



Brief Sun Summary - J. R. Cecatto

Summary – Jun. 09 – Jun. 16

06/09 – No M/X flare; Fast (≤ 550 km/s) wind stream; 6 CME can have component toward the Earth;

06/10 – No M/X flare; Fast (≤ 500 km/s) wind stream; 5 CME can have component toward the Earth;

06/11 – No M/X flare; Fast (≤ 500 km/s) wind stream; 8 CME can have component toward the Earth;

06/12 – No M/X flare; Fast (≤ 500 km/s) wind stream; 11 CME can have component toward the Earth;

06/13 – M1.3 flare; Fast (≤ 450 km/s) wind stream; 5 CME can have component toward the Earth;

06/14 – M6.9 flare; Fast (≤ 550 km/s) wind stream; 4 CME can have component toward the Earth;

06/15 – M2.3, M2.0, M8.6 flares; Fast (≤ 600 km/s) wind stream; 10 CME can have component toward the Earth *,*,*;

06/16 – M1.8, M6.3 flares; Fast (≤ 550 km/s) wind stream; 1 CME can have component toward the Earth

For.: Fast wind stream for the next 2-3 days; for while (75% M, 30% X) probability of M / X flares next 2 days; also, occasionally some other CME can present a component toward the Earth.

Resumo – 09-16 Junho

09/06 – Sem "Flare" M/X; Vento rápido (≤ 550 km/s); 6 CMEs podem ter componente p Terra;

10/06 – Sem "Flare" M/X; Vento rápido (≤ 500 km/s); 5 CME com componente p/ Terra;

11/06 – Sem "Flare" M/X; Vento rápido (≤ 500 km/s); 8 CME com componente p/ Terra;

12/06 – Sem "Flare" M/X; Vento rápido (≤ 500 km/s); 11 CME podem ter componente p Terra;

13/06 – "Flare" M1.3; Vento rápido (≤ 450 km/s); 5 CME podem componente p Terra;

14/06 – "Flare" M6.9; Vento rápido (≤ 550 km/s); 4 CME com componente p Terra;

15/06 – "Flares" M2.3, M2.0, M8.6; Vento rápido (≤ 600 km/s); 10 CME podem ter componente p/ a Terra *,*,*;

16/06 – "Flares" M1.8, M6.3; Vento rápido (≤ 550 km/s); 1 CME com componente para a Terra

Prev.: Vento rápido para o(s) próximo(s) 2-3 dia(s); probabilidade de "flares" M/X (75% M, 30% X) nos próximos 02 dias; eventualmente alguma(s) outra(s) CME pode(m) apresentar componente dirigida para a Terra.



Interplanetary Medium (IM) – Daniele da S. F. Medeiros and Paulo R. Jauer
Period: June 9th to June 16th.

Summary

Summary of IM conditions for the last week. The interplanetary medium region in the last week showed a moderate level of plasma disturbances due to the possible interaction of CME and CIR structures identified by the DSCOVR satellite in the interplanetary medium.

- The magnitude of the interplanetary magnetic field component peaked on June 13th at 05:30 UT at 16.31 nT due to CME and CIR.
- The BxBy components presented variations in the analyzed period, keeping both oscillating within the interval [-13, +13] nT. Showing rotations of the By component due to CME and CIR.
- The Bz component presents negative values for most of the week with a maximum negative -12.81 nT at 10:30 UT on June 13th. It presented positive value of +11.20 nT on June 14th at 04:30 UT.
- The solar wind density maximum peaked on June 14th at 01:30 UT at 22.15 protons/cm³.
- The solar wind speed fluctuated between 401 to 547 km/s with the presence of a discontinuity on June 13th at 13:30 UT.
- The magnetopause position remained compressed almost throughout the analyzed period, reaching maximum compression (7.74 RE) at 23:30 UT on June 12th.

Figure 1 illustrates a set of parameters observed in the solar wind by the DSCVR satellite. The measured solar wind parameters can be identified in the following order starting in column 1: Interplanetary magnetic field modulus (IMF), the Bx and By components, Bz component, convection electric field Ey. Column 2: Solar wind density, speed, temperature and the last graph represents the position of the subsolar magnetopause.

