

BSHC Chart Datum Working Group (ChartDatumWG)

ChartDatumWG Report to the BSHC 17th Conference

[4 September 2012]

The ChartDatumWG TORs request the ChartDatumWG to report annually to the BSHC.

1. Status of Work of ChartDatumWG

Mr. Jukka Varonen and *Mr. Juha Korhonen* have acted as the Chair the Secretary of the ChartDatumWG. All the BSHC countries have nominated a member to this Working Group, however not all have been active or participated to the meetings. BOOS has nominated their Point of Contact.

The ChartDatumWG TORs were approved by the BSHC 14th Conference in 2009. The Work Programme 4.0 approved by the BSHC 16th Conference in 2011. The main tasks for the ChartDatumWG are to prepare the implementation of the EVRS in the Baltic Sea, to forward to IHO TWLWG more specific Mean Seal Level definitions and recommendation especially for non-tidal areas, to study the validation, interpolation, prediction and distribution of water level information, follow up the relevant progress within INSPIRE, and to cooperate with relevant other international bodies e.g. BOOS.

The communication within the ChartDatumWG has been by ChartDatumWG Letters and e-mails. The Chair has communicated with the IHB, the TWLWG, INSPIRE and some other relevant institutes (BOOS, Finnish Geodetic Institute, Finnish and Swedish land survey administrations, and Finnish and Swedish Meteorological Institutes).

2. Comments to IHO HSSC TWLWG

The WG has forwarded to TWLWG proposals to amend IHO resolutions related to vertical datums. These proposals are now included into the draft amended IHO Resolution on Datums and Benchmarks (3/1919 as amended), which has been proposed to be approved by the HSSC4 meeting on 24-28 September 2012. See *Annex C of the HSSC4-05.8A*.

The ChartDatumWG discussed on the proposed amended Resolution 3/1919 and proposed the some amendments to it. These comments have been forwarded to the HSSC in the document *HSSC4-05.8B*.

The BSHC 17th Conference is invited to endorse these amendments.

3. Comments to INSPIRE draft specifications

BSHC 16th Conference decided to forward comments and proposals to INSPIRE draft Guidelines for Data Specifications - Elevation. The ChartDatumWG Chair and *Dr. Wilfried Ellmer* have participated on INSPIRE preparatory meetings. Some of the BSHC comments were included into the latest draft specifications in July 2012. The document includes now specifications for tidal, non-tidal and inland waters. Many specifications are clarified. The document can be downloaded at <http://inspire.ec.europa.eu/index.cfm/pageid/2>. Actions for processing the draft further on are not known.

4. *MonaLisa* project Sub-activity 3.3

The *MonaLisa* Subactivity 3.3 "*Pilot implementation of Harmonised vertical reference*" is planned to clarify and give further guidance to the BSHC members for their transition to a harmonised vertical reference. Finland and Sweden are the main participants in the project and both will implement a small scale pilot. Germany is an observer. The Sub-activity 3.3 time frame is until the end of 2013. It has the following goals: To develop a small scale pilot implementation of a harmonised vertical reference, study and analyse the implications of the implementation, and to develop examples and recommendations to BSHC Members for their transition to a harmonised vertical reference.

A Sub-activity 3.3 has not been progressed as planned, mainly due insufficient human resources and other high priority tasks.

The goals are still valid for 2013. More details will be given at BSHC 17th Conference.

5. ChartDatumWG meeting 28 – 29 August 2012, Helsinki

A ChartDatumWG meeting was held in Helsinki on 28-29 August 2012. The main issues were to review the work since the previous meeting, the progress made by the IHO TWLWG and other bodies, to provide comments to draft INSPIRE specifications, to inform on TEN-T *MonaLisa* 3.3 project, to clarify the tasks and Work Programme of the ChartDatumWG, strengthen the relations with BOOS and other related institutes and invite them considering to become as an observer to the WG. A more detailed report will be given at the BSHC 17th Conference.

The ChartDatumWG has the understanding that there are equal opinions about the necessity of a harmonised vertical reference on the Baltic Sea.

In order to clarify its position and future work the ChartDatumWG asks BSHC 17th Conference to confirm the goal and to approve the proposed resolution in [Annex 2](#).

In the case there is no common understanding of the transition to a harmonised vertical reference and if the BSHC 17th Conference does not agree on this proposed progress, then the Conference is asked amend the ChartDatumWG Work Programme and to give appropriate guidance to the ChartDatumWG to continue its work and to deal this situation.

