

SIDC Space Weather briefing

11 – 17 December

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&

SIDC forecaster team

Solar Influences
Data analysis Centre
www.sidc.be



Royal Observatory
of Belgium

Summary Report

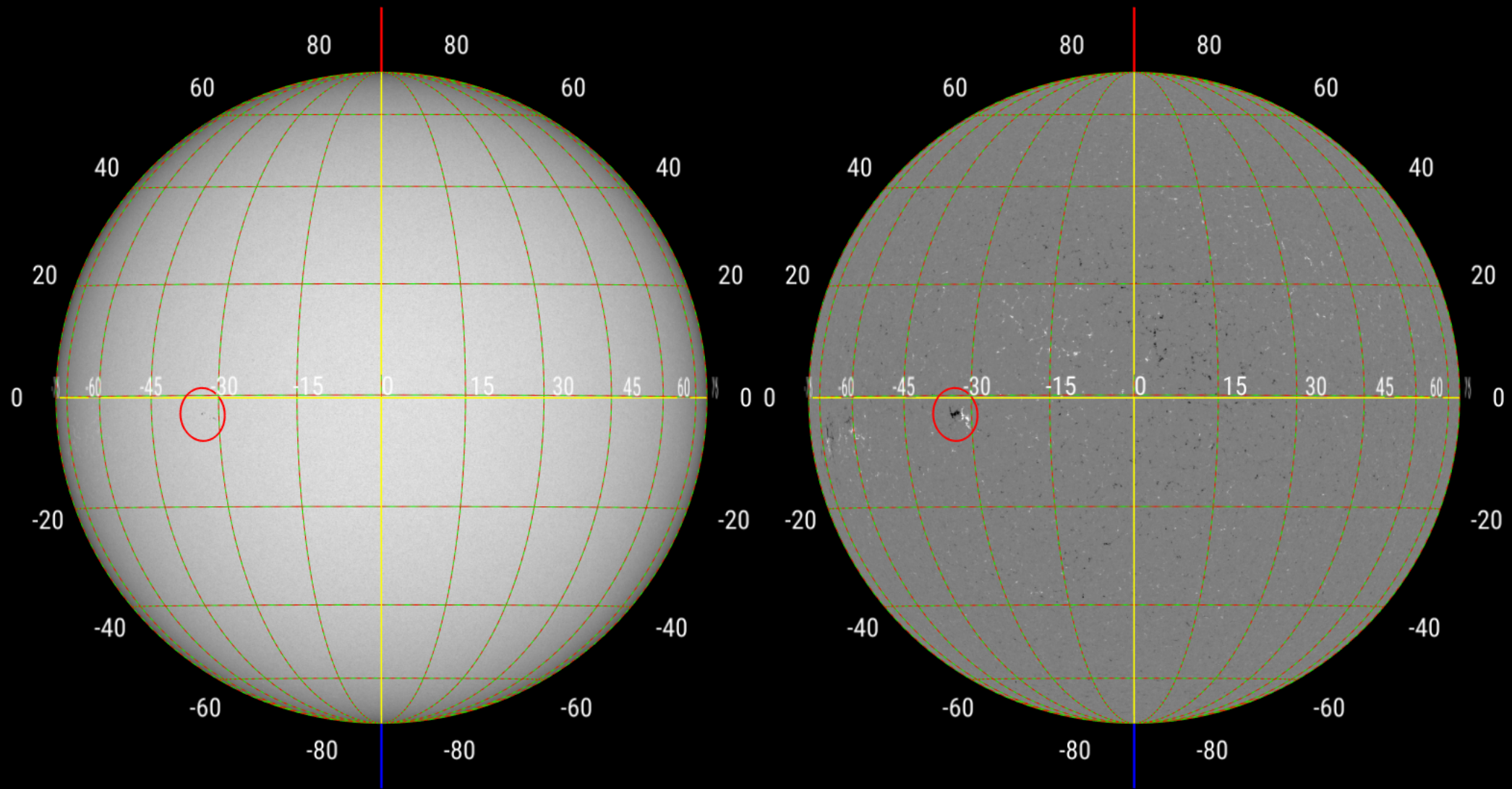
Solar Activity:

Active Regions	AR 2691 (only start of week)
Flaring	GOES X-Ray flux background near A5, no C-class flares
Filaments	Filament eruptions on 15 and 16 December
CMEs	CME on 15 December
Proton Event	Background level

