SIDC Space Weather briefing

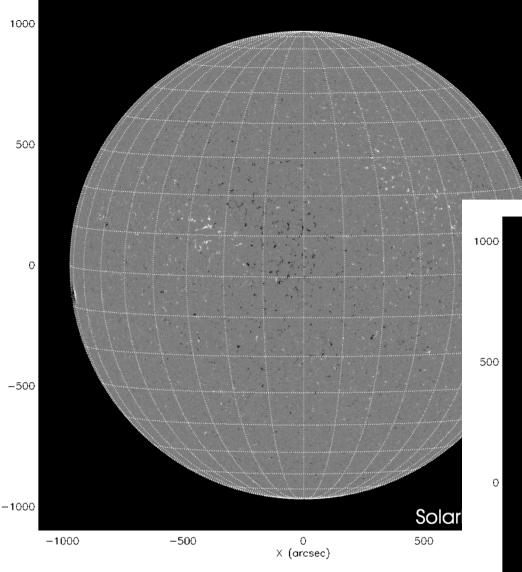
November 12 - 19, 2017

Jasmina Magdalenic and SIDC forecaster team

Solar Influences Data analysis Centre <u>www.sidc.be</u>

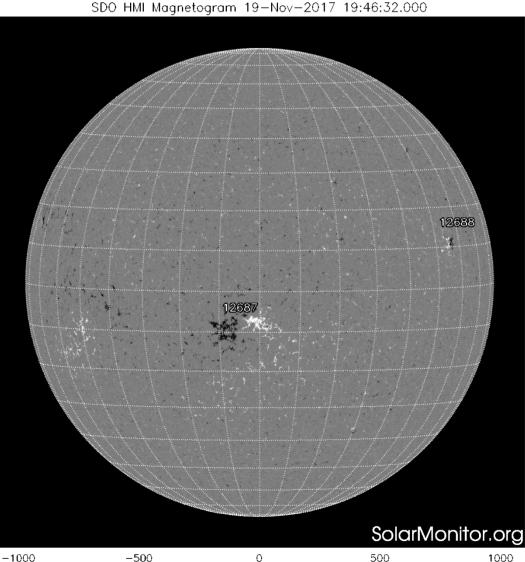
Royal Observatory of Belgium

SDO HMI Magnetogram 13-Nov-2017 19:46:32.700

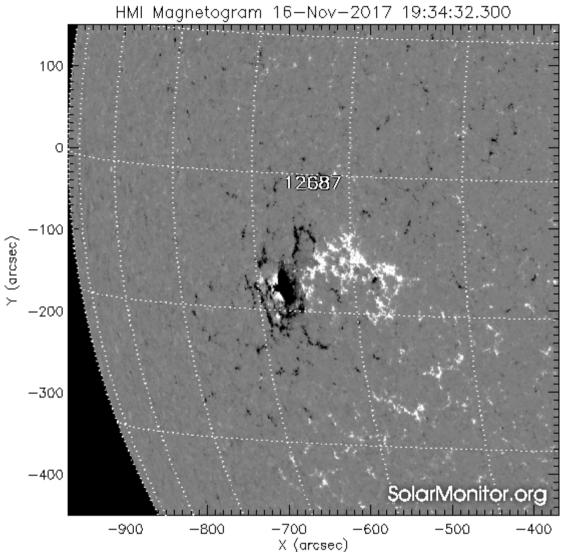


- They both have simple configuration of its photospheric magnetic field (beta i alpha).

