Geophysical Research Abstracts
Vol. 15, EGU2013-1370, 2013
EGU General Assembly 2013

Cumulative River Dynamic Assessment using Topo-Hydrographical High Definition Surveying in the Danube River area – Km 347-Km344

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The purpose of this paper is to depict and illustrate the benefits of Topo-Hydrographical High Definition Surveying (THHDS), also known as 3D multi-beam scanning, on a topo-hydrological survey application in Danube Valley. This research investigates the evolution of Danube river dynamics. We start with cross-sections made in 2002, 2007 and 2010 in this area and we coupled with 2012 THHDS. 3D multi-beam scanning method of data acquisition improve the spatial hydrological model and offers better dynamics assessment for future studies, considering that this area is carried out dredging works to improve navigation conditions – THHDS technique true modeling capabilities have applications in hydrotechnical works. Dynamics stands out on all 3 axes and cartographic documents have used both the 1930, 1950, and orthophoto images taken during flight to obtain the 3D model of the floodplain through LIDAR method, in 2007.