

## Anomalous electric fields before 2011 Far E off Miyagi Pref. EQ

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Introduction: To develop a method for earthquake prediction, electric fields are being observed, and the fields before and after the EQ of M9.0 occurred on 2011/03/11 were observed. But the observation had the problems as follows:

(1) The data for one month before the EQ were lacking.

The instrument erases the recorded data when the power comes back on after power failure. The power was cut off by the EQ, and we could not arrive on the observation site before the power came back on.

(2) The observed data are recorded every two minutes, but it is doubtful whether the data at four sites were synchronized or not, as the clock is not accurate.

In our observing area, except special bands, man-made noise is not simultaneously observed at the sites which are separated about 100km apart, so we regard the pulses as precursory ones only when the pulses are simultaneously observed at four sites. But our clocks are crystal ones, so the synchronization is doubtful.

(3) The source region of the fields is not located.

The instrument which was developed at CRL could locate the source regions, but after S. Hyogo Pref. EQ of 1995/01/17 (M7.2) Japanese Government decided to stop the research on earthquake prediction, and the instrument was discarded.

Observing Sites: On the Pacific Ocean side of central Japan, there are four sites. The distances between them are about 100km or more. These sites are away from private houses, factories, highways and railroads.

Observing Frequencies: Main frequency is 1.5kHz, which is chosen to avoid the 50 & 60Hz and their harmonics. Additionally 3kHz and 12kHz also observed to reject lightning fields, using the relation  $E(1.5\text{kHz}) > E(3\text{kHz}) > E(12\text{kHz})$ , as near lightning fields have the relation as  $E(1.5\text{kHz}) < E(3\text{kHz})$  and far ones have the relation as  $E(3\text{kHz}) < E(12\text{kHz})$ .

Observed Pulses before EQ: As the source region was not located, and as from 5th Feb. before EQ to 3rd Mar. after EQ no data were obtained, so it is doubtful really precursory fields were observed, but the possibility exists that precursor was detected. The reason is as follows:

From 2/2 22:40 (in the following, time is UT) the pulses were successively recorded three times and farther more from 2/3 00:10 two times. On the contrary, from 4/26 05:00 to 5/25 00:00 for one month no pulse was observed. Namely successively recording pulses is very rear, so it might be the precursor. Anyway it is essential to locate the source regions of the fields to predict earthquakes.

Ending: The Prediction System of Tokai EQ, which will be M8 or more and is supposed to occur in a few ten years, is based on the observation that the 5mm level difference during leveling between one day before and on the day of SE Sea EQ of M7.9 on 1944/12/07 (M:7.9). But the late Prof. M. Ikeya repeatedly said that the level difference might be observed not by crustal movement but the babble movement in the level caused by the change of electric fields at the observing points (K. Takahashi, 2004). As in 2011/03/11 EQ no crustal precursor was observed, possibly the prediction system of Tokai EQ is ineffective. As the researchers on earthquakes in Japan failed to predict or warn not only 2011/03/11 EQ but also Hyogo Pref. EQ (1995/01/17 M7.3), they must be blamed to be swindlers and tax parasites, when they fail to predict coming Tokai EQ. Although crustal precursors were seldom detected and to the contrary electric ones were often detected, the electric fields are rarely used for the prediction, because their sources are not located. The locating is easy as the method is the same as the locating lightning. Now lightning fields are identify by their spectrum and man-made ones are rejected by observing at four or more sites.

Reference: Takahashi, K. Quantitatively Showing the Prediction of Tohkai Earthquake to be Illusional. 2004 Japan Earth and Planetary Science Joint Meeting. S049-012 (2004)

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