

## Observation of Electromagnetic Waves in VHF band Associated with the Geiyo earthquake

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Many observations have been conducted to clarify the relationship between the electromagnetic (EM) phenomena and earthquake (EQ) activities. In our observation system, EM waves associated with EQs in very high frequency (VHF) band have been receiving. We newly developed the dual frequency observation method with a high sensitive synthesized FM tuner. Our observation method can clarify and judge whether a received signal is a broadband EM wave or an FM broadcasting wave. We had the Geiyo EQ ( $M=6.4$ ,  $d=51\text{km}$ ) on March 24, 2001. Our observation system detected co-seismic broadband EM waves associated with Geiyo EQ in VHF band. The observed EM waves reached to peak right after the EQ and slowly returned to a normal level about three hours later. We also describe a new phenomenon that a small fluctuation of about 2 dB was occurred about one day before the Geiyo EQ, then, the fluctuation just disappeared at the occurrence of the earthquake.