

Project Group

ENC harmonisation

Status quo report RU – Transas

Author / Project Partner:	Date:	Version:
Vladimir Sekachev / Transas	2009-10-05	0.1
Vladimir Sekachev / Transas	2009-11-12	Draft version
Vladimir Sekachev / Transas	2010-12-17	Final version

Table of Contents

1.	List of acronyms abbreviations	3
2.	Scope of document.....	4
3.	IENC coverage	5
4.	Coverage of depth information.....	8
5.	IENC production process	9
6.	IENC publication process.....	11
7.	IENC sources and accuracy	12
8.	Inland ECDIS Standard	13
9.	Utilisation of location codes and RIS Index.....	14
10.	Cooperations.....	15
11.	Chart updates, updating circle.....	16

1. List of acronyms

ECDIS	Electronic Chart Display and Information System
ENC	Electronic Navigational Chart
IENC	Inland Electronic Navigational Chart

2. Scope of document

According to the GIS Forum Project Group - Member 'ENC harmonisation' the national waterway administrations shall identify and describe the status quo on ENC activities and what the problems are. The status quo shall at least contain relevant information about:

- IENC coverage of the national stretch (incl. reasons and solution if this is not achieved so far)
- Availability of depth information within the Inland ENCs
- The IENC production process from raw GIS data into IENC objects, involved persons or organisations, used equipment and software tools
- IENC publication process (distribution of updates and new releases)
- Sources (data basis) and accuracy for IENC charts
- Create and maintain IENCs according to the Inland ECDIS Standard
- Cooperations
- Updates, updating circle

3. IENC coverage

National IENCs are available for more than 6500 km of the European part of Russian waterways and will be available for 11 000 km of Siberian and Far East rivers in 2010 as well as additional 12 000 km in 2011. Till the moment all IENCs are producing in accordance with S-57 ver. 3.1 Standard.

IENCs are available for the following rivers and lakes: Neva River, Ladoga Lake, Svir' River, Onega Lake, Volga River, Kama River, Volga-Baltic Canal, Volga-Don Canal, Don River. In 2010 there will be available IENCs for Yenisey River (2400 km), Amur River (2800 km), Angara River (200 km), Ob' River (3500 km), Severnaya Dvina River (700 km), Kuban' River (400 km), Belomorsko-Baltiyskiy Canal (400 km), Oka River and Canal of Moscow(1500 km).

In 2011 additional IENC will be available for Kama River (600 km), Moscow River (200 km), Vologda River (500), Vyatka River (700 km), Irtys River (2800 km), Chulym River (900 km), Ussuri River (400 km), Volkhov River (200 km), Yenisey River (400 km), Lena and Aldan Rivers (5200 km).

The classification of Inland waterways to be opened for international navigation is as following:

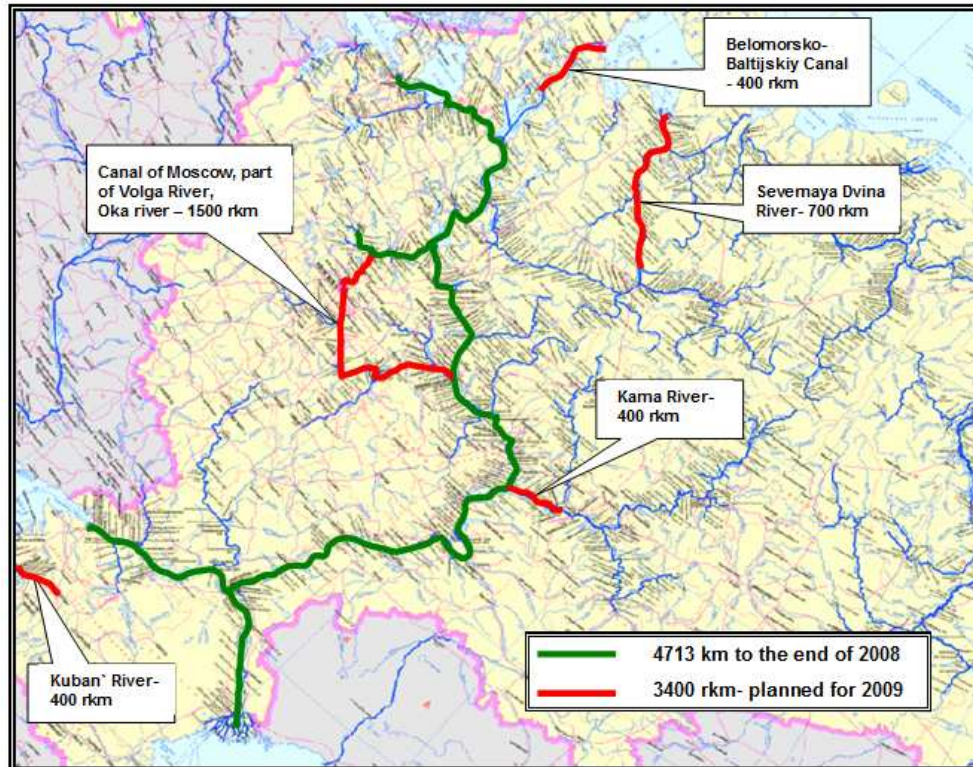
Neva River, Svir' River, Ladoga Lake, Volga-Baltic Canal are of class Vb.

