

SIDC Space Weather Briefing

20 June 2021 - 27 June 2021

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& the SIDC forecaster team



Solar Influences
Data analysis Centre
www.sidc.be

Summary Report

Solar activity from 2021-06-20 12:00 to 2021-06-27 23:59

Active regions	Catania 7 (NOAA 12833), Catania 8 (NOAA 12835), 2 plage regions
Flares	# C-class flare: 2 # M-class flare: 0 # X-class flare: 0
Filament eruptions	Multiple, mainly on limb, none proven of interest
Coronal Holes	2 (1N/+, 1S/+) on geoeffective location, 1 (N/+) crossed CM on June 27 th , all of small area

Proton flux	Background levels
Electron flux	Decreased to nominal levels

Solar wind and geomagnetic conditions

ICME	Possibly 2 ICMEs, 1 magnetic cloud, none of substantial impact
SW Conditions	B : 0.47 - 10.7 nT // Bz: -10.05 nT to 7.29 nT // Speed: 306.3 - 432.4km/s
K-indices	max K-index (Dourbes): 3 max Kp-index (NOAA): 3

All Quiet Alert: On during Monday, Tuesday, Sunday

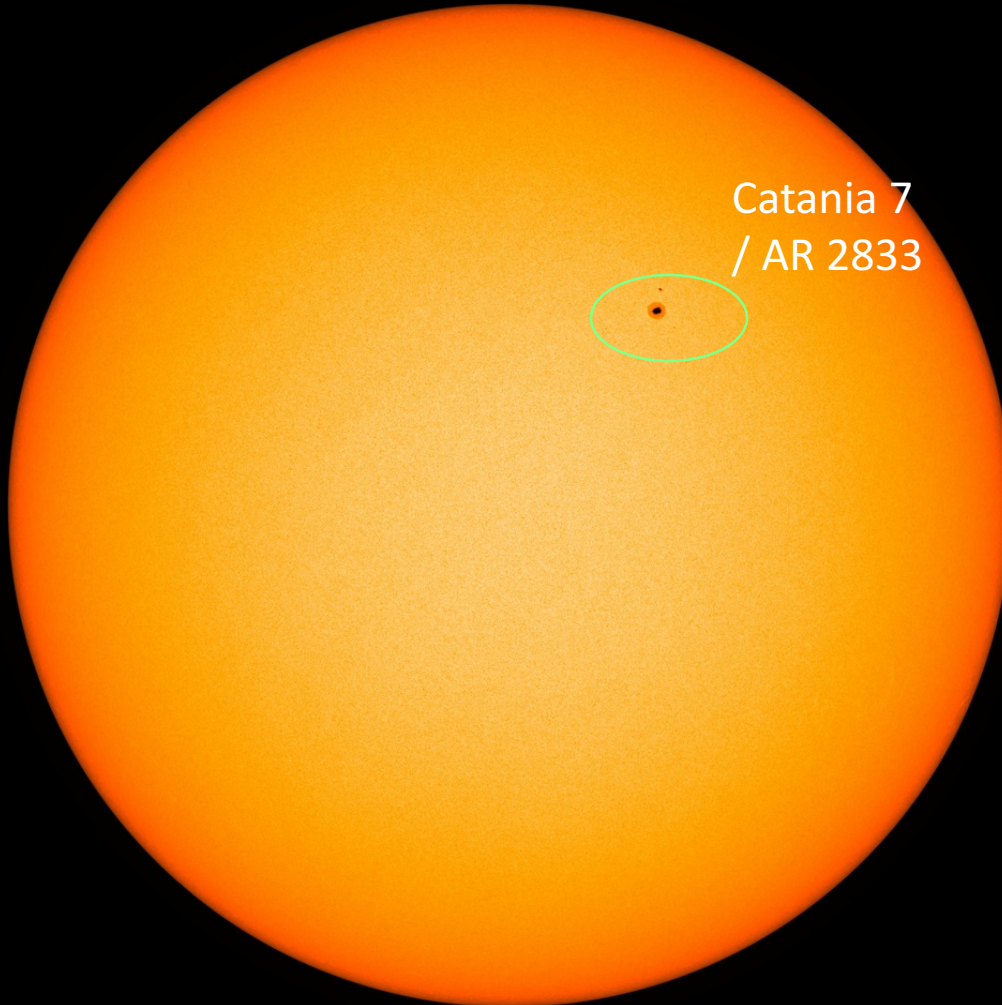
Solar Activity



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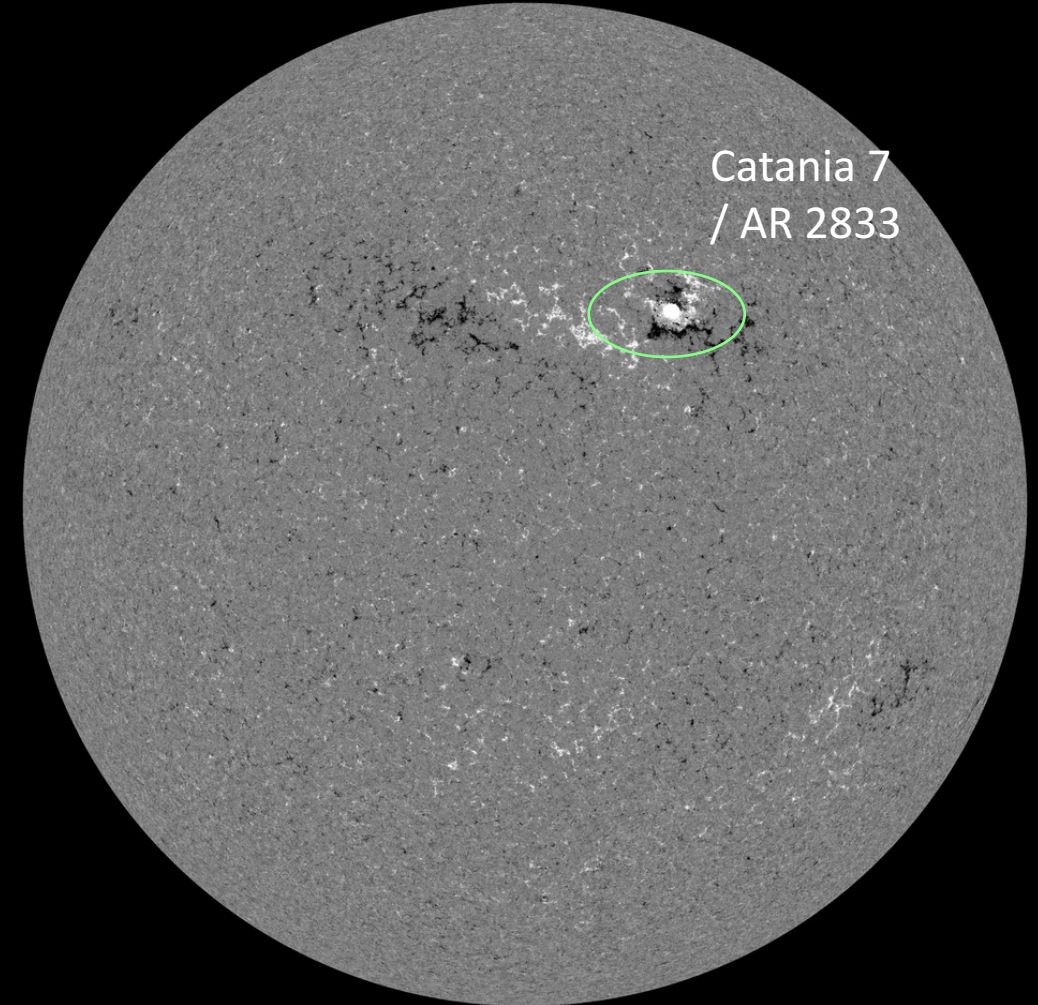
Solar active regions

