



## **Site displacements detection caused by the flood 2010 in Poland**

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In 2010 the flood took place in Poland territory. At that time we have observed a jump in time series of height component for two EPN Polish stations KRAW and KRA1 (Cracow), obtained from our regular analysis of GPS observations of the regional network. In this paper we examine this behavior in more detail. We have performed GPS data analysis of the denser network of Polish permanent stations in 6 hour sessions to obtain higher temporal and spatial resolution. We also modeled deformation caused by continental water storage using GLDAS hydrology model performing convolution of water masses with appropriate Green's function. Deformations computed from hydrological model also reveal disturbance in height component but the amplitude is smaller.