

# A New Class of Geomagnetic Pulsation Observed in Thailand Just After the Earthquake on December 26, 2004

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A magnetic pulsation with a period about 3.8 minutes was observed at Phimai (15.2N, 102.6E) 12 minutes after the origin time of Sumatra earthquake on December 26. At Tong Hai (24.0N, 102.7E) in China, 10 degrees north in latitude, only a short period (i.e., about 30 seconds) magnetic oscillation was observed. At higher latitudes, no magnetic pulsation with these periods was observed. It is clear that the oscillation is not the effect of sensor oscillation, because of the timing relation between the origin time of the earthquake and the onset time of magnetic pulsation, and also because of the amplitude relation among magnetic components. The localized nature and oscillation period suggest that this (i.e., 3.8 minutes) magnetic pulsation was generated with a dynamo in the lower ionosphere caused by acoustic duct resonance between sea surface (or middle atmosphere) and bottom of the thermosphere.