

## Observation of Electric Field Changes on Ocean Bottom Using Telecommunication Marine Cable

# Yukio Fujinawa[1], Takumi Matsumoto[2], Kohzo Takahashi[3], Hiroshi Iitaka[4], Naoko Kasai[5], Hiroshi Nakano[6], Takuya Doi[5], Sojun Sato[5], Toshiyuki Saito[7], Masaru Aoyagi[8], Kiyoshi Sasaki[8], yosiyuki sukemune[9]

[1] NIED, [2] Earthquake Research Center, NIED, [3] None, [4] Energy Tech. Div., ETL, [5] ETL, [6] Electrotechnical Lab., AIST, [7] LERC, ETL, AIST, [8] NEC Ocean Eng., [9] NTT East of Tokyo

Electric field changes have been recorded on the ocean bottom off the west of the Izu-Oshima to try to detect any of electric field anomalies induced crustal activities. An antenna some 33 km long is constructed using telephone marine cable. The calm state continued from October 1999, the beginning of the observation till 7, April 2000. There appeared clear anomalies on the ULF band at the end of June 2000 in association with a volcanic activity at the Miyake island about 70 km south of Izu-Oshima. The most prominent anomaly occurred on 16 July, when even the dc component also showed clear anomalies, leading inference that there was an active magma activity extending from the main active area around the Miyake island to the west of the Izu-Oshima