

Figure S1. Number of trajectories per day averaged in different seasons during 2006: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, w 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over Banizoumbou. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

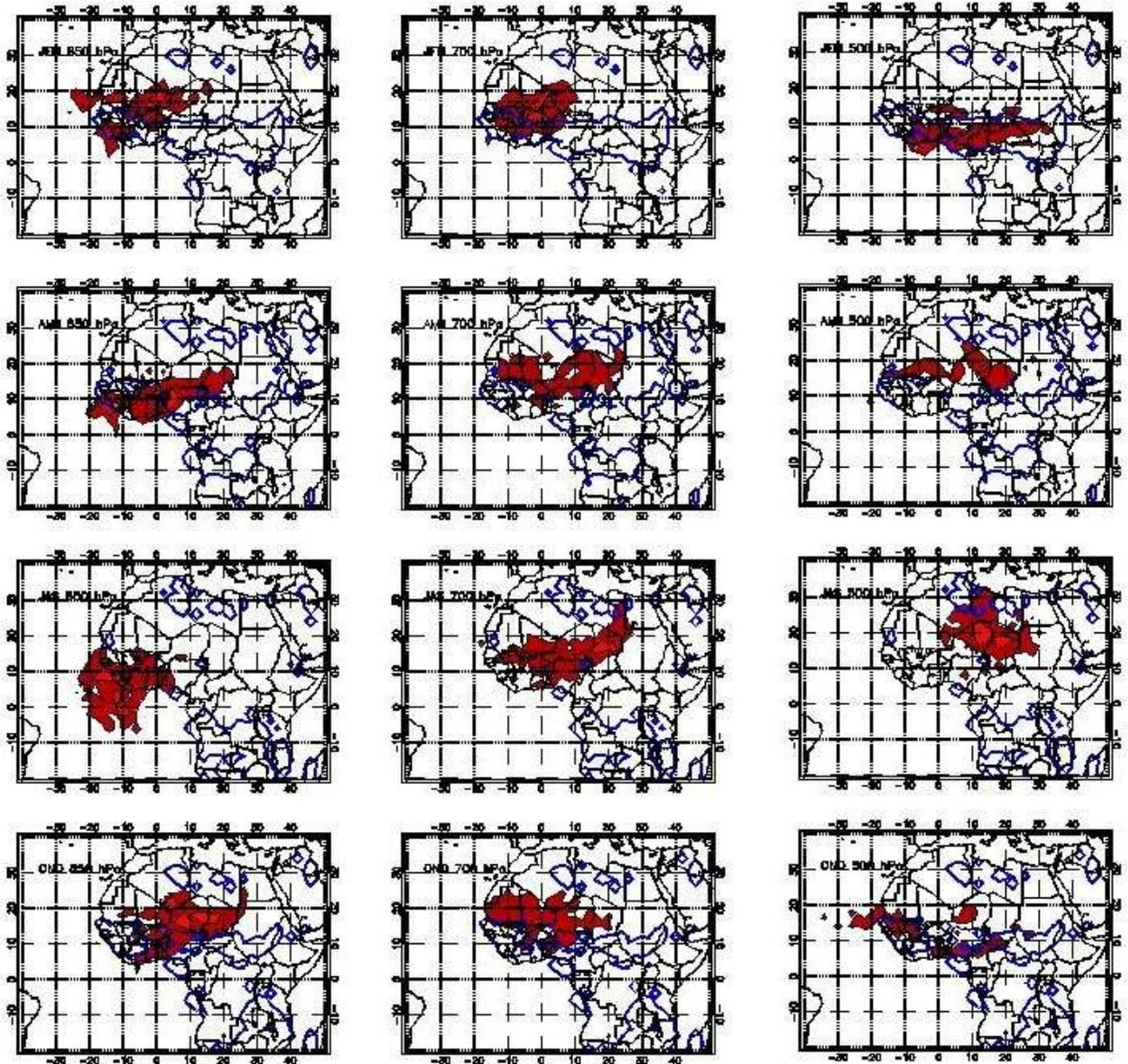


Figure S2. Number of trajectories per day averaged in different season during 2007: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over Cinzana. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

