Supplementary material: Complementary cases

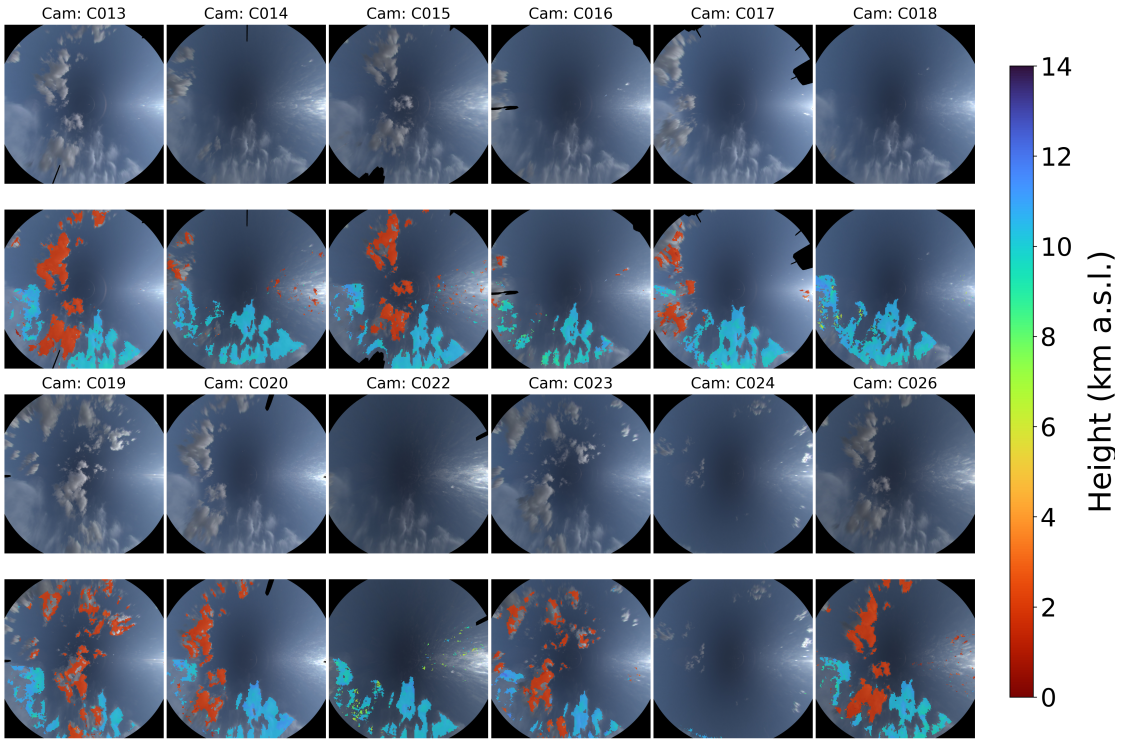

Figure S1. Cloud height values obtained for all cameras available at 17:40 UTC on 7 September 2024. For each camera, the plane projected image north-up oriented is shown, along with the estimated cloud height values overlaid on the same image.

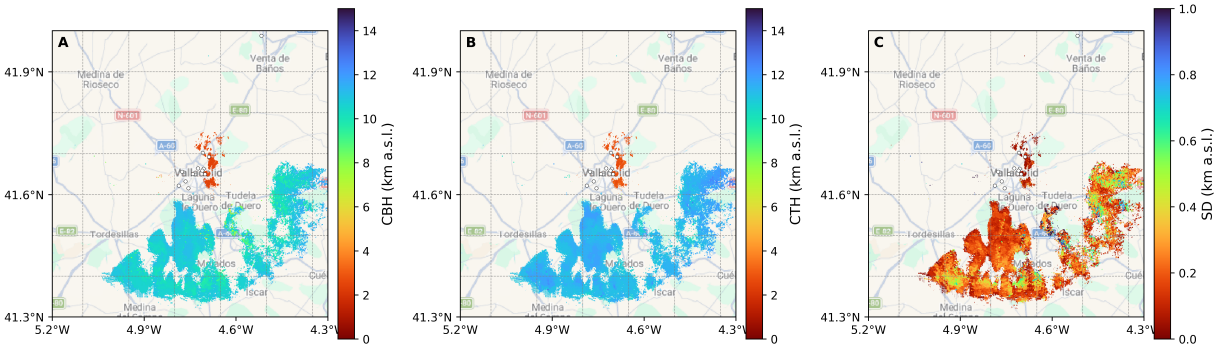

Figure S2. Values for cloud base height (CBH, A), cloud top height (CTH, B) and standard deviation of the valid cloud point heights within each bin of the planar Cartesian latitude–longitude grid (C). Black dots indicate the locations of the cameras that contribute to the stereoscopic calculation (7 September 2024, 17:40 UTC).

