

Development of JAMSTEC Ocean-bottom Seismology Database (J-SEIS) to download DONET Event Data and Borehole Continuous Data (3)

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Japan Agency for Marine-Earth Science and Technology (JAMSTEC) have developed a database of seismic data observed in the Nakao Trough in southwest Japan. We have operated JAMSTEC Ocean-bottom Seismology Database (J-SEIS)* for research and education since April 2016.

J-SEIS is download system of seismic waveform data, the downloadable data are continuous data of Long-Term Borehole Monitoring System (LTBMS) and event data of DONET (Dense Ocean-floor Network System for Earthquake and Tsunamis).

During IODP Exp. 332 in December 2010, the first LTBMS was installed into the borehole site (C0002:KMDB1) located 80 km off the Kii Peninsula, 1938 m water depth in the Nankai Trough.

Furthermore, During IODP Exp. 365 in 2016, the second LTBMS was installed into the borehole site (C0010:KMDB2) located sea area off the Kii Peninsula. It consists of various sensors in the borehole such as a broadband seismometer, a tiltmeter, a strainmeter, geophones and accelerometer, thermometer array as well as pressure ports for pore-fluid pressure monitoring. The signal from sensors is transmitted to DONET in real time. J-SEIS allows users to download seismic waveform data as continuous data of SEED format.

Event data consists of strong motion (EH type) and broadband (BH type) seismograph data observed at DONET1, it is produced referring to event catalogues from USGS and JMA (Japan Meteorological Agency), Magnitude greater than 6 for far-field and greater than 4 for local seismicity, respectively. This system allows users to download these seismic waveform data as event data of SEED format.

J-SEIS allows users to download continuous and event data on the graphical user Interface. Further, it is also possible to download directly seismic continuous data by specifying parameters (terms, channel, and station) of URL address (e.g. data download page like “Web Service” of IRIS).

* J-SEIS : JAMSTEC Ocean-bottom Seismology Database

URL <https://join-web.jamstec.go.jp/join-portal/>

Keywords: Chikyu, Borehole, DONET