

Holocene activity of the MTL active fault system by single channel acoustic survey beneath the eastern part of Iyo-nada, Japan

Kenichiro Miura[1], Futoshi Nanayama[2], Kazuhiro Otsuka[3], Michiharu Ikeda[4], Seiichi Kanayama[5], Tadashi Hasegawa[6], Yuichi Sugiyama[7], Eikichi Tsukuda[8]

[1] Active Fault Reserch Center,GSJ,AIST, [2] Active Fault Reserch Center, GSJ, AIST, [3] Active Fault Research Center,GSJ,AIST, [4] Geology Div., SRI Inc., [5] Shikoku Research Institute inc., [6] Sogo Geological Survey CO.,LTD., [7] AFRC,AIST, [8] Geological Survey of Japan

<http://www.gsj.go.jp/HomePageJPnew.html>

Active fault system of the Median Tectonic Line (MTL) is one of the most active faults in southwest Japan. We investigated the subsurface structure in the eastern part of Iyo-nada by single channel acoustic survey. Active faults of the study area have ENE-SWS strike showing left-step echelon pattern and are divided into two segments at the north offshore of Gushi. From Kaminada to Shimonada areas, feature of cumulative displacement on acoustic profiles suggests that the active faults have slipped at least three times during Holocene. On the other hand, from Gushi to Kitanada areas, the displacement pattern of acoustic reflections suggests the active faults have been activated four events, three events under K-Ah tephra layer (ca. 7300 yBP) and an event above it during Holocene.