

Active and subsurface structure in the middle Ryukyu Islands around Yoron Island

KITAMURA, Yujin^{1*}

¹Dept. Earth and Environmental Sciences, Grad. Sch. Science and Engineering, Kagoshima University

The Ryukyu arc lies along the Ryukyu trench in the south of Kyushu island. Geology in the middle Ryukyu arc consists of Chichibu belt, Shimanto belt and overlying limestones with sporadic igneous intrusions. Yoron island which locates in the questioned area have two active faults whose strikes are highly oblique each other and they are probable normal faults. To evaluate these active faults in terms of documenting present tectonic framework, we carefully reviewed topography, degree and direction of surface slope and gravity anomaly. As a result, accurate trace of the active faults is drawn. Positive free air gravity anomaly suggests plutonic body beneath the Yoron island although there is no outcrop on the island surface. This upwelling pluton can be a reason for the unexpected normal faults in this island.

Keywords: Shimanto Belt, Chichibu Belt, Active fault