

# SIDC Space Weather Briefing

29 August 2021 - 05 September 2021

Jesse Andries

& the SIDC forecaster team



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

# Summary Report

Solar activity from 2021-08-29 12:00 to 2021-09-05 23:59

|                    |                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------|
| Active regions     | NOAA 2860 (beta-gamma) decaying in the start of the week;<br>several emerging bipolar regions end of the week |
| Flares             | # C-class flare: 12 # M-class flare: 0 # X-class flare: 0                                                     |
| Filament eruptions | Several eruptions towards the West ; eruptions near central disc yesterday                                    |
| Coronal Holes      | CH- south                                                                                                     |

|               |            |
|---------------|------------|
| Proton flux   | background |
| Electron flux | moderate   |

Solar wind and geomagnetic conditions

|               |                                                                           |
|---------------|---------------------------------------------------------------------------|
| ICME          | None of August 26 or August 28 arrived                                    |
| SW Conditions | B : 0.45 - 11.59 nT // Bz: -7.71 nT to 8.3 nT // Speed: 292.9 - 446.6km/s |
| K-indices     | max K-index (Dourbes): 4 max Kp-index (NOAA): 3                           |

All Quiet Alert: Not all quiet

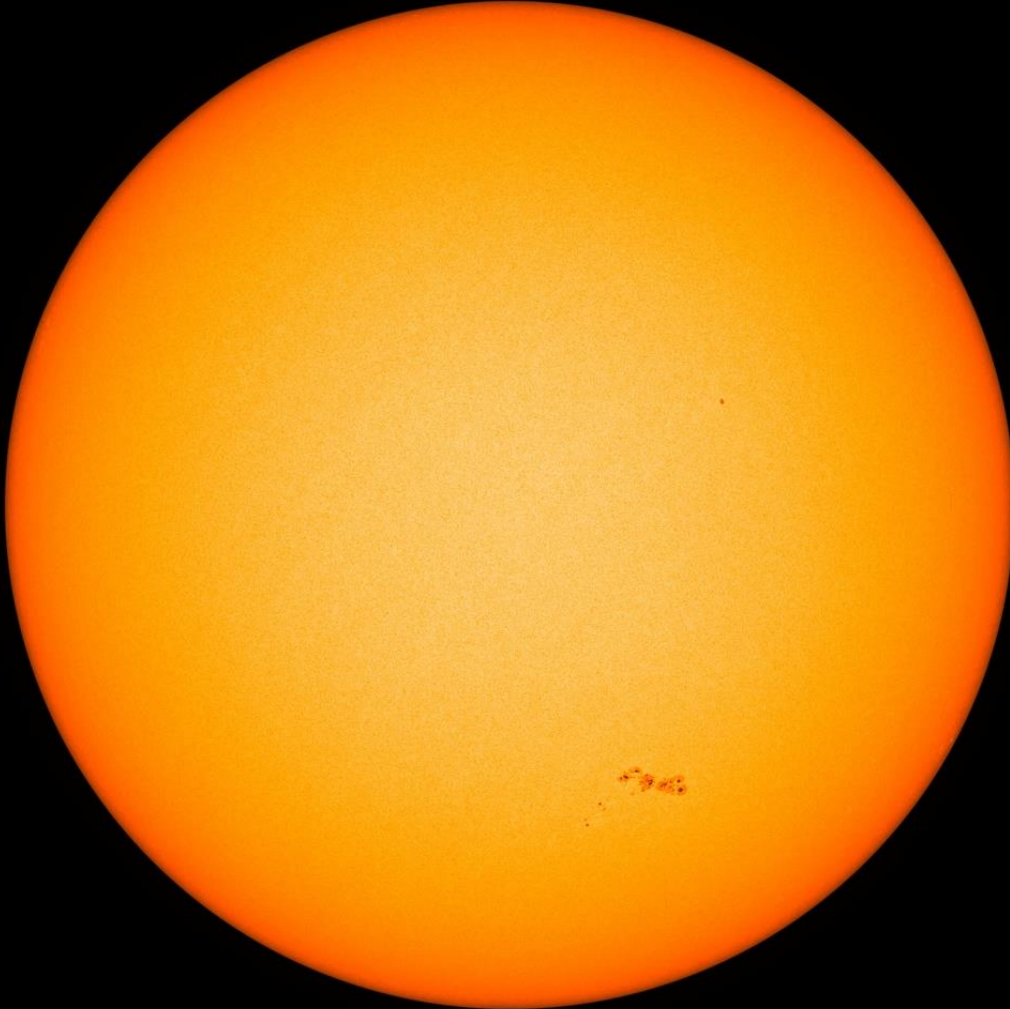
# Solar Activity



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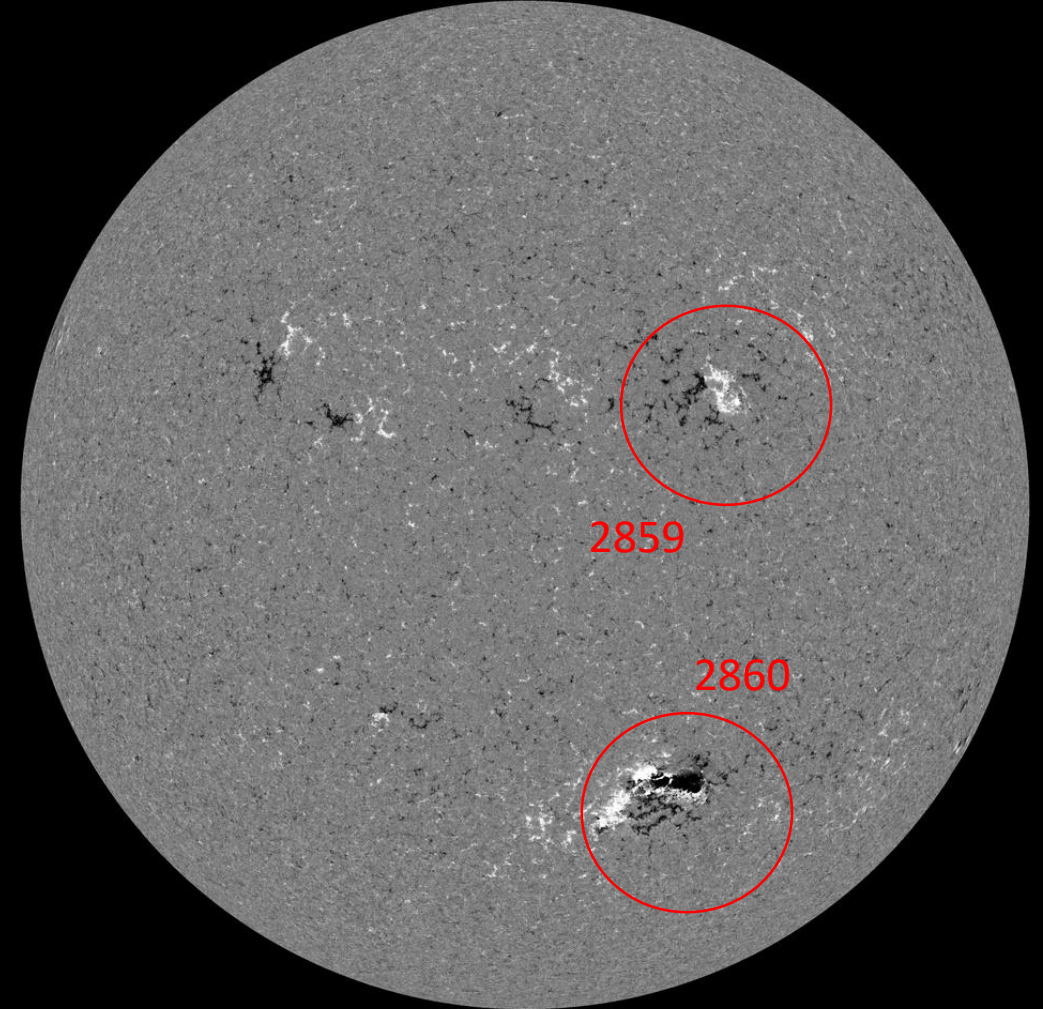
# Solar active regions

