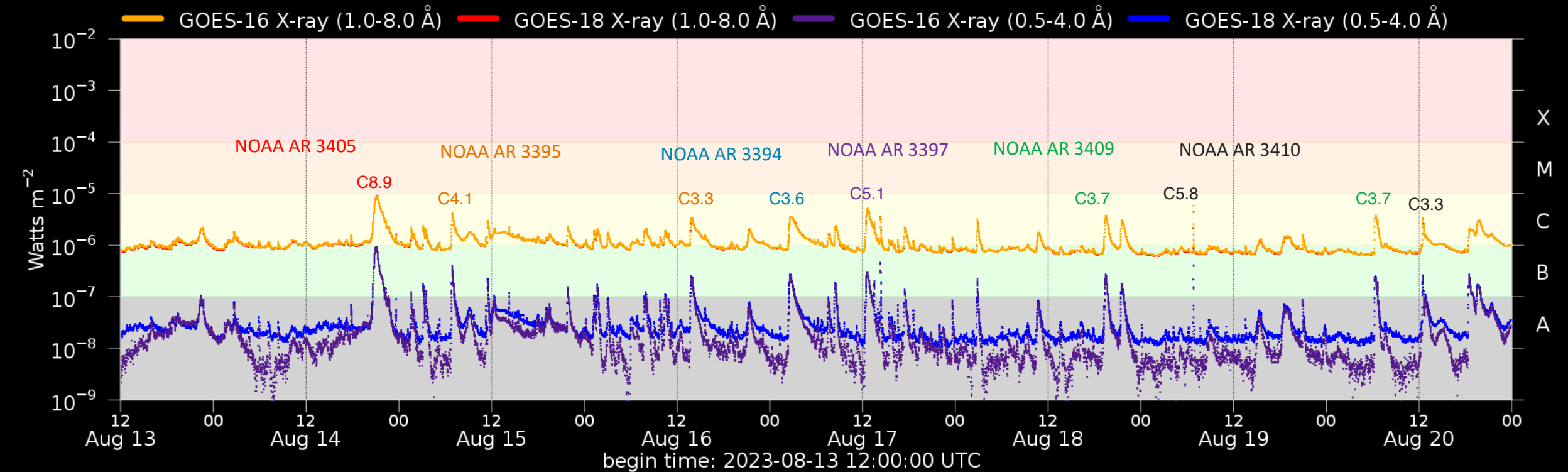
University of Graz
(Austria)



