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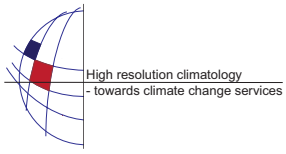

An analysis of simulated and observed storm characteristics

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A calculus-based cyclone identification (CCI) method has been applied to the most recent re-analysis (ERAINT) from the European Centre for Medium-range Weather Forecasts and results from regional climate model (RCM) simulations. The storm frequency for events with central pressure below a threshold value of 960-990hPa were examined, and the gradient wind from the simulated storm systems were compared with corresponding estimates from the re-analysis. The analysis also yielded estimates for the spatial extent of the storm systems, which was also included in the regional climate model cyclone evaluation.

A comparison is presented between a number of RCMs and the ERAINT re-analysis in terms of their description of the gradient winds, number of cyclones, and spatial extent. Furthermore, a comparison between geostrophic wind estimated though triangules of interpolated or station measurements of SLP is presented. Wind still represents one of the more challenging variables to model realistically.