SDO/HMI White Light 2021-08-29



SDO/HMI Quick-Look Continuum: 20210829\_114500

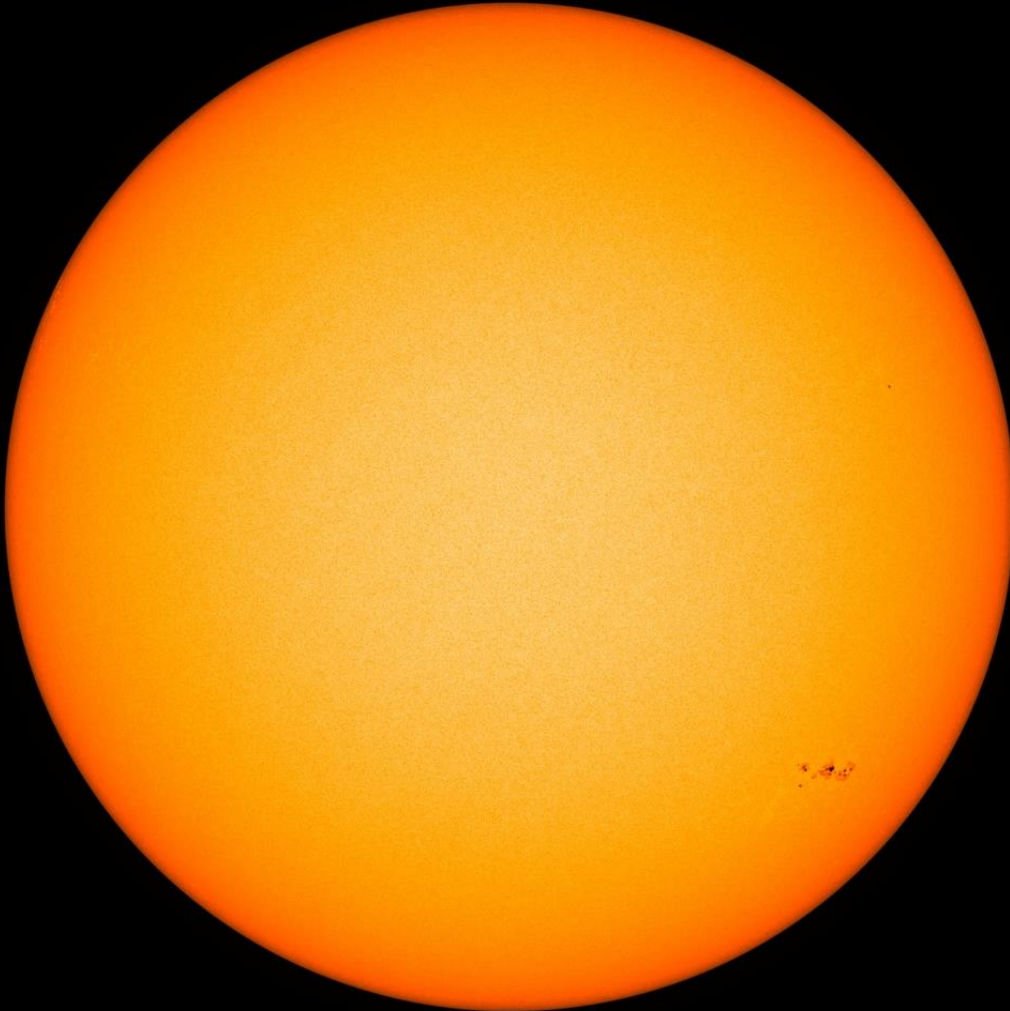
SDO/HMI Magnetogram 2021-08-29



SDO/HMI Quick-Look Magnetogram: 20210829\_114500

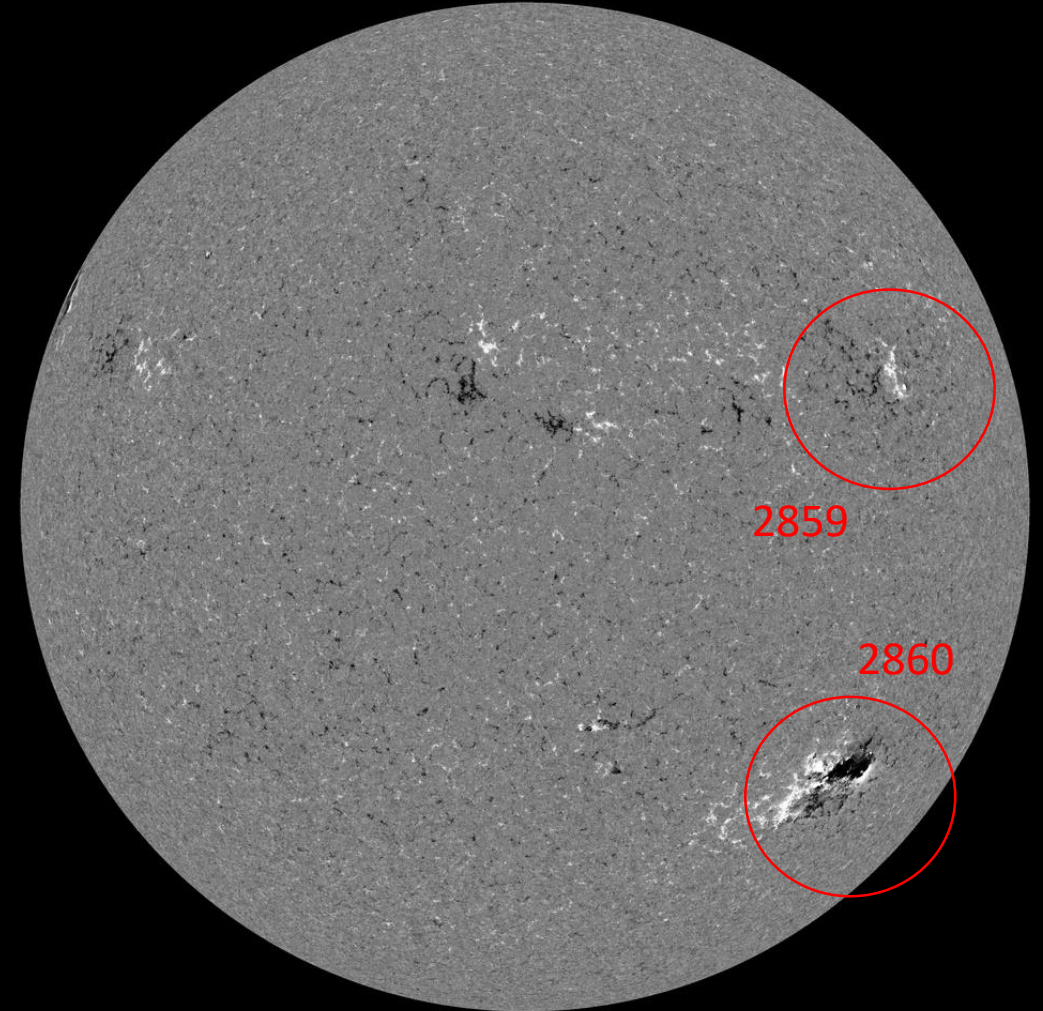
# Solar active regions

SDO/HMI White Light 2021-08-31



SDO/HMI Quick-Look Continuum: 20210831\_114500

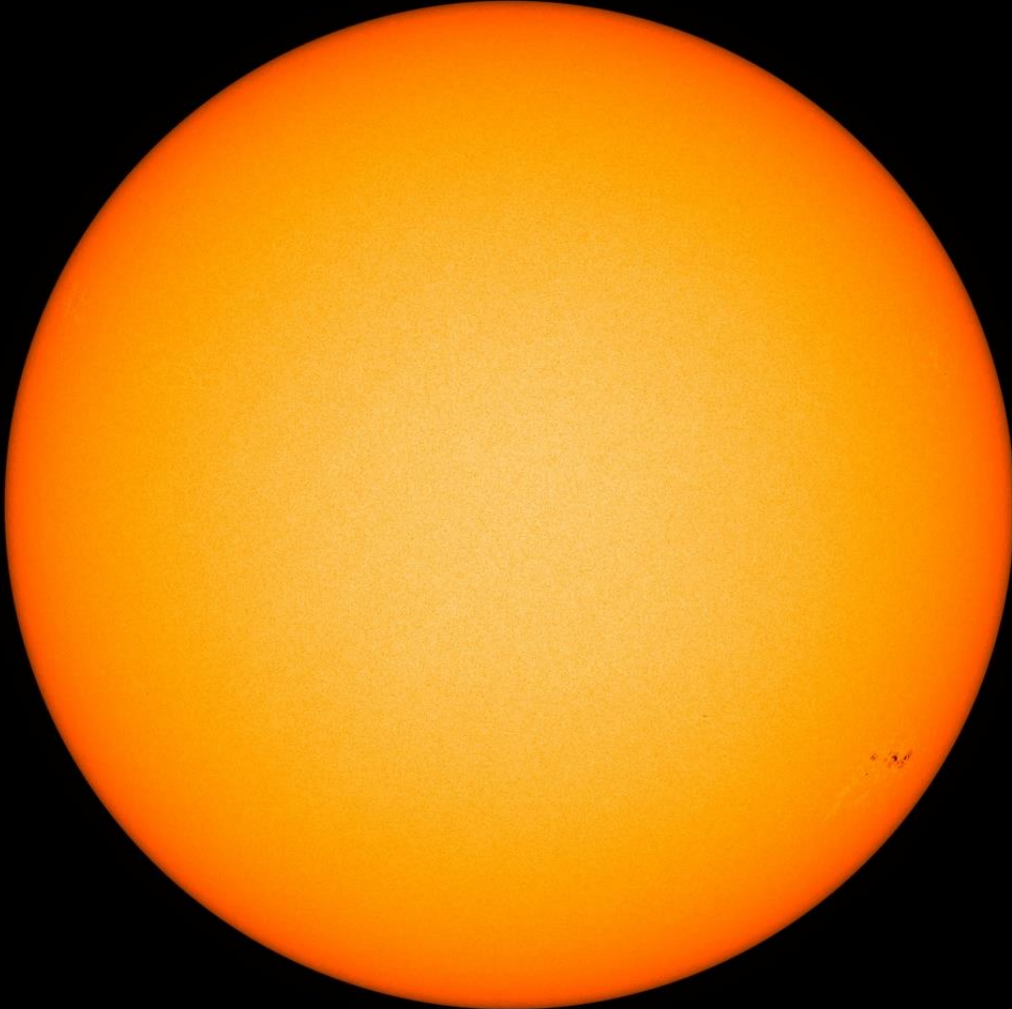
SDO/HMI Magnetogram 2021-08-31



SDO/HMI Quick-Look Magnetogram: 20210831\_114500

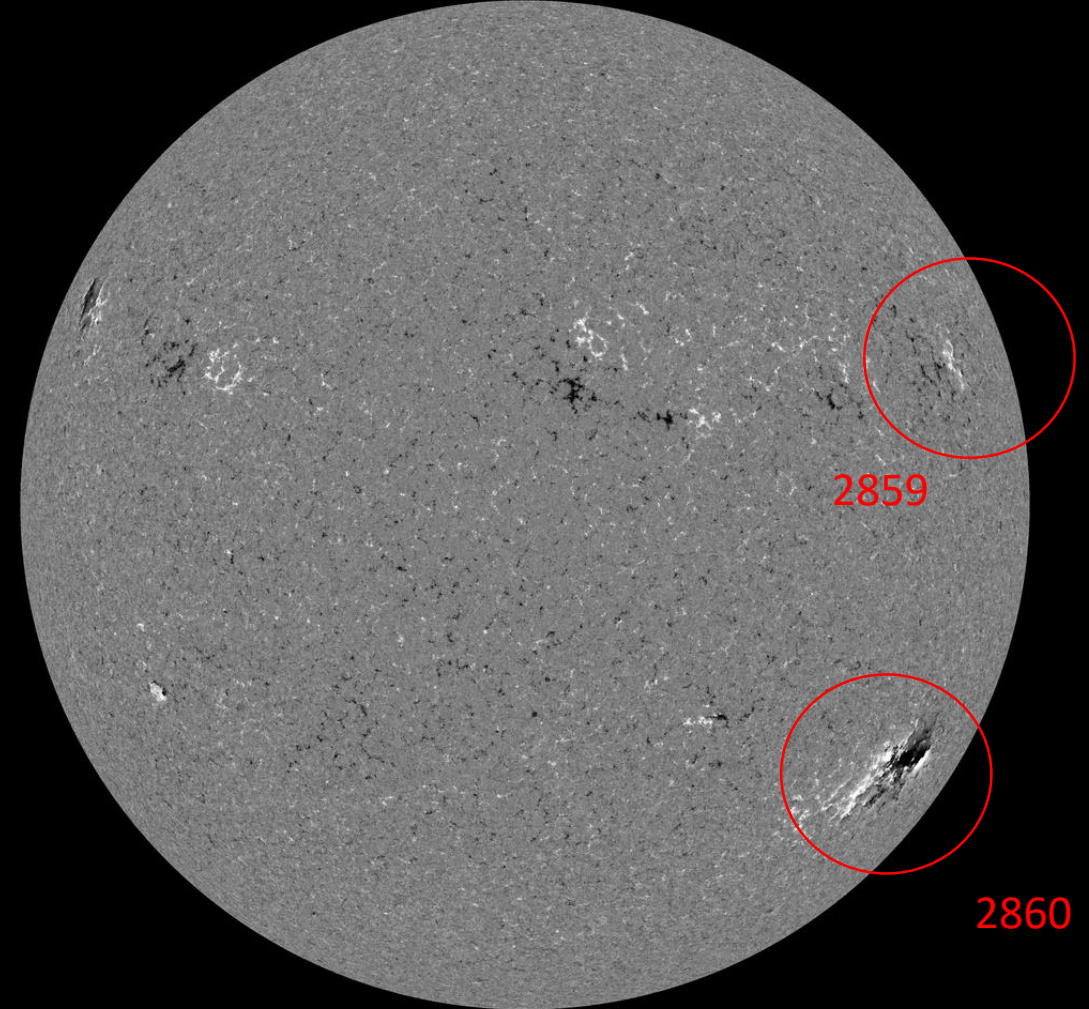
# Solar active regions

SDO/HMI White Light 2021-09-01



SDO/HMI Quick-Look Continuum: 20210901\_114500

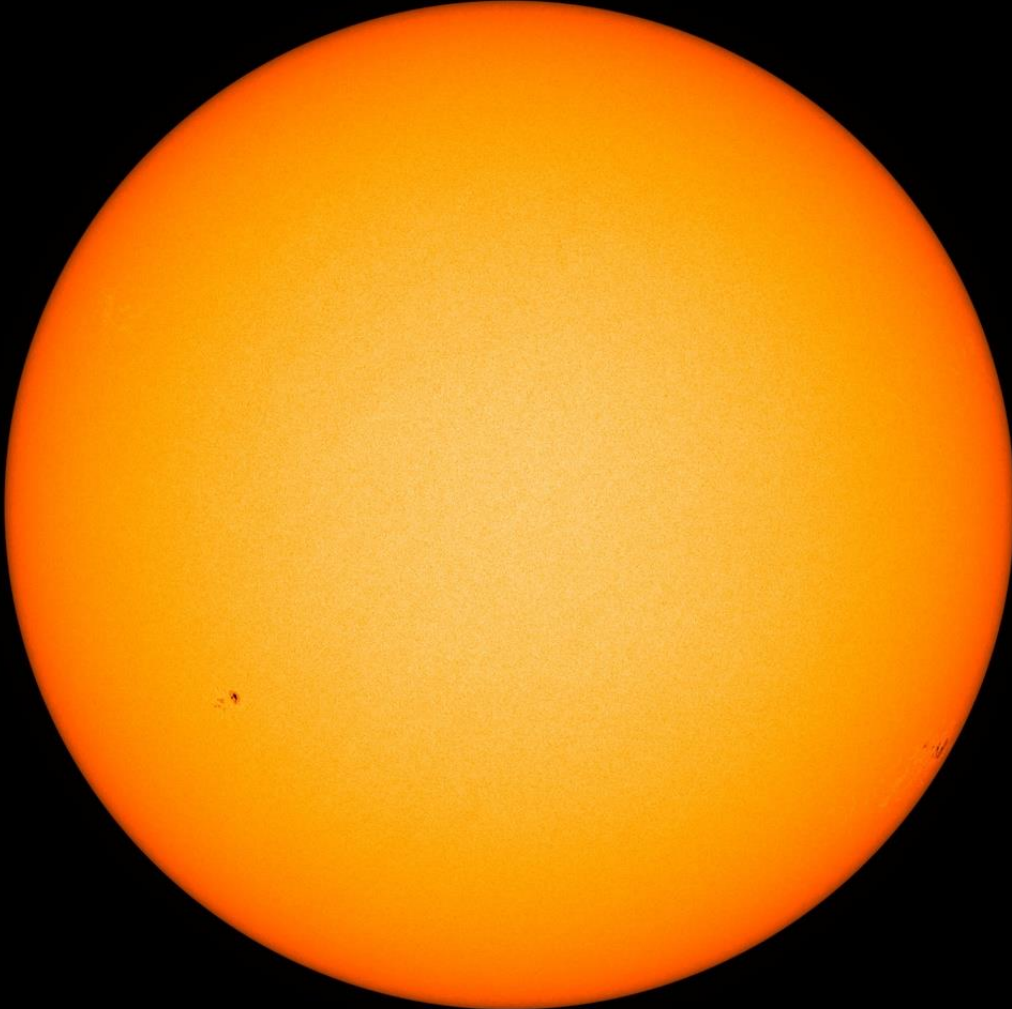
SDO/HMI Magnetogram 2021-09-01



SDO/HMI Quick-Look Magnetogram: 20210901\_114500