Solar active regions evolution



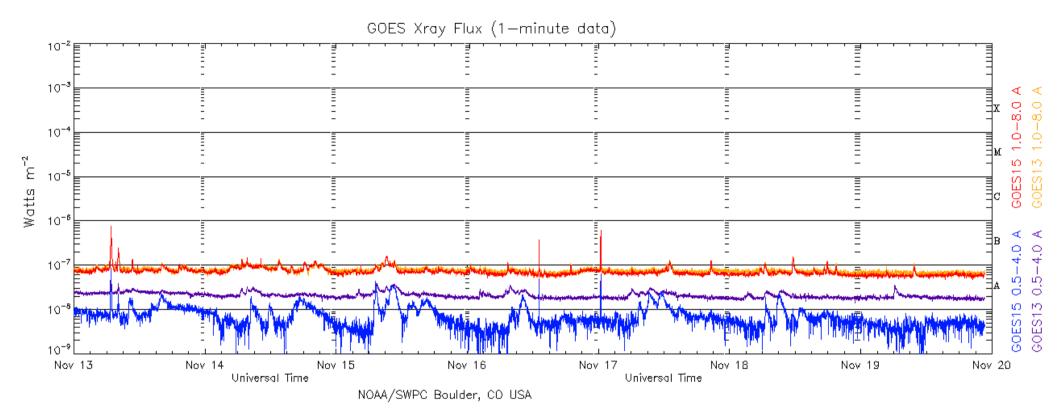
X (arcsec)



Solar active regions evolution

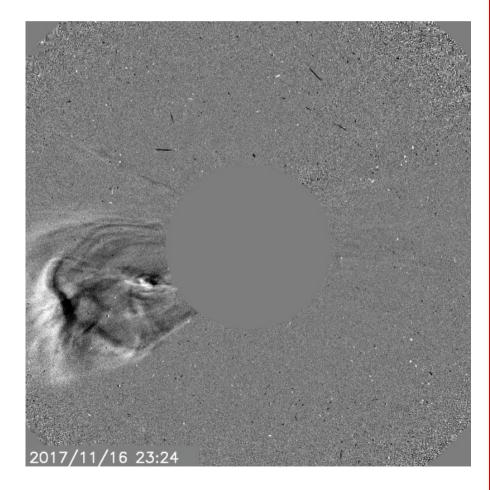
Catania sunspot group 63 (NOAA AR 2687) was source of occasional B-class flares throughout the week.

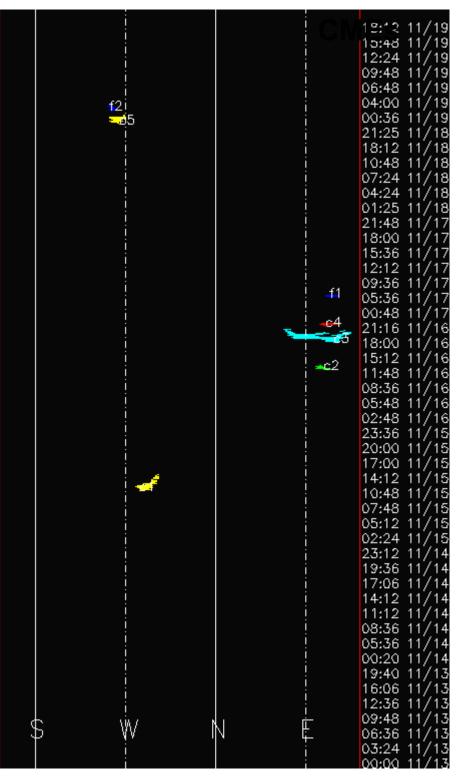
Solar X-ray flux and flaring



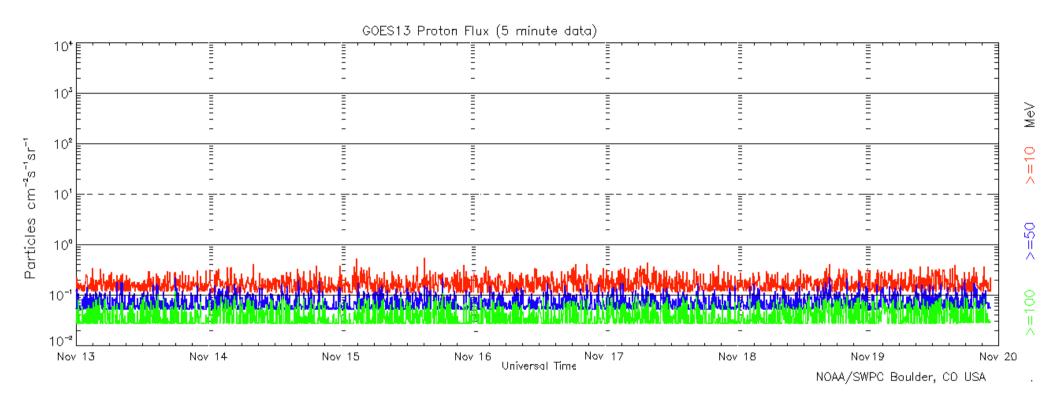
During this week there were only 8 B-class and no C-class flares reported.

