

## An experiment of seismic waveform recording by using ready-made IC recorders

KATSUMATA, Kei<sup>1\*</sup>, Muneo Okayama<sup>1</sup>

<sup>1</sup>Hokkaido University

In order to conduct a high-density seismic observation for analyses of focal mechanisms and coda waves, we present a very-low-price recording system for high-frequency seismic waveforms. The system consists of a geophone with a vertical component and a ready-made IC recorder. The purpose of this study is to show that the IC recorder is able to record seismic waveforms with a frequency lower than the voice band from 60 to 3400 Hz. We compare two IC recorders: Voice-Trek V-75 (OLYMPUS) and ICD-UX512 (SONY). The price of ICD-UX512 is about 10,000 yen. We use a geophone (CDJ-Z10) made in China with a natural frequency of 10 Hz and a sensitivity of 2.8 V/cm/s. The price of CDJ-Z10 is about 10,000 yen. As a result of recording tests, we find that the two IC recorders are able to record waveforms from local micro-earthquakes with a frequency of around 10 Hz.

Keywords: IC recorder, seismic observation, seismometer, datalogger