



## **Infrasound observed in the Czech Republic during convective storms 9 – 10 July 2011**

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An experimental array has been built at the observatory Panska Ves, Czech Republic (50°31' N 14°34' E). It is equipped with three differential microbarographs (type ISGM03). The sensors are arranged in an equilateral triangle; the distance between sensors is approximately 200 m. Using this array, we studied infrasound phenomena related with intense convective storms on 9-10 July 2011. In the studied frequency range 0.1-4 Hz, we observed phenomena of short duration related to lightning activity and also signals that persisted tens of seconds. The latter type of infrasound signals is the object of the current study. Azimuth of arrival of the signals corresponded well with position of convective storms towards the observatory and changed as convective storms were travelling across the Czech Republic from the south west to the north east. Apparent velocity often exceeded 340 m/s (considered as the local speed of sound); it means the signals arrived under some elevation angle (up to 40°). The azimuth of arrival showed higher variability at the beginning of the event; we repeatedly observed gradual variations in azimuth up to the change of 90°. The azimuth of arrival was more stable after 02 UT on 10 July 2011.