SIDC Space Weather Briefing

29 June 2026-05 July 2026

de Patoul Judith

& the SIDC forecaster team

Royal Observatory *of* Belgium

Solar Influences Data analysis Centre

www.sidc.be

Summary Report

Solar activity from 2026-06-29 00:00 to 2026-07-05 23:59

Active regions	Multiple complex regions: SIDC Sunspot Group **860**, **886** and **899**
Flares	# M-class flare > 40 & # X-class flare: 2
Coronal Holes	**CH 159** and **CH 170**
CMEs	Multiple Earth-directed CMEs

Proton flux	Miled enhancement, but below the threshold alert
Electron flux	Above threshold beginning of the period

Solar wind and geomagnetic conditions

ICMEs	ICMs associated to **CME 679, CME 680**
Solar wind conditions	|B|: 1.18 - 24.51 nT // Bz: -19.01 nT to 24.21 nT // Speed: 302.8 - 653.5 km/s
Geomagnetic conditions	max KBel: 6.0, max Kp(NOAA): 7.33, **Major Storm conditions**

All Quiet Alert: OFF

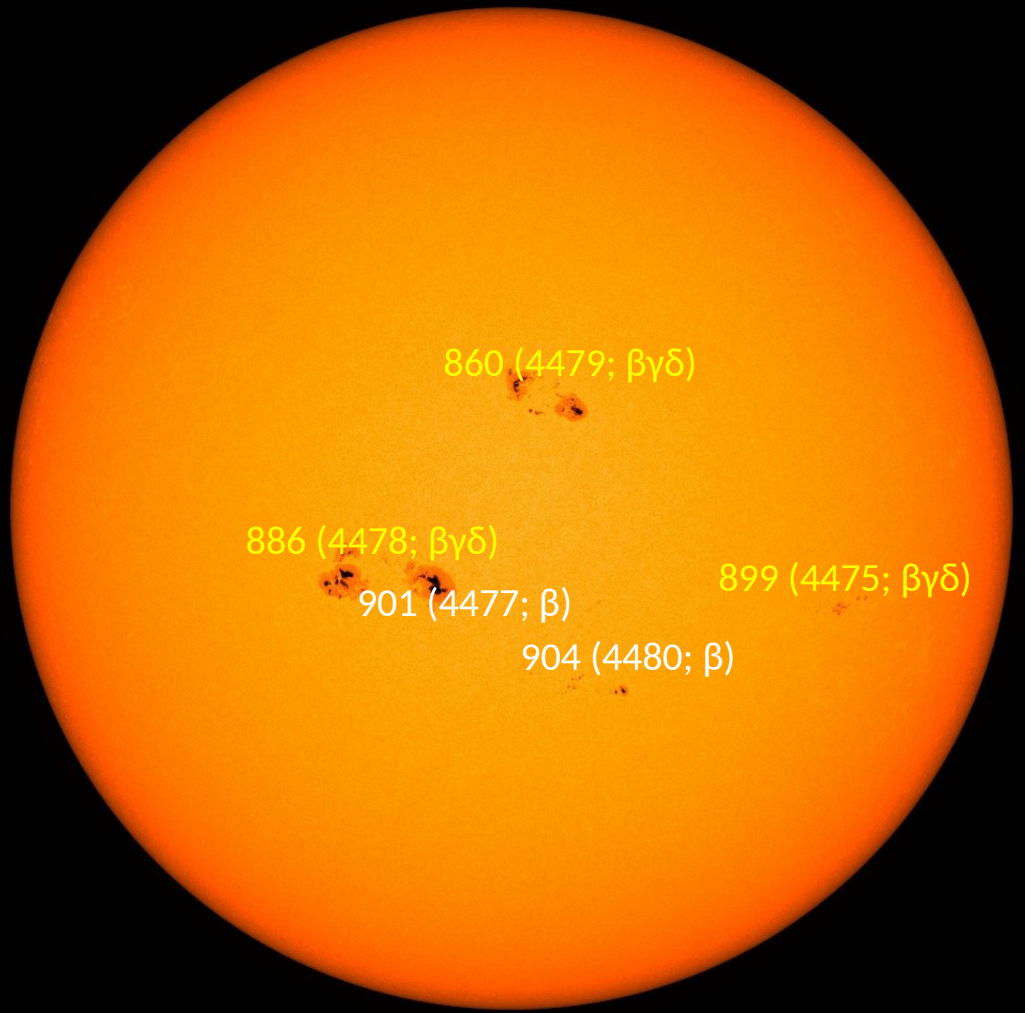
Solar Activity

Royal Observatory
of Belgium

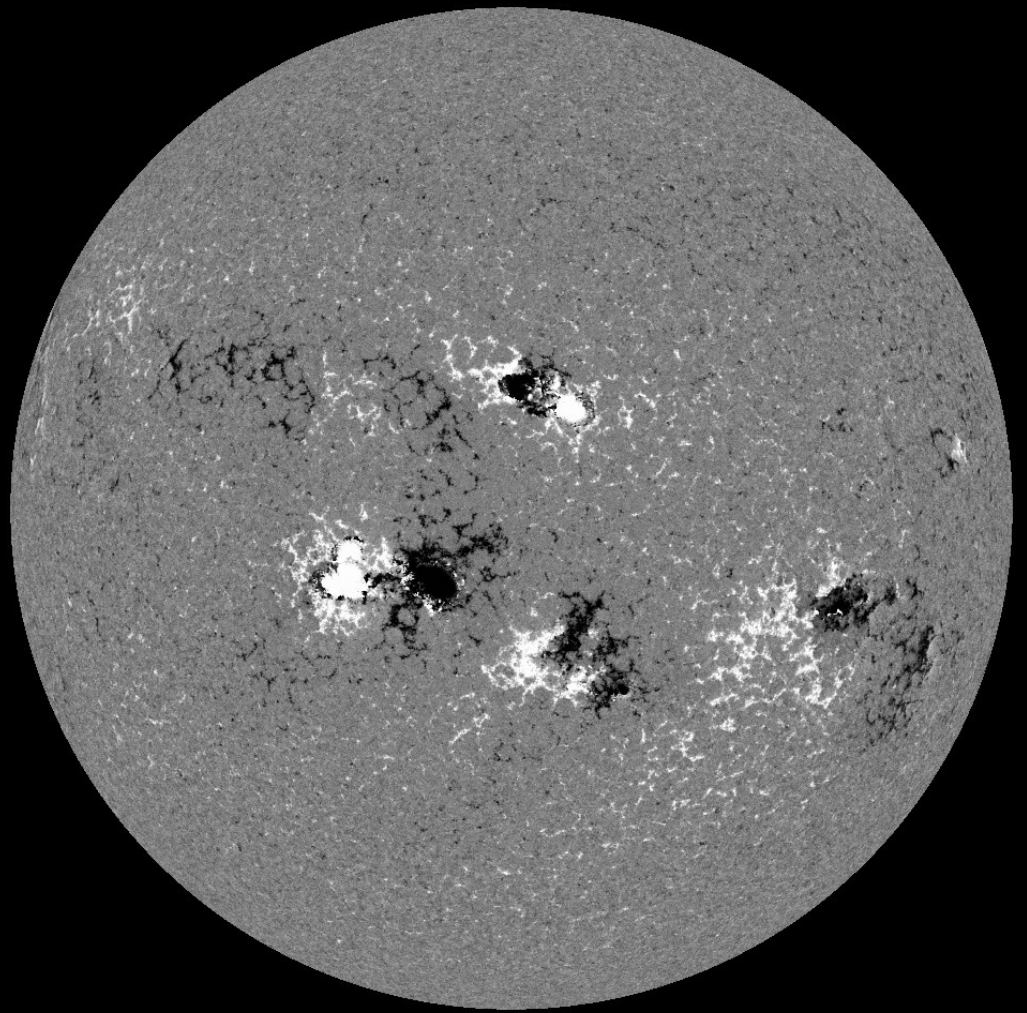
Solar Influences
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Solar active regions

