

SIDC Space Weather briefing

12 – 18 February, 2018

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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-2699
Flaring	C-class and below
Filaments	1 filament, no eruptions
CMEs	One eruption (Near disk center)
Proton Events	Background level

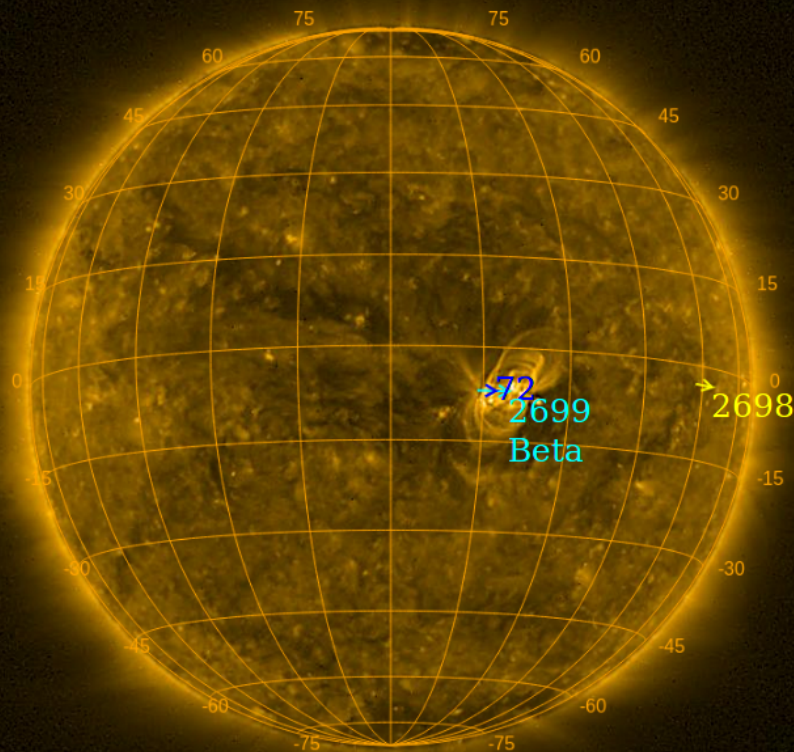
Solar wind and Geomagnetic conditions:

SW conditions	CIR with Fast solar wind (~600 km/s)
ICME	Halo CME on 2018-Feb-12 arrived 2018-Feb-15
Kp index	Kp=4 and K-Dourbes=4
Coronal Hole	1 equatorial CH

