

Polarimetric radar observations in Belgium

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A first C-band dual-polarization radar has been installed in 2012 in Belgium near the coast. It is integrated in a network including three radars. In this contribution we first present the results of some quality checks applied on the polarimetric measurements. In anaprop conditions the observations are strongly contaminated by sea clutter mainly produced by ships and wind turbines in the North Sea. We show that a fuzzy logic scheme including polarimetric measurements allows a substantial reduction of non-meteorological echoes. The added value of polarimetric measurements for generating quantitative precipitation estimates (QPE) is also investigated. The dual-pol QPE will be tested on various meteorological situations and compared with single-pol estimates. A 2-year verification using raingauge measurements from high density networks will be performed.