SDO/HMI White Light 2026-06-29

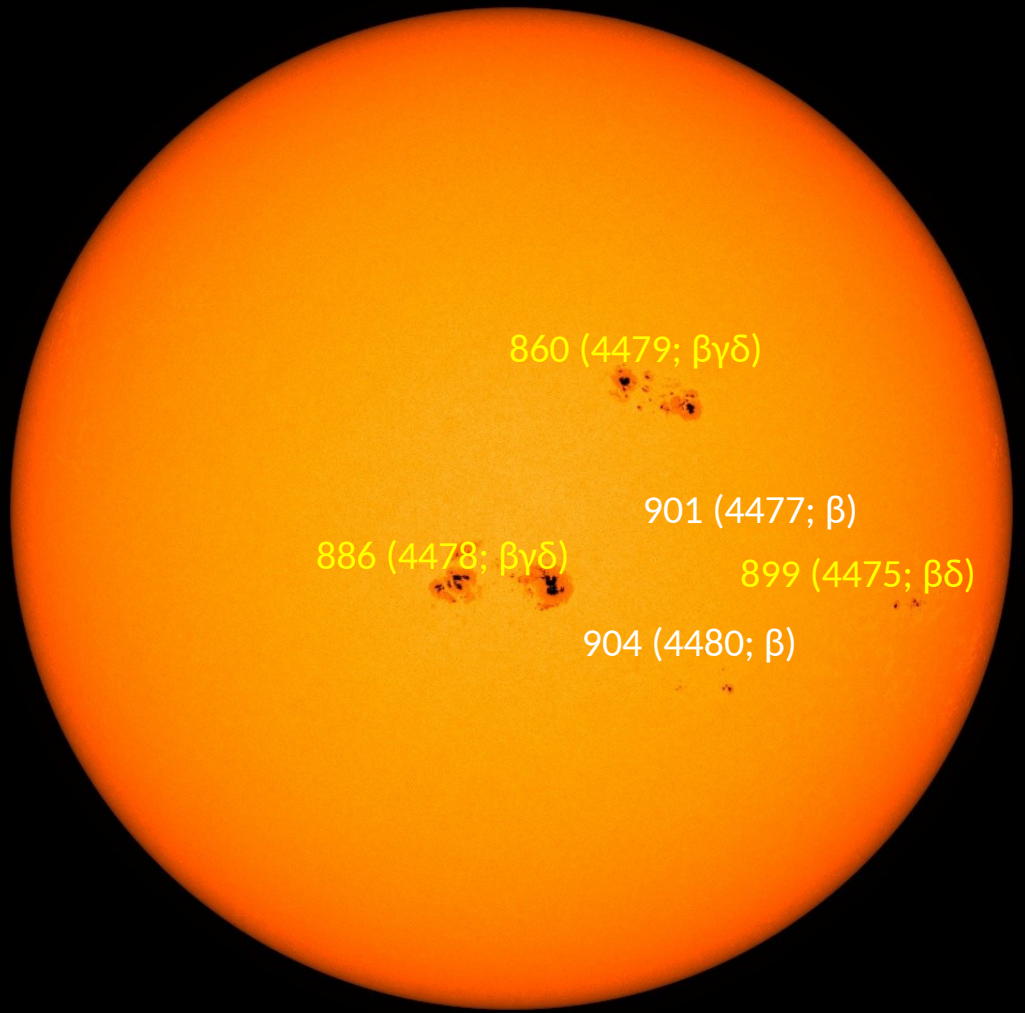


SDO/HMI Magnetogram 2026-06-29

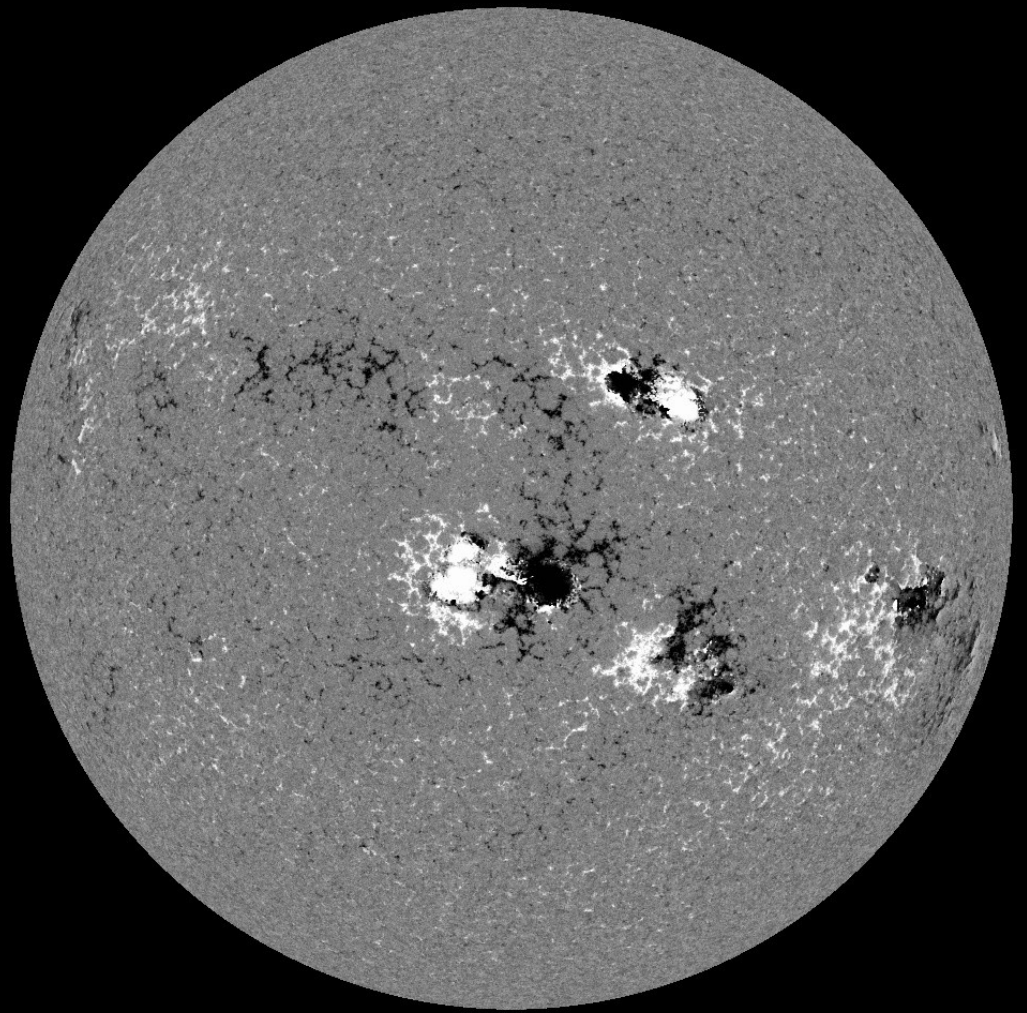


Solar active regions

SDO/HMI White Light 2026-06-30

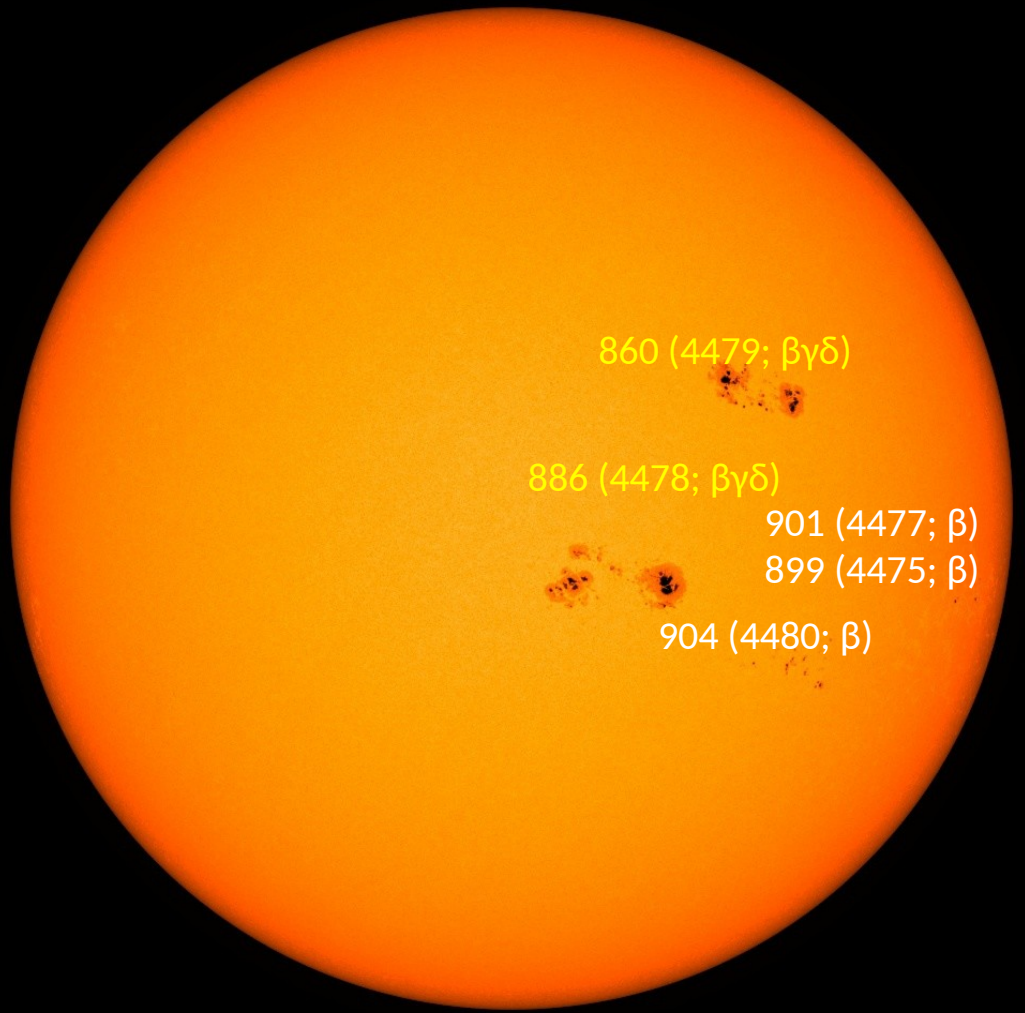


SDO/HMI Magnetogram 2026-06-30

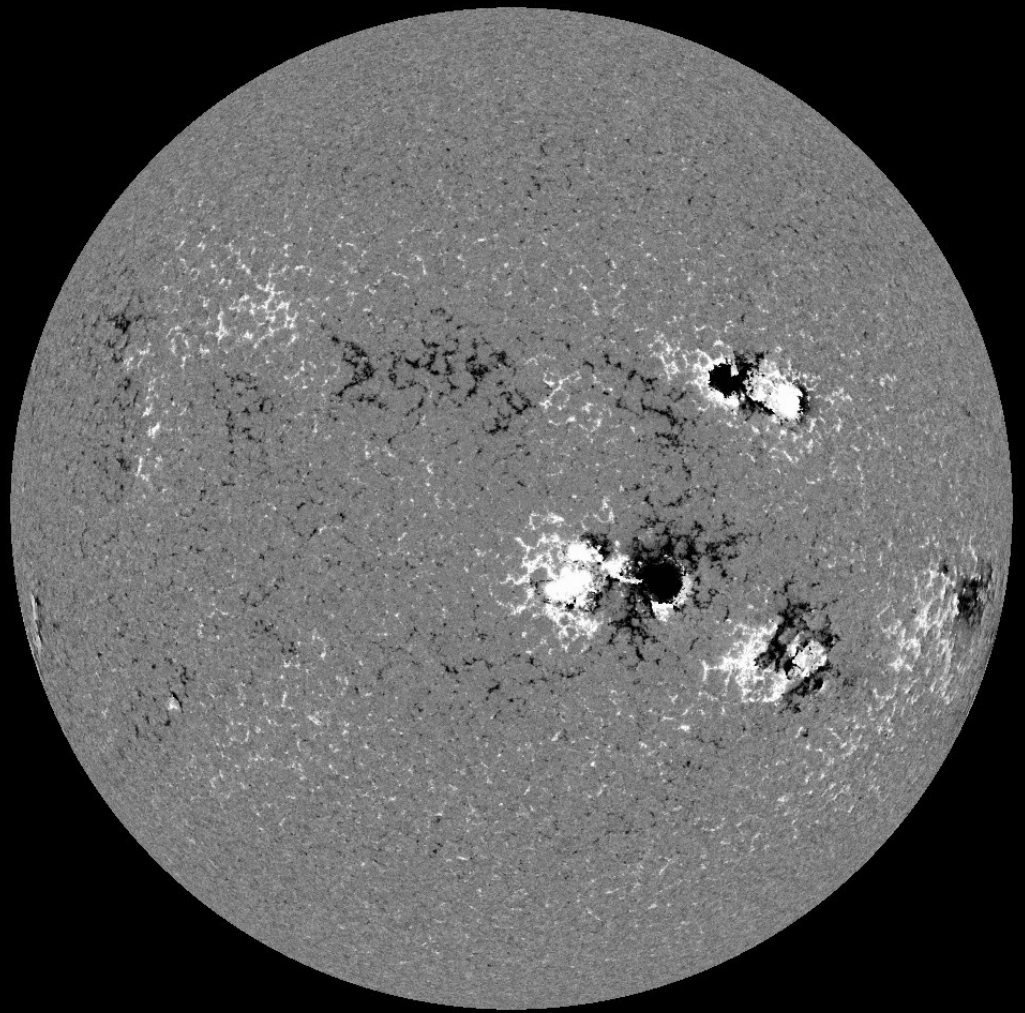


Solar active regions

SDO/HMI White Light 2026-07-01

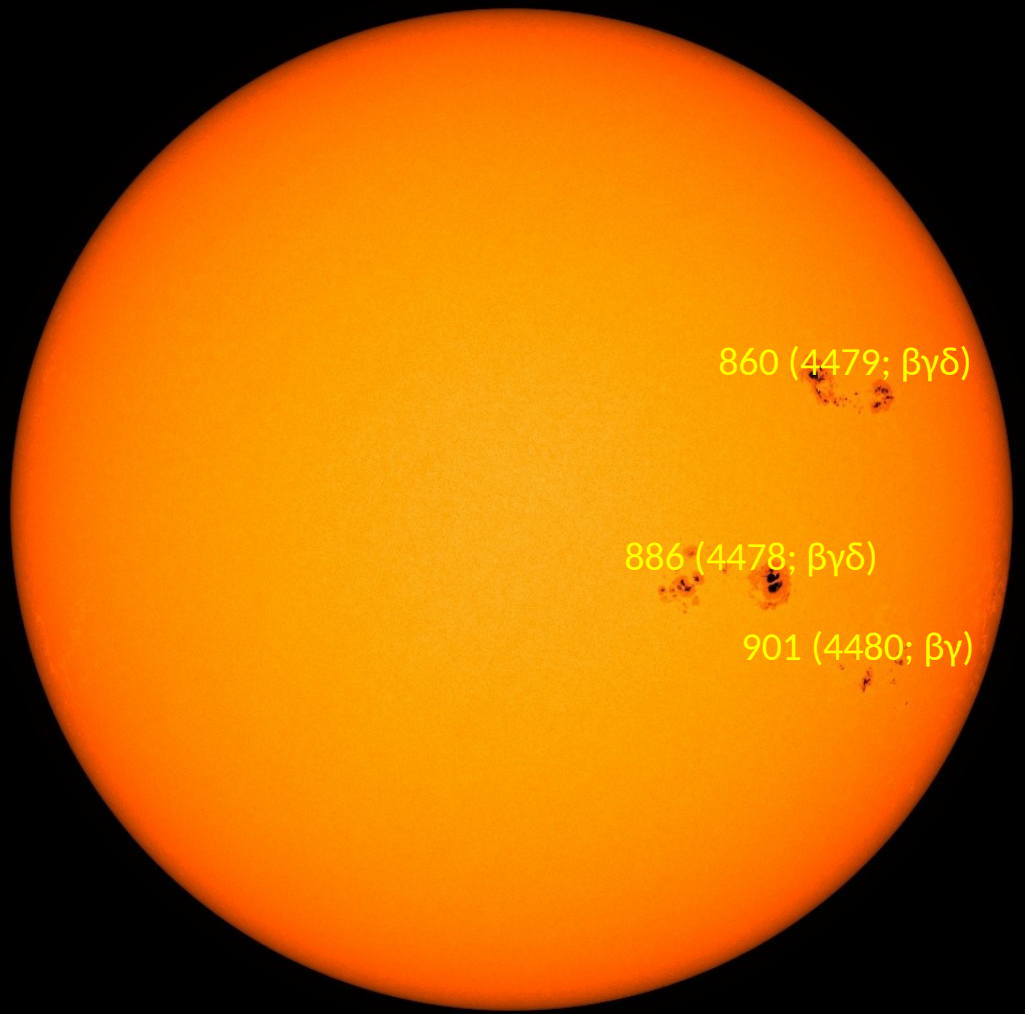


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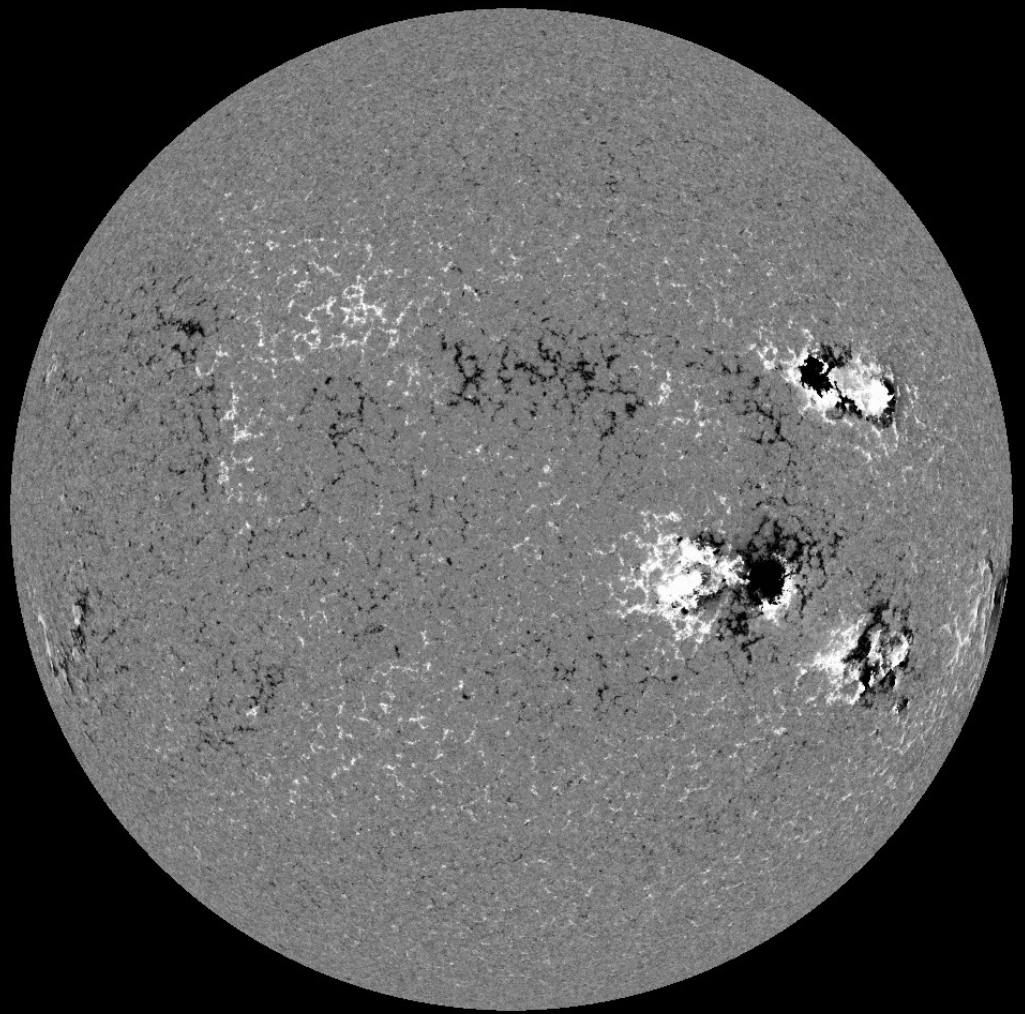