Solar active region evolution

Catania sunspot groups
2018-02-12 09:00:00

NOAA AR/sunspot
NOAA Halpha plage
NOAA expected region
2018-02-12 00:30:00



PROBA2/SWAP 17.4nm
2018-02-12T09:07:05.052

Evolution of Flare probability

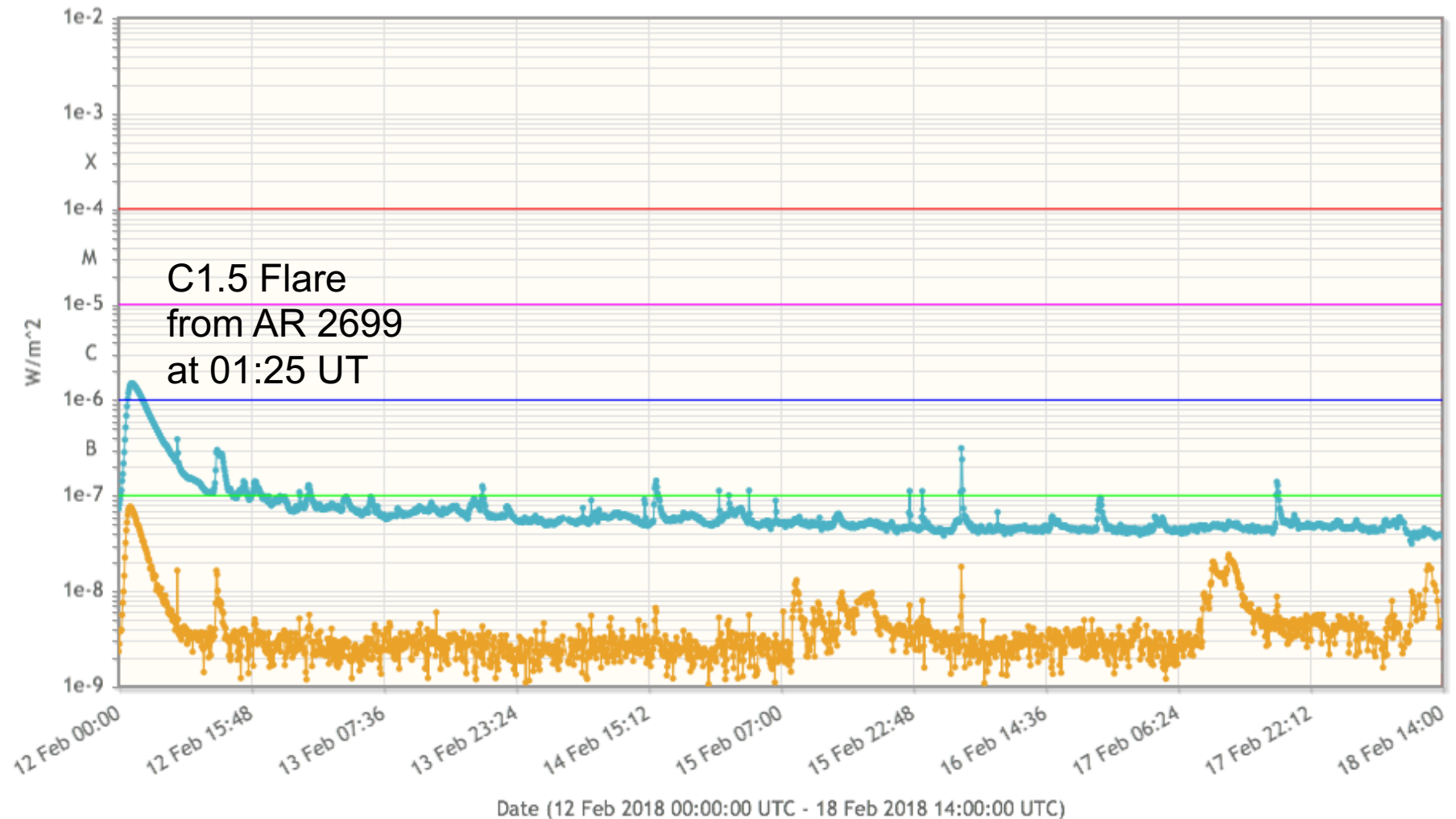
Probability P of full disk C,M, X flare occurrence over 24h

Issue time	P(C)	P(M)	P(X)
2018-02-12T12:30	0.50	0.15	0.05
2018-02-13T12:30	0.50	0.10	0.05
2018-02-14T12:30	0.60	0.10	0.05
2018-02-15T12:30	0.30	0.05	0.01
2018-02-16T12:30	0.20	0.05	0.01
2018-02-17T12:30	0.05	0.01	0.01
2018-02-18T12:30	0.01	0.01	0.01