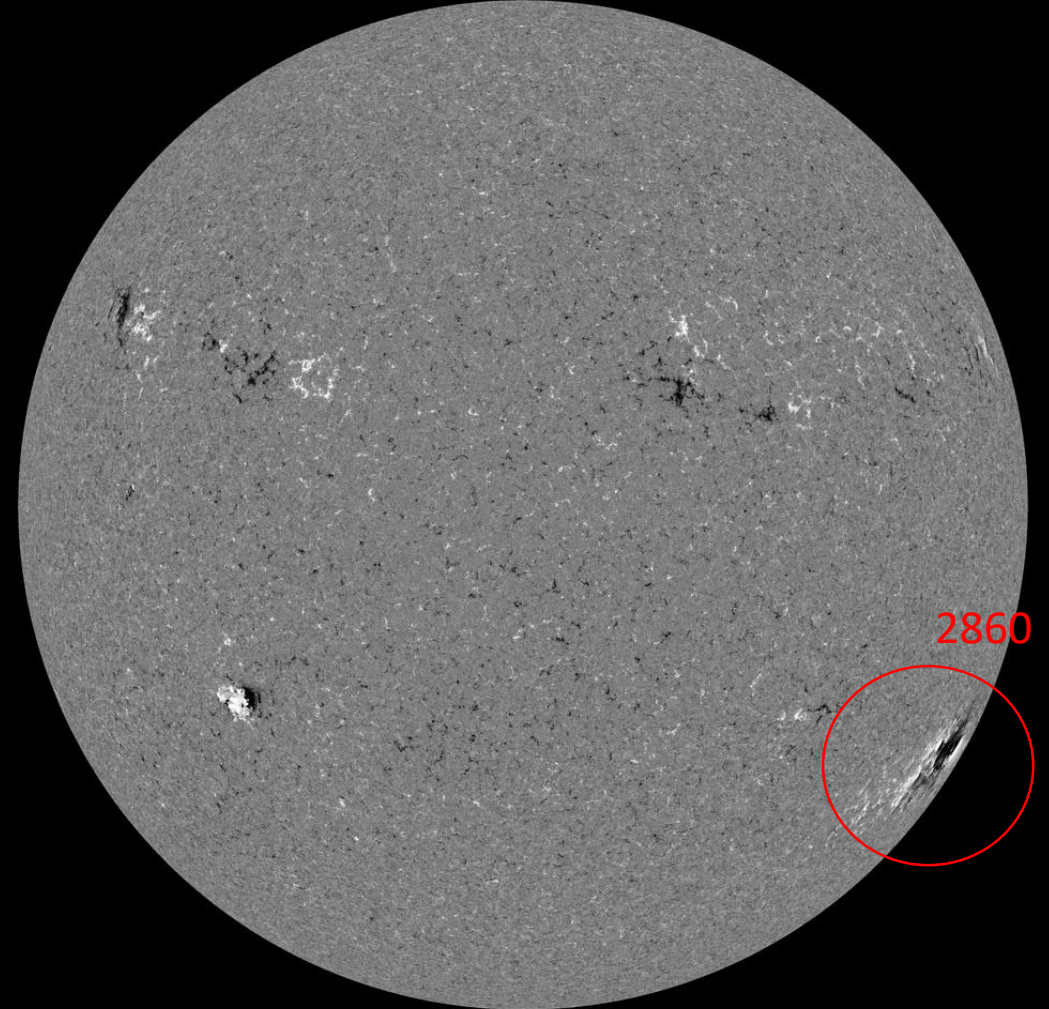
# Solar active regions

SDO/HMI White Light 2021-09-02



SDO/HMI Quick-Look Continuum: 20210902\_114500

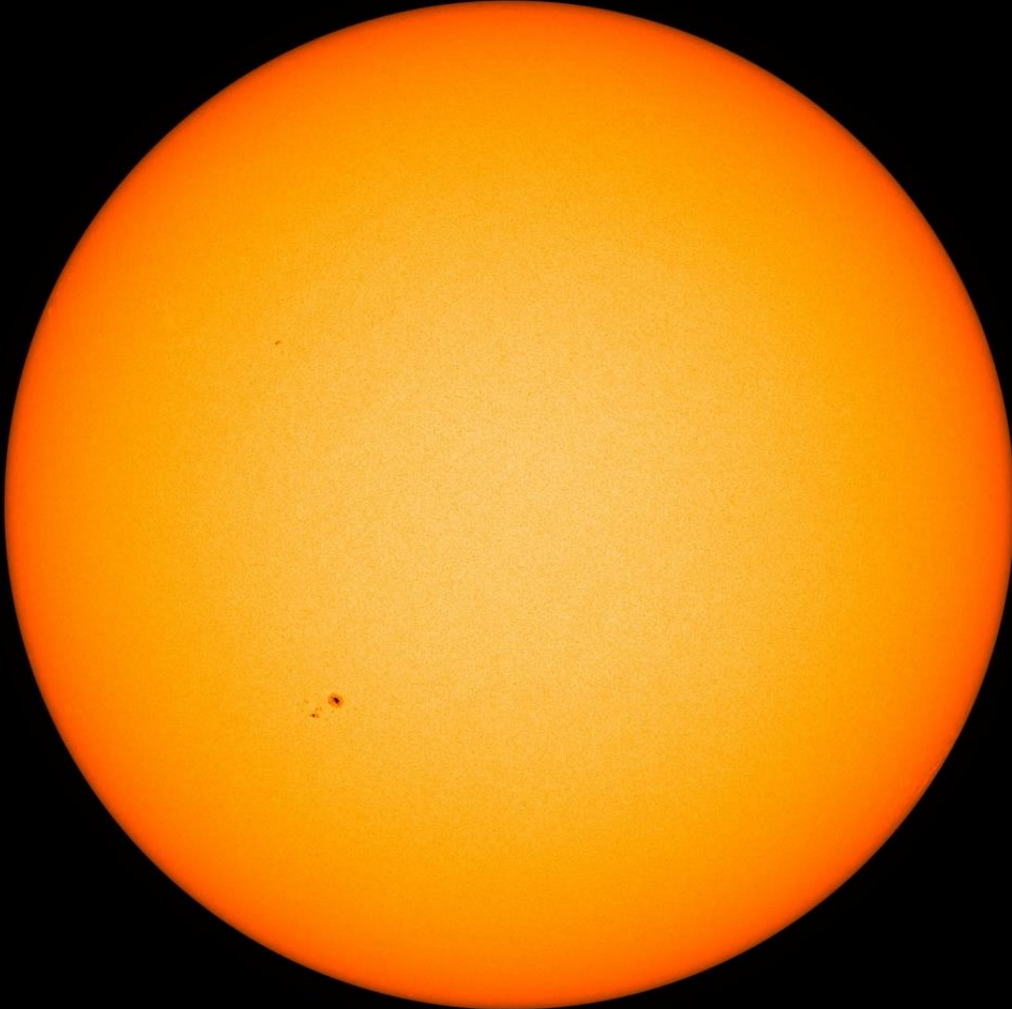
SDO/HMI Magnetogram 2021-09-02



SDO/HMI Quick-Look Magnetogram: 20210902\_114500

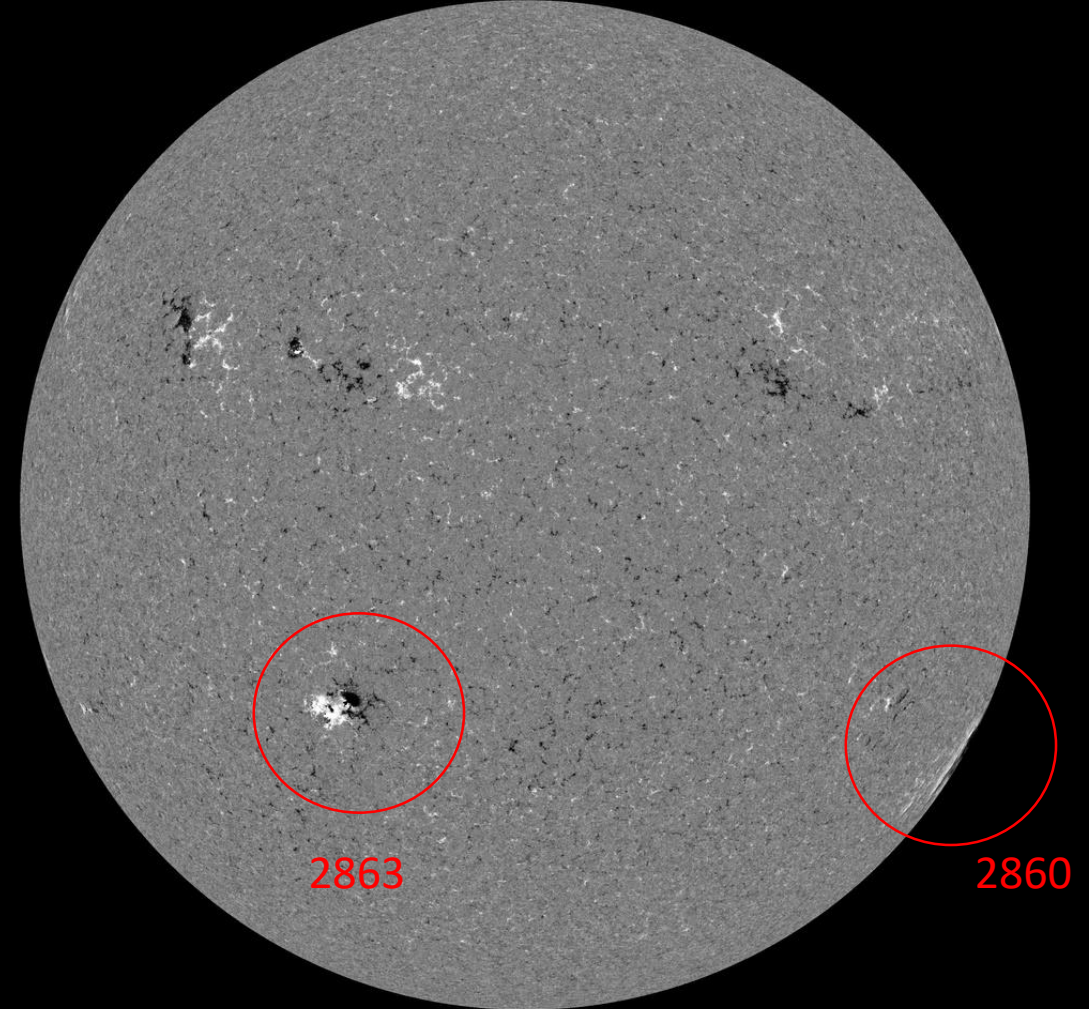
# Solar active regions

SDO/HMI White Light 2021-09-03



SDO/HMI Quick-Look Continuum: 20210903\_114500

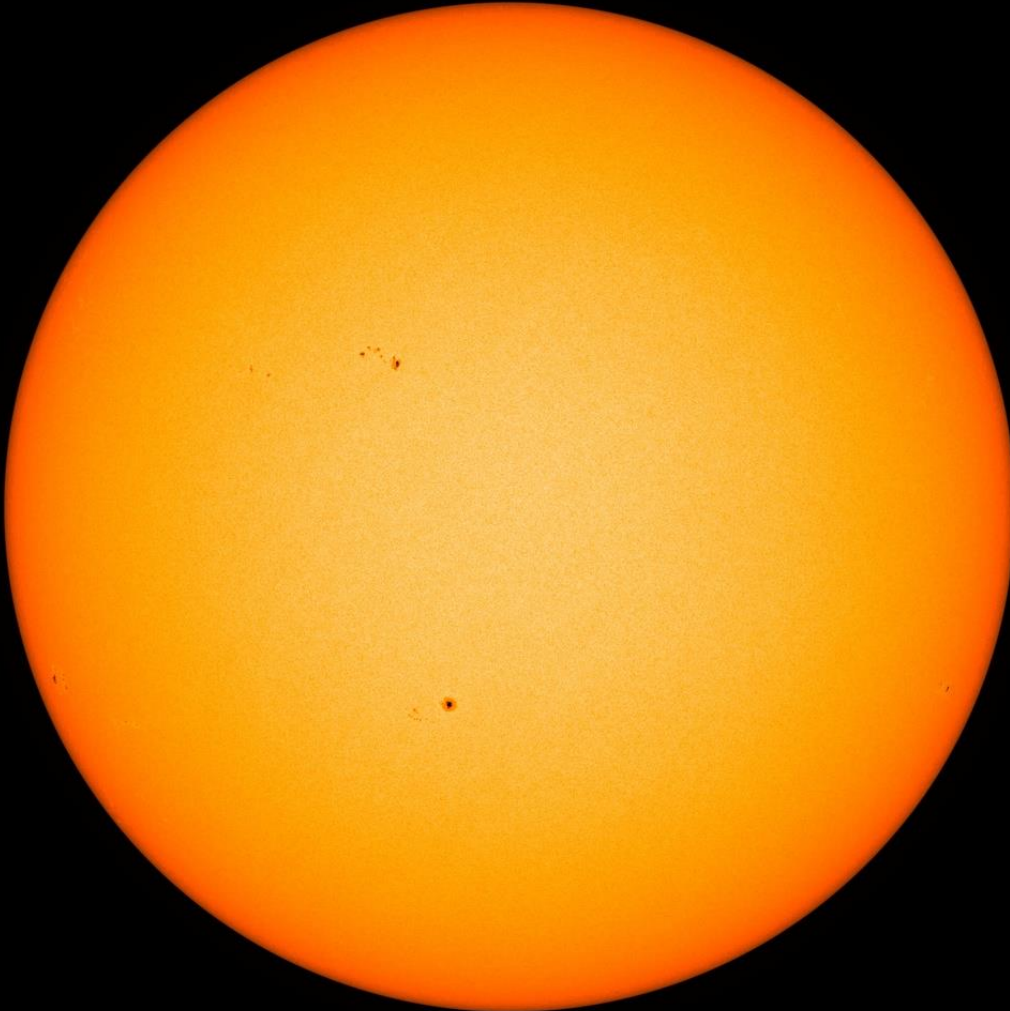
SDO/HMI Magnetogram 2021-09-03



SDO/HMI Quick-Look Magnetogram: 20210903\_114500

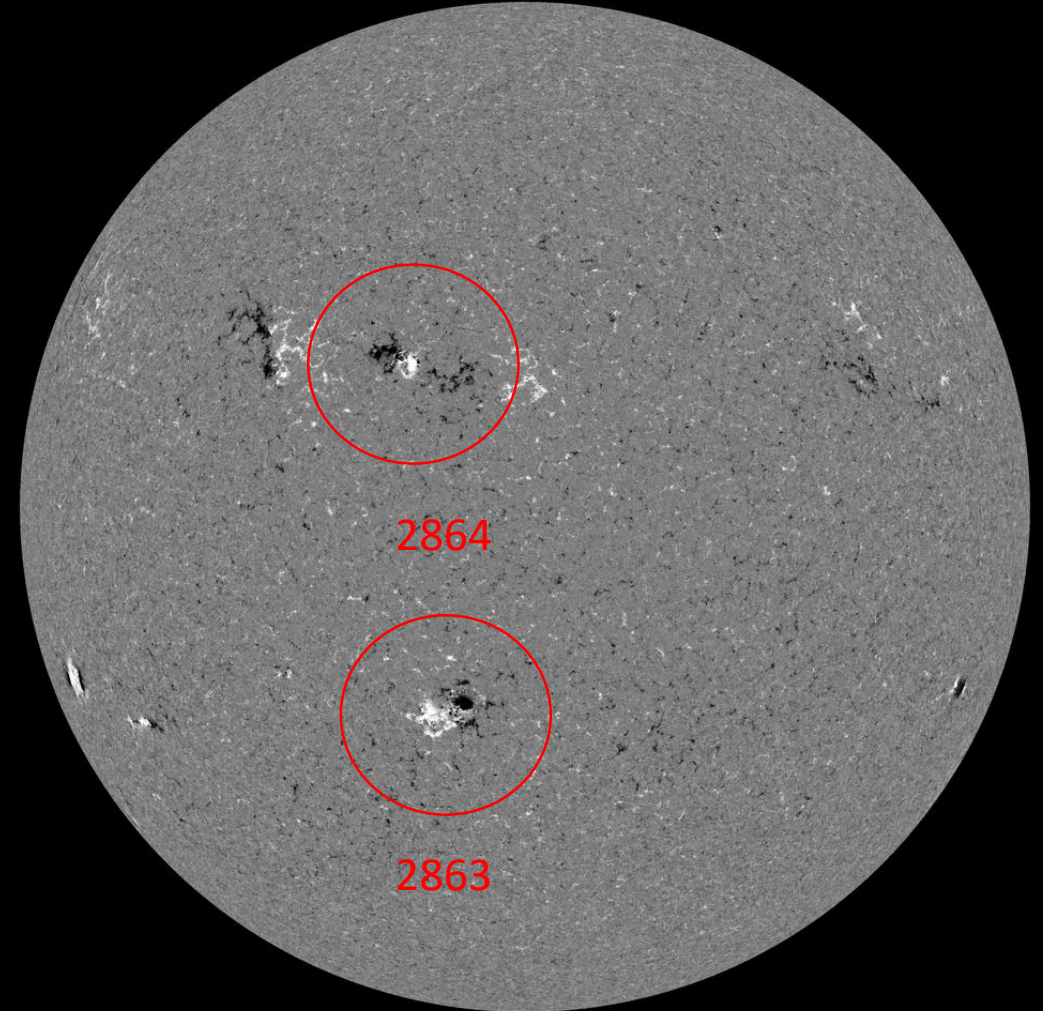
# Solar active regions

SDO/HMI White Light 2021-09-04



SDO/HMI Quick-Look Continuum: 20210904\_114500

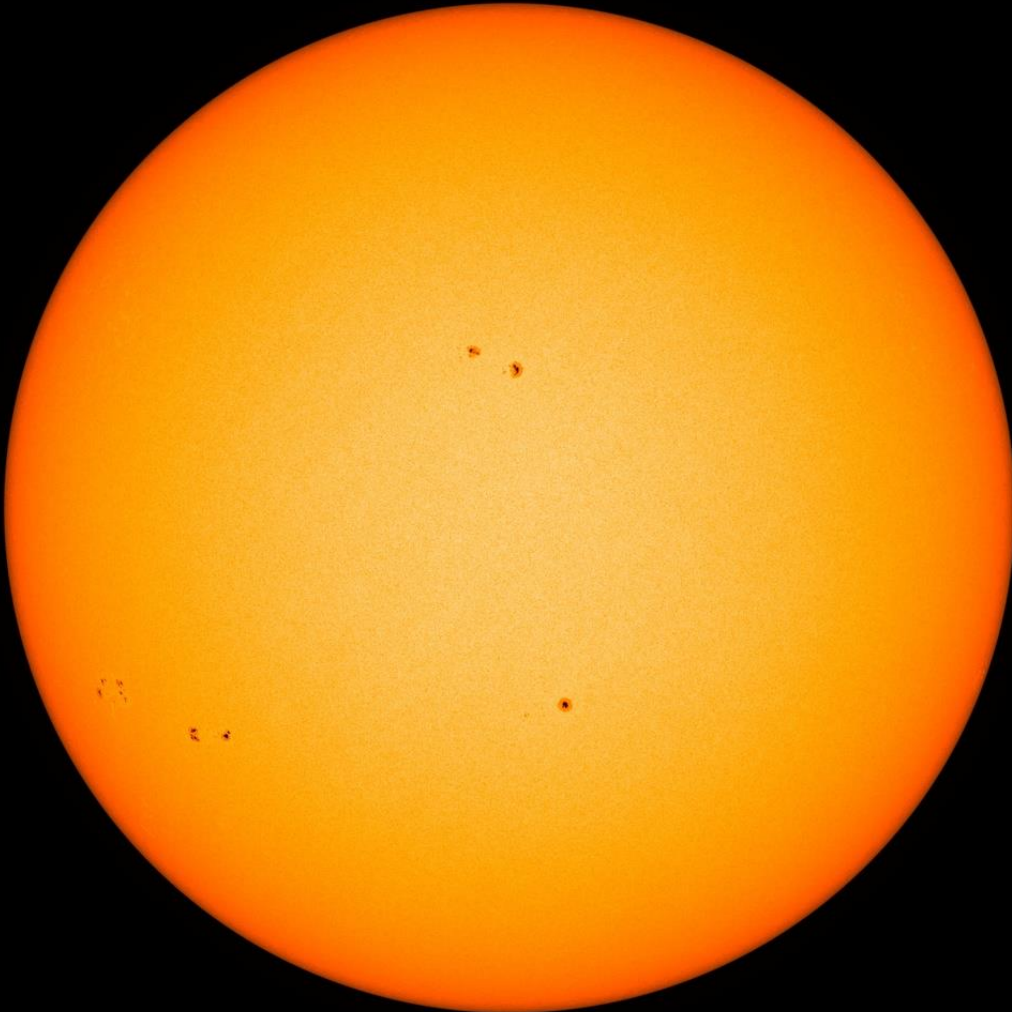