Only few narrow CMEs were reported by CACTUS software.



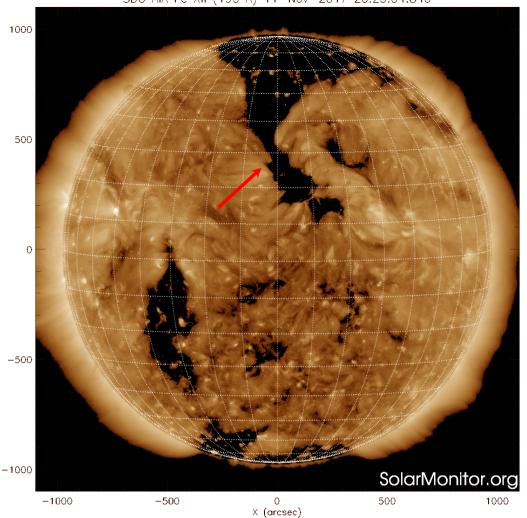


Energetic particles



- No Particle event from November 13 to November 20.

SDO AIA Fe XII (193 Å) 11-Nov-2017 20:25:04.840



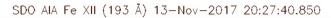
Low latitude extension of the northern polar coronal hole reached central meridian in the morning of November 11 (previous week).

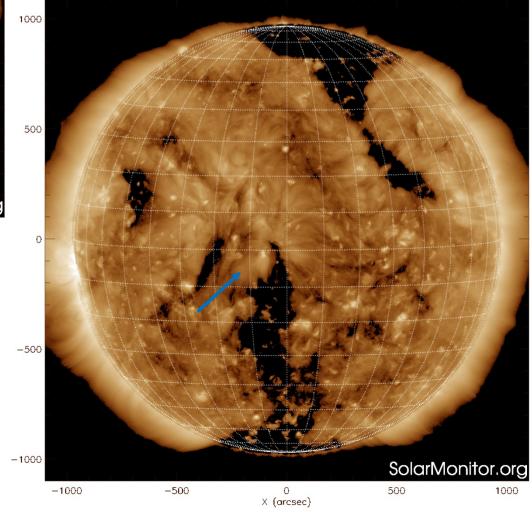
 \rightarrow associated fast solar wind arrived on November 16.

Solar wind

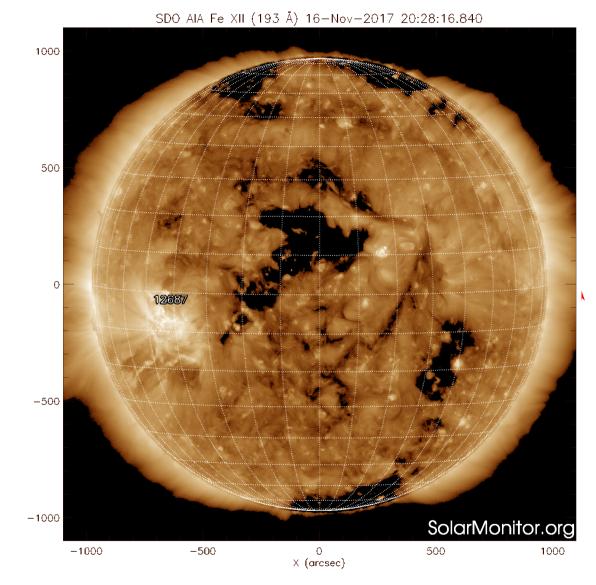
Low latitude extension of the southern polar coronal hole reached central meridian in the evening of November 13.

 \rightarrow associated fast solar wind did not arrive at the Earth.





