

Geomagnetic variation associated with seismogenic ionospheric disturbance

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We investigate geomagnetic variation associated with the seismogenic and tsunamigenic ionospheric disturbance excited by the M9.0 Tohoku earthquake. In the south part within 600 km from the epicenter, the clear acoustic and gravity waves excited by the tsunami. This may occur due to the E-region dynamo originated from the acoustic and gravity waves. On the other hand, we observe the geomagnetic variation associated with the seismogenic and tsunamigenic variation in the north part. So far, the physical mechanism is still unclear.

Keywords: Earthquake, Geomagnetic variation, Ionospheric disturbance