SDO/HMI Magnetogram 2021-09-04



SDO/HMI Quick-Look Magnetogram: 20210904\_114500

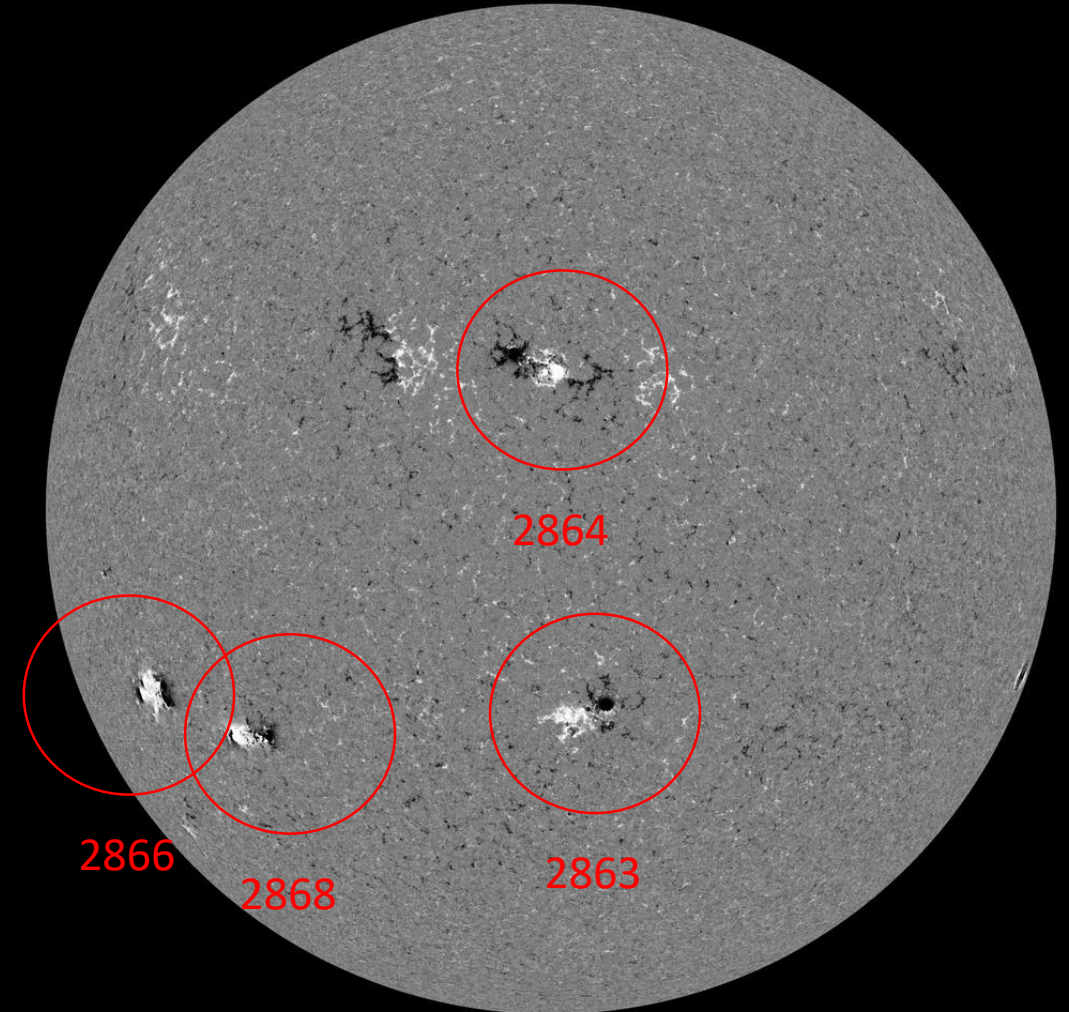
# Solar active regions

SDO/HMI White Light 2021-09-05



SDO/HMI Quick-Look Continuum: 20210905\_114500

SDO/HMI Magnetogram 2021-09-05

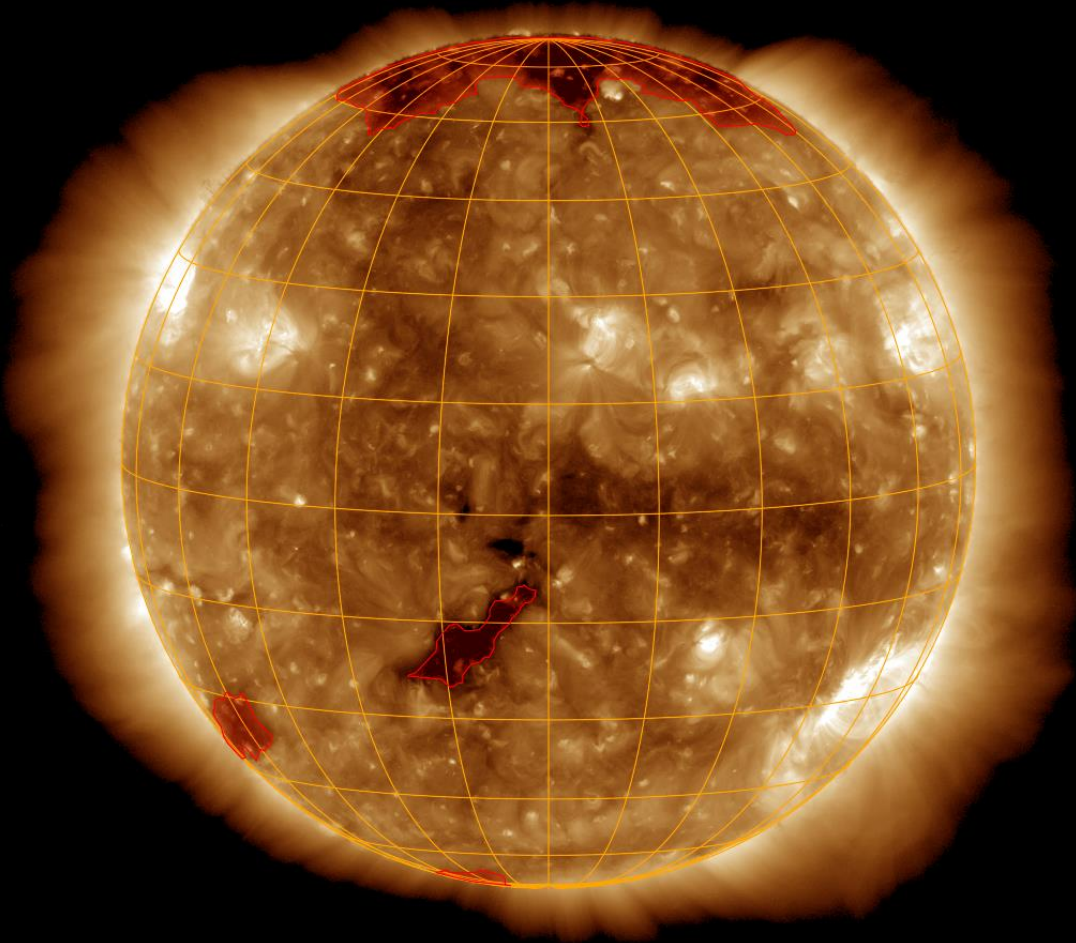


SDO/HMI Quick-Look Magnetogram: 20210905\_114500

# Coronal holes

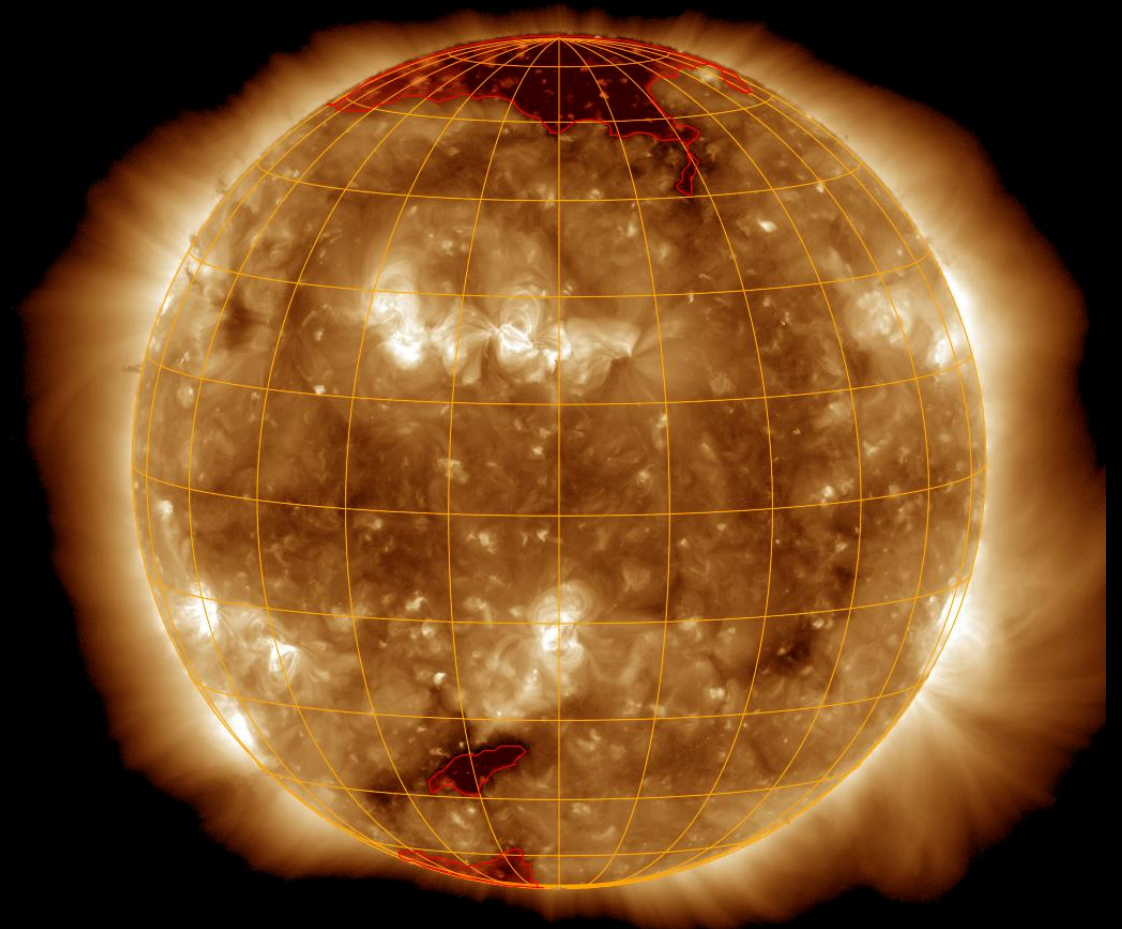
SDO/AIA 19.3 nm 2021-09-01

SDO/AIA AIA 193Å 2021-09-01T12:09:05.843



SDO/AIA 19.3 nm 2021-09-05

SDO/AIA AIA 193Å 2021-09-05T04:09:05.843



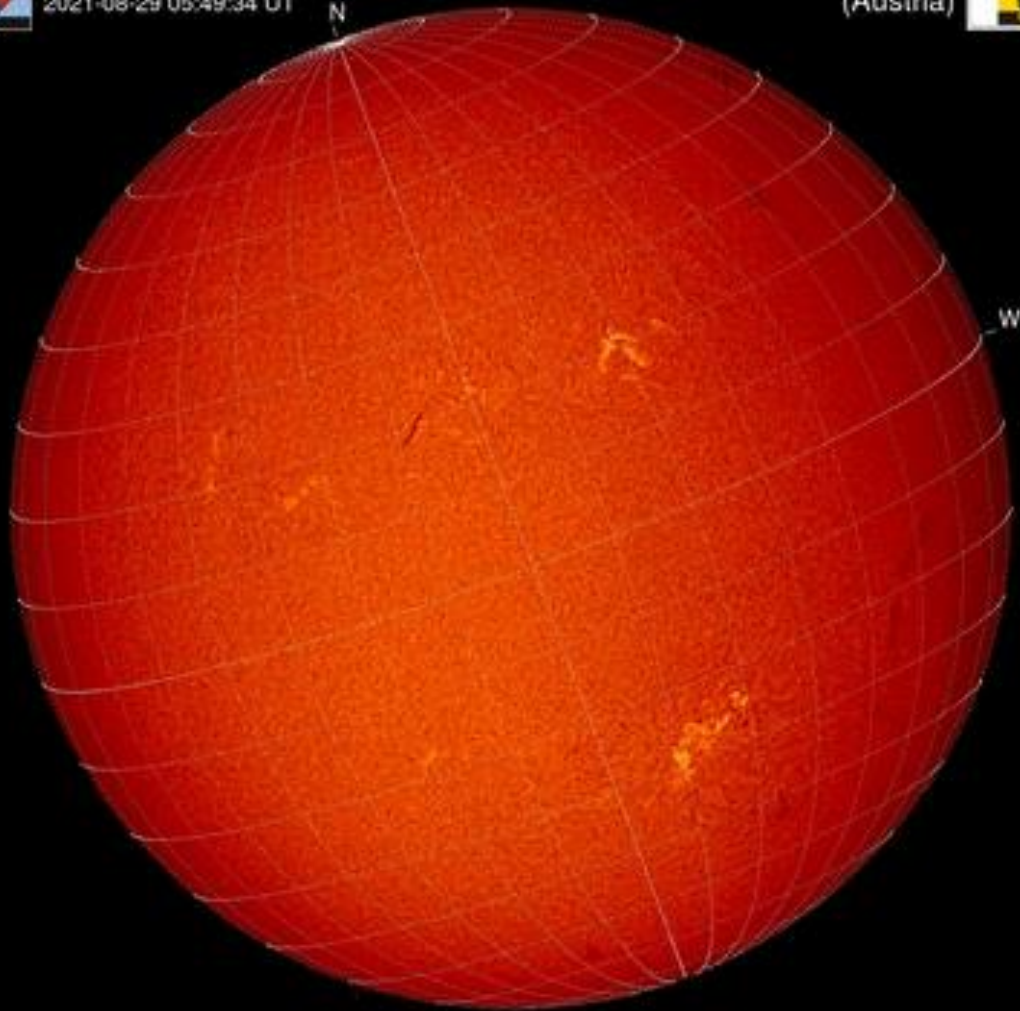
# Filaments

H-alpha 2021-08-29



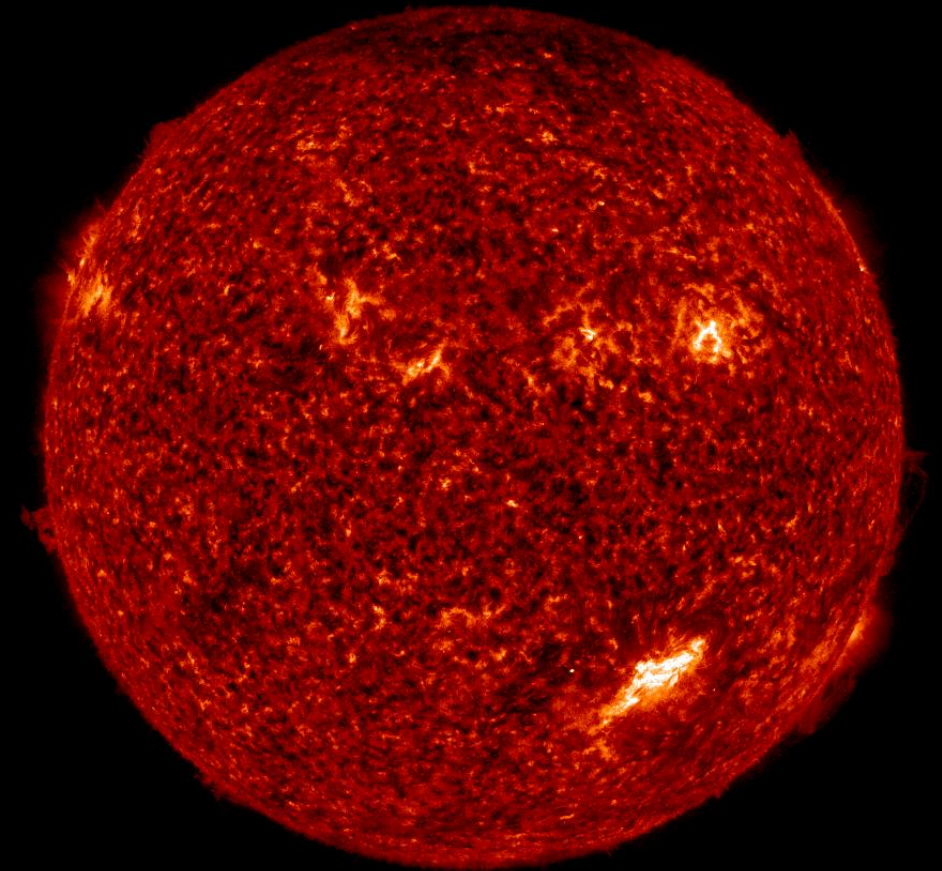
Kanzelhöhe Observatory  
2021-08-29 05:49:34 UT

University of Graz  
