

# SIDC Space Weather briefing

07 May – 13 May 2018

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&

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



Royal Observatory  
of Belgium

# Summary Report

## Solar Activity:

Active Regions	Two small and inactive sunspot regions
Flaring	X-Ray flux below B-class level
Filaments	Some small filaments and prominence eruptions
CMEs	Two non-earth-directed CMEs
Proton Events	Proton flux at background level

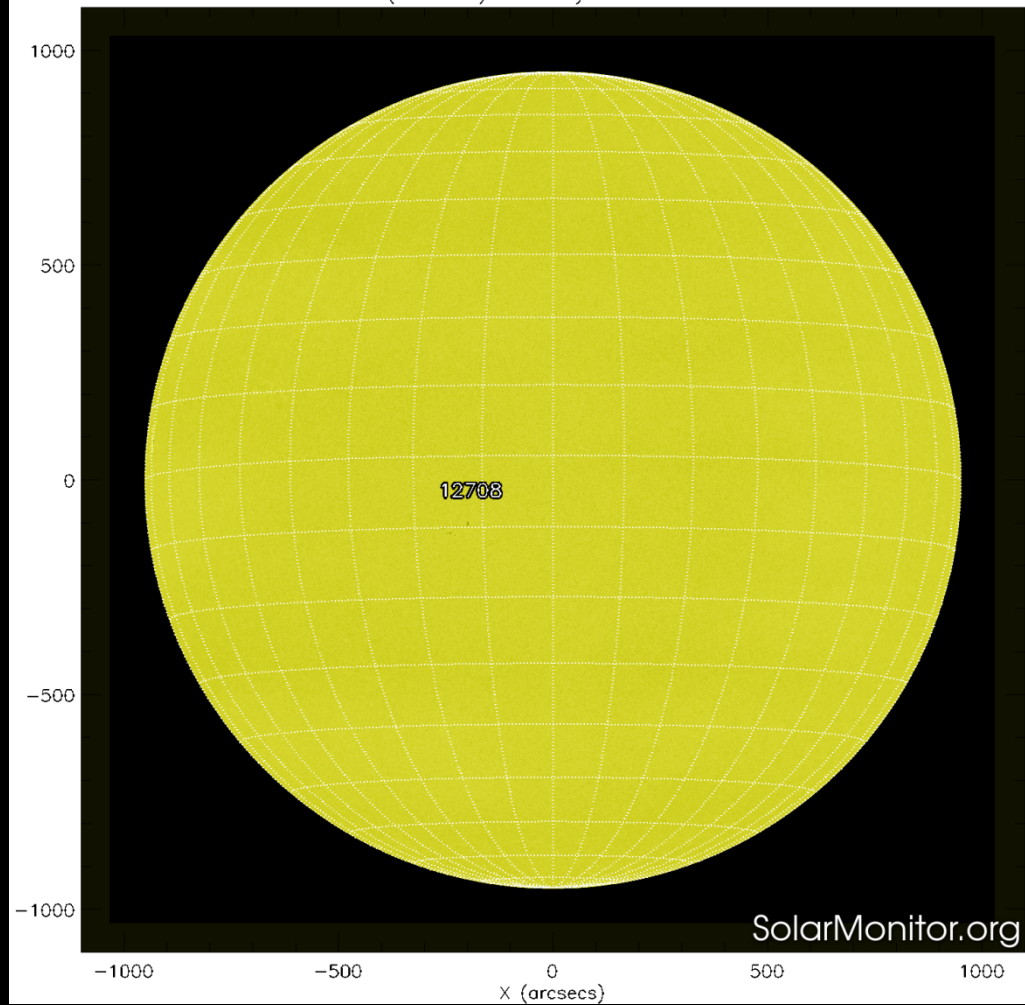
## Solar wind and Geomagnetic conditions:

ICMEs	None
Coronal Hole	Negative polarity CHs HSS
SW conditions	Generally declining from 710 to 430 km/s
Kp index	Quiet to active conditions

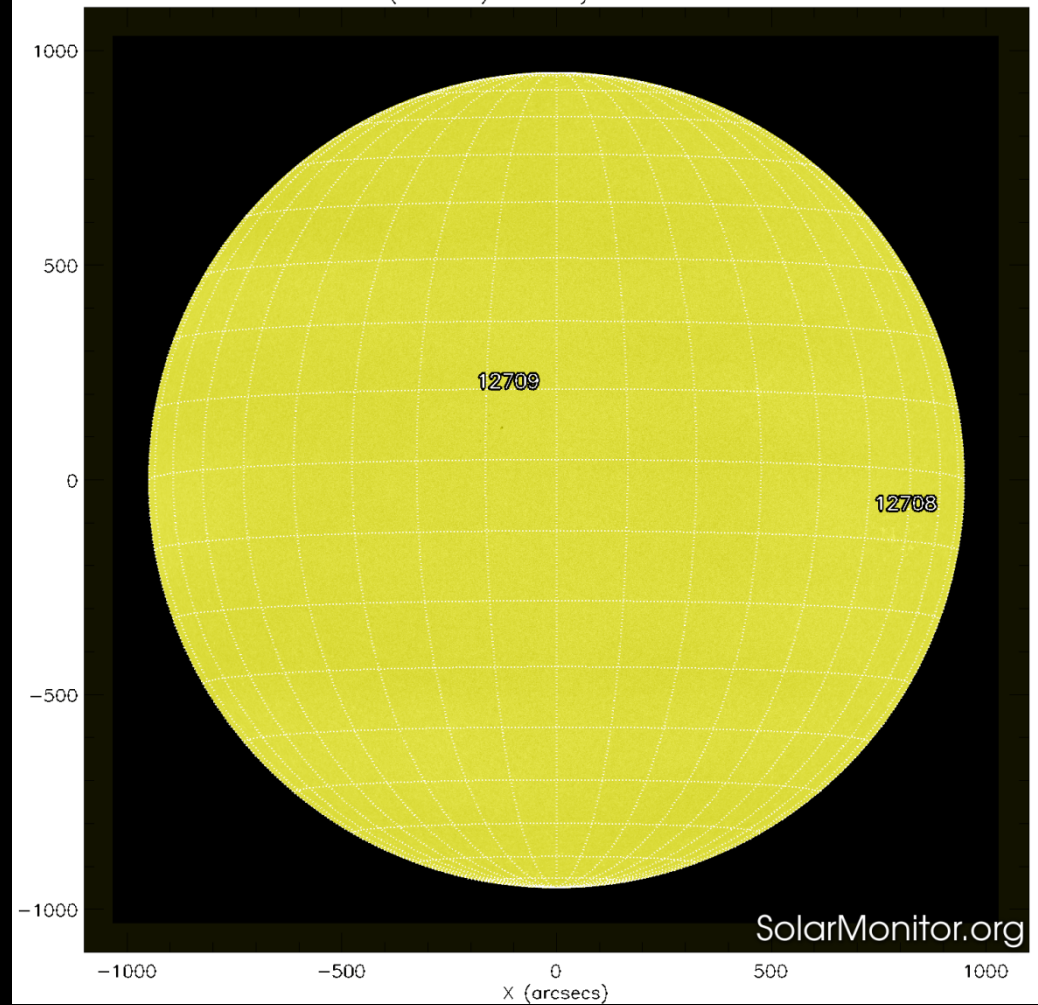
All Quiet Alert started on 13 May 2018 at 12:14UT

