National Report of Finland

[9 May 2014]

Executive Summary

This Report highlights only the main activities and achievements of the Finnish Hydrographic Office since BSHC 18th Conference in September 2013.

- Hydrographic surveys has been performed as planned
- Production of nautical charts has been performed as planned

1. Finnish Hydrographic Office

No changes in organisation since last meeting. Staff is now 54 persons. Yearly budget is 11 million euros.

The Finnish Transport Agency has a new strategy including i.e.:

- We provide real-time traffic data and proactive information about traffic and routes to help businesses.
- In seaborne and railway traffic we aim to maintain the high standard of transport safety.
- Our operations are based on cooperation across the administrative boundaries and on effective use of information. We encourage open innovation and experiments to promote agile development of new practices and services.
- We make effective use of both national and international networks to gain and share expertise and best practices.

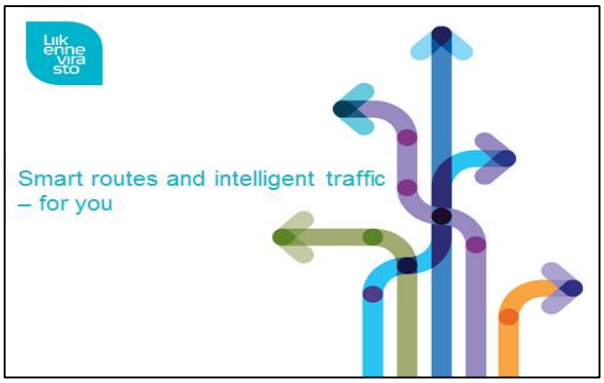

Fig. 1. Vision of Finnish Transport Agency

The FHO has working according to the Quality Management System. A yearly auditing was performed successfully, including also the NtM process.

2. Hydrographic surveys

There were open procurements for three survey tasks; on Bay of Bothnia a two year project (part of the EU TEN-T *MonaLisa* project, ~M€ 2,6), on inland lake area in Northern Savolax (~€ 600.000) and on three fairway areas (summing ~€ 200.000). In the *Table 1* there are statistics of these tasks. In *Fig.2* there are shown the surveyed areas in 2013 and planned surveys for 2014.

Task	Surveyed by	Multibeam [Km^2]	Line sounding [Km^2]
Åland Sea	*Meritaito Oy*	2896	
Helsingkallan	*Meritaito Oy*	1448	
Gulf of Finland	*Meritaito Oy*	301	7
Lake Survey 2013	*Meritaito Oy*	254	81
Archipelago Sea Fairway Surveys	*Meritaito Oy*	110	
Gulf of Finland Fairway Surveys	*Meritaito Oy*	28	
Bothnian Sea Fairway Surveys	*Meritaito Oy*	60	
Inland	*Meritaito Oy*	306	217

Table 1: Survey statistics for 2013.

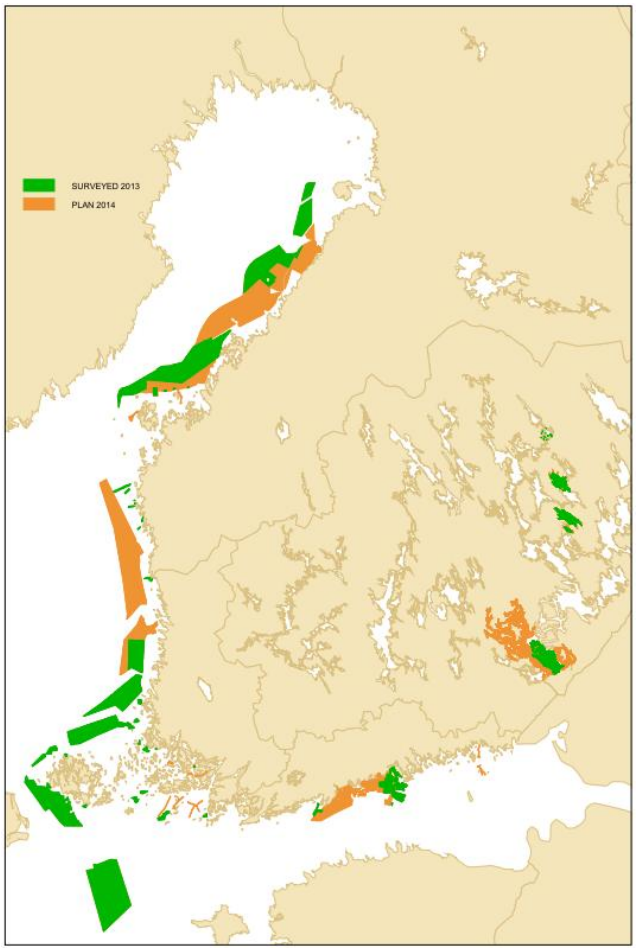

Fig. 2. Hydrographic Surveys in 2013 (green) and planned for 2014 (orange).