SDO/HMI White Light 2021-06-20



SDO/HMI Quick-Look Continuum: 20210620_114500

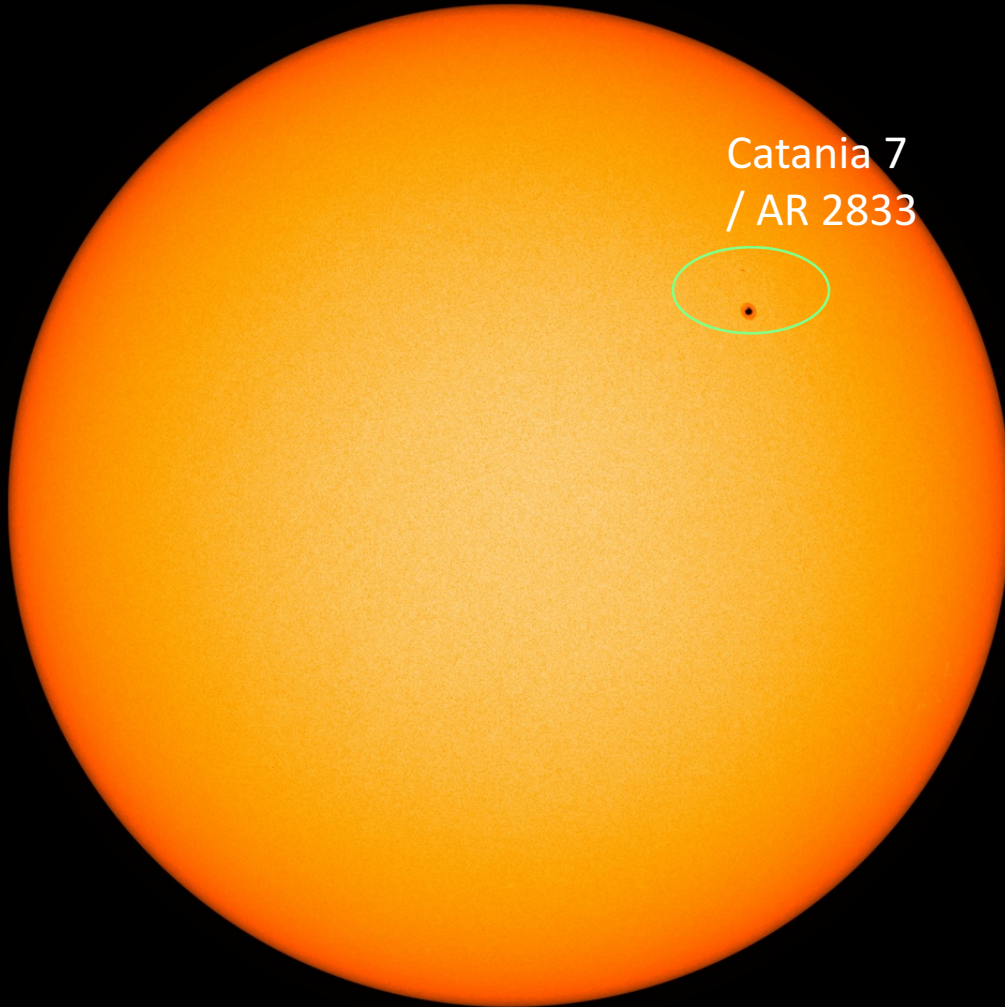
SDO/HMI Magnetogram 2021-06-20



SDO/HMI Quick-Look Magnetogram: 20210620_114500

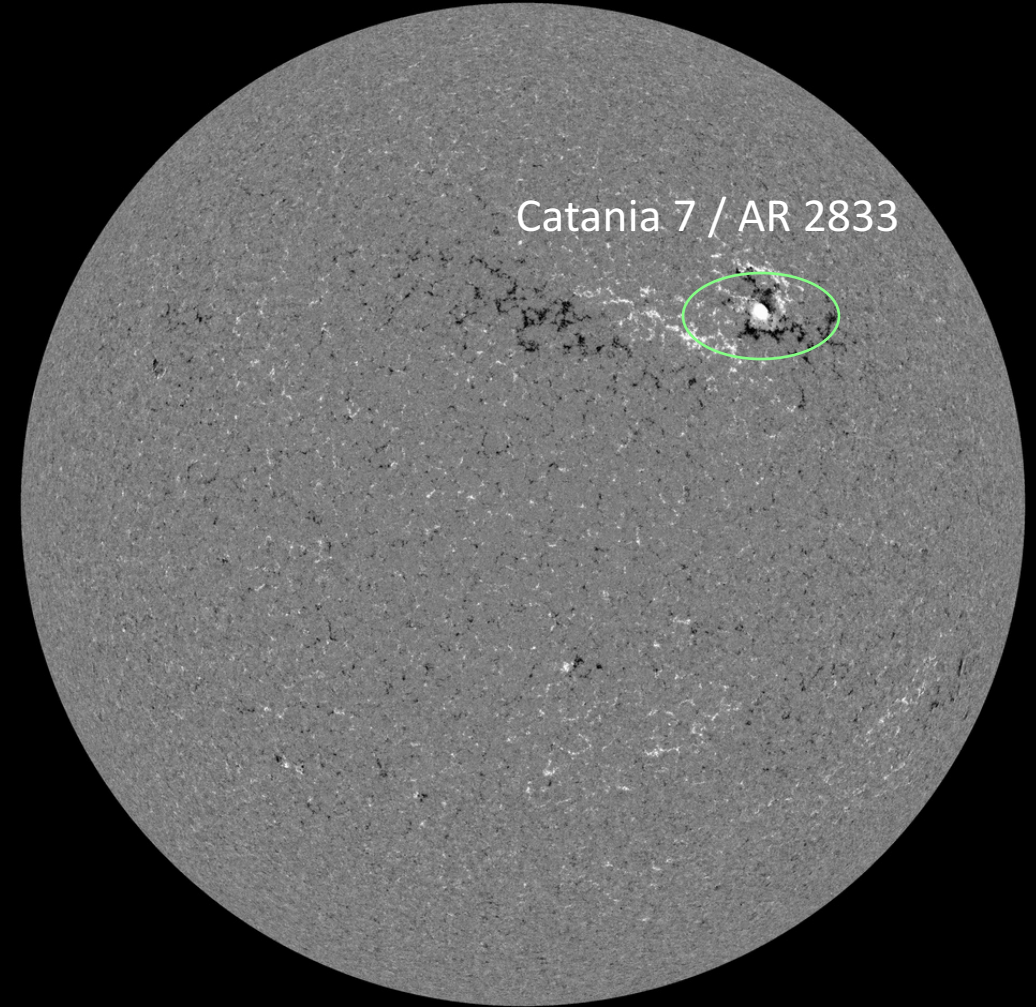
Solar active regions

SDO/HMI White Light 2021-06-21



SDO/HMI Quick-Look Continuum: 20210621_114500

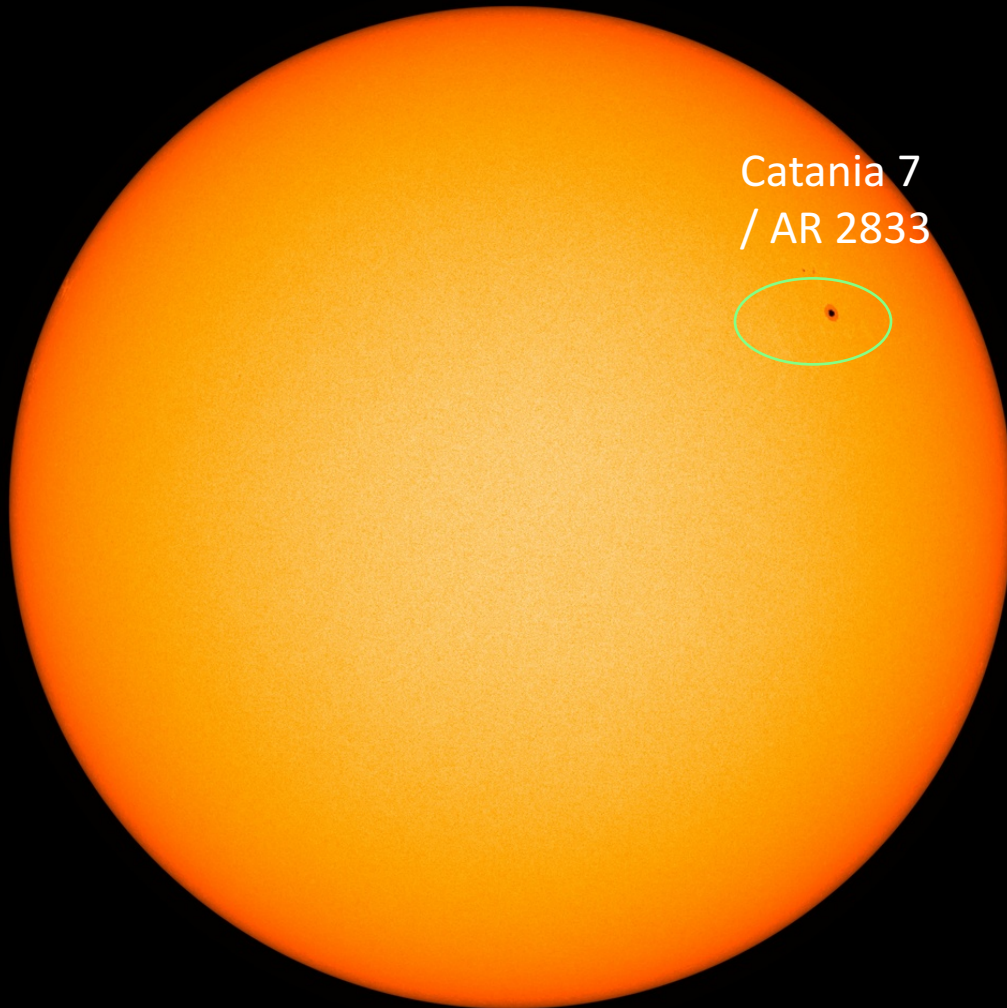
SDO/HMI Magnetogram 2021-06-21



SDO/HMI Quick-Look Magnetogram: 20210621_114500

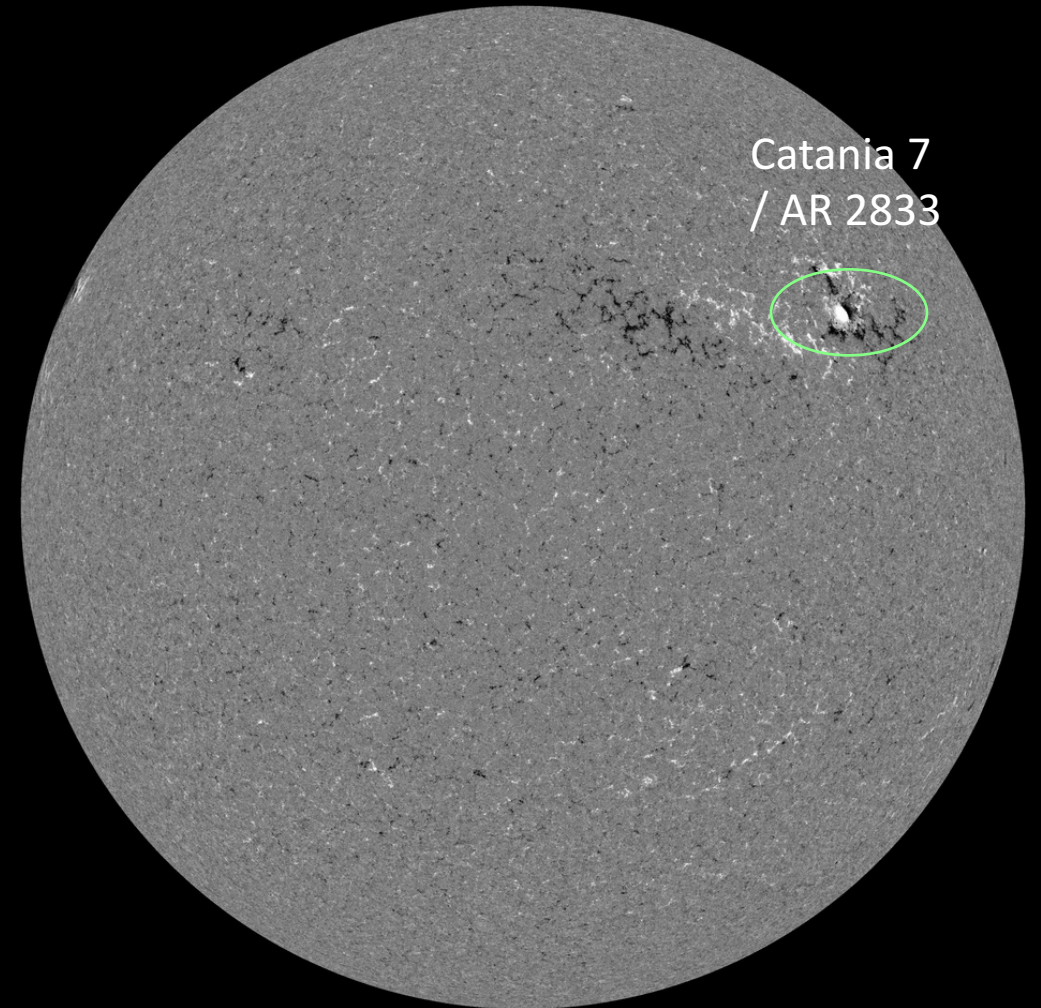
Solar active regions

SDO/HMI White Light 2021-06-22



