

SIDC Space Weather briefing

21 – 27 May, 2018

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Solar Influences
Data analysis Centre
www.sidc.be



Royal Observatory
of Belgium

Quiet week

Summary Report

Solar Activity:

Active Regions	2 regions low complexity, 1 flaring region beyond the limb
Flaring	X-Ray flux below C-class flare + One C2.0
Filaments	2 tiny filaments
CMEs	One mini-CME filament eruption (West)
Proton Events	Background level

Solar wind and Geomagnetic conditions:

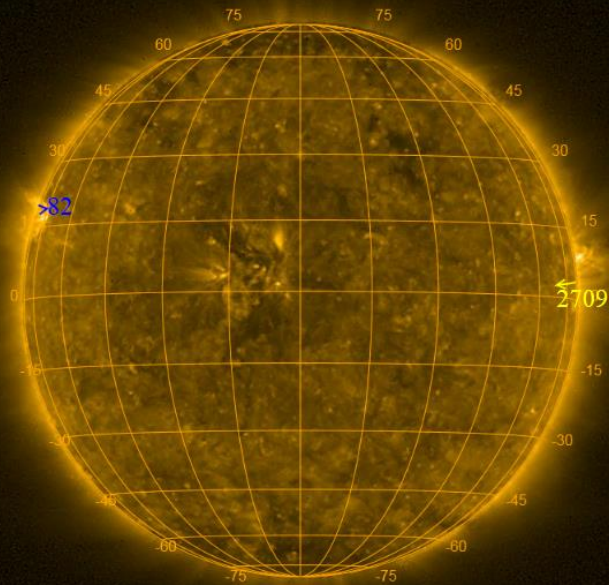
SW conditions	Weak influence of positive polarity CH ($V < 500$ km/s)
ICME	No Earth directed CME
Kp index	Kp=2 and K-Dourbes=3
Coronal Hole	2 positive polarity coronal holes

End of ALL QUIET ALERT on November 07

Solar active region evolution

Catania sunspot groups
2018-05-21 06:18:00

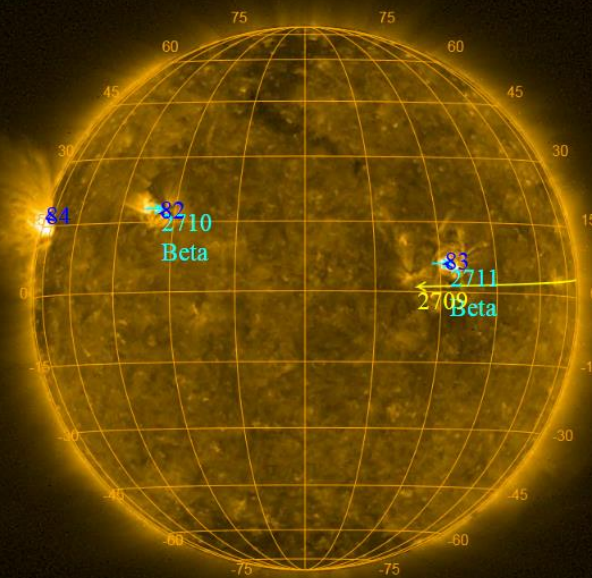
NOAA AR/sunspot
NOAA Halpha plage
NOAA expected region
No observation



