



## **PROGRESS REPORT OF THE WORKPACKAGE WP.10.6 “GEODYNAMICS OF NORTHERN CARPATHIANS”**

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The following works and studies have been carried out for the last period by the team of the Workpackage WP.10.6 within the program “Geodynamics of Northern Carpathians”.

The permanent SHAZ GPS station was created in the Shatsk town which is situated in the northwestern region of Ukraine. The station began functioning in the permanent regime from July 7, 2004. The GPS TRIMBLE 5700 receiver and Zephyr Geodetic L1/L2 antenna have been mounted at the station. Weekly solutions of GPS measurements carried out on this station and on other Ukrainian permanent stations including the CERGOP-2 UZHL (Uzhgorod) and Sulp (Lviv) ones are carried out at present.

The second part of the work was directed on the investigation of the up-to-date vertical and horizontal movements of the earth's surface on the basis of the weekly solutions of GPS measurements obtained on the Sulp permanent station.

The execution of GPS measurements on the 13 points of the Carpathian geodynamic test field and of the high-precise leveling network which encircles the test field was the third part of our work in the 2004 summer period. The processing of the measurement results is being realized at present.

The fourth part of our work was directed on the preparation of the previously planned monograph “Peculiarities of geodynamics of the Northern Carpathians”. This part of the work represents an analysis of the vertical and horizontal data of the earth's surface movements based on the results of the repeated high-precision levelings and the GPS

measurements which had been realized in the Carpathian region. As a result of processing and analysis of the measurements data the values of the vertical and horizontal movements and deformations of the earth's surface on the Carpathian geodynamic test field have been obtained. In this part of the work the geophysical and geological analysis of deep structure of Northern Carpathians has been carried out. A conception of geodynamic and seismic monitoring in North Carpathian region as well as modelling of recent changes of the earth's surface and regional gravity field are being developed as well.