# Solar active region evolution

SDO HMI (6173 Å) 7-May-2018 22:10:42.500

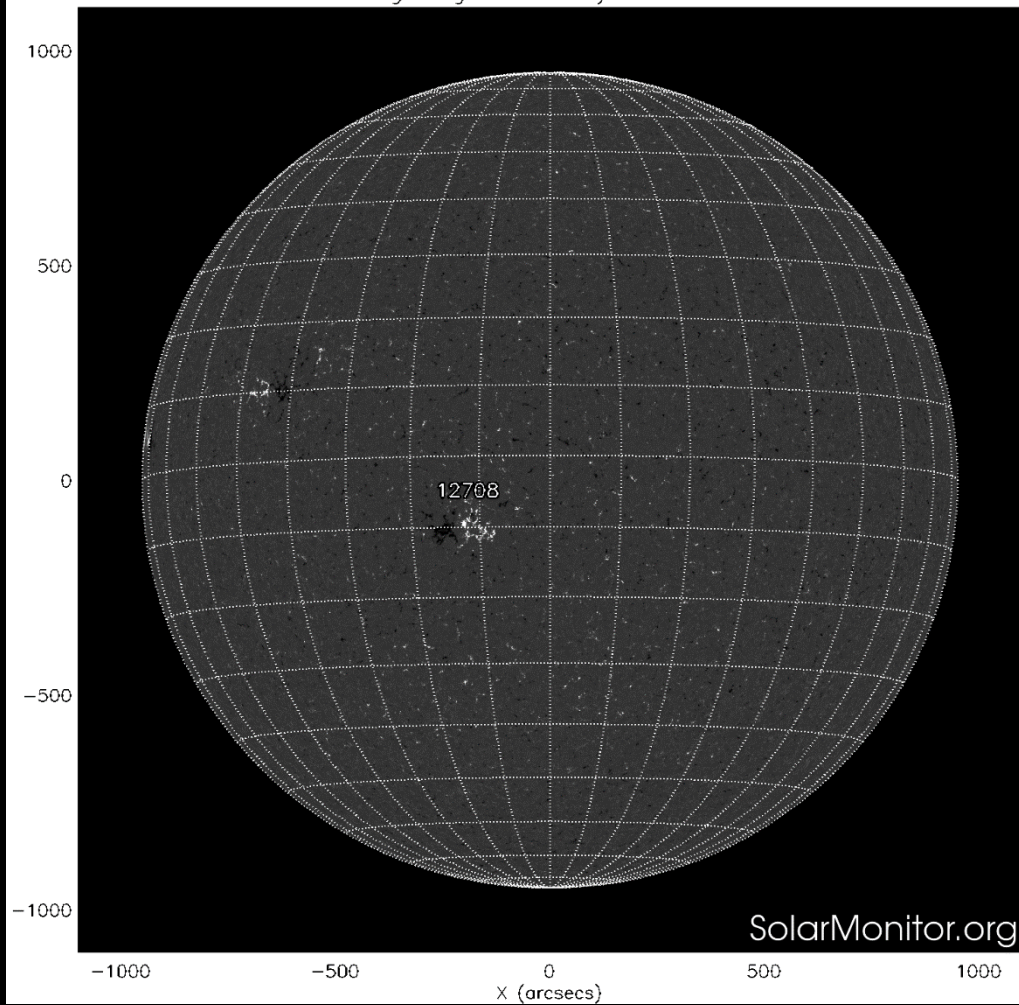


SDO HMI (6173 Å) 13-May-2018 06:10:43.300

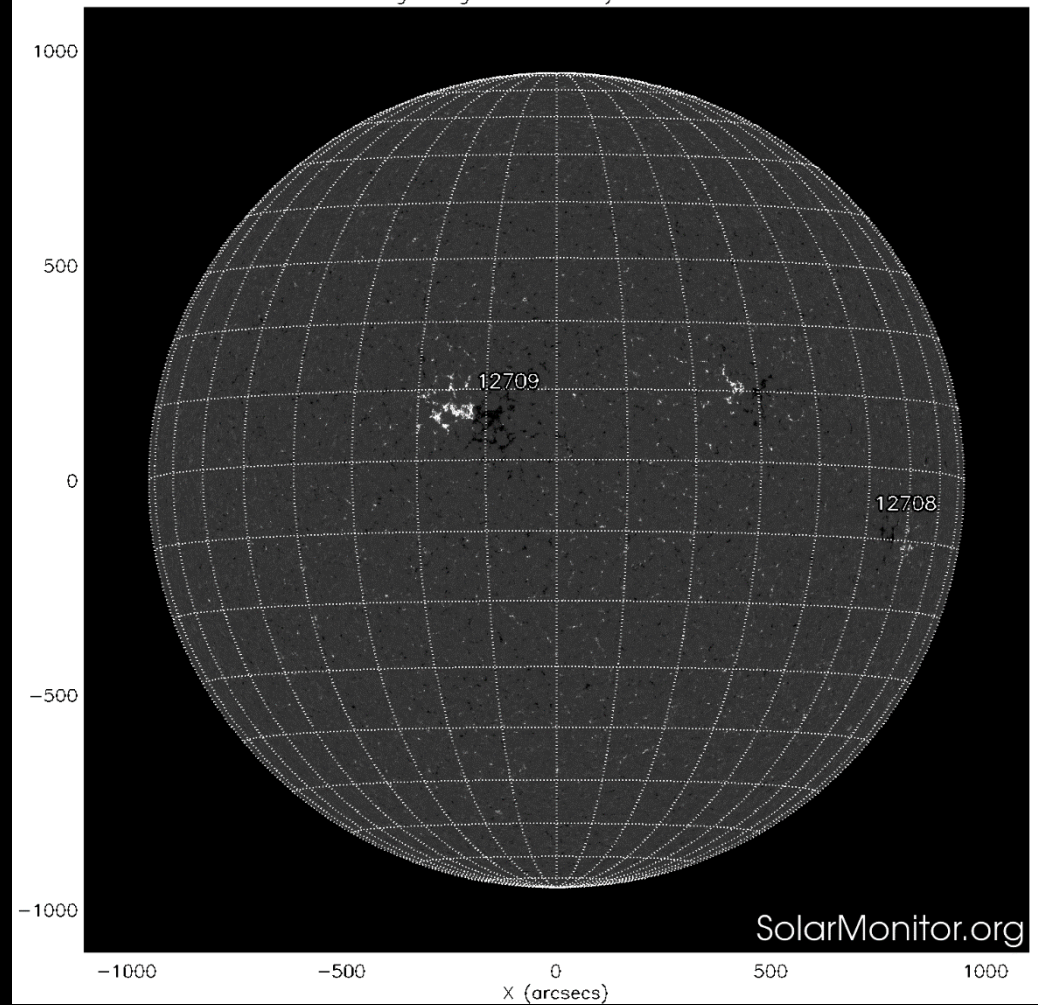


# Solar active region evolution

SDO HMI Magnetogram 7-May-2018 22:10:42.500

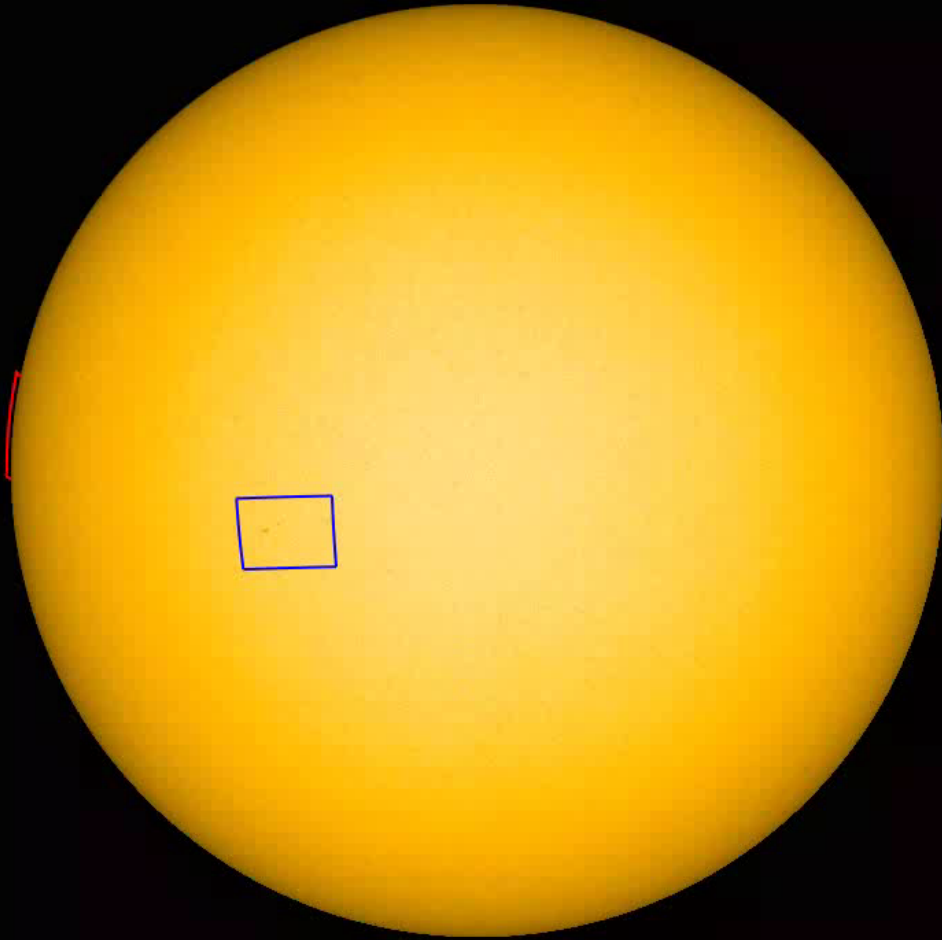


