

Comparative study of ULF depression and ELF radiation associated with seismic activity

Yasuhide Hobara^{1*}, T. Yasue¹, Alexander Schekotov², Masashi Hayakawa¹

¹Research Station on Seismo-Electromagnetics, UEC Tokyo, Japan, ²Schmidt Institute of Physics of the earth, Russian Academy of Sciences, Moscow, Russia

Magnetic anomalies in the ULF and ELF ranges in association with major seismic activities are investigated. Previously depression of the magnetic intensity in the ULF range and the radiation in the ELF range were separately studied for different seismic events. In this paper we report first time the comparison of the results between the ULF and ELF anomalies based on the several common seismic events occurred in the vicinity of Japan. The ULF magnetic depressions are observed by two fluxgate magnetometers in Hokkaido and Kyushu while ELF radiations are identified by two induction type magnetometers in Hokkaido and central Japan. Initial result indicates that both ELF and ULF anomalies are observed nearly simultaneously with local seismic events.