Solar active regions

SDO/HMI White Light 2026-07-02

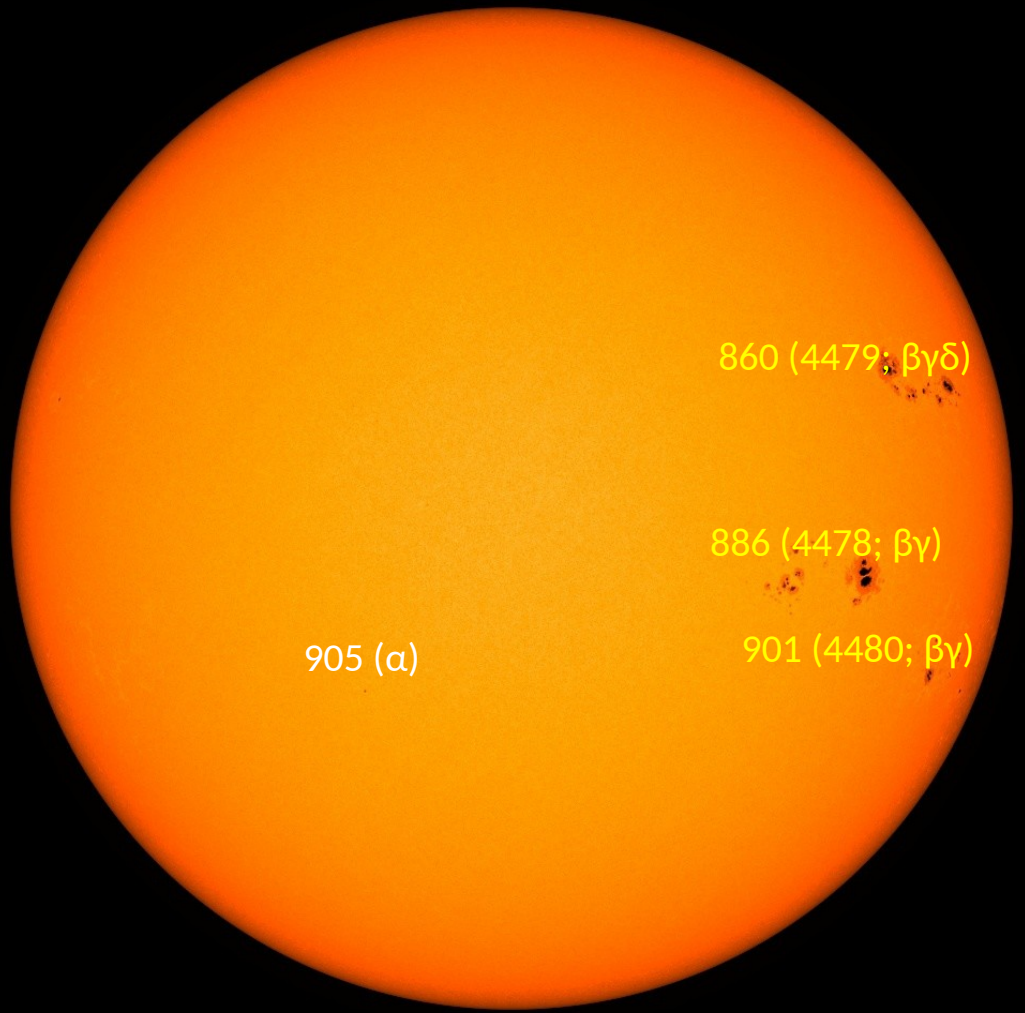


SDO/HMI Magnetogram 2026-07-02

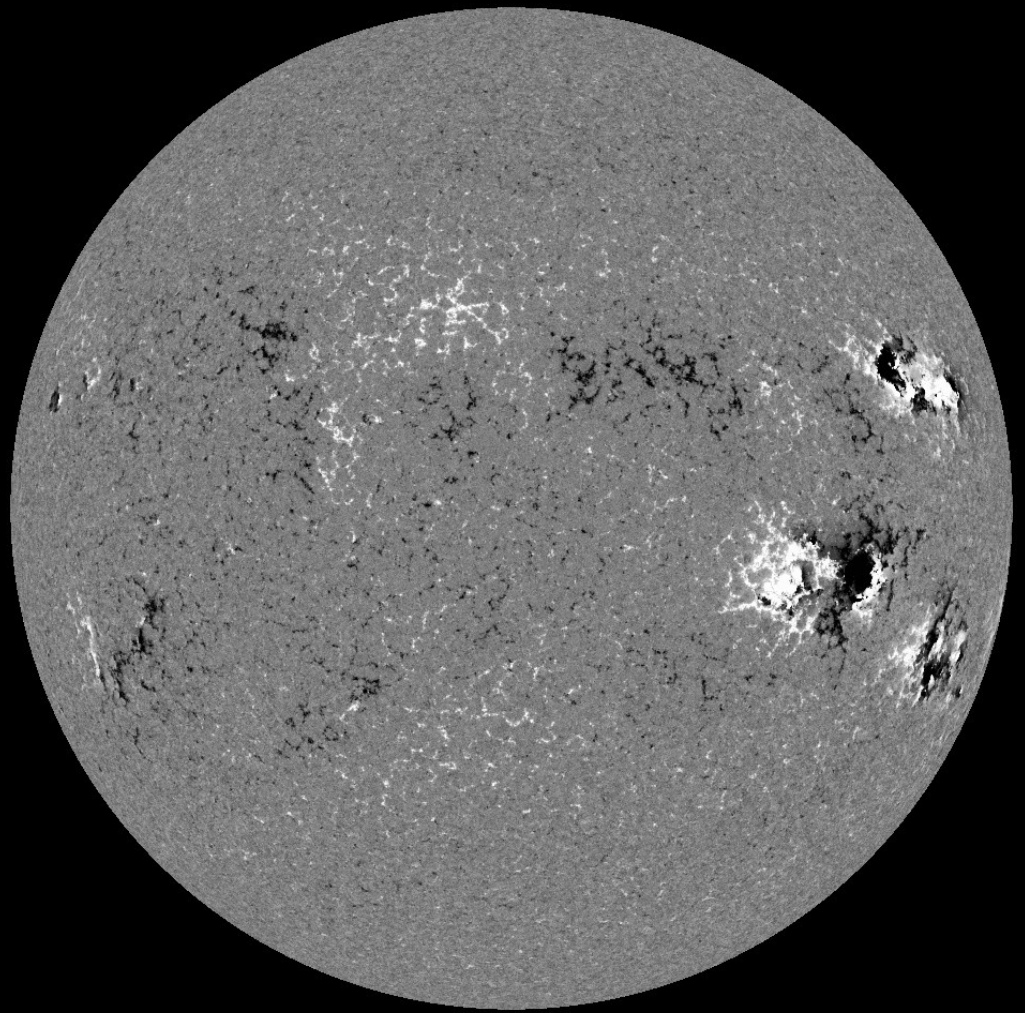


Solar active regions

SDO/HMI White Light 2026-07-03

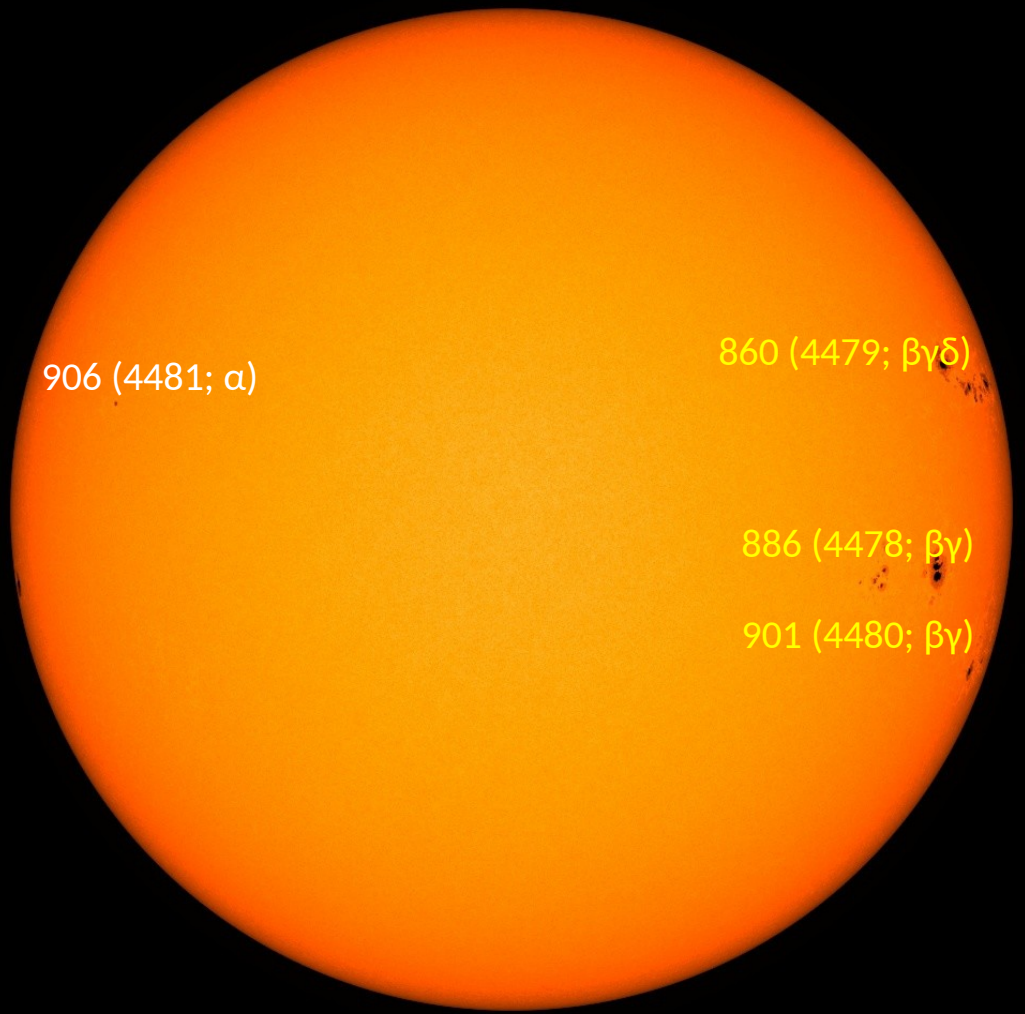


SDO/HMI Magnetogram 2026-07-03

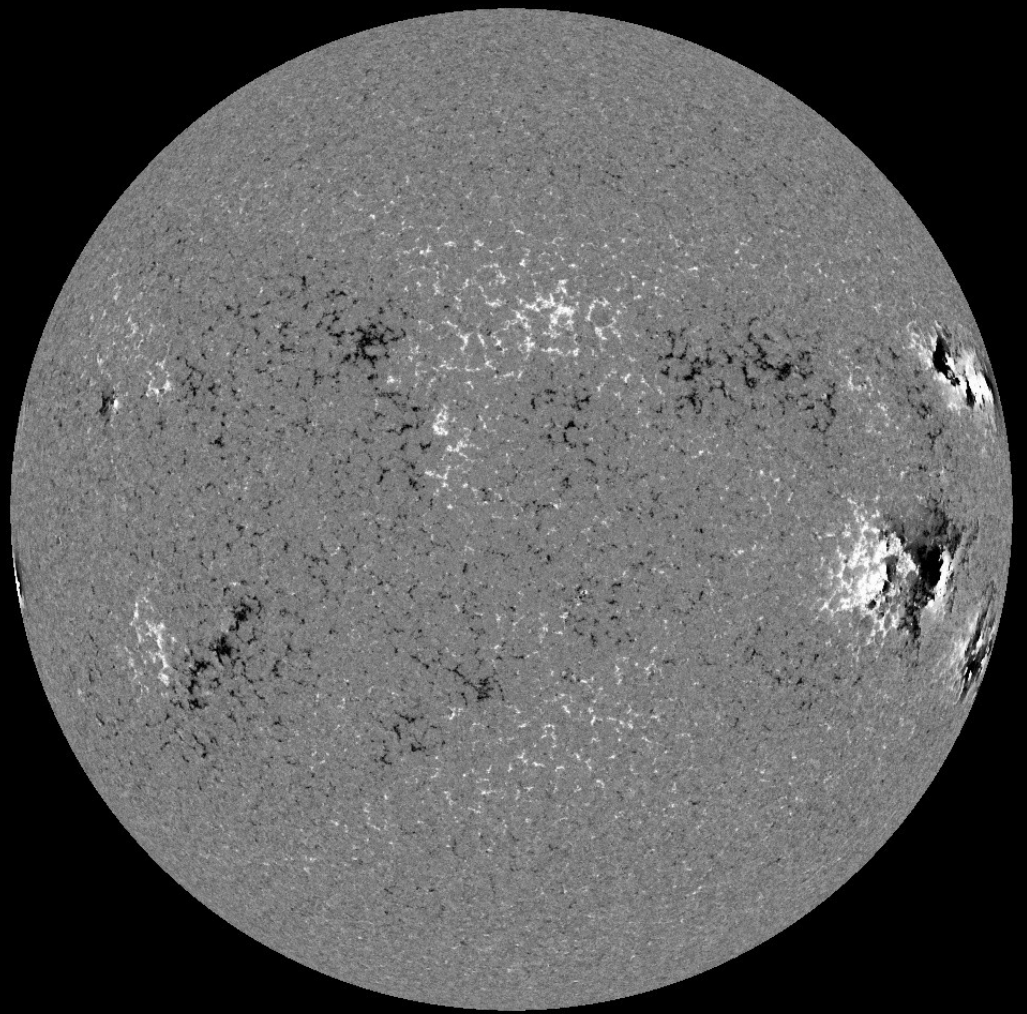


Solar active regions

SDO/HMI White Light 2026-07-04

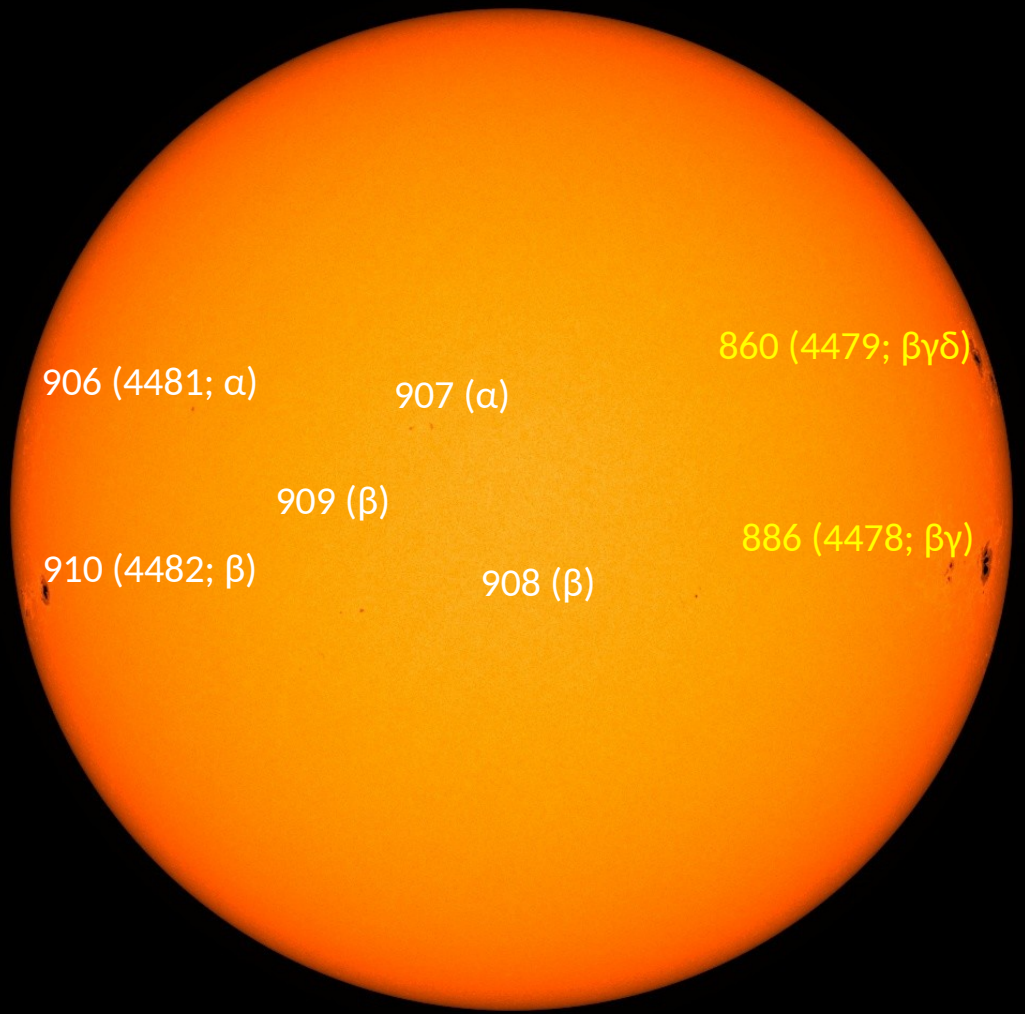


SDO/HMI Magnetogram 2026-07-04

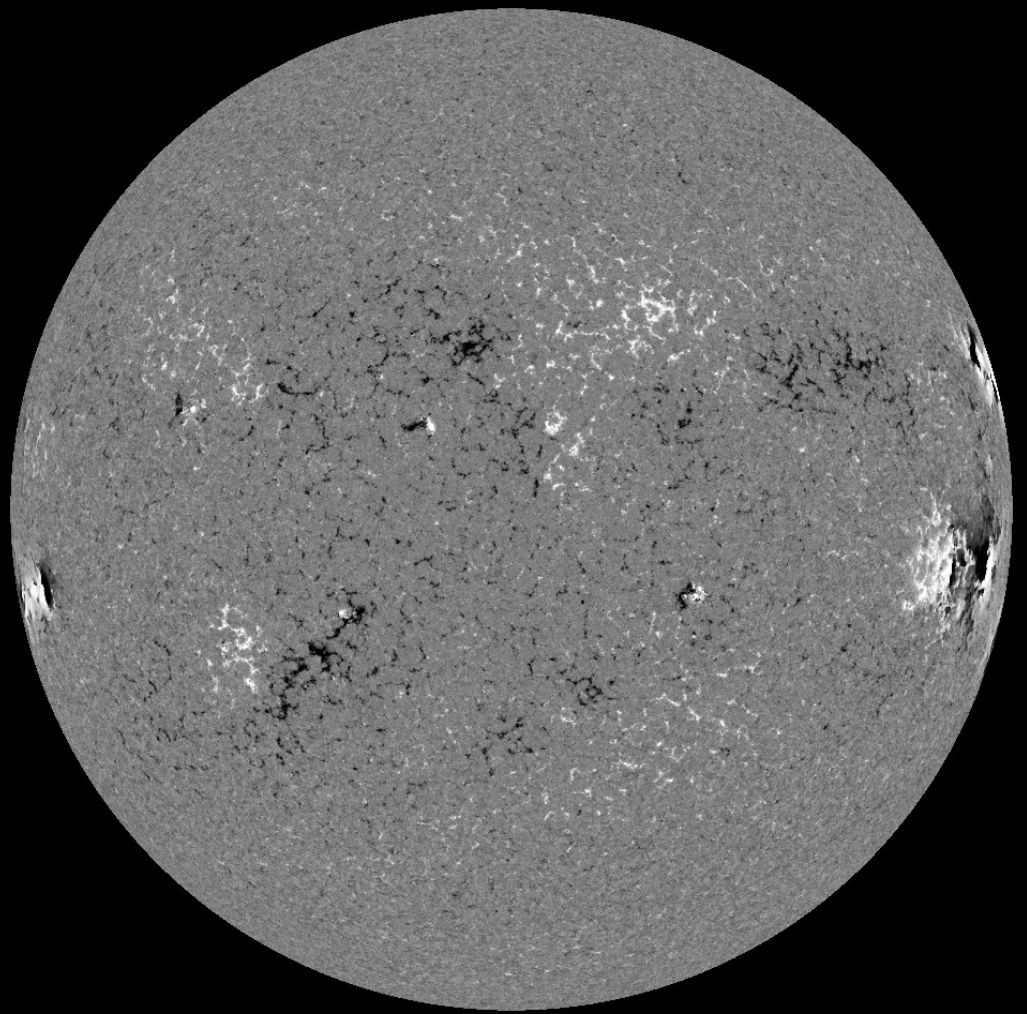


Solar active regions

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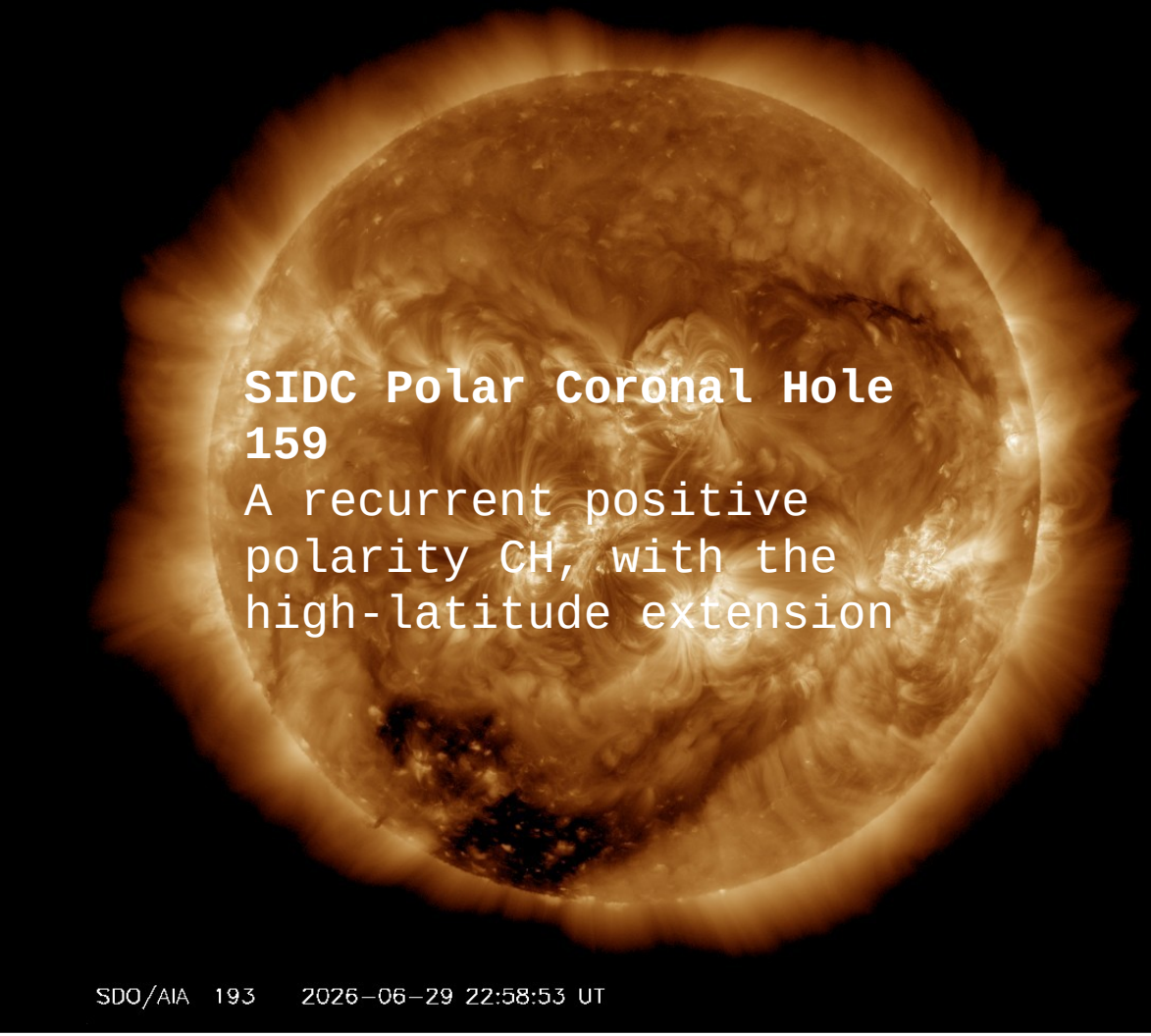


