

**Questionnaire to BSHC Member States on their implementation status of the transition to a Harmonised Vertical Reference, Baltic Sea Chart Datum 2000.**

Member state	Poland
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1. Are all the decisions done to implement the Baltic Sea Chart Datum 2000?

1.1. When the decisions has been done or planned to be done?

Decision about the BSCD2000 implementation has not been done yet.
Decision depends on progress of change in the national legal act about vertical and horizontal datum in Poland.

1.2. What are the national decisive organizations?

- Head Office of Geodesy and Cartography (Główny Urząd Geodezji i Kartografii)
- Hydrographic Office of the Polish Navy (Biuro Hydrograficzne Marynarki Wojennej)

2. What is the national status of implementation of chart datum?

2.1. What actions have already been done?

The decision has been done to use vertical reference system PL-EVRF2007-NH for new editions of nautical charts (ENCs) from the 1st of march 2020.

2.2. What actions have been planned to be executed and what is the schedule?

The "road map" was developed and updated to achieve the new vertical reference system (PL-EVRF2007-NH):

- submit a request in 2020 to add the new vertical datum BSCD2000 to the national legal act,
- ongoing analysis of the metadata (vertical) bathymetric database,
- consultations with the Institute of Meteorology and Water Management about data delivered by costal water level stations,

2.3 Which ENC Approach have been updated with the new reference datum?

If possible, attach a chart datum overview covering Your countries nautical charts, designed graphically or as a table, updated around January, 2019. Also, if possible, include an attribute to each named chart describing the CD difference to BSCD2000 in cm (CD minus BSCD2000). Example attached at the end of the Questionnaire (Annex).



No one – so far.

3. Has Your country established the national realization of EVRS and are the water level stations connected to this new height system (BSCD2000)?

3.1 Which organization/-s is responsible for the water level stations/data in Your country?

Institute of Meteorology and Water Management (Instytut Meteorologii i Gospodarki Wodnej)

3.2 Which reference are used today to present water level information?
Does Your country planning to present water level information referring to BSCD2000? Doing it already today? Date decided for change the reference to BSCD2000?

Currently: PL-EVRF2007-NH, which is the realisation of Amsterdams (N.A.P.) reference system. No decision has been done to change reference of water level data.

3.3 Are there any plans for digital service/-s intended for the users to have the option to choose MSL or BSCD2000 as the reference level for water level information?

N/N

3.4 GNSS supported UKC control/confirmation is probably the reality in a few years. But we also need reliable water level predictions for carrying out optimal loading and real time water level data to check the GNSS data. Do we need a shared service in the Baltic Sea for water level information (predictions/real-time), that fulfils nautical needs and demands?

Definitely, online service will be required soon for example for presenting time-vary bathymetry on S-100 ENC's.

3.5 Do we need to work together with the development of the IHO S-104 standard?

Not required.

4. Are the relevant national contacts and interest groups defined for the change of chart datum and water level reference?

4.1. What are the essential national interest groups in Your country?

Maritime Offices (Gdynia, Słupsk, Szczecin), Harbour Masters.

4.2. Are the relevant point of contacts known and contacts been made to them?

Yes.



- 4.3 Are You planning any information campaign about the change of chart datum and water level reference? If, yes have you published information about this somewhere?

Nothing has been published so far.
Information about a new reference system will be distributed by Notice to Mariners.

5. Have You identified any obstacles or major issues concerning transition to the harmonized vertical reference?

- 5.1. What are the major obstacles or issues?

- no metadata for historical bathymetric data collected in database;
- required a lot of time for bathymetric data analysis;
- impossible to issue all new editions of paper charts in one year;
- low level of users and institutions awareness of the importance of the case.

- 5.2. What measures has been planned to avoid them?

Only analysis.

6. Connections to neighbouring countries

- 6.1. Which are the relevant countries to cooperate?

No cooperation in that matter.

- 6.2. Are the needed points of contacts already known?

Not required.

- 6.3. What actions have been agreed with the relevant countries (e.g. synchronising plans and schedules)?

No actions.

7. Are there any needs for support from BSHC?

No.

8. Do you have any other proposals or guidance to the CDWG to help and foster the transition process?

No.

9. Are you using GNSS and GNSS augmentation services for referring to your (bathymetric) surveys to the chart datum?



9.1 What GNSS augmentation service is used for hydrographic surveys? (If there are several augmentation services, list all of them.)

Some commercial contractors use following services:

- GPS RTK (Gulf of Gdańsk - local FM radio),
- ASG-EUPS (GPS RTK),
- SmartNet Poland (GPS RTK),
- TPI Net pro (GPS RTK),
- VRSnet (GPS RTK).

9.2 To which coordinate system, and vertical reference level/frame the GNSS augmentation service is referred to? (If there are several systems in use, list all of them.)

ETRS-89 (GRS-80h),
PL-EVRF2007-NH.