

SIDC Space Weather briefing

March 12-19, 2018

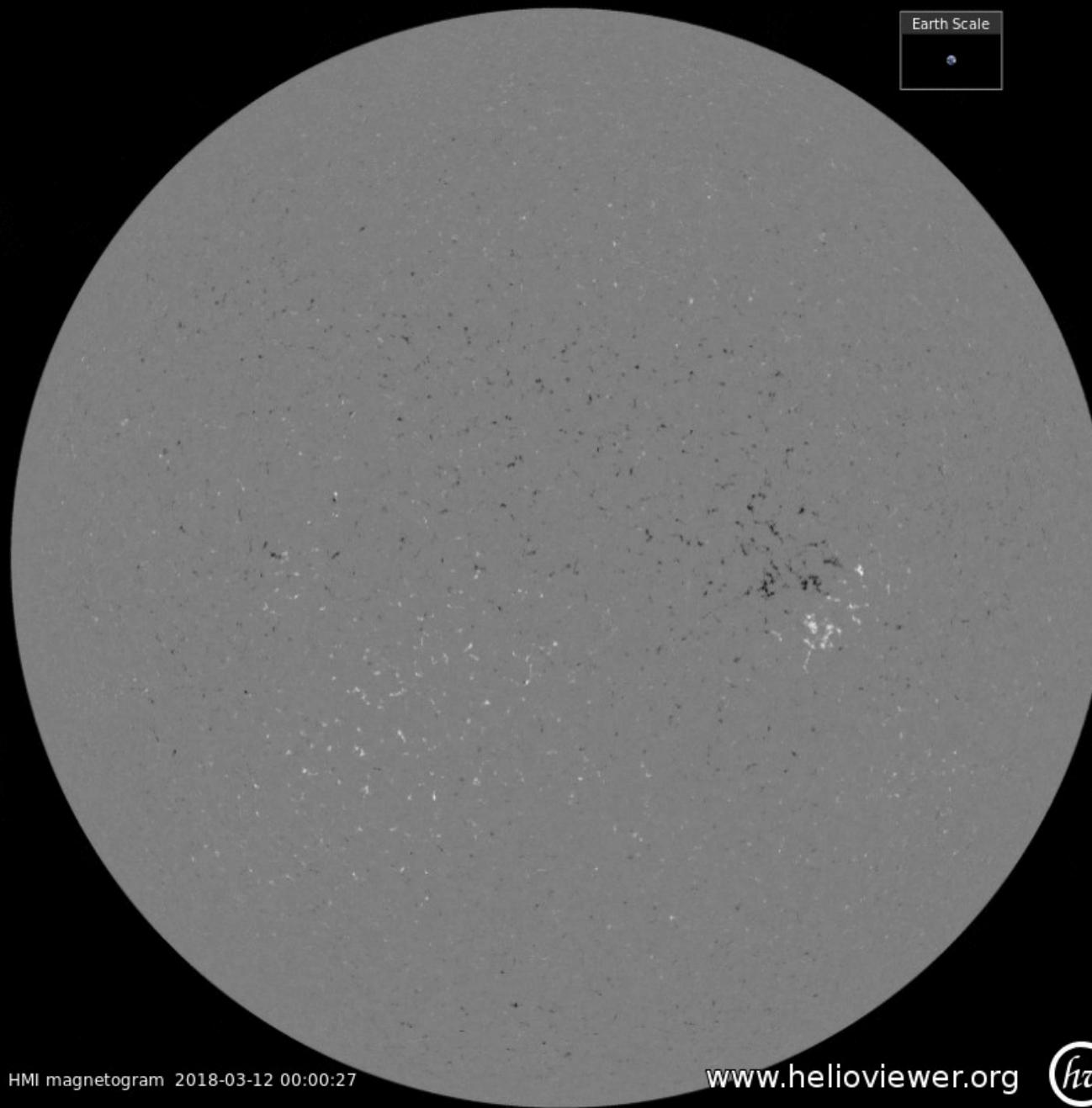
Matthew West, Jesse Andries
and SIDC forecaster team



