



Large aperture microbarograph array in Western Bohemia. First two years of observations.

Tereza Sindelarova, Michal Kozubek, Jaroslav Chum, and Jiri Base
Institute of Atmospheric Physics CAS, Prague 4, Czech Republic (tersin@ufa.cas.cz)

A large aperture array WBCI was installed in the western part of the Czech Republic (50.25°N 12.44°E) in September 2016. The array consists of four absolute sensors of the type 6000-16B-IS by Paroscientific, inc. The array aperture is ~6 km. It is intended for observations of low frequency infrasound near the acoustic cut-off in the range 0.0033-0.4 Hz. The data are analysed using the PMCC software by CEA/DASE .

The detection bulletins were processed for the period October 2016 – September 2018. In winter (November-February), the signals regularly arrived from azimuths of 200-235°, 305-330°, and 340-355°. In these directions, the Alps, the Northern Atlantic, and the Scandinavian mountains are located with respect to the WBCI site. The wave frequencies were between 0.01 and 0.08 Hz. The north-west arrivals (305-330° and 340-355°) occurred in time periods, when distinct lows and pressure gradients were formed above the Northern Atlantic. The observations of microbaroms ($f \sim 0.2$ Hz) are reduced to periods of extreme weather above the Northern Atlantic, like e.g. the storm Ophelia in October 2018. No prevailing directions of infrasound arrival were identified in summer (May-August).