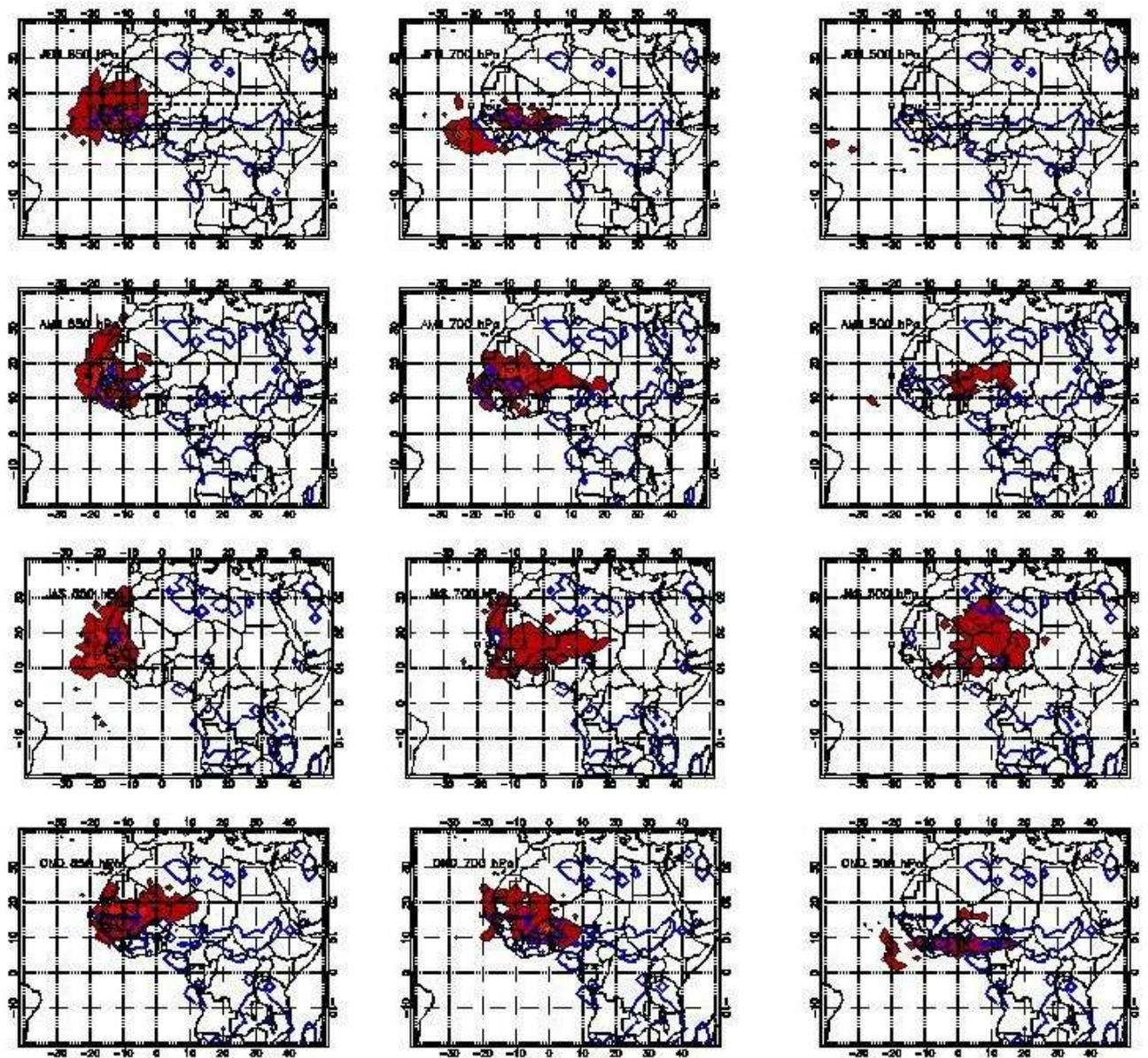


Figure S3. Number of trajectories per day averaged in different season during 2006: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over M'Bour. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

