22th BSHC Conference
19-21 September 2017
Rostock, Germany

NATIONAL REPORT OF ESTONIA

Executive summary

This report summarizes the activities of the Estonian Maritime Administration in the field of hydrography since the Baltic Sea Hydrographic Commission 21th Conference in 2016.

1. Hydrographic service

The service in the field of hydrography is generally provided mainly by two departments and partly by Fleet Department of the Hydrography and Aids to Navigation Division (head Mr. Taivo Kivimäe) of the Estonian Maritime Administration:

1) Hydrography Department (head Mr. Peeter Väling),
2) Cartography Department (head Mr. Olavi Heinlo)

Altogether about 35 specialists are occupied in those two departments and partly 18 seafarers from Fleet Department.

Survey vessels

The Hydrography Department (13 officers) deals with surveying (data collecting and post-processing). For surveys the following hydrographic vessels are used:

1) JAKOB PREI (crew 8 person) – 25 m SWATH type survey vessel for open sea;
2) EVA-320 (crew 4 person) – 18 m twin-hull survey vessel for coastal areas;
3) KAJA (crew 1 person) – Operates since April 2016. 7.3 m twin-hull survey-boat on rivers and shallow coastal areas. Building was partly financed by FAMOS.
4) EVA-301 (crew 5 person) – 20 m twin-hull multipurpose vessel for survey in inland waters and for maintenance of the aids to navigation.

Hydrographic survey

In 2016 hydrographic survey in Estonian waters was carried out as follows:

1) 1850 km² – on HELCOM routes in the Gulf of Finland, Gulf of Riga and the Northern Baltic (CAT II).
2) 64 km² – Lake Peipsi;
3) 27 km² – Lake Võrtsjärv; Surveys in Lake Võrtsjärv are now completed
4) 5 km² – Harbor areas (surveyed by private companies).

All surveys were carried out according the IHO S-44 standards Special, Ia and Ib.
Both Cat I and Cat II surveys are fully covered by FAMOS.

For maintaining and accessing survey data a web-accessible database called the Hydrographic Information System (HIS) is used. It is a seamless database for hydrographic information such as survey areas, depths, underwater objects, contours and storage for raw data. Management of all Estonian survey areas including inland waters is carried on depending on the status of the area (planned, under survey, surveyed, under cleaning, cleaned, under validation or final). Survey data from other parties/companies are included in HIS as well. Backup of data is automatic. Public access (without download services so far) is available at the following link: https://195.80.112.238:8443/HIS/Avalik?REQUEST=Main .

3. New charts & Updates

ENCs:
Estonian waters are completely covered with all relevant navigational bands.
Total: 127 cells in navigational purpose bands 2 – 6 (band 2 – 7 cells, band 3 – 14 cells, band 4 – 25 cells, band 5 – 17 cells, band 6 – 64 cells). ENCs are updated in real time. In 2016 12 new cells, 21 new editions and 384 updates were produced.

At the end of 2009 WMS web page was accomplished where the navigational charts and topographical maps are assembled. For more information please click on the Estonian Maritime Administration home page "MAP APPLICATION FOR ESTONIAN LAND AND SEA AREAS"

Starting from 2015 EMA is developing new WMS web page for smart devices. The first version is available on the web page http://gis.vta.ee/nutimeri/ .

In 2017 9 new cells, 19 new editions and 206 updates were produced.

The Minister of the Environment has approved the necessary amendments to the Regulation on Geodetic System, which enable Estonia, similarly to many other countries in Europe, to start using the Amsterdam Ordnance Datum (Normaal Amsterdams Peil NAP) as the reference level for height measurements from 01. January 2018. Thus, Estonia is giving up the Kronstadt Tide Gauge that served as zero point of the height system so far. Estonian Maritime Administration start implement this Regulation and common Baltic Sea Chart Datum (BSCD2000) from beginning 2018 for ENC-s and Paper Chart.

Local navigational warnings are published on the MA website (http://gis.vta.ee/navhoiatused/et.html) and are also announced over the maritime radio in Estonian and English. The radio frequencies, channels and times can be checked on the State Infocommunication Foundation website.

