

Similarities between Chugoku/Shikoku-Kyushu and Tohoku-Hokkaido island arcs, Japan

Kazuhiko Goto [1]

[1] Nansei-toku Obs.for Earthquakes and Volcanoes, Kagoshima Univ

Some geophysical features in Chugoku/Shikoku-Kyushu region where the strike of boundary between the Philippine-Sea plate and the Eurasia plate changes are similar to those in Tohoku-Hokkaido region where the strike of boundary between the Okhotsk plate and Pacific plate changes. Similarities are as follows; Degree of strike change of plate boundary, equal contours of gravity anomaly of 150~250mgal. Locations of negative gravity anomaly. Locations of sea-mount. Locations of large-scale caldera. Change of dip angle of the Wadati-Benioff zone. Seismic activity at about 40km depth at a short distance from plate boundary. Furthermore, it is interesting that the relative location of Beppu-Shimabara graben to plate boundary almost agrees with that of collision belt in central Hokkaido.