

MIS001-P01

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On the statistical correlation on the role of atmospheric gravity waves on the seismo-ionospheric perturbations

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Relatively long-term (9years) data on different propagation paths by means of Japanese-Pacific VLF/LF network observation, are used to obtain further statistical significance on the correlation of ionospheric perturbations as revealed by VLF/LF propagation anomalies with earthquakes. Earthquakes with magnitude greater than 6.0 and depth shallower than 200km, taken place only within the fifth Fresnel zone of each great-circle path are selected for the correlation study. It is finally found based on the superimposed epoch analysis that the AGW modulation (Fluctuation of power spectra in the frequency range of atmospheric gravity wave) exhibits a significant increase approaching 2sigma (sigma: standard deviation) several days before the earthquake, when the earthquake depth is smaller than 40 km (shallow earthquakes).

Keywords: Earthquake electromagnetism phenomenon, Earthquake prediction, Electromagnetic noise