SOL (Cecatto)

Summary

01/29 – M1.2, M6.8 flares; Fast (=< 500 km/s) wind stream; 9 CME can have component toward the Earth;
01/30 – No M/X flare; Fast (=< 500 km/s) wind stream; 11 CME can have component toward the Earth *;
01/31 – No M/X flare; Fast (=< 450 km/s) wind stream; 12 CME can have component toward the Earth;
02/01 – No M/X flare, M2.3, X2.8; Fast (=< 450 km/s) wind stream; 8 CME can have component toward the Earth;
02/02 – M1.1 flare; No fast wind stream; 6 CME can have component toward the Earth;
02/03 – No M/X flare; No fast wind stream; 7 CME can have component toward the Earth;
02/04 – M1.4, M1.3, M1.5, M1.1, M1.2, M2.1, M2.7 flares; Fast (=< 450 km/s) wind stream; 5 CME can have component toward the Earth;
02/05 – M2.1, M1.4 flares; ? Fast (=< 450 km/s) wind stream; 3 CME can have component toward the Earth
Forecast: Fast wind stream for today and next 1-2 days; for while (70% M, 15% X) probability of M / X flares next 2 days; also, occasionally some other CME can present a component toward the Earth.

Resumo

29/01 – "Flares" M1.2, M6.8; Vento rápido (< 500 km/s); 9 CME podem ter uma componente para a Terra;
30/01 – Sem "flare" M/X; Vento rápido (< 500 km/s); 11 CME podem ter uma componente para a Terra *;
31/01 – Sem "flare" M/X; Vento rápido (< 450 km/s); 12 CME podem ter uma componente para a Terra;
01/02 – Sem "flare" M/X; Vento rápido (< 450 km/s); 8 CME podem ter uma componente para a Terra *;
02/02 – "Flare" M1.1; Sem vento rápido; 6 CME podem ter uma componente para a Terra *;
03/02 – Sem "flare" M/X; Sem vento rápido; 7 CME podem ter uma componente para a Terra;
04/02 – "Flares" M1.4, M1.3, M1.5, M1.1, M1.2, M2.1, M2.7; Vento rápido (< 450 km/s); 5 CME podem ter uma componente para a Terra;
05/02 – "Flares" M2.1, M1.4; Vento rápido (< 450 km/s); 3 CME podem ter uma componente para a Terra
Prev.: Vento rápido para hoje e próximos 1-2 dias; probabilidade de “flares” M/X (70% M, 15% X) nos próximos 02 dias; eventualmente alguma outra CME pode apresentar componente dirigida para a Terra.

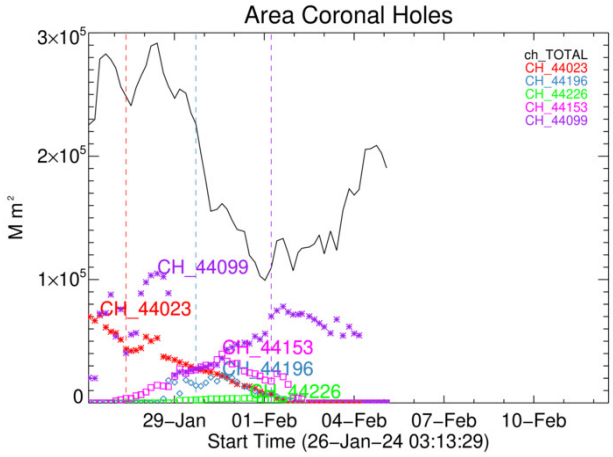
Solar - WSA-ENLIL

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

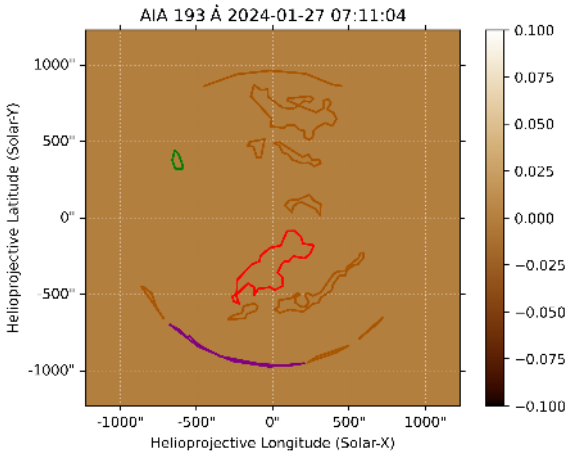
WSA-ENLIL(CME 2024-01-29 02:00:00 UT)
The simulation results indicate that the flank of CME will reach the DSCOVR mission between 2024-01-31 01:00:00 UT and 2024-01-31 15:00:00 UT.

