



Long-term geomagnetic changes observed in association with earthquake swarm activities in the Izu Peninsula, Japan

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Abstract

Anomalous crustal uplift has continued since 1976 in the Izu Peninsula, Japan. Earthquake swarms have also occurred intermittently off the coast of Ito since 1978. Observations of the total intensity of the geomagnetic field in the peninsula started in 1976 to detect anomalous changes in association with those crustal activities. In particular, a dense continuous observation network using proton magnetometers was established in the northeastern part of the peninsula, immediately after the sea-floor eruption off the coast of Ito in 1989. No remarkable swarm activities were observed there from 1990 to 1992. However, after the occurrence of a small swarm in January 1993, five large swarm activities were observed. At some observation sites, we observed a remarkable long-term trend in the total geomagnetic field in association with the change in the distribution pattern in the seismicity of the earthquake swarms.

Keywords

Geomagnetic field;telectromagneticsm;earthquake swarm;total force

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References

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