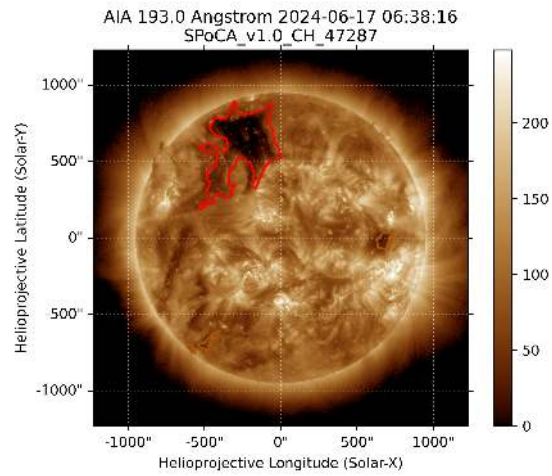
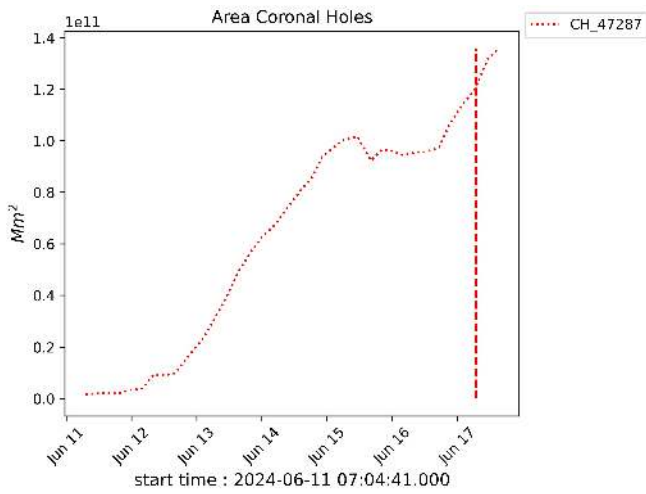


Solar - Coronal holes Spatial Possibilistic Clustering Algorithm (SPoCAS):