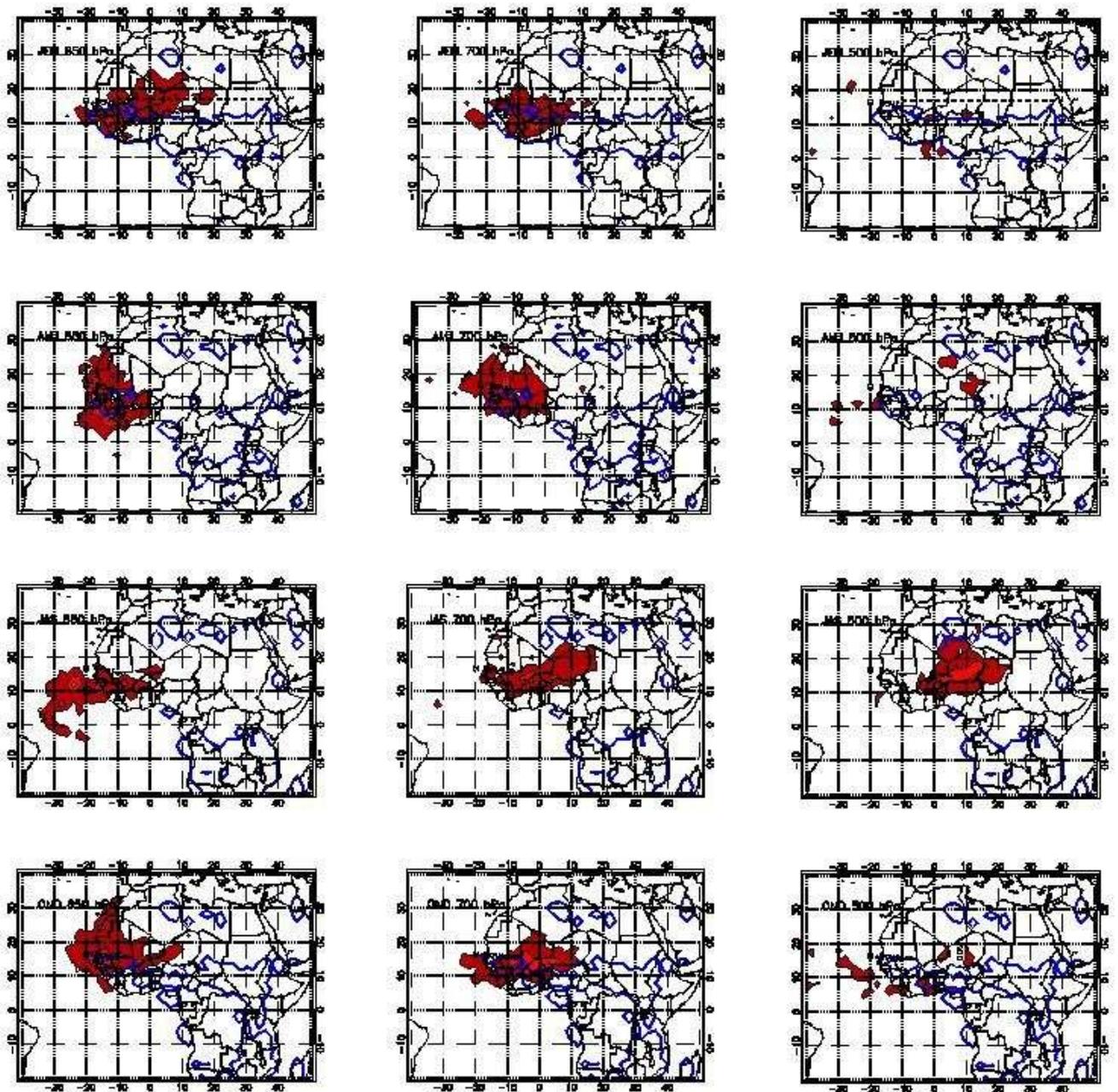


Figure S4. Number of trajectories per day averaged in different season during 2007: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over Banizoumbou. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

