

Table S1. Characterization of the thermal and dynamic features of the four weather types

	type 1	type 2	type 3	type 4
Top of inversion layer	825 hPa	750 hPa	950hPa	750 hPa
Vertical wind speed (850 hpa to the ground)	↑	↑	↓	↑
Horizontal wind direction and maximum speed (500 m to the ground)	S,SE 8 m s ⁻¹	S,E 6 m s ⁻¹	S,SW,E 6 m s ⁻¹	N,S,SSW 4 m s ⁻¹
Horizontal wind direction and maximum speed (500 m to 1500m)	SW 8 m s ⁻¹	W,SW 8 m s ⁻¹	NW 14 m s ⁻¹	W,NW,SW 6 m s ⁻¹