

Ocean Bottom Seismometers

Ocean Bottom Seismometers (OBS) from JAMSTEC and ERI, the Univ. of Tokyo were deployed in the rupture area of Dec. 26, 2005 Sumatra earthquake to understand detail of aftershock activity there.

17 of 19 OBS were recovered during the cruise. The observation period is from February 20 to March 11.

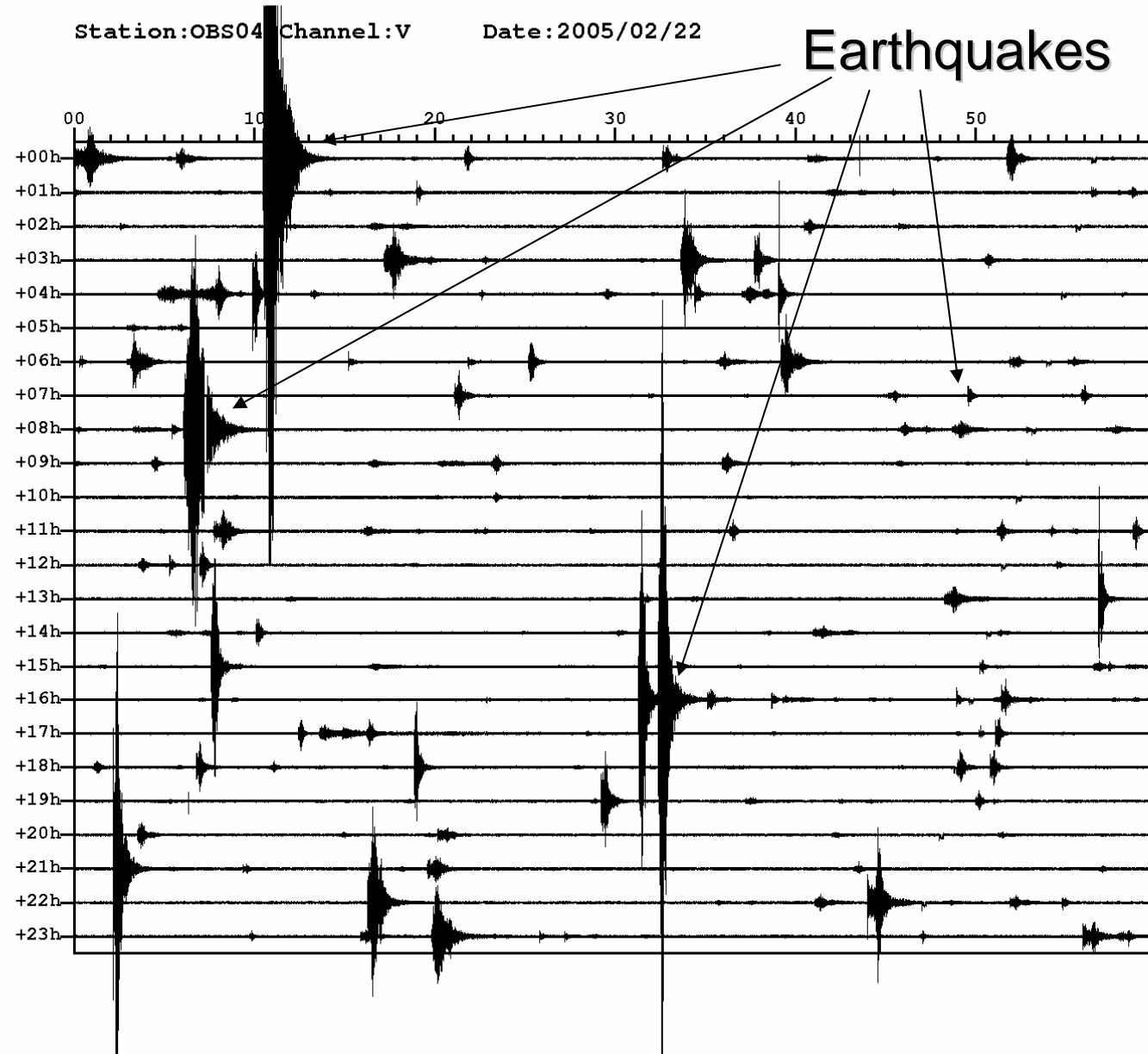
More than 2800 events have been detected by the OBS network during the observation period.

Even small earthquakes of magnitude 1 or less can be determined by the OBS network.

