

6.26 IMPROVED COLLOCATION TECHNIQUES BETWEEN RADAR AND AIRCRAFT

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Here we present the application of geodesy to the collocation of observations made with atmospheric research aircraft and meteorological radars.

For the validation and calibration of geophysical retrievals, such as ice water content (IWC), in situ observations made by the aircraft need to be within the radar beam in order to achieve accurate collocation through precision. Previous methods have relied on statistics to make up for observations which are not collocated, which give way to other uncertainties. This analysis is applied to observations made during Parameterising Ice Clouds using Airborne obServationS and triple-frequency dOppler radar (PICASSO) campaign January and April 2018.