SDO/HMI Magnetogram 2026-07-05

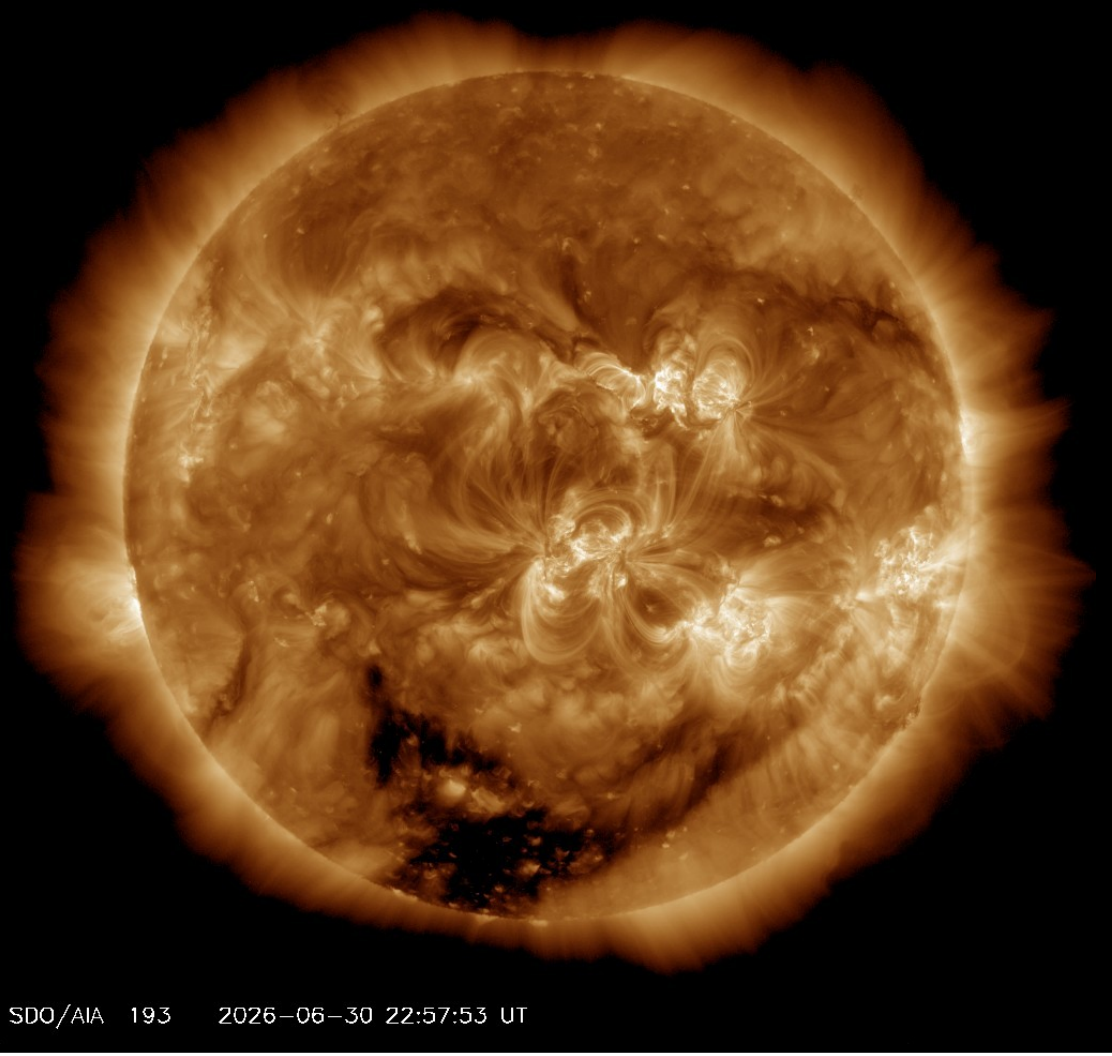


Coronal holes

SDO/AIA 19.3 nm 2026-06-29

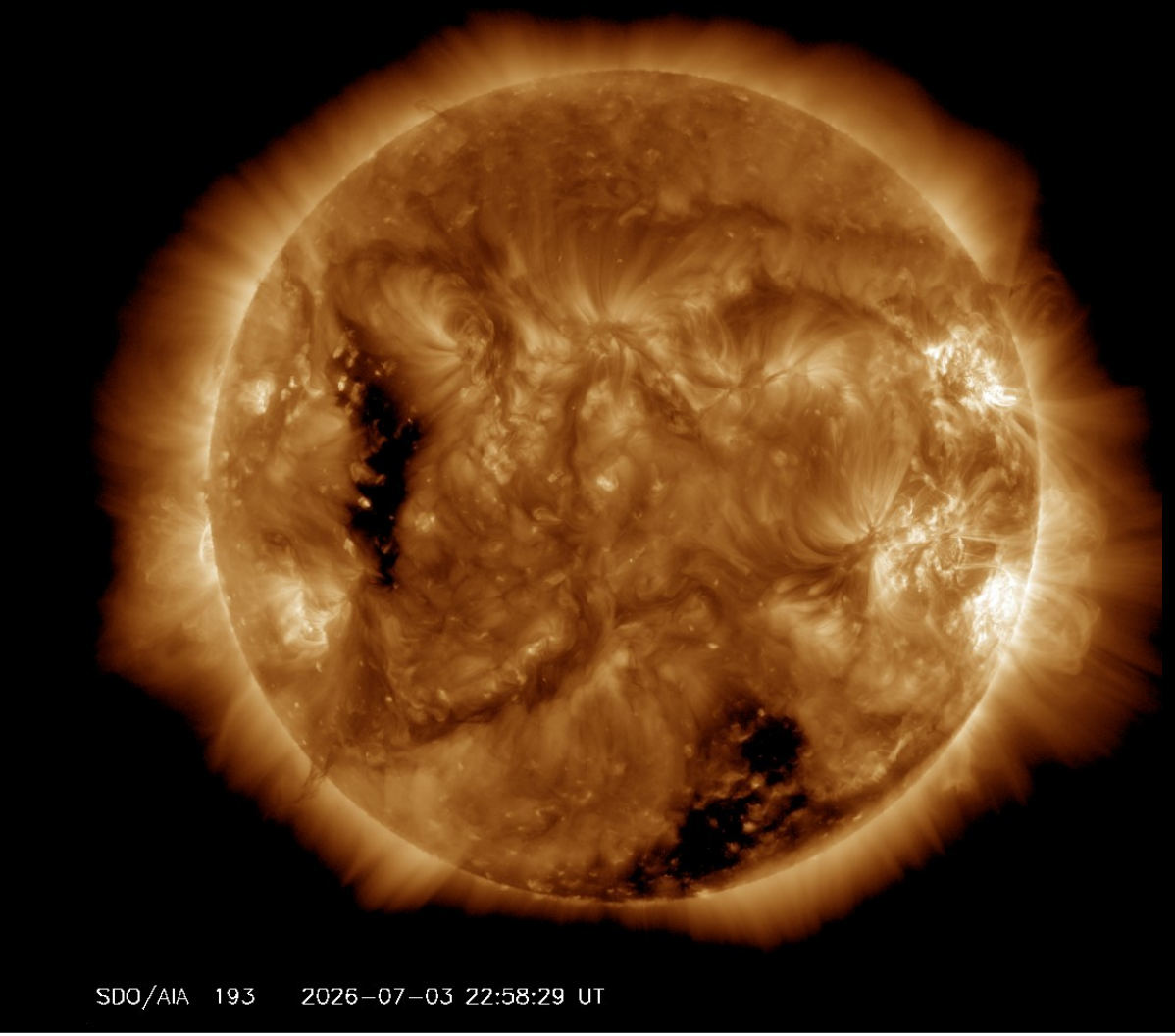


SDO/AIA 19.3 nm 2026-06-30

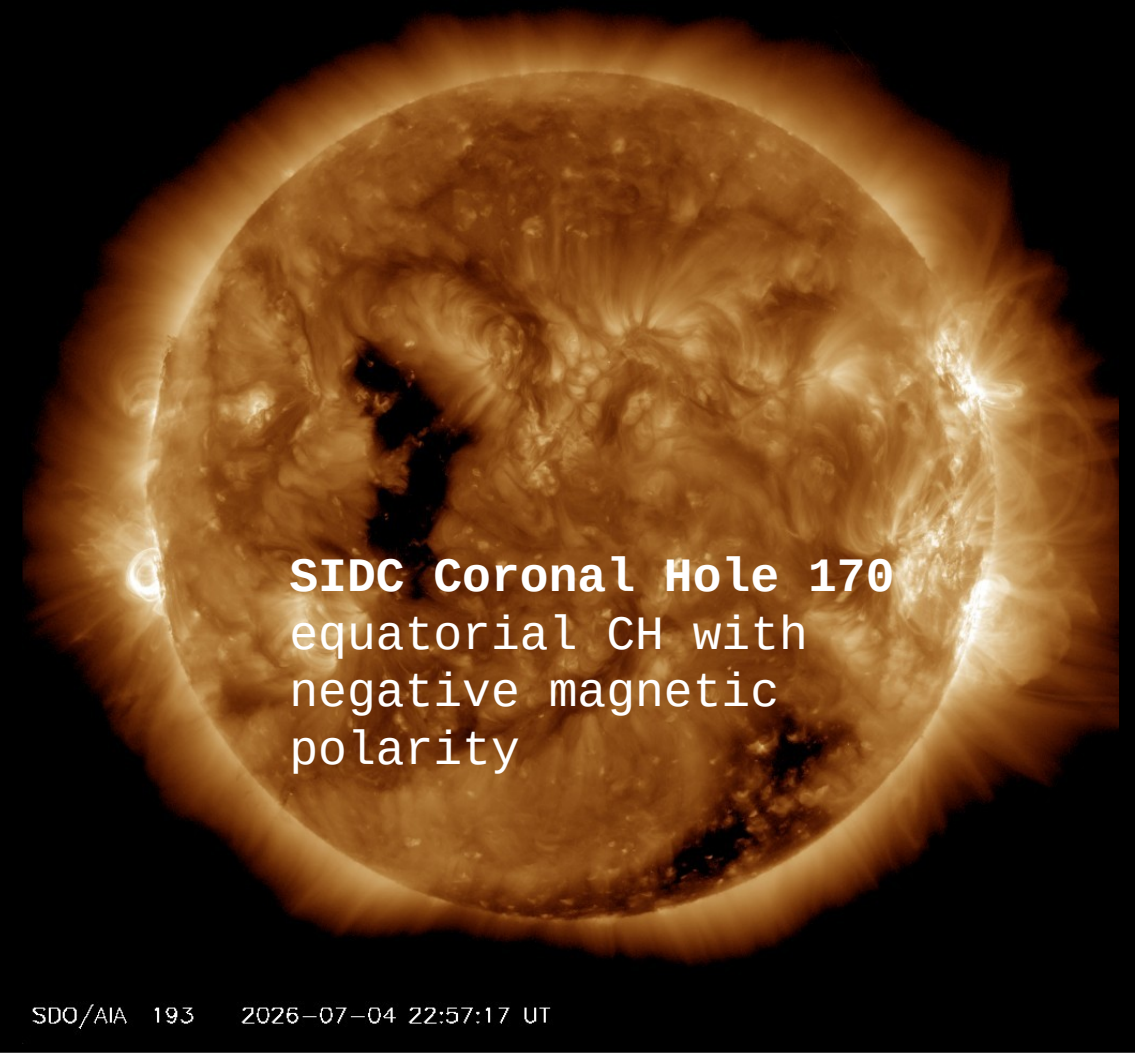


Coronal holes

SDO/AIA 19.3 nm 2026-07-03

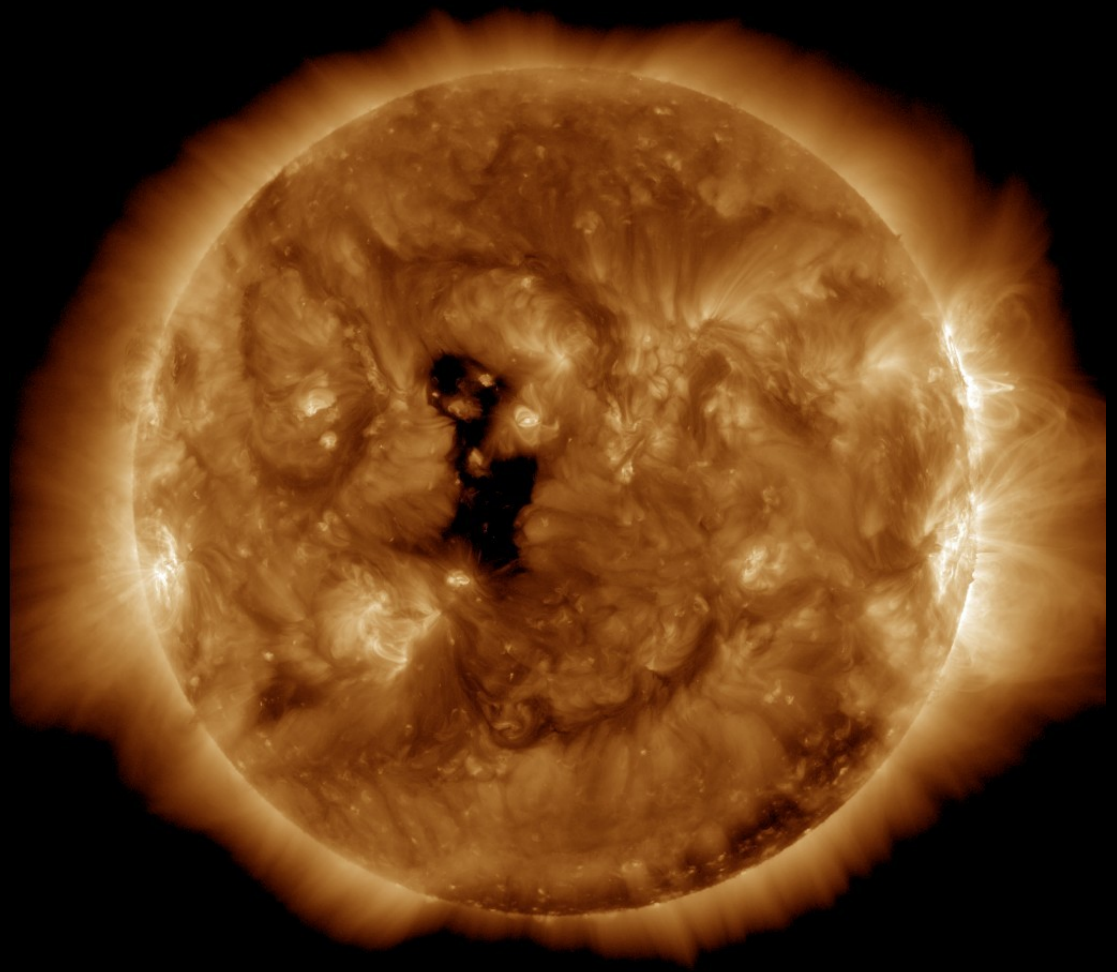


SDO/AIA 19.3 nm 2026-07-04

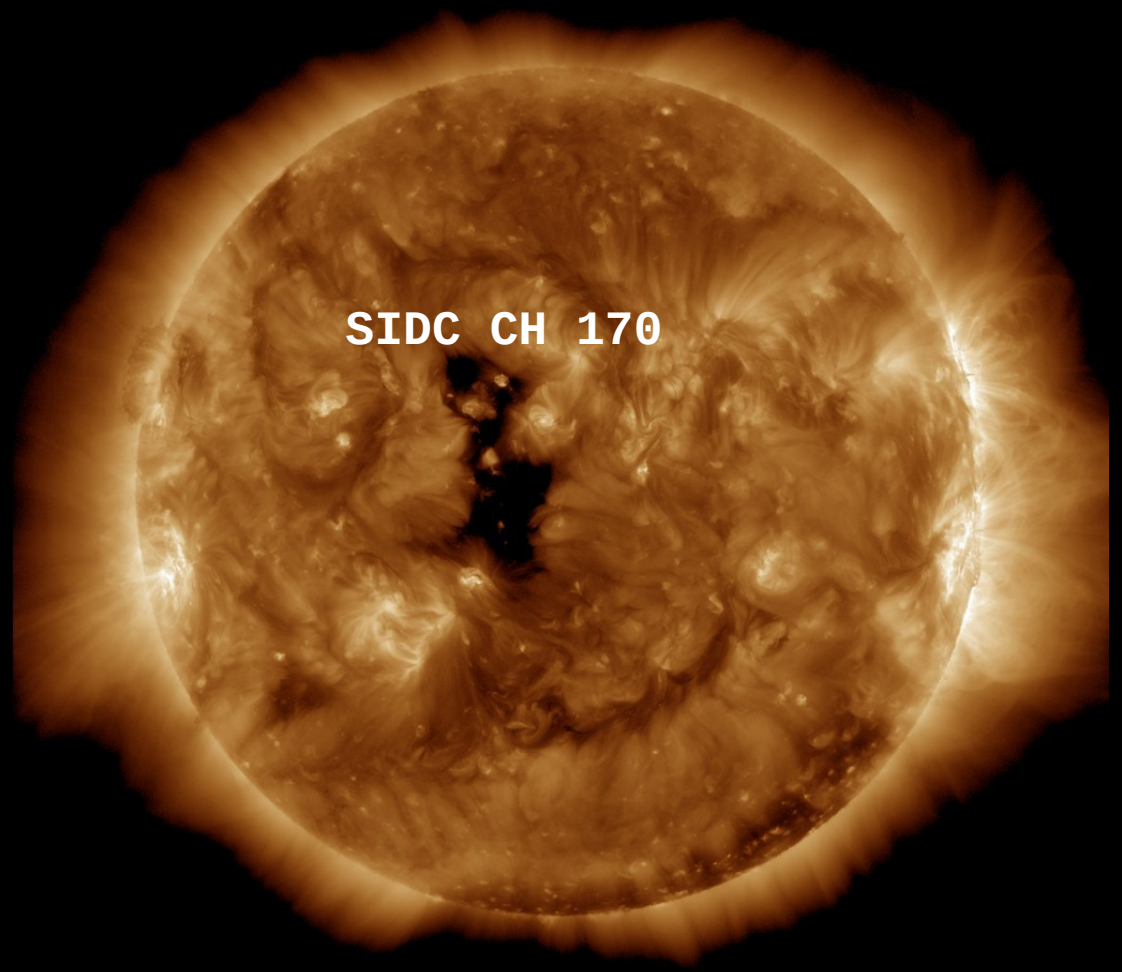


Coronal holes

SDO/AIA 19.3 nm 2026-07-05

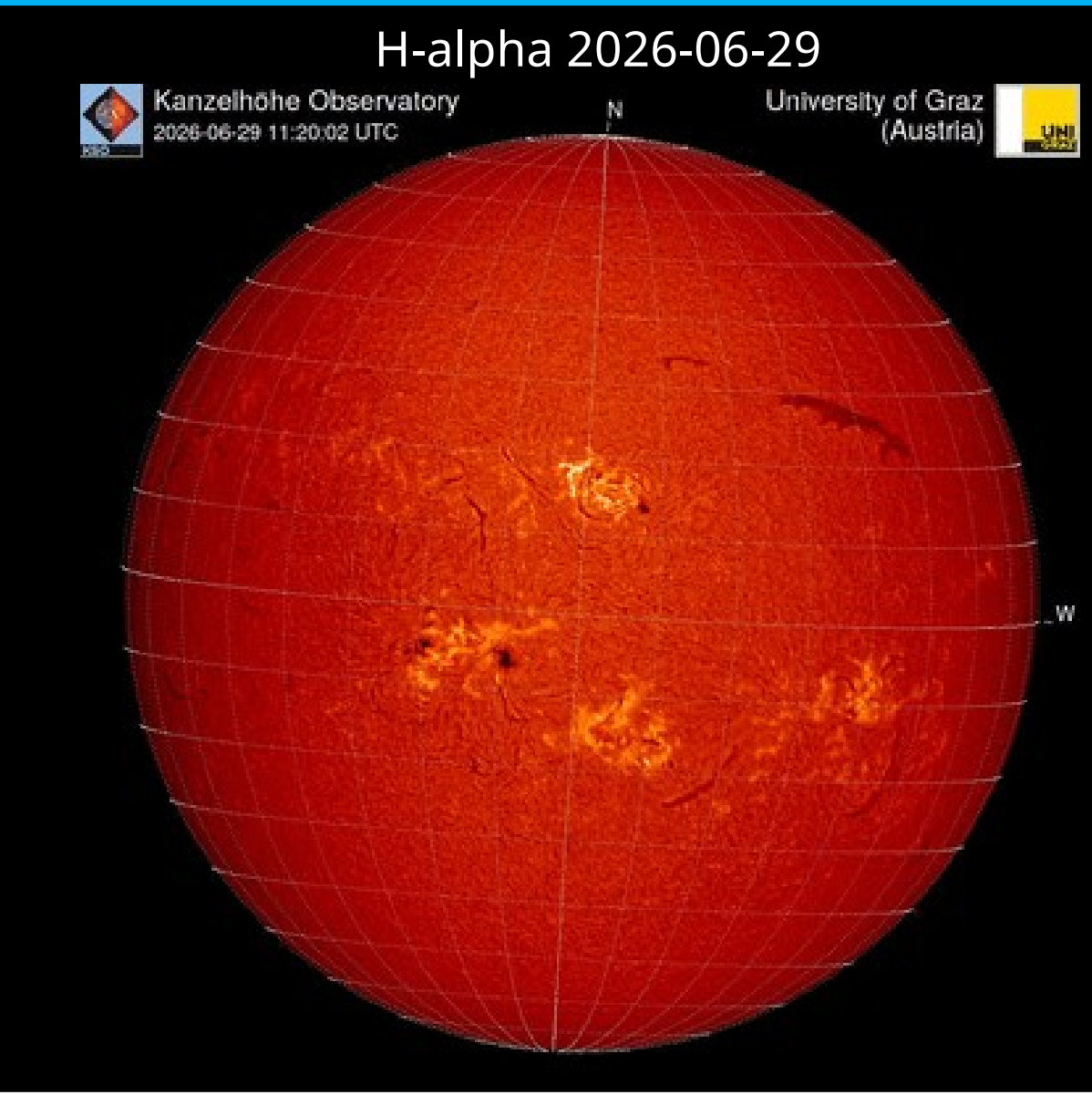


SDO/AIA 19.3 nm 2026-07-06

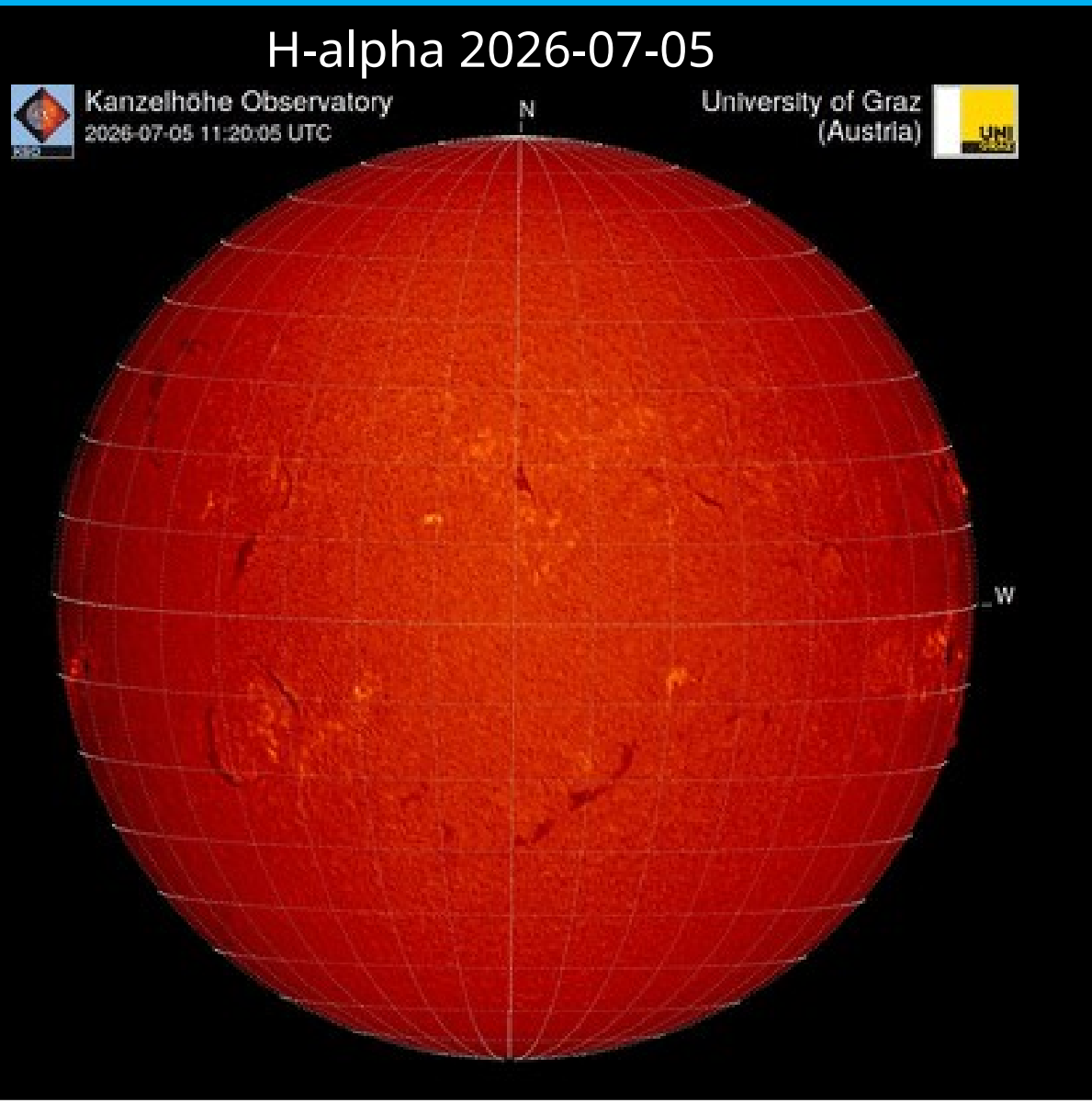


Filaments & Filament eruptions

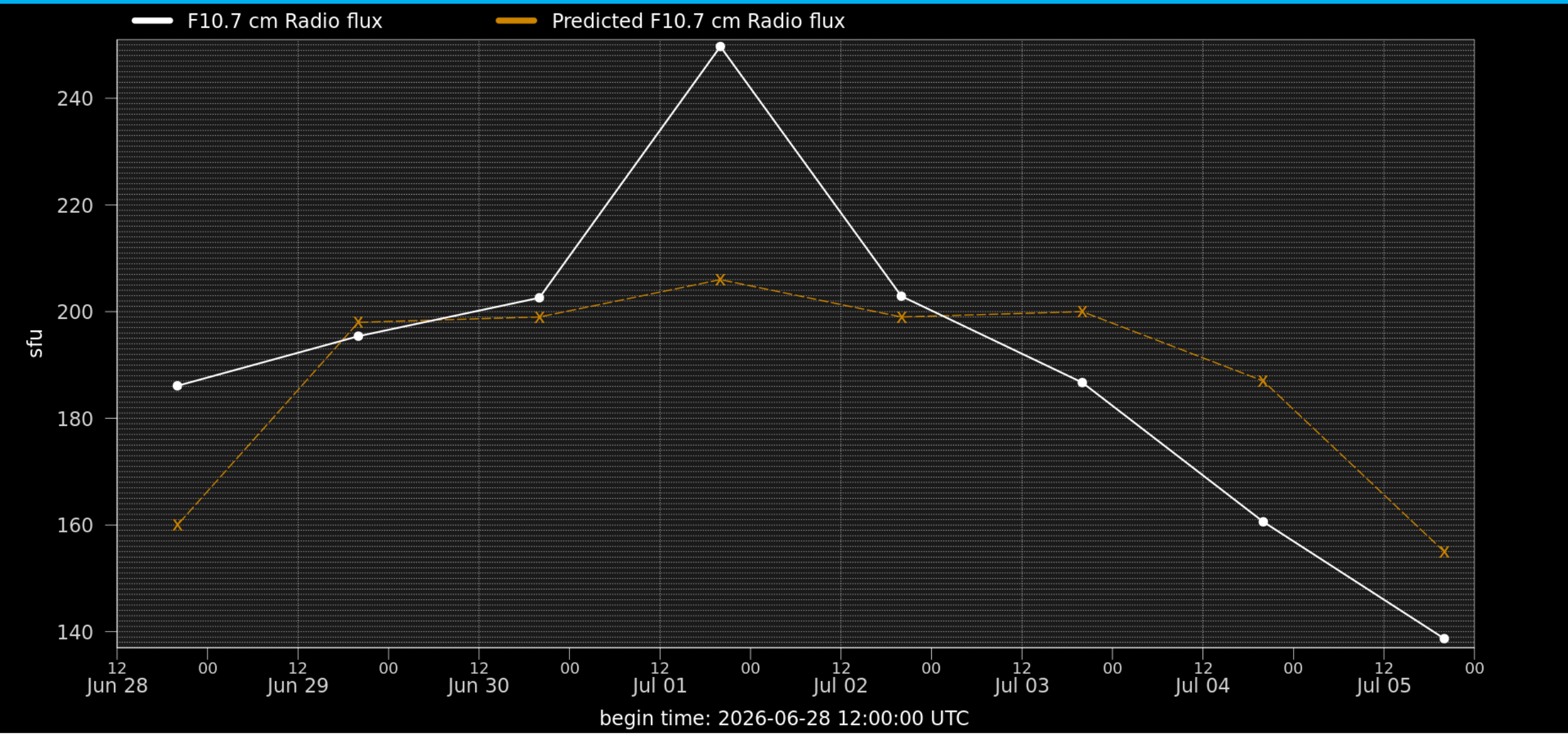
H-alpha 2026-06-29



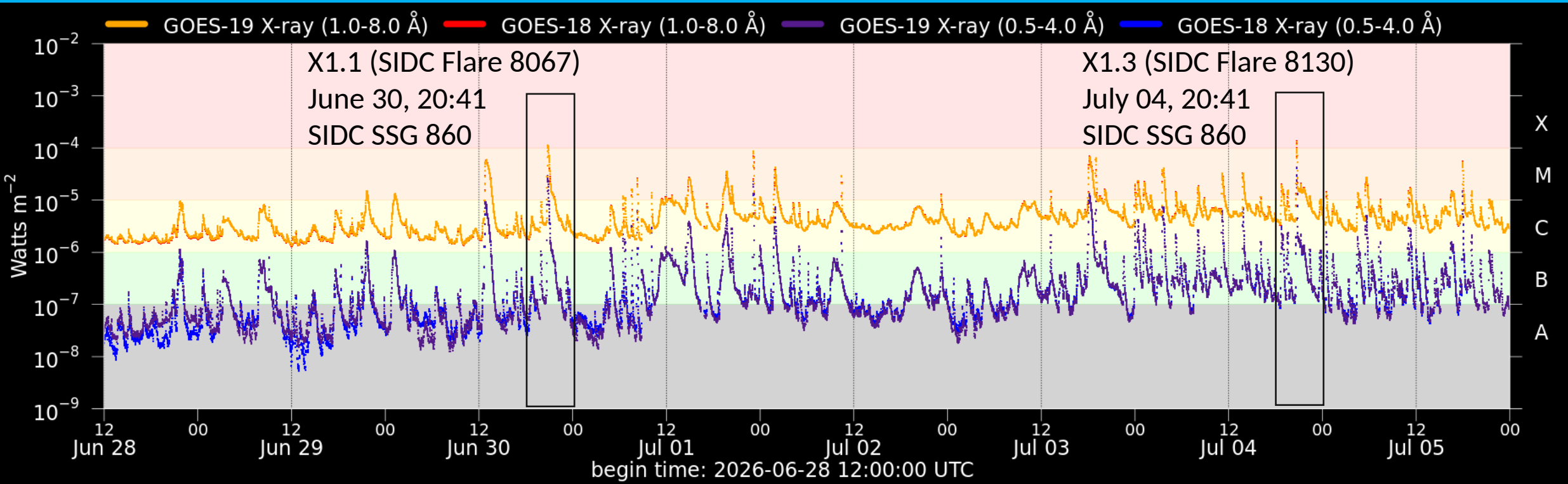
H-alpha 2026-07-05



Solar F10.7cm radio flux



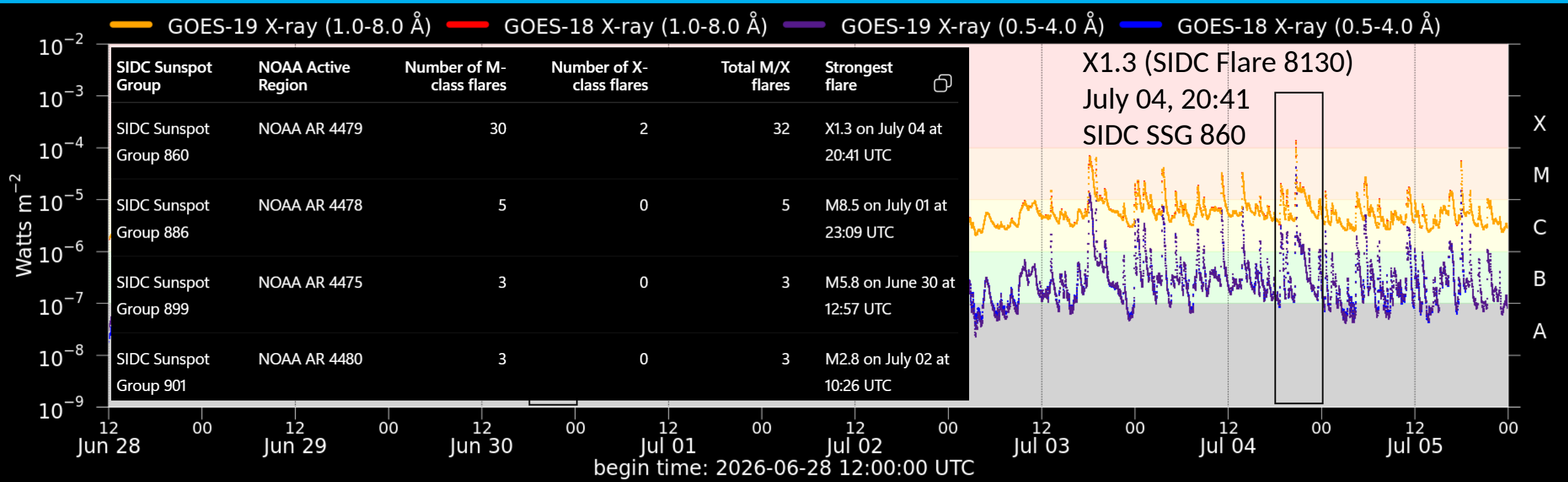
Flaring activity