SDO HMI Magnetogram 13-May-2018 06:10:43.300





# Solar active region evolution NOAA 2708 & NOAA 2709

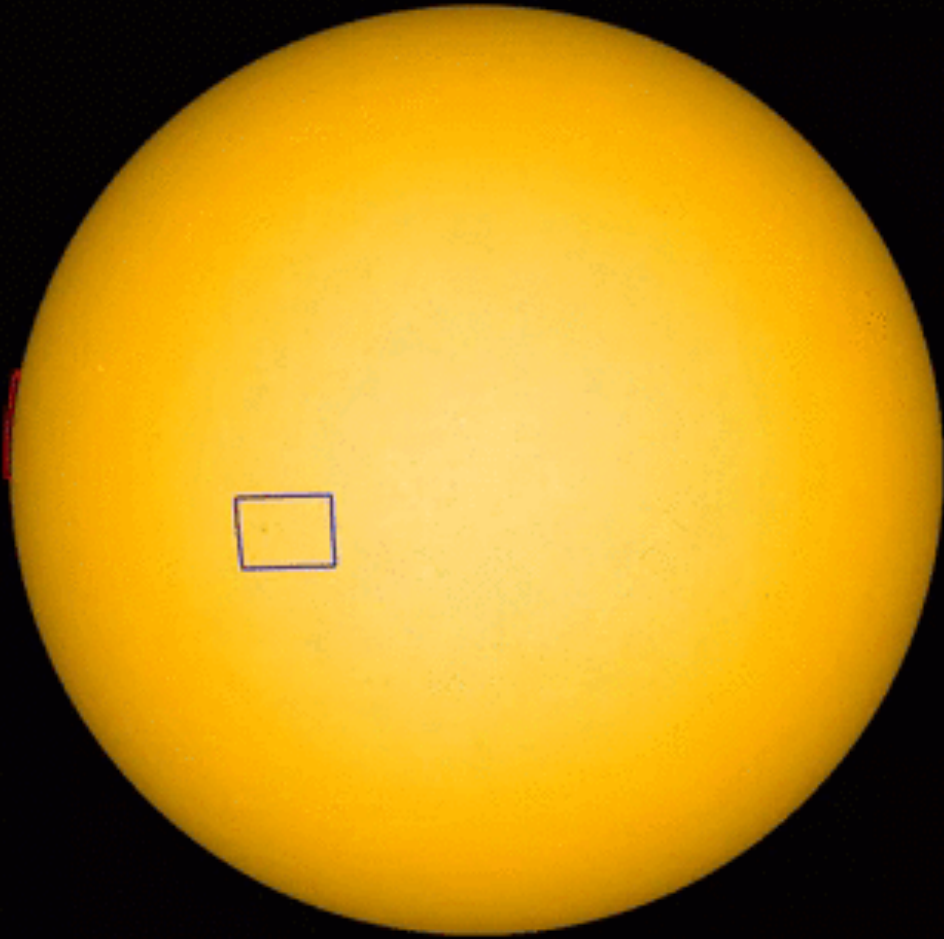


2018-05-07T00:00:34 HMI continuum

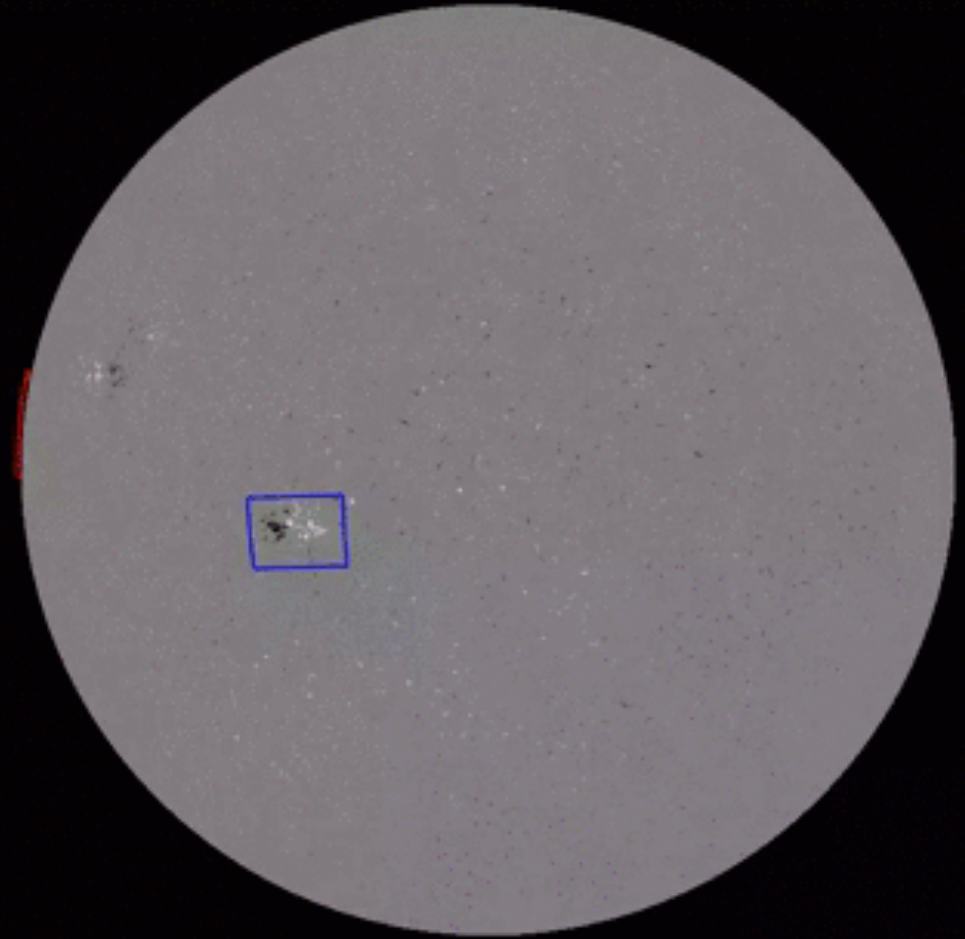


2018-05-07T00:00:34 HMI magnetogram

# Solar active region evolution NOAA 2708 & NOAA 2709



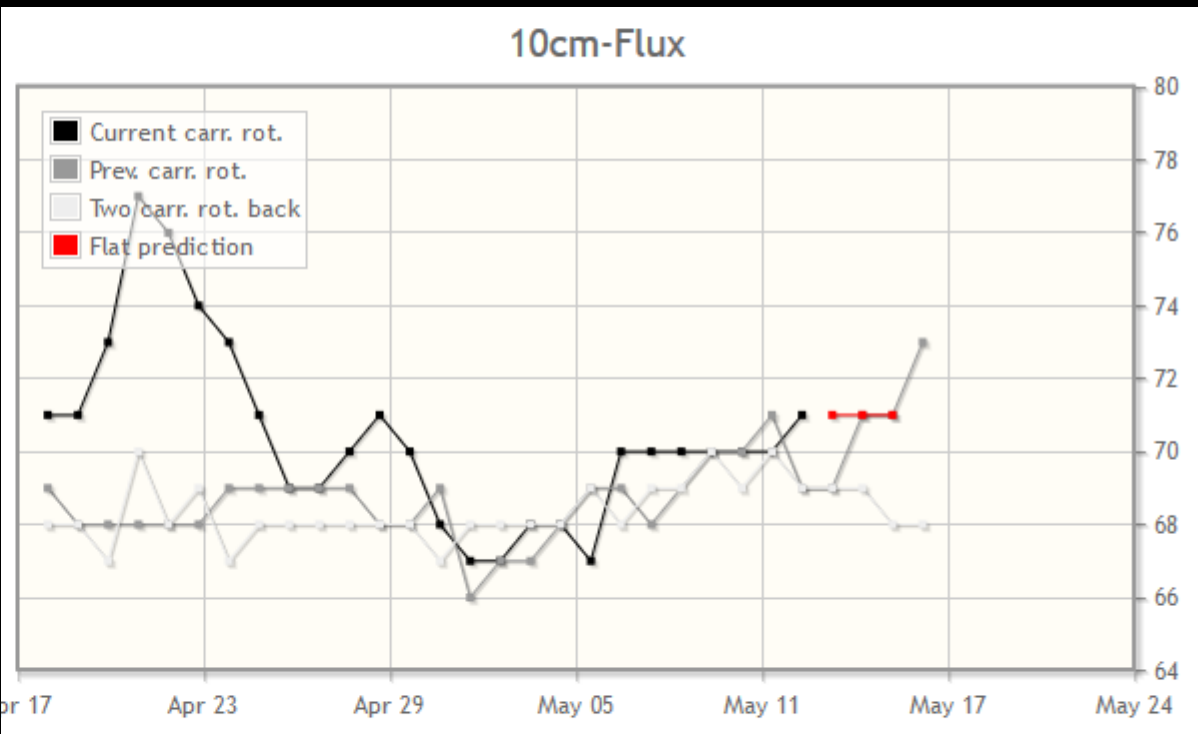