Solar F10.7cm radio flux



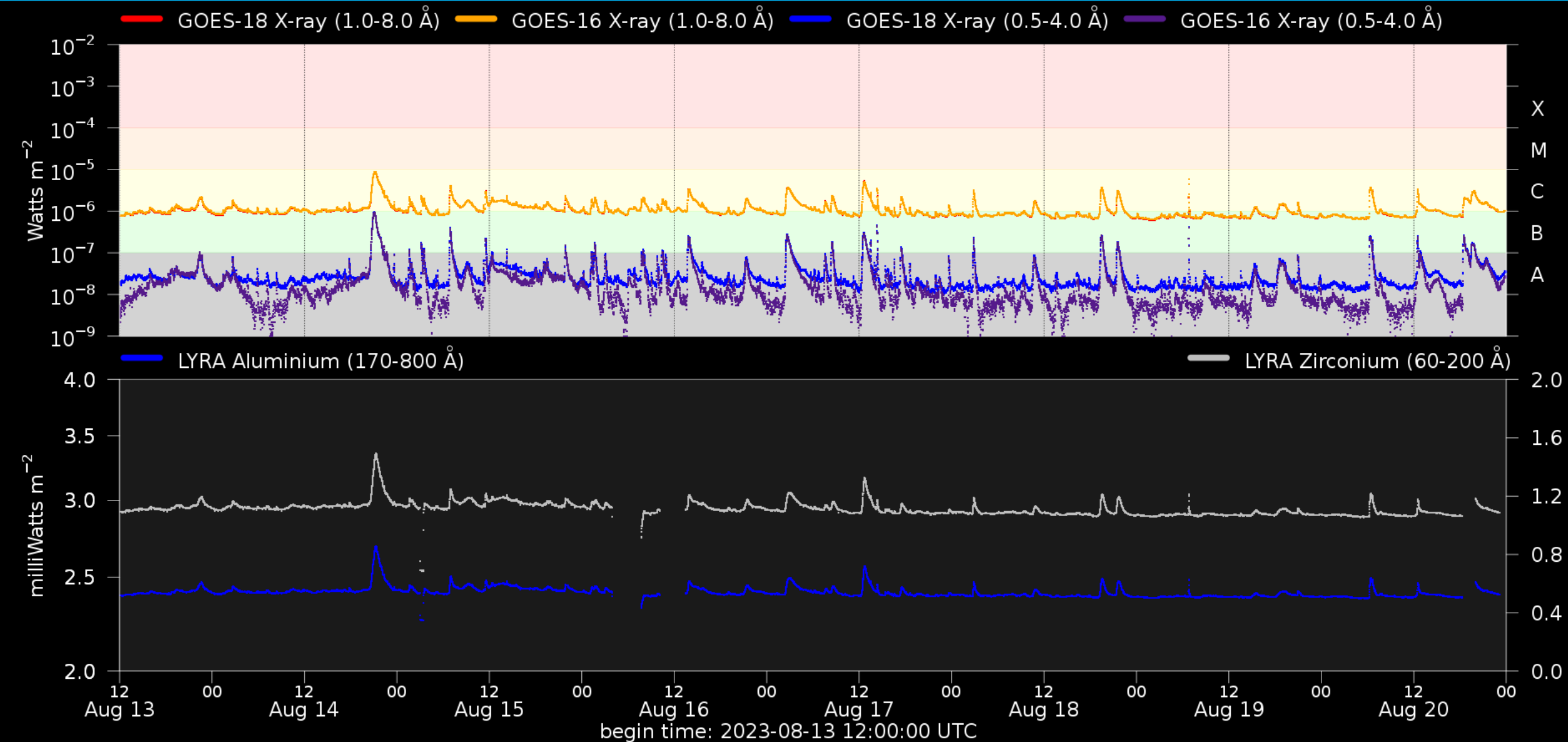
Flaring activity



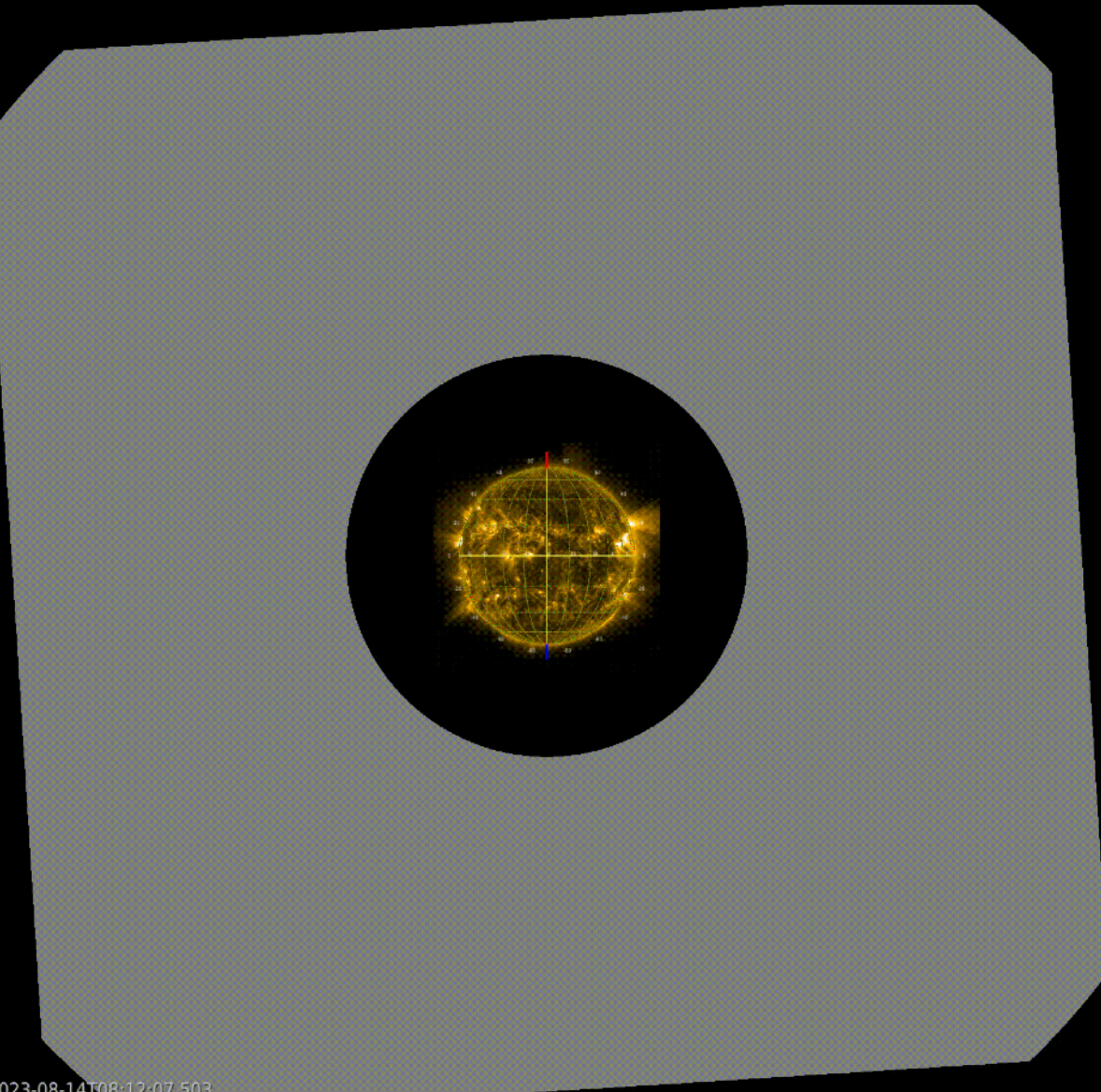
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-08-13	2023-08-14	2023-08-15	2023-08-16	2023-08-17	2023-08-18	2023-08-19	2023-08-20
Probability (%)	90 05 01	95 10 01	95 10 01	99 15 01	99 15 05	99 20 05	99 15 01	95 10 01
Observed (#)	02 00 00	08 00 00	08 00 00	04 00 00	07 00 00	03 00 00	04 00 00	03 00 00

