

BSBD-WG Report to the BSHC 20th Conference

The Baltic Sea Bathymetry Database Working Group has not held any meeting since the last BSHC conference in June 2014. The portal has been up and running without any downtime.

1. Status of the work of BSBDWG

Since the last conference the portal has been up and running without any downtime on the viewing services. The bathymetric model at present time is the same as the version published in December 2013.

We have continued to use the Amazon Web Services with the same setup and size of servers. Together with the server for the BSHC webpage the monthly cost is about 240\$.

We were informed in the end of May about a problem using the WCS services via some GIS softwares. The problem is that the software does not recognise any other supported layers than pure tif images, hence no data can be accessed that way. There is no problem in downloading via WCS commands in a browser window using the links the portal provides. The error has been corrected on our development server and will be corrected on the live server when a new version of the bathymetry model is published.

2. The use of the bathymetric database

2.1. The portal

The portal address is still data.bshc.pro

The site is fairly widely used and the number of visits on the portal between the first of July 2014 and first of July 2015 is 12 546 visits made by 10 014 unique visitors. The peak number of daily visits during the period originates from the 19 October. 1283 visits were made after a newspaper used an image from our portal as a background in an article about suspected submarine activities in the Stockholm Archipelago. This is almost as high as when the site was first made public when 1 323 visits were made on the 12 September.

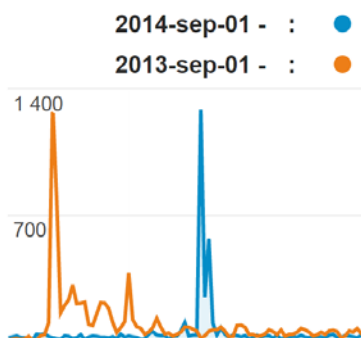


Figure 1 The peak usage of 1323 and 1283 visits in one day

As foreseen the percentage of Swedish users has decreased to 36% (>85% in the beginning) and is expected to decrease further as the usage by other nationalities increases.









Country	Sessions	% Sessions
1.  Sweden	4,487	35.76%
2.  United States	1,431	11.41%
3.  Poland	1,018	8.11%
4.  Finland	753	6.00%
5.  Germany	699	5.57%
6.  Russia	593	4.73%
7. (not set)	527	4.20%
8.  United Kingdom	416	3.32%
9.  Denmark	280	2.23%
10.  Estonia	204	1.63%

Figure 2 Top ten countries using the portal

July -14 to July -15 the Baltic Sea countries (+ Norway) counts for 66.8% (Sep-13 to April -14 the number was 83.59%) of the visitors to the portal while 4.2% is not assigned to any country.

It has so far been registered active links to the portal from 128 sites, except from these we know that in some places our portal is mentioned and the address is given as inactive links (plain text). Of the Baltic Sea countries HO's only Sweden and Latvia can be identified in the list of sites that links to our portal.

- 35% of the visitors arrive to the portal from one of the active links.
- 10% of the visitors, that use active links to reach the portal, use the links on the BSHC homepage.

We would like to ask that all BSHCHO's add active links to the site from their national webpages in order to further promote the portal.

2.2.Downloads

We have so far not made any statistic images showing the areas for downloads for the last year but hope to be able to present it at the Conference.

The statistics shows however that the total number of downloads from the portal increases.

- 3733 downloads made until May 23, 2014
- 6233 downloads made until July 10, 2015

2.3.Use of OGC services

It is hard to get good statistics for the use of the OGC services, but we know that the WMS service is used by several users. Some users also have an internal cache service for the use in their own GIS systems. This internal cache reduces the number of downloaded tiles from our servers as they only need to download each tile once.

As an example the number of DNS-Queries for the month of April has increased from 37,689 (2014) to 46,847 Queries 2015, indicating an increased number of request by 24%. Only some percent of the actual queries reaches the DNS server in question due to external caching so this is only an indication and not an actual number of requests to the server.

Since November 2013, the BSBD also can be used as background information in the map services provided by the HELCOM map portal <http://maps.helcom.fi/website/mapservice/index.html>. For the future it would be the best solution if they could use our WMS services for use in their portal.

3. Work Group participants

Mr. Hans Öiås has during the last year been acting as the Chair of the WG. The activity during the year has been low.

The manning at SMA has, except the chair, been Dr. Benjamin Hell and GIS Engineers Per-Olov Seiron and Jan Henriksson.