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

Issue date	2026-06-28	2026-06-29	2026-06-30	2026-07-01	2026-07-02	2026-07-03	2026-07-04	2026-07-05
Probability (%)	99|80|06	99|80|19	99|80|15	99|86|43	99|91|26	99|93|15	99|99|28	99|98|36
Observed (#)	08|00|00	08|02|00	07|04|01	05|08|00	02|01|00	02|13|00	06|12|01	07|04|00

Flaring activity

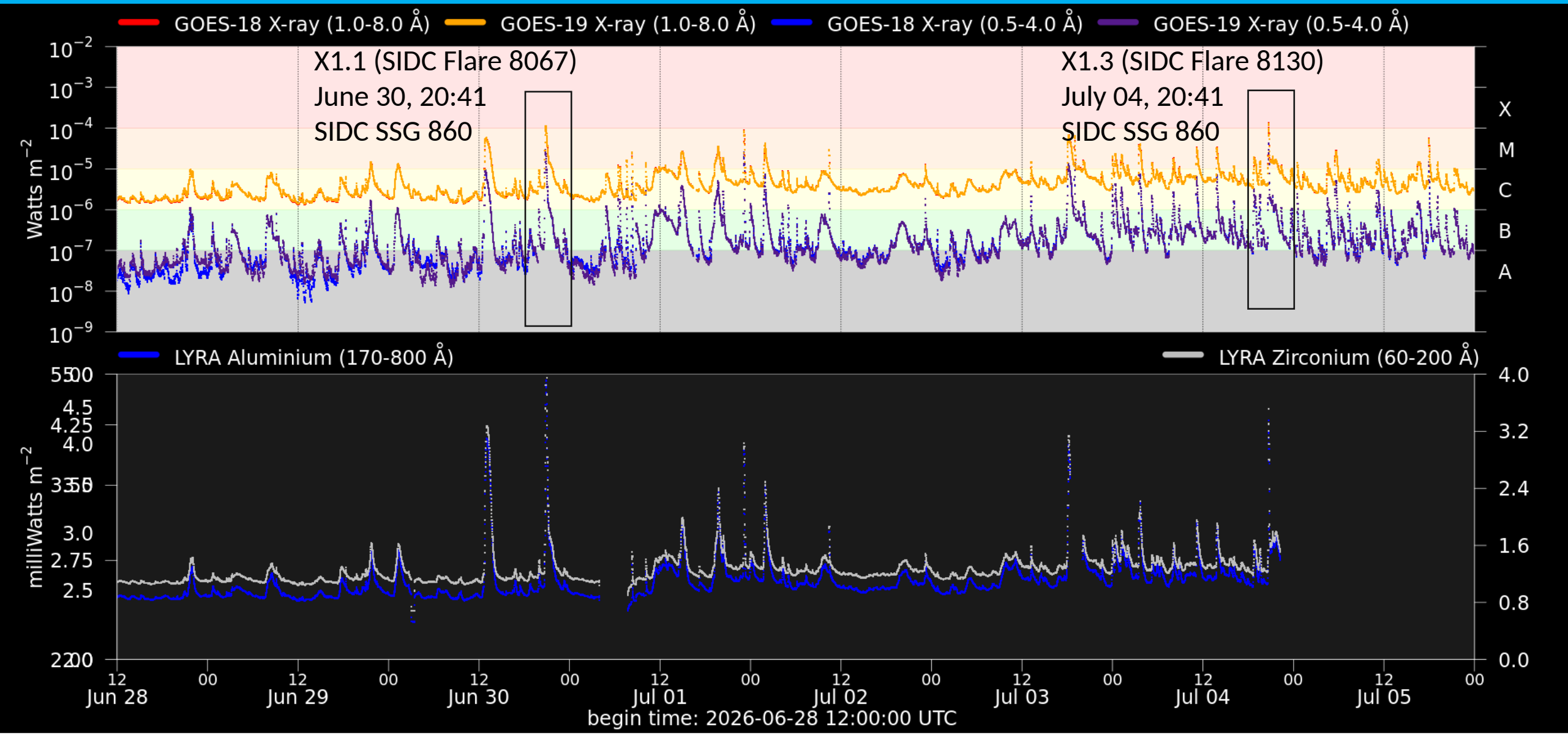


SIDC Sunspot Group	NOAA Active Region	Number of M-class flares	Number of X-class flares	Total M/X flares	Strongest flare
SIDC Sunspot Group 860	NOAA AR 4479	30	2	32	X1.3 on July 04 at 20:41 UTC
SIDC Sunspot Group 886	NOAA AR 4478	5	0	5	M8.5 on July 01 at 23:09 UTC
SIDC Sunspot Group 899	NOAA AR 4475	3	0	3	M5.8 on June 30 at 12:57 UTC
SIDC Sunspot Group 901	NOAA AR 4480	3	0	3	M2.8 on July 02 at 10:26 UTC