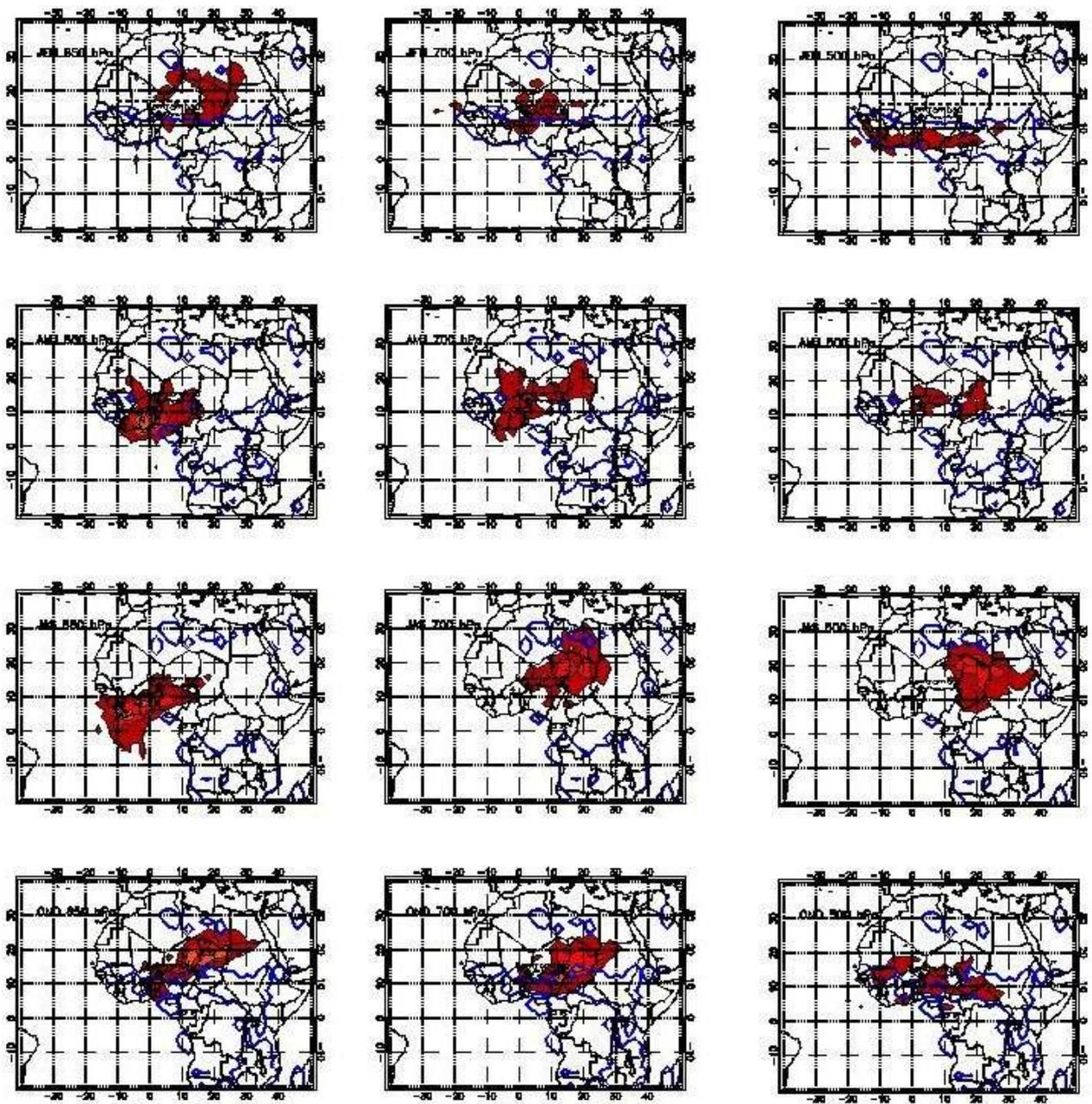


Figure S5. Number of trajectories per day averaged in different season during 2007: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over Cinzana. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