The current WG members and points of contact is:

Country	Name	E-mail address
Denmark	Jens Peter Weiss Hartmann (Used as point of contact)	jepha@gst.dk
Estonia	Peeter Väling Signe Paevere	peeter.valing@vta.ee signe.paevere@vta.ee
Finland	Juha Tiihonen	juha.tiihonen@fta.fi
Germany	Jürgen Monk	juergen.monk@bsh.de
Latvia	Normunds Duksis	normunds.duksis@lhd.lv
Lithuania	Viktoras Liulys Mindaugas Zakaruskas (Used as points of contact)	viktoras.liulys@msa.lt mindaugas.zakaruskas@msa.lt
Poland	Marcin Banaszak	m.banaszak@mw.mil.pl
Russia	Capt.Sergey Travin (Used as point of contact)	main@gunio.ru
Sweden	Hans Öiås Benjamin Hell Jan Henriksson Per-Olof Seiron	Hans.oias@sjofartsverket.se Benjamin.hell@sjofartsverket.se Jan.Henriksson@sjofartsverket.se Per-Olof.Seiron@sjofartsverket.se

Denmark, Lithuania and Russia have not appointed participants for the WG.

4. Performed work

The homogenous 500m bathymetric model was updated to version 0.9.3 in December 2013 when more data became available from Poland and Finland.

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Data deliveries for the territorial waters are still pending formal clearance in Finland. Until such clearance has been given only sea chart figures are available. This situation remains but we have received quite a lot of data covering Finnish EEZ that will enhance future versions of the model.

SMA now has a general security approval to use 300m resolution for the compilation of the territorial waters, and we are working on getting approval of at least somewhat higher resolution. In some areas higher resolutions may be used. However due to financial interest in the data, SMA will still not be able to allow a higher resolution than 500m to be created over Swedish areas free of charge.

5. Presentations

BSH have written an article about the BSBD in the German Hydrographic Journal. The article increased the number of visitors during a period.

An article was written for the IHO Hydrographic Journal in the number covering a large number of BSHC initiatives.

6. Cooperation's

6.1.GEBCO

GEBCO recognizes the BSHC database as a Regional Mapping Project. The 0.9.3 model has been included in the GEBCO 0.5 arc minute global compilation that was planned for 2014 but was finally released before summer 2015. The BSBD dataset is a major improvement to their compilation for the Baltic region.

At the same time BSBD uses the GEBCO dataset for areas where no data has been provided by national HO, Russia, Lithuania and a part between Denmark and Poland.

6.2.EMODnet

A new model of EMODnet phase 2 is planned to be released during the summer 2015. The BSBD dataset has been delivered as an input already for the present model and has improved their coverage substantially.

As decided at the BSHC-19 conference, we have delivered a ¼ arc minute compilation based on our 500m resolution in the BSBD to EMODnet for the Baltic region, excluding German areas. We actually delivered a “recompiled” version of the BSBD 0.9.3 dataset as 1/8 of a degree. This means that the original BSBD dataset has been upsampled from 500m (1/4) to 1/8 of a degree by us rather than by EMODnet. Originally the plan was not to deliver data over the Danish waters, but as the Danish Geodata Agency did not accept their 50m model to be included in the EMODnet phase 2 we provided also our model for the Danish areas.

Data has been provided to the BSH that compiles the region east of Long 13 and “GGS geo consultancy” that compiles the region west of Long 13. BSH has used its own denser data for the compilation.

Metadata for BSBD is entered in the IFREMER SEXTANT catalogue for pre-modelled grids: http://sextant.ifremer.fr/en/web/emodnet_hydrography_cprd/catalogue

7. Financing

A portion of the funds provided by the Swedish Government still remains, and SMA can continue to use them in order to keep the portal alive, and also for some additional development.

The SMA will have financing for at least the coming three years.

8. Planned work

As new data has become available from Finland (EEZ) and a lot of new data is available over Swedish waters, work is in progress to produce a new version 0.9.4. This version will also cover the Norwegian areas of Skagerrak.

The plan was to publish the new compilation before the end of May 2014 but has for different reasons been postponed and will now most likely be finalized in the end of the summer 2015.

Work to reorganize BSBD work into a maintenance organization at SMA will continue during the year.

We have on our development environment included the basin borders and names for presentation in the portal. This will also be available as the version 0.9.4 is published. The implementation has been approved by the chair of BSICCWG.

Further plans includes:

- Include Russian and Lithuanian data if it is made available for BSBD
- Further improve the database as better data becomes available
- Further enhancement of the portal functionality.
- Optimization of the production tools and documentation.
- Compile and provide additional bathymetric layers with higher resolution where the data providers and legislation permit (Germany and Estonia). Possibly also a version that contains an up-sampled version of all other areas.
- Enhance the coastline for masking and presentation in the portal. The present coastline is taken only from Swedish nautical charts. Except for that we have only received coastlines in vector format from Estonia so far.

9. Actions for the BSHC 20th Conference

The BSHC 20th Conference is requested to:

1. Note this report
2. Consent that the work with the portal continues as stated above using the WG members as a reference group.
3. Endorse future cooperation with GEBCO and EMODnet.