

## Anomalous propagation of VHF TV broadcasting wave related with earthquakes

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We have observed electromagnetic waves in 50MHz band at Tateyama and Katsuyama in Chiba prefecture. At both observatories TV broadcast waves (Thai TV (48.24MHz) and China TV (49.75MHz) TV) are observed. The receiving level of the TV wave at 48.24MHz decreased temporarily before and after several earthquakes of  $M \geq 4.5$ . There was alternative increase in the power level at 49.75MHz TV wave. Epicenters of related earthquakes concentrated in the vicinity of Okinawa and nearby the Tateyama observatory. Both broadcast waves propagate in the ionosphere above the Okinawa area. It is presumed that the relationships between the anomalies and the earthquakes are caused by the sporadic E which is possibly associated with earthquakes.