Report of Solar Activity

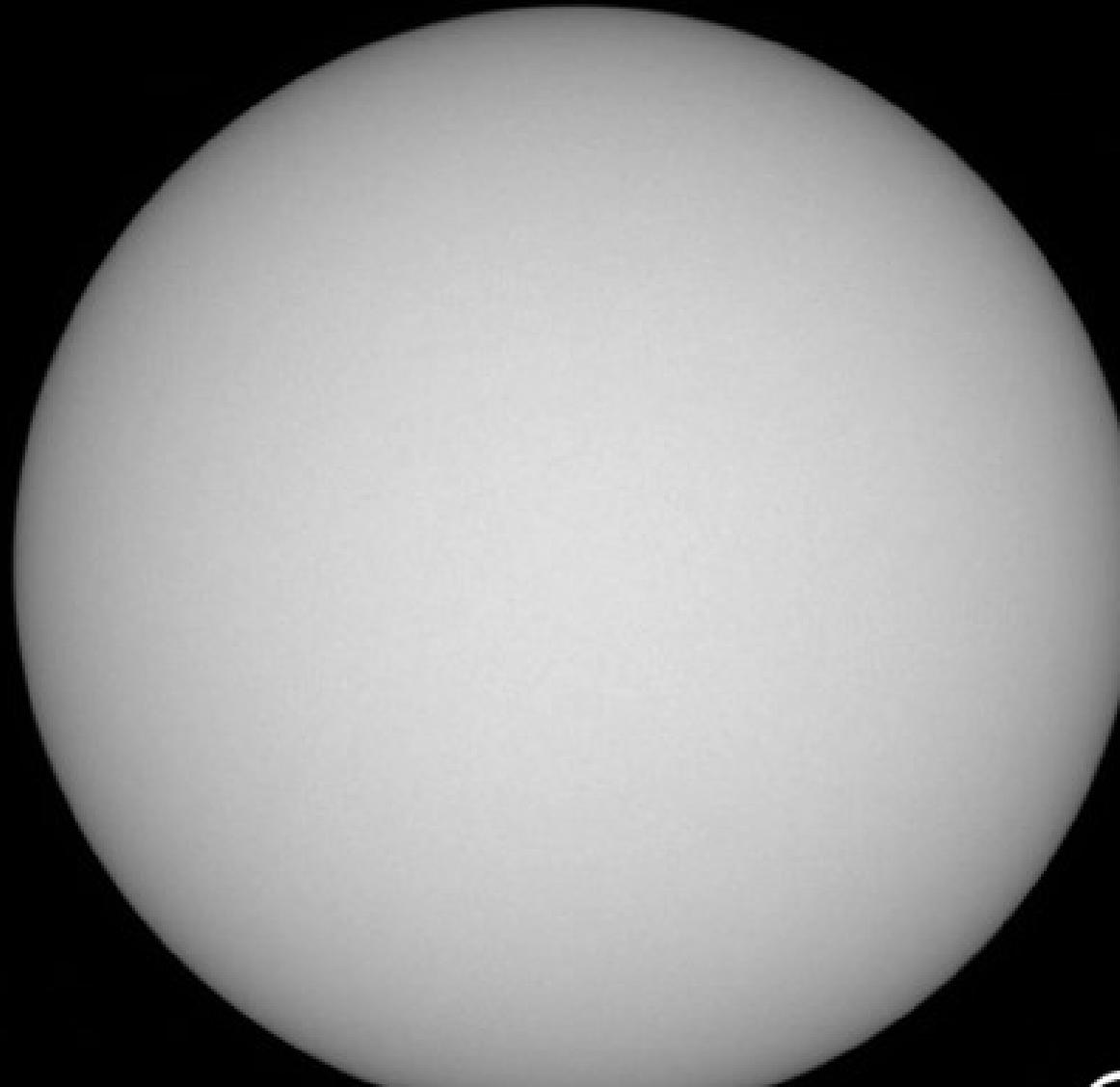
Active Regions	Two simple and quiet regions formed on disk
Flaring	X-ray flux $< B$
Filaments	None
CME's	None
Coronal Holes	elongated -CH causing 500km/s