WSA-ENLIL(CME 2024-02-02 04:17:00 UT)
The simulation results indicate that the flank of CME will reach the DSCOVR mission between 2024-02-05 03:00:00 UT and 2024-02-05 17:00:00 UT.

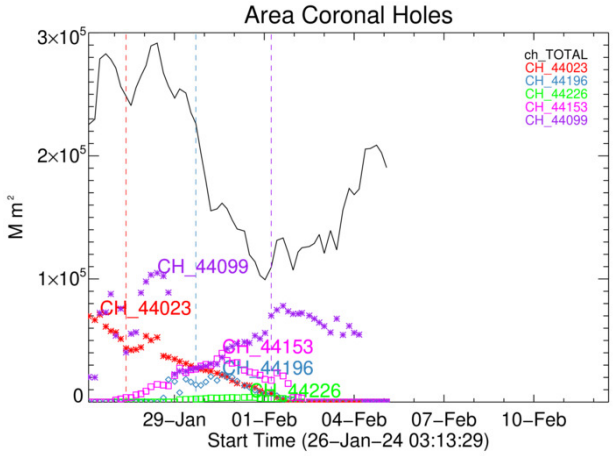
Solar - Coronal holes Spatial Possibilistic Clustering Algorithm (SPoCAS):



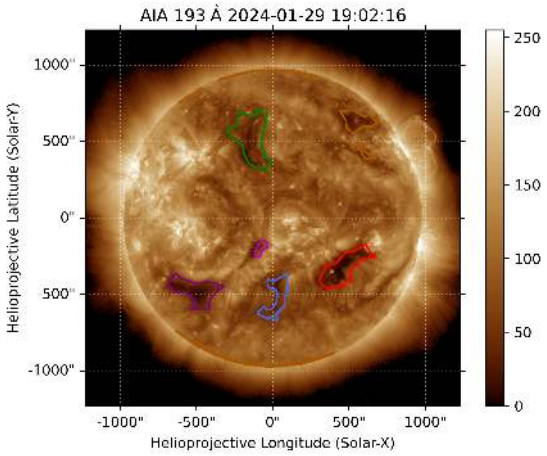
(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between January 26 and February 05,2024.



(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 07:11 UT on January 27, 2024 (red dot line).

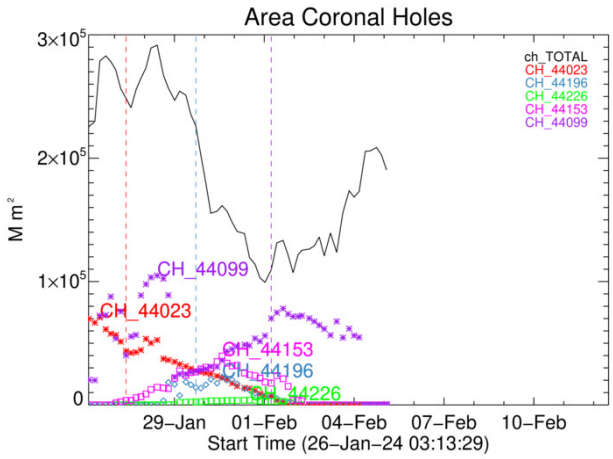


(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between January 26 and February 05,2024.