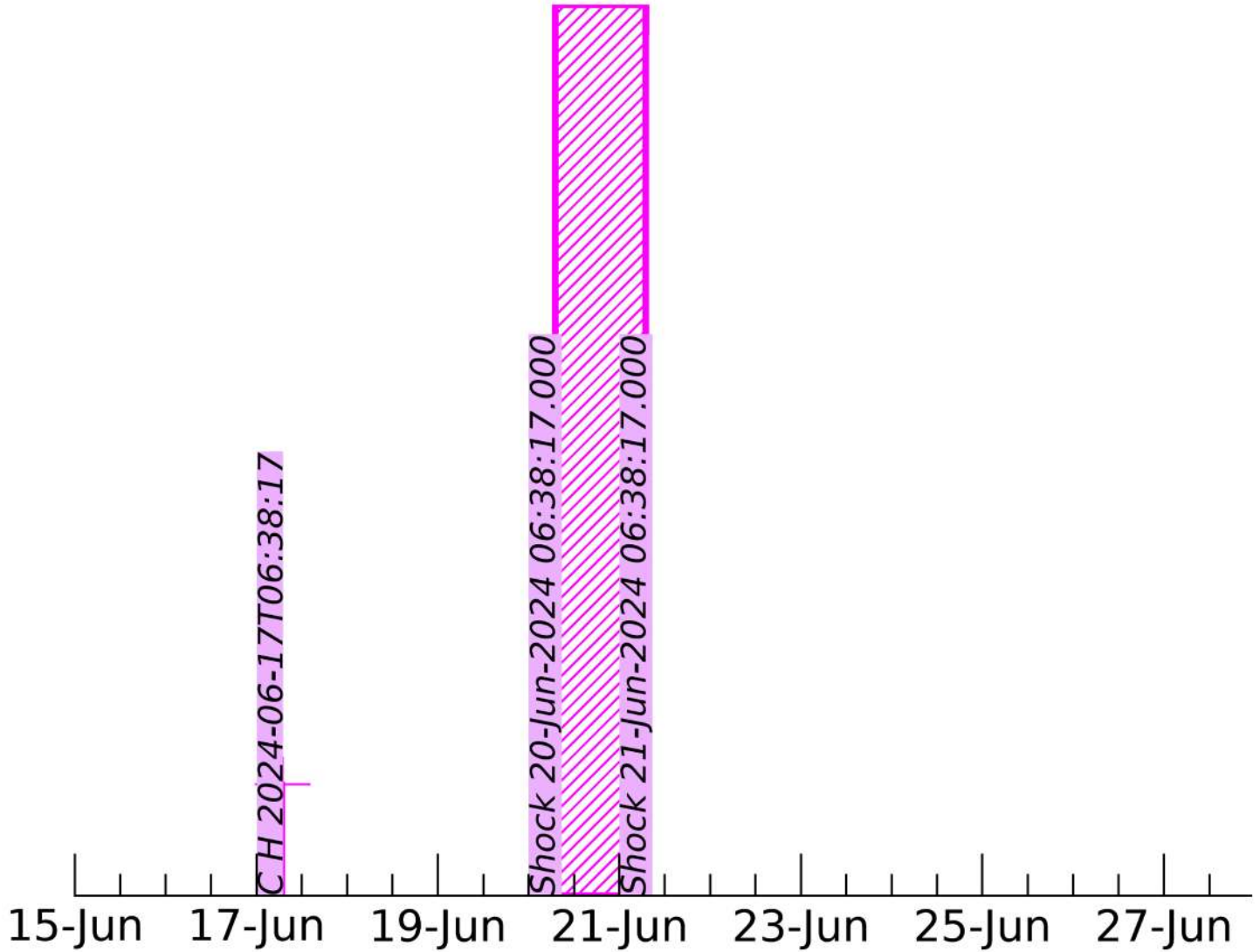


(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between June 10 and 17, 2024.

(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 06:38 UT on June 17, 2024 (red dot line).

Solar - WSA - ENLIL and SPoCA

Spoca Coronal Hole



Geomagnetic Field / Campo Geomagnético

Summary

In the week of June 18-24, the Embrace magnetometer network data recorded several instabilities, with emphasis on:

- June 23: The magnet Embrace Magnetometers recorded several instabilities, with the most intense reaching a drop of -60 nT in SLZ.
- June 23: AE index was active, above 500 nT. The minimum Dst index oscillated around zero. The highest Kp of the week was 3+.

Resumo

Na semana de 18-24/06, os dados provenientes da rede de magnetômetros Embrace registraram várias instabilidades, com destaque para:

- 23/06: Os magnetômetros da rede Embrace MagNet registraram várias instabilidades, e queda na componente H de até - 60 nT em SLZ
- 23/06: índice AE esteve ativo, acima de 500 nT, respectivamente. O índice Dst oscilou em torno de zero. O Kp mais alto da semana foi 3+.

Rede EMBRACE de Magnetômetros

ΔH - (18/06/2024 - 24/06/2024)

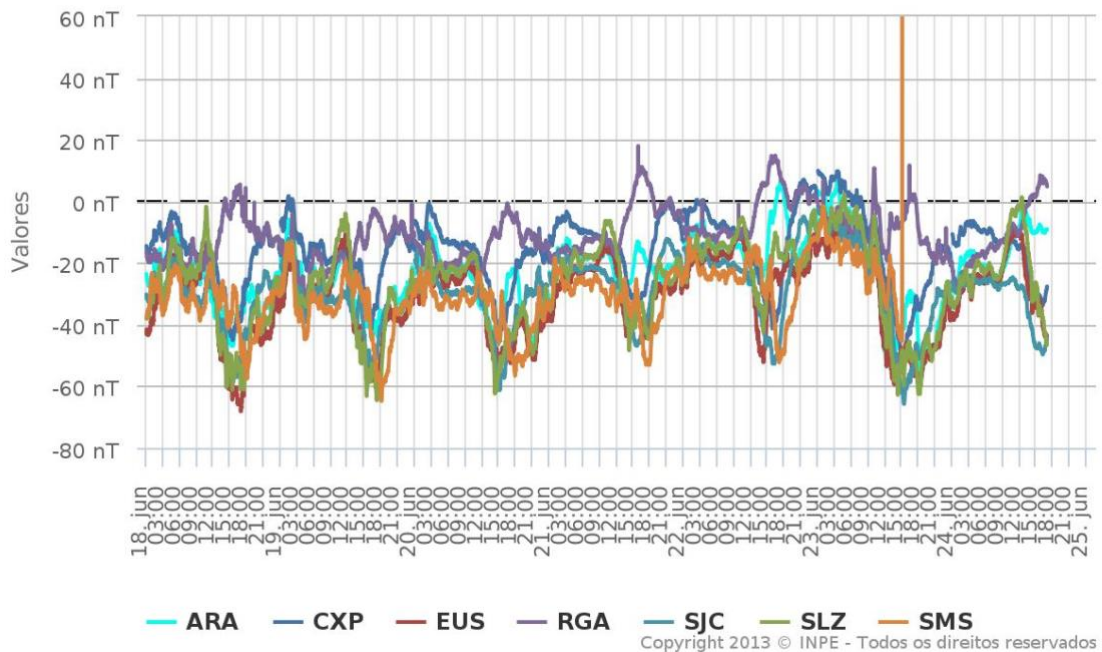


Figura 1.: Variação diurna da componente geomagnética H (nT) das estações da rede Embrace

