

BSHC 18th Conference
16-18 September 2013
Tallinn, Estonia

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 17th Conference in 2012.

1. Hydrographic service

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

- 1) Hydrography Department (head Dr Jaan Lutt),
- 2) Cartography Department (head Mr Tõnis Siilanausk)

Altogether about 35 specialists are occupied in those two departments.

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 - 25 m SWATH type brand new survey vessel;
- 2) EVA-320 – 18 m twin-hull survey vessel for coastal areas;
- 3) EVA 303 – 6 m single-hull survey-boat on rivers and shallow coastal areas;
- 4) EVA-301 – 20 m twin-hull multipurpose vessel for survey in inland waters and for maintenance of the aids to navigation.

Detailed information regarding hydrographic vessels and survey equipment is given in ANNEX 3.

Hydrographic survey

In 2012 hydrographic survey in Estonian waters was carried out as follows:

- 1) 728 km² - on HELCOM routes in the Gulf of Finland and the Northern Baltic (CAT I);
- 2) 467 km² - on coastal routes in the Gulf of Finland (CAT II);
- 3) 139 km² - Lake Peipsi;

- 4) 40 km² - Lake Võrtsjärv;
- 5) 4 km² - Harbour areas (surveyed by private companies).

All surveys were carried out according the IHO S-44 standards Special, Ia and Ib.

For maintaining and accessing survey data a web-accessible database called the Hydrographic Information System (HIS) was established. 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: <http://195.80.112.238:8080/HIS/Avalik?REQUEST=Main>.

3. New charts & Updates

ENCs:

Estonian waters are completely covered with all relevant navigational bands. Total: 110 cells in navigational purpose bands 2 – 6 (Band 2 – 7 cells, Band 3 – 14 cells, Band 4 – 24 cells, Band 5 – 14 cells, Band 6 – 51 cells). ENCs are updated in real time. In 2012 28 new cells, 26 new editions and 332 updates were produced.

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

ENC Distribution method

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

RNCs

Not produced.

INT charts

EMA produces and updates 15 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 2012 no new charts were compiled or printed. The scheme of the Estonian paper charts is given in ANNEX 4.

Other charts, e.g. for pleasure craft

New revised edition of the chart album (Charts of Estonia, Vol 3, From Saaremaa to Ruhnu) was published in June 2012. It is an updated version of the information contained in the previous 2006 edition.

4. New publications & Updates

New Publications

Starting 2011 EMA is publishing the *List of Lights* and *Notice to Mariners* digitally, available on the home page (http://www.vta.ee/atp/public/list_of_lights.pdf 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>).

5. MSI

Existing infrastructure for transmission

NAVAREA 1 Baltic Sea sub area co-ordinator 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 1 and ANNEX 2.

7. Capacity Building

8. Offer of and/or demand for Capacity Building

Nothing to report

9. Other activities

Participation in IHO Working Groups

EMA is participating in the following committees and WG:
HSSC, SNPWG and MSDIWG.

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 Institute of Meteorology and Hydrology of Estonia 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 Institute of Meteorology and Hydrology of Estonia ([http:// www.emhi.ee/index.php?nlan=eng](http://www.emhi.ee/index.php?nlan=eng)).

Geospatial studies

Cooperation with involved institutions to prepare for INSPIRE Directive.

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

ANNEX 3

Hydrographic vessels of Estonia



EVA-301 EST MMSI: 276715000; call ES2708

Home port: Tartu, reg. N 5R07E02.

Twin-hull Al 19,8x6,8x1 m;

2x308 kW Scania DI 19, auxiliary: KUBOTA NANNI 4220 26,8 kW.

Speed: 15 knots.

Crew: 2+1(2).

Autonomy: 10 days;

72 BT, 22 NT, DW 5t

Built: 2007 Finland, Uusikaupungi Työvene OY.

Nav. equipment: iScan V90 Interphase echosounder, FURUNO FR8062 radar, FURUNO 500 NAVPILOT autopilot, GPS FURUNO GP-150, SUUNTO D135, ECDIS.

Survey equipment: Topcon NET G3 RTK GPS, AHERO multichannel sonar 60 ch; surface gyro & Motion sensor IXSEA OCTANS III, RAN-AEGIR Survey and cleaning software.

Lifting equipment : PALFINGER PK4100, lifting capacity 990 kg.

Survey speed: 8-9 knots.

The work area: Lake Peipsi and rivers Emajõgi and Narva.



EVA-303 EST

Home port: Haapsalu, reg. N 5R10B01

ex **AMA-080 EST**

Mono-hull Al 6,3x2,4x0,5 m

1x95,6 kW Volvo Penta TAMD 22, auxiliary Honda 2kW.

Speed: 21 knots.

Crew: 1+1.

Autonomy: 1 day

DW 0,7 t.

Built: 1998 Finland, Äh tari, Silver Veneet OY.

Nav. Equipment: Interphase echosounder, RAN Navigation View.

Survey equipment: Topcon NET G3 RTK GPS (in VRS mode), AHERO multichannel sonar 16 ch; surface gyro & Motion sensor IXSEA OCTANS, RAN-AEGIR Survey and cleaning software.

Survey speed: 3-7 knots.

The work area: all Estonian inland and coastal waters (up to 10 m depth), removable by special trailer.



EVA-320 EST MMSI: 276197000; call ES2338.

Home port: Tallinn, reg. N 5R00K20.

Twin-hull Al, 18x6,7x0,9 m;

2x368kW Scania DST 1174m43K.

Speed: 12 knots.

Crew: 2+1(2).

Autonomy: 7 days;

57 BT, 17 NT, DW 6,16 t

Built: 1997 Finland, Uusikaupungi, Uusikaupungin Työvene OY.

Survey equipment: Topcon NET G3 RTK GPS (in VRS mode), AHERO multichannel sonar 56 ch; surface gyro & Motion sensor IXSEA OCTANS III, RAN-AEGIR survey and cleaning software;

Survey speed: 6-9 knots.

The work area: Coastal waters of Estonia.



JAKOB PREI EST MMSI: 276798000, call ES2908

Home port: Tallinn, reg. N 5R12D01.

SWATH A1, 25,65x13x2,7m

2x809 kW MAN 02842 LE410, auxiliary 2xVolvo Penta D5A 92 kW.

Speed: 20 knots.

Crew: 4+2(3).

Autonomy: 7 days

235 BT, 71 NT, DW 22,4 t.

Built: 2012 Germany, Abeking & Rasmussen Schiffs- und Yachtwerft AG, Lemwerder, yard Nr. 6494.

Nav. equipment: dGPS SAAB R4 Navigation System; SAAB R4 AIS; 2x Raytheon Anschütz NSC 25/34 radar; gyro Raytheon Anschütz STD 22; Raytheon Anschütz autopilot NP 2015/25; ECDIS-Transas NaviSailor 4000; Raytheon Anschütz GDS 101 echosounder.

Survey equipment: Reson 7125 SV2 multibeam echosounder, 200/400 kHz; Edgetech 4200 MP side scan sonar, 300/900 kHz; Meridata MD DSS Sub-bottom profiler 2-9 kHz chirp ; 2xTopcon NET G3A RTK GPS (in VRS mode); surface gyro & Motion sensor IXSEA OCTANS 4; 2xValeport Midas SVP; RAN-AEGIR survey and cleaning software, PDS2000 survey and cleaning software, Edgetech Discover survey software, MDCS survey and MDPS cleaning software.

Survey speed: up to 15, normally 8-12, with sss 3-6 knots.

The work area: Baltic Sea.

THE CARTOGRAMS OF ESTONIAN PAPER CHARTS



