



High-Resolution Simulations of the Atmosphere for forecasting purposes in Iceland (HRAS)

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Since March 2004 the MM5 model has been run operationally for forecasting purposes in the Iceland region. Currently, the model is run at 27,9 and 3 km horizontal resolution in 40 vertical levels. The model is run 4 times every day, forced by boundary conditions from the European Centre for Medium-Range Weather forecasting (ECMWF).

For forecasting purposes, the greatest value of the simulations is the reproduction of the impact of orography on the winds and partly also on precipitation and temperature. Structures of flow over and around mountains are reproduced convincingly and they are in an overall agreement with observations. Statistics show that the modeled wind speed is in general too low over land. There are however cases where absence of wintertime low level inversions in the model tend to give a too warm and windy forecast. Extreme surface inversions are not well captured.