ABSTRACT

This study is focused on the evaluation of selected rainfall-runoff episodes in terms of temporal and spatial distribution of rainfall and runoff in the upper basin of the Blanice River. HEC - HMS model with two variants of spatial discretization was used to achieve the results of the holistic approach. The main input data was quantitative precipitation estimation, which better assessed the spatial variability of rainfall fields than interpolated ground measurements. The model simulated five episodes. Contrary to expectations, southern headstream area of the basin showed lower coefficient of runoff in comparison with its northern part. Precipitation cores of epizods occurred over the northern part of the basin at the outlet. Outputs from the model were evaluated in relation to measurements carried out in the experimental basin Zbytiny.

Key words: Blanice River, HEC-HMS, hydrologic modeling, quantitative precipitation estimation