



## **WGS-84 Ellipsoid as Vertical Reference System for Hydrographic Surveys**

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Depth measurement, as an element of hydrographic surveys, is realised in local reference system connected with a hydrographic vessel. Taking echosounder transducer's draught into consideration enables determination of the distance between water surface and the bottom. Sea level is changeable, especially in tide areas, even during hydrographic surveys. This fact created the necessity to work out many vertical reference systems. In tideless areas MSL - Mean Sea Level is generally used. Alternative for many vertical reference systems can be determination of the depth on reference ellipsoid using geopotential model of the Earth. This solution enable use of positioning systems for depth measurements and reduction of heaving.