Solar wind and Geomagnetic conditions:

SW conditions	CIR with fast solar wind (~615 km/s)
ICME	15 December CME may reach Earth early on 20 December
Max K index	NOAA Kp=5 and K Dourbes=5
Coronal Hole	+ polar CH, + equatorial CH

Solar active region evolution

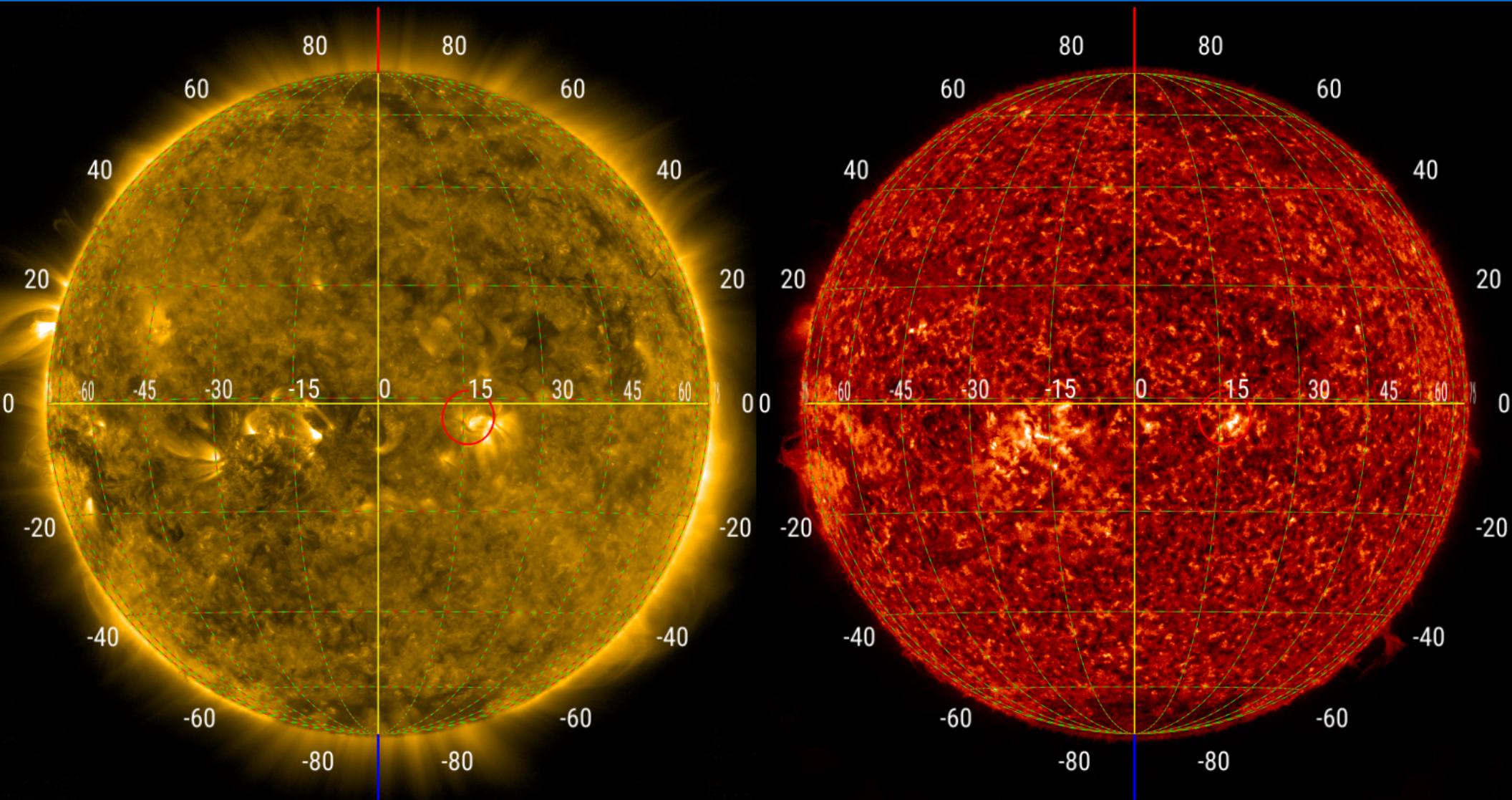


2017-12-11T19:29:37 HMI continuum

2017-12-11T19:29:37 HMI magnetogram