2018-05-07T00:00:34 HMI continuum



2018-05-07T00:00:34 HMI magnetogram

# Evolution of 10.7cm Radio Flux

Predicted and observed 10.7cm Radio flux (sfu)

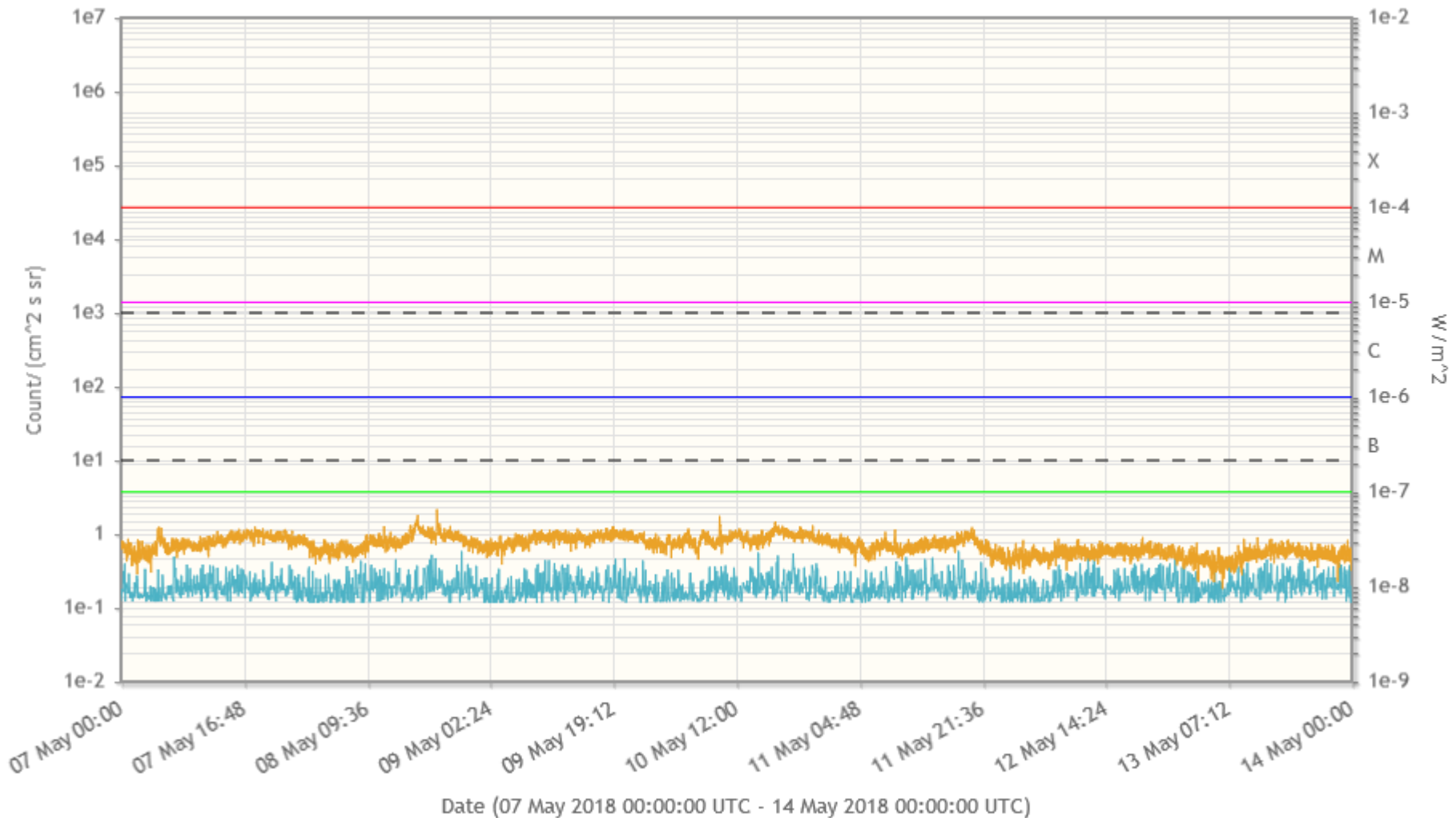


Issue time (12:30UT)	Pred.	Obs.
2018-05-07	68	70
2018-05-08	69	70
2018-05-09	70	70
2018-05-10	69	70
2018-05-11	70	70
2018-05-12	70	70
2018-05-13	70	71