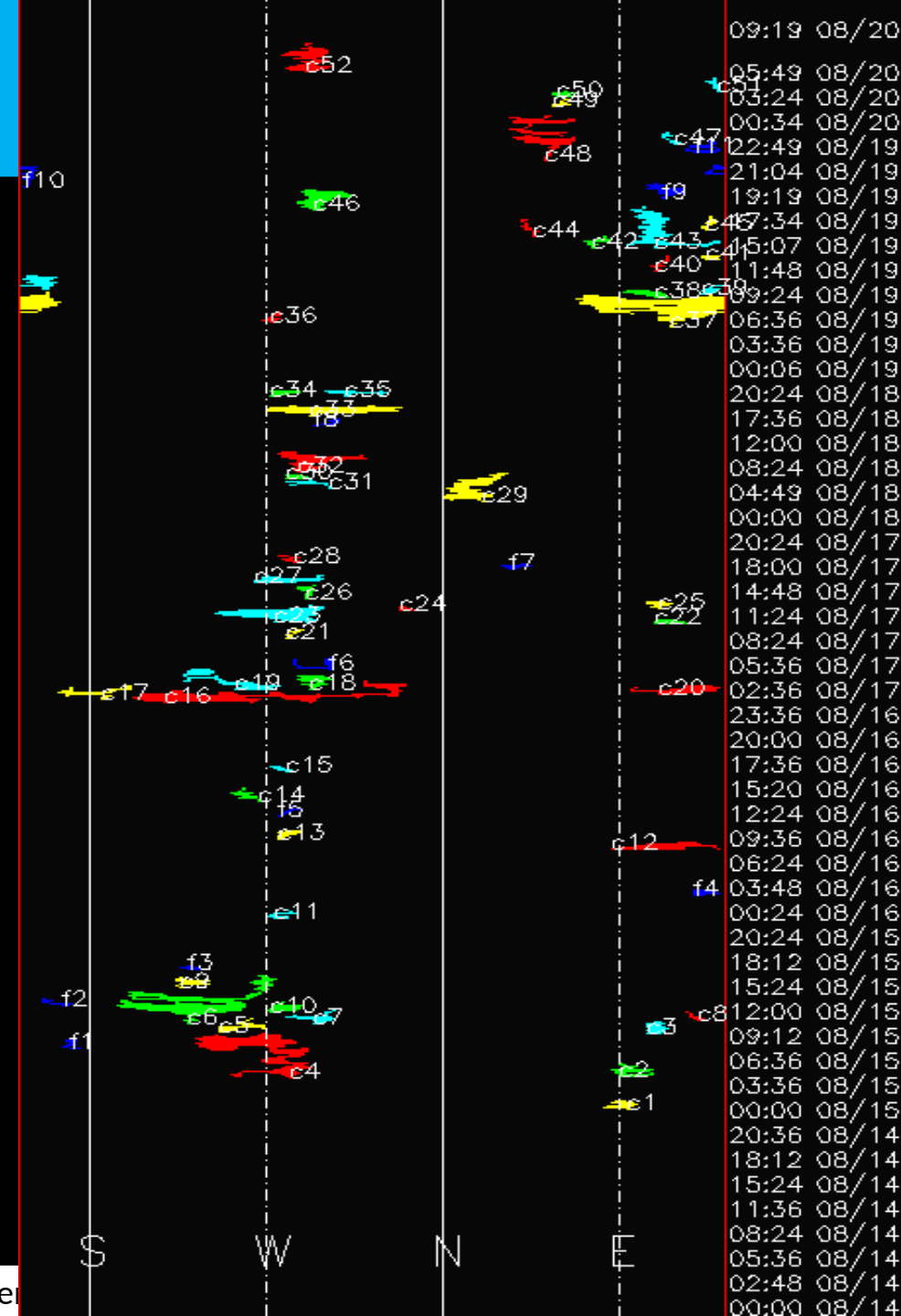
Solar X-Ray and UV flux



Coronal Mass Ejections



No Earth directed CMEs observed.