movie

Solar active region evolution



2017-12-15T12:29:33 AIA 171

2017-12-15T12:29:29 AIA 304

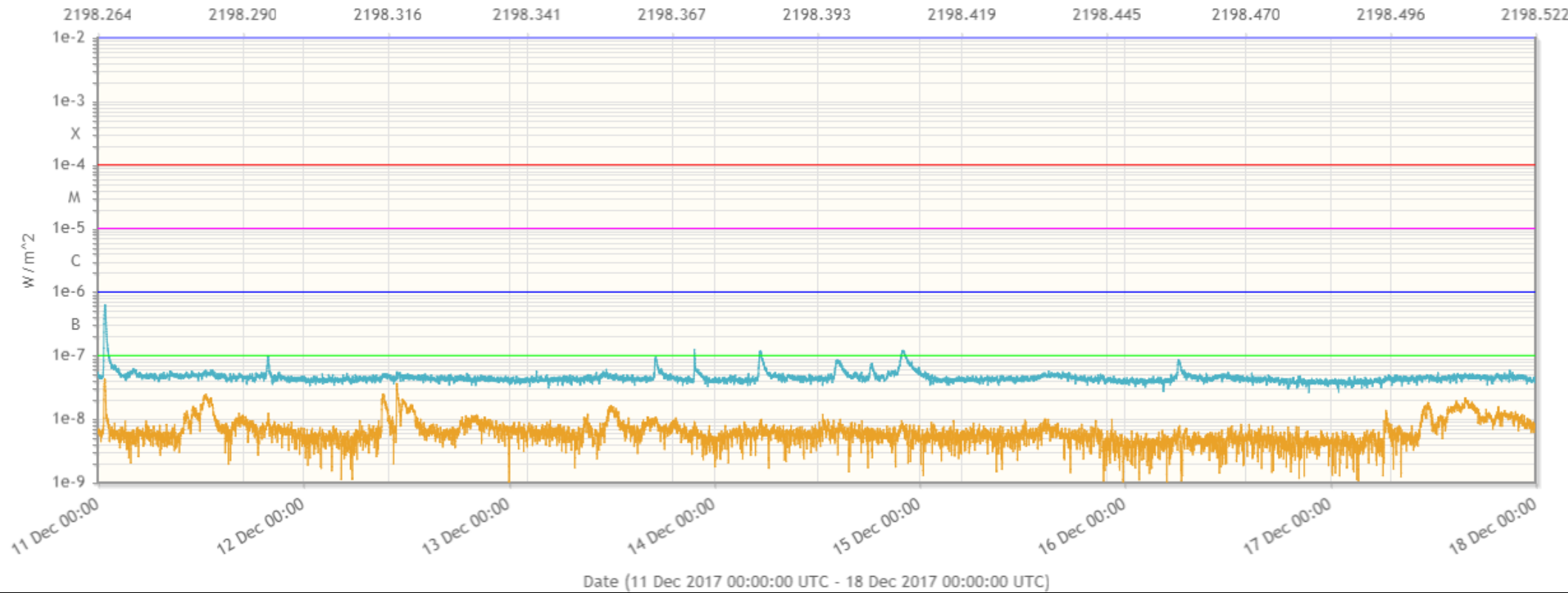
movie

Solar X-ray flux and flaring

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■ X-Ray - GOES X-Ray flux 0.1-0.8 nm (quicklook) - (raw - 1 minute data)
■ X-Ray - GOES X-Ray flux 0.05-0.4 nm (quicklook) - (raw - 1 minute data)