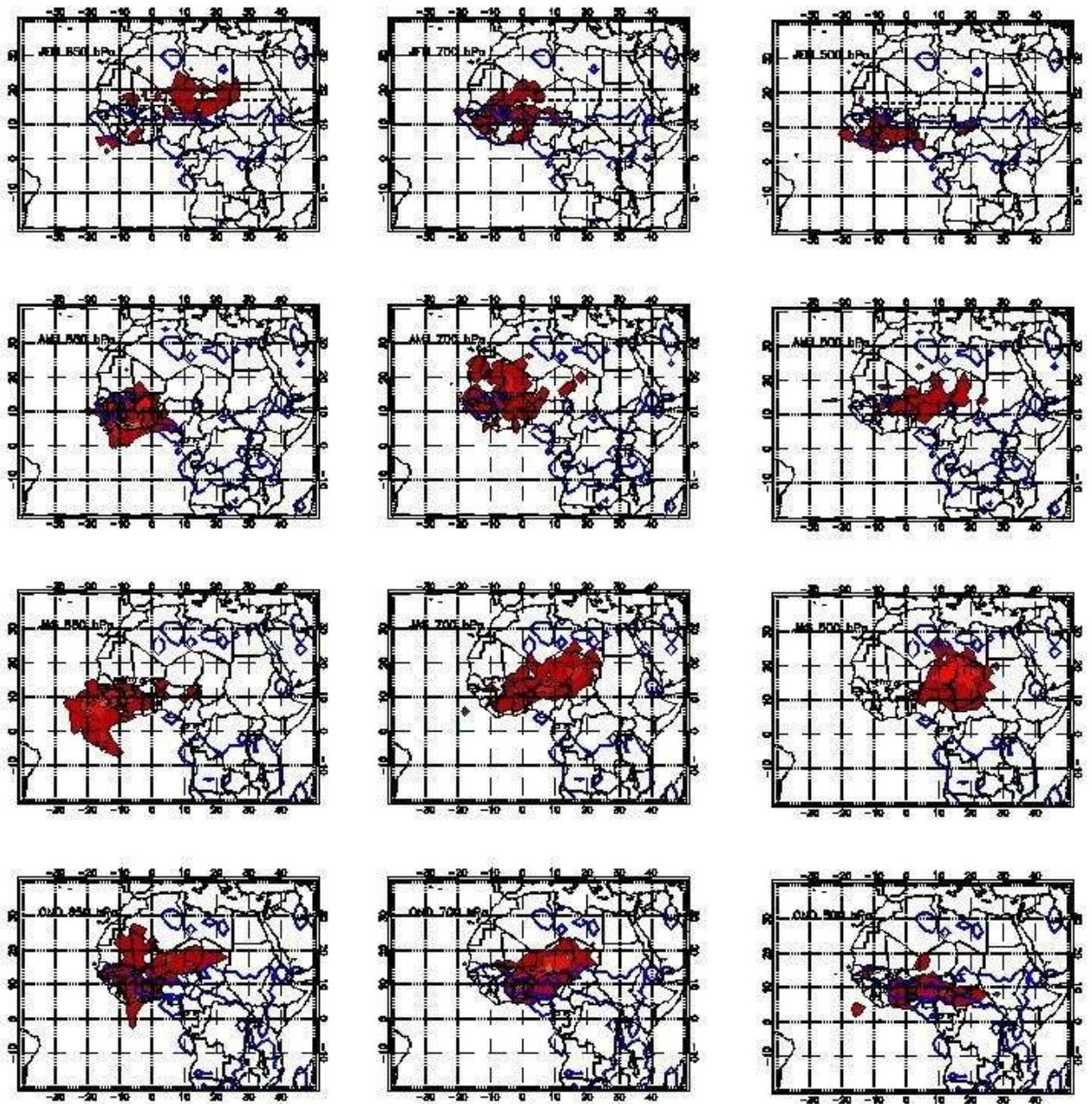


Figure S6. Number of trajectories per day averaged in different season during 2007: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over M'Bour. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