Solar active region evolution



HMI magnetogram 2018-03-12 00:00:27

Solar active region evolution



HMI continuum

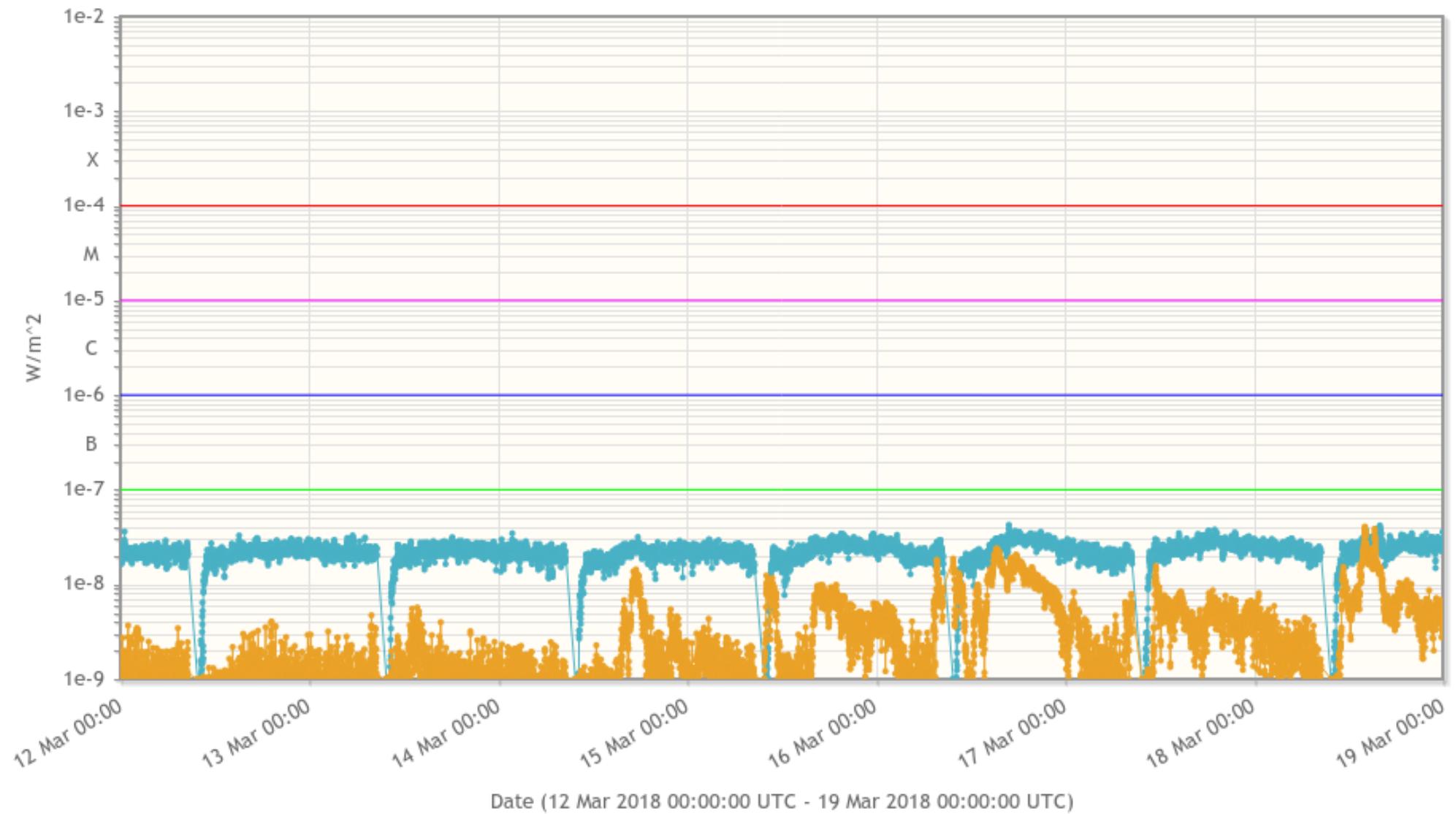
2018-03-12 00:00:27



Solar X-ray flux and flaring

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- X-Ray - GOES X-Ray flux 0.1-0.8 nm (quicklook) - 9520 data points - (raw - 1 minute data)
- X-Ray - GOES X-Ray flux 0.05-0.4 nm (quicklook) - 9520 data points - (raw - 1 minute data)



Solar X-ray flaring forecast

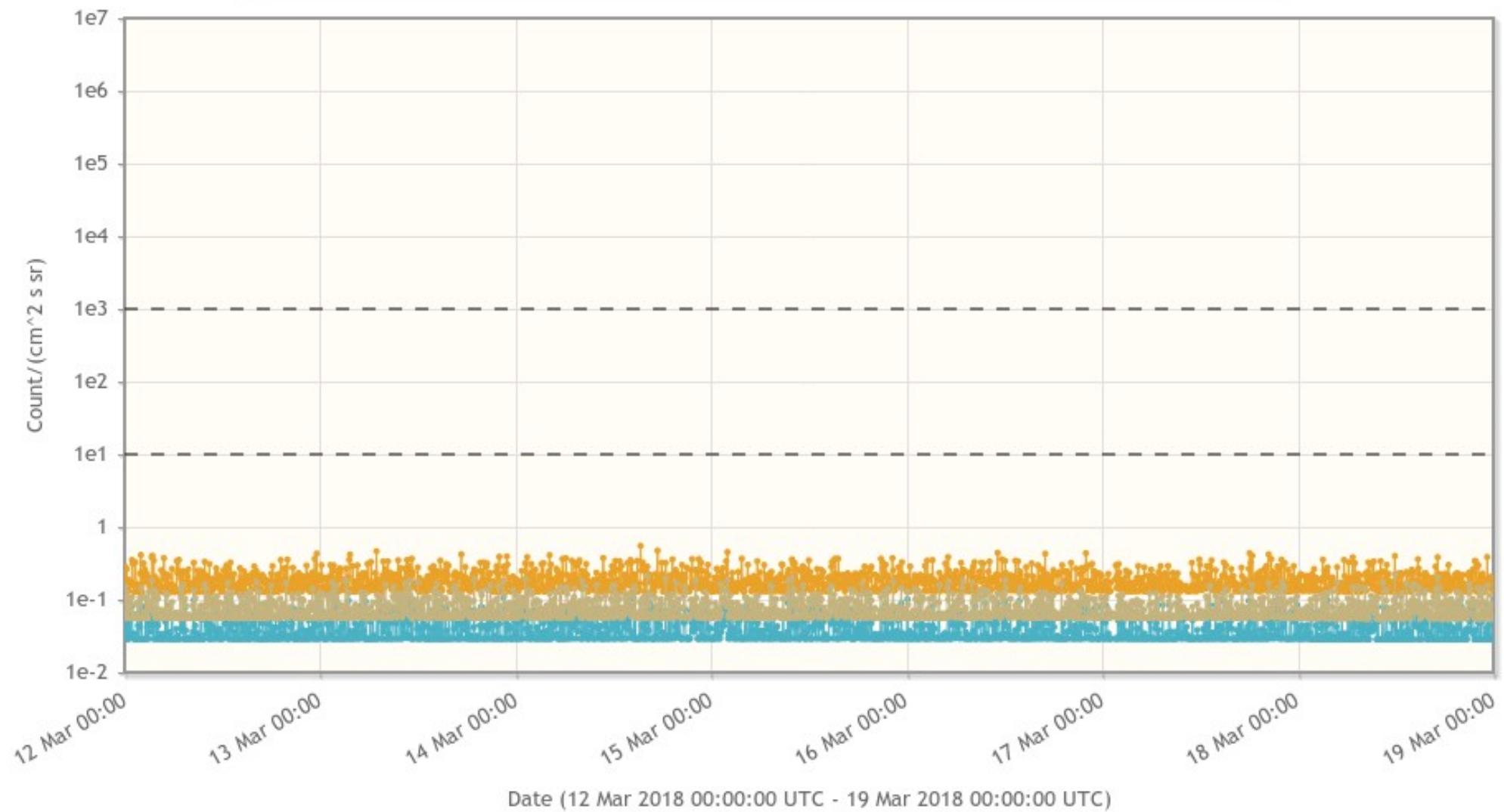
Probability for Full disk flare occurrence for 24h

