

Broad Band Seismic Observation on the Sea Floor

Hajime Shiobara[1], Masanao Shinohara[2], Masashi Mochizuki[3], Eiichiro Araki[4], Toshihiko Kanazawa[5]

[1] OHRC, ERI, Univ. Tokyo, [2] ERI, Univ. Tokyo, [3] ERI, Univ. of Tokyo, [4] ORI,U-Tokyo, [5] ERI, Tokyo Univ

We have developed a broad band ocean bottom seismometer (BBOBS) with high mobility to construct the ocean hemisphere network. In this presentation, its latest result which is obtained offshore of Sanriku is indicated and compared with the data from down hole measurement (DHM) by the same sensor (CMG-1T, Guralp). The BBOBS is housed by titanium hemispheres (D=65cm) for anti-corrosion and large buoyancy, those are necessary for long term ocean bottom observations more than 400 days. The data is recorded continuously on four 2.5 inch 6.5 GB HDDs. From the preliminary result, the power spectrum density of broad band noise on the sea floor is larger than that by DHM about 20dB in the vertical component and 20-40dB in the horizontals which varies from time to time in longer period (>10s).