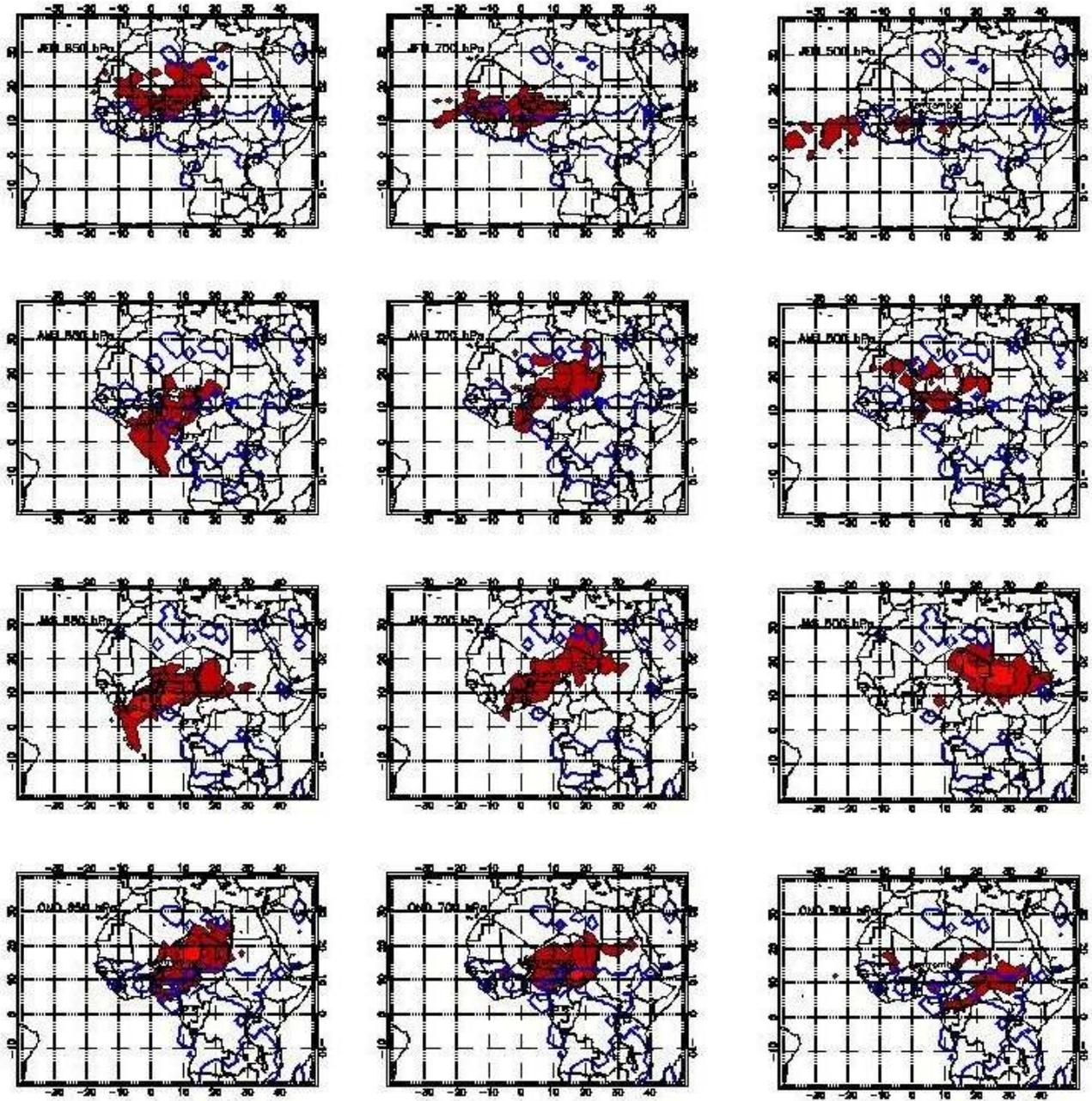


Figure S7. Number of trajectories per day averaged in different season during 2008: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over Banizoumbou. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