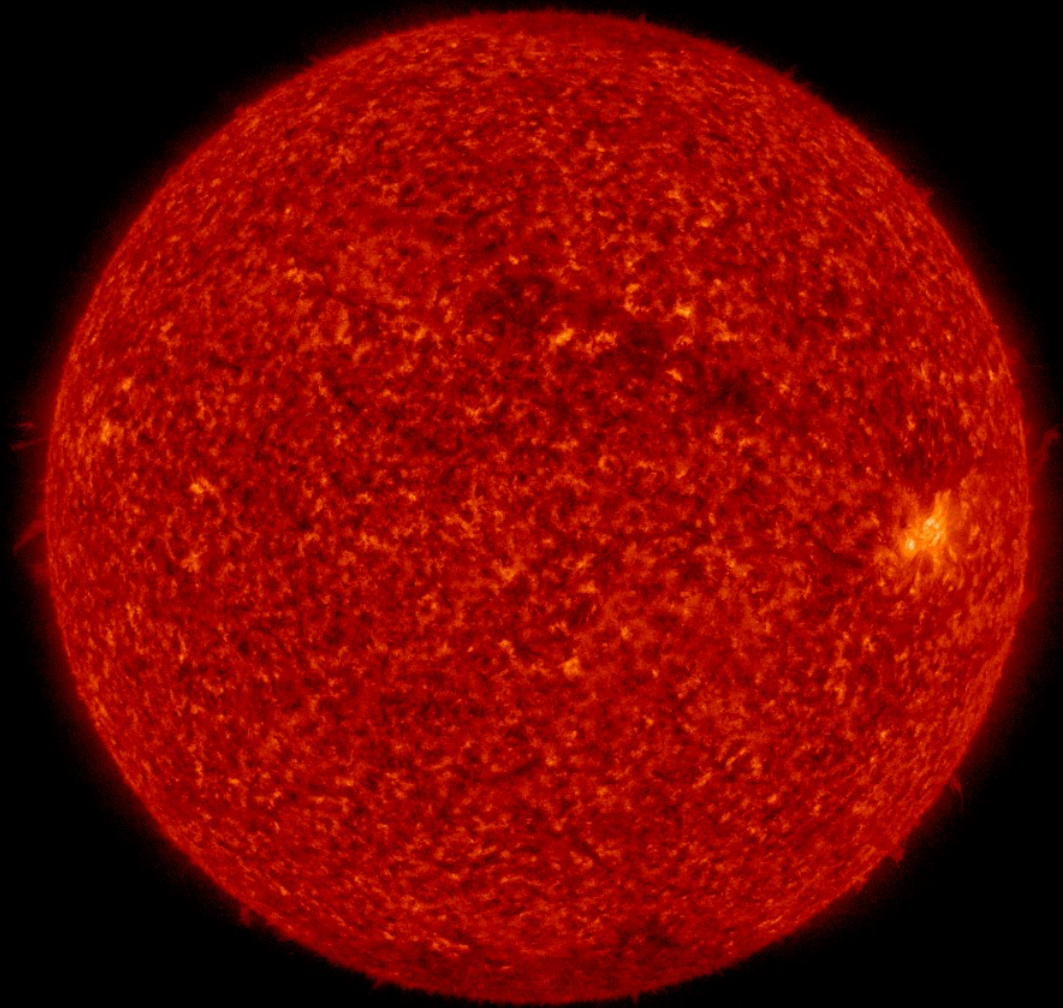
Solar X-ray Flux

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X-Ray - GOES X-Ray flux 0.1-0.8 nm (quicklook) - 1841 data points - (averaged - 5 minute data)
X-Ray - GOES X-Ray flux 0.05-0.4 nm (quicklook) - 1841 data points - (averaged - 5 minute data)



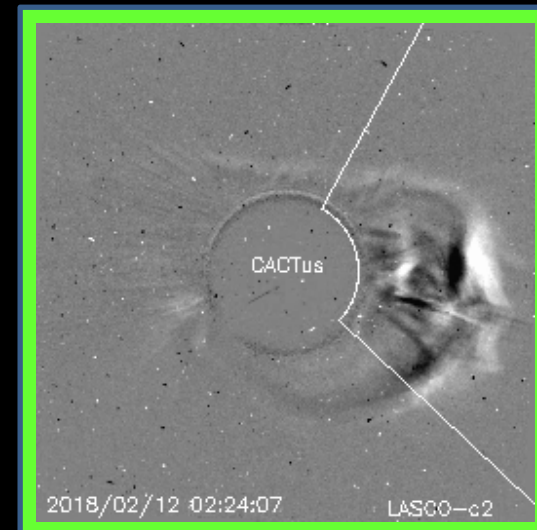
Filaments



CMEs

07:48 02/18
02:48 02/18
23:24 02/17
20:00 02/17
11:36 02/17
08:24 02/17
05:24 02/17
02:24 02/17
23:12 02/16
19:24 02/16
16:24 02/16
12:36 02/16
09:36 02/16
06:12 02/16
02:24 02/16
22:12 02/15
19:12 02/15
16:24 02/15
12:48 02/15
09:48 02/15
06:48 02/15
04:12 02/15
01:25 02/15
15:42 02/14
12:12 02/14
09:12 02/14
06:12 02/14
03:36 02/14
00:12 02/14
21:16 02/13
18:00 02/13
14:48 02/13
11:24 02/13
08:12 02/13
05:12 02/13
02:06 02/13
22:36 02/12
19:24 02/12
16:36 02/12
13:36 02/12
10:00 02/12
06:54 02/12
04:12 02/12
00:00 02/12
02:36 02/12
22:36 02/11
19:24 02/11