Volga River, Onega Lake are of class VIb.

Volga-Don Canal and Don River are of class Va.

There are no gaps for the moment in this coverage

It will be possible to obtain the ENC for internal purposes and for international purposes via authorized distributors since 2010.



ENC coverage of the European part of the Russian IWW



ENC coverage of the Siberia and the Far East part of the Russian IWW – planned for 2009

4. Coverage of depth information

Depth data are included in all Russian Inland ENC's.

This bathymetric information is located everywhere (on the waterways and outside the waterways) from the results of the bathymetric surveys.

Kilometer information is located along the waterway axis on the charts.

5. IENC production process

For IENC production Russian authorities use SevenCs ENC Designer, ENC Optimizer, ENC Analyzer and Russian made tool ARM Cartographer.

Digital Cartographic Center (DCC) of VolgaBaltic State Basin Department is involved in the production process.

The internal processing includes:

- Survey data acquisition and postprocessing, which is made by basin authorities
- Survey data approval (made by DCC)
- IENC compilation and encoding (made by DCC)
- IENC verification (made by DCC)
- IENC test trial (made by survey data providers)
- IENC approval by Ministry of Transport
- IENC distribution.

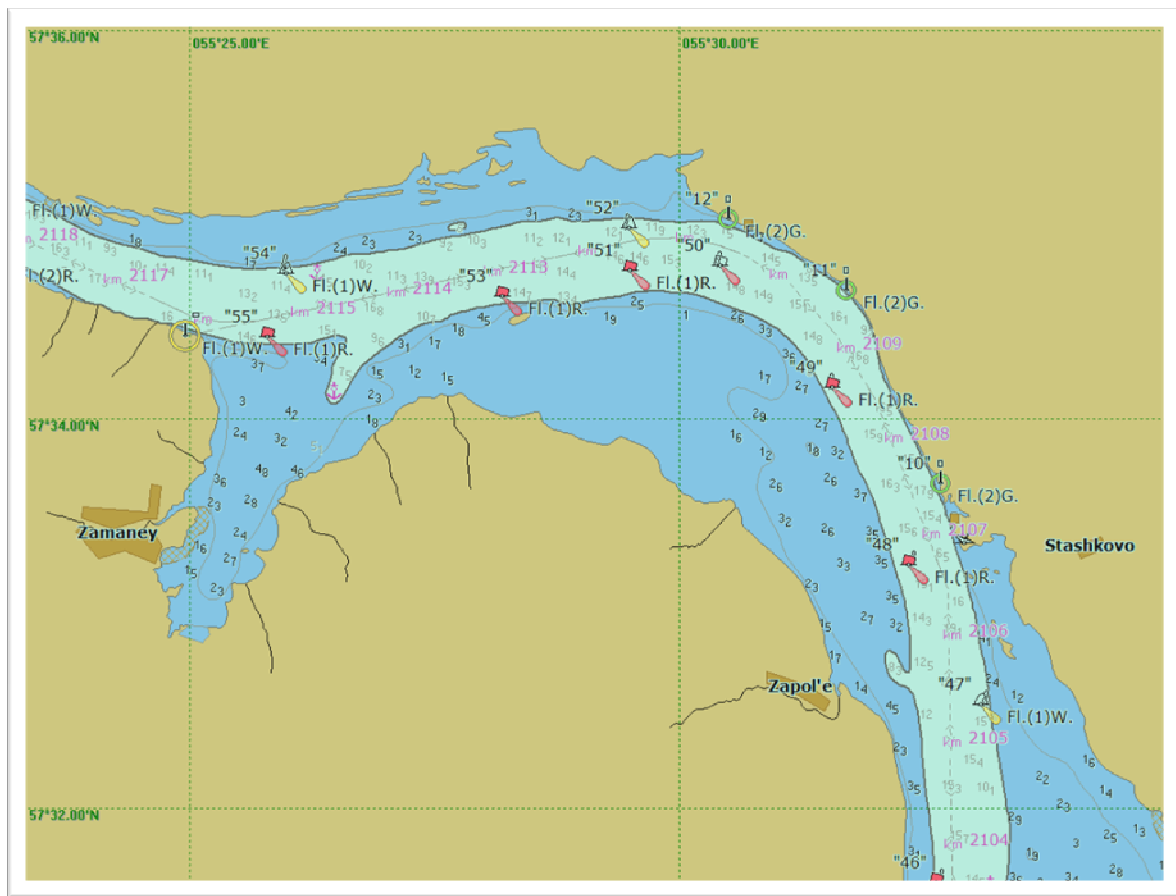
In addition to the minimum content the following information is available in the charts:

- Selections from topographic information of navigational importance within the 5 km area along the river bank
- Depth information
- Information for voyage planning (Notice marks)
- Navigational and geographic description of covered area.

State Basin Navigation and Shipping Authorities are responsible for all produced IENC data within the zone of their responsibility.

There are IENC quality control checks according to S-58 Standard at the end of the production process.

All the IENC data are distributed in line of S-57 ed. 3.1.



