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Analysis of Possible Draught Size of Container Vessels on the Lower Danube

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Abstract : Water transport could be the backbone of the future European combined transport system. The future transport policy in landlocked countries from the Danube Region has to be based on inland waterway transport (IWT). The development of the container transport on inland waterways depends directly on technical-exploitative characteristics of the network of inland waterways. Research of navigational abilities of inland waterways is the basic step in transport planning. The size of the vessel's draught (T) is the limiting value in project tasks and it depends on the depth of the waterway. Navigation characteristics of rivers have to be determined as precise as possible, especially from the aspect of determination of the possible draught of vessels. This article outlines a rationale, why it is necessary to develop competence about infrastructure risk in water transport. Climate changes are evident and require special attention and global monitoring. Current risk assessment methods for Inland waterway transport just consider some dramatic events. We present a new method for the assessment of risk and vulnerability of inland waterway transport where river depth represents a crucial part. The analysis of water level changes in the lower Danube was done for two significant periods (1965-1979 and 1998-2012).

Keywords : container vessel, draught, probability, the Danube
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