



## Solar - WSA-ENLIL

EMC (<https://ccmc.gsfc.nasa.gov/donki/>):

WSA-ENLIL(CME 2024-11-11 01:23:00 UT )

The simulation results indicate that the flank of CME will reach the DSCOVR mission between 2024-11-13 17:00:00 UT and 2024-11-14 07:00:00 UT.

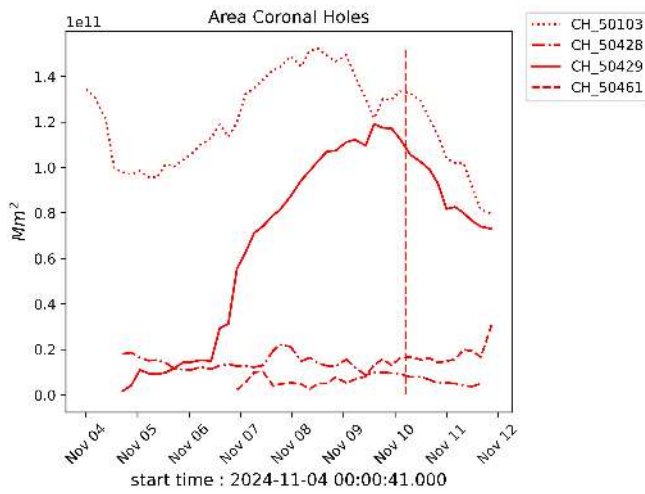
WSA-ENLIL(CME 2024-11-13 17:12:00 UT )

The simulation results indicate that the flank of CME will reach the DSCOVR mission between 2024-11-16 19:00:00 UT and 2024-11-17 09:00:00 UT.

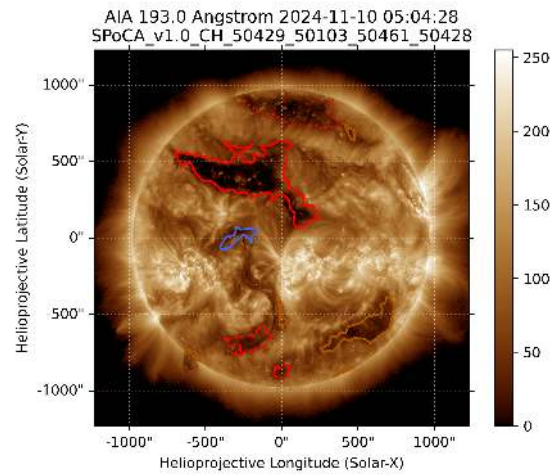
WSA-ENLIL(CME 2024-11-14 13:25:00 UT )

The simulation results indicate that the flank of CME will reach the DSCOVR mission between 2024-11-17 14:00:00 UT and 2024-11-18 04:00:00 UT.

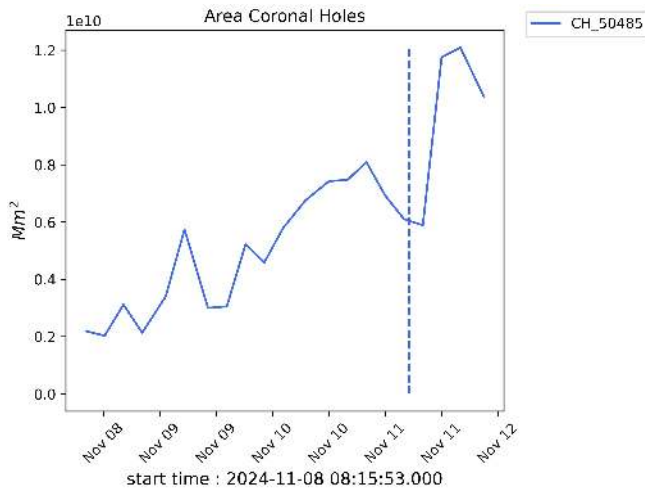
## Solar - Coronal holes Spatial Possibilistic Clustering Algorithm (SPoCAS):



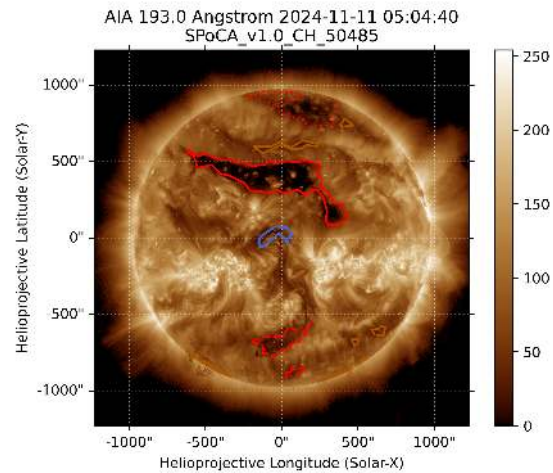
(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between November 04 and 11, 2024.