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

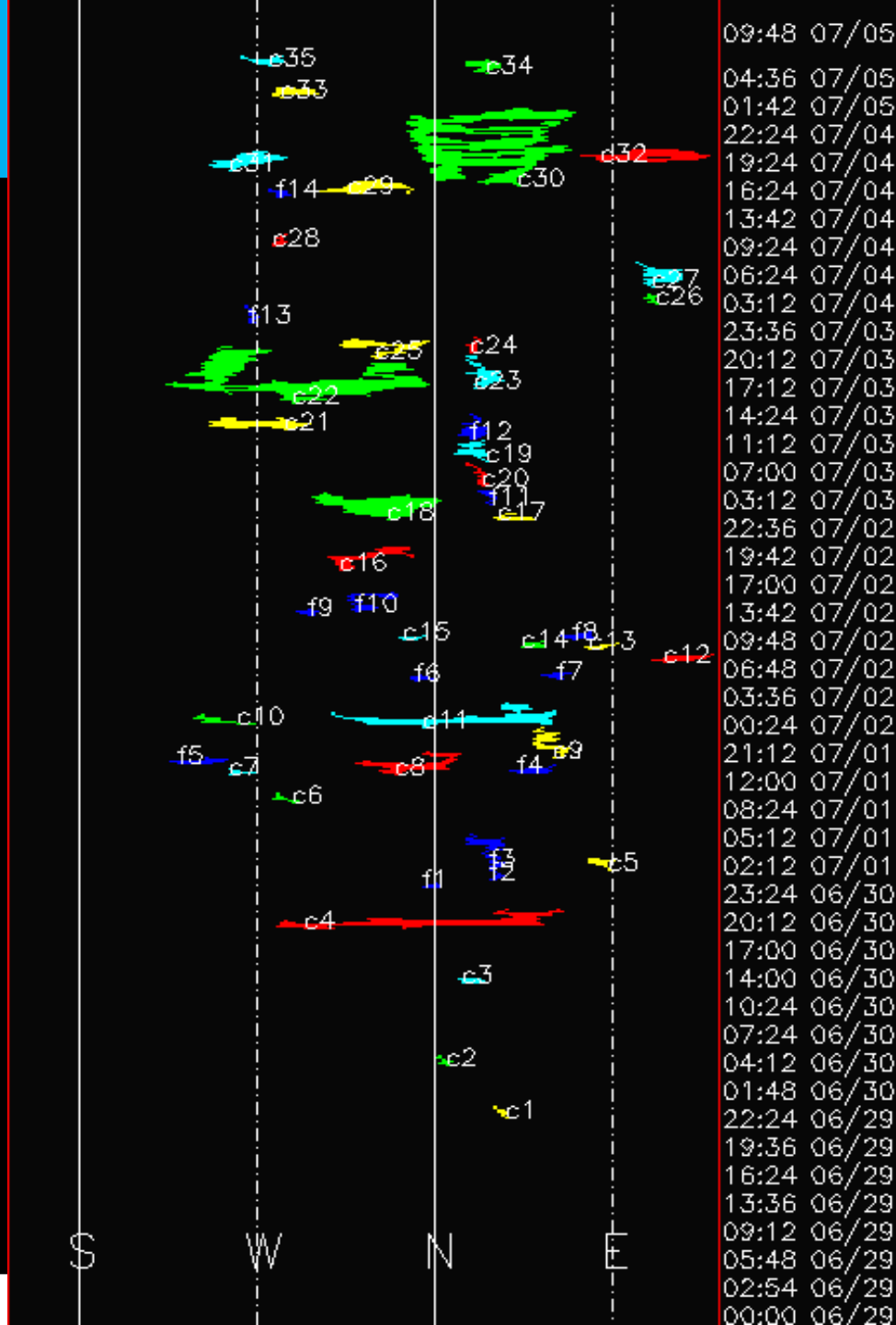
Issue date	2026-06-28	2026-06-29	2026-06-30	2026-07-01	2026-07-02	2026-07-03	2026-07-04	2026-07-05
Probability (%)	99|80|06	99|80|19	99|80|15	99|86|43	99|91|26	99|93|15	99|99|28	99|98|36
Observed (#)	08|00|00	08|02|00	07|04|01	05|08|00	02|01|00	02|13|00	06|12|01	07|04|00

Solar X-Ray and UV flux

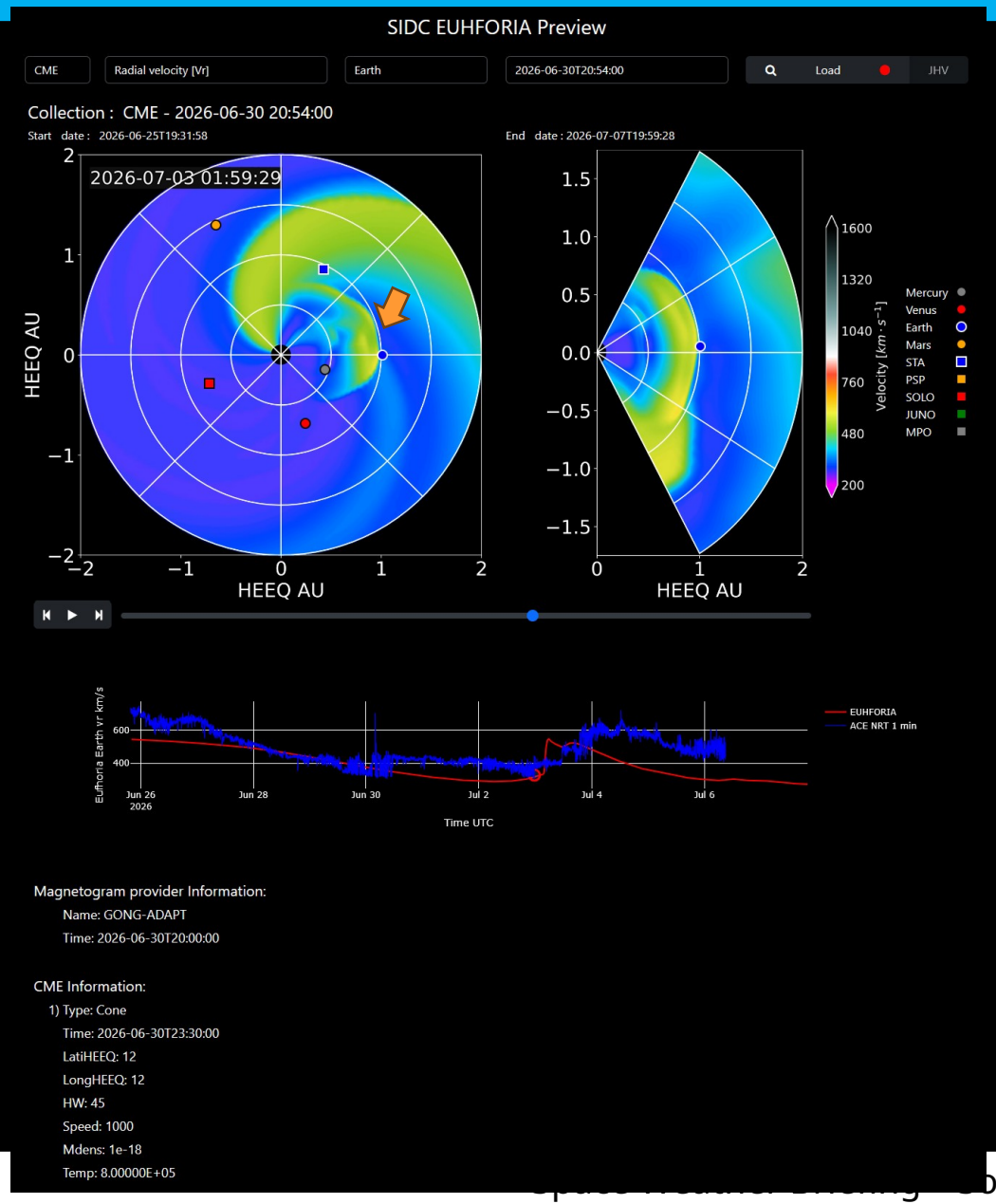


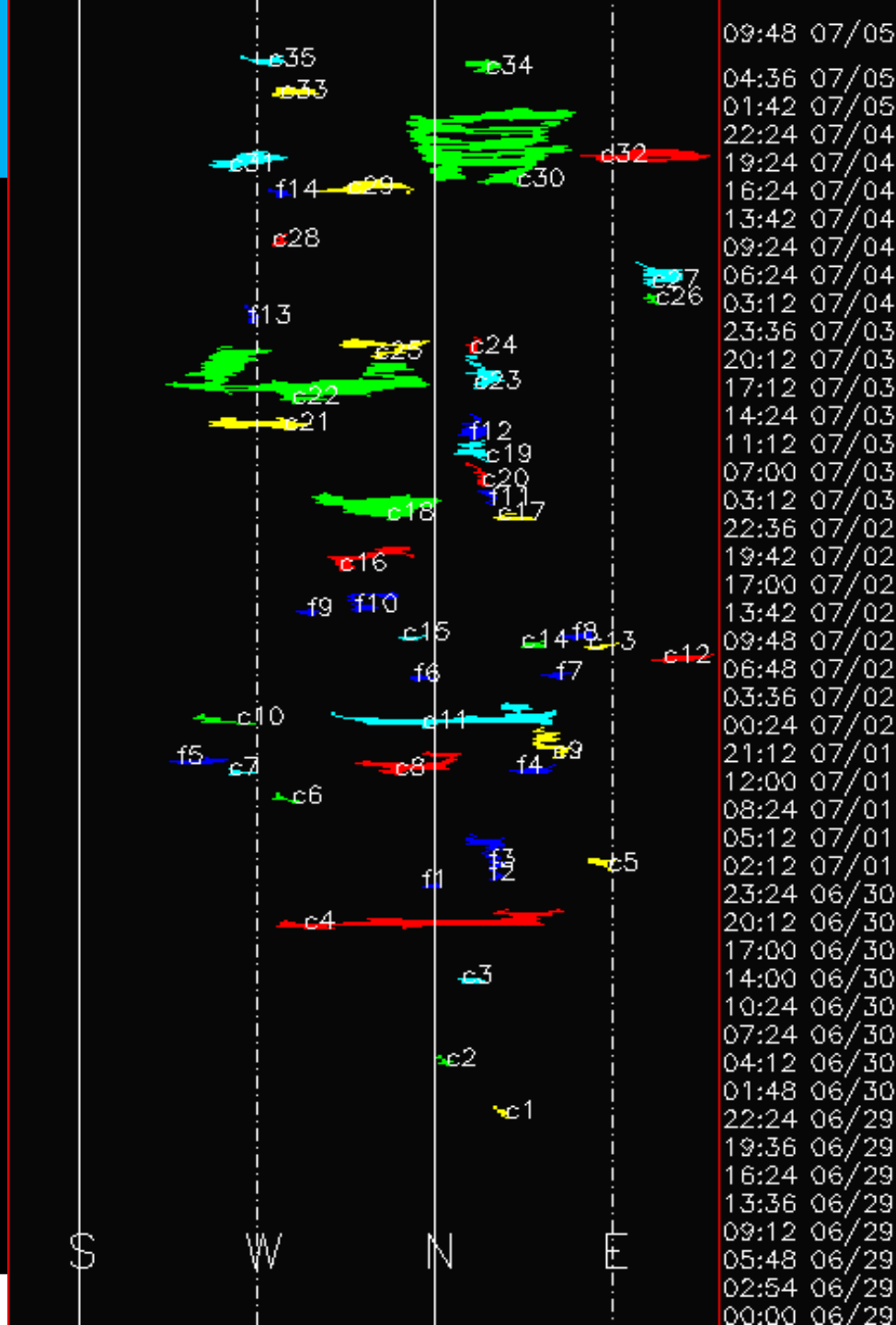
Coronal Mass Ejections

SIDC CME	Time	Flare, sunspot group and radio association	Plane-of-sky speed / true speed	Expected arrival / observed arrival
679	June 30, 21:00 UTC	X1.1 flare (SIDC Flare 8067), peaking on June 30 at 20:50 UTC, from SIDC Sunspot Group 860 (NOAA Active Region 4479), near N16W21. Associated with a Type II radio burst starting at 20:44 UTC.	Plane-of-sky speed: about 750 km/s, halo width about 220°. True speed: about 1000 km/s, direction N12W12.	**Expected arrival:** July 03 at 08:00 UTC ± 12 h, confidence 80%. **Observed arrival**: solar wind shock near Earth on July 03 around 11:20 UTC.
680	July 01, 12:12 UTC	M1.3 flare (SIDC Flare 8080), peaking on July 01 at 10:08 UTC, from SIDC Sunspot Group 860 (NOAA Active Region 4479), near N16W30. Associated radio burst: Type VI/1.	Plane-of-sky speed: about 400 km/s. True speed: about 449 km/s, direction N34W04.	**Expected arrival:** July 05 at 11:59 UTC ± 12 h, confidence 60%.
681	July 01, 21:12 UTC	M3.5 flare (SIDC Flare 8084), peaking on July 01 at 19:43 UTC, from SIDC Sunspot Group 860 (NOAA Active Region 4479), near N16W35.	Plane-of-sky speed: about 400 km/s. True speed: about 614 km/s, direction N32W03.	**Expected arrival**: July 05 at 11:59 UTC ± 12 h, confidence 60%.
682	July 02, 02:36 UTC	M4.2 flare (SIDC Flare 8090), peaking on July 02 at 01:56 UTC, from SIDC Sunspot Group 860 (NOAA Active Region 4479), near N17W39. Associated radio burst: Type III/2.	Plane-of-sky speed: about 600 km/s. True speed: about 851 km/s, direction N35W02.	**Expected arrival:** July 05 at 11:59 UTC ± 12 h, confidence 60%.
683	July 03, 18:12 UTC	M6.7 flare (SIDC Flare 8104), peaking on July 03 at 18:11 UTC, from SIDC Sunspot Group 860 (NOAA Active Region 4479), near N17W62. Associated radio bursts.	Plane-of-sky speed: about 550 km/s, width about 170°. True speed: about 850 km/s, direction N25W55.	**Expected arrival:** July 07 at 18:00 UTC ± 12 h, confidence 55%.



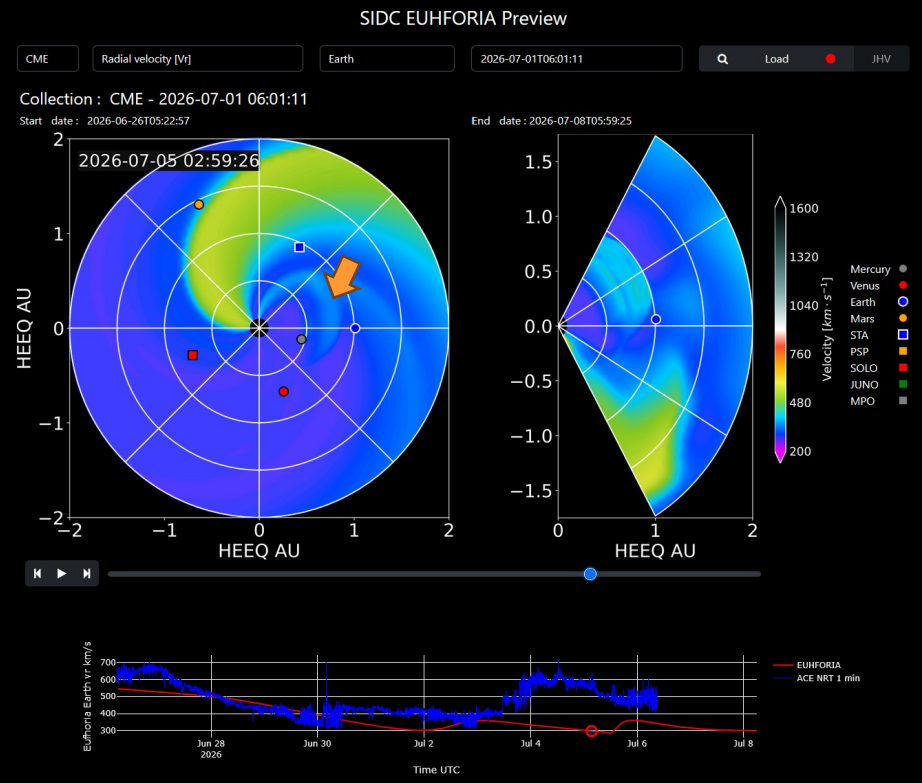
Coronal Mass Ejections





Space Weather Briefing - Solar Influences Data analysis

Coronal Mass Ejections



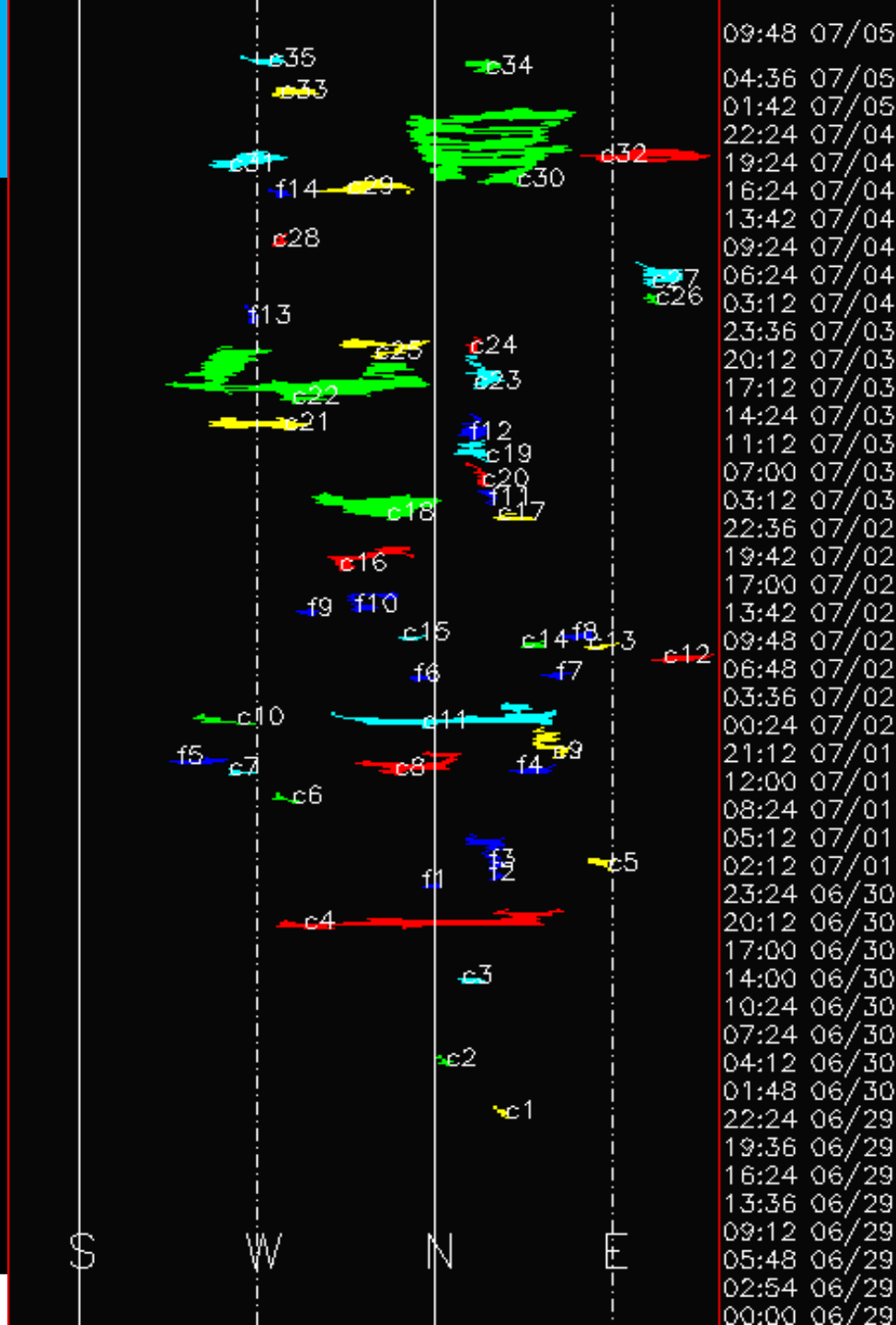
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Time: 2026-07-01T06:00:00