The Finnish part of the HELCOM-BSHC Revised Harmonised Hydrographic Re-Survey Scheme has been enhanced and the database updated. The HELCOM survey plan is the driving force to perform the hydrographic surveys in Finnish waters. For 2013 - 2014 HELCOM Category II surveys have been procured in the Åland Sea, southern Bothnian Sea and southern Bay of Bothnia totalling about M€ 2,7 and roughly 5.500 km^2 . Further ~2.350 km^2 in the Bothnian Sea and ~1.300 km^2 in the Bay of Bothnia have been procured.

As a total Baltic Sea re-survey scheme, the requirements of the HELCOM Moscow 2010 Ministerial Declaration are fulfilled by all Baltic Sea countries. This was reported to HELCOM Ministerial Meeting on 3 October 2013. The Ministerial Meeting appreciated the re-survey work. More details in the MWG Report to BSHC19.

Co-operation with Swedish Maritime Administration in procurement and service provider work supervision has been most helpful.

Hydrographic data processing and management

The new system for Source data management "*LOKI"* was adopted in June 2013. "*LOKI*" improves passing through time of source data, offers better tools for analysing source data and control of work flow.

The renewal of the Bathymetric database has taken its first steps in late 2013.

Quality control of ENCs has been improved in the whole process. Some software tools for hydrographic data quality control and operation guidance have been enhanced.

A plan for processing bathymetric data during 2013-2017 into the chart database will be updated during 2013. In *Fig. 3* there are shown full coverage areas that are processed into the chart database ("*Katiska"*) by the end of June 2013 (approximately 79 % of all multibeam surveys). However, all the critical observations are processed immediately.

Harmonization of depth information –project, with Sweden, started in January 2013 from Quark up to north. In this first step, harmonisation of ENCs is made using existing guidelines.

Finland has made a decision to allocate 15 m depth curve and depth areas for 0-3, 3-6, 6-10, 10-15, 15-20 to nautical chart products.

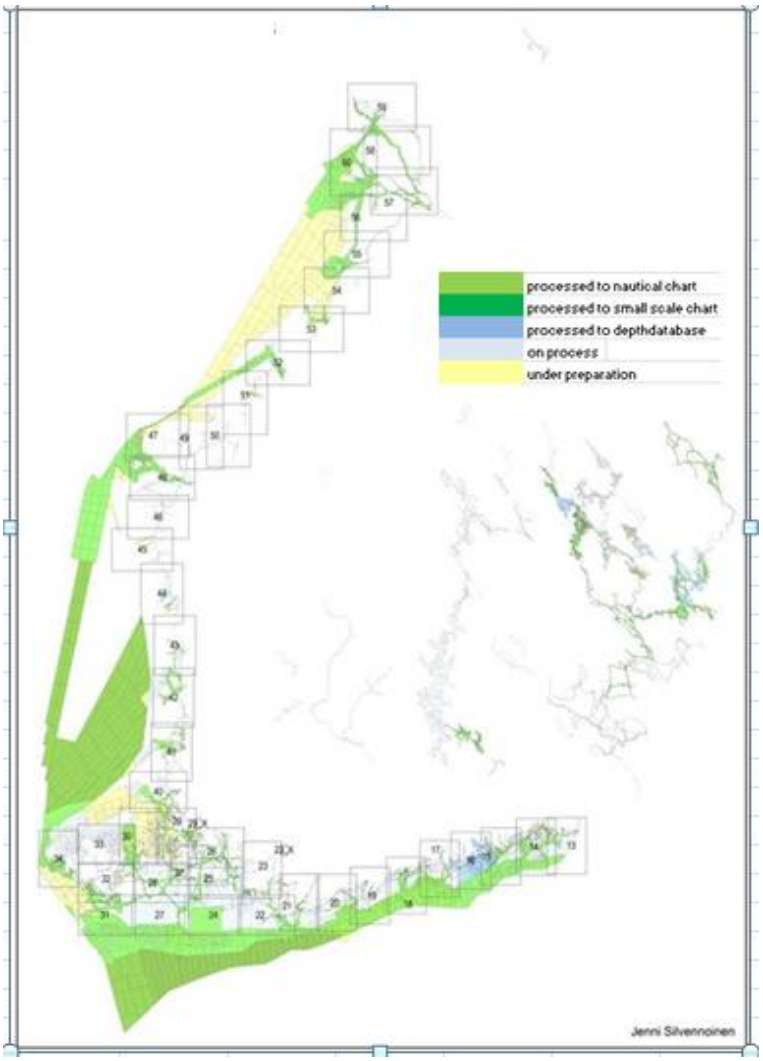

Fig. 3. 79 % of multibeam survey data is processed into the chart database by end of 2013.

Several data sets of bathymetric data for the Baltic Sea Depth Model has been provided according to Finnish national legislation. Information will be updated continuously after new surveys.

3. Nautical Charts

Printed charts

Printed charts in 2013 have been produced mainly according to the plans. Three deviation reports have been issued. New editions were published on three chart series (A, O, R) and 32 nautical charts. Six totally new harbour charts (105, 113, 115, 117, 119 and 127) were also published. To keep (some) charts in continuous updating has helped to release new editions.