SDO/HMI Quick-Look Continuum: 20210622_114500

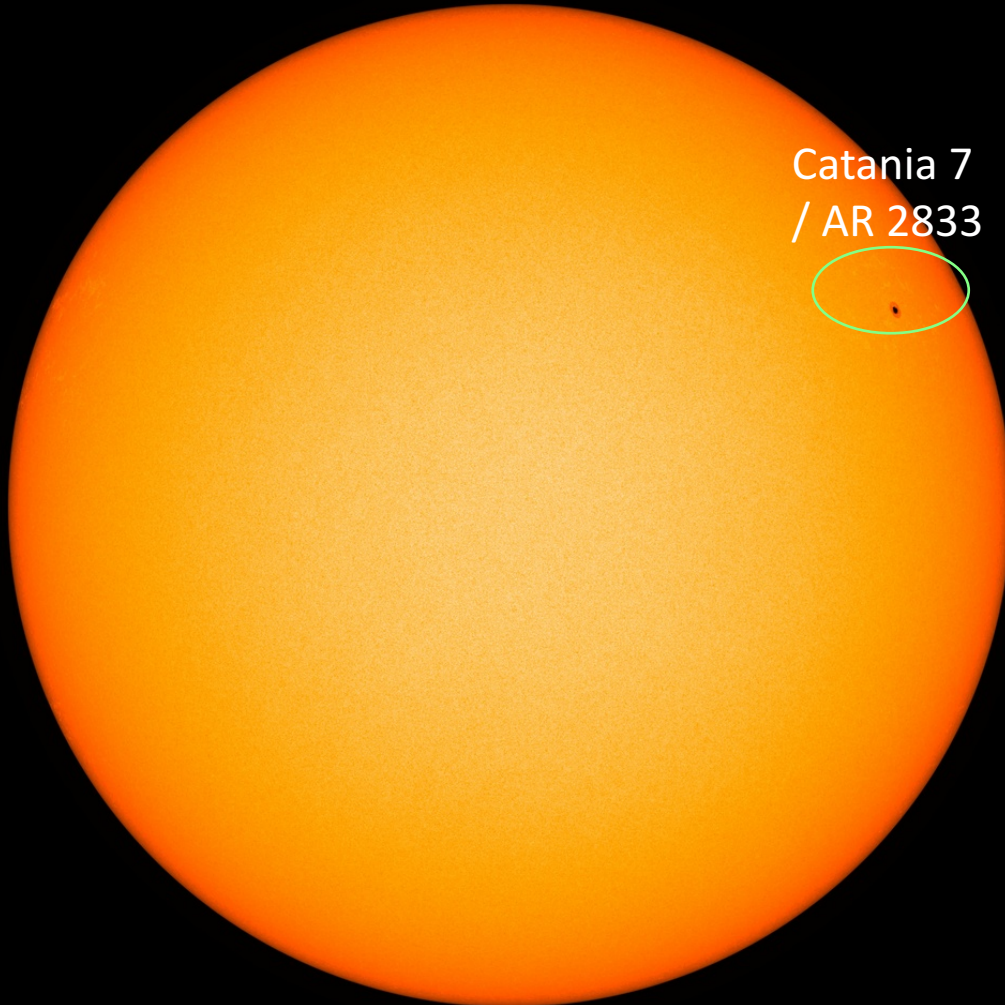
SDO/HMI Magnetogram 2021-06-22



SDO/HMI Quick-Look Magnetogram: 20210622_114500

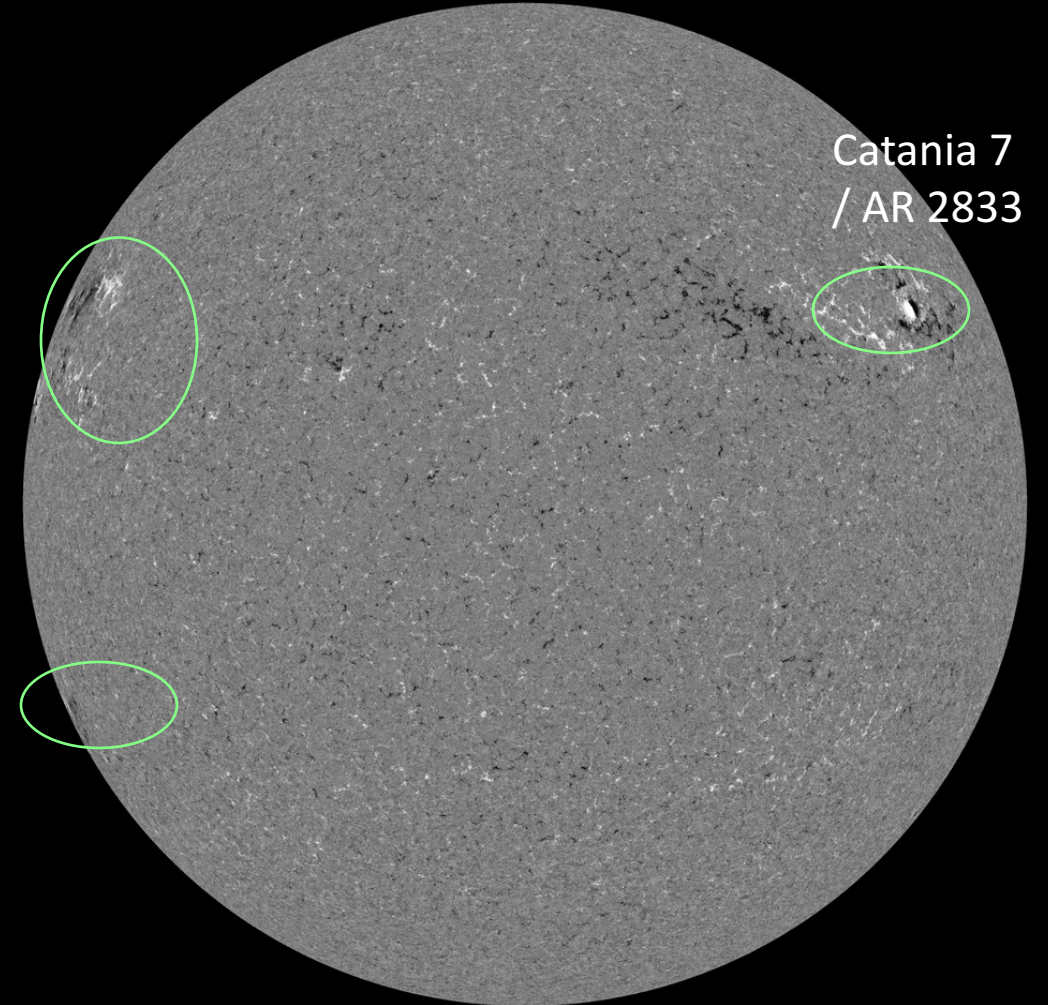
Solar active regions

SDO/HMI White Light 2021-06-23



SDO/HMI Quick-Look Continuum: 20210623_114500

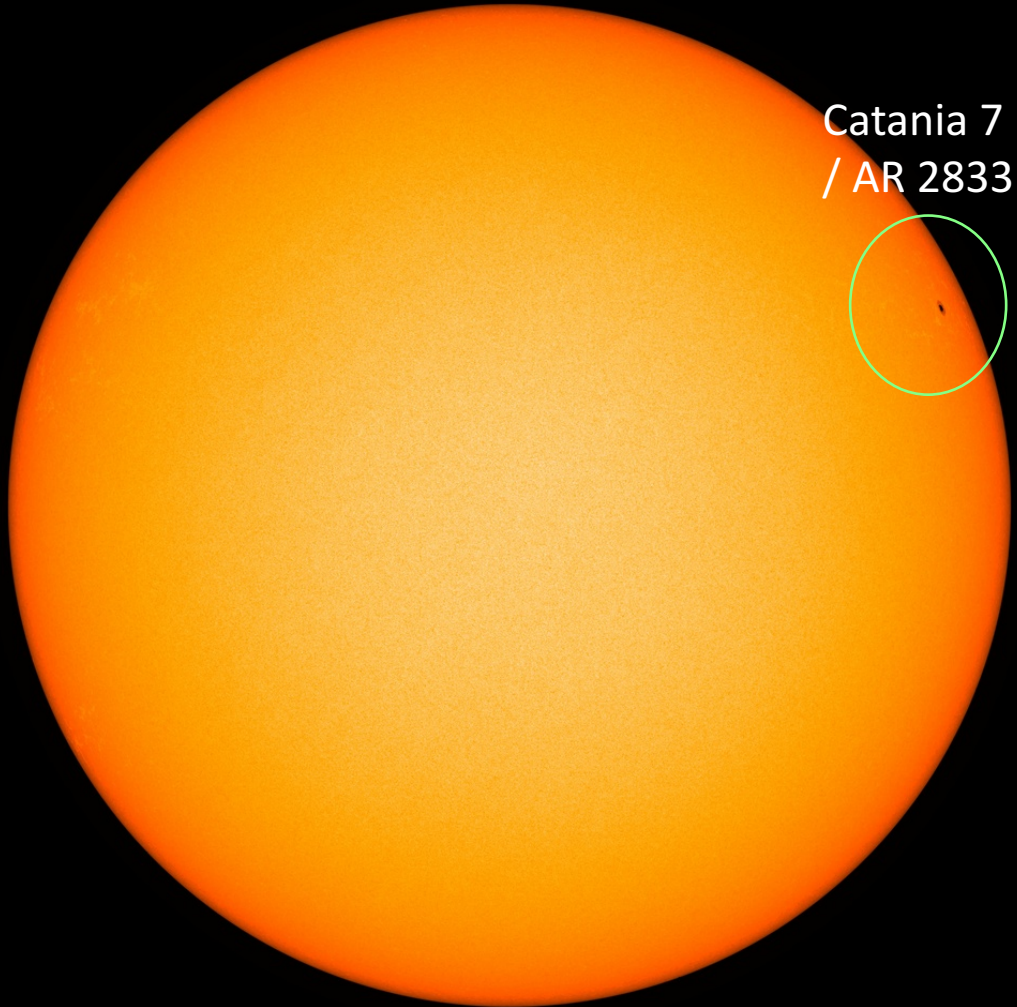
SDO/HMI Magnetogram 2021-06-23



SDO/HMI Quick-Look Magnetogram: 20210623_114500

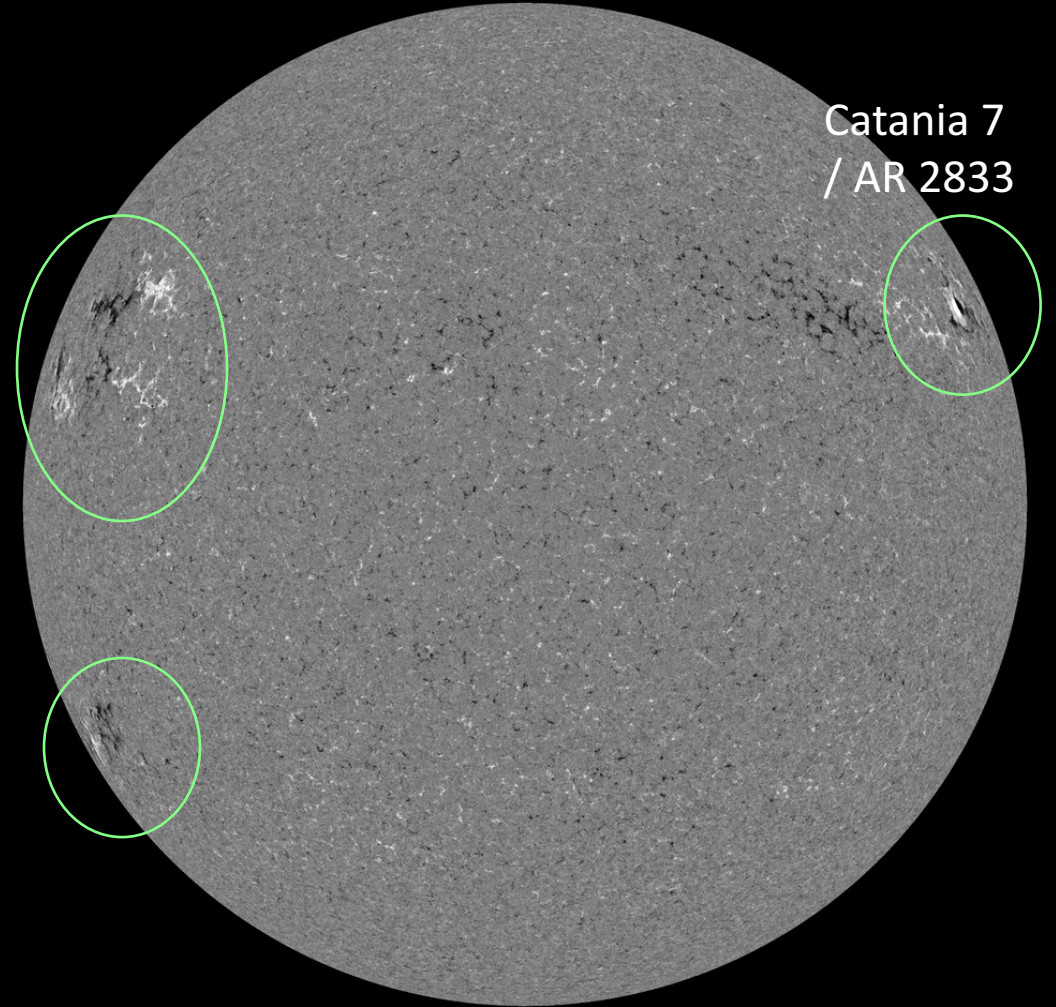
Solar active regions

SDO/HMI White Light 2021-06-24



SDO/HMI Quick-Look Continuum: 20210624_114500