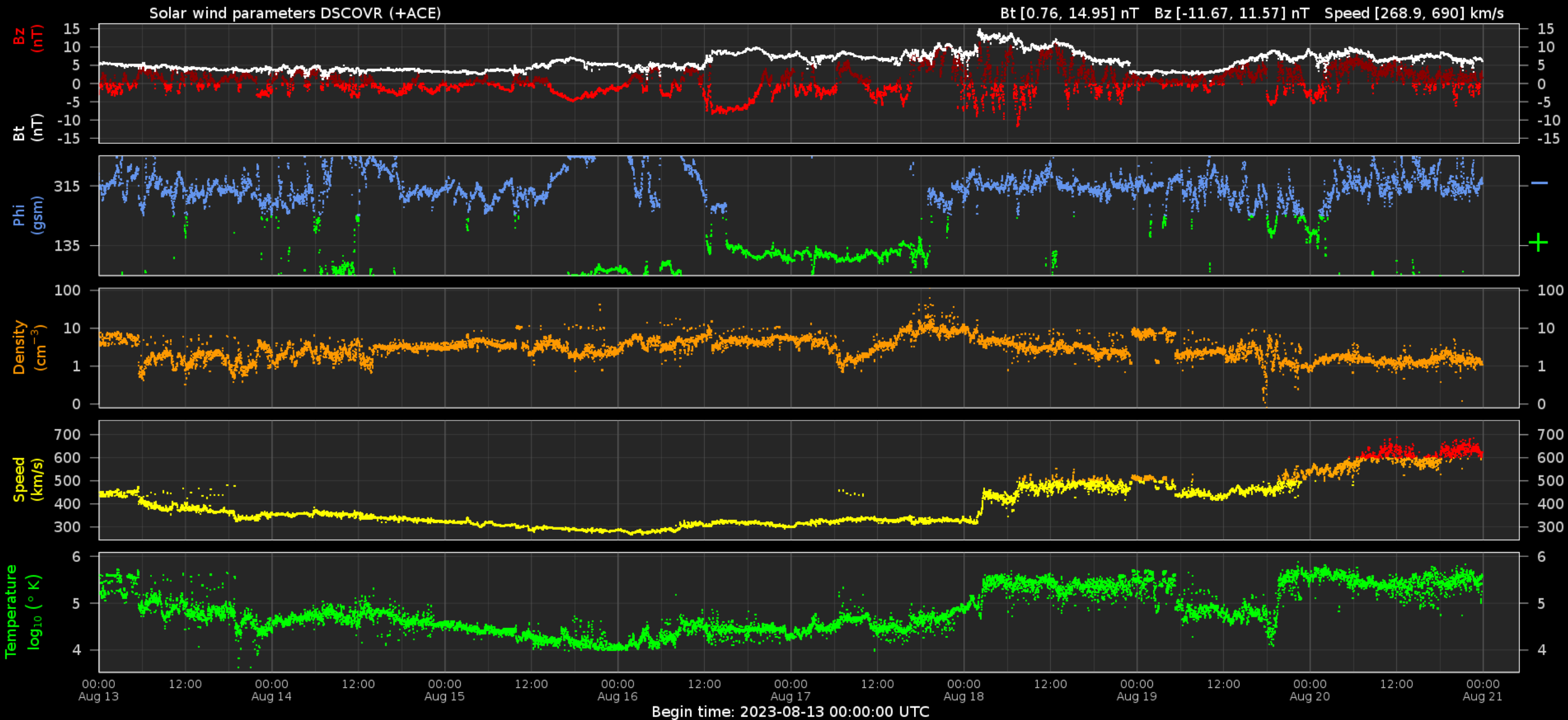
Solar Wind and Geomagnetic Activity



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Solar wind parameters



Solar wind parameters & K-indices