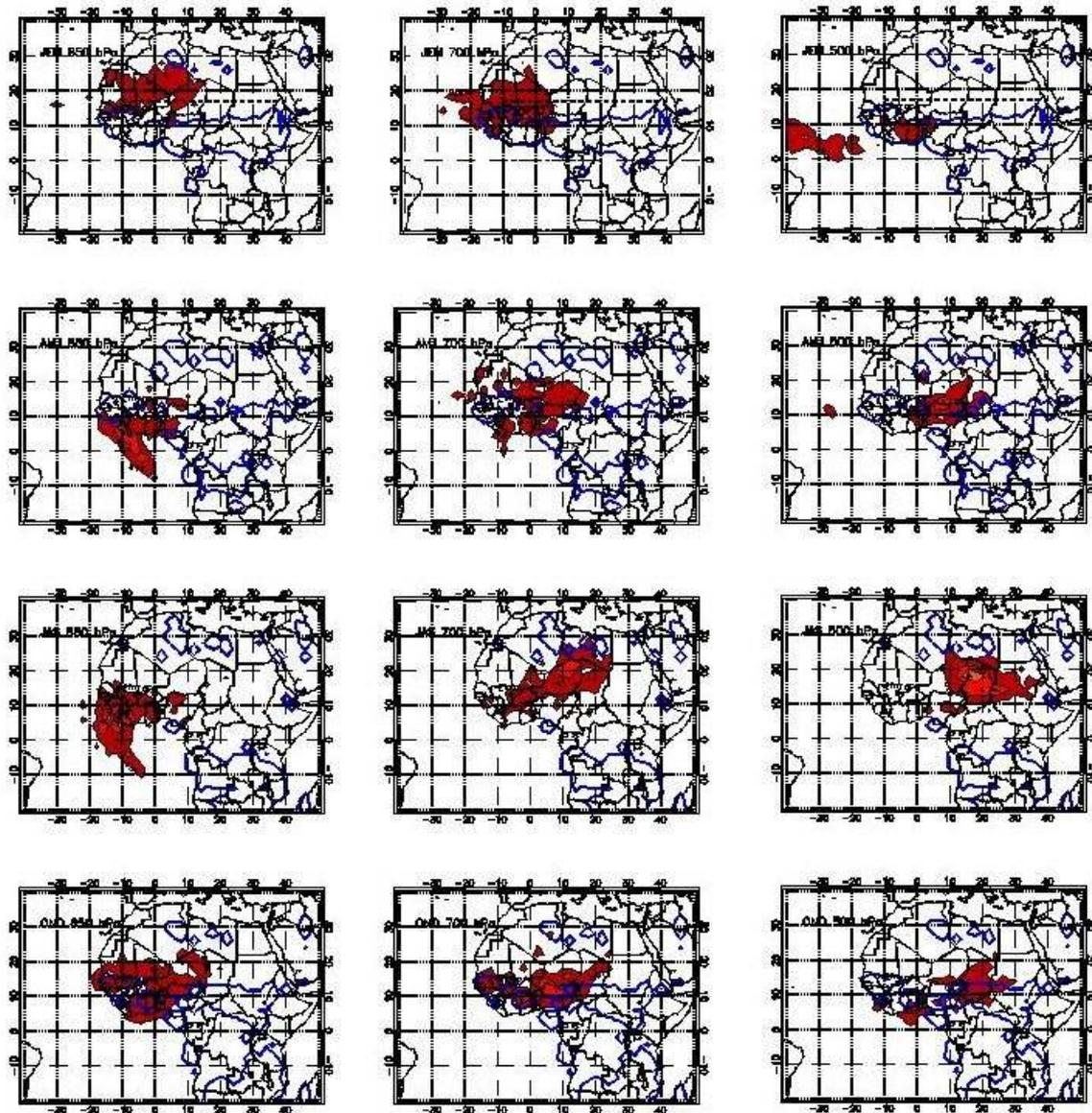


Figure S8. Number of trajectories per day averaged in different season during 2008: January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over in Cinzana. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.