(Austria)

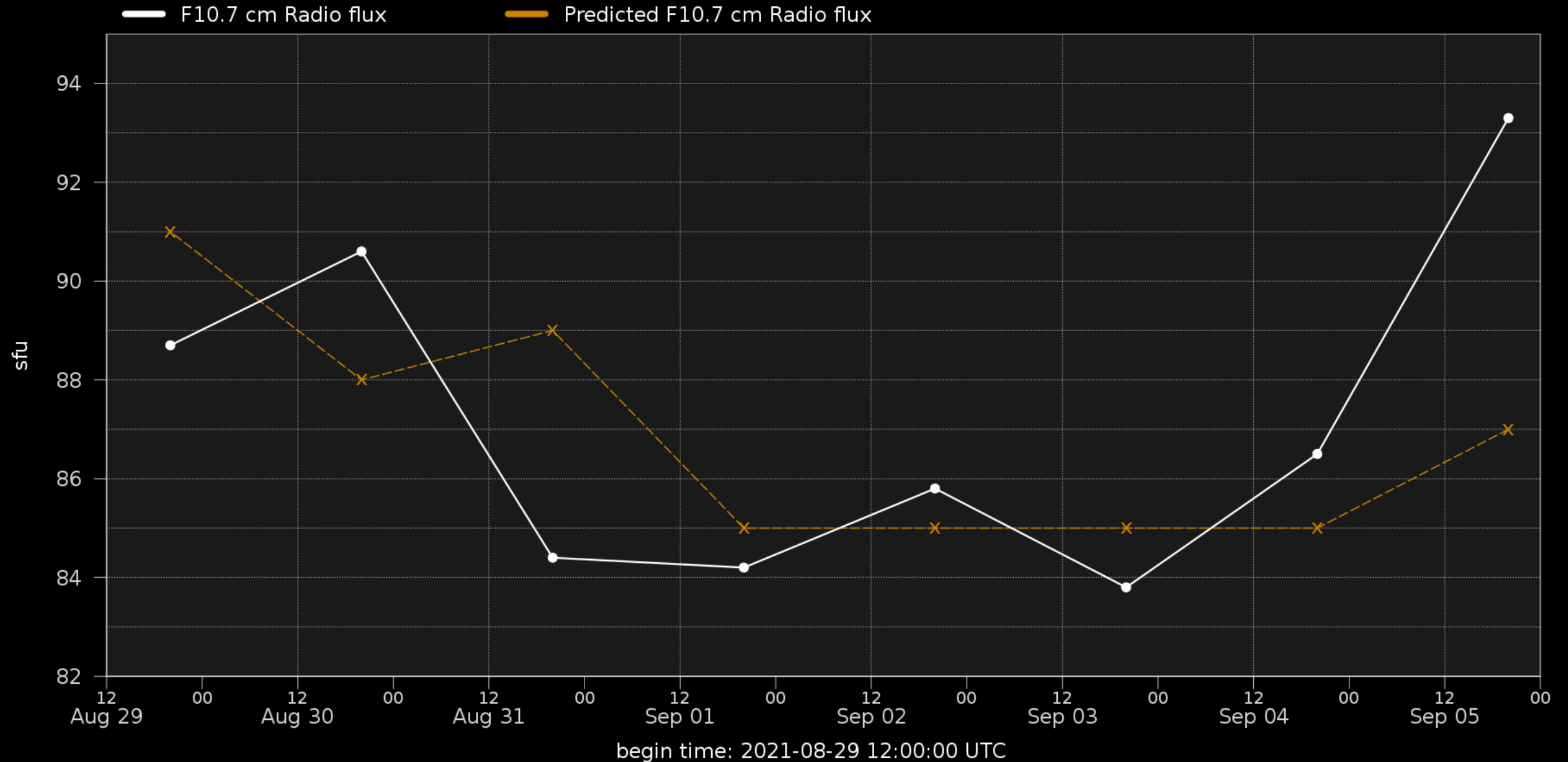


SDO/AIA 30.4 nm 2021-08-30

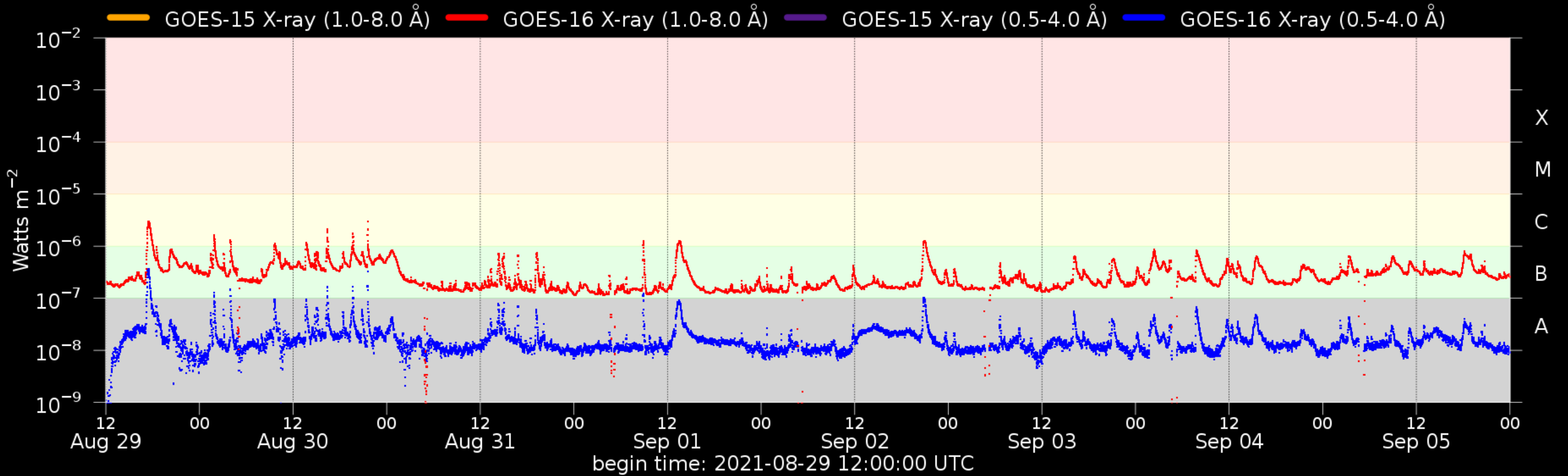
SDO/AIA AIA 304Å 2021-08-30T12:00:06.581



# Solar F10.7cm radio flux



# Flaring activity

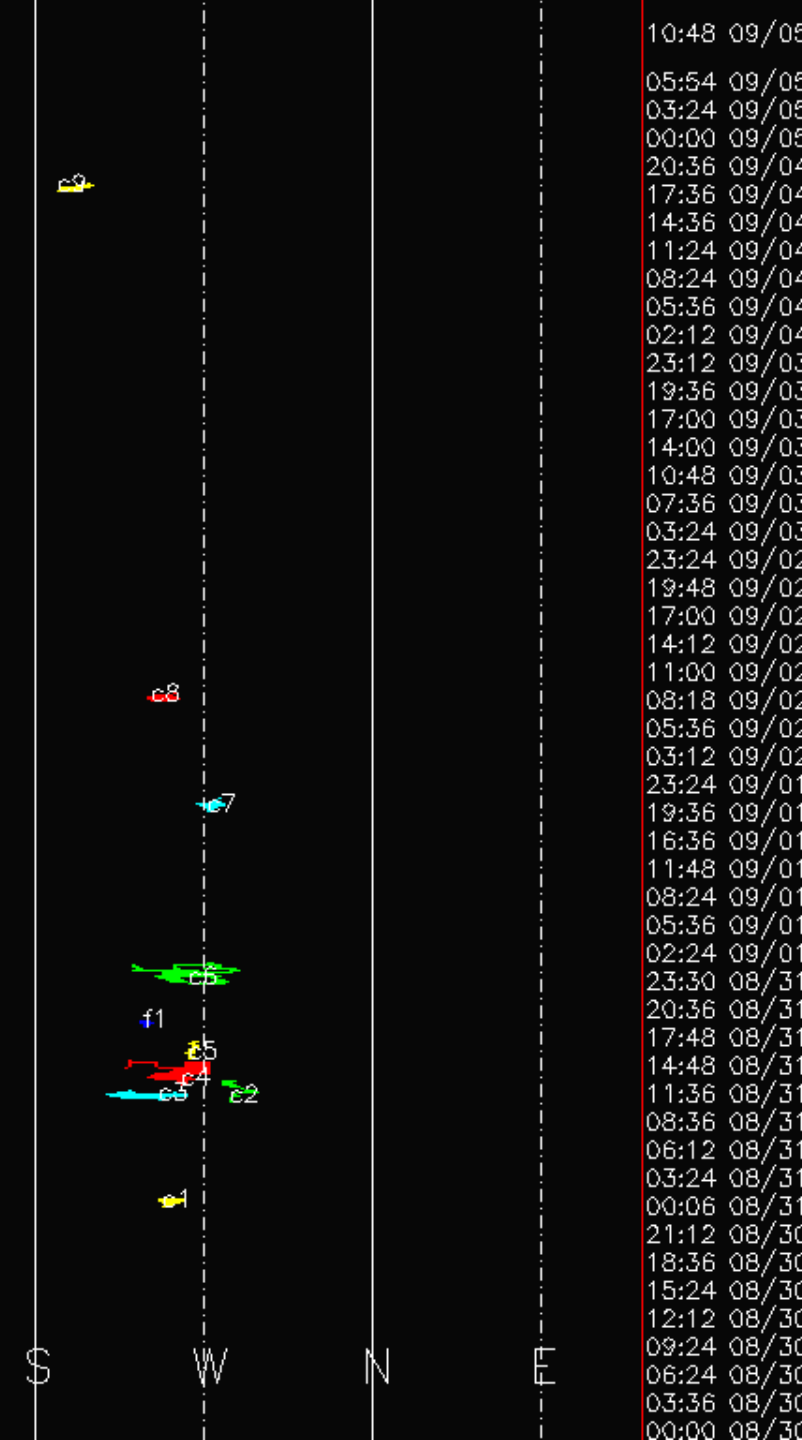


Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

| Issue date      | 2021-08-29 | 2021-08-30 | 2021-08-31 | 2021-09-01 | 2021-09-02 | 2021-09-03 | 2021-09-04 | 2021-09-05 |
|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Probability (%) | 70 01 01   | 80 35 10   | 70 15 01   | 50 05 01   | 50 02 01   | 55 02 01   | 40 01 01   | 45 01 01   |
| Observed (#)    | 05 00 00   | 04 00 00   | 01 00 00   | 01 00 00   | 01 00 00   | 00 00 00   | 00 00 00   | 00 00 00   |