Halo CME on 2018-Feb-12 at 01:25 UT



True speed of about 509 km/s

Reached Earth on 15-Feb-2018
at approx. 18:00 UT

01

03 04

S

W

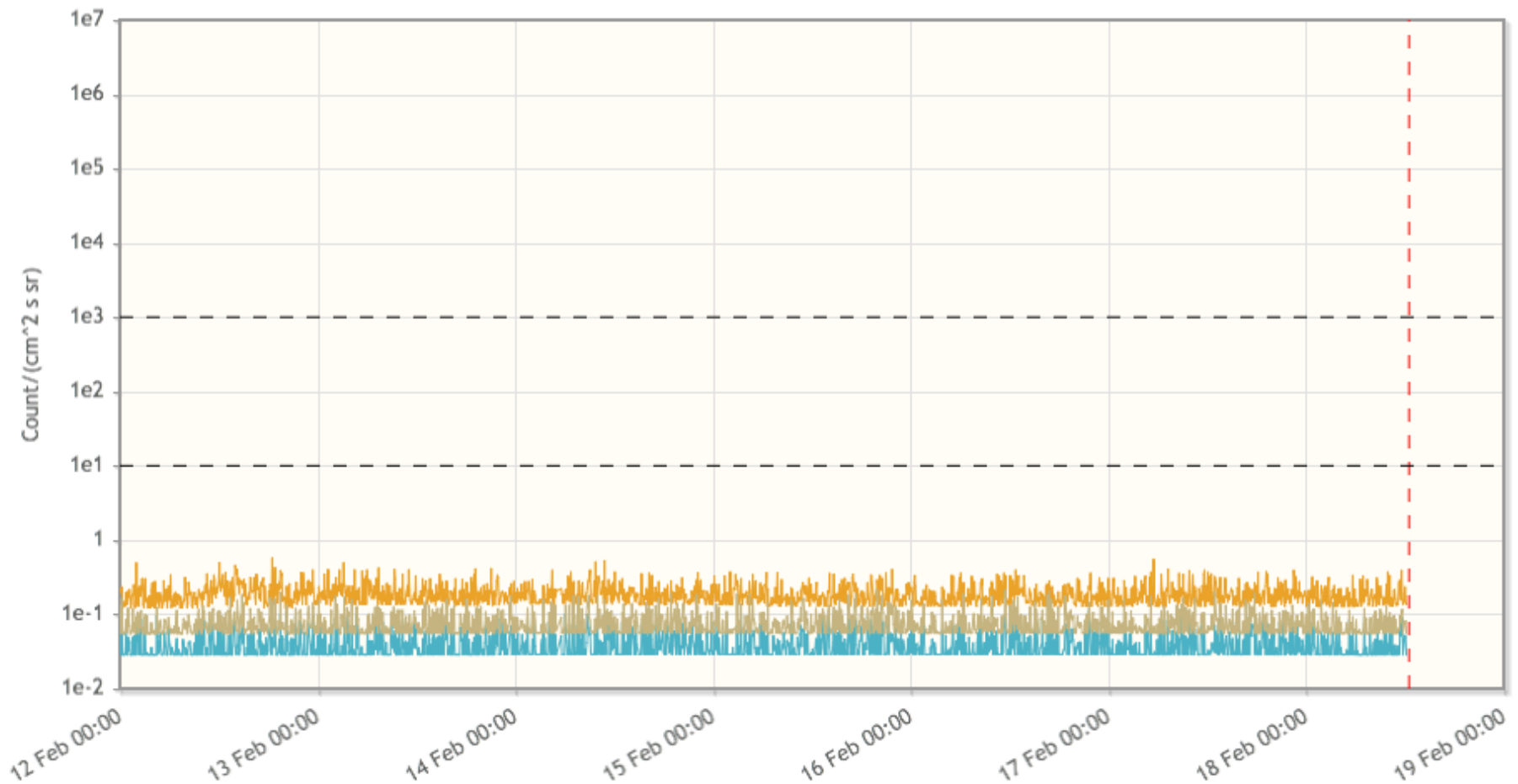
N

E

Energetic particles

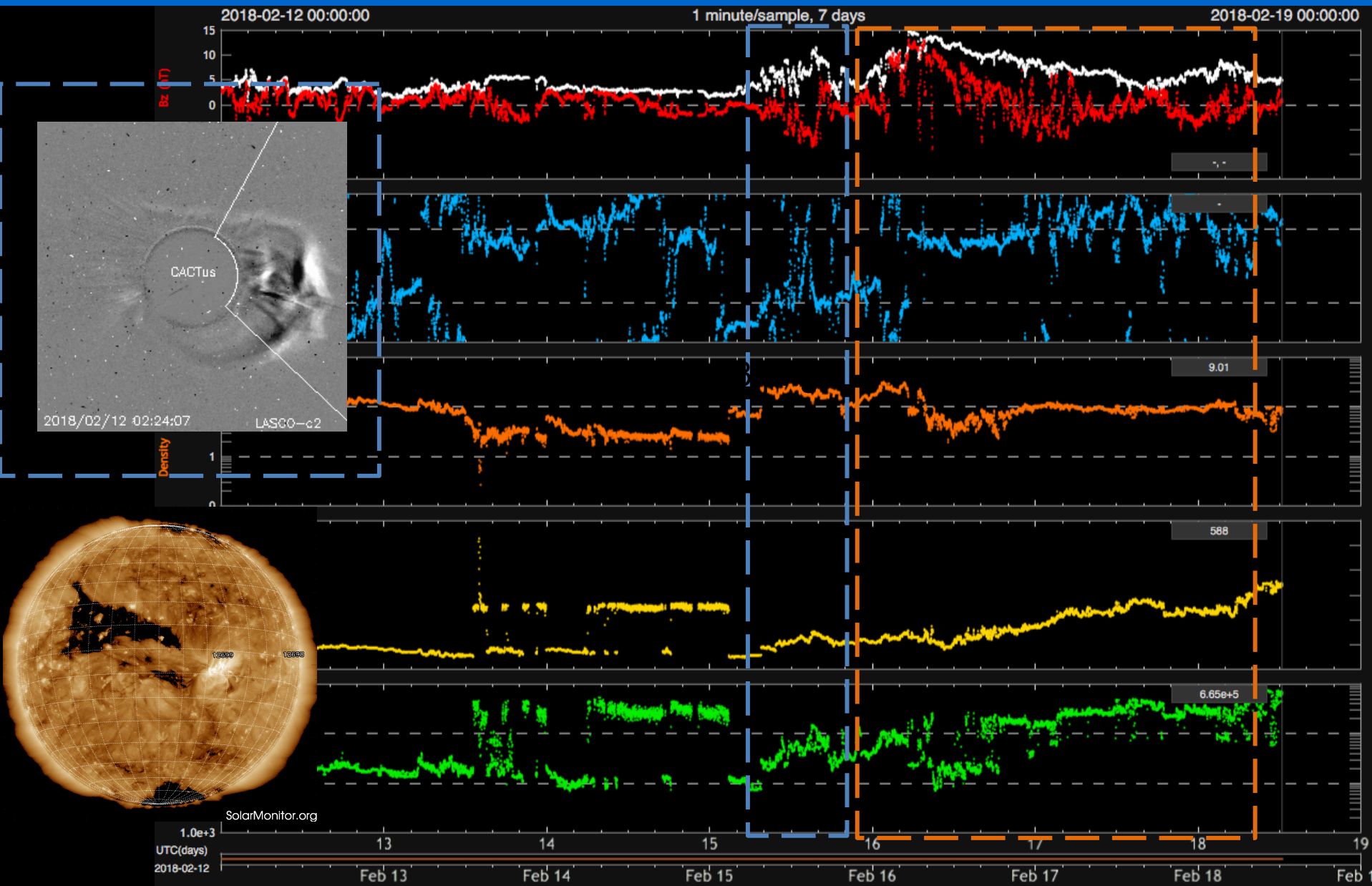
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■ Protons / Electrons - GOES Particles at > 100 Mev (quicklook) - 1822 data points - (raw - 5 minute data)
■ Protons / Electrons - GOES Particles at > 10 Mev (quicklook) - 1822 data points - (raw - 5 minute data)
■ Protons / Electrons - GOES Particles at > 50 Mev (quicklook) - 1822 data points - (raw - 5 minute data)

