



Extreme Flood flow measurement of the Sava River

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Last year in Slovenia two extreme flood events passed the Sava River valley. The events were from ten to forty years-return period floods and that were very well documented. Along the twenty-kilometer stream additional 4 water level gauges were constructed. 3D Doppler velocity meter measured discharges. Velocity profiles with 20 cm resolution in vertical direction were picking up from main stream and flood plain. Maximum of measured velocity exceed 4 m/s. That was first time to measure first time so high flows on the Sava River. Remote images in IR specters of flooded area were also pick up by plain in same time.

Measured data present very interesting and complex relations between flood flow on flooded area and in stream flow. Results of measurement on flood plain and in stream will be presented. What is interesting is that measured in stream velocity during lower flood event was higher than during second and much higher water level with large floodplain.