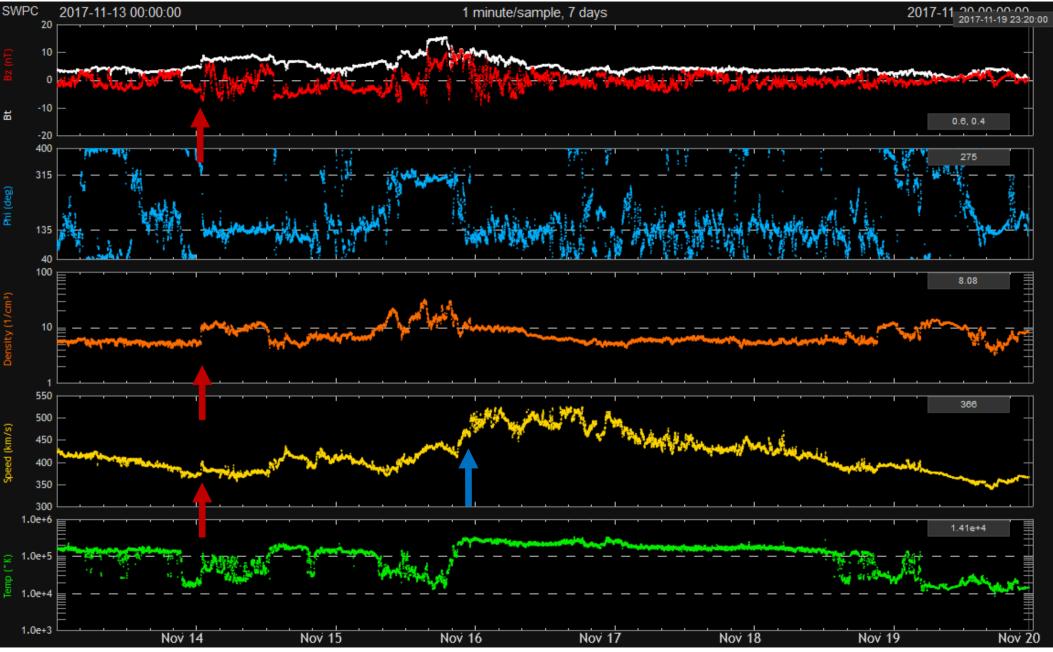
Solar wind



Equatorial coronal hole reached central meridian in the early morning of November 16.

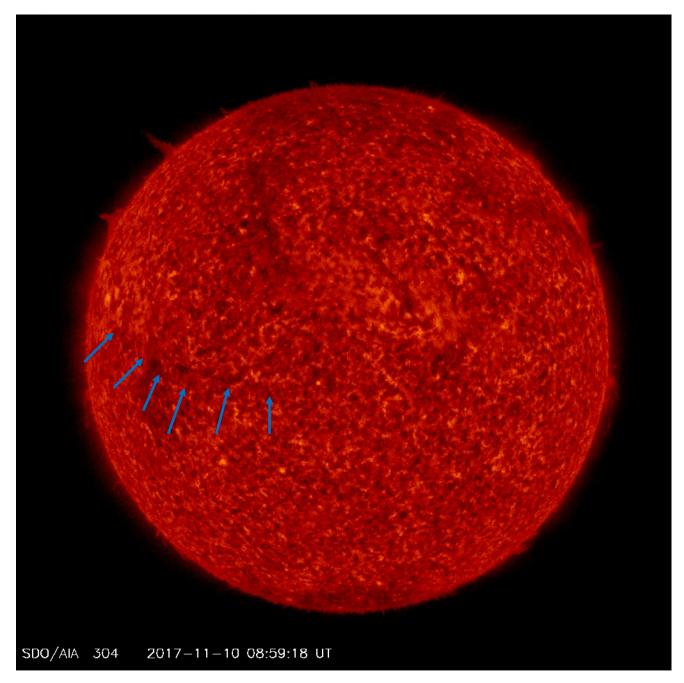
 \rightarrow associated fast solar wind did not yet arrived.

Solar wind



Shock associated with the filament eruption on November 10.

