

of Tengchong infrasound array in China

The Tengchong seismo-acoustic array located in southwest of China has been running for 5 years. We perform broadband (0.01–5 Hz) array processing with the infrasound continuous waveform data (from 1 January 2011 to 31 December 2015) using the Progressive Multi-Channel Correlation algorithm in 15 log-spaced frequency bands defined by Matoza et al.(2013). The detection results show microbaroms [0.1-0.5 Hz] come from azimuth between 180 and 240° during April to October related to the significant wave height in southern India ocean, but microbaroms come from azimuth between 30 and 90° during September to March related to the significant wave height in northern Pacific ocean. MAWs [0.01-0.1 Hz] come from azimuth between 270 and 360° and between 90 and 160° . The detections with azimuth between 100 and 150° in December 2014 to January 2015 may be related to the several typhoons from the Western Pacific ocean. The PMCC results confirm that the coherent signals typically exhibit systematic seasonal variations.

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Track Classification: 3. Data Processing and Station Performance