

## Potential Active Faults Cutting Completely the Ryukyu Arc in the Miyako and Yaeyama Districts

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Potential active submarine faults which are completely crossing the Ryukyu island arc are located around the Miyako and Yaeyama Islands. One of these faults (tentatively named as East Ishigaki Fault) was surveyed by multibeam sounding and underwater observation in 2005. The fault ranges over 44km and divided into four segments. The southernmost segment was found to be most active in that the topographic features showed the steepest and deepest graben and that surface collapse along the fault scarp appeared. This fault might cause the 1771 Yaeyama Earthquake Tsunami. The active faults in this area were formed due to the shear stress derived from the oblique subduction of the Philippine Sea Plate underneath the Eurasian Plate, and/or southward motion of the Ryukyu arc in accordance with the rifting at the Okinawa trough.