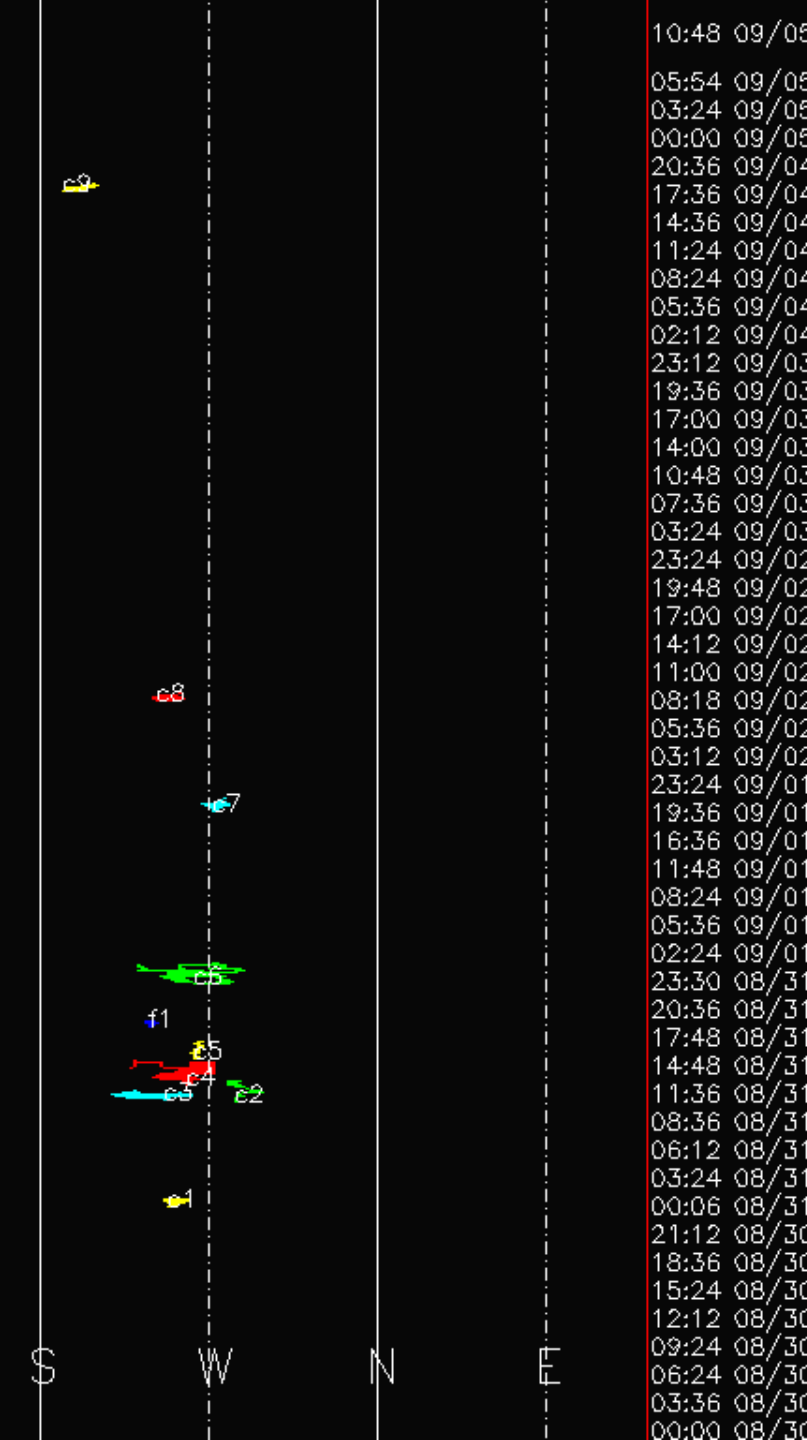
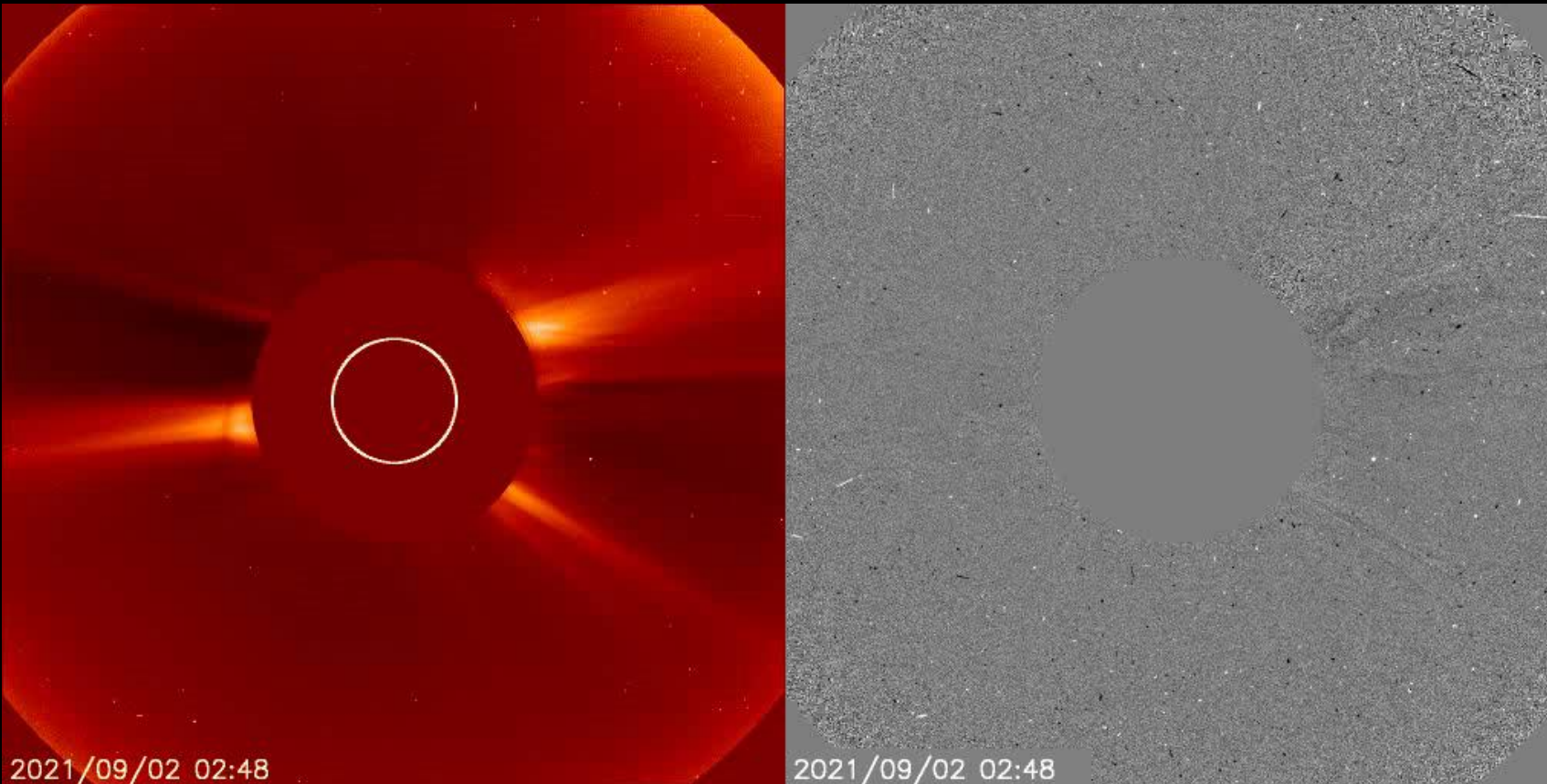
# Coronal Mass Ejections

First part of the week

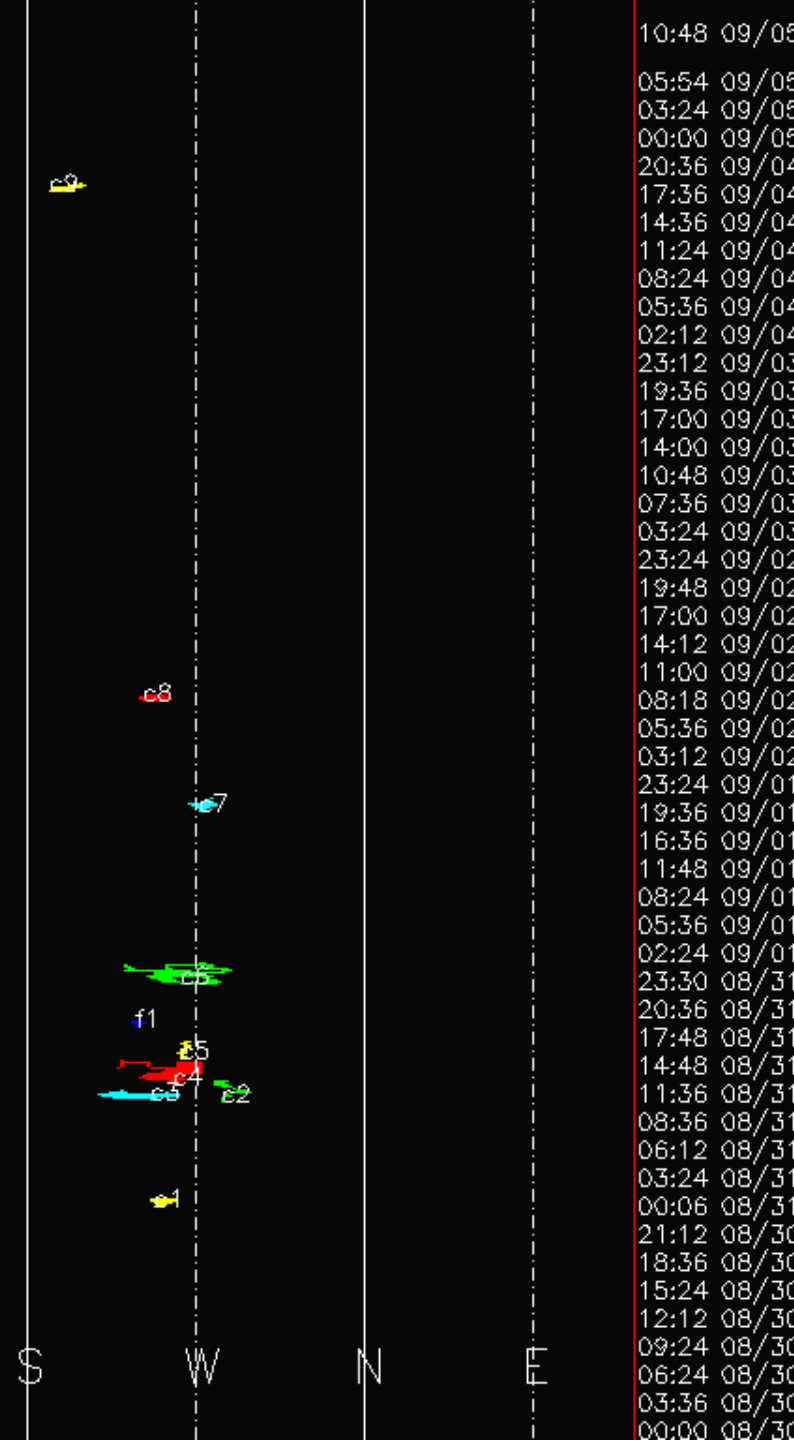
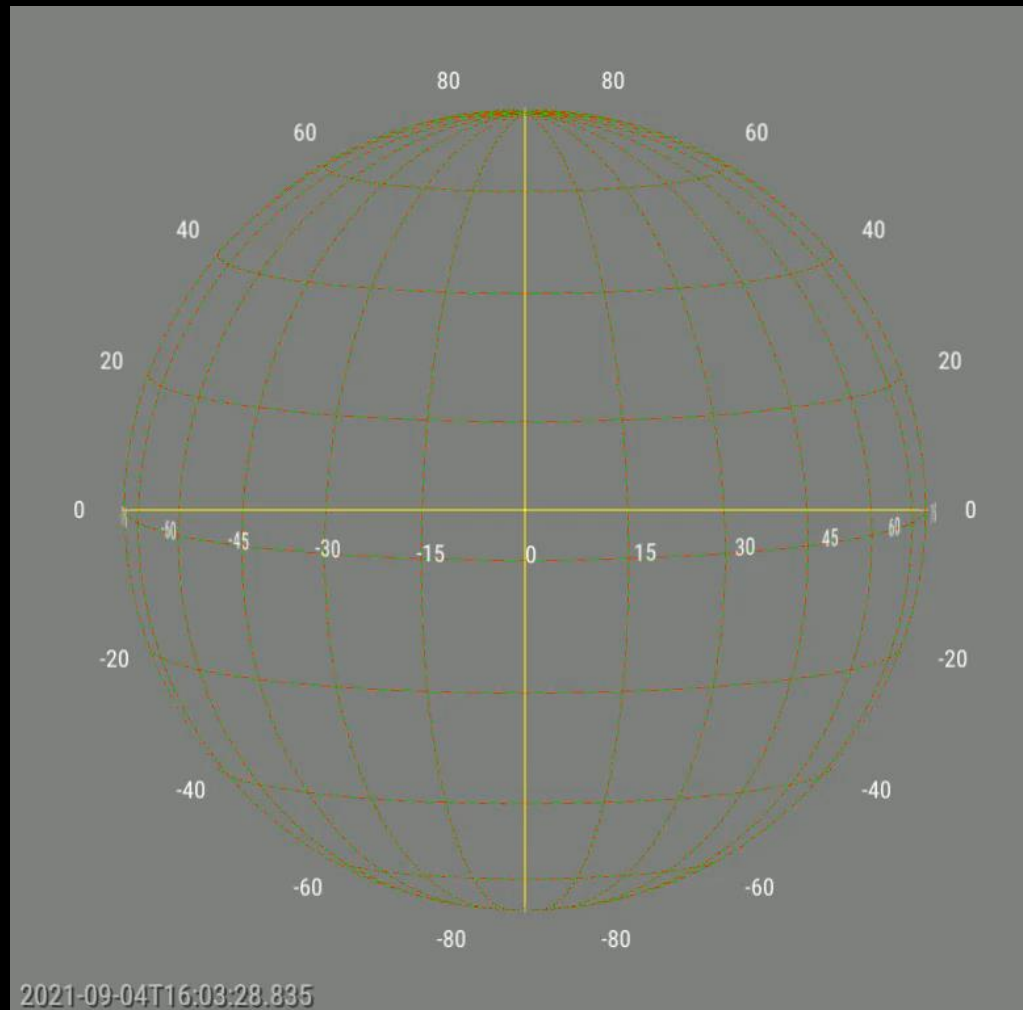