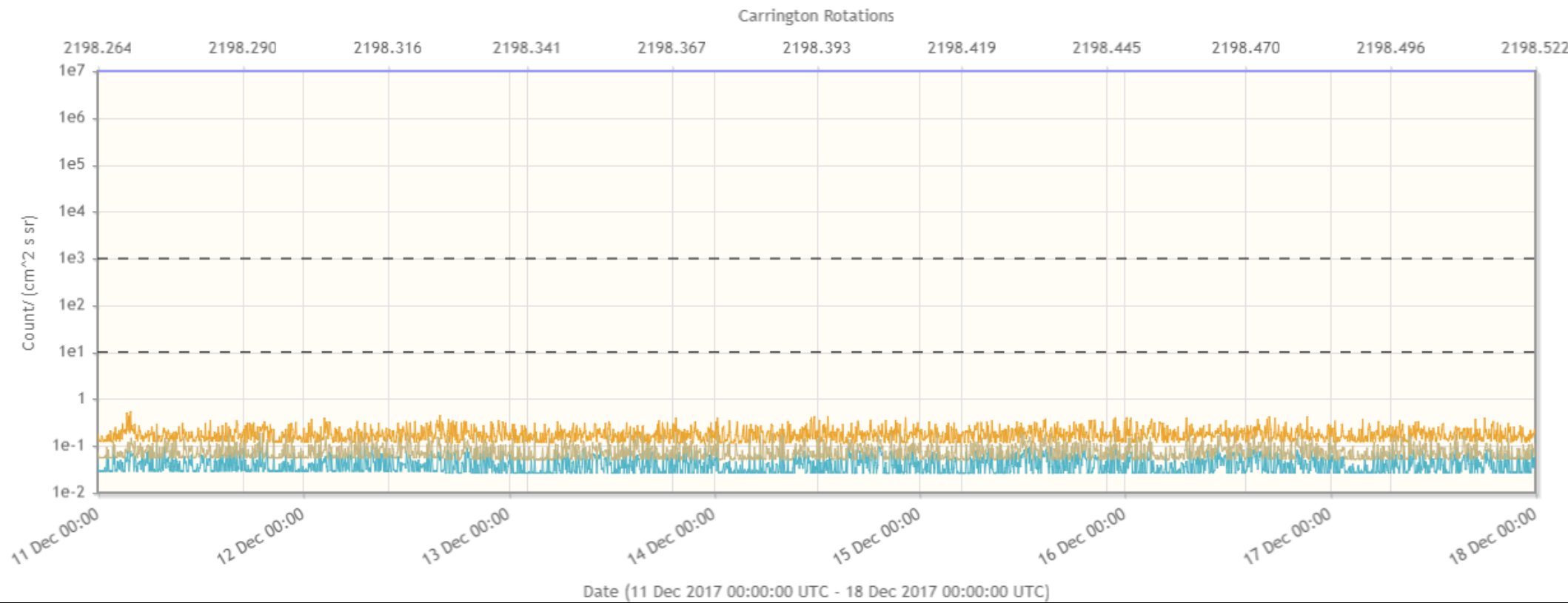
Carrington Rotations



Energetic particles

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■ Protons / Electrons - GOES Particles at > 100 Mev (quicklook) - (raw - 5 minute data)
■ Protons / Electrons - GOES Particles at > 10 Mev (quicklook) - (raw - 5 minute data)
■ Protons / Electrons - GOES Particles at > 50 Mev (quicklook) - (raw - 5 minute data)



