



*Supplement of*

## **Clouds and precipitation in the initial phase of marine cold-air outbreaks as observed by airborne remote sensing**

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# 1 Supplementary figures

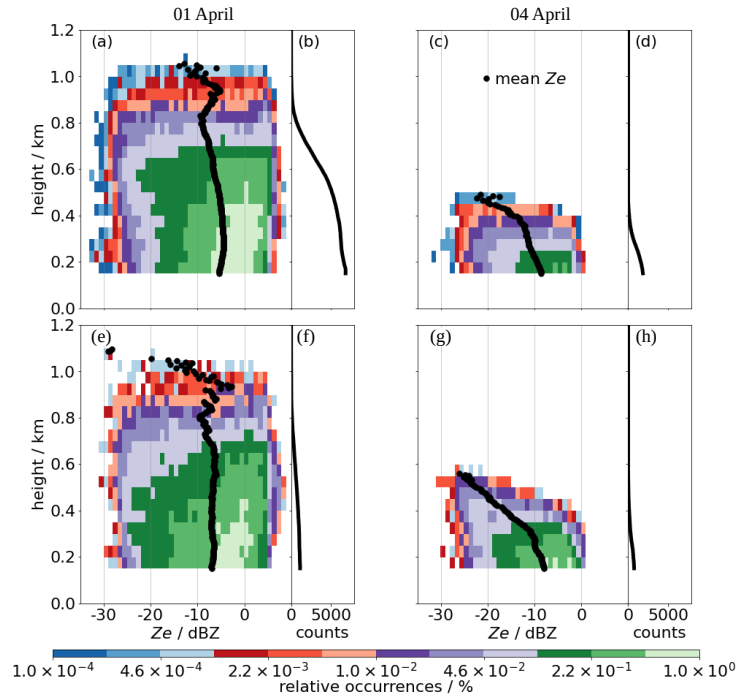


Fig. S1: Contoured frequency by altitude diagram (left) and absolute counts per altitude (right) for liquid-topped (first row) and non-liquid-topped (second row) radar reflectivity ( $Z_e$ ) profiles obtained by MiRAC in the 'cloud street' regime on 01 April (a, b, e, f) and 04 April (c, d, g, h). Moreover, each mean  $Z_e$  profile (black dots) is displayed. The total amount of liquid-topped and non-liquid-topped profiles is 8979 and 1951, respectively.

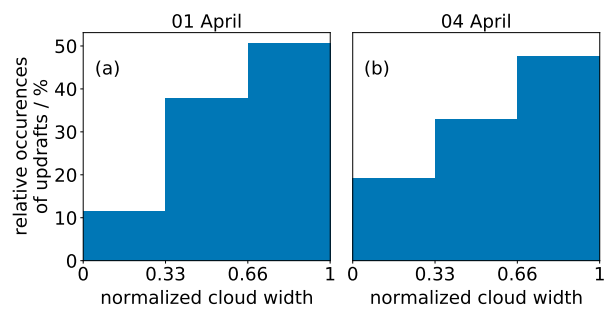


Fig. S2: Relative occurrence of updrafts ( $\max Z_{e_{0.7}}$ ) within all cloud streets that consist of at least 5 radar profiles on 01 April (a) and 04 April (b). Here, 0 is the boundary and 1 is the center of the cloud.