

A Harmonized Vertical Reference System for the Baltic Sea

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SUMMARY

The Baltic Sea Hydrographic Commission (BSHC) has decided to establish a common, harmonized vertical reference system for the whole Baltic Sea nautical charts and navigational publications. The BSHC Chart Datum Working Group (CDWG) has been established to specify, guide and follow up the implementation of the harmonized reference system.

Today national chart datums of nautical charts are based principally on Mean Sea Level (MSL), but realization of MSL differs between countries. The EVRS (European Vertical Reference System) has been chosen to be the harmonized reference system. Also it has been defined that the harmonized reference system, called "Baltic Sea Chart Datum 2000", is consistent with the zero level of national EVRS realizations with land uplift epoch 2000.0.

The presentation gives an introduction on existing reference systems in the Baltic Sea nautical charts and the difficulties of the current situation. The main advantages and implications of the EVRS as a new vertical reference system in nautical charts will be reviewed. Also bases of definition and realization of the Baltic Sea Chart Datum 2000 will be described. Some considerations for studies concerning e.g. geoid and land uplift models and use of national GNSS positioning services for navigational purposes will be introduced.