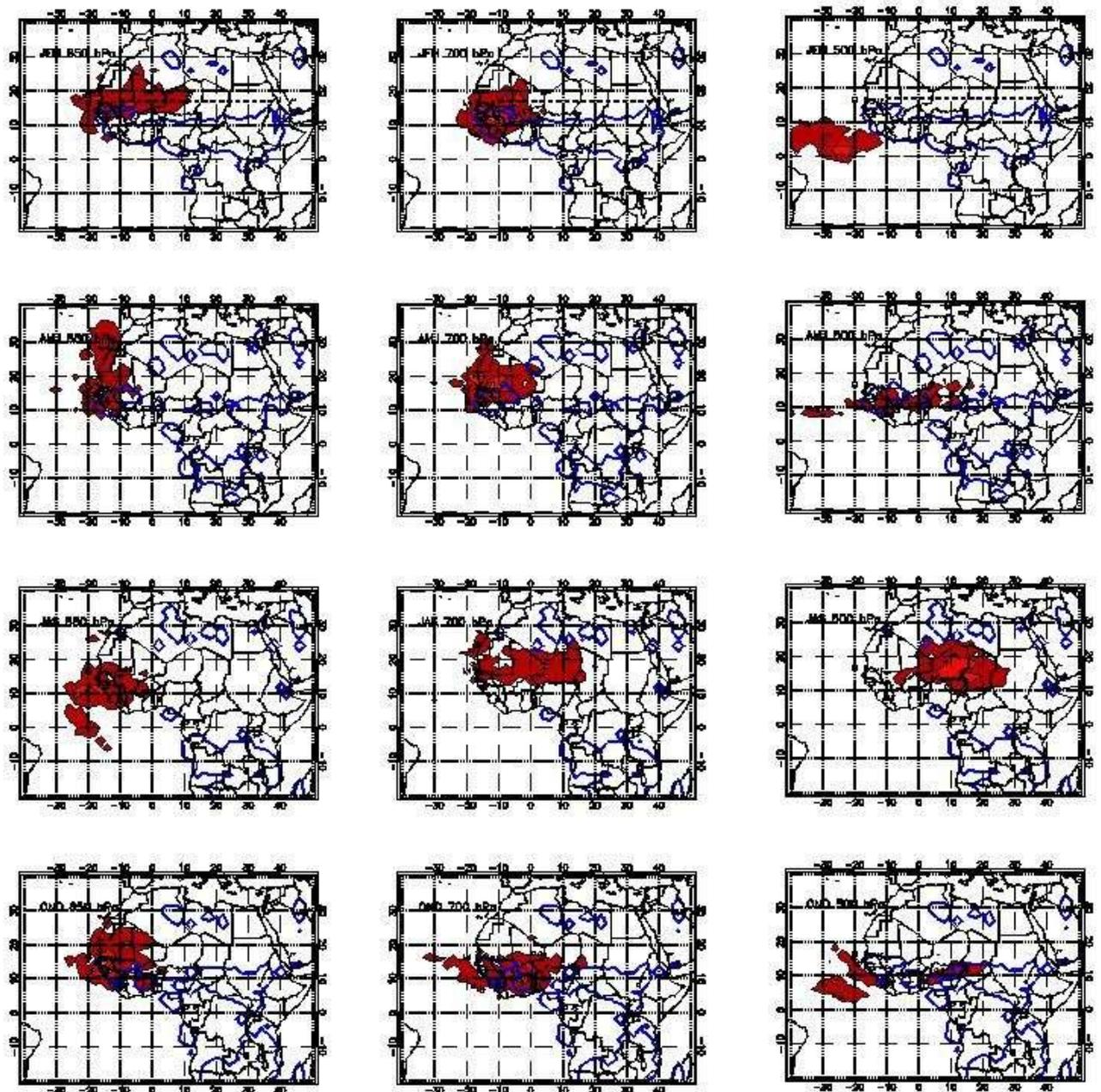


Figure S9. Number of trajectories per day averaged in different season during 2008 : January-February-March (JFM, row 1), April-May-June (AMJ, row 2), June-August-September (JAS, row 3), October-November-December (OND, row 4).

Trajectories are binned in a 2° lat-lon grid. Red contours represent the average position 4 to 6 days before arrival at 850 hPa (left column), 700 hPa (middle column), 500 hPa (right column) over M'Bour. Blue contours indicates areas where forest fires observed from AATSR occurs. Fire-pixel are taken into account if their number is larger than 10 in the three-months period.