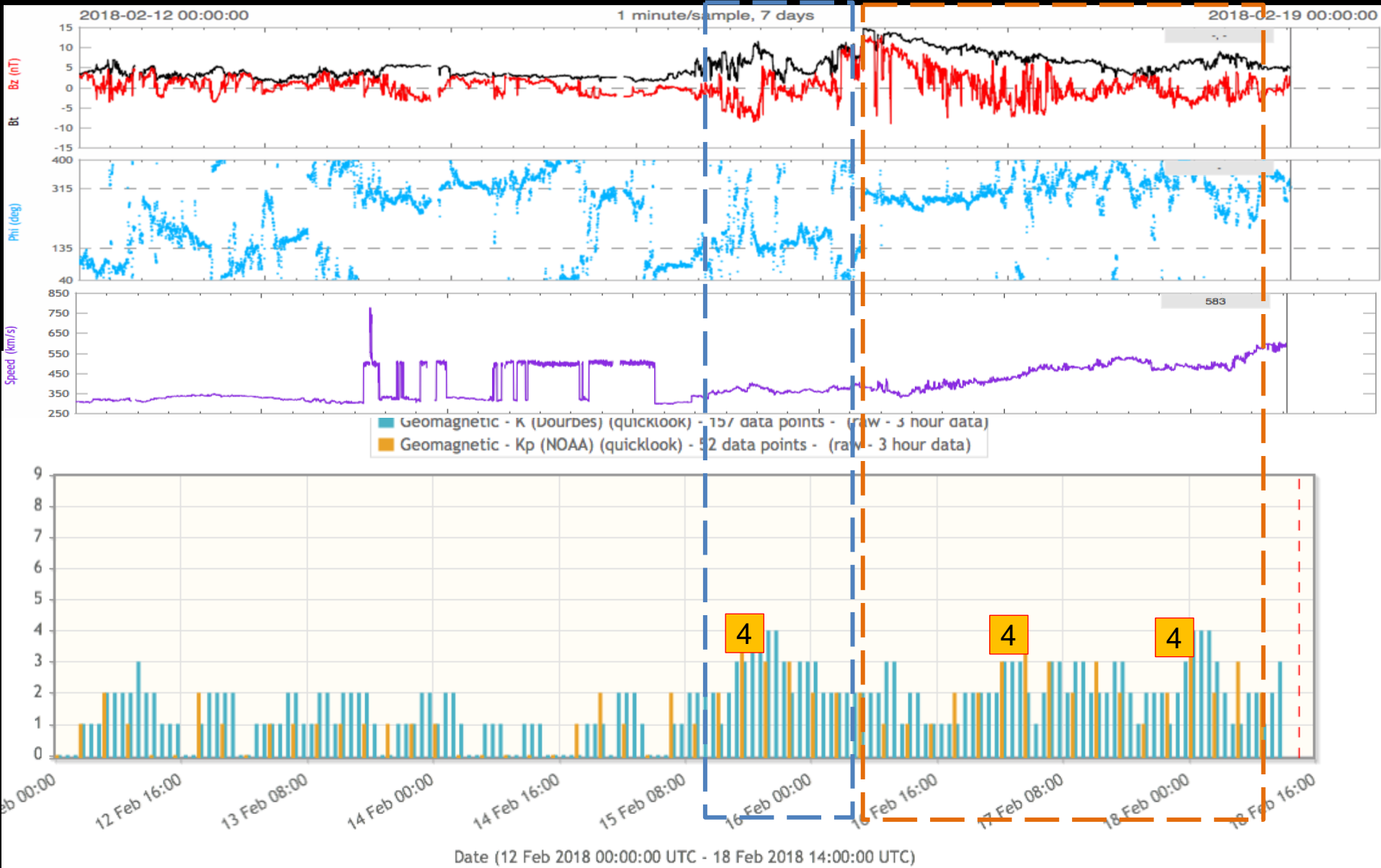


Date (12 Feb 2018 00:00:00 UTC - 19 Feb 2018 00:00:00 UTC)