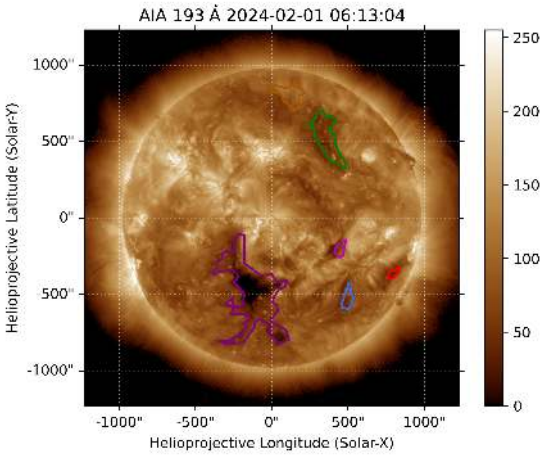


(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 19:02 UT on January 29, 2024 (blue dot line).

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

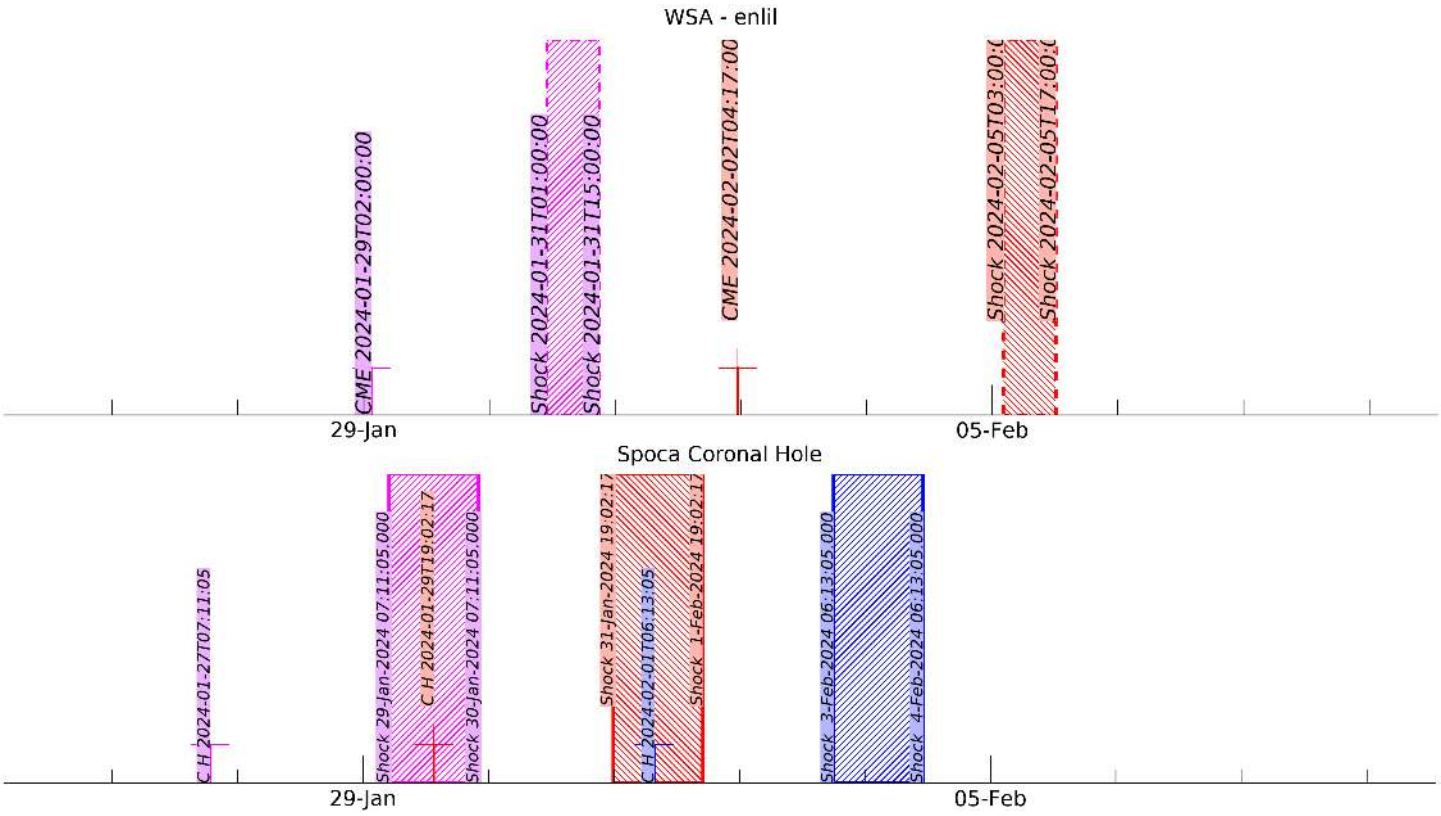


(a) The solid black line depicts the products of the sum of areas for each detection interval performed by SPOCA between January 26 and February 05,2024.



