

Local Geodynamic Network for Safety of Engineering Objects

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SUMMARY

The results of seven GPS observational epochs have demonstrated mutual approaching trend of the Magura Nappe and the Podhale Flish. Such a trend was disturbed in the period of 1995 and 2001 when the dam on the Dunajec-river was constructed and artificial lake was created. A hypothesis saying that the filling of the lake resulted in temporarily driving apart the Magura Nappe and Podhale Flish is presumed. After 2001 the tectonic structures 'started to approach each other'. The control points within the limits of the Pieniny klippen belt demonstrate oscillatory changes of their coordinates in the range of ± 15 mm. Discussion of the results and possible effect on safe exploitation of the dam are presented in the paper.

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