PROBA2/SWAP 17.4nm
2018-05-21T08:06:38.864

Catania sunspot groups
2018-05-24 09:18:00

NOAA AR/sunspot
NOAA Halpha plage
NOAA expected region
2018-05-24 00:30:00

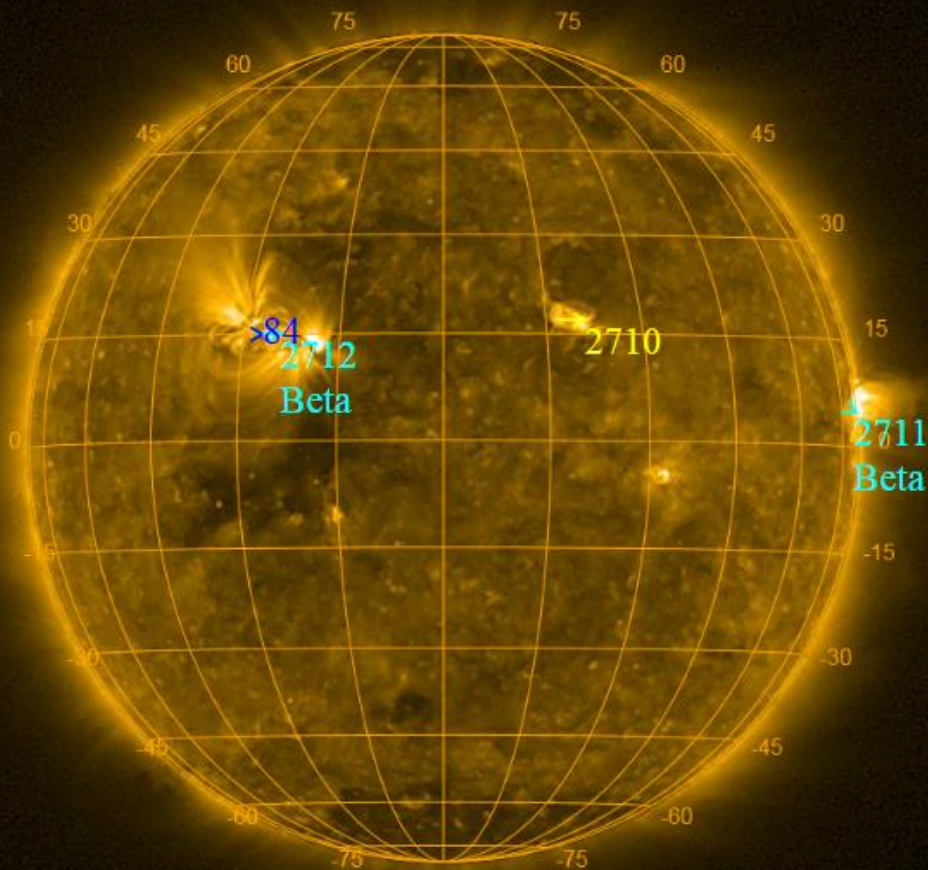


PROBA2/SWAP 17.4nm
2018-05-24T08:04:27.921

Solar active region evolution

Catania sunspot groups
2018-05-28 07:00:00

NOAA AR/sunspot
NOAA Halpha plage
NOAA expected region
2018-05-28 00:30:00

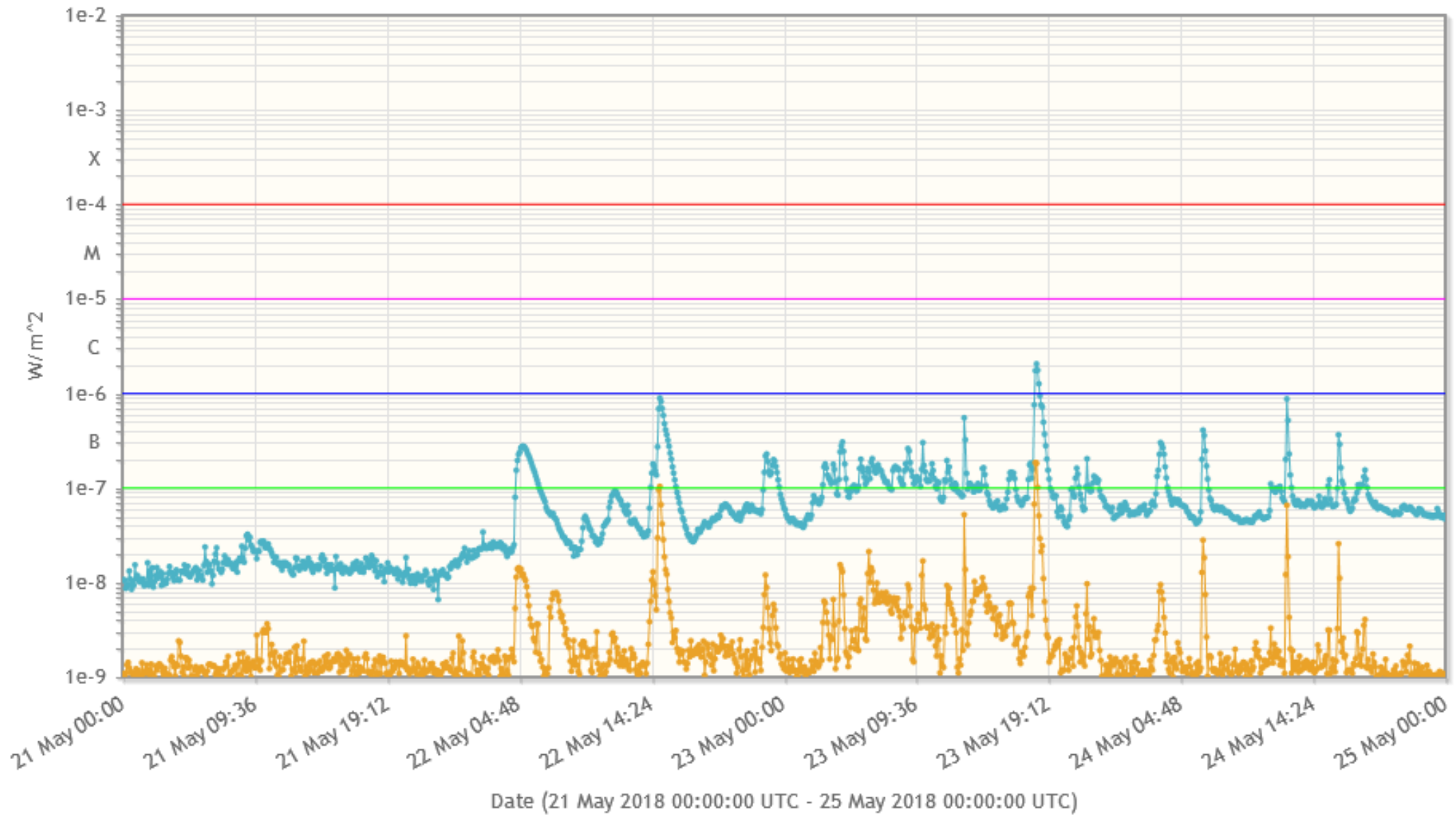


PROBA2/SWAP 17.4nm
2018-05-28T07:06:13.809

Solar X-ray Flux

Plot (21 May 2018 00:00:00 UTC - 25 May 2018 00:00:00 UTC)

