The Middle Urals Area of Higher Seismicity

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In the Middle Urals area of higher seismicity during the last 300 years about 100 earthquakes of M= 2,0-5,5 took place. This area occur at the suture zone and is situated near the crossing of few large tectonic structures:

- submeridional Urals orogen, - Kama-Bashkir megablock of northern-west stretch (azimut 310-330 degrees of NW), - transorogen recent and modern zone of subsidence of the earth crust (azimut of strenth 60-80 degrees ENE).

In this area of tectonic structures crossing the altitudes and width of the Urals mountains are minimum, the crust is relatively more acid in comparison with the crust of Northern and Southern Urals, relatively decreased velocities of elastic waves in upper mantle are obtained here. In this area a bend of submeridional Urals strucrures to the east is observed.

Hypocenters of earthquakes occur at the gradients zones of Moho topography, of Low-Archeozoic foundation surface, of heat flow morphology, of magnetic field. The spatial relationship between seismogenious zones and atmospheric phenomenas is obtained. The majority of earthquakes epicenters take place at bounderies of crust trianglle sector, which is located nearly to the north from crossing area. The middle part of this sector is a isostaticaly unbalanced relatively higher density block of earth crust. Seismogenious zones- Middle Urals, Tagil, West-Urals are borders of this trianglle block of the earth crust.