Observation of local magnetic anomaly around the rift at Izu-Oshima

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On-land survey of total magnetic field has been carried out at Izu-Oshima volcano by using a cesium optically pumped magnetometer. The purpose of this survey is to detect shallow structural units associated with the fissure eruption of 1986 activity. The surveyed lines are located at 1) north rim of the caldera and 2) north-western flank of the edifice. Both are cross-cutting against the line of the fissure eruption. Observed common feature is positive anomaly with the magnitude of about 1000nT centered at the point where the direction of fissure eruption crosses the surveyed line. Forward fitting to the observed anomaly by a buried magnetized vertical dyke along the fissure direction has been successfully done.