

Possible Electromagnetic Changes Associated with 2002 Slow Earthquake at Southern Boso Peninsula

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In order to study the earthquake-related ULF electromagnetic phenomena, discrimination of the signals mainly associated with the solar-terrestrial activities is very important. Because it is the most intense signal in night time. We try to eliminate the global geomagnetic pulsations and their inductive electromagnetic field in the period of a few second to 1,000 seconds from the observed electric and magnetic data. In this aim, we adopt the interstation transfer function (ISTF) approach with the wavelet transform. The geomagnetic data obtained at Kakioka Magnetic Observatory, JMA are used as the remote reference data. We applied the proposed ISTF method to the actual data at the ULF electromagnetic sensor array in Boso Peninsula, Japan.

In this paper, we would like to show you the possible electromagnetic changes associated with the in the period of the slow earthquake which took place (Oct.04 - Oct.14, 2002) in the eastern part of the Boso Peninsula (Ozawa et al, 2003) or small swarm activity around the slow event. Our stations locate almost above the slip event, and the distance from the seismic swarm in the term is about 40 km. Anomalous signals were observed in both electric and magnetic field simultaneously. The details will be described in the presentation.

Reference:

Ozawa et al.; Geophys. Res. Lett., Vol.30, No.6, 16, 2003