

Harmonisation of depth information in ENC's and paper charts

Background

At the 12th conference of the Baltic Sea Hydrographic Commission (BSHC) in June 2007, the need for a study of the level of harmonisation of the Baltic Sea Electronic Navigational Charts (ENCs) was recognised. Therefore the Baltic Sea ENC Harmonisation Working Group (BSEHWG) was established with the main purpose of identifying and analysing existing inconsistencies in Baltic Sea ENCs and proposing solutions to avoid inconsistencies. The work resulted in a number of recommendations which were presented, in the final report, at the 13th BSHC conference in Rostock 2008. Many of these recommendations have now been implemented, by the member states, and the implementation of the recommendations are monitored by the BSHC through the Baltic Sea International Charting Committee (BSICCWG). The implementation of these recommendations has improved the harmonisation of the ENCs in the Baltic Sea.

One of the recommendations (Recommendation 6) from the BSEHWG was to establish another working group to study the possibilities for harmonisation of the conveying and presentation of depth information for both ENCs and paper charts. It was noted that there was a variety of depth contour intervals and corresponding depth areas and differences in the density of soundings on the Baltic Sea ENCs.

In line with the recommendation the Working Group for Harmonisation of the Conveying and Presentation of Depth Information (BSHDIWG) was established at the 13th BSHC Meeting. The following terms of reference was agreed upon:

- Identify and analyse existing depth related rules and recommendations used in populating databases and creating nautical products.
- Identify existing and future user requirements for depth information.
- Study possible [future] solutions and measures to avoid inconsistencies in the future.
- Propose ways to convey and portray hydrographic data on products. Especially regarding to the density of soundings, contour intervals, and grid, TIN and dynamical models and their parameters.
- Follow up development of S-100 based specifications.
- Provide a Progress Report to the BSHC 14th Conference. [This should include an Action plan with specified time schedule for future harmonisation actions].
- Send reports to relevant IHO and IMO bodies, if deemed appropriate.

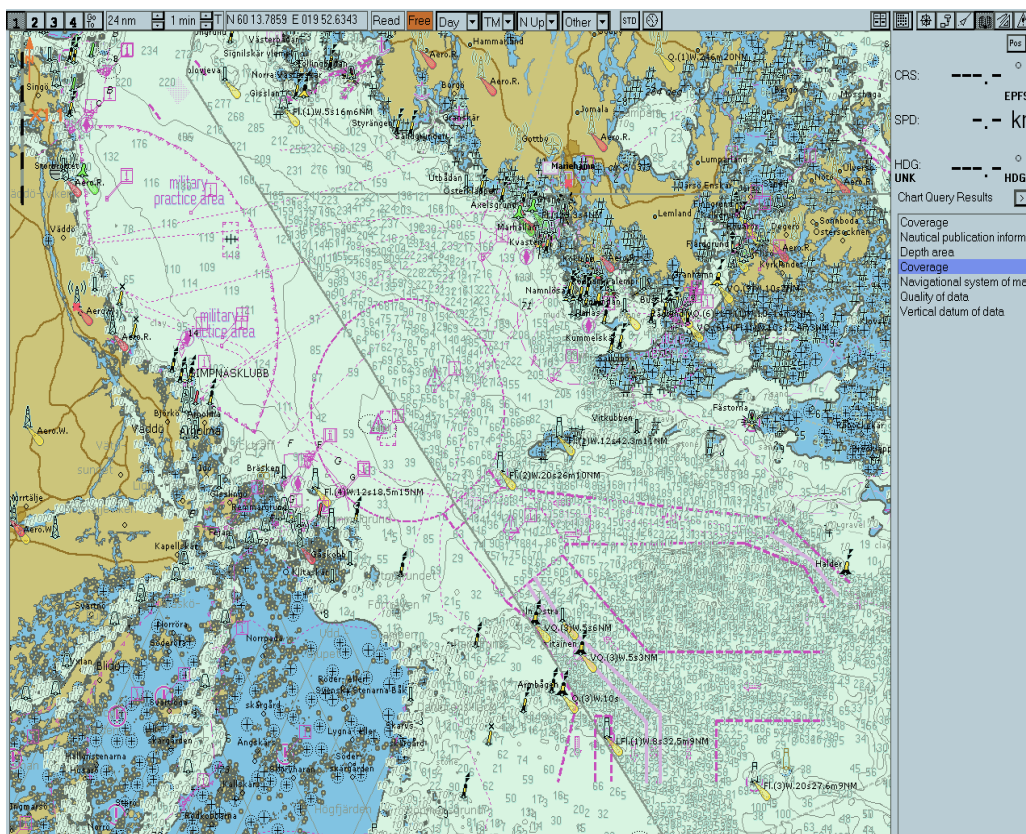
The BSHDIWG provided a status report to BSHC15 (2010), but due to various reasons no final report have been finalized and the working group is no longer active.

Analysis/Discussion

The implementation of the recommendations, given from the Baltic Sea ENC Harmonisation Working Group, has improved the harmonisation of the ENCs in the Baltic Sea. Nevertheless the problem with a variety of depth contour intervals and corresponding depth areas and differences in the density of soundings has not been solved.

In the status report from the BSHDIWG, presented 2010, it is mentioned that it is difficult or impossible to harmonize depth contours and the density of soundings based on old and insufficient depth data. With new bathymetric data on both sides of the borders, it should be possible to harmonize new editions of paper charts and ENCs. The existence of new bathymetric data along the borders has improved since 2010 or will be improved in the near future due to the surveying being performed as part of the HELCOM re-survey plan.

There are, as far as we can see at the moment, no obvious examples of differences in the Baltic Sea ENCs or paper charts which could lead to dangers for the mariners. However there are many examples of differences which cause confusions and clearly show the lack of co-operation between HOs when one look at border areas in an ECDIS. See an example from Åland Sea in an ECDIS below.



Recommendations

Sweden would like to start an open discussion regarding a possible way forward for harmonization of hydrographic data in the Baltic Sea. Sweden believes that such work should be focused on the ENC product and the presentation of the hydrographic data in ECDIS. In our opinion a pilot project could be a possible way forward. The objective should be to improve the harmonization of the hydrographic data in certain geographic areas.