



Geodynamics of the NE part of the Bohemian Massif

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Annual epoch GPS data monitored on the EAST and WEST SUDETEN geodynamic networks in 2001-2004 period were processed by the BERNESE software, version 4.2, to evaluate annual site movements. The movements were mutually analyzed and their regional pattern was correlated with geological and geophysical materials. This way allows the movements among geologic structures to be detected. The following tectonic features were identified:

1. the Železné hory fault exhibits distinct sinistral movement,
2. structural series and/or blocks located in the Cretaceous Table seem to move even faster towards NW, identically as the northern part of the previously mentioned fault,
3. Sudetic structures and blocks northern of the Jílovice and Kynšperk faults display both sinistral and dextral movements along the Sudetic NW-SE tectonic zones, and
4. tectonic structures belonging to the Rychlebské Mts., the Jeseníky Mts. and the Drahaň Highland involve besides it mostly sinistral additional motions along the Moravo-Silesian NNE-SSE thrusts and faults.

Explanations of possible origin of these detected movements are discussed in a light of recent knowledge of regional geodynamic processes detected in Central Europe.