	$p(C)$	$p(M)$	$p(X)$
2018-012T12:30	0.05	0.01	0.01
2018-03-13T12:30	0.05	0.01	0.01
2018-03-14T12:30	0.05	0.01	0.01
2018-03-15T12:30	0.05	0.01	0.01
2018-03-16T12:30	0.10	0.01	0.01
2018-03-17T12:30	0.10	0.01	0.01
•2018-03-18T12:30	0.10	0.01	0.01

Energetic particles

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- Protons / Electrons - GOES Particles at > 100 Mev (quicklook) - 1999 data points - (raw - 5 minute data)
- Protons / Electrons - GOES Particles at > 10 Mev (quicklook) - 1999 data points - (raw - 5 minute data)
- Protons / Electrons - GOES Particles at > 50 Mev (quicklook) - 1999 data points - (raw - 5 minute data)



CMEs

- No CMEs throughout the week

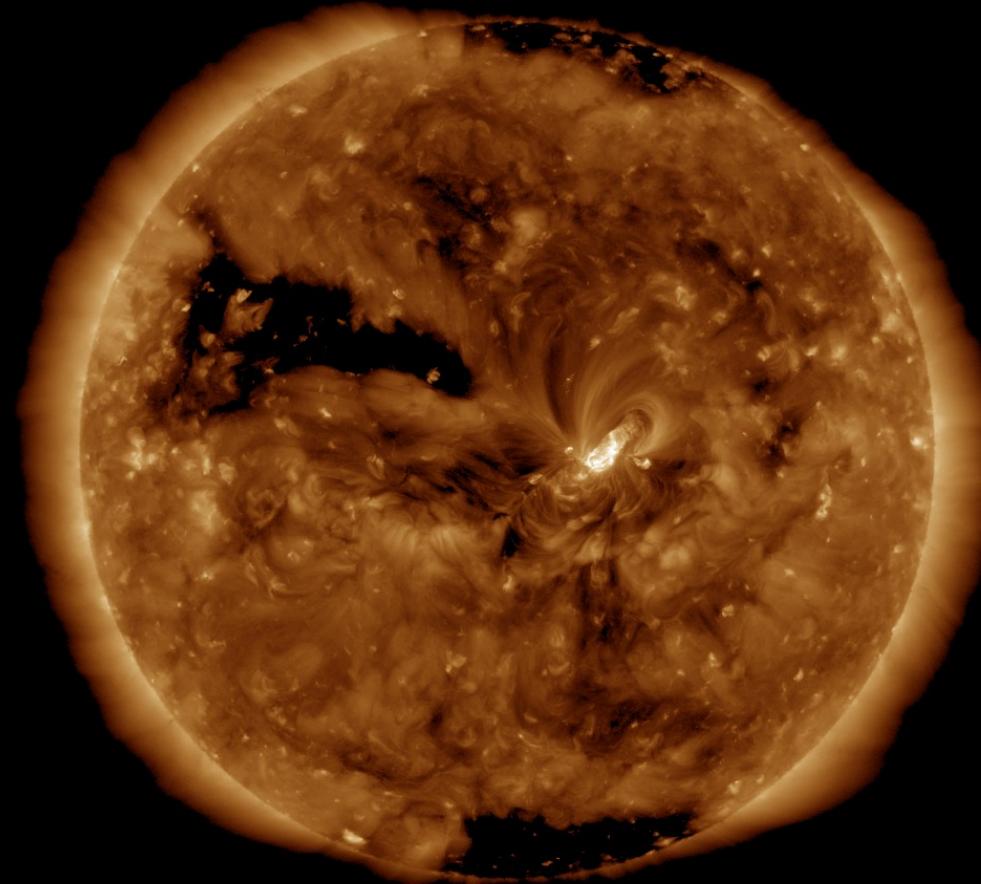
LASCO movie

S W N E

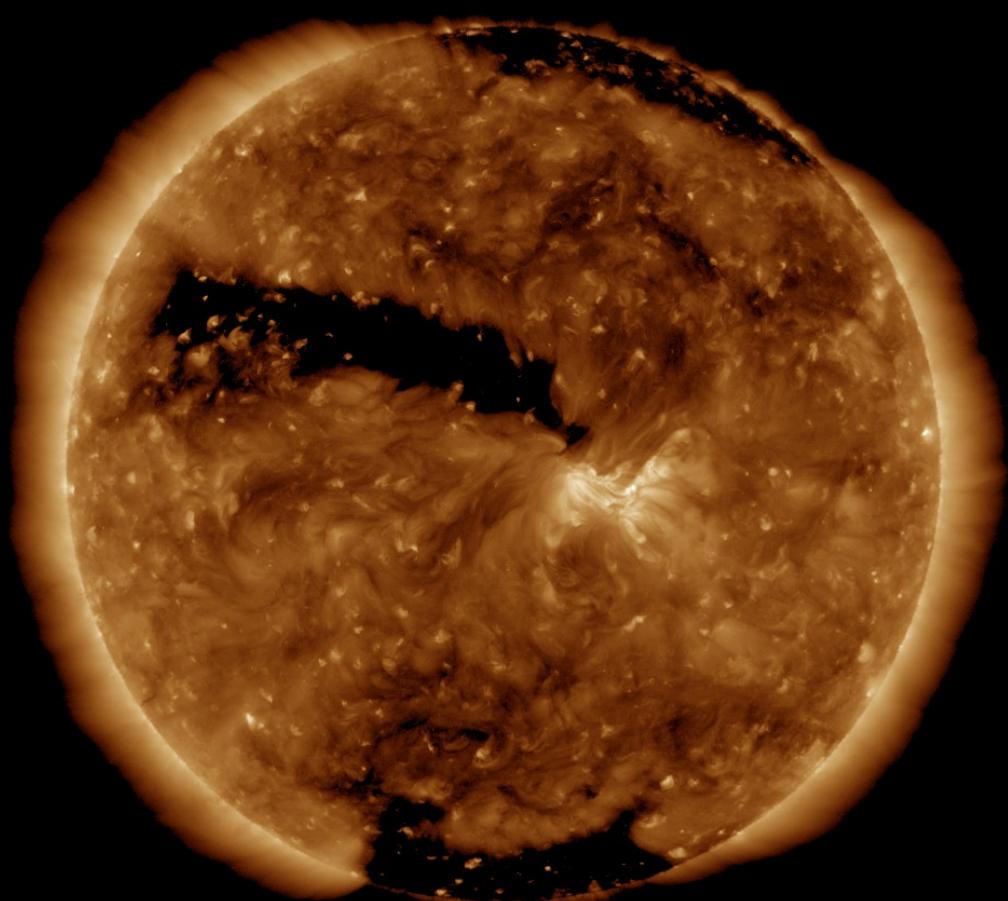
19:24 03/17
14:36 03/17
11:36 03/17
08:36 03/17
05:36 03/17
02:36 03/17
23:12 03/16
19:48 03/16
17:12 03/16
13:36 03/16
10:48 03/16
07:48 03/16
04:28 03/16
00:00 03/16
20:36 03/15
17:36 03/15
14:48 03/15
11:42 03/15
08:48 03/15
06:24 03/15
03:48 03/15
00:36 03/15
21:42 03/14
18:36 03/14
15:48 03/14
12:24 03/14
09:36 03/14
06:48 03/14
04:12 03/14
01:25 03/14
22:00 03/13
19:00 03/13
16:12 03/13
13:26 03/13
10:36 03/13
07:36 03/13
05:12 03/13
02:24 03/13
23:24 03/12
19:48 03/12
17:00 03/12
13:25 03/12
10:12 03/12
07:12 03/12
04:24 03/12
00:48 03/12
21:36 03/11
18:12 03/11
15:26 03/11
12:00 03/11
08:48 03/11
06:12 03/11
03:24 03/11
00:00 03/11