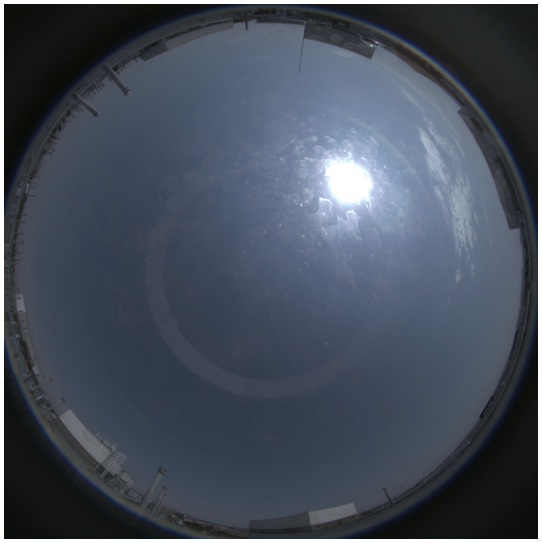

Figure S3. Image from C013 all-sky camera on 15 August 2025 at 10:15 UTC.

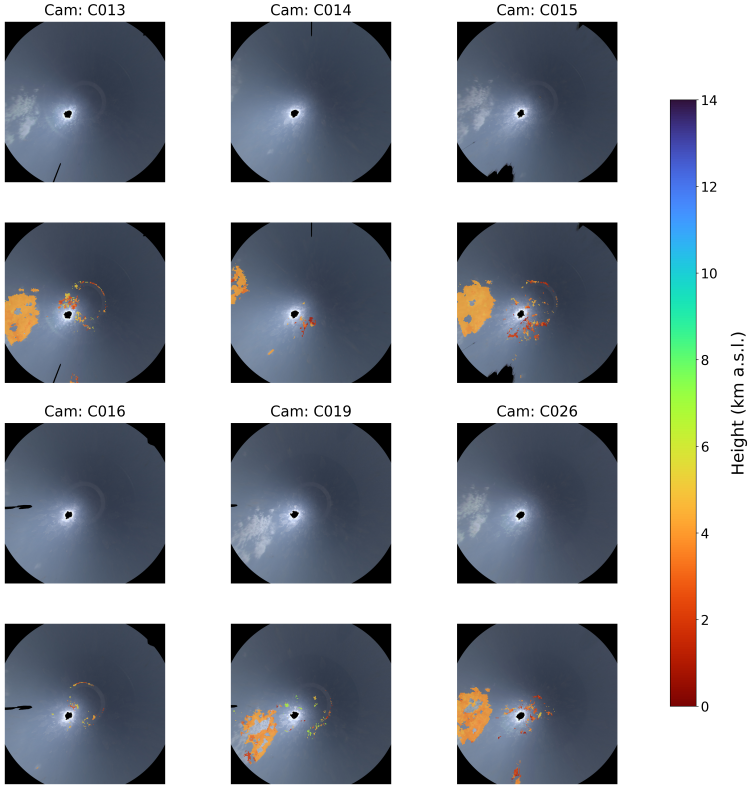

Figure S4. Cloud height values obtained on 15 August 2025 10:15 UTC illustrating the misclassification of dust on the camera domes as cloud structures. For each camera, the plane projected image north-up oriented is shown, along with the estimated cloud height values overlaid on the same image.