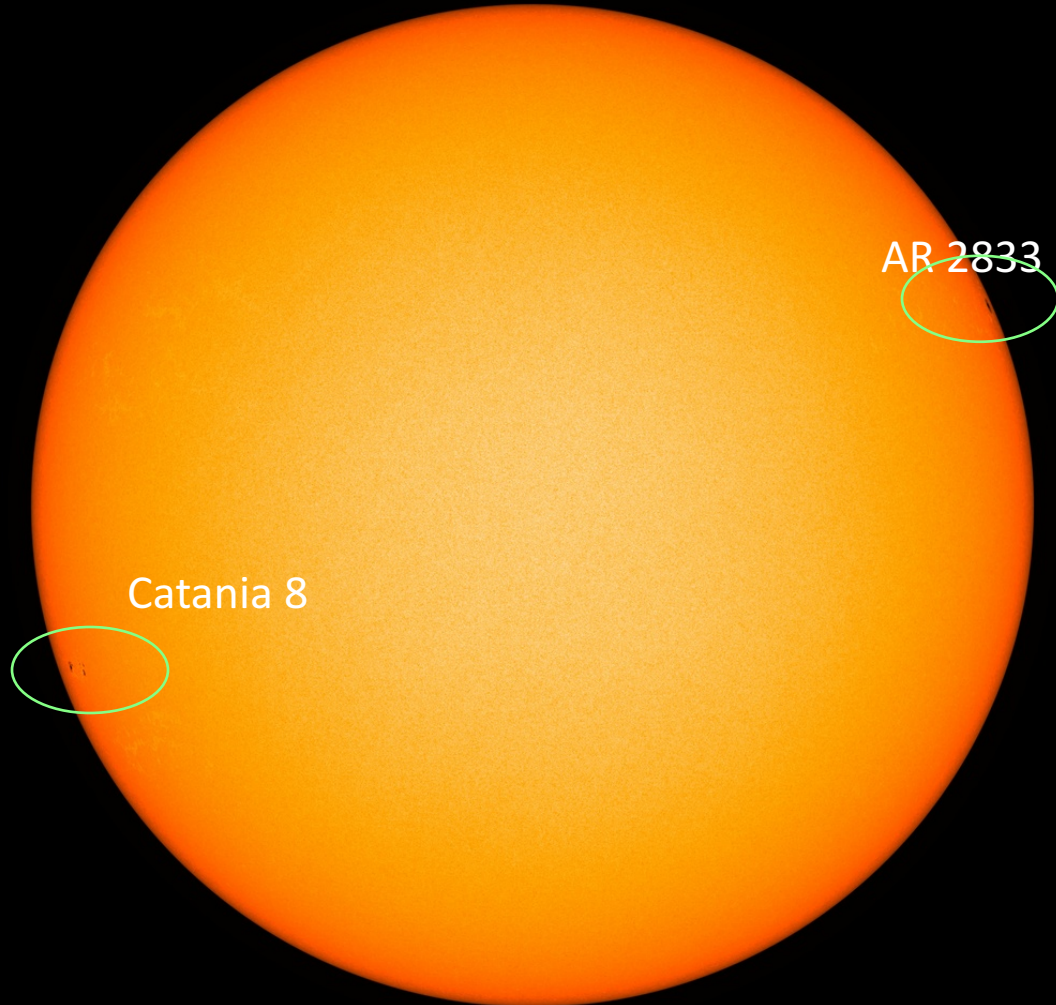
SDO/HMI Magnetogram 2021-06-24



SDO/HMI Quick-Look Magnetogram: 20210624_114500

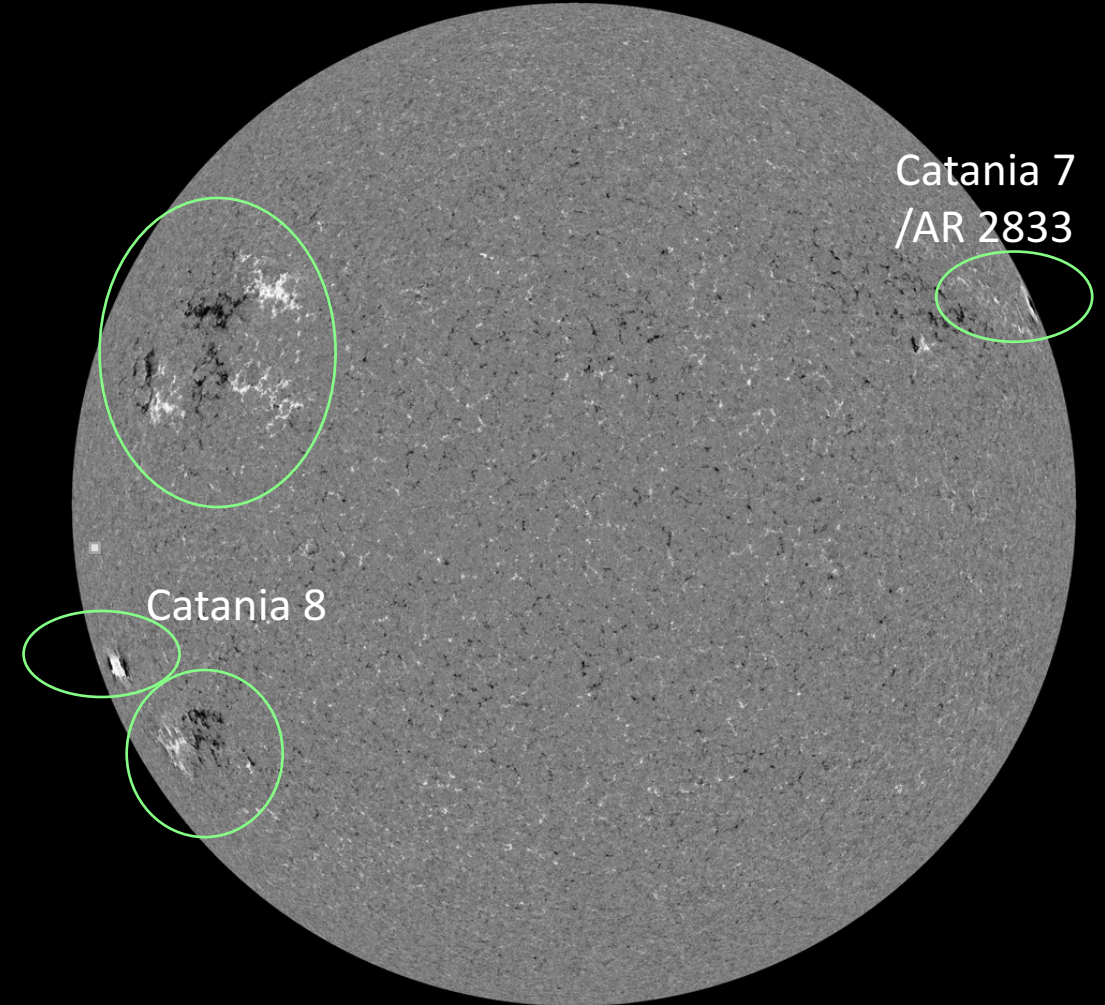
Solar active regions

SDO/HMI White Light 2021-06-25



SDO/HMI Quick-Look Continuum: 20210625_114500

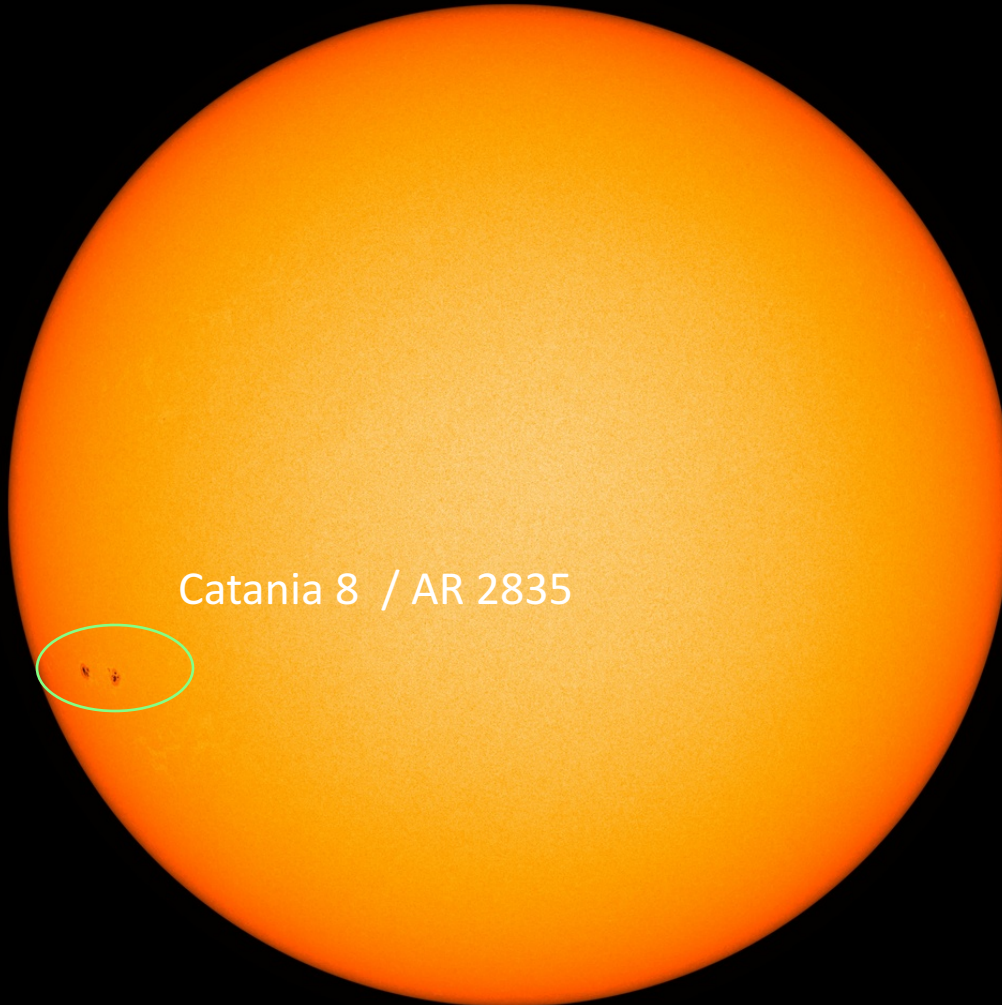
SDO/HMI Magnetogram 2021-06-26



SDO/HMI Quick-Look Magnetogram: 20210625_114500

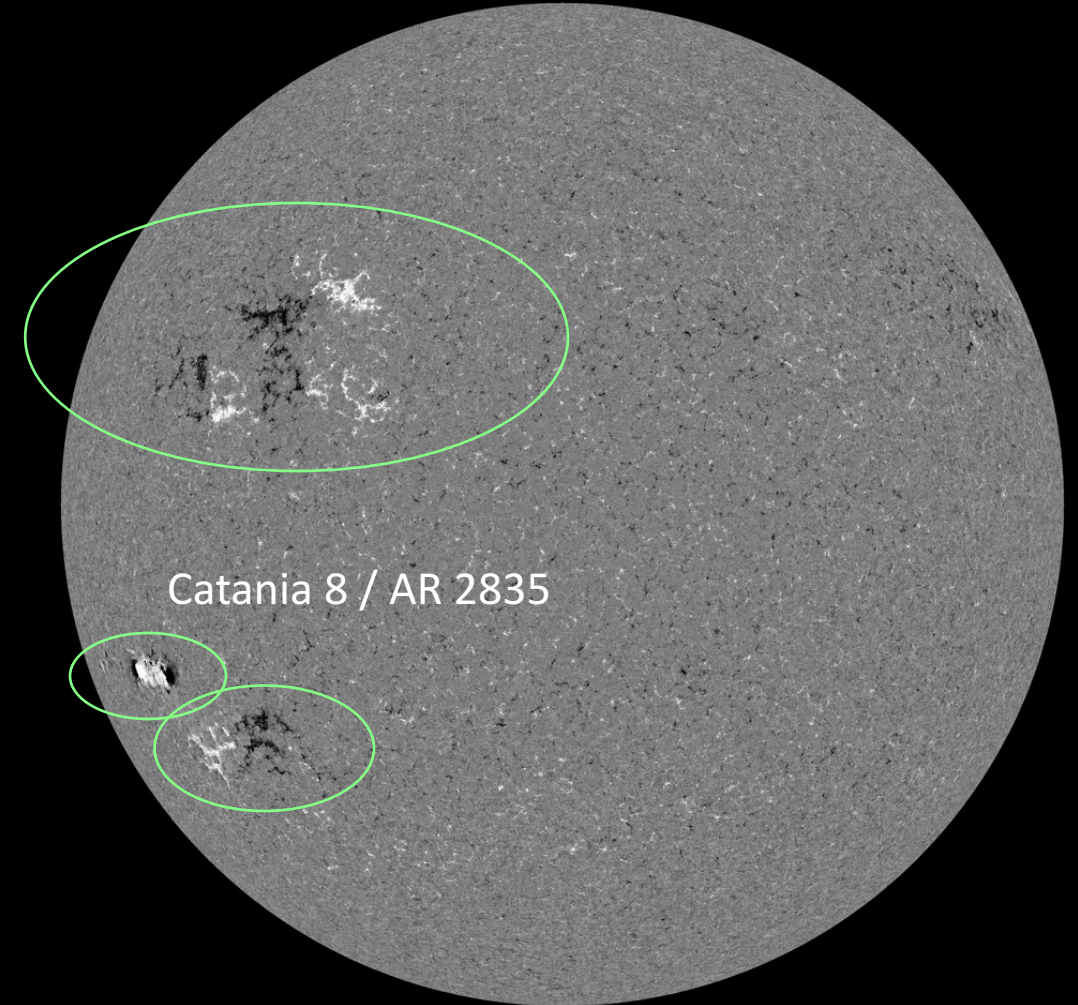
Solar active regions

SDO/HMI White Light 2021-06-26



SDO/HMI Quick-Look Continuum: 20210626_114500

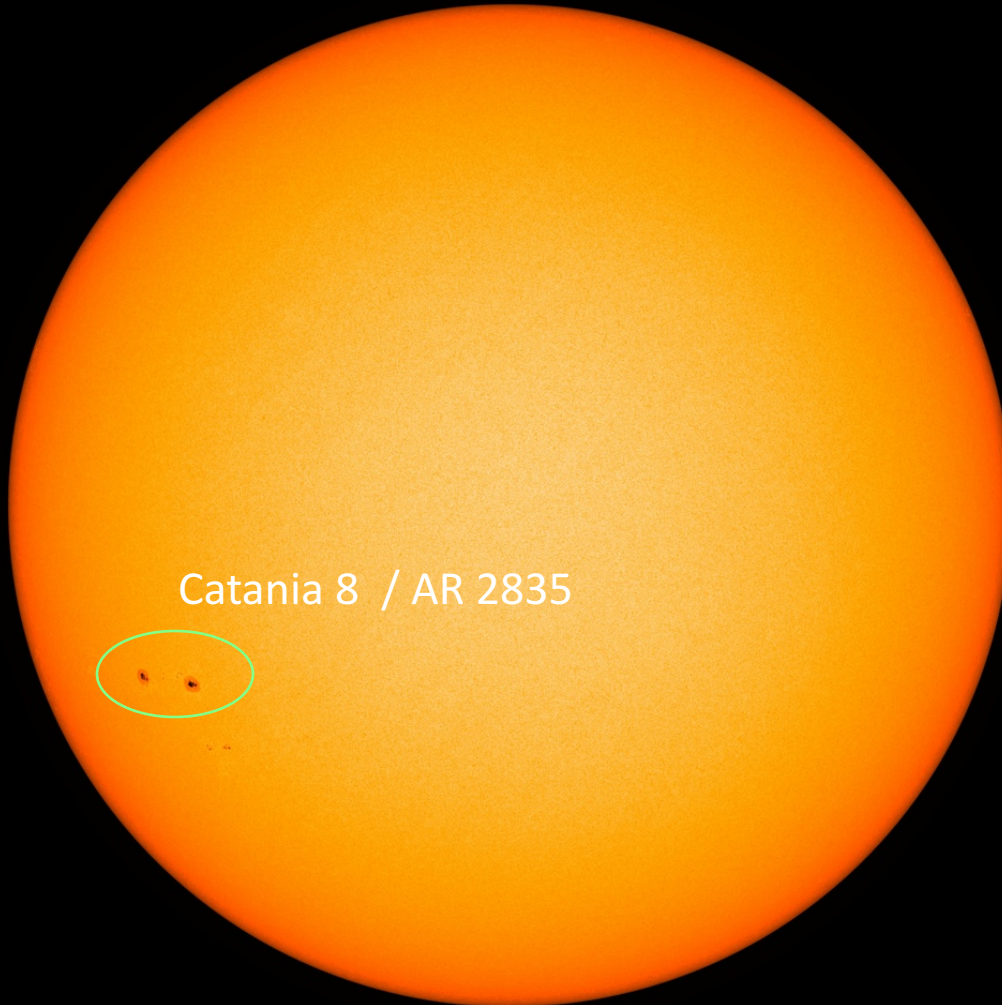