- X-Ray - GOES X-Ray flux 0.1-0.8 nm (quicklook) - 1151 data points - (averaged - 5 minute data)
- X-Ray - GOES X-Ray flux 0.05-0.4 nm (quicklook) - 1151 data points - (averaged - 5 minute data)



Flares

Solar Demon Flare Detection (qlk)

Quick-look! running in real time on SDO/AIA 94 QKL data
3 minute cadence, typical delay 15 minutes
(detection version 1.00)

[\(view all Solar Demon detection tools\)](#)

Detector 24h operating status:



Last processed image:

0 hours and 18 minutes ago (2018-05-28 07:57 UTC)

Last detected flare:

91 hours and 36 minutes ago (2018-05-24 12:39 UTC)

Filters (category)

-- [All classes](#)

[Only C class flares and above](#)

[Only M class flares and above](#)

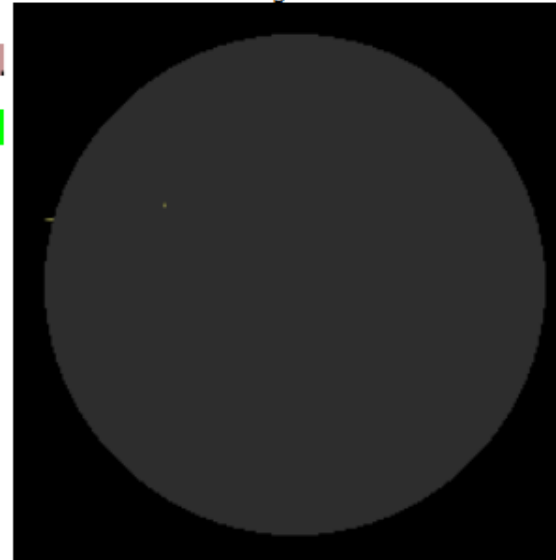
[Only X class flares and above](#)

Filters (time)

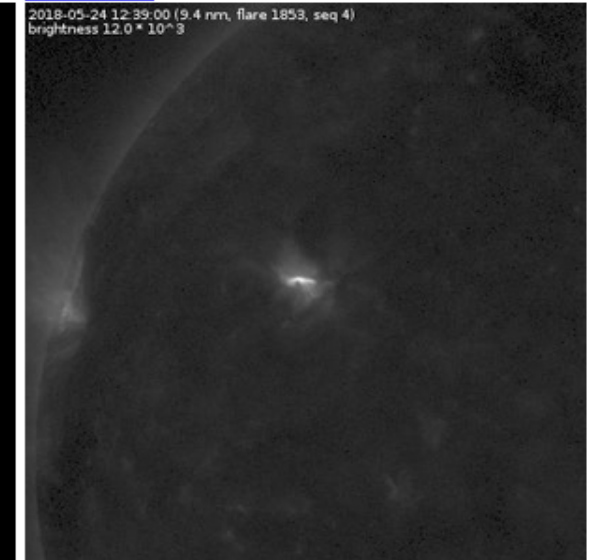
[Last 7 days](#)

-- [Last 14 days](#)

detected flares during last 2 weeks



[Flare 1853](#)

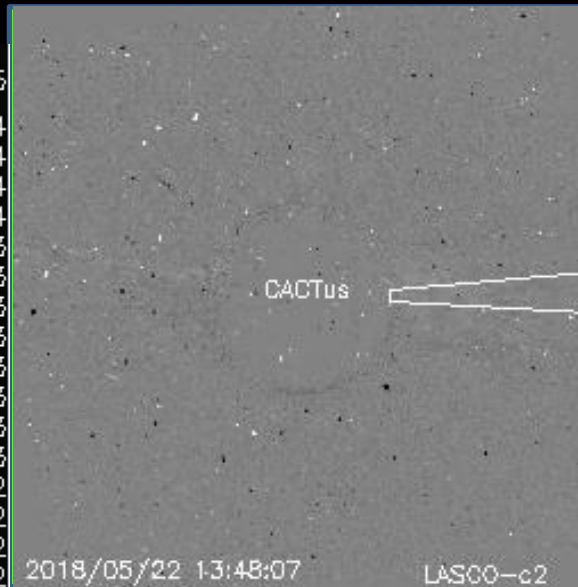


Overview of flares

	est. class	start	peak	end	#	lat	lon	dist. R _☉	AR	est. flux	GOES flux	GOES peak time	COMESSEP	# det.	dimming
May, 2018															
24	B9	12:30	12:33	12:39	1853	17	-33	0.61	AR 2710	9.1	9.8	12:30	-3	0	4
23	C2	18:12	18:27	18:57	1852			1.02		24.4	20.8	18:21	-6	0	16
23	B5	13:06	13:09	13:12	1851			1.01		5.3	8.2	13:05	-4	0	3