Solar wind

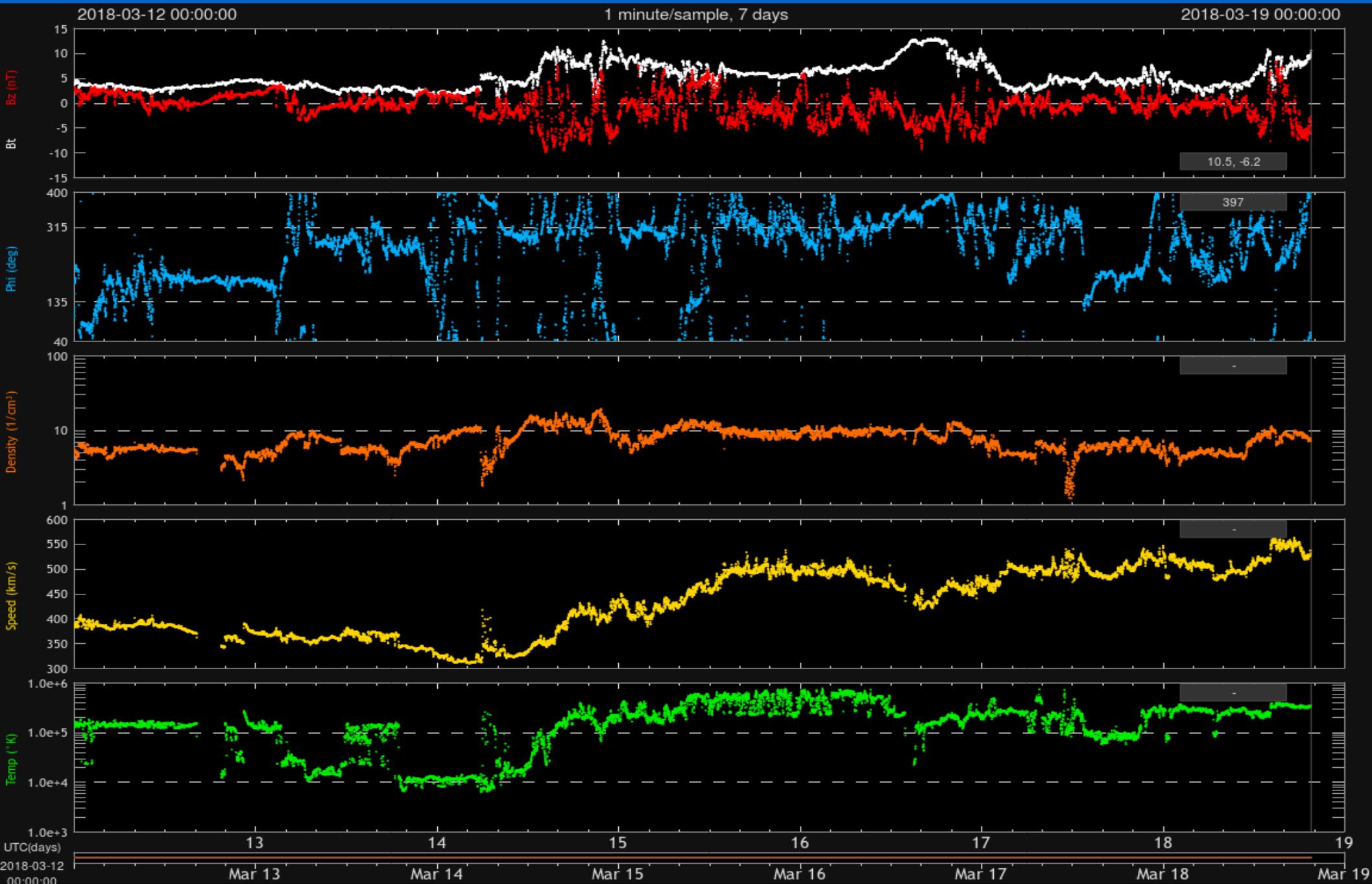
SDO/AIA AIA 193Å 2018-02-12T00:00:05.84



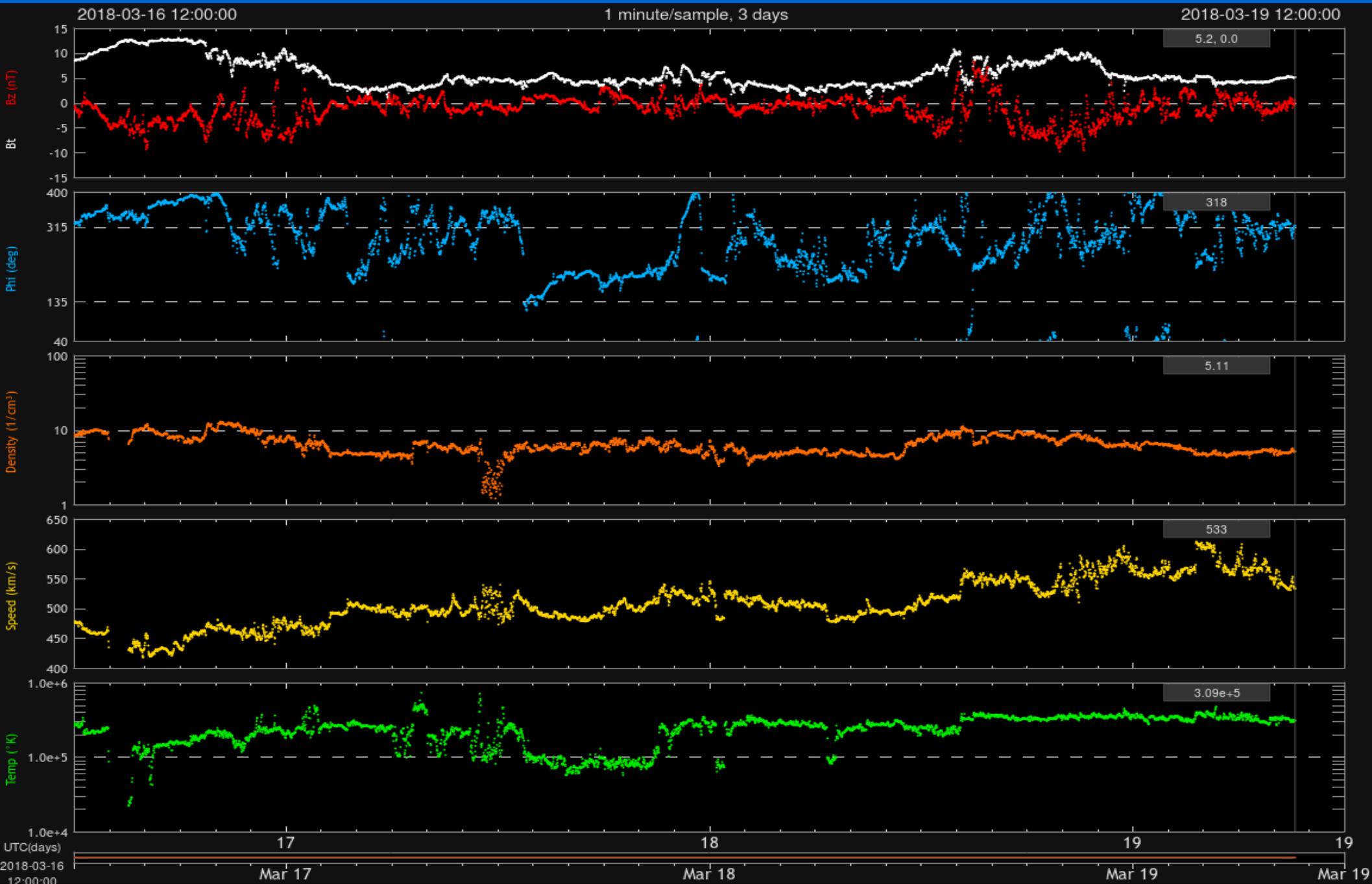
