

## Fault distribution and segmentation of the MTL active fault system in the Iyo-nada Sea, in Shikoku (preliminary report)

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We investigated the detailed submarine topography, subsurface structure and fault activity of the MTL active fault system in the Iyo-nada Sea, in Shikoku, by using single-channel seismic profiler, all-core boring and echo sounder. We obtained the detailed fault trace with geometric discontinuities such as en echelon steps, bends, changes in strike, and gaps in this study area. The main fault trace and Holocene activity revealed in this study area apparently different from these of the Beppu Bay fault system. We tried to conduct segmentation for the MTL active fault system in this study area attaching importance to the three-dimensional fault geometry. The MTL active fault system in this study area is divided three fault systems on the basis of the fault geometry and activity. Moreover, the Iyo-nada MTL active fault system is divided into three segments, which are the Kaminada segment, the Nagahama segment and the Iyo-nada western segment, at the north offshore of the northeastern Sadamisaki-cape and of Gushi. These boundary areas among three segments correspond to the changing parts of gravity anomaly trend. Therefore, deep crustal structure may be closely related with the fault geometry and segmentation.