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EarthCARE Cloud Profiling Radar observations of the vertical structure of marine stratocumulus clouds

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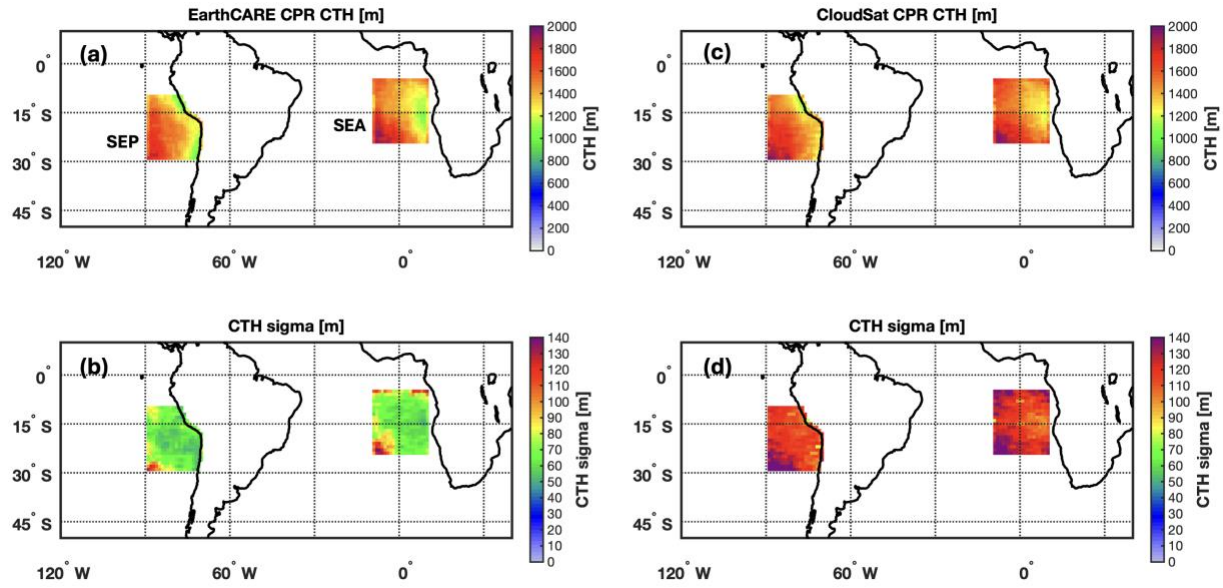

Figure S1. Same as in Fig. 1, but for the mean radar-detected cloud top height (CTH) in the 1x1 degree bins for EarthCARE (a) and CloudSat (c), the mean of CTH sigma in the 1x1 degree bins for EarthCARE (b) and CloudSat (d). CTH sigma is calculated as the standard deviation of CTH within 25 km of each selected low cloud profile.

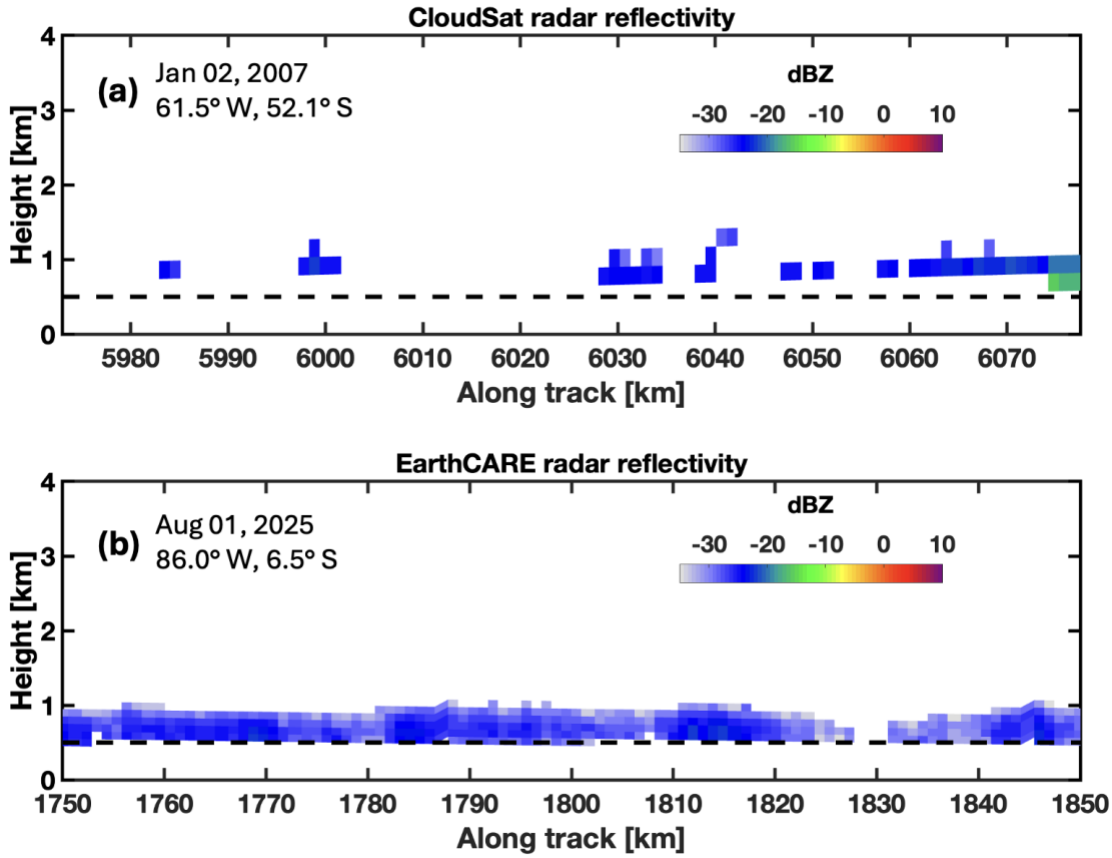

Figure S2. (a), CloudSat CPR observations (cloud mask > =20) near 61.5° W and 52.1° S on Jan 02, 2007. (b), non-precipitating marine low clouds observed by the EC-CPR on Aug 01, 2025, near 86.0° W and 6.5° S. Ground clutter is removed. Black dash lines indicate the height of 0.5 km.

Table S1. EC-CPR point target response (PTR) function.

Height [km]	Power relative to the peak [dB]
0.8	-80.3243
0.7	-80.3243
0.6	-80.3243
0.5	-62.6770
0.4	-24.6332
0.3	-8.9449
0.2	-3.2348
0.1	-0.9654
0	0
-0.1	-0.2764
-0.2	-3.0679
-0.3	-8.2405
-0.4	-14.7710
-0.5	-22.4697
-0.6	-31.6462
-0.7	-42.9592
-0.8	-57.2235
-0.9	-61.0312
-1.0	-80.3243
-1.1	-80.3243
-1.2	-80.3243