Fast flow associated with the low latitude extension of the northern polar coronal hole

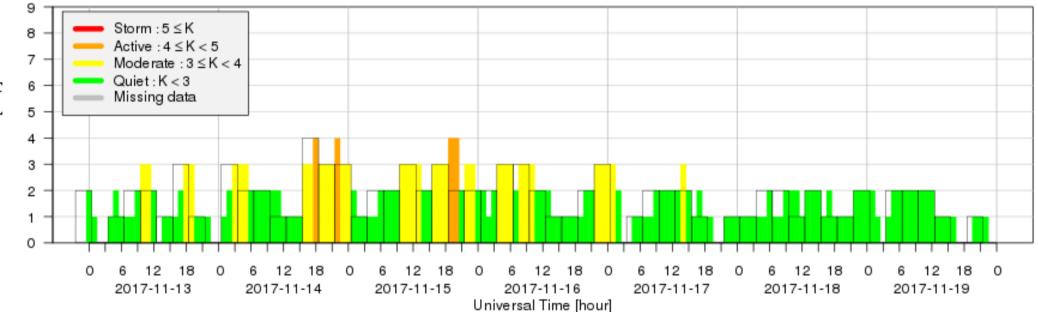


CMEs

The sudden increase of the interplanetary magnetic field magnitude, density, temperature and the solar wind speed at about 00:48 UT on, November 14, indicate arrival of a shock wave..

The shock is probably associated with the large filament eruption from the north-east quadrant of the Sun, which took place in the morning of November 10.

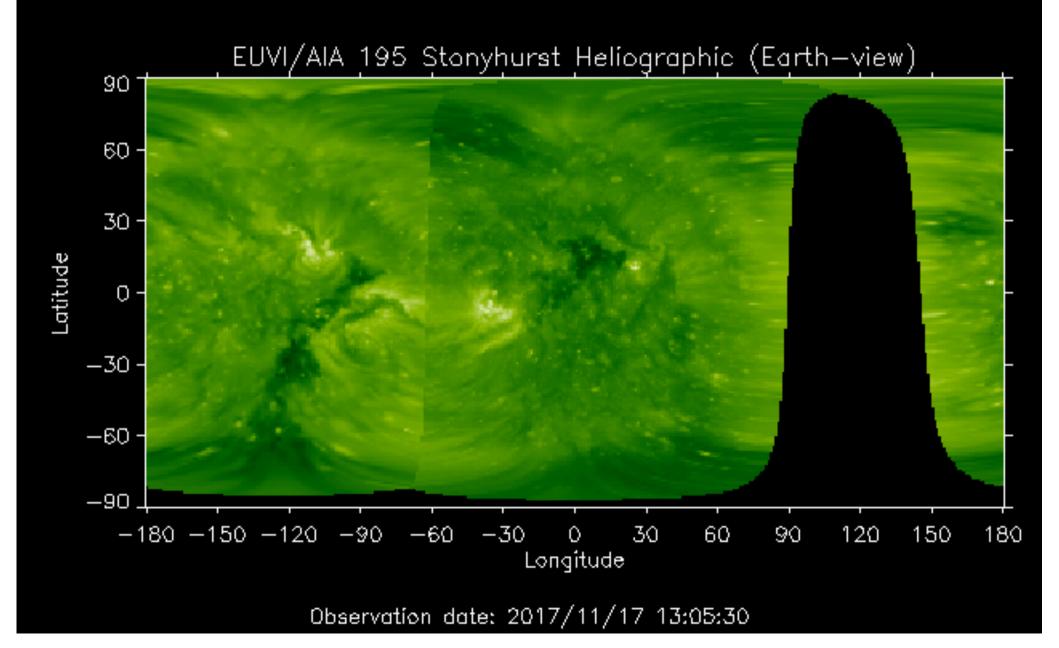
Geomagnetism



K-type index of local magnetic activity, Dourbes (50.1 °N, 4.6 °E) (copyright RMI)

K index [step]

Outlook



SIDC Space Weather briefing

See you at a next briefing! Or visit us at **www.sidc.be**

Solar Influences Data analysis Centre <u>www.sidc.be</u>

Royal Observatory of Belgium