# Solar x-ray flux and $\geq 10$ MeV proton flux (GOES)

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■ Protons / Electrons - GOES Particles at > 10 Mev (quicklook) - (raw - 5 minute data)  
■ X-Ray - GOES X-Ray flux 0.1-0.8 nm (quicklook) - (raw - 1 minute data)





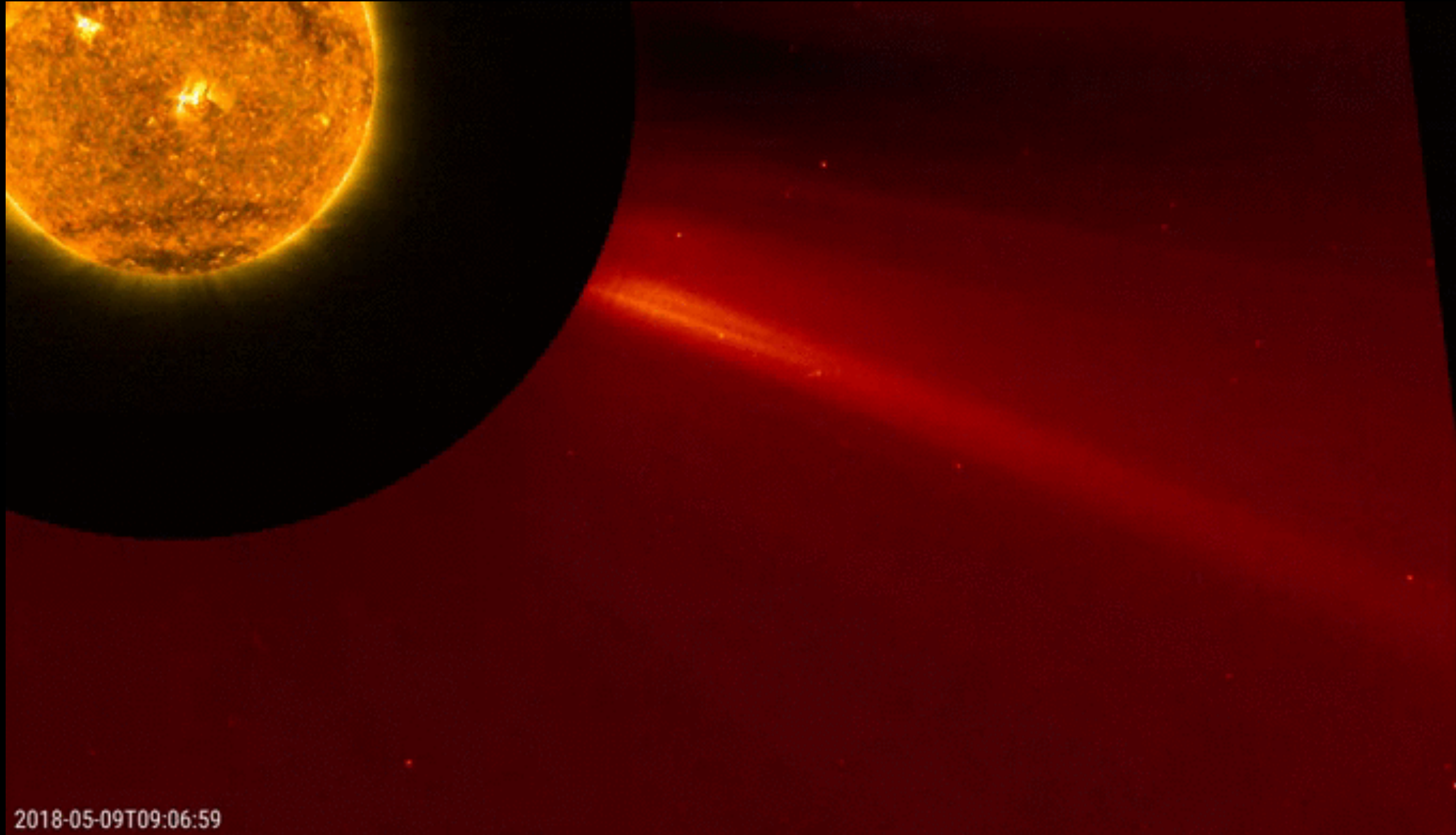
# Evolution of Flare probability

Probability of full disk x-ray flare occurrence over next 24h

Issue time (12:30UT)	P(C)	P(M)	P(X)	#C obs.	#M obs.	#X obs.
2018-05-07	0.15	0.01	0.01	0	0	0
2018-05-08	0.15	0.01	0.01	0	0	0
2018-05-09	0.10	0.01	0.01	0	0	0
2018-05-10	0.05	0.01	0.01	0	0	0
2018-05-11	0.05	0.01	0.01	0	0	0
2018-05-12	0.10	0.01	0.01	0	0	0
2018-05-13	0.05	0.01	0.01	0	0	0