ENC Distribution method

EMA has signed Distribution Agreements with: Norwegian Hydrographic Service (PRIMAR – Stavanger), Transas DataCo Ltd, NAVIONICS, JEPPESEN Italia SRL, Garmin Ltd, Tridentnav Systems HB, Euronav Ltd and several other derived product producers.

RNCs
Not produced.

INT charts
EMA produces and updates 18 INT charts.

National paper charts

The portfolio of the currently updated charts for the Estonian waters comprises 65 charts produced in accordance with international standards. In 2016 10 new charts were printed. In 2017 5 new charts were printed.

The scheme of the Estonian paper charts is given in:
http://adam.vta.ee/teenused/hnt/dokumendid/4kartogrammi.pdf

Other charts, e.g. for pleasure craft
New revised edition of "Charts of Estonia", Vol 1, "Suurupi Peninsula to Narva" was published in May 2017. For pleasure craft EMA produce all together 4 volumes of "Charts of Estonia" in A3 format.

4. New publications & Updates

New Publications
Starting from 2011 EMA is publishing the *List of Lights* and *Notice to Mariners* digitally, available on the home page (http://www.vta.ee/database-of-aids-to-navigation/ and http://www.vta.ee/atp/index.php?id=1748).

Starting from 2012 EMA is also publishing the *Sailing Directions* digitally on the homepage (http://www.vta.ee/atp/index.php?id=18625).

Starting from 2013 EMA is administrating State Port Register (http://www.vta.ee/state-port-register-2/) State Port Register will provide an overview of all ports registered in Estonia, including maritime ports and inland ports. The register contains information about port location, port technical data, port services, port manager and harbor master.

Starting from 2015 EMA is publishing the full digital database of aids to navigation, available only in Estonian language on the EMA home page (http://www.vta.ee/database-of-aids-to-navigation/).

5. MSI

Existing infrastructure for transmission

NAVAREA 1 Baltic Sea sub area coordinator Sweden is responsible for NAVTEX Service covering the Estonian waters and messages are transmitted by Swedish (Stockholm Radio) and Estonian (Tallinn Radio) transmitters.

6. S-55

Latest update (Tables)
See ANNEX 1and ANNEX 2

7. Capacity Building
Nothing to report

8. Oceanographic activities
Nothing to report

9. Other activities

Participation in IHO Working Groups
EMA is participating in the following committees and WG:
HSSC, ENCWG, S-100WG, NIPWG

Meteorological data collection
In frame of the project EfficienSea (Efficient, Safe and Sustainable Traffic at Sea) for the Baltic Sea a portal called METOC (http://on-line.msi.ttu.ee/metoc/) was established. This portal gives information about all operative/ real time measurements in the Estonian coast and coastal sea. The METOC collects all measured data from different measurement stations of the Marine System Institute of the University of Technology of Tallinn, the Estonian Environment Agency (EEIC) and also from sensors of navigational buoys of the Estonian Maritime Administration. From measurement stations the following information is available, which is important for navigation: wind speed and direction, visibility, sea level, wave height etc. From buoys information regarding wave height and period is available.

Information regarding weather observation and forecast is available on the home page of the Estonian Environment Agency (http://www.ilmateenistus.ee/?lang=en).

Geospatial studies

Data for INSPIRE Directive Annex I, II and III are available for public.

ANNEX 1

Basic Data

Maritime Nation/Area	Nation or Area Code	Region ID	Nation or Area (N or A)	EEZ (sq km x 1000)	Length of Coastline (km)	Data for S-55 Edition No.	Latest Update	IHO Member State
Estonia	EE	EU	N	36,3	3780	1	June-08	Y

ANNEX 2

Hydrographic Resources

Maritime Nation/Area	Hydrographic Surveying Vessels				Hydr. Staff		Positioning Methods		
	> 100 m	50 m - 100 m	25 m - 50 m	< 25 m	Specialists	Assistants	Long > 40 km	Medium 5-40 km	Short Range
Estonia	-	-	1	3	13	-	LRTK	RTK	RTK