

Local and regional infrasound sources detected by IS17

The analysis of local and regional sources of infrasound emission was done using the new software DTK-MCSP and DTK-DIVA provided by the CTBTO. The sources were studied in 2009-2016.

The analysis showed two (2) frequency bands emission from these sources: 3.0-1.0Hz and 0.3-0.1Hz respectively for high and low frequencies. The different sources detected can be divided into two (2) groups according to their azimuth.

The first group emit infrasound with a constant azimuth throughout the study period (80°, 100°, 120°; and around 150° and 250°). These emissions are high frequency (3.0-1.0Hz) and are independent of high-altitude wind fields. These sources indicate mainly industrial areas. The second group is detected with three azimuth angles around: 200°; 270° and 330°. These sources are low frequency (0.3-0.1Hz) and have a seasonal cycle. The sources with 200° and 330° azimuth appear to come from the south and north of Atlantic ocean respectively. These sources can be the Atlantic ocean swells. The source of 270° azimuth derived from the mountainous region west of Cote d'Ivoire.

Primary author: KOUASSI, Komenan Benjamin (Station Geophysique de Lamto)

Presenter: KOUASSI, Komenan Benjamin (Station Geophysique de Lamto)

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