# Coronal Mass Ejections

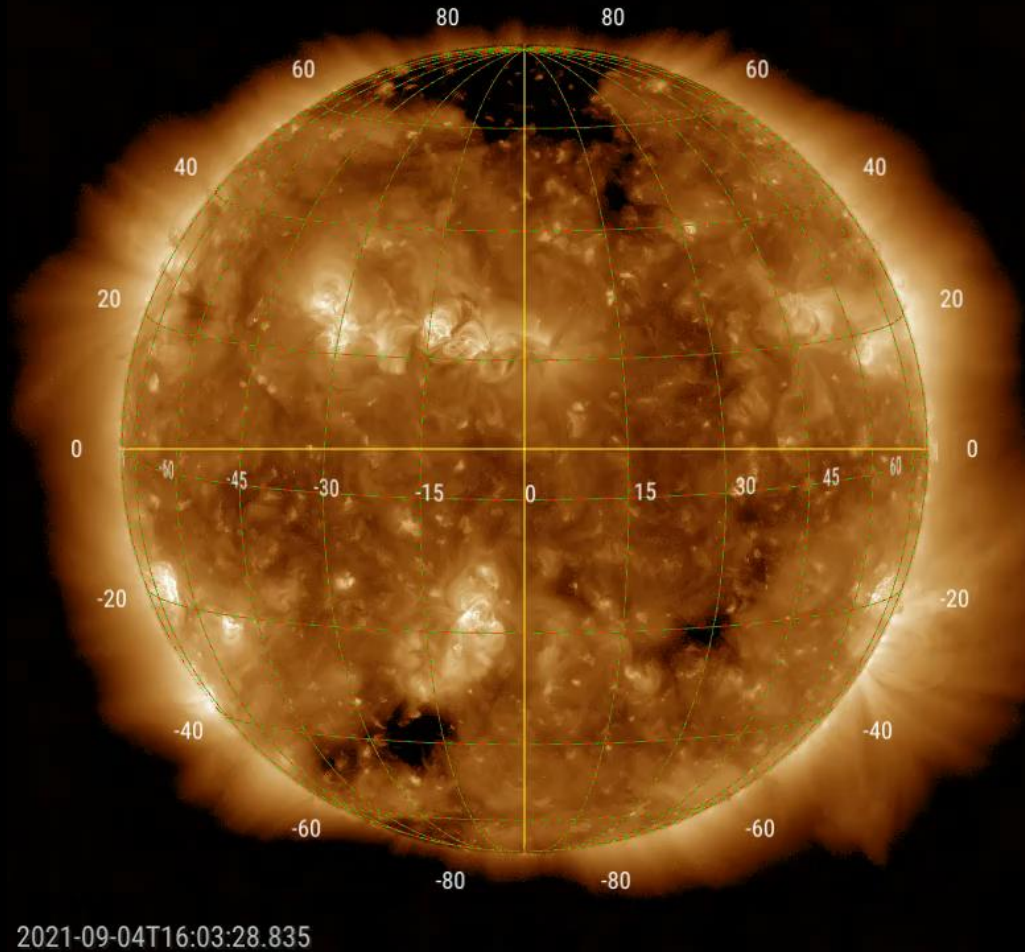
Last part of the week



# Coronal Mass Ejections

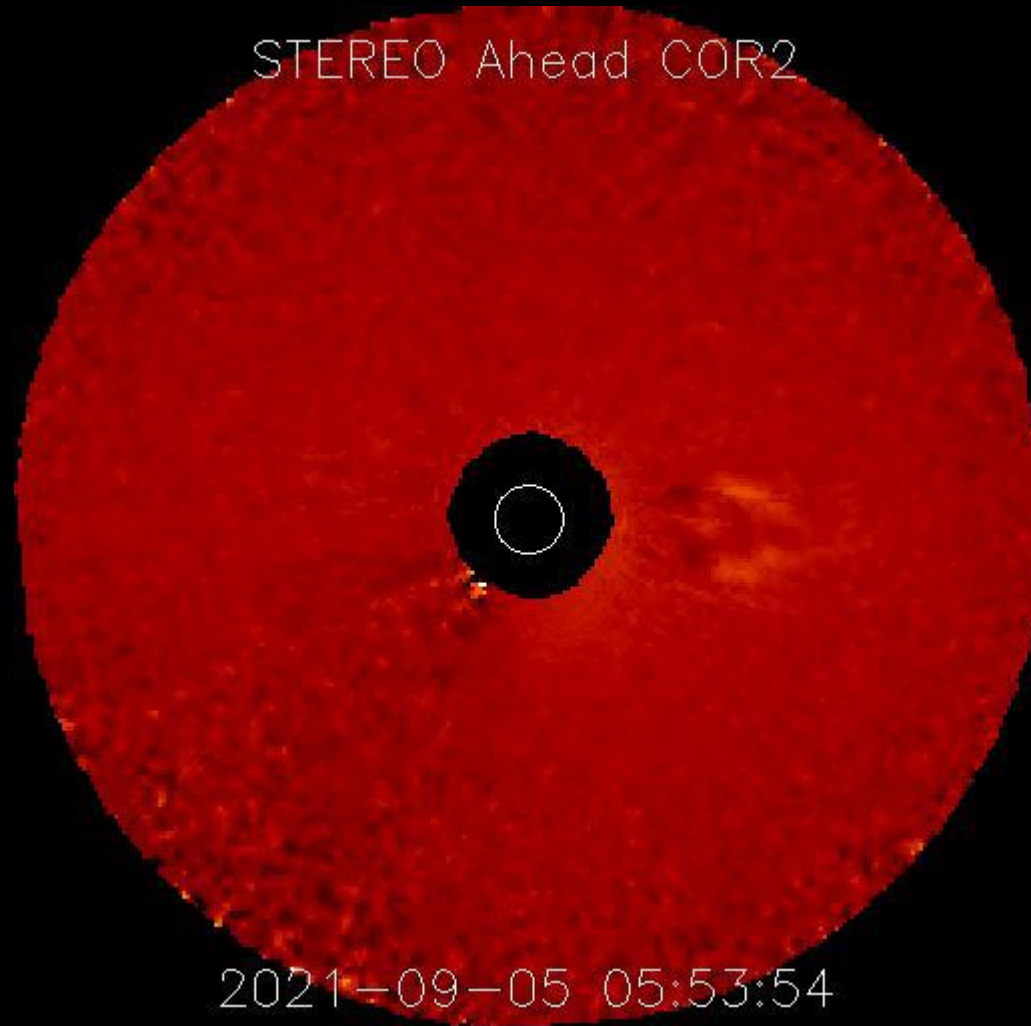


# Coronal Mass Ejections



|       |       |
|-------|-------|
| 10:48 | 09/05 |
| 05:54 | 09/05 |
| 03:24 | 09/05 |
| 00:00 | 09/05 |
| 20:36 | 09/04 |
| 17:36 | 09/04 |
| 14:36 | 09/04 |
| 11:24 | 09/04 |
| 08:24 | 09/04 |
| 05:36 | 09/04 |
| 02:12 | 09/04 |
| 23:12 | 09/03 |
| 19:36 | 09/03 |
| 17:00 | 09/03 |
| 14:00 | 09/03 |
| 10:48 | 09/03 |
| 07:36 | 09/03 |
| 03:24 | 09/03 |
| 23:24 | 09/02 |
| 19:48 | 09/02 |
| 17:00 | 09/02 |
| 14:12 | 09/02 |
| 11:00 | 09/02 |
| 08:18 | 09/02 |
| 05:36 | 09/02 |
| 03:12 | 09/02 |
| 23:24 | 09/01 |
| 19:36 | 09/01 |
| 16:36 | 09/01 |
| 11:48 | 09/01 |
| 08:24 | 09/01 |
| 05:36 | 09/01 |
| 02:24 | 09/01 |
| 23:30 | 08/31 |
| 20:36 | 08/31 |
| 17:48 | 08/31 |
| 14:48 | 08/31 |
| 11:36 | 08/31 |
| 08:36 | 08/31 |
| 06:12 | 08/31 |
| 03:24 | 08/31 |
| 00:06 | 08/31 |
| 21:12 | 08/30 |
| 18:36 | 08/30 |
| 15:24 | 08/30 |
| 12:12 | 08/30 |
| 09:24 | 08/30 |
| 06:24 | 08/30 |
| 03:36 | 08/30 |
| 00:00 | 08/30 |

# Coronal Mass Ejections



10:48 09/05  
05:54 09/05  
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03:24 09/03  
23:24 09/02  
19:48 09/02  
17:00 09/02  
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11:00 09/02  
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05:36 09/02  
03:12 09/02  
23:24 09/01  
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16:36 09/01  
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08:24 09/01  
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17:48 08/31  
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11:36 08/31  
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03:24 08/31  
00:06 08/31  
21:12 08/30  
18:36 08/30  
15:24 08/30  
12:12 08/30  
09:24 08/30  
06:24 08/30  
03:36 08/30  
00:00 08/30

# Solar Wind and Geomagnetic Activity



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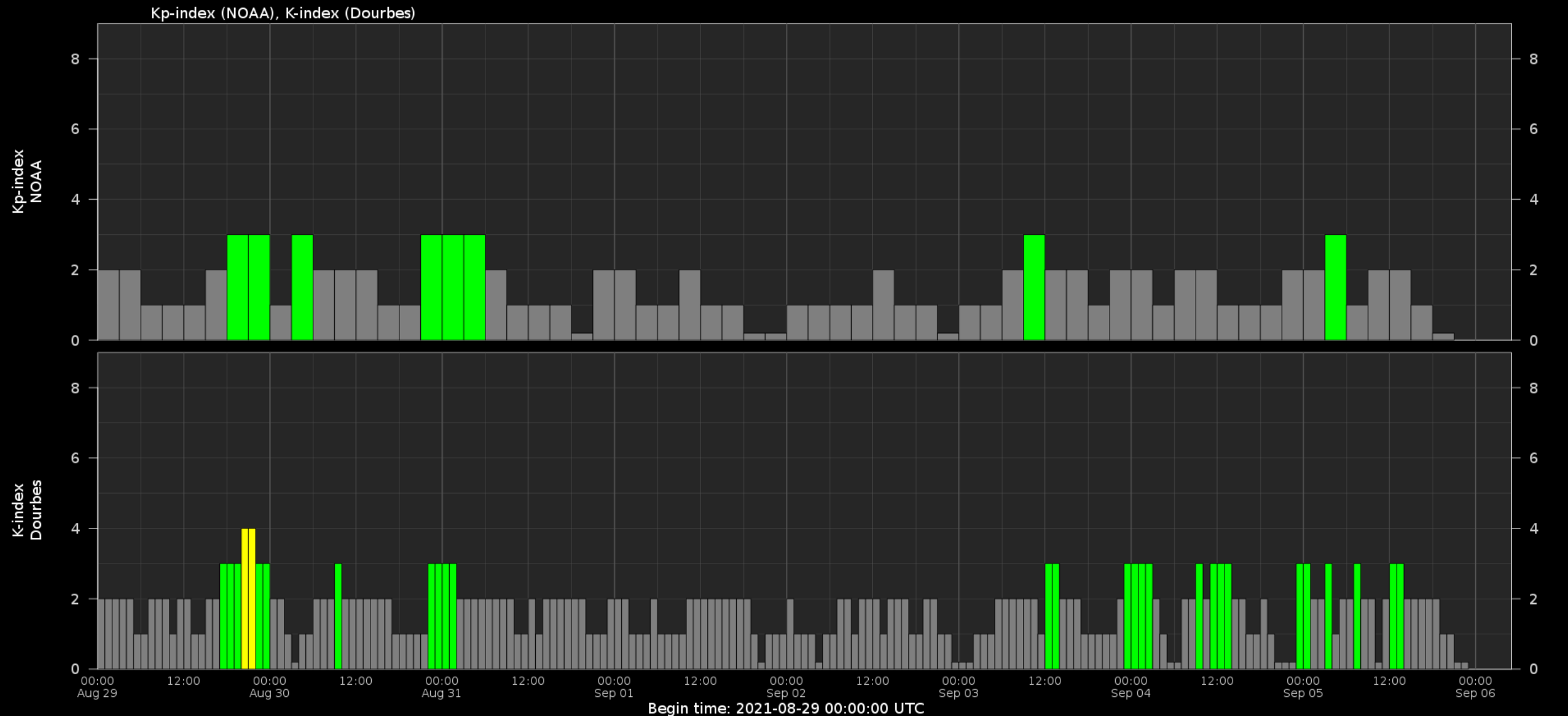
# Solar wind parameters