(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 05:04 UT on November 10, 2024 (red dot line).



(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between November 04 and 11, 2024.



(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 05:04 UT on November 11, 2024 (blue dot line).

## Geomagnetic Field

Responsible: Karen Sarmiento/ Lívia Alves

### Summary

At the beginning of the week, the magnetic field exhibited behavior characterized by a predominance of diurnal variation. Rapid fluctuations in the amplitude of the north component of the magnetic field were observed on November 15 and 16, with a minimum value of approximately 40 nT on the night side, suggesting an intensification of current systems in the magnetotail. Additionally, there was an increase in amplitude on the day side at the end of November 17, reaching 120 nT. The AE index exceeded 1000 nT only for short periods, reflecting intense activity in the auroral region and various substorm signatures (on 11/11, between 8–9 UT; on 11/14, between 16–18 UT and 20–22 UT; on 11/15, between 12–14 UT and 16–19 UT; on 11/17, between 12–15 UT), correlating with the variations recorded by the GOES satellite. The geomagnetic field activity transitioned from calm conditions on 11/12 to unsettled on 11/14, and then to active on 11/15 (between 3–6 and 21–24 UT), on 11/16 (0–3 UT), and on 11/17 (12–15 UT), as indicated by the Kp index, which reached a maximum of 4-, indicating active period conditions on 11/15 (3–6 UT). The Dst index varied between predominantly negative values since 11/11, showed slightly positive values on 11/13, and returned to negative values between November 15 and 16, reaching a minimum of -35 nT at 22 UT on 11/14. The negative Dst values persisted until 21 UT on 11/16, indicating residual activity in the ring current, although without reaching storm level. Data from the Embrace-Magnet network of magnetometers recorded rapid variations in the H component between 13 and 22 UT on 11/14, without significantly negative values and with a predominance of diurnal variation.

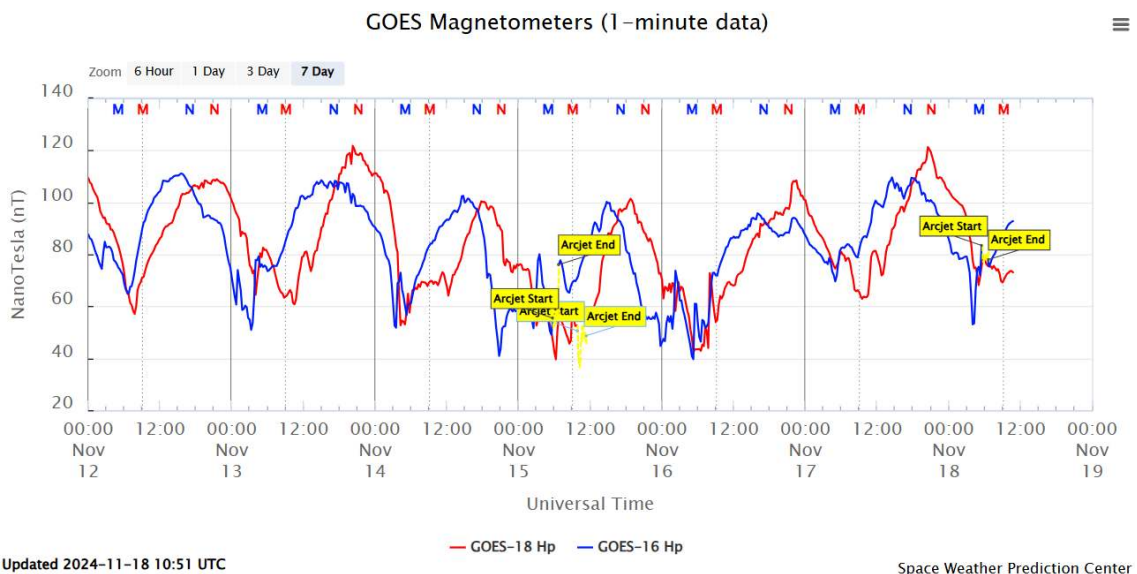


Figure 1- Magnetic field horizontal component at the GOES satellite orbit through.