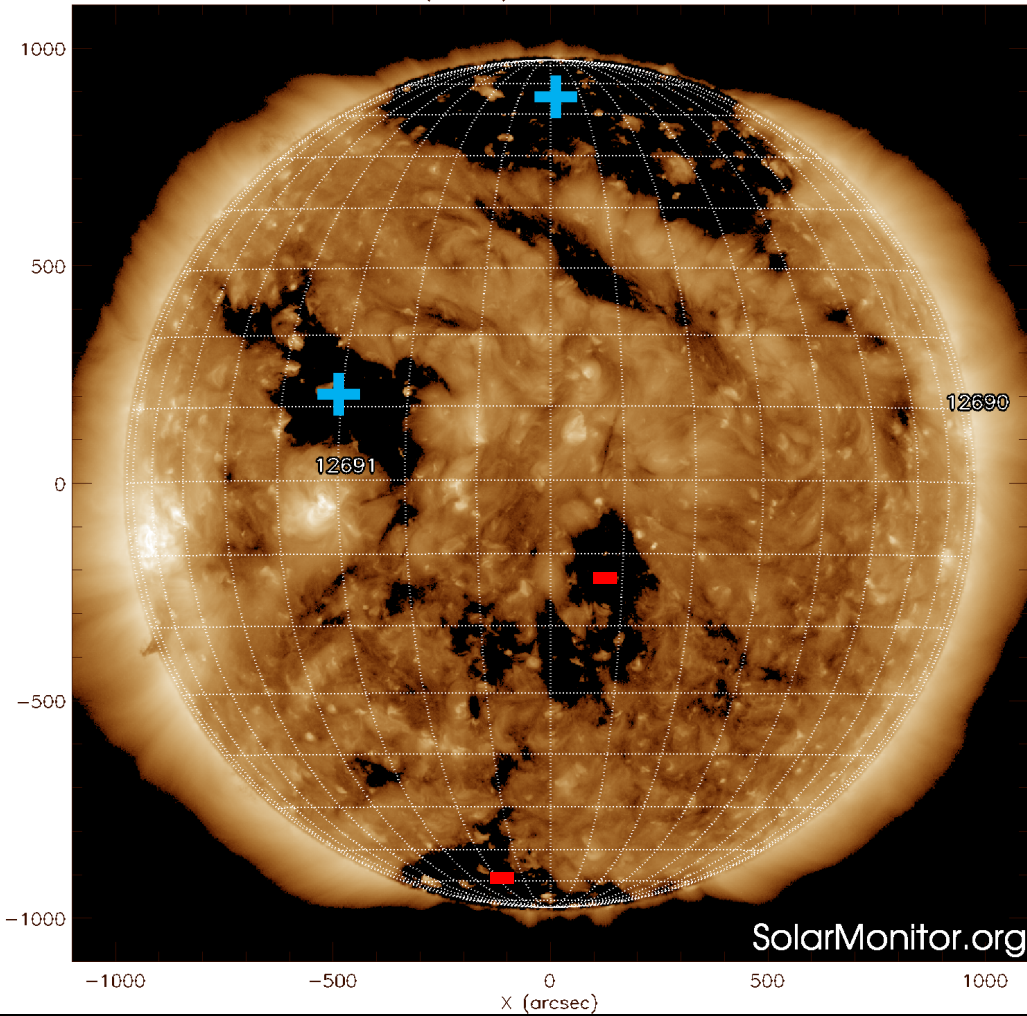
CMEs

- [CME](#) detected by CACTUS in LASCO C2 at 12:12 UT on 15 December
- Associated with filament eruption near 25S 40E, 12h UT
- Estimated speed 284 km/s
- May arrive at Earth (probability: 20%) early on 20 December