# Solar wind parameters & K-indices

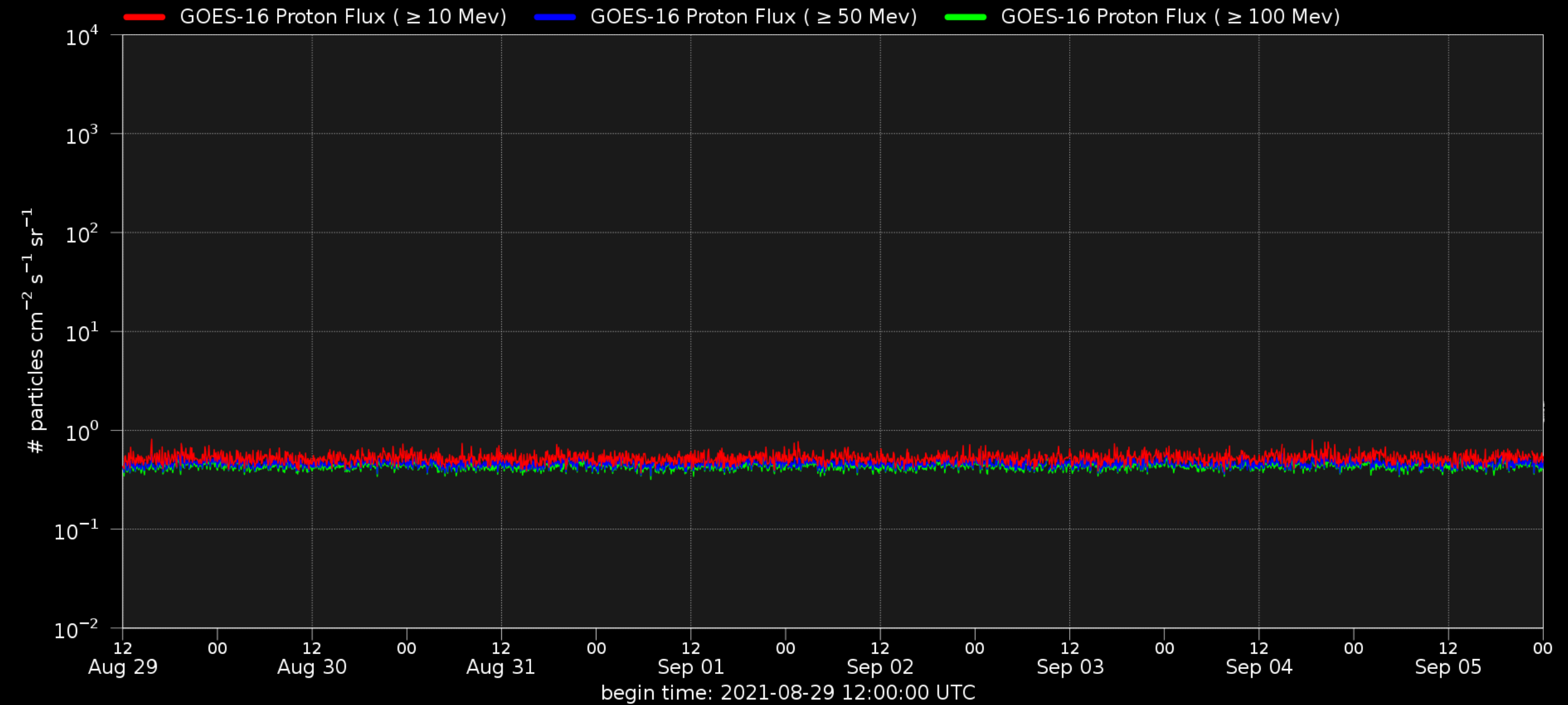


# Geomagnetic activity (K-indexes)

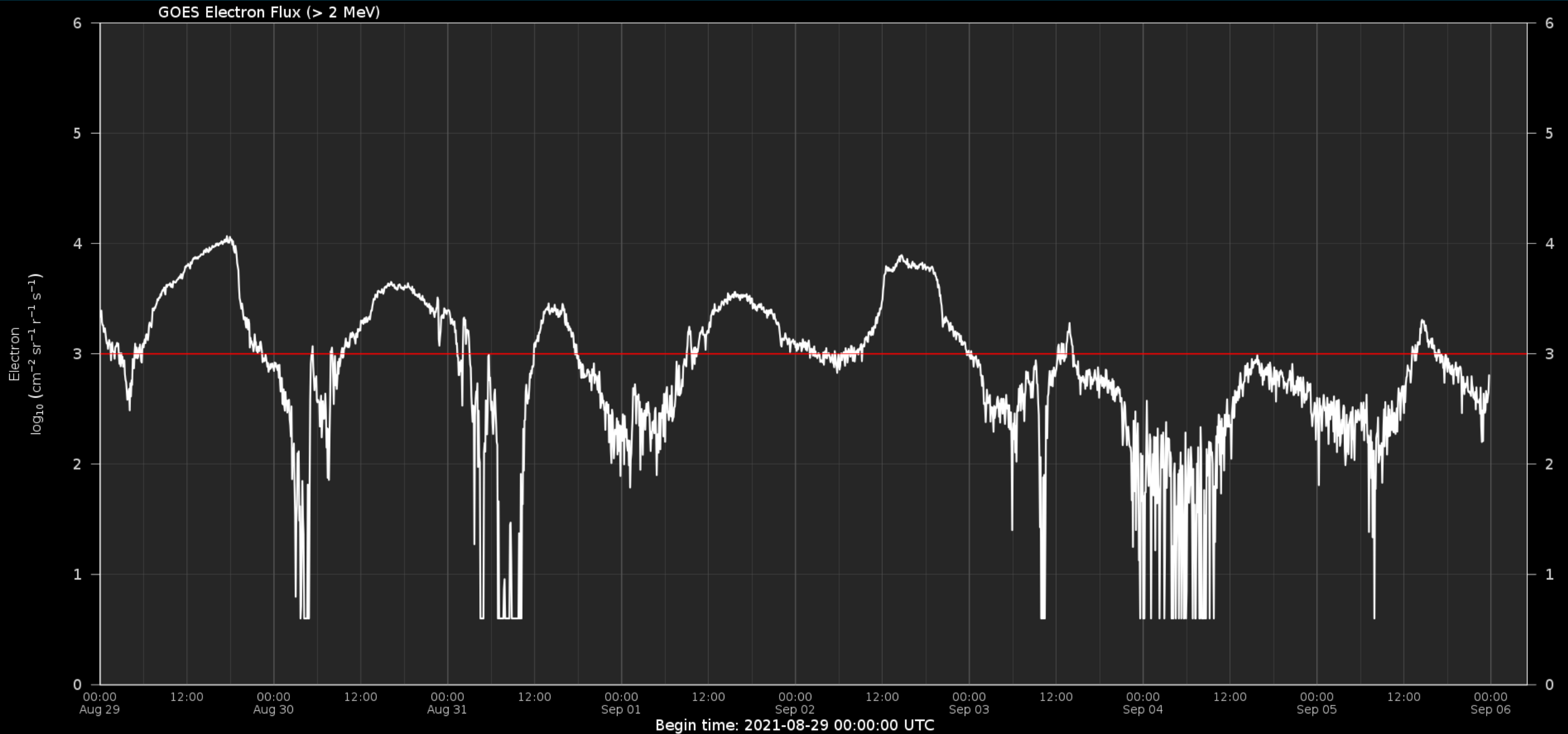


# Energetic Particles

# Solar proton flux



# Electron flux at GEO



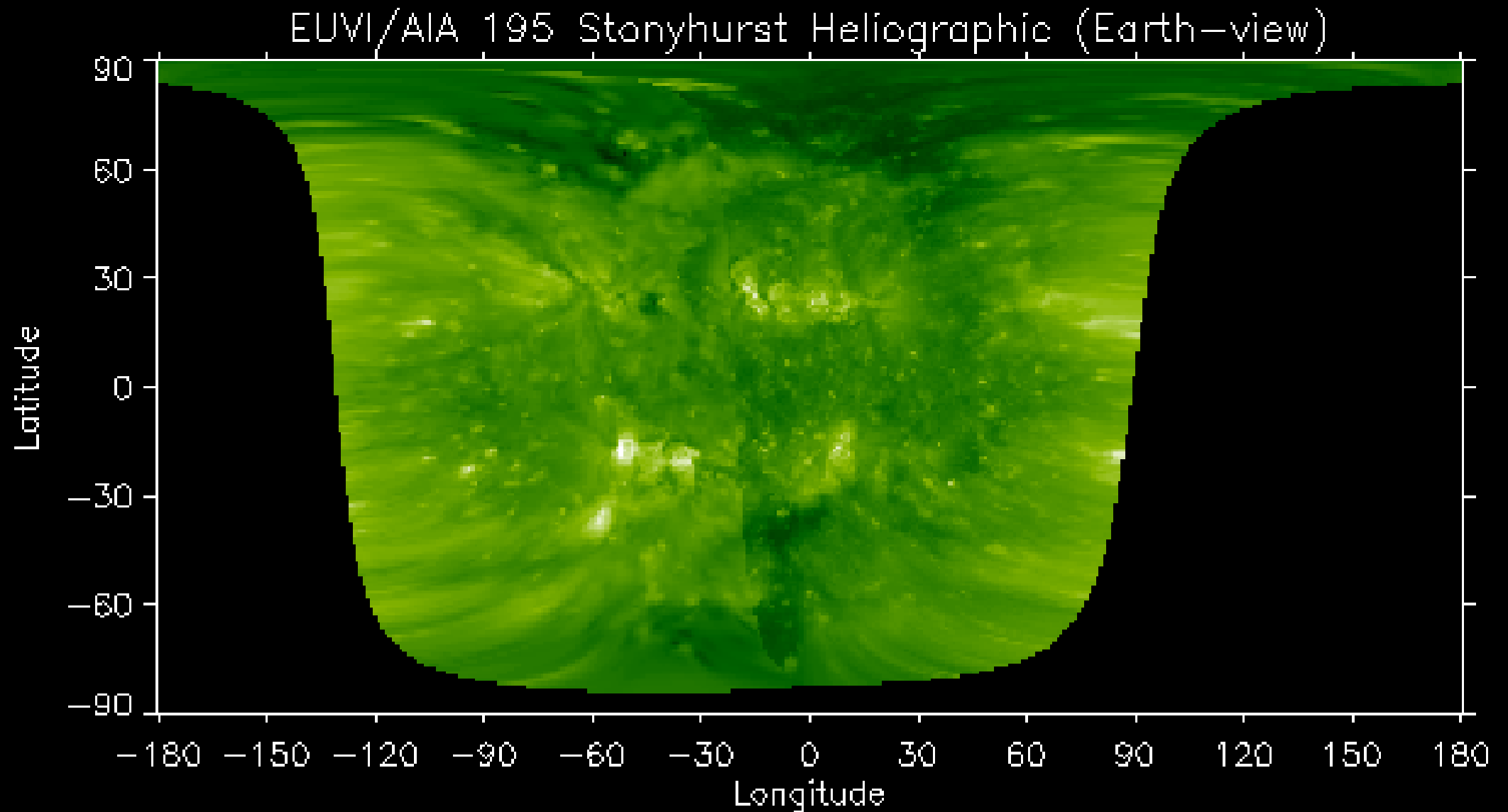
# Outlook



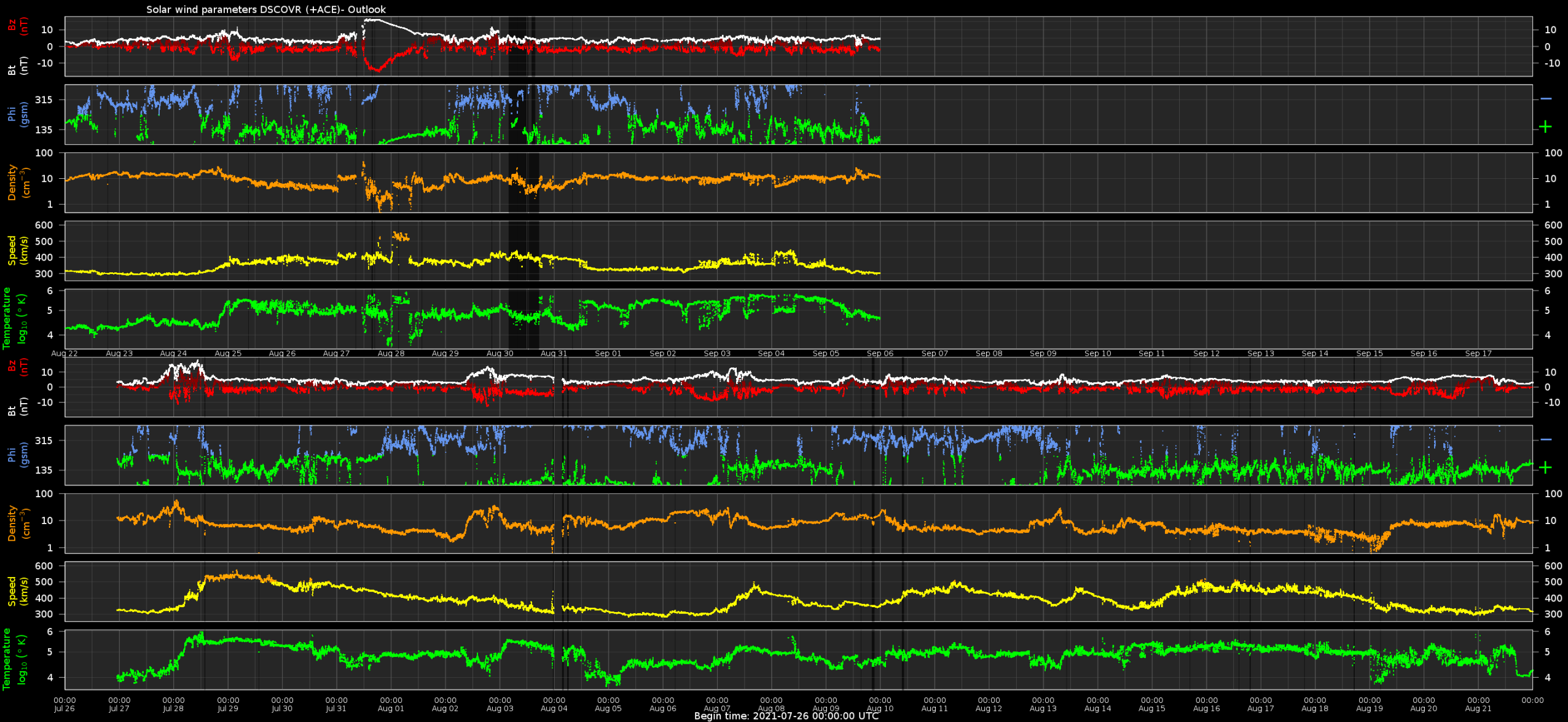
Royal Observatory  
of Belgium

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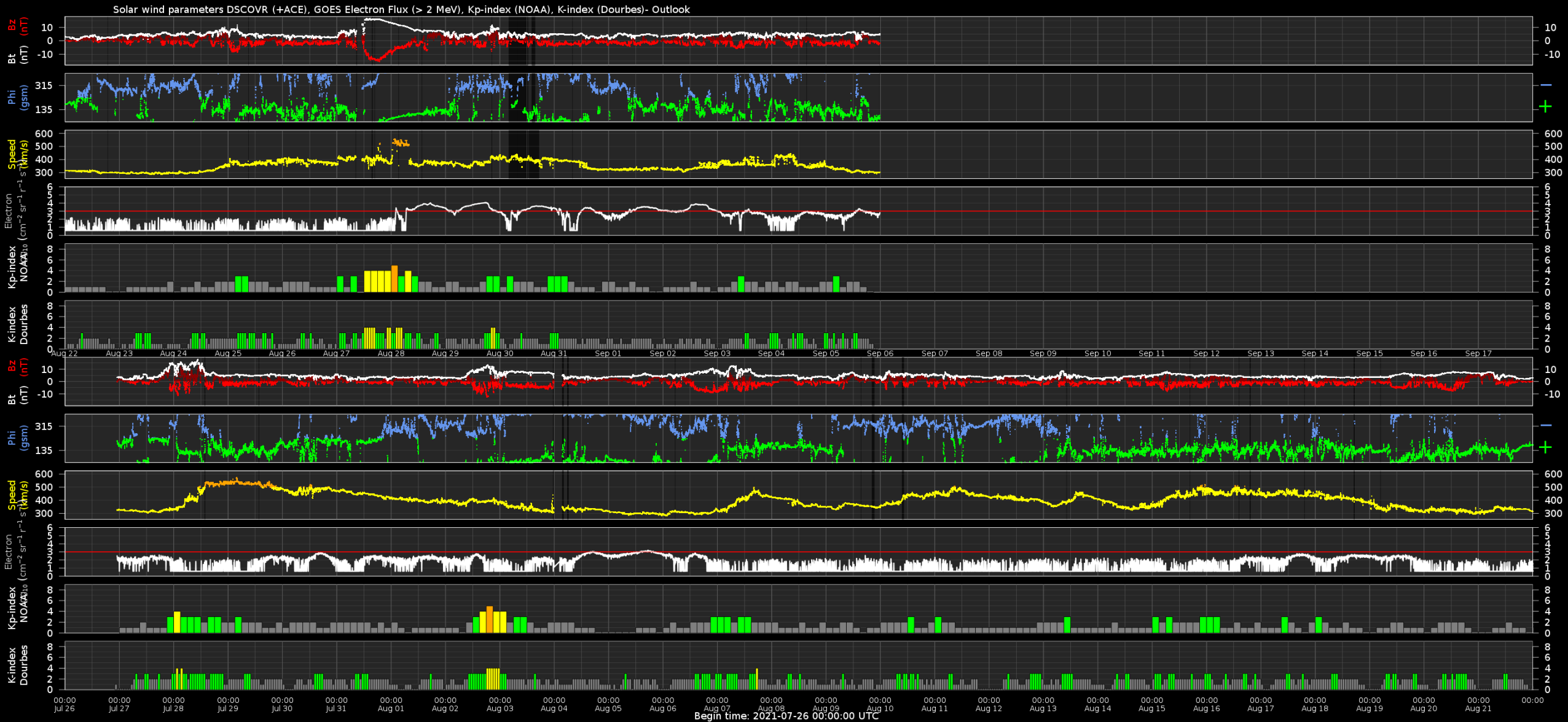
# Outlook: Solar activity



# Outlook: Solar wind parameters



# Outlook: Electron Flux at GEO Outlook



# SIDC Space Weather Briefing

See you at our next briefing!

Or visit us at [www.sidc.be](http://www.sidc.be)



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