

Observation of atmospheric pressure oscillation and its comparison with geomagnetic pulsations (2)

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It has been found that big earthquake or volcanic eruptions cause lower atmospheric disturbances, which propagate to the ionosphere and generate geomagnetic pulsations through acoustic wave resonance between the Earth's surface and thermosphere (i.e., ionospheric dynamo by the vertical wind.) To confirm the generality of such phenomena, we started multi-point atmospheric pressure observation in Kyoto, Uji, Shigaraki and Aso since last year. The resolution of barometer is about 0.01hPa, and the data sampling is every one second. We confirmed the known characteristics from previous micro-barometric observations that the local perturbations dominate in general and show diurnal variations, higher amplitude in disturbed weather conditions etc. From this observation, we found that the spectral peaks at the resonance frequencies around 4 minutes often appear under stormy weather and some of them also accompany spectral peaks around the resonance frequencies also in geomagnetic field data.