6. Future Work of the ChartDatumWG

No amendments are proposed to the existing ChartDatumWG TORs.

The ChartDatumWG meeting on 28-29 August 2012 reviewed the ChartDatumWG Work Programme Version 4.0. Some amendments to that were made. A proposed amended Version 4.1 is in [Annex 1](#). It includes those Tasks which were identified as the priority issues and which are expected to be fostered during 2012 - 2013 bearing in mind the resources the BSHC members have.

Especially, the ChartDatumWG invites the BSHC to approve the attached Resolution as in [Annex 2](#) to clarify the opinions of the BSHC members regarding to transition to a harmonized vertical reference level on the Baltic Sea.

The ChartDatumWG plans to have its next meeting on 4-5 June 2013.

7. Actions for the BSHC 17th Conference:

The BSHC 17th Conference is requested to

1. note this Report
2. endorse the ChartDatumWG comments to HSSC as in document *HSSC4-05.8B*
3. approve the attached resolution (*Annex 2*)
4. approve ChartDatumWG Work Programme V.4.1 for 2012 -2013 (*Annex 1*)
5. give further guidance to ChartDatumWG as seen appropriate

Annexes:

1. Proposed Draft ChartDatumWG Work Programme V. 4.1.
2. Proposed BSHC Resolution on the commitment of the transition to a harmonised vertical reference level on the Baltic Sea.

Annex 1:

Proposed ChartDatumWG Work Programme V 4.1 for 2012 – 2013

[Proposed to be approved by the BSHC 17th Conference, September 2012]

Note: This Work Programme includes those Tasks which were identified as the priority issues and which are expected to be fostered during 2012 - 2013 bearing in mind the resources the BSHC members have.

Tasks:

- Clarify the position and plans to the transition to a harmonised vertical reference level within BSHC Members
- Clarify the usability of EVRS in all BSHC countries
- Utilise the results of *MonaLisa 3.3* pilots for preparing the transition to EVRS
- Support IHO TWLWG on developing on more appropriate specifications for vertical datums on different types of sea and water areas
- Encourage all BSHC members to actively contribute to the work of ChartDatumWG
- Follow up the progress of development of specifications for vertical datums in INSPIRE Guidelines, and identify ways to modify the CRS data specifications
- Continue cooperation with Oceanographic and Geodetic Institutes and BOOS

Annex 2:

Proposed Resolution on the BSHC commitment to the transition to a harmonised vertical reference level on the Baltic Sea.

[Proposed to be approved by the BSHC 17th Conference, 18-20 September 2012]

It can be noted that

- BSHC has already in principle agreed that the transition to a harmonised vertical reference on the Baltic Sea is important [e.g. the TORs of the ChartDatumWG]
- there are sufficient scientific basis for the transition
- EVRS realisations are available in all Baltic sea countries
- European geodetic institutes and experts have created basis for a harmonised reference and are supporting this transition
- IHO TWLWG is developing datum specifications to support this transition, especially on non-tidal waters,
- Several Oceanographic institutes and BOOS have expressed its strong support and engagement to harmonised vertical reference for water level data
- the transition is in line with INSPIRE requirements and development of INSPIRE specifications, and supports several EU oceanographic projects
- HELCOM has expressed its strong support to move to a harmonised vertical reference in the Baltic Sea
- MonaLisa 3.3 is intended to give practical examples and guidance (in 2013)
- The ChartDatumWG has worked on preparing this transition for several years
- this transition is a part of process for simplifying spatial data infrastructure

In order to clarify the situation and to give more clear direction to the ChartDatumWG, the BSHC agrees that all BSHC Members will give a written statement [by end of 2012] on their position and plans to the transition to a harmonised vertical reference level, especially

- confirm their intention to move to a harmonised vertical datum
- inform on their transition plans
- inform on their planned time schedule of transition (with milestones, e.g. starting, depth database, chart database, when used in charts and ENC's, when transition phase finalised)
- inform on other main details of transition (e.g. their EVRS realisation,)
- if there are no plans to the transition, then
 - what are the main reasons
 - how the situation is planned to be handled
 - possible guidance for the future work of the ChartDatumWG

ChartDatumWG is prepared to give more details on planning the transition and to make a formal questionnaire to the BSHC Members on these issues.