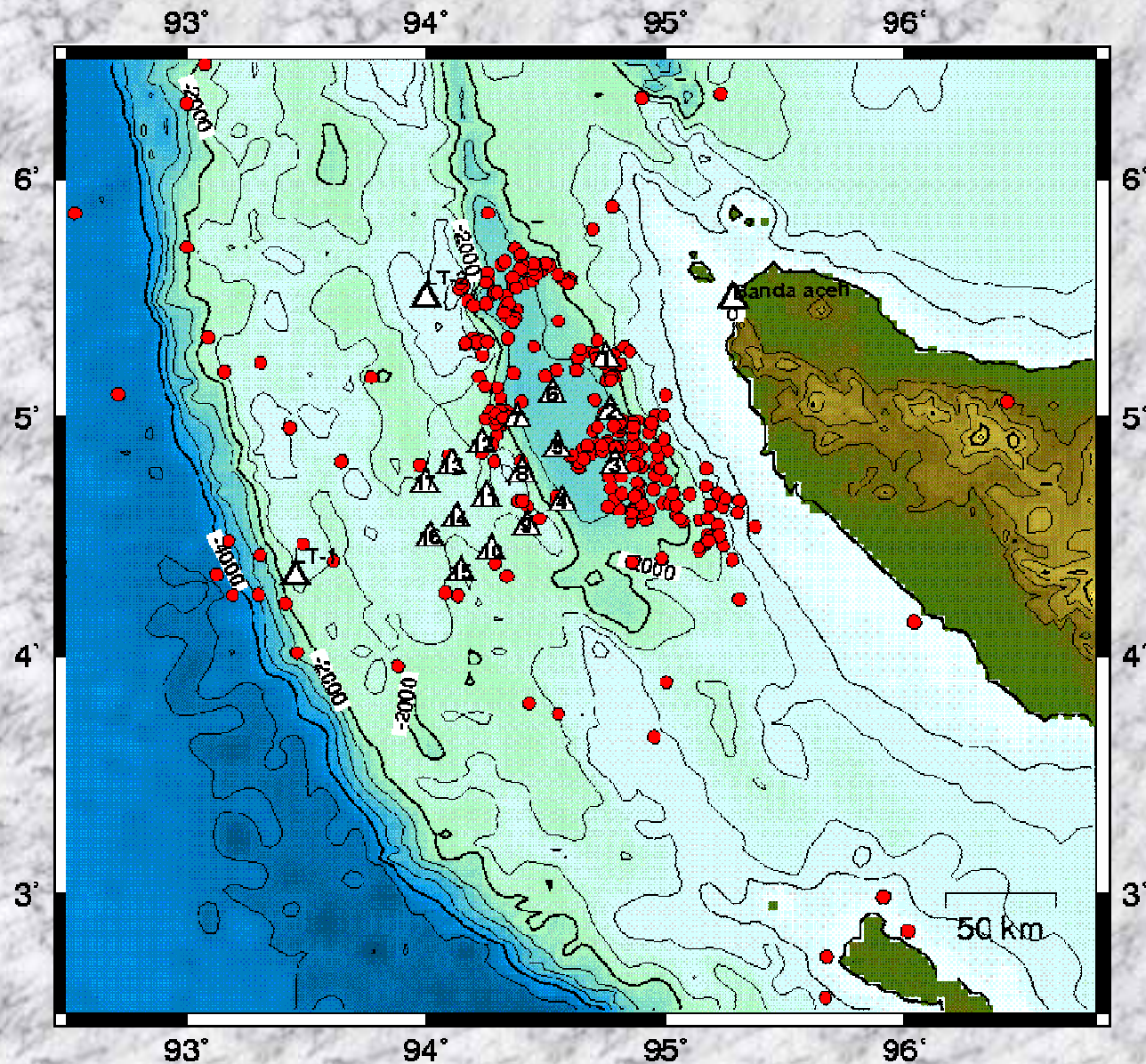
Two OBS continue observation until the end of July, 2005.

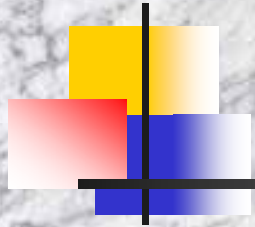


One day record from one of the OBS off Sumatra on Feb. 22, 2005.



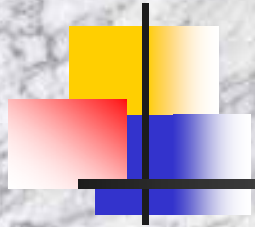
Preliminary analysis of aftershock from OBS data (2/21 - 2/23, 2 days)





Summary I

- a) Sea bottom was shattered by the last Sumatran earthquake**
- b) Co-seismic deformation at surface was made, probably exceeding gravity acceleration at surface**
- c) Strain due to the earthquake was concentrated at the specific place above a blind fault that moved during the Sumatran earthquake**
- d) high resolution OBS data were obtained**



Summary II

Based on analyses of the data including the aftershock, bathymetry and ROV image, it is possible to make sure about nature of the earthquake fault, including its dimension and inclination so on, then it enables us to make clear mechanism that the earthquake was caused.