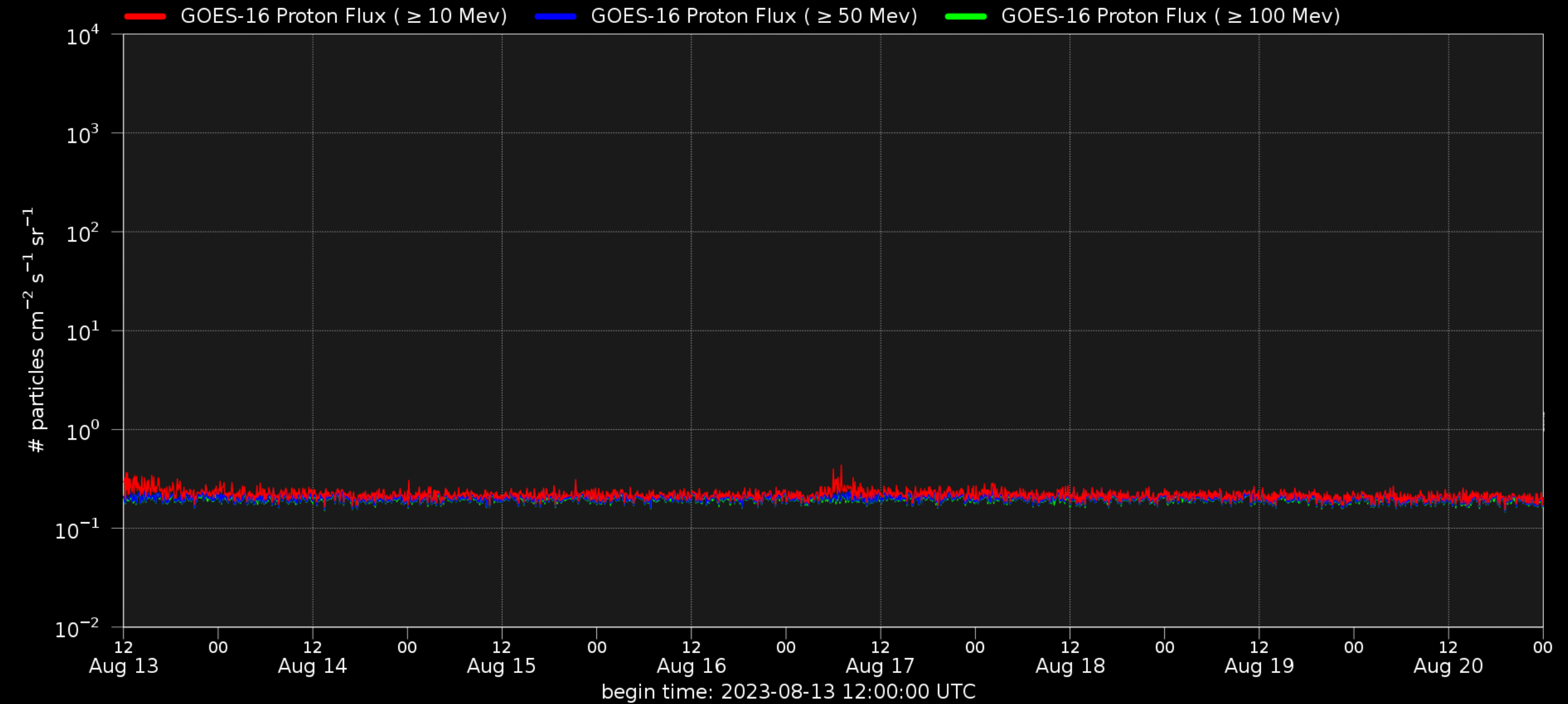
Energetic Particles



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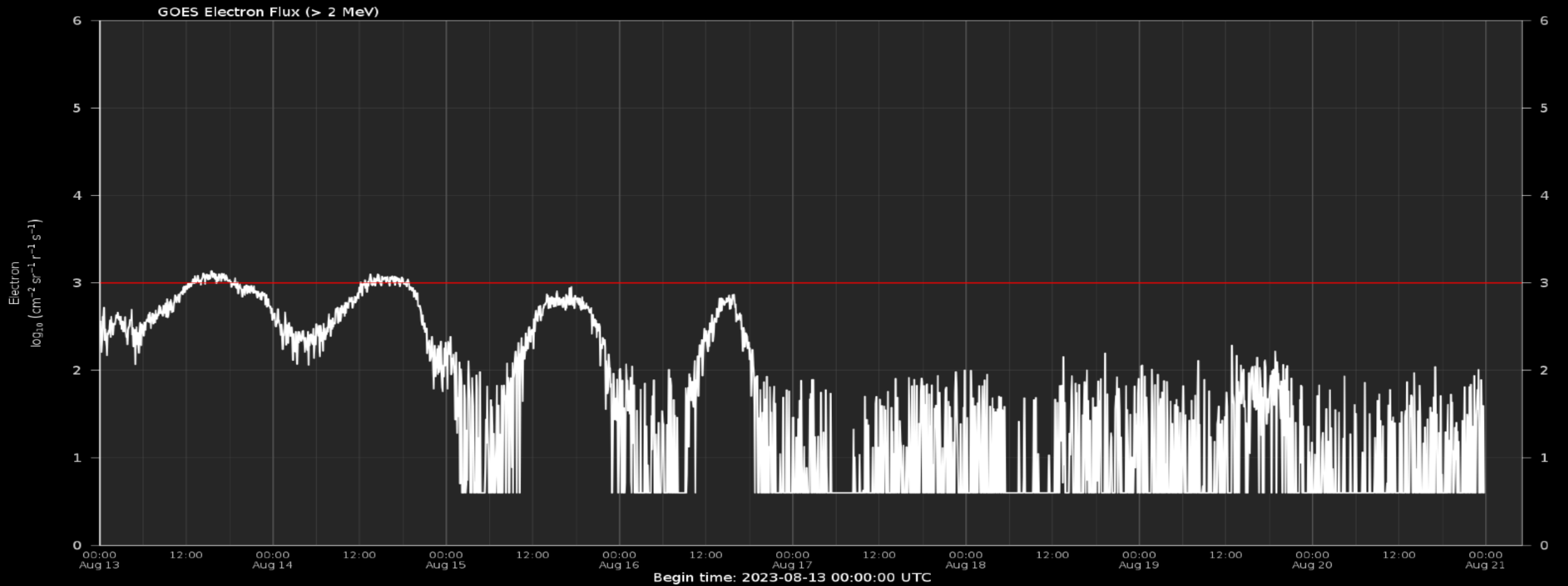
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php



