



Observations and verification of forecasts of wind in the lower boundary layer

S. Drechsel, G. J. Mayr, J. W. Messner, and R. Stauffer

Institute of Meteorology and Geophysics, University of Innsbruck, Austria (suzanne.drechsel@uibk.ac.at)

Wind speed measurements of one year from meteorological towers and wind turbines at heights between 20 and 250 m for different European sites are analyzed and used to verify operational short-term forecasts of the global ECMWF model. The skill of various model standard wind outputs and interpolation methods was compared. Linearly interpolated wind from neighboring model levels performed best, while the frequently applied surface wind logarithmically extrapolated to higher elevations yielded largest errors.

The amplitude of measured, height depending diurnal variations is underestimated by the model, which suggests, that the stratification of the model's boundary layer is too stable.