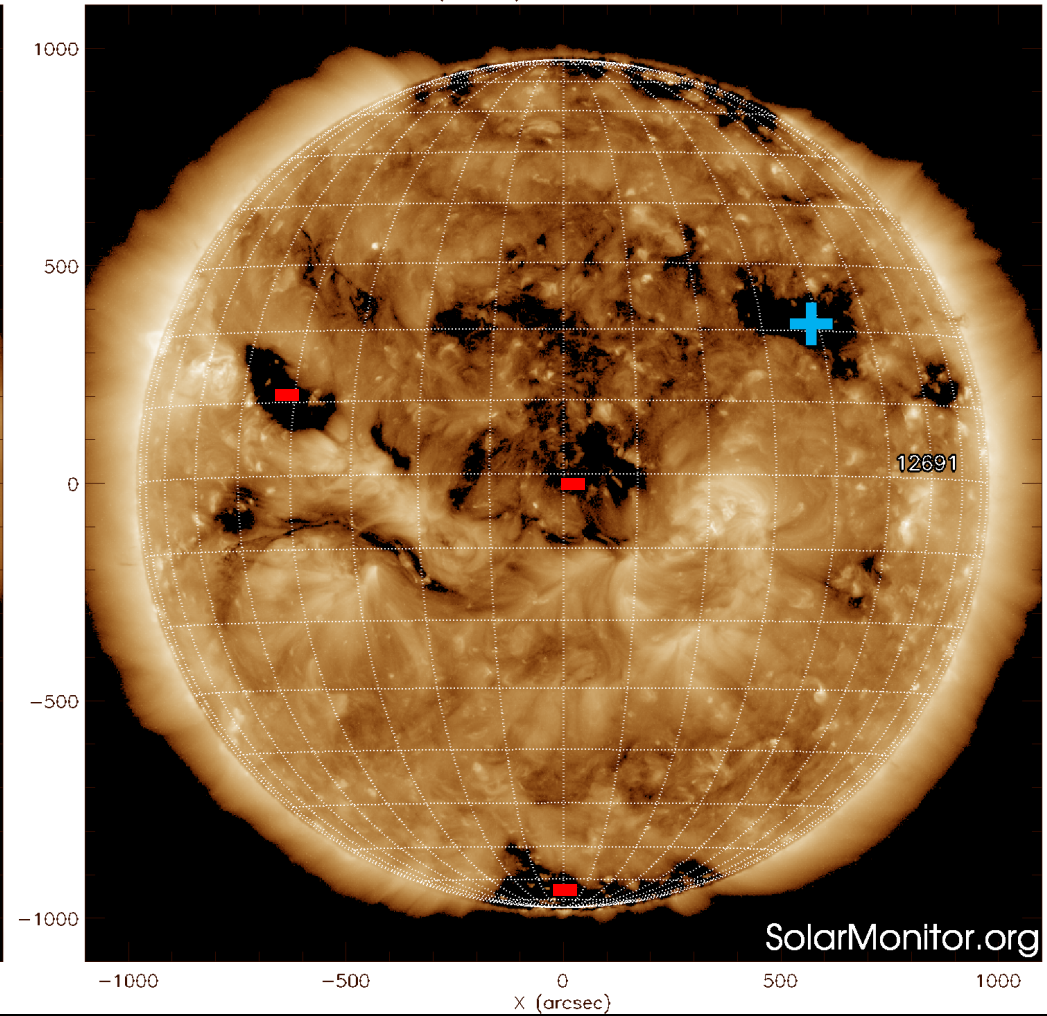


Coronal holes

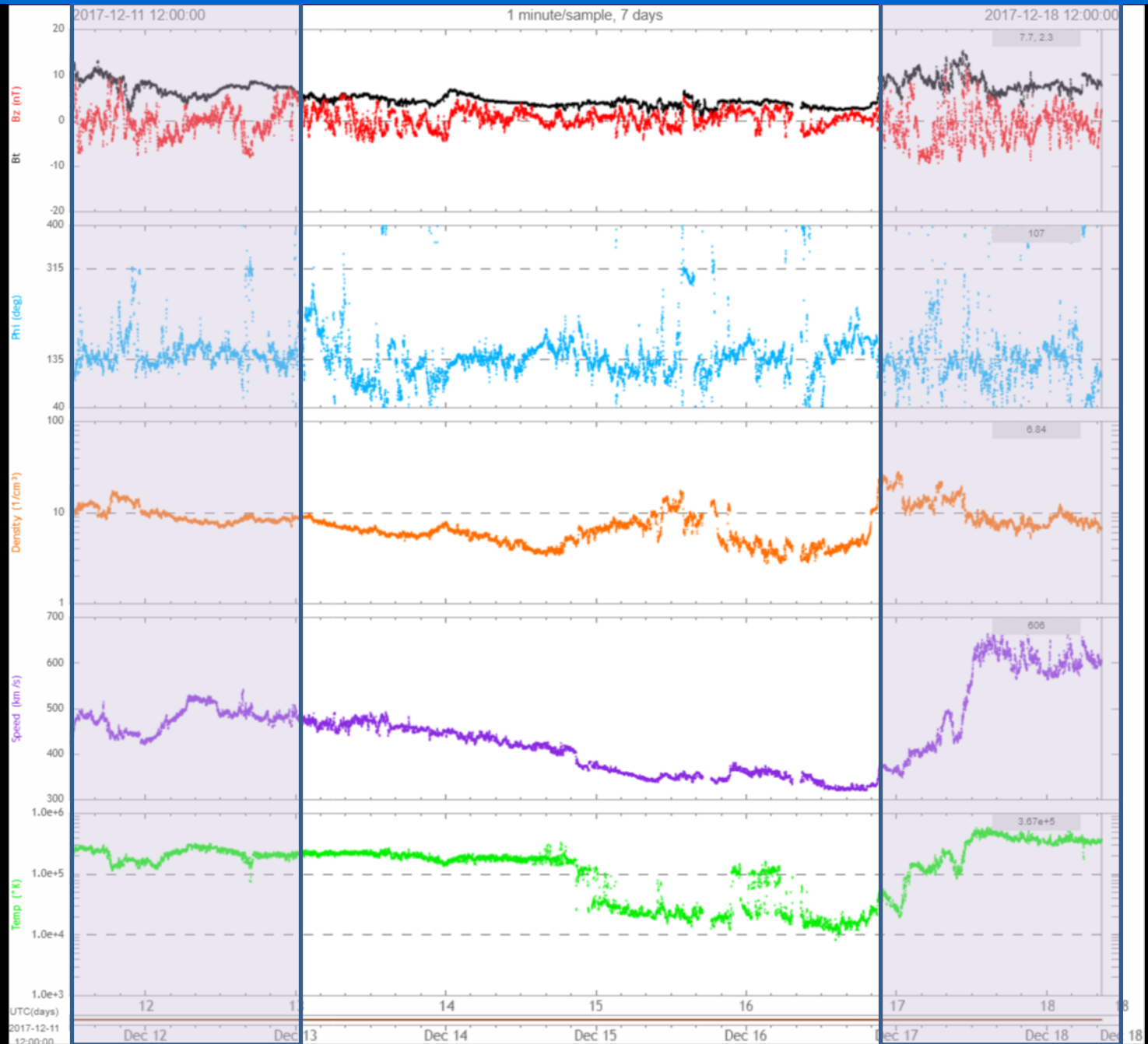
SDO AIA Fe XII (193 Å) 11-Dec-2017 20:25:16.850