Example of IENC produced according to S-57 Ed. 3.1 and Russian Regulation Document.

6. IENC publication process

Some of these charts are published but other ones are still waiting for test trials and approvals.

The IENCs are published in S-57 format and may be encrypted by S-63.

These charts will not be available for free. The prices are still arranged.

These charts are distributed via authorized distributors.

7. IENC sources and accuracy

The sources for the IENCs are previously published paper charts and atlases as well as survey data from local authorities.

The accuracy of IENC objects depends on the source paper chart scales but should not exceed 0.3 mm in chart scale. For survey data the accuracy should not exceed ± 1 m.

8. Inland ECDIS Standard

IENCs are produced according to S-57 ed. 3.1 standard and to Russian Regulation Document For IENC Production. In 2009 Russian Regulation Document was harmonized according to Inland ECDIS Standard 2.0. During the harmonization additional features and attributes from the Inland ECDIS Standard Feature Catalogue 2.0 that may be applied to Russian specific river features were included into Russian Regulation Document. The approval of the harmonized document is going to be in 2010.

9. Utilisation of location codes and RIS Index

Features in Russian IENCs are not encoded with the UN Location Code for the moment. It will be encoded since harmonized Russian Regulation Document will be approved.

The responsibilities in our country for the provision of the Minimum Data (i.e. also the RIS Index) as prescribed in the Annex I of the RIS Directive 2005/44/EC are Federal Agency on Sea and River Transport.

For the moment they do not provide a RIS Index according to the RIS Index Encoding Guide.

10. Cooperations

11. Chart updates, updating circle

New updates are provided twice during navigation period that lasts 4 – 8 months depending on the region.

Feedbacks from the users are collected by local inland authorities and transferred to Digital Cartographic Centre via Internet or by e-mails.

- End of document -