



## **Influence of the Atmospheric Boundary Layer on Infrasound Detectability**

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The Royal Netherlands Meteorological Institute (KNMI) operates a three-dimensional microbarometer array at the Cabauw Experimental Site for Atmospheric Research (CESAR) observatory in The Netherlands. This setup is used for the study of infrasound waves in the atmospheric boundary layer (ABL). The ABL plays a central role in the detectability of infrasound, for 1) the propagation conditions and 2) the wind noise levels. A turbulent day-time boundary layer has far higher noise level, in micro- pressures, than a stable night-time one. In the present work, infrasound coherency spectra are analysed under various ABL conditions that are typical for The Netherlands. The spectra are compared with independent ABL measurements, like turbulence, heat flows and wind jets, that characterise the conditions of the ABL. Such information is of great use to understand which processes in the ABL influence the detectability of infrasound throughout the day.