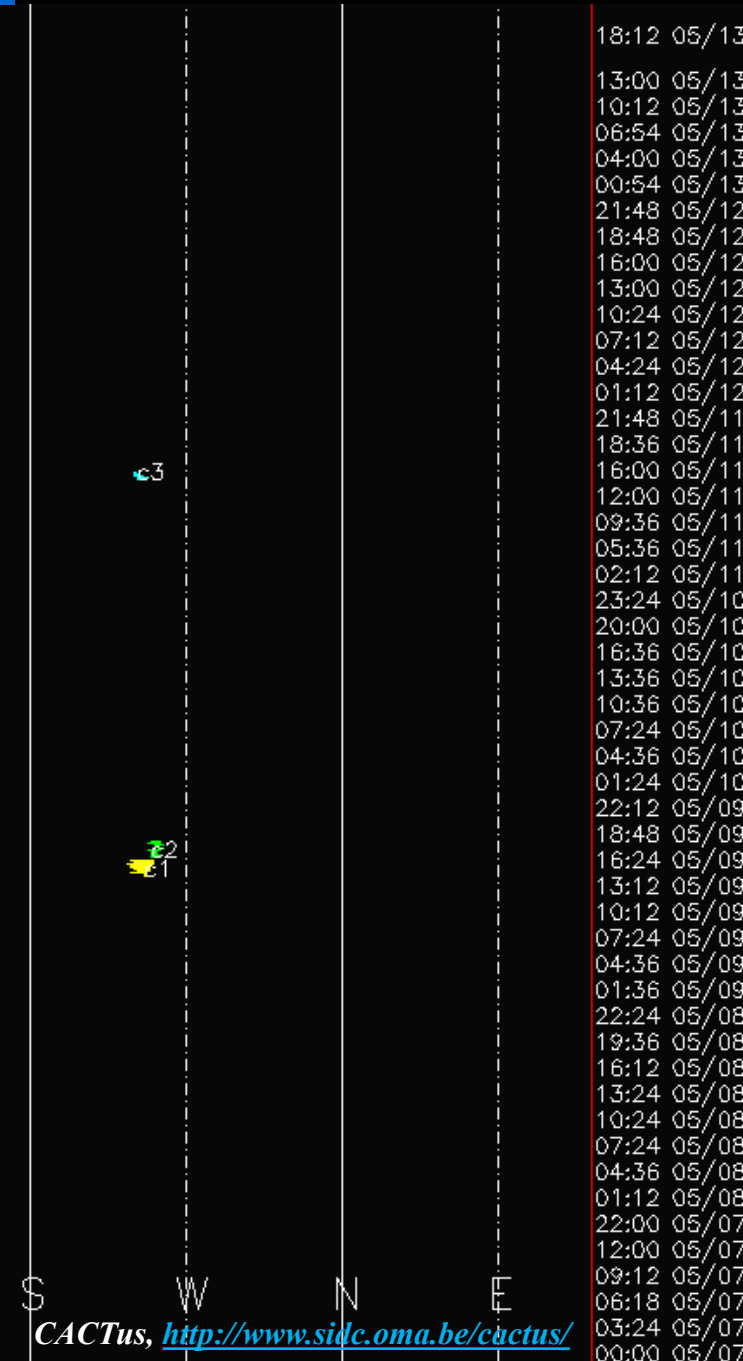
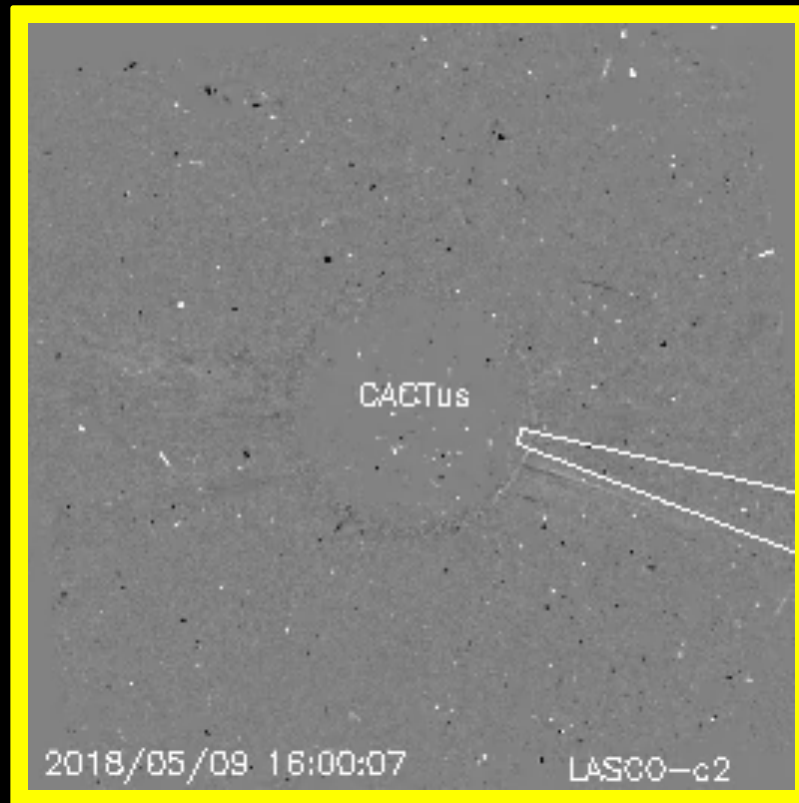
# Prominence eruption - 9 May 2018

*SDO304, PROBA2/SWAP & SOHO/LASCO C2*

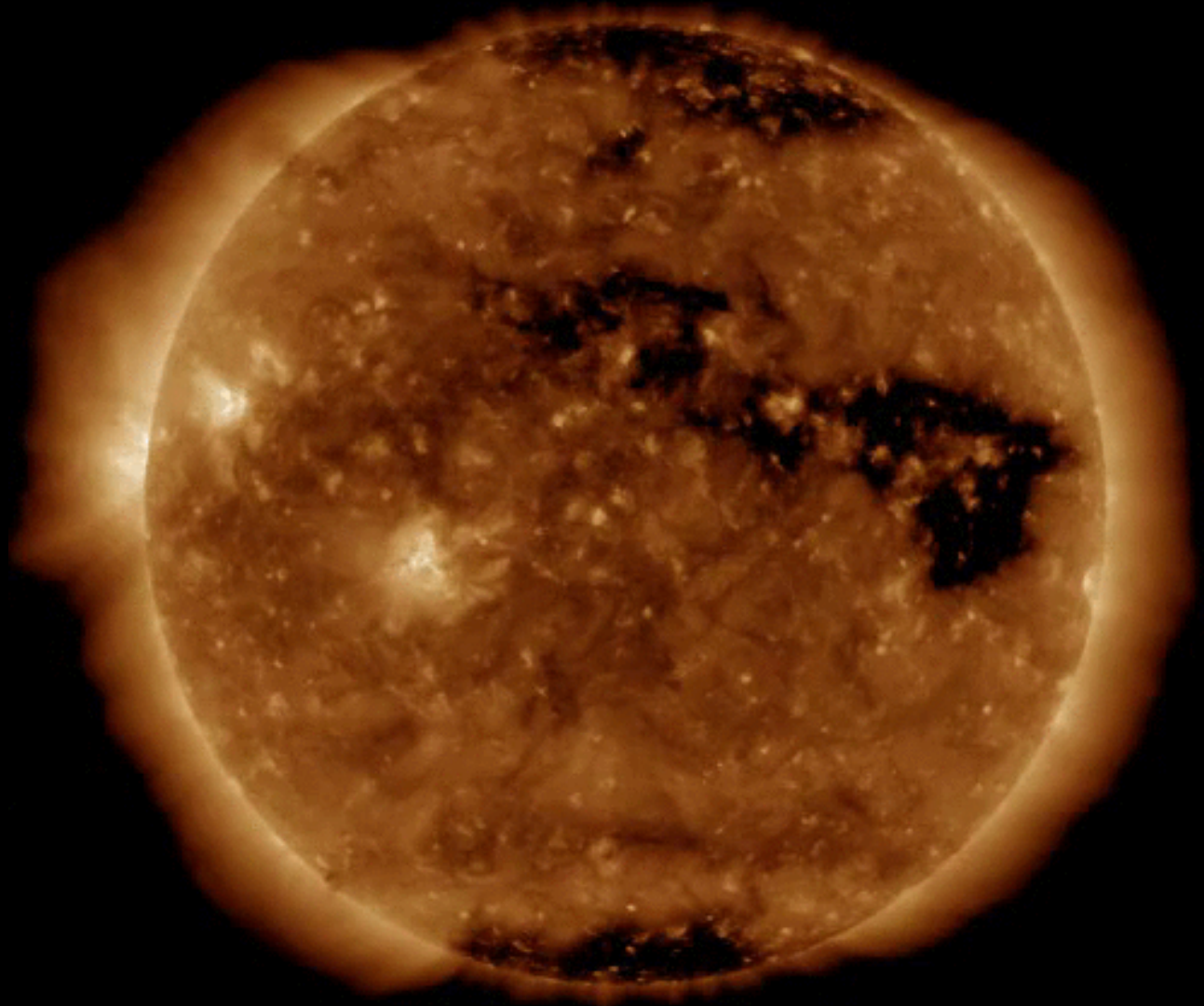
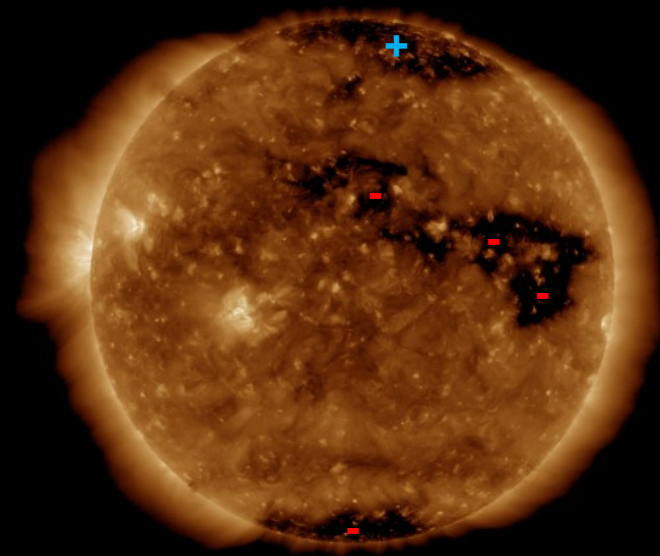


