



The horizontal strain field of the Bohemian Massif

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GPS satellite signals monitored on permanent stations of the Geodynamic Network of the Academy Science (GEONAS) and of the Czech Office for Surveying, Mapping and Cadastre (CZEPOS) were used for horizontal strain rate evaluations of selected parts of the Bohemian Massif. The stations are situated in and/or near the geologic structures, where neo-tectonic activities are expected. GNSS data were processed by the Bernese software v. 5.0. The regional pattern of the horizontal strain field of the Bohemian Massif was determined from the horizontal station velocities corrected for the Euroasian lithospheric plate motion using the ITRF2000 reference frame. Since at present the Bohemian Massif is still affected by the Alpine orogenic processes and moves northwards, its velocity related to these forces was determined. The strain extensions in the East-West direction of the Massif are evident; in its western part they take on considerable values. Some stress compressions were detected in its central areas.