**Interactive comment on** “Total column CO$_2$ measurements at Darwin, Australia – site description and calibration against in situ aircraft profiles” **by N. M. Deutscher et al.**

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I strongly support a request of the Reviewer #1 for a more detailed consideration of the convolution procedure for aircraft profiles. Rodgers & Connors paper really concentrates on layer-by-layer retrievals, but also considers total column data that are integrated from retrieved profiles. Do the authors use the standard averaging kernel technique of layer-by-layer perturbations? The layers in their forward model seem to be different in partial columns (and geometrically constant). Do they perturb the layers by equal VMR or equal partial columns?