2018-05-09T09:06:59

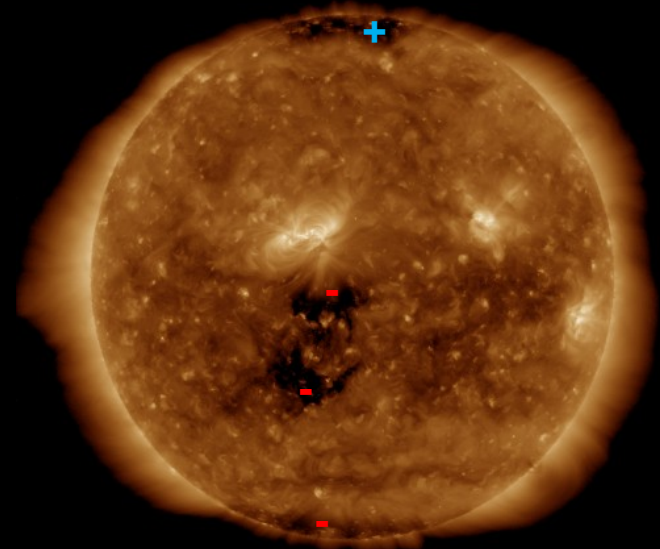
# Coronal Mass Ejections



# Coronal Holes



SDO/AIA 193 2018-05-07 00:10:29 UT

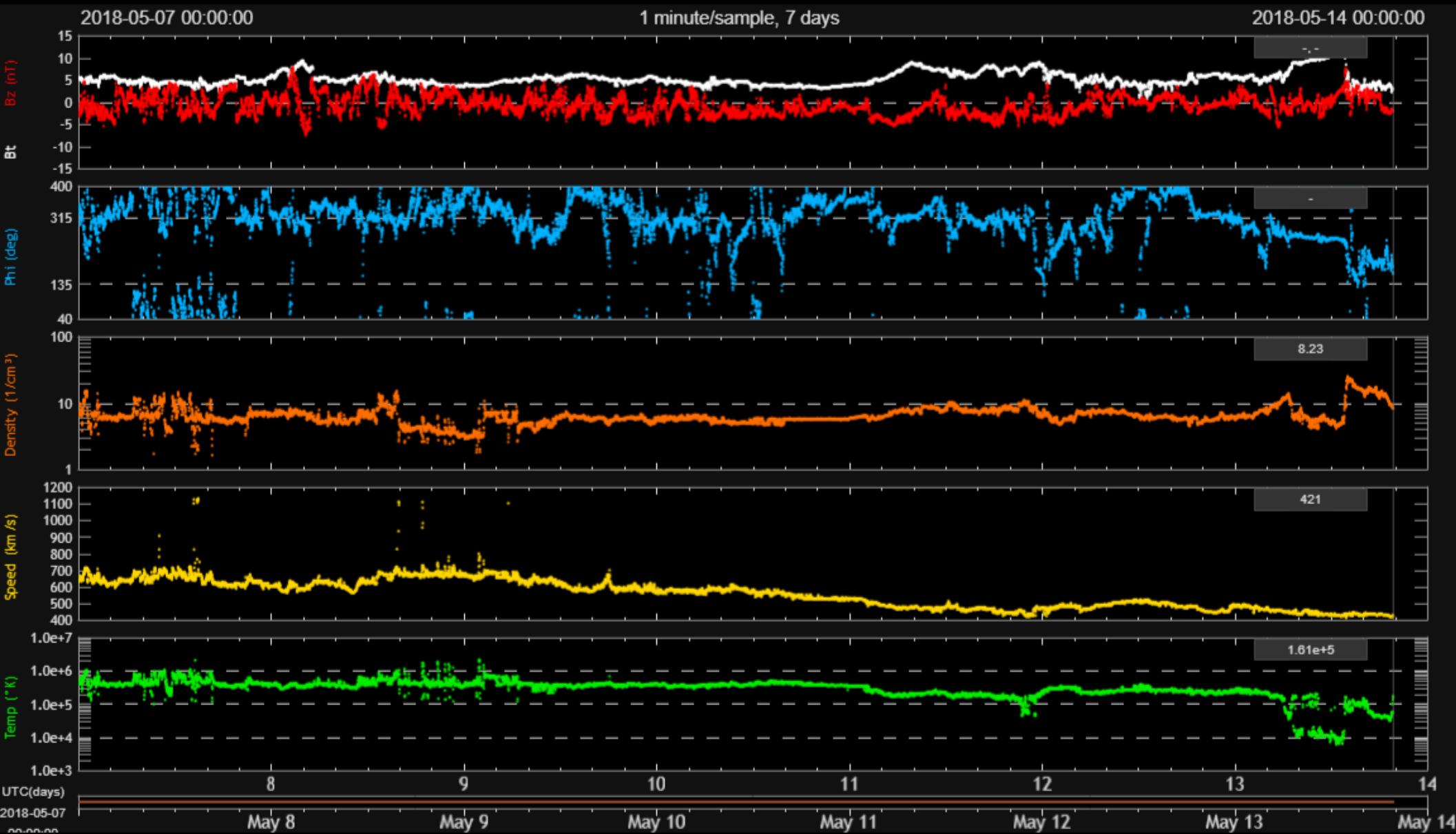


SDO/AIA 193 2018-05-13 09:55:17 UT

SDO/AIA 193 2018-05-07 00:56:17 UT



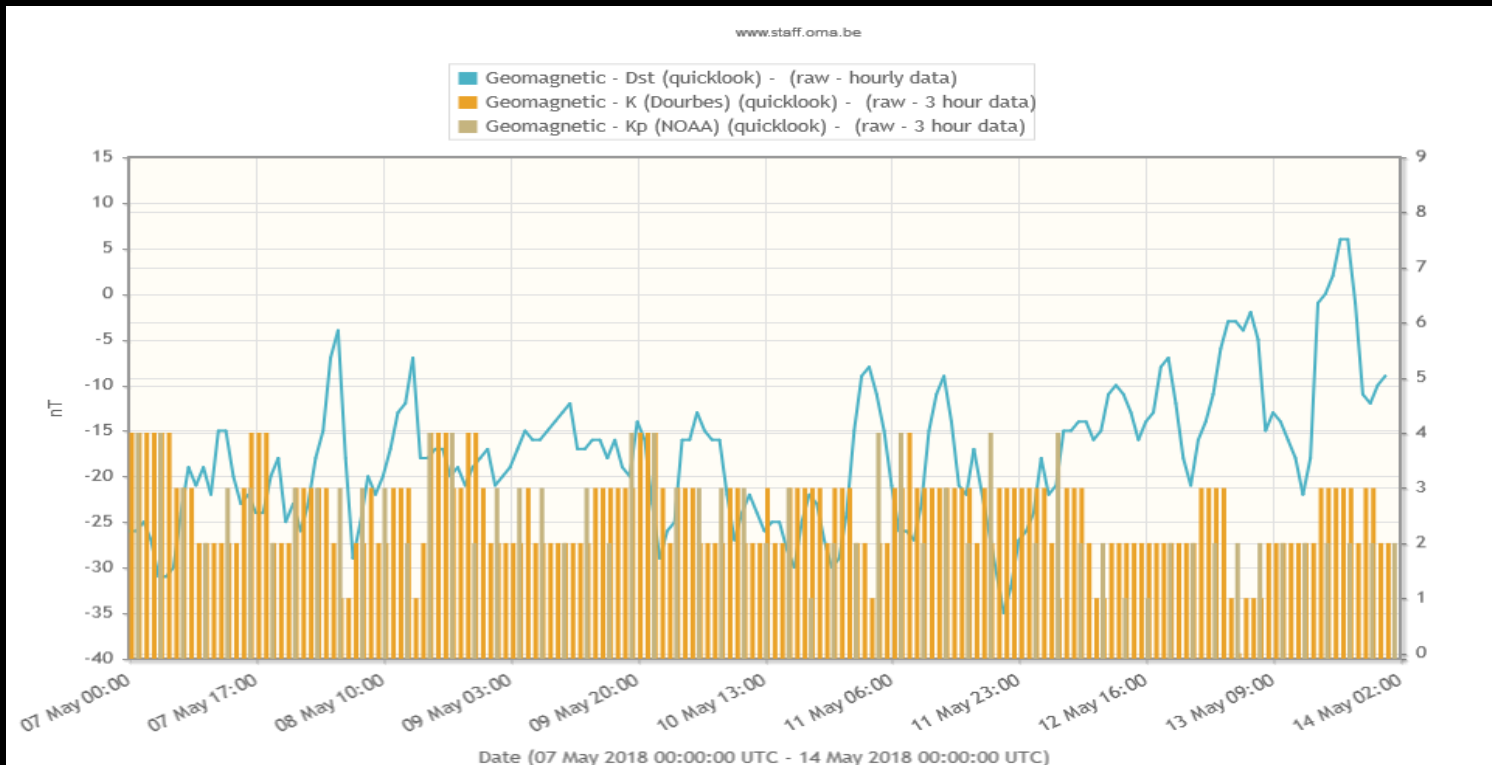
# Solar wind





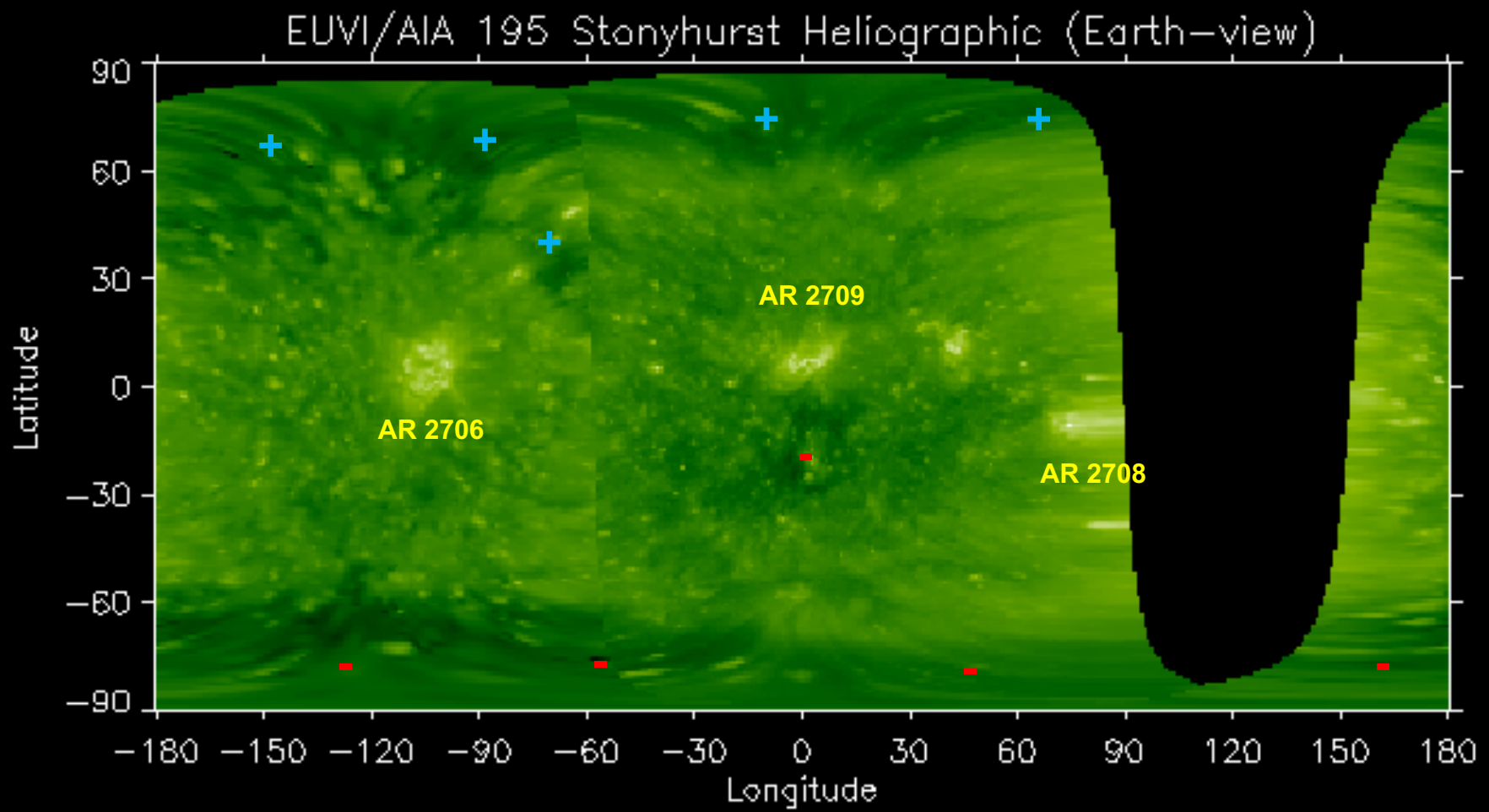
# Geomagnetic activity

## Predicted and observed K index Dourbes



Issue time (12:30UT)	Pred. $K_{\leq}$	Obs. K
2018-05-07	4	4
2018-05-08	4	4
2018-05-09	4	4
2018-05-10	4	4
2018-05-11	3	3
2018-05-12	4	3
2018-05-13	3	3

# Outlook



Observation date: 2018/05/14 06:05:30

# 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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