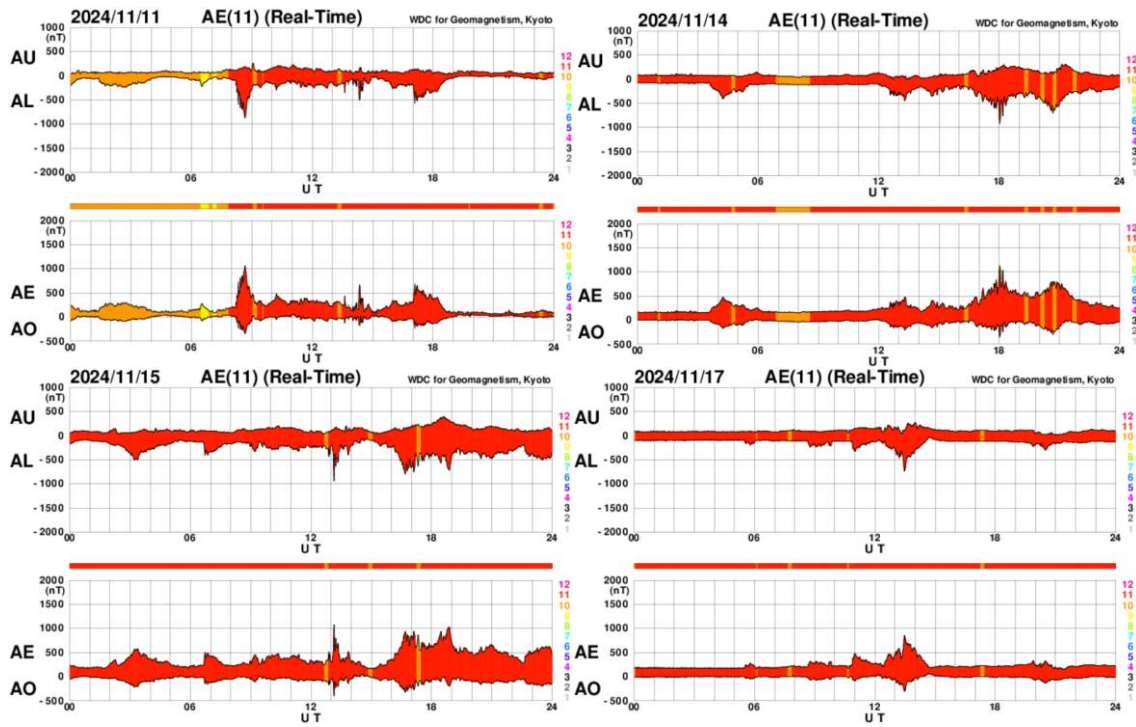


Figure 2- AE index for the days of the week with greater auroral activity.

