Supporting Information for "Ship-based lidar evaluation of Southern Ocean low clouds in the storm-resolving general circulation model ICON and the ERA5 and MERRA-2 reanalyses"

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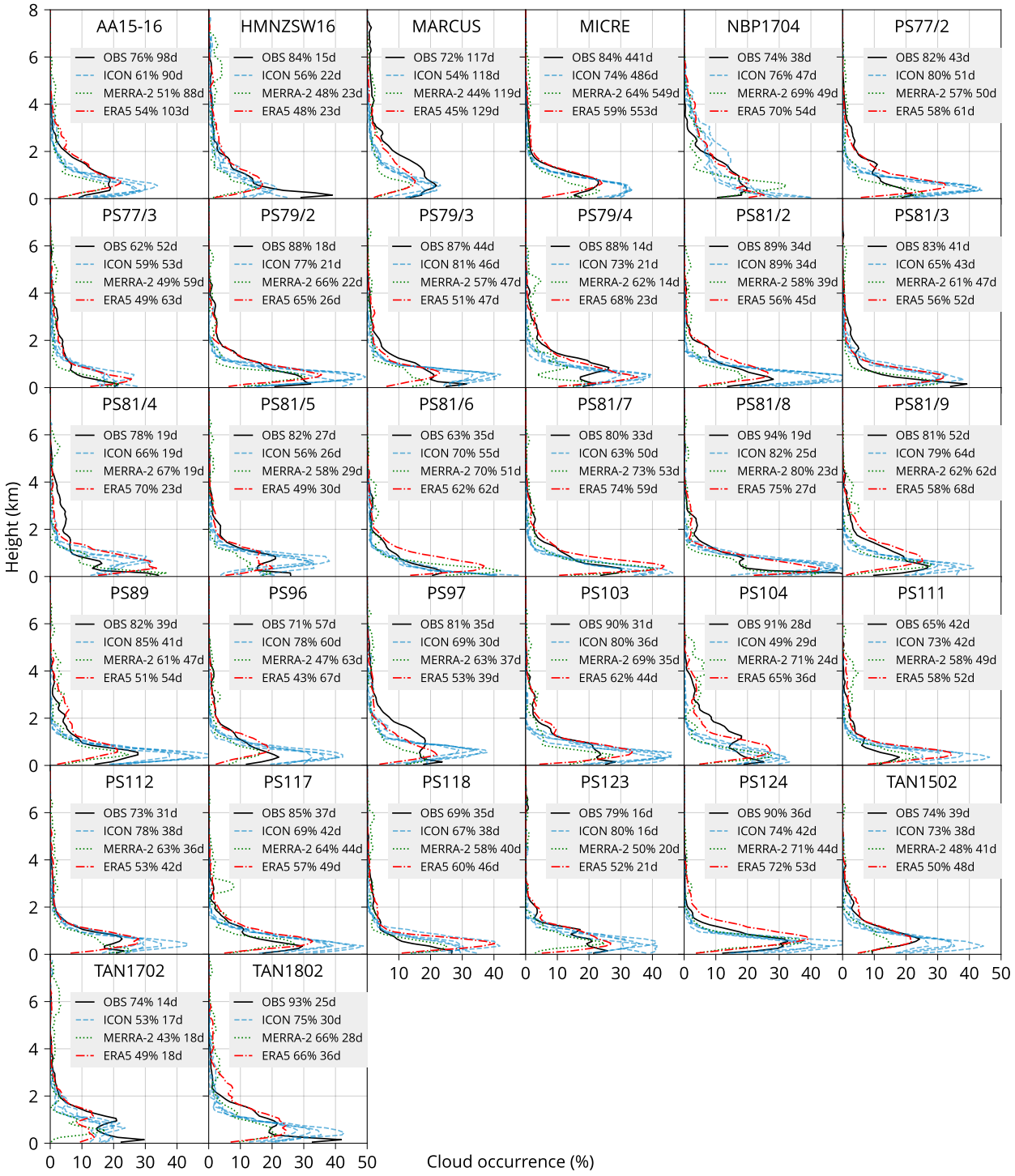

Figure S1. Cloud occurrence by height for the 31 voyages and one sub-Antarctic station (MICRE) in observations (O) and simulated by the ALCF from the ICON model (I), MERRA-2 (M), and ERA5 reanalysis data (E). The numbers in the legend indicate the total cloud fraction and the number of days of data. Multiple lines of ICON profiles are for each of the four years of model data available.