SDO/HMI Magnetogram 2021-06-26



SDO/HMI Quick-Look Magnetogram: 20210626_114500

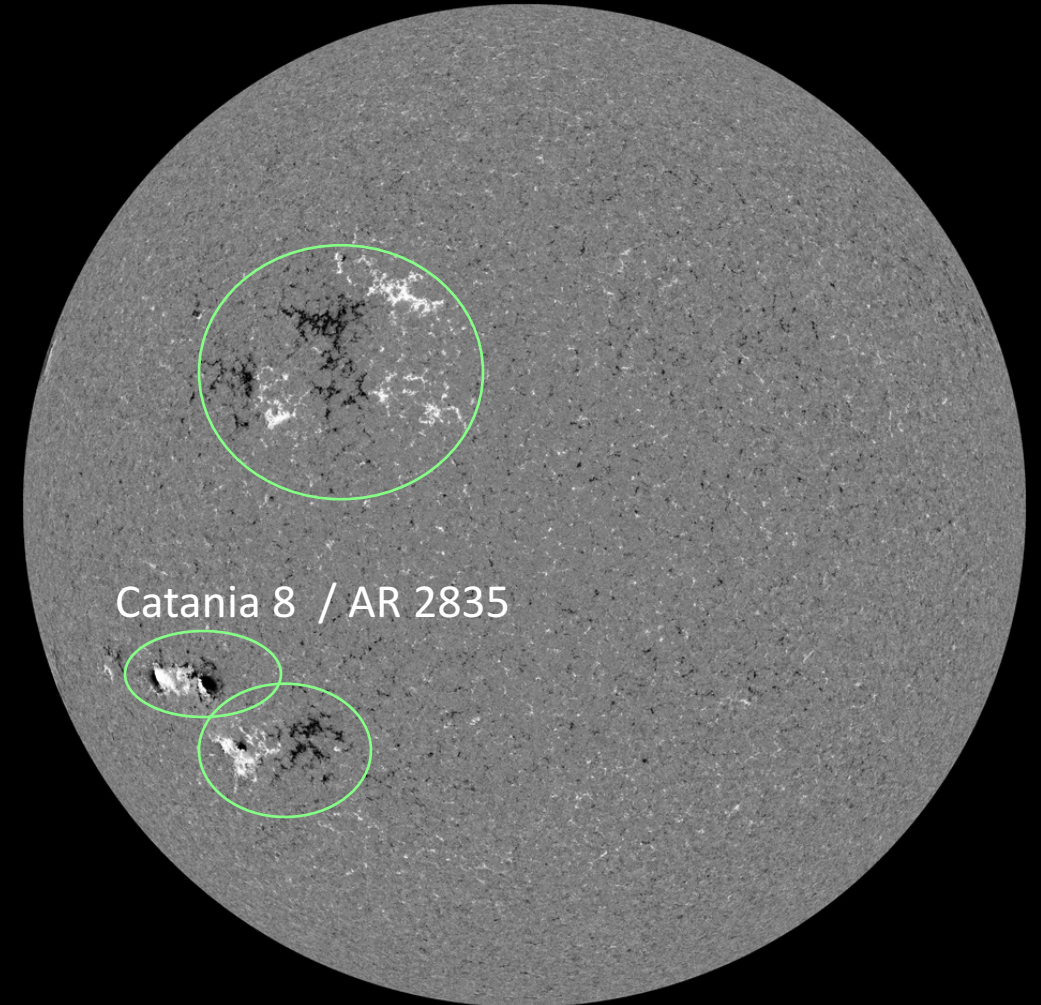
Solar active regions

SDO/HMI White Light 2021-06-27



SDO/HMI Quick-Look Continuum: 20210627_114500

SDO/HMI Magnetogram 2021-06-27

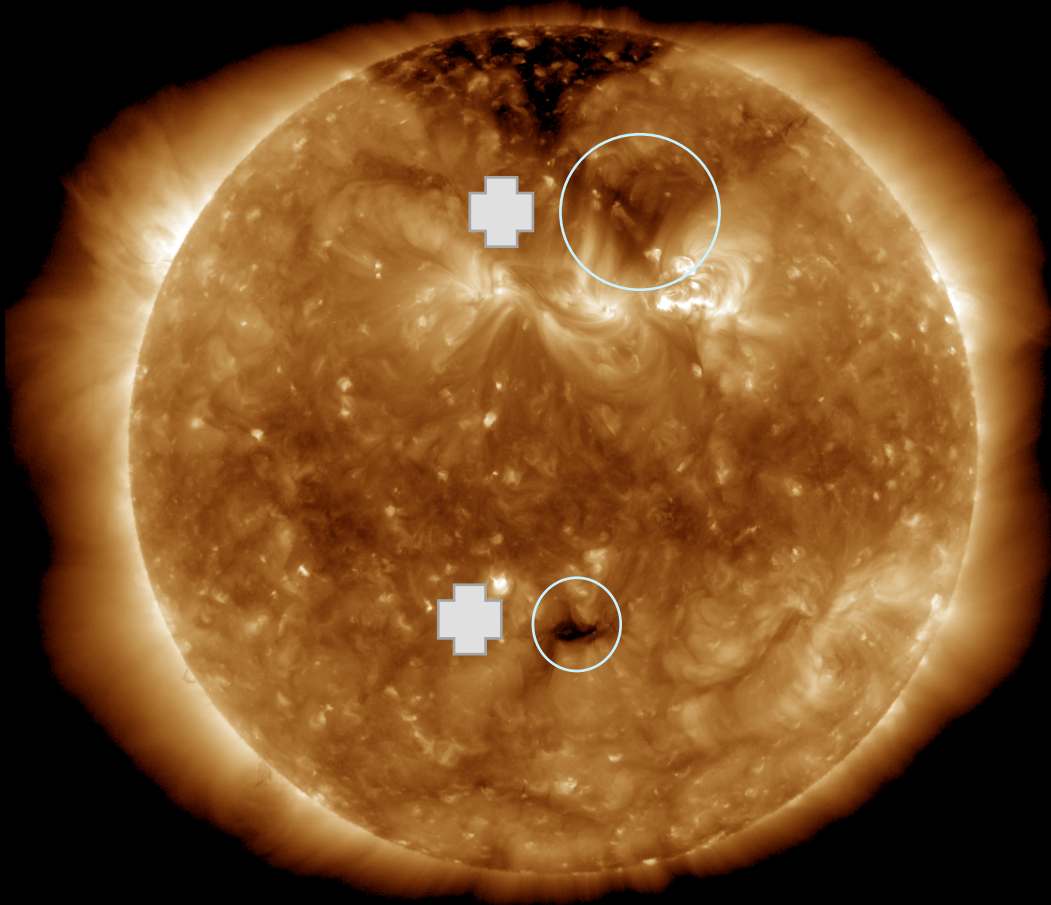


SDO/HMI Quick-Look Magnetogram: 20210627_114500

Coronal holes

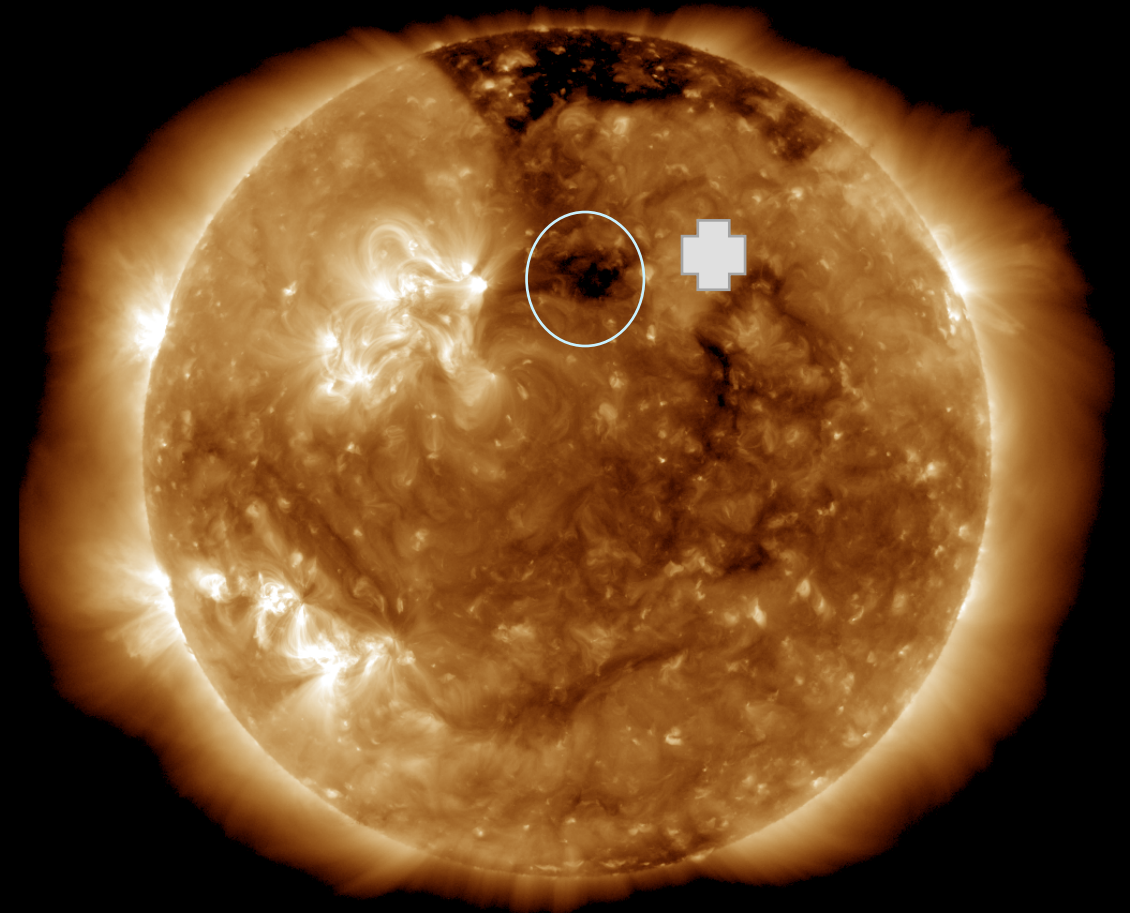
SDO/AIA 19.3 nm 2021-06-20

SDO/AIA AIA 193Å 2021-06-20T12:00:05.847



SDO/AIA 19.3 nm 2021-06-27

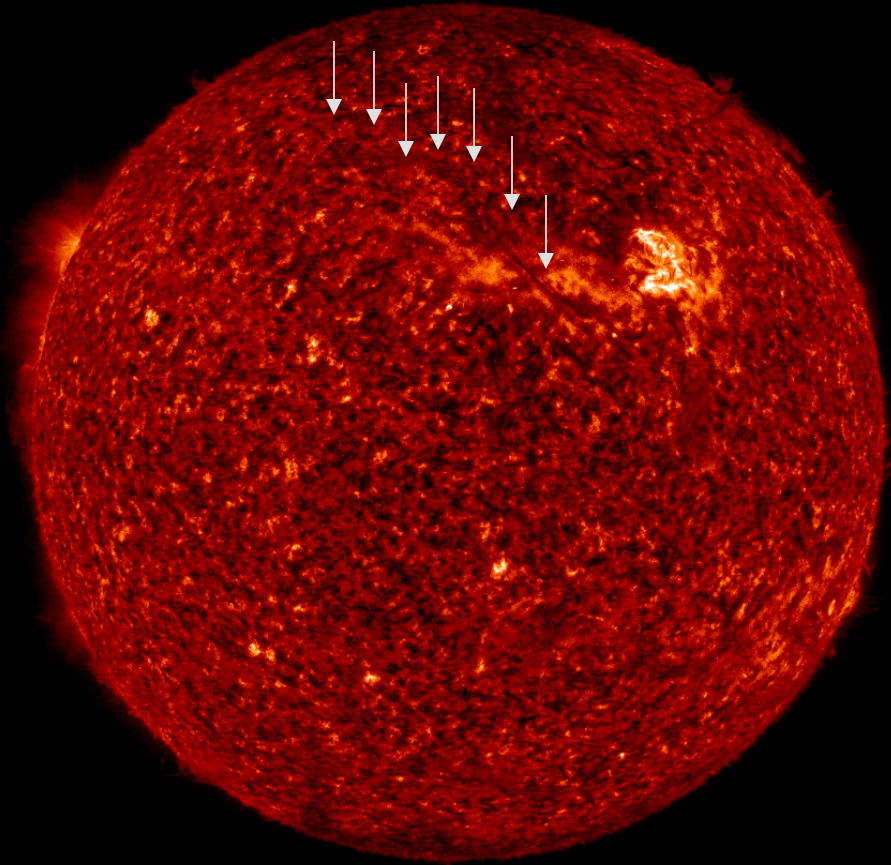
SDO/AIA AIA 193Å 2021-06-27T12:00:05.843



