

Space-Time Distribution of Moment Release Along the Kuril Trench And Anomalous Seismic Events : Part 2

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Space-time distribution of seismic moments released along the Kuril trench shows that the trench is segmented as off Etorofu/Urup where interplate moments are released by many Mw8 class seismic events, off Simushir where only one Mw8 class seismic event in the past century and off Kamchatka where no Mw8 class seismic event after the 1952 Kamchatka event of Mw9.0 event. Comparing ratios of wave energy density at two time windows between surface wave velocities 2-3 km/s and 3-4 km/s, we identified 27 anomalous events. Comparing them to that of the 1992 Nicaragua tsunami and the 1992 Sanriku-oki earthquakes, the anomalous events could be events of longer time constants occurring close to trench axis.