

Possibility of a satellite for detecting earthquakes by microwaves

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It is reported that the anomalies of the electromagnetic field or the ionosphere before earthquakes have been observed by the radiowave. However, the microwave has not

been used. On the other hand, some experiments have recently shown that rock-crash by static pressure causes the radiowave emission at 300MHz, 2GHz and 2GHz. This experimental result hints the microwave is emitted before earthquakes.

The microwaves in 2GHz-band (S-band) are applied to the communication between tracking stations and earth-orbiting satellites launched by ISAS. Since the power level of this S-band microwave received by a satellite is measured and stored into the database at ISAS all the while orbiting, this huge database has possibilities that there are some data in which the microwave emissions associated with earthquakes were detected.

Considering these situations, we have developed the computer software system to extract the microwave power level at desired

points on the earth around earthquakes over the world from the database and investigated the relation between this microwave power level and each earthquake. In this report, we describe the overview of our system, and show the possibility of As the future earthquake detection satellite mission.