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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 22nd Conference in 2017.

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 Mrs. Kaidi Katus) 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 2017 hydrographic survey in Estonian waters was carried out as follows:

- 1) 2487 km² – on HELCOM routes in the Gulf of Finland, Gulf of Riga and the Northern Baltic (CAT II).
- 2) 50 km² – Lake Peipsi;
- 3) 5 km² – Harbor areas (surveyed by private companies).

All surveys were carried out according the IHO S-44 standards Special, Ia and Ib.
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://his.vta.ee:8443/HIS/Avalik>

3. New charts & Updates

ENCs:

Estonian waters are completely covered with all relevant navigational bands.

Total: 133 cells in navigational purpose bands 2 – 6 (band 2 – 7 cells, band 3 – 14 cells, band 4 – 26 cells, band 5 – 17 cells, band 6 – 69 cells). ENCs are updated to RENC database in real time. In 2017 11 new cells, 31 new editions and 337 updates were produced.

01.01.2018 – 31.03.2018 was the period of the transition to new vertical datum BSCD2000. During that period all databases were converted and no new ENC-s was produced. After transition period all ENC are produced using depth data in new vertical reference system BSCD2000. Until today 3 ENC Editions have been produced for river Emajõgi and 7 more ENC-s are in production (Berthing and Harbour). Paper charts in BSCD2000 are produced as soon as the relevant ENC-s are finished.

Since 2015 EMA is running a GIS displaying uptodate ENC-s, all latest hydrographic information from HIS, waterways and aids to navigation data from Aids to Navigation Database. <http://gis.vta.ee/nutimeri/>.

Navigational warnings are published through GIS environment and stored in a database. Once published the warnings are sent automatically to Swedish Maritime Administration and/or Tallinn Radio for further transmission and also published on the EMA website (<https://gis.vta.ee/navhoiatused/en.html>). The radio frequencies, channels and times can be checked on the State Infocommunication Foundation website.

ENC Distribution method

EMA has signed Distribution and Data Derivation Agreements with: Norwegian Hydrographic Service (PRIMAR – Stavanger), Transas DataCo Ltd, Navionics, Digital Marine Solutions Holding AS, Garmin Ltd and several other producers.

RNCs

Not produced.

INT charts

EMA produces and updates 19 INT charts. Latest chart to receive the INT number was 628 Baltic Sea – Gulf of Riga, Sõrve poolsaar – Allirahu.

National paper charts

The portfolio of the currently updated charts for the Estonian waters comprises 66 charts produced in accordance with international standards. In 2017 1 new chart and 5 new editions were printed. In 2018 no new charts have been printed due to the transition to the BSCD2000.

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. No new editions of pleasure craft chart albums have been published in 2018.

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. Due to interference by Mondolfo Radio B1 character or U Area will change to F new timeslots for NAVTEX transmissions will be in force. Estonia has informed navigators by NtM and also local warnings.

6. S-55

Latest update (Tables)

See ANNEX 1 and 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, NCWG

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>).

MSDI

MSDI is made available in cooperation with Estonian Land Board according to the EU directives. Data for INSPIRE Directive Annex I, II and III are available for public. Challenges for EMA facing involvement in MSDI creation, development and maintenance is lack of resources and dedicated personnel.

Basic Data

ANNEX 1

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