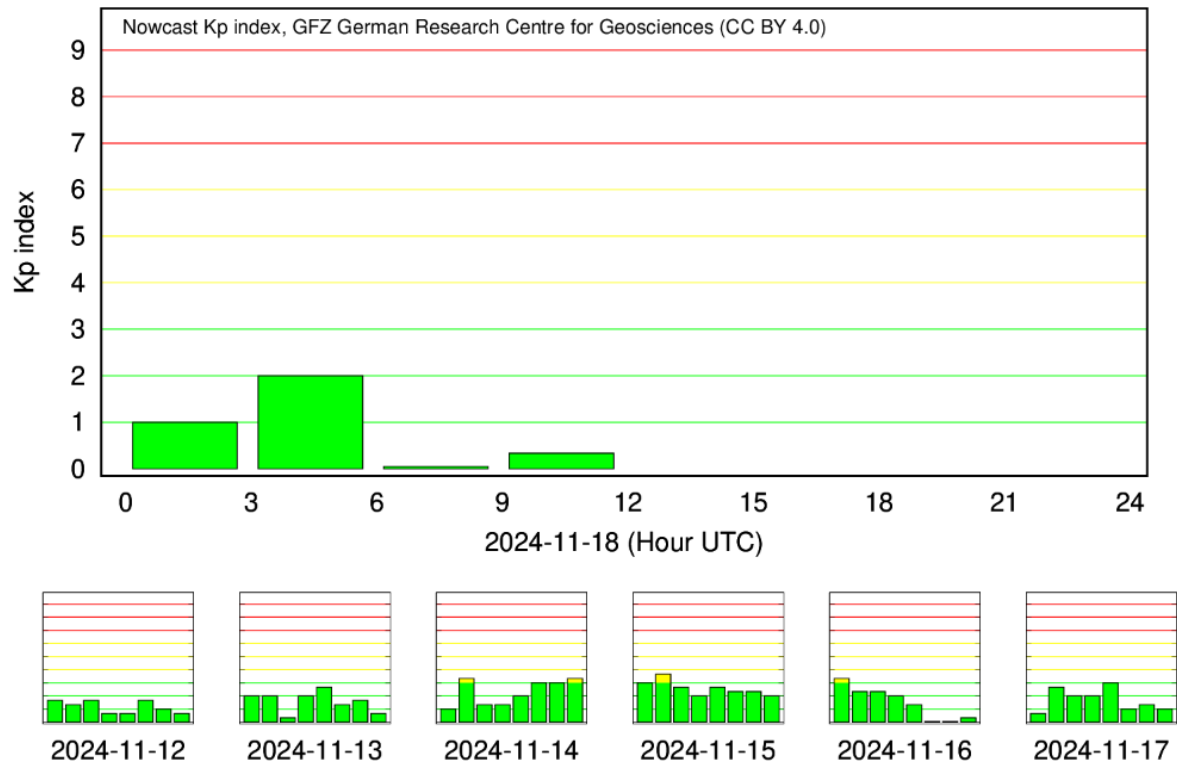


Figure 3- Kp index in logarithmic scale.

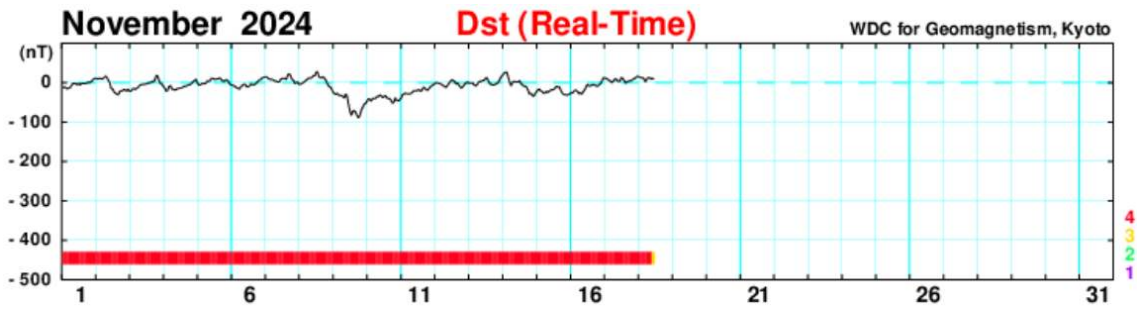


Figure 4- Dst Index

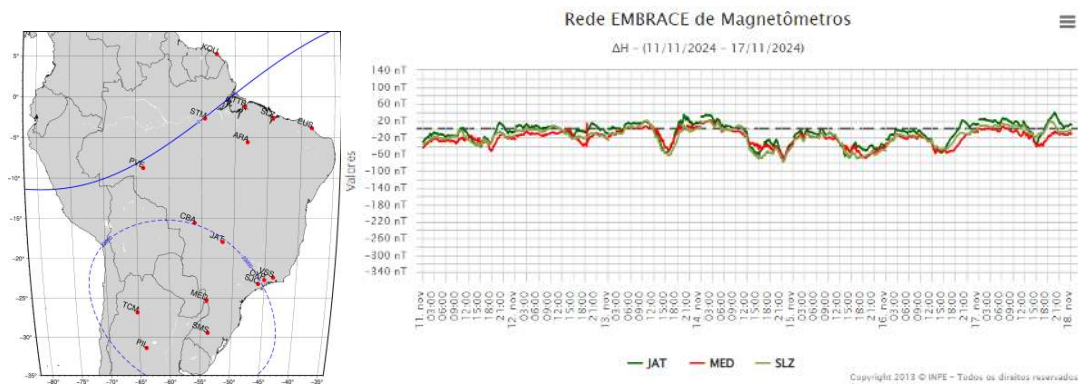


Figure 5- Daily variation of the geomagnetic field from  $H(nT)$  measured at Embrace MagNet.