

Observations of Reflected FM Broadcasting Waves by Dual Frequency Method using Synthesized FM Tuner

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Recently, it has been investigated that the earthquake or volcano activities affect the electron density of ionosphere over its area and then the ionosphere reflects FM broadcasting waves. The authors have been observing the reflected FM broadcasting wave at five observation sites in Japan. We use the Dual-frequency Method and can distinguish the reflected FM broadcasting waves from the broadband natural noises by this method. There are some reflection phenomena of FM broadcasting waves caused by not only the activated ionosphere due to earthquakes or volcanoes but also Sporadic-E's, airplanes and meteor plasmas. Therefore, it is important to clarify the features of these reflection phenomena. This paper describes the reflection features of Sporadic-E's, airplanes and meteor plasmas.