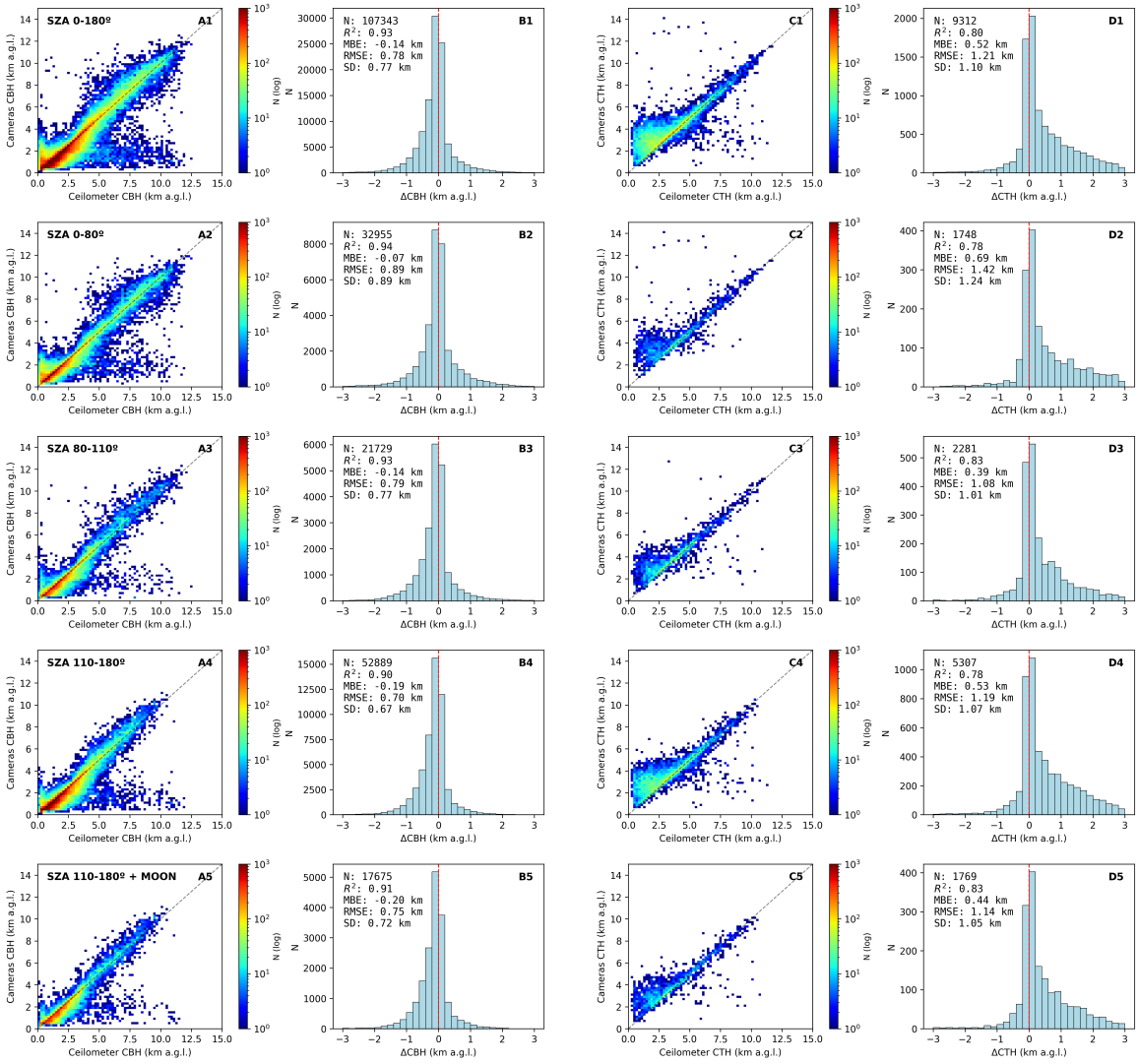

Figure S5. Bidimensional frequency histogram of median cloud heights values from the camera network within a 150 m radius of the ceilometer location, against ceilometer values for cloud base height (CBH) and cloud top height (CTH) in panels A and C, respectively. Panels B and D represent the frequency histogram of the differences (ΔCBH and ΔCTH) between both instruments. Filtering criteria have been applied to discard heights provided by two or fewer cameras, with fewer than 20 height values and a standard deviation higher than 1 km. Additionally, only those cases where the signal successfully penetrated the cloud layer, according to the manufacturer's criteria mentioned in Section **??** have been included. Rows represent different lighting conditions: SZA $0-180^\circ$ (all conditions), SZA $0-80^\circ$ (daylight), SZA $80-110^\circ$ (twilight), SZA $110-180^\circ$ (night), and SZA $110-180^\circ$ (night with moon presence). Results include total number of cases (N), coefficient of determination (R^2), mean bias error (MBE), root mean square error (RMSE) and standard deviation (STD).

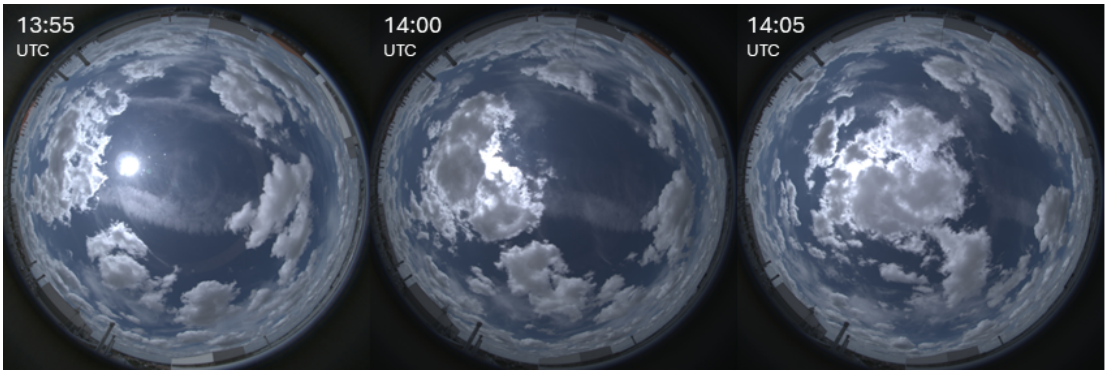

Figure S6. Sequence of images from C013 all-sky camera on 26 May 2024 at 13:55, 14:00 and 14:05 UTC.