Filaments

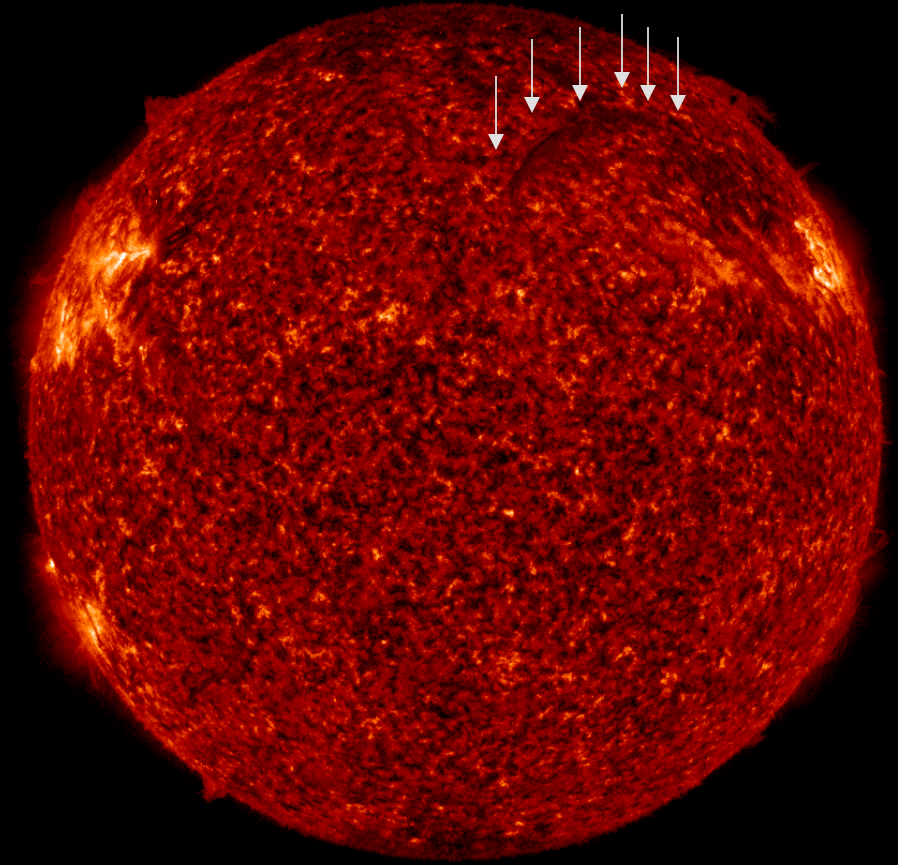
SDO/AIA 30.4 nm 2021-06-21

SDO/AIA AIA 304Å 2021-06-21T12:00:06.580

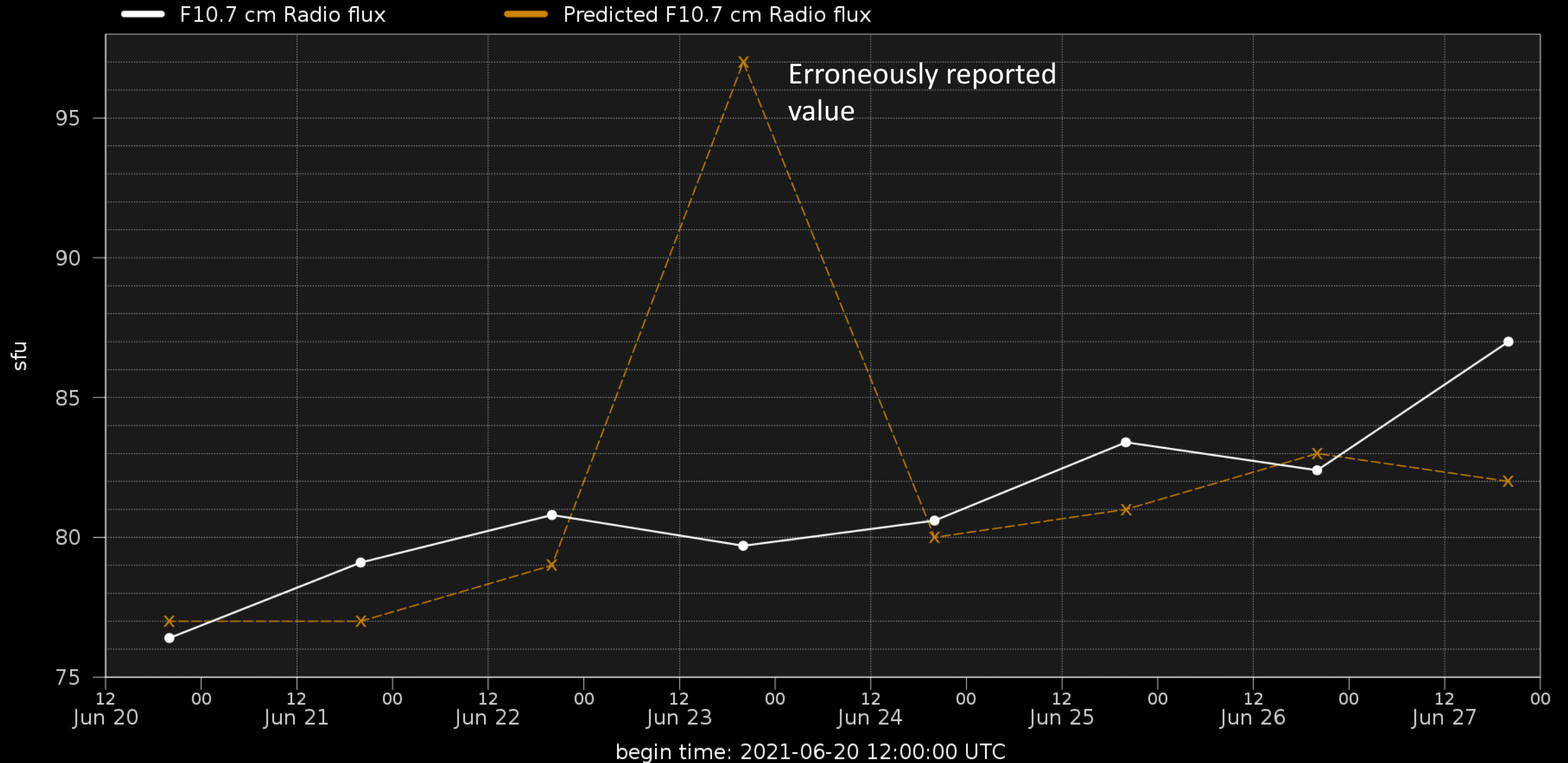


SDO/AIA 30.4 nm 2021-06-24

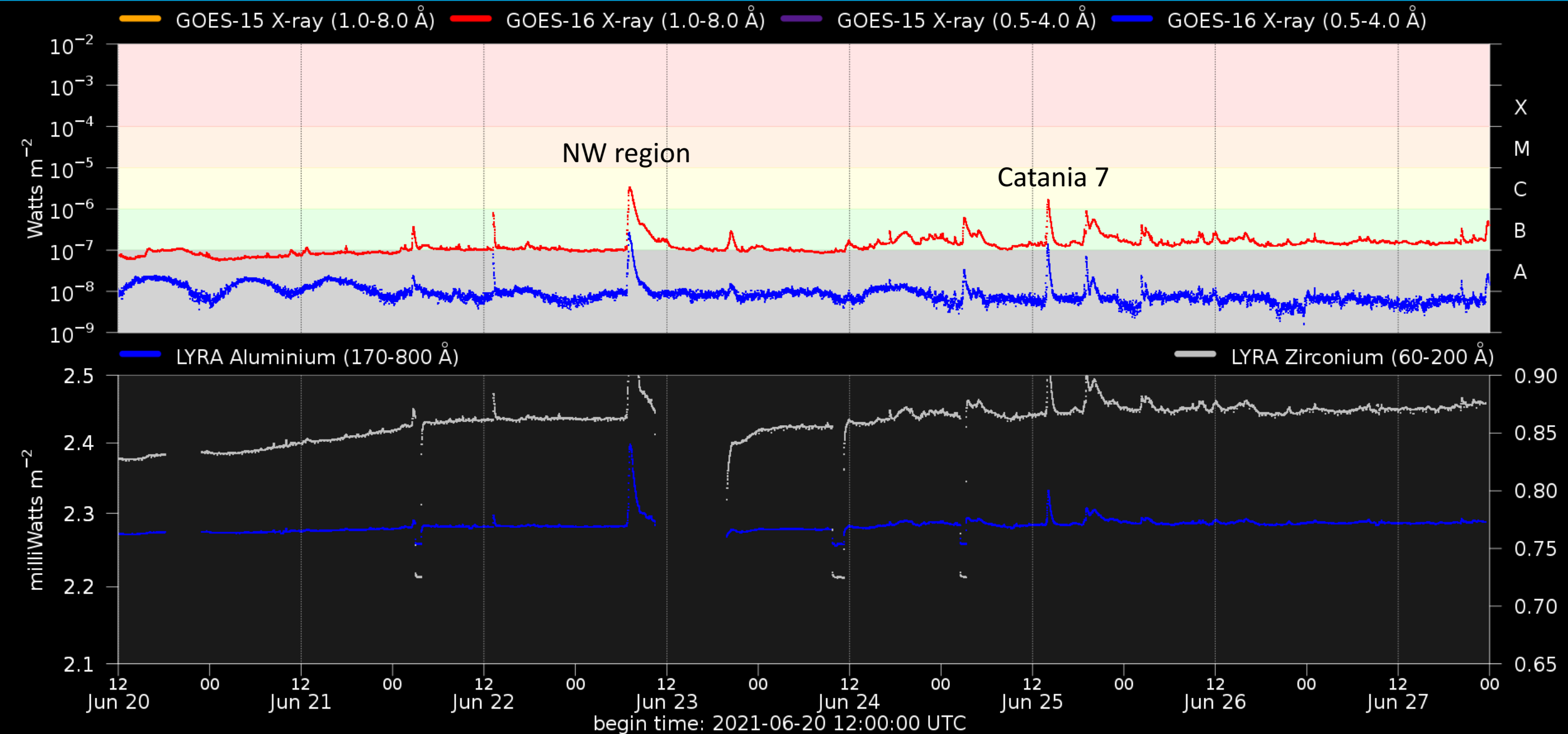
SDO/AIA AIA 304Å 2021-06-24T12:00:06.584



