



Detection conditions of transmitter signals above seismic regions

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In this contribution we consider the VLF electric field measurements recorded by the ICE experiment onboard DEMETER micro-satellite over seismic regions. Particular interest is given to the transmitter signals emitted from ground-based stations and detected by DEMETER. The time interval used for this investigation covers the period from Aug. 2004 to Dec. 2005. We principally study the conditions of observations and detections of transmitter signals in the frequency range between 15 kHz and 20 kHz, taking into consideration the satellite orbital position and the geomagnetic activity. We compare the flux density variations of the transmitter signal when the satellite is over, or not over, the seismic regions. We show that in some specific cases, the transmitter signals are disturbed before earthquake occurrences. This happens only in cases where the Kp-index is smaller than one, i.e. the geomagnetic activity could be considered to be insignificant.