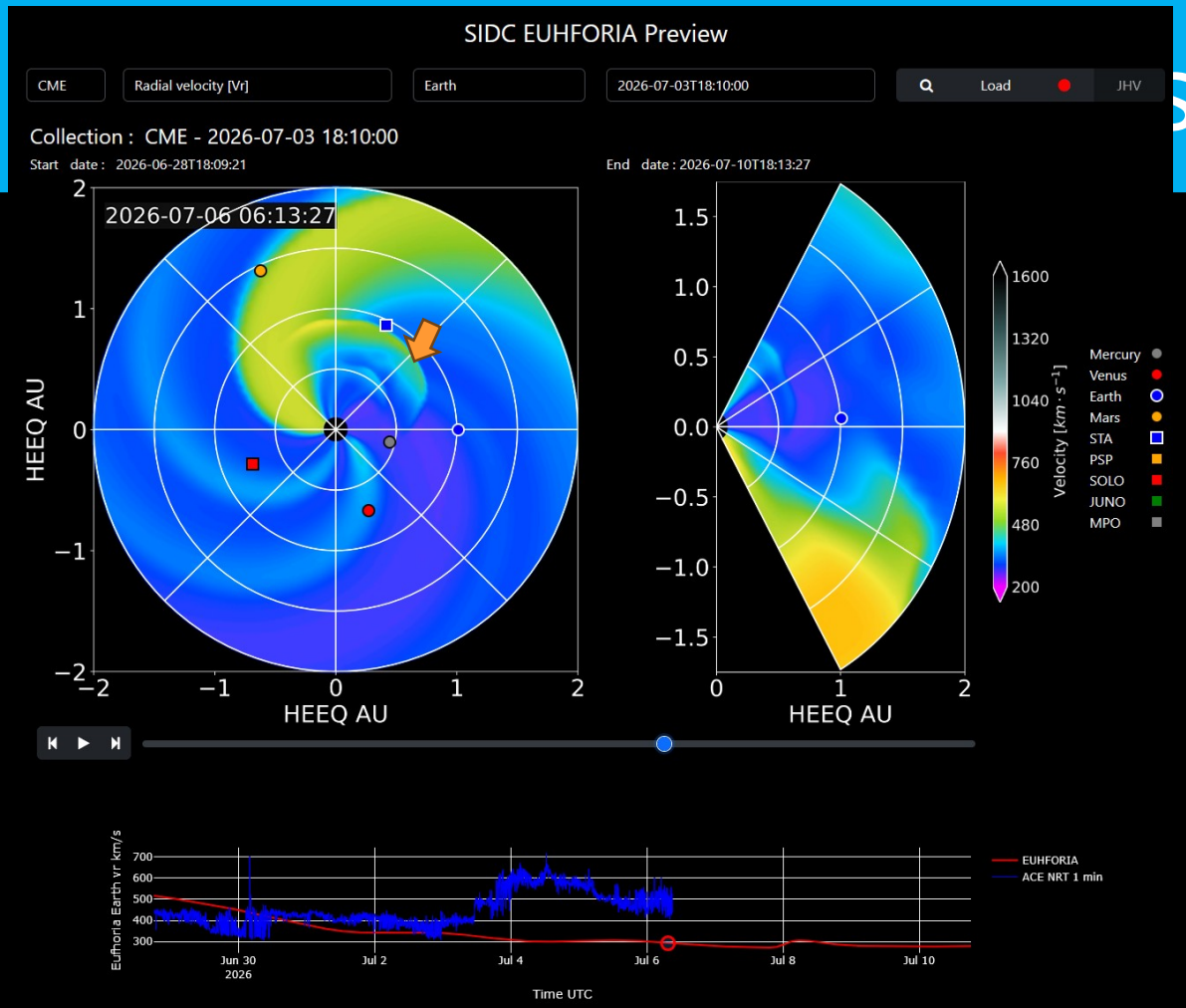
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1) Type: Cone
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LongHEEQ: 4
HW: 44
Speed: 449
Mdens: 1e-18
Temp: 8.00000E+05

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Time: 2026-07-02T03:23:00.742
LatiHEEQ: 32
LongHEEQ: 3
HW: 24
Speed: 614
Mdens: 1e-18
Temp: 8.00000E+05

3) Type: Cone
Time: 2026-07-02T06:26:29.608
LatiHEEQ: 35
LongHEEQ: 3
HW: 30
Speed: 851
Mdens: 1e-18
Temp: 8.00000E+05





Magnetogram provider Information:

Name: NSO-GONG

Time: 2026-07-03T18:14:00

CME Information:

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Time: 2026-07-03T23:31:00

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LongHEEQ: 55

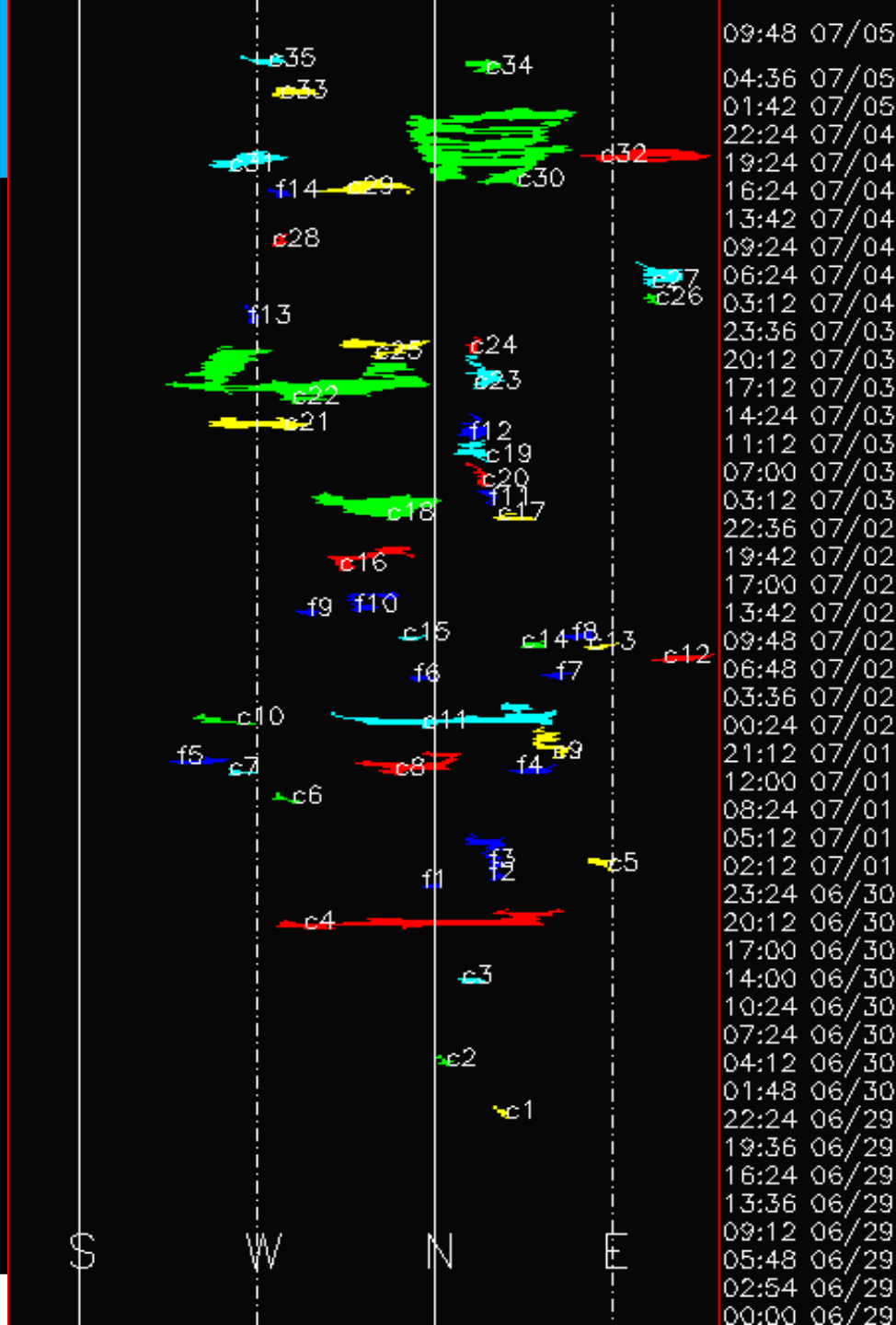
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Speed: 850

Mdens: 1e-18

Temp: 8.00000E+05

nfluences Data analysis



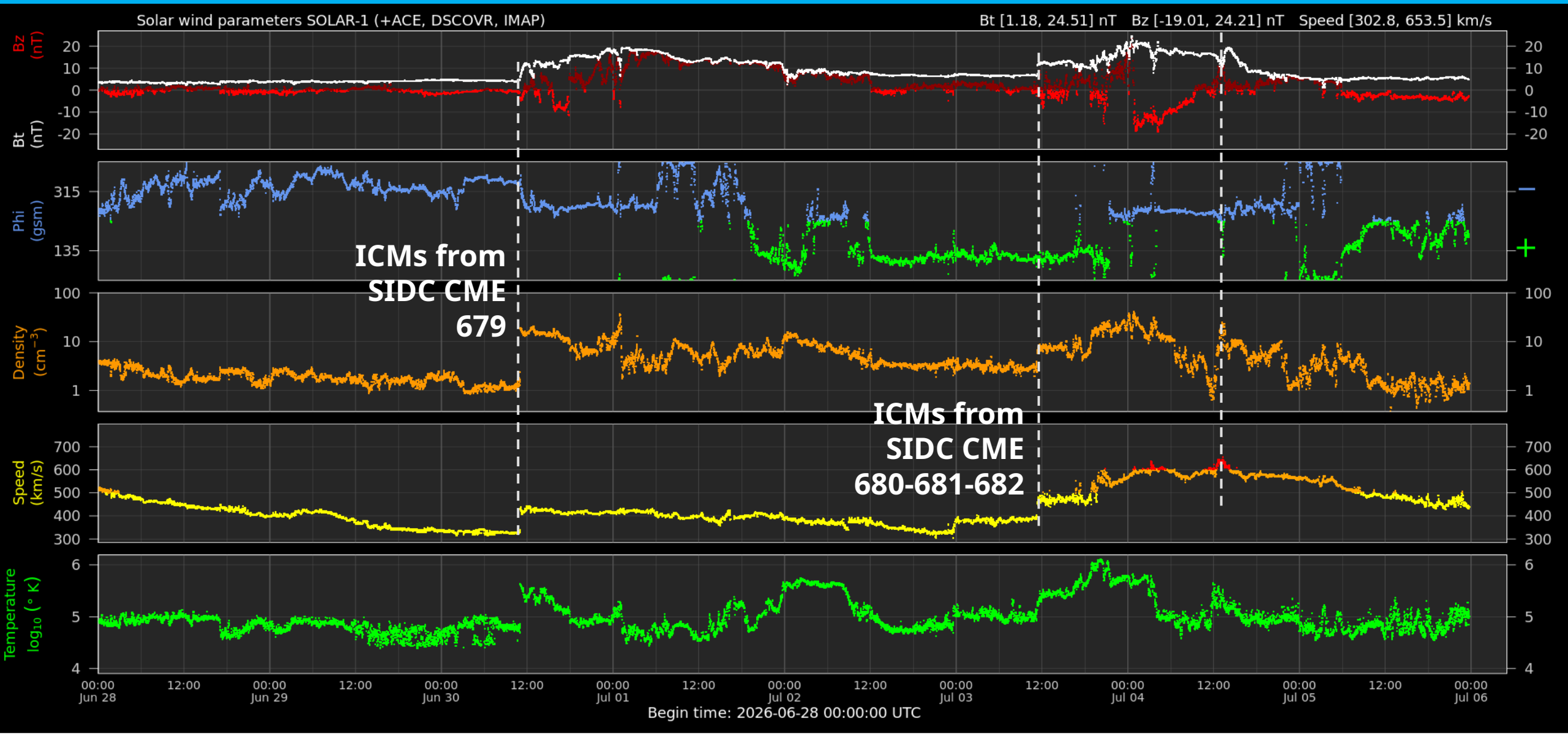
Solar Wind and

Geomagnetic Activity

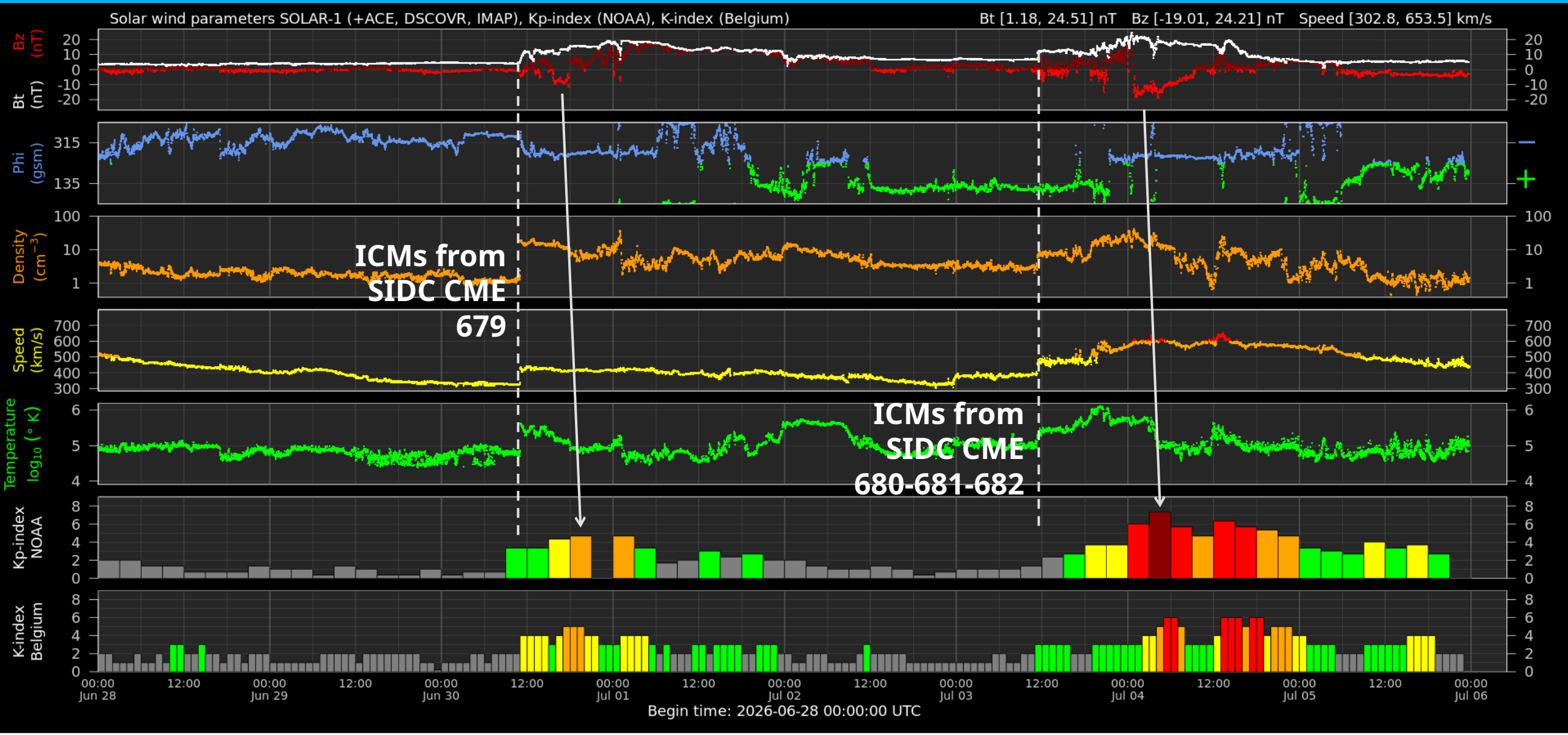
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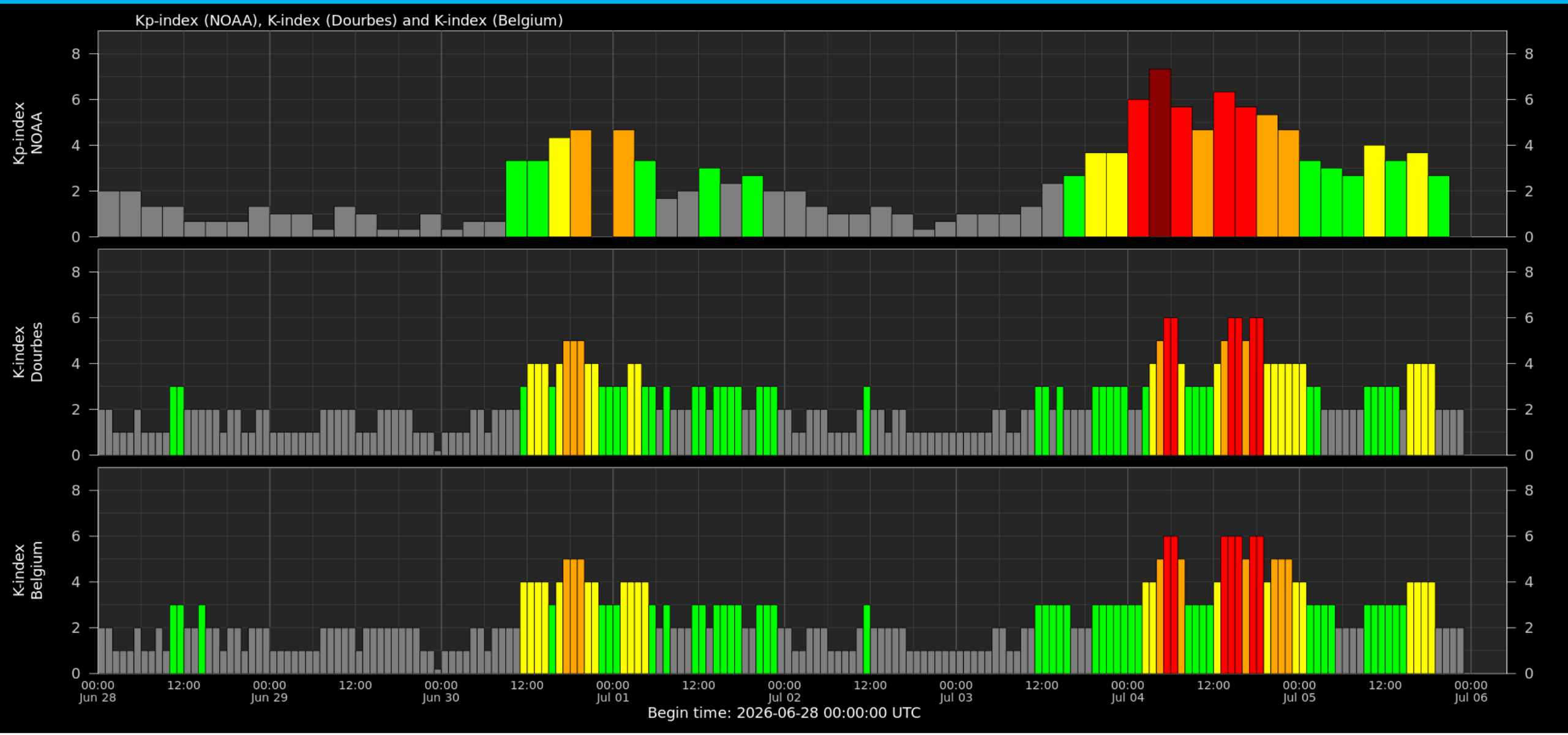
Solar wind parameters



