



A meteorological analysis and model inter-comparison of Storm Doris over Ireland

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In the early hours of the 23rd of February 2017, a severe windstorm known as Storm Doris pushed in over Ireland and the UK leading to widespread disruption and the death of at least one person. While there was a strong indication of storm like conditions in the days leading up to Doris, uncertainties in the storm details proved difficult to forecast closer to the event.

Here the complex meteorological scenario that led to the development of Doris is explained, illustrating that a strong low-level flow coupled with a steep potential temperature gradient at the surface and a potential vorticity anomaly at upper-levels gave rise to dangerous wind gusts of up to 140 km/h over Ireland. An inter-comparison study of the operational models available to forecasters at the time demonstrates that pinpointing the location of the strongest gusts was not an easy task.