



Calibration and Simulation's Results of Hydrological Forecast's Model in Small Mountain Catchments

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0.0.1 The results of calibration of hydrological forecasting system AquaLog and results of flood events simulations are presented in this contribution. It shows the differences between simulations in dependence on the quality of entry data. Two small catchments located in the Jizerske Mountains were compared. The Cerna Desna and the Mumlava River Basin. The first mentioned is a part of experimental base of the Czech Republic and that is why the density of precipitation-measuring stations is much higher than in other areas. On the contrary precipitation-gauging stations are very rare in the Mumlava River Basin. As a part of model calibration the individual catchments were divided on the basis of elevation into more zones. In addition weigh was assigned to the individual rainfall measurement station. It determines the share on the aerial rainfall on the basis of relative area. Therefore the calibration of model parameters is more detailed. Results proved that for successful calibration of hydrological model and its following use for runoff simulation the sufficient density of precipitation gauging station network was necessary. It is impossible to get sufficient accuracy of forecasted discharges, especially in mountain region, without good-quality data. As the next step the use of the radar reflectiveness recalculated to precipitation intensity at the sites where little or no data are available was investigated.