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A downslope windstorm in Southeast-Iceland

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A devastating windstorm hit Southeast-Iceland on 16 September 2004. Windgusts of more than 50 m/s were observed and a high-resolution simulation and structural damage indicate even stronger gusts. Observations and simulations reveal local speed-up due to corner-effect as well as breaking gravity waves. This windstorm is an example of frontal structure interacting with orography leading to very favourable conditions for a local extreme windstorm. Regionally, the windstorm was well predicted in real-time with a simulation with horizontal grid of 9 km, but the results of this study show that improved resolution would have given an even better description of the details of the windstorm.