CMEs

00:12 05/25
11:12 05/24
08:00 05/24
05:12 05/24
02:12 05/24
23:06 05/23
19:36 05/23
16:36 05/23
14:00 05/23
11:00 05/23
08:00 05/23
05:12 05/23
02:12 05/23
22:36 05/22
19:48 05/22
17:12 05/22
13:48 05/22
10:48 05/22
07:48 05/22
05:00 05/22
01:48 05/22
22:12 05/21
18:48 05/21
16:12 05/21
12:48 05/21
09:36 05/21
06:48 05/21
04:00 05/21
00:36 05/21
21:24 05/20
18:00 05/20
15:16 05/20
10:48 05/20
07:36 05/20
04:36 05/20
01:36 05/20



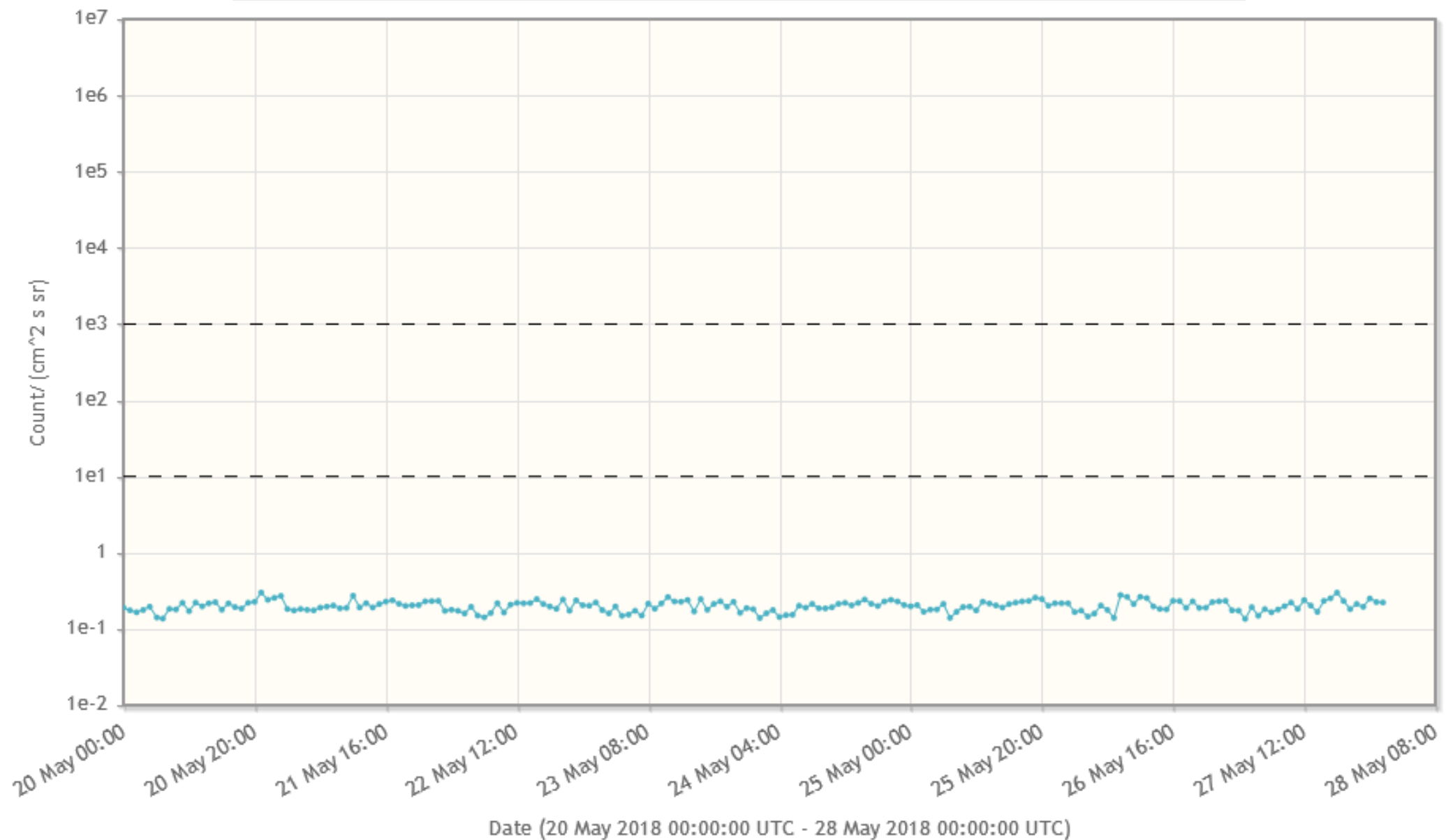
c12

c11
c10

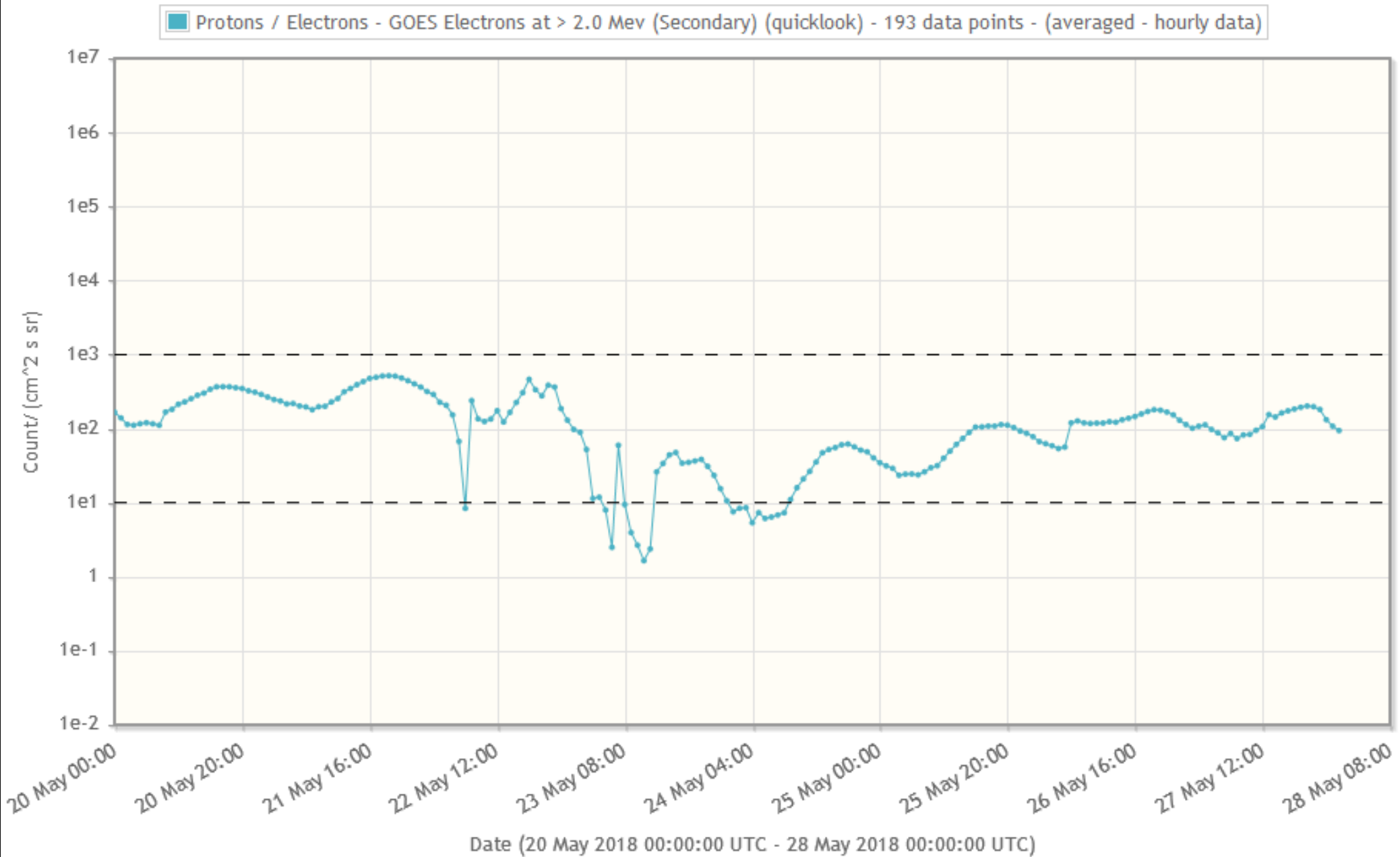
c9

Energetic particles/Protons

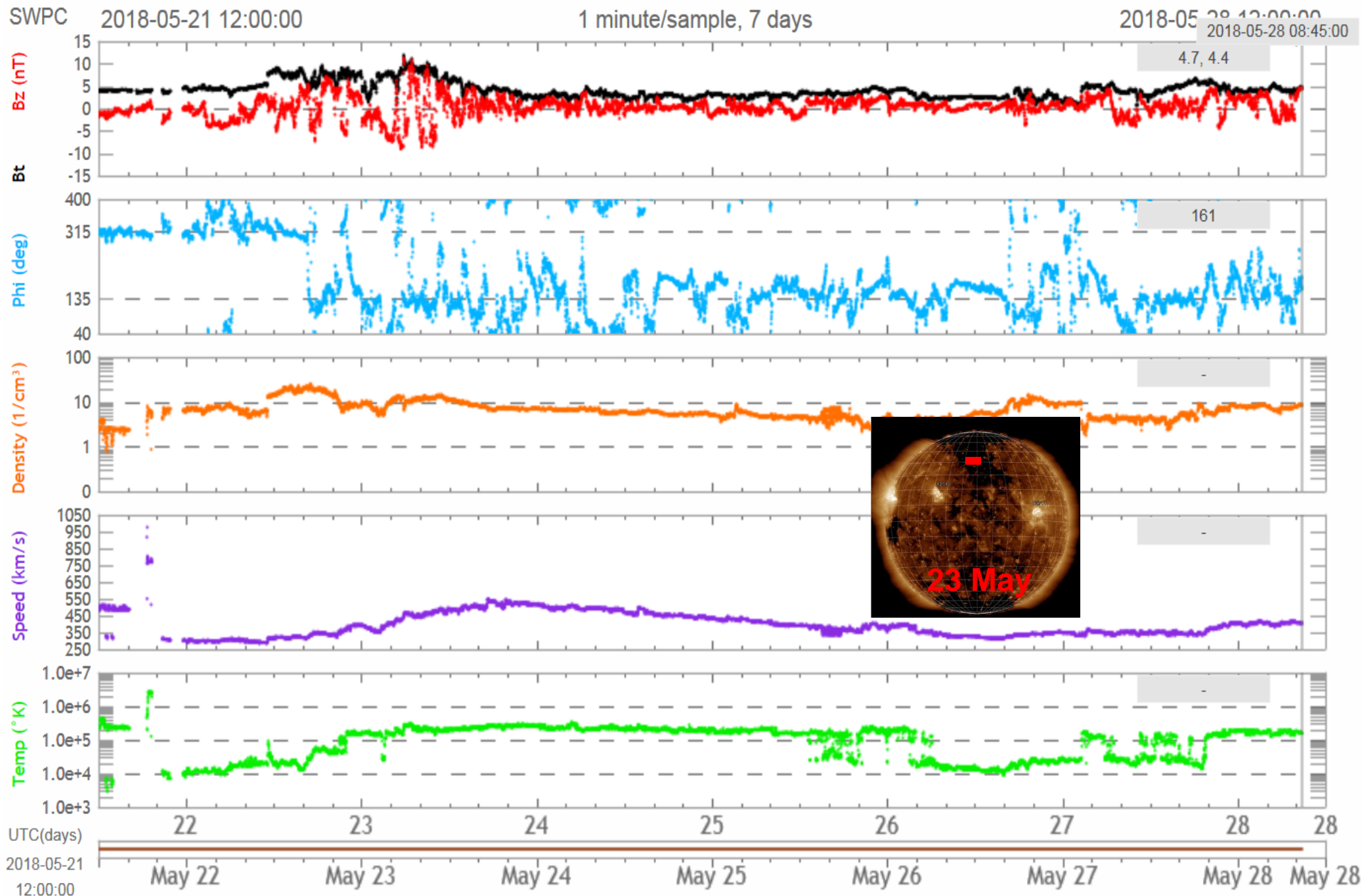
Protons / Electrons - GOES Particles at > 10 Mev (quicklook) - 193 data points - (averaged - hourly data)



