



Recent geodynamic pattern of the eastern part of the Bohemian Massif

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The Bohemian Massif, a Precambrian cratonic terrane, had been affected by several orogeneses forming its tectonic pattern. To detect the recent geodynamic motions going on fundamental geological structures of the Massif four regional geodynamic networks were established for epoch GPS measurements and one countrywide GEONAS network for permanent GPS satellite signals monitoring. In the east part of the Bohemian Massif sinistral movements on the Sudetic NW-SE faults and as well on the NNE-SSW faults of the Moravo-Silesian tectonic system have been detected. The sinistral trends dominate on many faults situated close to the contact of the Moldanubian and Lugian parts and the Moravo-Silesian part of the Bohemian Massif. Because of tectonic systems intersections an existence of dextral movements cannot be excluded. Additional analyses displayed that eastern part of the Massif could be under extending trends. The preliminary site velocities assessed from GPS data for the eastern part of the Bohemian Massif are discussed from a viewpoint of regional geological structure motions. The work was supported by the Grant Agency of the Academy of Sciences of the Czech Republic (Project IAA300460507), the Targeted Research Programme of the Academy of Sciences of the CR (1QS300460551) and by the Ministry of Education, Youth and Sport of the Czech Republic (Projects LC506 and 1P05ME781).