

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

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Japan Agency for Marine-Earth Science and Technology (JAMSTEC) have developed a database of seismic data observed in the Nankai Trough in southwest Japan. We have operated DONET Seismic Waveform Data Site and Long-Term Borehole Monitoring Data Site, these data site are download systems of seismic data.

DONET Seismic Waveform Data Site is a web application system to download seismic data of DONET1, we have operated the system since November 2014. This system allows researchers to download strong motion (EH type) and broadband (BH type) seismograph data as seismic event data of SEED format. Seismic event data 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.

Long-Term Borehole Monitoring Data Site is a web application system to download seismic data of Long-Term Borehole Monitoring System, we have operated the system since July 2015. During IODP Exp. 332 in December 2010, the first Long-Term Borehole Monitoring System was installed into the borehole site located 80 km off the Kii Peninsula, 1938 m water depth in the Nankai Trough. 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. Long-Term Borehole Monitoring Data Site allows researchers to download seismic data as continuous data of SEED format.

DONET Seismic Waveform Data Site and Long-Term Borehole Monitoring Data Site are similar systems, we have integrated those systems. Integrated system is called JAMSTEC Ocean-bottom Seismology Database, J-SEIS.

J-SEIS allows researchers to download event data of DONET1 and continuous data of borehole. In addition, new system has additional futures (e.g. data download page like "Web Service" of IRIS). Operation of J-SEIS is scheduled for FY2016. In the future, it will be possible to download seismic data of DONET2 and new borehole site.

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