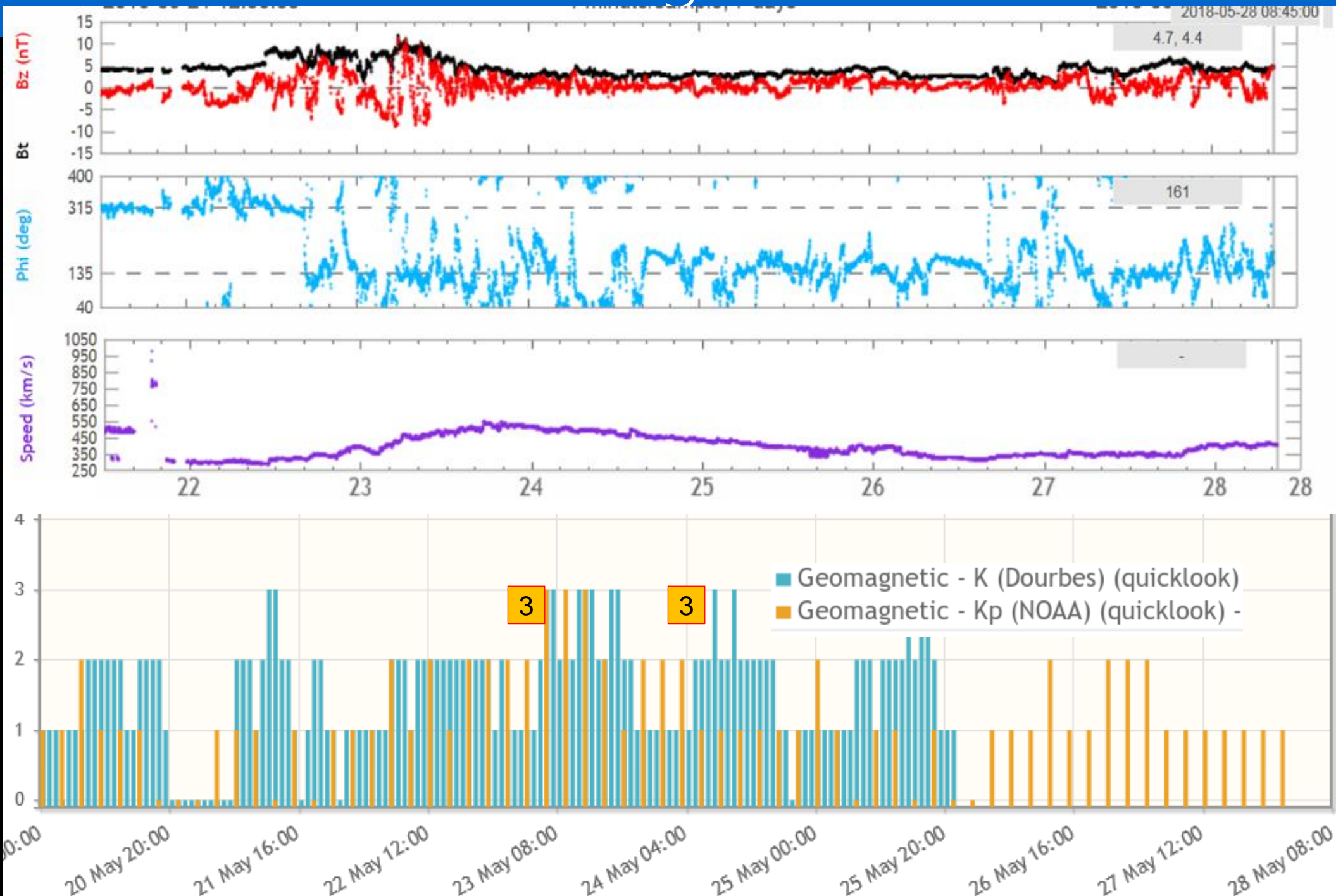
Energetic particles/Electrons



Solar wind

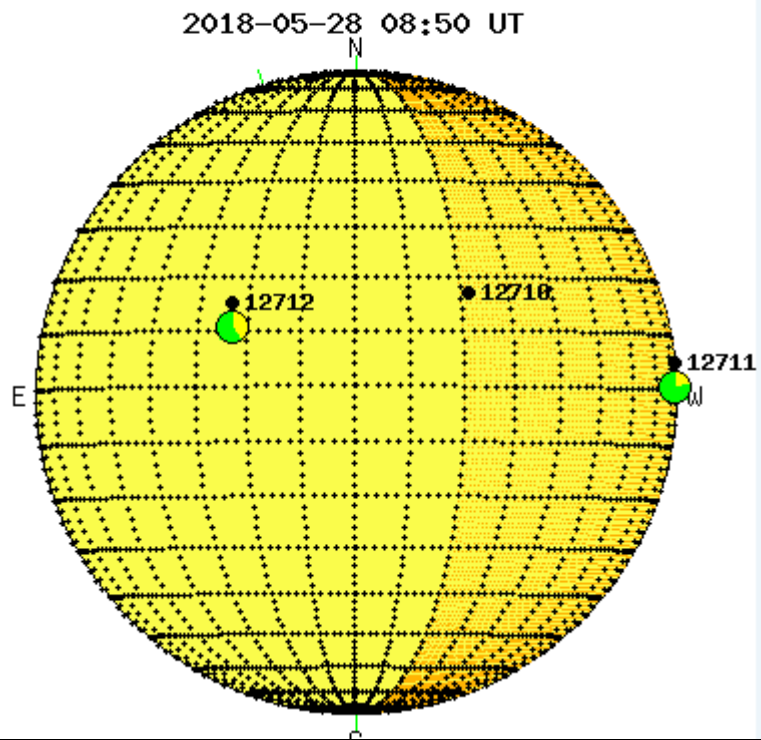


Geomagnetism