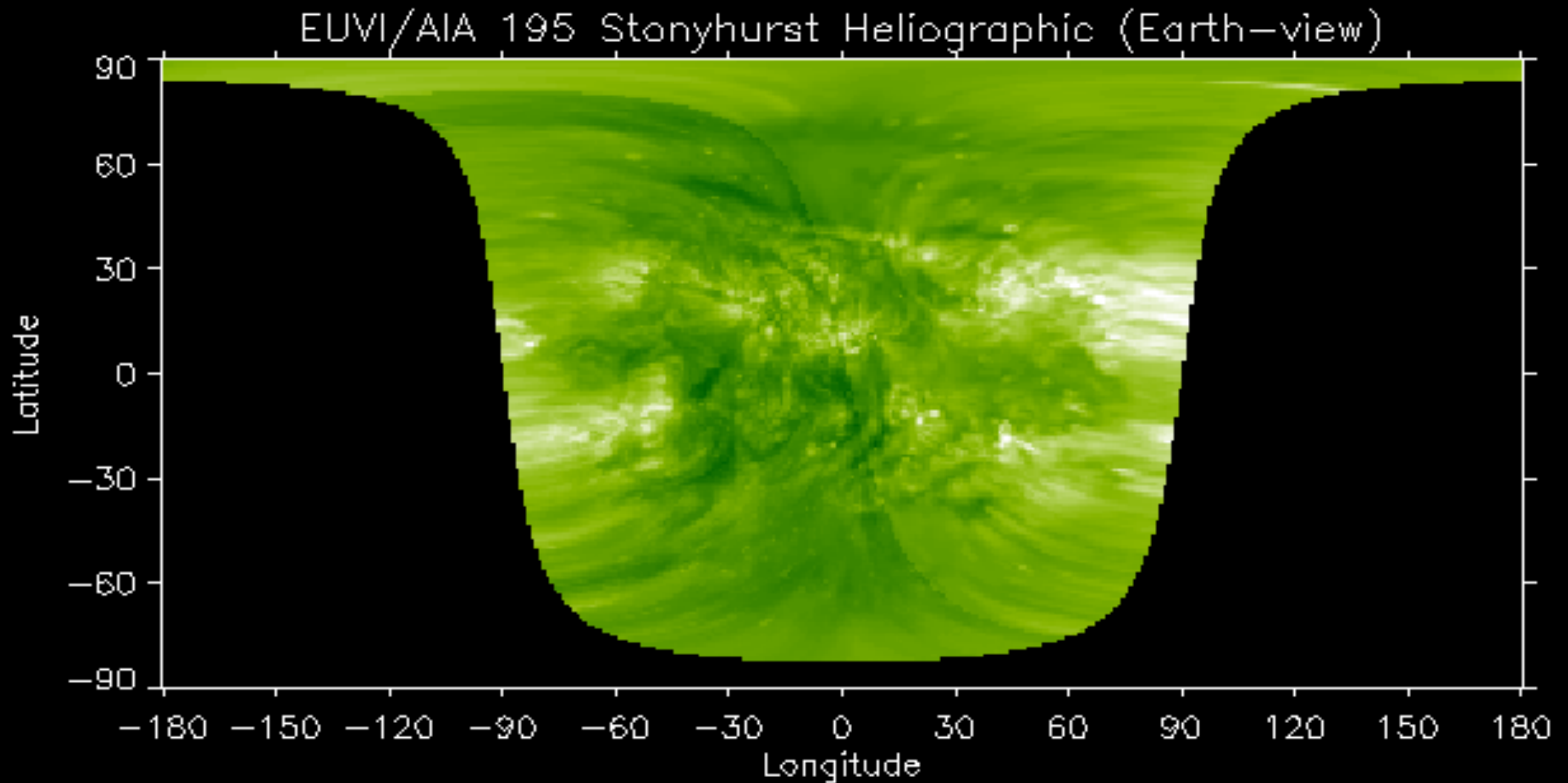
Outlook



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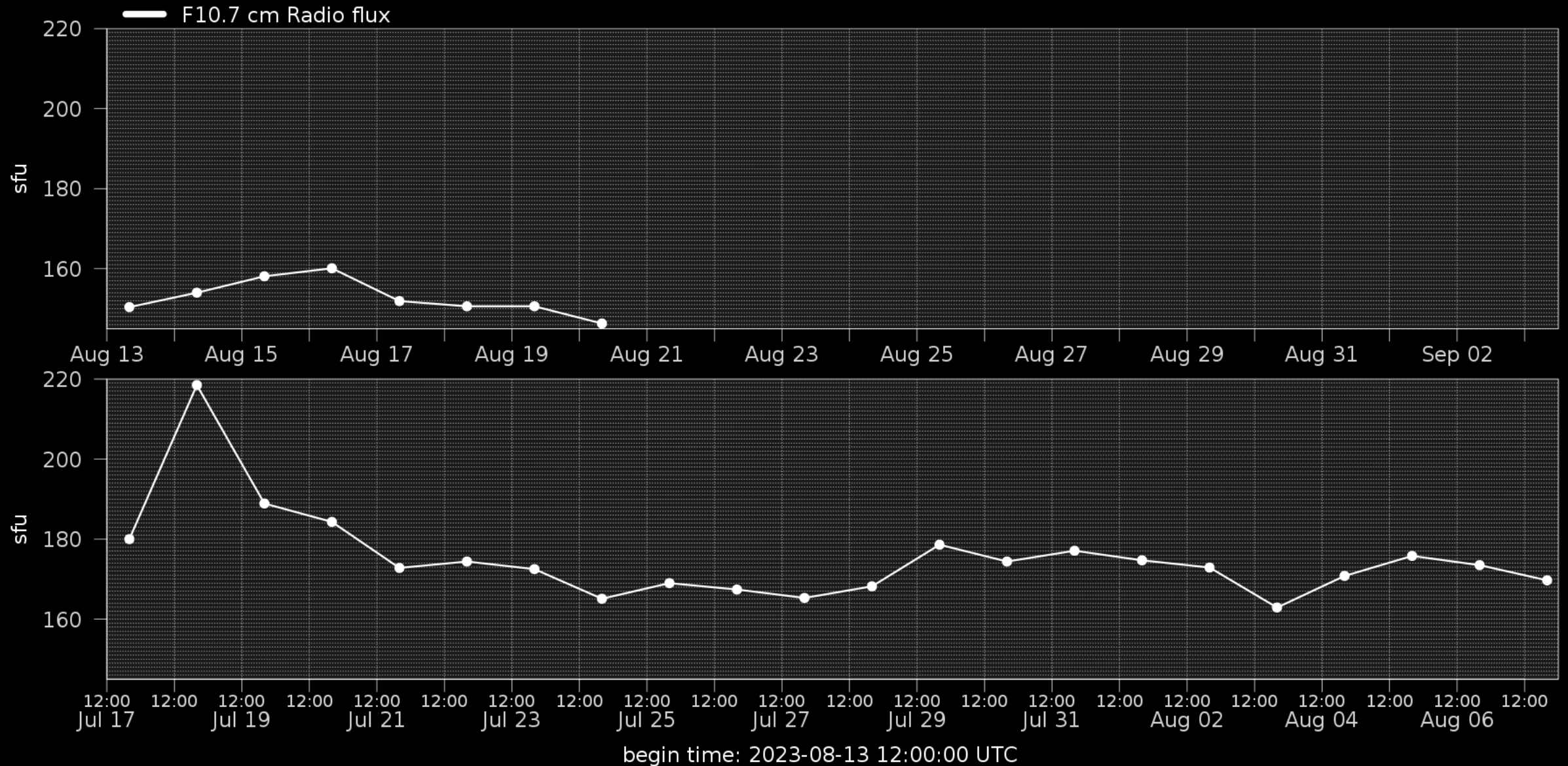
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Outlook: Solar activity