As a test for chart adoption process, Swedish general chart SE 5 (INT 1023, scale 1:500 000) was adopted and produced as FI 975). Adoption process took a lot of work and required separate production line and updating process.
Statistics for sold charts are shown in *Table 2*. In addition to these there are many adopted charts sold by UKHO and BSH.

The publishing and marketing contract for printed charts was competed. For the next years the Finnish nautical charts will be published and marketed by *Karttakeskus Oy*. From the beginning of 2013 end user prices have been reduced by 30%. This did not have major impact for sales.

Chart product	2009	2010	2011	2012	2013
International traffic					
Approach charts	5082	6098	3580	5379	4943
General charts	2856	2539	1772	1620	1977
Harbour charts	937	659	732	1267	1313
Inland charts (for international traffic)	826	882	337	114	204
Inland chart series (for international traffic)	1488	1672	2103	1998	1490
Domestic traffic					
Chart series (sea area)	10478	14674	11695	11116	11489
Inland charts	1521	1423	1384	1000	748
Inland chart series (for domestic traffic)	1841	2218	1862	1503	1913
Other charts	377	222	5	0	0
Total sold copies	25406	30387	23470	24006	24078
Change [%]		19,6	-22,8	2,20 %	0,30 %

Table 2 Statistics of sold Finnish nautical charts in 2009 – 2013.

During spring 2014 four nautical chart series for yachtsmen have been published, see cover pages *Fig. 4*.

- D (Turunmaan Saaristo, Archipelago Sea)
- E (Selkämeri, Sea of Botnia)
- J (Heinola-Lahti-Jyväskylä, inland waters)
- P (Valkeakoski-Längelmäki-Hauho, inland waters)

Fig.4. New nautical chart series for leisure craft published spring 2014.

ENC production and distribution

ENC production and distribution has been mainly according to the plans. In 2013 7 new cells and 35 New Editions have been released. ENC Statistics are in *Table 3* and *Table 4*.

No of releases	2010	2011	2012	2013
New cells	54	14	8	7
New editions	23	1	44	35
ER updates	453	142	449	463
Total cells	151	205	192	180

Table 3. Statistics of produced Finnish ENCs

	Use of Finnish ENCs				
	2009	2010	2011	2012	2013
No of ships	937	1153	1094	1239	1290
No of customers	304	340	386	453	474
No of subscriptions	67855	86407	88831	93966	102042

Table 4: Statistics for the use of Finnish ENCs

A pilot project for developing a new chart service for government use was launched. The participants are Finnish Navy, Coast Guard, Furuno Finland Oy and Hydrographic Office. This service will be utilise the service developed by Electronic Chart Centre (ECC, Norway) by which official electronic chart data may be loaded.

4. Nautical publications

NtMs has been published according to the plans. Statistics are shown in *Table 5*.

Publication/ Service	No of releases			
	2011	2011	2012	2013
NtM issues	36	36	36	36
NtM notices	596	680	398	422
NtY issues	5	5	5	
ER updates	453	766	449	463
Charts in chart based update		38	56	82

Table 5: Statistics for nautical publications

5. MSI

In total 276 navigational warnings were published during 2013 (265 in 2012, 248 in 2011).

6. C-55

Latest updates to C-55 have been sent to the IHB in August 2013.

7. Capacity building

Nothing to report.

8. Oceanographic activities

There have been contacts to Finnish Geodetic and Meteorological institutes and to BOOS representative within the Chart Datum Working Group issues.

9. Other activities

A study of service level assignment for leisure craft customers has completed. Some harmonization actions will be taken place between fairway maintenance and chart publication.

Based on Bilateral Arrangements the adoptions of printed charts with BSH (13 charts) and UKHO (12 charts) have been expanded. Some obstacles for adoption have been removed during the last year i.e. two-sided charts have been replaced by one-sided.

The FHO has continued the implementation of "Open Data" services. A proposal was made to the Ministry of Finance for compensating the opening. The outcome was that fees will still be collected but this issue will be re-evaluated on 2014.

Finland is participating to the following IHO Committees and WGs: IRCC, HSSC, IRCC/WEND-WG (representing BSHC), HSSC/TSMAD, HSSHC/DIPWG, HSSC/DQWG, HSSC/CSPCWG, HSSC/MSDIWG, HSSC/SNPWG, HSSC/TWLWG, HSSC/WG Restructuring CG, BSHC, NHC, ARHC, BSHC/CDWG (Chair), BSHC/BSICCWG (Chair), BSHC/BSDIWG, BSHC/BSMSDIWG, BSHC-HELCOM/MWG (Chair), and to PRIMAR and its WGs.

Since September 2013 the FHO has arranged the BSHC/CDWG meeting (February) and BSHC/DBICCWG meeting (April).

10. Conclusions

This report highlights the main achievements of the Finnish Hydrographic Office since BSHC 18th Conference in September 2013.

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