(b) Above the 193 Å image of the Sun are highlighted coronal holes observed by SPOCA around 06:13 UT on February 01, 2024 (magenta dot line).

Solar - WSA - ENLIL and SPoCA



Ionosphere - ROTI
Summary for Week 2299 (January 28 to February 3, 2024)

Carolina de Sousa do Carmo

In the week 2299 (January 28 to February 3, 2024) there were ionospheric irregularities (plasma bubbles) on all nights analyzed. The Figure below shows the ROTI time series for four stations in the Brazilian sector (Natal (RNNA), Bacabal (MABB), Cuiabá (CUIB) and São José dos Campos (SJSP)).

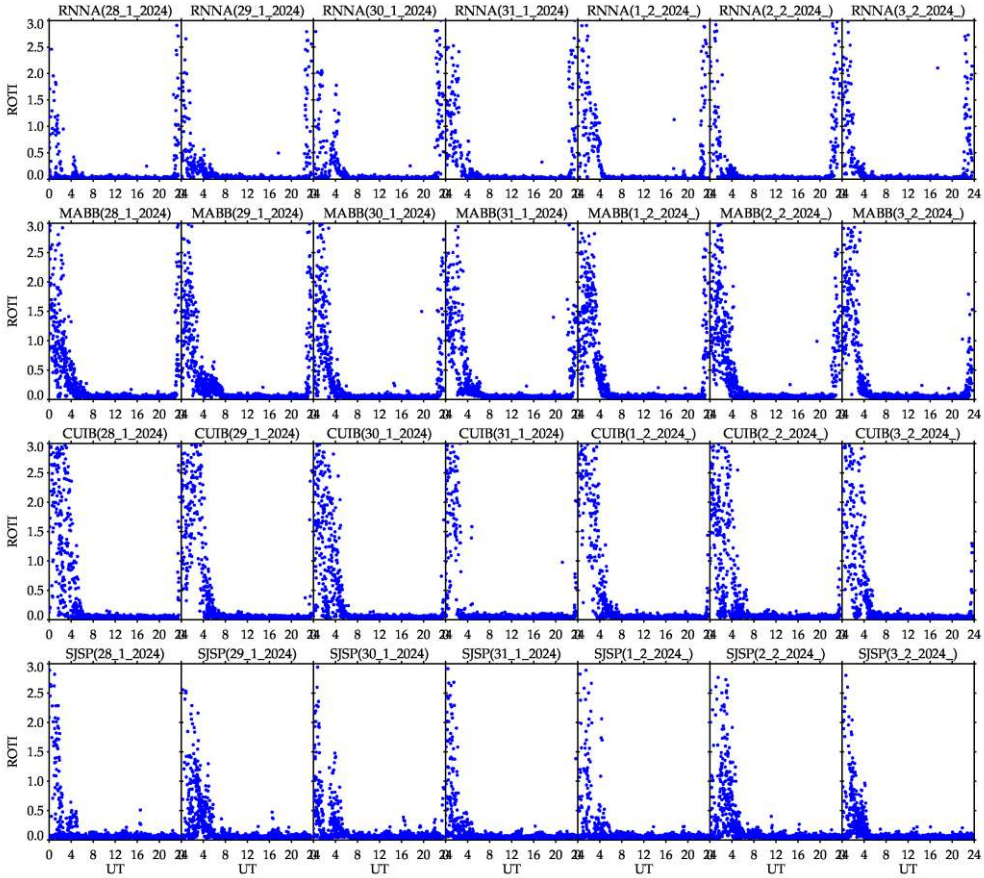


Figure – ROTI time series for four stations in the Brazilian sector (Natal (RNNA), Bacabal (MABB), Cuiabá (CUIB) and São José dos Campos (SJSP)), from January 28 to February 3, 2024.