SDO AIA Fe XII (193 Å) 18-Dec-2017 08:24:40.850

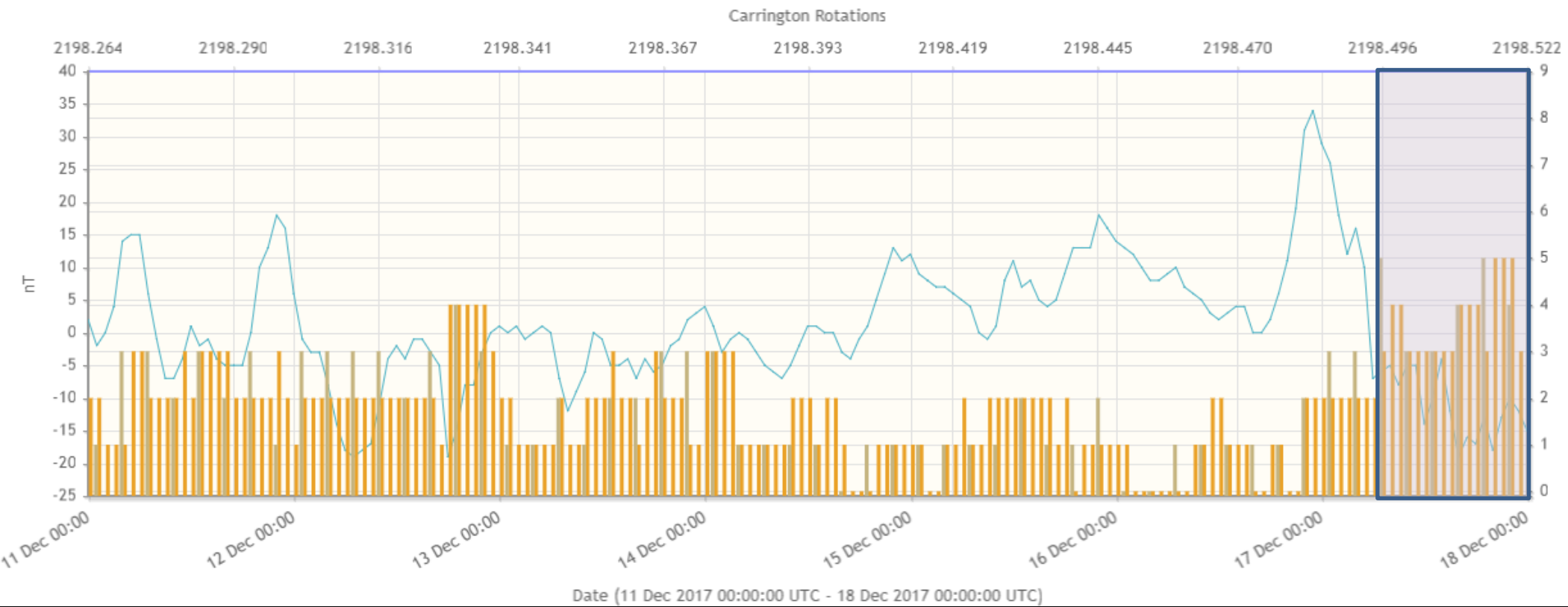
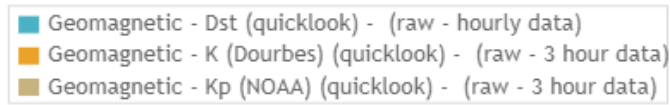


