

Using infrasound mobile array (I68CI) data to characterize tropical thunderstorm over West Africa

Cote d'Ivoire NDC in collaboration with CTBTO deployed from January to December 2018, a mobile infrasound array (I68CI) in North-East (Comoe Reserve) of Cote d'Ivoire. This portable array had 5 sensors and had been sampling at 50Hz. I68CI detected local, regional and distant infrasound sources. In this tropical region, during monsoon season, the main sources detected by the portable array are thunderstorms. They are moving from East to West and have several cells. Shortly before midnight, on 2018 April 9, I68CI detected infrasound from a big thunderstorm. This thunderstorm is located in northern Ghana at 200 km far from the station and with 0.33 km/s as mean speed. During his displacement, the thunderstorm divided into two cells with two different azimuths, which can be seen on the precipitation satellite image. It is a characteristic of thunderstorm in this region.

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