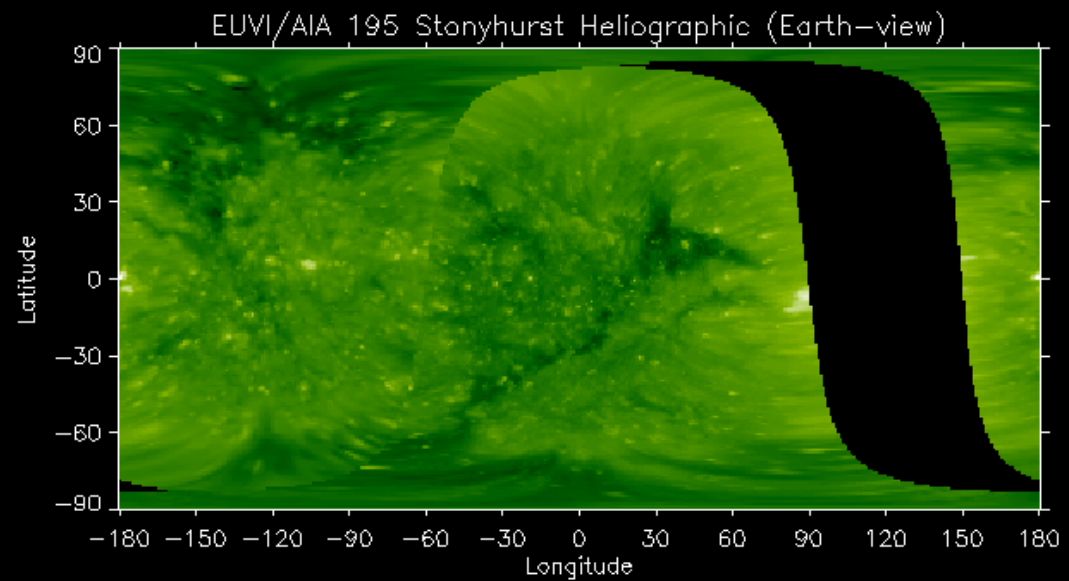
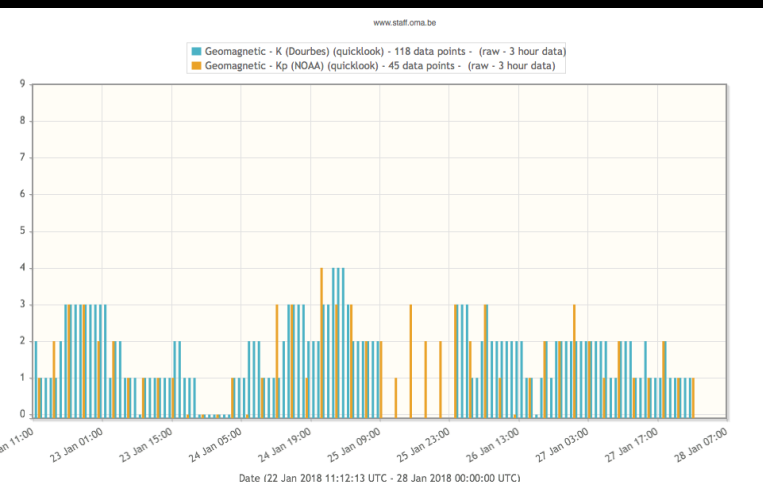
Solar wind



