

New Gravity Anomaly Map - Conrad-Moho-Slab Residual Gravity Anomaly: (2)Implication of Structures in Seismogenic Layer

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Gravity contributions due to undulations of subducting slabs, Moho- and Conrad- discontinuities are computed based on their three-dimensional configurations. When we subtract the contributions from observed gravity anomalies, resultants represent gravity anomalies due to layers shallower than the Conrad-discontinuity (about 15 km). We named the new gravity anomaly as the "Conrad-Moho-Slab Residual Gravity Anomaly (C-M-S R.G.A.)".

We compared the new gravity anomaly with distributions of geology, Quaternary volcanoes and particularly indicators of recent tectonic activities such as distributions of active faults, seismic activity, and GPS displacement vectors, respectively.

The new gravity anomaly is presumably a good indicator of tectonic active deformation boundaries.