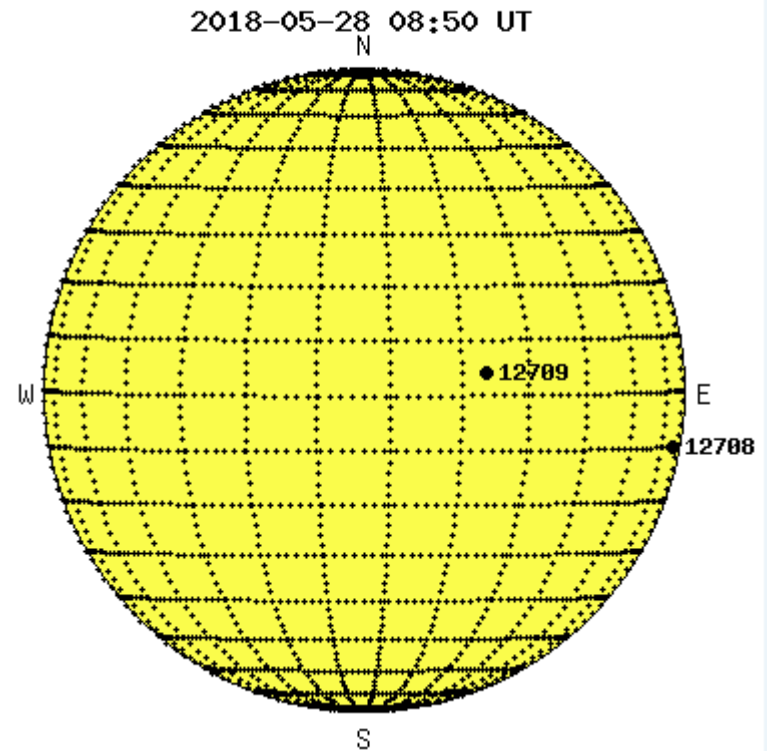


Outlook

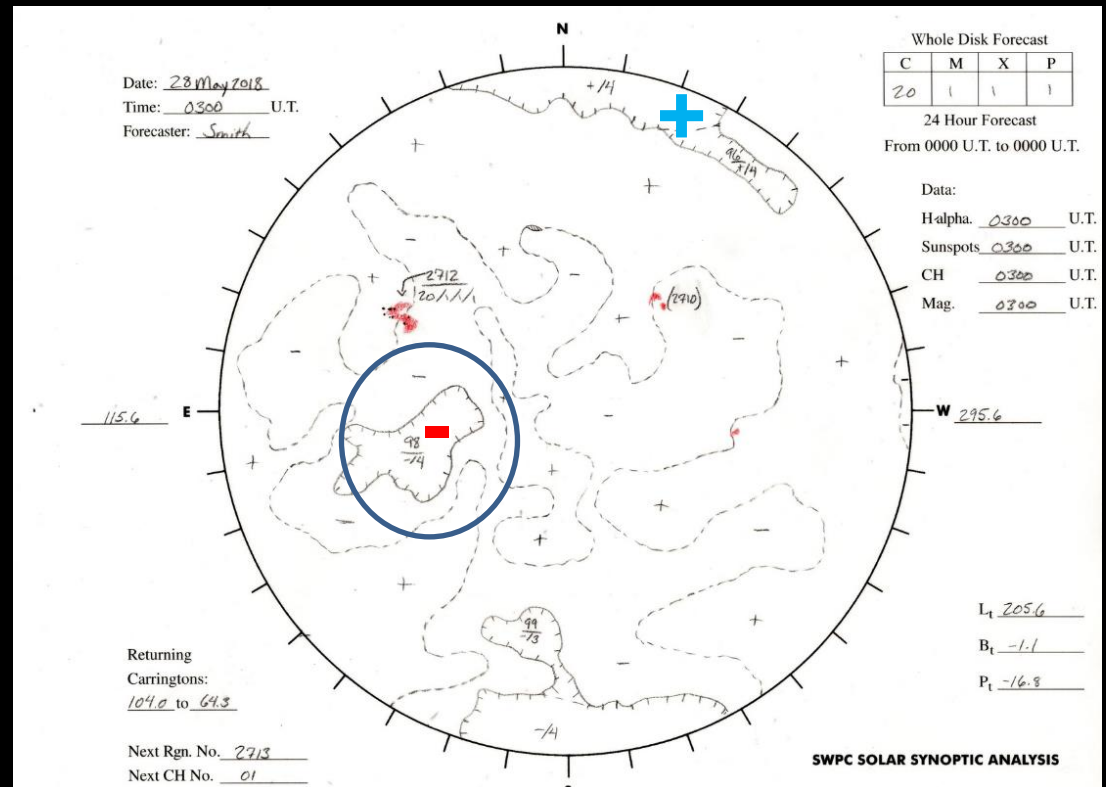
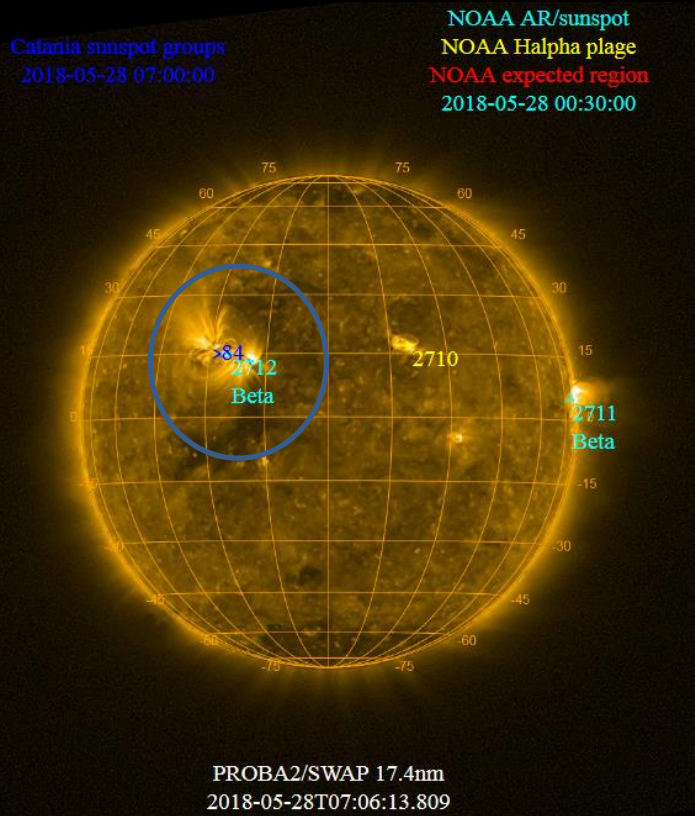
Earth Side View



Far Side View



Outlook



SIDC Space Weather briefing

See you at our next briefing!

Or visit us at www.sidc.be

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