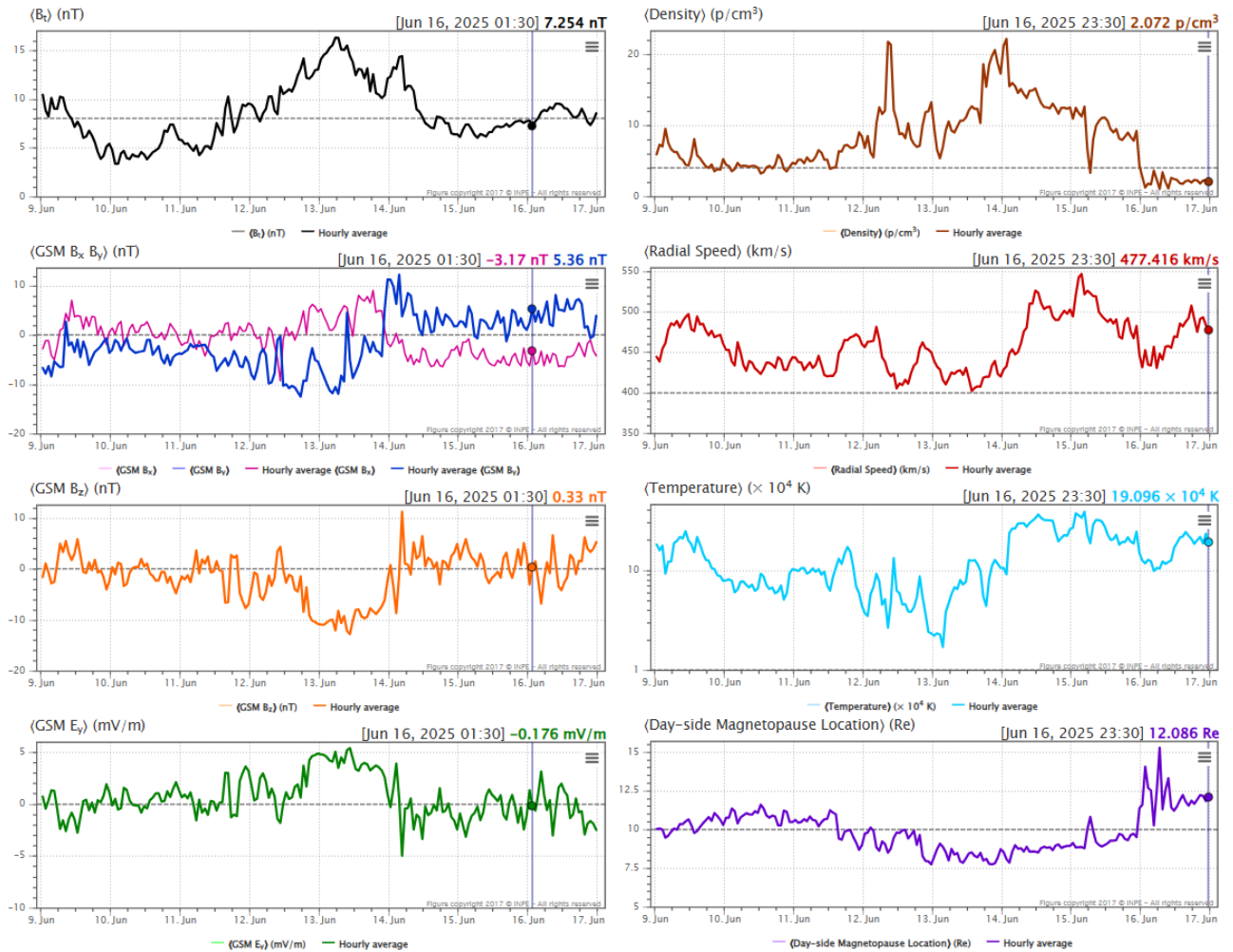


Figure 1: Illustrates a set of parameters observed in the solar wind by the DSCVR satellite.

Resumo

Durante toda a semana, a estação de Boa Vista registrou spread F de forma consistente, enquanto a ocorrência foi observada em Cachoeira Paulista somente nos dias 12 e 13 de junho. A camada Es atingiu no máximo a escala 3 nas estações de Belém, Boa vista e Cachoeira Paulista (Figura 1).

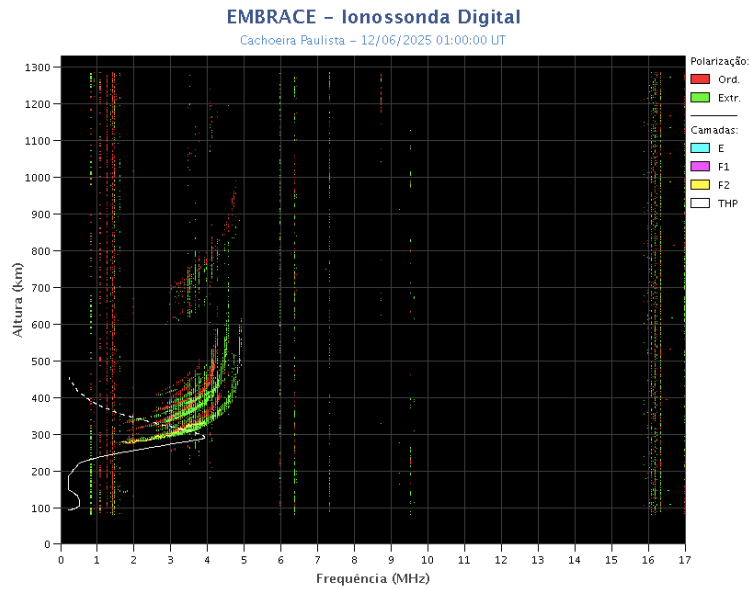


Figure 1 – Ionograma de Cachoeira Paulista, mostrando o spread F.