Solar wind



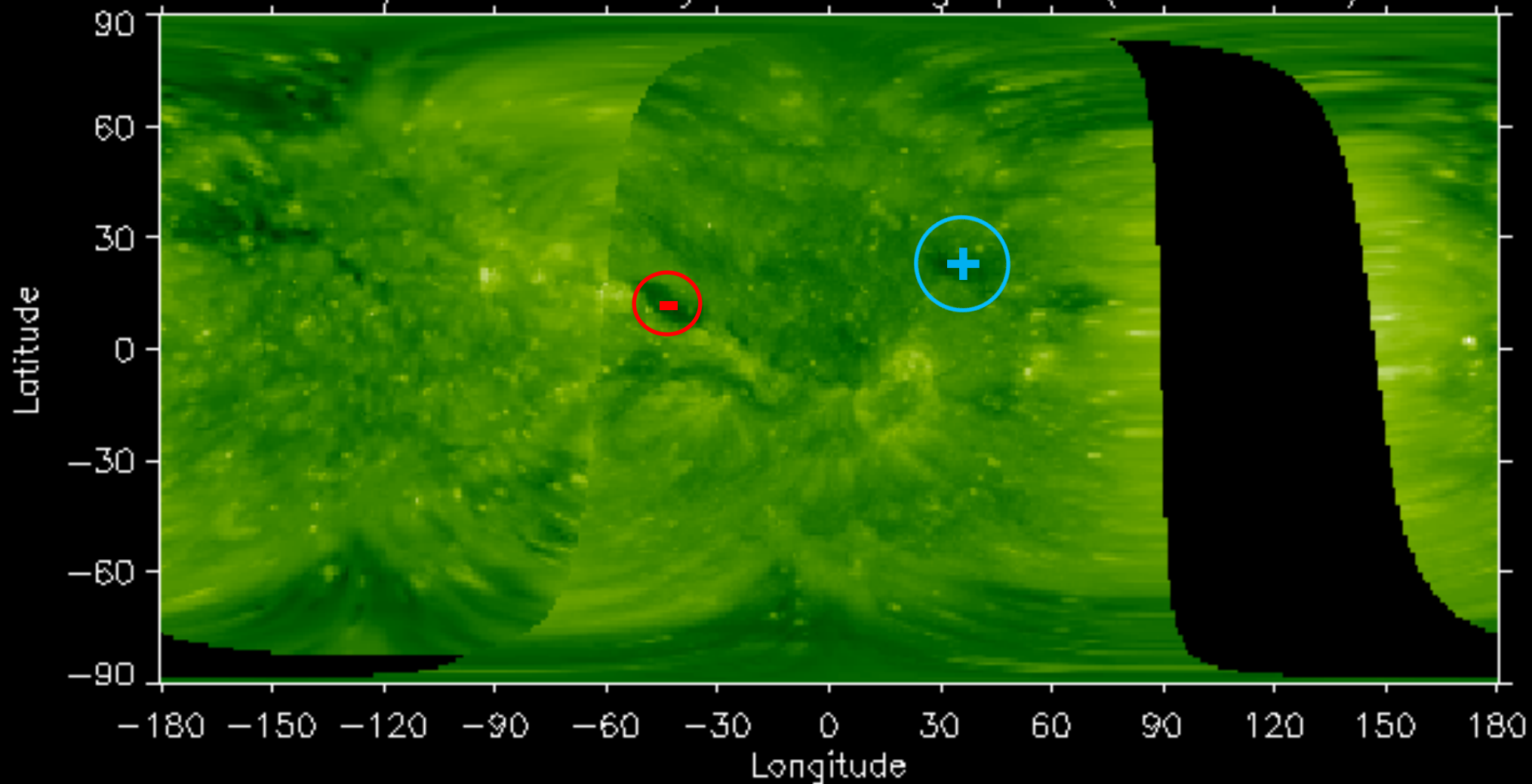
Geomagnetism

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Outlook

EUVI/AIA 195 Stonyhurst Heliographic (Earth-view)



Observation date: 2017/12/18 07:55:30

SIDC Space Weather briefing

See you at our next briefing!

Or visit us at www.sidc.be

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