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**Briefe an den Herausgeber**

## **Recordings with Askania Gravimeters before and after Important Earthquakes**

By T. KIZAWA, Tokyo<sup>1)</sup>

Eingegangen am 13. Februar 1970

During the many years of observation with the Askania gravimeter Gs 12 No. 161 and the photoelectric follow-up recorder according to Dr. Lange, I observed interesting extraordinary phenomena before and after important earthquakes which are likely to refer to impending strong earthquakes but are almost unknown.

Fig. 1 and Fig. 2 represent examples of my observations. In both cases, before the earthquakes started, important vibrations had been observed which did not appear any more after the earthquakes had faded away. The peculiar vibrations prior to the Alaska earthquake being one of the most important during the past years are specially clear.

Three days before the earthquake, the instrument recorded already striking fine quakes, thus from 25/3/1964 3.00 hours.

These fine quakes lasted till the outbreak of the earthquake itself and stopped as soon as the earthquake finished.

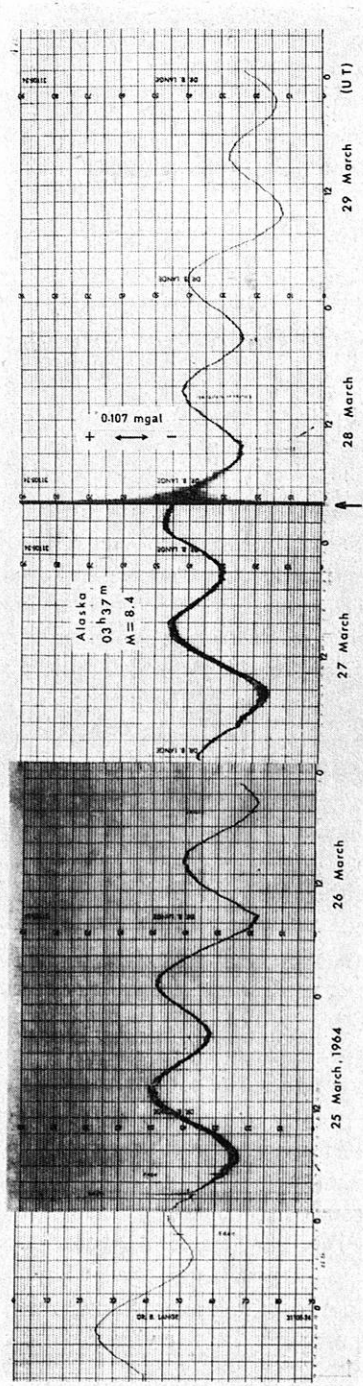
In case the recording directly refers to the vibration of the earth's crust, it should be of importance in earthquake prediction. This extraordinary phenomenon being unknown up to now, I thoroughly studied the influences of the meteorological conditions, electric influences of the surroundings as well as the mechanical conditions of the instrument. Though it is impossible to eliminate completely the mentioned disturbances, it should still be possible to draw relatively good parallels.

It is a well-known matter of fact that no gravimetric field measurements can be accomplished before an important earthquake due to the vibration of the pointer. So, the author was told by S. SUYEHRO that the geophysicians carrying out measurements with the gravimeter just before the earthquake in Alaska started, were not able to continue their measurements a short time before the earthquake.

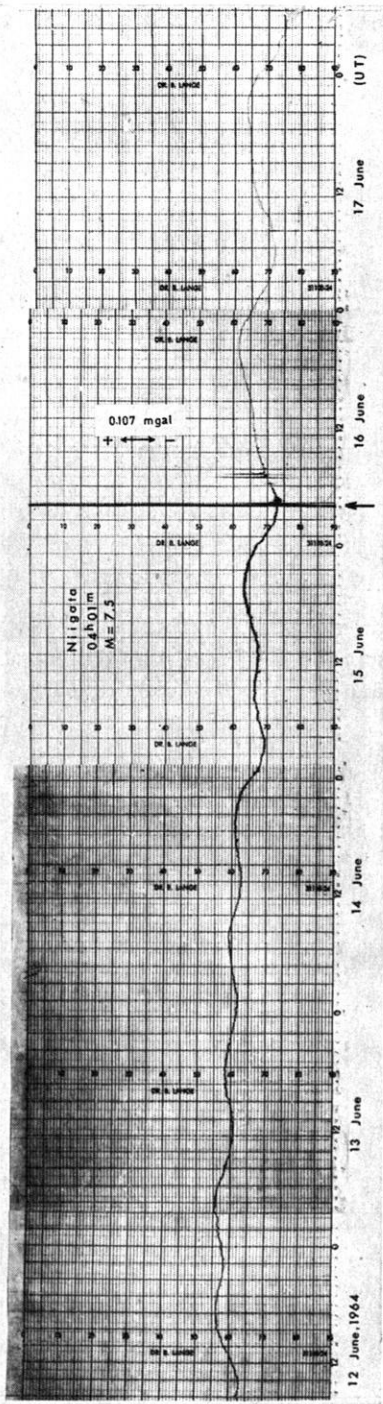
The author intends to carry out observations at various points with several Askania gravimeters in order to confirm the fact, i.e. fine vibrations prior to earthquakes.

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**Fig. 1: Earth tide recording around the time of the Alaska earthquake on March 28, 1964 (focus 61.1° N, 147.6° W, magnitude 8.4, origin time 03 h 36 m 12.7 s UT). Location of observation: Meteorological Research Institution, Koenji, Suginami-ku, Tokyo (35° 42.4' N, 139° 38.8' E, H = 44.55 m).**



**Fig. 2:** Earth tide recording around the time of the Niigata earthquake on June 16, 1964 (focus 38° 21' N, 139° 11' E, magnitude 7.5, origin time 04 h 01 m 39.9 s UT). Location of observation as in Fig. 1.