Observation date: 2023/08/20 23:25:00

Outlook: Solar F10.7cm radio flux



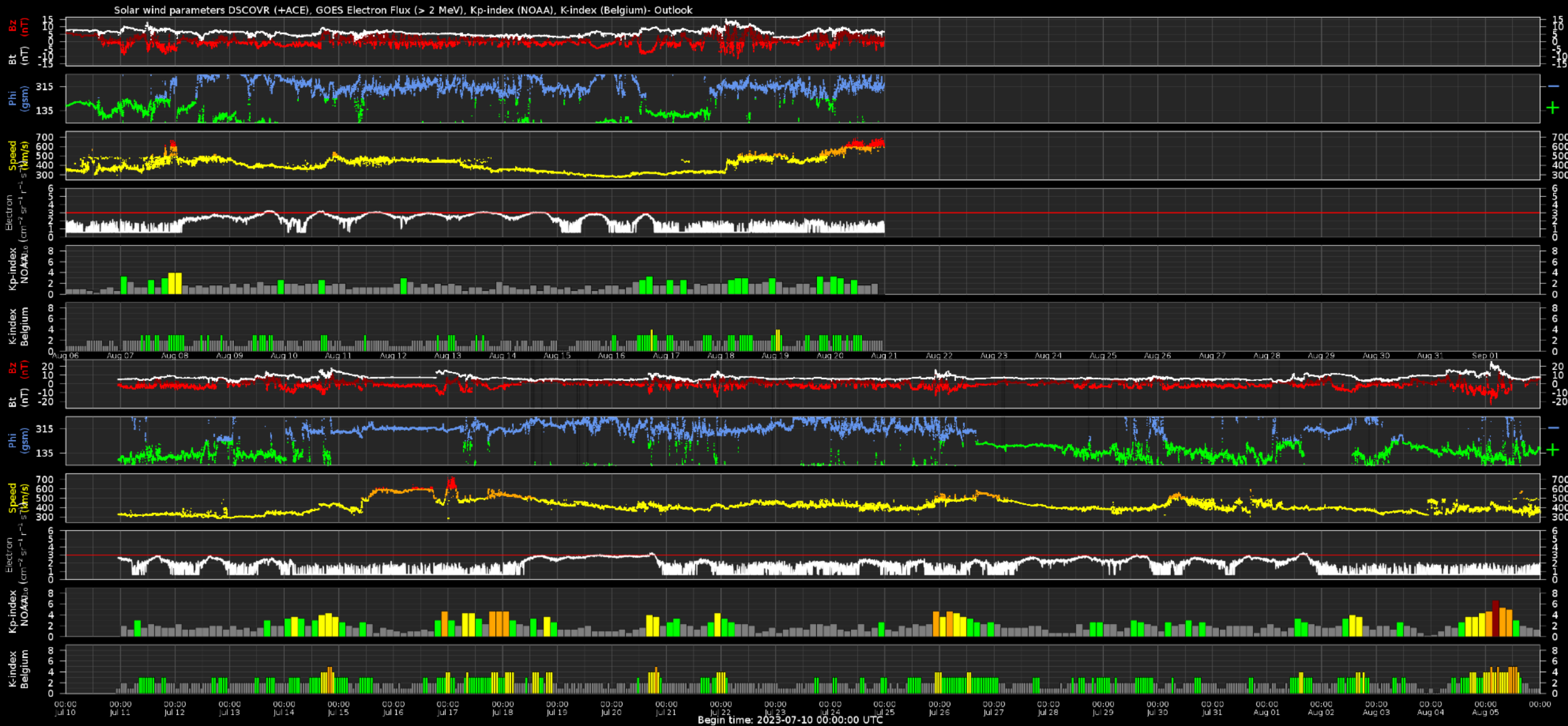
Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



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See you at our next briefing!

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