Solar wind parameters & K-indices



Geomagnetic activity (K-indexes)



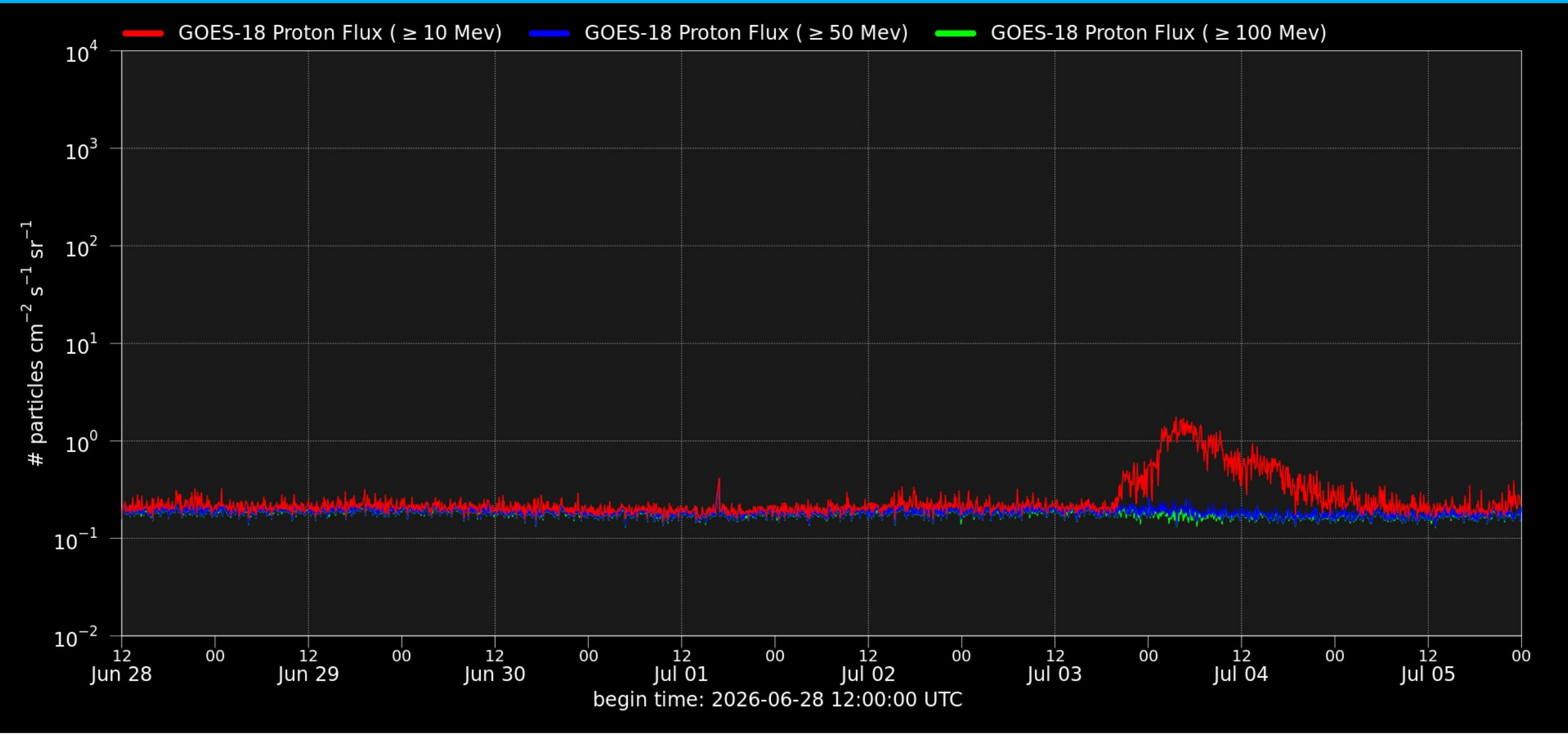
Energetic Particles



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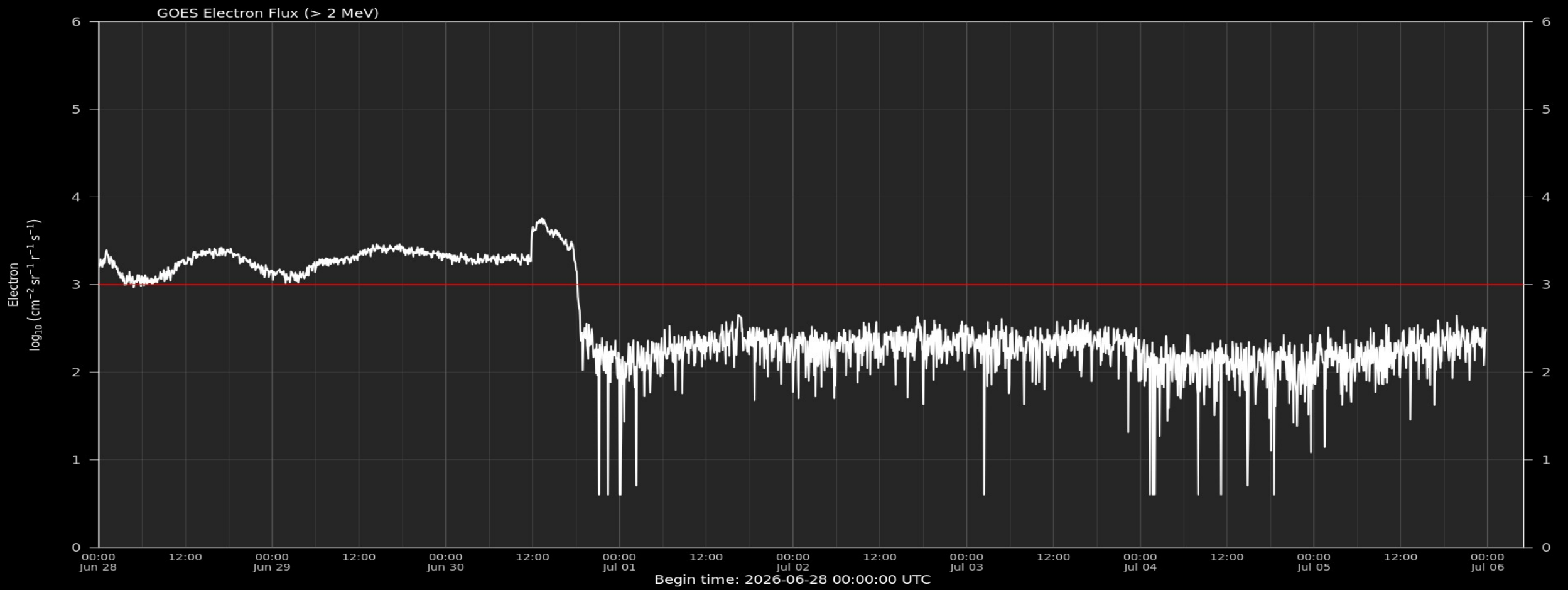
Solar proton flux



Electron flux at GEO

www.stce.be/educational/classification#electrons

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

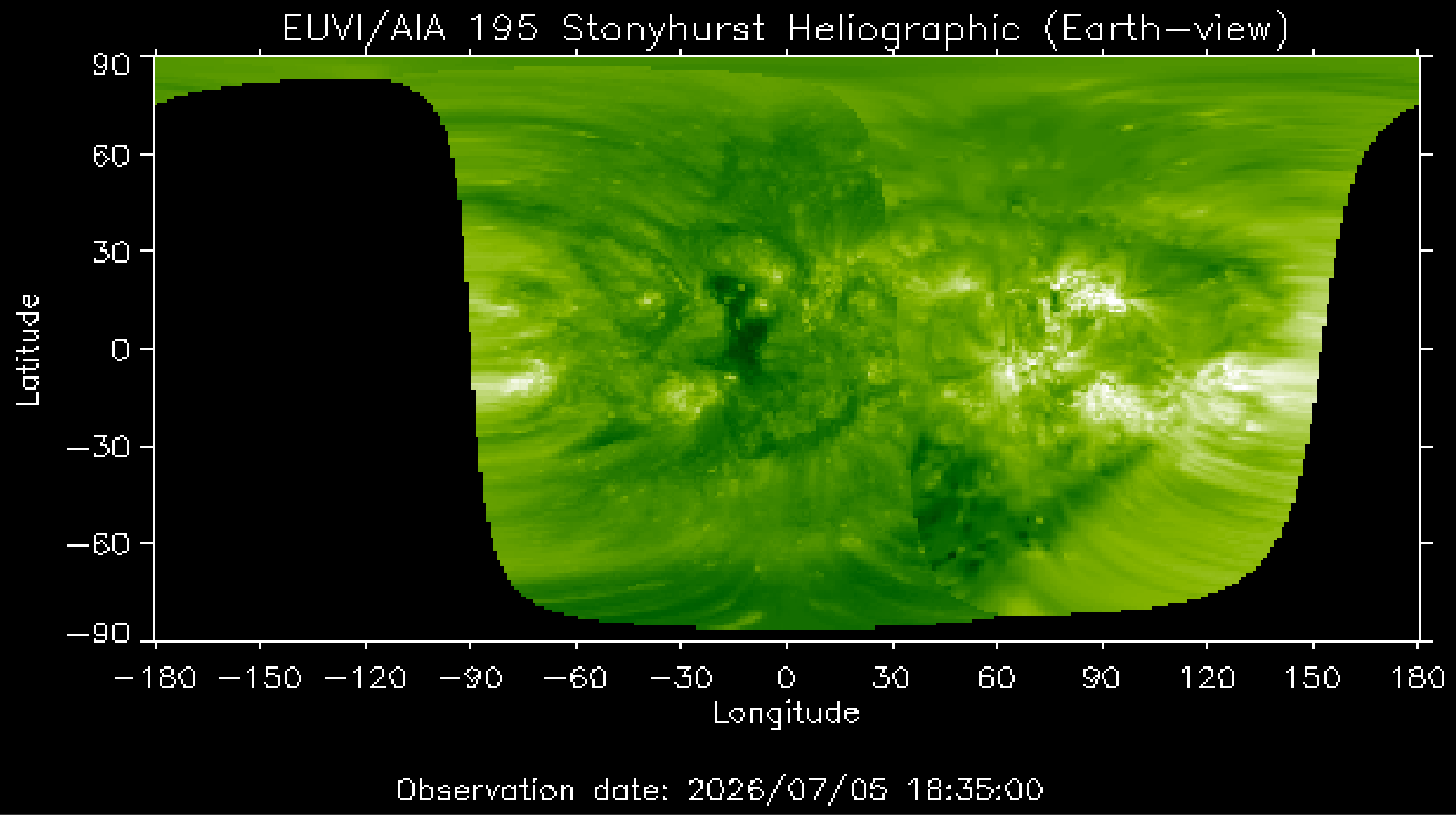


Outlook

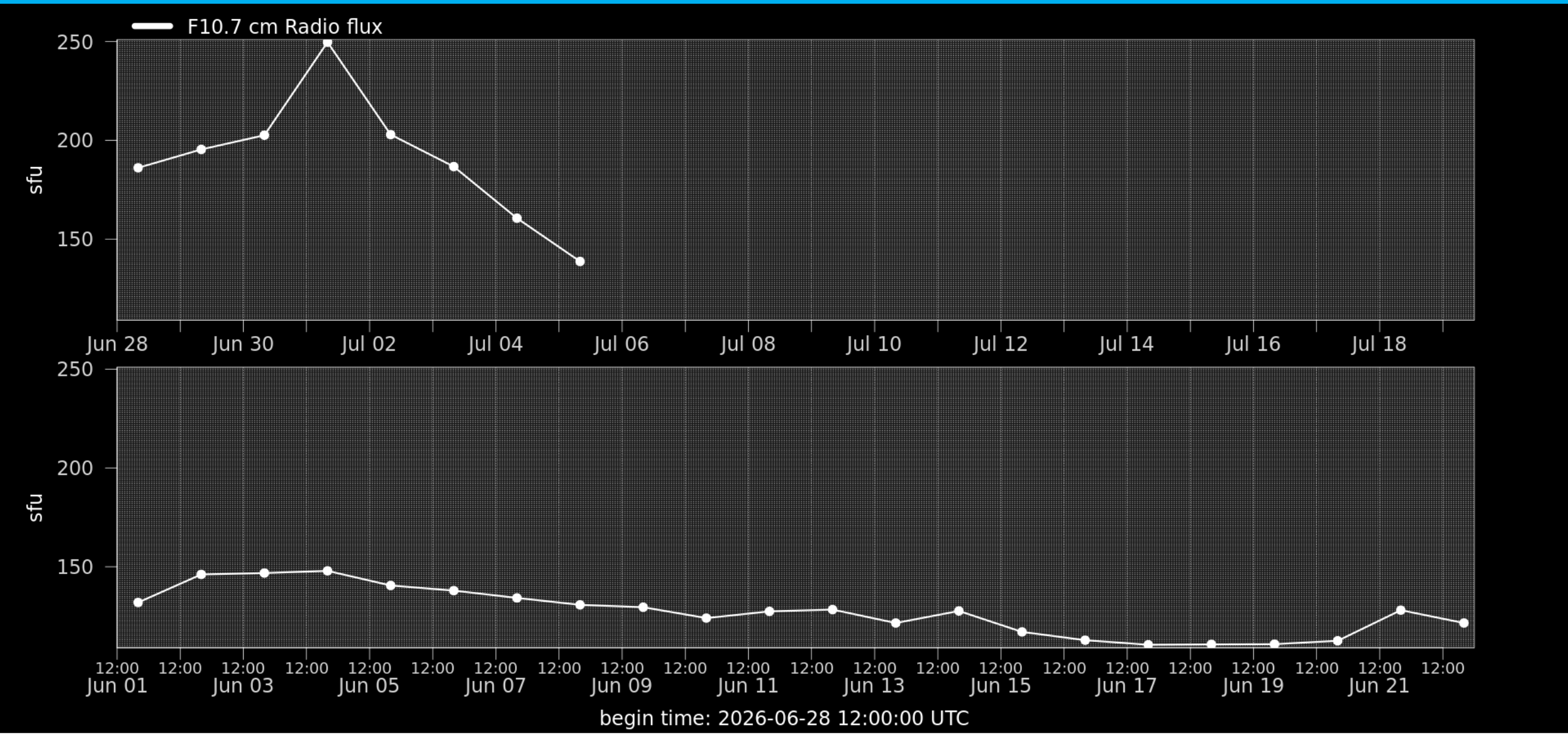
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Outlook: Solar activity



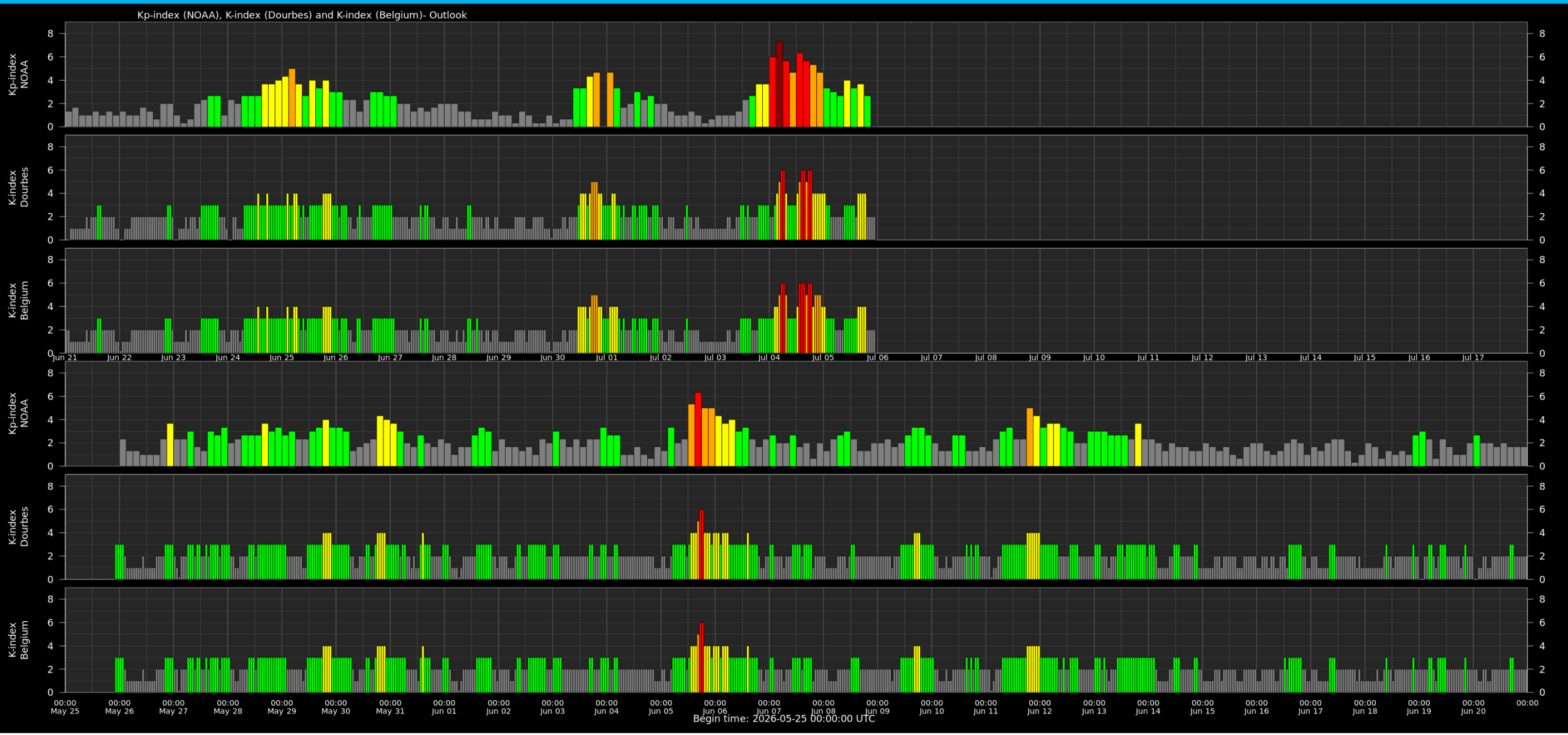
Outlook: Solar F10.7cm radio flux



Outlook: Solar wind parameters



Outlook: Geomagnetic activity



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Data analysis Centre
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SIDC Space Weather Briefing

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