

# Rupture probability map of major active faults in Japan based on behavioral segmentation

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<http://unit.aist.go.jp/actfault/activef.html>

The Active Fault Research Center, GSJ/AIST finished the Rupture probability map of major active fault in Japan, which shows the probability of occurrence of large earthquakes on each behavioral segment.

Active faults in Japan are segmented into about 550 behavioral segments based on geometry of fault strand separated by discontinuities and bend, and timing of paleo-faulting and slip-rate. Those behavioral segments are re-structured into approximately 330 'seismogenic faults', those are probably the best estimation for large earthquake segments. We selected to evaluate about 290 behavioral segments with slip-rate of 0.1 m/ky and larger, and larger than 10 km in length, those are included in about 150 'seismogenic faults' larger than 20 km in length, for tentative evaluation. Faulting parameters to evaluate are long-term slip-rate, slip per event, recurrence interval, and age of most-recent event on each behavioral segment. We adopt mid-range value in case that the original field data have some uncertainty.

We calculate the rupture probability in these 30 years of each behavioral segment based on the BPT distribution model.