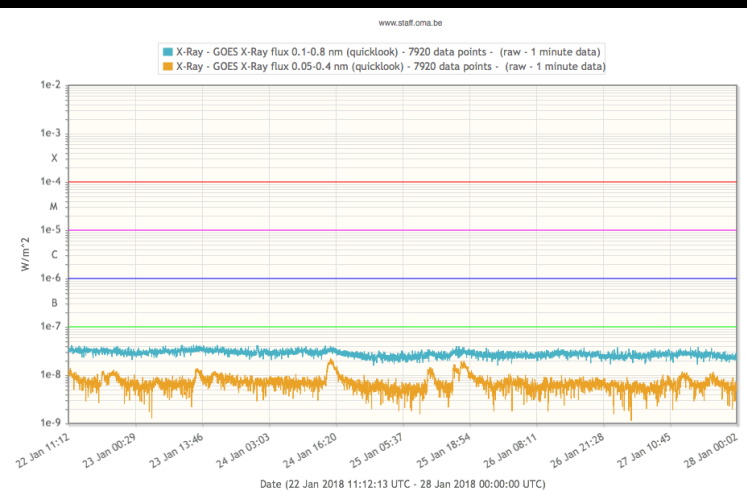
Geomagnetism



Outlook

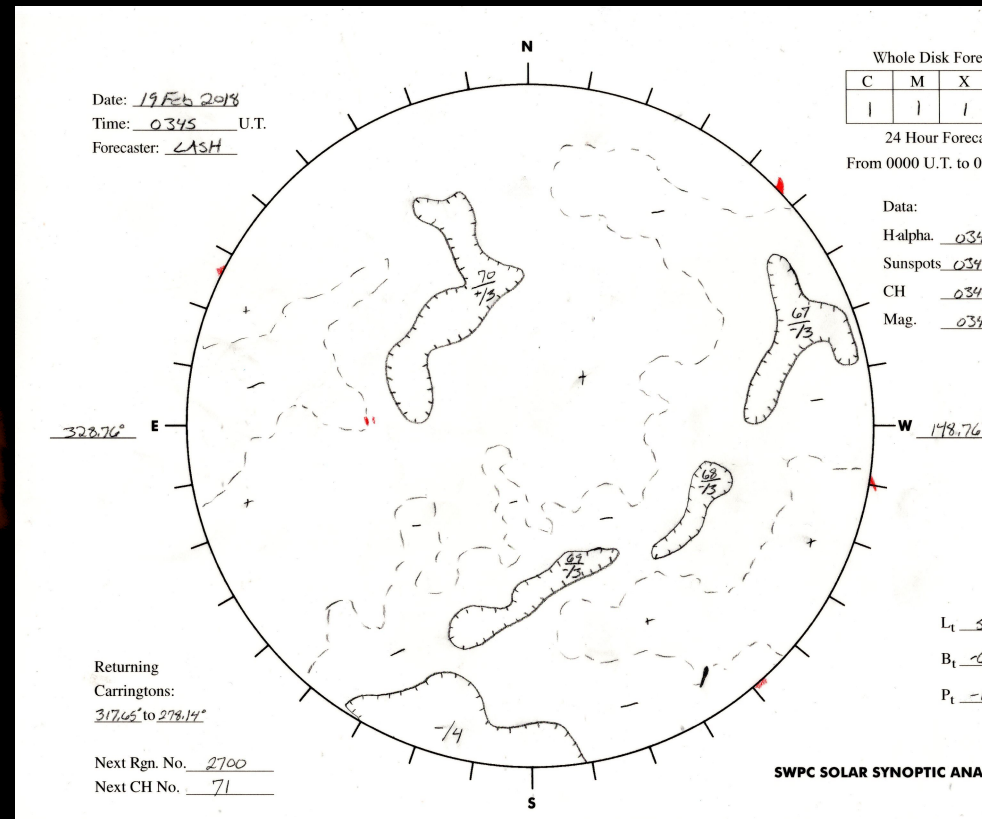
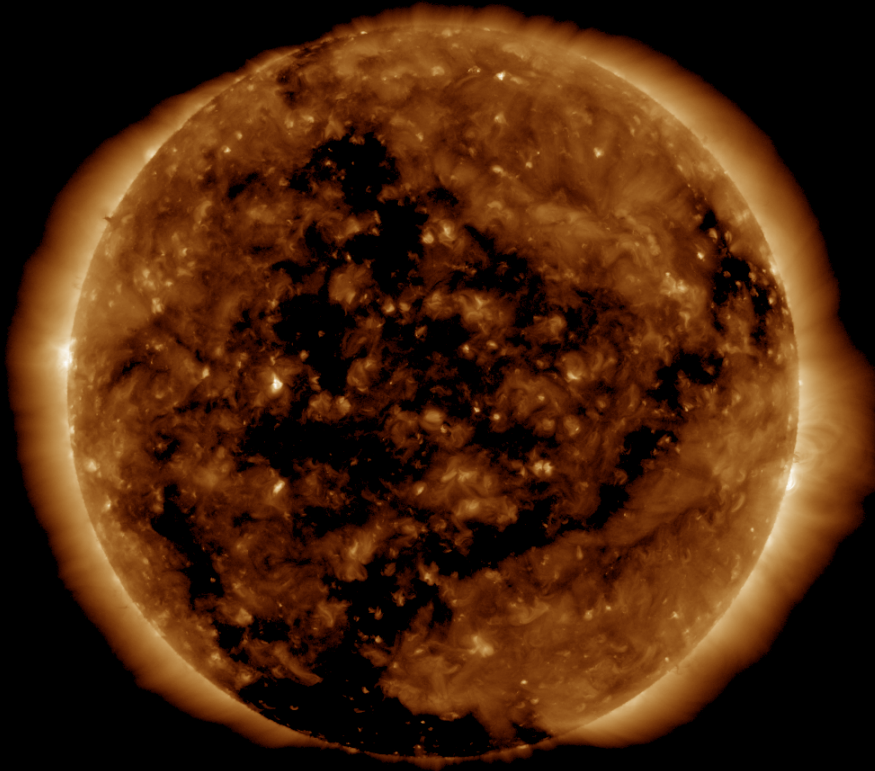


Observation date: 2018/02/17 13:15:30



Outlook

SDO/AIA AIA 193Å 2018-02-19T09:06:05.84



SIDC Space Weather briefing

See you at our next briefing!

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