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Reprocessing of GPS and Repeated Absolute Gravity Measurements Realized in the Tatra Mountain

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Long time series of position and gravity were monitored for determination of vertical velocities in the Tatra Mountain. All results were combined and compared to the present trend of global loading effects in the locality of the Tatra Mountain. The GPS measurements started in 1998 at 11 sites in the frame of CERGOP-2/Environmental Project and were reprocessed by standard procedure using Bernese software 5.0. Repeated absolute gravity measurements started in 2003 at 3 sites and were processed by standard Micro-g software. These results are compared to influence of the local environmental signals. The measurements were organized by Slovak University of Technology in Bratislava with cooperation of Warsaw University of Technology. The paper presents results of combination process GPS and absolute gravity measurements for the determination of the vertical movements.