Figure 1.: Daily variation of the geomagnetic field from H (nT) measured at Embrace MagNet

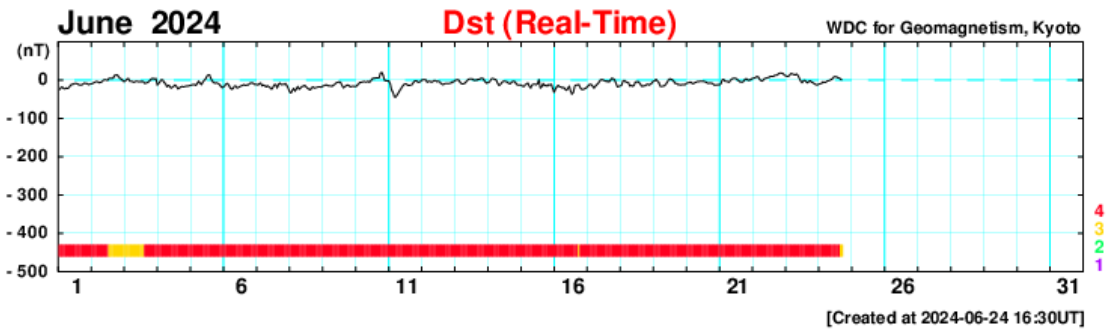


Figura 2.: Índice Dst.
Figure 2: Dst index

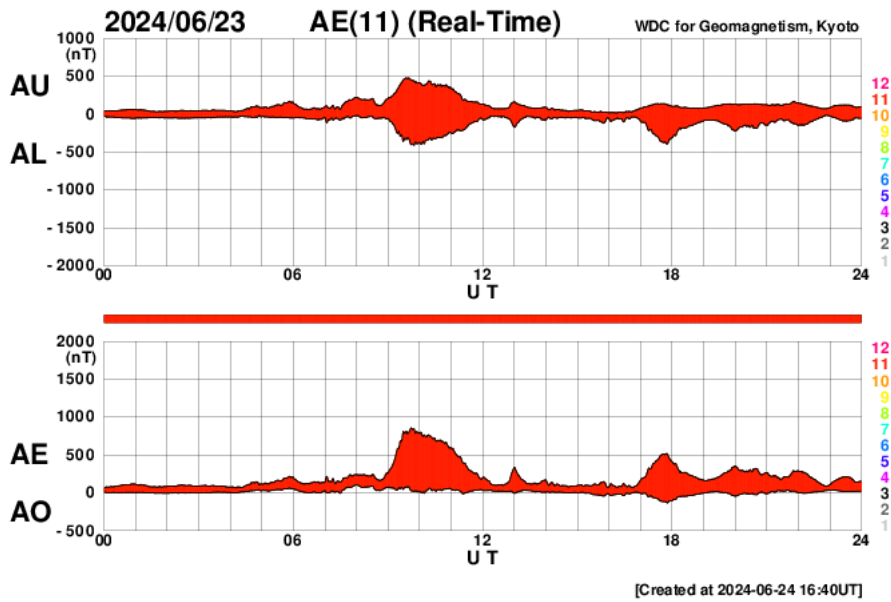


Figura 3.: Índice AE para os dias mais perturbados da semana.
Figure 3.: AE index for the most disturbed days in the current week.