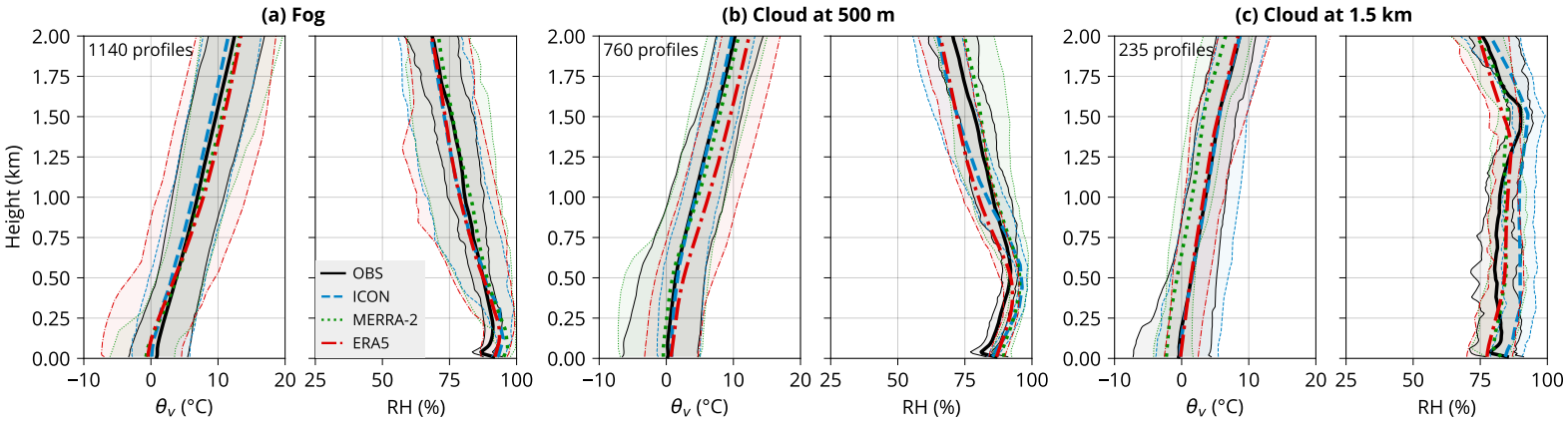

Figure S2. The same as Fig. 9, but only for profiles that contain **(a)** fog, **(b)** cloud at 500 m, and **(c)** cloud at 1.5 km.

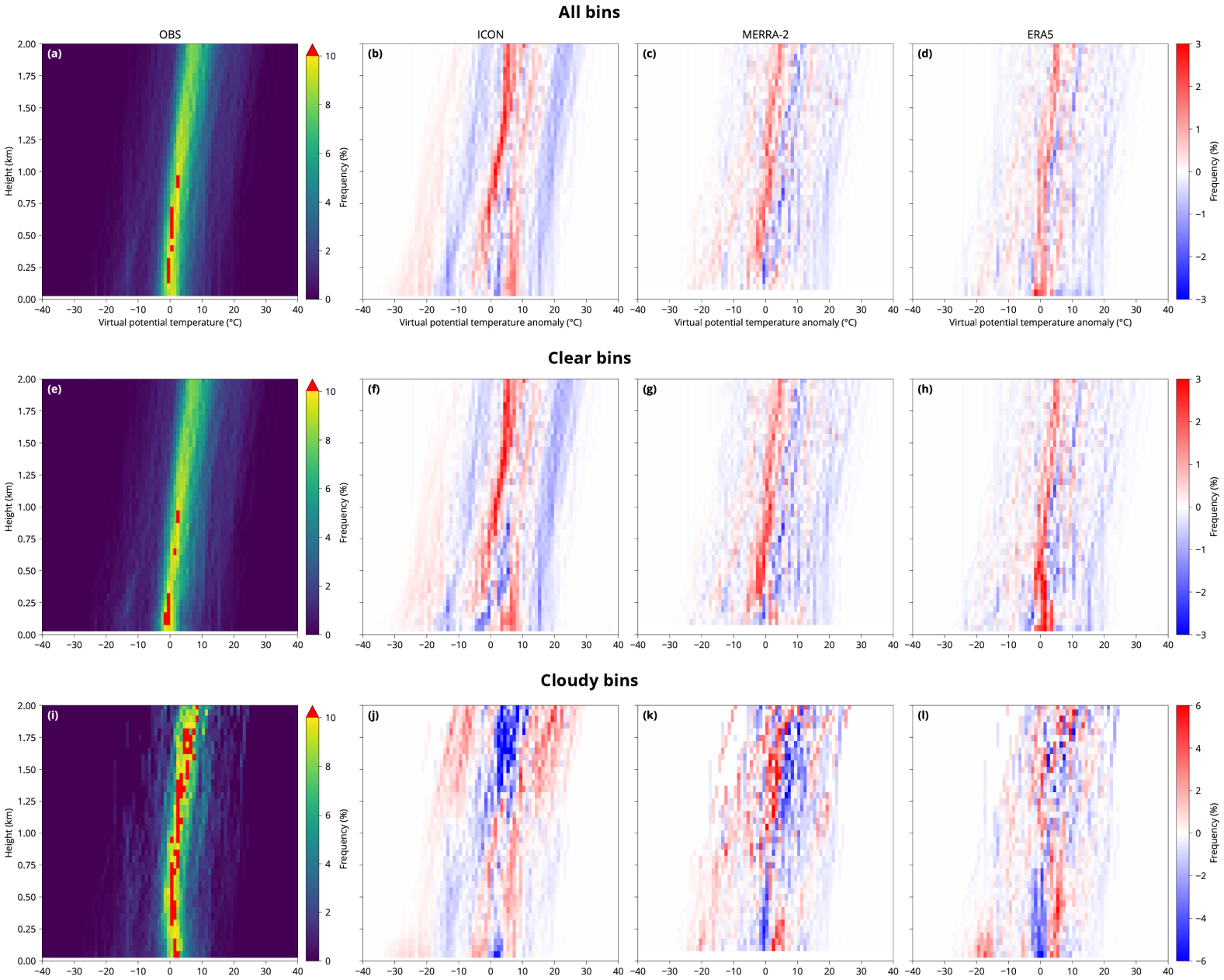

Figure S3. The same as Fig. 11, but for virtual potential temperature.