SDO/AIA AIA 193Å 2018-03-11T00:00:05.84



Solar wind

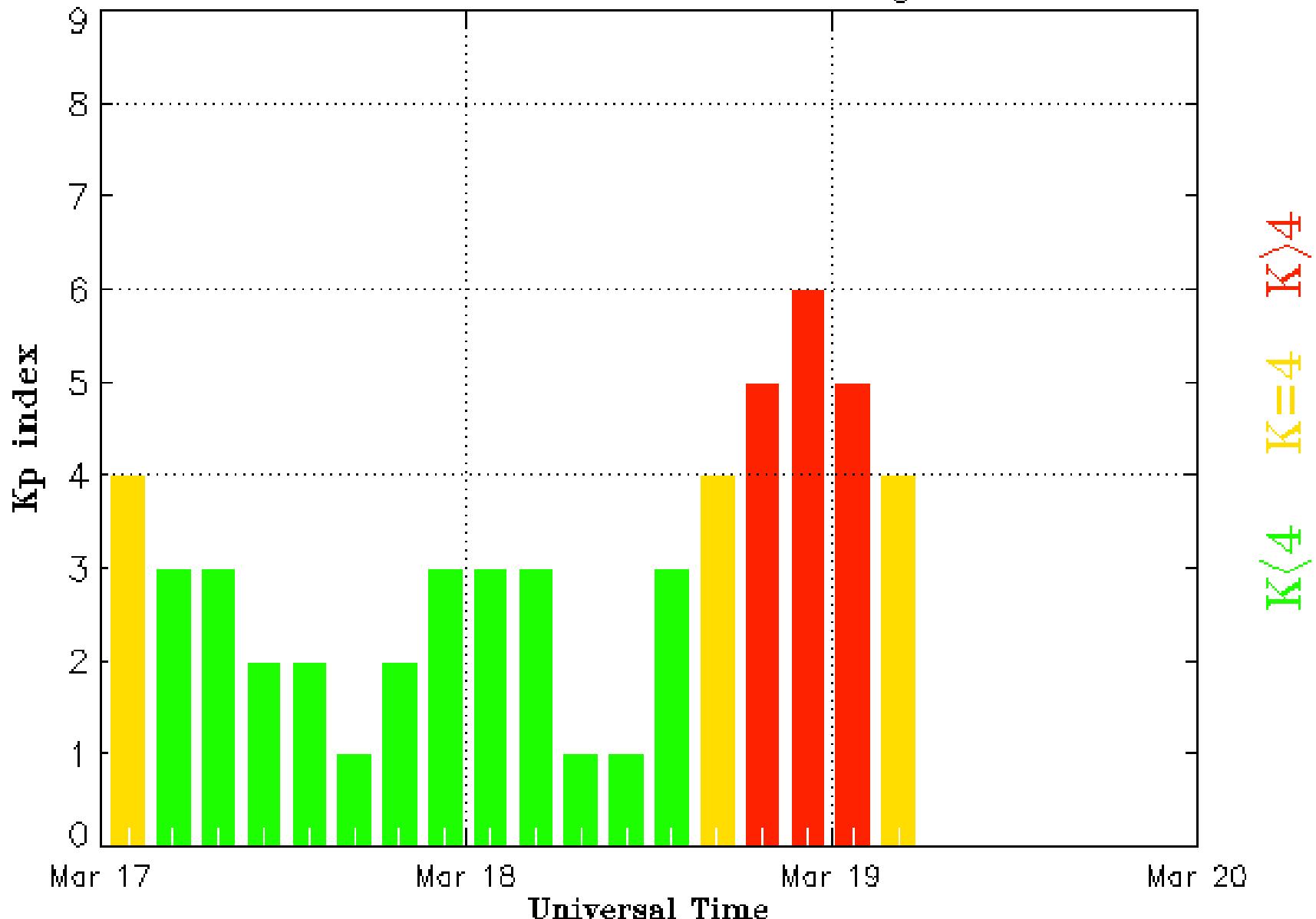


Solar wind

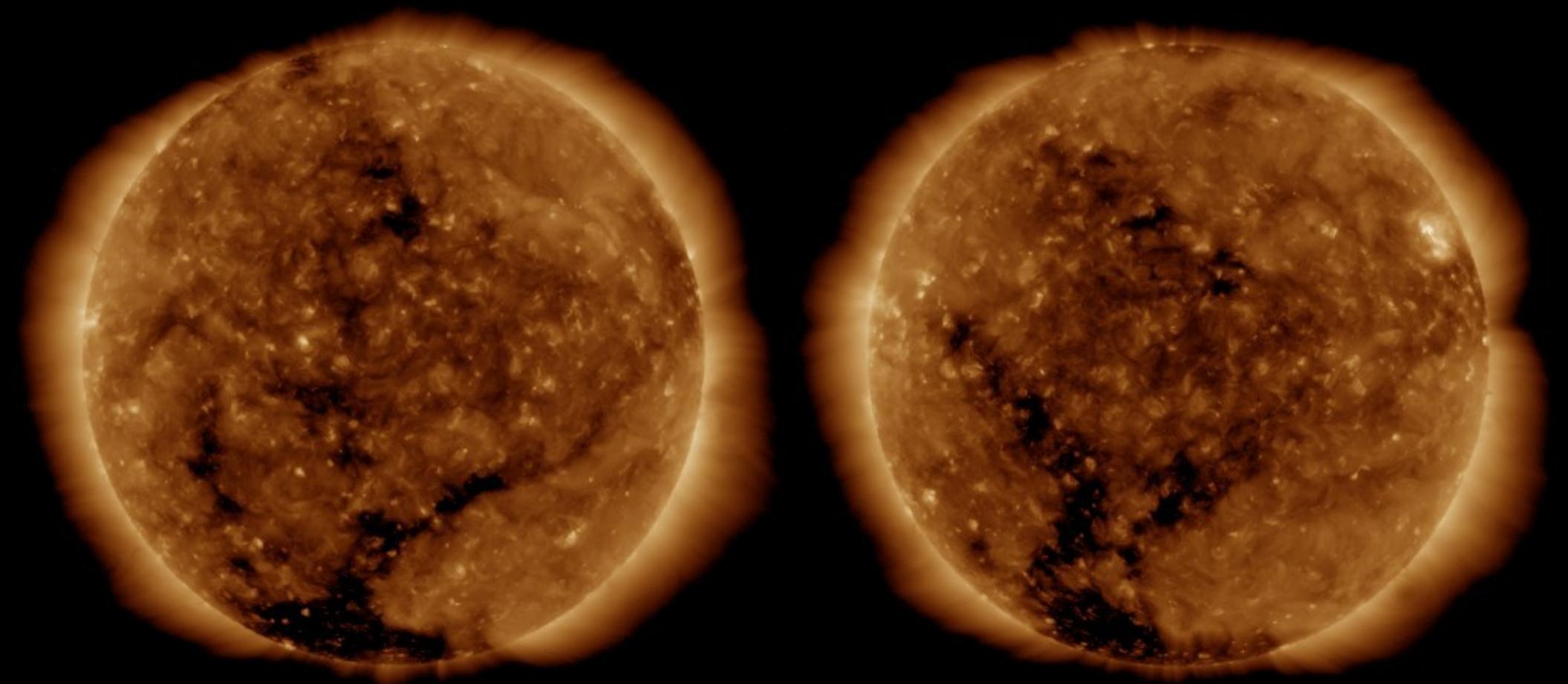


Geomagnetism

