An integrated onshore - offshore seismic study has been performed in the Nankai Trough seismogenic zone by JAMSTEC in cooperation with ERI, Univ. Tokyo. A profile extends from the Nankai Trough to the northern edge of Shikoku island through the median tectonic line. Ocean-bottom and land seismic stations deploying with 1 - 1.5 km intervals recorded seismic waves both from air-gun shots and land explosions. A crustal transect newly presented in this study shows an abrupt downward bent of a subducting oceanic crust at the lower limit of a proposed co-seismic slip zone during the 1946 Nankaido earthquake