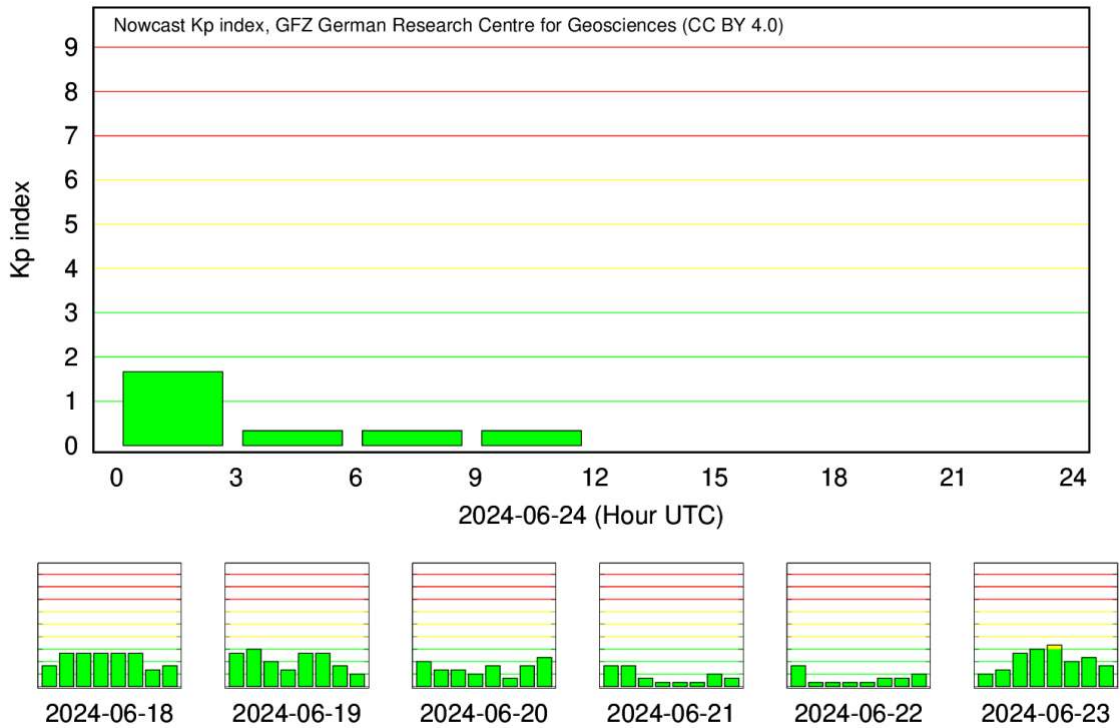


Figura 4.: Índice Kp.
Figure 4: Kp index for the current week

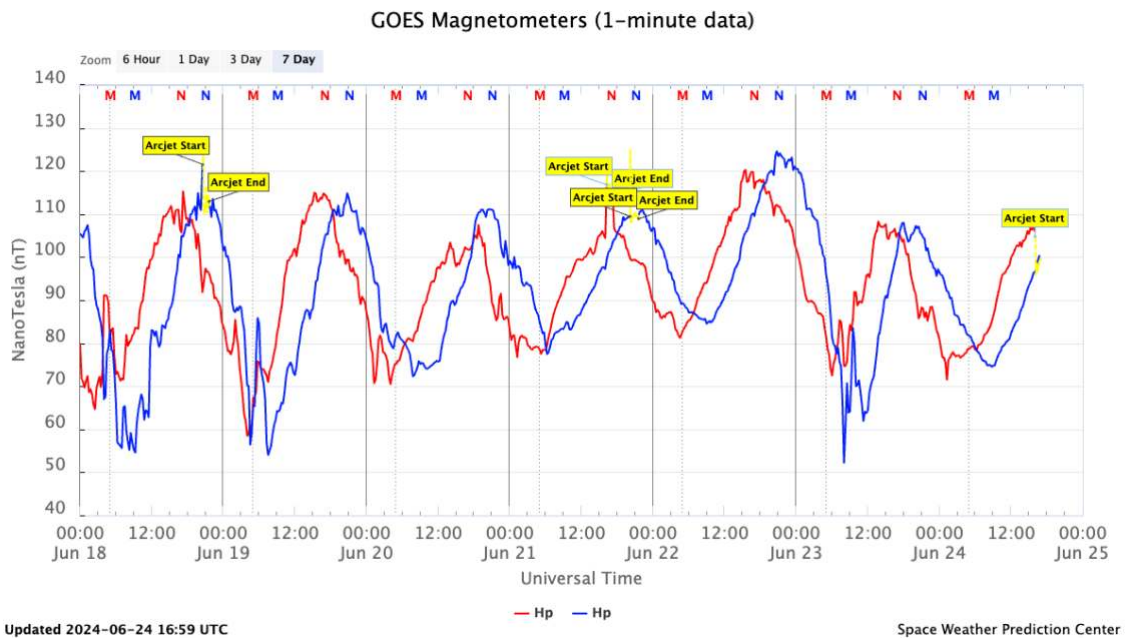


Figura 5. Medida de Campo magnético na posição do satélite GOES
Figure 5.: Magnetic field horizontal component at the GOES satellite orbit.