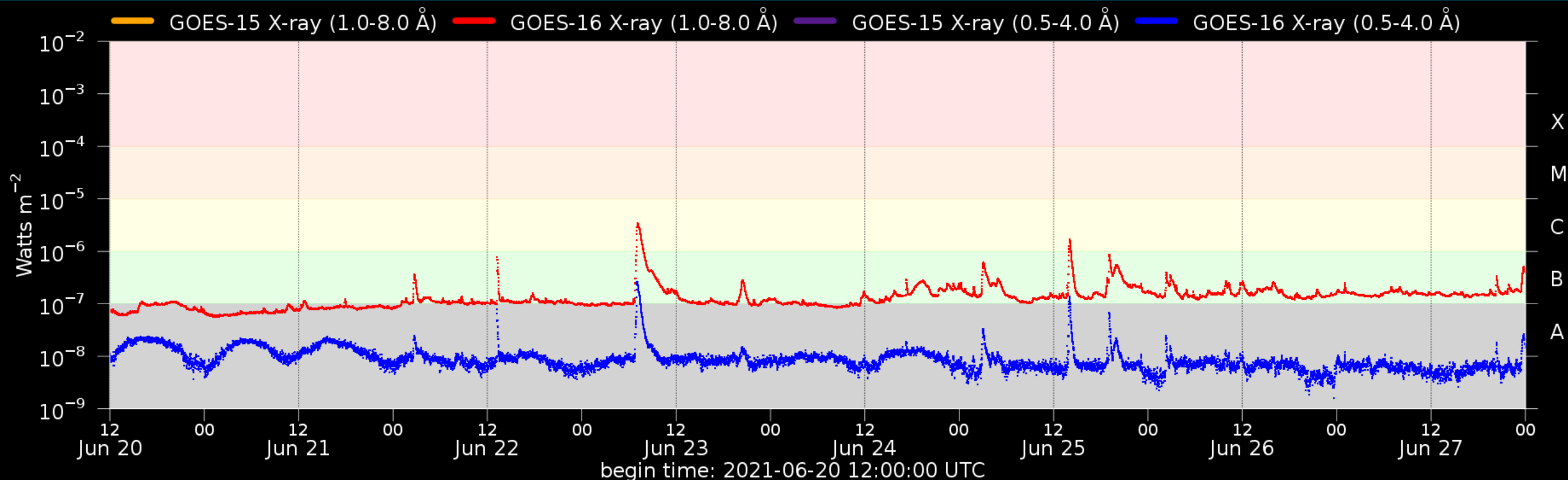
Solar F10.7cm radio flux



Solar X-Ray and UV flux



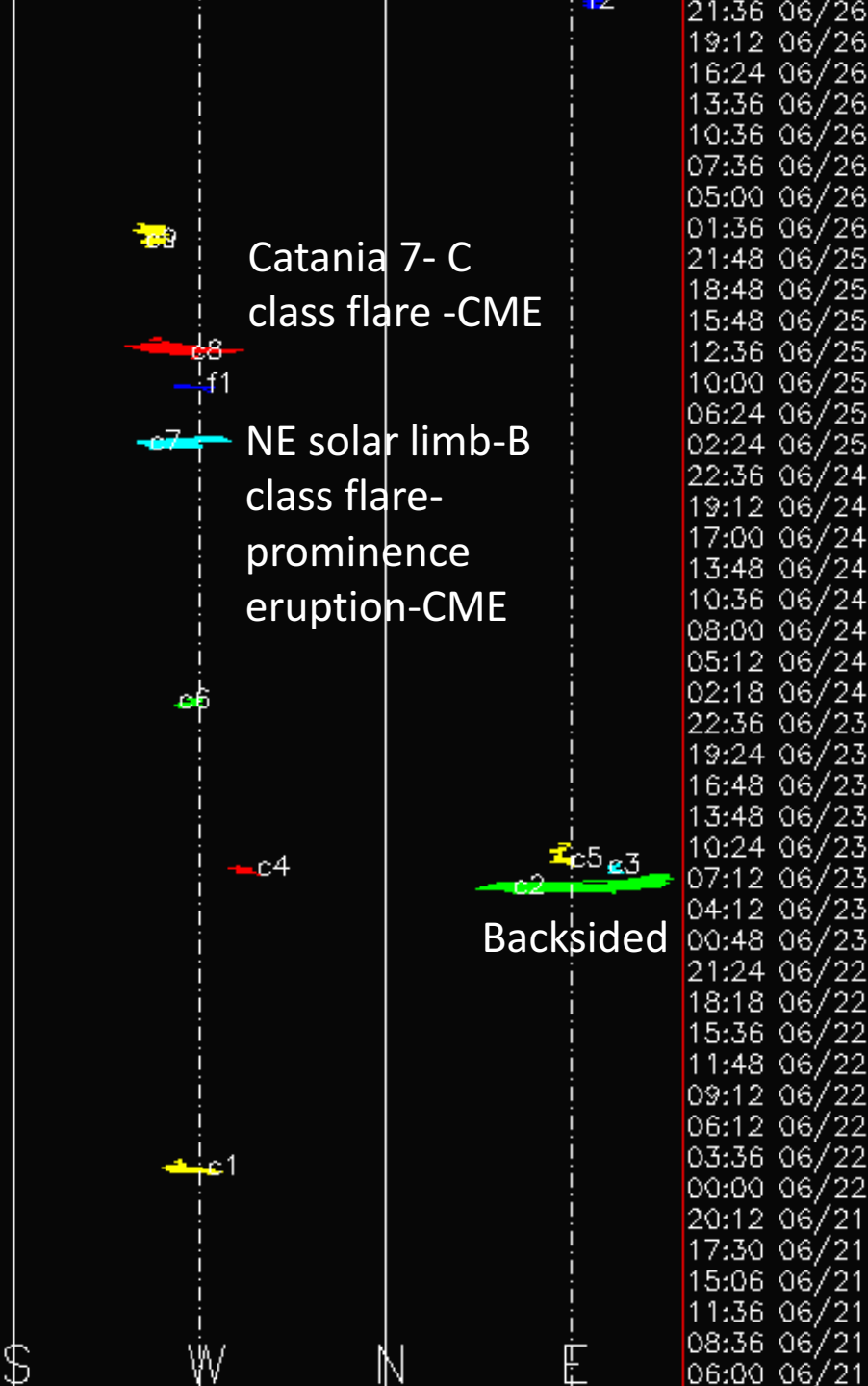
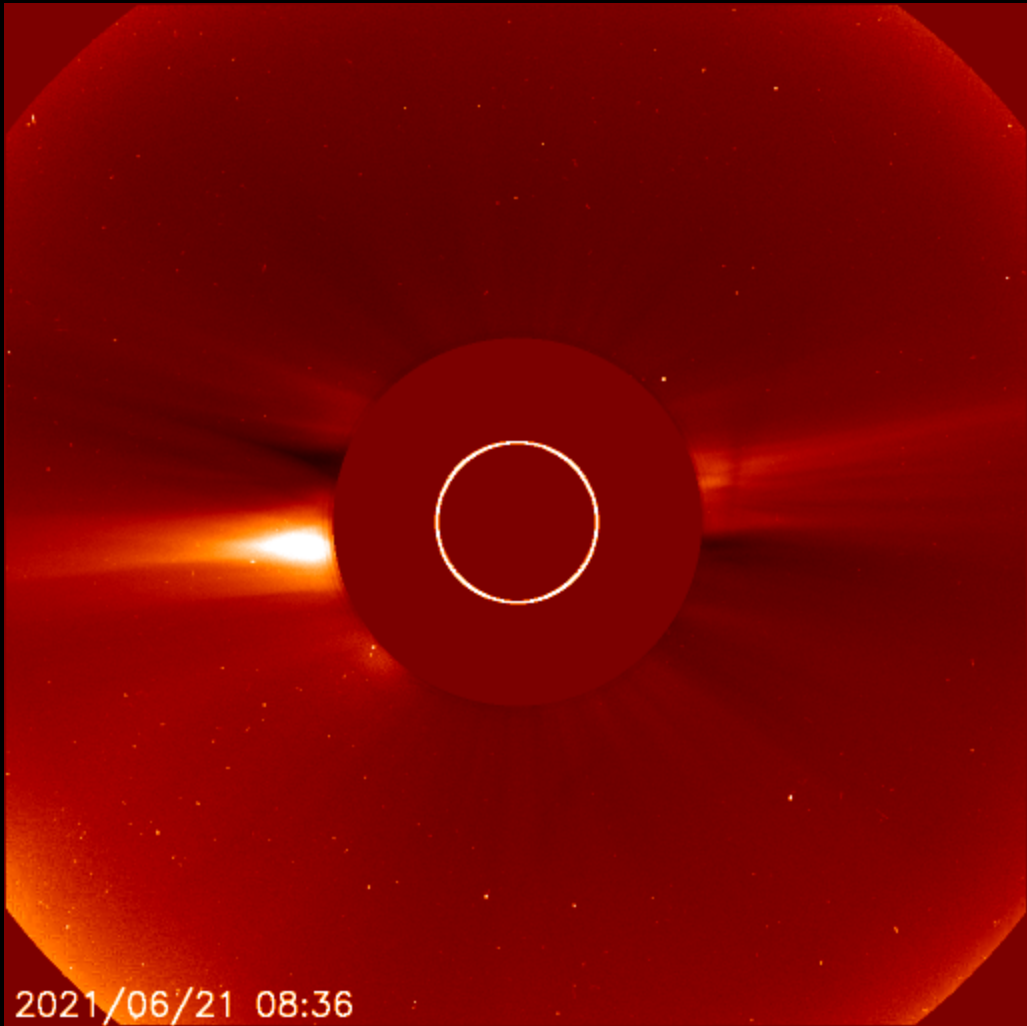
Flaring activity



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

Issue date	2021-06-20	2021-06-21	2021-06-22	2021-06-23	2021-06-24	2021-06-25	2021-06-26	2021-06-27
Probability (%)	05 01 01	10 01 01	10 01 01	80 10 01	30 01 01	20 01 01	10 01 01	10 01 01
Observed (#)	00 00 00	00 00 00	01 00 00	00 00 00	00 00 00	01 00 00	00 00 00	00 00 00

Coronal Mass Ejections



Solar Wind and Geomagnetic Activity



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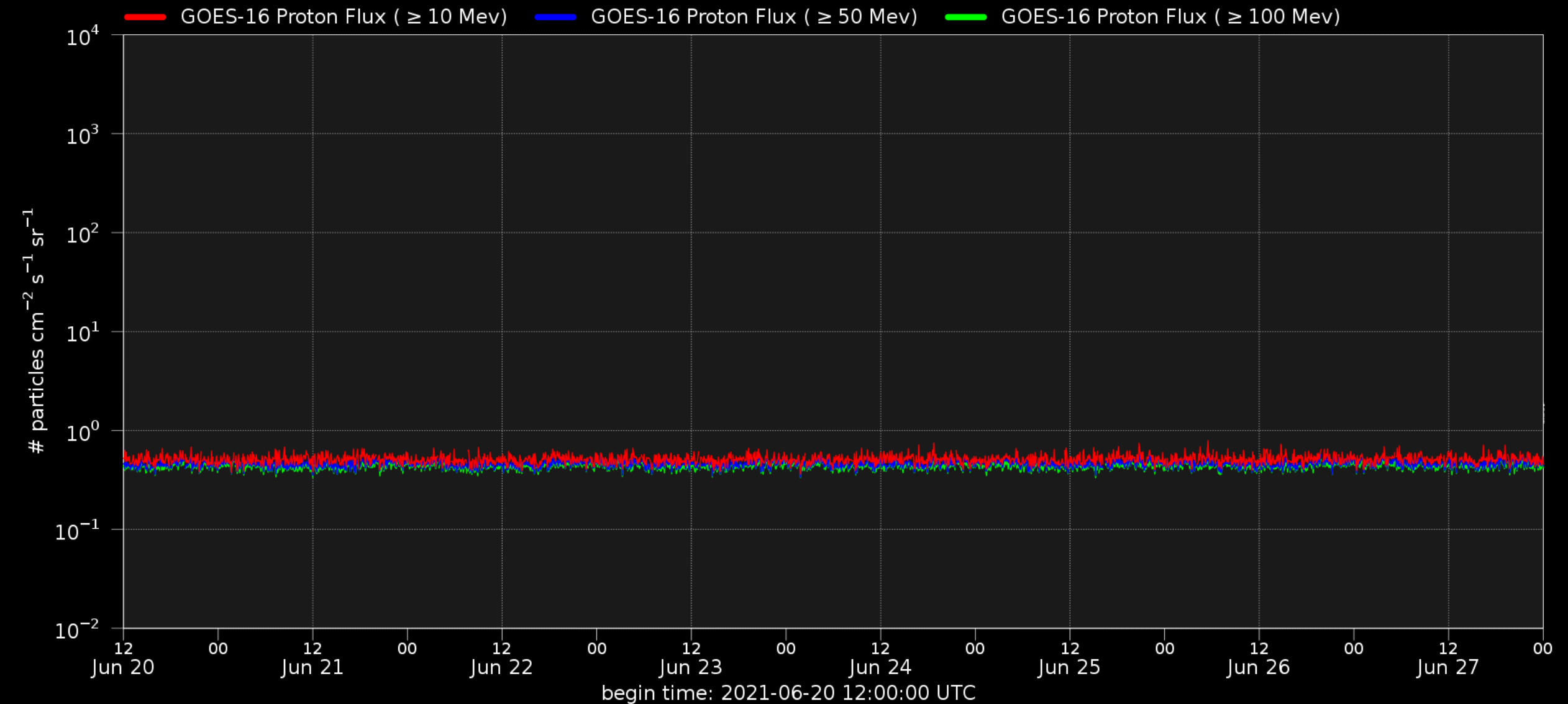
Solar wind parameters & K-indicess