Estimated Planetary K index (3 hour data) Begin: 2018 Mar 17 0000 UTC



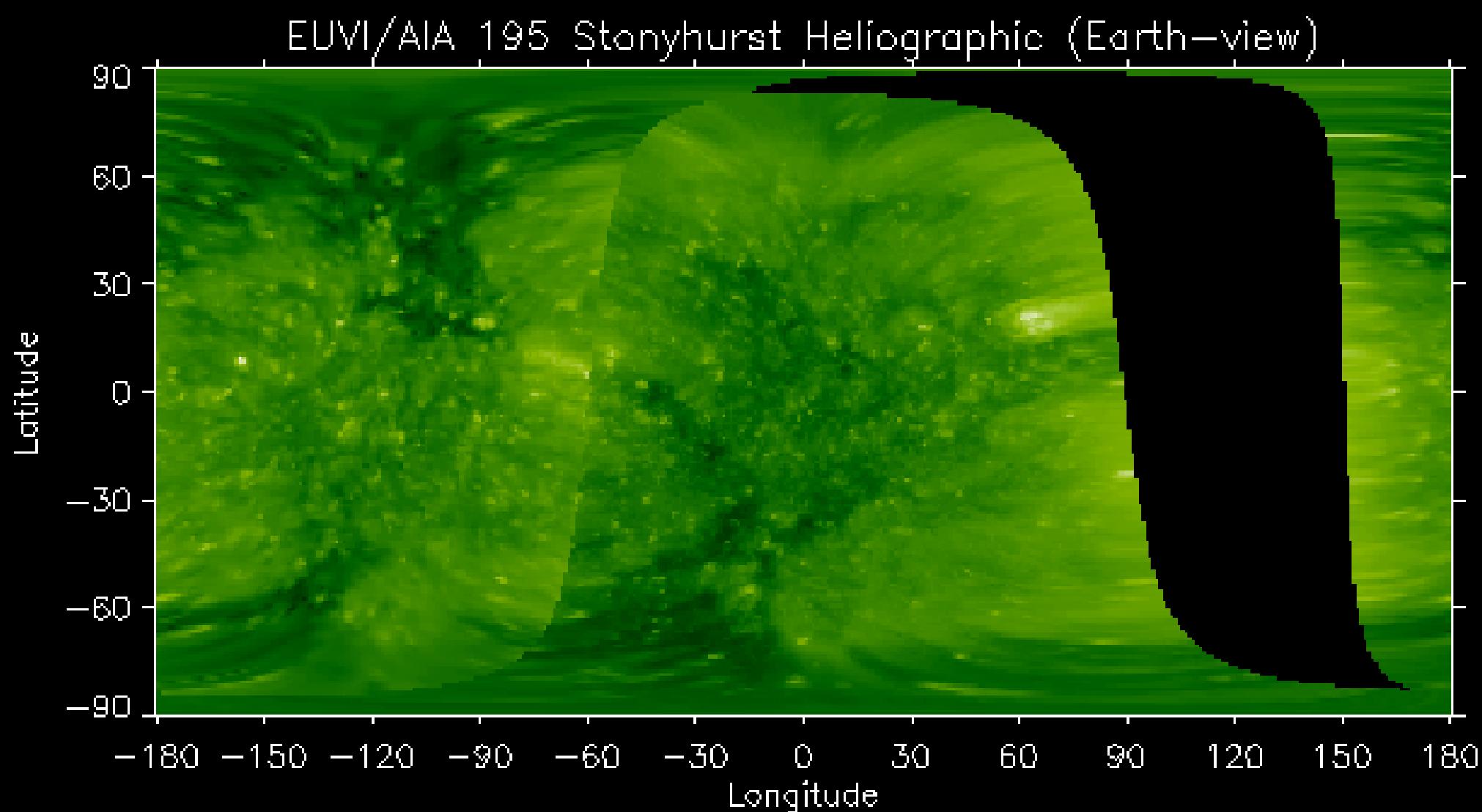
Solar wind outlook



SDO/AIA 193 2018-02-20 00:40:29 UT

SDO/AIA 193 2018-03-18 23:26:17 UT

Outlook



SIDC Space Weather briefing

See you at a next briefing!

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