EARTH'S RADIATION BELT

Responsible: Ligia Da Silva

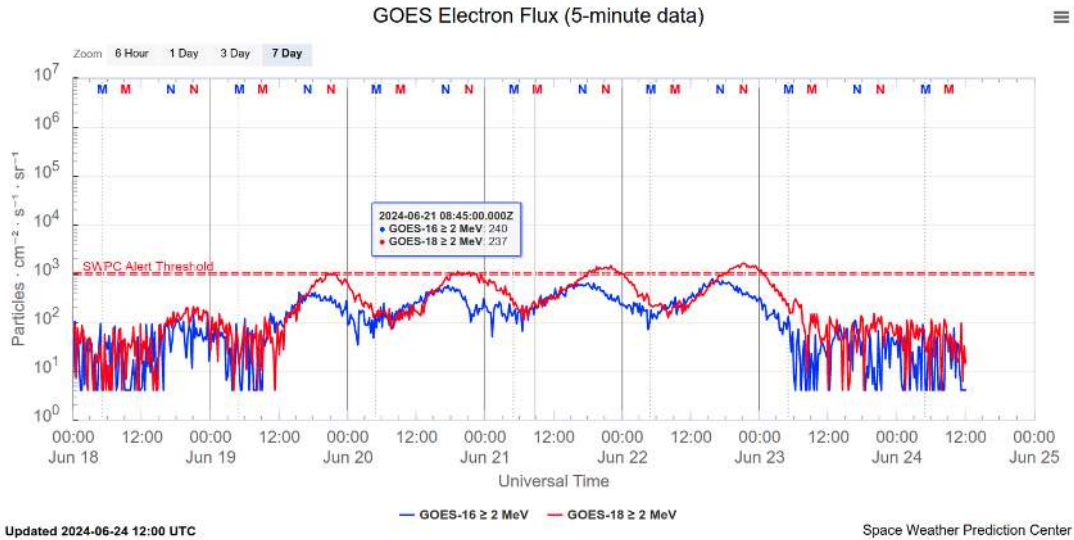


Figure 1: High-energy electron flux (> 2MeV) obtained from GOES-16 and GOES-18 satellite. Source: <https://www.swpc.noaa.gov/products/goes-electron-flux>

Summary

The high-energy electron flux (>2 MeV) in the outer boundary of the outer radiation belt obtained from geostationary satellite data GOES-16 and GOES-18 (Figure 1) is confined below 10^3 particles/($\text{cm}^2 \text{ s sr}$) at the beginning of June 18th, showing an increase from 16:30 UT on the same day. This increase in electron flux reaches 10^3 particles/($\text{cm}^2 \text{ s sr}$) on June 19th, remaining at this threshold until the beginning of June 23rd, being followed by a decrease.

Ionosfera – Digisonda (Laysa Resende)

Summary

We observed a weak spread F in São Luís during this week (Figure 1). In Cachoeira Paulista, the spread F was not observed any day in this week. The Es layers were weak for both regions. We observed an atypical Es layer over Boa Vista on June 17 (Figure 1).

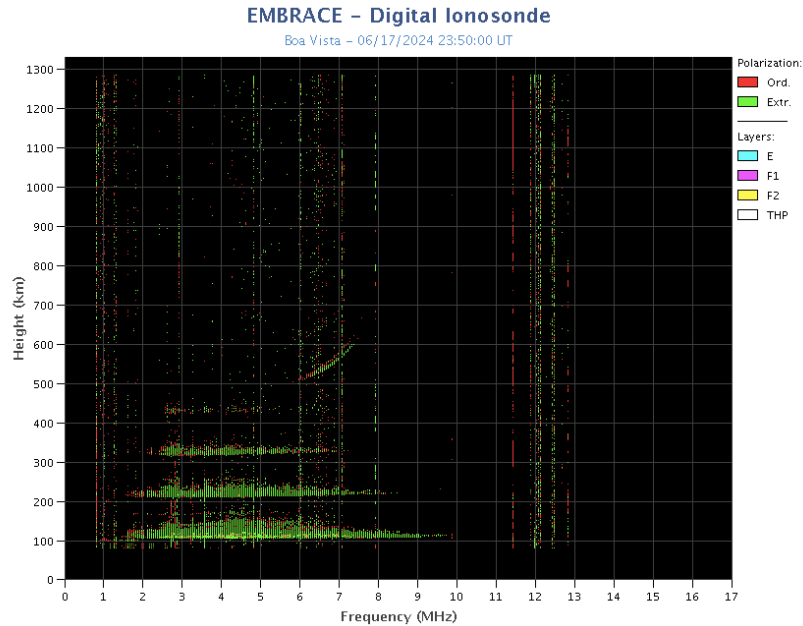


Figure 1 – Ionogram over Boa Vista, showing a strong Es layer