HSS

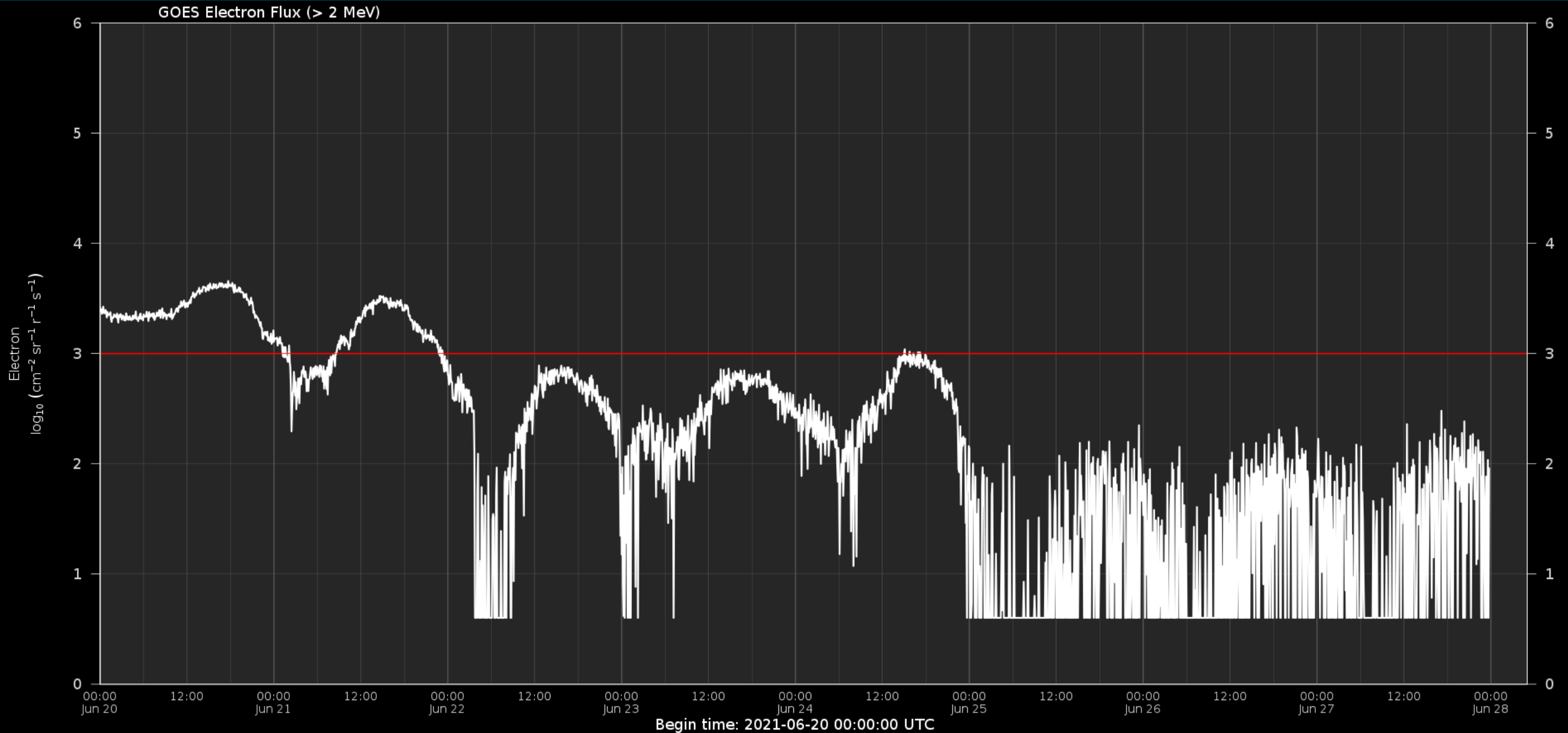


Energetic Particles

Solar proton flux



Electron flux at GEO



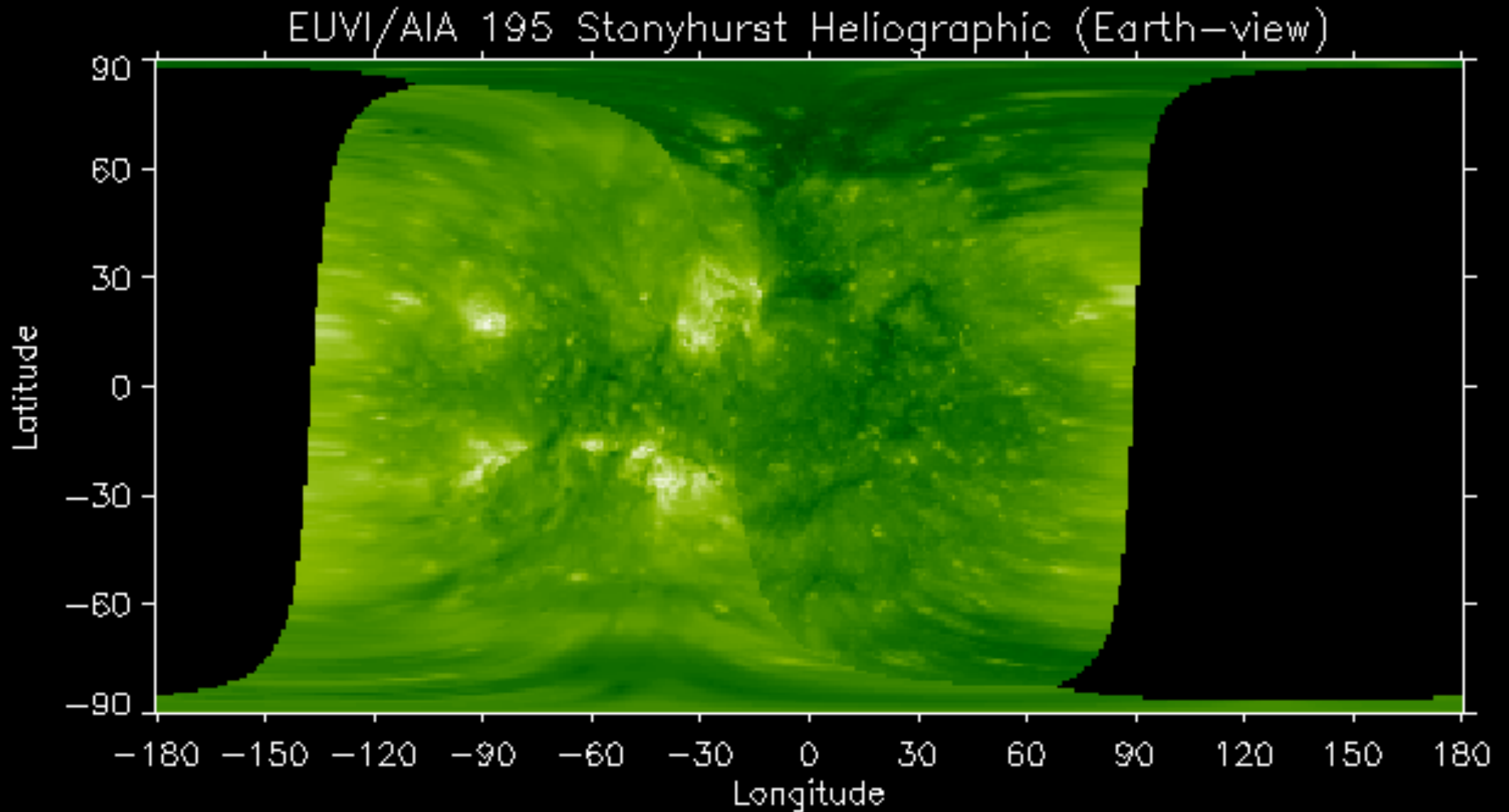
Outlook



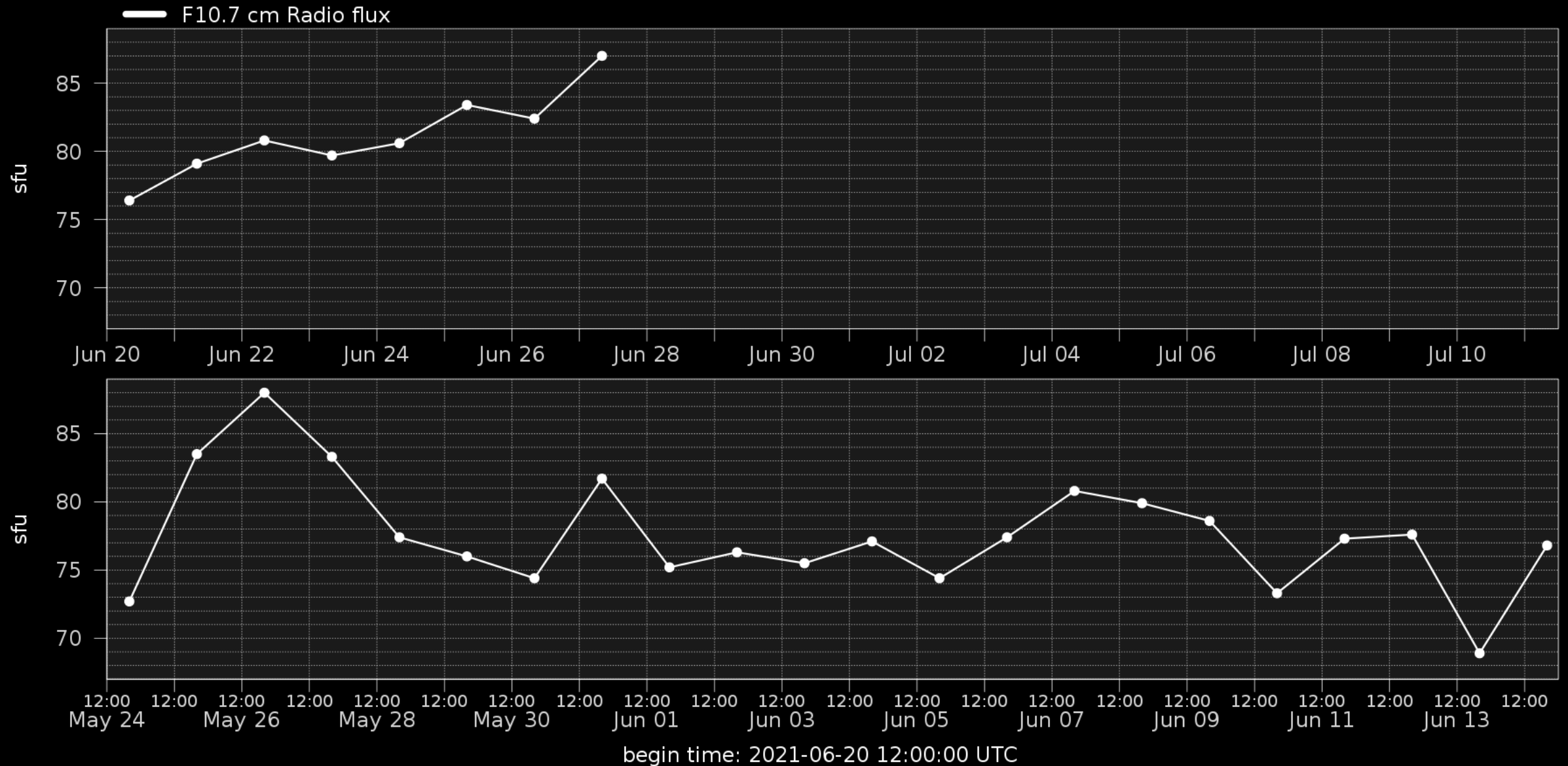
Royal Observatory
of Belgium

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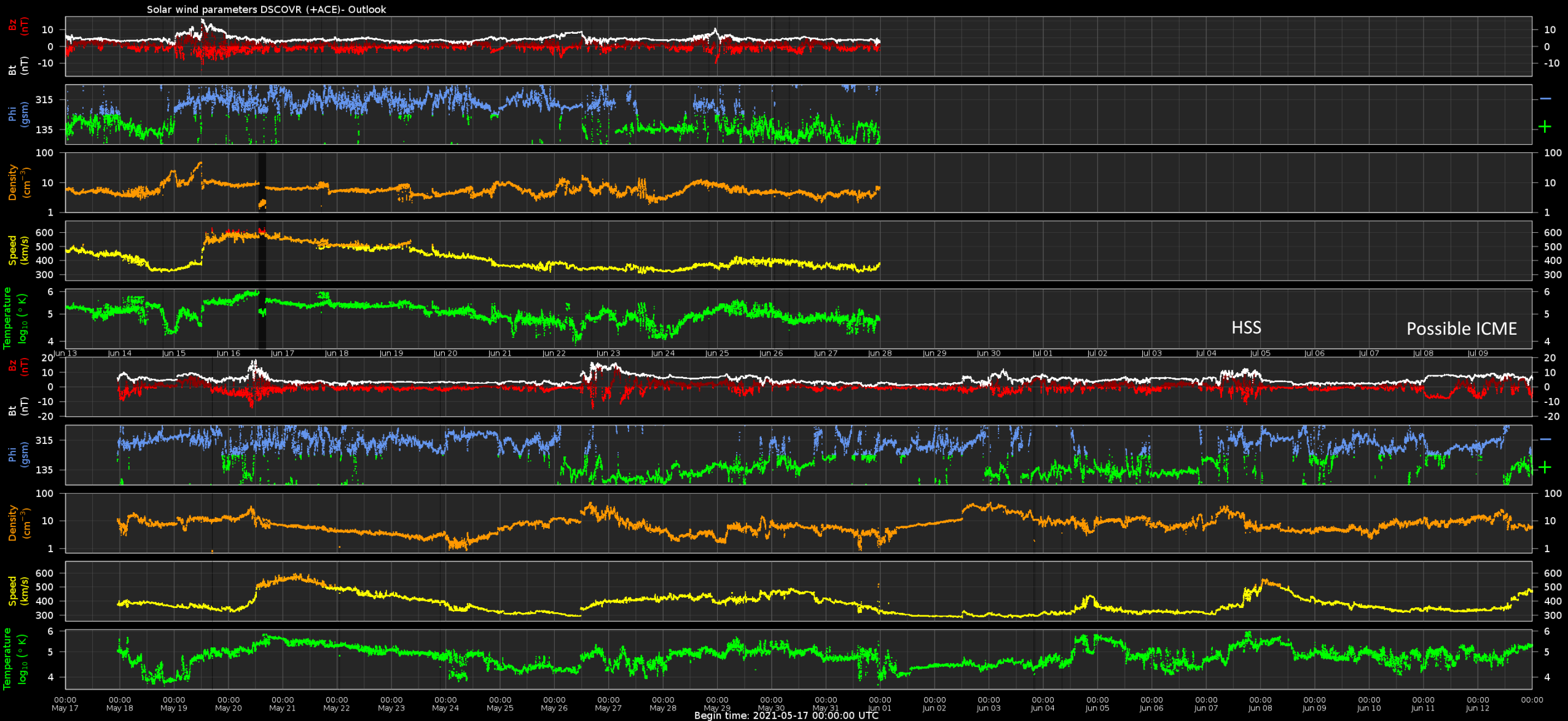
Outlook: Solar activity



Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

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